CATÁLOGO 2026

CORTECH
Creando Soluciones

Insertos

Geometrías y grados para cada material y cada operación.





Insertos intercambiables de carburo para torneado, fresado, barrenado, roscado, ranurado y tronzado. Te ayudamos a elegir la geometría y el grado correctos según tu material, tu máquina y tu volumen de producción.

Barrenado
Insertos para brocas intercambiables: barrenos precisos con menor costo por barreno.

Roscado
Insertos para roscar en torno y fresar roscas: métrica, NPT, UN, trapezoidal y más.

Torneado
Geometrías ISO para desbaste, semiacabado y acabado en acero, inoxidable, fundición y aluminio.

Fresado
Insertos para planeado, escuadrado, copiado y alto avance.

Ranurado
Ranuras exteriores e interiores con anchos precisos y buena evacuación de viruta.

Ranurado frontal
Ranuras axiales en la cara de la pieza, con portas para cada rango de diámetro.

Tronzado
Corte de barra estable, con mínimo desperdicio de material.

MARCAS EN ESTA LÍNEA

ISCAR Member IMC Group · palbit Hardmetal Tools Solutions · Tungaloy · WALTER · Ingersoll Member IMC Group Cutting Tools

PENTACUT

Member IMC Group
ISCAR



Parting and Grooving Inserts

W±.004 (in.)	Radius R (in.)	Grade	Chip Breaker	Iscar No. Designation	Order No.	Price
.020	.000	IC908	J	PENTA 24N050J000	**EH6003104**	Price
.031	.000	IC908	J	PENTA 24N080J000	**EH6003105**	Price
.031	.002	IC908	NF	PENTA 24N080NF010LS	**EH6094304**	Price
.031	.004	IC908	-	PENTA 24N080010RS	**EH6094983**	Price
.039	.001	IC908	PF	PENTA 24N100PF010	**EH6093285**	Price
.039	.002	IC908	J	PENTA 24N100J050	**EH6004811**	Price
.039	.002	IC908	J	PENTA 24N100J004	**EH6003106**	Price
.039	.002	IC908	NF	PENTA 24N100NF010RS	**EH6080478**	Price
.039	.002	IC908	NF	PENTA 24N100NF010LS	**EH6080479**	Price
.041	.000	IC908	J	PENTA 24N104J000	**EH6003220**	Price
.047	.000	IC908	J	PENTA 24N120J000	**EH6003107**	Price
.047	.004	IC908	-	PENTA 24N119010RS	**EH6095473**	Price
.047	.004	IC908	-	PENTA 24N119010LS	**EH6099524**	Price
.047	.023	IC908	J	PENTA 24N120J060	**EH6004810**	Price
.049	.004	IC908	J	PENTA 24N125J010	**EH6004794**	Price
.055	.000	IC908	J	PENTA 24N140J000	**EH6003109**	Price
.055	.027	IC908	J	PENTA 24N140J070	**EH6004812**	Price
.058	.000	IC908	J	PENTA 24N147J000	**EH6003111**	Price
.059	.002	IC908	J	PENTA 34R150J06D	**EH6004770**	Price
.059	.002	IC908	J	PENTA 34R150J15D	**EH6004772**	Price
.059	.002	IC908	J	PENTA 34L150J06D	**EH6004771**	Price
.059	.002	IC908	J	PENTA 34L150J15D	**EH6004773**	Price
.059	.002	IC908	PB	PENTA 34R150PB6D	**EH6094458**	Price
.059	.002	IC908	PB	PENTA 34L150PB06D	**EH6095359**	Price
.059	.003	IC908	C	PENTA 34R150C08D	**EH6003643**	Price
.059	.003	IC908	C	PENTA 34L150C08D	**EH6003648**	Price
.059	.004	IC908	C	PENTA 24N150C010	**EH6004785**	Price
.059	.004	IC908	J	PENTA 24N150J010	**EH6003226**	Price
.059	.004	IC908	Z	PENTA 24N150Z010	**EH6003416**	Price
.059	.006	IC908	C	PENTA 34N150C015	**EH6003647**	Price
.059	.006	IC908	J	PENTA 34N150J015	**EH6004699**	Price
.059	.006	IC908	PB	PENTA 34N150PB015	**EH6004425**	Price
.059	.008	IC908	PF	PENTA 24N150PF020	**EH6093295**	Price
.062	.006	IC908	C	PENTA 24N157C015	**EH6004922**	Price
.062	.006	IC908	J	PENTA 24N157J015	**EH6003113**	Price
.062	.008	IC908	-	PENTA 24N157020RS	**EH6094993**	Price
.062	.008	IC908	-	PENTA 24N157020LS	**EH6099534**	Price
.062	.031	IC908	-	PENTA 24N157079RS	**EH6099484**	Price
.062	.031	IC908	J	PENTA 24N157J079	**EH6003114**	Price
.062	.031	IC908	NF	PENTA 24N157NF079LS	**EH6091555**	Price
.067	.004	IC908	J	PENTA 24N170J010	**EH6003115**	Price
.070	.007	IC908	C	PENTA 24N178C018	**EH6004923**	Price
.070	.007	IC908	J	PENTA 24N178J018	**EH6003116**	Price
.073	.006	IC908	J	PENTA 24N185J015	**EH6004795**	Price
.077	.006	IC908	J	PENTA 24N196J015	**EH6003118**	Price
.079	.002	IC908	C	PENTA 34R200C15D	**EH6003589**	Price
.079	.002	IC908	C	PENTA 34L200C15D	**EH6003590**	Price
.079	.002	IC908	J	PENTA 34R200J15D	**EH6004776**	Price
.079	.002	IC908	J	PENTA 34L200J15D	**EH6004777**	Price
.079	.004	IC908	C	PENTA 34R200C06D	**EH6003587**	Price
.079	.004	IC908	C	PENTA 34L200C06D	**EH6003588**	Price
.079	.004	IC908	J	PENTA 34R200J06D	**EH6004774**	Price
.079	.004	IC908	J	PENTA 34L200J06D	**EH6004775**	Price
.079	.004	IC908	PB	PENTA 34R200PB6D	**EH6003655**	Price
.079	.004	IC908	PB	PENTA 34L200PB06D	**EH6004424**	Price
.079	.008	IC908	-	PENTA 24N200020RS	**EH6097584**	Price
.079	.008	IC908	-	PENTA 24N200020LS	**EH6099544**	Price
.079	.008	IC908	C	PENTA 34N200C020	**EH6003537**	Price
.079	.008	IC908	C	PENTA 24N200C020	**EH6004780**	Price
.079	.008	IC908	J	PENTA 24N200J020	**EH6003218**	Price
.079	.008	IC908	J	PENTA 34N200J020	**EH6004619**	Price
.079	.008	IC908	PB	PENTA 34N200PB020	**EH6004426**	Price
.079	.008	IC908	PF	PENTA 24N200PF020	**EH6093315**	Price
.079	.008	IC908	Z	PENTA 24N200Z020	**EH6003380**	Price
.079	.039	IC908	C	PENTA 34N200C100	**EH6003601**	Price
.079	.039	IC908	C	PENTA 24N200C100	**EH6004924**	Price
.079	.039	IC908	J	PENTA 24N200J100	**EH6003120**	Price
.079	.039	IC908	J	PENTA 34N200J100	**EH6004761**	Price
.087	.006	IC908	C	PENTA 34N222C015	**EH6003602**	Price
.087	.006	IC908	J	PENTA 24N222J015	**EH6003121**	Price
.091	.008	IC908	C	PENTA 34N230C020	**EH6003603**	Price
.091	.008	IC908	C	PENTA 24N230C020	**EH6004925**	Price
.091	.008	IC908	J	PENTA 24N230J020	**EH6003122**	Price
.094	.006	IC908	-	PENTA 34F23901522RS	**EH6004555**	Price
.094	.006	IC908	-	PENTA 34F23901522LS	**EH6004558**	Price
.094	.006	IC908	C	PENTA 24N239C015	**EH6004926**	Price
.094	.006	IC908	C	PENTA 34N239C015	**EH6003604**	Price
.094	.006	IC908	J	PENTA 34N239J015	**EH6004762**	Price
.094	.006	IC908	J	PENTA 24N239J015	**EH6003123**	Price
.094	.006	IC908	PF	PENTA 24N239PF015	**EH6003500**	Price
.094	.008	IC908	-	PENTA 24N239020RS	**EH6095003**	Price
.094	.008	IC908	-	PENTA 24N239020LS	**EH6099554**	Price
.094	.047	IC908	-	PENTA 24N239119RS	**EH6099444**	Price
.094	.047	IC908	C	PENTA 34N239C120	**EH6003605**	Price
.094	.047	IC908	J	PENTA 34N239J120	**EH6004763**	Price
.094	.047	IC908	J	PENTA 24N239J120	**EH6003124**	Price
.094	.047	IC908	NF	PENTA 24N239NF119LS	**EH6099494**	Price
.097	.008	IC908	-	PENTA 34F24702022RS	**EH6004556**	Price
.097	.008	IC908	-	PENTA 34F24702022LS	**EH6004559**	Price
.097	.008	IC908	C	PENTA 34N247C020	**EH6003606**	Price
.097	.008	IC908	C	PENTA 24N247C020	**EH6004786**	Price
.097	.008	IC908	J	PENTA 24N247J020	**EH6003125**	Price
.098	.008	IC908	C	PENTA 34N250C020	**EH6003535**	Price
.098	.008	IC908	J	PENTA 34N250J020	**EH6004764**	Price
.098	.008	IC908	PF	PENTA 24N250PF020	**EH6093325**	Price
.106	.004	IC908	C	PENTA 34N270C010	**EH6003586**	Price
.106	.004	IC908	J	PENTA 24N270J010	**EH6003126**	Price
.106	.004	IC908	J	PENTA 34N270J010	**EH6004765**	Price
.113	.008	IC908	C	PENTA 34N287C020	**EH6003607**	Price
.113	.008	IC908	J	PENTA 24N287J020	**EH6003127**	Price
.118	.000	IC908	C	PENTA 34N300C000	**EH6003608**	Price
.118	.000	IC908	J	PENTA 34N300J000	**EH6004766**	Price
.118	.000	IC908	J	PENTA 24N300J000	**EH6003128**	Price
.118	.002	IC908	-	PENTA 24N3MT010RS	**EH6095483**	Price
.118	.002	IC908	C	PENTA 34R300C15D	**EH6003593**	Price
.118	.002	IC908	C	PENTA 34L300C15D	**EH6003594**	Price
.118	.004	IC908	-	PENTA 24N3MT05228RS	**EH6094184**	Price
.118	.008	IC908	C	PENTA 34R300C06D	**EH6003591**	Price
.118	.008	IC908	C	PENTA 34N300C020	**EH6003524**	Price
.118	.008	IC908	C	PENTA 24N300C020	**EH6004781**	Price
.118	.008	IC908	C	PENTA 34L300C06D	**EH6003592**	Price
.118	.008	IC908	J	PENTA 34N300J020	**EH6004700**	Price
.118	.008	IC908	J	PENTA 24N300J020	**EH6003129**	Price
.118	.008	IC908	NF	PENTA 24N300NF020RS	**EH6080480**	Price
.118	.008	IC908	NF	PENTA 24N300NF020LS	**EH6080481**	Price
.118	.008	IC908	PB	PENTA 34R300PB6D	**EH6004429**	Price
.118	.008	IC908	PB	PENTA 34N300PB020	**EH6004428**	Price
.118	.008	IC908	PF	PENTA 24N300PF020	**EH6093335**	Price
.118	.008	IC908	Z	PENTA 24N300Z020	**EH6003417**	Price
.118	.009	IC908	-	PENTA 34F30004022RS	**EH6004557**	Price
.118	.009	IC908	-	PENTA 34F30004022LS	**EH6004560**	Price
.118	.009	IC908	PB	PENTA 34L300PB06D	**EH6004430**	Price
.118	.016	IC908	C	PENTA 24N300C040	**EH6004927**	Price
.118	.016	IC908	C	PENTA 34N300C040	**EH6003536**	Price
.118	.016	IC908	J	PENTA 24N300J040	**EH6003130**	Price
.118	.016	IC908	J	PENTA 34N300J040	**EH6004767**	Price
.118	.059	IC908	C	PENTA 34N300C150	**EH6003609**	Price
.118	.059	IC908	J	PENTA 34N300J150	**EH6004768**	Price
.118	.059	IC908	J	PENTA 24N300J150	**EH6003091**	Price
.124	.006	IC908	C	PENTA 34N315C015	**EH6003610**	Price
.124	.006	IC908	J	PENTA 24N315J015	**EH6003131**	Price
.125	.008	IC908	-	PENTA 24N318020RS	**EH6095013**	Price
.125	.008	IC908	-	PENTA 24N318020LS	**EH6099564**	Price
.125	.008	IC908	C	PENTA 34N318C020	**EH6003611**	Price
.125	.008	IC908	C	PENTA 24N318C020	**EH6004787**	Price
.125	.008	IC908	J	PENTA 24N318J020	**EH6003092**	Price
.125	.008	IC908	J	PENTA 34N318J020	**EH6004769**	Price
.125	.062	IC908	-	PENTA 24N318159RS	**EH6099514**	Price
.125	.062	IC908	J	PENTA 24N318J159	**EH6004813**	Price
.125	.062	IC908	NF	PENTA 24N318NF159LS	**EH6099504**	Price
.130	.004	IC908	C	PENTA 34N330C010	**EH6003612**	Price
.130	.004	IC908	J	PENTA 24N330J010	**EH6004796**	Price
.137	.008	IC908	C	PENTA 34N348C020	**EH6003613**	Price
.137	.008	IC908	J	PENTA 24N348J020	**EH6004797**	Price
.138	.010	IC908	C	PENTA 34N350C025	**EH6003538**	Price
.140	.008	IC908	J	PENTA 24N356J020	**EH6004798**	Price
.147	.008	IC908	J	PENTA 24N374J020	**EH6004799**	Price
.157	.008	IC908	-	PENTA 24N400020RS	**EH6094624**	Price
.157	.008	IC908	C	PENTA 34N398C020	**EH6003614**	Price
.157	.008	IC908	J	PENTA 24N398J020	**EH6004800**	Price
.157	.008	IC908	NF	PENTA 24N400NF020LS	**EH6080482**	Price
.157	.009	IC908	-	PENTA 34F40004022RS	**EH6004611**	Price
.157	.009	IC908	-	PENTA 34F40004022LS	**EH6004561**	Price
.157	.012	IC908	C	PENTA 34N400C030	**EH6003539**	Price
.157	.016	IC908	J	PENTA 24N400J040	**EH6004801**	Price
.157	.079	IC908	J	PENTA 24N400J200	**EH6004802**	Price
.166	.004	IC908	J	PENTA 24N423J010	**EH6004803**	Price
.189	.008	IC908	-	PENTA 24N480020RS	**EH6095023**	Price

PENTACUT Face Grooving Inserts



W±.004 (in.)	Radius R (in.)	TMax (in.)	Iscar No. Designation	Order No.	Price
.094	.006	.1970	34F239-0.15-22L	**EH6003627**	Price
.094	.006	.1970	34F239-0.15-22R	**EH6003656**	Price
.097	.008	.1970	34F247-0.20-22L	**EH6003657**	Price
.097	.008	.1970	34F247-0.20-22R	**EH6003658**	Price

W±.004 (in.)	Radius R (in.)	TMax (in.)	Iscar No. Designation	Order No.	Price
.118	.016	.1970	34F300-0.40-22L	**EH6003659**	Price
.118	.016	.1970	34F300-0.40-22R	**EH6003660**	Price
.157	.016	.1970	34F400-0.40-22L	**EH6003628**	Price
.157	.016	.1970	34F400-0.40-22R	**EH6003661**	Price

PENTACUT PCHB R/L... PENTACUT Double-Ended Parting and Grooving Blades

Right hand shown



Right/Left Hand - Left						
Insert Width W (in.)	Dia. Min.-Max. (in.)	Max. Depth T (in.)	Use Insert(s)	Iscar No.	Order No.	Price
.020 & .246	See Insert	See Insert	PENTA 24N/R/L	PCHBL2624R	**EH2301688**	Price
.020 & .246	See Insert	See Insert	PENTA 24N/R/L	PCHBL3224R	**EH2301675**	Price
.059 & .157	See Insert	See Insert	PENTA 34N/R/L/F	PCHBL3234R	**EH2302303**	Price

Right/Left Hand - Right						
Insert Width W (in.)	Dia. Min.-Max. (in.)	Max. Depth T (in.)	Use Insert(s)	Iscar No.	Order No.	Price
.020 & .246	See Insert	See Insert	PENTA 24N/R/L	PCHBR2624R	**EH2302306**	Price
.059 & .157	See Insert	See Insert	PENTA 34N/R/L/F	PCHBR2634R	**EH2302307**	Price
.020 & .246	See Insert	See Insert	PENTA 24N/R/L	PCHBR2624L	**EH2301686**	Price
.020 & .246	See Insert	See Insert	PENTA 24N/R/L	PCHBR3224L	**EH2301674**	Price
.059 & .157	See Insert	See Insert	PENTA 34N/R/L/F	PCHBR2634L	**EH2302300**	Price
.059 & .157	See Insert	See Insert	PENTA 34N/R/L/F	PCHBR3234L	**EH2302301**	Price

PENTACUT PCH R/L.... PENTACUT Grooving, Parting and Recessing Holders

Right hand shown



Right/Left Hand - Left									
Shank (in.)	Length (in.)	Insert Width (in.)	DMax (in.)	Use Insert(s)	Iscar No.	Screw	Torx Key	Order No.	Price
1/2 x 1/2	5.0000	.020-.331	See Insert	PENTA 24N/R/L	PCHL 12.724	SR 16-212-01397L	T2101/5	**EH2301626**	Price
1 x 1	5.3000	.020-.331	See Insert	PENTA 24N***-**LS	PCHLS 25.4-24	SR 16-212-01397LS	T2101/5	**EH2398783**	Price
1 x 1	5.5000	.020-.331	See Insert	PENTA 24N/R/L	PCHPL 25.4-24	SR 16-212-01393	T2101/5	**EH2302460**	Price
1 x 1	5.5000	.020-.331	See Insert	PENTA 34N/R/L/F	PCHPL 25.4-34	SR 16-212-01394	T2101/5	**EH2302330**	Price
5/8 x 5/8	5.3150	.118-.126	1.57	PENTA D40	PCHL 16-D40-3-IQ	SR M7-R-L	BLD T20/S7	**EH2302573**	Price
3/4 x 3/4	5.3150	.118-.126	1.58	PENTA D40	PCHL 19-D40-3-IQ	SR M7-R-L	BLD T20/S7	**EH2302580**	Price
1 x 1	-	.079-.094	1.26	PENTA D32	PCHL 25.4-D32-2-IQ	SR M6-R-L	BLD T15/S7	**EH2302681**	Price
1 x 1	5.3150	.118-.126	1.58	PENTA D40	PCHL 25.4D40-3-IQ	SR M7-R-L	BLD T20/S7	**EH2302582**	Price

Right/Left Hand - Right									
Shank (in.)	Length (in.)	Insert Width (in.)	DMax (in.)	Use Insert(s)	Iscar No.	Screw	Torx Key	Order No.	Price
3/8 x 3/8	5.0000	.020-.331	See Insert	PENTA 24N/R/L	PCHR 9.524	SR 16-212-01397	T2101/5	**EH2393364**	Price
1/2 x 1/2	5.0000	.020-.331	See Insert	PENTA 24N/R/L	PCHR 12.724	SR 16-212-01397	T2101/5	**EH2301625**	Price
1 x 1	5.5000	.020-.331	See Insert	PENTA 34N/R/L/F	PCHR 25.4-34	SR 16-212-01397	T2101/5	**EH2302157**	Price
1/2 x 1/2	4.7000	.020-.331	See Insert	PENTA 24N***-**RS	PCHRS 12.7-24	SR 16-212-01397RS	T2101/5	**EH2391954**	Price
1 x 1	5.3000	.020-.331	See Insert	PENTA 24N***-**RS	PCHRS 25.4-24	SR 16-212-01397RS	T2101/5	**EH2394663**	Price
1 x 1	5.5000	.020-.331	See Insert	PENTA 24N/R/L	PCHPR 25.4-24	SR 16-212-01393	T2101/5	**EH2302459**	Price
1 x 1	5.5000	.020-.331	See Insert	PENTA 34N/R/L/F	PCHPR 25.4-34	SR 16-212-01394	T2101/5	**EH2302331**	Price
1/2 x 1/2	-	.079-.094	1.26	PENTA D32	PCHR 12.7-D32-2-IQ	SR M6-R-L	BLD T15/S7	**EH2302680**	Price
5/8 x 5/8	-	.079-.094	1.26	PENTA D32	PCHR 16-D32-2-IQ	SR M6-R-L	BLD T15/S7	**EH2302674**	Price
5/8 x 5/8	5.3150	.118-.126	1.57	PENTA D40	PCHR 16-D40-3-IQ	SR M7-R-L	BLD T20/S7	**EH2302572**	Price
3/4 x 3/4	-	.079-.094	1.26	PENTA D32	PCHR 19-D32-2-IQ	SR M6-R-L	BLD T15/S7	**EH2302684**	Price
3/4 x 3/4	5.3150	.118-.126	1.58	PENTA D40	PCHR 19-D40-3-IQ	SR M7-R-L	BLD T20/S7	**EH2302579**	Price
1 x 1	-	.079-.094	1.26	PENTA D32	PCHR 25.4-D32-2-IQ	SR M6-R-L	BLD T15/S7	**EH2302682**	Price
1 x 1	5.3150	.118-.126	1.58	PENTA D40	PCHR 25.4-D40-3I-Q	SR M7-R-L	BLD T20/S7	**EH2302581**	Price

HELIFACE Integral Holders

Right hand shown



H&B (in.)	Length (in.)	Width (in.)	Head Length (in.)	DMin (in.)	DMax (in.)	Insert	Iscar No.	Screw	Hex Key	Right/ Left Hand	Order No.	Price
3/8 x 3/8	5	.118	.750	.472	.630	HGPL 3...Y	HGHL9.5123T6	SR 76-1400	Torx T20/3	Left	**EH2500597**	Price
3/8 x 3/8	5	.118	.750	.472	.630	HGL/N/R 3.., GRIP 3..	HGHR9.5123T6	SR 76-1400	Torx T20/3	Right	**EH2500596**	Price
3/8 x 3/8	5	.118	.750	.630	.984	HGL/N/R 3.., GRIP 3..	HGHR9.5163T6	SR 76-1400	Torx T20/3	Right	**EH2500598**	Price
1/2 x 1/2	5	.118	.750	.472	.630	HGPL 3...Y	HGHL12.7123T6	SR 76-1400	Torx T20/3	Left	**EH2500601**	Price
1/2 x 1/2	5	.118	.750	.472	.630	HGPL 3...Y	HGHL12.7163T6	SR 76-1400	Torx T20/3	Left	**EH2500603**	Price
5/8 x 5/8	5	.118	.750	.472	.630	HGL/N/R 3.., GRIP 3..	HGHR15.9123T6	SR 76-1400	Torx T20/3	Right	**EH2500604**	Price
5/8 x 5/8	5	.118	.750	.472	.630	HGPL 3...Y	HGHL15.9123T6	SR 76-1400	Torx T20/3	Left	**EH2500605**	Price
5/8 x 5/8	5	.118	.750	.630	.984	HGL/N/R 3.., GRIP 3..	HGHR15.9163T6	SR 76-1400	Torx T20/3	Right	**EH2500606**	Price
3/4 x 3/4	5	.118	.750	.472	.630	HGL/N/R 3.., GRIP 3..	HGHR19123T6	SR 76-1400	Torx T20/3	Right	**EH2500696**	Price
3/4 x 3/4	5	.118	.750	.472	.630	HGPL 3...Y	HGHL19123T6	SR 76-1400	Torx T20/3	Left	**EH2500700**	Price
3/4 x 3/4	5	.118	.750	.630	.984	HGL/N/R 3.., GRIP 3..	HGHR19163T6	SR 76-1400	Torx T20/3	Right	**EH2500697**	Price
3/4 x 3/4	5	.118	.750	.630	.984	HGPL 3...Y	HGHL19163T6	SR 76-1400	Torx T20/3	Left	**EH2500701**	Price
1 x 1	5	.118	.750	.472	.630	HGL/N/R 3.., GRIP 3..	HGHR25.4123T6	SR 76-1400	Torx T20/3	Right	**EH2500698**	Price
1 x 1	5	.118	.750	.472	.630	HGPL 3...Y	HGHL25.4123T6	SR 76-1400	Torx T20/3	Left	**EH2500702**	Price
1 x 1	5	.118	.750	.630	.984	HGL/N/R 3.., GRIP 3..	HGHR25.4163T6	SR 76-1400	Torx T20/3	Right	**EH2500699**	Price
1 x 1	5	.118	.750	.630	.984	HGPL 3...Y	HGHL25.4163T6	SR 76-1400	Torx T20/3	Left	**EH2500703**	Price
1 x 1	6	.118	1.420	.790	3.150	HFPR 3../4../5../6..	HFHR25.4M	SR M6 x 20	Hex HW 5.0	Right	**EH2500143**	Price
1 x 1	6	.118	1.570	1.890	2.360	HFPR 3...	HFHR25.4483T22	SR M6 x 20	Hex HW 5.0	Right	**EH2500095**	Price
1 x 1	6	.118	1.570	2.360	2.960	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFHR25.4603T22	SR M6 x 20	Hex HW 5.0	Right	**EH2500097**	Price
1 x 1	6	.118	1.690	2.950	3.940	HFPR 3...	HFHR25.4753T25	SR M6 x 20	Hex HW 5.0	Right	**EH2500099**	Price
1 x 1	6	.157	1.540	1.340	1.570	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFHR254344T20	SR M6 x 20	Hex HW 5.0	Right	**EH2500199**	Price
1 x 1	6	.157	1.730	1.890	2.360	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFHR25.4484T25	SR M6 x 20	Hex HW 5.0	Right	**EH2500203**	Price
1 x 1	6	.157	1.730	2.950	3.940	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFHR25.4754T25	SR M6 x 20	Hex HW 5.0	Right	**EH2500207**	Price
1 x 1	6	.157	1.730	2.360	2.950	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFHR25.4604T25	SR M6 x 20	Hex HW 5.0	Right	**EH2500205**	Price
1 x 1	6	.197	2.000	2.760	3.740	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFHR25.4705T32	SR M6 x 20	Hex HW 5.0	Right	**EH2500131**	Price
1 x 1	6	.197	2.000	3.740	5.120	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFHR25.4955T32	SR M6 x 20	Hex HW 5.0	Right	**EH2500133**	Price
1 x 1	6	.197	1.730	1.890	2.360	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFHR25.4555T25	SR M6 x 20	Hex HW 5.0	Right	**EH2500129**	Price
1 x 1	6	.236	1.730	1.970	2.760	DGL/N/R 6.., GRIP 6.., HFPR 6..	HFHR25.4506T25	SR M6 x 20	Hex HW 5.0	Right	**EH2500324**	Price
1 x 1	6	.236	2.000	2.760	3.940	DGL/N/R 6.., GRIP 6.., HFPR 6..	HFHR25.4706T32	SR M6 x 20	Hex HW 5.0	Right	**EH2500326**	Price

TANG-GRIP IQ TGT R/L... TANG-GRIP Integral Shank Parting and Grooving Toolholder

Integral Shank Tool for Parting and Grooving



Insert Width (in.)	D-Max (in.)	Shank Size (in.)	Use Insert(s)	Left			Right		
				Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
.0410	.787	3/8	TAG N/R/L 1.4…	TGTL9.51.4IQ	**EH2302361**	Price	TGTR9.51.4IQ	**EH2302358**	Price
.0410	1.181	1/2	TAG N/R/L 1.4…	TGTL12.71.4IQ	**EH2302362**	Price	TGTR12.71.4IQ	**EH2302359**	Price
.0410	1.181	3/4	TAG N/R/L 1.4…	TGTL191.4IQ	**EH2302363**	Price	TGTR191.4IQ	**EH2302360**	Price
.0630	1.102	3/8	TAG N/R/L 2…	TGTL9.52IQ	**EH2301904**	Price	-	**-**	-
.0630	1.260	5/8	TAG N/R/L 2...	TGTL162IQ	**EH2301905**	Price	TGTR162IQ	**EH2301902**	Price
.0630	1.378	3/4	TAG N/R/L 2...	TGTL192IQ	**EH2301907**	Price	TGTR192IQ	**EH2301903**	Price
.0980	1.260	5/8	TAG N/R/L 3...	TGTL163IQ	**EH2301909**	Price	TGTR163IQ	**EH2301924**	Price
.1330	2.000	3/4	TAG N/R/L 4...	TGTL194IQ	**EH2301854**	Price	TGTR194IQ	**EH2301825**	Price
.1330	2.250	1	TAG N/R/L 4...	TGTL25.44IQ	**EH2301856**	Price	-	**-**	-
.1570	3.000	1	TAG N/R/L 5...	TGTL25.45IQ	**EH2302210**	Price	TGTR25.45IQ	**EH2302209**	Price
.0630	1.102	3/8	TAG N/R/L 2...	-	**-**	-	TGTR9.52IQ	**EH2301900**	Price
.0630	2.240	1	TAG N/R/L 2...	-	**-**	-	TGTR25.42IQ	**EH2302391**	Price
.2040	3.000	1	TAG N/R/L 6...	-	**-**	-	TGTR25.46IQ	**EH2302211**	Price

TANG-GRIP PARTING LINE TGTBU... Blocks for TGSU Parting and Grooving Blades

						Neutral	
Iscar No.	Center Hght. H (in.)	Width A (in.)	OAL C (in.)	Thickness B (in.)	T-Cut Blade Choices	Order No.	Price
TGTBU1935	.750	1.535	4.331	1.380	TGSU 35-...	**EH2302196**	Price
TGTBU25.435	1.000	1.772	4.331	1.380	TGSU 35-...	**EH2302197**	Price
TGTBU31.835	1.250	1.890	4.331	1.380	TGSU 35-...	**EH2302241**	Price
TGTBU38.135	1.500	2.283	4.331	1.380	TGSU 35-...	**EH2302242**	Price
TGTBU4035	1.575	2.362	4.331	1.380	TGSU 35-...	**EH2302240**	Price



TANG-GRIP PARTING LINE — Blades for Parting and Grooving

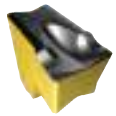
- TGSU..... Flat top blades with targentially oriented pocket for parting and grooving for Tang-Grip single-ended inserts
- TGFH..... Parting and grooving blades for other manufacturer's blocks, for Tang-Grip single-ended inserts

Blade Hght. B (in.)	Insert Width Min-Max (in.)	Blade Thickness A (in.)	OAL C (in.)	Use Insert(s)	Iscar No.	Neutral	
						Order No.	Price
.676	.079	.065	4.33	TAG N/R/L 2...	TGFS0172	**EH2301914**	Price
.685	.079	.065	4.33	TAG N/R/L 2...	TGFS5172	**EH2301915**	Price
.685	.118	.098	4.33	TAG N/R/L 3...	TGFS5173	**EH2301918**	Price
.750	.055	.098	3.39	TAG N/R/L 1.4...	TGFH191.4	**EH2302364**	Price
.750	.071 & .083	.065	3.39	TAG N/R/L 2...	TGFH192S	**EH2391927**	Price
.876	.118	.098	5.91	TAG N/R/L 3...	TGFS5223	**EH2301919**	Price
1.02	.055	.098	4.33	TAG N/R/L 1.4...	TGFH261.4	**EH2302276**	Price
1.02	.157	.134	4.33	TAG N/R/L 4...	TGFH264	**EH2301765**	Price
1.02	.185 & .217	.157	4.33	TAG N/R/L 5...	TGFH265	**EH2302239**	Price
1.125	.157	.134	5.91	TAG N/R/L 4...	TGFS5284	**EH2301922**	Price
1.26	.055	.098	5.91	TAG N/R/L 1.4...	TGFH321.4	**EH2302277**	Price
1.26	.110 & .138	.098	5.91	TAG N/R/L 3...	TGFH323	**EH2301743**	Price
1.26	.185 & .217	.157	5.91	TAG N/R/L 5...	TGFH325	**EH2302143**	Price
1.26	.224 & .256	.205	5.91	TAG N/R/L 6...	TGFH326	**EH2302138**	Price
1.38	.055	.098	7.09	TAG N/R/L 1.4...	TGSU351.4	**EH2302287**	Price
1.38	.079	.098	6.30	TAG N/R/L 2...	TGSU352	**EH2302190**	Price
1.38	.197	.157	7.09	TAG N/R/L 5...	TGSU355	**EH2302192**	Price
1.38	.236	.205	7.09	TAG N/R/L 6...	TGSU356	**EH2302193**	Price
1.38	.276	.236	7.09	TAG N/R/L 7...	TGSU357	**EH2302286**	Price
1.38	.315	.283	7.09	TAG N8..., TAGB 8...	TGSU35C8	**EH2302178**	Price
1.38	.374	.323	7.09	TAG N9...	TGSU35C9	**EH2302251**	Price
1.77	.118	.098	8.86	TAG N/R/L 3...	TGFH453	**EH2301890**	Price
1.77	.157	.134	8.86	TAG N/R/L 4...	TGFH454	**EH2301891**	Price
1.77	.197	.157	8.86	TAG N/R/L 5...	TGFH455	**EH2302177**	Price
1.77	.236	.205	8.86	TAG N/R/L 6...	TGFH456	**EH2302169**	Price
1.77	.276	.236	8.86	TAG N/R/L 7...	TGFH457	**EH2302170**	Price
2.20	.276	.236	10.2	TAG N/R/L 7...	TGSU56C7	**EH2302249**	Price
2.20	.315	.283	10.2	TAG N8..., TAGB 8...	TGSU56C8	**EH2302182**	Price
2.20	.374	.323	10.2	TAG N9...	TGSU56C9	**EH2302183**	Price
3.94	.343 & .374	.323	18.1	TAG N9...	TGFH1009	**EH2302148**	Price
3.94	.500	.394	18.1	TAG N12, TAGB 12	TGFH10012	**EH2302296**	Price
5.91	.500	.394	24.0	TAG N12, TAGB 12	TGFH15012	**EH2302297**	Price

TANG-GRIP PARTING LINE — TANG-GRIP Parting and Grooving Inserts

- Grade IC808
- TiAlN PVD coated insert is good for steel, stainless steel, alloys and hard materials





W±.004 (in.)	R (in.)	Iscar No. Designation	Grade	ST	SS	CI	N	S	H	Order No.	Price
.055	.002	TAGN1.4J	IC808	x	x	-	-	x	x	**EH6004465**	Price
.055	.006	TAGR1.4J8D	IC808	x	x	-	-	x	x	**EH6004466**	Price
.079	.001	TAGL2JS15D	IC808	x	x	-	-	x	x	**EH6003638**	Price
.079	.001	TAGL2JS6D	IC808	x	x	-	-	x	x	**EH6003636**	Price
.079	.001	TAGN2JS	IC808	x	x	-	-	x	x	**EH6003695**	Price
.079	.002	TAGN2J	IC808	x	x	-	-	x	x	**EH6003584**	Price
.079	.006	TAGL2J15D	IC808	x	x	-	-	x	x	**EH6003634**	Price
.079	.008	TAGL2J6D	IC808	x	x	-	-	x	x	**EH6003632**	Price
.079	.008	TAGN2MF	IC5400	x	-	-	-	-	-	**EH6080677**	Price
.079	.008	TAGN2MF	IC808	x	x	-	-	x	x	**EH6004889**	Price
.079	.008	TAGN2MF	IC830	x	x	-	-	x	-	**EH6004890**	Price
.079	.008	TAGR2J6D	IC808	x	x	-	-	x	x	**EH6003631**	Price
.081	.008	TAGL2C6D	IC808	x	x	-	-	x	x	**EH6003640**	Price
.081	.008	TAGR2C6D	IC808	x	x	-	-	x	x	**EH6003639**	Price
.094	.006	TAGN2.4C	IC808	x	x	-	-	x	x	**EH6004486**	Price
.118	.001	TAGL3JS15D	IC808	x	x	-	-	x	x	**EH6004451**	Price
.118	.001	TAGL3JS6D	IC808	x	x	-	-	x	x	**EH6004448**	Price
.118	.008	TAGL3C15D	IC808	x	x	-	-	x	x	**EH6011401**	Price
.118	.008	TAGL3C6D	IC808	x	x	-	-	x	x	**EH6011403**	Price
.118	.008	TAGL3J15D	IC808	x	x	-	-	x	x	**EH6011405**	Price
.118	.008	TAGN3MF	IC5400	x	-	-	-	-	-	**EH6080678**	Price
.118	.008	TAGN3MF	IC808	x	x	-	-	x	x	**EH6004891**	Price
.118	.008	TAGN3MF	IC830	x	x	-	-	x	-	**EH6004892**	Price
.118	.008	TAGR3C15D	IC808	x	x	-	-	x	x	**EH6011433**	Price
.118	.008	TAGR3J15D	IC808	x	x	-	-	x	x	**EH6011434**	Price
.118	.008	TAGR3J6D	IC808	x	x	-	-	x	x	**EH6011400**	Price
.120	.001	TAGN3JS	IC808	x	x	-	-	x	x	**EH6004445**	Price
.120	.002	TAGN3J	IC5400	x	-	-	-	-	-	**EH6099347**	Price
.120	.002	TAGN3J	IC807	x	x	x	-	x	x	**EH6003626**	Price
.120	.002	TAGN3J	IC808	x	x	-	-	x	x	**EH6003578**	Price
.120	.008	TAGN3LF	IC5400	x	-	-	-	-	-	**EH6080434**	Price
.120	.008	TAGN3LF	IC808	x	x	-	-	x	x	**EH6004674**	Price
.120	.008	TAGN3LF	IC830	x	x	-	-	x	-	**EH6004673**	Price
.157	.002	TAGN4J	IC5400	x	-	-	-	-	-	**EH6080071**	Price

W±.004 (in.)	R (in.)	Iscar No. Designation	Grade	ST	SS	CI	N	S	H	Order No.	Price
.157	.002	TAGN4J	IC807	x	x	x	-	x	x	**EH6004432**	Price
.157	.002	TAGN4J	IC808	x	x	-	-	x	x	**EH6003580**	Price
.157	.002	TAGN4J	IC830	x	x	-	-	x	-	**EH6011389**	Price
.157	.009	TAGR4J4D	IC808	x	x	-	-	x	x	**EH6011437**	Price
.157	.010	TAGN4MF	IC5400	x	-	-	-	-	-	**EH6004963**	Price
.157	.010	TAGN4MF	IC808	x	x	-	-	x	x	**EH6004961**	Price
.157	.010	TAGN4MF	IC830	x	x	-	-	x	-	**EH6004960**	Price
.158	.009	TAGL4J4D	IC808	x	x	-	-	x	x	**EH6011411**	Price
.159	.009	TAGL4C4D	IC808	x	x	-	-	x	x	**EH6011409**	Price
.159	.009	TAGR4C4D	IC808	x	x	-	-	x	x	**EH6011435**	Price
.199	.002	TAGN5J	IC808	x	x	-	-	x	x	**EH6011427**	Price
.199	.002	TAGN5J	IC830	x	x	-	-	x	-	**EH6011428**	Price
.199	.010	TAGL5C4D	IC808	x	x	-	-	x	x	**EH6011413**	Price
.199	.010	TAGL5J4D	IC808	x	x	-	-	x	x	**EH6011415**	Price
.199	.010	TAGN5C	IC808	x	x	-	-	x	x	**EH6011425**	Price
.199	.010	TAGN5C	IC830	x	x	-	-	x	-	**EH6011426**	Price
.199	.010	TAGR5C4D	IC808	x	x	-	-	x	x	**EH6011439**	Price
.199	.010	TAGR5J4D	IC808	x	x	-	-	x	x	**EH6011441**	Price
.248	.014	TAGN6.3C	IC808	x	x	-	-	x	x	**EH6011429**	Price
.248	.014	TAGN6.3C	IC830	x	x	-	-	x	-	**EH6011430**	Price
.250	.002	TAGN6.3J	IC808	x	x	-	-	x	x	**EH6011431**	Price
.250	.002	TAGN6.3J	IC830	x	x	-	-	x	-	**EH6011432**	Price
.276	.020	TAGN7W	IC808	x	x	-	-	x	x	**EH6003624**	Price
.315	.020	TAGN8C	IC808	x	x	-	-	x	x	**EH6003616**	Price
.315	.031	TAGB808Y	IC808	x	x	-	-	x	x	**EH6404053**	Price
.315	.157	TAGB840Y	IC808	x	x	-	-	x	x	**EH6404052**	Price
.374	.020	TAGN9.5C	IC808	x	x	-	-	x	x	**EH6011451**	Price
.374	.020	TAGN9.5W	IC808	x	x	-	-	x	x	**EH6004489**	Price
.394	.031	TAGB1008Y	IC808	x	x	-	-	x	x	**EH6404327**	Price
.394	.197	TAGB1050Y	IC808	x	x	-	-	x	x	**EH6404054**	Price
.472	.031	TAGB1208Y	IC808	x	x	-	-	x	x	**EH6404180**	Price
.472	.236	TAGB1260H	IC808	x	x	-	-	x	x	**EH6404056**	Price
.472	.236	TAGB1260Y	IC808	x	x	-	-	x	x	**EH6404558**	Price
.500	.033	TAGN12.7W	IC808	x	x	-	-	x	x	**EH6011447**	Price

Cut-Off Inserts for Heliface, Do-Grip and Groove Turn



W±.004 (in.)	R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.039	.003	DGR 1001J-8D	IC328	**EH646002654**	Price
.039	.006	DGN 1002J	IC328	**EH646002653**	Price
.055	.001	DGR 1400JS15	IC1028	**EH646003077**	Price
.055	.006	DGL 1402J-8D	IC328	**EH646094307**	Price
.059	.002	DGR 1500P1-5D	IC508	**EH646002939**	Price
.079	.002	DGR 2000P-6D	IC508	**EH646002943**	Price
.079	.008	DGL 2002C-6D-XL	IC808	**EH6004711**	Price
.079	.008	DGL 2002C-6D-XL	IC830	**EH6004717**	Price
.079	.008	DGL 2002J-6D-XL	IC808	**EH6004707**	Price
.079	.008	DGL 2002J-6D-XL	IC830	**EH6004713**	Price
.079	.008	DGN 2002C	IC808	**EH646011380**	Price
.079	.008	DGN 2002C	IC830	**EH646011378**	Price
.079	.008	DGN 2002C-XL	IC5400	**EH646080399**	Price
.079	.008	DGN 2002C-XL	IC808	**EH646004645**	Price
.079	.008	DGN 2002C-XL	IC830	**EH646004644**	Price
.079	.008	DGN 2002J-XL	IC5400	**EH6080400**	Price
.079	.008	DGN 2002J-XL	IC808	**EH646004647**	Price
.079	.008	DGN 2002J-XL	IC830	**EH646004646**	Price
.079	.008	DGN 2002MF	IC5400	**EH646080679**	Price
.079	.008	DGN 2002MF	IC808	**EH6004881**	Price
.079	.008	DGN 2002MF	IC830	**EH6004882**	Price
.079	.008	DGN 2002Z	IC808	**EH646011379**	Price
.079	.008	DGR 2002C-6D-XL	IC808	**EH6004710**	Price
.079	.008	DGR 2002C-6D-XL	IC830	**EH6004716**	Price
.079	.008	DGR 2002J-6D-XL	IC808	**EH6004705**	Price
.079	.008	DGR 2002Z1-5D	IC908	**EH646003284**	Price
.087	.001	DGL 2200JS1-5D	IC328	**EH646002584**	Price
.087	.001	DGL 2200JS-6D	IC328	**EH646002586**	Price
.087	.001	DGR 2200JS1-5D	IC20	**EH646098696**	Price
.087	.001	DGR 2200JS1-5D	IC328	**EH646002583**	Price
.087	.001	DGR 2200JS1-5D	IC908	**EH646095707**	Price
.087	.001	DGR 2200JS-6D	IC908	**EH646096300**	Price
.087	.008	DGL 2202C-6D	IC328	**EH646002467**	Price
.087	.008	DGL 2202J-6D	IC328	**EH646002468**	Price
.087	.008	DGN 2202J	IC808	**EH646011372**	Price
.087	.008	DGR 2202J-6D	IC908	**EH646002950**	Price
.118	.002	DGN 3000P	IC508	**EH646003414**	Price

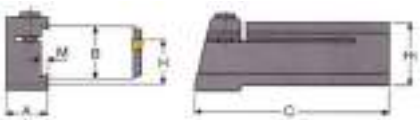
W±.004 (in.)	R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.118	.008	DGL 3002C-6D-XL	IC808	**EH626004947**	Price
.118	.008	DGL 3002C-6D-XL	IC830	**EH626004948**	Price
.118	.008	DGL 3002J-6D-XL	IC808	**EH626004949**	Price
.118	.008	DGL 3002J-6D-XL	IC830	**EH626004950**	28.80
.118	.008	DGN 3002C-XL	IC808	**EH6004919**	Price
.118	.008	DGN 3002C-XL	IC830	**EH6004918**	Price
.118	.008	DGN 3002J-XL	IC808	**EH6004921**	Price
.118	.008	DGN 3002J-XL	IC830	**EH6004920**	Price
.118	.008	DGN 3002MF	IC5400	**EH646080680**	Price
.118	.008	DGR 3002C-6D-XL	IC808	**EH6004943**	Price
.118	.008	DGR 3002C-6D-XL	IC830	**EH6004944**	Price
.118	.008	DGR 3002J-6D-XL	IC808	**EH626004945**	Price
.118	.008	DGR 3002J-6D-XL	IC830	**EH626004946**	Price
.118	.008	DGR 3002Z-6D	IC908	**EH646003287**	Price
.118	.010	DGN 3003UA	IC20	**EH646002543**	Price
.122	.001	DGL 3100JS1-5D	IC328	**EH646002580**	Price
.122	.001	DGN 3100JS	IC328	**EH646094767**	Price
.122	.001	DGR 3100JS1-5D	IC908	**EH646003037**	Price
.122	.001	DGR 3100JS-6D	IC908	**EH646095470**	Price
.122	.008	DGN 3102C	IC808	**EH646003581**	Price
.122	.008	DGN 3102C	IC830	**EH646011370**	Price
.122	.008	DGN 3102J	IC1028	**EH646003039**	Price
.122	.008	DGN 3102J	IC808	**EH646011371**	Price
.122	.008	DGN 3102J	IC830	**EH646011369**	Price
.122	.008	DGN 3102MF	IC5400	**EH6004902**	Price
.122	.008	DGN 3102MF	IC808	**EH6004885**	Price
.122	.008	DGN 3102MF	IC830	**EH6004886**	Price
.122	.008	DGR 3102C-6D	IC908	**EH646002968**	Price
.122	.008	DGR 3102J1-5D	IC328	**EH646097015**	Price
.122	.008	DGR 3102J1-5D	IC908	**EH646003038**	Price
.122	.008	DGR 3102J-6D	IC908	**EH646002967**	Price
.125	.008	DGN M 3202C	IC908	**EH646003294**	Price
.125	.008	DGN M 3202J	IC908	**EH646003291**	Price
.157	.012	DGN 4003MF	IC808	**EH6004959**	Price
.157	.012	DGN 4003MF	IC830	**EH6004958**	Price
.157	.012	DGR 4003C-4D	IC908	**EH646002952**	Price
.189	.012	DGR 4803J-8D	IC328	**EH646003232**	Price

Tool Blocks

Basic Features:
- Wedge clamping
- Prism on top and bottom secures central alignment of insert in seat
- Molded chipformer produces curled and narrowed chip for free flow and undamaged surface
- Large variety of machining applications
- Parting off and grooving
- Face grooving—trepanning, slot milling
- Cutting force enhances grip

F-W Cutoff Tool System
The lastest enhancement combines the System-W geometry with its double chipformer that excels in the machining of stainless steels and exotics, and the System-F concept, which features a redesign of the insert locking mechanism for greater stability and consistency. The result, System F-W, is available in the most critical sizes for those tough applications. If you have problems with inserts splitting while cutting or just need to do your cutoff application faster, try our System-F and System F-W cutoff tools. The following pages contain the components for the F-Cut and T-Cut System.

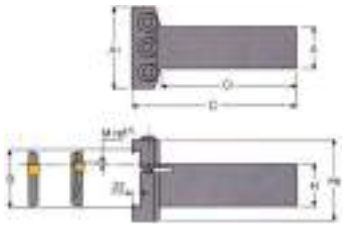
SGTBR/L
R-Right hand
L-Left hand
SINGLE-ENDED: Used in universal turning machines. Equipped for center height adjustment of cutting edge.



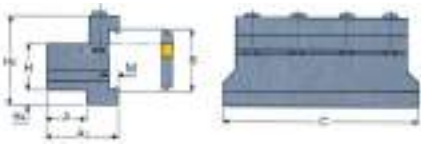
SGTBU-G
REMOVABLE TOP CLAMP: Used in CNC turning center. Specially for machines where the tool stations require lateral access to the tool holder screws.



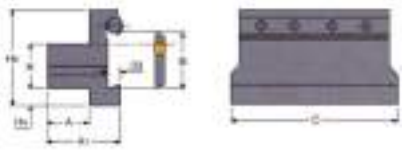
SGTBF
SQUARE SHANK PERPENDICULAR TO BLADE ADAPTER: Used mainly for face grooving. Also for cut-off and grooving on tool stations parallel to machine spindle.



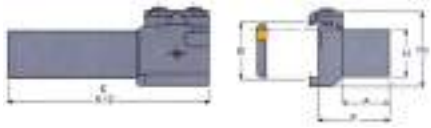
SGTBN
INTEGRAL FLEXIBLE CLAMPING: Applies for right and left hand turning. Cutting-edge height equals shank height. Used on CNC and universal turning machines.



SGTBK
HEAVY DUTY APPLICATIONS: Wedge clamp strengthens hold on blades.
Best for large widths of cut and high loads.



UBHCR/L
R-Right hand
L-Left hand
UNIVERSAL TOOL BLOCK: To be mounted on CNC machine turrets. Using half and full length self-grip blades with a separate short clamp, holder block and blades are clamped separately.



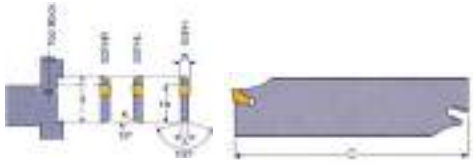
Iscar No.	Center Hght. H (in.)	Width A (in.)	OAL C (in.)	Thickness B (in.)	F-Cut Blade Choices	T-Cut Blade Choices	Order No.	Price
SGTBF25.4A	1.00	1.00	3.57	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300715**	Price
SGTBF31.7A	1.25	1.25	4.23	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300717**	Price
SGTBK329	1.25	1.10	4.72	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300719**	Price
SGTBK389	1.50	1.38	5.31	2.07	SGFH 52(8 & 9); SGFH 53(8 & 9); SGFHR/L 52-12	SGIH 52-9; SGIH 53(8 & 9)	**EH2300720**	Price
SGTBN162	.630	.630	3.00	.75	SGFH 19(1 & 2)	SGIH 19-2	**EH2300726**	Price
SGTBN165	.630	.630	3.00	1.02	SGFH 26(1 thru 5); SGFH 26C(3&4)	SGIH 26(2 thru 6)	**EH2300728**	Price
SGTBN195	.750	.750	3.40	1.02	SGFH 26(1 thru 5); SGFH 26C(3&4)	SGIH 26(2 thru 6)	**EH2300730**	Price
SGTBN196	.750	.750	3.94	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300733**	Price
SGTBN256	.980	.790	4.33	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300739**	Price
SGTBN25.46	1.00	.790	4.33	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300737**	Price
SGTBN31.86	1.25	1.12	4.72	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300741**	Price
SGTBN386	1.50	1.64	5.00	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300745**	Price
SGTBR192	.750	.750	4.00	.75	SGFH 19(1 & 2)	SGIH 19-2	**EH2300749**	Price
SGTBR256	.984	.790	4.72	1.02	SGFH 26(1 thru 5); SGFH 26C(3&4)	SGIH 26(2 thru 6)	**EH2300750**	Price
SGTBU165G	.630	.630	3.00	1.02	SGFH 26(1 thru 5); SGFH 26C(3&4)	SGIH 26(2 thru 6)	**EH2301025**	Price
SGTBU195G	.750	.790	3.40	1.02	SGFH 26(1 thru 5); SGFH 26C(3&4)	SGIH 26(2 thru 6)	**EH2300753**	Price
SGTBU196G	.750	.790	3.94	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300946**	Price
SGTBU25.45G	1.00	1.03	4.33	1.02	SGFH 26(1 thru 5); SGFH 26C(3&4)	SGIH 26(2 thru 6)	**EH2300762**	Price
SGTBU25.46G	1.00	1.03	4.33	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300765**	Price
SGTBU25.4C6	1.00	.900	4.33	1.26	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2301044**	Price
SGTBU31.86G	1.35	1.14	4.33	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2300770**	Price
SGTBU38.16G	1.50	1.65	4.50	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2390840**	Price
UBHCL25.432	1.00	1.00	5.12	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2800522**	Price
UBHCR25.432	1.00	1.00	5.12	1.25	SGFH 32(1 thru-9); SGFHR/L 32 (8 & 9); SGFH 32C (3 & 4)	SGIH 32(2 thru 8); SGIHR/L 32 (8 & 9)	**EH2800528**	Price

Parting and Grooving Blades
SGFH F-CUT

Blade Hght. B (in.)	Insert Wdth. W (in.)	Blade Thickness A (in.)	OAL C (in.)	Center Hght. H3 (in.)	Max. Depth D (in.)	Inserts GF_	Iscar No.	Order No.	Price
.75	.063	.047	3.38	.620	1.25	GF 1.6	SGFH191	**EH2300507**	Price
.75	.087 & .094	.063	3.38	.620	1.50	GF 2 & 2.4	SGFH192	**EH2300509**	Price
1.02	.063	.047	4.33	.840	1.37	GF 1.6	SGFH261	**EH2300510**	Price
1.02	.087 & .094	.063	4.33	.840	2.00	GF 2 & 2.4	SGFH262	**EH2300512**	Price
1.02	.118	.094	4.33	.840	3.00	GF 3	SGFH263	**EH2300514**	Price
1.02	.161	.125	4.33	.840	3.00	GF 4	SGFH264	**EH2300517**	Price
1.25	.063	.047	5.90	.980	1.50	GF 1.6	SGFH321	**EH2300521**	Price
1.25	.087 & .094	.063	5.90	.980	2.00	GF 2 & 2.4	SGFH322	**EH2300522**	Price
1.25	.118	.094	5.90	.980	4.00	GF 3	SGFH323	**EH2300524**	Price
1.25	.161	.125	5.90	.980	4.00	GF 4	SGFH324	**EH2300526**	Price
1.25	.189 & .201	.157	5.90	.980	5.00	GF 4.8 & 5	SGFH325	**EH2300528**	Price
1.25	.250	.205	5.90	.980	5.00	GF 6	SGFH326	**EH2300530**	Price
2.07	.375	.315	7.50	1.77	7.90	GF 9	SGFH529	**EH2300536**	Price
2.07	.375	.315	10.25	1.77	10.00	GF 9	SGFH539	**EH2300539**	Price

F-CUT: Fixed location of cutting edge provides repeated accuracy of depth of cut for:
- Pre-cutoff position
- Grooving
- Post-cutoff position
- Accuracy of center height of cutting edge
- Stopper ensures repeatability
- Stopper limits load on jaws
- Flush top for unobstructed chipflow

NOTE: F-CUT and T-CUT inserts are not inter-changeable with F-CUT and T-CUT blades.

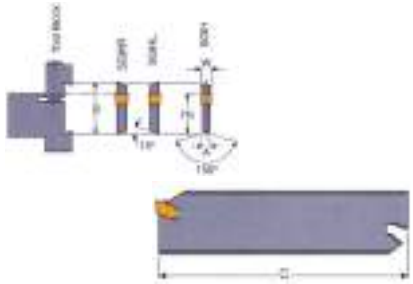


Parting and Grooving Blades
SGIH/R/L T-CUT

R = Right hand
L = Left hand

Blade Hght. B (in.)	Insert Wdth. W (in.)	Blade Thickness A (in.)	OAL C (in.)	Center Hght. H3 (in.)	Max. Depth D (in.)	Inserts GT_	Iscar No.	Order No.	Price
.75	.087 & .094	.063	3.38	.620	1.57	GTN/L/R2, 2.4	SGIH192	**EH2300609**	Price
1.02	.087	.063	4.33	.840	2.00	GTN/L/R2, 2.4	SGIH262	**EH2300610**	Price
1.02	.122	.094	4.33	.840	3.00	GTN/L/R3	SGIH263	**EH2300612**	Price
1.02	.161	.125	4.33	.840	3.15	GTN/L/R4	SGIH264	**EH2300614**	Price
1.02	.188, .201	.156	4.33	.840	3.15	GTN/L/R4.8, 5	SGIH265	**EH2300616**	Price
1.25	.087 & .094	.063	5.90	.980	1.57	GTN/L/R2, 2.4	SGIH322	**EH2300618**	Price
1.25	.122	.094	5.90	.980	3.94	GTN/L/R3	SGIH323	**EH2300619**	Price
1.25	.161	.125	5.90	.980	3.94	GTN/L/R4	SGIH324	**EH2300622**	Price
1.25	.188, .201	.156	5.90	.980	4.71	GTN/L/R4.8, 5	SGIH325	**EH2300625**	Price
1.25	.250	.203	5.90	.980	4.72	GTN/L/R6	SGIH326	**EH2300626**	Price
1.25	.315	.268	5.90	.980	5.51	GTN/L/R8	SGIH328	**EH2300628**	Price
1.25	.375	.312	5.90	.980	5.51	GTN/L/R9	SGIH329	**EH2300629**	Price
2.07	.315	.268	10.23	1.78	8.70	GTN/L/R8	SGIH538	**EH2300632**	Price
2.07	.375	.312	10.23	1.78	10.00	GTN/L/R9	SGIH539	**EH2300633**	Price

T-CUT: The original self-grip
- With high reliability
- High rigidity and high stability
- Superior straightness of cut



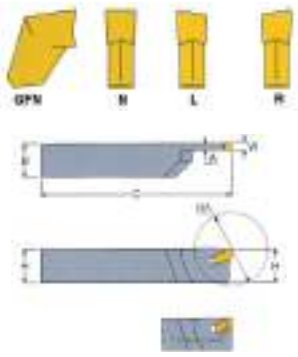
Parting and Grooving Holders SGTFR/L F-CUT

R = Right hand
L = Left hand

B (in.)	W(insert) (in.)	C (in.)	H (in.)	Dmax (in.)	Insert GF_	Iscar No.	Order No.	Price
.375	.063	3.00	.375	1.06	GF 1.6	SGTFR9.51.6	**EH2300828**	Price
.375	.087 & .094	3.00	.375	1.13	GF 2 & 2.4	SGTFL9.52	**EH2300782**	Price
.375	.087 & .094	3.00	.375	1.13	GF 2 & 2.4	SGTFR9.52	**EH2300830**	Price
.50	.063	4.33	.50	1.18	GF 1.6	SGTFL12.71.6	**EH2300785**	Price
.50	.063	4.33	.50	1.18	GF 1.6	SGTFR12.71.6	**EH2300833**	Price
.50	.087 & .094	4.33	.50	1.25	GF 2 & 2.4	SGTFR12.72	**EH2300835**	Price
.50	.118	4.33	.50	1.25	GF 3	SGTFR12.73	**EH2300836**	Price
.625	.087 & .094	4.50	.625	1.25	GF 2 & 2.4	SGTFR162	**EH2300841**	Price
.625	.118	4.50	.625	1.38	GF 3	SGTFL163	**EH2300794**	Price
.625	.118	4.50	.625	1.38	GF 3	SGTFR163	**EH2300842**	Price
.75	.087 & .094	4.50	.75	1.38	GF 2 & 2.4	SGTFL192	**EH2300800**	Price
.75	.087 & .094	4.50	.75	1.38	GF 2 & 2.4	SGTFR192	**EH2300848**	Price
.75	.118	4.50	.75	1.75	GF 3	SGTFL193	**EH2300801**	Price
.75	.118	4.50	.75	1.75	GF 3	SGTFR193	**EH2300849**	Price
.75	.161	4.50	.75	2.00	GF 4	SGTFL194	**EH2300803**	Price
.75	.161	4.50	.75	2.00	GF 4	SGTFR194	**EH2300851**	Price
1.00	.118	5.90	1.00	2.25	GF 3	SGTFL25.43	**EH2300813**	Price
1.00	.118	5.90	1.00	2.25	GF 3	SGTFR25.43	**EH2300861**	Price
1.00	.161	5.90	1.00	2.50	GF 4	SGTFL25.44	**EH2300815**	Price
1.00	.161	5.90	1.00	2.50	GF 4	SGTFR25.44	**EH2300863**	Price
1.00	.189 & .201	5.90	1.00	3.00	GF 4.8 & 5	SGTFR25.45	**EH2300865**	Price

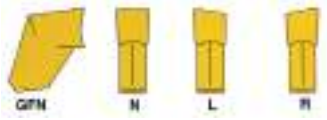
F-CUT: Fixed location of cutting edge provides repeated accuracy of depth of cut for:
- Pre-cutoff position
- Grooving
- Post-cutoff position
- Accuracy of center height of cutting edge
- Stopper ensures repeatability
- Stopper limits load on jaws
- Flush top for unobstructed chipflow

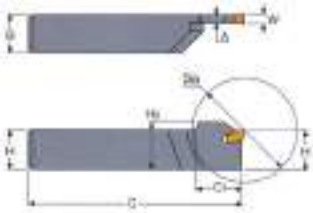
NOTE: F-CUT and T-CUT inserts are not inter-changeable with F-CUT and T-CUT holders.



Parting and Grooving Holders
SGTHR/L T-CUT

- The original self-grip
- With high reliability
- High rigidity and high stability
- Superior straightness of cut





R = Right hand
L = Left hand

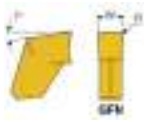
B (in.)	W (insert) (in.)	C (in.)	Dmax (in.)	H (in.)	Insert GT_	Iscar No.	Order No.	Price
.375	.087 & .094	3.000	1.130	.375	GT 2 & 2.4	SGTHR9.52	**EH2300909**	Price
.375	.087 & .094	4.330	1.250	.500	GT 2 & 2.4	SGTHR12.72	**EH2300912**	Price
.375	.122	3.380	1.100	.375	GT 3	SGTHR9.53	**EH2300910**	Price
.394	.087 & .094	4.500	1.250	.625	GT 2 & 2.4	SGTHR162	**EH2300918**	Price
.472	.118	4.500	1.380	.625	GT 3	SGTHR163	**EH2300919**	Price
.500	.118	4.500	1.750	.750	GT 3	SGTHL193	**EH2300890**	Price
.500	.118	4.500	1.750	.750	GT 3	SGTHR193	**EH2300922**	Price
1.000	.118	5.900	2.250	1.000	GT 3	SGTHL25.43	**EH2300901**	Price
1.000	.118	5.900	2.250	1.000	GT 3	SGTHR25.43	**EH2300934**	Price
1.000	.161	5.900	2.500	1.000	GT 4	SGTHL25.44	**EH2300902**	Price
1.000	.161	5.900	2.500	1.000	GT 4	SGTHR25.44	**EH2300935**	Price
1.000	.189 & .201	5.900	3.000	1.000	GT 4.8 & 5	SGTHR25.45	**EH2300936**	Price

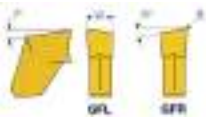
GFN/R/L
F-CUT Parting and Grooving Inserts

Fixed location of cutting edge provides repeated accuracy of depth of cut for:

- Grooving
- Accuracy of center height of cutting edge
- Stopper ensures repeatability

NOTE: F-CUT and T-CUT inserts are not interchangeable with F-CUT and T-CUT blades or holders.





R = Right hand
L = Left hand

- The original self-grip
- With high reliability
- High rigidity and high stability
- Superior straightness of cut

IC-20	Grade C2-C3 uncoated
IC-250	PVD TiCN + TiN coated
IC-30N	Cermet high speed machining
IC-328	PVD TiCN coated - heavy machining
IC-354	Grade C5-C6 PVD TiCN coated
IC-54	Grade C4-C5 uncoated
IC-908	PVD TiAlN coated - heavy machining

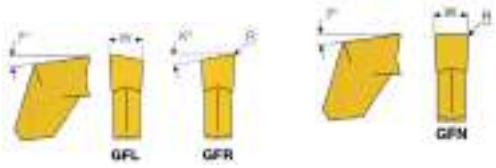
W±.004 (in.)	Radius R (in.)	Iscar Grade	Iscar No. Designation	Order No.	Price
.063	.006	IC20	GFN1.6	**EH6000241**	Price
.063	.006	IC20	GFR1.68D°	**EH6000387**	Price
.063	.006	IC328	GFN1.6	**EH6002611**	Price
.063	.006	IC354	GFL1.68D°	**EH6098326**	Price
.063	.006	IC354	GFN1.6	**EH6002657**	Price
.063	.006	IC354	GFR1.615D°	**EH6002675**	Price
.063	.006	IC354	GFR1.68D°	**EH6098336**	Price
.063	.006	IC54	GFN1.6	**EH6000245**	Price
.063	.006	IC54	GFR1.68D°	**EH6000390**	Price
.087	.006	IC20	GFN2	**EH6000259**	Price
.087	.006	IC328	GFN2	**EH6002500**	Price
.087	.006	IC354	GFN2	**EH6011364**	Price
.087	.006	IC354	GFR24D°	**EH6002625**	Price
.087	.006	IC354	GFR28D°	**EH6002443**	Price
.087	.006	IC54	GFN2	**EH6000263**	Price
.087	.006	IC908	GFN2	**EH6003138**	Price
.094	.006	IC20	GFN2.4	**EH6000267**	Price
.094	.006	IC20	GFR2.44D°	**EH6000424**	Price
.094	.006	IC20	GFR2.48D°	**EH6000427**	Price
.094	.006	IC328	GFN2.4	**EH6094235**	Price
.094	.006	IC354	GFN2.4	**EH6094535**	Price
.094	.006	IC354	GFR2.44D°	**EH6002674**	Price
.094	.006	IC354	GFR2.48D°	**EH6094435**	Price
.094	.006	IC54	GFN2.4	**EH6000268**	Price
.094	.006	IC54	GFR2.48D°	**EH6000428**	Price
.118	.008	IC20	GFL34D°	**EH6000133**	Price
.118	.008	IC20	GFL38D°	**EH6000142**	Price
.118	.008	IC20	GFN3	**EH6000286**	Price
.118	.008	IC20	GFR34D°	**EH6000432**	Price
.118	.008	IC20	GFR38D°	**EH6000443**	Price
.118	.008	IC250	GFN3	**EH6001577**	Price
.118	.008	IC30N	GFN3	**EH6000287**	Price
.118	.008	IC328	GFN3	**EH6002573**	Price

W±.004 (in.)	Radius R (in.)	Iscar Grade	Iscar No. Designation	Order No.	Price
.118	.008	IC328	GFR34D°	**EH6002595**	Price
.118	.008	IC328	GFR38D°	**EH6002502**	Price
.118	.008	IC354	GFL34D°	**EH6098646**	Price
.118	.008	IC354	GFL38D°	**EH6002593**	Price
.118	.008	IC354	GFN3	**EH6011365**	Price
.118	.008	IC354	GFR34D°	**EH6002596**	Price
.118	.008	IC354	GFR38D°	**EH6002444**	Price
.118	.008	IC54	GFN3	**EH6000292**	Price
.118	.008	IC54	GFR34D°	**EH6000434**	Price
.118	.008	IC54	GFR38D°	**EH6000447**	Price
.118	.008	IC908	GFN3	**EH6003143**	Price
.161	.009	IC20	GFN4	**EH6000320**	Price
.161	.009	IC20	GFR44D°	**EH6000472**	Price
.161	.009	IC328	GFN4	**EH6002574**	Price
.161	.009	IC354	GFN4	**EH6011366**	Price
.161	.009	IC54	GFN4	**EH6000324**	Price
.161	.009	IC908	GFN4	**EH6003147**	Price
.161	.016	IC354	GFN4B	**EH6095135**	Price
.161	.016	IC908	GFN4B	**EH6003149**	Price
.161	.009	IC354	GFL44D°	**EH6099246**	Price
.161	.009	IC354	GFL48D°	**EH6099406**	Price
.188	.008	IC20	GFR315D°	**EH6000455**	Price
.188	.008	IC354	GFR315D°	**EH6002626**	Price
.188	.011	IC354	GFN4.8	**EH6002659**	Price
.188	.011	IC354	GFR4.84D°	**EH6002672**	Price
.188	.011	IC354	GFR4.88D°	**EH6002664**	Price
.201	.011	IC354	GFN5	**EH6002598**	Price
.201	.011	IC328	GFN5	**EH6002597**	Price
.250	.014	IC328	GFN6	**EH6002599**	Price
.250	.014	IC354	GFN6	**EH6002600**	Price
.315	.016	IC354	GFN8	**EH6002624**	Price
.375	.018	IC354	GFN9	**EH6092617**	Price

GTN/R/L T-CUT Parting and Grooving Inserts

- The original self-grip
- With high reliability
- High rigidity and high stability
- Superior straightness of cut

N = Neutral
R = Right hand
L = Left hand



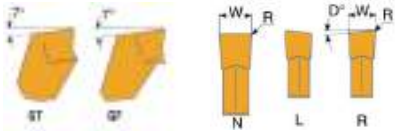
ISO 9001

W± .004 (in.)	R (in.)	Model No.	Iscar Grade	Order No.	Price
.087	.006	GTL24D°	IC354	**EH6002633**	Price
.087	.006	GTL28D°	IC354	**EH6002634**	Price
.087	.006	GTN2	IC20	**EH6000812**	Price
.087	.006	GTN2	IC354	**EH6002441**	Price
.087	.006	GTN2	IC54	**EH6000818**	Price
.087	.006	GTR28D°	IC20	**EH6000978**	Price
.087	.006	GTR215D°	IC354	**EH6002640**	Price
.087	.006	GTR24D°	IC354	**EH6099256**	Price
.087	.006	GTR28D°	IC354	**EH6002445**	Price
.087	.006	GTR24D°	IC54	**EH6000974**	Price
.087	.006	GTR28D°	IC54	**EH6000981**	Price
.094	.006	GTN2.4	IC354	**EH6093945**	Price
.118	.008	GTL315D°	IC354	**EH6090026**	Price
.118	.008	GTL34D°	IC354	**EH6092774**	Price
.118	.008	GTL38D°	IC354	**EH6091684**	Price
.118	.008	GTL38D°	IC54	**EH6000702**	Price
.118	.008	GTN3B°	IC354	**EH6091674**	Price
.118	.008	GTR34D°	IC20	**EH6001001**	Price
.118	.008	GTR38D°	IC20	**EH6001008**	Price
.118	.008	GTR315D°	IC354	**EH6096241**	Price
.118	.008	GTR34D°	IC354	**EH6099366**	Price
.118	.008	GTR38D°	IC354	**EH6002446**	Price
.118	.008	GTR38D°	IC54	**EH6001010**	Price
.118	.012	GTN3	IC20	**EH6000836**	Price
.118	.012	GTN3	IC328	**EH6094125**	Price
.118	.012	GTN3	IC354	**EH6002440**	Price
.118	.012	GTN3	IC54	**EH6000842**	Price
.161	.008	GTN4	IC20	**EH6000867**	Price
.161	.008	GTN4	IC328	**EH6094135**	Price
.161	.008	GTN4	IC354	**EH6002442**	Price
.161	.008	GTN4	IC54	**EH6000874**	Price
.161	.009	GTL44D°	IC354	**EH6099386**	Price
.161	.009	GTR44D°	IC354	**EH6002643**	Price
.161	.009	GTR48D°	IC354	**EH6002499**	Price
.161	.009	GTR44D°	IC54	**EH6001039**	Price
.161	.009	GTR48D°	IC54	**EH6001046**	Price
.188	.011	GTL4.84D°	IC354	**EH6002706**	Price
.188	.011	GTL4.8	IC354	**EH6097796**	Price
.188	.011	GTN4.8	IC20	**EH6000881**	Price
.188	.011	GTN4.8	IC354	**EH6002661**	Price
.188	.011	GTN4.8	IC54	**EH6000883**	Price
.188	.011	GTR4.84D°	IC354	**EH6002662**	Price
.201	.011	GTN5	IC20	**EH6000904**	Price
.201	.011	GTN5	IC354	**EH6091664**	Price
.201	.011	GTN5	IC54	**EH6000909**	Price
.250	.014	GTN6	IC20	**EH6000923**	Price
.250	.014	GTN6	IC354	**EH6099336**	Price
.250	.014	GTN6	IC54	**EH6000926**	Price
.315	.016	GTN8	IC354	**EH6002637**	Price
.375	.018	GTN9	IC20	**EH6000953**	Price

Grade IC-354 replaces IC-656

GFN/R/L-W F-CUT Parting & Grooving Inserts

N = Neutral
R = Right hand
L = Left hand



T-CUT: The original self-grip
With high reliability
- High rigidity and high stability
- Superior straightness of cut

F-CUT: Fixed location of cutting edge provides repeated accuracy of depth of cut for:
Pre-cutoff position
- Grooving
- Post-cutoff position
- Accuracy of center height of cutting edge
- Stopper ensures repeatability
- Stopper limits load on jaws
- Flush top for unobstructed chipflow

W-Type: Central ridge and double cavities. Most efficient on stainless steel and most types of steel at moderate feed rates.

J-Type: Positive rake and sharp curved cutting edge. For smooth chip flow and better surface quality at low feeds down to .0012 ipr. For stainless steel, steel and soft materials.

A-Type: Positive rake cavity and shoulders. For cutting ductile metals like aluminum and copper.

IC-20 Grade C2-C3 uncoated
IC-328 PVD TiCN coated - heavy machining
IC-354 Grade C5-C6 PVD TiCN coated
IC-54 Grade C4-C5 uncoated

W±.004 (in.)	R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.118	.008	GFL3W8D	IC354	**EH6002686**	Price
.118	.008	GFN3W	IC328	**EH6098458**	Price
.118	.008	GFN3W	IC354	**EH6097806**	Price
.118	.008	GFN3W	IC54	**EH6000314**	Price
.118	.008	GFR3W4D°	IC354	**EH6002681**	Price
.118	.008	GFR3W8D°	IC354	**EH6002628**	Price
.161	.009	GFN4W	IC354	**EH6002589**	Price
.189	.011	GFN4.8W	IC354	**EH6002691**	Price
.500	.033	GFN12W	IC20	**EH6000253**	Price
.500	.033	GFN12W	IC354	**EH6090586**	Price

GFN-A F-CUT Parting & Grooving Inserts

W±.004 (in.)	Radius R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.063	.006	GFN1.6A	IC20	**EH6000234**	Price
.087	.006	GFN2A	IC20	**EH6000235**	Price
.118	.008	GFN3A	IC20	**EH6000237**	Price
.161	.008	GFN4A	IC20	**EH6000238**	Price
.201	.011	GFN5A	IC20	**EH6000240**	Price

GTN-A T-CUT Parting & Grooving Inserts

W±.004 (in.)	R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.118	.008	GTN3A	IC20	**EH6000808**	Price

GTN/R/L-W T-CUT Parting & Grooving Inserts

N = Neutral
R = Right hand
L = Left hand

W±.004 (in.)	R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.118	.008	GTN3W	IC20	**EH6000857**	Price
.118	.008	GTN3W	IC354	**EH6097836**	Price
.118	.008	GTN3W	IC54	**EH6000861**	Price
.118	.008	GTR3W4D°	IC354	**EH6002590**	Price
.161	.008	GTN4W	IC354	**EH6097846**	Price
.161	.009	GTR4W4D°	IC354	**EH6099346**	Price
.201	.011	GTN5W	IC354	**EH6002636**	Price

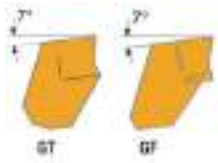
Grade IC-354 replaces IC-656
NOTE: F-CUT and T-CUT inserts are not interchangeable with F-CUT and T-CUT blades or holders.

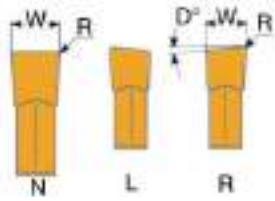
GFNR/L F-CUT Inserts

Fixed location of cutting edge provides repeated accuracy of depth of cut for:

- Pre-cutoff position
- Grooving
- Post-cutoff position
- Accuracy of center height of cutting edge
- Stopper ensures repeatability
- Stopper limits load on jaws
- Flush top for unobstructed chipflow

IC-20	Grade C2-C3 uncoated
IC-328	PVD TiCN coated - heavy machining
IC-354	Grade C5-C6 PVD TiCN coated
IC-54	Grade C4-C5 uncoated
IC-908	PVD TiAlN coated - heavy machining





W±.004 (in.)	R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.063	.006	GFN1.6J	IC328	**EH6094205**	Price
.063	.006	GFN1.6J	IC354	**EH6002621**	Price
.063	.006	GFR1.6J6D°	IC328	**EH6002885**	Price
.079	.007	GFN2J	IC328	**EH6002545**	Price
.079	.007	GFN2J	IC354	**EH6002547**	Price
.079	.007	GFN2J	IC908	**EH6003139**	Price
.118	.010	GFL3J6D°	IC354	**EH6002592**	Price
.118	.010	GFN3J	IC20	**EH6000304**	Price
.118	.010	GFN3J	IC328	**EH6002541**	Price
.118	.010	GFN3J	IC354	**EH6002549**	Price
.118	.010	GFN3J	IC54	**EH6001336**	Price
.118	.010	GFN3J	IC908	**EH6094249**	Price
.118	.010	GFR3J6D°	IC328	**EH6002594**	Price
.118	.010	GFR3J6D°	IC354	**EH6002591**	Price
.157	.010	GFN4J	IC20	**EH6000348**	Price
.157	.010	GFN4J	IC328	**EH6002610**	Price
.157	.010	GFN4J	IC354	**EH6002552**	Price
.157	.010	GFN4J	IC908	**EH6003148**	Price
.201	.010	GFN5J	IC328	**EH6096115**	Price
.201	.010	GFN5J	IC908	**EH6003151**	Price

Grade IC-354 replaces IC-656

Width of Cut (WOC) and depth of Cut (DOC)
In selecting WOC, the main factor to consider is the required DOC. The ratio DOC above 8x WOC is of practical use on alloy steel of average machinability: for example, applying a .118" WOC insert GFN-3 to cut-off a 1.890" solid bar.

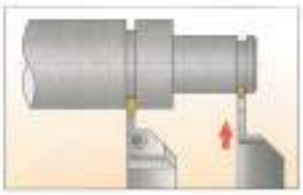
Additional factors which affect DOC capacity, relative to the ratio, are:

Lead Angle
A neutral insert with 0° lead angle increases DOC capacity.

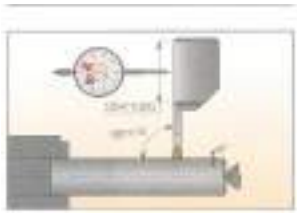
Holder or Blade Size
To minimize risk of vibration and deflection always choose:

- Blade or toolholder with smallest possible overhang
- Toolholder with maximum shank dimension
- Blade height (B) dimension which is larger than Tmax
- Blade or holder with maximum blade width (largest possible insert seat size.)

Example:
A WOC .374" on blade
SGFH 53-9 (B=2.07") extends the ratio of DOC to WOC by some 50% to 4.724".



Insert Support
A self-grip tool is recommended for deep radial machining. A screw-clamp holder is recommended for axial and small DOC machining.



90° Mounting
It is very important that the insert is mounted at 90° to the center line of the workpiece in order to obtain perpendicular surfaces and reduce the risk of vibration.

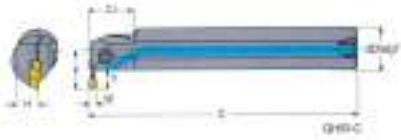
TGIR/L-C Internal Machining Boring Bars with Coolant

TOP-GRIP
ISO 9001

Applications:

- Grooving
- Turning
- Threading

R = Right hand
L = Left hand



d Shank Dia. (in.)	D Min. Bore	T Max. Bore	H Center Hght	C OAL	C1 Proj.	F Dist. Across Flats	W Width	Use Insert	Iscar No.	Right/Left	Screw	Hex Key	Seal	Order No.	Price
.625	.8000	.220	.295	5.9000	1.00	.472	.118 - .125	TGMF/P3..	TGIR15.9C3	Right	SR76-1021	T20/5	-	**EH2850076**	Price
.750	.9500	.220	.335	7.1000	1.25	.559	.118 - .125	TGMF/P3..	TGIL19C3	Left	SR76-1021	T20/5	PL 075	**EH2850070**	Price
.750	.9500	.220	.335	7.1000	1.25	.559	.118 - .125	TGMF/P3..	TGIR19C3	Right	SR76-1021	T20/5	PL 075	**EH2850057**	Price
1.000	1.2600	.310	.453	7.8500	1.57	.740	.118 - .125	TGMF/P3..	TGIR25.4C3	Right	SR76-1021	T20/5	PL 100	**EH2850058**	Price
1.000	1.2600	.310	.453	7.8500	1.57	.740	.118 - .125	TGMF/P3..	TGIL25.4C3	Left	SR76-1021	T20/5	PL 100	**EH2850071**	Price
1.000	1.2800	.330	.453	7.8500	1.57	.768	.157 - .197	TGMF/P4..,5..	TGIL25.4C4	Left	SR76-1022	T20/5	PL 100	**EH2850072**	Price
1.000	1.2800	.330	.453	7.8500	1.57	.768	.157 - .197	TGMF/P4..,5..	TGIR25.4C4	Right	SR76-1022	T20/5	PL 100	**EH2850059**	Price
1.250	1.6500	.430	.571	8.6500	2.00	1.004	.157 - .197	TGMF/P4..,5..	TGIL31.7C4	Left	SR-M6 x 20	T20/5	PL 125	**EH2850073**	Price
1.250	1.6500	.430	.571	8.6500	2.00	1.004	.157 - .197	TGMF/P4..,5..	TGIR31.7C4	Right	SR-M6 x 20	T20/5	PL 125	**EH2850060**	Price
1.250	1.8500	.700	.571	8.6500	2.00	1.197	.236 - .250	TGMF/P3..,6..	TGIR31.7C6	Right	SR-M6 x 20	HW 5	PL 125	**EH2850061**	Price
1.500	2.2500	.720	.669	11.8000	2.36	1.354	.236 - .250	TGMF/P3..,6..	TGIL38.1C6	Left	SR-M6 x 25	HW 5	PL 150	**EH2850075**	Price
1.500	2.2500	.720	.669	11.8000	2.36	1.354	.236 - .250	TGMF/P3..,6..	TGIR38.1C6	Right	SR-M6 x 25	HW 5	PL 150	**EH2850062**	Price

See pages IMC-23 - IMC-24 for spare parts

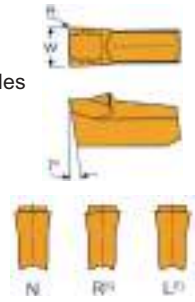
SGFFH F-CUT
Face Grooving Blades



Insert Width W (in.)	Dia. Min.-Max. (in.)	Max. Depth T (in.)	Center Hght. M (in.)	Blade Thickness A (in.)	Insert GFF	Iscar No.	Order No.	Price
.083	1.38 - 1.81	.790	.030	.200	GFF 2	SGFFH35L2	**EH2300301**	Price
.083	1.38 - 1.81	.790	.030	.200	GFF 2	SGFFH35R2	**EH2300302**	Price
.083	1.77 - 2.40	.790	.030	.200	GFF 2	SGFFH45R2	**EH2300304**	Price
.083	2.36 - 3.15	.790	.030	.200	GFF 2	SGFFH60R2	**EH2300306**	Price
.083	3.11 - 4.02	.790	.030	.156	GFF 2	SGFFH80R2	**EH2300308**	Price
.083	3.96 - 5.20	.790	.00	.156	GFF 2	SGFFH100R2	**EH2300310**	Price
.118	2.56 - 3.62	.790	.040	.200	GFF 3	SGFFH75R3	**EH2300312**	Price
.118	3.54 - 4.80	.790	.008	.200	GFF 3	SGFFH90R3	**EH2300314**	Price
.118	4.72 - 6.30	.980	.00	.200	GFF 3	SGFFH120L3	**EH2300315**	Price
.118	4.72 - 6.30	.980	.00	.200	GFF 3	SGFFH120R3	**EH2300316**	Price
.157	3.15 - 6.10	1.18	.100	.200	GFF 4	SGFFH80R4	**EH2300318**	Price
.157	5.90 - 19.70	1.18	.100	.200	GFF 4	SGFFH150L4	**EH2300319**	Price
.157	5.90 - 19.70	1.18	.100	.200	GFF 4	SGFFH150R4	**EH2300320**	Price
.197	3.15 - 6.38	1.26	.100	.200	GFF 5	SGFFH80L5	**EH2300321**	Price
.197	3.15 - 6.38	1.26	.100	.200	GFF 5	SGFFH80R5	**EH2300322**	Price
.197	5.90 - 23.60	1.38	.100	.200	GFF 5	SGFFH150L5	**EH2300323**	Price
.197	5.90 - 23.60	1.38	.100	.200	GFF 5	SGFFH150R5	**EH2300324**	Price
.236	3.54 - 5.90	1.26	.00	.310	GFF 6	SGFFH90R6	**EH2300326**	Price

IC20	Grade C2-C3 uncoated
IC354	Grade C5-C6 PVD coated (medium speed, high feed)
IC54	Grade C4-C5 uncoated
IC635	Grade C5-C6 CVD coated (low speed, high feed)

GFF F-CUT Inserts



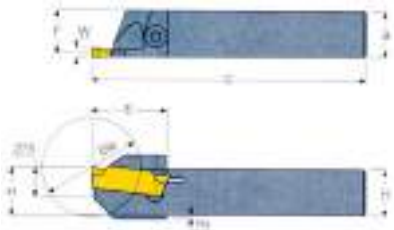
F-CUT: Fixed location of cutting edge provides repeated accuracy of depth of cut for:

- Pre-cutoff position
- Grooving
- Post-cutoff position
- Accuracy of center height of cutting edge
- Stopper ensures repeatability
- Stopper limits load on jaws
- Flush top for unobstructed chipflow

(1) GFF 3 R shown, right-hand for CCW rotation.
(2) GFF-3 L shown, left-hand for CW rotation.

W±.004 (in.)	Radius R (in.)	Iscar No. Designation	Iscar Grade	Order No.	Price
.083	.008	GFF2N	IC20	**EH6000006**	Price
.083	.008	GFF2N	IC354	**EH6002510**	Price
.083	.008	GFF2N	IC635	**EH6000008**	Price
.083	.008	GFF2N	IC656	**EH6000009**	Price
.083	.008	GFF2R	IC354	**EH6002511**	Price
.083	.008	GFF2R	IC635	**EH6000012**	Price
.083	.008	GFF2R	IC656	**EH6000013**	Price
.118	.012	GFF3N	IC20	**EH6000018**	Price
.118	.012	GFF3N	IC354	**EH6002512**	Price
.118	.012	GFF3N	IC635	**EH6000020**	Price
.118	.012	GFF3N	IC656	**EH6000021**	Price
.118	.012	GFF3R	IC354	**EH6002513**	Price
.118	.012	GFF3R	IC656	**EH6000025**	Price
.157	.010	GFF4N	IC20	**EH6000026**	Price
.157	.010	GFF4N	IC354	**EH6002514**	Price
.157	.010	GFF4N	IC54	**EH6000027**	Price
.157	.010	GFF4N	IC635	**EH6000028**	Price
.157	.010	GFF4N	IC656	**EH6000029**	Price
.197	.010	GFF5N	IC20	**EH6000030**	Price
.197	.010	GFF5N	IC354	**EH6002515**	Price
.197	.010	GFF5N	IC656	**EH6000033**	Price
.236	.010	GFF6N	IC20	**EH6000034**	Price
.236	.010	GFF6N	IC354	**EH6002516**	Price
.236	.010	GFF6N	IC635	**EH6000036**	Price
.236	.010	GFF6N	IC656	**EH6000037**	Price

External Shank Holders
Use with GDMW 2.4 inserts
PHSR/L

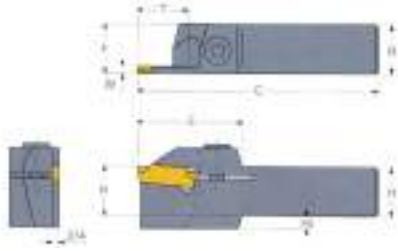


R = Right hand
L = Left hand
Application: External machining on Swiss automatics

H x B (in.)	C (in.)	F (in.)	Dmax (in.)	E (in.)	H4 (in.)	Lock Screw	Wrench	Left			Right		
								Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
1/2 x 1/2	5.9000	.437	1.000	.787	-	SR16-236/P	T-15/3	PHSL12.72	**EH2800756**	Price	PHSR12.72	**EH2800754**	Price
3/8 x 3/8	5.9000	.358	.787	.708	.1000	SR16-236/P	T-15/3	-	**-**	-	PHSR9.52	**EH2800753**	Price

See pages IMC-23 - IMC-24 for spare parts

PHGR/L

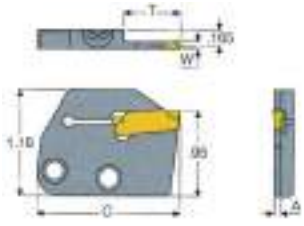


R = Right hand
L = Left hand
Application: external deep machining

H x B (in.)	C (in.)	F (in.)	T (in.)	E (in.)	Lock Screw	Wrench	Left			Right		
							Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
1 x 1	6.0000	.960	.670	1.300	SR M5 x 20	HW 4	-	**-**	-	PHGR25.42.4	**EH2800749**	Price
3/4 x 3/4	4.5000	.710	.670	1.300	SR M5 x 20	HW 4	PHGL192.4	**EH2800751**	Price	PHGR192.4	**EH2800748**	Price
5/8 x 5/8	4.3000	.590	.670	1.300	SR M5 x 20	HW 4	PHGL162.4	**EH2800721**	Price	PHGR162.4	**EH2800720**	Price

See pages IMC-23 - IMC-24 for spare parts

Exchangeable Adapter Seats
PADR/L



R = Right Hand
L = Left Hand
Adapter for PHAR/L & PHAPR/L

T (in.)	C (in.)	A (in.)	W (in.)	Left			Right		
				Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
.64	1.61	.075	.0945	PADL2.4	**EH2800715**	Price	PADR2.4	**EH2800714**	Price

CUT-GRIP

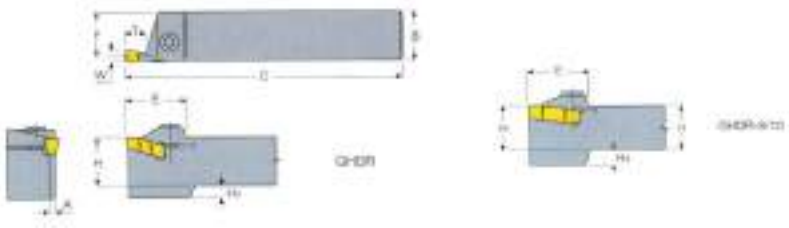
GHDR/L Toolholders for Turning and Grooving



Tools for multidirectional machining. The GHD group is designed for grooving, threading, turning, profiling and parting with maximum stability. Tools with insert widths between .118, .250 and .315-.394 inch can be used for grooving depths of .394-.473 and 1.0 inch respectively.

GHDR/L
R = Right hand (shown)
L = Left hand



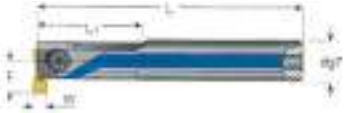


W (in.)	T (in.)	Iscar No.	H x B (in.)	C (in.)	F (in.)	A (in.)	E (in.)	H4 (in.)	Screw	Key	Inserts	Order No.	Price
.077 - .125	.320	GHDR12.72	1/2 x 1/2	4-1/2	.468	.062	1.030	.130	SR 76-1022	T-20/5	GIG, GIP, [GIPM, GIPA, GIPY, GIM, GIMY]	**EH2800141**	Price
.077 - .125	.320	GHDL12.72	1/2 x 1/2	4-1/2	.468	.062	1.030	.130	SR 76-1022	T-20/5	GIG, GIP, [GIPM, GIPA, GIPY, GIM, GIMY]	**EH2800077**	Price
.077 - .125	.330	GHDR192	3/4 x 3/4	4-1/2	.719	.062	1.030	-	SR M5 x 20	HW 4	GIG, GIP, [GIPM, GIPA, GIPY, GIM, GIMY]	**EH2800152**	Price
.110 - .157	.350	GHDR163	5/8 x 5/8	4-3/8	.583	.094	1.020	.157	SR M5 x 20	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800146**	Price
.110 - .157	.350	GHDL163	5/8 x 5/8	4-3/8	.583	.094	1.020	.157	SR M5 x 20	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800081**	Price
.110 - .157	.360	GHDR193	3/4 x 3/4	4-1/2	.703	.094	1.030	-	SR M5 x 20	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800153**	Price
.110 - .157	.360	GHDL193	3/4 x 3/4	4-1/2	.703	.094	1.030	-	SR M5 x 20	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800088**	Price
.110 - .157	.360	GHDR25.43	1 x 1	6	.953	.094	1.030	-	SR M5 x 25	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800160**	Price
.110 - .157	.360	GHDL25.43	1 x 1	6	.953	.094	1.030	-	SR M5 x 25	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800095**	Price
.110 - .157	.360	GHDR31.73	1-1/4 x 1-1/4	7	1.203	.094	1.020	-	SR M5 x 25	HW 4	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800171**	Price
.157 - .197	.400	GHDR194	3/4 x 3/4	4-1/2	.687	.126	1.030	-	SR M6 x 20	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800154**	Price
.157 - .197	.400	GHDL194	3/4 x 3/4	4-1/2	.687	.126	1.030	-	SR M6 x 20	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800089**	Price
.157 - .197	.400	GHDR25.44	1 x 1	6	.937	.126	1.060	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800161**	Price
.157 - .197	.400	GHDL25.44	1 x 1	6	.937	.126	1.060	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800096**	Price
.157 - .197	.400	GHDR31.74	1-1/4 x 1-1/4	7	1.187	.126	1.060	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800172**	Price
.157 - .197	.400	GHDL31.74	1-1/4 x 1-1/4	7	1.187	.126	1.060	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800107**	Price
.197 - .252	.500	GHDR195	3/4 x 3/4	4-1/2	.667	.165	1.160	-	SR M6 x 20	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800737**	Price
.197 - .252	.500	GHDR25.45	1 x 1	6	.917	.165	1.160	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800739**	Price
.197 - .252	.500	GHDL25.45	1 x 1	6	.917	.165	1.160	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800740**	Price
.197 - .252	.500	GHDR31.75	1-1/4 x 1-1/4	7	1.167	.165	1.160	-	SR M6 x 25	HW 5	GIP, GIF, [GIPA, GIPY, GITM, GIM, GIMF, GIMY, GPV]	**EH2800745**	Price
.260 - .327	1.000	GHDR25.48	1 x 1	6	.884	.232	1.580	.299	SR M6 x 25	HW 5	GIF8, [GIPA/GIDA8, GDMY8, GDMF, GDMU]	**EH2800162**	Price
.260 - .327	1.000	GHDL25.48	1 x 1	6	.884	.232	1.580	.299	SR M6 x 25	HW 5	GIF8, [GIPA/GIDA8, GDMY8, GDMF, GDMU]	**EH2800097**	Price
.260 - .327	1.000	GHDR38.18	1-1/2 x 1-1/2	7	1.384	.232	1.580	-	SR M6 x 25	HW 5	GIF8, [GIPA/GIDA8, GDMY8, GDMF, GDMU]	**EH2800179**	Price
.275 - .327	1.440	GHDL31.7836	1-1/4 x 1-1/4	7	1.126	.248	2.140	.315	SR M8 x 30	HW 5	GIF8, [GIPA/GIDA8, GDMY8, GDMF, GDMU]	**EH2800811**	Price
.335 - .408	1.000	GHDR25.410	1 x 1	6	.854	.291	1.700	.299	SR M8 x 30	HW 6	GIF10, [GDPY10/11, GDPU10/11]	**EH2800159**	Price
.335 - .408	1.000	GHDR31.710	1-1/4 x 1-1/4	7	1.104	.291	1.700	-	SR M8 x 30	HW 6	GIF10, [GDPY10/11, GDPU10/13]	**EH2800170**	Price

† Upper jaw is coated with a hard layer to deflect aluminum chips.
(Additional alternative inserts not shown)
See pages IMC-23 - IMC-24 for spare parts

CUT-GRIP GEHIR





W Width	d Shank Dia.	Iscar No.	Dmin	Tmax	L OAL	L1 Proj.	F Dist. Across Flats	H Center Hght.	A Shim seat	Screw	Coolant Inlet	Insert	Order No.	Price
.075 - .095	3/8	GEHIR9.5132	.4920	.094	5	-	.295	.187	.063	SR 16-236	.138	GEMI,GEPI	**EH2801048**	Price
.075 - .095	1/2	GEHIR12.7142	.5510	.102	6	1.38	.358	.250	.063	SR 16-236	.250	GEMI,GEPI	**EH2801050**	Price
.075 - .095	5/8	GEHIR15.9132	.4920	.094	5	.86	.413	.287	.063	SR 16-236	PL 062(2)	GEMI,GEPI	**EH2801143**	Price
.075 - .095	5/8	GEHIR15.9162	.6300	.118	6	1.57	.433	.287	.063	SR 16-212	PL 062(2)	GEMI,GEPI	**EH2801151**	Price
.095 - .126	1/2	GEHIR12.7143	.5510	.102	6	1.38	.358	.250	.079	SR 16-236	.250	GEMI,GEPI	**EH2801139**	Price
.095 - .126	5/8	GEHIR15.9133	.4920	.094	5	.86	.413	.287	.079	SR 16-236	PL 062(2)	GEMI,GEPI	**EH2801052**	Price

R = Right hand (shown)



Key: torx T15/5 (1) torx T20/5 (2) plastic seals with M6 thread
Left hand available on request.
See pages IMC-23 - IMC-24 for spare parts

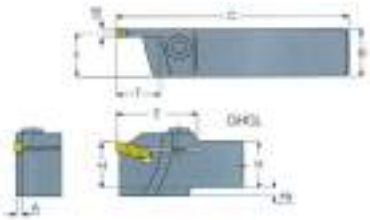
CUT-GRIP GHGR/L for Deep Turning and Grooving

ISO 9001

Tools for multidirectional machining.
The GHG group is designed for grooving, threading, turning, profiling and parting with maximum stability.
GHGR/L



R = Right hand



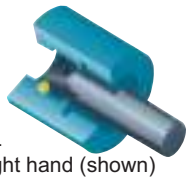


L = Left hand (shown)

W (in.)	T (in.)	Iscar No.	H x B (in.)	C (in.)	F (in.)	A (in.)	E (in.)	H4 (in.)	Screw	Key	Inserts	Order No.	Price
.077 - .118	.670	GHGR192	3/4 x 3/4	4-1/2	.717	.065	1.230	-	SR M5 x 20	HW 4	GIP, [GIPA, GIM, GIG, GIMY]	**EH2800610**	Price
.077 - .118	.670	GHGR25.42	1 x 1	6	.967	.065	1.300	-	SR M5 x 20	HW 4	GIP, [GIPA, GIM, GIG, GIMY]	**EH2800606**	Price
.118 - .157	.790	GHGR163	5/8 x 5/8	4-3/8	.578	.098	1.420	.157	SR M6 x 20	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800259**	Price
.118 - .157	.790	GHGR193	3/4 x 3/4	4-1/2	.703	.096	1.420	-	SR M6 x 20	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800261**	Price
.118 - .157	.790	GHGL193	3/4 x 3/4	4-1/2	.703	.096	1.420	-	SR M6 x 20	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800236**	Price
.118 - .157	.790	GHGR25.43	1 x 1	6	.953	.096	1.420	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800267**	Price
.118 - .157	.790	GHGL25.43	1 x 1	6	.953	.096	1.420	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800242**	Price
.157 - .197	.790	GHGR194	3/4 x 3/4	4-1/2	.685	.132	1.420	-	SR M6 x 20	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800262**	Price
.157 - .197	.790	GHGR25.44	1 x 1	6	.935	.132	1.420	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800268**	Price
.157 - .197	.790	GHGL25.44	1 x 1	6	.935	.132	1.420	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800243**	Price
.157 - .197	1.000	GHGR25.4425	1 x 1	6	.931	.140	1.600	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800653**	Price
.197 - .257	1.000	GHGR25.45	1 x 1	6	.918	.167	1.600	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800269**	Price
.197 - .257	1.000	GHGL25.45	1 x 1	6	.918	.167	1.600	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800244**	Price
.197 - .257	1.000	GHGL31.75	1-1/4 x 1-1/4	7	1.170	.167	1.600	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800252**	Price
.236 - .315	1.180	GHGR25.4630	1 x 1	6	.893	.212	1.760	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800651**	Price
.236 - .315	1.180	GHGL25.4630	1 x 1	6	.893	.212	1.760	-	SR M6 x 25	HW 5	GIP, GIF, [GIPY, GITM, GIPA, GIM, GVP, GIMF, GIMY]	**EH2800652**	Price

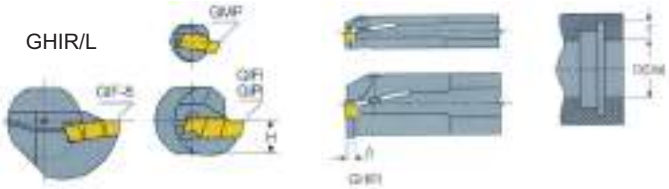
(Additional alternative inserts not shown.)
See pages IMC-23 - IMC-24 for spare parts

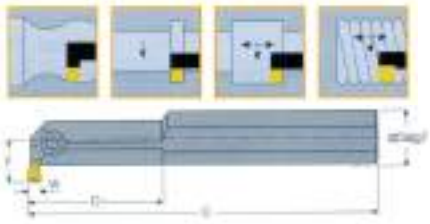
CUT-GRIP GHIR/L for Internal Machining Boring Bars



GHIR/L
R = Right hand (shown)
L = Left hand

GHIR/L



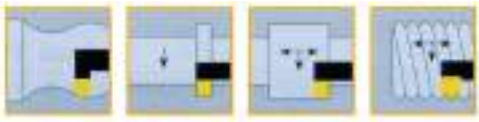


Width W (in.)	Shank Dia. d (in.)	Iscar No.	Min. Bore D (in.)	Max. Bore T (in.)	OAL C (in.)	Proj. C1	Dist. Across Flats F (in.)	Center Hght. H (in.)	Shim Seat A	Screw	Inserts	Order No.	Price
.078 - .137	3/4	GHIR193	.787	.177	8	1.50	.571	.339	.065	SR 76-1021	GIPI, GIFI, [GIMIY]	**EH2800336**	Price
.078 - .137	3/4	GHIL193	.787	.177	8	1.50	.571	.339	.065	SR 76-1021	GIPI, GIFI, [GIMIY]	**EH2800291**	Price
.098 - .157	1-1/4	GHIR31.74	1.480	.197	10	-	.827	.571	.085	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800353**	Price
.098 - .157	1-1/4	GHIL31.74	1.480	.197	10	-	.827	.571	.085	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800308**	Price
.098 - .157	1-1/2	GHIL38.14	1.730	.197	12	-	.950	.669	.085	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800314**	Price
.118 - .189	3/4	GHIR194	.787	.177	8	1.50	.571	.339	.104	SR 76-1021	GIPI, GIFI, [GIMIY]	**EH2800337**	Price
.118 - .189	3/4	GHIL194	.787	.177	8	1.50	.571	.339	.104	SR 76-1021	GIPI, GIFI, [GIMIY]	**EH2800292**	Price
.157 - .252	1	GHIR25.46	.984	.197	8	2.00	.689	.461	.144	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800346**	Price
.157 - .252	1	GHIL25.46	.984	.197	8	2.00	.689	.461	.144	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800301**	Price
.157 - .252	1-1/4	GHIR31.76	1.520	.252	10	-	.874	.571	.144	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800354**	Price
.157 - .252	1-1/2	GHIR38.16	1.850	.315	12	-	1.063	.669	.144	SR 76-1022	GIPI, GIFI, [GIMIY]	**EH2800360**	Price

Supplied keys: (1) torx key T-15/5. (2) hex key HW 5. Other bars: torx key T-20/5.
(Additional alternative inserts not shown.)
See pages IMC-23 - IMC-24 for spare parts

CUT-GRIP Internal Machining Boring Bars with Coolant

- Right hand shown
- Key: torx T15/5 (1) torx T20/5 (2) plastic seals with M6 thread (3)
  The pocket can carry inserts up to .118" width, only in case of w>.079" cutting load should be restricted
- Left hand available on request





W Width	d Shank Dia. (in.)	Iscar No.	Dmin	Tmax	L OAL	L1 Proj.	F Dist. Across Flats	H Center Hght.	Screw	Coolant Inlet Dia.	Inserts	Order No.	Price
w>.079	3/8	GEHIMR9.513	.4920	.098	5	-	.300	.187	SR 16-236	.138	GEMI,GEPI	**EH2801191**	Price
w>.079	1/2	GEHIMR12.714	.5510	.098	6	1.38	.354	.250	SR 16-236	.157	GEMI,GEPI	**EH2801192**	Price
w>.079	5/8	GEHIMR15.913	.4920	.098	5	.860	.417	.287	SR 16-236	PL 062(2)	GEMI,GEPI	**EH2801193**	Price
w>.079	5/8	GEHIMR15.916	.6300	.098	6	1.57	.413	.287	SR 16-212	PL 062(2)	GEMI,GEPI	**EH2801195**	Price

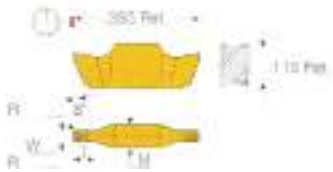
See pages IMC-23 - IMC-24 for spare parts

CUT-GRIP Precision Inserts for Internal Grooving

- Precision-ground
- Double-ended
- Internal grooving and turning in small diameters from .49”
- Low feeds

Repeatability ±.001







Grade chart on page IMC-2

W (in.)	R (in.)	T (in.)	Iscar M	Iscar No. Designation	Grade	Order No.	Price
.039	.004	.063	.071	GEPI1.00-0.10	IC908	**EH6403329**	Price
.047	-	.071	.071	GEPI1.20-0.00	IC908	**EH6403335**	Price
.049	.004	.079	.071	GEPI1.25-0.10	IC908	**EH6403337**	Price
.055	-	.079	.071	GEPI1.40-0.00	IC908	**EH6403339**	Price
.062	.006	.079	.071	GEPI1.57-0.15	IC908	**EH6403345**	Price
.067	.002	.098	.071	GEPI1.70-0.05	IC908	**EH6403347**	Price
.070	.006	.098	.071	GEPI1.78-0.15	IC908	**EH6403349**	Price
.077	.004	.098	.071	GEPI1.96-0.10	IC908	**EH6403353**	Price
.079	.039	.197	.071	GEPI2.00-1.00	IC908	**EH6403363**	Price

W (in.)	R (in.)	T (in.)	Iscar M	Iscar No. Designation	Grade	Order No.	Price
.079	.004	.197	.071	GEPI2.00-0.10	IC908	**EH6403357**	Price
.087	.004	.197	.071	GEPI2.22-0.10	IC908	**EH6403367**	Price
.094	.004	.197	.087	GEPI2.39-0.10	IC528	**EH6403369**	Price
.094	.006	.197	.087	GEPI2.39-0.15	IC908	**EH6403199**	Price
.098	.008	.197	.087	GEPI2.50-0.20	IC908	**EH6403203**	Price
.118	.008	.197	.087	GEPI3.00-0.20	IC908	**EH6403207**	Price
.118	.059	.197	.087	GEPI3.00-1.50	IC908	**EH6403209**	Price
.125	.008	.197	.087	GEPI3.18-0.20	IC908	**EH6403374**	Price
.125	.059	.197	.087	GEPI3.18-1.59	IC908	**EH6403376**	Price

CUT-GRIP GIF Precision Inserts for External Grooving

Repeatability ±.001

• Precision-ground • Double-ended • F-type chipformer (E-Honed)

GRIP SYSTEM Groove-Turn

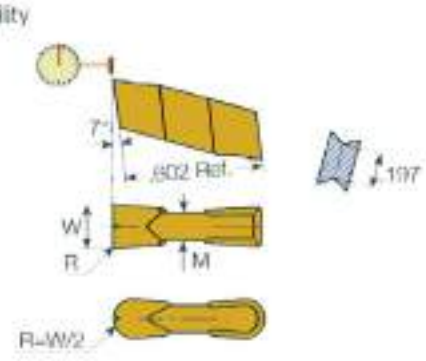
Multifunction Operations

The Groove-Turn tools are multifunction tools, able to operate in a sequence of grooving and turning modes. Moving from turning to grooving requires consideration of the basic Grip principle, thereby eliminating the possibility of insert breakage. In this situation one must release the side deflection which is necessary in turning, but not recommended in grooving.

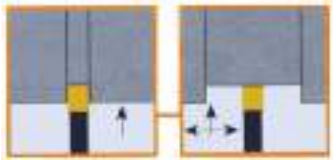
The following machining sequence is suggested:

After completing the longitudinal turning, but before starting the grooving, the side deflection must be released. Move the tool in the direction opposite that of feed, approximately .004“, and return to the original position without side load.

Then, after the deflection has been released and the holder is perpendicular to the workpiece, the grooving operation may start.







W (in.)	R (in.)	M (in.)	Iscar No. Designation	Grade	Order No.	Price
.197	.016	157	GIF5.00E-0.40	IC20	**EH6400148**	Price

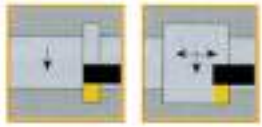
CUT-GRIP GIPI Precision Inserts for Internal Turning and Grooving

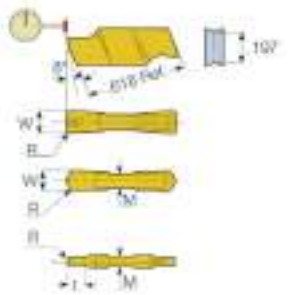
ISO 9001

Repeatability ±.001

• Precision-ground • Double-ended • P-type chipformer
• Medium feeds • Minimum bore: .787“





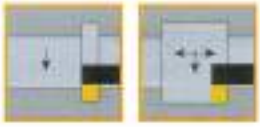


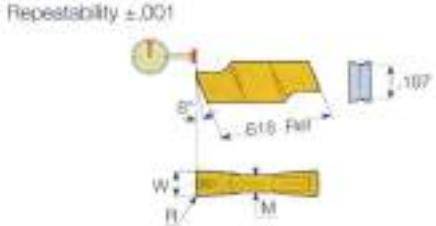
W (in.)	R (in.)	T (in.)	M (in.)	Iscar No. Designation	Grade	Order No.	Price
.062	.006	.098	.087	GIPI1.57-0.15	IC20	**EH6401204**	Price
.087	.004	.098	.087	GIPI2.22-0.10	IC20	**EH6401246**	Price
.094	.047	.236	.094	GIPI2.39-1.20	IC20	**EH6401260**	Price
.106	.004	-	.094	GIPI2.70-0.10	IC20	**EH6401268**	Price
.125	.063	-	.094	GIPI3.18-1.59	IC20	**EH6401309**	Price
.125	.008	-	.094	GIPI3.18-0.20	IC20	**EH6401305**	Price
.156	.008	-	.126	GIPI3.96-0.20	IC20	**EH6401342**	Price

CUT-GRIP GIPI Precision Inserts for Internal Turning and Grooving

- Precision-ground
- Double-ended
- Medium feed
- P-type chipformer
- Minimum bore: .787“ (E Honed)







W (in.)	R (in.)	M (in.)	Iscar No. Designation	Grade	Order No.	Price
.118	.016	.094	GIPI3.00E-0.40	IC20	**EH6401298**	Price

DO-GRIP DGFH Parting and Grooving Blades

HELI-GRIP

For DO-GRIP Inserts

- Standard						
Height (in.)	Insert Wdth. W (in.)	Length (in.)	Use Insert(s)	Iscar No.	Order No.	Price
1.02	.157	4.33	DGL/N/R 4.., GRIP 4.., HFPR 4..	DGFH 26-4	**EH2301243**	Price
1.26	.236/.250	5.90	DGL/N/R 6.., GRIP 6.., HFPR 6..	DGFH 32-6	**EH2301268**	Price
1.26	.157	5.90	DGL/N/R 4.., GRIP 4.., HFPR 4..	DGFH 32-4	**EH2301246**	Price
1.26	.197	5.90	DGL/N/R 5.., GRIP 5.., HFPR 5..	DGFH 32-5	**EH2301247**	Price
1.77	.236/.250	8.86	DGL/N/R 6.., GRIP 6.., HFPR 6..	DGFH 45-6	**EH2301325**	Price
1.77	.157	8.86	DGL/N/R 4.., GRIP 4.., HFPR 4..	DGFH 45-4	**EH2301323**	Price



Extractor order number.: EH7001923

DO-GRIP DGFH-JHP Parting and Grooving Blades

JETCUT

For DO-GRIP Inserts

- Coolant channel for low and high pressure coolant





Insert Width	OAL	Use Insert(s)	Iscar No.	Order No.	Price
1.9mm	150mm	DGL/N/R 2.., GRIP 2.., HFPR 2..	DGFH 32-2-JHP	**EH2302645**	Price
3mm	150mm	DGL/N/R 3.., GRIP 3.., HFPR 3..	DGFH 32-3-JHP	**EH2302515**	Price
4mm	150mm	DGL/N/R 4.., GRIP 4.., HFPR 4..	DGFH 32-4-JHP	**EH2302770**	Price
5mm	150mm	DGL/N/R 5.., GRIP 5.., HFPR 5..	DGFH 32-5-JHP	**EH2302771**	Price
6mm	160mm	DGL/N/R 6.., GRIP 6.., HFPR 6..	DGFH 32-6-JHP	**EH2302772**	Price

Extractor order number.: EH7007212

DO-GRIP DGT R/L...Do-Grip Integral Shank Parting and Grooving Toolholders

Right hand shown

JHP-SL tools have channels for high pressure coolant and a side clamping mechanism



Type - Integral Shank Parting and Grooving Tools										
Shank Size (in.)	Insert Width (in.)	Length (in.)	Dmax (in.)	Use Insert(s)	Left			Right		
					Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
1/2	.075	4.500	1.38	DG. 1.../DG. 2..	DGTL 12.7-2	**EH2301291**	Price	DGTR 12.7-2	**EH2301281**	Price
1/2	.118	4.500	1.38	DG. 1.../DG. 3..	DGTL 12.7-3	**EH2301294**	Price	DGTR 12.7-3	**EH2301284**	Price
3/4	.075	4.500	1.38	DG. 1.../DG. 2..	DGTL 19-2	**EH2301293**	Price	DGTR 19-2	**EH2301283**	Price
3/4	.118	4.500	1.38	DG. 1.../DG. 3..	DGTL 19-3	**EH2301296**	Price	DGTR 19-3	**EH2301286**	Price
3/4	.157	4.500	2.00	DG. 4.../GRIP 4..	DGTL 19-4	**EH2301298**	Price	DGTR 19-4	**EH2301288**	Price
1	.118	6.000	1.38	DG. 1.../DG. 3..	DGTL 25.4-3	**EH2301297**	Price	DGTR 25.4-3	**EH2301287**	Price
1	.157	6.000	2.00	DG. 4.../GRIP 4..	DGTL 25.4-4	**EH2301299**	Price	DGTR 25.4-4	**EH2301289**	Price
1	.189	6.000	3.00	DG. 5.../GRIP 5..	DGTL 25.4-5	**EH2301375**	Price	DGTR 25.4-5	**EH2301373**	Price
1	.236	6.000	3.00	DG. 6.../GRIP 6..	DGTL 25.4-6	**EH2301376**	Price	DGTR 25.4-6	**EH2301377**	Price

Type - Integral Shank Reinforced Parting and Grooving Tools										
Shank Size (in.)	Insert Width (in.)	Length (in.)	Dmax (in.)	Use Insert(s)	Left			Right		
					Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
3/4	.075	5.906	2.36	DG. 2...	DGTL 19B-2XL-D60	**EH2302851**	Price	DGTR 19B-2XL-D60	**EH2302852**	Price
3/4	.118	5.906	2.56	DG. 3...	DGTL 19B-3XL-D65	**EH2302810**	Price	DGTR 19B-3XL-D65	**EH2302809**	Price
1	.079	5.906	2.36	DG. 2...	DGTL 25.4B-2XL-D60	**EH2302853**	Price	DGTR 25.4B-2XL-D60	**EH2302854**	Price
1	.118	5.906	2.56	DG. 3...	DGTL 25.4B-3XL-D65	**EH2302991**	Price	-	**-**	-
1	.118	5.906	2.56	DG. 4.../GRIP 4..	-	**-**	-	DGTR 25.4B-3XL-D65	**EH2302992**	Price

Type - Parting & Grooving Holder w/Coolant Channel										
Shank Size (in.)	Insert Width (in.)	Length (in.)	Dmax (in.)	Use Insert(s)	Left			Right		
					Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
1/2	.075	3.937	.94	DG. 2...	-	**-**	-	DGTR 12.7B-2D24-JHP-SL	**EH2303003**	Price
1/2	.118	3.937	.94	DG. 3...	DGTL 12.7B-3D24-JHP-SL	**EH2303000**	Price	DGTR 12.7B-3D24-JHP-SL	**EH2303004**	Price
5/8	.075	4.724	1.38	DG. 2...	DGTL 16B-2D35-JHP-SL	**EH2393676**	Price	DGTR 16B-2D35-JHP-SL	**EH2393674**	Price
3/4	.075	5.512	1.38	DG. 2...	DGTL 19B-2D35-JHP-SL	**EH2303001**	Price	DGTR 19B-2D35-JHP-SL	**EH2303005**	Price
3/4	.118	5.512	1.57	DG. 3...	DGTL 19B-3D40-JHP-SL	**EH2303002**	Price	DGTR 19B-3D40-JHP-SL	**EH2303006**	Price

HELI-GRIP External Holder for Turning, Grooving and Parting

Right hand shown



Shank (in.)	Length (in.)	Width (in.)	Head Length (in.)	Screw	Key	Use Insert(s)	Left			Right		
							Iscar No.	Order No.	Price	Iscar No.	Order No.	Price
1/2 x 1/2	5-3/8	.118	1.18	SR M5 x 20	Hex HW 4	HGL/N/R 3.., GRIP 3..	HELIL12.73T12	**EH2500631**	Price	HELIR12.73T12	**EH2500630**	Price
3/4 x 3/4	5-1/2	.118	1.14	SR M5 x 20	Hex HW 4	HGL/N/R 3.., GRIP 3..	HELIL193T12	**EH2500523**	Price	HELIR193T12	**EH2500552**	Price
3/4 x 3/4	5-1/2	.118	1.43	SR M6 x 20	Hex HW 5	HGL/N/R 3.., GRIP 3..	HELIL193T20	**EH2500549**	Price	HELIR193T20	**EH2500526**	Price
3/4 x 3/4	5-1/2	.157	1.69	SR M6 x 20	Hex HW 5	DGL/N/R 4.., GRIP 4.., HFPR 4..	HELIL194T25	**EH2500550**	Price	HELIR194T25	**EH2500527**	Price
3/4 x 3/4	5-1/2	.157	1.14	SR M6 x 20	Hex HW 5	DGL/N/R 4.., GRIP 4.., HFPR 4..	HELIL194T12	**EH2500524**	Price	HELIR194T12	**EH2500553**	Price
3/4 x 3/4	5-1/2	.197	1.14	SR M6 x 20	Hex HW 5	DGL/N/R 5.., GRIP 5.., HFPR 5..	-	**-**	-	HELIR195T12	**EH2500554**	Price
3/4 x 3/4	5-1/2	.197	1.65	SR M6 x 20	Hex HW 5	DGL/N/R 5.., GRIP 5.., HFPR 5..	-	**-**	-	HELIR195T25	**EH2500528**	Price
1 x 1	6	.118	1.14	SR M5 x 25	Hex HW 4	HGL/N/R 3.., GRIP 3..	HELIL25.43T12	**EH2500555**	Price	HELIR25.43T12	**EH2500557**	Price
1 x 1	6	.157	1.14	SR M6 x 25	Hex HW 5	DGL/N/R 4.., GRIP 4.., HFPR 4..	HELIL25.44T12	**EH2500447**	Price	HELIR25.44T12	**EH2500446**	Price
1 x 1	6	.197	1.14	SR M6 x 25	Hex HW 5	DGL/N/R 5.., GRIP 5.., HFPR 5..	HELIL25.45T12	**EH2500449**	Price	HELIR25.45T12	**EH2500448**	Price
1 x 1	6	.236	1.14	SR M6 x 25	Hex HW 5	DGL/N/R 6.., GRIP 6.., HFPR 6..	HELIL25.46T12	**EH2500451**	Price	HELIR25.46T12	**EH2500450**	Price
1 x 1	6	.118	1.43	SR M6 x 25	Hex HW 5	HGL/N/R 3.., GRIP 3..	HELIL25.43T20	**EH2500556**	Price	HELIR25.43T20	**EH2500558**	Price
1 x 1	6	.157	1.65	SR M6 x 25	Hex HW 5	DGL/N/R 4.., GRIP 4.., HFPR 4..	HELIL25.44T25	**EH2500453**	Price	HELIR25.44T25	**EH2500452**	Price
1 x 1	6	.197	1.65	SR M6 x 25	Hex HW 5	DGL/N/R 5.., GRIP 5.., HFPR 5..	HELIL25.45T25	**EH2500455**	Price	HELIR25.45T25	**EH2500454**	Price
1 x 1	6	.236	2.02	SR M6 x 25	Hex HW 5	DGL/N/R 6.., GRIP 6.., HFPR 6..	HELIL25.46T30	**EH2500457**	Price	HELIR25.46T30	**EH2500456**	Price
1-1/4 x 1-1/4	7	.118	1.43	SR M6 x 25	Hex HW 5	HGL/N/R 3.., GRIP 3..	HELIL31.73T20	**EH2500609**	Price	HELIR31.73T20	**EH2500608**	Price
1-1/4 x 1-1/4	7	.157	1.65	SR M6 x 25	Hex HW 5	DGL/N/R 4.., GRIP 4.., HFPR 4..	HELIL31.74T25	**EH2500611**	Price	HELIR31.74T25	**EH2500610**	Price
1-1/4 x 1-1/4	7	.197	1.65	SR M6 x 25	Hex HW 5	DGL/N/R 5.., GRIP 5.., HFPR 5..	HELIL31.75T25	**EH2500613**	Price	HELIR31.75T25	**EH2500612**	Price
1-1/4 x 1-1/4	7	.236	2.02	SR M6 x 25	Hex HW 5	DGL/N/R 6.., GRIP 6.., HFPR 6..	HELIL31.76T30	**EH2500615**	Price	HELIR31.76T30	**EH2500614**	Price

HFF R/L... HELI-FACE Blades for Face Machining

Left hand tool shown



Right/Left Hand - Right						
Insert Width W (in.)	Dia. Min.-Max. (in.)	T-Max (in.)	Use Insert(s)	Iscar No.	Order No.	Price
.157	1.89 - 2.362	.984	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFFR484T25	**EH2500348**	Price
.157	2.362 - 2.952	.984	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFFR604T25	**EH2500360**	Price
.157	2.952 - 5.511	1.181	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFFR754T30	**EH2500362**	Price
.157	5.511 - No Limit	1.181	DGL/N/R 4.., GRIP 4.., HFPR 4..	HFFR1404T30	**EH2500350**	Price
.197	2.756-3.740	1.259	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFFR705T32	**EH2500352**	Price
.197	3.740 - 5.118	1.378	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFFR955T35	**EH2500364**	Price
.197	5.118 - 7.086	1.496	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFFR1305T38	**EH2500366**	Price
.197	7.086 - No Limit	1.496	DGL/N/R 5.., GRIP 5.., HFPR 5..	HFFR1805T38	**EH2500354**	Price
.236/.250	3.543 - 7.086	1.259	DGL/N/R 6.., GRIP 6.., HFPR 6..	HFFR906T32	**EH2500356**	Price
.236/.250	7.086 - 15.74	1.469	DGL/N/R 6.., GRIP 6.., HFPR 6..	HFFR1806T38	**EH2500358**	Price

Right/Left Hand - Left						
Insert Width W (in.)	Dia. Min.-Max. (in.)	T-Max (in.)	Use Insert(s)	Iscar No.	Order No.	Price
.157	1.89 - 2.362	.984	HGPL 4.., HFPL 4..	HFFL484T25	**EH2500349**	Price
.157	2.952 - 5.511	1.181	HGPL 4.., HFPL 4..	HFFL754T30	**EH2500363**	Price
.157	5.511 - No Limit	1.181	HGPL 4.., HFPL 4..	HFFL1404T30	**EH2500351**	Price
.197	5.118 - 7.086	1.496	HGPL 5.., HFPL 5..	HFFL1305T38	**EH2500367**	Price
.197	7.086 - No Limit	1.496	HGPL 5.., HFPL 5..	HFFL1805T38	**EH2500355**	Price
.236/.250	3.543 - 7.086	1.259	HGPL 6.., HFPL 6..	HFFL906T32	**EH2500357**	Price
.236/.250	7.086 - 15.74	1.469	HGPL 6.., HFPL 6..	HFFL1806T38	**EH2500359**	Price

Heli-Face Adapters for Integral Face Grooving and Turning



Right/Left Hand - Right											
Iscar No.	Width (in.)	Length (in.)	TMax (in.)	DMax (in.)	DMin (in.)	Head Length L1 (in.)	Lock Screw	Wrench	Uses Inserts	Order No.	Price
HFAIR100C6T32	.236	2.8740	1.260	7.087	3.937	1.535	SR M5 x 20	EDG-33B	HFPR/L 6004; HRPR/L 6030; HGPL 6...Y	**EH2550026**	Price
HFAIR404T20	.157	2.6380	.787	1.890	1.575	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550071**	Price
HFAIR484T20	.157	2.6380	.787	2.362	1.890	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550072**	Price
HFAIR55C5T25	.197	2.5980	.984	2.756	2.165	1.260	SR M5 x 20	EDG-33B	DGL/N/R 5.., GRIP 5.., HFPR 5..	**EH2550021**	Price
HFAIR604T25	.157	2.6380	.984	2.953	2.362	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550073**	Price
HFAIR70C5T25	.197	2.5980	.984	3.740	2.756	1.260	SR M5 x 20	EDG-33B	HFPR/L 5004; HRPR/L 5025; HGPL 5...Y	**EH2550022**	Price

Right/Left Hand - Left											
Iscar No.	Width (in.)	Length (in.)	TMax (in.)	DMax (in.)	DMin (in.)	Head Length L1 (in.)	Lock Screw	Wrench	Uses Inserts	Order No.	Price
HFAIL100C6T32	.236	2.8740	1.260	3.937	2.756	1.535	SR M5 x 20	EDG-33B	HFPR/L 6004; HRPR/L 6030; HGPL 6...Y	**EH2550028**	Price
HFAIL344T18	.157	2.6380	.709	1.575	1.339	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550062**	Price
HFAIL404T20	.157	2.6380	.709	1.890	1.575	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550063**	Price
HFAIL484T20	.157	2.6380	.709	2.362	1.890	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550064**	Price
HFAIL55C5T25	.197	2.5980	.984	2.756	2.165	1.260	SR M5 x 20	EDG-33B	HFPR/L 5004; HRPR/L 5025; HGPL 5...Y	**EH2550023**	Price
HFAIL604T25	.157	2.6380	.984	2.953	2.362	1.299	SR M5 x 20	Hex HW 4.0	HFPR/L 4004; HRPR/L 4020; GRIP 4007; DGN 4...; HGPL 4...Y	**EH2550065**	Price
HFAIL70C5T25	.197	2.5980	.984	3.740	2.756	1.260	SR M5 x 20	EDG-33B	HFPR/L 5004; HRPR/L 5025; HGPL 5...Y	**EH2550024**	Price

Heli-Face HAPL Adapters

Right/Left Hand - Left				
H x B (in.)	Length (in.)	Uses Adapters	Order No.	Price
1-1/4 x 1-1/4	5-43/64	HFAER/L, HGAER/L, HFAIR/L, HGAIR/L	**EH2500429**	Price
1 x 1	4-7/8	HFAER/L, HGAER/L, HFAIR/L, HGAIR/L	**EH2500427**	Price

Right/Left Hand - Right				
H x B (in.)	Length (in.)	Uses Adapters	Order No.	Price
1-1/4 x 1-1/4	5-43/64	HFAER/L, HGAER/L, HFAIR/L, HGAIR/L	**EH2500428**	Price
1 x 1	4-7/8	HFAER/L, HGAER/L, HFAIR/L, HGAIR/L	**EH2500426**	Price

Right/Left Hand - Universal				
H x B (in.)	Length (in.)	Uses Adapters	Order No.	Price
1 x 1	5-1/2	HFAER/L, HGAER/L, HFAIR/L, HGAIR/L	**EH2500419**	Price

Heli-Face Holders for Adapters

The HAI boring bars can be used with right and left-hand adapters.



H x B (in.)	Length (in.)	Insert Height (in.)	Iscar No.	Screw	Hex Key	Coolant Y/N	Order No.	Price
3/4	5	.338	HAI19	SR 14-519	T-20/3	N	**EH2500422**	Price
1	6	.460	HAI25.4C	SR 14-519	T-20/3	Y	**EH2500423**	Price

H490 End Mills



Double-Sided Inserts with 4 Helical Cutting Edges for 90º Milling

- Due to its strong construction, unique chip deflector with positive cutting angles and excellent grade combinations, this new family features hight durability, low cutting forces and long tool life
- HELIDO tools can be used for machining steel, stainless steel, and cast iron at very high machining parameters

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Head Length (in.)	OAL (in.)	Depth of Cut	Shank Dia. (in.)	Locking Screw	Torx Key	Uses Insert	Order No.	Price
5/8	H490E90AXD.622W.6209	2	1.00	3.25	.315	5/8	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105270**	Price
5/8	H490E90AXD.622C.6209B	2	1.50	6.00	.315	5/8	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105879**	Price
3/4	H490E90AXD.752W.7509	2	1.00	3.38	.315	3/4	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105890**	Price
3/4	H490E90AXD.753W.7509	3	1.57	3.38	.315	3/4	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105271**	Price
3/4	H490E90AXD.752C.7509B	2	1.00	6.00	.315	3/4	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105880**	Price
1	H490E90AXD1.03W.7509	3	1.24	3.38	.315	3/4	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105891**	Price
1	H490E90AXD1.04W.7509	4	1.24	3.38	.315	3/4	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105272**	Price
1	H490E90AXD1.03C1.009B	3	1.57	7.87	.315	1	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105881**	Price
1	H490E90AXD1.002C1.012	2	2.00	7.87	.472	1	SR 14-544/S	BLD T15/M7	H490 ANKX 120508PNTR	**EH3104765**	Price
1	H490E90AXD1.002W1.012	2	1.50	4.00	.472	1	SR 14-544/S	BLD T15/M7	H490 ANKX 120508PNTR	**EH3104764**	Price
1-1/4	H490E90AXD1.254W1.009	4	1.48	4.00	.315	1	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105892**	Price
1-1/4	H490E90AXD1.255W1.009	5	1.48	4.00	.315	1	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105273**	Price
1-1/4	H490E90AXD1.252W1.2517	2	1.57	4.00	.630	1-1/4	SR 14-591	BLD T20/M7	H490 ANKX 170608PNTR	**EH3104640**	Price
1-1/4	H490E90AXD1.253W1.2512	3	1.50	4.25	.472	1-1/4	SR 14-544/S	BLD T15/M7	H490 ANKX 120508PNTR	**EH3104766**	Price
1-1/4	H490E90AXD1.254C1.259B	4	1.57	7.87	.315	1-1/4	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105882**	Price
1-1/2	H490E90AXD1.505W1.009	5	1.48	4.00	.315	1	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105893**	Price
1-1/2	H490E90AXD1.506W1.009	6	1.52	4.00	.315	1	SR 10508082-HG	BLD T08/M7	H490 ANKX 090408PNTR	**EH3105266**	Price
1-1/2	H490E90AXD1.504W1.2512	4	1.50	4.25	.472	1-1/4	SR 14-544/S	BLD T15/M7	H490 ANKX 120508PNTR	**EH3104767**	Price
1-1/2	H490E90AXD1.53W1.2517	3	1.50	4.00	.630	1-1/4	SR14-591	BLD T-20/M7	H490 ANKX 170608PNTR	**EH3104641**	Price
2-1/2	H490SMD2.51.931.0017	3	-	2.76	2.76	Bore 1	SR 14-591	BLD T20/M7	H490 ANKX 170608PNTR	**EH3105517**	Price
3	H490SMD3.01.941.2517	4	-	2.76	2.76	Bore 1-1/4	SR 14-591	BLD T20/M7	H490 ANKX 170608PNTR	**EH3105518**	Price
4	H490SMD4.02.551.5017	5	-	3.35	3.35	Bore 1-1/2	SR 14-591	BLD T20/M7	H490 ANKX 170608PNTR	**EH3105519**	Price

HELIDO 845 LINE Up Feed End Mills

Combination Inserts with 6 Cutting Edges



- HELIDO-FEEDMILL trigon double-sided, 6-edged insert combines HELIDO's strength and FEEDMILL's special geometry to facilitate milling at very high feed rates of up to .08 IPT for high volume metal removal
- All of the tools have coolant holes and can be used for facing, ramping, plunging and helical interpolation applications, achieving excellent performance and tool life

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Head Length (in.)	Uses Insert	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
5/8	FFEWXD0.6221.5W0.6204	2	1.50	H600 WXCU 040310	3.55	5/8	SR M2.5X6-T7-60	T-6/51	**EH3105627**	Price
5/8	FFEWXD0.6222.0W0.7504	2	2.00	H600 WXCU 040310	4.35	3/4	SR M2.5X6-T7-60	T-6/51	**EH3105628**	Price
5/8	FFEWXD0.6223.0W0.7504	2	3.00	H600 WXCU 040310	5.35	3/4	SR M2.5X6-T7-60	T-6/51	**EH3105629**	Price
3/4	FFEWXD0.7531.5W0.7504	3	1.50	H600 WXCU 040310	3.65	3/4	SR M2.5X6-T7-60	T-6/51	**EH3105630**	Price
3/4	FFEWXD0.7532.5W0.7504	3	2.50	H600 WXCU 040310	4.65	3/4	SR M2.5X6-T7-60	T-6/51	**EH3105631**	Price
3/4	FFEWXD0.7533.5W0.7504	3	3.50	H600 WXCU 040310	5.65	3/4	SR M2.5X6-T7-60	T-6/51	**EH3105632**	Price
1	FFEWXD1.0032.0W1.0005	3	2.00	H600 WXCU 05T312	4.45	1	SR 10508600	T-9/51	**EH3105544**	Price
1	FFEWXD1.0033.0W1.0005	3	3.00	H600 WXCU 05T312	5.45	1	SR 10508600	T-9/51	**EH3105545**	Price
1	FFEWXD1.0035.0W1.0005	3	3.50	H600 WXCU 05T312	7.45	1	SR 10508600	T-9/51	**EH3105546**	Price
1-1/4	FFEWXD1.2542.5W1.0005	4	2.50	H600 WXCU 05T312	4.95	1	SR 10508600	T-9/51	**EH3105547**	Price
1-1/4	FFEWXD1.2542.5W1.2505	4	2.50	H600 WXCU 05T312	4.95	1-1/4	SR 10508600	T-9/51	**EH3105549**	Price
1-1/4	FFEWXD1.2544.0W1.0005	4	4.00	H600 WXCU 05T312	6.45	1	SR 10508600	T-9/51	**EH3105548**	Price
1-1/4	FFEWXD1.2544.0W1.2505	4	4.00	H600 WXCU 05T312	6.45	1-1/4	SR 10508600	T-9/51	**EH3105550**	Price
1-1/4	FFEWXD1.2546.0W1.2505	4	6.00	H600 WXCU 05T312	8.45	1-1/4	SR 10508600	T-9/51	**EH3105551**	Price
1-1/2	FFEWXD1.5052.5W1.2505	5	2.50	H600 WXCU 05T312	4.00	1-1/4	SR 10508600	T-9/51	**EH3105553**	Price
1-1/2	FFEWXD1.5056.0W1.2505	5	6.00	H600 WXCU 05T312	8.45	1-1/4	SR 10508600	T-9/51	**EH3105555**	Price
1-1/2	FFEWXD1.5057.5W1.5005	5	7.50	H600 WXCU 05T312	10.35	1-1/2	SR 10508600	T-9/51	**EH3105556**	Price
1-1/2	FFEWXD1.5054.0W1.2505	5	4.00	H600 WXCU 05T312	6.45	1-1/2	SR 10508600	T-9/51	**EH3105554**	Price

HELIDO ROUND H400 LINE HELIDO H400 End Mills

A Revolutionary Double-Sided Profiling Insert



- Double-sided multi-radius insert configuration for profile milling applications
- Four 120º segments of 0.236" radius round cutting edges
- Uses insert H400RNHU

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
1	H400ERD1.0032.5W10010	3	2.36	5.00	1	SR 10508600	T-9/51	**EH3106161**	Price
1-1/4	H400ERD1.2542.5W12512	4	2.36	4.72	1-1/4	SR 14-571	T-10/51	**EH3105952**	Price
1-1/4	H400ERD1.2552.5W12510	5	2.36	5.00	1-1/4	SR 10508600	T-9/51	**EH3106162**	Price

Depth of cut-- .340

HELIQMILL 390 LINE HM390 ETP-10

90° Endmills Carrying the HM390 TPKT 1003 Triangular Inserts with 3 Helical Cutting Edges



- The construction of the new inserts is stronger compared to current 2-edged inserts
- The new family ensures productive milling of true 90° shoulders, providing an improved cost per cutting edge for various milling applications
- The HM390 TPKT 1003PDR insert features .315" maximum depth of cut
- Due to their advanced cutting geometries, the inserts reduce cutting forces and power consumption

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Head Length (in.)	OAL (in.)	Depth of Cut	Shank Dia. (in.)	Locking Screw	Tork Key	Uses Insert	Order No.	Price
1	HM390ETPD1.002W1.010	2	1.000	3.750	.315	1.000	SR 14-562/S	BLD T10/S7	HM390 TPKT 1003PDR	**EH3106625**	Price
1	HM390ETPD1.003W1.010	3	1.000	3.750	.315	1.000	SR 14-562/S	BLD T10/S7	HM390 TPKT 1003PDR	**EH3106627**	Price
1-1/4	HM390ETPD1.253W1.010	3	1.000	4.000	.315	1.000	SR 14-562/S	BLD T10/S7	HM390 TPKT 1003PDR	**EH3106629**	Price
1-1/4	HM390ETPD1.254W1.010	4	1.000	4.000	.315	1.000	SR 14-562/S	BLD T10/S7	HM390 TPKT 1003PDR	**EH3106631**	Price
1-1/2	HM390ETPD1.505W1.010	5	1.000	4.000	.315	1.000	SR 14-562/S	BLD T10/S7	HM390 TPKT 1003PDR	**EH3106633**	Price

HELIDO 845 LINE 45º End Mills

With Double-Sided Inserts



- 45º Milling cutters can carry in their pockets either the S845 SNMU1305 or the ONMU 0505
- S845 SNMU 1305- square, double-sided inserts with 8 cutting edges
- ONMU 0505- octagonal, double-sided inserts with 16 cutting edges-- the most economical inserts regarding price per cutting edge
- Both inserts have helical cutting edges and positive rake angles, featuring low power consumption and excellent surface finish

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
1	SOE458/16D1.0002W.75R	2	1.30	4.00	3/4	SR 11800745	BLD IP15/S7	**EH3105302**	Price
1-1/4	SOE458/16D1.2503W1.0R	3	1.30	4.00	1	SR 11800745	BLD IP15/S7	**EH3105307**	Price
1-1/2	SOE458/16D1.504W1.25R	4	1.30	4.00	1-1/4	SR 11800745	BLD IP15/S7	**EH3105311**	Price

Depth of cut--.236

HELIDO 845 LINE 45º Face Mills

Member IMC Group

With Double-Sided Inserts



- 45º Milling cutters can carry in their pockets either the S845 SNMU1305 or the ONMU 0505
- S845 SNMU 1305- square, double-sided inserts with 8 cutting edges
- ONMU 0505- octagonal, double-sided inserts with 16 cutting edges-- the most economical inserts regarding price per cutting edge
- Both inserts have helical cutting edges and positive rake angles, featuring low power consumption and excellent surface finish

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
1.50	SOF458/16D1.5040.75R	4	1.50	.75	SR11800745	BLD IP15/S7	**EH3105371**	Price
2.00	SOF458/16D2004075R	4	1.75	.75	SR11800745	BLD IP15/S7	**EH3104589**	Price
2.00	SOF458/16D2006075R	6	1.75	.75	SR11800745	BLD IP15/S7	**EH3104603**	Price
2.50	SOF458/16D2.5061.00R	6	1.75	1.00	SR11800745	BLD IP15/S7	**EH3104590**	Price
2.50	SOF458/16D2.5081.00R	8	1.75	1.00	SR11800745	BLD IP15/S7	**EH3104870**	Price
3.00	SOF458/16D3.0071.00R	7	1.75	1.00	SR11800745	BLD IP15/S7	**EH3104645**	Price
3.00	SOF458/16D3.0101.00R	10	1.75	1.00	SR11800745	BLD IP15/S7	**EH3104871**	Price
4.00	SOF458/16D4.0081.25R	8	2.00	1.25	SR11800745	BLD IP15/S7	**EH3104591**	Price
50mm	SOF45D0500422R13	4	38.8mm	22mm	SR11800745	BLD IP15/S7	**EH3106104**	Price

Depth of cut-- .138

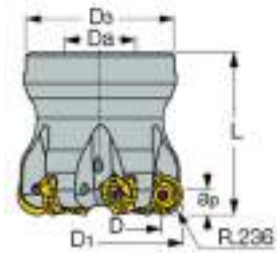
HELIDO ROUND H606 LINE H606 FR.50 Face Mills



Model No.	D1 Dia.	No. of Inserts	ap	Da	D	l	Order No.	Price
H606FRD2.00060.75.50	2.000	6	.250	.750	1.772	2.000	**EH3106609**	Price
H606FRD2.50071.00.50	2.500	7	.250	1.00	2.165	2.000	**EH3106610**	Price
H606FRD3.00081.00.50	3.000	8	.250	1.00	2.165	2.000	**EH3106611**	Price

HELIDO ROUND H606 LINE H606 FR-12 Face Mills

- Uses H606 series round double-sided inserts with 6mm radius





Model No.	D1 Dia.	No. of Inserts	ap	Da	D	L	Order No.	Price
H606FRD2.00060.7512	2.000	6	.250	.750	1.772	2.000	**EH3106380**	Price
H606FRD2.50071.0012	2.500	7	.250	1.00	2.168	2.000	**EH3106381**	Price
H606FRD3.00081.0012	3.000	8	.250	1.00	2.165	2.000	**EH3106382**	Price
H606FRD040041612	40mm	4	6mm	16mm	28mm	45mm	**EH3136959**	Price
H606FRD050062212	50mm	6	6mm	16mm	38mm	50mm	**EH3106101**	Price
H606FRD052062212	52mm	6	6mm	27mm	40mm	50mm	**EH3136801**	Price
H606FRD063072212	63mm	7	6mm	27mm	51mm	50mm	**EH3106102**	Price
H606FRD080082712	80mm	8	6mm	27mm	68mm	50mm	**EH3106103**	Price

HELIDO 690 LINE H690 F90AX 90° Face Mills

Coolant Thru



- Uses H690 TNKX 1606_ _ _ triangular inserts with 6 helical cutting edges

Model No.	D Dia.	Number of Inserts	ap	Da Arbor Size	D3	L	Order No.	Price
H690F90AXD2.003.7516	2“	3	-	.750	-	-	**EH3106641**	Price
H690F90AXD05042216	50mm	4	13.5mm	22mm	48mm	40mm	**EH3106385**	Price
H690F90AXD06342716	63mm	4	13.5mm	27mm	59mm	50mm	**EH3106386**	Price
H690F90AXD06352716	63mm	5	13.5mm	27mm	59mm	50mm	**EH3106544**	Price
H690F90AXD08052716	80mm	5	13.5mm	27mm	76mm	50mm	**EH3106387**	Price
H690F90AXD08062716	80mm	6	13.5mm	27mm	76mm	50mm	**EH3106388**	Price
H690F90AXD10083216	100mm	8	13.5mm	32mm	80mm	50mm	**EH3106390**	Price

HELIDO 845 LINE HELIDO S845 Face Mills

45º Coarse Pitch



- HELIDO S845 is one of the most popular
- Suitable for steel and cast iron
- For roughing, semi-finishing and finishing applications

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Uses Insert	Order No.	Price
3.00	S845F45SXD3.061.0R16	6	1.75	1.00	SR14-591	BLD T20/M7	S845 SXMU 1606ADTR-MM	**EH3104581**	Price
4.00	S845F45SXD4.071.5R16	7	2.00	1.50	SR14-591	BLD T20/M7	S845 SXMU 1606ADTR-MM	**EH3104582**	Price
5.00	S845F45SXD5.081.5R16	8	2.00	1.50	SR14-591	BLD T20/M7	S845 SXMU 1606ADTR-MM	**EH3104583**	Price
6.00	S845F45SXD6.0102.0R16	10	2.00	2.00	SR11800745	BLD T20/M7	S845 SXMU 1606ADTR-MM	**EH3104584**	Price

HELITANG T490 Face Mills

- 90° Face mills
- Uses tangentially clamped inserts with 4 helical long cutting edges



Cutter Dia. (in.)	Iscar No.	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Uses Insert	Order No.	Price
1.50	T490FLND1.504.75R13	4	1.57	.75	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105320**	Price
1.50	T490FLND1.505.75R13	5	1.57	.75	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105725**	Price
1.50	T490FLND1.506.7508	6	1.57	.75	SR10502813-HG-M	IP-7/51	T490 LNMT 08-----	**EH3104900**	Price
2.00	T490FLND2.005.7508	5	1.57	.75	SR10502813-HG-M	IP-7/51	T490 LNMT 08-----	**EH3104901**	Price
2.00	T490FLND2.005.75R13	5	1.57	.75	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105321**	Price
2.00	T490FLND2.006.75R13	6	1.57	.75	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105726**	Price
2.00	T490FLND2.007.7508	7	1.57	.75	SR10502813-HG-M	IP-7/51	T490 LNMT 08-----	**EH3104902**	Price
2.50	T490FLND2.5061.008	6	1.75	1.00	SR10502813-HG-M	IP-7/51	T490 LNMT 08-----	**EH3104903**	Price
2.50	T490FLND2.5061.0R13	6	1.75	1.00	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105322**	Price
2.50	T490FLND2.5081.0R13	8	1.75	1.00	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105727**	Price
3.00	T490FLND3.0071.0R13	7	2.00	1.00	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105323**	Price
4.00	T490FLND4.0081.5R13	8	2.00	1.50	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3105324**	Price
5.00	T490FLND5.0091.5R13	9	2.00	1.50	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3106194**	Price
6.00	T490FLND6.00122.0R13	12	2.00	2.00	SR34-535-SN	BLD T15/S7	T490 LNMT 13-----	**EH3106195**	Price

HM390 FTD-15 Face Mills

90° Face Mills carrying the HM390 TDKT 1505 Triangular Inserts with 3 Helical Cutting Edges



- The construction of the new inserts is stronger compared to current 2-edged inserts
- The new family ensures productive milling of true 90° shoulders, providing an improved cost per cutting edge for various milling applications
- The HM390 TDKT 1505PDR insert, .512" maximum depth of cut
- Due to their advanced cutting geometries, the inserts reduce cutting forces and power consumption

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Height (in.)	Hole Size (in.)	Depth of Cut	Locking Screw	Torx Key	Uses Insert	Order No.	Price
2.00	HM390FTDD20037515	3	1.57	.75	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106559**	Price
2.00	HM390FTDD20047515	4	1.57	.75	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106560**	Price
2.00	HM390FTDD20057515	5	1.57	.75	.512	SR 10511869	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106804**	Price
2.50	HM390FTDD25041015	4	1.75	1.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106561**	Price
2.50	HM390FTDD25051015	5	1.75	1.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106562**	Price
2.50	HM390FTDD25061001	6	1.75	1.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106805**	Price
3.00	HM390FTDD30051015	5	2.00	1.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106563**	Price
3.00	HM390FTDD30061015	6	2.00	1.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106564**	Price
3.00	HM390FTDD300710015	7	2.00	1.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106806**	Price
4.00	HM390FTDD40061515	6	2.00	1.50	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106565**	Price
4.00	HM390FTDD40081515	8	2.00	1.50	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106566**	Price
5.00	HM390FTDD50071515	7	2.50	1.50	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106567**	Price
5.00	HM390FTDD50091515	9	2.50	1.50	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106568**	Price
6.00	HM390FTDD60082015	8	2.50	2.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106569**	Price
8.00	HM390FTDD80092515	9	2.50	2.50	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106571**	Price
6.00	HM390FTDD600102015	10	2.50	2.00	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106570**	Price
8.00	HM390FTDD800112515	11	2.50	2.50	.512	SR 10505427	BLD IP20/S7	HM390 TDKT 1505PDR	**EH3106572**	Price

IQ845 FSY-R07 Face Mills

Face Mills, Carrying Square Inserts with 8 Cutting Edges



- IQ845 FSY-R07 are indexable face mills carrying the IQ845 SYHU 0704 square double sided inserts with 8 cutting edges
- The new face mills can machine up to .180" depth of cut. They are available in nominal diameter ranges of 2.0 to 6.0 inch in both coarse and fine pitch configurations
- The new tools can be used in a wide range of face milling applications, roughing and finishing on a very wide range of engineering materials, including hard to cut austenitic stainless steel

Cutter Dia. (in.)	Iscar No.	No. of Inserts	Height (in.)	Hole Size (in.)	Depth of Cut	Locking Screw	Torx Key	Uses Insert	Order No.	Price
2.00	IQ845FSYD2.0040.75R07	4	1.75	.75	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106545**	Price
2.00	IQ845FSYD2.0050.75R07	5	1.75	.75	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106546**	Price
2.50	IQ845FSYD2.5051.00R07	5	1.75	1.00	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106547**	Price
2.50	IQ845FSYD2.5071.00R07	7	1.75	1.00	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106548**	Price
3.00	IQ845FSYD3.0061.00R07	6	1.75	1.00	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106549**	Price
3.00	IQ845FSYD3.0081.00R07	8	1.75	1.00	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106550**	Price
4.00	IQ845FSYD4.0071.50R07	7	2.00	1.50	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106551**	Price
4.00	IQ845FSYD4.0101.50R07	10	2.00	1.50	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106552**	Price
5.00	IQ845FSYD5.0091.50R07	9	2.00	1.50	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106553**	Price
5.00	IQ845FSYD5.0121.50R07	12	2.00	1.50	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106554**	Price
6.00	IQ845FSYD6.0112.00R07	11	2.00	2.00	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106555**	Price
6.00	IQ845FSYD6.0152.00R07	15	2.00	2.00	.180	SR M4X0.7IP15	BLD IP15/S7	IQ845 SYHU 07...	**EH3106556**	Price

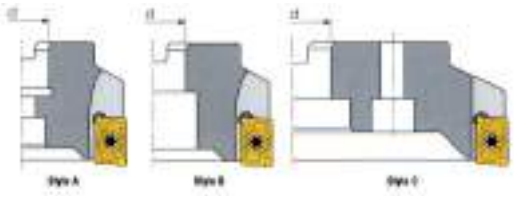
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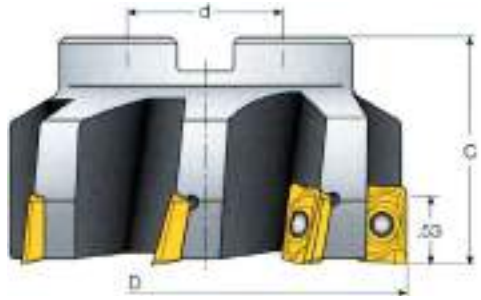
Member IMC Group

ISO 9001

F90A – 90° Angle Face Mills – Arbor Mounting

M = Heavy duty





Applications:
- Heavy duty face milling
- Shoulder milling
- Slotting

Note: When using AD...1503 inserts a seat must be used.

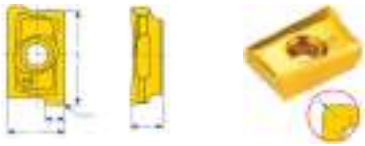
Insert Choices:

ADKT1505-HM	ADMM150308-88	ADKR1503
ADMT1505-HM	ADMT1505-HS	ADKR1505-HM
ADKT1505-RM		

Cutting Dia. (in.)	Iscar No.	No. of Inserts	C (in.)	d (in.)	Mt Style	Locking Screw	Torx Key	Seat	Order No.	Price
2.00	HM90F90AD2.005.75	5	1.57	.75	A	SR14-544/S	T-15/51	TSP-15R	**EH3102118**	Price
2.50	HM90F90AD2.5061.00	6	1.75	1.00	A	SR14-544/S	T-15/51	TSP-15R	**EH3102119**	Price
3.00	HM90F90AD3.0071.00	7	1.75	1.00	A	SR14-544/S	T-15/51	TSP-15R	**EH3102120**	Price
4.00	HM90F90AD4.0081.50	8	2.00	1.50	B	SR14-544/S	T-15/51	TSP-15R	**EH3102121**	Price
5.00	HM90F90AD5.0071.50	7	2.38	1.50	B	SR14-544/S	T-15/51	TSP-15R	**EH3102112**	Price
5.00	HM90F90AD5.0091.50	9	2.38	1.50	B	SR14-544/S	T-15/51	TSP-15R	**EH3102122**	Price

MILL2000 Inserts

These new 3M AXKT inserts have helical cutting edges and positive rake angles that reduce the cutting forces resulting in smooth, efficient operation. The inserts are available with .512 and .787 inch cutting edge lengths for use on heavy duty applications. They may be mounted on face mills, end mills and extended-flute cutters.



ISO Number	d (in.)	s (in.)	r (in.)	l (in.)	f	IC328		IC4050		IC910		IC928		IC950	
						Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
3M AXKT 1304PDR	.331	.179	.024	.556	.084	**EH5601731**	Price	**EH5602398**	Price	**EH5602321**	Price	**EH5602381**	Price	**EH5601945**	Price
3M AXKT 2006PDTR	.531	.267	.039	.858	.131	**EH5602132**	Price	**EH5602400**	Price	**EH5602325**	Price	**EH5602399**	Price	**EH5602133**	Price

Allen Key



Model Number	Order No.	Price
HW3P	**EH7000042**	Price
HW3/32	**EH7000041**	Price

Cham Drill Key

Keys for DCM/DCT Indexable Drills



Model Number	Order No.	Price
KDCM12	**EH7002119**	Price

Clamp Screw



Model Number	Order No.	Price
SR35343.4	**EH7000241**	Price
SR352011	**EH7000238**	Price
XNS35	**EH7000401**	Price
XNS47	**EH7001915**	Price

Clamps & Clamp Sets



Model Number	Type	Order No.	Price
CL5	Clamp	**EH704300391**	Price
CL9	Clamp	**EH7000019**	Price
CL20	Clamp	**EH704300384**	Price
LC352633	Clamp Set	**EH4300063**	Price
LC250Set1	Clamp Set	**EH4300439**	Price

Hex Key



Model Number	Order No.	Price
HW2	**EH7000036**	Price
HW5/64	**EH7000048**	Price
T15/51	**EH7000263**	Price

Insert Screw



Model Number	Order No.	Price
SR14564	**EH7001866**	Price
SR16212	**EH7000223**	Price
SR16236	**EH7000224**	Price
SR34535C	**EH7003816**	Price
SR761021	**EH7000249**	Price
SR761022	**EH7000250**	Price
SRM6X25	**EH7001843**	Price
SRM8X30	**EH7001848**	Price

Lock Pins



Model Number	Order No.	Price
NL34L	**EH7000090**	Price
NL44	**EH7000091**	Price
NL46	**EH7000092**	Price
NL68	**EH7070025**	Price
ZNW3W	**EH7002061**	Price
ZNW4WI	**EH7002076**	Price
ZNW4W	**EH7001996**	Price

Locking Screws



Model Number	Order No.	Price
SR14536/S	**EH7000286**	Price
SR14541	**EH7000213**	Price
SR14544	**EH7000216**	Price
SR14544/S	**EH7000402**	Price
SR14591	**EH7000219**	Price
SR14591/H	**EH7000229**	Price
SR16236/P	**EH7000225**	Price
SR34506L	**EH7002024**	Price
SR34523	**EH7002008**	Price

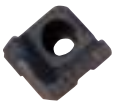
Seal



Model Number	Order No.	Price
PL075	**EH7000831**	Price
PL125	**EH7000833**	Price

Seat

Model Number	Order No.	Price
NSE42R	**EH4300095**	Price
TLN15LHT	**EH705520219**	Price
TLN15RHT	**EH705520218**	Price
TWN423	**EH705520117**	Price





Seat Screw

Model Number	Order No.	Price
SRRS4	**EH7002843**	Price
SRM2.5x10	**EH7002796**	Price
SRTC604	**EH7001998**	Price



Shim Seats

Model Number	Order No.	Price
THOF07R	**EH7002774**	Price
TSP15R	**EH7002057**	Price



Torx Key







Model Number	Type	Order No.	Price
T8/53	Torx Key	**EH7000274**	Price
T15/51	Torx Key	**EH7000263**	Price
T15/S7	Torx Key	**EH7002096**	Price
T20/51	Torx Key	**EH7000267**	Price
T20/M7	Torx Key Blade	**EH7002089**	Price
T20/S7	Torx Key Blade	**EH7002090**	Price

Wedges

Model Number	Order No.	Price
LC252Set1	**EH4300454**	Price
LW352620S	**EH7002064**	Price



MULTI-MASTER Indexable Solid Carbide Holders



Shank Style - Conical Shank							
Model No.	Dia. (in.)	Length (in.)	Connection	Shank Type	Shank Material	Order No.	Price
MMSBL3.00C.500T05	.300	3.00	T05	Round	Steel	**EH3103410**	Price
MMSDL3.50C.375T05C	.300	3.50	T05	Round	Carbide	**EH3103508**	Price
MMSDL4.00C.500T05	.300	4.00	T05	Round	Steel	**EH3103411**	Price
MMSDL4.50C.500T05C	.300	4.50	T05	Round	Carbide	**EH3103509**	Price
MMSDL6.00C.625T05C	.300	6.00	T05	Round	Carbide	**EH3103510**	Price
MMSDL5.50C.500T06C	.360	5.50	T06	Round	Carbide	**EH3103096**	Price
MMSDL6.30C.625T06	.360	6.30	T06	Round	Steel	**EH3102030**	Price
MMSDL6.50C.625T06C	.360	6.50	T06	Round	Carbide	**EH3103097**	Price
MMSDL6.70C.625T06W	.360	6.70	T06	Round	Tungsten	**EH3102925**	Price
MMSBL5.00C.625T06	.370	5.00	T06	Round	Steel	**EH3102031**	Price
MMSBL5.50C.750T06W	.370	5.50	T06	Round	Tungsten	**EH3102924**	Price
MMSBL5.50C.625T08	.480	5.50	T08	Round	Steel	**EH3102477**	Price
MMSDL6.50C.625T08C	.480	6.50	T08	Round	Carbide	**EH3103098**	Price
MMSDL6.50C.750T08	.480	6.50	T08	Round	Steel	**EH3102478**	Price
MMSDL7.00C.750T08C	.480	7.00	T08	Round	Carbide	**EH3103099**	Price
MMSBL5.50C.750T10	.600	5.50	T10	Round	Steel	**EH3103197**	Price
MMSDL6.50C.750T10C	.600	6.50	T10	Round	Carbide	**EH3103652**	Price
MMSDL7.50C.750T10	.600	7.50	T10	Round	Steel	**EH3103199**	Price
MMSDL8.80C.750T10C	.600	8.80	T10	Round	Carbide	**EH3103653**	Price
MMSBL6.30C1.00T12	.720	6.30	T12	Round	Steel	**EH3103859**	Price
MMSBL7.50C1.25T12	.720	7.50	T12	Round	Steel	**EH3103860**	Price
MMSDL8.00C1.00T12	.720	8.00	T12	Round	Steel	**EH3103861**	Price
MMSDL10.00C1.00T12C	.720	10.00	T12	Round	Carbide	**EH3103851**	Price
MMSBL8.00C1.25T15	.940	8.00	T15	Round	Steel	**EH3105426**	Price

Shank Style - ER Style							
Model No.	Dia. (in.)	Length (in.)	Connection	Shank Type	Shank Material	Order No.	Price
MMSAH004ER11T05	.300	1.07	T05	ER11	Steel	**EH3105825**	Price
MMSAH004ER16T05	.300	1.44	T05	ER16	Steel	**EH3105826**	Price
MMSAH004ER20T05	.300	1.60	T05	ER20	Steel	**EH3105829**	Price
MMSAH025ER32T05H	.300	2.78	T05	ER32	Steel	**EH3105833**	Price
MMSAH040ER32T05H	.300	3.37	T05	ER32	Steel	**EH3105834**	Price
MMSAH004ER16T06	.350	1.44	T06	ER16	Steel	**EH3105827**	Price
MMSAH004ER20T06	.350	1.60	T06	ER20	Steel	**EH3105830**	Price
MMSAH025ER32T06H	.354	2.78	T06	ER32	Steel	**EH3105835**	Price
MMSAH040ER32T06H	.354	3.37	T06	ER32	Steel	**EH3105836**	Price
MMSAH004ER16T08	.470	1.44	T08	ER16	Steel	**EH3105828**	Price
MMSAH004ER20T08	.470	1.60	T08	ER20	Steel	**EH3105831**	Price
MMSAH013ER16T08	.470	1.80	T08	ER16	Steel	**EH3105646**	Price
MMSAH013ER20T08	.470	1.95	T08	ER20	Steel	**EH3105649**	Price
MMSAH025ER32T08H	.472	2.78	T08	ER32	Steel	**EH3105837**	Price
MMSAH050ER32T08H	.472	3.76	T08	ER32	Steel	**EH3105838**	Price
MMSAH025ER32T10H	.598	2.78	T10	ER32	Steel	**EH3105839**	Price
MMSAH050ER32T10H	.598	3.76	T10	ER32	Steel	**EH3105840**	Price
MMSAH004ER20T10	.600	1.60	T10	ER20	Steel	**EH3105832**	Price
MMSAH025ER32T12H	.720	2.78	T12	ER32	Steel	**EH3105841**	Price
MMSAH025ER32T15H	.940	2.78	T15	ER32	Steel	**EH3105843**	Price

MULTI-MASTER Indexable Solid Carbide Holders



Shank Style - Straight Shank							
Model No.	Dia. (in.)	Length (in.)	Connection	Shank Type	Shank Material	Order No.	Price
MMSAH10.5ER16T05	.300	1.70	T05	ER16	Steel	**EH3105488**	Price
MMSAL2.18W.500T05	.300	2.18	T05	Weldon	Steel	**EH3104033**	Price
MMSAL2.50C.312T05	.300	2.50	T05	Round	Steel	**EH3103409**	Price
MMSAL3.00C.312T05C	.300	3.00	T05	Round	Carbide	**EH3103502**	Price
MMSAL3.50C.312T05C	.300	3.00	T05	Round	Carbide	**EH3103503**	Price
MMSAL4.00C.312T05C	.300	4.00	T05	Round	Carbide	**EH3103504**	Price
MMTSAL4.00C.312T05C	.312	4.00	T05	Round	Carbide	**EH3105068**	Price
MMTSAL6.50C.312T05C	.312	6.50	T05	Round	Carbide	**EH3199714**	Price
MMSAL2.58W.625T06	.360	2.58	T06	Weldon	Steel	**EH3102938**	Price
MMSAL3.00C.375T06	.360	3.00	T06	Round	Steel	**EH3102472**	Price
MMSAL3.55C.375T06W	.360	3.55	T06	Round	Tungsten	**EH3102923**	Price
MMSAH10.5ER16T06	.354	1.70	T06	ER16	Steel	**EH3105645**	Price
MMSAL4.00C.375T06C	.360	4.00	T06	Round	Carbide	**EH3103092**	Price
MMSAL4.75C.375T06C	.360	4.75	T06	Round	Carbide	**EH3103093**	Price
MMTSAL4.00C.375T06C	.375	4.00	T06	Round	Carbide	**EH3105069**	Price
MMTSAL7.00C.375T06C	.375	7.00	T06	Round	Carbide	**EH3199724**	Price
MMSAL4.00C.50T08MC	.450	4.00	T08	Round	Carbide	**EH3102958**	Price
MMSAL5.50C.50T08MC	.450	5.50	T08	Round	Carbide	**EH3102901**	Price
MMSAL2.58W.625T08	.480	2.58	T08	Weldon	Steel	**EH3102939**	Price
MMSAL3.50C.500T08	.480	3.50	T08	Round	Steel	**EH3102476**	Price
MMSAL4.00C.500T08C	.480	4.00	T08	Round	Carbide	**EH3103094**	Price
MMSAL4.25C.500T08W	.480	4.25	T08	Round	Tungsten	**EH3102926**	Price

Shank Style - Straight Shank							
Model No.	Dia. (in.)	Length (in.)	Connection	Shank Type	Shank Material	Order No.	Price
MMSAL5.50C.500T08C	.480	5.50	T08	Round	Carbide	**EH3103095**	Price
MMTSAL4.00C.500T08C	.500	4.00	T08	Round	Carbide	**EH3105070**	Price
MMTSAL7.50C.500T08C	.500	7.50	T08	Round	Carbide	**EH3199734**	Price
MMSAL2.75W.750T10	.600	2.75	T10	Weldon	Steel	**EH3103195**	Price
MMSAL3.25C.625T10C	.600	3.25	T10	Round	Carbide	**EH3103515**	Price
MMSAL4.00C.625T10	.600	4.00	T10	Weldon	Steel	**EH3103196**	Price
MMSAL4.50C.625T10C	.600	4.50	T10	Round	Carbide	**EH3103516**	Price
MMSAL5.50C.625T10C	.600	5.50	T10	Round	Carbide	**EH3103517**	Price
MMSAL7.00C.625T10C	.600	7.00	T10	Round	Carbide	**EH3103518**	Price
MMTSAL8.00C.625T10C	.625	8.00	T10	Round	Carbide	**EH3199744**	Price
MMSAH050ER32T12H	.720	3.76	T12	ER32	Steel	**EH3105842**	Price
MMSAL3.00W1.00T12	.720	3.00	T12	Weldon	Steel	**EH3103853**	Price
MMSAL4.00C.750T12C	.720	4.00	T12	Round	Carbide	**EH3103842**	Price
MMSAL5.00C.750T12	.720	5.00	T12	Round	Steel	**EH3103852**	Price
MMSAL5.50C.750T12C	.720	5.50	T12	Round	Carbide	**EH3103843**	Price
MMSAL8.00C.750T12C	.720	8.00	T12	Round	Carbide	**EH3103844**	Price
MMSAH050ER32T15H	.940	3.76	T15	ER32	Steel	**EH3105844**	Price
MMSAL5.00C1.00T15C	.940	5.00	T15	Round	Carbide	**EH3105413**	Price
MMSAL5.30C1.00T15	.940	5.30	T15	Round	Steel	**EH3105423**	Price
MMSAL7.00C1.00T15C	.940	7.00	T15	Round	Carbide	**EH3105414**	Price
MMSAL10.00C1.00T15C	.940	10.00	T15	Round	Carbide	**EH3105415**	Price
MMTSAL4.00C.750T12C	.750	4.00	T12	Round	Carbide	**EH3105072**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM Grit Groove Milling Heads



- Grade IC528- Good for wide range of work piece materials at low to medium cutting speeds

Iscar No.	Width (in.)	Cutter Dia. (in.)	No. of Flutes	Radius	Connec-tion	Order No.	Price
MMGRIT16K1.500.10	.059	.610	3	.004	T06	**EH606403089**	Price
MMGRIT16P1.500.10	.059	.610	3	.004	T06	**EH606403521**	Price
MMGRIT16K1.570.20	.062	.610	3	.008	T06	**EH606403090**	Price
MMGRIT16K2.000.20	.079	.610	3	.008	T06	**EH606402872**	Price
MMGRIT16K2.390.20	.094	.610	3	.008	T06	**EH606403092**	Price
MMGRIT16K3.000.20	.118	.610	3	.008	T06	**EH606402873**	Price
MMGRIT16K3.170.20	.125	.610	3	.008	T06	**EH606403093**	Price
MMGRIT18K1.200.05	.047	.697	3	.002	T06	**EH606402863**	Price
MMGRIT18P1.200.60	.047	.697	3	.024	T06	**EH606403094**	Price
MMGRIT18K1.400.05	.055	.697	3	.002	T06	**EH606402864**	Price
MMGRIT18K1.500.10	.059	.697	3	.004	T06	**EH606402858**	Price
MMGRIT18K1.570.20	.062	.697	3	.008	T06	**EH606403095**	Price
MMGRIT18K1.700.05	.067	.697	3	.002	T06	**EH606402859**	Price
MMGRIT18K2.000.20	.079	.697	3	.008	T06	**EH606402671**	Price
MMGRIT18P2.001.00	.079	.697	3	.039	T06	**EH606402860**	Price
MMGRIT18P2.201.10	.087	.697	3	.043	T06	**EH606402862**	Price
MMGRIT18K2.390.20	.094	.697	3	.008	T06	**EH606403096**	Price
MMGRIT18K2.500.20	.098	.697	3	.008	T06	**EH606402861**	Price
MMGRIT18K3.000.20	.118	.697	3	.008	T06	**EH606402672**	Price
MMGRIT18P3.001.50	.118	.697	3	.059	T06	**EH606402865**	Price
MMGRIT18K3.170.20	.125	.697	3	.008	T06	**EH606403097**	Price
MMGRIT18K45A	.134	.697	3	.004	T06	**EH606403081**	Price
MMGRIT18P45A	.134	.697	3	.004	T06	**EH606499151**	Price
MMGRIT22K0.760.00	.030	.854	4	0	T08	**EH606403098**	Price
MMGRIT22K0.860.00	.034	.854	4	0	T08	**EH606403099**	Price
MMGRIT22K1.000.05	.039	.854	4	.002	T08	**EH606403101**	Price
MMGRIT22P1.000.05	.039	.854	4	.002	T08	**EH606403445**	Price
MMGRIT22K1.200.05	.047	.854	4	.002	T08	**EH606403102**	Price

Iscar No.	Width (in.)	Cutter Dia. (in.)	No. of Flutes	Radius	Connec-tion	Order No.	Price
MMGRIT22K1.400.05	.055	.854	4	.002	T08	**EH606403103**	Price
MMGRIT22K1.570.00	.062	.854	4	0	T08	**EH606403104**	Price
MMGRIT22P1.700.10	.067	.854	4	.004	T08	**EH606403740**	Price
MMGRIT22K1.700.10	.067	.854	4	.004	T08	**EH606403105**	Price
MMGRIT22K1.950.20	.077	.854	4	.008	T08	**EH606403106**	Price
MMGRIT22K2.000.20	.079	.854	4	.008	T08	**EH606403107**	Price
MMGRIT22P2.000.20	.079	.854	4	.008	T08	**EH606403446**	Price
MMGRIT22K2.250.20	.089	.854	4	.008	T08	**EH606403108**	Price
MMGRIT22K2.390.20	.094	.854	4	.008	T08	**EH606403109**	Price
MMGRIT22K2.500.20	.098	.854	4	.008	T08	**EH606403110**	Price
MMGRIT22P2.500.20	.098	.854	4	.008	T08	**EH606497911**	Price
MMGRIT22K2.750.20	.108	.854	4	.008	T08	**EH606403111**	Price
MMGRIT22K3.000.20	.118	.854	4	.008	T08	**EH606403078**	Price
MMGRIT22P3.000.20	.118	.854	4	.008	T08	**EH606491911**	Price
MMGRIT22K3.170.20	.125	.854	4	.008	T08	**EH606403112**	Price
MMGRIT22K3.250.20	.128	.854	4	.008	T08	**EH606403113**	Price
MMGRIT22K4.000.20	.157	.854	4	.008	T08	**EH606403114**	Price
MMGRIT22P4.002.00	.157	.854	4	.079	T08	**EH606498841**	Price
MMGRIT22P4.000.20	.157	.854	4	.008	T08	**EH606403447**	Price
MMGRIT22K4.250.20	.167	.854	4	.008	T08	**EH606403115**	Price
MMGRIT22K4.750.20	.187	.854	4	.008	T08	**EH606403116**	Price
MMGRIT22K5.250.20	.207	.854	4	.008	T08	**EH606403077**	Price
MMGRIT22K45A	.217	.854	4	0	T08	**EH606403082**	Price
MMGRIT22P45A	.217	.854	4	0	T08	**EH606496911**	Price
MMGRIT22K6.003.00	.236	.854	4	.118	T08	**EH6498769**	Price
MMGRIT28K2.500.2	.098	1.09	6	.008	T10	**EH6403753**	Price
MMGRIT28K5.250.2	.207	1.09	6	.008	T10	**EH6403502**	Price
MMGRIT28K10.00.2	.394	1.09	6	.008	T10	**EH6403754**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM EA 2, 3 Flute, 45º Helix for Aluminum



- Grade IC08- Best at low to medium cutting speeds

Iscar No.	Cutter Dia. (in.)	No. of Flutes	Radius	Depth of Cut (in.)	Connec-tion	Order No.	Price
MMEA.312B20R0203T0	.310	3	.020	.200	T05	**EH5621353**	Price
MMEA.375B27R0002T0	.375	2	0	.270	T06	**EH5622000**	Price
MMEA.375B27R0202T06	.375	2	.020	.270	T06	**EH5621316**	Price
MMEA.375B23R0313T0	.375	3	.031	.230	T06	**EH5622731**	Price
MMEA100B06R0.53T06	.394	3	.020	.260	T06	**EH5622386**	Price
MMEA100B07R1.02T06	.394	2	.039	.276	T06	**EH5621949**	Price
MMEA120H12R0.2CF3T08	.472	3	.008	.354	T08	**EH5623051**	Price
MMEA120B09R1.02T08	.472	2	.039	.354	T08	**EH5699802**	Price
MMEA120B08R3.03T08	.472	3	.118	.315	T08	**EH5622753**	Price
MMEA.500B37R0202T0	.500	2	.020	.370	T08	**EH5621328**	Price
MMEA.500B31R0313T0	.500	3	.031	.310	T08	**EH5622733**	Price
MMEA.500B31R0623T0	.500	3	.062	.310	T08	**EH5622734**	Price
MMEA.500B31R1253T0	.500	3	.125	.310	T08	**EH5622736**	Price
MMEA.625B39R0003T1	.625	3	0	.390	T10	**EH5621793**	Price
MMEA.625B39R0313T1	.625	3	.031	.390	T10	**EH5622737**	Price
MMEA160H16R0.2CF3T10	.630	3	.008	.394	T10	**EH5623052**	Price

Iscar No.	Cutter Dia. (in.)	No. of Flutes	Radius	Depth of Cut (in.)	Connec-tion	Order No.	Price
MMEA160B10R1.03T10	.630	3	.039	.394	T10	**EH5621722**	Price
MMEA160B10R3.03T10	.630	3	.118	.394	T10	**EH5621724**	Price
MMEA160B10R4.03T10	.630	3	.157	.394	T10	**EH5621725**	Price
MMEA.750B50R0083T1	.750	3	.008	.500	T12	**EH5622019**	Price
MMEA.750B50R0203T1	.750	3	.020	.500	T12	**EH5622258**	Price
MMEA.750B47R0623T1	.750	3	.062	.470	T12	**EH5622741**	Price
MMEA.750B47R1253T1	.750	3	.125	.470	T12	**EH5622743**	Price
MMEA200H20R0.2CF3T12	.787	3	.008	.472	T12	**EH5623053**	Price
MMEA200B12R0.53T12	.787	3	.020	.472	T12	**EH5622016**	Price
MMEA200B12R1.03T12	.787	3	.039	.472	T12	**EH5622017**	Price
MMEA200B12R2.03T12	.787	3	.078	.472	T12	**EH5622018**	Price
MMEA200B12R3.03T12	.787	3	.118	.472	T12	**EH5622754**	Price
MMEA200B12R4.03T12	.787	3	.157	.472	T12	**EH5622755**	Price
MMEA250H19R1.03T15	.984	3	.039	.748	T15	**EH5622621**	Price
MMEA250H19R3.03T15	.984	3	.118	.748	T15	**EH5622622**	Price
MMEA1.0H75R023T15	1.000	3	.020	.750	T12	**EH5622634**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM EC 4 Flute, 38º Helix



- Grade IC908- Good for a wide range of materials

Iscar No.	Cutter Dia. (in.)	Radius	Depth of Cut (in.)	Connec-tion	Order No.	Price
MMEC080E05R05CF4T05	.310	0	.200	T05	**EH5623026**	Price
MMEC312E20R0CF4T05	.310	0	.220	T05	**EH5606851**	Price
MMEC312E20C12CF4T05	.310	0	.220	T05	**EH5622601**	Price
MMEC312E20R15CF4T05	.310	.016	.220	T06	**EH5623032**	Price
MMEC375E27R0CF4T06	.375	0	.299	T06	**EH5606852**	Price
MMEC375E27C16CF4T06	.375	0	.299	T06	**EH5622602**	Price
MMEC375E27R15CF4T06	.375	.016	.299	T06	**EH5623033**	Price
MMEC100E07C4CF4T06	.394	0	.260	T06	**EH5622597**	Price
MMEC100E07R05CF4T06	.394	.020	.276	T06	**EH5623027**	Price

Iscar No.	Cutter Dia. (in.)	Radius	Depth of Cut (in.)	Connec-tion	Order No.	Price
MMEC120E09C5CF4T08	.472	0	.315	T08	**EH5622598**	Price
MMEC120E09R05CF4T08	.472	.020	.354	T08	**EH5623028**	Price
MMEC500E37C20CF4T08	.500	0	.381	T08	**EH5622603**	Price
MMEC160E12R05CF4T10	.630	0	.394	T10	**EH5623029**	Price
MMEC200E15C6CF4T12	.787	0	.472	T12	**EH5622600**	Price
MMEC200E15R05CF4T12	.787	.020	.472	T12	**EH5623030**	Price
MMEC250E22R05CF4T15	.984	0	.748	T15	**EH5623031**	Price
MMEC1.00E86C6CF4T15	1.000	0	.893	T15	**EH5622629**	Price
MMEC1.0E86R31CF4T15	1.000	.125	.893	T15	**EH5623037**	Price

MULTI-MASTER Indexable Solid Carbide Milling Heads

MM ETR 6 Flute Torodial Head



- Torodial shape, excellent for die and mold applications
- Typical applications: cavities, fillets, pockets and helical interpolations
- Tapered contour enables machining of 90º high walls
- Very efficient for machining hardened steel
- Available in a selection of corner radii
- Grade IC908- Good for wide range of materials

Iscar No.	Cutter Dia. (in.)	Radius	Depth of Cut (in.)	Connec-tion	Order No.	Price
MMETR.312A16R0786T05	.312	.078	.160	T05	**EH5621395**	Price
MMETR.375A19R0316T06	.375	.031	.190	T06	**EH5622263**	Price
MMETR.375A19R1256T06	.375	.125	.190	T06	**EH5621396**	Price
MMETR100A05R3.06T06	.394	.118	.050	T06	**EH5621364**	Price
MMETR120A07R4.06T08	.472	.156	.070	T08	**EH5621365**	Price
MMETR.500A27R1566T08	.500	.156	.270	T08	**EH5621397**	Price
MMETR.625A35R2006T10	.625	.200	.350	T10	**EH5604524**	Price

MULTI-MASTER Indexable Solid Carbide Milling Heads

MM ERS 4 - 6 Flute Rougher Head, 45º Helix



- Grade IC908- Good for wide range of materials

Iscar No.	Cutter Dia. (in.)	No. of Flutes	Depth of Cut	Connec-tion	Order No.	Price
MMERS080B094T05	.310	4	.090	T05	**EH5622418**	Price
MMERS.312B204T05	.310	4	.200	T05	**EH5621915**	Price
MMERS.375B274T06	.375	4	.270	T06	**EH5621626**	Price
MMERS120B094T08	.472	4	.090	T08	**EH5691111**	Price
MMERS120B094T08H	.472	4	.090	T08	**EH5607217**	Price
MMERS.500B374T08	.500	4	.370	T08	**EH5621627**	Price
MMERS.625B475T10	.625	5	.470	T10	**EH5621795**	Price
MMERS160B125T10H	.630	5	.120	T10	**EH5607218**	Price
MMERS.750B626T12	.750	6	.620	T12	**EH5622033**	Price
MMERS200B156T12	.787	6	.590	T12	**EH5622032**	Price
MMERS250B226T15	.984	6	.220	T15	**EH5622617**	Price

MULTI-MASTER Indexable Solid Carbide Milling Heads

MM EB 2-4 Flute High Precision Ball Nose Head



- Grade IC908- Good for wide range of materials
- Grade IC08- Best at low to medium cutting speeds with stainless steel and high temp alloys

Iscar No.	Grade	Cutter Dia. (in.)	No. of Flutes	Radius	Depth of Cut (in.)	Connec-tion	Order No.	Price
MMEB.250E204T05	IC908	.250	4	.124	.200	T05	**EH5622237**	Price
MMEBA.312B202T05	IC08	.310	2	.156	.200	T05	**EH5622243**	Price
MMEB.312A204T05	IC908	.310	4	.156	.200	T05	**EH5621377**	Price
MMEB080A052T05	IC908	.310	2	.157	.196	T05	**EH5621346**	Price
MMEB080A054T05	IC908	.310	4	.157	.196	T05	**EH5621347**	Price
MMEB.375A272T06	IC908	.375	2	.187	.270	T06	**EH5621317**	Price
MMEBA375B272T06	IC08	.375	2	.187	.270	T06	**EH5622244**	Price
MMEB.375A274T06	IC908	.375	4	.187	.270	T06	**EH5621318**	Price
MMEB100A074T06	IC908	.394	4	.196	.275	T06	**EH5621333**	Price
MMEB120A092T08	IC908	.472	2	.235	.354	T08	**EH5621320**	Price
MMEBA500B372T08	IC08	.500	2	.249	.370	T08	**EH5622245**	Price
MMEB.500A374T08	IC908	.500	4	.249	.370	T08	**EH5621327**	Price
MMEB.500A372T08	IC908	.500	2	.249	.370	T08	**EH5621326**	Price
MMEBA.625B472T10	IC08	.625	2	.312	.470	T10	**EH5622246**	Price
MMEB.625A474T10	IC908	.625	4	.312	.470	T10	**EH5621379**	Price
MMEB.750A624T12	IC908	.750	4	.374	.620	T12	**EH5622035**	Price
MMEBA.750B502T12	IC08	.750	2	.374	.500	T12	**EH5622247**	Price
MMEB200A154T12	IC908	.787	4	.393	.590	T12	**EH5622034**	Price
MMEBA250B222T15	IC08	.984	2	.491	.220	T15	**EH5622624**	Price
MMEB250A224T15	IC908	.984	4	.491	.866	T15	**EH5622623**	Price
MMEBA1.00B862T15	IC08	1.000	2	.499	.860	T15	**EH5622636**	Price
MMEB1.00A864T15	IC908	1.000	4	.499	.275	T15	**EH5622635**	Price

MULTI-MASTER Indexable Solid Carbide Milling Heads

MM HC 2 Flute Slot Drill, 10º Helix



- Axial and radial positive rake
- Variety of corner radii
- Shouldering, slotting and drilling applications
- Grade IC908- Good for wide range of materials
- Grade IC903- Good for alloys, hardened materials, and stainless steel

Iscar No.	Grade	Cutter Dia. (in.)	Radius	Connec-tion	Order No.	Price
MMHC080C08R0.42T05	IC903	.310	.016	T05	**EH5606435**	Price
MMHC080C08R1.02T05	IC903	.310	.039	T05	**EH5606433**	Price
MMHC.312C31R0162T05	IC908	.312	.016	T05	**EH5621916**	Price
MMHC.375C38R0162T06	IC908	.375	.016	T06	**EH5603360**	Price
MMHC100C10R0.42T06	IC903	.394	.016	T06	**EH5606436**	Price
MMHC100C10R1.02T06	IC903	.394	.039	T06	**EH5606437**	Price
MMHC100C10R1.02T06	IC908	.394	.039	T06	**EH5604038**	Price
MMHC100C10R2.02T06	IC903	.394	.078	T06	**EH5606438**	Price
MMHC120C13R0.42T08	IC903	.472	.016	T08	**EH5606439**	Price
MMHC120C13R1.02T08	IC903	.472	.039	T08	**EH5606440**	Price
MMHC120C13R1.02T08	IC908	.472	.039	T08	**EH5604650**	Price
MMHC120C13R2.02T08	IC903	.472	.078	T08	**EH5606441**	Price
MMHC.500C55R0162T08	IC908	.500	.016	T08	**EH5603361**	Price
MMHC.625C63R0162T10	IC908	.625	.016	T10	**EH5604117**	Price
MMHC.625C63R0322T10	IC908	.625	.032	T10	**EH5604118**	Price
MMHC160C16R0.42T10	IC903	.630	.016	T10	**EH5606442**	Price
MMHC160C16R0.42T10	IC908	.630	.016	T10	**EH5603802**	Price
MMHC160C16R0.82T10	IC903	.630	.032	T10	**EH5606426**	Price
MMHC160C16R0.82T10	IC908	.630	.032	T10	**EH5603803**	Price

MULTI-MASTER Indexable Solid Carbide Milling Heads

MM HBR High Precision, Spherical Design Milling Head



- High accuracy
- May be used for both roughing and precision finishing applications
- 240º spherical cutting profile
- Ground, neutrally inclined rake
- Center cutting
- Recommended for finishing and may be used on hardened steel
- 2 flute
- Grade IC908- Good for wide range of materials

Iscar No.	Cutter Dia. (in.)	Radius	Connection	Order No.	Price
MMHBR.3752T05	.375	.188	T05	**EH5604523**	Price
MMHBR1002T05	.394	.197	T05	**EH5621372**	Price
MMHBR1202T06	.472	.236	T06	**EH5621367**	Price
MMHBR.5002T06	.500	.250	T06	**EH5621448**	Price
MMHBR.6252T08	.625	.312	T08	**EH5621371**	Price
MMHBR1602T08	.630	.315	T08	**EH5621630**	Price
MMHBR.7502T10	.750	.375	T10	**EH5621796**	Price
MMHBR2002T10	.787	.394	T10	**EH5603805**	Price
MMHBR2502T12	.984	.492	T12	**EH5604561**	Price
MMHBR1.002T12	1.000	.500	T12	**EH5604562**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM HCD 2 Flute Head for Center Drilling, Chamfering and Countersinking



- 140° point angle for center drilling
- Chamfering
- Countersinking for standard flat head cap screws
- Deburring
- Grade IC908- Good for wide range of materials

Iscar No.	Grade	Cutter Dia. (in.)	Depth of Cut	Connec-tion	Order No.	Price
MMHCD0800902T05	IC908	.315	.270	T05	**EH5604307**	Price
MMHCD0830902T05	IC908	.327	.290	T05	**EH5604306**	Price
MMHCD1000602T06	IC908	.394	.370	T06	**EH5604521**	Price
MMHCD1000902T06	IC908	.394	.350	T06	**EH5603363**	Price
MMHCD1001202T06	IC908	.394	.390	T06	**EH5604522**	Price
MMHCD1040902T06	IC908	.394	.350	T06	**EH5603362**	Price
MMHCD1200602T08	IC908	.472	.470	T08	**EH5605659**	Price
MMHCD1200902T08	IC908	.472	.470	T08	**EH5603806**	Price
MMHCD1201202T08	IC908	.472	.470	T08	**EH5605658**	Price

Iscar No.	Grade	Cutter Dia. (in.)	Depth of Cut	Connec-tion	Order No.	Price
MMHCD1240902T08	IC908	.488	.470	T08	**EH5603545**	Price
MMHCD.5000802T08	IC908	.500	.470	T08	**EH5603708**	Price
MMHCD1600602T10	IC908	.630	.590	T10	**EH5605656**	Price
MMHCD1600902T10	IC908	.630	.590	T10	**EH5603807**	Price
MMHCD1601202T10	IC908	.630	.610	T10	**EH5605657**	Price
MMHCD1650902T10	IC908	.649	.590	T10	**EH5604281**	Price
MMHCD2000602T12	IC908	.787	.720	T12	**EH5606496**	Price
MMHCD2000902T12	IC908	.787	.720	T12	**EH5604568**	Price
MMHCD2001202T12	IC908	.787	.720	T12	**EH5606497**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM HCR 2 Flute Ball Nose Milling Head



- Unique cutting geometry similar to our HELIBALL inserts
- Center cutting
- Closed tolerance
- May be used for both roughing and precision finishing applications
- Grade IC908- Good for wide range of materials

Iscar No.	Cutter Dia. (in.)	Radius	Depth of Cut	Connection	Order No.	Price
MMHCR.3122T05	.312	.156	.310	T05	**EH5603252**	Price
MMHCR0802T05	.310	.158	.500	T05	**EH5603250**	Price
MMHCR.3752T06	.375	.188	.380	T06	**EH5602587**	Price

Iscar No.	Cutter Dia. (in.)	Radius	Depth of Cut	Connection	Order No.	Price
MMHCR1002T06	.394	.197	.630	T06	**EH5602584**	Price
MMHCR.5002T08	.500	.250	.630	T08	**EH5603204**	Price
MMHCR.6252T10	.625	.312	.390	T10	**EH5603253**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM HDF 2 Flute 45º Double Chamfering Head

- Grade IC908- Good for wide range of materials

Iscar No.	Cutter Dia. (in.)	No. of Flutes	Connec-tion	Order No.	Price
MMHDF1200902T06	.465	2	T06	**EH5605164**	Price

Iscar No.	Cutter Dia. (in.)	No. of Flutes	Connection	Order No.	Price
MMHDF1600902T08	.622	2	T08	**EH5605165**	Price

MULTI-MASTER

Indexable Solid Carbide Milling Heads

MM HT 2 Flute Torodial Head



- Ground, neutrally inclined rake face
- Tapered contour enables machining of 90º high walls
- May be used for machining hardened steel

Iscar No.	Grade	Cutter Dia. (in.)	Radius	Depth of Cut	Connec-tion	Order No.	Price
MMHT100N07R0.52T06	IC903	.394	.020	.270	T06	**EH5606429**	Price
MMHT100C08R0.52T06	IC908	.394	.020	.270	T06	**EH5603581**	Price
MMHT100N07R1.02T06	IC903	.394	.040	.270	T06	**EH5606425**	Price
MMHT100C08R1.02T06	IC908	.394	.040	.270	T06	**EH5603582**	Price
MMHT100N07R2.02T06	IC903	.394	.080	.270	T06	**EH5606427**	Price
MMHT100N06R2.02T06	IC908	.394	.080	.450	T06	**EH5604345**	Price
MMHT100N07R3.02T06	IC903	.394	.120	.270	T06	**EH5606428**	Price
MMHT120N06R1.62T08	IC908	.472	.060	.450	T08	**EH5621711**	Price
MMHT120N06R2.02T08	IC903	.472	.080	.240	T08	**EH5622730**	Price
MMHT120N06R3.02T06	IC908	.472	.120	.220	T06	**EH5621709**	Price

Iscar No.	Grade	Cutter Dia. (in.)	Radius	Depth of Cut	Connec-tion	Order No.	Price
MMHT120N06R3.02T08	IC908	.472	.120	.450	T08	**EH5603583**	Price
MMHT120N06R4.02T08	IC908	.472	.160	.240	T08	**EH5603584**	Price
MMHT.625N31R1872T10	IC908	.625	.190	.310	T10	**EH5604622**	Price
MMHT160N07R2.02T10	IC908	.630	.080	.283	T10	**EH5605660**	Price
MMHT160N08R5.02T10	IC903	.630	.200	.283	T10	**EH5606432**	Price
MMHT160N08R5.02T10	IC908	.630	.200	.315	T10	**EH5604123**	Price
MMHT.750N45R2502T12	IC908	.750	.250	.310	T12	**EH5604566**	Price
MMHT200N11R3.02T12	IC908	.787	.120	.440	T12	**EH5605652**	Price
MMHT200N11R8.02T12	IC908	.787	.310	.440	T12	**EH5605594**	Price
MMHT200N11R5.02T12	IC908	.787	.200	.450	T12	**EH5605653**	Price

Milling Inserts



ADKR

Iscar Designation	IC	Length	T (in.)	R	F	Grade	Order No.	Price
ADKR 1505PDR-HM	.375	.600	.236	.031	.063	IC28	**EH5600609**	Price
ADKR 1505PDR-HM	.375	.600	.236	.031	.063	IC328	**EH5601256**	Price
ADKR 1505PDR-HM	.375	.600	.236	.031	.063	IC928	**EH5692417**	Price
ADKT 150516R-HM	.375	.614	.220	.063	.054	IC250	**EH5600633**	Price
ADKT 150516R-HM	.375	.614	.220	.063	.054	IC328	**EH5601347**	Price
ADKT 150516R-HM	.375	.614	.220	.063	.054	IC520M	**EH5600632**	Price
ADKT 150516R-HM	.375	.614	.220	.063	.054	IC908	**EH5697611**	Price
ADKT 150516R-HM	.375	.614	.220	.063	.054	IC928	**EH5697878**	Price
ADKT 150516R-HM	.375	.614	.220	.063	.054	IC950	**EH5601898**	Price
ADKT 150524R-HM	.375	.614	.220	.094	.020	IC328	**EH5601348**	Price
ADKT 150532R-HM	.375	.614	.220	.125	-	IC908	**EH5697621**	Price
ADKT 150532R-HM	.375	.614	.220	.125	-	IC928	**EH5602367**	Price
ADKT 150532R-HM	.375	.614	.220	.125	-	IC950	**EH5695867**	Price
ADKT 150532R-HM	.375	.614	.220	.125	.020	IC328	**EH5601349**	Price
ADKT 150550R-HM	.375	.595	.212	.189	-	IC328	**EH5601350**	Price
ADKT 150564R-HM	.375	.583	.205	.250	-	IC250	**EH5600642**	Price
ADKT 150564R-HM	.375	.583	.205	.250	-	IC328	**EH5601351**	Price
ADKT 150564R-HM	.375	.583	.205	.250	-	IC928	**EH5697828**	Price
ADKT 1505ADR-HM	.375	.335	.205	.031	.063	IC328	**EH5693564**	Price
ADKT 1505ADR-HM	.375	.335	.205	.031	.063	IC520M	**EH5600779**	Price



ADKT

Iscar Designation	IC	Length	T (in.)	R	F	Grade	Order No.	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC250	**EH5600517**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC28	**EH5600744**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC328	**EH5601150**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC520M	**EH5600513**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC528	**EH5697386**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC908	**EH5602360**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC910	**EH5601900**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC928	**EH5692407**	Price
ADKT 1505PDR-HM	.375	.600	.230	.031	.063	IC950	**EH5601896**	Price
ADKT 1505PDTR-76	.375	.600	.230	.039	.063	IC328	**EH5601339**	Price
ADKT 1505PDTR-76	.375	.600	.230	.039	.063	IC520M	**EH5601274**	Price
ADKT 1505PDTR-76	.375	.600	.230	.039	.063	IC910	**EH5602241**	Price
ADKT 1505PDTR-76	.375	.600	.230	.039	.063	IC928	**EH5602363**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC250	**EH5601362**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC328	**EH5601366**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC4050	**EH5601893**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC520M	**EH5601364**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC528	**EH5697416**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC910	**EH5601902**	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC928	**EH5694867**	Price

Milling Inserts

Member IMC Group


APKR


APKT


SEKR


SEKT


SEMT


SEMW


SPKR

Iscar Designation	IC	Length	T (in.)	R	F	Grade	Order No.	Price
ADKT 1505PDTR-RM	.375	.600	.230	.039	.063	IC950	**EH5601892**	Price
ADMM 150308-88	.375	.600	.125	.031	-	IC250	**EH5600506**	Price
ADMM 150308-88	.375	.600	.125	.031	-	IC520M	**EH5600037**	Price
ADMT 1503PDR-HM	.375	.600	.150	.031	.063	IC250	**EH5600900**	Price
ADMT 1503PDR-HM	.375	.600	.150	.031	.063	IC328	**EH5601455**	Price
ADMT 1505PDR-HS	.375	.600	.222	.031	.063	IC250	**EH5600749**	Price
ADMT 1505PDR-HS	.375	.600	.222	.031	.063	IC328	**EH5601467**	Price
APKR 1003PDR-HM	.263	.413	.137	.019	.047	IC328	**EH5601221**	Price
APKR 1003PDR-HM	.263	.413	.137	.019	.047	IC928	**EH5602366**	Price
APKT 100308PDTR-RM	.263	.413	.137	.031	.035	IC328	**EH5601634**	Price
APKT 100308PDTR-RM	.263	.413	.137	.031	.035	IC928	**EH5692339**	Price
APKT 100308PDTR-RM	.263	.413	.137	.031	.035	IC950	**EH5601963**	Price
APKT 100312TR-RM	.263	.413	.137	.047	-	IC328	**EH5601637**	Price
APKT 100312TR-RM	.263	.413	.137	.047	-	IC520M	**EH5600827**	Price
APKT 100312TR-RM	.263	.413	.137	.047	-	IC928	**EH5699148**	Price
APKT 100316PDTR-RM	.263	.413	.137	.063	.031	IC328	**EH5601612**	Price
APKT 100316PDTR-RM	.263	.413	.137	.063	.031	IC928	**EH5692349**	Price
APKT 100332TR-RM	.263	.413	.137	.125	-	IC28	**EH5601620**	Price
APKT 100332TR-RM	.263	.413	.137	.125	-	IC328	**EH5601617**	Price
APKT 100332TR-RM	.263	.413	.137	.125	-	IC928	**EH5691208**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC250	**EH5600501**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC328	**EH5601148**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC4050	**EH5603414**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC520M	**EH5600049**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC910	**EH5601901**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC928	**EH5691218**	Price
APKT 1003PDR-HM	.263	.413	.137	.019	.047	IC950	**EH5601939**	Price
APKT 1003PDTR-76	.263	.413	.137	.019	.047	IC250	**EH5601209**	Price
APKT 1003PDTR-76	.263	.413	.137	.019	.047	IC328	**EH5601196**	Price
APKT 1003PDTR-76	.263	.413	.137	.019	.047	IC910	**EH5602240**	Price
APKT 1003PDTR-76	.263	.413	.137	.019	.047	IC928	**EH5602362**	Price
APKT 1003PDTR-8M	.263	.413	.137	.019	.035	IC910	**EH5691931**	Price
APKT 1003PDTR-8M	.263	.413	.137	.019	.047	IC328	**EH5696925**	Price
APKT 1003PDTR-RM	.263	.413	.137	.019	.047	IC250	**EH5601368**	Price
APKT 1003PDTR-RM	.263	.413	.137	.019	.047	IC328	**EH5601371**	Price
APKT 1003PDTR-RM	.263	.413	.137	.019	.047	IC520M	**EH5601369**	Price
H400 RNHU 1004-AX	-	9.2mm	.159	.197	-	IC830	**EH5606804**	Price
H400 RNHU 1004-ML	-	9.2mm	.159	.197	-	IC830	**EH5606803**	Price
H400 RNHU 1205-AX	-	11mm	.205	.236	-	IC830	**EH5606741**	Price
H400 RNHU 1205-ML	-	11mm	.205	.236	-	IC830	**EH5606450**	Price
H400 RNHU 1606-AX	-	14.7mm	.307	.315	-	IC830	**EH5606807**	Price
H400 RNHU 1606-HP	-	14.7mm	.307	.315	-	IC830	**EH5606808**	Price
H490 ANCX 090404PDR	.260	.339	.205	.016	.150	IC810	**EH5606342**	Price
H490 ANCX 090404PDR	.260	.339	.205	.016	.150	IC830	**EH5606032**	Price
H490 ANCX 090408PDR	.260	.339	.205	.031	.138	IC810	**EH5606029**	Price
H490 ANCX 090408PDR	.260	.339	.205	.031	.138	IC830	**EH5606027**	Price
H490 ANCX 090412PDR	.260	.339	.205	.047	.126	IC810	**EH5606746**	Price
H490 ANCX 090412PDR	.260	.339	.205	.047	.126	IC830	**EH5606024**	Price
H490 ANCX 090416PDR	.260	.339	.205	.063	.110	IC810	**EH5606750**	Price
H490 ANCX 090416PDR	.260	.339	.205	.063	.110	IC830	**EH5606747**	Price
H490 ANCX 120508PDR	.394	.539	.360	.031	.138	IC810	**EH5606013**	Price
H490 ANCX 120508PDR	.394	.539	.360	.031	.138	IC830	**EH5606011**	Price
H490 ANCX 1205R15T-FF	.394	.539	.360	.059	.138	IC830	**EH5606016**	Price
H490 ANKX 090408PNTR	.260	.339	.205	.016	.197	IC810	**EH5606019**	Price
H490 ANKX 090408PNTR	.260	.339	.205	.016	.197	IC830	**EH5606020**	Price
H490 ANKX 120504PNTR	.394	.539	.360	.031	.150	IC830	**EH5606353**	Price
H490 ANKX 120508PNTR	.394	.539	.360	.031	.138	IC810	**EH5605567**	Price
H490 ANKX 120508PNTR	.394	.539	.360	.031	.138	IC830	**EH5605564**	Price
H490 ANKX 120510PNTR	.394	.539	.360	.031	.134	IC830	**EH5606007**	Price
H490 ANKX 120512PNTR	.394	.539	.360	.031	.126	IC830	**EH5606008**	Price
H490 ANKX 120516PNTR	.394	.539	.360	.031	.110	IC830	**EH5606009**	Price
H490 ANKX 1205PNTR-CS	.394	.539	.360	.031	.138	IC830	**EH5606938**	Price
H490 ANKX 1205PNTR-RM	.394	.539	.360	.031	.138	IC830	**EH5606912**	Price
H490 ANKX 1205R15T-FF	.394	.539	.360	.059	.138	IC830	**EH5606392**	Price
H490 ANKX 1706R15T-FF	.461	.657	.307	.063	.181	IC830	**EH5605989**	Price
H600 WXCU 040310HP	.254	.163	.122	.075	.038	IC830	**EH5606381**	Price
H600 WXCU 040310T	.254	.163	.122	.075	.038	IC830	**EH5606380**	Price
H600 WXCU 05T312HP	.339	.224	.165	.091	.047	IC830	**EH5606000**	Price
H600 WXCU 05T312T	.339	.224	.165	.091	-	IC810	**EH5606348**	Price
H600 WXCU 05T312T	.339	.224	.165	.091	-	IC830	**EH5606349**	Price
H600 WXCU 080612HP	.538	.346	.267	.130	-	IC830	**EH5605931**	Price
H600 WXCU 080612T	.538	.346	.267	.130	-	IC810	**EH5606036**	Price
H606 RXCU 1206AXMP	12.2mm	-	5.9mm	6mm	-	IC808	**EH5606917**	Price
H606 RXCU 1206AXT	12.2mm	-	5.9mm	6mm	-	IC808	**EH5606918**	Price
H606 RXCU 1206AXT	12.2mm	-	5.9mm	6mm	-	IC830	**EH5607421**	Price
H606 RXCU 43-AXMP	.510	-	.250	.236	-	IC380	**EH5667113**	Price
H606 RXCU 43-AXMP	.510	-	.267	-	-	IC330	**EH5667114**	Price
H606 RXCU 43AXT	.510	-	.250	.239	-	IC808	**EH5607686**	Price
H606 RXCU 43AXT	.510	-	.250	.239	-	IC830	**EH5607685**	Price
H690 TNKX 160610PNTR	12mm	-	10mm	1mm	-	IC330	**EH5607375**	Price
H690 TNKX 160610PNTR	12mm	-	10mm	1mm	-	IC5100	**EH455668377**	Price
H690 TNKX 160610PNTR	12mm	-	10mm	1mm	-	IC808	**EH5607501**	Price
H690 TNKX 160610PNTR	12mm	-	10mm	1mm	-	IC810	**EH5607502**	Price
H690 TNKX 160610PNTR	12mm	-	10mm	1mm	-	IC830	**EH5607650**	Price
HM390 TDKT 1505PDR	.449	.657	.230	-	-	IC330	**EH5607678**	Price
HM390 TDKT 1505PDR	.449	.657	.230	-	-	IC808	**EH5607506**	Price
HM390 TDKT 1505PDR	.449	.657	.230	-	-	IC810	**EH5607507**	Price
HM390 TDKT 1505PDR	.449	.657	.230	.031	-	IC5400	**EH5607679**	Price
HM390 TDKT 1505PDR	.449	.657	.230	.031	-	IC830	**EH5607423**	Price
HM390 TPKT 1003DR	.295	.429	.152	.031	-	IC330	**EH5607742**	Price

Iscar Designation	IC	Length	T (in.)	R	F	Grade	Order No.	Price
HM390 TPKT 1003DR	.295	.429	.152	.031	-	IC380	**EH5667743**	Price
HM390 TPKT 1003DR	.295	.429	.152	.031	-	IC5400	**EH5607743**	Price
HM390 TPKT 1003DR	.295	.429	.152	.031	-	IC808	**EH5607513**	Price
HM390 TPKT 1003DR	.295	.429	.152	.031	-	IC810	**EH5607514**	Price
HM390 TPKT 1003DR	.295	.429	.152	.031	-	IC830	**EH5607512**	Price
HM90 ADKT 150516PDR	.375	.637	.230	.063	.085	IC908	**EH5603474**	Price
HM90 ADKT 150524PDR	.375	.637	.230	.094	.085	IC908	**EH5603476**	Price
HM90 ADKT 150532PDR	.375	.637	.230	.125	.085	IC908	**EH5603477**	Price
HM90 ADKT 150540PDR	.375	.637	.230	.157	.085	IC908	**EH5603478**	Price
HM90 ADKT 150564PDR	.375	.637	.230	.250	.085	IC908	**EH5603480**	Price
HM90 ADKT 1505PDR	.375	.637	.230	.031	.085	IC328	**EH5602383**	Price
HM90 ADKT 1505PDR	.375	.637	.230	.031	.085	IC908	**EH5602499**	Price
HM90 ADKT 1505PDR	.375	.637	.230	.031	.085	IC928	**EH5602495**	Price
HM90 ADKT 1505PDR	.375	.637	.230	.031	.085	IC950	**EH5602497**	Price
HM90 APKT 100304PDR	.263	.637	.230	.031	.085	IC28	**EH5602961**	Price
HM90 APKT 100316PDR	.263	.637	.230	.063	.085	IC928	**EH5603832**	Price
HM90 APKT 1003PDR	.263	.637	.230	.031	.085	IC328	**EH5602417**	Price
HM90 APKT 1003PDR	.263	.637	.230	.031	.085	IC908	**EH5602494**	Price
HM90 APKT 1003PDR	.263	.637	.230	.031	.085	IC910	**EH5602493**	Price
HM90 APKT 1003PDR	.263	.637	.230	.031	.085	IC928	**EH5602490**	Price
HM90 APKT 1003PDR	.263	.637	.230	.031	.085	IC950	**EH5602492**	Price
HM90 AXCR 150508R-P	.394	.756	.197	.031	-	IC28	**EH5603552**	Price
ONHU 050500-N-HP	.512	13mm	.205	.020	.197	IC810	**EH5681499**	Price
ONHU 050500-PL	.512	13mm	.205	.020	.197	IC830	**EH5606445**	Price
ONHU 050505-TN	.512	13mm	.205	.020	.197	IC810	**EH5606286**	Price
ONHU 050505-TN	.512	13mm	.205	.020	.197	IC830	**EH5606079**	Price
ONHU 0505AN-8R-W	.517	13mm	.193	-	.177	IC808	**EH5606088**	Price
ONHU 0505AN-N-W	.517	13mm	.193	-	.185	IC810	**EH5606285**	Price
ONHU 0505AN-R-W	.517	13mm	.193	-	.177	IC808	**EH5606284**	Price
ONHU 0505AN-R-W	.517	13mm	.193	-	.177	IC810	**EH5606087**	Price
ONMU 050505-TN	.512	.197	.213	.020	-	IC810	**EH5605623**	Price
ONMU 050505-TN-MM	.512	.197	.205	.020	-	IC5400	**EH5606674**	Price
ONMU 050505-TN-MM	.512	.197	.213	.020	-	IC330	**EH5606333**	Price
ONMU 050505-TN-MM	.512	.197	.213	.020	-	IC830	**EH5606332**	Price
ONMU 080608-TN	.795	20.2mm	.236	.031	-	IC830	**EH5607420**	Price
ONMU 080608-TN	.795	20.2mm	.236	.031	.051	IC810	**EH5606601**	Price
ONMU 080608-TN-MM	.795	20.2mm	.236	.031	.051	IC330	**EH5606598**	Price
ONMU 080608-TN-MM	.795	20.2mm	.236	.031	.051	IC830	**EH5606599**	Price
QDMT 120516PDTN-M	-	.500	.197	.063	.500	IC910	**EH5603738**	Price
QDMT 120520PDTN-M	-	.500	.197	.079	.500	IC910	**EH5604480**	Price
QDMT 120520PDTN-M	-	.500	.197	.079	.500	IC928	**EH5604478**	Price
QDMT 120524PDTN-M	-	.500	.197	.094	.500	IC910	**EH5604484**	Price
QDMT 120524PDTN-M	-	.500	.197	.094	.500	IC928	**EH5603748**	Price
QDMT 120532PDTN-M	-	.500	.197	.126	.500	IC910	**EH5603750**	Price
QDMT 120532PDTN-M	-	.500	.197	.126	.500	IC928	**EH5604487**	Price
S845 SNHU 1305AN-N-W	.512	.512	.244	.031	.319	IC808	**EH5606300**	Price
S845 SNHU 1305AN-N-W	.512	.512	.244	.031	.319	IC810	**EH5606301**	Price
S845 SNHU 1305ANR-MM	.512	.512	.244	.031	.118	IC830	**EH5606297**	Price
S845 SNHU 1305ANTR	.512	.512	.244	.031	.118	IC810	**EH5606299**	Price
S845 SNMU 1305ANR-MM	.512	.512	.244	.031	.118	IC5400	**EH5606673**	Price
S845 SNMU 1305ANTR	.512	.512	.244	.031	.118	IC810	**EH5605385**	Price
S845 SXCU 160608AD-RMM	.638	.638	.300	.031	.112	IC830	**EH5605348**	Price
S845 SXHU 1606AD-R-W	.638	.638	.300	.031	-	IC808	**EH5605949**	Price
S845 SXMU 1606ADTR-MM	.638	.638	.300	.031	-	IC810	**EH5606103**	Price
S845 SXMU 1606ADTR-MM	.638	.638	.300	.031	-	IC810	**EH5606856**	Price
S845 SXMU 1606ADTR-MM	.638	.638	.300	.031	-	IC830	**EH5606101**	Price
S890 SNMU 1305PNTR	-	.512	.252	.031	.067	IC5400	**EH5606907**	Price
S890 SNMU 1305PNTR	-	.512	.252	.031	.067	IC810	**EH5606639**	Price
SDMT 1205PDNR-MM	-	.500	.197	.031	-	IC328	**EH5603683**	Price
SDMT 1205PDNR-MM	-	.500	.197	.031	-	IC910	**EH5603684**	Price
SDMT 1205PDNR-MM	-	.500	.197	.031	-	IC928	**EH5603686**	Price
SDMT 1606PDR-HQ-M	-	.646	.256	.031	.646	IC910	**EH5603691**	Price
SEK 42AFF-N	.500	.255	.125	-	.070	IC28	**EH5600136**	Price
SEK 42AF-TN	.500	.255	.125	-	.070	IC250	**EH5600505**	Price
SEK 42AF-TN	.500	.255	.125	-	.070	IC30N	**EH5600140**	Price
SEK 42AF-TN	.500	.255	.125	-	.070	IC328	**EH5692394**	Price
SEK 42AF-TN	.500	.255	.125	-	.070	IC910	**EH5601906**	Price
SEK 42AF-TN-42	.500	.255	.125	-	.070	IC520M	**EH5601117**	Price
SEK 53AF-TN	.625	.255	.187	-	.070	IC328	**EH5695045**	Price
SEKR 42AF-N-42	.500	.255	.125	-	.070	IC328	**EH5601266**	Price
SEKR 42AF-N-76	.500	.255	.125	-	.070	IC250	**EH5601216**	Price
SEKR 42AF-N-76	.500	.255	.125	-	.070	IC328	**EH5601218**	Price
SEKR 42AF-N-76	.500	.255	.125	-	.070	IC4050	**EH5601879**	Price
SEKR 42AF-N-76	.500	.255	.125	-	.070	IC520M	**EH5601272**	Price
SEKR 42AF-N-76	.500	.255	.125	-	.070	IC928	**EH5602380**	Price
SEKR 42AF-N-76	.500	.255	.125	-	.070	IC950	**EH5601878**	Price
SEKR 42AFR-HS	.500	.255	.125	-	.070	IC328	**EH5601333**	Price
SEKR 42AFR-HS	.500	.255	.125	-	.070	IC520M	**EH5600498**	Price
SEKR 42AFTR-HS	.500	.255	.125	-	.070	IC250	**EH5600509**	Price
SEKR 43AFTR-HS	.500	.255	.187	-	.078	IC328	**EH5601621**	Price
SEKT 43AF-R-HM	.500	.250	.200	-	.085	IC28	**EH5600745**	Price
SEKT 43AF-R-HM	.500	.250	.200	-	.085	IC328	**EH5601265**	Price
SEKT 43AF-R-HM	.500	.250	.200	-	.085	IC4050	**EH5603413**	Price
SEKT 43AF-R-HM	.500	.250	.200	-	.085	IC520M	**EH5600571**	Price
SEKT 43AF-R-HM	.500	.250	.200	-	.085	IC520M	**EH5601045**	Price
SEKT 43AF-R-HM	.500	.250	.200	-	.085	IC928	**EH5698628**	Price
SEMT 43AF-R-HS	.490	.230	.210	-	.050	IC328	**EH5601748**	Price
SEMW 43AF-TN	.500	.250	.188	-	.080	IC250	**EH5600943**	Price
SPKR 42EDTR-HS	.500	.375	.125	-	.055	IC328	**EH5601625**	Price
SPMT 100408TR-HQ-M	-	.402	.166	.028	-	IC910	**EH5603696**	Price

Turning Inserts



Member IMC Group

Style - CCMT 2-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 2-0	1/4	.094	.005	IC8250	**EH5550206**	Price
CCMT 2-0-PF	1/4	.094	.004	IC807	**EH5550207**	Price
CCMT 2-0-SM	1/4	.094	.004	IC8150	**EH5508200**	Price
CCMT 2-0-SM	1/4	.094	.004	IC8250	**EH5508087**	Price
CCMT 2-0-SM	1/4	.094	.004	IC9250	**EH5591636**	Price

Style - CCMT 2-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 2-1-14	1/4	.094	.016	IC5005	**EH5550208**	Price
CCMT 2-1-14	1/4	.094	.016	IC807	**EH5550209**	Price
CCMT 2-1-PF	1/4	.094	.016	IC807	**EH5550210**	Price
CCMT 2-1-PF	1/4	.094	.016	IC830	**EH5568585**	Price
CCMT 2-1-SM	1/4	.094	.016	IC807	**EH5550211**	Price
CCMT 2-1-SM	1/4	.094	.016	IC8250	**EH5508088**	Price
CCMT 2-1-SM	1/4	.094	.016	IC9150	**EH5591656**	Price
CCMT 2-1-SM	1/4	.094	.016	IC9250	**EH5507292**	Price
CCMT 2-1-WG	1/4	.094	.016	IC807	**EH5550212**	Price

Style - CCMT 2-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 2-2-SM	1/4	.094	.031	IC807	**EH5550213**	Price

Style - CCMT 3-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 3-0-PF	3/8	.156	.004	IC830	**EH5568616**	Price
CCMT 3-0-PF	3/8	.156	.008	IC807	**EH5550214**	Price
CCMT 3-0-SM	3/8	.156	.008	IC807	**EH5550215**	Price
CCMT 3-0-SM	3/8	.156	.004	IC907	**EH5505011**	Price

Style - CCMT 3-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 3-1-14	3/8	.156	.016	IC807	**EH5550216**	Price
CCMT 3-1-14	3/8	.156	.016	IC907	**EH5596411**	Price
CCMT 3-1-PF	3/8	.156	.016	IC830	**EH5568600**	Price
CCMT 3-1-SM	3/8	.156	.016	IC5005	**EH5508253**	Price
CCMT 3-1-SM	3/8	.156	.016	IC5010	**EH5508254**	Price
CCMT 3-1-SM	3/8	.156	.016	IC807	**EH5507890**	Price
CCMT 3-1-SM	3/8	.156	.016	IC8150	**EH5508202**	Price
CCMT 3-1-SM	3/8	.156	.016	IC8250	**EH5508089**	Price
CCMT 3-1-SM	3/8	.156	.016	IC830	**EH5509500**	Price
CCMT 3-1-SM	3/8	.156	.016	IC9250	**EH5507275**	Price
CCMT 3-1-WG	3/8	.156	.016	IC8250	**EH5550219**	Price
CCMT 3-1-SM	3/8	.156	.016	IC907	**EH5504773**	Price

Style - CCMT 3-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 3-2-14	3/8	.156	.031	IC428	**EH5593875**	Price
CCMT 3-2-14	3/8	.156	.031	IC5005	**EH5550220**	Price
CCMT 3-2-14	3/8	.156	.031	IC8250	**EH5508091**	Price
CCMT 3-2-14	3/8	.156	.031	IC830	**EH5567368**	Price
CCMT 3-2-SM	3/8	.156	.031	IC5005	**EH5508251**	Price
CCMT 3-2-SM	3/8	.156	.031	IC5010	**EH5508252**	Price
CCMT 3-2-SM	3/8	.156	.031	IC807	**EH5550221**	Price
CCMT 3-2-SM	3/8	.156	.031	IC8150	**EH5508203**	Price
CCMT 3-2-SM	3/8	.156	.031	IC9150	**EH5507222**	Price
CCMT 3-2-14	3/8	.156	.031	IC9250	**EH5507534**	Price
CCMT 3-2-SM	3/8	.156	.031	IC8250	**EH5508090**	Price
CCMT 3-2-SM	3/8	.156	.031	IC907	**EH5504774**	Price
CCMT 3-2-SM	3/8	.156	.031	IC9250	**EH5507018**	Price

Style - CCMT 431						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 431-SM	1/2	.187	.016	IC807	**EH5550223**	Price
CCMT 431-SM	1/2	.187	.016	IC8150	**EH5508204**	Price
CCMT 431-SM	1/2	.187	.016	IC8250	**EH5508092**	Price

Style - CCMT 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CCMT 432-14	1/2	.187	.031	IC830	**EH5568582**	Price
CCMT 432-16	1/2	.187	.031	IC8150	**EH5550224**	Price
CCMT 432-SM	1/2	.187	.031	IC807	**EH5550225**	Price
CCMT 432-SM	1/2	.187	.031	IC8150	**EH5508205**	Price
CCMT 432-SM	1/2	.187	.031	IC8250	**EH5508093**	Price
CCMT 432-SM	1/2	.187	.031	IC9250	**EH5507021**	Price
CCMT 432-WG	1/2	.187	.031	IC8250	**EH5550226**	Price
CCMT 432-SM	1/2	.187	.031	IC9150	**EH5507224**	Price

Style - CNMG 321						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 321-TF	3/8	.125	.016	IC8150	**EH5550239**	Price
CNMG 321-TF	3/8	.125	.016	IC8250	**EH5550240**	Price

Style - CNMG 322						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 322-TF	3/8	.125	.031	IC8250	**EH5550241**	Price

Style - CNMG 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 331-F3M	3/8	.187	.016	IC6015	**EH5567819**	Price
CNMG 331-F3P	3/8	.187	.016	IC6025	**EH5567820**	Price
CNMG 331-F3P	3/8	.187	.016	IC8150	**EH5510334**	Price
CNMG 331-F3P	3/8	.187	.016	IC8250	**EH5510335**	Price
CNMG 331-M3M	3/8	.187	.016	IC6015	**EH5510330**	Price
CNMG 331-M3M	3/8	.187	.016	IC6025	**EH5510331**	Price
CNMG 331-M3M	3/8	.187	.016	IC806	**EH5566734**	Price
CNMG 331-M3P	3/8	.187	.016	IC8150	**EH5567563**	Price
CNMG 331-M3P	3/8	.187	.016	IC8250	**EH5567564**	Price

Style - CNMG 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 332-F3M	3/8	.187	.031	IC6015	**EH5567821**	Price
CNMG 332-F3M	3/8	.187	.031	IC6025	**EH5567822**	Price
CNMG 332-F3P	3/8	.187	.016	IC8150	**EH5510336**	Price
CNMG 332-F3P	3/8	.187	.031	IC8250	**EH5510337**	Price
CNMG 332-M3M	3/8	.187	.031	IC6015	**EH5510332**	Price
CNMG 332-M3M	3/8	.187	.031	IC6025	**EH5510333**	Price
CNMG 332-M3M	3/8	.187	.031	IC806	**EH5566735**	Price
CNMG 332-M3P	3/8	.187	.031	IC8150	**EH5567565**	Price
CNMG 332-M3P	3/8	.187	.031	IC8250	**EH5567566**	Price

Style - CNMG 431						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 431-F3P	1/2	.187	.016	IC6025	**EH5510320**	Price
CNMG 431-GN	1/2	.187	.016	IC8150	**EH5507843**	Price
CNMG 431-GN	1/2	.187	.016	IC8250	**EH5507821**	Price
CNMG 431-GN	1/2	.187	.016	IC8350	**EH5507858**	Price
CNMG 431-NF	1/2	.187	.016	IC807	**EH5550243**	Price
CNMG 431-NF	1/2	.187	.016	IC8250	**EH5507822**	Price
CNMG 431-PP	1/2	.187	.016	IC10	**EH5502848**	Price
CNMG 431-PP	1/2	.187	.016	IC6015	**EH5509357**	Price
CNMG 431-PP	1/2	.187	.016	IC8250	**EH5507813**	Price
CNMG 431-PP	1/2	.187	.016	IC830	**EH5568612**	Price
CNMG 431-PP	1/2	.187	.016	IC8350	**EH5507861**	Price
CNMG 431-PP	1/2	.187	.016	IC9250	**EH5507321**	Price
CNMG 431-TF	1/2	.187	.016	IC6015	**EH5509356**	Price
CNMG 431-TF	1/2	.187	.016	IC807	**EH5507865**	Price
CNMG 431-TF	1/2	.187	.016	IC8250	**EH5507806**	Price
CNMG 431-TF	1/2	.187	.016	IC830	**EH5567678**	Price
CNMG 431-TF	1/2	.187	.016	IC9250	**EH5507285**	Price
CNMG 431-GN	1/2	.187	.016	IC9250	**EH5507320**	Price
CNMG 431-PP	1/2	.187	.016	IC807	**EH5507873**	Price
CNMG 431-PP	1/2	.187	.016	IC907	**EH5505454**	Price
CNMG 431-TF	1/2	.187	.016	IC907	**EH5592199**	Price

Style - CNMG 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 432	1/2	.187	.031	IC5005	**EH5508060**	Price
CNMG 432	1/2	.187	.031	IC5010	**EH5508061**	Price
CNMG 432-GN	1/2	.187	.031	IC5005	**EH5507730**	Price
CNMG 432-GN	1/2	.187	.031	IC5010	**EH5507745**	Price
CNMG 432-GN	1/2	.187	.031	IC6015	**EH5509360**	Price
CNMG 432-GN	1/2	.187	.031	IC807	**EH5507797**	Price
CNMG 432-GN	1/2	.187	.031	IC8150	**EH5507756**	Price
CNMG 432-GN	1/2	.187	.031	IC830	**EH5509498**	Price
CNMG 432-GN	1/2	.187	.031	IC8350	**EH5507758**	Price
CNMG 432-GN	1/2	.187	.031	IC9150	**EH5506970**	Price
CNMG 432-NF	1/2	.187	.031	IC807	**EH5550244**	Price
CNMG 432-NF	1/2	.187	.031	IC8150	**EH5507836**	Price
CNMG 432-NF	1/2	.187	.031	IC8250	**EH5508094**	Price
CNMG 432-NF	1/2	.187	.031	IC9150	**EH5507328**	Price
CNMG 432-NF	1/2	.187	.031	IC9250	**EH5507354**	Price
CNMG 432-NR	1/2	.187	.031	IC5005	**EH5507720**	Price
CNMG 432-NR	1/2	.187	.031	IC6015	**EH5509361**	Price
CNMG 432-NR	1/2	.187	.031	IC807	**EH5550245**	Price
CNMG 432-NR	1/2	.187	.031	IC8250	**EH5507815**	Price
CNMG 432-NR	1/2	.187	.031	IC8350	**EH5508557**	Price
CNMG 432-PP	1/2	.187	.031	IC10	**EH5502785**	Price
CNMG 432-PP	1/2	.187	.031	IC6015	**EH5509359**	Price
CNMG 432-PP	1/2	.187	.031	IC807	**EH5507798**	Price
CNMG 432-PP	1/2	.187	.031	IC8150	**EH5508206**	Price
CNMG 432-PP	1/2	.187	.031	IC8250	**EH5507805**	Price
CNMG 432-PP	1/2	.187	.031	IC830	**EH5509497**	Price
CNMG 432-PP	1/2	.187	.031	IC8350	**EH5507853**	Price
CNMG 432-PP	1/2	.187	.031	IC9150	**EH5592316**	Price

Turning Inserts



Member IMC Group

Style - CNMG 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 432-PP	1/2	.187	.031	IC9250	**EH5506976**	Price
CNMG 432-TF	1/2	.187	.031	IC507	**EH5504261**	Price
CNMG 432-TF	1/2	.187	.031	IC6015	**EH5509358**	Price
CNMG 432-TF	1/2	.187	.031	IC807	**EH5507750**	Price
CNMG 432-TF	1/2	.187	.031	IC8150	**EH5507832**	Price
CNMG 432-TF	1/2	.187	.031	IC8250	**EH5507754**	Price
CNMG 432-TF	1/2	.187	.031	IC830	**EH5507752**	Price
CNMG 432-TF	1/2	.187	.031	IC8350	**EH5507855**	Price
CNMG 432-TF	1/2	.187	.031	IC908	**EH5594061**	Price
CNMG 432-TF	1/2	.187	.031	IC920	**EH5570228**	Price
CNMG 432-TF	1/2	.187	.031	IC9250	**EH5506975**	Price
CNMG 432-WF	1/2	.187	.031	IC8150	**EH5507845**	Price
CNMG 432-WF	1/2	.187	.031	IC8250	**EH5550246**	Price
CNMG 432-WG	1/2	.187	.031	IC5005	**EH5550247**	Price
CNMG 432-WG	1/2	.187	.031	IC807	**EH5550248**	Price
CNMG 432-WG	1/2	.187	.031	IC8150	**EH5508207**	Price
CNMG 432-WG	1/2	.187	.031	IC8250	**EH5550249**	Price
CNMG 432-GN	1/2	.187	.031	IC8250	**EH5507802**	Price
CNMG 432-GN	1/2	.187	.031	IC9250	**EH5506974**	Price
CNMG 432-PP	1/2	.187	.031	IC907	**EH5591047**	Price
CNMG 432-TF	1/2	.187	.031	IC907	**EH5598518**	Price

Style - CNMG 433						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 433-GN	1/2	.187	.047	IC830	**EH5568603**	Price

Style - CNMG 434						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 434-M3M	1/2	.187	.062	IC6025	**EH5510176**	Price

Style - CNMG 542						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 542-TF	5/8	.250	.031	IC907	**EH5505377**	Price

Style - CNMG 642						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 642-GN	3/4	.250	.031	IC830	**EH5568596**	Price

Style - CNMG 643						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMG 643-GN	3/4	.250	.047	IC9150	**EH5507575**	Price

Style - CNMX 341						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMX 341-M3PW	3/8	.250	.016	IC8150	**EH5510338**	Price
CNMX 341-M3PW	3/8	.250	.016	IC8205	**EH5510339**	Price

Style - CNMX 342						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CNMX 342-M3PW	3/8	.250	.031	IC8150	**EH5560553**	Price
CNMX 342-M3PW	3/8	.250	.031	IC8205	**EH5510341**	Price
CNMX 342-M3PW	3/8	.250	.031	IC830	**EH5509547**	Price

Style - CPMT 2-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CPMT 2-1-PF	1/4	.094	.016	IC807	**EH5550285**	Price

Style - CPMT 2-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CPMT 2-2-PF	1/4	.094	.031	IC807	**EH5550286**	Price

Style - CPMT 3-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CPMT 3-1-PF	3/8	.156	.016	IC807	**EH5550287**	Price

Style - CPMT 3-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
CPMT 3-2-PF	3/8	.156	.031	IC807	**EH5550289**	Price

Style - DCMT 2.004						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 2.004-PF	1/4	.156	.004	IC807	**EH5550297**	Price

Style - DCMT 2-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 2-0	1/4	.094	.008	IC8150	**EH5508690**	Price
DCMT 2-0	1/4	.094	.008	IC8250	**EH5550298**	Price
DCMT 2-0-SM	1/4	.094	.008	IC807	**EH5550299**	Price

Style - DCMT 2-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 2-1	1/4	.094	.016	IC8150	**EH5508210**	Price
DCMT 2-1	1/4	.094	.016	IC830	**EH5568583**	Price
DCMT 2-1-PF	1/4	.094	.016	IC830	**EH5568609**	Price
DCMT 2-1-SM	1/4	.094	.016	IC807	**EH5550300**	Price
DCMT 2-1-SM	1/4	.094	.016	IC8150	**EH5508211**	Price
DCMT 2-1-SM	1/4	.094	.016	IC8250	**EH5508098**	Price
DCMT 2-1-SM	1/4	.094	.016	IC9250	**EH5507290**	Price

Style - DCMT 2-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 2-2-PF	1/4	.094	.031	IC807	**EH5550301**	Price
DCMT 2-2-SM	1/4	.094	.031	IC8250	**EH5508099**	Price

Style - DCMT 3-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 3-0-PF	3/8	.156	.008	IC807	**EH5550302**	Price
DCMT 3-0-PF	3/8	.156	.008	IC830	**EH5568594**	Price
DCMT 3-0-SM	3/8	.156	.008	IC807	**EH5550303**	Price
DCMT 3-0-SM	3/8	.156	.008	IC8250	**EH5508100**	Price

Style - DCMT 3-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 3-1-14	3/8	.156	.015	IC830	**EH5568586**	Price
DCMT 3-1-14	3/8	.156	.016	IC8150	**EH5508213**	Price
DCMT 3-1-PF	3/8	.156	.015	IC830	**EH5509499**	Price
DCMT 3-1-PF	3/8	.156	.016	IC807	**EH5550304**	Price
DCMT 3-1-SM	3/8	.156	.016	IC807	**EH5508240**	Price
DCMT 3-1-SM	3/8	.156	.016	IC8250	**EH5508101**	Price
DCMT 3-1-SM	3/8	.156	.016	IC8350	**EH5508553**	Price
DCMT 3-1-SM	3/8	.156	.016	IC9250	**EH5507024**	Price

Style - DCMT 3-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DCMT 3-2-14	3/8	.156	.031	IC5005	**EH5550305**	Price
DCMT 3-2-14	3/8	.156	.031	IC8150	**EH5508215**	Price
DCMT 3-2-D	3/8	.156	.031	IC830	**EH5568588**	Price
DCMT 3-2-PF	3/8	.156	.031	IC807	**EH5508226**	Price
DCMT 3-2-PF	3/8	.156	.031	IC830	**EH5509503**	Price
DCMT 3-2-SM	3/8	.156	.031	IC8250	**EH5508103**	Price
DCMT 3-2-SM	3/8	.156	.031	IC8350	**EH5508563**	Price
DCMT 3-2-SM	3/8	.156	.031	IC907	**EH5504875**	Price

Style - DNMG 330						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 330-NF	3/8	.187	.008	IC20N	**EH5502808**	Price
DNMG 330-NF	3/8	.187	.008	IC807	**EH5550311**	Price
DNMG 330-NF	3/8	.187	.008	IC8150	**EH5550312**	Price
DNMG 330-NF	3/8	.187	.008	IC8250	**EH5550313**	Price
DNMG 330-NF	3/8	.187	.008	IC8350	**EH5508561**	Price
DNMG 330-NF	3/8	.187	.008	IC907	**EH5592414**	Price

Style - DNMG 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 331-F3M	3/8	.187	.016	IC6015	**EH5567859**	Price
DNMG 331-F3M	3/8	.187	.016	IC6025	**EH5567860**	Price
DNMG 331-F3P	3/8	.187	.016	IC8150	**EH5560576**	Price
DNMG 331-F3P	3/8	.187	.016	IC8205	**EH5560577**	Price
DNMG 331-M3M	3/8	.187	.016	IC6015	**EH5560574**	Price
DNMG 331-M3M	3/8	.187	.016	IC6025	**EH5560575**	Price
DNMG 331-M3M	3/8	.187	.016	IC806	**EH5566742**	Price
DNMG 331-NF	3/8	.187	.016	IC20N	**EH5502733**	Price
DNMG 331-NF	3/8	.187	.016	IC5010	**EH5567617**	Price
DNMG 331-NF	3/8	.187	.016	IC507	**EH5504266**	Price
DNMG 331-NF	3/8	.187	.016	IC520N	**EH5503226**	Price
DNMG 331-NF	3/8	.187	.016	IC807	**EH5550314**	Price
DNMG 331-NF	3/8	.187	.016	IC8150	**EH5508216**	Price
DNMG 331-NF	3/8	.187	.016	IC9250	**EH5507287**	Price
DNMG 331-NF	3/8	.187	.031	IC8250	**EH5508104**	Price
DNMG 331-PP	3/8	.187	.016	IC20	**EH5502835**	Price
DNMG 331-PP	3/8	.187	.016	IC8250	**EH5508710**	Price
DNMG 331-SF	3/8	.187	.016	IC520N	**EH5504094**	Price
DNMG 331-SF	3/8	.187	.016	IC530N	**EH5504093**	Price
DNMG 331-SF	3/8	.187	.016	IC570	**EH5504095**	Price
DNMG 331-TF	3/8	.187	.016	IC20	**EH5503808**	Price
DNMG 331-TF	3/8	.187	.016	IC530N	**EH5503675**	Price
DNMG 331-TF	3/8	.187	.016	IC8250	**EH5508105**	Price
DNMG 331-TF	3/8	.187	.016	IC9250	**EH5591716**	Price
DNMG 331-VL	3/8	.187	.016	IC806	**EH5567596**	Price
DNMG 331-NF	3/8	.187	.016	IC907	**EH5594179**	Price

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Style - DNMG 332

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 332-F3M	3/8	.187	.031	IC6025	**EH5567862**	Price
DNMG 332-F3P	3/8	.187	.031	IC8150	**EH5560578**	Price
DNMG 332-F3P	3/8	.187	.031	IC8250	**EH5560579**	Price
DNMG 332-GN	3/8	.187	.031	IC5010	**EH5508629**	Price
DNMG 332-GN	3/8	.187	.031	IC8150	**EH5508748**	Price
DNMG 332-GN	3/8	.187	.031	IC8250	**EH5508106**	Price
DNMG 332-GN	3/8	.187	.031	IC9250	**EH5591726**	Price
DNMG 332-M3M	3/8	.187	.031	IC6015	**EH5510253**	Price
DNMG 332-M3M	3/8	.187	.031	IC6025	**EH5510183**	Price
DNMG 332-M3M	3/8	.187	.031	IC806	**EH5566743**	Price
DNMG 332-M3P	3/8	.187	.031	IC8150	**EH5567482**	Price
DNMG 332-M3P	3/8	.187	.031	IC8250	**EH5567487**	Price
DNMG 332-NF	3/8	.187	.031	IC20N	**EH5502861**	Price
DNMG 332-NF	3/8	.187	.031	IC530N	**EH5503674**	Price
DNMG 332-NF	3/8	.187	.031	IC807	**EH5550315**	Price
DNMG 332-NF	3/8	.187	.031	IC8150	**EH5508219**	Price
DNMG 332-NF	3/8	.187	.031	IC8250	**EH5508085**	Price
DNMG 332-NF	3/8	.187	.031	IC907	**EH5505158**	Price
DNMG 332-PF	3/8	.187	.031	IC8150	**EH5508042**	Price
DNMG 332-PP	3/8	.187	.031	IC8150	**EH5550316**	Price
DNMG 332-PP	3/8	.187	.031	IC8250	**EH5550317**	Price
DNMG 332-VL	3/8	.187	.031	IC806	**EH5567597**	Price
DNMG 332-VL	3/8	.187	.031	IC908	**EH5507669**	Price

Style - DNMG 333

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 333-F3M	3/8	.187	.047	IC6015	**EH5567863**	Price
DNMG 333-F3M	3/8	.187	.047	IC6025	**EH5567864**	Price
DNMG 333-F3P	3/8	.187	.047	IC8150	**EH5566816**	Price
DNMG 333-F3P	3/8	.187	.047	IC8250	**EH5566817**	Price
DNMG 333-GN	3/8	.187	.047	IC8150	**EH5508925**	Price
DNMG 333-GN	3/8	.187	.047	IC8250	**EH5550318**	Price
DNMG 333-M3M	3/8	.187	.047	IC6015	**EH5510254**	Price
DNMG 333-M3M	3/8	.187	.047	IC6025	**EH5510184**	Price
DNMG 333-M3M	3/8	.187	.047	IC806	**EH5566744**	Price
DNMG 333-M3P	3/8	.187	.047	IC8150	**EH5567483**	Price
DNMG 333-TF	3/8	.187	.047	IC8250	**EH5550319**	Price

Style - DNMG 431

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 431-NF	1/2	.187	.016	IC807	**EH5550320**	Price
DNMG 431-NF	1/2	.187	.016	IC8250	**EH5550321**	Price
DNMG 431-TF	1/2	.187	.016	IC807	**EH5550322**	Price
DNMG 431-TF	1/2	.187	.016	IC8250	**EH5508107**	Price
DNMG 431-TF	1/2	.187	.016	IC907	**EH5505137**	Price
DNMG 431-TF	1/2	.187	.016	IC9250	**EH5507313**	Price

Style - DNMG 432

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 432-GN	1/2	.187	.031	IC8150	**EH5508220**	Price
DNMG 432-GN	1/2	.187	.031	IC830	**EH5568614**	Price
DNMG 432-GN	1/2	.187	.031	IC9150	**EH5507358**	Price
DNMG 432-GN	1/2	.187	.031	IC9250	**EH5507359**	Price
DNMG 432-M3M	1/2	.187	.031	IC6015	**EH5510255**	Price
DNMG 432-NF	1/2	.187	.031	IC8150	**EH5508928**	Price
DNMG 432-NF	1/2	.187	.031	IC8250	**EH5508927**	Price
DNMG 432-PP	1/2	.187	.031	IC8250	**EH5550323**	Price
DNMG 432-SWF	1/2	.187	.031	IC8250	**EH5508489**	Price
DNMG 432-TF	1/2	.187	.031	IC6015	**EH5509369**	Price
DNMG 432-TF	1/2	.187	.031	IC807	**EH5508275**	Price
DNMG 432-TF	1/2	.187	.031	IC8150	**EH5508932**	Price
DNMG 432-TF	1/2	.187	.031	IC8250	**EH5508086**	Price
DNMG 432-TF	1/2	.187	.031	IC920	**EH5570242**	Price
DNMG 432-TF	1/2	.187	.031	IC9250	**EH5507281**	Price
DNMG 432-WG	1/2	.187	.031	IC8250	**EH5550324**	Price
DNMG 432-GN	1/2	.187	.031	IC8250	**EH5508108**	Price
DNMG 432-TF	1/2	.187	.031	IC907	**EH5504876**	Price

Style - DNMG 442

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
DNMG 442-M3M	1/2	.250	.031	IC6025	**EH5510231**	Price
DNMG 442-TF	1/2	.250	.031	IC830	**EH5568595**	Price

Style - SCMT 3-1

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SCMT 3-1-SM	3/8	.156	.016	IC807	**EH5550401**	Price
SCMT 3-1-SM	3/8	.156	.016	IC8150	**EH5508155**	Price
SCMT 3-1-SM	3/8	.156	.016	IC8250	**EH5508120**	Price
SCMT 3-1-SM	3/8	.156	.016	IC9150	**EH5591786**	Price

Style - SCMT 3-2

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SCMT 3-2-17	3/8	.156	.031	IC830	**EH5568593**	Price
SCMT 3-2-SM	3/8	.156	.031	IC807	**EH5508276**	Price
SCMT 3-2-SM	3/8	.156	.031	IC8150	**EH5508156**	Price
SCMT 3-2-SM	3/8	.156	.031	IC8250	**EH5508121**	Price
SCMT 3-2-SM	3/8	.156	.031	IC830	**EH5568608**	Price

Style - SCMT 432

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SCMT 432-19	1/2	.187	.031	IC830	**EH5568584**	Price
SCMT 432-SM	1/2	.187	.031	IC807	**EH5550409**	Price
SCMT 432-SM	1/2	.187	.031	IC8150	**EH5508157**	Price

Style - SNMG 322

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SNMG 322-TF	3/8	.125	.031	IC9250	**EH5507557**	Price

Style - SNMG 331

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SNMG 331-F3M	3/8	.187	.016	IC6015	**EH5567853**	Price
SNMG 331-F3M	3/8	.187	.016	IC6025	**EH5567854**	Price
SNMG 331-F3P	3/8	.187	.016	IC8150	**EH5550572**	Price
SNMG 331-F3P	3/8	.187	.016	IC8250	**EH5560565**	Price

Style - SNMG 332

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SNMG 332-M3M	3/8	.187	.031	IC6015	**EH5550571**	Price
SNMG 332-M3M	3/8	.187	.031	IC6025	**EH5560560**	Price
SNMG 332-M3P	3/8	.187	.031	IC8150	**EH5567627**	Price
SNMG 332-M3P	3/8	.187	.031	IC8250	**EH5567568**	Price

Style - SNMG 431

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SNMG 431-TF	1/2	.187	.016	IC8250	**EH5508123**	Price

Style - SNMG 432

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
SNMG 432-GN	1/2	.187	.031	IC5005	**EH5507729**	Price
SNMG 432-GN	1/2	.187	.031	IC5010	**EH5507744**	Price
SNMG 432-GN	1/2	.187	.031	IC8150	**EH5508158**	Price
SNMG 432-GN	1/2	.187	.031	IC8250	**EH5508124**	Price
SNMG 432-GN	1/2	.187	.031	IC8350	**EH5508546**	Price
SNMG 432-GN	1/2	.187	.031	IC9250	**EH5507284**	Price
SNMG 432-PP	1/2	.187	.031	IC830	**EH5568610**	Price
SNMG 432-TF	1/2	.187	.031	IC6015	**EH5509553**	Price
SNMG 432-TF	1/2	.187	.031	IC807	**EH5508239**	Price
SNMG 432-TF	1/2	.187	.031	IC8250	**EH5508125**	Price
SNMG 432-TF	1/2	.187	.031	IC830	**EH5568597**	Price
SNMG 432-TF	1/2	.187	.031	IC907	**EH5504977**	Price
SNMG 432-TF	1/2	.187	.031	IC9250	**EH5591816**	Price
SNMG 432-GN	1/2	.187	.031	IC9150	**EH5591806**	Price

Style - TCGT 2-1

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TCMT 2-1-SM	1/4	.094	.016	IC8150	**EH5508159**	Price

Style - TCMT 2-0

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TCMT 2-0-PF	1/4	.094	.004	IC807	**EH5550443**	Price

Style - TCMT 2-1

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TCMT 2-1-SM	1/4	.094	.016	IC5010	**EH5508256**	Price
TCMT 2-1-SM	1/4	.094	.016	IC807	**EH5550445**	Price
TCMT 2-1-SM	1/4	.094	.016	IC8250	**EH5508126**	Price
TCMT 2-1-SM	1/4	.094	.016	IC8350	**EH5508549**	Price
TCMT 2-1-SM	3/8	.094	.016	IC9250	**EH5506990**	Price

Style - TCMT 2-2

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TCMT 2-2-SM	1/4	.094	.031	IC807	**EH5550447**	Price

Style - TCMT 3-1

Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TCMT 3-1-14	3/8	.156	.016	IC5005	**EH5550448**	Price
TCMT 3-1-SM	3/8	.156	.016	IC5005	**EH5550449**	Price
TCMT 3-1-SM	3/8	.156	.016	IC807	**EH5550450**	Price
TCMT 3-1-SM	3/8	.156	.016	IC8150	**EH5508160**	Price
TCMT 3-1-SM	3/8	.156	.016	IC8250	**EH5508128**	Price
TCMT 3-1-SM	3/8	.156	.016	IC830	**EH5568606**	Price
TCMT 3-1-SM	3/8	.156	.016	IC9250	**EH5507286**	Price

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Style - TCMT 3-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TCMT 3-2-19	3/8	.156	.031	IC830	**EH5568589**	Price
TCMT 3-2-19	3/8	.187	.031	IC5005	**EH5550451**	Price
TCMT 3-2-SM	3/8	.156	.031	IC5005	**EH5509051**	Price
TCMT 3-2-SM	3/8	.156	.031	IC807	**EH5550452**	Price
TCMT 3-2-SM	3/8	.156	.031	IC8150	**EH5508162**	Price
TCMT 3-2-SM	3/8	.156	.031	IC830	**EH5568613**	Price
TCMT 3-2-SM	3/8	.156	.031	IC9150	**EH5506995**	Price
TCMT 3-2-SM	3/8	.156	.031	IC9250	**EH5506993**	Price

Style - TNMA 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMA 331	3/8	.187	.016	IC5005	**EH5507734**	Price
TNMA 331	3/8	.187	.016	IC5010	**EH5507749**	Price

Style - TNMA 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMA 332	3/8	.187	.031	IC5005	**EH5507727**	Price
TNMA 332	3/8	.187	.031	IC5010	**EH5507742**	Price

Style - TNMA 333						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMA 333	3/8	.187	.031	IC5005	**EH5508045**	Price
TNMA 333	3/8	.187	.047	IC5010	**EH5508046**	Price

Style - TNMA 334						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMA 334	3/8	.187	.063	IC5010	**EH5508687**	Price

Style - TNMG 321						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 321-TF	3/8	.125	.016	IC9250	**EH5507566**	Price

Style - TNMG 322						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 322-GN	3/8	.187	.031	IC8250	**EH5550457**	Price
TNMG 322-TF	3/8	.187	.031	IC807	**EH5550458**	Price

Style - TNMG 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 331-F3M	3/8	.187	.016	IC6025	**EH5567840**	Price
TNMG 331-F3P	3/8	.187	.016	IC8150	**EH5566834**	Price
TNMG 331-F3P	3/8	.187	.016	IC8150	**EH5567571**	Price
TNMG 331-F3P	3/8	.187	.016	IC8250	**EH5566837**	Price
TNMG 331-GN	3/8	.187	.016	IC428	**EH5507567**	Price
TNMG 331-GN	3/8	.187	.016	IC5005	**EH5550459**	Price
TNMG 331-M3P	3/8	.187	.016	IC8250	**EH5567572**	Price
TNMG 331-PP	3/8	.187	.016	IC20	**EH5503154**	Price
TNMG 331-PP	3/8	.187	.016	IC8250	**EH5508129**	Price
TNMG 331-PP	3/8	.187	.016	IC8350	**EH5508556**	Price
TNMG 331-PP	3/8	.187	.016	IC9250	**EH5507318**	Price
TNMG 331-SF	3/8	.187	.016	IC520N	**EH5503733**	Price
TNMG 331-SF	3/8	.187	.016	IC530N	**EH5503639**	Price
TNMG 331-SF	3/8	.187	.016	IC570	**EH5503640**	Price
TNMG 331-TF	3/8	.187	.016	IC6015	**EH5509551**	Price
TNMG 331-TF	3/8	.187	.016	IC806	**EH5509995**	Price
TNMG 331-TF	3/8	.187	.016	IC807	**EH5508493**	Price
TNMG 331-TF	3/8	.187	.016	IC8150	**EH5508161**	Price
TNMG 331-TF	3/8	.187	.016	IC8250	**EH5508130**	Price
TNMG 331-TF	3/8	.187	.016	IC830	**EH5568604**	Price
TNMG 331-TF	3/8	.187	.016	IC907	**EH5505124**	Price
TNMG 331-TF	3/8	.187	.016	IC9150	**EH5507225**	Price

Style - TNMG 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 332-F3M	3/8	.187	.031	IC6015	**EH5567841**	Price
TNMG 332-F3M	3/8	.187	.031	IC6025	**EH5567842**	Price
TNMG 332-F3P	3/8	.187	.031	IC8150	**EH5566835**	Price
TNMG 332-F3P	3/8	.187	.031	IC8250	**EH5566838**	Price
TNMG 332-GN	3/8	.187	.031	IC20	**EH5507568**	Price
TNMG 332-GN	3/8	.187	.031	IC428	**EH5591057**	Price
TNMG 332-GN	3/8	.187	.031	IC5005	**EH5507721**	Price
TNMG 332-GN	3/8	.187	.031	IC5010	**EH5507736**	Price
TNMG 332-GN	3/8	.187	.031	IC807	**EH5550460**	Price
TNMG 332-GN	3/8	.187	.031	IC8150	**EH5508163**	Price
TNMG 332-GN	3/8	.187	.031	IC8250	**EH5508131**	Price
TNMG 332-GN	3/8	.187	.031	IC830	**EH5568598**	Price
TNMG 332-GN	3/8	.187	.031	IC8350	**EH5508541**	Price
TNMG 332-GN	3/8	.187	.031	IC907	**EH5505754**	Price
TNMG 332-GN	3/8	.187	.031	IC9250	**EH5507278**	Price
TNMG 332-M3M	3/8	.187	.031	IC6015	**EH5510314**	Price
TNMG 332-M3M	3/8	.187	.031	IC6025	**EH5566702**	Price

Style - TNMG 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 332-M3P	3/8	.187	.031	IC8150	**EH5567500**	Price
TNMG 332-M3P	3/8	.187	.031	IC8250	**EH5567503**	Price
TNMG 332-NF	3/8	.187	.031	IC8150	**EH5508623**	Price
TNMG 332-NF	3/8	.187	.031	IC8150	**EH5595966**	Price
TNMG 332-NF	3/8	.187	.031	IC8250	**EH5508624**	Price
TNMG 332-PP	3/8	.187	.031	IC20	**EH5502905**	Price
TNMG 332-PP	3/8	.187	.031	IC8250	**EH5508132**	Price
TNMG 332-SF	3/8	.187	.031	IC530N	**EH5599949**	Price
TNMG 332-SF	3/8	.187	.031	IC570	**EH5504541**	Price
TNMG 332-SF	3/8	.187	.031	IC8250	**EH5550461**	Price
TNMG 332-TF	3/8	.187	.031	IC6015	**EH5509552**	Price
TNMG 332-TF	3/8	.187	.031	IC806	**EH5509905**	Price
TNMG 332-TF	3/8	.187	.031	IC807	**EH5592001**	Price
TNMG 332-TF	3/8	.187	.031	IC808	**EH5592102**	Price
TNMG 332-TF	3/8	.187	.031	IC8150	**EH5508164**	Price
TNMG 332-TF	3/8	.187	.031	IC8250	**EH5508133**	Price
TNMG 332-TF	3/8	.187	.031	IC907	**EH5504912**	Price
TNMG 332-VL	3/8	.187	.031	IC806	**EH5567602**	Price
TNMG 332-VL	3/8	.187	.031	IC806	**EH5596446**	Price
TNMG 332-VL	3/8	.187	.031	IC807	**EH5550462**	Price
TNMG 332-VL	3/8	.187	.031	IC907	**EH5506329**	Price
TNMG 332-VL	3/8	.187	.031	IC908	**EH5592852**	Price

Style - TNMG 333						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 333-F3M	3/8	.187	.047	IC6015	**EH5567843**	Price
TNMG 333-F3M	3/8	.187	.047	IC6025	**EH5567844**	Price
TNMG 333-F3P	3/8	.187	.047	IC8150	**EH5566836**	Price
TNMG 333-F3P	3/8	.187	.047	IC8250	**EH5566839**	Price
TNMG 333-GN	3/8	.187	.047	IC8150	**EH5508619**	Price
TNMG 333-GN	3/8	.187	.047	IC8250	**EH5508620**	Price
TNMG 333-M3M	3/8	.187	.047	IC6015	**EH5510276**	Price
TNMG 333-M3M	3/8	.187	.047	IC6025	**EH5510195**	Price
TNMG 333-M3P	3/8	.187	.047	IC8150	**EH5567501**	Price
TNMG 333-M3P	3/8	.187	.047	IC8250	**EH5567504**	Price
TNMG 333-TF	3/8	.187	.047	IC807	**EH5550464**	Price
TNMG 333-TF	3/8	.187	.047	IC8150	**EH5508621**	Price
TNMG 333-TF	3/8	.187	.047	IC8250	**EH5550465**	Price
TNMG 333-TF	3/8	.187	.047	IC907	**EH5505125**	Price

Style - TNMG 431						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 431-PP	1/2	.187	.016	IC8250	**EH5550466**	Price
TNMG 431-TF	1/2	.187	.016	IC807	**EH5550467**	Price
TNMG 431-TF	1/2	.187	.016	IC8150	**EH5508916**	Price
TNMG 431-TF	1/2	.187	.016	IC8250	**EH5550468**	Price
TNMG 431-TF	1/2	.187	.016	IC907	**EH5505126**	Price

Style - TNMG 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 432-GN	1/2	.187	.031	IC8150	**EH5508165**	Price
TNMG 432-GN	1/2	.187	.031	IC8250	**EH5508134**	Price
TNMG 432-GN	1/2	.187	.031	IC830	**EH5568602**	Price
TNMG 432-GN	1/2	.187	.031	IC8350	**EH5508555**	Price
TNMG 432-PP	1/2	.187	.031	IC8150	**EH5550469**	Price
TNMG 432-PP	1/2	.187	.031	IC8250	**EH5550470**	Price
TNMG 432-TF	1/2	.187	.031	IC807	**EH5550471**	Price
TNMG 432-TF	1/2	.187	.031	IC8150	**EH5508917**	Price
TNMG 432-TF	1/2	.187	.031	IC8250	**EH5508135**	Price
TNMG 432-TF	1/2	.187	.031	IC9250	**EH5507315**	Price
TNMG 432-GN	1/2	.187	.031	IC9150	**EH5592286**	Price
TNMG 432-GN	1/2	.187	.031	IC9250	**EH5507280**	Price
TNMG 432-TF	1/2	.187	.031	IC907	**EH5505127**	Price

Style - TNMG 433						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 433-M3P	1/2	.187	.047	IC830	**EH5568294**	Price
TNMG 433-TF	1/2	.187	.047	IC907	**EH5505128**	Price

Style - TNMG 543						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMG 543-GN	5/8	.250	.047	IC9350	**EH5507258**	Price

Style - TNMX 341						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMX 341-M3PW	3/8	.250	.016	IC8150	**EH5560566**	Price
TNMX 341-M3PW	3/8	.250	.016	IC8250	**EH5560567**	Price

Style - TNMX 342						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TNMX 342-M3PW	3/8	.250	.031	IC8150	**EH5560568**	Price
TNMX 342-M3PW	3/8	.250	.031	IC8250	**EH5560569**	Price

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Style - TPG 322						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPG 322	3/8	.125	.031	IC9054	**EH5507589**	Price

Style - TPG 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPG 432	1/2	.187	.031	IC9054	**EH5507590**	Price

Style - TPGB 321						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPGB 321-60	3/8	.125	.016	IC570	**EH5503785**	Price

Style - TPGH 2-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPGH 2-1L	1/4	.094	.016	IC570	**EH5503787**	Price
TPGH 2-1XL	1/4	.094	.016	IC570	**EH5503788**	Price

Style - TPGH 2-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPGH 2-2L	1/4	.094	.031	IC570	**EH5503789**	Price

Style - TPGH 321						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPGH 321-L	3/8	.125	.016	IC570	**EH5503790**	Price

Style - TPMR 221						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPMR 221	1/4	.125	.016	IC830	**EH5568591**	Price

Style - TPMR 321						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPMR 321	3/8	.125	.016	IC830	**EH5568587**	Price
TPMR 321	3/8	.125	.016	IC907	**EH5505154**	Price

Style - TPMR 322						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPMR 322	3/8	.125	.031	IC20N	**EH5502717**	Price
TPMR 322	3/8	.125	.031	IC830	**EH5568605**	Price
TPMR 322	3/8	.125	.031	IC907	**EH5505155**	Price

Style - TPMT 2-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPMT 2-1	1/4	.094	.016	IC830	**EH5568601**	Price
TPMT 2-1	1/4	.094	.016	IC907	**EH5505570**	Price

Style - TPMT 321						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPMT 321	3/8	.125	.016	IC8250	**EH5508140**	Price
TPMT 321	3/8	.125	.016	IC830	**EH5568599**	Price
TPMT 321	3/8	.125	.016	IC8350	**EH5508543**	Price
TPMT 321	3/8	.125	.016	IC907	**EH5505522**	Price
TPMT 321	3/8	.125	.016	IC9250	**EH5507317**	Price

Style - TPMT 322						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPMT 322	3/8	.125	.031	IC830	**EH5568592**	Price
TPMT 322	3/8	.125	.031	IC907	**EH5505523**	Price

Style - TPU 322						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPU 322	3/8	.125	.031	IC520M	**EH555600424**	Price

Style - TPU 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
TPU 432	1/2	.187	.031	IC520M	**EH555600429**	Price

Style - VCMT 220						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 220-SM	1/4	.125	.008	IC807	**EH5550495**	Price

Style - VCMT 221						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 221-SM	1/4	.125	.016	IC807	**EH5550496**	Price

Style - VCMT 330						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 330-SM	3/8	.187	.008	IC807	**EH5550497**	Price

Style - VCMT 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 331-14	3/8	.187	.016	IC830	**EH5568590**	Price
VCMT 331-SM	3/8	.187	.016	IC807	**EH5550498**	Price
VCMT 331-SM	3/8	.187	.016	IC8150	**EH5508167**	Price

Style - VCMT 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 331-SM	3/8	.187	.016	IC8250	**EH5508141**	Price
VCMT 331-SM	3/8	.187	.016	IC9250	**EH5507001**	Price

Style - VCMT 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 332-SM	3/8	.187	.031	IC806	**EH5509900**	Price
VCMT 332-SM	3/8	.187	.031	IC807	**EH5550499**	Price
VCMT 332-SM	3/8	.187	.031	IC8150	**EH5508168**	Price
VCMT 332-SM	3/8	.187	.031	IC8250	**EH5508142**	Price
VCMT 332-SM	3/8	.187	.031	IC9150	**EH5507004**	Price
VCMT 332-SM	3/8	.187	.031	IC9250	**EH5507003**	Price

Style - VCMT 333						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VCMT 333-SM	3/8	.187	.047	IC807	**EH5550500**	Price

Style - VNMG 2.5-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VNMG 2.5-0-NF	1/4	.154	.008	IC830	**EH5568617**	Price
VNMG 2.5-0-NF	1/4	.156	.008	IC807	**EH5550503**	Price
VNMG 2.5-0-NF	1/4	.156	.008	IC8250	**EH5508143**	Price

Style - VNMG 2.5-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VNMG 2.5-1-NF	1/4	.156	.016	IC807	**EH5508221**	Price
VNMG 2.5-1-NF	1/4	.156	.016	IC8150	**EH5508169**	Price
VNMG 2.5-1-NF	1/4	.156	.016	IC8250	**EH5508144**	Price
VNMG 2.5-1-NF	1/4	.156	.016	IC830	**EH5509502**	Price
VNMG 2.5-1-NF	1/4	.156	.016	IC8350	**EH5508542**	Price

Style - VNMG 2.5-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC5005	**EH5508064**	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC5010	**EH5508065**	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC807	**EH5550504**	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC8150	**EH5508170**	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC8250	**EH5508145**	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC830	**EH5568607**	Price
VNMG 2.5-2-NF	1/4	.156	.031	IC8350	**EH5508550**	Price

Style - VNMG 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VNMG 331-NF	3/8	.187	.016	IC807	**EH5550505**	Price
VNMG 331-NF	3/8	.187	.016	IC8150	**EH5508171**	Price
VNMG 331-NF	3/8	.187	.016	IC8250	**EH5508147**	Price
VNMG 331-NF	3/8	.187	.016	IC9150	**EH5507396**	Price
VNMG 331-NF	3/8	.187	.016	IC9250	**EH5507370**	Price
VNMG 331-NF	3/8	.187	.016	IC907	**EH5505285**	Price

Style - VNMG 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VNMG 332-TF	3/8	.187	.031	IC507	**EH5504737**	Price
VNMG 332-TF	3/8	.187	.031	IC807	**EH5508508**	Price
VNMG 332-TF	3/8	.187	.031	IC8150	**EH5508172**	Price
VNMG 332-TF	3/8	.187	.031	IC8250	**EH5508146**	Price
VNMG 332-TF	3/8	.187	.031	IC907	**EH5505130**	Price
VNMG 332-TF	3/8	.187	.031	IC9250	**EH5507555**	Price

Style - VNMG 333						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
VNMG 333-TF	3/8	.187	.047	IC807	**EH5550506**	Price

Style - WNMA 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMA 331	3/8	.187	.016	IC5010	**EH5508039**	Price

Style - WNMA 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMA 331	3/8	.187	.016	IC428	**EH5599849**	Price
WNMA 332	3/8	.187	.031	IC5005	**EH5508037**	Price
WNMA 332	3/8	.187	.031	IC5010	**EH5508036**	Price

Style - WNMA 333						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMA 333	3/8	.187	.031	IC5005	**EH5510366**	Price
WNMA 333	3/8	.187	.031	IC5010	**EH5560555**	Price

Style - WNMG 3-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 3-0-NF	3/8	.154	.004	IC20N	**EH5502707**	Price
WNMG 3-0-NF	3/8	.154	.004	IC907	**EH5591780**	Price

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Style - WNMG 3-0						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 3-0-NF	3/8	.156	.008	IC807	**EH5550513**	Price
WNMG 3-0-NF	3/8	.156	.008	IC8150	**EH5550514**	Price
WNMG 3-0-NF	3/8	.156	.008	IC8250	**EH5507828**	Price
WNMG 3-0-NF	3/8	.156	.008	IC8350	**EH5507852**	Price

Style - WNMG 3-1						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 3-1-GN	3/8	.154	.016	IC9250	**EH5591896**	Price
WNMG 3-1-GN	3/8	.156	.016	IC8250	**EH5508148**	Price
WNMG 3-1-NF	3/8	.154	.016	IC20N	**EH5502654**	Price
WNMG 3-1-NF	3/8	.154	.016	IC907	**EH5504879**	Price
WNMG 3-1-NF	3/8	.154	.016	IC9150	**EH5507234**	Price
WNMG 3-1-NF	3/8	.154	.016	IC9250	**EH5591906**	Price
WNMG 3-1-NF	3/8	.156	.016	IC807	**EH5550515**	Price
WNMG 3-1-NF	3/8	.156	.016	IC8150	**EH5508173**	Price
WNMG 3-1-NF	3/8	.156	.016	IC8250	**EH5507812**	Price
WNMG 3-1-NF	3/8	.156	.016	IC8350	**EH5507849**	Price
WNMG 3-1-PP	3/8	.154	.016	IC10	**EH5503002**	Price
WNMG 3-1-PP	3/8	.154	.016	IC907	**EH5505629**	Price
WNMG 3-1-PP	3/8	.154	.016	IC9250	**EH5591916**	Price
WNMG 3-1-PP	3/8	.156	.016	IC807	**EH5550516**	Price
WNMG 3-1-PP	3/8	.156	.016	IC8250	**EH5507817**	Price
WNMG 3-1-PP	3/8	.156	.016	IC8350	**EH5507850**	Price
WNMG 3-1-SF	3/8	.156	.016	IC807	**EH5550517**	Price
WNMG 3-1-TF	3/8	.154	.016	IC907	**EH5504823**	Price
WNMG 3-1-TF	3/8	.156	.016	IC807	**EH5507872**	Price
WNMG 3-1-TF	3/8	.156	.016	IC8250	**EH5507808**	Price
WNMG 3-1-WG	3/8	.154	.016	IC9250	**EH5507288**	Price
WNMG 3-1-WG	3/8	.156	.016	IC8150	**EH5507841**	Price
WNMG 3-1-WG	3/8	.156	.016	IC8250	**EH5507809**	Price

Style - WNMG 3-2						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 3-2-GN	3/8	.156	.031	IC8150	**EH5507839**	Price
WNMG 3-2-GN	3/8	.156	.031	IC8250	**EH5507811**	Price
WNMG 3-2-GN	3/8	.156	.031	IC8350	**EH5507857**	Price
WNMG 3-2-NF	3/8	.154	.031	IC20N	**EH5502681**	Price
WNMG 3-2-NF	3/8	.154	.031	IC9250	**EH5591956**	Price
WNMG 3-2-NF	3/8	.156	.031	IC8150	**EH5550518**	Price
WNMG 3-2-NF	3/8	.156	.031	IC8250	**EH5507819**	Price
WNMG 3-2-NF	3/8	.156	.031	IC8350	**EH5507860**	Price
WNMG 3-2-PP	3/8	.154	.031	IC907	**EH5504824**	Price
WNMG 3-2-PP	3/8	.156	.031	IC807	**EH5550519**	Price
WNMG 3-2-PP	3/8	.156	.031	IC8150	**EH5550520**	Price
WNMG 3-2-PP	3/8	.156	.031	IC8250	**EH5550521**	Price
WNMG 3-2-PP	3/8	.156	.031	IC8350	**EH5507859**	Price
WNMG 3-2-TF	3/8	.154	.031	IC907	**EH5505153**	Price
WNMG 3-2-TF	3/8	.154	.031	IC9250	**EH5507283**	Price
WNMG 3-2-TF	3/8	.156	.031	IC807	**EH5507867**	Price
WNMG 3-2-TF	3/8	.156	.031	IC8150	**EH5508174**	Price
WNMG 3-2-TF	3/8	.156	.031	IC8250	**EH5507803**	Price
WNMG 3-2-WG	3/8	.156	.031	IC807	**EH5550522**	Price
WNMG 3-2-WG	3/8	.156	.031	IC8150	**EH5507844**	Price
WNMG 3-2-WG	3/8	.156	.031	IC8250	**EH5507818**	Price

Style - WNMG 3-3						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 3-3-GN	3/8	.156	.047	IC8250	**EH5550532**	Price
WNMG 3-3-TF	3/8	.156	.047	IC807	**EH5550534**	Price

Style - WNMG 330						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 330-NF	3/8	.187	.008	IC807	**EH5550523**	Price
WNMG 330-NF	3/8	.187	.008	IC907	**EH5506230**	Price
WNMG 330-WF	3/8	.187	.008	IC907	**EH5506229**	Price

Style - WNMG 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 331-F3M	3/8	.187	.016	IC6015	**EH5567827**	Price
WNMG 331-F3M	3/8	.187	.016	IC6025	**EH5567828**	Price
WNMG 331-F3P	3/8	.187	.016	IC8150	**EH5510356**	Price
WNMG 331-F3P	3/8	.187	.016	IC8250	**EH5510357**	Price
WNMG 331-GN	3/8	.187	.016	IC8250	**EH5550524**	Price
WNMG 331-M3M	3/8	.187	.016	IC6015	**EH5510354**	Price
WNMG 331-M3M	3/8	.187	.016	IC6025	**EH5510355**	Price
WNMG 331-M3M	3/8	.187	.016	IC806	**EH5566737**	Price
WNMG 331-M3P	3/8	.187	.016	IC8150	**EH5567569**	Price
WNMG 331-M3P	3/8	.187	.016	IC8250	**EH5567520**	Price
WNMG 331-NF	3/8	.187	.016	IC807	**EH5550525**	Price
WNMG 331-NF	3/8	.187	.016	IC8250	**EH5550526**	Price
WNMG 331-NF	3/8	.187	.016	IC907	**EH5506231**	Price

Style - WNMG 331						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 331-PP	3/8	.187	.016	IC807	**EH5550527**	Price
WNMG 331-PP	3/8	.187	.016	IC8250	**EH5550528**	Price
WNMG 331-PP	3/8	.187	.016	IC8350	**EH5507862**	Price
WNMG 331-PP	3/8	.187	.016	IC907	**EH5506170**	Price
WNMG 331-TF	3/8	.187	.016	IC807	**EH5508229**	Price
WNMG 331-TF	3/8	.187	.016	IC8250	**EH5508228**	Price
WNMG 331-TF	3/8	.187	.016	IC907	**EH5596391**	Price
WNMG 331-TF	3/8	.187	.016	IC9250	**EH5507683**	Price
WNMG 331-WF	3/8	.187	.016	IC807	**EH5550529**	Price
WNMG 331-WF	3/8	.187	.016	IC907	**EH5506227**	Price
WNMG 331-WG	3/8	.187	.016	IC530N	**EH5506297**	Price
WNMG 331-WG	3/8	.187	.016	IC807	**EH5508232**	Price
WNMG 331-WG	3/8	.187	.016	IC8150	**EH5550530**	Price
WNMG 331-WG	3/8	.187	.016	IC8250	**EH5508231**	Price

Style - WNMG 332						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 332-F3M	3/8	.187	.031	IC6025	**EH5567830**	Price
WNMG 332-F3P	3/8	.187	.031	IC8150	**EH5510358**	Price
WNMG 332-F3P	3/8	.187	.031	IC8250	**EH5510359**	Price
WNMG 332-GN	3/8	.187	.031	IC8250	**EH5507823**	Price
WNMG 332-GN	3/8	.187	.031	IC9250	**EH5591406**	Price
WNMG 332-M3M	3/8	.187	.031	IC6015	**EH5510313**	Price
WNMG 332-M3M	3/8	.187	.031	IC6025	**EH5510200**	Price
WNMG 332-M3M	3/8	.187	.031	IC806	**EH5566738**	Price
WNMG 332-M3P	3/8	.187	.031	IC8150	**EH5567570**	Price
WNMG 332-M3P	3/8	.187	.031	IC8250	**EH5567521**	Price
WNMG 332-NF	3/8	.187	.031	IC8150	**EH5508041**	Price
WNMG 332-PP	3/8	.187	.031	IC807	**EH5550531**	Price
WNMG 332-PP	3/8	.187	.031	IC8350	**EH5507863**	Price
WNMG 332-PP	3/8	.187	.031	IC907	**EH5506167**	Price
WNMG 332-TF	3/8	.187	.031	IC6015	**EH5567829**	Price
WNMG 332-TF	3/8	.187	.031	IC807	**EH5508230**	Price
WNMG 332-TF	3/8	.187	.031	IC8150	**EH5508175**	Price
WNMG 332-TF	3/8	.187	.031	IC8250	**EH5507825**	Price
WNMG 332-TF	3/8	.187	.031	IC907	**EH5594751**	Price
WNMG 332-TF	3/8	.187	.031	IC9250	**EH5591976**	Price
WNMG 332-WF	3/8	.187	.031	IC907	**EH5506228**	Price
WNMG 332-WG	3/8	.187	.031	IC807	**EH5508234**	Price
WNMG 332-WG	3/8	.187	.031	IC8150	**EH5508930**	Price
WNMG 332-WG	3/8	.187	.031	IC8250	**EH5508233**	Price

Style - WNMG 333						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 333-F3M	3/8	.187	.047	IC6015	**EH5567831**	Price
WNMG 333-F3P	3/8	.187	.047	IC8150	**EH5566844**	Price
WNMG 333-F3P	3/8	.187	.047	IC8250	**EH5566845**	Price
WNMG 333-GN	3/8	.187	.031	IC6025	**EH5567832**	Price
WNMG 333-GN	3/8	.187	.047	IC8150	**EH5508622**	Price
WNMG 333-M3M	3/8	.187	.047	IC6015	**EH5510284**	Price
WNMG 333-M3M	3/8	.187	.047	IC6025	**EH5510201**	Price
WNMG 333-M3M	3/8	.187	.047	IC806	**EH5566739**	Price
WNMG 333-M3P	3/8	.187	.047	IC8150	**EH5567513**	Price
WNMG 333-TF	3/8	.187	.047	IC807	**EH5508222**	Price
WNMG 333-TF	3/8	.187	.047	IC907	**EH5594761**	Price

Style - WNMG 431						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 431-GN	1/2	.187	.016	IC5005	**EH5508058**	Price
WNMG 431-GN	1/2	.187	.016	IC5010	**EH5508059**	Price
WNMG 431-GN	1/2	.187	.016	IC8150	**EH5508176**	Price
WNMG 431-GN	1/2	.187	.016	IC8250	**EH5507826**	Price
WNMG 431-GN	1/2	.187	.016	IC9250	**EH5591986**	Price
WNMG 431-NF	1/2	.187	.016	IC20N	**EH5503731**	Price
WNMG 431-NF	1/2	.187	.016	IC530N	**EH5503667**	Price
WNMG 431-NF	1/2	.187	.016	IC8250	**EH5507829**	Price
WNMG 431-PP	1/2	.187	.016	IC6015	**EH5509364**	Price
WNMG 431-PP	1/2	.187	.016	IC807	**EH5508273**	Price
WNMG 431-PP	1/2	.187	.016	IC8150	**EH5508926**	Price
WNMG 431-PP	1/2	.187	.016	IC8250	**EH5507816**	Price
WNMG 431-PP	1/2	.187	.016	IC830	**EH5568615**	Price
WNMG 431-PP	1/2	.187	.016	IC8350	**EH5507864**	Price
WNMG 431-PP	1/2	.187	.016	IC9250	**EH5591996**	Price
WNMG 431-TF	1/2	.187	.016	IC507	**EH5504735**	Price
WNMG 431-TF	1/2	.187	.016	IC6015	**EH5509363**	Price
WNMG 431-TF	1/2	.187	.016	IC807	**EH5507869**	Price
WNMG 431-TF	1/2	.187	.016	IC8150	**EH5508044**	Price
WNMG 431-TF	1/2	.187	.016	IC8250	**EH5507807**	Price
WNMG 431-TF	1/2	.187	.016	IC907	**EH5505131**	Price
WNMG 431-TF	1/2	.187	.016	IC9250	**EH5507309**	Price

Turning Inserts



Member IMC Group

Style - WNMG 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 432	1/2	.187	.031	IC28	**EH5502820**	Price
WNMG 432-GN	1/2	.187	.031	IC5005	**EH5507731**	Price
WNMG 432-GN	1/2	.187	.031	IC5010	**EH5507746**	Price
WNMG 432-GN	1/2	.187	.031	IC6015	**EH5509367**	Price
WNMG 432-GN	1/2	.187	.031	IC807	**EH5550536**	Price
WNMG 432-GN	1/2	.187	.031	IC8150	**EH5507831**	Price
WNMG 432-GN	1/2	.187	.031	IC8250	**EH5507801**	Price
WNMG 432-GN	1/2	.187	.031	IC830	**EH5509504**	Price
WNMG 432-GN	1/2	.187	.031	IC8350	**EH5507851**	Price
WNMG 432-GN	1/2	.187	.031	IC907	**EH5595309**	Price
WNMG 432-GN	1/2	.187	.031	IC9150	**EH5506967**	Price
WNMG 432-M3M	1/2	.187	.031	IC6015	**EH5560538**	Price
WNMG 432-M3M	1/2	.187	.031	IC6025	**EH5510202**	Price
WNMG 432-NF	1/2	.187	.031	IC530N	**EH5503666**	Price
WNMG 432-NF	1/2	.187	.031	IC8150	**EH5507833**	Price
WNMG 432-NF	1/2	.187	.031	IC8250	**EH5508149**	Price
WNMG 432-NF	1/2	.187	.031	IC9250	**EH5507357**	Price
WNMG 432-NR	1/2	.187	.031	IC5010	**EH5550537**	Price
WNMG 432-NR	1/2	.187	.031	IC807	**EH5550538**	Price
WNMG 432-NR	1/2	.187	.031	IC8250	**EH5508277**	Price
WNMG 432-PP	1/2	.187	.031	IC6015	**EH5509366**	Price
WNMG 432-PP	1/2	.187	.031	IC807	**EH5507868**	Price
WNMG 432-PP	1/2	.187	.031	IC8150	**EH5508177**	Price
WNMG 432-PP	1/2	.187	.031	IC8250	**EH5507810**	Price
WNMG 432-PP	1/2	.187	.031	IC8350	**EH5507854**	Price
WNMG 432-PP	1/2	.187	.031	IC907	**EH5504825**	Price
WNMG 432-PP	1/2	.187	.031	IC9250	**EH5506973**	Price
WNMG 432-TF	1/2	.187	.031	IC5010	**EH5550539**	Price
WNMG 432-TF	1/2	.187	.031	IC507	**EH5504263**	Price
WNMG 432-TF	1/2	.187	.031	IC6015	**EH5509365**	Price

Style - WNMG 432						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 432-TF	1/2	.187	.031	IC807	**EH5507751**	Price
WNMG 432-TF	1/2	.187	.031	IC8150	**EH5507835**	Price
WNMG 432-TF	1/2	.187	.031	IC8250	**EH5507755**	Price
WNMG 432-TF	1/2	.187	.031	IC830	**EH5507753**	Price
WNMG 432-TF	1/2	.187	.031	IC8350	**EH5508545**	Price
WNMG 432-TF	1/2	.187	.031	IC9250	**EH5506972**	Price
WNMG 432-WF	1/2	.187	.031	IC8150	**EH5508178**	Price
WNMG 432-WG	1/2	.187	.031	IC5005	**EH5550540**	Price
WNMG 432-WG	1/2	.187	.031	IC8150	**EH5507842**	Price
WNMG 432-WG	1/2	.187	.031	IC8250	**EH5507820**	Price
WNMG 432-GN	1/2	.187	.031	IC9250	**EH5506971**	Price
WNMG 432-TF	1/2	.187	.031	IC907	**EH5596898**	Price

Style - WNMG 433						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMG 433-GN	1/2	.187	.047	IC9250	**EH5507368**	Price
WNMG 433-M3M	1/2	.187	.047	IC6015	**EH5510286**	Price
WNMG 433-M3M	1/2	.187	.047	IC6025	**EH5510203**	Price
WNMG 433-M3M	1/2	.187	.047	IC830	**EH5567771**	Price

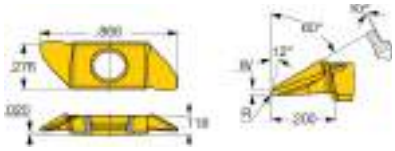
Style - WNMX 341						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMX 341-M3PW	3/8	.250	.016	IC8150	**EH5510360**	Price
WNMX 341-M3PW	3/8	.250	.016	IC8250	**EH5510361**	Price

Style - WNMX 342						
Iscar Designation	IC (in.)	T (in.)	R (in.)	Grade	Order No.	Price
WNMX 342-M3PW	3/8	.250	.031	IC807	**EH5507992**	Price
WNMX 342-M3PW	3/8	.250	.031	IC8150	**EH5507993**	Price
WNMX 342-M3PW	3/8	.250	.031	IC8250	**EH5507686**	Price

SWISSCUT Back Turning Inserts

SCIR/L - BR/BL

- Back turning inserts with a frontal lead angle
- Used on Swiss type automatics and small CNC lathes
- Grade IC1008 is good for general machining of steel, stainless steels, and cast iron

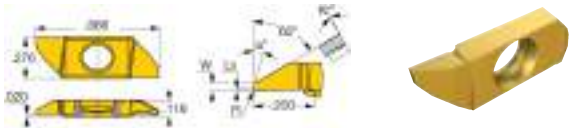


Iscar No.	Width (in.)	Ka°	Radius R (in.)	Right/Left Hand	Grade	Order No.	Price
SCIL 22-BL00-05K7 IC1008 INSERT	.020	7 Degrees	.000	Left	IC1008	**EH6405425**	Price
SCIL 22-BL08-10K7 IC1008 INSERT	.039	7 Degrees	.003	Left	IC1008	**EH6410052**	Price
SCIL 22-BL10-05K7 IC1008 INSERT	.020	7 Degrees	.004	Left	IC1008	**EH6405426**	Price
SCIR 22-BR00-05K7 IC1008 INSERT	.020	7 Degrees	.000	Right	IC1008	**EH6405424**	Price
SCIR 22-BR08-10K15 IC1008	.039	15 Degrees	.003	Right	IC1008	**EH6410054**	Price
SCIR 22-BR08-10K7 IC1008 INSERT	.039	7 Degrees	.003	Right	IC1008	**EH6410051**	Price
SCIR 22-BR10-05K15 IC1008 INSERT	.020	15 Degrees	.004	Right	IC1008	**EH6410053**	Price
SCIR 22-BR10-05K7 IC1008 INSERT	.020	7 Degrees	.004	Right	IC1008	**EH6404229**	Price

SWISSCUT Back Turning Inserts

SCIR/L - ER/EL

- Back turning inserts with a flat top rake for short chipping materials
- Used on Swiss type automatics and small CNC lathes
- Grade IC1008 is good for general machining of steel, stainless steels, and cast iron

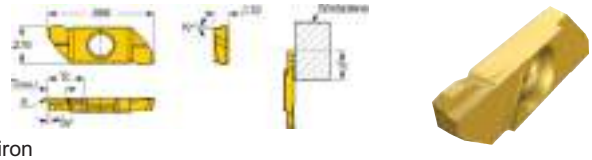


Iscar No.	Width (in.)	a°	Right/Left Hand	Grade	Order No.	Price
SCIR 22-ER00-03K0	.012	10 Degrees	Right	IC1008	**EH6411296**	Price
SCIL 22-EL00-03K0	.012	10 Degrees	Left	IC1008	**EH6411299**	Price
SCIR 22-ER00-07K0	.028	10 Degrees	Right	IC1008	**EH6405422**	Price
SCIL 22-EL00-07K0	.028	10 Degrees	Left	IC1008	**EH6405423**	Price
SCIR 22-EL00-07K0	.028	10 Degrees	Right	IC1008	**EH6405460**	Price
SCIR 22-ER00-07K10	.028	3 Degrees	Right	IC1008	**EH6410064**	Price

SWISSCUT Turning Inserts

SCIR/L - AR/AL

- Turning inserts with a frontal lead angle
- Used on Swiss type automatics and small CNC lathes
- Grade IC1008 is good for general machining of steel, stainless steels, and cast iron



Iscar No.	Angle fa°	Kr°	Radius R (in.)	Right/Left Hand	Grade	Order No.	Price
SCIR 22-AR00-25K16	8 Degrees	16 Degrees	.000	Right	IC1008	**EH6405420**	Price
SCIL 22-AL00-25K16	12 Degrees	16 Degrees	.000	Left	IC1008	**EH6405418**	Price
SCIR 22-AR10-25K8	12 Degrees	8 Degrees	.004	Right	IC1008	**EH6405421**	Price
SCIL 22-AL10-25K8	8 Degrees	8 Degrees	.004	Left	IC1008	**EH6405419**	Price

DR-TWIST INDEXABLE DRILL LINE Twist Indexable Drills 2XD

DR Drills

Designed with twisted coolant channels which allow for a strong body with excellent resistance to torsion and very efficient chip evacuation



Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
DR04690938063042DN	.469	.938	AOMT04020490	.625	**EH3202554**	Price
DR05001000063042DN	.500	1.000	AOMT04020490	.625	**EH3202555**	Price
DR05311062063042DN	.531	1.062	AOMT04020490	.625	**EH3202557**	Price
DR05621125075052DN	.562	1.125	SOMX050204	.750	**EH3201308**	Price
DR05781156075052DN	.578	1.156	SOMX050204	.750	**EH3201309**	Price
DR05941188075052DN	.594	1.188	SOMX050204	.750	**EH3201310**	Price
DR06251250075052DN	.625	1.250	SOMX050204	.750	**EH3201311**	Price
DR06561312075052DN	.656	1.312	SOMX050204	.750	**EH3201312**	Price
DR06881375075052DN	.688	1.375	SOMX050204	.750	**EH3201356**	Price
DR07031406075052DN	.703	1.406	SOMX050204	.750	**EH3201357**	Price
DR07341469100062DN	.734	1.469	SOMX060304	1.000	**EH3201358**	Price
DR07501500100062DN	.750	1.500	SOMX060304	1.000	**EH3201359**	Price
DR07811562100062DN	.781	1.562	SOMX060304	1.000	**EH3201360**	Price
DR0812162062DN	.812	1.625	SOMX060304	1.000	**EH3201392**	Price
DR08441688100072DN	.844	1.688	SOMX070305	1.000	**EH3201393**	Price
DR09061813100072DN	.906	1.813	SOMX070305	1.000	**EH3201395**	Price
DR0937187072DN	.937	1.875	SOMX070305	1.000	**EH3201396**	Price

3“ Shank Length

DR-TWIST INDEXABLE DRILL LINE Twist Indexable Drills 3XD

DR Drills

Designed with twisted coolant channels which allow for a strong body with excellent resistance to torsion and very efficient chip evacuation

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
DR04691407063043DN	.469	1.407	AOMT04020490	.625	**EH3202558**	Price
DR05001500063043DN	.500	1.500	AOMT04020490	.625	**EH3202559**	Price
DR05311593063043DN	.531	1.593	AOMT04020490	.625	**EH3202561**	Price
DR05621687075053DN	.562	1.687	SOMX050204	.750	**EH3201320**	Price
DR05941781075053DN	.594	1.781	SOMX050204	.750	**EH3201322**	Price
DR06251875075053DN	.625	1.875	SOMX050204	.750	**EH3201323**	Price
DR06561969075053DN	.656	1.969	SOMX050204	.750	**EH3201324**	Price
DR06882062075053DN	.688	2.062	SOMX050204	.750	**EH3201361**	Price
DR07032109075053DN	.703	2.109	SOMX050204	.750	**EH3201362**	Price
DR07502250100063DN	.750	2.250	SOMX060304	1.000	**EH3201364**	Price
DR07812344100063DN	.781	2.344	SOMX060304	1.000	**EH3201365**	Price
DR08122438100063DN	.812	2.438	SOMX060304	1.000	**EH3201397**	Price
DR08442531100073DN	.844	2.531	SOMX070305	1.000	**EH3201398**	Price
DR0875262073DN	.875	2.625	SOMX070305	1.000	**EH3201399**	Price
DR09062719100073DN	.906	2.719	SOMX070305	1.000	**EH3201400**	Price
DR09372813100073DN	.937	2.813	SOMX070305	1.000	**EH3201401**	Price
DR09842952125093DN	.984	2.952	SOMT09T306	1.250	**EH3201839**	Price
DR10003000125093DN	1.000	3.000	SOMT09T306	1.250	**EH3201840**	Price
DR10313093125093DN	1.031	3.093	SOMT09T306	1.250	**EH3201841**	Price
DR10623186125093DN	1.062	3.186	SOMT09T306	1.250	**EH3201842**	Price
DR11253375125093DN	1.125	3.375	SOMT09T306	1.250	**EH3201843**	Price
DR11873561125093DN	1.187	3.561	SOMT09T306	1.250	**EH3201844**	Price
DR12193657125093DN	1.219	3.657	SOMT09T306	1.250	**EH3201845**	Price
DR12503750125093DN	1.250	3.750	SOMT09T306	1.250	**EH3201846**	Price
DR12813843125093DN	1.281	3.843	SOMT09T306	1.250	**EH3201847**	Price
DR13123936125093DN	1.312	3.936	SOMT09T306	1.250	**EH3201848**	Price
DR13754125150123DN	1.375	4.125	SOMT120408	1.500	**EH3201849**	Price
DR14374311150123DN	1.437	4.311	SOMT120408	1.500	**EH3201850**	Price
DR15004500150123DN	1.500	4.500	SOMT120408	1.500	**EH3201851**	Price

3“ Shank Length

DR-TWIST INDEXABLE DRILL LINE Twist Indexable Drills 4XD

DR Drills

Designed with twisted coolant channels which allow for a strong body with excellent resistance to torsion and very efficient chip evacuation

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
DR04691876063044DN	.469	1.876	AOMT04020490	.625	**EH3202562**	Price
DR05002000063044DN	.500	2.000	AOMT04020490	.625	**EH3202563**	Price
DR05312124063044DN	.531	2.124	AOMT04020490	.625	**EH3202565**	Price
DR05622250075054DN	.562	2.250	SOMX050204	.750	**EH3201332**	Price
DR05782312075054DN	.578	2.312	SOMX050204	.750	**EH3201333**	Price
DR05942375075054DN	.594	2.375	SOMX050204	.750	**EH3201334**	Price
DR06252500075054DN	.625	2.500	SOMX050204	.750	**EH3201335**	Price
DR06562625075054DN	.656	2.625	SOMX050204	.750	**EH3201336**	Price
DR06882750075054DN	.688	2.750	SOMX050204	.750	**EH3201366**	Price
DR07032812075054DN	.703	2.812	SOMX050204	.750	**EH3201367**	Price
DR07342937100064DN	.734	2.937	SOMX060304	1.000	**EH3201368**	Price
DR0781312064DN	.781	3.125	SOMX060304	1.000	**EH3201370**	Price
DR08123250100064DN	.812	3.250	SOMX060304	1.000	**EH3201402**	Price
DR0844337074DN	.844	3.375	SOMX070305	1.000	**EH3201403**	Price
DR08753500100074DN	.875	3.500	SOMX070305	1.000	**EH3201404**	Price
DR0906362074DN	.906	3.625	SOMX070305	1.000	**EH3201405**	Price
DR09373750100074DN	.937	3.750	SOMX070305	1.000	**EH3201406**	Price
DR09843936125094DN	.984	3.936	SOMT09T306	1.250	**EH3201493**	Price
DR10004000125094DN	1.000	4.000	SOMT09T306	1.250	**EH3201494**	Price
DR10314124125094DN	1.031	4.124	SOMT09T306	1.250	**EH3201977**	Price
DR10624248125094DN	1.062	4.248	SOMT09T306	1.250	**EH3201495**	Price
DR11254500125094DN	1.125	4.500	SOMT09T306	1.250	**EH3201496**	Price
DR11874748125094DN	1.187	4.748	SOMT09T306	1.250	**EH3201497**	Price
DR12194876125094DN	1.219	4.876	SOMT09T306	1.250	**EH3260041**	Price
DR12505000125094DN	1.250	5.000	SOMT09T306	1.250	**EH3201499**	Price
DR12815124125094DN	1.281	5.124	SOMT09T306	1.250	**EH3201978**	Price
DR13125248125094DN	1.312	5.248	SOMT09T306	1.250	**EH3201500**	Price
DR13755500150124DN	1.375	5.500	SOMT120408	1.500	**EH3201501**	Price
DR14375748150124DN	1.437	5.748	SOMT120408	1.500	**EH3201502**	Price
DR15006000150124DN	1.500	6.000	SOMT120408	1.500	**EH3201503**	Price
DR15626248150124DN	1.562	6.248	SOMT120408	1.500	**EH3201504**	Price

3“ Shank Length

DR-TWIST INDEXABLE DRILL LINE Twist Indexable Drills 5XD

DR Drills

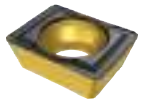
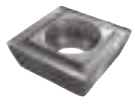
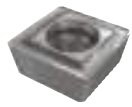
Designed with twisted coolant channels which allow for a strong body with excellent resistance to torsion and very efficient chip evacuation

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
DR05622815075055DN	.5620	2.815	SOMX050204	.750	**EH3202574**	Price
DR05782894075055DN	.5780	2.894	SOMX050204	.750	**EH3202575**	Price
DR05942972075055DN	.5940	2.972	SOMX050204	.750	**EH3202576**	Price
DR06253130075055DN	.6250	3.130	SOMX050204	.750	**EH3202577**	Price
DR06563287075055DN	.6560	3.287	SOMX050204	.750	**EH3202578**	Price
DR06883445075055DN	.6880	3.445	SOMX050204	.750	**EH3202579**	Price
DR07033524075055DN	.7030	3.524	SOMX050204	.750	**EH3202580**	Price
DR07091418100062DN	.7090	1.418	SOMX060304	1.000	**EH3260049**	Price
DR07093543100065DN	.7090	3.543	SOMX060304	1.000	**EH3202581**	Price
DR07343661100065DN	.7340	3.661	SOMX060304	1.000	**EH3260142**	Price
DR07503760100065DN	.7500	3.760	SOMX060304	1.000	**EH3202583**	Price
DR0812405065DN	.8120	4.055	SOMX060304	1.000	**EH3202585**	Price
DR08444212100075DN	.8440	4.212	SOMX070305	1.000	**EH3202586**	Price
DR08754370100075DN	.8750	4.370	SOMX070305	1.000	**EH3202587**	Price
DR09064527100075DN	.9060	4.527	SOMX070305	1.000	**EH3260144**	Price
DR0937468075DN	.9370	4.685	SOMX070305	1.000	**EH3202589**	Price

3“ Shank Length

DR-TWIST INDEXABLE DRILL LINE Twist Indexable Drills Inserts

IC808 – A hard, fine grain substrate with excellent chipping resistance, combined with a new “SUMO TEC” TiAlN PVD coating. Provides high wear resistance. Recommended for a very wide range of materials.
IC908 – A hard, fine grain substrate with excellent chipping resistance, combined with a Ti AlN PVD coating. Provides high wear resistance. Recommended for a very wide range of materials.
IC8080 – A hard, fine grain substrate with “SUMO TEC” MTCVD alpha Al203 coating. Features excellent chipping and wear resistance. Recommended for high speed drilling of cast iron and steel, to be used for the peripheral insert on DR drills.

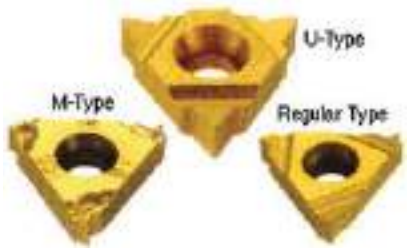
Iscar Designation	Grade	I.C. (in.)	T (in.)	R	Order No.	Price
AOMT04020490-DT	IC808	.157	.063	.016	**EH565507954**	Price
AOMT04020490-DT	IC908	.157	.063	.016	**EH565507955**	Price
SOMT 09T306-DT	IC8080	.354	.150	.024	**EH565507925**	Price
SOMT 100408-DT	IC808	.386	.169	.031	**EH565507941**	Price
SOMT-110408-DT	IC808	.453	.189	.031	**EH565507876**	Price
SOMT 120408-DT	IC8080	1/2	.187	.031	**EH565507927**	Price
SOMT 160512-DT	IC808	.630	.218	.047	**EH565507878**	Price
SOMT 160512-DT	IC8080	.630	.218	.047	**EH565507928**	Price
SOMX 050204-DT	IC808	.213	.094	.016	**EH565507879**	Price
SOMX 050204-DT	IC8080	.213	.094	.016	**EH565507922**	Price
SOMX 060304-DT	IC808	.244	.126	.016	**EH565507880**	Price
SOMX 060304-DT	IC8080	.244	.126	.016	**EH565507923**	Price
SOMX 070305-DT	IC808	.303	.142	.020	**EH565507881**	Price
SOMX 070305-DT	IC8080	.303	.142	.020	**EH565507924**	Price

ISCARTHREAD

Laydown Threading Inserts

UN Thread Style • 3/8" IC

- UN, full profile (UN, UNC, UNF, UNEF),
- IR / ER (IL/EL for left hand) - ground periphery and rake
- IRB / ERB - with a chipformer and peripherally ground
- IRM / ERM - with molded chipformer
- Application: general industry



Internal/External - External							
Model No.	Grade	TPI	Right/Left Hand	Radius (in.)	Teeth Per Corner	Order No.	Price
16ER8UN	IC908	8	Right	.0161	1	**EH5901994**	Price
16ERB8UN	IC908	8	Right	.0161	1	**EH5902814**	Price
16ERM8UN	IC908	8	Right	.0161	1	**EH5902383**	Price
16EL8UN	IC908	8	Left	.0161	1	**EH5995855**	Price
16ER9UN	IC908	9	Right	.0142	1	**EH5902143**	Price
16ER10UN	IC908	10	Right	.0126	1	**EH5901996**	Price
16ERB10UN	IC908	10	Right	.0126	1	**EH5902812**	Price
16EL10UN	IC908	10	Left	.0126	1	**EH5995865**	Price
16ER11UN	IC908	11	Right	.0110	1	**EH5902596**	Price
16ERB11UN	IC908	11	Right	.0110	1	**EH5902811**	Price
16ER11.5UN	IC908	11.5	Right	.0106	1	**EH5902522**	Price
16ERM12UN	IC808	12	Right	.0098	1	**EH5921246**	Price
16ER12UN	IC908	12	Right	.0102	1	**EH5993248**	Price
16ERB12UN	IC908	12	Right	.0102	1	**EH5902810**	Price
16ERM12UN	IC908	12	Right	.0098	1	**EH5901567**	Price
16ERM12UN	IC1007	12	Right	.0098	1	**EH5903442**	Price
16EL12UN	IC908	12	Left	.0102	1	**EH5902056**	Price
16ER13UN	IC908	13	Right	.0094	1	**EH5995875**	Price
16ERB13UN	IC908	13	Right	.0079	1	**EH5902809**	Price
16ERM13UN	IC908	13	Right	.0094	1	**EH5902339**	Price
16ERM14UN	IC808	14	Right	.0087	1	**EH5903371**	Price
16ER14UN	IC908	14	Right	.0087	1	**EH5993258**	Price
16ERB14UN	IC908	14	Right	.0087	1	**EH5902808**	Price
16ERM14UN	IC908	14	Right	.0087	1	**EH5902294**	Price
16ER14UN2M	IC908	14	Right	.0040	2	**EH5999673**	Price
16ERM16UN	IC808	16	Right	.0075	1	**EH5921255**	Price
16ER16UN	IC908	16	Right	.0071	1	**EH5901961**	Price
16ERB16UN	IC908	16	Right	.0071	1	**EH5902807**	Price
16ERM16UN	IC908	16	Right	.0075	1	**EH5901568**	Price
16ER16UN2M	IC908	16	Right	.0040	2	**EH5902375**	Price
16EL16UN	IC908	16	Left	.0071	1	**EH5902352**	Price
16ERM18UN	IC808	18	Right	.0071	1	**EH5903367**	Price
16ER18UN	IC908	18	Right	.0067	1	**EH5993268**	Price
16ERB18UN	IC908	18	Right	.0071	1	**EH5902806**	Price
16ERM18UN	IC908	18	Right	.0059	1	**EH5901569**	Price
16EL18UN	IC908	18	Left	.0067	1	**EH5996492**	Price
16ERM20UN	IC808	20	Right	.0055	1	**EH5903369**	Price
16ER20UN	IC908	20	Right	.0059	1	**EH5901964**	Price
16ERB20UN	IC908	20	Right	.0059	1	**EH5902805**	Price
16ERM20UN	IC908	20	Right	.0055	1	**EH5901570**	Price
16ER20UN	IC1007	20	Right	.0059	1	**EH593318610**	Price
16EL20UN	IC908	20	Left	.0059	1	**EH5902350**	Price
16ER24UN	IC908	24	Right	.0047	1	**EH5901966**	Price
16ERB24UN	IC908	24	Right	.0047	1	**EH5902804**	Price

Internal/External - External							
Model No.	Grade	TPI	Right/Left Hand	Radius (in.)	Teeth Per Corner	Order No.	Price
16ERM24UN	IC908	24	Right	.0043	1	**EH5902384**	Price
16EL24UN	IC908	24	Left	.0047	1	**EH5902366**	Price
16EL28UN	IC908	28	Left	.0039	1	**EH5902420**	Price
16ER28UN	IC908	28	Right	.0039	1	**EH5902002**	Price
16ER32UN	IC908	32	Right	.0035	1	**EH5902004**	Price
16ER36UN	IC908	36	Right	.0028	1	**EH5902006**	Price
16ER40UN	IC908	40	Right	.0024	1	**EH5902008**	Price
16ER48UN	IC908	48	Right	.0020	1	**EH5902010**	Price
16ER56UN	IC908	56	Right	.0016	1	**EH5902012**	Price

Internal/External - Internal							
Model No.	Grade	TPI	Right/Left Hand	Radius (in.)	Teeth Per Corner	Order No.	Price
16IR8UN	IC908	8	Right	.0075	1	**EH5902015**	Price
16IRM8UN	IC908	8	Right	.0079	1	**EH5902387**	Price
16IR9UN	IC908	9	Right	.0067	1	**EH5902142**	Price
16IR10UN	IC908	10	Right	.0028	1	**EH5902017**	Price
16IRB10UN	IC908	10	Right	.0059	1	**EH5902816**	Price
16IR11UN	IC908	11	Right	.0055	1	**EH5999976**	Price
16IR11.5UN	IC908	11.5	Right	.0051	1	**EH5902520**	Price
16IRM12UN	IC808	12	Right	.0047	1	**EH5921251**	Price
16IR12UN	IC1007	12	Right	.0047	1	**EH593318604**	Price
16IR12UN	IC908	12	Right	.0047	1	**EH5901932**	Price
16IRM12UN	IC908	12	Right	.0047	1	**EH5901579**	Price
16IRM12UN	IC1007	12	Right	.0047	1	**EH5903452**	Price
16IL12UN	IC908	12	Left	.0047	1	**EH5902057**	Price
16IR14UN	IC908	14	Right	.0039	1	**EH5902018**	Price
16IRB14UN	IC908	14	Right	.0039	1	**EH5902818**	Price
16IRM14UN	IC808	14	Right	.0043	1	**EH5990323**	Price
16IRM14UN	IC908	14	Right	.0043	1	**EH5902295**	Price
16IR16UN	IC908	16	Right	.0035	1	**EH5901934**	Price
16IRB16UN	IC908	16	Right	.0035	1	**EH5996242**	Price
16IRM16UN	IC908	16	Right	.0035	1	**EH5901580**	Price
16IR16UN2M	IC908	16	Right	.0035	2	**EH593338321**	Price
16IL16UN	IC908	16	Left	.0035	1	**EH5902368**	Price
16IRM18UN	IC808	18	Right	.0030	1	**EH5903406**	Price
16IR18UN	IC908	18	Right	.0028	1	**EH5902020**	Price
16IRM18UN	IC908	18	Right	.0030	1	**EH5901581**	Price
16IR20UN	IC908	20	Right	.0020	1	**EH5901936**	Price
16IRB20UN	IC908	20	Right	.0024	1	**EH5902820**	Price
16IRM20UN	IC908	20	Right	.0020	1	**EH5901582**	Price
16IR24UN	IC908	24	Right	.0020	1	**EH5902499**	Price
16IRB24UN	IC908	24	Right	.0020	1	**EH5902821**	Price
16IR28UN	IC908	28	Right	.0016	1	**EH5902461**	Price
16IR32UN	IC908	32	Right	.0016	1	**EH5902571**	Price

ISCARTHREAD

Laydown Threading Inserts

NPT • NPTF • Right Hand



- National Pipe Thread (NPT) National Pipe Thread-Dryseal (NPTF)
- IR / ER - ground periphery and rake
- IRB / ERB - with a chipformer and peripherally ground
- IRM / ERM - with molded chipformer

Thread Form - NPT						
Model No.	Grade	TPI	Radius (in.)	Internal/External	Order No.	Price
16ER8NPT	IC908	8	.0047	External	**EH5901968**	Price
16ERM8NPT	IC808	8	.0059	External	**EH5903398**	Price
16ERM8NPT	IC908	8	.0059	External	**EH5901571**	Price
16IR8NPT	IC908	8	.0047	Internal	**EH5901938**	Price
16IRM8NPT	IC808	8	.0059	Internal	**EH5903408**	Price
16IRM8NPT	IC908	8	.0059	Internal	**EH5901583**	Price
16ER11.5NPT	IC908	11.5	.0035	External	**EH5901814**	Price
16ERB11.5NPT	IC908	11.5	.0035	External	**EH5902825**	Price
16ERM11.5NPT	IC908	11.5	.0035	External	**EH5901572**	Price
16ERM11.5NPT	IC1007	11.5	.0035	External	**EH5903458**	Price
16IR11.5NPT	IC908	11.5	.0035	Internal	**EH5901939**	Price
16IRB11.5NPT	IC908	11.5	.0035	Internal	**EH5902828**	Price
16IRM11.5NPT	IC908	11.5	.0035	Internal	**EH5901584**	Price
16ER14NPT	IC908	14	.0028	External	**EH5993047**	Price
16ERB14NPT	IC908	14	.0028	External	**EH5902823**	Price
16ERM14NPT	IC908	14	.0020	External	**EH5901573**	Price
16ERM14NPT	IC1007	14	.0020	External	**EH5903446**	Price
16IR14NPT	IC908	14	.0028	Internal	**EH5993037**	Price
16IRB14NPT	IC908	14	.0028	Internal	**EH5902601**	Price
16IRM14NPT	IC908	14	.0020	Internal	**EH5901585**	Price
16ER18NPT	IC908	18	.0024	External	**EH5902115**	Price
16ERB18NPT	IC908	18	.0024	External	**EH5902822**	Price
16ERM18NPT	IC908	18	.0020	External	**EH5902382**	Price
16ER27NPT	IC908	27	.0016	External	**EH5902132**	Price

Thread Form - NPTF						
Model No.	Grade	TPI	Radius (in.)	Internal/External	Order No.	Price
16ER11.5NPTF	IC908	11.5	-	External	**EH5902314**	Price
16ER14NPTF	IC908	14	-	External	**EH5902315**	Price
16ER18NPTF	IC908	18	-	External	**EH5902409**	Price
16IR14NPTF	IC908	14	-	Internal	**EH5902515**	Price

ISCARTHREAD

Laydown Threading Inserts

Whitworth • Right Hand



- Full profile laydown threading inserts
- IR / ER - ground periphery and rake
- IRB / ERB - with a chipformer and peripherally ground
- IRM / ERM - with molded chipformer
- Application: fittings and pipe couplings

Style	Grade	TPI	IC	Internal/ External	Radius (in.)	Teeth Per Corner	Order No.	Price
16IRM11	IC908	11	3/8	Internal	.011	1	**EH5901522**	Price
16IRM14W	IC908	14	3/8	Internal	.008	1	**EH5901577**	Price
16IR14W2M	IC908	14	3/8	Internal	.008	2	**EH5902453**	Price
16ER11W	IC908	11	3/8	External	.011	1	**EH5901957**	Price
16ERB11W	IC908	11	3/8	External	.011	1	**EH5902835**	Price
16ER14W	IC908	14	3/8	External	.009	1	**EH5992637**	Price
16ERB14W	IC908	14	3/8	External	.009	1	**EH5902836**	Price
16ER19W	IC908	19	3/8	External	.006	1	**EH5993278**	Price
16ERB19W	IC908	19	3/8	External	.007	1	**EH5902838**	Price
16ERM19W	IC908	19	3/8	External	.006	1	**EH5921219**	Price
16ER28W	IC908	28	3/8	External	.004	1	**EH5902134**	Price

ISCARTHREAD

Laydown Threading Inserts

American Buttress • Right Hand



- For high force transmission in one direction
- ANSI B1.9-1973 Class 2

Style	Grade	TPI	IC	Internal/External	Radius (in.)	Order No.	Price
16IR10ABUT	IC908	10	3/8	Internal	.006	**EH5993819**	Price
16IR12ABUT	IC908	12	3/8	Internal	.005	**EH5902084**	Price
16IR16ABUT	IC908	16	3/8	Internal	.004	**EH5902213**	Price
16ER10ABUT	IC908	10	3/8	External	.006	**EH5902263**	Price
16ER12ABUT	IC908	12	3/8	External	.005	**EH5902116**	Price
16ER16ABUT	IC908	16	3/8	External	.004	**EH5902117**	Price

ISCARTHREAD

Laydown Threading Inserts

Acme • Stub Acme



- IR / ER - ground periphery and rake

Thread Form - ACME						
Model No.	Grade	TPI	Internal/External	Right/Left Hand	Order No.	Price
16ER8ACME	IC908	8	External	Right	**EH5902231**	Price
16ER10ACME	IC908	10	External	Right	**EH5903358**	Price
16ER12ACME	IC908	12	External	Right	**EH5902285**	Price
16ER16ACME	IC908	16	External	Right	**EH5902603**	Price
16IR8ACME	IC908	8	Internal	Right	**EH5902021**	Price
16IR12ACME	IC908	12	Internal	Right	**EH5902377**	Price

Thread Form - Stub ACME						
Model No.	Grade	TPI	Internal/External	Right/Left Hand	Order No.	Price
16ER6STACME	IC908	6	External	Right	**EH5902306**	Price
16ER8STACME	IC908	8	External	Right	**EH5995010**	Price
16ER10STACME	IC908	10	External	Right	**EH5995060**	Price
16ER12STACME	IC908	12	External	Right	**EH5902301**	Price
16ER16STACME	IC908	16	External	Right	**EH5990395**	Price
16IR6STACME	IC908	6	Internal	Right	**EH5990352**	Price
16IR8STACME	IC908	8	Internal	Right	**EH5995030**	Price
16IR10STACME	IC908	10	Internal	Right	**EH5995070**	Price
16IR12STACME	IC908	12	Internal	Right	**EH5902302**	Price

ISCARTHREAD

Laydown Threading Inserts

British Standard Pipe Thread • Right Hand

- IR / ER - ground periphery and rake
- IRB / ERB - with a chipformer and peripherally ground



Model No.	Grade	TPI	Radius (in.)	Internal/External	Order No.	Price
16ER11BSPT	IC908	11	.0110	External	**EH5901971**	Price
16ER14BSPT	IC908	14	.0083	External	**EH5901973**	Price
16ERB14BSPT	IC908	14	.0083	External	**EH5999776**	Price
16ER19BSPT	IC908	19	.0063	External	**EH5902141**	Price
16ER28BSPT	IC908	28	.0043	External	**EH5902227**	Price
16IR11BSPT	IC908	11	.0110	Internal	**EH5901940**	Price

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GRADE CHART

Grade	Coating	Material	Steel (P)	Stainless Steel (M)	Cast Iron (K)	Non-Ferrous (N)	Hi-Temp Alloys (S)	Hard Materials (H)	ISO Code
AB20	Al203 + TiCN	Ceramic			X			X	H05-H15
AB2010	Al203	Ceramic			X				K01-K10
AB30	Al203 + TiCN	Ceramic			X			X	H10-H20, K05-K15
AS10	SI3N4	Ceramic			X				K15-K25
AS20	SI3N4 + TiCN	Ceramic					X		S05-S15
AS500	SIAL203N	Ceramic			X				K10-K20
AW120	Al2O3 + ZrO2	Ceramic			X			X	
AW20	Al203	Ceramic			X				K01-K10
CT3000	None	Cermet	X	X	X				P05-P25, K05-K15, M05-M15
IN05S	None	Carbide				X			M10-M20
IN1030	PVD, TiCN	Carbide	X	X	X	X	X		M20-M40, K20-K30
IN1040	PVD, TiCN	Carbide		X	X				P20-P40
IN10K	None	Carbide				X			K20-K40
IN1505	TiCN-TiN	Carbide	X	X					P10-P30, M10-M30
IN1530	PVD-TiCN-TiN	Carbide		X	X		X		M30, K25-K40
IN15K	None	Carbide				X			K20-K40
IN2005	PVD, TiAlN	Carbide	X	X	X	X	X		M20-M40
IN2010	PVD, TiAlN	Carbide	X						K10-K40
IN2015	PVD, TiAlN	Carbide	X	X	X				K10-K40
IN2030	PVD, TiAlN	Carbide		X	X		X		K25-K40, M30-M40
IN2040	PVD, TiAlN	Carbide			X				P20-P40
IN2505	PVD, TiAlN, TiN	Carbide	X	X	X	X	X	X	P15-P35, M10-,30, K10-K30
IN2510	PVD, TiAlN, TiN	Carbide			X	X			K10-K30, N10-N30
IN2540	PVD, TiAlN, TiN	Carbide			X				P10-P40
IN30M	None	Carbide				X	X		M20-M40, K20-K50
IN6505	CVD	Carbide	X						
IN6515	MT-CVD, Al203	Carbide	X		X				K10-K30, P15-P30
IN6530	MT-CVD, Al203	Carbide	X	X	X		X		P25-P45, M25-M40
IN70N	None	Carbide				X			K10-K25
IN72N	None	Carbide		X	X				S01-S10
INDD15	MT-CVD + PVD	Carbide	X		X				K20-K40
K10	None	Carbide			X	X	X		K05-K20, N10-N20, S10-S20
KB50	None	CBN	X					X	H01-H10
KB90	None	CBN	X		X			X	K10-K20, S01-S10
KP300	None	PCD				X			N05-N15
PV3010	PVD, TiN	Cermet	X	X	X				P01-P20, K01-K15, M01-M20
PV3030	TiAlN	Cermet	X	X	X				P01-P15, M01-M25, K01-K15
SC10	Al203	Ceramic			X				K10-K20
TB650	None	CBN	X					X	H01-H10
TB670	None	CBN			X			X	
TB730	None	CBN			X			X	
TC430	Al203 SiC Whisker	Ceramic					X		
TD810		PCD				X			
TT1300	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X		X				K05-K15
TT3500	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X						P15-P35
TT5080	PVD-AlTiN/TiN	Carbide		X			X		M05-M15, S05-S15
TT5100	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X	X			X		P20-P40, M15-M35, S15-S25
TT7005	TiN-TiCN-Al203	Carbide	X		X				K01-K15, P05-P15
TT7015	TiN-TiCN-Al203	Carbide	X		X				K10-K25, P10-P20
TT7100	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X	X					P25-P45, M25-M40
TT7220	PVD, TiCN	Carbide	X						P20-P35
TT7310	MT-CVD, TiN-TiCN-Al203	Carbide	X		X				K10-K20, P05-P15
TT8020	PVD, TiCN	Carbide	X	X			X		S20-S30. P30-P45, M30-M40
TT8115	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X						P05-P25
TT8125	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X						P15-P30
TT8135	MT-CVD, TiN-TiCN-Al203-TiN	Carbide	X						P25-P40
TT9020	PVD, TiCN	Carbide	X	X			X		P15-P35, M10-M30, S15-S25
TT9030	PVD, TiCN	Carbide	X	X			X		P15-P35, M15-M35, S15-S25
TT9080	PVD-AlTiN/TiN	Carbide		X			X		M10-M30, S15-S25
TT9215	MT-CVD, TiCN-Al203-TiCN	Carbide		X			X		M10-M25, S10-S25
TT9225	MT-CVD, TiCN-Al203-TiCN	Carbide		X			X		M20-M35, S20-S35
TT9235	MT-CVD, TiCN-Al203-TiCN	Carbide		X			X		M30-M45, S30-S45

DIPOS TETRA 0° Face Mill with 4 Indexes

- Insert size: 16mm
- Uses ANHU16 insert style



Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
TJ5N20R01	2.00	4	1.57	.75	SM40-120-20	DS-T15T	**IC523025668**	Price
TJ5N25R01	2.50	5	1.75	1.00	SM40-120-20	DS-T15T	**IC523025670**	Price
TJ5N30R01	3.00	7	1.75	1.00	SM40-120-20	DS-T15T	**IC523025672**	Price
TJ5N40R01	4.00	8	2.00	1.50	SM40-120-20	DS-T15T	**IC523025674**	Price

GOLD MAX 0° Lead Face Mill with 4 Indexes

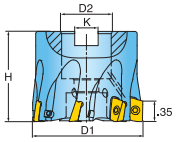
- Tangential style insert for faster feed rates
- Insert size: 0.54" DOC
- Uses DGE324R or DGM324R insert style



Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
SJ5J03R01	3.00	7	2.375	1.00	SM40-143-H0	DS-T15T	**IC523028450**	Price
SJ5J04R01	4.00	8	2.375	1.50	SM40-143-H0	DS-T15T	**IC523027580**	Price
SJ6J03R01	3.00	5	2.375	1.00	SM40-143-H0	DS-T15T	**IC523028476**	Price
SJ6J04R01	4.00	6	2.375	1.50	SM40-143-H0	DS-T15T	**IC523028486**	Price

HiPOS+ 0° Lead Face Mill

- HiPos, clean shearing geometry
- Coolant thru
- Full range of insert grades
- Insert size: 9mm IC
- Uses BOCT09, BOMT06, BOMT09 insert styles

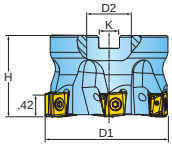




Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Blade	Order No.	Price
2J1P15R01	1.50	6	1.57	.50	SM25-064-00	DS-T08W	**IC523028211**	Price
2J1P20R01	2.00	7	1.57	.75	SM25-064-00	DS-T08W	**IC523028212**	Price
2J1P-25R01	-	8	1.57	.75	SM25-064-00	DS-T08W	**IC522917451**	Price
2J1P30R01	3.00	9	1.75	1.00	SM25-064-00	DS-T08W	**IC523028213**	Price

GOLD MAX 0° Lead Face Mill with 4 Indexes

- Tangential style insert for faster feed rates
- Hi-shear, highly efficient cutting action
- Insert size: 0.42" DOC
- Uses DGE314R or DGM314R insert style





Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
SJ5F03R01	3.00	8	2.375	1.00	SM35-114-H0	DS-T156B	**IC523027448**	Price
SJ5F04R01	4.00	9	2.375	1.50	SM35-114-H0	DS-T156B	**IC523027447**	Price
SJ6F02R01	2.00	5	1.57	.75	SM35-114-H0	DS-T156B	**IC523026897**	Price
SJ6F02R02	2.50	6	1.57	.75	SM35-114-H0	DS-T156B	**IC523026914**	Price
SJ6F03R01	3.00	6	2.375	1.00	SM35-114-H0	DS-T156B	**IC523026928**	Price
SJ6F04R01	4.00	6	2.375	1.50	SM35-114-H0	DS-T156B	**IC523026929**	Price
SJ6F-05R01	5.00	7	2.375	1.50	SM35-114-H0	DS-T156B	**IC523029775**	Price

GOLD TRIO Series KJ 0° Lead Facemill

- Hi positive design with 3 cutting edges for performance and economy
- Ramping capability for cutting versatility
- Three insert sizes for complete diameter coverage

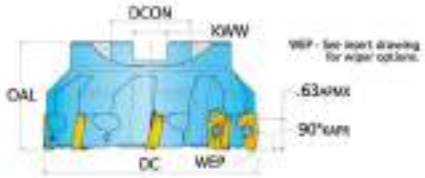
Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
KJ5D15R01	1.50	6	1.57	.50	SM25-065-R0	DS-T08W/TX-8	**IC523031428**	Price
KJ5D20R01	2.00	7	1.57	.75	SM25-065-R0	DS-T08W/TX-8	**IC523031429**	Price
KJ5G20R01	2.00	5	1.57	.75	SM40-100-R0	DS-T15T/TX-15	**IC523031431**	Price
KJ5G25R01	2.50	6	1.57	.75	SM40-100-R0	DS-T15T/TX-15	**IC523031432**	Price
KJ5G30R01	3.00	8	1.75	1.00	SM40-100-R0	DS-T15T/TX-15	**IC523031434**	Price
KJ5G40R01	4.00	10	2.00	1.50	SM40-100-R0	DS-T15T/TX-15	**IC523031436**	Price
KJ6D30R01	3.00	9	1.75	1.00	SM25-065-R0	DS-T08W/TX-8	**IC523031430**	Price
KJ6G50R01	5.00	11	2.00	1.50	SM40-100-R0	DS-T15T/TX-15	**IC523031437**	Price



HiPOS+ 90° Face Mills

Series 2J1G

- .63" Maximum depth of cut
- Takes AOCT17/AOMT17/APKT17_DT/17/ZOMT17 inserts





Model No.	Cutter Dia. (in.)	No. of Flutes	Hole Size (in.)	Height (in.)	Uses Insert	Screw	Wrench	Torx Key Blade	Order No.	Price
2J1G-20R01	2.00	5	.75	1.57	AOCT, AOMT	SM40-120-20	DS-A00T	DS-T156B	**IC523018669**	Price
2J1G-25R01	2.50	6	.75	1.57	AOCT, AOMT	SM40-120-20	DS-A00T	DS-T156B	**IC523018666**	Price
2J1G-30R01	3.00	7	1.00	1.75	AOCT, AOMT	SM40-120-20	DS-A00T	DS-T156B	**IC523018671**	Price
2J1G-40R03	4.00	8	1.50	2.38	AOCT, AOMT	SM40-120-20	DS-A00T	DS-T156B	**IC522917447**	Price
2J1G-50R02	5.00	9	1.50	2.38	AOCT, AOMT	SM40-120-20	DS-A00T	DS-T156B	**IC522917449**	Price
2J1G-60R01	6.00	10	2.00	2.00	AOCT, AOMT	SM40-120-20	DS-A00T	DS-T156B	**IC523018675**	Price

GOLD-MAX 90° Face Mills

Member IMC Group Ingersoll Cutting Tools

Series SJ2J

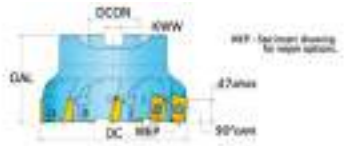


- Maximum depth of cut .54" on all sizes
- Replaceable steel seating pads ensure maximum cutter body life
- 4 Index inserts

Model No.	Cutting Dia. (in.)	Bore Dia. (in.)	Number of Inserts	Uses Insert	Height (in.)	Screw	Handle	Torx Key Blade	Order No.	Price
SJ2J-05R01	5.000	1.50	7	DGE324R series, DGM324R series	2.375	SM40-143-H0	DS-A00T	BLD T15/S7	**IC523028483**	Price
SJ2J-06R01	6.000	1.50	8	DGE324R series, DGM324R series	2.375	SM40-143-H0	DS-A00T	BLD T15/S7	**IC523027581**	Price

HiePOS+ 90° Face Mills

Series 2J1R



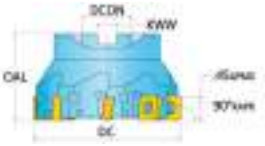


- .47" Maximum depth of cut
- Takes BOCT/BOMT/ZOMT13 inserts

Model No.	Cutter Dia. (in.)	No. of Flutes	Bore Dia. (in.)	Height (in.)	Uses Insert	Screw	Wrench	Torx Key Blade	Order No.	Price
2J1R-20R01	2.00	5	.75	1.57	BOMT13 series / ZOMT13 series	SM35-088-10	DS-A00T	DS-T106B	**IC522916673**	Price
2J1R-25R01	2.50	6	.75	1.57	BOMT13 series / ZOMT13 series	SM35-088-10	DS-A00T	DS-T106B	**IC522916675**	Price
2J1R-30R01	3.00	9	1.00	1.75	BOMT13 series / ZOMT13 series	SM35-088-10	DS-A00T	DS-T106B	**IC522916676**	Price
2J1R-40R01	4.00	11	1.00	2.38	BOMT13 series / ZOMT13 series	SM35-088-10	DS-A00T	DS-T106B	**IC522916677**	Price
2J1R-50R01	5.00	13	1.00	2.38	BOMT13 series / ZOMT13 series	SM35-088-10	DS-A00T	DS-T106B	**IC522916678**	Price

GOLD-QUAD 90° Face Mills

Series 5J5P





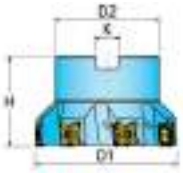
- Uses SDES/SDMS/ZDES/ZDMS1305 inserts
- Max DOC .45"

Cutter Style - For Large Corner Radius										
Model No.	Cutter Dia. (in.)	Bore Dia. (in.)	No. of Inserts	Height (in.)	Screw	Handle	Torx Key Blade	Cutter Style	Order No.	Price
5J5P-20R01-R	2.00	.75	5	1.57	SM40-100-R0	DS-A00T	BLD T15/S7	For Large Corner Radius	**IC522912698**	Price
5J5P-25R01-R	2.50	.75	6	1.57	SM40-100-R0	DS-A00T	BLD T15/S7	For Large Corner Radius	**IC522912699**	Price
5J5P-30R01-R	3.00	1.00	8	1.75	SM40-100-R0	DS-A00T	BLD T15/S7	For Large Corner Radius	**IC522912700**	Price
5J5P-40R01-R	4.00	1.50	10	2.375	SM40-100-R0	DS-A00T	BLD T15/S7	For Large Corner Radius	**IC522912701**	Price

Cutter Style - Regular										
Model No.	Cutter Dia. (in.)	Bore Dia. (in.)	No. of Inserts	Height (in.)	Screw	Handle	Torx Key Blade	Cutter Style	Order No.	Price
5J5P-20R01	2.00	.75	5	1.57	SM40-100-R0	DS-A00T	BLD T15/S7	Regular	**IC522912694**	Price
5J5P-25R01	2.50	.75	6	1.57	SM40-100-R0	DS-A00T	BLD T15/S7	Regular	**IC522912695**	Price
5J5P-30R01	3.00	1.00	8	1.75	SM40-100-R0	DS-A00T	BLD T15/S7	Regular	**IC522912696**	Price
5J5P-40R01	4.00	1.50	10	2.375	SM40-100-R0	DS-A00T	BLD T15/S7	Regular	**IC522912697**	Price

GOLD-MAX 90° Face Mill with 8 Indexes

Series VJ6K



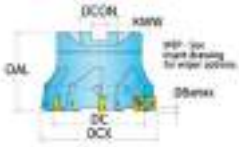


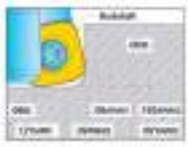
- Uses SGM-44R001 inserts

Model No.	Cutter Dia.	Bore Dia.	No. of Flutes	Max DOC (in.)	Height	Screw	Handle	Torx Key Blade	Order No.	Price
VJ6K-02R01	2.00	.75	5	.36	1.50	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031481**	Price
VJ6K-02R02	2.50	1.00	6	.36	1.57	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031480**	Price
VJ6K-03R01	3.00	1.00	8	.36	2.38	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031404**	Price
VJ6K-04R01	4.00	1.50	9	.36	2.38	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031446**	Price
VJ6K-06R01	6.00	1.50	13	.36	2.38	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031447**	Price
VJ6K-08R01	8.00	2.50	13	.36	2.38	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031478**	Price
VJ6K160R00	160mm	40mm	13	.24	63mm	SM40-120-20	DS-A00T	BLD T15/S7	**IC523031550**	Price

GOLD-QUAD High Feed Face Mills

Series 5G5F / 5G6F







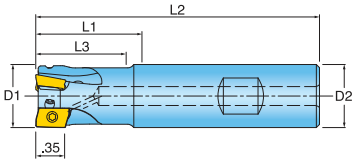
For use with the following:

- SDXS0904MPR-MR1 - specifically for Ti and hi-temps
- SDXS0904MPR-MM - for aggressive feed rates in stainless
- SDXS0904MPR-MR - designed for low cutting forces in low-alloy to high allow pre-hard steels
- SDXS0904MPR-MRH - reinforced cutting edge ideal for continuous machining in hardened steel

Model No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
5G5F-20R01	2.00	7	1.97	.75	SM30-075-R0	DS-T09W	**IC522912649**	Price
5G6F-20R01	2.00	6	1.97	.75	SM30-075-R0	DS-T09W	**IC522912648**	Price
5G5F-25R01	2.50	8	1.97	.75	SM30-075-R0	DS-T09W	**IC522912662**	Price
5G5F-30R01	3.00	9	2.0	1.00	SM30-075-R0	DS-T09W	**IC522912651**	Price
5G6F-30R01	3.00	7	2.0	1.00	SM30-075-R0	DS-T09W	**IC522912650**	Price

HiPOS+ 0° Lead End Mill

- HiPos, Clean shearing geometry
- Coolant thru
- Full range of insert grades
- Insert size: 9mm IC
- Uses BOCT09, BOMT09 insert styles





Item No.	Cutter Dia. (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
12J1P-0501379R01	.500	2	1.18	3.25	.625	SM25-054-00	DS-T08W	**IC523028196**	Price
12J1P-0601379R01	.625	2	1.18	3.25	.625	SM25-054-00	DS-T08W	**IC523028197**	Price
12J1P-0701784R01	.750	2	1.18	3.25	.750	SM25-064-00	DS-T08W	**IC523028198**	Price
12J1P-0701784R02	.750	3	1.18	3.25	.750	SM25-064-00	DS-T08W	**IC523028199**	Price
12J1P-0702784R01	.750	3	2.75	4.75	.750	SM25-064-00	DS-T08W	**IC523028200**	Price
12J1P-0704084R01	.750	2	2.75	6	.750	SM25-064-00	DS-T08W	**IC523028201**	Price
12J1P-0801784R01	.875	3	1.18	3.75	.750	SM25-064-00	DS-T08W	**IC523028202**	Price
12J1P-1001784R01	1.00	3	1.75	3.75	.750	SM25-064-00	DS-T08W	**IC523028203**	Price
12J1P-1001784R02	1.00	4	1.75	3.75	.750	SM25-064-00	DS-T08W	**IC523028204**	Price
12J1P-1201584R01	1.25	5	1.50	3.75	.750	SM25-064-00	DS-T08W	**IC523028205**	Price
12J1P-1501780R01	1.50	6	1.75	4	1.00	SM40-093-20	DS-T08W	**IC523028206**	Price

GOLDTRIO Ball Nose End Mills

SERIES 1KJ1 0° LEAD ENDMILL

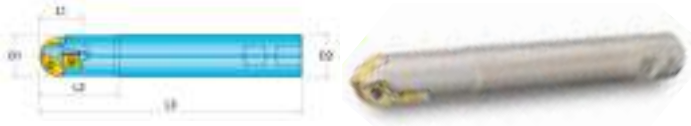


- Hi positive design with 3 cutting edges for performance and economy
- Ramping capability for cutting versatility
- Three insert sizes for complete diameter coverage

Cutter Dia. (in.)	Item No.	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Uses Insert	Order No.	Price
.625	1KJ1D-0601279R01	1	1.22	3.16	.625	SM25-065-R0	TH_S0604	**IC523031482**	Price
.725	1KJ1D-0702084R01	2	1.80	4.00	.750	SM25-065-R0	TH_S0604	**IC523031479**	Price
.750	1KJ1D-0701184R01	2	1.05	3.25	.750	SM25-065-R0	TH_S0604	**IC523031477**	Price
.750	1KJ1D-0701784R01	2	1.55	3.75	.750	SM25-065-R0	TH_S0604	**IC523031472**	Price
.750	1KJ1D-0703084R01	2	2.80	5.00	.750	SM25-065-R0	TH_S0604	**IC523031471**	Price
.875	1KJ1D-0801784R01	2	1.75	3.75	.750	SM25-065-R0	TH_S0604	**IC523031464**	Price
1.00	1KJ1D-1001780R01	3	1.75	4.00	1.00	SM25-065-R0	TH_S0604	**IC523031462**	Price
1.00	1KJ1D-1001784R01	3	1.55	3.75	.750	SM25-065-R0	TH_S0604	**IC523031463**	Price
1.00	1KJ1D-1003784R01	3	3.55	6.00	.750	SM25-065-R0	TH_S0604	**IC523031461**	Price
1.25	1KJ1D-1201780R01	5	1.75	4.00	1.00	SM25-065-R0	TH_S0604	**IC523031445**	Price
1.25	1KJ1D-1201784R01	4	1.75	3.75	.750	SM25-065-R0	TH_S0604	**IC523031444**	Price
1.50	1KJ1D-1501780R01	6	1.75	4.00	1.00	SM25-065-R0	TH_S0604	**IC523031483**	Price
1.50	1KJ1D-1501784R01	5	1.75	3.75	.750	SM25-065-R0	TH_S0604	**IC523031455**	Price
1.50	1KJ1D-1502281R01	6	2.25	4.50	1.25	SM25-065-R0	TH_S0604	**IC523031485**	Price
1.25	1KJ1G-1201784R01	3	1.75	3.75	.750	SM40-100-R0	TH_S1005	**IC523031387**	Price
1.25	1KJ1G-1202281R01	2	2.05	4.50	1.25	SM40-100-R0	TH_S1005	**IC523031385**	Price
1.25	1KJ1G-1202281R02	3	2.05	4.50	1.25	SM40-100-R0	TH_S1005	**IC523031380**	Price
1.25	1KJ1G-1204281R01	3	4.05	6.50	1.25	SM40-100-R0	TH_S1005	**IC523031386**	Price
1.50	1KJ1G-1502281R01	3	2.20	4.50	1.25	SM40-100-R0	TH_S1005	**IC523031388**	Price
1.50	1KJ1G-1502281R02	4	2.20	4.50	1.25	SM40-100-R0	TH_S1005	**IC523031399**	Price
1.50	1KJ1G-1504281R01	3	4.25	6.50	1.25	SM40-100-R0	TH_S1005	**IC523031398**	Price
2.00	1KJ1G-2002281R01	5	2.25	4.50	1.25	SM40-100-R0	TH_S1005	**IC523031405**	Price

PROTRIO PROFILE Ball Nose Indexable End Mills

3 Flute • 2TW7K Style



- Unique double-sided insert for 2 cutting edges
- Coolant through

Series - 2TW7											
Model No.	Cutting Dia. (in.)	OAL (in.)	Shank Dia. (in.)	Shank Style	No. of Inserts	No. of Effective Flutes	Screw	Uses Insert(s)	Driver	Order No.	Price
2TW7K-1203781R01	1.25	6.00	1.25	Weldon	5	3	SM40-093-20	NCEU320500R (1) Center, NCEU320500R-P	DS-T15T	**IC522910433**	Price
2TW7K-1205281R01	1.25	7.50	1.25	Weldon	5	3	SM40-093-20	(2) Side Ball, DCM323R01 (2) Side	DS-T15T	**IC522910434**	Price
2TW7K-1504386R01	1.50	7.00	1.50	Weldon	5	3	SM40-120-00	NCEU320600R (1) Center, NCEU320600R-P	DS-T15T	**IC522910435**	Price
2TW7K-1506386R01	1.50	9.00	1.50	Weldon	5	3	SM40-120-00	(2) Side Ball, DCM323R01 (2) Side	DS-T15T	**IC522910436**	Price
2TW7K-2004782R01	2.00	8.00	2.00	Weldon	5	3	SM50-113-20	NCEU320700R (1) Center, NCEU320700R-P	DS-T20T	**IC522910437**	Price
2TW7K-2007582R01	2.00	11.00	2.00	Weldon	5	3	SM50-113-20	(2) Side Ball, DCM324R01 (2) Side	DS-T20T	**IC522910438**	Price

Series - ITW7											
Model No.	Cutting Dia. (in.)	OAL (in.)	Shank Dia. (in.)	Shank Style	No. of Inserts	No. of Effective Flutes	Screw	Uses Insert(s)	Driver	Order No.	Price
1TW7Q-0601379R01	.625	4.75	.625	Weldon	2	2	SM25-064-00	NBEU1603R	DS-T08S	**IC526166349**	Price
1TW7J-0702084R01	.750	4.00	.750	Weldon	2	2	SM30-072-00	NBEU1904R	DS-0022	**IC526166356**	Price
1TW7J-0702084R02	.750	4.00	.750	Weldon	2	2	SM30-072-00	NBEU1904R	DS-0022	**IC526166357**	Price
1TW7K-1002780R01	1.00	5.00	1.000	Weldon	2	2	SM35-087-00	NBEU25T4R	DS-0010	**IC526166363**	Price
1TW7K-1002780R02	1.00	6.00	1.000	Weldon	2	2	SM35-087-00	NBEU25T4R	DS-0010	**IC526166364**	Price

Series - ITW8											
Model No.	Cutting Dia. (in.)	OAL (in.)	Shank Dia. (in.)	Shank Style	No. of Inserts	No. of Effective Flutes	Screw	Uses Insert(s)	Driver	Order No.	Price
1TW8Q-06013S7R01	.625	5.00	.750	Cylindrical	2	2	SM25-064-00	NBEU1603R	DS-T08S	**IC526166351**	Price
1TW8Q-06013S7R02	.625	6.00	.750	Cylindrical	2	2	SM25-064-00	NBEU1603R	DS-T08S	**IC526166353**	Price
1TW8J-0701580R01	.750	6.00	1.000	Weldon	2	2	SM30-072-00	NBEU1904R	DS-0022	**IC526166360**	Price
1TW8J-0701580R02	.750	7.00	1.000	Weldon	2	2	SM30-072-00	NBEU1904R	DS-0022	**IC526166361**	Price
1TW8K-1001981R01	1.00	6.00	1.000	Weldon	2	2	SM35-087-00	NBEU25T4R	DS-0010	**IC526166367**	Price
1TW8K-1001981R02	1.00	7.00	1.250	Weldon	2	2	SM35-087-00	NBEU25T4R	DS-0010	**IC526166368**	Price

GOLD-MAX

0° Lead Face Mill with 4 Indexes



- Insert size: 0.31" DOC
- Uses DGM212R insert style
- Insert size: 0.31" DOC
- Uses DGM212R insert style

Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
SJ5Y01R01	1.50	6	1.57	.50	SM30-082-21	DS-T08W	**IC523029701**	Price
SJ6Y02R01	2.00	5	1.57	.50	SM30-082-21	DS-T08W	**IC523029702**	Price
SJ5Y02R01	2.00	7	1.57	.50	SM30-082-21	DS-T08W	**IC523029703**	Price
SJ5Y02R02	2.50	9	1.57	.50	SM30-082-21	DS-T08W	**IC523029705**	Price
SJ6Y03R01	3.00	7	2.375	.50	SM30-082-21	DS-T08W	**IC523029706**	Price

DIPOS-DEKA

20° Lead Face Mill with 10 Indexes



- Insert size: 0.23" DOC
- Uses PNCU08, PNCQ08 insert styles

Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
DM6G20R01	2.00	4	1.57	.75	SM40-100-10	DS-T15T	**IC523040742**	Price
DM5G20R01	2.00	6	1.57	.75	SM40-100-10	DS-T15T	**IC523040747**	Price
DM6G25R01	2.50	6	1.57	.75	SM40-100-10	DS-T15T	**IC523040743**	Price
DM5G25R01	2.50	8	1.57	.75	SM40-100-10	DS-T15T	**IC523040748**	Price
DM6G30R01	3.00	7	1.75	1.00	SM40-100-10	DS-T15T	**IC523040744**	Price
DM5G30R01	3.00	10	1.75	1.00	SM40-100-10	DS-T15T	**IC523040749**	Price
DM6G40R01	4.00	8	2.375	1.50	SM40-100-10	DS-T15T	**IC523040745**	Price
DM5G40R01	4.00	12	2.375	1.50	SM40-100-10	DS-T15T	**IC523040750**	Price

SOMAX™

80° Lead High Feed Face Mill with 4 Indexes



- SPGH uses DPM324 insert style
  SPGN uses DPM434 insert style
- SPGH D.O.C. is .08"
  SPGN D.O.C. is .12"

Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
SP6H02R02	2.00	4	1.75	.75	SM40-120-20	DS-T15T	**IC523026092**	Price
SP6H02R01	2.00	5	1.75	.75	SM40-120-20	DS-T15T	**IC523030241**	Price
SP6H03R02	3.00	7	1.75	1.00	SM40-120-20	DS-T15T	**IC523026108**	Price
SP6N04R01	4.00	6	2.50	1.50	SM50-160-10	DS-T20T	**IC523026093**	Price
SP6N04R02	4.00	7	2.50	1.50	SM50-160-10	DS-T20T	**IC523026094**	Price
SP6H04R02	4.00	9	2.50	1.50	SM40-120-20	DS-T15T	**IC523026991**	Price

OCTO-PLUS

45° Lead Face Mill (Screw Held - 5mm Insert) with 16 Indexes



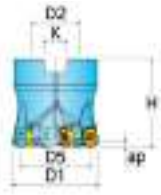
- Insert size: 0.12" DOC
- Uses ONCU05 insert style

Item No.	Cutter Dia. (in.)	No. of Inserts	Height (in.)	Hole Size (in.)	Locking Screw	Torx Key	Order No.	Price
ON6H20R01	2.00	4	1.57	.75	SM40-100-10	DS-T15T	**IC523030036**	Price
ON5H20R01	2.00	6	1.57	.75	SM40-100-10	DS-T15T	**IC523030037**	Price
ON6H25R01	2.50	6	1.57	.75	SM40-100-10	DS-T15T	**IC523030038**	Price
ON6H30R01	3.00	7	1.75	1.00	SM40-100-10	DS-T15T	**IC523030039**	Price
ON5H30R01	3.00	10	1.75	1.00	SM40-100-10	DS-T15T	**IC523030040**	Price
ON6H40R01	4.00	8	2.375	1.50	SM40-100-10	DS-T15T	**IC523030041**	Price
ON5H40R01	4.00	12	2.375	1.50	SM40-100-10	DS-T15T	**IC523030042**	Price

GOLD-QUAD

High Feed Face Mills

Series TG1G / TG2G





- Maximum DOC .060"
- 4 Indexes provide cost effective machining
- Rigid clamping with unique pocket design & high tensile strength clamping screw
- Uses UNLU0904 inserts
- Coolant through

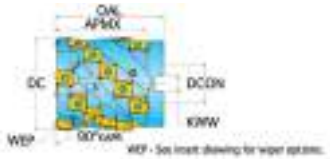
Model No.	Cutting Dia. (in.)	Bore Dia. (in.)	Height (in.)	No. of Inserts	Screw	Wrench	Torx Key Blade	Order No.	Price
TG2G-20R01	2.00	.75	1.97	6	SM35-088-10	DS-A00T	DS-T106B	**IC522906751**	Price
TG1G-20R01	2.00	.75	1.97	7	SM35-088-10	DS-A00T	DS-T106B	**IC522906727**	Price
TG1G-25R01	2.50	.75	1.97	8	SM35-088-10	DS-A00T	DS-T106B	**IC522908951**	Price
TG2G-30R01	3.00	1.00	1.75	7	SM35-088-10	DS-A00T	DS-T106B	**IC522906801**	Price
TG1G-30R01	3.00	1.00	1.75	9	SM35-088-10	DS-A00T	DS-T106B	**IC522906787**	Price

GOLD-MAX

Indexable Shell End Mills

Series 2SJ3J

Use DGE/DGM/ZGM324 inserts





Model No.	Cutting Dia. (in.)	Bore Dia. (in.)	No. of Flutes	No. of Inserts	Max DOC	Screw	Wrench	Torx Key Blade	Order No.	Price
2SJ3J-25030D3R01	2.50	1.00	3	12	2.44	SM40-143-H0	DS-A00T	BLD T15/S7	**IC523028765**	Price
2SJ3J-30035D4R01	3.00	1.25	4	20	2.92	SM40-143-H0	DS-A00T	BLD T15/S7	**IC523028767**	Price
2SJ3J-40045D5R01	4.00	1.50	5	35	3.90	SM40-143-H0	DS-A00T	BLD T15/S7	**IC523028768**	Price

GOLD-MAX

Finish Mills

Series EF6J

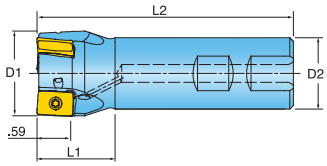
Use DFH324 inserts



Model No.	Cutter Dia. (in.)	Bore Dia. (in.)	No. of Inserts	Height (in.)	Screw	Wrench	Order No.	Price
EF6J-03R01	3.00	1.00	5	1.75	SM40-143-H0	DS-T15T	**IC523032586**	Price
EF6J-04R01	4.00	1.50	6	2.50	SM40-143-H0	DS-T15T	**IC523030815**	Price
EF6J-05R01	5.00	1.50	7	2.50	SM40-143-H0	DS-T15T	**IC523032615**	Price
EF6J-06R01	6.00	1.50	9	2.50	SM40-143-H0	DS-T15T	**IC523030814**	Price
EF6J-08R01	8.00	2.00	9	2.50	SM40-143-H0	DS-T15T	**IC523032616**	Price

DIPOSTETRA 0° Lead End Mill with 4 Indexes

- Uses ANHU1607 insert style



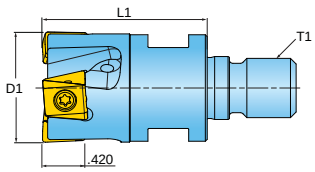


Item No.	Cutter Dia. (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
1TJ1N-1202281R01	1.25	2	2.25	4.5	1.25	SMS40-120-20	DS-T15T	**IC523025660**	Price
1TJ1N-1204281R01	1.25	2	4.25	6.5	1.25	SMS40-120-20	DS-T15T	**IC523025661**	Price
1TJ1N-1206281R01	1.25	2	6.25	8.5	1.25	SMS40-120-20	DS-T15T	**IC523025662**	Price
1TJ1N-1502281R01	1.50	3	2.25	4.5	1.25	SMS40-120-20	DS-T15T	**IC523025663**	Price
1TJ1N-1504281R01	1.50	3	4.25	6.5	1.25	SMS40-120-20	DS-T15T	**IC523025669**	Price
1TJ1N-2002281R01	2.00	4	2.25	4.5	1.25	SMS40-120-20	DS-T15T	**IC523025664**	Price

GOLDMAX 0° Lead End Mill with 4 Indexes

Top-On Style

- Tangential style insert for faster feed rates
- Hi-shear, highly efficient cutting action
- Insert size: 0.42" DOC
- Uses insert DGE314R or DGM314R

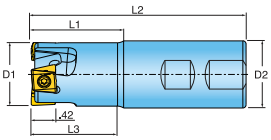




Item No.	Cutter Dia. (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking screw	Torx Key	Order No.	Price
1SJ1F-10015X7R01	1.00	2	1.50	-	M12	-	-	**IC523030468**	Price
1SJ1F-12015X8R01	1.25	3	1.75	2.695	M16	SM35-114-HO	DS-T15T	**IC523028222**	Price
1SJ1F-15015X8R01	1.50	4	1.75	2.695	M16	SM35-114-HO	DS-T15T	**IC523028224**	Price
1SJ1F-15015X8R02	1.50	3	1.75	2.695	M16	SM35-114-HO	DS-T15T	**IC523028225**	Price

GOLDMAX 0° Lead End Mill with 4 Indexes

- Tangential style insert for faster feed rates
- Hi-shear, highly efficient cutting action
- Insert size: 0.42" DOC
- Uses insert DGE314R or DGM314R





Shank Style - CAT40									
Item No.	Cutter Dia. (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
1SJ1F-1202829R01	1.25	3	1.59	5.562	CAT40	SM35-114-HO	DS-T156B	**IC523030829**	Price
1SJ1F-1502829R01	1.50	3	2.87	5.562	CAT40	SM35-114-HO	DS-T156B	**IC522905395**	Price

Shank Style - Straight Shank									
Item No.	Cutter Dia. (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
1SJ1F-1001780R01	1.00	2	1.59	4	1.00	SM35-114-HO	DS-T156B	**IC523030461**	Price
1SJ1F-1003780R01	1.00	2	3.59	6	1.00	SM35-114-HO	DS-T156B	**IC523030467**	Price
1SJ1F-1201781R01	1.25	3	1.59	4	1.25	SM35-114-HO	DS-T15T	**IC523026892**	Price
1SJ1F-1501781R01	1.50	4	1.75	4	1.25	SM35-114-HO	DS-T15T	**IC523026896**	Price
1SJ1F-1501781R02	1.50	3	1.75	4	1.25	SM35-114-HO	DS-T156B	**IC523030471**	Price
1SJ1F-1503781R01	1.50	3	3.75	6	1.25	SM35-114-HO	DS-T156B	**IC523030640**	Price

PROBALL™ Ball Nose End Mill, 2 Effective

Modular Style

- Insert size: 12 or 18mm

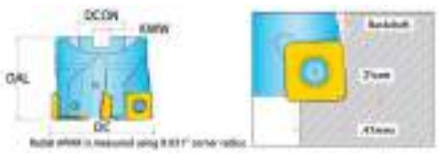


Item No.	Cutting Dia. (in.)	Dmax (in.)	No. of Inserts	Uses Insert	Locking Screw	Order No.	Price
1BW7T-05007T8R01	.500	.250	2	NKET120200R	SM25-052-80	**IC523029090**	Price
1BW7T-05010X5R01	.500	.250	2	NKET120200R	SM25-052-80	**IC523029878**	Price
1BW7V-07010TSR01	.750	.375	2	NKET180300R	SM30-080-10	**IC523029130**	Price
1BW7V-07015X6R01	.750	.375	2	NKET180300R	SM30-080-10	**IC523029879**	Price

GOLDQUAD Plunge Roughing Cutters

Face Mills • Series QHU

- .45" Max radial depth of cut capability (depending on corner radius)
- Perfect for roughing on small spindle machines
- Takes SDMS/SDES1305 inserts





Model No.	Cutter Dia. (in.)	Bore Dia. (in.)	No. of Inserts	Height (in.)	Screw	Handle	Torx Key Blade	Order No.	Price
QHU-20015D1R01	2.00	.75	5	1.57	SM40-100-R0	DS-A00T	BLD T15/S7	**IC522904788**	Price
QHU-25015D1R01	2.50	.75	5	1.57	SM40-100-R0	DS-A00T	BLD T15/S7	**IC522904790**	Price
QHU-30017D3R01	3.00	1.00	7	1.75	SM40-100-R0	DS-A00T	BLD T15/S7	**IC522904791**	Price
QHU-30017D3R02	3.00	1.00	5	1.75	SM40-100-R0	DS-A00T	BLD T15/S7	**IC522904792**	Price
QHU-40023D5R01	4.00	1.50	9	2.375	SM40-100-R0	DS-A00T	BLD T15/S7	**IC522904793**	Price
QHU-40023D5R02	4.00	1.50	7	2.375	SM40-100-R0	DS-A00T	BLD T15/S7	**IC522904794**	Price

Ingersoll Cutting Tools

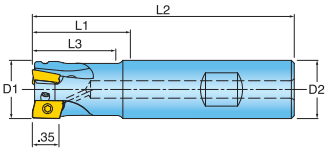
PROBALL™ Ball Nose End Mill, 2 Effective



- Insert size: 12, 18, or 25mm

Item No.	Cutting Dia. (in.)	Dmax (in.)	No. of Inserts	OAL (in.)	Shank Dia. (in.)	Uses Insert(s)	Locking Screw	Torx Key	Order No.	Price
1BW7T-0501778R01	.500	.250	2	3.5	.750	NKET120200R	SM25-052-80	DS-T06F	**IC523029875**	Price
1BW8T-0504584R01	.500	.250	2	6.5	.750	NKET120200R	SM25-052-80	DS-T06F	**IC523029883**	Price
1BW7V-0701584R01	.750	.375	2	3.5	.750	NKET180300R	SM30-080-10	DS-T09W	**IC523029127**	Price
1BW7V-0704084R01	.750	.375	2	6	.750	NKET180300R	SM30-080-10	DS-T09W	**IC523029884**	Price
1BW7W-1001580R01	1.00	.500	2	3.75	1.00	NCET250400R	SM35-110-00	DS-T15T	**IC523028603**	Price
1BW8V-0705780R01	.750	.375	2	8	1.00	NKET180300R	SM30-080-10	DS-T09W	**IC523029885**	Price
1BW7W-10037E1R01	1.00	.500	2	6.75	1.00	NCET250400R	SM35-110-00	DS-T15T	**IC523029094**	Price

HiPOS+™ 0° Lead End Mill





- HiPos, Clean shearing geometry
- Coolant thru
- Full range of insert grades
- Insert size: 9mm IC
- Uses BOCT09, BOMT09 insert styles

Item No.	Cutter Dia. (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Locking Screw	Torx Key	Order No.	Price
12J1P-0501379R01	.500	2	1.18	3.25	.625	SM25-054-00	DS-T08W	**IC523028196**	Price
12J1P-0601379R01	.625	2	1.18	3.25	.625	SM25-054-00	DS-T08W	**IC523028197**	Price
12J1P-0701784R01	.750	2	1.18	3.25	.750	SM25-064-00	DS-T08W	**IC523028198**	Price
12J1P-0701784R02	.750	3	1.18	3.25	.750	SM25-064-00	DS-T08W	**IC523028199**	Price
12J1P-0702784R01	.750	3	2.75	4.75	.750	SM25-064-00	DS-T08W	**IC523028200**	Price
12J1P-0704084R01	.750	2	2.75	6	.750	SM25-064-00	DS-T08W	**IC523028201**	Price
12J1P-0801784R01	.875	3	1.18	3.75	.750	SM25-064-00	DS-T08W	**IC523028202**	Price
12J1P-1001784R01	1.00	3	1.75	3.75	.750	SM25-064-00	DS-T08W	**IC523028203**	Price
12J1P-1001784R02	1.00	4	1.75	3.75	.750	SM25-064-00	DS-T08W	**IC523028204**	Price
12J1P-1201584R01	1.25	5	1.50	3.75	.750	SM25-064-00	DS-T08W	**IC523028205**	Price
12J1P-1501780R01	1.50	6	1.75	4	1.00	SM40-093-20	DS-T08W	**IC523028206**	Price

HiFEED MINI High Feed End Mill with 4 Indexes



- Top-on style
- Insert size: 6mm
- Uses UNLU06 insert style

Item No.	Cutting Dia. (in.)	Dmax (in.)	No. of Inserts	Head Length (in.)	OAL (in.)	Shank Dia. (in.)	Shank Style	Locking Screw	Order No.	Price
1TG1F-06015S6R01	.625	.270	2	1.17	4	.625	Cylinder	SM25-064-00	**IC523030147**	Price
1TG1F-06015ULR01	.625	.270	2	1.16	4	15.5mm	Cylinder	SM25-064-00	**IC523029336**	Price
1TG1F-07017UMR01	.750	.270	3	1.43	5	18.5mm	Cylinder	SM25-064-00	**IC523029337**	Price
1TG1F-07017UMR02	.750	.270	3	1.43	6.25	18.5mm	Cylinder	SM25-064-00	**IC523029339**	Price
1TG1F-07022S7R01	.750	.270	3	1.94	5	.750	Cylinder	SM25-064-00	**IC523029338**	Price
1TG1F-07032S7R01	.750	.270	3	2.94	6.25	.750	Cylinder	SM25-064-00	**IC523029340**	Price
1TG1F-08019UNR01	.875	.390	3	1.70	7.75	21.5mm	Cylinder	SM25-064-00	**IC523029342**	Price
1TG1F-10022S1R01	1.00	.390	4	1.94	10	1.00	Cylinder	SM25-064-00	**IC523029346**	Price
1TG1F-10022T5R01	1.00	.390	4	1.94	7	25mm	Cylinder	SM25-064-00	**IC523029343**	Price
1TG1F-10022T5R02	1.00	.390	4	1.94	10	25mm	Cylinder	SM25-064-00	**IC523029345**	Price
1TG1F-10032S1R01	1.00	.390	4	2.94	7	1.00	Cylinder	SM25-064-00	**IC523029344**	Price
1TG1F-1203281R01	1.25	.390	5	2.94	5.5	1.25	Weldon	SM25-064-00	**IC523029348**	Price
1TG1F-12050E2R01	1.25	.390	5	4.69	8	1.25	Weldon	SM25-064-00	**IC523029349**	Price
1TG1F-15015E2R01	1.50	.390	6	1.69	6	1.25	Weldon	SM25-064-00	**IC523029351**	Price

HiFEED MINI High Feed End Mill with 4 Indexes

Modular Style

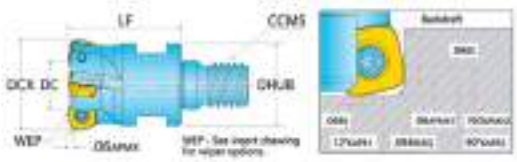


- Insert size: 6mm
- Uses UNLU06 insert style

Item No.	Cutting Dia. (in.)	Dmax (in.)	No. of Inserts	Locking Screw	Order No.	Price
1TG1F-06010X5R01	.625	.270	2	SM25-064-00	**IC523030146**	Price
1TG1F-07011X6R01	.750	.270	3	SM25-064-00	**IC523029341**	Price
1TG1F-10013X7R01	1.00	.390	4	SM25-064-00	**IC523029347**	Price
1TG1F-12015X8R01	1.25	.390	5	SM25-064-00	**IC523029350**	Price

GOLDQUAD High Feed Indexable End Mills - Top-On

Modular • Series 15G1F





- Maximum DOC .060”
- Uses SDXS0904 inserts

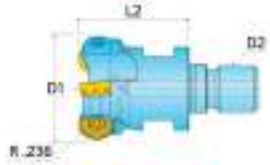
Model No.	Cutting Dia. (in.)	No. of Inserts	Connection	Screw	Wrench	Order No.	Price
15G1F-10015X7R01	1.00	3	M12	SM30-075-R0	DS-T09W	**IC522912642**	Price
15G1F-12015X8R02	1.25	4	M16	SM30-075-R0	DS-T09W	**IC522912652**	Price

FORMOMASTER SHEAR™

Button Cutter Indexable End Mills

Modular • Series 15B

- Ultra shear high performance mills
- Wide range on insert grades available to address all applications
- Anti-rotating insert clamping





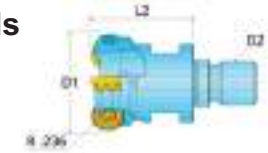
Inch/Metric - Inch											
Model No.	Cutting Dia.	Max. Cutting Depth (in.)	Effective Teeth	Functional Length (in.)	Uses Insert	Connec-tion	Screw	Handle	Torx Key Blade	Order No.	Price
15B1A-10137X7R01	1.00	.20	2	1.38	RJLT 10	M12	SM35-087-70	DS-A00T	BLD T15/S7	**IC522910450**	Price
15B1A-10137X7R02	1.00	.20	3	1.38	RJLT 10	M12	SM35-087-70	DS-A00T	BLD T15/S7	**IC522910449**	Price
15B1A-12169X8R01	1.25	.20	4	1.69	RJLT 10	M16	SM35-087-70	DS-A00T	BLD T15/S7	**IC522910448**	Price
15B1B-10015X7R01	1.00	.24	2	1.50	RJLT 12	M12	SM40-093-20	DS-A00T	BLD T15/S7	**IC523032516**	Price
15B1B-12015X8R01	1.25	.24	3	1.50	RJLT 12	M16	SM40-093-20	DS-A00T	BLD T15/S7	**IC523032517**	Price
15B1B-15015X8R01	1.50	.24	3	1.50	RJLT 12	M16	SM40-093-20	DS-A00T	BLD T15/S7	**IC523032529**	Price

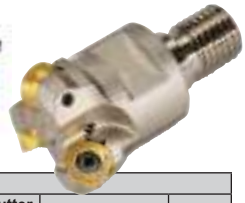
Inch/Metric - Metric											
Model No.	Cutting Dia.	Max. Cutting Depth (in.)	Effective Teeth	Functional Length (in.)	Uses Insert	Connec-tion	Screw	Handle	Torx Key Blade	Order No.	Price
15B1A-02030X6R00	20mm	.20	2	1.18	RJLT 10	M10	SM35-087-70	DS-A00T	BLD T15/S7	**IC523111233**	Price
15B1A-02535X7R00	25mm	.20	3	1.38	RJLT 10	M12	SM35-087-70	DS-A00T	BLD T15/S7	**IC523107273**	Price
15B1B-024044X7R00	24mm	.24	2	1.50	RJLT 12	M12	SM40-093-20	DS-A00T	BLD T15/S7	**IC523032515**	Price
15B1B-02535X7R00	25mm	6mm	2	35mm	RJLT 12	M12	SM40-093-20	DS-A00T	BLD T15/S7	**IC523108187**	Price
15B1B-03243X8R00	32mm	6mm	3	43mm	RJLT 12	M16	SM40-093-20	DS-A00T	BLD T15/S7	**IC523106917**	Price

FORMOMASTER SHEAR™ **Button Cutter Indexable End Mills**

Series 15B

- Ultra shear high performance mills
- Wide range on insert grades available to address all applications
- Anti-rotating insert clamping





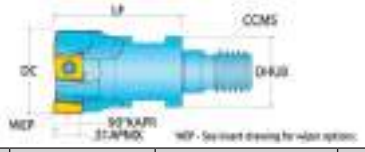
Cutter Style - Inch														
Model No.	Cutting Dia.	Max. Cutting Depth (in.)	OAL (in.)	Reach	Shank Dia.	Shank Style	Effective Teeth	Uses Insert	Screw	Handle	Torx Key Blade	Cutter Style	Order No.	Price
15B1B-1001780R01	1.00	.24	4.50	1.75	1.00	Cylindrical	2	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Inch	**IC523032509**	Price
15B1B-10020S1R01	1.25	.24	6.00	2.00	1.00	Cylindrical	2	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Inch	**IC523032510**	Price
15B1B-1202781R01	1.25	.24	5.00	2.75	1.25	Weldon	3	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Inch	**IC523032511**	Price
15B1B-12020S9R01	1.25	.24	6.00	2.00	1.25	Cylindrical	3	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Inch	**IC523032512**	Price
15B1B-1502386R01	1.50	.24	5.00	2.34	1.50	Weldon	4	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Inch	**IC523032513**	Price
15B1B-15020S5R01	1.50	.24	6.00	2.00	1.50	Cylindrical	4	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Inch	**IC523032514**	Price

Cutter Style - Metric														
Model No.	Cutting Dia.	Max. Cutting Depth (in.)	OAL (in.)	Reach	Shank Dia.	Shank Style	Effective Teeth	Uses Insert	Screw	Handle	Torx Key Blade	Cutter Style	Order No.	Price
15B1B-02404480R00	24mm	.24	4.00	48mm	1.00	Weldon	2	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Metric	**IC523032508**	Price
15B1B-02560W5R00	25mm	.24	4.00	60mm	25mm	NA	2	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Metric	**IC523108184**	Price
15B1B-03260W6R00	32mm	.24	4.50	60mm	32mm	NA	3	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Metric	**IC523108186**	Price
15B1B-04050W6R00	40mm	.24	4.50	50mm	32mm	NA	3	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Metric	**IC523106020**	Price
15B1B-04035W6R00	40mm	.24	4.50	35mm	32mm	NA	4	RJLT 12	SM40-093-20	DS-A00T	BLD T15/S7	Metric	**IC523106600**	Price

GOLD•MAX™ **Indexable End Mills**

Modular • Series 1SJ1Y

- Maximum depth of cut .31" on all sizes
- 4 Index inserts



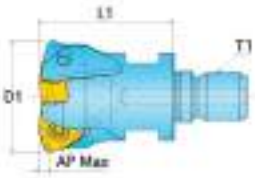


Model No.	No. of Inserts	Cutter Dia. (in.)	Uses Insert	Connection	Screw	Wrench	Order No.	Price
1SJ1Y-07015X6R01	2	.75	DGM212R	T1 10mm	SM30-074-21	DS-T08W	**IC523030110**	Price
1SJ1Y-07015X6R01	2	.75	DGM212R	T1 10mm	SM30-074-21	DS-T08W	**IC523030110**	Price
1SJ1Y-07015X6R02	3	.75	DGM212R	T1 10mm	SM30-074-21	DS-T08W	**IC523030111**	Price
1SJ1Y-07015X6R02	3	.75	DGM212R	T1 10mm	SM30-074-21	DS-T08W	**IC523030111**	Price
1SJ1Y-10015X7R02	4	1.00	DGM212R	T1 12mm	SM30-082-22	DS-T08W	**IC523030113**	Price
1SJ1Y-10015X7R02	4	1.00	DGM212R	T1 12mm	SM30-082-22	DS-T08W	**IC523030113**	Price
1SJ1Y-12017X8R02	5	1.25	DGM212R	T1 16mm	SM30-082-22	DS-T08W	**IC523030115**	Price
1SJ1Y-12017X8R02	5	1.25	DGM212R	T1 16mm	SM30-082-22	DS-T08W	**IC523030115**	Price
1SJ1Y-15017X8R01	4	1.50	DGM212R	T1 16mm	SM30-082-22	DS-T08W	**IC523030116**	Price
1SJ1Y-15017X8R01	4	1.50	DGM212R	T1 16mm	SM30-082-22	DS-T08W	**IC523030116**	Price
1SJ1Y-07010TSR01	3	.75	DGM212R	T12	SM30-074-21	DS-T08W	**IC523030101**	Price
1SJ1Y-07010TSR01	3	.75	DGM212R	T12	SM30-074-21	DS-T08W	**IC523030101**	Price
1SJ1Y-10012TUR01	4	1.00	DGM212R	T15	SM30-074-21	DS-T08W	**IC523030065**	Price
1SJ1Y-10012TUR01	4	1.00	DGM212R	T15	SM30-074-21	DS-T08W	**IC523030065**	Price

POWER•FEED 13+™ **High Feed Indexable End Mills**

Modular • - 1DG1P

- .078 Maximum depth of cut
- Double-sized insert technology offers 6 cutting edges for great economy
- Unique insert seating design provides excellent stability in the cut
- Through coolant





Model No.	Cutter Dia. (in.)	No. of Flutes	Uses Insert	Ext Length L1 (in.)	Connection	Screw	Wrench	Order No.	Price
1DG1P-12017X8R01	1.25	2	UNEU1307R	1.75	M16	SM50-106-50	DS-0034	**IC522913866**	Price
1DG1P-15017X8R01	1.50	3	UNEU1307R	1.75	M16	SM50-106-50	DS-0034	**IC522912730**	Price

MIlling Inserts

Ingersoll Cutting Tools

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - ANHU160704 Thickness (in.) - .436 Radius (in.) - .016									
ANHU160704FR	IN2505	x	x	x	x		x	IC045615735	Price
ANHU160704FRP	IN10K				x			IC045812773	Price
ANHU160704R	IN2530		x	x		x		IC045813368	Price
Style - ANHU160708 Thickness (in.) - .417 Radius (in.) - .031									
ANHU160708FR	IN4035		x					IC042904926	Price
ANHU160708FRP	IN10K				x			IC045812774	Price
ANHU160708R	IN2505	x	x	x	x	x	x	IC045840788	Price
ANHU160708R	IN2530		x	x		x		IC045849008	Price
Style - ANHU160716 Thickness (in.) - .413 Radius (in.) - .062									
ANHU160716R	IN2530		x	x		x		IC045813369	Price
ANHU160716RJ	IN2505	x	x	x	x	x	x	IC045812338	Price
Style - ANHU160724 Thickness (in.) - .436 Radius (in.) - .094									
ANHU160724R	IN2505	x	x	x	x	x	x	IC045615855	Price
Style - AOCT170508 Thickness (in.) - .211 Radius (in.) - .020									
APKT1705PERAL	IN10K				x			IC045873030	Price
Style - AOMT170508 Thickness (in.) - .211 Radius (in.) - .031									
AOMT170508R	IN2505	x	x	x	x	x	x	IC045812725	Price
AOMT170508R	IN2530		x	x		x		IC045813376	Price
AOMT170508RHS	IN2035		x					IC045612365	Price
Style - AOMT170516 Thickness (in.) - .219 Radius (in.) - .062									
AOMT170516R	IN2530		x	x		x		IC045813378	Price
Style - AOMT170532 Thickness (in.) - .219 Radius (in.) - .125									
AOMT170532R	IN2530		x	x		x		IC045813380	Price
Style - AOMT170548 Thickness (in.) - .219 Radius (in.) - .187									
AOMT170548R	IN2505	x	x	x	x		x	IC045874499	Price
Style - AOMT170564 Thickness (in.) - .219 Radius (in.) - .250									
AOMT170564R	IN2505	x	x	x	x		x	IC045874500	Price
AOMT170564R	IN2530		x	x		x		IC045813382	Price
Style - BOCT09T304 Thickness (in.) - .150 Radius (in.) - .008									
BOCT09T304FRP	IN10K				x			IC045812702	Price
Style - BOCT09T308 Thickness (in.) - .150 Radius (in.) - .016									
BOCT09T308FRP	IN10K				x			IC045812703	Price
Style - BOCT130404 Thickness (in.) - .190 Radius (in.) - .015									
BOCT130404FRP	IN10K				x			IC045812692	Price
Style - BOCT130404 Thickness (in.) - .190 Radius (in.) - .015									
BOCT130404FRP	IN10K				x			IC045812692	Price
Style - BOCT130408 Thickness (in.) - .190 Radius (in.) - .015									
BOCT130404FRP	IN10K				x			IC045812693	Price
Style - BOMT09T304 Thickness (in.) - .150 Radius (in.) - .008									
BOMT09T304R	IN2505	x	x	x	x	x	x	IC045812705	Price
Style - BOMT09T308 Thickness (in.) - .150 Radius (in.) - .031									
BOMT09T308R	IN2035		x					IC045812697	Price
BOMT09T308R	IN2505	x	x	x	x	x	x	IC045812698	Price
BOMT09T308R	IN2530		x	x		x		IC045813387	Price
Style - BOMT09T316 Thickness (in.) - .150 Radius (in.) - .062									
BOMT09T316R	IN2035		x					IC045822575	Price
BOMT09T316R	IN2505	x	x	x	x	x	x	IC045812701	Price
BOMT09T316R	IN2530		x	x		x		IC045813388	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - BOMT09T331 Thickness (in.) - .148 Radius (in.) - .120									
BOMT09T331R	IN2035		x					IC045812899	Price
BOMT09T331R	IN2505	x	x	x	x	x	x	IC045812818	Price
BOMT09T331R	IN2530		x	x		x		IC045813389	Price
Style - BOMT130404 Thickness (in.) - .190 Radius (in.) - .015									
BOMT130404R	IN2035		x					IC045872268	Price
BOMT130404R	IN2505	x	x	x	x	x	x	IC045871961	Price
BOMT130404R	IN2530		x	x		x		IC045813390	Price
Style - BOMT130408 Thickness (in.) - .190 Radius (in.) - .031									
BOMT130408R	IN2035		x					IC045872495	Price
BOMT130408R	IN2505	x	x	x	x	x	x	IC045872509	Price
BOMT130408R	IN2530		x	x		x		IC045813391	Price
Style - BOMT130416 Thickness (in.) - .190 Radius (in.) - .062									
BOMT130416R	IN2505	x	x	x	x	x	x	IC045812683	Price
BOMT130416R	IN2530		x	x		x		IC045813392	Price
Style - BOMT130424 Thickness (in.) - .190 Radius (in.) - .093									
BOMT130424R	IN2505	x	x	x	x	x	x	IC045812687	Price
BOMT130424R	IN2530		x	x		x		IC045813395	Price
Style - BOMT130431 Thickness (in.) - .190 Radius (in.) - .125									
BOMT130431R	IN2035		x					IC045872525	Price
BOMT130431R	IN2505	x	x	x	x	x	x	IC045872526	Price
BOMT130431R	IN2530		x	x		x		IC045813396	Price
Style - DFH324L001 Thickness (in.) - .315 Radius (in.) - .300 Wiper									
DFH324L001	IN2030		x	x		x		IC045831701	Price
DFH324L001	IN2505	x	x	x	x	x	x	IC045832829	Price
DFH324L001	IN2530		x	x		x		IC045832828	Price
DFH324L001	IN4015			x	x			IC042900860	Price
DFH324L001	IN4030	x	x	x				IC042900859	Price
StyleDFH324L205 Thickness (in.) - .315 Radius (in.) - .030 w/.501 Wiper									
DFH324L205	IN4015			x	x			IC042906337	Price
Style - DGE314R001 Thickness (in.) - .315 Radius (in.) - .031									
DGE314R001	IN2030		x	x		x		IC045830880	Price
DGE314R001	IN2530		x	x		x		IC042901569	Price
DGE314R001	IN4030	x	x	x				IC042902059	Price
DGE314R001P	IN15K				x			IC045831498	Price
Style - DGE314R002 Thickness (in.) - .315 Radius (in.) - .062									
DGE314R002	IN2030		x	x		x		IC045830879	Price
DGE314R002	IN2530		x	x		x		IC045832785	Price
DGE314R002	IN4030	x	x	x				IC042902058	Price
Style - DGE314R004 Thickness (in.) - .280 Radius (in.) - .125									
DGE314R004	IN2030		x	x		x		IC045831000	Price
DGE314R004	IN2530		x	x		x		IC042901571	Price
DGE314R004	IN4030	x	x	x				IC042902060	Price
Style - DGE324R001 Thickness (in.) - .315 Radius (in.) - .031									
DGE324R001	IN2030		x	x		x		IC045830883	Price
DGE324R001	IN2530		x	x		x		IC042901574	Price
DGE324R001	IN4030	x	x	x				IC042902064	Price
DGE324R001P	IN15K				x			IC045831500	Price
Style - DGE324R002 Thickness (in.) - .315 Radius (in.) - .062									
DGE324R002	IN2030		x	x		x		IC045830884	Price
DGE324R002	IN2530		x	x		x		IC042901575	Price
DGE324R002	IN4030	x	x	x				IC042902066	Price

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Style - DGE324R004 Thickness (in.) - .315 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGE324R004	IN2530		x	x		x		IC042901576	Price
DGE324R004	IN4030	x	x	x				IC042902067	Price
Style - DGE324R045 Thickness (in.) - .315 Radius (in.) - .010 w/.062 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGE324R045	IN2030		x	x		x		IC045831002	Price
DGE324R045	IN2530		x	x		x		IC042901577	Price
DGE324R045	IN4030	x	x	x				IC042902068	Price
Style - DGM212101 Thickness (in.) - .169 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM212101	IN2005	x	x	x	x	x		IC045813528	Price
Style - DGM212R100 Thickness (in.) - .169 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM212R100	IN2004	x		x				IC045812785	Price
DGM212R100	IN2005	x	x	x	x	x		IC045812786	Price
DGM212R100	IN2015	x	x	x				IC045812787	Price
DGM212R100	IN2030		x	x		x		IC045812788	Price
DGM212R100	IN2505	x	x	x	x	x	x	IC042901580	Price
DGM212R100	IN2530		x	x		x		IC042901510	Price
DGM212R100	IN2535		x					IC042907253	Price
DGM212R100	IN4005	x	x	x			x	IC042900655	Price
DGM212R100	IN4015			x	x			IC042900654	Price
DGM212R100	IN4030	x	x	x				IC042900656	Price
DGM212R100	IN4035		x					IC042907254	Price
Style - DGM212R101 Thickness (in.) - .169 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM212R101	IN2005	x	x	x	x	x		IC045850378	Price
DGM212R101	IN2015	x	x	x				IC045850380	Price
DGM212R101	IN2030		x	x		x		IC045850381	Price
DGM212R101	IN2505	x	x	x	x	x	x	IC045831693	Price
Style - DGM212R101 Thickness (in.) - .169 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM212R101	IN2515			x	x			IC042901585	Price
DGM212R101	IN2530		x	x		x		IC042901586	Price
Style - DGM212R101 Thickness (in.) - .169 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM212R101	IN2535		x					IC042907251	Price
DGM212R101	IN4005	x	x	x			x	IC042900658	Price
DGM212R101	IN4015			x	x			IC042900657	Price
DGM212R101	IN4030	x	x	x				IC042900659	Price
DGM212R101	IN4035		x					IC042907252	Price
Style - DGM212R103 Thickness (in.) - .169 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM212R103	IN2005	x	x	x	x	x		IC045831282	Price
DGM212R103	IN2015	x	x	x				IC045831281	Price
DGM212R103	IN2030		x	x		x		IC045831283	Price
DGM212R103	IN2505	x	x	x	x	x	x	IC042901653	Price
DGM212R103	IN2530		x	x		x		IC042901657	Price
DGM212R103	IN2535		x					IC042907249	Price
DGM212R103	IN4005	x	x	x			x	IC042900685	Price
DGM212R103	IN4030	x	x	x				IC042900686	Price
DGM212R103	IN4035		x					IC042907250	Price
Style - DGM314L001 Thickness (in.) - .280 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314L001	IN2005	x	x	x	x			IC045830732	Price
Style - DGM314R001 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314R001	IN2005	x	x	x	x	x		IC045812314	Price
DGM314R001	IN2015	x	x	x				IC045812606	Price
DGM314R001	IN2030		x	x		x		IC045812605	Price
DGM314R001	IN2040			x				IC045812607	Price
DGM314R001	IN2515			x	x			IC042901659	Price
DGM314R001	IN2530		x	x		x		IC045832681	Price
DGM314R001	IN2540			x				IC042901662	Price
DGM314R001	IN4005	x	x	x			x	IC042900700	Price
DGM314R001	IN4015			x	x			IC042900687	Price

Style - DGM314R001 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314R001	IN4030	x	x	x				IC042900688	Price
DGM314R001	IN4040	x	x					IC042900699	Price
DGM314R001P	IN05S				x			IC045812609	Price
DGM314R001R	IN2005	x	x	x	x	x		IC045831483	Price
Style - DGM314R001 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314R001R	IN2505	x	x	x	x	x	x	IC042901673	Price
DGM314R001R	IN2530		x	x		x		IC042903356	Price
DGM314R001R	IN4005	x	x	x			x	IC042900704	Price
Style - DGM314R002 Thickness (in.) - .315 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314R002	IN2005	x	x	x	x	x		IC045822429	Price
DGM314R002	IN2015	x	x	x				IC045812611	Price
DGM314R002	IN2030		x	x		x		IC045812610	Price
DGM314R002	IN2040			x				IC045812612	Price
DGM314R002	IN2515			x	x			IC042901674	Price
DGM314R002	IN2530		x	x		x		IC042901716	Price
DGM314R002	IN2540			x				IC042901717	Price
DGM314R002	IN4005	x	x	x			x	IC042900708	Price
DGM314R002	IN4015			x	x			IC042900705	Price
DGM314R002	IN4030	x	x	x				IC042900706	Price
DGM314R002	IN4040	x	x					IC042900707	Price
DGM314R002R	IN2505	x	x	x	x	x	x	IC042901718	Price
DGM314R002R	IN2530		x	x		x		IC042903357	Price
DGM314R002R	IN4005	x	x	x			x	IC042900709	Price
Style - DGM314R003 Thickness (in.) - .315 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314R003	IN2005	x	x	x	x	x		IC045812614	Price
DGM314R003	IN2505	x	x	x	x	x	x	IC042901719	Price
Style - DGM314R004 Thickness (in.) - .315 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM314R004	IN2005	x	x	x	x	x		IC045822434	Price
DGM314R004	IN2015	x	x	x				IC045812616	Price
DGM314R004	IN2030		x	x		x		IC045812615	Price
DGM314R004	IN2505	x	x	x	x	x	x	IC042901720	Price
DGM314R004	IN2530		x	x		x		IC042901722	Price
DGM314R004	IN4005	x	x	x			x	IC042900712	Price
DGM314R004	IN4030	x	x	x				IC042900710	Price
DGM314R004	IN4040	x	x					IC042900711	Price
Style - DGM315001 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM315001	IN2530		x	x		x		IC045832835	Price
DGM315001	IN4005	x	x	x			x	IC042903248	Price
DGM315001	IN4015			x	x			IC042903245	Price
DGM315001	IN4030	x	x	x				IC042903247	Price
Style - DGM315002 Thickness (in.) - .315 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM315002	IN2530		x	x		x		IC045832839	Price
DGM315002	IN4005	x	x	x			x	IC042903251	Price
DGM315002	IN4015			x	x			IC042903249	Price
DGM315002	IN4030	x	x	x				IC042903252	Price
Style - DGM315003 Thickness (in.) - .315 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM315003	IN2530		x	x		x		IC042901726	Price
DGM315003	IN4005	x	x	x			x	IC042903255	Price
DGM315003	IN4015			x	x			IC042903253	Price
DGM315003	IN4030	x	x	x				IC042903256	Price
Style - DGM315004 Thickness (in.) - .315 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM315004	IN4030	x	x	x				IC042903260	Price
Style - DGM324R001									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R001	IN2005	x	x	x	x	x		IC045830052	Price
DGM324R001	IN2015	x	x	x				IC045873051	Price
DGM324R001	IN2030		x	x		x		IC045873066	Price

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Style - DGM324R001 Thickness (in.) -									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R001	IN2040			x				IC045873059	Price
DGM324R001	IN2515			x	x			IC042901732	Price
DGM324R001	IN2530		x	x		x		IC042901733	Price
DGM324R001	IN2540			x				IC042901734	Price
DGM324R001	IN4005	x	x	x			x	IC042901990	Price
DGM324R001	IN4015			x	x			IC042901224	Price
Style - DGM324R001 Thickness (in.) -									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R001	IN4030	x	x	x				IC042901989	Price
DGM324R001	IN4040	x	x					IC042901988	Price
Style - DGM324R002 Thickness (in.) - .315 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R002	IN2005	x	x	x	x	x		IC045830057	Price
DGM324R002	IN2015	x	x	x				IC045873053	Price
DGM324R002	IN2030		x	x		x		IC045873068	Price
DGM324R002	IN2040			x				IC045873063	Price
DGM324R002	IN2530		x	x		x		IC042901736	Price
DGM324R002	IN4005	x	x	x			x	IC042901994	Price
DGM324R002	IN4015			x	x			IC042901991	Price
DGM324R002	IN4030	x	x	x				IC042901993	Price
DGM324R002	IN4040	x	x					IC042901992	Price
Style - DGM324R004 Thickness (in.) - .315 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R004	IN2005	x	x	x	x	x		IC045830059	Price
DGM324R004	IN2015	x	x	x				IC045873055	Price
DGM324R004	IN2030		x	x		x		IC045873070	Price
DGM324R004	IN2530		x	x		x		IC042901741	Price
DGM324R004	IN4005	x	x	x			x	IC042902001	Price
DGM324R004	IN4015			x	x			IC042901995	Price
DGM324R004	IN4030	x	x	x				IC042902000	Price
DGM324R004	IN4040	x	x					IC042901996	Price
Style - DGM324R045 Thickness (in.) - .315 Radius (in.) - .010 w/.060 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R045	IN2005	x	x	x	x	x		IC045830693	Price
DGM324R045	IN2015	x	x	x				IC045831049	Price
DGM324R045	IN2040			x				IC045831121	Price
DGM324R045	IN2505	x	x	x	x	x	x	IC042901742	Price
DGM324R045	IN2515			x	x			IC042901743	Price
DGM324R045	IN2530		x	x		x		IC042901744	Price
DGM324R045	IN4005	x	x	x			x	IC042902048	Price
DGM324R045	IN4015			x	x			IC042902002	Price
DGM324R045	IN4030	x	x	x				IC042902047	Price
DGM324R045	IN4040	x	x					IC042902045	Price
Style - DGM324R201 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R201	IN2005	x	x	x	x	x		IC045830485	Price
DGM324R201	IN2015	x	x	x				IC045830621	Price
DGM324R201	IN2030		x	x		x		IC045831223	Price
DGM324R201	IN2040			x				IC045831224	Price
DGM324R201	IN4005	x	x	x			x	IC042902049	Price
DGM324R201	IN4015			x	x			IC042901225	Price
DGM324R201	IN4030	x	x	x				IC042902050	Price
DGM324R201	IN4040	x	x					IC042902051	Price
Style - DGM324R202 Thickness (in.) - .315 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM324R202	IN2005	x	x	x	x	x		IC045831226	Price
DGM324R202	IN2015	x	x	x				IC045831227	Price
DGM324R202	IN2030		x	x		x		IC045831228	Price
DGM324R202	IN4005	x	x	x			x	IC042902052	Price
DGM324R202	IN4030	x	x	x				IC042902054	Price
Style - DGM325001 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM325001	IN2530		x	x		x		IC042901751	Price
DGM325001	IN4005	x	x	x			x	IC042903263	Price
DGM325001	IN4015			x	x			IC042903261	Price

Style - DGM325002 Thickness (in.) - .315 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM325002	IN2530		x	x		x		IC042901754	Price
DGM325002	IN4005	x	x	x			x	IC042903267	Price
DGM325002	IN4015			x	x			IC042903265	Price
DGM325002	IN4030	x	x	x				IC042903376	Price
Style - DGM325003 Thickness (in.) - .315 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM325003	IN2530		x	x		x		IC042901758	Price
DGM325003	IN4005	x	x	x			x	IC042903379	Price
DGM325003	IN4015			x	x			IC042903377	Price
DGM325003	IN4030	x	x	x				IC042903380	Price
Style - DGM325004 Thickness (in.) - .315 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM325004	IN2530		x	x		x		IC042901762	Price
DGM325004	IN4005	x	x	x			x	IC042903578	Price
DGM325004	IN4030	x	x	x				IC042903588	Price
Style - DGM426001 Thickness (in.) - .375 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM426001	IN2530		x	x		x		IC042901766	Price
DGM426001	IN4015			x	x			IC042903589	Price
DGM426001	IN4030	x	x	x				IC042903592	Price
Style - DGM426002 Thickness (in.) - .375 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM426002	IN2505	x	x	x	x	x	x	IC042901768	Price
DGM426002	IN2530		x	x		x		IC042901770	Price
DGM426002	IN4015			x	x			IC042903593	Price
DGM426002	IN4030	x	x	x				IC042903596	Price
Style - DGM426003 Thickness (in.) - .375 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM426003	IN4005	x	x	x			x	IC042903599	Price
DGM426003	IN4015			x	x			IC042903597	Price
DGM426003	IN4030	x	x	x				IC042903600	Price
Style - DGM426004 Thickness (in.) - .375 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DGM426004	IN2530		x	x		x		IC042901773	Price
DGM426004	IN4005	x	x	x			x	IC042903604	Price
DGM426004	IN4015			x	x			IC042903601	Price
DGM426004	IN4030	x	x	x				IC042903605	Price
Style - DNM434L202 Thickness (in.) - .300 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNM434L202	IN2005	x	x	x	x	x		IC045822495	Price
DNM434L202	IN2030		x	x		x		IC045822496	Price
Style - DNM434R201 Thickness (in.) - .300 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNM434R201	IN2005	x	x	x	x	x		IC045822497	Price
DNM434R201	IN2015	x	x	x				IC045822499	Price
DNM434R201	IN2030		x	x		x		IC045822498	Price
Style - DNM434R202 Thickness (in.) -									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNM434R202	IN2005	x	x	x	x	x		IC045812022	Price
DNM434R202	IN2030		x	x		x		IC045822503	Price
Style - DNM434R203 Thickness (in.) - .300 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNM434R203	IN2005	x	x	x	x	x		IC045822501	Price
Style - DNM434R204 Thickness (in.) - .300 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNM434R204	IN2005	x	x	x	x	x		IC045822502	Price
Style - DNM434R245 Thickness (in.) - .300 Radius (in.) - .150 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNM434R245	IN2005	x	x	x	x	x		IC045830720	Price
Style - DPM314001 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM314001	IN2005	x	x	x	x	x		IC045811538	Price
DPM314001	IN2015	x	x	x				IC045811548	Price
DPM314001	IN2530		x	x		x		IC045822585	Price

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Style - DPM314002 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM314002	IN2005	x	x	x	x	x		IC045811613	Price
DPM314002	IN2015	x	x	x				IC045811579	Price
DPM314002	IN2530		x	x		x		IC045822581	Price
DPM314002	IN4015			x	x			IC042901230	Price
Style - DPM314003 Thickness (in.) - .250 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM314003	IN2005	x	x	x	x	x		IC045811615	Price
Style - DPM314004 Thickness (in.) - .250 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM314004	IN2005	x	x	x	x	x		IC045811617	Price
DPM314004	IN2015	x	x	x				IC045811581	Price
DPM314004	IN2530		x	x		x		IC045822586	Price
Style - DPM314R001 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM314R001	IN2010	x						IC045820703	Price
DPM314R001	IN2015	x	x	x				IC045811550	Price
DPM314R001	IN2530		x	x		x		IC045822582	Price
Style - DPM314R002 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM314R002	IN2005	x	x	x	x	x		IC045811619	Price
Style - DPM324001 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324001	IN2005	x	x	x	x	x		IC045811541	Price
DPM324001	IN2015	x	x	x				IC045811552	Price
DPM324001	IN2530		x	x		x		IC045822587	Price
Style - DPM324002 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324002	IN2005	x	x	x	x	x		IC045811625	Price
DPM324002	IN2015	x	x	x				IC045811582	Price
Style - DPM324003 Thickness (in.) - .250 Radius (in.) - .094									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324003	IN2530		x	x		x		IC045812812	Price
Style - DPM324004 Thickness (in.) - .250 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324004	IN2005	x	x	x	x	x		IC045811629	Price
DPM324004	IN2015	x	x	x				IC045811584	Price
DPM324004	IN2530		x	x		x		IC045840825	Price
Style - DPM324L050 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324L050	IN2005	x	x	x	x	x		IC045812149	Price
DPM324L050	IN2530		x	x		x		IC045822604	Price
Style - DPM324L051 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324L051	IN2005	x	x	x	x	x		IC045821099	Price
DPM324L051	IN2015	x	x	x				IC045821100	Price
DPM324L051	IN2030		x	x		x		IC045831484	Price
DPM324L051	IN2530		x	x		x		IC045822589	Price
DPM324L051	IN2535		x					IC042907261	Price
DPM324L051	IN4035		x					IC042907263	Price
Style - DPM324L101 Thickness (in.) - .256 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324L101	IN2005	x	x	x	x	x		IC045821180	Price
DPM324L101	IN2030		x	x		x		IC045831485	Price
DPM324L101	IN2530		x	x		x		IC045831523	Price
DPM324L101	IN2535		x					IC042907259	Price
Style - DPM324R001 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324R001	IN2005	x	x	x	x	x		IC045811542	Price
DPM324R001	IN2015	x	x	x				IC045811554	Price
DPM324R001	IN2530		x	x		x		IC045822583	Price
Style - DPM324R002 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324R002	IN2005	x	x	x	x	x		IC045811631	Price
DPM324R002	IN2530		x	x		x		IC045822584	Price

Style - DPM324R045 Thickness (in.) - .250 Radius (in.) - .080									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM324R045	IN2005	x	x	x	x	x		IC045821762	Price
Style - DPM424001 Thickness (in.) - .300 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM424001	IN2005	x	x	x	x	x		IC045811539	Price
DPM424001	IN2015	x	x	x				IC045811556	Price
Style - DPM424001 Thickness (in.) - .300 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM424001	IN2040			x				IC045811555	Price
DPM424001	IN4005	x	x	x			x	IC042901440	Price
Style - DPM424002 Thickness (in.) - .300 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM424002	IN2005	x	x	x	x	x		IC045811566	Price
DPM424002	IN2015	x	x	x				IC045811565	Price
DPM424002	IN2040			x				IC045811567	Price
Style - DPM424003 Thickness (in.) - .300 Radius (in.) - .093									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM424003	IN2005	x	x	x	x	x		IC045811569	Price
Style - DPM424004 Thickness (in.) - .300 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM424004	IN2005	x	x	x	x	x		IC045811572	Price
DPM424004	IN2015	x	x	x				IC045811571	Price
DPM424004	IN2040			x				IC045811573	Price
Style - DPM424R001 Thickness (in.) - .375 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM424R001	IN2005	x	x	x	x	x		IC045811544	Price
Style - DPM434001 Thickness (in.) - .300 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434001	IN2005	x	x	x	x	x		IC045811545	Price
Style - DPM434002 IC Thickness (in.) - .300 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434002	IN2005	x	x	x	x	x		IC045811575	Price
Style - DPM434L050 Thickness (in.) - .300 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434L050	IN2005	x	x	x	x	x		IC045812146	Price
DPM434L050	IN2530		x	x		x		IC045813257	Price
Style - DPM434L051 Thickness (in.) - .300 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434L051	IN2005	x	x	x	x	x		IC045820799	Price
DPM434L051	IN2530		x	x		x		IC045822591	Price
Style - DPM434L101 Thickness (in.) - .306 Radius (in.) - .200									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434L101	IN2005	x	x	x	x	x		IC045821179	Price
DPM434L101	IN2030		x	x		x		IC045831486	Price
DPM434L101	IN2530		x	x		x		IC045831522	Price
DPM434L101	IN4035		x					IC042907265	Price
Style - DPM434R001 Thickness (in.) - .300 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434R001	IN2005	x	x	x	x	x		IC045811546	Price
DPM434R001	IN2015	x	x	x				IC045811530	Price
DPM434R001	IN2030		x	x		x		IC045821927	Price
DPM434R001	IN2040			x				IC045811560	Price
DPM434R001	IN2530		x	x		x		IC045812721	Price
Style - DPM434R002 Thickness (in.) - .300 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434R002	IN2005	x	x	x	x	x		IC045811562	Price
DPM434R002	IN2015	x	x	x				IC045811531	Price
DPM434R002	IN2040			x				IC045811561	Price
DPM434R002	IN2530		x	x		x		IC045822590	Price
DPM434R002	IN4015			x	x			IC042901226	Price
Style - DPM434R004 Thickness (in.) - .300 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434R004	IN2005	x	x	x	x	x		IC045811649	Price
DPM434R004	IN2530		x	x		x		IC045822588	Price

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Style - DPM434R045 Thickness (in.) - .375 Radius (in.) - .150 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM434R045	IN2005	x	x	x	x	x		IC045820445	Price
DPM434R045	IN2015	x	x	x				IC045811564	Price
DPM434R045	IN2030		x	x		x		IC045830764	Price
DPM434R045	IN2040			x				IC045811563	Price
DPM434R045	IN2530		x	x		x		IC045812762	Price
DPM434R045	IN4030	x	x	x				IC042902070	Price
Style - DPM436L045 Thickness (in.) - .375 Radius (in.) - .010 w/.150 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM436L045	IN2005	x	x	x	x	x		IC045812045	Price
Style - DPM436R001 Thickness (in.) - .375 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM436R001	IN2015	x	x	x				IC045830596	Price
DPM436R001	IN2030		x	x		x		IC045830593	Price
Style - DPM436R002 Thickness (in.) - .375 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM436R002	IN2005	x	x	x	x	x		IC045830086	Price
DPM436R002	IN2030		x	x		x		IC045830599	Price
Style - DPM436R045 Thickness (in.) - .375 Radius (in.) - .010 w/.150 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DPM436R045	IN2005	x	x	x	x	x		IC045811936	Price
DPM436R045	IN2015	x	x	x				IC045811902	Price
DPM436R045	IN2030		x	x		x		IC045822080	Price
DPM436R045	IN2040			x				IC045811903	Price
DPM436R045	IN2530		x	x		x		IC045812813	Price
DPM436R045	IN4005	x	x	x			x	IC045803018	Price
Style - DTM324R001 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DTM324R001	IN2015	x	x	x				IC045822567	Price
Style - ENHU050302 IC (in.) - .203 Thickness (in.) - .133 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ENHU050302R	IN2505	x	x	x	x		x	IC046182781	Price
ENHU050302R	IN2530		x	x		x		IC046182415	Price
Style - ENHU050304 IC (in.) - .203 Thickness (in.) - .130 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ENHU050304R	IN2505	x	x	x	x	x	x	IC046120540	Price
ENHU050304R	IN2530		x	x		x		IC046142745	Price
ENHU050304R-PH	IN7035		x					IC046142749	Price
Style - ENHU050308 IC (in.) - .203 Thickness (in.) - .130 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ENHU050308R	IN2505	x	x	x	x	x	x	IC046154121	Price
ENHU050308R	IN2530		x	x		x		IC046154120	Price
ENHU050308R-PH	IN7035		x					IC046167059	Price
Style - IXH211-G01 Thickness (in.) - .070 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH211-G01 K	IN4005	x	x	x			x	IC042914399	Price
IXH211-G01 K	IN4030	x	x	x				IC042914400	Price
IXH211-G01 Y	IN2535		x					IC042914398	Price
IXH211-G01-P-S	IN05S				x			IC042914401	Price
Style - IXH311-G01 Thickness (in.) - .085 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH311-G01	IN4015			x	x			IC042914963	Price
IXH311-G01	IN4030	x	x	x				IC042914720	Price
IXH311-G01 K	IN4005	x	x	x			x	IC042914719	Price
IXH311-G01 Y	IN2535		x					IC042914721	Price
IXH311-G01P S	IN05S				x			IC042914718	Price
Style - IXH311-G02 Thickness (in.) - .085 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH311-G02 K	IN4005	x	x	x			x	IC042914724	Price
IXH311-G02 K	IN4030	x	x	x				IC042914723	Price
IXH311-G02 Y	IN2535		x					IC042914725	Price
IXH311-G02-P S	IN05S				x			IC042914722	Price

Style - IXH312-G01 Thickness (in.) - .113 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH312-G01 J	IN4015			x	x			IC042914962	Price
IXH312-G01 K	IN4005	x	x	x			x	IC042914879	Price
IXH312-G01 K	IN4030	x	x	x				IC042914738	Price
IXH312-G01 Y	IN2535		x					IC042914880	Price
IXH312-G01-P S	IN05S				x			IC042914737	Price
Style - IXH312-G02 Thickness (in.) - .113 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH312-G02 K	IN2530		x	x		x		IC042917768	Price
IXH312-G02 K	IN4005	x	x	x			x	IC042914893	Price
IXH312-G02 K	IN4030	x	x	x				IC042914892	Price
IXH312-G02 Y	IN2535		x					IC042914895	Price
IXH312-G02-P S	IN05S				x			IC042914891	Price
Style - IXH412-G01 Thickness (in.) - .153 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH412-G01 J	IN4015			x	x			IC042914977	Price
IXH412-G01 K	IN4005	x	x	x			x	IC042914966	Price
IXH412-G01 K	IN4030	x	x	x				IC042914967	Price
IXH412-G01 Y	IN2535		x					IC042914968	Price
IXH412-G01-P-S	IN05S				x			IC042914965	Price
Style - IXH412-G02 Thickness (in.) - .153 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH412-G02 J	IN4015			x	x			IC042914980	Price
IXH412-G02 K	IN4005	x	x	x			x	IC042914971	Price
IXH412-G02 K	IN4030	x	x	x				IC042914970	Price
IXH412-G02 Y	IN2535		x					IC042914972	Price
IXH412-G02-P-S	IN05S				x			IC042914969	Price
Style - IXH412-G03 Thickness (in.) - .153 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH412-G03 K	IN4005	x	x	x			x	IC042914975	Price
IXH412-G03 K	IN4030	x	x	x				IC042914973	Price
IXH412-G03-P-S	IN05S				x			IC042917282	Price
Style - IXH413-G01 Thickness (in.) - .191 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH413-G01 K	IN4005	x	x	x			x	IC042914984	Price
IXH413-G01 K	IN4030	x	x	x				IC042914983	Price
IXH413-G01 Y	IN2535		x					IC042914985	Price
IXH413-G01-P-S	IN05S				x			IC042914982	Price
Style - IXH413-G02 Thickness (in.) - .191 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH413-G02 K	IN4005	x	x	x			x	IC042914988	Price
IXH413-G02 K	IN4030	x	x	x				IC042914987	Price
IXH413-G02 Y	IN2535		x					IC042914989	Price
IXH413-G02-P-S	IN05S				x			IC042914986	Price
Style - IXH414-G01 Thickness (in.) - .231 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH414-G01 K	IN4005	x	x	x			x	IC042915022	Price
IXH414-G01 K	IN4030	x	x	x				IC042915021	Price
IXH414-G01 Y	IN2535		x					IC042915025	Price
IXH414-G01-P-S	IN05S				x			IC042915020	Price
Style - IXH414-G02 Thickness (in.) - .231 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH414-G02 K	IN4005	x	x	x			x	IC042915028	Price
IXH414-G02 K	IN4030	x	x	x				IC042915027	Price
IXH414-G02 Y	IN2535		x					IC042915507	Price
IXH414-G02-P-S	IN05S				x			IC042915026	Price
Style - IXH414-G03 Thickness (in.) - .231 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH414-G03 K	IN4005	x	x	x			x	IC042915505	Price
IXH414-G03 K	IN4030	x	x	x				IC042915030	Price
IXH414-G03 Y	IN2535		x					IC042915504	Price
IXH414-G03-P-S	IN05S				x			IC042915509	Price
Style - IXH415-604 Thickness (in.) - .298 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH415-604	IN4035		x					IC042915834	Price

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Style - IXH415-G01 Thickness (in.) - .298 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH415-G01 A	IN4005	x	x	x			x	IC042915033	Price
IXH415-G01 A	IN4015			x	x			IC042915825	Price
IXH415-G01 K	IN4030	x	x	x				IC042915032	Price
IXH415-G01 K	IN4035		x					IC042915313	Price
IXH415-G01 Y	IN2535		x					IC042915315	Price
IXH415-G01-P S	IN05S				x			IC042915031	Price
Style - IXH415-G02 Thickness (in.) - .298 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH415-G02 A	IN4005	x	x	x			x	IC042915037	Price
IXH415-G02 A	IN4015			x	x			IC042915826	Price
IXH415-G02 K	IN4030	x	x	x				IC042915036	Price
IXH415-G02 K	IN4035		x					IC042915312	Price
IXH415-G02 Y	IN2535		x					IC042915314	Price
IXH415-G02-P S	IN05S				x			IC042915035	Price
Style - IXH415-G03 Thickness (in.) - .298 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH415-G03 A	IN4005	x	x	x			x	IC042915039	Price
IXH415-G03 A	IN4015			x	x			IC042915827	Price
IXH415-G03 K	IN4030	x	x	x				IC042915038	Price
IXH415-G03 K	IN4035		x					IC042915828	Price
IXH415-G03 Y	IN2535		x					IC042915316	Price
IXH415-G03-P S	IN05S				x			IC042915029	Price
Style - IXH415-G04 Thickness (in.) - .298 Radius (in.) - .125									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
IXH415-G04 A	IN4005	x	x	x			x	IC042915831	Price
IXH415-G04 A	IN4015			x	x			IC042915833	Price
IXH415-G04 K	IN2535		x					IC042915832	Price
IXH415-G04 K	IN4030	x	x	x				IC042915830	Price
IXH415-G04 Y	IN05S				x			IC042915829	Price
Style - LSE324R045 Thickness (in.) - .250 Radius (in.) - .038 Chamfer									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
LSE324R045S	IN4030	x	x	x				IC042907286	Price
LSE324R045S	IN4040	x	x					IC042907255	Price
Style - MNCU060304 Thickness (in.) - .184 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
MNCU060304FRP	IN10K				x			IC046166509	Price
Style - MNCU060308 Thickness (in.) - .184 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
MNCU060308FRP	IN10K				x			IC046165462	Price
Style - MNHU060308 Thickness (in.) - .184 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
MNHU060308R	IN2505	x	x	x	x			IC046147613	Price
MNHU060308R	IN2530		x	x		x		IC046147612	Price
MNHU060308RPH	IN2035		x					IC046144199	Price
Style - MNHU060316 Thickness (in.) - .180 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
MNHU060316R	IN2505	x	x	x	x	x	x	IC046153462	Price
MNHU060316R	IN2530		x	x		x		IC046154139	Price
MNHU060316RPH	IN2035		x					IC046157877	Price
Style - NBEU1603R Thickness (in.) - .118									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
NBEU1603R	IN2504			x			x	IC046175906	Price
NBEU1603R	IN2505	x	x	x	x	x	x	IC046128065	Price
NBEU1603R	IN2530		x	x		x		IC046128067	Price
NBEU1603R	IN4005	x	x	x			x	IC042912520	Price
NBEU1603R	IN4030	x	x	x				IC042912519	Price
Style - NBEU1904R Thickness (in.) - .146									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
NBEU1904R	IN2504			x			x	IC046175908	Price
NBEU1904R	IN2505	x	x	x	x	x	x	IC046128070	Price
NBEU1904R	IN2530		x	x		x		IC046128071	Price
NBEU1904R	IN4005	x	x	x			x	IC042912522	Price
NBEU1904R	IN4030	x	x	x				IC042912521	Price

Style - NBEU25T4R Thickness (in.) - .177									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
NBEU25T4R	IN2504			x			x	IC046175910	Price
NBEU25T4R	IN2505	x	x	x	x	x	x	IC046128075	Price
NBEU25T4R	IN2530		x	x		x		IC046128076	Price
NBEU25T4R	IN4005	x	x	x			x	IC042912524	Price
NBEU25T4R	IN4030	x	x	x				IC042912523	Price
Style - NCEU320500									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
NCEU320500RP	IN2505	x	x	x	x	x	x	IC045813261	Price
NCEU320500RP	IN2530		x	x		x		IC045813512	Price
Style - NCEU380600									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
NCEU380600R	IN2505	x	x	x	x	x	x	IC045813448	Price
NCEU380600R	IN2530		x	x		x		IC045813509	Price
NCEU380600R	IN6530	x	x	x		x		IC045813555	Price
NCEU380600RP	IN2505	x	x	x	x	x	x	IC045813449	Price
NCEU380600RP	IN2530		x	x		x		IC045813510	Price
NCEU380600RP	IN6530	x	x	x		x		IC045813556	Price
Style - NCEU500700									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
NCEU500700R	IN2505	x	x	x	x	x	x	IC045813258	Price
NCEU500700R	IN2530		x	x		x		IC045813444	Price
NCEU500700R	IN6530	x	x	x		x		IC045813446	Price
NCEU500700RP	IN2505	x	x	x	x	x	x	IC045813259	Price
NCEU500700RP	IN2530		x	x		x		IC045813445	Price
NCEU500700RP	IN6530	x	x	x		x		IC045813447	Price
Style - ONCU0505 IC (in.) - .520 Thickness (in.) - .230 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ONCU0505ANEN	IN2035		x					IC045812845	Price
ONCU0505ANFNP	IN10K				x			IC045812808	Price
ONCU0505ANN	IN70N				x			IC045812911	Price
ONCU0505ANTNHR	IN2505	x	x	x	x	x	x	IC045812810	Price
ONCU0505ANTNHR	IN4030	x	x	x				IC045856664	Price
ONCU0505ANTNWJ	IN2505	x	x	x	x	x	x	IC045812879	Price
Style - ONCU050520 IC (in.) - .522 Thickness (in.) - .213 Radius (in.) - .078									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ONCU050520TN	IN2505	x	x	x	x	x	x	IC045874521	Price
ONCU050520TN	IN4010			x	x			IC045864532	Price
Style - PNCU0805 IC (in.) - .450 Thickness (in.) - .217 Radius (in.) - .030									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
PNCU0805GNFRHS	IN4035		x					IC045873699	Price
PNCU0805GNFRP	IN05S				x			IC045812006	Price
PNCU0805GNR	IN70N				x			IC045811959	Price
PNCU0805GNTR	IN4005	x	x	x			x	IC045864506	Price
PNCU0805GNTR	IN4015			x	x			IC045853201	Price
PNCU0805GNTR	IN4030	x	x	x				IC045855206	Price
PNCU0805GNTRW	IN2505	x	x	x	x	x	x	IC045869105	Price
Style - RJET1204 IC (in.) - 12mm Thickness (in.) - .189 Radius (in.) - 6mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJET1204MOFN	IN10K				x			IC045614108	Price
Style - RJET1605 IC (in.) - 16mm Thickness (in.) - .240 Radius (in.) - 8mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJET1605MOFN	IN10K				x			IC045614109	Price
Style - RJLT1004 IC (in.) - 10mm Thickness (in.) - .157 Radius (in.) - 5mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT1004MON	IN2035		x					IC045612710	Price
RJLT1004MON	IN2505	x	x	x	x	x	x	IC045612408	Price
RJLT1004MON	IN2530		x	x		x		IC045614611	Price
RJLT1004MON	IN7035		x					IC045614144	Price
RJLT1004MONLL	IN7035		x					IC045630174	Price
RJLT1004MOTN	IN2035		x					IC045614703	Price

MIlling Inserts

Style - RJLT1004 IC (in.) - 10mm Thickness (in.) - .157 Radius (in.) - 5mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT1004MOTN	IN2505	x	x	x	x	x	x	IC045612535	Price
RJLT1004MOTN	IN2530		x	x		x		IC045614609	Price
RJLT1004MOTN	IN7035		x					IC046111951	Price

Style - RJLT1204 IC (in.) - 12mm Thickness (in.) - .189 Radius (in.) - 6mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT1204MON	IN1030	x	x	x	x	x		IC045612514	Price
RJLT1204MON	IN2035		x					IC045612498	Price
RJLT1204MON	IN2505	x	x	x	x	x	x	IC045612374	Price
RJLT1204MON	IN2530		x	x		x		IC045613020	Price
RJLT1204MON	IN6530	x	x	x		x		IC045614311	Price
RJLT1204MON	IN7035		x					IC046111955	Price
RJLT1204MONLL	IN2035		x					IC045630181	Price
RJLT1204MONLL	IN7035		x					IC045630182	Price
RJLT1204MOTN	IN2035		x					IC045616663	Price
RJLT1204MOTN	IN2505	x	x	x	x	x	x	IC045612376	Price
RJLT1204MOTN	IN2530		x	x		x		IC045614614	Price
RJLT1204MOTN	IN2540			x				IC045612375	Price
RJLT1204MOTN	IN6530	x	x	x		x		IC045613318	Price
RJLT1204MOTN	IN7035		x					IC046111954	Price

Style - RJLT1304 IC (in.) - 1/2 Thickness (in.) - .189 Radius (in.) - 1/4

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT1304MON	IN2505	x	x	x	x		x	IC046173436	Price
RJLT1304MON	IN2530		x	x		x		IC046173437	Price
RJLT1304MON	IN7035		x					IC046193555	Price
RJLT1304MONLL	IN2035		x					IC046173441	Price
RJLT1304MOTN	IN2504			x			x	IC046173433	Price
RJLT1304MOTN	IN2505	x	x	x	x		x	IC046173431	Price
RJLT1304MOTN	IN2530		x	x		x		IC046173432	Price

Style - RJLT1605 IC (in.) - 16mm Thickness (in.) - .240 Radius (in.) - 8mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT1605MON	IN2035		x					IC045613831	Price
RJLT1605MON	IN2505	x	x	x	x	x	x	IC045612477	Price
RJLT1605MON	IN2530		x	x		x		IC045813535	Price
RJLT1605MON	IN7035		x					IC046121027	Price
RJLT1605MOTN	IN1030	x	x	x	x	x		IC045615378	Price
RJLT1605MOTN	IN2035		x					IC046120971	Price
RJLT1605MOTN	IN2505	x	x	x	x	x	x	IC045612475	Price
RJLT1605MOTN	IN2530		x	x		x		IC045813534	Price
RJLT1605MOTN	IN2540			x				IC045614204	Price
RJLT1605MOTN	IN7035		x					IC045613833	Price

Style - RJLT1907 IC (in.) - 3/4 Thickness (in.) - .275 Radius (in.) - .375

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT1907MON	IN2505	x	x	x	x		x	IC046173446	Price
RJLT1907MON	IN2530		x	x		x		IC046173447	Price
RJLT1907MONLL	IN2035		x					IC046173451	Price
RJLT1907MONLL	IN2530		x	x		x		IC046173449	Price
RJLT1907MOTN	IN2505	x	x	x	x		x	IC046173442	Price
RJLT1907MOTN	IN2530		x	x		x		IC046173443	Price

Style - RJLT2007 IC (in.) - 10mm Thickness (in.) - 7mm Radius (in.) - 10mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLT2007MON	IN2035		x					IC046126498	Price
RJLT2007MON	IN2530		x	x		x		IC045614621	Price
RJLT2007MON	IN7035		x					IC046126499	Price
RJLT2007MOTN	IN2505	x	x	x	x	x	x	IC045612479	Price
RJLT2007MOTN	IN2530		x	x		x		IC045614620	Price
RJLT2007MOTN	IN2540			x				IC045614619	Price
RJLT2007MOTN	IN7035		x					IC046126497	Price

Style - RJLW1004 IC (in.) - 10mm Thickness (in.) - .157 Radius (in.) - 5mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLW1004MOTN	IN2504			x			x	IC046126863	Price
RJLW1004MOTN	IN2505	x	x	x	x	x	x	IC045613211	Price
RJLW1004MOTN	IN2530		x	x		x		IC045613210	Price

Style - RJLW1204 IC (in.) - 12mm Thickness (in.) - .189 Radius (in.) - 6mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLW1204MOTN	IN2505	x	x	x	x	x	x	IC045613019	Price
RJLW1204MOTN	IN2530		x	x		x		IC045613018	Price
RJLW1204MOTN	IN2540			x				IC045613017	Price

Style - RJLW1304 IC (in.) - 1/2 Thickness (in.) - .189 Radius (in.) - 1/4

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLW1304MOTN	IN2505	x	x	x	x		x	IC046173434	Price

Style - RJLW1605 IC (in.) - 16mm Thickness (in.) - .240 Radius (in.) - 8mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLW1605MOTN	IN2035		x					IC046117500	Price
RJLW1605MOTN	IN2504			x			x	IC046126868	Price
RJLW1605MOTN	IN2505	x	x	x	x	x	x	IC045613214	Price
RJLW1605MOTN	IN2540			x				IC045613212	Price
RJLW1605MOTN	IN6530	x	x	x		x		IC045615011	Price

Style - RJLW1907 IC (in.) - 3/4 Thickness (in.) - .275 Radius (in.) - .375

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLW1907MOTN	IN2505	x	x	x	x		x	IC046173445	Price

Style - RJLW2007 IC (in.) - 20mm Thickness (in.) - 7mm Radius (in.) - 10mm

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RJLW2007MOTN	IN2505	x	x	x	x	x	x	IC046115461	Price

Style - SDES1305 IC (in.) - 13mm Thickness (in.) - .200

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES1305MDR	IN2505	x	x	x	x	x	x	IC045832589	Price
SDES1305MDR	IN2530		x	x		x		IC045832591	Price
SDES1305MDR-001	IN2505	x	x	x	x	x	x	IC045832714	Price
SDES1305MPR	IN2505	x	x	x	x	x	x	IC042900515	Price
SDES1305MPR	IN2530		x	x		x		IC042900516	Price
SDES1305MPR	IN4005	x	x	x			x	IC042900517	Price
SDES1305MPR	IN4035		x					IC042901940	Price
SDES1305MPR-001	IN2505	x	x	x	x	x	x	IC042900518	Price
SDES1305MPR-001	IN2530		x	x		x		IC042900519	Price
SDES1305MPR-001	IN4005	x	x	x			x	IC042901943	Price
SDES1305MPR-001	IN4030	x	x	x				IC042901941	Price
SDES1305MPR-001	IN4035		x					IC042901942	Price

Style - SDES130508 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .031

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130508N	IN4005	x	x	x			x	IC042906889	Price
SDES130508N	IN4015			x	x			IC042906888	Price
SDES130508N	IN4030	x	x	x				IC042906887	Price
SDES130508N-001	IN4030	x	x	x				IC042906890	Price
SDES130508N-001	IN4035		x					IC042906891	Price
SDES130508N-001 K	IN2535		x					IC042916995	Price
SDES130508N-PF	IN4005	x	x	x			x	IC042904240	Price
SDES130508N-PF	IN4015			x	x			IC042904241	Price
SDES130508N-PF	IN4030	x	x	x				IC042904166	Price
SDES130508N-PF1	IN4030	x	x	x				IC042906159	Price
SDES130508N-PF1	IN4035		x					IC042906160	Price

Style - SDES130515 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .060

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130515N	IN2505	x	x	x	x	x	x	IC045832593	Price
SDES130515N	IN2530		x	x		x		IC045832594	Price
SDES130515N	IN4005	x	x	x			x	IC042906866	Price
SDES130515N	IN4015			x	x			IC042906864	Price
SDES130515N	IN4030	x	x	x				IC042906863	Price
SDES130515N-001	IN2505	x	x	x	x	x	x	IC045832712	Price

Style - SDES130515 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .060

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130515N-001	IN2530		x	x		x		IC045832713	Price
SDES130515N-001	IN4030	x	x	x				IC042906871	Price
SDES130515N-001	IN4035		x					IC042906872	Price
SDES130515N-001 K	IN2535		x					IC042916996	Price

MIlling Inserts

Style - SDES130516 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .062

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130516N-PF	IN4005	x	x	x			x	IC042904245	Price
SDES130516N-PF	IN4015			x	x			IC042904246	Price
SDES130516N-PF	IN4030	x	x	x				IC042904242	Price
SDES130516N-PF1	IN4030	x	x	x				IC042906161	Price
SDES130516N-PF1	IN4035		x					IC042906164	Price

Style - SDES130524 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .093

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130524N-PF	IN4005	x	x	x			x	IC042904248	Price
SDES130524N-PF	IN4030	x	x	x				IC042904247	Price
SDES130524N-PF1	IN4035		x					IC042906167	Price

Style - SDES130532 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .125

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130532N-PF	IN4005	x	x	x			x	IC042904250	Price
SDES130532N-PF	IN4030	x	x	x				IC042904249	Price
SDES130532N-PF1	IN4030	x	x	x				IC042906168	Price
SDES130532N-PF1	IN4035		x					IC042906169	Price
SDES130532R	IN4005	x	x	x			x	IC042906877	Price
SDES130532R	IN4030	x	x	x				IC042906878	Price
SDES130532R-001	IN4030	x	x	x				IC042906862	Price
SDES130532R-001	IN4035		x					IC042906860	Price

Style - SDES130563 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .250

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES130563R	IN4005	x	x	x			x	IC042906873	Price
SDES130563R	IN4030	x	x	x				IC042906874	Price
SDES130563R-001	IN4030	x	x	x				IC042906870	Price
SDES130563R-001	IN4035		x					IC042905813	Price

Style - SDES1906 IC (in.) - 19mm Thickness (in.) - .250

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES1906MDR	IN2505	x	x	x	x	x	x	IC045832040	Price
SDES1906MDR	IN2530		x	x		x		IC045832324	Price
SDES1906MPR	IN2505	x	x	x	x	x	x	IC045800021	Price
SDES1906MPR	IN2530		x	x		x		IC045800022	Price
SDES1906MPR	IN4005	x	x	x			x	IC042901945	Price
SDES1906MPR	IN4035		x					IC042901944	Price
SDES1906MPR-001	IN2505	x	x	x	x	x	x	IC045800013	Price
SDES1906MPR-001	IN2530		x	x		x		IC045800015	Price
SDES1906MPR-001	IN4005	x	x	x			x	IC042901948	Price
SDES1906MPR-001	IN4030	x	x	x				IC042901946	Price
SDES1906MPR-001	IN4035		x					IC042901947	Price
SDES1906ZPR-PF	IN4005	x	x	x			x	IC042902029	Price
SDES1906ZPR-PF	IN4030	x	x	x				IC042906106	Price
SDES1906ZPR-PF	IN4035		x					IC042906108	Price

Style - SDES190620 IC (in.) - 19mm Thickness (in.) - .250 Radius (in.) - .178

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDES190620N	IN2505	x	x	x	x	x	x	IC045800003	Price
SDES190620N	IN2530		x	x		x		IC045800008	Price
SDES190620N-001	IN2505	x	x	x	x	x	x	IC045800023	Price

Style - SDMS1305 IC (in.) - 13mm Thickness (in.) - .200

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS1305MDR-PH	IN2505	x	x	x	x	x	x	IC045832590	Price
SDMS1305MDR-PH	IN2530		x	x		x		IC045832592	Price
SDMS1305MDR-PH	IN2535		x					IC042916997	Price
SDMS1305MDR-PH	IN4005	x	x	x			x	IC042901939	Price

Style - SDMS1305 IC (in.) - 13mm Thickness (in.) - .200

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS1305MDR-PH	IN4030	x	x	x				IC042901937	Price
SDMS1305MDR-PH	IN4035		x					IC042901938	Price

Style - SDMS130508 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .031

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS130508R-PH K	IN4035		x					IC042913697	Price
SDMS130508R-PP K	IN4035		x					IC042913703	Price

Style - SDMS130512 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .047

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS130512R-PP	IN4030	x	x	x				IC045803016	Price

Style - SDMS130515 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .060

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS130515R-PH	IN2505	x	x	x	x	x	x	IC045832595	Price
SDMS130515R-PH	IN2530		x	x		x		IC045832596	Price
SDMS130515R-PH	IN4005	x	x	x			x	IC042901936	Price
SDMS130515R-PH	IN4030	x	x	x				IC042901934	Price
SDMS130515R-PH	IN4035		x					IC042901935	Price

Style - SDMS130516 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .062

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS130516R-PP	IN2530		x	x		x		IC042905126	Price
SDMS130516R-PP	IN2535		x					IC042905125	Price
SDMS130516R-PP	IN4005	x	x	x			x	IC042904146	Price
SDMS130516R-PP	IN4030	x	x	x				IC042904136	Price
SDMS130516R-PP	IN4035		x					IC042904153	Price

Style - SDMS130608 IC (in.) - 13mm Thickness (in.) - .240 Radius (in.) - .031

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS130608N-FL	IN4035		x					IC042910527	Price
SDMS130608N-FL K	IN4030	x	x	x				IC042912389	Price

Style - SDMS130615 IC (in.) - 13mm Thickness (in.) - .240 Radius (in.) - .060

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS130615N-FL	IN4030	x	x	x				IC042910130	Price
SDMS130615N-FL	IN4035		x					IC042910126	Price

Style - SDMS1906 IC (in.) - 19mm Thickness (in.) - .250 Radius (in.) - .178

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS1906MDR-PH	IN2505	x	x	x	x	x	x	IC045832072	Price
SDMS1906MDR-PH	IN2530		x	x		x		IC045832325	Price
SDMS1906MDR-PH	IN4005	x	x	x			x	IC042901951	Price
SDMS1906MDR-PH	IN4030	x	x	x				IC042901949	Price
SDMS1906MDR-PH	IN4035		x					IC042901950	Price
SDMS1906ZPR-PP	IN4005	x	x	x			x	IC042906109	Price
SDMS1906ZPR-PP	IN4030	x	x	x				IC042902030	Price
SDMS1906ZPR-PP	IN4035		x					IC042906110	Price

Style - SDMS190620 IC (in.) - 19mm Thickness (in.) - .250 Radius (in.) - .178

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDMS190620R-PH	IN2505	x	x	x	x	x	x	IC045800011	Price
SDMS190620R-PH	IN2530		x	x		x		IC045800012	Price
SDMS190620R-PH	IN4005	x	x	x			x	IC042901954	Price
SDMS190620R-PH	IN4030	x	x	x				IC042901952	Price
SDMS190620R-PH	IN4035		x					IC042901953	Price

Style - SDXS0904 IC (in.) - 9mm Thickness (in.) - .158

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDXS0904MPR-MM	IN4005	x	x	x			x	IC042913616	Price
SDXS0904MPR-MM	IN4030	x	x	x				IC042913660	Price
SDXS0904MPR-MM	IN4035		x					IC042913661	Price
SDXS0904MPR-MR	IN4005	x	x	x			x	IC042912104	Price
SDXS0904MPR-MR	IN4030	x	x	x				IC042912105	Price
SDXS0904MPR-MR	IN4035		x					IC042912106	Price
SDXS0904MPR-MR1 K	IN2535		x					IC042915421	Price
SDXS0904MPR-MR1 K	IN4030	x	x	x				IC042914381	Price

Style - SDXS0904 IC (in.) - 9mm Thickness (in.) - .158

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SDXS0904MPR-MR1 K	IN4035		x					IC042914379	Price
SDXS0904MPR-MR1 K	IN7035		x					IC042915908	Price
SDXS0904MPR-MRH J	IN2504			x			x	IC042916491	Price

Style - SGM-44R001 Thickness (in.) - .236 Radius (in.) - .031

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SGM-44R001	IN4005	x	x	x			x	IC045854329	Price
SGM-44R001 J	IN2505	x	x	x	x	x	x	IC045856045	Price
SGM-44R001 J	IN2530		x	x		x		IC045856049	Price
SGM-44R001 J	IN4030	x	x	x				IC045856052	Price

MIlling Inserts

Ingersoll Cutting Tools

Style - SNGS1205 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .275 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNGS1205ANNW	IN2505	x	x	x	x	x	x	IC045873349	Price
Style - SNGU1205 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .040 Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNGU1205ENN	IN2035		x					IC045872783	Price
SNGU1205ENN	IN2505	x	x	x	x	x	x	IC045840783	Price
SNGU1205ENN	IN2530		x	x		x		IC045849014	Price
Style - THES060404 IC (in.) - .272 Thickness (in.) - .157 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THES060404FRP	IN10K				x			IC045813483	Price
THES060404R	IN2505	x	x	x	x	x	x	IC045810015	Price
Style - THES060408 IC (in.) - .272 Thickness (in.) - .157 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THES060408FRP	IN10K				x			IC045813480	Price
Style - THES100504 IC (in.) - .421 Thickness (in.) - .197 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THES100504FRP	IN10K				x			IC045615737	Price
Style - THES100508 IC (in.) - .421 Thickness (in.) - .197 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THES100504FRP	IN10K				x			IC045615737	Price
Style - THLS060404 IC (in.) - .272 Thickness (in.) - .157 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THES100504FRP	IN10K				x			IC045615737	Price
Style - THLS060408 IC (in.) - .272 Thickness (in.) - .157 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THES100504FRP	IN10K				x			IC045615737	Price
THLS060408R	IN2505	x	x	x	x	x	x	IC045613479	Price
THLS060408R	IN2530		x	x		x		IC045813462	Price
THLS060408RHR	IN2035		x					IC045853564	Price
THLS060408RHR	IN2530		x	x		x		IC045813463	Price
Style - THLS060416 IC (in.) - .272 Thickness (in.) - .157 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THLS060416R	IN2505	x	x	x	x	x	x	IC045609938	Price
Style - THLS100508 IC (in.) - .421 Thickness (in.) - .197 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THLS100508R	IN2505	x	x	x	x	x	x	IC045613484	Price
THLS100508R	IN2530		x	x		x		IC045813464	Price
THLS100508RHR	IN2035		x					IC045853565	Price
Style - THLS100516 IC (in.) - .421 Thickness (in.) - .197 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THLS100516R	IN2505	x	x	x	x	x	x	IC045609939	Price
Style - THLS100524 IC (in.) - .421 Thickness (in.) - .197 Radius (in.) - .094									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
THLS100524R	IN2505	x	x	x	x	x	x	IC045609940	Price
Style - UNEU1307 IC (in.) - 13mm Thickness (in.) - 7mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
UNEU1307RM	IN2035		x					IC046126019	Price
UNEU1307RM	IN2504			x			x	IC046126858	Price
UNEU1307RM	IN2505	x	x	x	x	x	x	IC046126013	Price
UNEU1307RM	IN2510			x	x			IC046126018	Price
UNEU1307RM	IN2530		x	x		x		IC046126014	Price
UNEU1307RMM	IN2035		x					IC046139025	Price
UNEU1307RMM	IN2530		x	x		x		IC046139027	Price
UNEU1307RMM	IN7035		x					IC046139026	Price
UNEU1307RMR	IN2505	x	x	x	x		x	IC046139017	Price
UNEU1307RMR	IN7035		x					IC046139014	Price

Style - UNLU0603 Thickness (in.) - .149 Radius (in.) - .078									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
UNLU0603M0TR	IN2030		x	x		x		IC045812829	Price
UNLU0603M0TR	IN2035		x					IC045613828	Price
UNLU0603M0TR	IN2504			x			x	IC046126852	Price
UNLU0603M0TR	IN2505	x	x	x	x	x	x	IC045812830	Price
UNLU0603M0TR	IN6530	x	x	x		x		IC045812828	Price
UNLU0603M0TRML	IN2035		x					IC045616366	Price
UNLU0603M0TRML	IN2530		x	x		x		IC045615931	Price
UNLU0603M0TRML	IN7035		x					IC045616367	Price
UNLU0603M0TRMM	IN2035		x					IC045616542	Price
UNLU0603M0TRMM	IN2505	x	x	x	x	x	x	IC045616539	Price
UNLU0603M0TRMM	IN2530		x	x		x		IC045616540	Price
Style - UNLU0904 Radius (in.) - .094									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
UNLU0904M0TR	IN2504			x			x	IC046126854	Price
UNLU0904M0TR	IN2505	x	x	x	x	x	x	IC045616091	Price
UNLU0904M0TR	IN2530		x	x		x		IC045616092	Price
UNLU0904M0TRML	IN2505	x	x	x	x	x	x	IC045616594	Price
UNLU0904M0TRML	IN2530		x	x		x		IC045616595	Price
UNLU0904M0TRMM	IN2505	x	x	x	x	x	x	IC045616591	Price
UNLU0904M0TRMM	IN2530		x	x		x		IC045616592	Price
Style - ZDES130515 IC (in.) - 13mm Thickness (in.) - .200 Radius (in.) - .060									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZDES130515R	IN4005	x	x	x			x	IC042904475	Price
ZDES130515R	IN4030	x	x	x				IC042906868	Price
ZDES130515R001	IN4035		x					IC042907037	Price
Style - ZGM212R101 Thickness (in.) - .169 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZGM212R101	IN2505	x	x	x	x	x	x	IC042903343	Price
ZGM212R101	IN2530		x	x		x		IC042903344	Price
Style - ZGM314R001 Thickness (in.) - .280 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZGM314R001	IN2030		x	x		x		IC045813020	Price
ZGM314R001	IN2505	x	x	x	x	x	x	IC042903345	Price
ZGM314R001	IN2530		x	x		x		IC045832237	Price
Style - ZGM324R001 Thickness (in.) - .280 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZGM314R001	IN2505	x	x	x	x	x	x	IC042903346	Price
Style - ZGM324R045 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZGM324R045	IN2530		x	x		x		IC042902670	Price
Style - ZGM324R201 Thickness (in.) - .315 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZGM324R201	IN2505	x	x	x	x	x	x	IC042903348	Price
ZGM324R201	IN2530		x	x		x		IC042903349	Price
Style - ZGM324R245 Thickness (in.) - .315 Radius (in.) - .010 w/Wiper									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZGM324R245	IN2505	x	x	x	x		x	IC042905694	Price
Style - ZNHU160708 Thickness (in.) - .417 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZNHU160708R	IN2505	x	x	x	x	x	x	IC045616078	Price
ZNHU160708R	IN2530		x	x		x		IC045616077	Price
Style - ZOMT09T304 Thickness (in.) - .148 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZOMT09T304R	IN2505	x	x	x	x		x	IC045853699	Price
ZOMT09T304R	IN2530		x	x		x		IC045853700	Price
Style - ZOMT130404 Thickness (in.) - .190 Radius (in.) - .015									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZOMT130404R	IN2505	x	x	x	x	x	x	IC045811447	Price
Style - ZOMT130408 Thickness (in.) - .190 Radius (in.) - .032									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZOMT130404R	IN2505	x	x	x	x		x	IC046190439	Price
Style - ZOMT170508 Thickness (in.) - .218 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZOMT170508R	IN2505	x	x	x	x		x	IC045616074	Price
Style (in.) - ZDM5130515 Thickness (in.) - .200 Radius (in.) - .060									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
ZDMS130515R-PH	IN4035		x					IC042904452	Price

TOOLCLAMP ULTRA+ TTER/L

Middle Tmax Holders for External Turning and Grooving

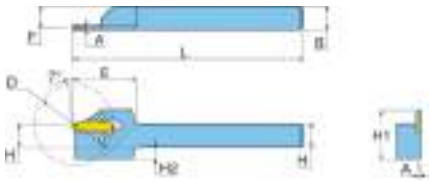




Insert Width	OAL (in.)	Insert Height (in.)	Tmax (in.)	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
.063	5.00	.75	.472	TTEL19-2	**IC072830001**	Price	TTER19-2	**IC072830000**	Price
.063	6.00	1.00	.472	TTEL25.4-2	**IC072830011**	Price	TTER25.4-2	**IC072830010**	Price
.083	5.00	.75	.472	-	**-**	-	TTER19-3	**IC072830002**	Price
.083	5.00	1.26	.472	TTEL19-3	**IC072830003**	Price	-	**-**	-
.083	6.00	1.00	.472	TTEL25.4-3	**IC072830013**	Price	TTER25.4-3	**IC072830012**	Price
.114	5.00	.75	.590	-	**-**	-	TTER19-4	**IC072830004**	Price
.114	6.00	1.00	.590	TTEL25.4-4	**IC072830015**	Price	TTER25.4-4	**IC072830014**	Price
.154	5.00	1.46	.787	-	**-**	-	TTER19-5	**IC072830006**	Price
.154	6.00	1.00	.787	-	**-**	-	TTER25.4-5	**IC072830016**	Price
.154	6.00	1.46	.787	TTEL25.4-5	**IC072830017**	Price	-	**-**	-
.193	5.00	.75	.787	-	**-**	-	TTER19-6	**IC072830008**	Price
.193	6.00	1.00	.787	-	**-**	-	TTER25.4-6	**IC072830018**	Price
.193	6.00	1.46	.787	TTEL25.4-6	**IC072830019**	Price	-	**-**	-

TOOLCLAMP ULTRA+ TGER/L

Holders for Parting and Deep Grooving





Model No.	Insert Seat Size	OAL (in.)	H (in.)	Dmax (TDJ) (in.)	Dmax (TSJ) (in.)	Order No.	Price
TGER12.7-2	2	4.5	.50	1.38	1.22	**IC072330019**	Price
TGER12.7-3	3	4.5	.50	1.5	1.57	**IC072330023**	Price
TGEL19-2	2	4.5	.75	1.38	1.22	**IC072330022**	Price
TGER19-2	2	4.5	.75	1.38	1.22	**IC072330021**	Price
TGEL19-3	3	4.5	.75	1.5	1.22	**IC072330026**	Price
TGER19-3	3	4.5	.75	1.5	1.22	**IC072330025**	Price
TGER19-4	4	4.5	.75	1.5	1.3	**IC072300168**	Price
TGER25.4-3	3	6	1.00	1.5	1.22	**IC072330027**	Price
TGER25.4-4	4	6	1.00	1.5	1.3	**IC072330029**	Price

TOOLCLAMP ULTRA+ TGB

Blades for Parting and Deep Grooving



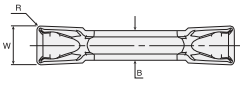
Model No.	Overall Height	Width (Insert)	Seat Size	Insert Height (in.)	Length (in.)	Use Insert(s)	Order No.	Price
TGB26-1.45	1.26	1.45mm	1	.840	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300211**	Price
TGB26-2S	1.02	2mm	2	.840	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300132**	Price
TGB26-3S	1.02	3mm	3	.840	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300111**	Price
TGB26-4S	1.02	4mm	4	.840	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300133**	Price
TGB32-1.4	1.26	1.4mm	1	.980	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300212**	Price
TGB32-2	1.02	2mm	2	.980	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300106**	Price
TGB32-3	1.26	3mm	3	.980	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300101**	Price
TGB32-4	1.26	4mm	4	.980	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300107**	Price
TGB32-5	1.26	5mm	5	.980	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300108**	Price
TGB32-6	1.26	6mm	6	.980	5.9	TDC/TSC, TDJ/TSJ, TDXU, TDT	**IC072300109**	Price

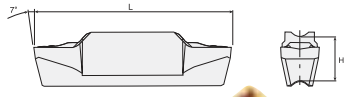


TOOLCLAMP ULTRA+ TDXU-E

Pressed Inserts for External Turning & Grooving, Internal Turning & Grooving, Face Turning & Grooving & Parting

- Double ended insert for parting and grooving







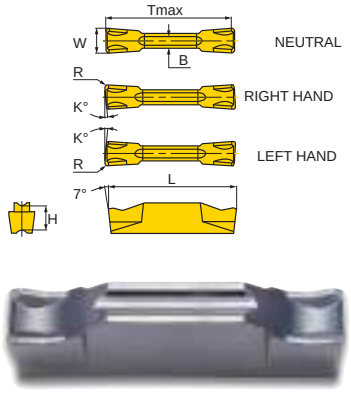
Model No.	W (in.)	R (in.)	Insert Seat Size	Grade	ST	SS	CI	N	S	H	Order No.	Price
TDXU2E-0.3	.079	.012	2	TT9080	-	x	-	-	x	-	**IC046402567**	Price
TDXU3E-0.3	.118	.012	3	TT5100	x	x	-	-	x	-	**IC046400940**	Price
TDXU3E-0.3	.118	.012	3	TT9080	-	x	-	-	x	-	**IC046401279**	Price
TDXU4E-0.4	.157	.016	4	TT5100	x	x	-	-	x	-	**IC046400754**	Price
TDXU4E-0.4	.157	.016	4	TT7220	x	-	-	-	-	-	**IC046400404**	Price
TDXU4E-0.4	.157	.016	4	TT9080	-	x	-	-	x	-	**IC046401280**	Price
TDXU5E-0.4	.197	.016	5	TT5100	x	x	-	-	x	-	**IC046400948**	Price
TDXU5E-0.4	.197	.016	5	TT9080	-	x	-	-	x	-	**IC046402155**	Price
TDXU6E-0.4	.236	.016	6	TT5100	x	x	-	-	x	-	**IC046401108**	Price
TDXU6E-0.4	.236	.016	6	TT9080	-	x	-	-	x	-	**IC046402083**	Price
TDXU6E-0.4	.236	.016	6	TT7220	x	-	-	-	-	-	**IC046401444**	Price
TDXU6E-0.8	.236	.031	6	TT9080	-	x	-	-	x	-	**IC046402084**	Price

TOCLAMP ULTRA+ TDC

Double Ended Inserts for Parting and Grooving

- Double ended insert for parting and grooving

Model No.	W (in.)	R (in.)	Insert Seat Size	Grade	ST	SS	CI	N	S	H	Order No.	Price
TDC2	.079	.008	2	TT7220	x	-	-	-	-	-	IC046000197	Price
TDC2	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000194	Price
TDC215L	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000378	Price
TDC215R	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000369	Price
TDC26R	.079	.008	2	TT7220	x	-	-	-	-	-	IC046000198	Price
TDC26R	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000195	Price
TDC3	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000203	Price
TDC3	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000200	Price
TDC315R	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000358	Price
TDC315R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000357	Price
TDC36L	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000202	Price
TDC36R	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000204	Price
TDC36R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000201	Price
TDC4	.157	.012	4	TT7220	x	-	-	-	-	-	IC046000209	Price
TDC4	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000206	Price
TDC44L	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000208	Price
TDC44R	.157	.012	4	TT7220	x	-	-	-	-	-	IC046000210	Price
TDC44R	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000207	Price
TDC5	.197	.012	5	TT7220	x	-	-	-	-	-	IC046000215	Price
TDC5	.197	.012	5	TT8020	x	x	-	-	x	-	IC046000212	Price
TDC6	.236	.012	6	TT7220	x	-	-	-	-	-	IC046000219	Price
TDC6	.236	.012	6	TT8020	x	x	-	-	x	-	IC046000218	Price
TDC8	.315	.016	8	TT8020	x	x	-	-	x	-	IC046000623	Price

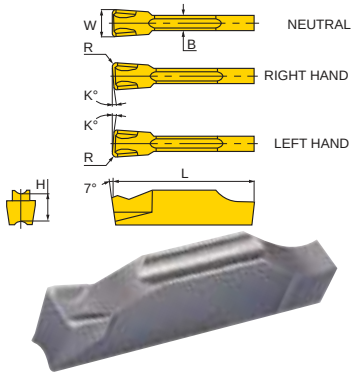


TOCLAMP ULTRA+ TSC

Single Ended Inserts for General Purpose Parting and Deep Grooving

- Single ended inserts for general purpose parting and deep grooving

Model No.	W (in.)	R (in.)	Insert Seat Size	Grade	ST	SS	CI	N	S	H	Order No.	Price
TSC2	.079	.008	2	TT7220	x	-	-	-	-	-	IC046000243	Price
TSC2	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000240	Price
TSC26R	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000241	Price
TSC3	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000249	Price
TSC3	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000246	Price
TSC3	.118	.008	3	TT9080	-	x	-	-	-	-	IC046001120	Price
TSC36L	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000248	Price
TSC36R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000247	Price
TSC315R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000401	Price
TSC4	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000252	Price
TSC4	.157	.012	4	TT9080	-	x	-	-	x	-	IC046001121	Price
TSC44L	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000254	Price
TSC5	.197	.012	5	TT8020	x	x	-	-	x	-	IC046000258	Price
TSC5	.197	.012	5	TT9080	-	x	-	-	-	-	IC046001122	Price
TSC6	.236	.012	6	TT8020	x	x	-	-	x	-	IC046000260	Price
TSC6	.236	.012	6	TT9080	-	x	-	-	-	-	IC046001123	Price

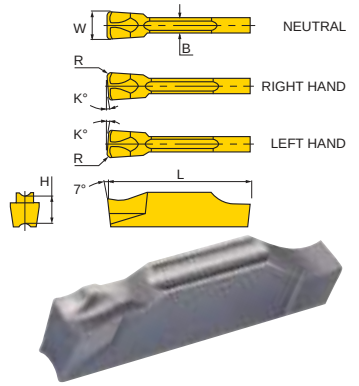


TOCLAMP ULTRA+ TSJ

Single Ended Inserts for Precision Parting and Deep Grooving

- Single ended inserts for precision parting and deep grooving

Model No.	W (in.)	R (in.)	Insert Seat Size	Grade	ST	SS	CI	N	S	H	Order No.	Price
TSJ2	.079	.008	2	K10	-	-	x	x	x	-	IC046000340	Price
TSJ2	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000220	Price
TSJ3	.118	.008	3	K10	-	-	x	x	x	-	IC046000275	Price
TSJ3	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000229	Price
TSJ3	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000226	Price
TSJ3	.118	.008	3	TT9080	-	x	-	-	-	-	IC046001114	Price
TSJ315R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000434	Price
TSJ36R	.118	.008	3	K10	-	-	x	x	x	-	IC046000342	Price
TSJ36R	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000230	Price
TSJ36R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000227	Price
TSJ4	.157	.012	4	K10	-	-	x	x	x	-	IC046000345	Price
TSJ4	.157	.012	4	TT7220	x	-	-	-	-	-	IC046000235	Price
TSJ4	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000232	Price
TSJ4	.157	.012	4	TT9080	-	x	-	-	-	-	IC046001115	Price
TSJ5	.197	.012	5	TT7220	x	-	-	-	-	-	IC046000259	Price
TSJ5	.197	.012	5	TT8020	x	x	-	-	x	-	IC046000238	Price
TSJ5	.197	.012	5	TT9080	-	x	-	-	-	-	IC046001116	Price
TSJ6	.236	.012	6	TT8020	x	x	-	-	x	-	IC046000278	Price

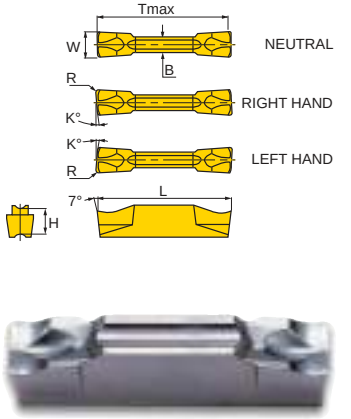


TOCLAMP ULTRA+ TDJ

Double Ended Inserts for Parting and Grooving

- Double ended inserts for parting and grooving

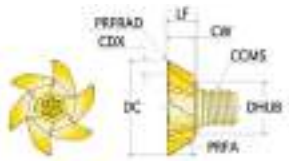
Model No.	W (in.)	R (in.)	Insert Seat Size	Grade	ST	SS	CI	N	S	H	Order No.	Price
TDJ1.4	.055	.006	1	TT8020	x	x	-	-	x	-	IC046000584	Price
TDJ1.4	.055	.006	1	TT9080	-	x	-	-	-	-	IC046000914	Price
TDJ2	.079	.008	2	K10	-	-	x	x	x	-	IC046000318	Price
TDJ2	.079	.008	2	TT7220	x	-	-	-	-	-	IC046000171	Price
TDJ2	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000167	Price
TDJ2	.079	.008	2	TT9080	-	x	-	-	x	-	IC046001109	Price
TDJ215L	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000363	Price
TDJ26R	.079	.008	2	K10	-	-	x	x	x	-	IC046000317	Price
TDJ26R	.079	.008	2	TT7220	x	-	-	-	-	-	IC046000172	Price
TDJ28R	.079	.008	2	TT8020	x	x	-	-	x	-	IC046000408	Price
TDJ26R	.079	.008	2	TT9080	-	x	-	-	-	-	IC046110872	Price
TDJ3	.118	.008	3	K10	-	-	x	x	x	-	IC046000276	Price
TDJ3	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000177	Price
TDJ3	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000174	Price
TDJ3	.118	.008	3	TT9080	-	x	-	-	x	-	IC046000782	Price
TDJ3.18	.125	.008	3	TT8020	-	-	-	-	-	-	IC046125936	Price
TDJ3.18	.125	.008	3	TT9080	-	x	-	-	-	-	IC046125935	Price
TDJ315LS	.118	.008	3	TT8020	x	x	-	-	-	-	IC046000457	Price
TDJ315R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000365	Price
TDJ36L	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000176	Price
TDJ36R	.118	.008	3	K10	-	-	x	x	x	-	IC046000320	Price
TDJ36R	.118	.008	3	TT7220	x	-	-	-	-	-	IC046000178	Price
TDJ36R	.118	.008	3	TT8020	x	x	-	-	x	-	IC046000175	Price
TDJ4	.157	.012	4	TT7220	x	-	-	-	-	-	IC046000183	Price
TDJ4	.157	.012	4	TT8020	x	x	-	-	x	-	IC046000180	Price
TDJ4	.157	.012	4	TT9080	-	x	-	-	-	-	IC046001110	Price
TDJ5	.197	.012	5	K10	-	-	x	x	x	-	IC046000326	Price
TDJ5	.197	.012	5	TT8020	x	x	-	-	x	-	IC046000186	Price
TDJ5	.197	.012	5	TT9080	-	x	-	-	-	-	IC046001111	Price



CHIPoSURFER™ End Mill Tips

Dovetail • Series 18V

- Ideal for aerospace fixturing and pocket undercutting
- Solid carbide tips index on the shank in seconds and repeat within +/- .001”



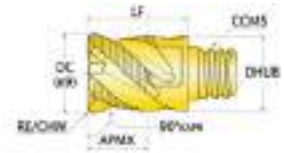


Model No.	Grade	No. of Flutes	Cutter Dia. (in.)	Cutting Width (in.)	Depth of Cut (in.)	Radius (in.)	Connec-tion	Profile Angle	Order No.	Price
18V-02750TRRA45	IN1530	6	1.090	.197	.160	.008	T10	45	**IC046410560**	Price
18V-02778TRRA60	IN1530	6	1.090	.307	.160	.008	T10	30	**IC046410561**	Price
18V-02710TRRA75	IN1530	6	1.090	.398	.090	.008	T10	15	**IC046410562**	Price

CHIPoSURFER™ End Mill Tips- Roughing

45° Helix • Center Cutting

- 45° Helix
- Center cutting

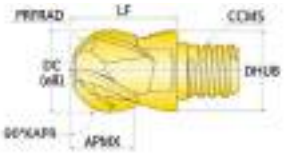




Model No.	Grade	No. of Flutes	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Connection	Order No.	Price
47C3120TQRN01	IN2005	4	.312	.200	.010 Chamfer	T05	**IC045840506**	Price
47C3727T6RN01	IN2005	4	.375	.270	.013 Chamfer	T06	**IC045840288**	Price
47C5037T8RN01	IN2005	4	.500	.370	.012 Chamfer	T08	**IC045840289**	Price
47C6247TRRN01	IN2005	5	.625	.470	.014 Chamfer	T10	**IC045840507**	Price
48D7562TSRN06	IN2005	6	.750	.620	SHARP	T12	**IC045840609**	Price
48C7562TSRN01	IN2005	6	.750	.620	.016 Chamfer	T12	**IC045840608**	Price
48C1086TURN01	IN2005	6	1.00	.870	.020 Chamfer	T15	**IC045622631**	Price

CHIPoSURFER™ End Mill Tips for Aluminum

38° Helix





Model No.	Grade	No. of Flutes	Cutting Dia. (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
46B2520TQRC04P	IN05S	3	.250	.210	.125	T05	**IC042900191**	Price
46B3120TQRC03P	IN05S	3	.312	.210	.156	T05	**IC042900192**	Price
46B3727T6RC05P	IN05S	3	.375	.285	.187	T06	**IC042900194**	Price
46B5037T8RC06P	IN05S	3	.500	.385	.250	T08	**IC042900195**	Price
46B7550TSRC10P	IN05S	3	.750	.500	.375	T12	**IC042905542**	Price

CHIPoSURFER™ End Mill Tip for Hard Steel, Stainless & High Temp Alloys - 47A, 48A

- 90° Cutting angle
- Non center cutting
- Ideal for hard steel, stainless steel & hi-temp alloys



Model Number	Grade	No. of Flutes	Cutting Dia.	Depth of Cut	Radius	Connection	Order No.	Price
47A5004T8RA09	IN2006	4	.500	.023	.100	T08	**IC045812893**	Price
47A7504TSRA16	IN2006	4	.750	.039	.160	T12	**IC043302185**	Price
48A1004TURA21	IN2006	6	1.00	.047	.145	T15	**IC045812897**	Price
47A08001TQRA16	IN2006	4	8mm	0.40mm	1.62mm	T05	**IC045812890**	Price
47A20001TSRA40	IN2006	4	20mm	1.00mm	4.02mm	T12	**IC045812895**	Price
48A12001T8RA121	IN2006	6	12mm	0.65mm	1.2mm	T08	**IC045668260**	Price
47A12001T8RA24	IN2006	4	12mm	0.60mm	2.47mm	T08	**IC045812892**	Price
47A16001TRRA32	IN2006	4	16mm	0.80mm	3.25mm	T10	**IC045812894**	Price
47A10001T6RA20	IN2006	4	10mm	0.50mm	1.0mm	T06	**IC045812891**	Price

CHIPoSURFER™ Ball Nose Tips - 45B

30° Helix



Helix Angle - 30 Degree									
Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Helix Angle	Connection	Order No.	Price
45B6235TRRB08	IN2005	2	.625	.350	.312	30 Degree	T10	**IC045840614**	Price
45B7550TSRB10	IN2005	2	.750	.500	.375	30 Degree	T12	**IC045840710**	Price

Helix Angle - 45 Degree									
Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Helix Angle	Connection	Order No.	Price
45B3120TQRB03P	IN05S	2	.312	.200	.156	45 Degree	T05	**IC045821863**	Price
45B3727T6RB05P	IN05S	2	.375	.270	.187	45 Degree	T06	**IC045821864**	Price
45B5037T8RB06P	IN05S	2	.500	.370	.250	45 Degree	T08	**IC045821826**	Price
45B6247TRRB08P	IN05S	2	.625	.470	.312	45 Degree	T10	**IC045821865**	Price
45B7550TSRB10P	IN05S	2	.750	.500	.375	45 Degree	T12	**IC045821866**	Price
45B1086TURB14P	IN05S	2	1.00	.860	.500	45 Degree	T15	**IC045813620**	Price

CHIPoSURFER™ Flat Bottom Plunge Tip - 45V

3° Back Draft, Center Cutting

- 3° Back draft
- Center cutting



Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
45V3738T6RA03	IN2005	2	.375	.380	.031	T06	**IC045821137**	Price
45V5045T8RA03	IN2005	2	.500	.450	.031	T08	**IC045820939**	Price
45V6260TRRA03	IN2005	2	.625	.600	.031	T10	**IC045821140**	Price

CHIPOSURFER™

Solid Carbide Corner Rounding Tip - 45R

Corner .062", .094", .125", .156" and .187"R (OD Radius)



- Corner rounding tip

Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
45R08007TQRA10	IN2005	2	.314	.370	.039	T05	**IC045811450**	Price
45R10009T6RA25	IN2005	2	.394	.394	.090	T06	**IC045840421**	Price
45R10009T6RA20	IN2005	2	.394	.413	.078	T06	**IC045820397**	Price
45R10009T6RA16	IN2005	2	.394	.425	.062	T06	**IC045840420**	Price
45R12012T8RA40	IN2005	2	.500	.456	.157	T08	**IC045840422**	Price
45R12012T8RA30	IN2005	2	.500	.494	.120	T08	**IC045840423**	Price
45R20007TSRA60	IN2005	2	.787	.449	.236	T12	**IC045873245**	Price
45R16015TRRA50	IN2005	2	.630	.555	.197	T10	**IC045811451**	Price

CHIPOSURFER™

Solid Carbide Serrated Roughing Tip - 47C

0° Lead, 45° Helix, 4 Flute Center Cutting, 5 & 6 Flute Non-Center Cutting



- Solid carbide serrated roughing tip

Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
47C1088TURQ02	IN2005	-	-	-	.024	T15	**IC045812772**	Price
47C3120TQRQ02	IN2005	-	-	-	.012	T05	**IC045822535**	Price
47C3727T6RQ02	IN2005	-	-	-	.016	T06	**IC045822385**	Price
47C5037T8RQ03	IN2005	-	-	-	.020	T08	**IC045822536**	Price
47C6247TRRQ03	IN2005	-	-	-	.024	T10	**IC045822537**	Price
47C7562TSRQ03	IN2005	-	-	-	.024	T12	**IC045822386**	Price

CHIPOSURFER™

Solid Carbide Ultra High Feed Tip - 45A

High Feed Roughing, Center Cutting



- Solid carbide ultra high feed tip

Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
45A3703T6RA06	IN2005	2	.375	.020	.080	T06	**IC045821093**	Price
45A10001T6RA20	IN2005	2	.394	.020	.080	T06	**IC045840671**	Price
45A12001T8RA25	IN2005	2	.472	.040	.100	T08	**IC045811427**	Price
45A5004T8RA08	IN2005	2	.500	.040	.100	T08	**IC045820893**	Price
45A16001TRRA301	IN2005	2	.630	.043	.118	T10	**IC045605013**	Price
45A7506TSRA12	IN2005	2	.750	.060	.120	T12	**IC045840751**	Price

CHIPOSURFER™

Precision T-Slot Milling Tip - 18T

Corner .015"R, Chamfer .006" x 45°



- Precision T-slot milling tip

Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Width (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
18T5012TQRN00	IN1030	6	.500	.125	.090	.016	T05	**IC045840394**	Price
18T6205T6RN02	IN1030	6	.625	.056	.100	.016	T06	**IC045811074**	Price
18T6206T6RN02	IN1030	6	.680	.062	.130	.016	T06	**IC045811075**	Price
18T6208T6RN01	IN1030	6	.625	.078	.130	.016	T06	**IC045840262**	Price
18T6208T6RN02	IN1030	6	.625	.086	.120	.016	T06	**IC045811076**	Price
18T6210T6RN01	IN1030	6	.625	.125	.130	.016	T06	**IC045820567**	Price
18T6212T6RN01	IN1030	6	.625	.125	.130	.016	T06	**IC045840263**	Price
18T6216T6RN01	IN1030	6	.625	.156	.130	.016	T06	**IC045840264**	Price
18T6216T6RN06	IN1030	6	.625	.156	.130	.050	T06	**IC045840319**	Price
18T7516T8RN01	IN1030	6	.750	.156	.130	.016	T07	**IC045840265**	Price
18T7519T8RN01	IN1030	6	.750	.187	.130	.016	T07	**IC045840266**	Price
18T7525T8RN01	IN1030	6	.750	.250	.130	.016	T07	**IC045840267**	Price
18T8718T8RN01	IN1030	6	.875	.187	.190	.016	T08	**IC045840521**	Price
18T8725T8RN01	IN1030	6	.875	.250	.190	.016	T08	**IC045840522**	Price
18T8731T8RN01	IN1030	6	.875	.312	.190	.016	T08	**IC045840523**	Price
18T10018TRRN02	IN1030	6	1.00	.187	.190	.016	T10	**IC045812117**	Price
18T10025TRRN02	IN1030	6	1.00	.250	.190	.016	T10	**IC045812118**	Price
18T10037TRRN02	IN1030	6	1.00	.375	.190	.016	T10	**IC045820459**	Price

CHIPOSURFER™

High Precision Ball Nose Tip - 45B

Helical Ball Nose



- High precision ball nose tip

Model No.	Grade	No. of Flutes	Cutting Width	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
45B3120TQRB03	IN2005	2	.312	.200	.156	T05	**IC045840613**	Price
47B3120TQRB03	IN2005	4	.312	.200	.156	T05	**IC045840495**	Price
45B3727T6RB05	IN2005	2	.375	.270	.187	T06	**IC045809775**	Price
47B3727T6RB05	IN2005	4	.375	.270	.187	T06	**IC045809776**	Price
45B5037T8RB06	IN2005	2	.500	.370	.250	T08	**IC045809777**	Price
47B5037T8RB06	IN2005	4	.500	.370	.250	T08	**IC045809778**	Price
47B6247TRRB08	IN2005	4	.625	.470	.312	T10	**IC045840508**	Price
47B7562TSRB10	IN2005	4	.750	.620	.374	T12	**IC045840590**	Price
47B7510TSRB13	IN2005	4	.750	1.00	.375	T12	**IC045831923**	Price
47B1086TURB15	IN2005	4	1.00	.860	.500	T15	**IC045813631**	Price
47B1010TURB16	IN2005	4	1.00	1.00	.500	T15	**IC045831925**	Price

CHIPOSURFER™

Spherical Ball Nose Tip - 45X

Straight Ball Nose



- Spherical ball nose tip

Model No.	Grade	No. of Flutes	Cutting Diameter (in.)	Depth of Cut (in.)	Radius (in.)	Connection	Order No.	Price
45X3727TQRA03	IN2005	2	.375	.330	.187	T05	**IC045840513**	Price
45X5037T6RA04	IN2005	2	.500	.400	.250	T06	**IC045840258**	Price
45X6248T8RA06	IN2005	2	.625	.550	.312	T08	**IC045840514**	Price
45X7560TRRA07	IN2005	2	.750	.660	.375	T10	**IC045840515**	Price

CHIPOSURFER™

Chamfer and Spotting Tip - 45N, 45M, 45P

30°, 45°, 60°, 72°, Center Cutting



- Chamfer & spotting tip
- Center cutting

Model No.	Grade	No. of Flutes	Chamfer Angle (deg.)	Cutter Dia. (in.)	Length of Cut (in.)	Connection	Order No.	Price
45N08007TQRA45	IN2005	2	45	.315	.124	T05	**IC045811431**	Price
45M10009T6RA30	IN2005	2	30	.390	.060	T06	**IC045811433**	Price
45P10009T6RA60	IN2005	2	30	.390	.100	T06	**IC045811434**	Price
45N10010T6RA45	IN2005	2	45	.390	.177	T06	**IC045668527**	Price
45N10009T6RA72	IN2005	2	72	.390	.060	T06	**IC045840357**	Price
47N10004T6RA45	IN2005	4	-	.390	.076	T06	**IC045840387**	Price
45M12012T8RA30	IN2005	2	60	.472	.059	T08	**IC045873246**	Price
45N12012T8RA45	IN2005	2	45	.472	.059	T08	**IC045840460**	Price
45P12012T8RA60	IN2005	2	30	.472	.059	T08	**IC045873247**	Price
47N5006T8RA45	IN2005	4	45	.500	.200	T08	**IC045840615**	Price
45M16015TRRA30	IN2005	2	60	.625	.472	T10	**IC045873248**	Price
45N16015TRRA45	IN2005	2	45	.625	.290	T10	**IC045840403**	Price
45P16015TRRA60	IN2005	2	30	.625	.173	T10	**IC045873249**	Price
45M20018TSRA30	IN2005	2	60	.787	.098	T12	**IC045849024**	Price
45N20018TSRA45	IN2005	2	45	.787	.059	T12	**IC045873548**	Price
45P20018TSRA60	IN2005	2	30	.787	.059	T12	**IC045849025**	Price
48N20025TSRA4	IN2005	6	45	.787	.290	T12	**IC045811430**	Price

CHIPoSURFER™

End Mill Tip for Aluminum - 46D, 46J

0° Lead, 45° Helix, Center Cutting, Polished, Sharp

- 0° Lead
- 45° Helix
- Center cutting
- Polished



No. of Flutes - 10							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Connec-tion	Order No.	Price
49D7562TSRD03	IN2005	.750	.620	.031	T10	**IC045840606**	Price
49D7562TSRD06	IN2005	.750	.620	.062	T10	**IC045840607**	Price
49D7562TSRD12	IN2005	.750	.620	.125	T10	**IC045831014**	Price
49D1086TURB03	IN2005	1.00	.880	.031	T15	**IC045622630**	Price
49D1088TURD13	IN2005	1.00	.880	.125	T15	**IC045831171**	Price

No. of Flutes - 3							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Connec-tion	Order No.	Price
46D3727T6RD02P	IN05S	.375	.200	.020	T06	**IC045840743**	Price
46D3727T6RD03P	IN05S	.375	.270	.031	T06	**IC045812669**	Price
46D3727T6RD06P	IN05S	.375	.270	.062	T06	**IC045812670**	Price
46D5037T8RD02P	IN05S	.500	.370	.020	T08	**IC045821014**	Price
46D6239TRRD09P	IN05S	.625	.390	.094	T10	**IC045812676**	Price
46D5037T8RD03P	IN05S	.500	.370	.031	T08	**IC045812671**	Price
46D6239TRRD12P	IN05S	.625	.390	.125	T10	**IC045812677**	Price
46D5037T8RD06P	IN05S	.500	.370	.062	T08	**IC045812672**	Price
46D7550TSRD02P	IN05S	.750	.500	.020	T12	**IC045840605**	Price
46D5037T8RD09P	IN05S	.500	.370	.094	T08	**IC045812673**	Price
46D7550TSRD06P	IN05S	.750	.500	.062	T12	**IC045812678**	Price
46D5037T8RD12P	IN05S	.500	.370	.125	T08	**IC045812674**	Price
46D7550TSRD12P	IN05S	.750	.500	.125	T12	**IC045812680**	Price
46D6239TRRD06P	IN05S	.625	.390	.062	T10	**IC045812675**	Price
46D7550TSRD09P	IN05S	.750	.500	.094	T12	**IC045812679**	Price

No. of Flutes - 4							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Con-nec-tion	Order No.	Price
47R3505T6RA06	IN2505	.234 - .357	.500	.062	T06	**IC042916281**	Price
47R4806T8RA09	IN2505	.295 - .480	.640	.093	T08	**IC042916283**	Price
47R3605T6RA03	IN2505	.298 - .362	.500	.031	T06	**IC042916278**	Price
47J3120TQRQ04	IN2005	.312	.200	SHARP	T05	**IC045812855**	Price
47D3120TQRQ02	IN2005	.312	.200	.016	T05	**IC045812856**	Price
47R7110TRRA18	IN2505	.343 - .715	1.00	.187	T10	**IC042916285**	Price
47R6008TRRA12	IN2505	.351 - .601	.810	.125	T10	**IC042916284**	Price
47J3727T6RQ05	IN2005	.375	.270	SHARP	T06	**IC045812857**	Price
47D3727T6RQ02	IN2005	.375	.270	.016	T06	**IC045812858**	Price
47J5037T8RQ06	IN2005	.500	.370	SHARP	T08	**IC045812859**	Price
47D5037T8RQ01	IN2005	.500	.370	.015	T08	**IC045813605**	Price
47D5037T8RQ03	IN2005	.500	.370	.031	T08	**IC045812860**	Price
47D5037T8RQ06	IN2005	.500	.370	.062	T08	**IC045813606**	Price
47D6247TRRQ03	IN2005	.625	.470	.031	T12	**IC045812861**	Price
47D6247TRRQ07	IN2005	.625	.470	.062	T10	**IC045813607**	Price
47D7562TSRQ03	IN2005	.750	.620	.031	T12	**IC045812862**	Price

No. of Flutes - 4							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Con-nec-tion	Order No.	Price
47D7510TSRQ04	IN2005	.750	1.00	.031	T12	**IC045831922**	Price
47D7562TSRQ07	IN2005	.750	.620	.062	T12	**IC045813608**	Price
47D7562TSRQ13	IN2005	.750	.620	.125	T12	**IC045831169**	Price
47D1088TURQ04	IN2005	1.00	.880	.031	T15	**IC045812863**	Price
47D1010TURQ04	IN2005	1.00	1.00	.031	T15	**IC045831924**	Price
47D1088TURQ06	IN2005	1.00	.880	.062	T15	**IC045813609**	Price

No. of Flutes - 5							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Connec-tion	Order No.	Price
47D7581TSRQ03	IN2505	.750	.810	.030	T12	**IC042915973**	Price
47D7581TSRQ06	IN2505	.750	.810	.060	T12	**IC042915974**	Price
47D7581TSRQ09	IN2505	.750	.810	.090	T12	**IC042915975**	Price
47D7581TSRQ12	IN2505	.750	.810	.120	T12	**IC042915976**	Price
47D7581TSRQ19	IN2505	.750	.810	.190	T12	**IC042915977**	Price
47D7581TSRQ25	IN2505	.750	.810	.250	T12	**IC042915978**	Price
47D1088TURQ13	IN2005	1.00	.880	.125	T15	**IC045831170**	Price
47D1088TURQ25	IN2005	1.00	.880	.250	T15	**IC045813610**	Price

No. of Flutes - 6							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Connec-tion	Order No.	Price
48J3120TQRD04	IN2005	.312	.200	SHARP	T05	**IC045840520**	Price
48D3120TQRD03	IN2005	.312	.200	.031	T05	**IC045840600**	Price
48J3727T6RD05	IN2005	.375	.270	SHARP	T06	**IC045840349**	Price
48D3727T6RD01	IN2005	.375	.270	.016	T06	**IC045840351**	Price
48D3727T6RD03	IN2005	.375	.270	.031	T06	**IC045840352**	Price
48D3727T6RD06	IN2005	.375	.270	.060	T06	**IC045809780**	Price
48D5037T8RD01	IN2005	.500	.370	.016	T08	**IC045840353**	Price
48D5037T8RD03	IN2005	.500	.370	.031	T08	**IC045840354**	Price
48D5037T8RD06	IN2005	.500	.370	.060	T08	**IC045809782**	Price
48J5037T8RD06	IN2005	.500	.370	.062	T08	**IC045840350**	Price
48N16006TRRA45	IN2005	3mm - 16mm	6.5mm	3mm	T10	**IC045811429**	Price
48N25010TURA45	IN2005	5mm - 25mm	10mm	5mm	T15	**IC045668415**	Price

No. of Flutes - 8							
Model No.	Grade	Cutting Dia. (in.)	Depth of Cut (in.)	Corner (in.)	Connec-tion	Order No.	Price
49J6247TRRD08	IN2005	.625	.470	SHARP	T08	**IC045840525**	Price
49D6247TRRD03	IN2005	.625	.470	.031	T10	**IC045840603**	Price
49D6247TRRD06	IN2005	.625	.470	.062	T10	**IC045840604**	Price

CHIPoSURFER™

Straight Shanks with No Neck

Steel Shanks



- Straight shank with no neck

Model No.	Diameter (in.)	OAL (in.)	Connection	Order No.	Price
S031T05SA05	.375	2.500	T05	**IC524542793**	Price
S037T06SA06	.375	3.000	T06	**IC524505822**	Price
S050T08SA06	.500	3.54	T08	**IC524505824**	Price
S062T10SA06	.625	4.000	T10	**IC524542796**	Price
S075T12SA08	.750	5.000	T12	**IC524542990**	Price
S100MOD12SA80	1.000	8.000	M12	**IC524506165**	Price

CHIPoSURFER™

Straight Shanks with No Neck

Carbide Shanks



- Carbide shank

Model No.	Diameter (in.)	OAL (in.)	Connection	Order No.	Price
S031T05CA19	.312	3.000	T05	**IC524542775**	Price
S037T06CA12	.375	4.000	T06	**IC524540001**	Price
S050T08CA15	.500	4.000	T08	**IC524540002**	Price
S050T08CA25	.500	5.500	T08	**IC524540005**	Price
S062T10CA34	.625	5.500	T10	**IC524542797**	Price
S075MOD10CA80	.750	8.000	M10	**IC524542729**	Price

CHIPoSURFER™

Conical Shanks

Steel Shanks



- Steel shank

Item No.	Diameter (in.)	OAL (in.)	Connection	Order No.	Price
WB075MOD10SK50	.625	5.000	M10	**IC524502367**	Price
S125MOD16SK90	1.250	9.000	M16	**IC524502372**	Price

CHIPoSURFER™

Conical Shanks

Carbide Shanks



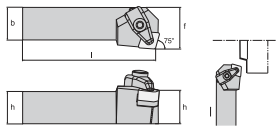
- Carbide shank

Model No.	Diameter (in.)	OAL (in.)	Connection	Order No.	Price
S100MOD12CK85	1.000	8.500	M12	**IC524542733**	Price
S125MOD16CK90	1.250	9.000	M16	**IC524542734**	Price

TOTURN

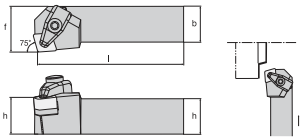
Ingersoll Cutting Tools

T Style Turning Holders





Right Hand





Left Hand

Right/Left Hand - Left					
Model No.	Shank Dia. (in.)	OAL (in.)	Uses Insert(s)	Order No.	Price
TCKNL164D	1	6.00	CN__43	**IC033602967**	Price
TCLNL12-33B	3/4	4.50	CNM_33_	**IC036160218**	Price
TCLNL124B	3/4	4.50	CN__43	**IC033602897**	Price
TCLNL16-33D	1	6.00	CNM_33_	**IC036160222**	Price
TCLNL164D	1	6.00	CN__43	**IC033602844**	Price
TCLNL165D	1	6.00	CN__54	**IC033603314**	Price
TCLNL20-33D	1-1/4	6.00	CNM_33_	**IC036160224**	Price
TCLNL204D	1-1/4	6.00	CN__43	**IC033603169**	Price
TCLNL205D	1-1/4	6.00	CN__54	**IC033603315**	Price
TCLNL206D	1-1/4	6.00	CN__64	**IC033603857**	Price
TCLNL244D	1-1/2	6.00	CN__43	**IC033603851**	Price
TCLNR244D	1-1/2	6.00	CN__43	**IC033603850**	Price
TCLNL245D	1-1/2	6.00	CN__54	**IC033603853**	Price
TCLNL246D	1-1/2	6.00	CN__64	**IC033603859**	Price
TCRNL164D	1	6.00	CN__43	**IC033603861**	Price
TDJNL123B	3/4	4.50	DN__33_	**IC033604960**	Price
TDJNL124B	3/4	4.50	DN__43	**IC033602903**	Price
TDJNL164D	1	6.00	DN__43	**IC033602904**	Price
TDQNL164D	1	6.00	DN__43	**IC033603843**	Price
TSKNL164D	1	6.00	SN__43	**IC033603868**	Price
TSRNL164D	1	6.00	SN__43	**IC033603870**	Price
TSSNL164D	1	6.00	SN__43	**IC033603878**	Price
TTJNL163D	1	6.00	TN__33_	**IC033603882**	Price
TTJNL204D	1-1/4	6.00	TN__43_	**IC033603884**	Price
TVJNL123C	3/4	5.00	VN__33_	**IC033602907**	Price
TVJNL163D	1	6.00	VN__33_	**IC033602908**	Price
TVQNL163D	1	6.00	VN__33_	**IC033603211**	Price
TWLNL12-33B	3/4	4.50	WNMX33_	**IC036160226**	Price
TWLNL123B	3/4	4.50	WN__33_	**IC033603764**	Price
TWLNL16-33D	1	6.00	WNMX33_	**IC036160228**	Price
TWLNL164D	1	6.00	WN__43_	**IC033602910**	Price
TWLNL20-33D	1-1/4	6.00	WNMX33_	**IC036160230**	Price
TWLNL204D	1-1/4	6.00	WN__43_	**IC033603887**	Price

Right/Left Hand - Neutral					
Model No.	Shank Dia. (in.)	OAL (in.)	Uses Insert(s)	Order No.	Price
TCMNN124B	3/4	4.50	CN__43	**IC033603927**	Price
TCMNN164D	1	6.00	CN__43	**IC033603928**	Price
TCMNN206D	1-1/4	6.00	CN__64	**IC033603929**	Price
TDNNN164D	1	6.00	DN__43	**IC033603864**	Price
TSDNN124B	3/4	4.50	SN__43	**IC033602905**	Price
TSDNN164D	1	6.00	SN__43	**IC033602906**	Price
TSDNN204D	1-1/4	6.00	SN__43	**IC033603865**	Price
TSDNN206D	1-1/4	6.00	SN__64	**IC033603866**	Price

Right/Left Hand - Neutral					
Model No.	Shank Dia. (in.)	OAL (in.)	Uses Insert(s)	Order No.	Price
TVVNN123B	3/4	4.50	VN__33_	**IC033603890**	Price
TVVNN163D	1	6.00	VN__33_	**IC033603885**	Price

Right/Left Hand - Right					
Model No.	Shank Dia. (in.)	OAL (in.)	Uses Insert(s)	Order No.	Price
TCKNR124B	3/4	4.50	CN__43	**IC033603896**	Price
TCKNR164D	1	6.00	CN__43	**IC033602966**	Price
TCKNR204D	1-1/4	6.00	CN__43	**IC033603848**	Price
TCLNR12-33B	3/4	4.50	CNM_33_	**IC036160217**	Price
TCLNR124B	3/4	4.50	CN__43	**IC033602896**	Price
TCLNR16-33D	1	6.00	CNM_33_	**IC036160220**	Price
TCLNR164D	1	6.00	CN__43	**IC033602736**	Price
TCLNR165D	1	6.00	CN__54	**IC033603313**	Price
TCLNR166D	1	6.00	CN__64	**IC033603854**	Price
TCLNR20-33D	1-1/4	6.00	CNM_33_	**IC036160223**	Price
TCLNR204D	1-1/4	6.00	CN__43	**IC033603170**	Price
TCLNR205D	1-1/4	6.00	CN__54	**IC033603226**	Price
TCLNR245D	1-1/2	6.00	CN__54	**IC033603852**	Price
TCLNR246D	1-1/2	6.00	CN__64	**IC033603858**	Price
TCRNR164D	1	6.00	CN__43	**IC033603860**	Price
TCRNR124B	3/4	4.50	CN__43	**IC033603888**	Price
TDJNR123B	3/4	4.50	DN__33_	**IC033604961**	Price
TDJNR124B	3/4	4.50	DN__43	**IC033602898**	Price
TDJNR164D	1	6.00	DN__43	**IC033602737**	Price
TDQNR164D	1	6.00	DN__43	**IC033603842**	Price
TSKNR164D	1	6.00	SN__43	**IC033603867**	Price
TSRNR164D	1	6.00	SN__43	**IC033603869**	Price
TSRNR206D	1-1/4	6.00	SN__64	**IC033603875**	Price
TSSNR164D	1	6.00	SN__43	**IC033603877**	Price
TSSNR206D	1-1/4	6.00	SN__64	**IC033603879**	Price
TTJNR123B	3/4	4.50	TN__33_	**IC033603603**	Price
TTJNR163D	1	6.00	TN__33_	**IC033603881**	Price
TTJNR164D	1	6.00	TN__43_	**IC033603156**	Price
TTJNR204D	1-1/4	6.00	TN__43_	**IC033603883**	Price
TVJNR123C	3/4	5.00	VN__33_	**IC033602899**	Price
TVJNR163D	1	6.00	VN__33_	**IC033602738**	Price
TVQNR163D	1	6.00	VN__33_	**IC033603210**	Price
TWLNR103A	5/8	4.00	WN__33_	**IC033604021**	Price
TWLNR12-33B	3/4	4.50	WNMX33_	**IC036160225**	Price
TWLNR124B	3/4	4.50	WN__43_	**IC033602901**	Price
TWLNR16-33D	1	6.00	WNMX33_	**IC036160227**	Price
TWLNR163D	1	6.00	WN__33_	**IC033603422**	Price
TWLNR164D	1	6.00	WN__43_	**IC033602846**	Price
TWLNR20-33D	1-1/4	6.00	WNMX33_	**IC036160229**	Price
TWLNR204D	1-1/4	6.00	WN__43_	**IC033603886**	Price

TOTURN **Boring Bar**

Steel Body



- Right hand shown

Model No.	Shank Dia. (in.)	Min. Bore (in.)	F (in.)	OAL (in.)	Insert Screw	Use Insert	Order No.	Price
S06HSCLCR2	3/8	.3940	.2360	4	TS-25.45-6M1	CC_T21.5_	**IC033670322**	Price
S06MSCLCL2	3/8	.5000	.2500	6	TS-25.45-6M1	CC_T21.5_	**IC033672639**	Price
S06MSCLPR2	3/8	.4800	.2500	6	TS-25.45-6M1	CP_T21.5_	**IC033673023**	Price
S06MSTFCR2	3/8	.5000	.2500	6	1425	TC_T21.5_	**IC033670188**	Price
S08MSCLCR2	1/2	.6020	.3120	6	TS-25.45-6M1	CC_T21.5_	**IC033672640**	Price
S08MSCLCR3	1/2	.6250	.3120	6	TS-4.7-8M1	CC_T32.5	**IC033672643**	Price
S08MSTFCR2	1/2	.6250	.3120	6	1425	TC_T21.5_	**IC033670190**	Price
S08RSCLPR2	1/2	.6000	.3120	8	TS-25.45-6M1	CP_T21.5_	**IC033673028**	Price
S10RSCLCL3	5/8	.8120	.4060	8	1440	CC_T32.5	**IC033672645**	Price
S10RSCLCR3	5/8	.8120	.4060	8	1440	CC_T32.5	**IC033670323**	Price
S10RSDUCR2	5/8	.8400	.5000	8	TS-25.45-6M1	DC_T21.5_	**IC033672658**	Price
S10SSCLPR2	5/8	.7700	.4060	10	TS-25.45-6M1	CP_T21.5_	**IC033673033**	Price
S12SSCLCL3	3/4	.9540	.5000	10	TS-4.7-10M1	CC_T32.5_	**IC033672646**	Price
S12SSCLCR3	3/4	.9540	.5000	10	TS-4.7-10M1	CC_T32.5_	**IC033601580**	Price
S12SSTFCR2	3/4	1.0000	.5000	10	TS-25.45-6M1	TC_T21.5_	**IC033670194**	Price
S16TSCLCR3	1	1.2800	.6400	12	1440	CC_T32.5	**IC033601581**	Price
S16TSCLCR4	1	1.2800	.6400	12	1250	CC_T43_	**IC033670324**	Price
S16TSDUCR3	1	1.5000	.7500	12	TS-4.7-10M1	DC_T32.5_	**IC033670326**	Price
S16TSTUCR3	1	1.2800	.6400	12	TS-4.7-10M1	TC_T32.5_	**IC033672704**	Price

TTurn TType Boring Bar

Coolant Thru – Steel Body

Left hand shown



Model No.	Shank Dia. (in.)	Min. Bore (in.)	F (in.)	OAL (in.)	Use Insert	Order No.	Price
A12STWLNR3	3/4	1.000	.500	10	WN__3	**IC033603788**	Price
A12STWLNL3	3/4	1.000	.500	10	WN__3	**IC033603787**	Price
A16TTCLNR4	1	1.250	.640	12	CN__4	**IC033603164**	Price
A16TTDUNR3	1	1.500	.750	12	DN__3	**IC033603824**	Price
A16TTDUNL3	1	1.500	.750	12	DN__3	**IC033603823**	Price
A16TTTFNR3	1	1.250	.640	12	TNMG33_	**IC033603688**	Price
A16TTTFNL3	1	1.250	.640	12	TNMG33_	**IC033603614**	Price
A16TTWLNR3	1	1.250	.640	12	WN__3	**IC033603690**	Price
A16TTWLNL3	1	1.250	.640	12	WN__3	**IC033603616**	Price
A16TTWLNR4	1	1.280	.640	12	WN__4	**IC033603691**	Price
A20UTCLNR4	1-1/4	1.500	.770	14	CN__4	**IC033603165**	Price
A20UTTFNR3	1-1/4	1.500	.765	14	TNMG33_	**IC033603689**	Price
A20UTWLNL4	1-1/4	1.500	.770	14	WN__4	**IC033603618**	Price
A24UTCLNR4	1-1/2	1.750	.890	14	CN__4	**IC033603166**	Price
A24UTCLNL4	1-1/2	1.750	.890	14	CN__4	**IC033603161**	Price
A24UTDUNR4	1-1/2	2.000	1.130	14	DN__4	**IC033603178**	Price
A24UTDUNL4	1-1/2	2.000	1.130	14	DN__4	**IC033603175**	Price
A28UTCLNL4	1-3/4	2.000	1.020	14	CN__4	**IC033603162**	Price
A28UTDUNR4	1-3/4	2.250	1.250	14	DN__4	**IC033603179**	Price
A32VTCLNL4	2	2.500	1.280	16	CN__4	**IC033603163**	Price
A32VTCLNR4	2	2.500	1.280	16	CN__4	**IC033603168**	Price
A32VTDUNL4	2	2.750	1.500	16	DN__4	**IC033603177**	Price

TTurn Solid Carbide TaeguLine Boring Bar

Coolant Thru

Right hand shown



- Left

Model No.	Shank Dia. (in.)	Min. Bore (in.)	F (in.)	OAL (in.)	Insert Screw	Use Insert	Order No.	Price
E06MSCLCL2	3/8	.500	.250	6	SM25-065-70	CC_T21.5	**IC033604252**	Price
E08RSCLCL3	1/2	.625	.312	8	SM25-065-70	CC_T32.5	**IC033604253**	Price
E08RSTFCL2	1/2	.625	.312	8	SM25-065-70	TC_T21.5	**IC033604244**	Price
E10RSCLCL3	5/8	.780	.438	8	SM25-065-70	CC_T32.5	**IC033604254**	Price
E12SSCLCL3	3/4	.985	.500	10	SM25-065-70	CC_T32.5	**IC033604255**	Price
E12SSTFCL2	3/4	1.000	.500	10	SM25-065-70	TC_T21.5	**IC033604246**	Price

- Right

Model No.	Shank Dia. (in.)	Min. Bore (in.)	F (in.)	OAL (in.)	Insert Screw	Use Insert	Order No.	Price
E06MSCLCR2	3/8	.500	.250	6	SM25-065-70	CC_T21.5	**IC033604256**	Price
E06MSDUCR2	3/8	.625	.375	6	SM25-065-70	DC_T21.5	**IC033604535**	Price
E06MSTFCR2	3/8	.500	.250	6	SM25-065-70	TC_T21.5	**IC033604247**	Price
E08MSCLCR2	1/2	.625	.312	6	SM25-065-70	CC_T21.5	**IC033604257**	Price
E08MSDUCR2	1/2	.755	.437	6	SM25-065-70	DC_T21.5	**IC033604536**	Price
E08RSCLCR3	1/2	.500	.312	8	SM25-065-70	CC_T32.5	**IC033604259**	Price
E08RSTFCR2	1/2	.625	.312	8	SM25-065-70	TC_T21.5	**IC033604248**	Price
E10RSCLCR3	5/8	.780	.438	8	SM25-065-70	CC_T32.5	**IC033604260**	Price
E10RSDUCR2	5/8	.840	.500	8	SM25-065-70	DC_T21.5	**IC033604537**	Price
E10RSTFCR2	5/8	.812	.406	8	SM25-065-70	TC_T21.5	**IC033604249**	Price
E12SSCLCR3	3/4	.985	.500	10	SM25-065-70	CC_T32.5	**IC033604261**	Price
E12SSDUCR3	3/4	1.250	.625	10	SM25-065-70	DC_T32.5	**IC033604538**	Price

Spare Parts - Screws

Description	Order No.	Price
1250	**IC024301077**	Price
1335	**IC024320034**	Price
1425	**IC024301075**	Price
1440	**IC024301076**	Price
1540	**IC024330002**	Price
1750	**IC024320033**	Price
1760	**IC024330001**	Price
DLS5	**IC024351611**	Price
SE0117	**IC027003055**	Price
SE0202	**IC027000084**	Price
SE0263	**IC027050332**	Price
SE0279	**IC027000460**	Price
SE0281	**IC027000461**	Price
SE0282	**IC027000517**	Price
SE02B3	**IC027005993**	Price
SE0370	**IC027001766**	Price
SE0372	**IC027002873**	Price

Description	Order No.	Price
SF06001	**IC027002616**	Price
SF08001	**IC027003206**	Price
SF08002	**IC027003865**	Price
SF5001	**IC027002615**	Price
SHM5X0.8X16	**IC024350812**	Price
SHM5X0.8X20	**IC024350813**	Price
SHM5X0.8X25	**IC024351438**	Price
SHM6X1X20	**IC024350178**	Price
SHM6X1X25	**IC024351073**	Price
SHM6X1X40	**IC024351074**	Price
SM1804100	**IC027041147**	Price
SM2004300	**IC027011241**	Price
SM2204600	**IC027070018**	Price
SM2205200	**IC027061002**	Price
SM2505280	**IC027019506**	Price
SM2505510	**IC027002614**	Price
SM2506400	**IC027010015**	Price

Description	Order No.	Price
SM2506570	**IC024350818**	Price
SM3007421	**IC027019592**	Price
SM3008010	**IC027011723**	Price
SM3008200	**IC027070040**	Price
SM3008221	**IC027019559**	Price
SM3507610	**IC027070049**	Price
SM3508810	**IC027070017**	Price
SM3508860	**IC027041132**	Price
SM3508900	**IC027005191**	Price
SM35114H0	**IC027032313**	Price
SM4007000	**IC027001888**	Price
SM4008420	**IC027006441**	Price
SM4010010	**IC027011251**	Price
SM40100R0	**IC027019041**	Price
SM4012000	**IC027000683**	Price
SM40143H0	**IC027032312**	Price
SM50062S0	**IC024351178**	Price

Description	Order No.	Price
SM5010710	**IC027011738**	Price
SM5012250	**IC027041133**	Price
SM50130R0	**IC027018925**	Price
SM6015000	**IC027011526**	Price
SO25050I	**IC024351403**	Price
SO35080I	**IC024350823**	Price
SO35120I	**IC024351393**	Price
SO35124I	**IC024350824**	Price
SO40050I	**IC024350825**	Price
SO40085I	**IC024351689**	Price
SO40090I	**IC024350826**	Price
SO50090S	**IC024350834**	Price
SO80180I	**IC024351647**	Price
TS4.710M1	**IC024360145**	Price
TS4.78M1	**IC024360144**	Price
TS443M	**IC024301115**	Price
TS5.810M1	**IC024352294**	Price

Spare Parts - Torx Bits & Wrenches

Description	Order No.	Price
5516 Wrench	**IC024310009**	Price
BLD T15/M7 Torx Bit	**IC027011850**	Price
DS-T06F Wrench	**IC027005994**	Price
DS-T07F Wrench	**IC027002250**	Price
DS-T08W Wrench	**IC027000075**	Price
DS-T09W Wrench	**IC027009052**	Price
DS-T155 Wrench	**IC027066695**	Price
DS-T15T Wrench	**IC027000076**	Price
DS-T20T Wrench	**IC027001304**	Price
DS-T25T Wrench	**IC027003260**	Price
DST06QB Torx Bit	**IC027011864**	Price
DST06QB 5PC Torx Bit	**IC027011870**	Price
DST06QB 10PC Torx Bit	**IC027011871**	Price

Description	Order No.	Price
DST07QB 5PC Torx Bit	**IC027011872**	Price
DST07QB 10PC Torx Bit	**IC027011873**	Price
DST08QB Torx Bit	**IC027011866**	Price
DST08QB 5PC Torx Bit	**IC027011874**	Price
DST08QB 10PC Torx Bit	**IC027011875**	Price
DST09QB Torx Bit	**IC027011867**	Price
DST09QB 5PC Torx Bit	**IC027011876**	Price
DST09QB 10PC Torx Bit	**IC027011877**	Price
DST10QB 5PC Torx Bit	**IC027011878**	Price
DST10QB 10PC Torx Bit	**IC027011879**	Price
DST15QB Torx Bit	**IC027011869**	Price
DST15QB 5PC Torx Bit	**IC027011880**	Price
DST15QB 10PC Torx Bit	**IC027011881**	Price

Description	Order No.	Price
DSTP06TB Torx Bit	**IC027011224**	Price
DT-T09S Torx Key	**IC027007031**	Price
L-W2.5 Wrench	**IC024350217**	Price
L-W3 Wrench	**IC024350219**	Price
L-W5 Wrench	**IC024350221**	Price
WS0029 Wrench	**IC027008923**	Price
WS0030 Wrench	**IC027008924**	Price
WS0043 Wrench	**IC027010559**	Price
WS0044 Wrench	**IC027010560**	Price
WS0059 Wrench	**IC027010949**	Price
WS0061 Wrench	**IC024305309**	Price

TOTURN Carbide Inserts

Ingersoll Cutting Tools

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - CCET 21.50 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .004									
CCET 21.50R-GF	TT9020	x	x			x		IC065517326	Price
Style - CCET 21.505 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
CCET 21.505R-GF	TT9020	x	x			x		IC065517328	Price
Style - CCET 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
CCET 21.51L-GF	TT9020	x	x			x		IC065519573	Price
CCET 21.51R-GF	TT9020	x	x			x		IC065517330	Price
Style - CCET 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
CCET 21.52L-GF	TT9020	x	x			x		IC065519575	Price
Style - CCET 21.5X0 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .001									
CCET 21.5X0-LGW	TT9020	x	x			x		IC065519649	Price
CCET 21.5X0R-GW	TT9020	x	x			x		IC065517250	Price
Style - CCET 32.50 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .004									
CCET 32.50L-GF	TT9020	x	x			x		IC065519678	Price
CCET 32.50R-GF	TT9020	x	x			x		IC065517332	Price
Style - CCET 32.50.5 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .008									
CCET 32.50.5L-GF	TT9020	x	x			x		IC065519679	Price
CCET 32.50.5R-GF	TT9020	x	x			x		IC065517334	Price
Style - CCET 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
CCET 32.51R-GF	TT9020	x	x			x		IC065517419	Price
Style - CCET 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
CCET 32.52L-GF	TT9020	x	x			x		IC065519576	Price
Style - CCET 32.5X0 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .001									
CCET 32.5X0L-GW	TT9020	x	x			x		IC065519936	Price
CCET 32.5X0R-GW	TT9020	x	x			x		IC065517502	Price
Style - CCGT 21.50 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .004									
CCGT 21.50-SA	TT5080		x			x		IC065523201	Price
CCGT 21.50-SA	TT9020	x	x			x		IC065522915	Price
Style - CCGT 21.505 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
CCGT 21.50.5-SA	TT5080		x			x		IC065523202	Price
CCGT 21.50.5-SA	TT9020	x	x			x		IC065519914	Price
Style - CCGT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
CCGT 21.51-SA	TT5080		x			x		IC065523203	Price
CCGT 21.51-SA	TT9020	x	x			x		IC065520884	Price
Style - CCGT 32.50 IC (in.) - 1/4 Thickness (in.) - .156 Radius (in.) - .004									
CCGT 32.50-SA	TT5080		x			x		IC065523204	Price
CCGT 32.50-SA	TT9020	x	x			x		IC065522919	Price
Style - CCGT 32.505 IC (in.) - 1/4 Thickness (in.) - .156 Radius (in.) - .008									
CCGT 32.50.5-SA	TT5080		x			x		IC065523205	Price
CCGT 32.50.5-SA	TT9020	x	x			x		IC065519986	Price
Style - CCGT 32.51 IC (in.) - 1/4 Thickness (in.) - .156 Radius (in.) - .016									
CCGT 32.51-SA	TT5080		x			x		IC065523206	Price
CCGT 32.51-SA	TT9020	x	x			x		IC065520886	Price
Style - CCGT 32.52 IC (in.) - 1/4 Thickness (in.) - .156 Radius (in.) - .031									
CCGT 32.52-SA	TT5080		x			x		IC066125640	Price
CCGT 32.52-SA	TT9020	x	x			x		IC066125641	Price
Style - CCMT 21.50.5 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
CCMT 21.50.5-FA	TT5100	x	x			x		IC065516542	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - CCMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
CCMT 21.51-FA	TT8125	x						IC065520238	Price
CCMT 21.51-FG	TT5100	x	x			x		IC065515247	Price
CCMT 21.51-FG	TT8020	x	x			x		IC065515738	Price
CCMT 21.51-FG	TT8125	x						IC065519628	Price
CCMT 21.51-FG	TT9225		x			x		IC065520530	Price
CCMT 21.51-FG	TT9235		x			x		IC065520599	Price
CCMT 21.51-MT	TT5100	x	x			x		IC065514737	Price
CCMT 21.51-MT	TT8020	x	x			x		IC065515703	Price
CCMT 21.51-MT	TT8115	x						IC065518519	Price
CCMT 21.51-MT	TT8125	x						IC065519612	Price
CCMT 21.51-MT	TT9225		x			x		IC065520531	Price
CCMT 21.51-MT	TT9235		x			x		IC065520600	Price
Style - CCMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
CCMT 21.52-MT	TT5100	x	x			x		IC065515098	Price
CCMT 21.52-MT	TT7005	x		x				IC065523769	Price
CCMT 21.52-MT	TT8115	x						IC065518520	Price
CCMT 21.52-MT	TT8125	x						IC065519634	Price
Style - CCMT 32.50.5 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .008									
CCMT 32.50.5-FA	TT5100	x	x			x		IC065516519	Price
Style - CCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
CCMT 32.51-FA	TT5100	x	x			x		IC065517302	Price
CCMT 32.51-FA	TT8020	x	x			x		IC065517415	Price
CCMT 32.51-FA	TT8125	x						IC065520289	Price
CCMT 32.51-FG	TT5100	x	x			x		IC065514806	Price
CCMT 32.51-FG	TT7005	x		x				IC065523770	Price
CCMT 32.51-FG	TT8020	x	x			x		IC065515726	Price
CCMT 32.51-FG	TT8125	x						IC065519607	Price
CCMT 32.51-FG	TT9225		x			x		IC065520532	Price
CCMT 32.51-FG	TT9235		x			x		IC065520601	Price
CCMT 32.51-MT	TT5100	x	x			x		IC065514738	Price
CCMT 32.51-MT	TT8020	x	x			x		IC065515704	Price
CCMT 32.51-MT	TT8115	x						IC065518521	Price
CCMT 32.51-MT	TT8125	x						IC065519606	Price
CCMT 32.51-MT	TT9225		x			x		IC065520533	Price
CCMT 32.51-MT	TT9235		x			x		IC065520602	Price
CCMT 32.51-PC	TT8125	x						IC065519371	Price
Style - CCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
CCMT 32.52.WT	TT8125	x						IC065520220	Price
CCMT 32.52-FA	TT8125	x						IC065520972	Price
CCMT 32.52-FG	TT5100	x	x			x		IC065515095	Price
CCMT 32.52-FG	TT8115	x						IC065519733	Price
CCMT 32.52-FG	TT8125	x						IC065519608	Price
CCMT 32.52-FG	TT9235		x			x		IC065520603	Price
CCMT 32.52-MT	TT5100	x	x			x		IC065514739	Price
CCMT 32.52-MT	TT7005	x		x				IC065523658	Price
CCMT 32.52-MT	TT8020	x	x			x		IC065515257	Price
CCMT 32.52-MT	TT8115	x						IC065518522	Price
CCMT 32.52-MT	TT8125	x						IC065519598	Price
CCMT 32.52-MT	TT9225		x			x		IC065520535	Price
CCMT 32.52-MT	TT9235		x			x		IC065520604	Price
CCMT 32.52-WT	TT5100	x	x			x		IC065514965	Price
Style - CCMT 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
CCMT 431-MT	TT5100	x	x			x		IC065515099	Price
CCMT 431-MT	TT8115	x						IC065518523	Price
CCMT 431-MT	TT8125	x						IC065519892	Price
Style - CCMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
CCMT 432-FG	TT5100	x	x			x		IC065515401	Price
CCMT 432-FG	TT8125	x						IC065519893	Price
CCMT 432-MT	TT5100	x	x			x		IC065514756	Price

Style - CCMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 432-MT	TT7005	x		x				IC065523661	Price
CCMT 432-MT	TT8020	x	x			x		IC065516630	Price
CCMT 432-MT	TT8115	x						IC065518524	Price
CCMT 432-MT	TT8125	x						IC065519603	Price
CCMT 432-MT	TT9225		x			x		IC065520536	Price
CCMT 432-MT	TT9235		x			x		IC065520605	Price
Style - CCMT 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 433-MT	TT8115	x						IC065518525	Price
CCMT 433-MT	TT8125	x						IC065520173	Price
Style - CNGG 430 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .004									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNGG 430-ML	K10	x		x	x	x		IC065519350	Price
CNGG 430-ML	TT5080		x			x		IC065523116	Price
Style - CNGG 430.5 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNGG 430.5-ML	K10	x		x	x	x		IC065519351	Price
CNGG 430.5-ML	TT5080		x			x		IC065523121	Price
Style - CNGG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNGG 431-ML	K10	x		x	x	x		IC065518012	Price
CNGG 431-ML	TT5080		x			x		IC065523115	Price
Style - CNGG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNGG 432-ML	K10	x		x	x	x		IC065517748	Price
CNGG 432-ML	TT5080		x			x		IC065523097	Price
Style - CNMA 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 431	TT7005	x		x				IC065523774	Price
CNMA 431	TT7015	x		x				IC065523642	Price
Style - CNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 432	TT7005	x		x				IC065523704	Price
CNMA 432	TT7015	x		x				IC065523571	Price
CNMA 432-WT	TT7005	x		x				IC065523775	Price
Style - CNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 433	TT7005	x		x				IC065523662	Price
CNMA 433	TT7015	x		x				IC065523545	Price
CNMA 433	TT8115	x						IC065518558	Price
Style - CNMA 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 434	TT7015	x		x				IC065523572	Price
CNMA 434	TT8115	x						IC065518639	Price
Style - CNMA 543 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 543	TT7005	x		x				IC065523778	Price
CNMA 543	TT7015	x		x				IC065523573	Price
Style - CNMA 642 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 642	TT7015	x		x				IC065523643	Price
Style - CNMA 643 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 643	TT7015	x		x				IC065523644	Price
Style - CNMA 644 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .063									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 644	TT7015	x		x				IC065523645	Price
Style - CNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 331-WA	TT8115	x						IC066140007	Price
Style - CNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 332-WA	TT8115	x						IC066140008	Price

Style - CNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 431	TT7015	x		x				IC065523574	Price
CNMG 431	TT8020	x	x			x		IC065515714	Price
CNMG 431	TT8115	x						IC065518533	Price
CNMG 431	TT8125	x						IC065519599	Price
CNMG 431-EA	TT5080		x			x		IC065523131	Price
CNMG 431-EA	TT5100	x	x			x		IC065517589	Price
CNMG 431-EA	TT8020	x	x			x		IC065517848	Price
CNMG 431-EA	TT8115	x						IC065518661	Price
CNMG 431-EA	TT8125	x						IC065521667	Price
CNMG 431-EA	TT9225		x			x		IC065521925	Price
CNMG 431-FA	TT5100	x	x			x		IC065517393	Price
CNMG 431-FA	TT8115	x						IC065518656	Price
CNMG 431-FA	TT8125	x						IC065520107	Price
CNMG 431-FC	TT5100	x	x			x		IC065518883	Price
CNMG 431-FC	TT8115	x						IC065518881	Price
CNMG 431-FC	TT8125	x						IC065520269	Price
CNMG 431-FC	TT9215		x			x		IC065520471	Price
CNMG 431-FC	TT9225		x			x		IC065520537	Price
CNMG 431-FC	TT9235		x			x		IC065520606	Price
CNMG 431-FG	TT5100	x	x			x		IC065515006	Price
CNMG 431-FG	TT8115	x						IC065518448	Price
CNMG 431-FG	TT8125	x						IC065519894	Price
CNMG 431-MC	TT8115	x						IC065518620	Price
CNMG 431-MC	TT8125	x						IC065520108	Price
CNMG 431-ML	TT5080		x			x		IC065523049	Price
CNMG 431-ML	TT5100	x	x			x		IC065514762	Price
CNMG 431-ML	TT8020	x	x			x		IC065515256	Price
CNMG 431-ML	TT8115	x						IC065518460	Price
CNMG 431-ML	TT8125	x						IC065519895	Price
CNMG 431-ML	TT9215		x			x		IC065521714	Price
CNMG 431-ML	TT9225		x			x		IC065521715	Price
CNMG 431-MP	TT5080		x			x		IC065523050	Price
CNMG 431-MP	TT5100	x	x			x		IC065514818	Price
CNMG 431-MP	TT8020	x	x			x		IC065515734	Price
CNMG 431-MP	TT8115	x						IC065518469	Price
CNMG 431-MP	TT8125	x						IC065519896	Price
CNMG 431-MP	TT9215		x			x		IC065520472	Price
CNMG 431-MP	TT9225		x			x		IC065520393	Price
CNMG 431-MP	TT9235		x			x		IC065520394	Price
CNMG 431-MT	TT5080		x			x		IC065523051	Price
CNMG 431-MT	TT5100	x	x			x		IC065514822	Price
CNMG 431-MT	TT7005	x		x				IC065523663	Price
CNMG 431-MT	TT7015	x		x				IC065523646	Price
CNMG 431-MT	TT8020	x	x			x		IC065515731	Price
CNMG 431-MT	TT8115	x						IC065518481	Price
CNMG 431-MT	TT8125	x						IC065519618	Price
CNMG 431-PC	TT5100	x	x			x		IC065518845	Price
CNMG 431-PC	TT8115	x						IC065518843	Price
CNMG 431-PC	TT8125	x						IC065519637	Price
CNMG 431-PC	TT9215		x			x		IC065520473	Price
CNMG 431-PC	TT9225		x			x		IC065520538	Price
CNMG 431-PC	TT9235		x			x		IC065520607	Price
CNMG 431-SF	TT5080		x			x		IC065523048	Price
CNMG 431-WS	TT8115	x						IC065518630	Price
CNMG 431-WS	TT8125	x						IC065520243	Price
Style - CNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 432	TT7005	x		x				IC065523563	Price
CNMG 432	TT7015	x		x				IC065523542	Price
CNMG 432	TT8020	x	x			x		IC065515702	Price
CNMG 432	TT8115	x						IC065518534	Price
CNMG 432	TT8125	x						IC065519043	Price
CNMG 432-EA	TT5080		x			x		IC065523127	Price
CNMG 432-EA	TT5100	x	x			x		IC065517482	Price
CNMG 432-EA	TT8020	x	x			x		IC065517580	Price

Style - CNMG 432	IC (in.) - 1/2	Thickness (in.) - .187						Radius (in.) - .031	
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 432-EA	TT8115	x						IC065518659	Price
CNMG 432-EM	TT9225		x			x		IC065519842	Price
CNMG 432-ET	TT5080		x			x		IC065523129	Price
CNMG 432-ET	TT5100	x	x			x		IC065517478	Price
CNMG 432-ET	TT9215		x			x		IC065520432	Price
CNMG 432-ET	TT9225		x			x		IC065519801	Price
CNMG 432-ET	TT9235		x			x		IC065519802	Price
CNMG 432-FA	TT8115	x						IC065518651	Price
CNMG 432-FA	TT8125	x						IC065520167	Price
CNMG 432-FC	TT5100	x	x			x		IC065518092	Price
CNMG 432-FC	TT8115	x						IC065518269	Price
CNMG 432-FC	TT8125	x						IC065520239	Price
CNMG 432-FC	TT9215		x			x		IC065520430	Price
CNMG 432-FC	TT9225		x			x		IC065520539	Price
CNMG 432-FC	TT9235		x			x		IC065520608	Price
CNMG 432-FG	TT5100	x	x			x		IC065514858	Price
CNMG 432-FG	TT8115	x						IC065518449	Price
CNMG 432-FG	TT8125	x						IC065519897	Price
CNMG 432-MC	TT5100	x	x			x		IC065514795	Price
CNMG 432-MC	TT7015	x		x				IC065523647	Price
CNMG 432-MC	TT7100	x	x					IC065517185	Price
CNMG 432-MC	TT8020	x	x			x		IC065515701	Price
CNMG 432-MC	TT8115	x						IC065518206	Price
CNMG 432-MC	TT8125	x						IC065519044	Price
CNMG 432-ML	TT5080		x			x		IC065523053	Price
CNMG 432-ML	TT5100	x	x			x		IC065514744	Price
CNMG 432-ML	TT8020	x	x			x		IC065514707	Price
CNMG 432-ML	TT8115	x						IC065518461	Price
CNMG 432-ML	TT8125	x						IC065519624	Price
CNMG 432-ML	TT9215		x			x		IC065521716	Price
CNMG 432-ML	TT9225		x			x		IC065520806	Price
CNMG 432-MP	TT5080		x			x		IC065523006	Price
CNMG 432-MP	TT5100	x	x			x		IC065514743	Price
CNMG 432-MP	TT8020	x	x			x		IC065515664	Price
CNMG 432-MP	TT8115	x						IC065518470	Price
CNMG 432-MP	TT8125	x						IC065519600	Price
CNMG 432-MP	TT9215		x			x		IC065520433	Price
CNMG 432-MP	TT9225		x			x		IC065519799	Price
CNMG 432-MP	TT9235		x			x		IC065519800	Price
CNMG 432-MT	TT5080		x			x		IC065523007	Price
CNMG 432-MT	TT5100	x	x			x		IC065514742	Price
CNMG 432-MT	TT7005	x		x				IC065523664	Price
CNMG 432-MT	TT7015	x		x				IC065523575	Price
CNMG 432-MT	TT7100	x	x					IC065516534	Price
CNMG 432-MT	TT8020	x	x			x		IC065514708	Price
CNMG 432-MT	TT8115	x						IC065518204	Price
CNMG 432-MT	TT8125	x						IC065519046	Price
CNMG 432-MT	TT9215		x			x		IC065520431	Price
CNMG 432-MT	TT9225		x			x		IC065519912	Price
CNMG 432-MT	TT9235		x			x		IC065520609	Price
CNMG 432-PC	TT5100	x	x			x		IC065518846	Price
CNMG 432-PC	TT8115	x						IC065518202	Price
CNMG 432-PC	TT8125	x						IC065519045	Price
CNMG 432-PC	TT9215		x			x		IC065520474	Price
CNMG 432-PC	TT9225		x			x		IC065520540	Price
CNMG 432-PC	TT9235		x			x		IC065520610	Price
CNMG 432-RT	TT5100	x	x			x		IC065515012	Price
CNMG 432-RT	TT7015	x		x				IC065523577	Price
CNMG 432-RT	TT7100	x	x					IC065516780	Price
CNMG 432-RT	TT8115	x						IC065518496	Price
CNMG 432-RT	TT8125	x						IC065519633	Price
CNMG 432-RT	TT9215		x			x		IC065520475	Price
CNMG 432-RT	TT9225		x			x		IC065520541	Price
CNMG 432-RT	TT9235		x			x		IC065520611	Price
CNMG 432-SF	TT5080		x			x		IC065523052	Price

Style - CNMG 432	IC (in.) - 1/2	Thickness (in.) - .187						Radius (in.) - .031	
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 432-SF	TT8125	x						IC065520187	Price
CNMG 432-WT	TT5080		x			x		IC065523142	Price
CNMG 432-WT	TT5100	x	x			x		IC065514945	Price
CNMG 432-WT	TT7005	x		x				IC065523784	Price
CNMG 432-WT	TT7015	x		x				IC065523648	Price
CNMG 432-WT	TT8115	x						IC065518615	Price
CNMG 432-WT	TT8125	x						IC065520165	Price
CNMG 432-WT	TT9215		x			x		IC065520989	Price
Style - CNMG 433	**IC (in.) - 1/2**	**Thickness (in.) - .187**						**Radius (in.) - .047**	
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 433	TT7015	x		x				IC065523616	Price
CNMG 433	TT8115	x						IC065518535	Price
CNMG 433	TT8125	x						IC065520104	Price
CNMG 433-ET	TT5080		x			x		IC065523143	Price
CNMG 433-ET	TT8115	x						IC065518210	Price
CNMG 433-ET	TT9215		x			x		IC065520437	Price
CNMG 433-ET	TT9225		x			x		IC065519805	Price
CNMG 433-ET	TT9235		x			x		IC065519806	Price
CNMG 433-FC	TT8125	x						IC065519669	Price
CNMG 433-FC	TT9215		x			x		IC065520435	Price
CNMG 433-FC	TT9225		x			x		IC065520542	Price
CNMG 433-FC	TT9235		x			x		IC065520612	Price
CNMG 433-MC	TT8115	x						IC065518207	Price
CNMG 433-ML	TT5080		x			x		IC065523082	Price
CNMG 433-ML	TT8115	x						IC065518674	Price
CNMG 433-MP	TT5080		x			x		IC065523018	Price
CNMG 433-MP	TT5100	x	x			x		IC065514887	Price
CNMG 433-MP	TT8115	x						IC065518471	Price
CNMG 433-MP	TT9215		x			x		IC065520436	Price
CNMG 433-MP	TT9225		x			x		IC065519803	Price
CNMG 433-MP	TT9235		x			x		IC065519804	Price
CNMG 433-MT	TT5080		x			x		IC065523008	Price
CNMG 433-MT	TT5100	x	x			x		IC065514886	Price
CNMG 433-MT	TT7005	x		x				IC065523763	Price
CNMG 433-MT	TT7015	x		x				IC065523617	Price
CNMG 433-MT	TT7100	x	x					IC065517269	Price
CNMG 433-MT	TT8020	x	x			x		IC065515532	Price
CNMG 433-MT	TT8115	x						IC065518209	Price
CNMG 433-MT	TT8125	x						IC065519049	Price
CNMG 433-MT	TT9215		x			x		IC065520476	Price
CNMG 433-MT	TT9225		x			x		IC065520543	Price
CNMG 433-MT	TT9235		x			x		IC065520613	Price
CNMG 433-PC	TT5100	x	x			x		IC065518290	Price
CNMG 433-PC	TT8115	x						IC065518262	Price
CNMG 433-PC	TT8125	x						IC065519048	Price
CNMG 433-PC	TT9215		x			x		IC065520434	Price
CNMG 433-PC	TT9225		x			x		IC065520544	Price
CNMG 433-PC	TT9235		x			x		IC065520614	Price
CNMG 433-RT	TT5100	x	x			x		IC065515013	Price
CNMG 433-RT	TT7005	x		x				IC065523709	Price
CNMG 433-RT	TT7015	x		x				IC065523539	Price
CNMG 433-RT	TT7100	x	x					IC065517740	Price
CNMG 433-RT	TT8115	x						IC065518497	Price
CNMG 433-RT	TT8125	x						IC065519622	Price
CNMG 433-RT	TT9215		x			x		IC065520477	Price
CNMG 433-RT	TT9225		x			x		IC065519807	Price
CNMG 433-RT	TT9235		x			x		IC065519808	Price
CNMG 433-WT	TT5100	x	x			x		IC065514951	Price
CNMG 433-WT	TT8115	x						IC065518624	Price
CNMG 433-WT	TT8125	x						IC065520266	Price
Style - CNMG 434	**IC (in.) - 1/2**	**Thickness (in.) - .187**						**Radius (in.) - .062**	
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 434-PC	TT5100	x	x			x		IC065518915	Price
CNMG 434-PC	TT8115	x						IC065518914	Price
CNMG 434-PC	TT8125	x						IC065519638	Price

Style - CNMG 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 434-RT	TT7015	x		x				IC065523649	Price
CNMG 434-RT	TT8115	x						IC065518268	Price
CNMG 434-RT	TT8125	x						IC065520933	Price
Style - CNMG 542 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 542	TT5100	x	x			x		IC065515009	Price
CNMG 542	TT8115	x						IC065518536	Price
CNMG 542	TT8125	x						IC065519898	Price
CNMG 542-MT	TT7005	x		x				IC065523786	Price
CNMG 542-MT	TT8125	x						IC065520106	Price
CNMG 542-PC	TT8125	x						IC065519536	Price
Style - CNMG 543 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 543	TT8125	x						IC065520255	Price
CNMG 543-ET	TT5080		x			x		IC065523141	Price
CNMG 543-ET	TT5100	x	x			x		IC065517867	Price
CNMG 543-ET	TT9215		x			x		IC065520478	Price
CNMG 543-ET	TT9225		x			x		IC065520545	Price
CNMG 543-ET	TT9235		x			x		IC065520615	Price
CNMG 543-MT	TT5080		x			x		IC065523019	Price
CNMG 543-MT	TT5100	x	x			x		IC065515314	Price
CNMG 543-MT	TT7015	x		x				IC065523650	Price
CNMG 543-MT	TT8020	x	x			x		IC065515896	Price
CNMG 543-MT	TT8115	x						IC065518686	Price
CNMG 543-MT	TT8125	x						IC065519559	Price
CNMG 543-PC	TT8115	x						IC065519508	Price
CNMG 543-PC	TT8125	x						IC065519509	Price
CNMG 543-RT	TT5080		x			x		IC065523479	Price
CNMG 543-RT	TT5100	x	x			x		IC065515015	Price
CNMG 543-RT	TT7015	x		x				IC065523618	Price
CNMG 543-RT	TT7100	x	x					IC065516779	Price
CNMG 543-RT	TT8115	x						IC065518498	Price
CNMG 543-RT	TT8125	x						IC065519560	Price
Style - CNMG 544 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 544-PC	TT8125	x						IC065519818	Price
CNMG 544-RT	TT7015	x		x				IC065523634	Price
CNMG 544-RT	TT8125	x						IC065520254	Price
Style - CNMG 642 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 642	TT7015	x		x				IC065523651	Price
CNMG 642	TT7100	x	x					IC065517812	Price
CNMG 642-MT	TT5080		x			x		IC065523123	Price
CNMG 642-MT	TT8115	x						IC065518687	Price
CNMG 642-MT	TT8125	x						IC065519233	Price
CNMG 642-MT	TT9215		x			x		IC065520479	Price
CNMG 642-MT	TT9225		x			x		IC065520546	Price
CNMG 642-MT	TT9235		x			x		IC065520616	Price
CNMG 642-PC	TT8125	x						IC065519513	Price
CNMG 642-RT	TT8125	x						IC065520233	Price
Style - CNMG 643 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 643	TT8115	x						IC065518538	Price
CNMG 643	TT8125	x						IC065519630	Price
CNMG 643-ET	TT5080		x			x		IC065523138	Price
CNMG 643-ET	TT9215		x			x		IC065520480	Price
CNMG 643-ET	TT9225		x			x		IC065520547	Price
CNMG 643-ET	TT9235		x			x		IC065520617	Price
CNMG 643-ML	TT5080		x			x		IC065523157	Price
CNMG 643-MT	TT5080		x			x		IC065523117	Price
CNMG 643-MT	TT5100	x	x			x		IC065515313	Price
CNMG 643-MT	TT8020	x	x			x		IC065515898	Price
CNMG 643-MT	TT8115	x						IC065518631	Price
CNMG 643-MT	TT8125	x						IC065519631	Price
CNMG 643-MT	TT9225		x			x		IC065520548	Price

Style - CNMG 643 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 643-MT	TT9235		x			x		IC065520618	Price
CNMG 643-PC	TT8125	x						IC065519515	Price
CNMG 643-RT	TT5080		x			x		IC065523083	Price
CNMG 643-RT	TT7015	x		x				IC065523619	Price
CNMG 643-RT	TT7100	x	x					IC065517374	Price
CNMG 643-RT	TT8125	x						IC065519899	Price
CNMG 643-RT	TT9225		x			x		IC065520549	Price
CNMG 643-RT	TT9235		x			x		IC065520619	Price
Style - CNMG 644 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 644	TT8125	x						IC065519729	Price
CNMG 644-ET	TT5080		x			x		IC065523139	Price
CNMG 644-ET	TT9225		x			x		IC065520550	Price
CNMG 644-ET	TT9235		x			x		IC065520620	Price
CNMG 644-MT	TT8125	x						IC065522090	Price
CNMG 644-RT	TT7015	x		x				IC065523679	Price
CNMG 644-RT	TT8125	x						IC065520116	Price
Style - CPMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 21.51-PC	TT5080		x			x		IC065523145	Price
CPMT 21.51-PC	TT5100	x	x			x		IC065518158	Price
Style - CPMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 21.52-PC	TT5080		x			x		IC065523146	Price
CPMT 21.52-PC	TT5100	x	x			x		IC065518160	Price
Style - CPMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 32.51-PC	TT5080		x			x		IC065523147	Price
CPMT 32.51-PC	TT5100	x	x			x		IC065518162	Price
CPMT 32.51-PC	TT7015	x		x				IC066116290	Price
CPMT 32.51-PC	TT8125	x						IC065521208	Price
Style - CPMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 32.52-PC	TT5080		x			x		IC065523148	Price
CPMT 32.52-PC	TT5100	x	x			x		IC065518164	Price
CPMT 32.52-PC	TT7005	x		x				IC066116291	Price
CPMT 32.52-PC	TT7015	x		x				IC066116292	Price
CPMT 32.52-PC	TT8125	x						IC065521210	Price
Style - DCET 21.50 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .004									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 21.50R-GF	TT9020	x	x			x		IC065517338	Price
Style - DCET 21.50.5 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 21.50.5R-GF	TT9020	x	x			x		IC065517340	Price
Style - DCET 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 21.51L-GF	TT9020	x	x			x		IC065519574	Price
DCET 21.51R-GF	TT9020	x	x			x		IC065517342	Price
Style - DCET 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 21.52L-GF	TT9020	x	x			x		IC065519577	Price
Style - DCET 21.5X0 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .001									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 21.5X0R-GW	TT9020	x	x			x		IC065517986	Price
Style - DCET 32.50 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .004									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 32.50R-GF	TT9020	x	x			x		IC065517344	Price
Style - DCET 32.50.5 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 32.50.5R-GF	TT9020	x	x			x		IC065517346	Price
Style - DCET 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCET 32.51L-GF	TT9020	x	x			x		IC065517349	Price
DCET 32.51R-GF	TT9020	x	x			x		IC065517348	Price

TOTURN Carbide Inserts

Ingersoll Cutting Tools

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - DCET 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
DCET 32.52L-GF	TT9020	x	x			x		IC065519578	Price
Style - DCET 32.5X0 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .001									
DCET 32.5X0R-GW	TT9020	x	x			x		IC065517503	Price
Style - DCGT 21.50.5 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
DCGT 21.50.5-SA	TT9020	x	x			x		IC065519913	Price
Style - DCGT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
DCGT 21.51-SA	TT9020	x	x			x		IC065520880	Price
Style - DCGT 32.50 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .004									
DCGT 32.50-SA	TT5080		x			x		IC065523210	Price
DCGT 32.50-SA	TT9020	x	x			x		IC065519889	Price
Style - DCGT 32.50.5 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .008									
DCGT 32.50.5-SA	TT5080		x			x		IC065523211	Price
DCGT 32.50.5-SA	TT9020	x	x			x		IC065519883	Price
DCGT 32.50.5-SA	TT9080		x			x		IC065522297	Price
Style - DCGT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
DCGT 32.51-SA	TT5080		x			x		IC065523212	Price
DCGT 32.51-SA	TT9020	x	x			x		IC065520882	Price
DCGT 32.51-SA	TT9080		x			x		IC065522298	Price
Style - DCMT 21.50.5 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
DCMT 21.50.5-FA	TT5100	x	x			x		IC065516487	Price
Style - DCMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
DCMT 21.51-FG	TT5100	x	x			x		IC065514893	Price
DCMT 21.51-FG	TT8020	x	x			x		IC065515718	Price
DCMT 21.51-FG	TT8115	x						IC065518517	Price
DCMT 21.51-FG	TT8125	x						IC065519625	Price
DCMT 21.51-FG	TT9235		x			x		IC065520622	Price
Style - DCMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
DCMT 21.52-FG	TT5100	x	x			x		IC065517966	Price
DCMT 21.52-FG	TT8125	x						IC065520137	Price
DCMT 21.52-FG	TT9225		x			x		IC065520554	Price
Style - DCMT 32.50.5 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .008									
DCMT 32.50.5-FA	TT5100	x	x			x		IC065515755	Price
DCMT 32.50.5-FA	TT9215		x			x		IC065520465	Price
Style - DCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
DCMT 32.51-FG	TT5100	x	x			x		IC065515100	Price
DCMT 32.51-FG	TT8115	x						IC065519869	Price
DCMT 32.51-FG	TT8125	x						IC065519626	Price
DCMT 32.51-FG	TT9215		x			x		IC065520466	Price
DCMT 32.51-FG	TT9225		x			x		IC065520555	Price
DCMT 32.51-FG	TT9235		x			x		IC065520623	Price
DCMT 32.51-MT	TT5100	x	x			x		IC065514723	Price
DCMT 32.51-MT	TT8020	x	x			x		IC065515707	Price
DCMT 32.51-MT	TT8115	x						IC065518604	Price
DCMT 32.51-MT	TT8125	x						IC065519604	Price
DCMT 32.51-MT	TT9225		x			x		IC065520556	Price
DCMT 32.51-MT	TT9235		x			x		IC065520624	Price
Style - DCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
DCMT 32.52-FG	TT5100	x	x			x		IC065515101	Price
DCMT 32.52-FG	TT8115	x						IC065518518	Price
DCMT 32.52-FG	TT8125	x						IC065519903	Price
DCMT 32.52-FG	TT9225		x			x		IC065520285	Price
DCMT 32.52-FG	TT9235		x			x		IC065520625	Price
DCMT 32.52-MT	TT8020	x	x			x		IC065515258	Price
DCMT 32.52-MT	TT8115	x						IC065518607	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - DCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
DCMT 32.52-MT	TT8125	x						IC065519615	Price
DCMT 32.52-MT	TT9225		x			x		IC065520557	Price
DCMT 32.52-MT	TT9235		x			x		IC065520626	Price
Style - DCMT 32.53 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .047									
DCMT 32.53-MT	TT5100	x	x			x		IC065515264	Price
Style - DNGG 430 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .004									
DNGG 430-ML	K10	x		x	x	x		IC065522692	Price
DNGG 430-ML	TT5080		x			x		IC065523190	Price
Style - DNGG 430.5 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .008									
DNGG 430.5-ML	TT5080		x			x		IC065523191	Price
Style - DNGG 4305 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .008									
DNGG 430.5-ML	K10	x		x	x	x		IC065522693	Price
Item No.	**Grade**	**ST**	**SS**	**CI**	**N**	**S**	**H**	**Order No.**	**Price**
DNGG 431-ML	K10	x		x	x	x		IC065518013	Price
DNGG 431-ML	TT5080		x			x		IC065523124	Price
Style - DNGG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
DNGG 432-ML	K10	x		x	x	x		IC065518014	Price
DNGG 432-ML	TT5080		x			x		IC065523114	Price
Style - DNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
DNMA 432	TT7005	x		x				IC065523796	Price
DNMA 432	TT7015	x		x				IC065523682	Price
Style - DNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
DNMA 433	TT7015	x		x				IC065523635	Price
Style - DNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
DNMG 331-FG	TT5080		x			x		IC065523084	Price
DNMG 331-FG	TT5100	x	x			x		IC065514957	Price
DNMG 331-FG	TT8115	x						IC065518613	Price
DNMG 331-FG	TT8125	x						IC065520142	Price
Style - DNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
DNMG 332-FC	TT8115	x						IC065521037	Price
DNMG 332-FC	TT8125	x						IC065521038	Price
DNMG 332-FC	TT9225		x			x		IC065521039	Price
DNMG 332-FG	TT5080		x			x		IC065523077	Price
DNMG 332-FG	TT5100	x	x			x		IC065514958	Price
DNMG 332-FG	TT8115	x						IC065518457	Price
DNMG 332-FG	TT8125	x						IC065520175	Price
DNMG 332-MT	TT5080		x			x		IC065523128	Price
DNMG 332-MT	TT5100	x	x			x		IC065514959	Price
DNMG 332-MT	TT7005	x		x				IC065523799	Price
DNMG 332-MT	TT7015	x		x				IC065523585	Price
DNMG 332-MT	TT8115	x						IC065518627	Price
DNMG 332-MT	TT8125	x						IC065519904	Price
DNMG 332-PC	TT8125	x						IC065519540	Price
Style - DNMG 35.35.1 IC (in.) - .438 Thickness (in.) - .219 Radius (in.) - .016									
DNMG3.53.51-WA	TT8115	x						IC066140009	Price
Style - DNMG 35.35.2 IC (in.) - .438 Thickness (in.) - .219 Radius (in.) - .031									
DNMG3.53.52-WA	TT8115	x						IC066140010	Price
Style - DNMG 35.35.3 IC (in.) - .438 Thickness (in.) - .219 Radius (in.) - .047									
DNMG3.53.53-WA	TT8115	x						IC066161214	Price

Style - DNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 431	TT8125	x						IC065520197	Price
DNMG 431-FC	TT5100	x	x			x		IC065518995	Price
DNMG 431-FC	TT8115	x						IC065518993	Price
DNMG 431-FC	TT8125	x						IC065520275	Price
DNMG 431-FC	TT9225		x			x		IC065520558	Price
DNMG 431-FG	TT5100	x	x			x		IC065514970	Price
DNMG 431-FG	TT8115	x						IC065518734	Price
DNMG 431-FG	TT8125	x						IC065520225	Price
DNMG 431-ML	TT5080		x			x		IC065523080	Price
DNMG 431-ML	TT5100	x	x			x		IC065515236	Price
DNMG 431-ML	TT8115	x						IC065518735	Price
DNMG 431-ML	TT8125	x						IC065520226	Price
DNMG 431-ML	TT9215		x			x		IC065521717	Price
DNMG 431-ML	TT9225		x			x		IC065521718	Price
DNMG 431-MP	TT5080		x			x		IC065523057	Price
DNMG 431-MP	TT5100	x	x			x		IC065514971	Price
DNMG 431-MP	TT8020	x	x			x		IC065516644	Price
DNMG 431-MP	TT8115	x						IC065518737	Price
DNMG 431-MP	TT9215		x			x		IC065520978	Price
DNMG 431-MP	TT9225		x			x		IC065520559	Price
DNMG 431-MT	TT5100	x	x			x		IC065514972	Price
DNMG 431-MT	TT7015	x		x				IC065523686	Price
DNMG 431-MT	TT8115	x						IC065518739	Price
DNMG 431-MT	TT8125	x						IC065520166	Price
DNMG 431-PC	TT5100	x	x			x		IC065518849	Price
DNMG 431-PC	TT8115	x						IC065518847	Price
DNMG 431-PC	TT8125	x						IC065519639	Price
DNMG 431-PC	TT9215		x			x		IC065520979	Price
DNMG 431-PC	TT9225		x			x		IC065520560	Price
DNMG 431-RVF	TT5080		x			x		IC065523155	Price
DNMG 431-RVF	TT5100	x	x			x		IC065517279	Price
DNMG 431-RVF	TT8125	x						IC065520216	Price
Style - DNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 432	TT7015	x		x				IC065523687	Price
DNMG 432	TT8125	x						IC065520205	Price
DNMG 432-FA	TT5100	x	x			x		IC065517720	Price
DNMG 432-FA	TT8115	x						IC065518660	Price
DNMG 432-FC	TT5100	x	x			x		IC065518868	Price
DNMG 432-FC	TT8115	x						IC065518866	Price
DNMG 432-FC	TT8125	x						IC065519940	Price
DNMG 432-FC	TT9215		x			x		IC065520980	Price
DNMG 432-FC	TT9225		x			x		IC065520561	Price
DNMG 432-FG	TT5100	x	x			x		IC065515026	Price
DNMG 432-FG	TT8115	x						IC065518611	Price
DNMG 432-FG	TT8125	x						IC065519905	Price
DNMG 432-LVF	TT5080		x			x		IC065523168	Price
DNMG 432-LVF	TT8115	x						IC065518657	Price
DNMG 432-MC	TT5100	x	x			x		IC065514871	Price
DNMG 432-MC	TT8115	x						IC065518621	Price
DNMG 432-MC	TT8125	x						IC065520211	Price
DNMG 432-ML	TT5080		x			x		IC065523100	Price
DNMG 432-ML	TT5100	x	x			x		IC065514864	Price
DNMG 432-ML	TT8020	x	x			x		IC065516645	Price
DNMG 432-ML	TT8115	x						IC065518736	Price
DNMG 432-ML	TT8125	x						IC065520249	Price
DNMG 432-ML	TT9215		x			x		IC065521719	Price
DNMG 432-ML	TT9225		x			x		IC065521720	Price
DNMG 432-MP	TT5080		x			x		IC065523059	Price
DNMG 432-MP	TT5100	x	x			x		IC065514973	Price
DNMG 432-MP	TT8020	x	x			x		IC065515251	Price
DNMG 432-MP	TT8115	x						IC065518738	Price
DNMG 432-MP	TT9215		x			x		IC065520983	Price
DNMG 432-MP	TT9225		x			x		IC065520984	Price
DNMG 432-MP	TT9235		x			x		IC065520985	Price

Style - DNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 432-MT	TT5080		x			x		IC065523112	Price
DNMG 432-MT	TT5100	x	x			x		IC065515029	Price
DNMG 432-MT	TT7005	x		x				IC065523803	Price
DNMG 432-MT	TT7015	x		x				IC065523586	Price
DNMG 432-MT	TT8020	x	x			x		IC065516647	Price
DNMG 432-MT	TT8115	x						IC065518612	Price
DNMG 432-MT	TT8125	x						IC065519916	Price
DNMG 432-MT	TT9215		x			x		IC065520986	Price
DNMG 432-MT	TT9225		x			x		IC065520987	Price
DNMG 432-MT	TT9235		x			x		IC065520988	Price
DNMG 432-PC	TT5100	x	x			x		IC065518853	Price
DNMG 432-PC	TT8115	x						IC065518851	Price
DNMG 432-PC	TT8125	x						IC065519641	Price
DNMG 432-PC	TT9215		x			x		IC065520981	Price
DNMG 432-PC	TT9225		x			x		IC065520562	Price
DNMG 432-PC	TT9235		x			x		IC065520982	Price
DNMG 432-RT	TT5100	x	x			x		IC065514974	Price
DNMG 432-RT	TT7005	x		x				IC065523804	Price
DNMG 432-RT	TT7015	x		x				IC065523637	Price
DNMG 432-RT	TT8115	x						IC065518742	Price
DNMG 432-RVF	TT5080		x			x		IC065523156	Price
DNMG 432-RVF	TT8115	x						IC065518658	Price
DNMG 432-RVF	TT8125	x						IC065520217	Price
Style - DNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 433-FG	TT8115	x						IC065519204	Price
DNMG 433-FG	TT8125	x						IC065519941	Price
DNMG 433-MC	TT8115	x						IC065519205	Price
DNMG 433-MT	TT5100	x	x			x		IC065514975	Price
DNMG 433-MT	TT8115	x						IC065518740	Price
DNMG 433-PC	TT5100	x	x			x		IC065518857	Price
DNMG 433-PC	TT8115	x						IC065518855	Price
DNMG 433-PC	TT8125	x						IC065519642	Price
DNMG 433-RT	TT7015	x		x				IC065523689	Price
DNMG 433-RT	TT8125	x						IC065520869	Price
DNMG 433-WT	TT8115	x						IC065518755	Price
Style - DNMG 441 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 441-MT	TT5080		x			x		IC065523056	Price
DNMG 441-MT	TT8125	x						IC065519619	Price
Style - DNMG 442 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 442-MT	TT5080		x			x		IC065523010	Price
DNMG 442-MT	TT7015	x		x				IC065523589	Price
DNMG 442-MT	TT8125	x						IC065519052	Price
Style - DNMG 443 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 443-MT	TT5080		x			x		IC065523011	Price
DNMG 443-MT	TT7015	x		x				IC065523692	Price
DNMG 443-MT	TT8125	x						IC065519922	Price
DNMG 443-RT	TT7015	x		x				IC065523620	Price
Style - SCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SCMT 32.51-FG	TT9225		x			x		IC065520570	Price
SCMT 32.51-MT	TT7015	x		x				IC065523702	Price
SCMT 32.51-MT	TT8020	x	x			x		IC065515736	Price
SCMT 32.51-MT	TT8115	x						IC065518532	Price
SCMT 32.51-MT	TT8125	x						IC065519929	Price
SCMT 32.51-MT	TT9225		x			x		IC065520571	Price
Style - SCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SCMT 32.52-FG	TT5080		x			x		IC065523036	Price
SCMT 32.52-FG	TT5100	x	x			x		IC065515104	Price
SCMT 32.52-FG	TT8125	x						IC065520156	Price
SCMT 32.52-FG	TT9225		x			x		IC065520572	Price

TOTURN Carbide Inserts

Ingersoll Cutting Tools

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - SCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
SCMT 32.52-MT	TT5080		x			x		IC065523037	Price
SCMT 32.52-MT	TT5100	x	x			x		IC065514741	Price
SCMT 32.52-MT	TT7015	x		x				IC065523621	Price
SCMT 32.52-MT	TT7100	x	x					IC065517813	Price
SCMT 32.52-MT	TT8020	x	x			x		IC065515729	Price
SCMT 32.52-MT	TT8115	x						IC065518605	Price
SCMT 32.52-MT	TT8125	x						IC065519481	Price
SCMT 32.52-MT	TT9225		x			x		IC065520573	Price
Style - SCMT 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
SCMT 431-MT	TT5100	x	x			x		IC065514808	Price
SCMT 431-MT	TT8125	x						IC065520131	Price
Style - SCMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
SCMT 432-MT	TT5080		x			x		IC065523038	Price
SCMT 432-MT	TT5100	x	x			x		IC065514929	Price
SCMT 432-MT	TT7015	x		x				IC065523639	Price
SCMT 432-MT	TT8020	x	x			x		IC065515712	Price
SCMT 432-MT	TT8115	x						IC065518599	Price
SCMT 432-MT	TT8125	x						IC065519483	Price
SCMT 432-MT	TT9225		x			x		IC065520574	Price
SCMT 432-MT	TT9235		x			x		IC065520874	Price
Style - SCMT 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
SCMT 433-MT	TT8125	x						IC065520207	Price
Style - SNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
SNMA 432	TT7005	x		x				IC065523765	Price
SNMA 432	TT7015	x		x				IC065523593	Price
Style - SNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
SNMA 433	TT7005	x		x				IC065523766	Price
SNMA 433	TT7015	x		x				IC065523594	Price
Style - SNMA 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .063									
SNMA 434	TT7015	x		x				IC065523705	Price
Style - SNMA 544 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .063									
SNMA 544	TT7015	x		x				IC065523706	Price
Style - SNMA 643 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .047									
SNMA 643	TT7005	x		x				IC065523821	Price
SNMA 643	TT7015	x		x				IC065523707	Price
Style - SNMA 644 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .063									
SNMA 644	TT7015	x		x				IC065523840	Price
Style - SNMG 322 IC (in.) - 3/8 Thickness (in.) - .125 Radius (in.) - .031									
SNMG 322-FG	TT9215		x			x		IC065520759	Price
Style - SNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
SNMG 431	TT7015	x		x				IC065523710	Price
SNMG 431	TT8115	x						IC065518544	Price
SNMG 431-MP	TT5100	x	x			x		IC065515048	Price
SNMG 431-MP	TT8125	x						IC065520248	Price
SNMG 431-MT	TT8125	x						IC065520151	Price
SNMG 431-PC	TT8125	x						IC065519542	Price
Style - SNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
SNMG 432	TT5100	x	x			x		IC065514832	Price
SNMG 432	TT7015	x		x				IC065523595	Price
SNMG 432	TT8125	x						IC065519601	Price
SNMG 432-FG	TT8115	x						IC065518456	Price
SNMG 432-FG	TT8125	x						IC065519932	Price
SNMG 432-MC	TT8125	x						IC065520121	Price
SNMG 432-ML	TT5100	x	x			x		IC065515046	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - SNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
SNMG 432-ML	TT8020	x	x			x		IC065515315	Price
SNMG 432-ML	TT8115	x						IC065518466	Price
SNMG 432-MP	TT5080		x			x		IC065523060	Price
SNMG 432-MP	TT8125	x						IC065519231	Price
SNMG 432-MP	TT9215		x			x		IC065520760	Price
SNMG 432-MP	TT9225		x			x		IC065520452	Price
SNMG 432-MP	TT9235		x			x		IC065520462	Price
SNMG 432-MT	TT5080		x			x		IC065523021	Price
SNMG 432-MT	TT5100	x	x			x		IC065514825	Price
SNMG 432-MT	TT7015	x		x				IC065523622	Price
SNMG 432-MT	TT8020	x	x			x		IC065515533	Price
SNMG 432-MT	TT8115	x						IC065518491	Price
SNMG 432-MT	TT8125	x						IC065519054	Price
SNMG 432-MT	TT9225		x			x		IC065520453	Price
SNMG 432-MT	TT9235		x			x		IC065520463	Price
SNMG 432-PC	TT8115	x						IC065518266	Price
SNMG 432-PC	TT8125	x						IC065519643	Price
SNMG 432-PC	TT9225		x			x		IC065520575	Price
SNMG 432-RT	TT7015	x		x				IC065523596	Price
SNMG 432-RT	TT8020	x	x			x		IC065515628	Price
SNMG 432-RT	TT8115	x						IC065518503	Price
Style - SNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
SNMG 433	TT7015	x		x				IC065523711	Price
SNMG 433-MP	TT5080		x			x		IC065523086	Price
SNMG 433-MP	TT9225		x			x		IC065520576	Price
SNMG 433-MT	TT5080		x			x		IC065523022	Price
SNMG 433-MT	TT5100	x	x			x		IC065515051	Price
SNMG 433-MT	TT7005	x		x				IC065523825	Price
SNMG 433-MT	TT8020	x	x			x		IC065515530	Price
SNMG 433-MT	TT8115	x						IC065518211	Price
SNMG 433-MT	TT8125	x						IC065519623	Price
SNMG 433-MT	TT9215		x			x		IC065521990	Price
SNMG 433-MT	TT9225		x			x		IC065520577	Price
SNMG 433-PC	TT8125	x						IC065519517	Price
SNMG 433-PC	TT9225		x			x		IC065520578	Price
SNMG 433-RT	TT7015	x		x				IC065523540	Price
SNMG 433-RT	TT8115	x						IC065518692	Price
SNMG 433-RT	TT9215		x			x		IC065521991	Price
SNMG 433-RT	TT9235		x			x		IC065520355	Price
Style - SNMG 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .063									
SNMG 434	TT8125	x						IC065520134	Price
SNMG 434-RT	TT8125	x						IC065521359	Price
Style - SNMG 542 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .031									
SNMG 542	TT8125	x						IC065520164	Price
SNMG 542-MP	TT8115	x						IC065518726	Price
Style - SNMG 543 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .047									
SNMG 543	TT8125	x						IC065520204	Price
SNMG 543-RT	TT8020	x	x			x		IC065516941	Price
SNMG 543-RT	TT8125	x						IC065521539	Price
Style - SNMG 544 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .063									
SNMG 544	TT5100	x	x			x		IC065516175	Price
Style - SNMG 641 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .016									
SNMG 641	TT8125	x						IC065520253	Price
Style - SNMG 642 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .031									
SNMG 642	TT7015	x		x				IC065523712	Price
SNMG 642-MT	TT8125	x						IC065520148	Price
SNMG 642-MT	TT9225		x			x		IC065520579	Price
SNMG 642-MT	TT9235		x			x		IC065520633	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - SNMG 643 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .047									
SNMG 643	TT7015	x		x				IC065523844	Price
SNMG 643	TT8115	x						IC065518548	Price
SNMG 643	TT8125	x						IC065519935	Price
SNMG 643-MT	TT5100	x	x			x		IC065515861	Price
SNMG 643-MT	TT8020	x	x			x		IC065515862	Price
SNMG 643-MT	TT8125	x						IC065520111	Price
SNMG 643-MT	TT9225		x			x		IC065520580	Price
SNMG 643-MT	TT9235		x			x		IC065520634	Price
SNMG 643-RT	TT5080		x			x		IC065523087	Price
SNMG 643-RT	TT5100	x	x			x		IC065515209	Price
SNMG 643-RT	TT8115	x						IC065518504	Price
SNMG 643-RT	TT8125	x						IC065520179	Price
SNMG 643-RT	TT9215		x			x		IC065522010	Price
SNMG 643-RT	TT9225		x			x		IC065520581	Price
SNMG 643-RT	TT9235		x			x		IC065520635	Price
Style - SNMG 644 IC (in.) - 3/4 Thickness (in.) - .250 Radius (in.) - .063									
SNMG 644-RT	TT5080		x			x		IC065523076	Price
SNMG 644-RT	TT8115	x						IC065518634	Price
SNMG 644-RT	TT9225		x			x		IC065520582	Price
SNMG 644-RT	TT9235		x			x		IC065520636	Price
Style - TCET 220 IC (in.) - 1/4 Thickness (in.) - .187 Radius (in.) - .004									
TCET 220-RGF	TT9020	x	x			x		IC065517350	Price
Style - TCET 220.5 IC (in.) - 1/4 Thickness (in.) - .187 Radius (in.) - .008									
TCET 220.5-RGF	TT9020	x	x			x		IC065517622	Price
Style - TCET 221 IC (in.) - 1/4 Thickness (in.) - .187 Radius (in.) - .016									
TCET 221-RGF	TT9020	x	x			x		IC065517985	Price
Style - TCMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .01									
TCMT 21.51-FG	TT5100	x	x			x		IC065515109	Price
TCMT 21.51-FG	TT8020	x	x			x		IC065515737	Price
TCMT 21.51-FG	TT8125	x						IC065519946	Price
TCMT 21.51-FG	TT9225		x			x		IC065520586	Price
TCMT 21.51-FG	TT9235		x			x		IC065520641	Price
TCMT 21.51-MT	TT5100	x	x			x		IC065514809	Price
TCMT 21.51-MT	TT8115	x						IC065518528	Price
TCMT 21.51-MT	TT8125	x						IC065519627	Price
TCMT 21.51-MT	TT9225		x			x		IC065520587	Price
TCMT 21.51-MT	TT9235		x			x		IC065520642	Price
Style - TCMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
TCMT 21.52-FG	TT8125	x						IC065520113	Price
TCMT 21.52-FG	TT9225		x			x		IC065520588	Price
TCMT 21.52-FG	TT9235		x			x		IC065520643	Price
TCMT 21.52-MT	TT5100	x	x			x		IC065515115	Price
TCMT 21.52-MT	TT8125	x						IC065519947	Price
TCMT 21.52-MT	TT9225		x			x		IC065520589	Price
TCMT 21.52-MT	TT9235		x			x		IC065520644	Price
Style - TCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
TCMT 32.51-FG	TT5100	x	x			x		IC065515111	Price
TCMT 32.51-FG	TT8125	x						IC065519948	Price
TCMT 32.51-MT	TT7005	x		x				IC065523835	Price
TCMT 32.51-MT	TT8115	x						IC065518530	Price
TCMT 32.51-MT	TT8125	x						IC065519602	Price
TCMT 32.51-MT	TT9225		x			x		IC065520590	Price
TCMT 32.51-MT	TT9235		x			x		IC065520645	Price
Style - TCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
TCMT 32.52-FG	TT5100	x	x			x		IC065515112	Price
TCMT 32.52-FG	TT8115	x						IC065518703	Price
TCMT 32.52-FG	TT8125	x						IC065520136	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - TCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
TCMT 32.52-FG	TT9225		x			x		IC065520591	Price
TCMT 32.52-FG	TT9235		x			x		IC065520646	Price
TCMT 32.52-MT	TT5100	x	x			x		IC065514810	Price
TCMT 32.52-MT	TT7005	x		x				IC065523685	Price
TCMT 32.52-MT	TT8020	x	x			x		IC065515719	Price
TCMT 32.52-MT	TT8115	x						IC065518531	Price
TCMT 32.52-MT	TT8125	x						IC065519611	Price
TCMT 32.52-MT	TT9225		x			x		IC065520592	Price
TCMT 32.52-MT	TT9235		x			x		IC065520647	Price
Style - TCMT 32.53 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .047									
TCMT 32.53-MT	TT8125	x						IC065520124	Price
Style - TCMT 731 IC (in.) - .219 Thickness (in.) - .094 Radius (in.) - .016									
TCMT 731-MT	TT7015	x		x				IC065523714	Price
TCMT 731-MT	TT8125	x						IC065519945	Price
TCMT 731-MT	TT9225		x			x		IC065520585	Price
Style - TCMT 732 IC (in.) - .219 Thickness (in.) - .094 Radius (in.) - .031									
TCMT 732-MT	TT7015	x		x				IC065523715	Price
Style - TNGG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
TNGG 331-L	TT8125	x						IC065520231	Price
TNGG 331-R	TT8125	x						IC065520180	Price
Style - TNGG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
TNGG 332-L	TT8125	x						IC065520272	Price
TNGG 332-R	TT8125	x						IC065520152	Price
Style - TNGG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
TNGG 431-R	TT8125	x						IC065520245	Price
Style - TNMA 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
TNMA 331	TT7015	x		x				IC065523719	Price
Style - TNMA 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
TNMA 332	TT7015	x		x				IC065523598	Price
Style - TNMA 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
TNMA 333	TT7005	x		x				IC065523841	Price
Style - TNMA 334 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .063									
TNMA 334	TT7015	x		x				IC065523720	Price
Style - TNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
TNMA 432	TT7005	x		x				IC065523843	Price
TNMA 432	TT7015	x		x				IC065523721	Price
TNMA 432	TT8115	x						IC065518561	Price
Style - TNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
TNMA 433	TT7005	x		x				IC065523756	Price
TNMA 433	TT7015	x		x				IC065523722	Price
Style - TNMG 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
TNMG 221	TT8125	x						IC065520188	Price
TNMG 221-FG	TT5100	x	x			x		IC065514956	Price
Style - TNMG 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
TNMG 222	TT8115	x						IC065518749	Price
TNMG 222-MT	TT5100	x	x			x		IC065515414	Price
TNMG 222-MT	TT8125	x						IC065520242	Price
Style - TNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
TNMG 331	TT7015	x		x				IC065523600	Price
TNMG 331	TT8020	x	x			x		IC065515720	Price
TNMG 331	TT8125	x						IC065519949	Price

Style - TNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 331-FC	TT5100	x	x			x		IC065518259	Price
TNMG 331-FC	TT8115	x						IC065518874	Price
TNMG 331-FC	TT8125	x						IC065520277	Price
TNMG 331-FC	TT9225		x			x		IC065520593	Price
TNMG 331-FC	TT9235		x			x		IC065520648	Price
TNMG 331-FG	TT8125	x						IC065520127	Price
TNMG 331-ML	TT5080		x			x		IC065523061	Price
TNMG 331-ML	TT8125	x						IC065519951	Price
TNMG 331-MP	TT5080		x			x		IC065523020	Price
TNMG 331-MP	TT8125	x						IC065520135	Price
TNMG 331-MP	TT9215		x			x		IC065520488	Price
TNMG 331-MP	TT9225		x			x		IC065520594	Price
TNMG 331-MP	TT9235		x			x		IC065520649	Price
TNMG 331-MT	TT5080		x			x		IC065523062	Price
TNMG 331-MT	TT7015	x		x				IC065523723	Price
TNMG 331-MT	TT8125	x						IC065519952	Price
TNMG 331-PC	TT8125	x						IC065519528	Price
TNMG 331-PC	TT9225		x			x		IC065520595	Price
TNMG 331-RVF	TT5100	x	x			x		IC065517312	Price
TNMG 331-RVF	TT8115	x						IC065518644	Price
TNMG 331-RVF	TT8125	x						IC065519953	Price
Style - TNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 332	TT7015	x		x				IC065523559	Price
TNMG 332	TT8115	x						IC065518551	Price
TNMG 332	TT8125	x						IC065519954	Price
TNMG 332-FC	TT5100	x	x			x		IC065518877	Price
TNMG 332-FC	TT8115	x						IC065518876	Price
TNMG 332-FC	TT8125	x						IC065520122	Price
TNMG 332-FC	TT9215		x			x		IC065520489	Price
TNMG 332-FC	TT9225		x			x		IC065520596	Price
TNMG 332-FC	TT9235		x			x		IC065520650	Price
TNMG 332-FG	TT5100	x	x			x		IC065515071	Price
TNMG 332-FG	TT8115	x						IC065518454	Price
TNMG 332-FG	TT8125	x						IC065520181	Price
TNMG 332-LFS	TT8125	x						IC065519955	Price
TNMG 332-LVF	TT8125	x						IC065520213	Price
TNMG 332-MC	TT8115	x						IC065518619	Price
TNMG 332-MC	TT8125	x						IC065519055	Price
TNMG 332-ML	TT5080		x			x		IC065523064	Price
TNMG 332-ML	TT5100	x	x			x		IC065514817	Price
TNMG 332-ML	TT8115	x						IC065518464	Price
TNMG 332-ML	TT8125	x						IC065519956	Price
TNMG 332-MP	TT5080		x			x		IC065523014	Price
TNMG 332-MP	TT5100	x	x			x		IC065514757	Price
TNMG 332-MP	TT8125	x						IC065519957	Price
TNMG 332-MP	TT9225		x			x		IC065520597	Price
TNMG 332-MP	TT9235		x			x		IC065520651	Price
TNMG 332-MT	TT5080		x			x		IC065523015	Price
TNMG 332-MT	TT5100	x	x			x		IC065514746	Price
TNMG 332-MT	TT7005	x		x				IC065523768	Price
TNMG 332-MT	TT7015	x		x				IC065523601	Price
TNMG 332-MT	TT7100	x	x					IC065516942	Price
TNMG 332-MT	TT8115	x						IC065518487	Price
TNMG 332-MT	TT8125	x						IC065519605	Price
TNMG 332-MT	TT9225		x			x		IC065520598	Price
TNMG 332-MT	TT9235		x			x		IC065520652	Price
TNMG 332-PC	TT5100	x	x			x		IC065518860	Price
TNMG 332-PC	TT8115	x						IC065518859	Price
TNMG 332-PC	TT8125	x						IC065519056	Price
TNMG 332-PC	TT9215		x			x		IC065520490	Price
TNMG 332-PC	TT9225		x			x		IC065520386	Price
TNMG 332-PC	TT9235		x			x		IC065520387	Price
TNMG 332-RT	TT7015	x		x				IC065523603	Price
TNMG 332-RVF	TT8115	x						IC065518648	Price

Style - TNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 332-RVF	TT8125	x						IC065519959	Price
TNMG 332-SF	TT5080		x			x		IC065523063	Price
Style - TNMG 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 333-FC	TT5100	x	x			x		IC065518298	Price
TNMG 333-FC	TT8115	x						IC065518296	Price
TNMG 333-FC	TT9215		x			x		IC065520491	Price
TNMG 333-FC	TT9225		x			x		IC065520508	Price
TNMG 333-FC	TT9235		x			x		IC065520653	Price
TNMG 333-ML	TT8115	x						IC065518676	Price
TNMG 333-MP	TT5080		x			x		IC065523065	Price
TNMG 333-MP	TT9225		x			x		IC065520509	Price
TNMG 333-MP	TT9235		x			x		IC065520654	Price
TNMG 333-MT	TT5100	x	x			x		IC065515697	Price
TNMG 333-MT	TT7005	x		x				IC065523850	Price
TNMG 333-MT	TT8125	x						IC065520115	Price
TNMG 333-MT	TT9225		x			x		IC065520451	Price
TNMG 333-MT	TT9235		x			x		IC065520655	Price
TNMG 333-PC	TT5100	x	x			x		IC065518861	Price
TNMG 333-PC	TT8115	x						IC065518265	Price
TNMG 333-PC	TT8125	x						IC065519057	Price
TNMG 333-PC	TT9225		x			x		IC065520510	Price
TNMG 333-PC	TT9235		x			x		IC065520656	Price
TNMG 333-RT	TT7015	x		x				IC065523724	Price
TNMG 333-RT	TT8125	x						IC065520103	Price
Style - TNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 431	TT8115	x						IC065518552	Price
TNMG 431	TT8125	x						IC065520154	Price
TNMG 431-ML	TT5100	x	x			x		IC065515073	Price
TNMG 431-ML	TT8115	x						IC065518465	Price
TNMG 431-ML	TT8125	x						IC065520240	Price
TNMG 431-MP	TT5080		x			x		IC065523089	Price
TNMG 431-MP	TT8125	x						IC065520189	Price
TNMG 431-MP	TT9225		x			x		IC065520511	Price
TNMG 431-MT	TT8115	x						IC065518641	Price
TNMG 431-MT	TT8125	x						IC065520118	Price
TNMG 431-RFS	TT8125	x						IC065520262	Price
Style - TNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 432	TT5100	x	x			x		IC065514836	Price
TNMG 432	TT7100	x	x					IC065517820	Price
TNMG 432	TT8115	x						IC065518553	Price
TNMG 432	TT8125	x						IC065519960	Price
TNMG 432-FG	TT8115	x						IC065518672	Price
TNMG 432-ML	TT5100	x	x			x		IC065515074	Price
TNMG 432-ML	TT8020	x	x			x		IC065517391	Price
TNMG 432-ML	TT8115	x						IC065518677	Price
TNMG 432-MP	TT5080		x			x		IC065523090	Price
TNMG 432-MP	TT5100	x	x			x		IC065515077	Price
TNMG 432-MP	TT8020	x	x			x		IC065516432	Price
TNMG 432-MP	TT8115	x						IC065518477	Price
TNMG 432-MP	TT8125	x						IC065520126	Price
TNMG 432-MP	TT9225		x			x		IC065520512	Price
TNMG 432-MT	TT5100	x	x			x		IC065515078	Price
TNMG 432-MT	TT7005	x		x				IC065523855	Price
TNMG 432-MT	TT8115	x						IC065518489	Price
TNMG 432-MT	TT8125	x						IC065519632	Price
TNMG 432-PC	TT8115	x						IC065519529	Price
TNMG 432-PC	TT8125	x						IC065519530	Price
TNMG 432-RT	TT5100	x	x			x		IC065515082	Price
TNMG 432-RT	TT7015	x		x				IC065523725	Price
TNMG 432-RT	TT8115	x						IC065518691	Price
TNMG 432-RT	TT8125	x						IC065519961	Price

Style - TNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 433	TT8115	x						IC065518554	Price
TNMG 433	TT8125	x						IC065520230	Price
TNMG 433-MT	TT5100	x	x			x		IC065517634	Price
TNMG 433-MT	TT8115	x						IC065518490	Price
TNMG 433-MT	TT8125	x						IC065520190	Price
TNMG 433-PC	TT8115	x						IC065519510	Price
TNMG 433-PC	TT8125	x						IC065519511	Price
TNMG 433-RT	TT7015	x		x				IC065523605	Price
TNMG 433-RT	TT8125	x						IC065520236	Price
Style - TNMG 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .063									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 434	TT7015	x		x				IC065523606	Price
TNMG 434	TT8115	x						IC065518709	Price
TNMG 434	TT8125	x						IC065520247	Price
Style - TNMG 542 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 542	TT8125	x						IC065520853	Price
Style - TNMG 543 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 543	TT8115	x						IC065518443	Price
TNMG 543	TT8125	x						IC065519962	Price
TNMG 543-MT	TT5080		x			x		IC065523962	Price
TNMG 543-MT	TT5100	x	x			x		IC065515203	Price
Style - TNMG 544 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .063									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 544	TT8125	x						IC065520105	Price
Style - TNMG 654 IC (in.) - 3/4 Thickness (in.) - .313 Radius (in.) - .063									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 654	TT8125	x						IC065520214	Price
Style - TNMG 666 IC (in.) - 3/4 Thickness (in.) - .375 Radius (in.) - .094									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 666-RT	TT8125	x						IC065520265	Price
Style - TPMR 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 221	TT5100	x	x			x		IC065514758	Price
TPMR 221	TT8115	x						IC065518589	Price
TPMR 221	TT8125	x						IC065519965	Price
Style - TPMR 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 222	TT8115	x						IC065518590	Price
Style - TPMR 321 IC (in.) - 3/8 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 321	TT5080		x			x		IC065523091	Price
TPMR 321	TT5100	x	x			x		IC065514815	Price
TPMR 321	TT7015	x		x				IC065523729	Price
TPMR 321	TT7100	x	x					IC065517815	Price
TPMR 321	TT8020	x	x			x		IC065515710	Price
TPMR 321	TT8115	x						IC065518591	Price
TPMR 321	TT8125	x						IC065519620	Price
Style - TPMR 322 IC (in.) - 3/8 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 322	TT5080		x			x		IC065523092	Price
TPMR 322	TT5100	x	x			x		IC065514759	Price
TPMR 322	TT7015	x		x				IC065523852	Price
TPMR 322	TT8020	x	x			x		IC065515705	Price
TPMR 322	TT8115	x						IC065518592	Price
TPMR 322	TT8125	x						IC065519629	Price
Style - TPMR 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 431	TT5100	x	x			x		IC065515118	Price
TPMR 431	TT8125	x						IC065520210	Price
Style - TPMR 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 432	TT5080		x			x		IC065523945	Price
TPMR 432	TT5100	x	x			x		IC065515119	Price
TPMR 432	TT8125	x						IC065520171	Price

Style - TPMR 732 IC (in.) - .219 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMR 732	TT7015	x		x				IC065523726	Price
Style - TPMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 21.51-PC	TT5080		x			x		IC065523149	Price
TPMT 21.51-PC	TT5100	x	x			x		IC065518324	Price
Style - TPMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 21.52-PC	TT5080		x			x		IC065523150	Price
TPMT 21.52-PC	TT5100	x	x			x		IC065518326	Price
Style - TPMT 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 221-FG	TT8020	x	x			x		IC065515727	Price
TPMT 221-FG	TT8125	x						IC065520110	Price
Style - TPMT 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 222-PC	TT5100	x	x			x		IC065519699	Price
Style - TPMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 32.51-PC	TT5080		x			x		IC065523152	Price
TPMT 32.51-PC	TT5080		x			x		IC065523151	Price
TPMT 32.51-PC	TT5100	x	x			x		IC065518328	Price
Style - TPMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 32.52-PC	TT5100	x	x			x		IC065518330	Price
Style - TPU 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPU 221	TT8125	x						IC065521233	Price
Style - TPU 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPU 222	TT8125	x						IC065521004	Price
Style - TPU 321 IC (in.) - 3/8 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPU 321	TT8115	x						IC065518714	Price
TPU 321	TT8125	x						IC065520153	Price
Style - TPU 322 IC (in.) - 3/8 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPU 322	TT8115	x						IC065518566	Price
TPU 322	TT8125	x						IC065520112	Price
Style - TPU 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPU 431	TT8115	x						IC065518567	Price
Style - TPU 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPU 432	TT8125	x						IC065520719	Price
Style - TPUN 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPUN 433	TT8125	x						IC065522115	Price
Style - VBET 220 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .004									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBET 220R-GF	TT9020	x	x			x		IC065517671	Price
Style - VBET 2205 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBET 220.5R-GF	TT9020	x	x			x		IC065517358	Price
Style - VBET 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBET 221-RGF	TT9020	x	x			x		IC065517361	Price
Style - VBET 22X0 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .001									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBET 22X0R-GW	TT9020	x	x			x		IC065517504	Price
Style - VBGT 220.5 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBGT 220.5-SA	TT5080		x			x		IC065523217	Price
VBGT 220.5-SA	TT9020	x	x			x		IC065521938	Price
Style - VBGT 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBGT 221-SA	TT5080		x			x		IC065523218	Price
VBGT 221-SA	TT9020	x	x			x		IC065520890	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - VBGT 330.5 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .008									
VBGT 330.5-SA	TT5080		x			x		IC065580384	Price
VBGT 330.5-SA	TT9020	x	x			x		IC065580383	Price
Style - VBGT 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
VBGT 331-SA	TT5080		x			x		IC066120568	Price
VBGT 331-SA	TT9020	x	x			x		IC066138031	Price
Style - VBGT220 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .004									
VBGT 220-SA	TT9020	x	x			x		IC065522934	Price
Style - VBMT 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
VBMT 331-FG	TT5080		x			x		IC065523045	Price
VBMT 331-FG	TT5100	x	x			x		IC065516706	Price
VBMT 331-FG	TT8115	x						IC065519547	Price
VBMT 331-FG	TT8125	x						IC065519967	Price
VBMT 331-MT	TT5080		x			x		IC065523046	Price
VBMT 331-MT	TT5100	x	x			x		IC065514811	Price
VBMT 331-MT	TT7015	x		x				IC065523731	Price
VBMT 331-MT	TT8115	x						IC065518600	Price
VBMT 331-MT	TT8125	x						IC065519610	Price
VBMT 331-MT	TT9225		x			x		IC065520514	Price
Style - VBMT 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
VBMT 332-FA	TT5080		x			x		IC065523136	Price
VBMT 332-FA	TT8115	x						IC065518776	Price
VBMT 332-FA	TT8125	x						IC065520800	Price
VBMT 332-FG	TT5080		x			x		IC065523093	Price
VBMT 332-FG	TT5100	x	x			x		IC065515238	Price
VBMT 332-FG	TT8115	x						IC065518642	Price
VBMT 332-FG	TT8125	x						IC065519968	Price
VBMT 332-FG	TT9225		x			x		IC065520515	Price
VBMT 332-MT	TT5080		x			x		IC065523047	Price
VBMT 332-MT	TT5100	x	x			x		IC065514812	Price
VBMT 332-MT	TT7015	x		x				IC065523640	Price
VBMT 332-MT	TT8020	x	x			x		IC065515723	Price
VBMT 332-MT	TT8115	x						IC065518598	Price
VBMT 332-MT	TT8125	x						IC065519616	Price
VBMT 332-MT	TT9225		x			x		IC065520516	Price
Style - VBMT 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
VBMT 333-MT	TT5080		x			x		IC065523172	Price
VBMT 333-MT	TT8115	x						IC065518601	Price
VBMT 333-MT	TT8125	x						IC065519969	Price
Style - VNGG 330 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .004									
VNGG 330-ML	K10	x		x	x	x		IC065519356	Price
VNGG 330-ML	TT5080		x			x		IC065523133	Price
Style - VNGG 330.5 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .008									
VNGG 330.5-ML	K10	x		x	x	x		IC065519357	Price
VNGG 330.5-ML	TT5080		x			x		IC065523134	Price
Style - VNGG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
VNGG 331-ML	K10	x		x	x	x		IC065518015	Price
VNGG 331-ML	TT5080		x			x		IC065523135	Price
Style - VNGG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
VNGG 332-ML	K10	x		x	x	x		IC065580255	Price
VNGG 332-ML	TT5080		x			x		IC065523161	Price
Style - VNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
VNMG 331	TT7015	x		x				IC065523733	Price
VNMG 331	TT8125	x						IC065520160	Price
VNMG 331-FC	TT5100	x	x			x		IC065520026	Price
VNMG 331-FC	TT8115	x						IC065521034	Price
VNMG 331-FC	TT8125	x						IC065521035	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - VNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
VNMG 331-FC	TT9225		x			x		IC065521036	Price
VNMG 331-FG	TT5080		x			x		IC065523118	Price
VNMG 331-FG	TT5100	x	x			x		IC065517039	Price
VNMG 331-FG	TT8115	x						IC065519507	Price
VNMG 331-FG	TT8125	x						IC065520140	Price
VNMG 331-FG	TT9225		x			x		IC065520517	Price
VNMG 331-MT	TT5080		x			x		IC065523012	Price
VNMG 331-MT	TT5100	x	x			x		IC065515088	Price
VNMG 331-MT	TT8115	x						IC065518608	Price
VNMG 331-MT	TT8125	x						IC065519970	Price
VNMG 331-MT	TT9225		x			x		IC065520518	Price
VNMG 331-PC	TT8115	x						IC065519531	Price
VNMG 331-PC	TT8125	x						IC065519532	Price
VNMG 331-PC	TT9225		x			x		IC065521040	Price
Style - VNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
VNMG 332	TT5100	x	x			x		IC065514838	Price
VNMG 332	TT7015	x		x				IC065523607	Price
VNMG 332	TT8115	x						IC065518556	Price
VNMG 332	TT8125	x						IC065519229	Price
VNMG 332-FA	TT5080		x			x		IC065523144	Price
VNMG 332-FA	TT8115	x						IC065518662	Price
VNMG 332-FC	TT5100	x	x			x		IC065518258	Price
VNMG 332-FC	TT8115	x						IC065518267	Price
VNMG 332-FC	TT8125	x						IC065519668	Price
VNMG 332-FC	TT9215		x			x		IC065520492	Price
VNMG 332-FC	TT9225		x			x		IC065520519	Price
VNMG 332-FC	TT9235		x			x		IC065520657	Price
VNMG 332-FG	TT5080		x			x		IC065523094	Price
VNMG 332-FG	TT5100	x	x			x		IC065515085	Price
VNMG 332-FG	TT8115	x						IC065518459	Price
VNMG 332-FG	TT8125	x						IC065519228	Price
VNMG 332-MT	TT5080		x			x		IC065523013	Price
VNMG 332-MT	TT5100	x	x			x		IC065515281	Price
VNMG 332-MT	TT7015	x		x				IC065523636	Price
VNMG 332-MT	TT8020	x	x			x		IC065516648	Price
VNMG 332-MT	TT8115	x						IC065518635	Price
VNMG 332-MT	TT8125	x						IC065519058	Price
VNMG 332-MT	TT9215		x			x		IC065520493	Price
VNMG 332-MT	TT9225		x			x		IC065520520	Price
VNMG 332-MT	TT9235		x			x		IC065520658	Price
VNMG 332-PC	TT8125	x						IC065519534	Price
VNMG 332-PC	TT9225		x			x		IC065520901	Price
Style - VNMG 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
VNMG 333	TT7015	x		x				IC065523734	Price
VNMG 333	TT8125	x						IC065520268	Price
Style - WNMA 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
WNMA 332	TT7005	x		x				IC065523735	Price
WNMA 332	TT7015	x		x				IC065523856	Price
Style - WNMA 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
WNMA 333	TT7005	x		x				IC065523875	Price
Style - WNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
WNMA 432	TT7005	x		x				IC065523552	Price
WNMA 432	TT7015	x		x				IC065523608	Price
Style - WNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
WNMA 433	TT7005	x		x				IC065523551	Price
WNMA 433	TT7015	x		x				IC065523541	Price
Style - WNMG 331 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .063									
WNMA 434	TT7015	x		x				IC065523737	Price
WNMG 331-FG	TT5080		x			x		IC065523095	Price
WNMG 331-FG	TT5100	x	x			x		IC065514954	Price
WNMG 331-FG	TT8115	x						IC065518597	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - WNMG 331 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .063									
WNMG 331-FG	TT8125	x						IC065520185	Price
WNMG 331-MC	TT8115	x						IC065518758	Price
WNMG 331-MT	TT5080		x			x		IC065523067	Price
WNMG 331-MT	TT8115	x						IC065518483	Price
WNMG 331-MT	TT8125	x						IC065520159	Price
WNMG 331-MT	TT9225		x			x		IC065520521	Price
Style - WNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
WNMG 332-FG	TT5100	x	x			x		IC065514955	Price
WNMG 332-FG	TT8115	x						IC065518450	Price
WNMG 332-MP	TT5080		x			x		IC065523068	Price
WNMG 332-MP	TT5100	x	x			x		IC065514821	Price
WNMG 332-MP	TT8125	x						IC065520199	Price
WNMG 332-MP	TT9225		x			x		IC065520522	Price
WNMG 332-MT	TT8020	x	x			x		IC065516545	Price
WNMG 332-MT	TT8115	x						IC065518484	Price
WNMG 332-MT	TT8125	x						IC065519971	Price
WNMG 332-MT	TT9225		x			x		IC065520523	Price
WNMG 332-PC	TT8115	x						IC065520349	Price
WNMG 332-PC	TT8125	x						IC065519467	Price
WNMG 332-WT	TT5100	x	x			x		IC065514953	Price
WNMG 332-WT	TT8115	x						IC065518625	Price
WNMG 332-WT	TT8125	x						IC065520172	Price
Style - WNMG 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
WNMG 333-MT	TT8115	x						IC065518752	Price
WNMG 333-PC	TT8115	x						IC065520350	Price
WNMG 333-PC	TT8125	x						IC065519468	Price
WNMG 333-WT	TT7015	x		x				IC065523739	Price
WNMG 333-WT	TT8115	x						IC065518929	Price
Style - WNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
WNMG 431-FC	TT8115	x						IC065521348	Price
WNMG 431-FC	TT8125	x						IC065521349	Price
WNMG 431-FC	TT9225		x			x		IC065521350	Price
WNMG 431-FG	TT5080		x			x		IC065523111	Price
WNMG 431-FG	TT5100	x	x			x		IC065515090	Price
WNMG 431-FG	TT8020	x	x			x		IC065516512	Price
WNMG 431-FG	TT8115	x						IC065518451	Price
WNMG 431-FG	TT8125	x						IC065520209	Price
WNMG 431-MP	TT8125	x						IC065520198	Price
WNMG 431-MT	TT5080		x			x		IC065523079	Price
WNMG 431-MT	TT5100	x	x			x		IC065515089	Price
WNMG 431-MT	TT7015	x		x				IC065523623	Price
WNMG 431-MT	TT8115	x						IC065518485	Price
WNMG 431-MT	TT8125	x						IC065519972	Price
WNMG 431-MT	TT9225		x			x		IC065520524	Price
Style - WNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
WNMG 432-ET	TT5080		x			x		IC065523153	Price
WNMG 432-ET	TT9215		x			x		IC065520441	Price
WNMG 432-ET	TT9225		x			x		IC065519908	Price
WNMG 432-ET	TT9235		x			x		IC065520660	Price
WNMG 432-FC	TT8115	x						IC065518953	Price
WNMG 432-FC	TT8125	x						IC065520274	Price
WNMG 432-FC	TT9215		x			x		IC065520438	Price
WNMG 432-FC	TT9225		x			x		IC065520669	Price
WNMG 432-FC	TT9235		x			x		IC065520659	Price
WNMG 432-FG	TT5100	x	x			x		IC065515091	Price
WNMG 432-FG	TT8115	x						IC065518452	Price
WNMG 432-FG	TT8125	x						IC065520250	Price
WNMG 432-MC	TT5100	x	x			x		IC065514896	Price
WNMG 432-MC	TT8115	x						IC065518622	Price
WNMG 432-MC	TT8125	x						IC065519973	Price
WNMG 432-ML	TT5080		x			x		IC065523070	Price
WNMG 432-ML	TT5100	x	x			x		IC065514748	Price
WNMG 432-ML	TT8020	x	x			x		IC065515253	Price
WNMG 432-ML	TT8115	x						IC065518462	Price
WNMG 432-ML	TT8125	x						IC065520169	Price
WNMG 432-ML	TT9215		x			x		IC065521721	Price
WNMG 432-ML	TT9225		x			x		IC065521722	Price
WNMG 432-MP	TT5080		x			x		IC065523071	Price
WNMG 432-MP	TT5100	x	x			x		IC065514760	Price

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
Style - WNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
WNMG 432-MP	TT8020	x	x			x		IC065515620	Price
WNMG 432-MP	TT8115	x						IC065518473	Price
WNMG 432-MP	TT8125	x						IC065519974	Price
WNMG 432-MP	TT9215		x			x		IC065520439	Price
WNMG 432-MP	TT9225		x			x		IC065520526	Price
WNMG 432-MP	TT9235		x			x		IC065520661	Price
WNMG 432-MT	TT5080		x			x		IC065523072	Price
WNMG 432-MT	TT5100	x	x			x		IC065514747	Price
WNMG 432-MT	TT7015	x		x				IC065523610	Price
WNMG 432-MT	TT7100	x	x					IC065517819	Price
WNMG 432-MT	TT8020	x	x			x		IC065515254	Price
WNMG 432-MT	TT8115	x						IC065518203	Price
WNMG 432-MT	TT8125	x						IC065519060	Price
WNMG 432-MT	TT9215		x			x		IC065520494	Price
WNMG 432-MT	TT9225		x			x		IC065519907	Price
WNMG 432-MT	TT9235		x			x		IC065520662	Price
WNMG 432-PC	TT5100	x	x			x		IC065518198	Price
WNMG 432-PC	TT8115	x						IC065518862	Price
WNMG 432-PC	TT8125	x						IC065519059	Price
WNMG 432-PC	TT9215		x			x		IC065520440	Price
WNMG 432-PC	TT9225		x			x		IC065520527	Price
WNMG 432-PC	TT9235		x			x		IC065520663	Price
WNMG 432-RT	TT5080		x			x		IC065523096	Price
WNMG 432-RT	TT5100	x	x			x		IC065515094	Price
WNMG 432-RT	TT7015	x		x				IC065523624	Price
WNMG 432-RT	TT7100	x	x					IC065517821	Price
WNMG 432-RT	TT8115	x						IC065518501	Price
WNMG 432-RT	TT8125	x						IC065519872	Price
WNMG 432-RT	TT9215		x			x		IC065520495	Price
WNMG 432-RT	TT9225		x			x		IC065520528	Price
WNMG 432-RT	TT9235		x			x		IC065520664	Price
WNMG 432-WS	TT8115	x						IC065519702	Price
WNMG 432-WS	TT8125	x						IC065519703	Price
WNMG 432-WT	TT7015	x		x				IC065523741	Price
WNMG 432-WT	TT8115	x						IC065518626	Price
WNMG 432-WT	TT8125	x						IC065520215	Price
Style - WNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
WNMG 433-MC	TT8115	x						IC065520767	Price
WNMG 433-MC	TT8125	x						IC065520768	Price
WNMG 433-ML	TT5080		x			x		IC065523137	Price
WNMG 433-MP	TT8125	x						IC065520273	Price
WNMG 433-MP	TT9215		x			x		IC065520442	Price
WNMG 433-MP	TT9225		x			x		IC065519910	Price
WNMG 433-MP	TT9235		x			x		IC065520665	Price
WNMG 433-MT	TT5080		x			x		IC065523073	Price
WNMG 433-MT	TT5100	x	x			x		IC065514892	Price
WNMG 433-MT	TT7005	x		x				IC065523881	Price
WNMG 433-MT	TT7015	x		x				IC065523613	Price
WNMG 433-MT	TT8020	x	x			x		IC065515621	Price
WNMG 433-MT	TT8115	x						IC065518205	Price
WNMG 433-MT	TT8125	x						IC065519062	Price
WNMG 433-MT	TT9215		x			x		IC065520444	Price
Style - WNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
WNMG 433-MT	TT9225		x			x		IC065519909	Price
WNMG 433-MT	TT9235		x			x		IC065520666	Price
WNMG 433-PC	TT5100	x	x			x		IC065518291	Price
WNMG 433-PC	TT8115	x						IC065518263	Price
WNMG 433-PC	TT8125	x						IC065519061	Price
WNMG 433-PC	TT9215		x			x		IC065520443	Price
WNMG 433-PC	TT9225		x			x		IC065520529	Price
WNMG 433-PC	TT9235		x			x		IC065520667	Price
WNMG 433-RT	TT7005	x		x				IC065523555	Price
WNMG 433-RT	TT7015	x		x				IC065523547	Price
WNMG 433-RT	TT7100	x	x					IC065518321	Price
WNMG 433-RT	TT8115	x						IC065518502	Price
WNMG 433-RT	TT8125	x						IC065519636	Price
WNMG 433-WT	TT7015	x		x				IC065523742	Price
WNMG 433-WT	TT8115	x						IC065518754	Price
Style - WNMG 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .063									
WNMG 434-PC	TT8125	x						IC065519504	Price

QUADeTWIST

Ingersoll Cutting Tools

QR SERIES Indexable Drills

- 4 Cornered economical insert design
- Side coolant port
- Twisted flute for maximum chip evacuation



Type - 2XD Twisted Flute

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
QR0143029N5R02	.563	1.126	SOMT050204-SK	1.000	**IC523210683**	Price
QR0150030N5R02	.591	1.182	SOMT050204-SK	1.000	**IC523210687**	Price
QR0159032N5R02	.625	1.250	SOMT050204-SK	1.000	**IC523210691**	Price
QR0167033N5R02	.658	1.316	SOMT060204-SK	1.000	**IC523210695**	Price
QR0175035N5R02	.689	1.378	SOMT060204-SK	1.000	**IC523210699**	Price
QR0183037N5R02	.721	1.442	SOMT060204-SK	1.000	**IC523210703**	Price
QR0191038N5R02	.750	1.500	SOMT060204-SK	1.000	**IC523210707**	Price
QR0198040N5R02	.780	1.560	SOMT070306-SK	1.000	**IC523210711**	Price
QR0206041N5R02	.811	1.624	SOMT070306-SK	1.000	**IC523210715**	Price
QR0214042N5R02	.843	1.686	SOMT070306-SK	1.000	**IC523210719**	Price
QR0222044N5R02	.874	1.750	SOMT070306-SK	1.000	**IC523210723**	Price
QR0230046N6R02	.906	1.812	SOMT08T306-SK	1.250	**IC523210727**	Price
QR0238048N6R02	.937	1.875	SOMT08T306-SK	1.250	**IC523210731**	Price
QR0246049N6R02	.969	1.938	SOMT08T306-SK	1.250	**IC523210735**	Price
QR0254051N6R02	1.000	2.000	SOMT08T306-SK	1.250	**IC523210739**	Price
QR0262052N6R02	1.031	2.062	SOMT08T306-SK	1.250	**IC523210743**	Price
QR0270054N6R02	1.063	2.100	SOMT09T308-SK	1.250	**IC523210747**	Price
QR0278056N6R02	1.094	2.200	SOMT09T308-SK	1.250	**IC526100529**	Price
QR0286057N6R02	1.125	2.300	SOMT09T308-SK	1.250	**IC526100533**	Price
QR0302060N6R02	1.187	2.400	SOMT09T308-SK	1.250	**IC526100541**	Price
QR0318063N6R02	1.250	2.500	SOMT11T308-SK	1.250	**IC526108559**	Price
QR0381076N6R02	1.500	3.000	SOMT130408-SK	1.250	**IC526108591**	Price
QR0413083N6R02	1.625	3.300	SOMT130408-SK	1.250	**IC526108607**	Price
QR0445089N7R02	1.750	3.500	SOMT150510-SK	1.500	**IC526108617**	Price
QR0476095N7R02	1.875	3.800	SOMT150510-SK	1.500	**IC526108626**	Price
QR0508102N7R02	2.000	4.000	SOMT150510-SK	1.500	**IC526108635**	Price

Type - 3XD Twisted Flute

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
QR0143043N5R02	.563	1.689	SOMT050204-SK	1.000	**IC523210684**	Price
QR0150045N5R02	.591	1.773	SOMT050204-SK	1.000	**IC523210688**	Price
QR0159048N5R02	.625	1.875	SOMT050204-SK	1.000	**IC523210692**	Price
QR0167050N5R02	.658	1.974	SOMT060204-SK	1.000	**IC523210696**	Price
QR0175053N5R02	.689	2.067	SOMT060204-SK	1.000	**IC523210700**	Price
QR0183055N5R02	.721	2.163	SOMT060204-SK	1.000	**IC523210704**	Price
QR0191057N5R02	.750	2.250	SOMT060204-SK	1.000	**IC523210708**	Price
QR0198059N5R02	.780	2.340	SOMT070306-SK	1.000	**IC523210712**	Price
QR0206062N5R02	.811	2.436	SOMT070306-SK	1.000	**IC523210716**	Price
QR0214064N5R02	.843	2.529	SOMT070306-SK	1.000	**IC523210720**	Price
QR0222067N5R02	.874	2.625	SOMT070306-SK	1.000	**IC523210724**	Price
QR0230069N6R02	.906	2.718	SOMT08T306-SK	1.250	**IC523210728**	Price
QR0238071N6R02	.937	2.812	SOMT08T306-SK	1.250	**IC523210732**	Price
QR0246074N6R02	.969	2.907	SOMT08T306-SK	1.250	**IC523210736**	Price
QR0254076N6R02	1.000	3.000	SOMT08T306-SK	1.250	**IC523210740**	Price
QR0262079N6R02	1.031	3.093	SOMT08T306-SK	1.250	**IC523210744**	Price
QR0270081N6R02	1.063	3.200	SOMT09T308-SK	1.250	**IC526100526**	Price
QR0278083N6R02	1.094	3.300	SOMT09T308-SK	1.250	**IC526100530**	Price
QR0286086N6R02	1.125	3.400	SOMT09T308-SK	1.250	**IC526100534**	Price
QR0302090N6R02	1.187	3.600	SOMT09T308-SK	1.250	**IC526100542**	Price
QR0318095N6R02	1.250	3.800	SOMT11T308-SK	1.250	**IC526108560**	Price
QR0381114N6R02	1.500	4.500	SOMT130408-SK	1.250	**IC526108592**	Price
QR0413124N6R02	1.625	4.900	SOMT130408-SK	1.250	**IC526108608**	Price
QR0445134N7R02	1.750	5.300	SOMT150510-SK	1.500	**IC526108618**	Price
QR0476143N7R02	1.875	5.600	SOMT150510-SK	1.500	**IC526108627**	Price
QR0508152N7R02	2.000	6.000	SOMT150510-SK	1.500	**IC526108636**	Price

Type - 4XD Twisted Flute

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
QR0143057N5R02	.563	2.252	SOMT050204-SK	1.000	**IC523210685**	Price
QR0150060N5R02	.591	2.364	SOMT050204-SK	1.000	**IC523210689**	Price
QR0159064N5R02	.625	2.500	SOMT050204-SK	1.000	**IC523210693**	Price
QR0167067N5R02	.658	2.632	SOMT060204-SK	1.000	**IC523210697**	Price
QR0175070N5R02	.689	2.756	SOMT060204-SK	1.000	**IC523210701**	Price
QR0183073N5R02	.721	2.884	SOMT060204-SK	1.000	**IC523210705**	Price
QR0191076N5R02	.750	3.000	SOMT060204-SK	1.000	**IC523210709**	Price
QR0198079N5R02	.780	3.120	SOMT070306-SK	1.000	**IC523210713**	Price
QR0206082N5R02	.811	3.248	SOMT070306-SK	1.000	**IC523210717**	Price
QR0214086N5R02	.843	3.372	SOMT070306-SK	1.000	**IC523210721**	Price
QR0222089N5R02	.874	3.500	SOMT070306-SK	1.000	**IC523210725**	Price
QR0230092N6R02	.906	3.624	SOMT08T306-SK	1.250	**IC523210729**	Price
QR0238095N6R02	.937	3.750	SOMT08T306-SK	1.250	**IC523210733**	Price
QR0246098N6R02	.969	3.876	SOMT08T306-SK	1.250	**IC523210737**	Price
QR0254102N6R02	1.000	4.000	SOMT08T306-SK	1.250	**IC523210741**	Price
QR0262105N6R02	1.031	4.124	SOMT08T306-SK	1.250	**IC523210745**	Price
QR0270108N6R02	1.063	4.300	SOMT09T308-SK	1.250	**IC526100527**	Price
QR0278111N6R02	1.094	4.400	SOMT09T308-SK	1.250	**IC526100531**	Price
QR0286114N6R02	1.125	4.500	SOMT09T308-SK	1.250	**IC526100535**	Price
QR0302120N6R02	1.187	4.700	SOMT09T308-SK	1.250	**IC526100543**	Price
QR0318127N6R02	1.250	5.000	SOMT11T308-SK	1.250	**IC526108561**	Price
QR0381152N6R02	1.500	6.000	SOMT130408-SK	1.250	**IC526108593**	Price
QR0413165N6R02	1.625	6.500	SOMT130408-SK	1.250	**IC526108609**	Price
QR0445178N7R02	1.750	7.000	SOMT150510-SK	1.500	**IC526108619**	Price
QR0476190N7R02	1.875	7.500	SOMT150510-SK	1.500	**IC526108628**	Price
QR0508203N7R02	2.000	8.000	SOMT150510-SK	1.500	**IC526108637**	Price

Type - 5XD Twisted Flute

Item No.	Cutter Dia. (in.)	Depth of Cut (in.)	Insert	Shank Dia. (in.)	Order No.	Price
QR0143072N5R02	.563	2.815	SOMT050204-SK	1.000	**IC523210686**	Price
QR0150075N5R02	.591	2.955	SOMT050204-SK	1.000	**IC523210690**	Price
QR0159080N5R02	.625	3.125	SOMT050204-SK	1.000	**IC523210694**	Price
QR0167084N5R02	.658	3.290	SOMT060204-SK	1.000	**IC523210698**	Price
QR0175088N5R02	.689	3.445	SOMT060204-SK	1.000	**IC523210702**	Price
QR0183092N5R02	.721	3.605	SOMT060204-SK	1.000	**IC523210706**	Price
QR0191095N5R02	.750	3.750	SOMT060204-SK	1.000	**IC523210710**	Price
QR0198099N5R02	.780	3.900	SOMT070306-SK	1.000	**IC523210714**	Price
QR0206103N5R02	.811	4.060	SOMT070306-SK	1.000	**IC523210718**	Price
QR0214107N5R02	.843	4.215	SOMT070306-SK	1.000	**IC523210722**	Price
QR0222111N5R02	.874	4.375	SOMT070306-SK	1.000	**IC523210726**	Price
QR0230115N6R02	.906	4.530	SOMT08T306-SK	1.250	**IC523210730**	Price
QR0238119N6R02	.937	4.688	SOMT08T306-SK	1.250	**IC523210734**	Price
QR0246123N6R02	.969	4.845	SOMT08T306-SK	1.250	**IC523210738**	Price
QR0254127N6R02	1.000	5.000	SOMT08T306-SK	1.250	**IC523210742**	Price
QR0262131N6R02	1.031	5.155	SOMT08T306-SK	1.250	**IC523210746**	Price
QR0270135N6R02	1.063	5.300	SOMT09T308-SK	1.250	**IC526100528**	Price
QR0278139N6R02	1.094	5.500	SOMT09T308-SK	1.250	**IC526100532**	Price
QR0286143N6R02	1.125	5.600	SOMT09T308-SK	1.250	**IC526100536**	Price
QR0302151N6R02	1.187	5.900	SOMT09T308-SK	1.250	**IC526100544**	Price
QR0318159N6R02	1.250	6.300	SOMT11T308-SK	1.250	**IC526108562**	Price
QR0381191N6R02	1.500	7.500	SOMT130408-SK	1.250	**IC526108594**	Price
QR0413206N6R02	1.625	8.100	SOMT130408-SK	1.250	**IC526108610**	Price
QR0445222N7R02	1.750	8.750	SOMT150510-SK	1.500	**IC526143431**	Price
QR0476238N7R02	1.875	9.370	SOMT150510-SK	1.500	**IC526143434**	Price
QR0508254N7R02	2.000	10.000	SOMT150510-SK	1.500	**IC526143437**	Price

Note: Coolant plugs PF0012 & PF0013 are ordered separately.

Iscar QR DRILL INSERTS

- IN1030 (PVD) – tough applications
- Cast iron, aluminum, stainless, titanium applications
- Sub-micron grade with high hardness and toughness
- TiCN coated
- First choice for tough applications
- IN2505 (PVD) – general purpose
- Sub-micron grade with high hardness and toughness
- New multi-layered coating for higher chipping resistance

Type - Drilling Insert						
Item No.	I.C. (in.)	T (in.)	R	Grade	Order No.	Price
SOMT050204HP	.193	.094	.016	IN10K	**IC046140707**	Price
SOMT050204SK	.193	.094	.016	IN1030	**IC045101218**	Price
SOMT050204SK	.193	.094	.016	IN2505	**IC045101175**	Price
SOMT050204SK	.193	.094	.016	IN6505	**IC045101211**	Price
SOMT060204HP	.193	.094	.016	IN10K	**IC046140708**	Price
SOMT060204NG	.224	.094	.016	IN2510	**IC046129988**	Price
SOMT060204SK	.224	.094	.016	IN1030	**IC045101219**	Price
SOMT060204SK	.224	.094	.016	IN2505	**IC045101176**	Price
SOMT060204SK	.224	.094	.016	IN6505	**IC045101212**	Price
SOMT070306HP	.268	.110	.024	IN10K	**IC046116202**	Price
SOMT070306NG	.268	.110	.024	IN2510	**IC046129989**	Price
SOMT070306SK	.268	.110	.024	IN1030	**IC045101291**	Price
SOMT070306SK	.268	.110	.024	IN2505	**IC045101177**	Price
SOMT070306SK	.268	.110	.024	IN6505	**IC045101213**	Price
SOMT08T306HP	.311	.156	.024	IN10K	**IC046116203**	Price
SOMT08T306NG	.311	.156	.024	IN2510	**IC046116196**	Price
SOMT08T306SK	.311	.156	.024	IN1030	**IC045101292**	Price
SOMT08T306SK	.311	.156	.024	IN2505	**IC045101178**	Price
SOMT08T306SK	.311	.156	.024	IN6505	**IC045101214**	Price



- Post-coat surface treatment improves chipping resistance and reduces cutting forces
- First choice for general applications
- Inboard and outboard pockets
- IN6505 (CVD) - steel applications
- Multi-layered CVD coating along with post coat surface treatment provides excellent wear resistance
- Peripheral (outboard) pocket only

Type - Drilling Insert						
Item No.	I.C. (in.)	T (in.)	R	Grade	Order No.	Price
SOMT09T308HP	.311	.156	.031	IN10K	**IC046116204**	Price
SOMT09T308NG	.362	.156	.031	IN2510	**IC046148124**	Price
SOMT09T308SK	.362	.156	.031	IN1030	**IC046104898**	Price
SOMT09T308SK	.362	.156	.031	IN2505	**IC045523915**	Price
SOMT09T308SK	.362	.156	.031	IN6505	**IC046104899**	Price
SOMT11T308HP	.433	.156	.031	IN10K	**IC046116205**	Price
SOMT11T308NG	.433	.156	.031	IN2510	**IC046146661**	Price
SOMT11T308SK	.433	.156	.031	IN1030	**IC046108638**	Price
SOMT11T308SK	.433	.156	.031	IN2505	**IC045524209**	Price
SOMT11T308SK	.433	.156	.031	IN6505	**IC046108639**	Price
SOMT130408HP	.504	.173	.031	IN10K	**IC046116206**	Price
SOMT130408NG	.504	.173	.031	IN2510	**IC046148125**	Price
SOMT130408SK	.504	.173	.031	IN1030	**IC046108642**	Price
SOMT130408SK	.504	.173	.031	IN2505	**IC045524210**	Price
SOMT130408SK	.504	.173	.031	IN6505	**IC046108640**	Price
SOMT150510HP	.590	.189	.039	IN10K	**IC046116207**	Price
SOMT150510NG	.590	.189	.039	IN2510	**IC046148126**	Price
SOMT150510SK	.590	.189	.039	IN1030	**IC046108643**	Price
SOMT150510SK	.590	.189	.039	IN2505	**IC045524211**	Price

Spare Parts - Insert Seats

Description	Order No.	Price
3414	**IC024378001**	Price
3614	**IC024330000**	Price
3718	**IC024301069**	Price
3811	**IC024301078**	Price
3814	**IC024301074**	Price
LSC32	**IC024351442**	Price
LSC42	**IC024300510**	Price
LSC63	**IC024300512**	Price
LSD32	**IC024351402**	Price
LSD43	**IC024300515**	Price
PSW32	**IC024350898**	Price
PSW42	**IC024350899**	Price
SSVN2.522	**IC024300979**	Price
TSC44	**IC024352018**	Price
TSC54	**IC024352019**	Price
TSD43	**IC024352020**	Price
TSD44	**IC024352021**	Price
TSS44	**IC024352022**	Price
TST33	**IC024352023**	Price
TST43	**IC024352104**	Price
TSV33	**IC024352025**	Price
TSW44	**IC024352024**	Price

Spare Parts - Springs

Description	Order No.	Price
DSP3	**IC024351545**	Price
DSP4	**IC024351489**	Price

Spare Parts - Clamps

Description	Order No.	Price
DLM3	**IC024301056**	Price
DLM3V16	**IC024351711**	Price
DLM4	**IC024301057**	Price
DLM5	**IC024352015**	Price
DLM6	**IC024301059**	Price

Spare Parts - Coolant Rings

Description	Order No.	Price
PF0012	**IC027011248**	Price
PF0013	**IC027011249**	Price

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GRADE CHART

Grade	Coating Process	Coating	Material	Steel (P)	Stainless Steel (M)	Cast Iron (K)	Non-Ferrous (N)	Hi-Temp Alloys (S)	Hard Materials (H)
AH110	PVD	TiAlN	Carbide	x		x		x	x
AH120	PVD	TiAlN	Carbide	x		x		x	
AH130	PVD	TiAlN	Carbide	x	x				
AH140	PVD	TiAlN	Carbide		x				
AH3035	PVD	TiAlN	Carbide	x					x
AH3135	PVD	TiAlN	Carbide	x	x			x	x
AH330	PVD	TiAlN	Carbide	x					
AH4035	PVD	TiAlN	Carbide		x				
AH6030	PVD	TiAlN	Carbide		x			x	
AH630	PVD	TiAlN	Carbide		x				
AH645	PVD	TiAlN	Carbide		x				
AH7025	PVD	TiAlN	Carbide	x					
AH725	PVD	TiAlN	Carbide	x	x			x	
AH730	PVD	TiAlN	Carbide	x					
AH740	PVD	TiAlN	Carbide	x					
AH750	PVD	TiAlN	Carbide	x					
AH8005	PVD	TiAlN	Carbide					x	
AH8015	PVD	TiAlN	Carbide					x	
AH9030	PVD	TiAlN	Carbide	x	x				
AH905	PVD	TiAlN	Carbide					x	
BX310		Uncoated	CBN						x
BX330		Uncoated	CBN						x
BX360		Uncoated	CBN						x
BX380		Uncoated	CBN						x
BX470		Uncoated	CBN					x	
BX480		Uncoated	CBN					x	
BX530		Uncoated	CBN						x
BX850		Uncoated	CBN			x			
BX910		Uncoated	CBN			x			
BX930		Uncoated	CBN			x			
BX950		Uncoated	CBN			x			
BXC50	PVD	TiN	CBN						x
BXC90	PVD	TiN	CBN			x			
BXM10	PVD	TiCN	CBN						x
BXM20	PVD	TiCN	CBN						x
DLX2	CVD	CVD	Carbide	x					
DS1100	PVD	DLC	Carbide				x		
DS1200	PVD	DLC	Carbide				x		
DX120		Uncoated	PCD				x		
DX140		Uncoated	PCD				x		
DX160		Uncoated	PCD				x		
FX105		Uncoated	Ceramic			x			
GH110	PVD	TiCNO	Carbide	x		x			
GH130	PVD	TiCNO	Carbide	x	x				
GH330	PVD	TiCNO	Carbide	x					
GH730	PVD	TiCNO	Carbide	x					
GT9530	PVD	TiCNO	Cermet	x					
J740	PVD	TiN	Carbide	x					
J9530	PVD	TiN	Cermet	x					
KS05F		Uncoated	Carbide				x		
KS15F		Uncoated	Carbide			x	x		
KS20		Uncoated	Carbide					x	
LX11	PVD	TiN	Ceramic						x
LX21		Uncoated	Ceramic			x			
M101S		Uncoated	Ceramic					x	
N308		Uncoated	Cermet	x					
NLX	PVD	TiAlN	Carbide	x	x		x	x	
NS520		Uncoated	Cermet	x					
NS740		Uncoated	Cermet	x					
NS9530		Uncoated	Cermet	x					
SH725	PVD	TiAlN	Carbide	x					
SH730	PVD	TiAlN	Carbide	x					
T1115	CVD	CVD	Carbide			x			
T3130	CVD	CVD	Carbide	x					
T313W	CVD	CVD	Carbide	x					
T5105	CVD	CVD	Carbide			x			
T5115	CVD	CVD	Carbide			x			
T5125	CVD	CVD	Carbide			x			
T515	CVD	CVD	Carbide			x			
T6030A	CVD	CVD	Carbide		x				
T6120	CVD	CVD	Carbide		x				
T6130	CVD	CVD	Carbide		x				
T9105	CVD	CVD	Carbide	x					
T9115	CVD	CVD	Carbide	x					
T9125	CVD	CVD	Carbide	x					
T9135	CVD	CVD	Carbide	x					
TH10		Uncoated	Carbide			x		x	
TW43		Uncoated	Ceramic					x	
UC1125	CVD	CVD	Carbide	x					
UC2220	PVD	TiAlN	Carbide	x	x		x	x	
UC3120	PVD	TiAlN	Carbide	x	x			x	
UX30		Uncoated	Carbide	x					
X407		Uncoated	Cermet	x					

MINIFTURN Turning Inserts

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Style - CCMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 21.51-CM	T515	-	-	x	-	-	-	TG556747826	Price
CCMT 21.51-PS	AH725	x	x	x	-	x	-	TG556856761	Price
CCMT 21.51-PS	AH8005	-	x	-	-	x	-	TG556749949	Price
CCMT 21.51-PS	AH8015	-	x	-	-	x	-	TG556749950	Price
CCMT 21.51-PSF	AH8005	-	x	-	-	x	-	TG556718806	Price
CCMT 21.51-PSF	AH8015	-	x	-	-	x	-	TG556749944	Price
CCMT 21.51-PSS	AH8005	-	x	-	-	x	-	TG556749945	Price
CCMT 21.51-PSS	AH8015	-	x	-	-	x	-	TG556749946	Price

Style - CCMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 21.52-CM	T515	-	-	x	-	-	-	TG556747827	Price
CCMT 21.52-PS	AH725	x	x	x	-	x	-	TG556856762	Price
CCMT 21.52-PS	AH8005	-	x	-	-	x	-	TG556749951	Price
CCMT 21.52-PS	AH8015	-	x	-	-	x	-	TG556749952	Price
CCMT 21.52-PSS	AH8005	-	x	-	-	x	-	TG556749947	Price
CCMT 21.52-PSS	AH8015	-	x	-	-	x	-	TG556749948	Price

Style - CCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 32.51-CM	T515	-	-	x	-	-	-	TG556739798	Price
CCMT 32.51-PS	AH725	x	x	x	-	x	-	TG556856764	Price
CCMT 32.51-PS	AH8005	-	x	-	-	x	-	TG556749959	Price
CCMT 32.51-PS	AH8015	-	x	-	-	x	-	TG556749960	Price
CCMT 32.51-PSF	AH8005	-	x	-	-	x	-	TG556749953	Price
CCMT 32.51-PSF	AH8015	-	x	-	-	x	-	TG556749954	Price
CCMT 32.51-PSS	AH8005	-	x	-	-	x	-	TG556749955	Price
CCMT 32.51-PSS	AH8015	-	x	-	-	x	-	TG556749956	Price

Style - CCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 32.52-CM	T515	-	-	x	-	-	-	TG556739799	Price
CCMT 32.52-PS	AH725	x	x	x	-	x	-	TG556856765	Price
CCMT 32.52-PS	AH8005	-	x	-	-	x	-	TG556749961	Price
CCMT 32.52-PS	AH8015	-	x	-	-	x	-	TG556749962	Price
CCMT 32.52-PSS	AH8005	-	x	-	-	x	-	TG556749957	Price
CCMT 32.52-PSS	AH8015	-	x	-	-	x	-	TG556749958	Price

Style - CCMT 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 431-PS	AH8005	-	x	-	-	x	-	TG556749963	Price
CCMT 431-PS	AH8015	-	x	-	-	x	-	TG556749964	Price

Style - CCMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CCMT 432-PS	AH8005	-	x	-	-	x	-	TG556749965	Price
CCMT 432-PS	AH8015	-	x	-	-	x	-	TG556749966	Price

Style - CNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 432	T515	-	-	x	-	-	-	TG556733822	Price

Style - CNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMA 433	T515	-	-	x	-	-	-	TG556733823	Price

Style - CNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 431	T515	-	-	x	-	-	-	TG556733819	Price
CNMG 431-TM	T9115	x	-	x	-	-	-	TG556862419	Price
CNMG 431-TM	T9125	x	-	-	-	-	-	TG556864426	Price
CNMG 431-TSF	T9115	x	-	x	-	-	-	TG556862463	Price
CNMG 431-TSF	T9125	x	-	-	-	-	-	TG556864607	Price

Style - CNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 432-CM15	T515	-	-	x	-	-	-	TG556733824	Price
CNMG 432-TM	T515	-	-	x	-	-	-	TG556733820	Price
CNMG 432-TM	T9115	x	-	x	-	-	-	TG556862420	Price
CNMG 432-TM	T9125	x	-	-	-	-	-	TG556864601	Price
CNMG 432-TSF	T9115	x	-	x	-	-	-	TG556862464	Price
CNMG 432-TSF	T9125	x	-	-	-	-	-	TG556864431	Price

Style - CNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 433	T515	-	-	x	-	-	-	TG556733821	Price
CNMG 433-CM	T515	-	-	x	-	-	-	TG556733825	Price
CNMG 433-TM	T9115	x	-	x	-	-	-	TG556862421	Price
CNMG 433-TM	T9125	x	-	-	-	-	-	TG556864427	Price

Style - CNMG 543 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 543	T515	-	-	x	-	-	-	TG556744299	Price

Style - CNMG 544 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CNMG 544	T515	-	-	x	-	-	-	TG556744296	Price

Style - CPMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 32.51-CM	T515	-	-	x	-	-	-	TG556747828	Price

Style - CPMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 32.52-CM	T515	-	-	x	-	-	-	TG556747829	Price

Style - CPMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
CPMT 432	AH8005	-	x	-	-	x	-	TG556747765	Price
CPMT 432	AH8015	-	x	-	-	x	-	TG556747766	Price

Style - DCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCMT 32.51-CM	T515	-	-	x	-	-	-	TG556739800	Price
DCMT 32.51-PS	AH8005	-	x	-	-	x	-	TG556747776	Price
DCMT 32.51-PS	AH8015	-	x	-	-	x	-	TG556747777	Price
DCMT 32.51-PSF	AH8005	-	x	-	-	x	-	TG556747767	Price
DCMT 32.51-PSF	AH8015	-	x	-	-	x	-	TG556746101	Price
DCMT 32.51-PSS	AH8005	-	x	-	-	x	-	TG556747770	Price
DCMT 32.51-PSS	AH8015	-	x	-	-	x	-	TG556747771	Price

Style - DCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCMT 32.52-CM	T515	-	-	x	-	-	-	TG556740251	Price
DCMT 32.52-PS	AH8005	-	x	-	-	x	-	TG556747778	Price
DCMT 32.52-PS	AH8015	-	x	-	-	x	-	TG556747779	Price
DCMT 32.52-PSF	AH8005	-	x	-	-	x	-	TG556747768	Price
DCMT 32.52-PSF	AH8015	-	x	-	-	x	-	TG556747769	Price
DCMT 32.52-PSS	AH8005	-	x	-	-	x	-	TG556747772	Price
DCMT 32.52-PSS	AH8015	-	x	-	-	x	-	TG556747773	Price

Style - DCMT 32.53 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DCMT 32.53-PS	AH8005	-	x	-	-	x	-	TG556747780	Price
DCMT 32.53-PS	AH8015	-	x	-	-	x	-	TG556747781	Price
DCMT 32.53-PSS	AH8005	-	x	-	-	x	-	TG556747774	Price
DCMT 32.53-PSS	AH8015	-	x	-	-	x	-	TG556747775	Price

Style - DNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMA 432	T515	-	-	x	-	-	-	TG556735277	Price

Style - DNMA 442 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMA 442	T515	-	-	x	-	-	-	TG556735278	Price

Style - DNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 331-TM	T9115	x	-	x	-	-	-	TG556862426	Price
DNMG 331-TM	T9125	x	-	-	-	-	-	TG556864563	Price

Style - DNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 332-TM	T9125	x	-	-	-	-	-	TG556864479	Price

Style - DNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 431-TM	T9115	x	-	x	-	-	-	TG556862428	Price
DNMG 431-TM	T9125	x	-	-	-	-	-	TG556864516	Price
DNMG 431-TSF	T9115	x	-	x	-	-	-	TG556862466	Price
DNMG 431-TSF	T9125	x	-	-	-	-	-	TG556864385	Price

Style - DNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 432	T515	-	-	x	-	-	-	TG556733826	Price
DNMG 432-CM	T515	-	-	x	-	-	-	TG556745200	Price
DNMG 432-TM	T9115	x	-	x	-	-	-	TG556862429	Price
DNMG 432-TM	T9125	x	-	-	-	-	-	TG556864602	Price
DNMG 432-TSF	T9115	x	-	x	-	-	-	TG556862467	Price
DNMG 432-TSF	T9125	x	-	-	-	-	-	TG556864233	Price

Style - DNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 433	T515	-	-	x	-	-	-	TG556733827	Price

Turning Inserts

Style - DNMG 442 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 442	T515	-	-	x	-	-	-	TG556733828	Price

Style - DNMG 443 IC (in.) - 1/2 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DNMG 443	T515	-	-	x	-	-	-	TG556733829	Price

Style - DXGU 220 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .004									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DXGU 220MFRE-JRP	SH725	x	x	-	-	-	-	TG556735016	Price
DXGU 220MFRE-JRP	SH725	x	x	-	-	-	-	TG556735017	Price

Style - DXGU 220.5 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DXGU 220.5L-SS	GT9530	x	-	x	-	-	-	TG556723758	Price
DXGU 220.5L-SS	KS05F	-	-	x	x	x	-	TG556723719	Price
DXGU 220.5L-SS	NS9530	x	-	x	-	-	-	TG556723766	Price
DXGU 220.5L-TS	GT9530	x	-	x	-	-	-	TG556723735	Price
DXGU 220.5L-TS	KS05F	-	-	x	x	x	-	TG556723723	Price
DXGU 220.5L-TS	NS9530	x	-	x	-	-	-	TG556723748	Price
DXGU 220.5MFRE-JRP	SH725	x	x	-	-	-	-	TG556734050	Price
DXGU 220.5MFRE-JRP	SH725	x	x	-	-	-	-	TG556735018	Price
DXGU 220.5R-SS	GT9530	x	-	x	-	-	-	TG556723757	Price
DXGU 220.5R-SS	KS05F	-	-	x	x	x	-	TG556723718	Price
DXGU 220.5R-SS	NS9530	x	-	x	-	-	-	TG556723765	Price
DXGU 220.5R-TS	GT9530	x	-	x	-	-	-	TG556723734	Price
DXGU 220.5R-TS	KS05F	-	-	x	x	x	-	TG556723722	Price
DXGU 220.5R-TS	NS9530	x	-	x	-	-	-	TG556723747	Price

Style - DXGU 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DXGU 221L-SS	GT9530	x	-	x	-	-	-	TG556723760	Price
DXGU 221L-SS	KS05F	-	-	x	x	x	-	TG556723721	Price
DXGU 221L-SS	NS9530	x	-	x	-	-	-	TG556723768	Price
DXGU 221L-TS	GT9530	x	-	x	-	-	-	TG556723737	Price
DXGU 221L-TS	KS05F	-	-	x	x	x	-	TG556723725	Price
DXGU 221L-TS	NS9530	x	-	x	-	-	-	TG556723750	Price
DXGU 221R-SS	GT9530	x	-	x	-	-	-	TG556723759	Price
DXGU 221R-SS	KS05F	-	-	x	x	x	-	TG556723720	Price
DXGU 221R-SS	NS9530	x	-	x	-	-	-	TG556723767	Price
DXGU 221R-TS	GT9530	x	-	x	-	-	-	TG556723736	Price
DXGU 221R-TS	KS05F	-	-	x	x	x	-	TG556723724	Price
DXGU 221R-TS	NS9530	x	-	x	-	-	-	TG556723749	Price

Style - DXGU 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
DXGU 222L-TS	GT9530	x	-	x	-	-	-	TG556723740	Price
DXGU 222L-TS	KS05F	-	-	x	x	x	-	TG556723727	Price
DXGU 222L-TS	NS9530	x	-	x	-	-	-	TG556723752	Price
DXGU 222R-TS	GT9530	x	-	x	-	-	-	TG556723739	Price
DXGU 222R-TS	KS05F	-	-	x	x	x	-	TG556723726	Price
DXGU 222R-TS	NS9530	x	-	x	-	-	-	TG556723751	Price

Style - RCMM 1003M0 IC (in.) - 10mm Thickness (in.) - 3.18mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RCMM 1003M0-61	AH8005	-	x	-	-	x	-	TG556747786	Price
RCMM 1003M0-61	AH8015	-	x	-	-	x	-	TG556747787	Price

Style - RCMM 1204M0 IC (in.) - 12mm Thickness (in.) - 4.76mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RCMM 1204M0-61	AH8005	-	x	-	-	x	-	TG556747788	Price
RCMM 1204M0-61	AH8015	-	x	-	-	x	-	TG556747789	Price

Style - RCMT 10T3M0 IC (in.) - 10mm Thickness (in.) - 3.97mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RCMT 10T3M0-RS	AH8005	-	x	-	-	x	-	TG556747782	Price
RCMT 10T3M0-RS	AH8015	-	x	-	-	x	-	TG556747783	Price

Style - RCMT 1204M0 IC (in.) - 12mm Thickness (in.) - 4.76mm									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
RCMT 1204M0-RS	AH8005	-	x	-	-	x	-	TG556747784	Price
RCMT 1204M0-RS	AH8015	-	x	-	-	x	-	TG556747785	Price

Style - SCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SCMT 32.51-CM	T515	-	-	x	-	-	-	TG556744837	Price

Style - SCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SCMT 32.52-CM	T515	-	-	x	-	-	-	TG556747830	Price

Style - SCMT 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SCMT 431-CM	T515	-	-	x	-	-	-	TG556747831	Price

Style - SCMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SCMT 432-CM	T515	-	-	x	-	-	-	TG556741315	Price

Style - SNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNMA 432	T515	-	-	x	-	-	-	TG556733832	Price

Style - SNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNMA 433	T515	-	-	x	-	-	-	TG556733833	Price

Style - SNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNMG 432	T515	-	-	x	-	-	-	TG556733830	Price

Style - SNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNMG 433	T515	-	-	x	-	-	-	TG556733831	Price

Style - SNMG 543 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNMG 543	T515	-	-	x	-	-	-	TG556744297	Price

Style - SNMG 544 IC (in.) - 5/8 Thickness (in.) - .250 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SNMG 544	T515	-	-	x	-	-	-	TG556744298	Price

Style - SPMT 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SPMT 431-CM	T515	-	-	x	-	-	-	TG556747832	Price

Style - SPMT 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
SPMT 432-CM	T515	-	-	x	-	-	-	TG556742152	Price

Style - TCMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TCMT 32.51-CM	T515	-	-	x	-	-	-	TG556747833	Price

Style - TCMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TCMT 32.52-CM	T515	-	-	x	-	-	-	TG556741316	Price

Style - TCMT 32.53 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TCMT 32.53-CM	T515	-	-	x	-	-	-	TG556747834	Price

Style - TNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 331	T515	-	-	x	-	-	-	TG556733834	Price
TNMG 331-CH	T515	-	-	x	-	-	-	TG556733837	Price

Style - TNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 332	T515	-	-	x	-	-	-	TG556733835	Price
TNMG 332-CH	T515	-	-	x	-	-	-	TG556733838	Price

Style - TNMG 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMG 333	T515	-	-	x	-	-	-	TG556733836	Price
TNMG 333-CH	T515	-	-	x	-	-	-	TG556733839	Price

Style - TPMT 2.520.2 IC (in.) - 5/16 Thickness (in.) - .125 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 2.520.2-PS	AH725	x	x	x	-	x	-	TG556856680	Price

Style - TPMT 2.521 IC (in.) - 5/16 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 2.521-PM	AH725	x	x	x	-	x	-	TG556856728	Price
TPMT 2.521-PS	AH725	x	x	x	-	x	-	TG556856681	Price

Style - TPMT 2.522 IC (in.) - 5/16 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 2.522-PM	AH725	x	x	x	-	x	-	TG556856729	Price
TPMT 2.522-PS	AH725	x	x	x	-	x	-	TG556856682	Price

Style - TPMT 21.50.5 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 21.50.5-PS	AH725	x	x	x	-	x	-	TG556856675	Price

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Style - TPMT 21.51 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 21.51-PM	AH725	x	x	x	-	x	-	TG556856724	Price
TPMT 21.51-PS	AH725	x	x	x	-	x	-	TG556856676	Price

Style - TPMT 21.52 IC (in.) - 1/4 Thickness (in.) - .094 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 21.52-PM	AH725	x	x	x	-	x	-	TG556856725	Price
TPMT 21.52-PS	AH725	x	x	x	-	x	-	TG556856677	Price

Style - TPMT 32.51 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 32.51-CM	T515	-	-	x	-	-	-	TG556747835	Price
TPMT 32.51-PM	AH725	x	x	x	-	x	-	TG556856730	Price
TPMT 32.51-PS	AH725	x	x	x	-	x	-	TG556856683	Price

Style - TPMT 32.52 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 32.52-CM	T515	-	-	x	-	-	-	TG556742148	Price
TPMT 32.52-PM	AH725	x	x	x	-	x	-	TG556856731	Price
TPMT 32.52-PS	AH725	x	x	x	-	x	-	TG556856684	Price

Style - TPMT 32.53 IC (in.) - 3/8 Thickness (in.) - .156 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TPMT 32.53-CM	T515	-	-	x	-	-	-	TG556747836	Price

Style - VBMT 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBMT 331-CM	T515	-	-	x	-	-	-	TG556741554	Price

Style - VBMT 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBMT 332-CM	T515	-	-	x	-	-	-	TG556741555	Price

Style - VBMT 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VBMT 333-CM	T515	-	-	x	-	-	-	TG556747837	Price

Style - VCMT 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VCMT 331	AH8005	-	x	-	-	x	-	TG556747802	Price
VCMT 331	AH8015	-	x	-	-	x	-	TG556747803	Price
VCMT 331-CM	T515	-	-	x	-	-	-	TG556747838	Price
VCMT 331-PS	AH8005	-	x	-	-	x	-	TG556747798	Price
VCMT 331-PS	AH8015	-	x	-	-	x	-	TG556747799	Price
VCMT 331-PSF	AH8005	-	x	-	-	x	-	TG556747790	Price
VCMT 331-PSF	AH8015	-	x	-	-	x	-	TG556747791	Price
VCMT 331-PSS	AH8005	-	x	-	-	x	-	TG556747794	Price
VCMT 331-PSS	AH8015	-	x	-	-	x	-	TG556747795	Price

Style - VCMT 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VCMT 332	AH8005	-	x	-	-	x	-	TG556747804	Price
VCMT 332	AH8015	-	x	-	-	x	-	TG556747805	Price
VCMT 332-CM	T515	-	-	x	-	-	-	TG556747839	Price
VCMT 332-PS	AH8005	-	x	-	-	x	-	TG556747800	Price
VCMT 332-PS	AH8015	-	x	-	-	x	-	TG556747801	Price
VCMT 332-PSF	AH8005	-	x	-	-	x	-	TG556747792	Price
VCMT 332-PSF	AH8015	-	x	-	-	x	-	TG556747793	Price
VCMT 332-PSS	AH8005	-	x	-	-	x	-	TG556747796	Price
VCMT 332-PSS	AH8015	-	x	-	-	x	-	TG556747797	Price

Style - VCMT 333 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VCMT 333	AH8005	-	x	-	-	x	-	TG556747806	Price
VCMT 333	AH8015	-	x	-	-	x	-	TG556747807	Price

Style - VNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VNMG 331	T515	-	-	x	-	-	-	TG556733847	Price
VNMG 331-TM	T9115	x	-	x	-	-	-	TG556862454	Price
VNMG 331-TM	T9125	x	-	-	-	-	-	TG556864606	Price
VNMG 331-TSF	T9115	x	-	x	-	-	-	TG556862478	Price
VNMG 331-TSF	T9125	x	-	-	-	-	-	TG556864525	Price

Style - VNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VNMG 332	T515	-	-	x	-	-	-	TG556733848	Price
VNMG 332-TM	T9115	x	-	x	-	-	-	TG556862455	Price
VNMG 332-TM	T9125	x	-	-	-	-	-	TG556864232	Price
VNMG 332-TSF	T9115	x	-	x	-	-	-	TG556862479	Price
VNMG 332-TSF	T9125	x	-	-	-	-	-	TG556864526	Price

Style - VXGU 73.50 IC (in.) - .219 Thickness (in.) - .109 Radius (in.) - .004									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VXGU 73.50 MFLE-JRP	SH725	x	x	-	-	-	-	TG556734978	Price
VXGU 73.50 MFRE-JRP	SH725	x	x	-	-	-	-	TG556734979	Price

Style - VXGU 73.50.5 IC (in.) - .219 Thickness (in.) - .109 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
VXGU 73.50.5MFLE-JRP	SH725	x	x	-	-	-	-	TG556733386	Price
VXGU 73.50.5MFRE-JRP	SH725	x	x	-	-	-	-	TG556734980	Price

Style - WNMA 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMA 432	T515	-	-	x	-	-	-	TG556733843	Price

Style - WNMA 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMA 433	T515	-	-	x	-	-	-	TG556733844	Price

Style - WNMG 331 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMG 331-TM	T9115	x	-	x	-	-	-	TG556862457	Price
WNMG 331-TM	T9125	x	-	-	-	-	-	TG556864325	Price
WNMG 331-TSF	T9115	x	-	x	-	-	-	TG556862481	Price
WNMG 331-TSF	T9125	x	-	-	-	-	-	TG556864487	Price

Style - WNMG 332 IC (in.) - 3/8 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMG 332	T515	-	-	x	-	-	-	TG556750649	Price
WNMG 332-TM	T9115	x	-	x	-	-	-	TG556862458	Price
WNMG 332-TM	T9125	x	-	-	-	-	-	TG556864565	Price
WNMG 332-TSF	T9115	x	-	x	-	-	-	TG556862482	Price
WNMG 332-TSF	T9125	x	-	-	-	-	-	TG556864235	Price

Style - WNMG 431 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMG 431-TM	T9115	x	-	x	-	-	-	TG556862459	Price
WNMG 431-TM	T9125	x	-	-	-	-	-	TG556864521	Price
WNMG 431-TSF	T9115	x	-	x	-	-	-	TG556862483	Price
WNMG 431-TSF	T9125	x	-	-	-	-	-	TG556864568	Price

Style - WNMG 432 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMG 432	T515	-	-	x	-	-	-	TG556733840	Price
WNMG 432-CM	T515	-	-	x	-	-	-	TG556733845	Price
WNMG 432-TM	T9115	x	-	x	-	-	-	TG556862460	Price
WNMG 432-TM	T9125	x	-	-	-	-	-	TG556864482	Price
WNMG 432-TSF	T9115	x	-	x	-	-	-	TG556862484	Price
WNMG 432-TSF	T9125	x	-	-	-	-	-	TG556864236	Price

Style - WNMG 433 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .047									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMG 433	T515	-	-	x	-	-	-	TG556733841	Price
WNMG 433-CM	T515	-	-	x	-	-	-	TG556733846	Price
WNMG 433-TM	T9115	x	-	x	-	-	-	TG556862461	Price
WNMG 433-TM	T9125	x	-	-	-	-	-	TG556864483	Price
WNMG 433-TSF	T9115	x	-	x	-	-	-	TG556862485	Price
WNMG 433-TSF	T9125	x	-	-	-	-	-	TG556864608	Price

Style - WNMG 434 IC (in.) - 1/2 Thickness (in.) - .187 Radius (in.) - .062									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WNMG 434	T515	-	-	x	-	-	-	TG556733842	Price

Style - WWMU 05X205 IC (in.) - .228 Thickness (in.) - .094 Radius (in.) - .020									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WWMU 05X205R-DJ	AH9030	x	-	x	-	-	-	TG556712010	Price
WWMU 05X205R-DS	AH6030	-	x	-	-	x	-	TG556712012	Price

Style - WWMU 060306 IC (in.) - .264 Thickness (in.) - .114 Radius (in.) - .024									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WWMU 060306R-DJ	AH9030	x	-	x	-	-	-	TG556712011	Price
WWMU 060306R-DS	AH6030	-	x	-	-	x	-	TG556712013	Price

Style - WXGU 220 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WXGU 220L-SS	GT9530	x	-	x	-	-	-	TG556723754	Price
WXGU 220L-SS	KS05F	-	-	x	x	x	-	TG556723709	Price
WXGU 220L-SS	NS9530	x	-	x	-	-	-	TG556723762	Price
WXGU 220L-TS	GT9530	x	-	x	-	-	-	TG556723729	Price
WXGU 220L-TS	KS05F	-	-	x	x	x	-	TG556723713	Price
WXGU 220L-TS	NS9530	x	-	x	-	-	-	TG556723742	Price
WXGU 220R-SS	GT9530	x	-	x	-	-	-	TG556723753	Price
WXGU 220R-SS	KS05F	-	-	x	x	x	-	TG556723708	Price
WXGU 220R-SS	NS9530	x	-	x	-	-	-	TG556723761	Price

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Style - WXGU 220 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .008									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WXGU 220R-TS	GT9530	x	-	x	-	-	-	TG556723728	Price
WXGU 220R-TS	KS05F	-	-	x	x	x	-	TG556723712	Price
WXGU 220R-TS	NS9530	x	-	x	-	-	-	TG556723741	Price

Style - WXGU 221 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .016									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WXGU 221L-SS	GT9530	x	-	x	-	-	-	TG556723756	Price
WXGU 221L-SS	KS05F	-	-	x	x	x	-	TG556723711	Price
WXGU 221L-SS	NS9530	x	-	x	-	-	-	TG556723764	Price
WXGU 221L-TS	GT9530	x	-	x	-	-	-	TG556723731	Price
WXGU 221L-TS	KS05F	-	-	x	x	x	-	TG556723715	Price
WXGU 221L-TS	NS9530	x	-	x	-	-	-	TG556723744	Price
WXGU 221L-TSW	AH725	x	x	x	-	x	-	TG556723697	Price
WXGU 221L-TSW	GT9530	x	-	x	-	-	-	TG556723705	Price
WXGU 221L-TSW	NS9530	x	-	x	-	-	-	TG556723701	Price
WXGU 221R-SS	GT9530	x	-	x	-	-	-	TG556723755	Price
WXGU 221R-SS	KS05F	-	-	x	x	x	-	TG556723710	Price
WXGU 221R-SS	NS9530	x	-	x	-	-	-	TG556723763	Price
WXGU 221R-TS	GT9530	x	-	x	-	-	-	TG556723730	Price
WXGU 221R-TS	KS05F	-	-	x	x	x	-	TG556723714	Price
WXGU 221R-TS	NS9530	x	-	x	-	-	-	TG556723743	Price
WXGU 221R-TSW	AH725	x	x	x	-	x	-	TG556723696	Price
WXGU 221R-TSW	GT9530	x	-	x	-	-	-	TG556723704	Price
WXGU 221R-TSW	NS9530	x	-	x	-	-	-	TG556723700	Price

Style - WXGU 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WXGU 222L-TS	GT9530	x	-	x	-	-	-	TG556723733	Price
WXGU 222L-TS	KS05F	-	-	x	x	x	-	TG556723717	Price
WXGU 222L-TS	NS9530	x	-	x	-	-	-	TG556723746	Price
WXGU 222L-TSW	AH725	x	x	x	-	x	-	TG556723699	Price
WXGU 222L-TSW	GT9530	x	-	x	-	-	-	TG556723707	Price
WXGU 222L-TSW	NS9530	x	-	x	-	-	-	TG556723703	Price

Style - WXGU 222 IC (in.) - 1/4 Thickness (in.) - .125 Radius (in.) - .031									
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WXGU 222R-TS	GT9530	x	-	x	-	-	-	TG556723732	Price
WXGU 222R-TS	KS05F	-	-	x	x	x	-	TG556723716	Price
WXGU 222R-TS	NS9530	x	-	x	-	-	-	TG556723745	Price
WXGU 222R-TSW	AH725	x	x	x	-	x	-	TG556723698	Price
WXGU 222R-TSW	GT9530	x	-	x	-	-	-	TG556723706	Price
WXGU 222R-TSW	NS9530	x	-	x	-	-	-	TG556723702	Price

CHIPBREAKER	APPLICATION INFORMATION
TSF	General purpose finishing for steels
TM	Medium cutting general purpose application
TH	Heavy duty cutting including interruption and irregular surface conditions
PS	For general purpose boring applications
PM	General to rough boring applications
SS	For finishing applications in stainless steel
CF	For finishing applications in cast iron
CM	For medium applications in cast iron
CH	For roughing applications in cast iron
SA	For finish cutting in super alloys
HMM	Light to moderate cutting conditions with super alloy applications
AL	For non-ferrous boring applications
PSF	For finish machining processes
PSS	For medium to semi finishing processes
TN28	For general turning of non-ferrous metals

Cut-Off Inserts

External Grooving and Parting

DGM Style



- 2 Corner insert
- Well designed edge with high strength
- Smooth chip evacuation

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
2	DGM2-002-15R	AH725	x	x	x	-	x	-	TG556861530	Price
2	DGM2-002-15L	AH725	x	x	x	-	x	-	TG556861582	Price
2	DGM2-002-15R	GH130	x	x	-	-	-	-	TG556861516	Price
2	DGM2-002-15L	GH130	x	x	-	-	-	-	TG556861515	Price
2	DGM2-020	AH725	x	x	x	-	x	-	TG556860478	Price
2	DGM2-020	AH7025	x	x	x	-	-	-	TG556745863	Price
2	DGM2-020	GH130	x	x	-	-	-	-	TG556860385	Price
2	DGM2-020	NS9530	x	-	x	-	-	-	TG556713925	Price
2	DGM2-020	T9125	x	-	-	-	-	-	TG556993811	Price
2	DGM2-020-6R	AH725	x	x	x	-	x	-	TG556860332	Price
2	DGM2-020-6L	AH725	x	x	x	-	x	-	TG556860549	Price
2	DGM2-020-6R	GH130	x	x	-	-	-	-	TG556860386	Price
2	DGM2-020-6L	GH130	x	x	-	-	-	-	TG556860435	Price
2	DGM2-020-8R	AH725	x	x	x	-	x	-	TG556860733	Price
2	DGM2-020-8L	AH725	x	x	x	-	x	-	TG556860333	Price
2	DGM2-020-8R	GH130	x	x	-	-	-	-	TG556860281	Price
2	DGM2-020-8L	GH130	x	x	-	-	-	-	TG556860591	Price
2	DGM2-020-15R	AH725	x	x	x	-	x	-	TG556860434	Price
2	DGM2-020-15L	AH725	x	x	x	-	x	-	TG556860479	Price
2	DGM2-020-15R	GH130	x	x	-	-	-	-	TG556860548	Price
2	DGM2-020-15L	GH130	x	x	-	-	-	-	TG556860732	Price
3	DGM3-002-6R	AH725	x	x	x	-	x	-	TG556860592	Price
3	DGM3-002-6L	AH725	x	x	x	-	x	-	TG556860387	Price
3	DGM3-002-6R	GH130	x	x	-	-	-	-	TG556860481	Price
3	DGM3-002-6L	GH130	x	x	-	-	-	-	TG556860480	Price
3	DGM3-020	AH725	x	x	x	-	x	-	TG556860388	Price
3	DGM3-020	AH905	-	-	-	-	x	-	TG556993892	Price
3	DGM3-020	AH7025	x	x	x	-	-	-	TG556745864	Price
3	DGM3-020	GH130	x	x	-	-	-	-	TG556860436	Price
3	DGM3-020	NS9530	x	-	x	-	-	-	TG556713926	Price
3	DGM3-020	T9125	x	-	-	-	x	-	TG556993814	Price
3	DGM3-020-6R	AH725	x	x	x	-	x	-	TG556860389	Price
3	DGM3-020-6L	AH725	x	x	x	-	x	-	TG556860594	Price
3	DGM3-020-6R	GH130	x	x	-	-	-	-	TG556860335	Price
3	DGM3-020-6L	GH130	x	x	-	-	-	-	TG556860334	Price
3	DGM3-020-15R	AH725	x	x	x	-	x	-	TG556860551	Price
3	DGM3-020-15L	AH725	x	x	x	-	x	-	TG556860437	Price
3	DGM3-020-15R	GH130	x	x	-	-	-	-	TG556860593	Price
3	DGM3-020-15L	GH130	x	x	-	-	-	-	TG556860550	Price
4	DGM4-030	AH725	x	x	x	-	x	-	TG556860438	Price
4	DGM4-030	AH905	-	-	-	-	x	-	TG556993893	Price
4	DGM4-030	AH7025	x	x	x	-	-	-	TG556745865	Price
4	DGM4-030	GH130	x	x	-	-	-	-	TG556860552	Price
4	DGM4-030	NS9530	x	-	x	-	-	-	TG556713927	Price
4	DGM4-030	T9125	x	-	-	-	x	-	TG556993816	Price
4	DGM4-030-4R	AH725	x	x	x	-	x	-	TG556860391	Price
4	DGM4-030-4L	AH725	x	x	x	-	x	-	TG556860595	Price
4	DGM4-030-4R	GH130	x	x	-	-	-	-	TG556860338	Price
4	DGM4-030-4L	GH130	x	x	-	-	-	-	TG556860337	Price
4	DGM4-030-15R	AH725	x	x	x	-	x	-	TG556860336	Price
4	DGM4-030-15L	AH725	x	x	x	-	x	-	TG556860553	Price
4	DGM4-030-15L	GH130	x	x	-	-	-	-	TG556860439	Price
4	DGM4-030-15R	GH130	x	x	-	-	-	-	TG556860390	Price
5	DGM5-030	AH725	x	x	x	-	x	-	TG556860440	Price
5	DGM5-030	AH905	-	-	-	-	x	-	TG556993894	Price
5	DGM5-030	AH7025	x	x	x	-	-	-	TG556745866	Price
5	DGM5-030	GH130	x	x	-	-	-	-	TG556860554	Price
5	DGM5-030	NS9530	x	-	x	-	-	-	TG556713928	Price
5	DGM5-030	T9125	x	-	-	-	-	-	TG556993818	Price
5	DGM5-030-4R	AH725	x	x	x	-	x	-	TG556860555	Price
5	DGM5-030-4R	GH130	x	x	-	-	-	-	TG556860441	Price
6	DGM6-030	AH725	x	x	x	-	x	-	TG556860339	Price
6	DGM6-030	AH905	-	-	-	-	x	-	TG556993895	Price
6	DGM6-030	AH7025	x	x	x	-	-	-	TG556745867	Price
6	DGM6-030	GH130	x	x	-	-	-	-	TG556860392	Price
6	DGM6-030	T9125	x	-	-	-	-	-	TG556993819	Price
8	DGM8-040	AH725	x	x	x	-	x	-	TG556860393	Price
8	DGM8-040	GH130	x	x	-	-	-	-	TG556860482	Price
8	DGM8-040	T9125	x	-	-	-	-	-	TG556993820	Price

Cut-Off Inserts

External Grooving and Parting

SGM Style

- 1 Corner insert
- Well designed edge with high strength
- Smooth chip evacuation

Right/Left Hand - Left

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
2	SGM2-020-6L	AH725	x	x	x	-	x	-	TG556860503	Price
2	SGM2-020-6L	GH130	x	x	-	-	-	-	TG556860615	Price
3	SGM3-020-15L	AH725	x	x	x	-	x	-	TG556860412	Price
3	SGM3-020-15L	GH130	x	x	-	-	-	-	TG556860361	Price
3	SGM3-020-6L	AH725	x	x	x	-	x	-	TG556860461	Price
3	SGM3-020-6L	GH130	x	x	-	-	-	-	TG556860573	Price
4	SGM3-030-4L	AH725	x	x	x	-	x	-	TG556860364	Price
4	SGM3-030-4L	GH130	x	x	-	-	-	-	TG556860307	Price

Right/Left Hand - Right

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
2	SGM2-020-6R	AH725	x	x	x	-	x	-	TG556860305	Price
2	SGM2-020-6R	GH130	x	x	-	-	-	-	TG556860755	Price
3	SGM3-020-15R	AH725	x	x	x	-	x	-	TG556860616	Price
3	SGM3-020-15R	GH130	x	x	-	-	-	-	TG556860362	Price

Right/Left Hand - Right

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
3	SGM3-020-6R	AH725	x	x	x	-	x	-	TG556860574	Price
3	SGM3-020-6R	GH130	x	x	-	-	-	-	TG556860617	Price
4	SGM3-030-4R	AH725	x	x	x	-	x	-	TG556860757	Price
4	SGM3-030-4R	GH130	x	x	-	-	-	-	TG556860308	Price

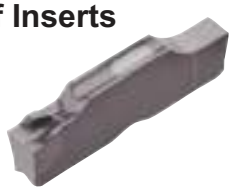
Right/Left Hand - Neutral

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
2	SGM2-020	AH725	x	x	x	-	x	-	TG556860411	Price
2	SGM2-020	GH130	x	x	-	-	-	-	TG556860502	Price
3	SGM3-020	AH725	x	x	x	-	x	-	TG556860306	Price
3	SGM3-020	GH130	x	x	-	-	-	-	TG556860756	Price
4	SGM4-030	AH725	x	x	x	-	x	-	TG556860363	Price
4	SGM4-030	GH130	x	x	-	-	-	-	TG556860413	Price
5	SGM5-030	AH725	x	x	x	-	x	-	TG556860575	Price
5	SGM5-030	GH130	x	x	-	-	-	-	TG556860462	Price
6	SGM6-030	AH725	x	x	x	-	x	-	TG556860504	Price
6	SGM6-030	GH130	x	x	-	-	-	-	TG556860414	Price

TUNGCUT Cut-Off Inserts

External Grooving and Parting

SGS Style



- 1 Corner insert
- Sharper edge and low cutting force
- Unique designed edge and chipbreaker

Style - SGS2020 Radius (in.) - .008

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
2	SGS2-020	AH725	x	x	x	-	x	-	TG556860505	Price
2	SGS2-020	GH130	x	x	-	-	-	-	TG556860618	Price
2	SGS2-020-6L	AH725	x	x	x	-	x	-	TG556860311	Price
2	SGS2-020-6R	AH725	x	x	x	-	x	-	TG556860415	Price
2	SGS2-020-6L	GH130	x	x	-	-	-	-	TG556860760	Price
2	SGS2-020-6R	GH130	x	x	-	-	-	-	TG556860365	Price
2	SGS2-020-15L	AH725	x	x	x	-	x	-	TG556860309	Price
2	SGS2-020-15R	AH725	x	x	x	-	x	-	TG556860310	Price
2	SGS2-020-15L	GH130	x	x	-	-	-	-	TG556860758	Price
2	SGS2-020-15R	GH130	x	x	-	-	-	-	TG556860759	Price

Style - SGS3002 Radius (in.) - .008

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
-	SGS3-002-15L	AH725	x	x	x	-	x	-	TG556860619	Price
3	SGS3-002-6L	AH725	x	x	x	-	x	-	TG556860464	Price
3	SGS3-002-6R	AH725	x	x	x	-	x	-	TG556861804	Price
3	SGS3-002-6L	GH130	x	x	-	-	-	-	TG556860577	Price
3	SGS3-002-6R	GH130	x	x	-	-	-	-	TG556861794	Price
3	SGS3-002-15R	AH725	x	x	x	-	x	-	TG556860576	Price
3	SGS3-002-15L	GH130	x	x	-	-	-	-	TG556860366	Price
3	SGS3-002-15R	GH130	x	x	-	-	-	-	TG556860463	Price

Style - SGS3020 Radius (in.) - .008

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
3	SGS3-020	AH725	x	x	x	-	x	-	TG556860761	Price
3	SGS3-020	GH130	x	x	-	-	-	-	TG556860506	Price
3	SGS3-020-6L	AH725	x	x	x	-	x	-	TG556860466	Price
3	SGS3-020-6R	AH725	x	x	x	-	x	-	TG556860579	Price
3	SGS3-020-6L	GH130	x	x	-	-	-	-	TG556860578	Price
3	SGS3-020-6R	GH130	x	x	-	-	-	-	TG556860621	Price
3	SGS3-020-15L	AH725	x	x	x	-	x	-	TG556860620	Price
3	SGS3-020-15R	AH725	x	x	x	-	x	-	TG556860416	Price
3	SGS3-020-15L	GH130	x	x	-	-	-	-	TG556860507	Price
3	SGS3-020-15R	GH130	x	x	-	-	-	-	TG556860465	Price

Style - SGS4030 Radius (in.) - .012

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
4	SGS4-030	AH725	x	x	x	-	x	-	TG556860622	Price
4	SGS4-030	GH130	x	x	-	-	-	-	TG556860367	Price

Style - SGS5030 Radius (in.) - .012

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
5	SGS5-030	AH725	x	x	x	-	x	-	TG556860417	Price
5	SGS5-030	GH130	x	x	-	-	-	-	TG556860368	Price

Style - SGS6030 Radius (in.) - .012

Insert Seat Size	Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
6	SGS6-030	AH725	x	x	x	-	x	-	TG556860467	Price
6	SGS6-030	GH130	x	x	-	-	-	-	TG556860580	Price

TUNGFREC AVGT Milling Inserts



- Fit the EPAV style indexable end mills
- 6mm Length
- 5mm Width

Model No.	Grade	Radius (mm)	ST	SS	CI	N	S	H	Order No.	Price
AVGT060302PBER-MJ	AH120	0.2	x	x	x	-	x	-	TG436743203	Price
AVGT060302PBER-MJ	AH3135	0.2	x	x	-	-	-	-	TG436733155	Price
AVGT060302PBFR-AJ	KS05F	0.2	-	-	x	x	x	-	TG436733157	Price
AVGT060304PBER-MJ	AH120	0.4	x	x	x	-	x	-	TG436743204	Price
AVGT060304PBER-MJ	AH3135	0.4	x	x	-	-	-	-	TG436727544	Price
AVGT060304PBFR-AJ	KS05F	0.4	-	-	x	x	x	-	TG436733158	Price
AVGT060308PBER-MJ	AH120	0.8	x	x	x	-	x	-	TG436743205	Price
AVGT060308PBER-MJ	AH3135	0.8	x	x	-	-	-	-	TG436733156	Price
AVGT060308PBER-AJ	KS05F	0.8	-	-	x	x	x	-	TG436733159	Price

DOFEED Milling Inserts

LNMU Style





- MJ - for general purpose
- ML - for low cutting force

Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
LNGU06X5ZER-W	AH725	x	x	x	-	x	-	TG436999366	Price
LNMU0303ER-MJ	AH725	x	x	x	-	x	-	TG436864162	Price
LNMU0303ER-ML	AH725	x	x	x	-	x	-	TG436864165	Price
LNMU0303ZER-MJ	AH130	x	x	-	-	-	-	TG436864164	Price
LNMU0303ZER-MJ	AH3035	x	-	-	-	-	x	TG436707135	Price
LNMU0303ZER-MJ	AH8015	-	x	-	-	x	-	TG436754162	Price
LNMU0303ZER-ML	AH130	x	x	-	-	-	-	TG436864163	Price
LNMU0303ZER-ML	AH3035	x	-	-	-	-	x	TG436707136	Price
LNMU0303ZER-ML	AH8015	-	x	-	-	x	-	TG436761978	Price
LNMU06X5ZER-MJ	AH120	x	x	x	-	x	-	TG436881593	Price
LNMU06X5ZER-MJ	AH130	x	x	-	-	-	-	TG436869923	Price
LNMU06X5ZER-MJ	AH3035	x	-	-	-	-	x	TG436995912	Price
LNMU06X5ZER-MJ	AH725	x	x	x	-	x	-	TG436869924	Price
LNMU06X5ZER-MJ	AH8015	-	x	-	-	x	-	TG436756595	Price
LNMU06X5ZER-ML	AH120	x	x	x	-	x	-	TG436881594	Price
LNMU06X5ZER-ML	AH130	x	x	-	-	-	-	TG436885144	Price
LNMU06X5ZER-ML	AH3035	x	-	-	-	-	x	TG436995913	Price
LNMU06X5ZER-ML	AH725	x	x	x	-	x	-	TG436885143	Price
LNMU06X5ZER-ML	AH8015	-	x	-	-	x	-	TG436761979	Price

ONGU Milling Inserts

ONGU-W shown



Model No.	Grade	ST	SS	CI	S	H	Order No.	Price
ONGU 0507ANEN-MJ	AH120	x	x	x	x	-	TG436735446	Price
ONGU 0507ANEN-MJ	AH3135	x	x	-	-	-	TG436735445	Price
ONGU 0507ANEN-MJ	T3225	x	x	-	-	-	TG436749572	Price
ONGU 0507ANEN-W	AH120	x	x	x	x	-	TG436735448	Price
ONGU 0507ANEN-W	AH3135	x	x	-	-	-	TG436735447	Price

DOTMILL RNGU / RNMU Milling Inserts

Model No.	Grade	ST	SS	CI	S	H	Order No.	Price
RNGU1307ZNER-MJ	AH120	x	x	x	x	-	TG436745704	Price
RNGU1307ZNER-MJ	AH3135	x	x	-	-	-	TG436741229	Price
RNMU1307ZNER-MJ	AH120	x	x	x	x	-	TG436758748	Price
RNMU1307ZNER-MJ	AH3135	x	x	-	-	-	TG436758747	Price
RNMU1307ZNER-MJ	T1215	-	-	x	-	-	TG436758750	Price
RNMU1307ZNER-MJ	T3225	x	x	-	-	-	TG436758749	Price

DOTMILL SNGU / SNMU Milling Inserts

Model No.	Grade	ST	SS	CI	S	H	Order No.	Price
SNGU 1307ANEN-MH	T3225	x	x	-	-	-	TG436747499	Price
SNGU 1307ANEN-MJ	AH120	x	x	x	-	-	TG436999370	Price
SNGU 1307ANEN-MJ	AH3135	x	x	-	-	-	TG436999369	Price
SNGU 1307ANEN-MJ	T3225	x	x	-	-	-	TG436749573	Price
SNGU 1307ANEN-W	AH120	x	x	x	-	-	TG436735444	Price
SNGU 1307ANEN-W	AH3135	x	x	-	-	-	TG436735443	Price
SNGU 1307C14ANEN-MJ	AH120	x	x	x	-	-	TG436735438	Price
SNGU 1307C14ANEN-MJ	AH3135	x	x	-	-	-	TG436735437	Price
SNMU 1307ANEN-MJ	AH120	x	x	x	-	-	TG436735440	Price
SNMU 1307ANEN-MJ	AH3135	x	x	-	-	-	TG436735439	Price
SNMU 1307ANEN-MJ	T1215	-	-	x	-	-	TG436758742	Price
SNMU 1307ANEN-MJ	T3225	x	x	-	-	-	TG436758741	Price

Inserts

TNGU Style



- AH120 - For steel, cast iron and super alloy applications
- AH3135 - For steel, stainless steel, super alloys and hard material applications

Model No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TNMU120708PER-MJ	AH120	x	x	x	-	x	-	TG436752715	Price
TNMU120708PER-MJ	AH3135	x	x	-	-	-	-	TG436752714	Price
TNMU120708PER-MJ	T1215	-	-	x	-	-	-	TG436753458	Price
TNMU120708PER-MJ	T3225	x	x	-	-	-	-	TG436753456	Price
TNMU120708PER-NMJ	AH120	x	x	x	-	x	-	TG436752717	Price
TNMU120708PER-NMJ	AH3135	x	x	-	-	-	-	TG436752716	Price
TNGU120708PER-MJ	AH120	x	x	x	-	x	-	TG436730265	Price
TNGU120708PER-MJ	AH3135	x	x	-	-	-	-	TG436730264	Price
TNGU120708PER-NMJ	AH120	x	x	x	-	x	-	TG436739566	Price
TNGU120708PER-NMJ	AH3135	x	x	-	-	x	-	TG436739565	Price
TNMU1207R16PER-MJ	AH120	x	x	x	-	x	-	TG436735207	Price
TNMU1207R16PER-MJ	AH3135	x	x	-	-	-	-	TG436735208	Price

TUNG-TRI TOMT Milling Inserts



Model No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
TOMT 060302PDER-MJ	AH120	x	x	x	-	x	-	TG436999330	Price
TOMT 060302PDER-MJ	AH3135	x	x	-	-	-	-	TG436999329	Price
TOMT 060304PDER-MJ	AH120	x	x	x	-	x	-	TG436999332	Price
TOMT 060304PDER-MJ	AH3135	x	x	-	-	-	-	TG436999331	Price
TOMT 060308PDER-MJ	AH120	x	x	x	-	x	-	TG436999334	Price
TOMT 060308PDER-MJ	AH3135	x	x	-	-	-	-	TG436999333	Price
TOMT 060308PDER-MJ	T1215	-	-	x	-	-	-	TG436747250	Price
TOMT 100404PDER-MJ	AH120	x	x	x	-	x	-	TG436999151	Price
TOMT 100404PDER-MJ	AH3135	x	x	-	-	-	-	TG436999150	Price
TOMT 100408PDER-MJ	AH120	x	x	x	-	x	-	TG436999179	Price
TOMT 100408PDER-MJ	AH3135	x	x	-	-	-	-	TG436999178	Price
TOMT 100408PDER-MJ	T1215	-	-	x	-	-	-	TG436747251	Price
TOMT 100416PDER-MJ	AH120	x	x	x	-	x	-	TG436999336	Price
TOMT 100416PDER-MJ	AH3135	x	x	-	-	-	-	TG436999335	Price
TOMT 150604PDER-MJ	AH120	x	x	x	-	x	-	TG436999186	Price
TOMT 150604PDER-MJ	AH3135	x	x	-	-	-	-	TG436999185	Price
TOMT 150608PDER-MJ	AH120	x	x	x	-	x	-	TG436999154	Price
TOMT 150608PDER-MJ	AH3135	x	x	-	-	-	-	TG436999153	Price
TOMT 150608PDER-MJ	T1215	-	-	x	-	-	-	TG436747252	Price
TOMT 150608PDER-NMJ	AH120	x	x	x	-	x	-	TG436999389	Price
TOMT 150608PDER-NMJ	AH3135	x	x	-	-	-	-	TG436999374	Price
TOMT 150616PDER-MJ	AH120	x	x	x	-	x	-	TG436999338	Price
TOMT 150616PDER-MJ	AH3135	x	x	-	-	-	-	TG436999337	Price
TOMT 150620PDER-MJ	AH120	x	x	x	-	x	-	TG436999340	Price
TOMT 150620PDER-MJ	AH3135	x	x	-	-	-	-	TG436999339	Price

Inserts

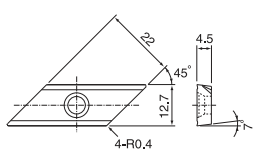
WWCW Style

- For milling applications

Model No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
WWCW13T3AFER-WS	NS740	x	-	-	-	-	-	TG556849026	Price
WWCW13T3AFFR-WS	KS05F	-	-	x	x	x	-	TG556849027	Price

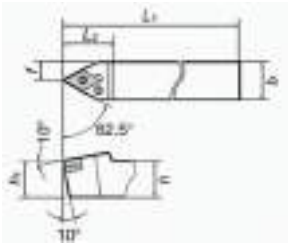
Milling Inserts

XCET Style



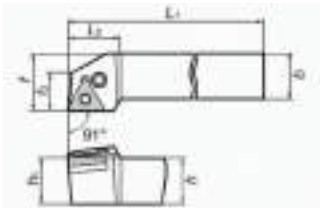
Item No.	Grade	ST	SS	CI	N	S	H	Order No.	Price
XCET310404ER	AH120	x	x	x	-	x	-	TG556849641	Price
XCET310404ER	AH330	x	-	-	-	-	-	TG556811536	Price
XCET310404ER	NS740	x	-	-	-	-	-	TG556821581	Price
XCET310404ER	TH10	x	-	x	-	-	-	TG556837464	Price
XCET310404ER	UX30	x	x	-	-	-	-	TG556811538	Price

PDJNR/L Holders



A x B (in.)	OAL L1	L2	Center Height f2	Uses Insert	Left			Right		
					Model No.	Order No.	Price	Model No.	Order No.	Price
1 x 1	6.000	.625	1.000	DN..33..	PDJNL164-CHP	**TG206730832**	Price	PDJNR164-CHP	**TG206730831**	Price
20mm x 20mm	125mm	27mm	16mm	DN..1104..	PDJNL2020K1104	**TG206710296**	Price	PDJNR2020K1104	**TG206710295**	Price
25mm x 25mm	150mm	36mm	25mm	DN..33..	PDJNL2525M15-CHP	**TG206718769**	Price	PDJNR2525M15-CHP	**TG206728355**	Price

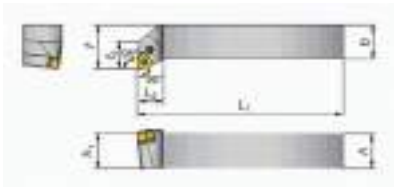
PTGNR/L Turning Tool Holders



- .031 Standard corner radius
- Negative rake
- Lever lock system

Shank Size	OAL	Head Length	Height	Head Width	Center Height	Uses Insert Style	Right		
							Model No.	Order No.	Price
25mm x 25mm	150mm	20mm	25.0mm	32.0mm	22.5mm	TN..1104..	PTGNR2525M1104	**TG206708732**	Price

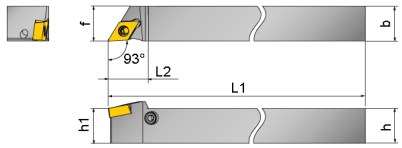
PWLNR/L Turning Tool Holders



- .031 Standard corner radius
- Negative rake
- Level lock system

Shank Size (in.)	OAL	Head Length	Height	Head Width	Center Height	Uses Insert Style	Left		
							Model No.	Order No.	Price
25mm x 25mm	150mm	19mm	25.0mm	32.0mm	20mm	WN..0604..	PWLNL2525M0604	**TG206710302**	Price

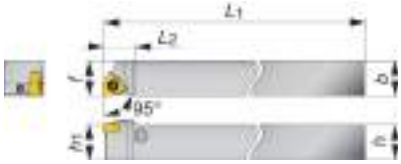
MINIFTURN Style JPDJ Turning & Profiling Tool Holders



- J-type
- Positive rake, side clamping system
- Right hand shown
- Note: right hand (R) tool holders use left hand inserts and left (L) hand tool holders use right hand inserts

Shank Size A x B (in.)	OAL L1 (in.)	L2	Center Ht. h1 (in.)	f	Lever	Pin	Wrench	Left				Right			
								Model No.	Uses Insert	Order No.	Price	Model No.	Uses Insert	Order No.	Price
1/2 x 1/2	4-3/4	5/8	1/2	1/2	SLLV-2	SL-PI-2	P-2F	JPDJ2XL082	DXGU0703R	**TG206712889**	Price	JPDJ2XR082	DXGU0703L	**TG206712890**	Price
3/8 x 3/8	4-3/4	5/8	3/8	3/8	SLLV-2	SL-PI-2	P-2F	JPDJ2XL062	DXGU0703R	**TG206712887**	Price	JPDJ2XR062	DXGU0703L	**TG206712888**	Price
5/8 x 5/8	4-3/4	5/8	5/8	5/8	SLLV-2	SL-PI-2	P-2F	JPDJ2XL102	DXGU0703R	**TG206712891**	Price	JPDJ2XR102	DXGU0703L	**TG206712892**	Price

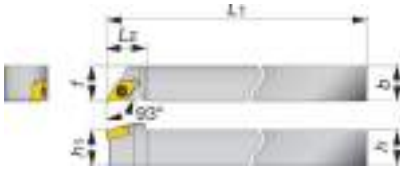
MINIFTURN Style JPWL Turning & Facing Tool Holders



- J-type
- Positive rake, side clamping system
- Right hand shown
- Note: right hand (R) tool holders use left hand inserts and left (L) hand tool holders use right hand inserts

Shank Size A x B	OAL L1 (in.)	L2	Center Ht. h1 (in.)	f	Lever	Pin	Wrench	Left				Right			
								Model No.	Uses Insert	Order No.	Price	Model No.	Uses Insert	Order No.	Price
3/8 x 3/8	4-3/4	1/2	3/8	3/8	SLLV-2	SL-PI-2	P-2F	JPWL2XL062	WXGU0403R	**TG206712859**	Price	JPWL2XR062	WXGU0403L	**TG206712860**	Price
1/2 x 1/2	4-3/4	1/2	1/2	1/2	SLLV-2	SL-PI-2	P-2F	JPWL2XL082	WXGU0403R	**TG206712861**	Price	JPWL2XR082	WXGU0403L	**TG206712862**	Price
5/8 x 5/8	4-3/4	1/2	5/8	5/8	SLLV-2	SL-PI-2	P-2F	JPWL2XL102	WXGU0403R	**TG206712863**	Price	JPWL2XR102	WXGU0403L	**TG206712864**	Price
10 x 10mm	120mm	11mm	10mm	10mm	SLLV-2	SL-PI-2	P-2F	JPWL2XL1010X04	WXGU0403R	**TG206712851**	Price	JPWL2XR1010X04	WXGU0403L	**TG206712852**	Price
12 x 12mm	85mm	11mm	12mm	12mm	SLLV-2	SL-PI-2	P-2F	-	-	**-**	-	JPWL2XR1212F04	WXGU0403L	**TG206712854**	Price
12 x 12mm	120mm	11mm	12mm	12mm	SLLV-2	SL-PI-2	P-2F	JPWL2XL1212X04	WXGU0403R	**TG206712855**	Price	JPWL2XL1212F04	WXGU0403R	**TG206712853**	Price
16 x 16mm	120mm	13mm	16mm	16mm	SLLV-2	SL-PI-2	P-2F	JPWL2XL1616X04	WXGU0403R	**TG206712857**	Price	JPWL2XR1616X04	WXGU0403L	**TG206712858**	Price

MINIFTURN Style JSDJ Turning & Profiling Tool Holders



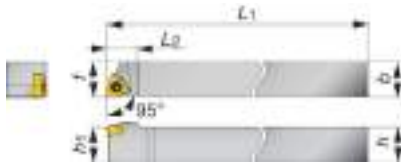
- J-type
- Positive rake, screw-on system
- Right hand shown
- Note: right hand (R) tool holders use left hand inserts and left (L) hand tool holders use right hand inserts

Shank Size A x B (in.)	OAL L1 (in.)	L2	Center Ht. h1 (in.)	f2	Clamp Screw	Wrench	Left				Right			
							Model No.	Uses Insert	Order No.	Price	Model No.	Uses Insert	Order No.	Price
3/8 x 3/8	4-3/4	5/8	3/8	3/8	SR34-514	T-7F	JSDJ2XL062	DXGU0703R	**TG206712873**	Price	JSDJ2XR062	DXGU0703L	**TG206712874**	Price
1/2 x 1/2	4-3/4	5/8	1/2	1/2	SR34-514	T-7F	JSDJ2XL082	DXGU0703R	**TG206712875**	Price	JSDJ2XR082	DXGU0703L	**TG206712876**	Price
5/8 x 5/8	4-3/4	5/8	5/8	5/8	SR34-514	T-7F	JSDJ2XL102	DXGU0703R	**TG206712877**	Price	JSDJ2XR082	DXGU0703L	**TG206712878**	Price

MINIFTURN

Style JSWL Turning & Facing Tool Holders

- J-type
- Positive rake, screw-on system
- Right hand shown
- Note: right hand (R) tool holders use left hand inserts and left (L) hand tool holders use right hand inserts



Shank Size A x B (in.)	OAL L1 (in.)	L2	Center Ht. h1 (in.)	f	Clamping Screw	Wrench	Left				Right			
							Model Number	Uses Insert	Order No.	Price	Model Number	Uses Insert	Order No.	Price
3/8 x 3/8	4-3/4	1/2	3/8	3/8	SR34-514	T-7F	JSWL2XL062	WXGU0403R	**TG206712845**	Price	JSWL2XR062	WXGU0403L	**TG206712846**	Price
1/2 x 1/2	4-3/4	1/2	1/2	1/2	SR34-514	T-7F	JSWL2XL082	WXGU0403R	**TG206712847**	Price	JSWL2XR082	WXGU0403L	**TG206712848**	Price
5/8 x 5/8	4-3/4	1/2	5/8	5/8	SR34-514	T-7F	JSWL2XL102	WXGU0403R	**TG206712849**	Price	JSWL2XR102	WXGU0403L	**TG206712850**	Price

MINIFTURN

Turning & Profiling Tool Holders

JSDJXR-F Style

- Screw on stepped head toolholder with 93° approach angle, for DXGU inserts
- Note: Right hand toolholders (R) are used with left hand inserts (L)



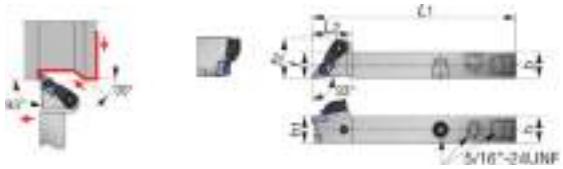
Model No.	Shank Size (in.)	Center Ht. (in.)	OAL (in.)	Uses Insert Style	Clamp Screw	Wrench	Order No.	Price
JSDJXR082-F10	1/2 x 5/8	.500	4.750	DXGU07...L	SR34-514	T-7F	**TG206735023**	Price
JSDJXR102-F10	5/8 x 3/4	.625	4.750	DXGU07...L	SR34-514	T-7F	**TG206735024**	Price

MINIFTURN

Turning & Profiling Tool Holders

JSDJ2XR/L-CHP Style

- Screw on toolholder without offset with 93° approach angle, for DXGU inserts, with channels for high pressure coolant
- Note: Right hand toolholders (R) are used with left hand inserts (L)
- Note: Left hand toolholders (L) are used with right hand inserts (R)



Model No.	Shank Size (in.)	Center Ht. (in.)	OAL (in.)	Head Length (in.)	Uses Insert Style	Clamp Screw	Wrench	Order No.	Price
JSDJ2XL082-CHP	1/2 x 1/2	.500	3.344	.750	DXGU**07*L/R	SR34-514	T-7F	**TG206730844**	Price
JSDJ2XR082-CHP	1/2 x 1/2	.500	3.344	.750	DXGU**07*L/R	SR34-514	T-7F	**TG206730843**	Price

MINIFTURN

Turning & Profiling Tool Holders

JS-SVUXL Style

- Screw on toolholder with 93° approach angle, for VXGU inserts with 4 edges
- Note: Left hand toolholders (L) are used with left hand inserts (L)



Model No.	Shank Size (in.)	Center Ht. (in.)	OAL (in.)	Uses Insert Style	Clamp Screw	Wrench	Order No.	Price
JS159F-SVUXL09	5/8	.394	3.346	VXGU09...L	SR34-508	T-7F	**TG206734981**	Price
JS19G-SVUXL09	3/4	.394	3.543	VXGU09...L	SR34-508	T-7F	**TG206734983**	Price
JS19X-SVUXL09	3/4	.394	4.724	VXGU09...L	SR34-508	T-7F	**TG206734984**	Price
JS254X-SVUXL09	1	.394	4.724	VXGU09...L	SR34-508	T-7F	**TG206734989**	Price

MINIFTURN

Turning & Profiling Tool Holders

JPVJ2XR/L Style

- Side clamp toolholder without offset with 93° approach angle, for VXGU inserts
- Note: Right hand toolholders (R) are used with left hand inserts (L)
- Note: Left hand toolholders (L) are used with right hand inserts (R)



Shank Size (in./mm)	OAL (in./mm)	Head Length (in./mm)	Center Height (in./mm)	Uses Insert Style	Left			Right		
					Model No.	Order No.	Price	Model No.	Order No.	Price
3/8 x 3/8	4.750	.669	.375	VXGU09...L/R	JPVJ2XL067	**TG206735013**	Price	JPVJ2XR067	**TG206735010**	Price
1/2 x 1/2	4.750	.748	.500	VXGU09...L/R	JPVJ2XL087	**TG206735014**	Price	JPVJ2XR087	**TG206735011**	Price
5/8 x 5/8	4.750	.748	.625	VXGU09...L/R	JPVJ2XL107	**TG206735015**	Price	JPVJ2XR107	**TG206735012**	Price
10mm x 10mm	120mm	19mm	10mm	VXGU09...L/R	JPVJ2XL1010X09	**TG206735006**	Price	JPVJ2XR1010X09	**TG206735002**	Price
12mm x 12mm	120mm	19mm	12mm	VXGU09...L/R	JPVJ2XL1212F09	**TG206735007**	Price	JPVJ2XR1212X09	**TG206735004**	Price
12mm x 12mm	85mm	19mm	12mm	VXGU09...L/R	JPVJ2XL1212X09	**TG206735008**	Price	JPVJ2XR1212F09	**TG206735003**	Price
16mm x 16mm	120mm	19mm	16mm	VXGU09...L/R	JPVJ2XL1212X09	**TG206735009**	Price	JPVJ2XR1616X09	**TG206735005**	Price

MINIFTURN

JSVJ2XR/L External Turning Tool Holders

- Screw on toolholder without offset with 93° approach angle, for VXGU inserts

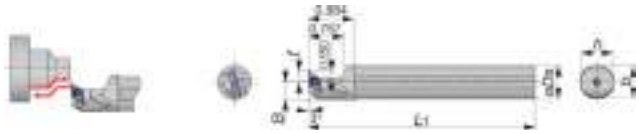


Shank Size (in.)	OAL (in.)	Head Length (in.)	Height (in.)	Head Width (in.)	Uses Insert Style	Clamp Screw	Wrench	Left			Right		
								Model No.	Order No.	Price	Model No.	Order No.	Price
1/2 x 1/2	4.750	.748	.500	.500	VXGU09...L/R	SR34-508	T-7F	JSVJ2XL087	**TG206735000**	Price	JSVJ2XR087	**TG206734997**	Price
3/8 x 3/8	4.750	.669	.375	.375	VXGU09...L/R	SR34-508	T-7F	JSVJ2XL067	**TG206734999**	Price	JSVJ2XR067	**TG206734996**	Price
5/8 x 5/8	4.750	.748	.625	.625	VXGU09...L/R	SR34-508	T-7F	JSVJ2XL107	**TG206735001**	Price	JSVJ2XR107	**TG206734998**	Price

Turning & Profiling Tool Holders

JS-SDUXL Style

- Screw on toolholder with 93° approach angle, for DXGU inserts with 4 edges
- Note: Left hand toolholders (L) are used with left hand inserts (L)



Model No.	Shank Size (in.)	Center Ht. (in.)	OAL (in.)	Uses Insert Style	Clamp Screw	Wrench	Order No.	Price
JS159F-SDUXL07	5/8	.236	3.346	DXGU07...L	SR34-514	T-7F	**TG206728971**	Price
JS19G-SDUXL07	3/4	.236	3.543	DXGU07...L	SR34-514	T-7F	**TG206728973**	Price
JS19X-SDUXL07	3/4	.236	4.724	DXGU07...L	SR34-514	T-7F	**TG206728974**	Price
JS254X-SDUXL07	1	.394	4.724	DXGU07...L	SR34-514	T-7F	**TG206728979**	Price

MINIFTURN Turning & Facing Tool Holders

JSWXR Style

- Screw on stepped head toolholder with 95° approach angle, for WXGU inserts
- Note: Right hand toolholders (R) are used with left hand inserts (L)



Model No.	Shank Size (in.)	OAL (in.)	Center Ht. (in.)	Uses Insert Style	Wrench	Order No.	Price
JSWLXR082-F10	1/2 x 5/8	4-3/4	1/2	WXGU04...L	T-7F	**TG206735027**	Price
JSWLXR102-F10	5/8 x 3/4	4-3/4	5/8	WXGU04...L	T-7F	**TG206735028**	Price

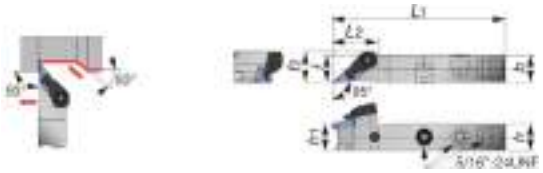
JSVJ2BR/L-CHP External Toolholders



Shank Size (in.)	OAL (in.)	Head Length (in.)	Height (in.)	Head Width (in.)	Center Height (in.)	Uses Insert Style	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
1/2 x 1/2	3.344	.930	.500	.500	.610	VB..	JSVJ2BL082-CHP	**TG206730840**	Price	JSVJ2BR082-CHP	**TG206730839**	Price

MINIFTURN JSVJ2XR/L-CHP External Turning Tool Holders

- Screw on toolholder without offset with 93° approach angle, for VXGU inserts, with coolant nozzle for high pressure

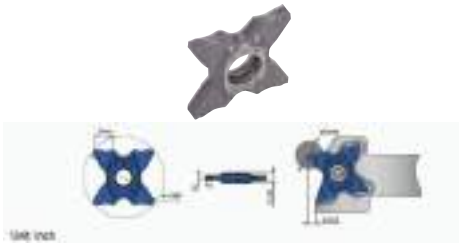


Shank Size (in.)	OAL (in.)	Head Length (in.)	Height (in.)	Head Width (in.)	Center Ht. (in.)	Uses Insert Style	Clamp Screw	Wrench	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
1/2 x 1/2	4.750	.748	.500	.500	.020	VXGU09...L/R	SR34-508	T-7F	JSVJ2XL087-CHP	**TG206737426**	Price	JSVJ2XR087-CHP	**TG206737425**	Price

TETRAFCUT Full Radius Inserts - 4 Cornered

For Grooving and Profiling

- For grooving and profiling



Model No.	W ±.0008	Radius	Max Part-off (Solid Bar)	Order No.	Price
TCS27-157-079	.094	.031	.118	**TG556883393**	Price
TCS27-200-100	.079	.039	.118	**TG556883394**	Price
TCS27-239-120	.118	.047	.224	**TG556883395**	Price
TCS27-300-150	.062	.059	.252	**TG556883396**	Price

TETRAFCUT Grooving Inserts - 4 Cornered

External Grooving and Parting -Off TCS Style

Grade AH725



W ±.0008	Radius	Tmax	Front Edge Angle	Left Hand			Right Hand		
				Model No.	Order No.	Price	Model No.	Order No.	Price
.039	.0024	.138	15°	TCS27-100-15L	**TG556883384**	Price	TCS27-100-15R	**TG556883383**	Price
.079	.004	.252	6°	-	**-**	-	TCS27-200-6R	**TG556883389**	Price
.059	.0024	.224	15°	TCS27-150-15L	**TG556883388**	Price	TCS27-150-15R	**TG556883387**	Price
.059	.0024	.224	6°	TCS27-150-6L	**TG556883386**	Price	TCS27-150-6R	**TG556883385**	Price
.079	.004	.252	15°	TCS27-200-15L	**TG556883392**	Price	TCS27-200-15R	**TG556883391**	Price
.079	.004	.252	6°	TCS27-200-6L	**TG556883390**	Price	-	**-**	-

TETRAMCUT Grooving Inserts

TCP18R/L-F Style



- Grade SH725

Width (in.)	Radius (in.)	ar	Thickness (in.)	d	Left			Right		
					Model Number	Order No.	Price	Model Number	Order No.	Price
.013	.002	.031	.157	.709	TCP18L033F	**TG556738932**	Price	TCP18R033	**TG556738936**	Price
.017	.002	.047	.157	.709	TCP18L043F	**TG556738933**	Price	TCP18R043	**TG556738937**	Price
.020	.002	.047	.157	.709	TCP18L050F	**TG556734689**	Price	TCP18R050F	**TG556734686**	Price
.030	.002	.079	.157	.709	TCP18L075F	**TG556734695**	Price	TCP18R075F	**TG556734688**	Price
.037	.002	.079	.157	.709	TCP18L095F	**TG556734701**	Price	TCP18R095F	**TG556734698**	Price
.039	.004	.079	.157	.709	TCP18L100F	**TG556734707**	Price	TCP18R100F	**TG556734692**	Price
.047	.004	.079	.157	.709	TCP18L120F	**TG556738934**	Price	TCP18R120	**TG556738938**	Price
.049	.004	.079	.157	.709	TCP18L125F	**TG556734713**	Price	TCP18R125F	**TG556734694**	Price
.057	.004	.079	.157	.709	TCP18L145F	**TG556738935**	Price	TCP18R145F	**TG556738939**	Price
.059	.004	.079	.157	.709	TCP18L150F	**TG556734719**	Price	TCP18R150F	**TG556734704**	Price
.069	.004	.079	.157	.709	TCP18L175F	**TG556734725**	Price	TCP18R175F	**TG556734706**	Price
.079	.004	.098	.157	.709	TCP18L200F	**TG556734731**	Price	TCP18R200F	**TG556734710**	Price
.098	.004	.098	.157	.709	TCP18L250F	**TG556734737**	Price	TCP18R250F	**TG556734712**	Price
.118	.004	.098	.157	.709	TCP18L300F	**TG556734743**	Price	TCP18R300F	**TG556734716**	Price

TETRAMCUT Threading Inserts

TCT Style



- Grade AH725 for low carbon steels, carbon steels, prehardened steels, stainless, grey cast irons, ductile cast irons, titanium alloys, and superalloys

Pitch Range (in.)	s	rε	θ(°)	Thickness (T)	d	Left			Right		
						Model No.	Order No.	Price	Model No.	Order No.	Price
.031 - .118	.105	.004	60°	.157	.709	TCT18L-60N-010	**TG556740386**	Price	TCT18R-60N-010	**TG556740384**	Price
.059 - .118	.101	.008	60°	.157	.709	TCT18L-60N-020	**TG556740387**	Price	TCT18R-60N-020	**TG556740385**	Price

TETRAFCUT Grooving Inserts

TCM27 Style



- Grooving and parting off insert with 4 cutting edges

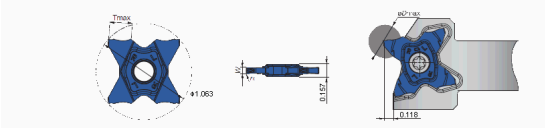
Model No.	Grade	Width (in.)	Radius (in.)	Tmax (in.)	OD Max	Order No.	Price
TCM27-150-010	AH725	.059	.004	.224	.449	**TG556996668**	Price
TCM27-150-020	AH725	.059	.008	.224	.449	**TG556996669**	Price
TCM27-157-015	AH725	.062	.006	.118	.236	**TG556996670**	Price
TCM27-157-079	AH725	.062	.031	.118	-	**TG556996671**	Price
TCM27-170-010	AH725	.067	.004	.118	.236	**TG556996672**	Price
TCM27-175-010	AH725	.069	.004	.118	.236	**TG556996673**	Price
TCM27-175-020	AH725	.069	.008	.118	.236	**TG556996674**	Price
TCM27-178-018	AH725	.070	.007	.118	.236	**TG556996675**	Price
TCM27-185-020	AH725	.073	.008	.118	.236	**TG556996676**	Price
TCM27-196-015	AH725	.077	.006	.118	.236	**TG556996677**	Price
TCM27-200-010	AH725	.079	.004	.252	.504	**TG556996678**	Price
TCM27-200-020	AH725	.079	.008	.252	.504	**TG556996679**	Price

Model No.	Grade	Width (in.)	Radius (in.)	Tmax (in.)	OD Max	Order No.	Price
TCM27-200-100	AH725	.079	.039	.118	-	**TG556996680**	Price
TCM27-222-015	AH725	.087	.006	.138	.276	**TG556996681**	Price
TCM27-230-020	AH725	.091	.008	.138	.276	**TG556996682**	Price
TCM27-239 120	AH725	.094	.059	.252	-	**TG556996684**	Price
TCM27-239-015	AH725	.094	.006	.224	.449	**TG556996683**	Price
TCM27-247-020	AH725	.097	.008	.224	.449	**TG556996685**	Price
TCM27-250-010	AH725	.098	.004	.224	.449	**TG556996686**	Price
TCM27-250-030	AH725	.098	.012	.224	.449	**TG556996687**	Price
TCM27-270-010	AH725	.106	.004	.244	.488	**TG556996688**	Price
TCM27-287-020	AH725	.113	.008	.244	.488	**TG556996689**	Price
TCM27-300-000	AH725	.118	-	.252	.504	**TG556996690**	Price
TCM27-300-020	AH725	.118	.008	.252	.504	**TG556996691**	Price
TCM27-300-030	AH725	.118	.012	.252	.504	**TG556996692**	Price
TCM27-300-040	AH725	.118	.016	.252	.504	**TG556996693**	Price
TCM27-300-150	AH725	.118	.059	.252	-	**TG556996694**	Price
TCM27-315-015	AH725	.124	.006	.252	.504	**TG556996695**	Price
TCM27-318-020	AH725	.125	.008	.252	.504	**TG556996696**	Price

TETRAFCUT Grooving Inserts - 4 Cornered

External Grooving and Parting

TCS Style



Unit: Inch

Grade AH725

Model No.	W ±.0008	Corner Radius	Tmax	Dmax	Order No.	Price
TCS27-050-000	.020	.000	.039	.079	**TG556883348**	Price
TCS27-050-004	.020	.0016	.098	.197	**TG556883349**	Price
TCS27-075-010	.030	.004	.098	.197	**TG556883350**	Price
TCS27-080-000	.031	.000	.063	.126	**TG556883351**	Price
TCS27-100-006	.039	.0024	.138	.276	**TG556883352**	Price
TCS27-100-010	.039	.004	.138	.276	**TG556883353**	Price
TCS27-104-000	.041	.000	.079	.158	**TG556883354**	Price
TCS27-120-000	.047	.000	.079	.158	**TG556883355**	Price
TCS27-125-010	.049	.004	.138	.276	**TG556883356**	Price
TCS27-125-020	.049	.008	.138	.276	**TG556883357**	Price
TCS27-140-000	.055	.000	.079	.158	**TG556883358**	Price
TCS27-147-000	.058	.000	.098	.197	**TG556883359**	Price
TCS27-150-010	.059	.004	.224	.449	**TG556883360**	Price
TCS27-150-020	.059	.008	.224	.449	**TG556883361**	Price
TCS27-157-015	.062	.006	.118	.236	**TG556883362**	Price
TCS27-170-010	.067	.004	.118	.236	**TG556883363**	Price
TCS27-175-010	.069	.004	.118	.236	**TG556883364**	Price
TCS27-175-020	.069	.008	.118	.236	**TG556883365**	Price
TCS27-178-018	.070	.007	.118	.236	**TG556883366**	Price

Model No.	W ±.0008	Corner Radius	Tmax	Dmax	Order No.	Price
TCS27-185-020	.073	.008	.118	.236	**TG556883367**	Price
TCS27-196-015	.077	.006	.118	.236	**TG556883368**	Price
TCS27-200-010	.079	.004	.252	.504	**TG556883369**	Price
TCS27-200-020	.079	.008	.252	.504	**TG556878136**	Price
TCS27-222-015	.087	.006	.138	.276	**TG556883370**	Price
TCS27-230-020	.091	.008	.138	.276	**TG556883371**	Price
TCS27-239-015	.094	.006	.224	.449	**TG556883372**	Price
TCS27-247-020	.097	.008	.224	.449	**TG556883373**	Price
TCS27-250-010	.098	.004	.224	.449	**TG556883374**	Price
TCS27-250-030	.098	.012	.224	.449	**TG556883375**	Price
TCS27-270-010	.106	.004	.244	.488	**TG556883376**	Price
TCS27-287-020	.113	.008	.244	.488	**TG556883377**	Price
TCS27-300-000	.118	.000	.252	.504	**TG556883378**	Price
TCS27-300-020	.118	.008	.252	.504	**TG556878133**	Price
TCS27-300-030	.118	.012	.252	.504	**TG556883379**	Price
TCS27-300-040	.118	.016	.252	.504	**TG556883380**	Price
TCS27-315-015	.124	.006	.252	.504	**TG556883381**	Price
TCS27-318-020	.125	.008	.252	.504	**TG556883382**	Price

TETRAMCUT

STC R/L 18 Tool Holders for External Grooving

Right hand holders take TC_18R inserts, left hand takes TC_18L inserts



Shank h x b	h1	OAL (in.)	L2	f	Left			Right		
					Model No.	Order No.	Price	Model No.	Order No.	Price
3/8 x 3/8	.375	5.000	.740	.375	STCL06-18	**TG206734565**	Price	STCR06-18	**TG206734564**	Price
1/2 x 1/2	.500	4.750	.740	.500	STCL08-18	**TG206734567**	Price	STCR08-18	**TG206734566**	Price
5/8 x 5/8	.625	4.750	.740	.625	STCL10-18	**TG206734569**	Price	STCR10-18	**TG206734568**	Price
3/4 x 3/4	.750	4.750	.900	.750	STCL12-18	**TG206734571**	Price	STCR12-18	**TG206734570**	Price
1 x 1	1.000	5.500	.900	1.000	STCL16-18	**TG206734573**	Price	STCR16-18	**TG206734572**	Price

TETRAFCUT

STC R/L for External Grooving



- Right hand shown
- Replacement screw for all right hand holders is SR16-212-01397L, left hand holders use replacement screw SR16-212-01397

Shank h x b	h1	OAL (in.)	L2	f	Wrench	Left			Right		
						Model No.	Order No.	Price	Model No.	Order No.	Price
3/8 x 3/8	.375	5.000	.945	.315	T-2010/5	STCL0627	**TG206883406**	Price	STCR0627	**TG206883405**	Price
1/2 x 1/2	.500	5.000	.945	.440	T-2010/5	STCL0827	**TG206883408**	Price	STCR0827	**TG206883407**	Price
5/8 x 5/8	.625	5.000	.945	.570	T-2010/5	STCL1027	**TG206883410**	Price	STCR1027	**TG206883409**	Price
3/4 x 3/4	.750	5.000	.945	.690	T-2010/5	STCL1227	**TG206883412**	Price	STCR1227	**TG206883411**	Price
63/64 x 63/64	1.000	4.922	-	.940	T-2010/5	-	**-**	-	STCR1627CHP	**TG206741051**	Price
1 x 1	1.000	5.500	.945	.940	T-2010/5	STCL1627	**TG206883414**	Price	STCR1627	**TG206883413**	Price
1-1/4 x 1-1/4	1.250	5.500	-	1.125	T-2010/5	STCL20-27	**TG202393704**	Price	STCR20-27	**TG202393703**	Price

DEEPTDRILL

Drill Body for Lathes and Machining Centers

MCTR



- MCTR L/D = 10 tool dia. .687" - 1.000"
- MCTR L/D = 15 tool dia. .687" - 1.000"
- MCTR L/D = 25 tool dia. .687" - 1.062"
- Tool diameter tolerance +0/-0.07
- Applicable tolerance range of hole dia. +0.05 - 0.1

Type - L/D = 10									
Size (in.)	Size (mm)	Flute Length	Shank Length	Max Drill Depth (in.)	OAL	Insert Style	Guide Pad	Order No.	Price
.687	17.45mm	8.661	2.205	7.187	10.866	TOHT08	GP06-075	**TG254846640**	Price
.718	18.24mm	9.134	2.205	7.480	11.339	TOHT09	GP06-085	**TG254820503**	Price
.734	18.64mm	9.134	2.205	7.480	11.339	TOHT09	GP06-085	**TG254820506**	Price
.750	19.05mm	9.567	2.205	7.874	11.772	TOHT09	GP06-085	**TG254819599**	Price
.785	19.94mm	10.039	2.362	12.402	12.401	TOHT09	GP06-085	**TG254819604**	Price
.812	20.62mm	10.039	2.362	8.268	12.401	TOHT10	GP06-085	**TG254820509**	Price
.875	22.23mm	10.945	2.362	9.055	13.307	TOHT11	GP06-100	**TG254829841**	Price
.937	23.80mm	10.945	2.362	9.843	13.307	TOHT11	GP06-100	**TG254820515**	Price
1.000	25.40mm	12.283	2.362	10.236	14.645	TOHT11	GP06-100	**TG254829840**	Price

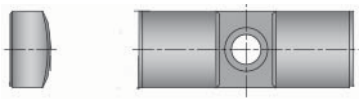
Type - L/D = 15									
Size (in.)	Size (mm)	Flute Length	Shank Length	Max Drill Depth (in.)	OAL	Insert Style	Guide Pad	Order No.	Price
.687	17.45mm	12.205	1.000	10.630	13.205	TOHT08	GP06-075	**TG254846642**	Price
.718	18.24mm	12.874	2.205	11.220	15.079	TOHT09	GP06-085	**TG254820504**	Price
.734	18.64mm	12.874	2.205	11.220	15.079	TOHT09	GP06-085	**TG254820507**	Price
.750	19.05mm	13.504	2.205	11.811	15.709	TOHT09	GP06-085	**TG254819601**	Price
.785	19.94mm	14.173	2.362	8.268	16.535	TOHT09	GP06-085	**TG254819603**	Price
.812	20.62mm	14.173	2.362	12.402	16.535	TOHT10	GP06-085	**TG254820510**	Price
.875	22.23mm	15.472	2.362	13.583	17.834	TOHT11	GP06-100	**TG254820513**	Price
.937	23.80mm	16.742	2.362	14.764	19.104	TOHT11	GP06-100	**TG254820516**	Price
1.000	25.40mm	17.402	2.362	15.354	19.764	TOHT12	GP06	**TG254820518**	Price

Type - L/D = 25									
Size (in.)	Size (mm)	Flute Length	Shank Length	Max Drill Depth (in.)	OAL	Insert Style	Guide Pad	Order No.	Price
.687	17.45mm	19.291	2.205	17.717	21.496	TOHT08	GP06-075	**TG254846644**	Price
.718	18.24mm	20.354	2.205	18.701	22.559	TOHT09	GP06-085	**TG254820505**	Price
.734	18.64mm	20.354	2.205	18.701	22.559	TOHT09	GP06-085	**TG254820508**	Price
.750	19.05mm	21.378	2.205	19.685	23.583	TOHT09	GP06-085	**TG254819602**	Price
.785	19.94mm	22.441	2.362	20.669	24.803	TOHT09	GP06-085	**TG254819605**	Price
.812	20.62mm	22.441	2.362	20.669	24.803	TOHT09	GP06-085	**TG254820512**	Price
.845	21.46mm	23.465	2.362	21.654	25.827	TOHT10	GP06-085	**TG254819613**	Price
.875	22.23mm	24.528	2.362	22.638	26.890	TOHT11	GP06-100	**TG254820514**	Price
.937	23.80mm	26.614	2.362	24.606	28.976	TOHT11	GP06-100	**TG254820517**	Price
1.000	25.40mm	27.638	2.362	25.591	30.000	TOHT12	GP06	**TG254819616**	Price
1.062	26.97mm	29.724	2.756	27.559	32.480	TOHT12	GP06	**TG254820519**	Price

DEEP TURN DRILL GP Guide Pads

For MCTR Drills

- Guide pads are subject to wear, like inserts
- Each guide pad has 2 corners
- When the width of wear on the 1st corner reaches 70% of the width of the guide pad, reverse the guide pad and use the 2nd corner
- Replace the guide pad with a new one when the 2nd corner shows the same wear as the 1st corner
- Grade F2122 is the first recommendation, suitable for various workpiece materials, long tool life due to unique substrate and coating
- Grade F1122 is for high wear resistance



Grade - F1122		
Model No.	Order No.	Price
GP06 075	**TG204815126**	Price
GP06 085	**TG204815137**	Price
GP06	**TG204815130**	Price

Grade - F2122		
Model No.	Order No.	Price
GP05 060	**TG204841827**	Price
GP05 075	**TG204844468**	Price
GP06 075	**TG204818299**	Price
GP06 085	**TG204818295**	Price
GP06	**TG204815279**	Price

DEEP TURN DRILL TOHT Drilling Inserts

For MCTR Drills

- AH725 grade is TiAlN coated and is good for low carbon steels, carbon steels, alloy steels, prehardened steels, and stainless
- NDJ chipbreaker - low cutting force, for general purpose



Model No.	Cutting Diameter	Order No.	Price
TOHT070304R-NDJ	14.00 - 15.99mm	**TG435568288**	Price
TOHT080305R-NDJ	16.00 - 18.00mm	**TG435567388**	Price
TOHT090305R-NDJ	18.01 - 20.00mm	**TG435567389**	Price
TOHT100305R-NDJ	20.01 - 21.99mm	**TG435509263**	Price
TOHT110405R-NDJ	22.00 - 25.00mm	**TG435509270**	Price
TOHT120405R-NDJ	25.01 - 28.00mm	**TG435567619**	Price

EASY MCUT Blades for Face Grooving

EFPR/L Style

- Adjustable blade for face grooving
- Wrench (sold separately) order number is TG206707339



Model No.	Width (in.)	Right/Left Hand	ØDm (in.)	ØDmax (in.)	f (in.)	L1 (in.)	Min ar (in.)	Max ar (in.)	Uses Insert	Order No.	Price
EFPR-4-030035	.157	Right	1.181	1.378	.535	4.921	.709	1.968	E**4	**TG206734835**	Price
EFPL-4-030035	.157	Left	1.181	1.378	.535	4.921	.709	1.968	E**4	**TG206734836**	Price
EFPR-4-035045	.157	Right	1.378	1.772	.535	4.921	.709	1.968	E**4	**TG206734837**	Price
EFPR-4-045055	.157	Right	1.772	2.165	.535	4.921	.709	1.968	E**4	**TG206734839**	Price
EFPR-4-055075	.157	Right	2.165	2.953	.535	4.921	.709	1.968	E**4	**TG206734841**	Price
EFPR-4-075120	.157	Right	2.953	4.724	.535	5.512	.709	2.559	E**4	**TG206734843**	Price
EFPR-4-120200	.157	Right	4.724	7.784	.535	5.512	.709	2.559	E**4	**TG206734845**	Price
EFPR-4-200500	.157	Right	7.874	19.685	.535	5.512	.709	2.559	E**4	**TG206734848**	Price
EFPR-5-035045	.197	Right	1.378	1.772	.535	4.921	.748	1.968	ETX5	**TG206734850**	Price
EFPR-5-045055	.197	Right	1.772	2.165	.535	4.921	.748	1.968	ETX5	**TG206734852**	Price
EFPR-5-055075	.197	Right	2.165	2.953	.535	4.921	.748	1.968	ETX5	**TG206734854**	Price
EFPR-5-075120	.197	Right	2.953	4.724	.535	5.512	.748	2.559	ETX5	**TG206734856**	Price
EFPR-5-120200	.197	Right	4.724	7.784	.535	5.512	.748	2.559	ETX5	**TG206734858**	Price
EFPR-5-200500	.197	Right	7.874	19.685	.535	5.512	.748	2.559	ETX5	**TG206734860**	Price
EFPR-6-045055	.236	Right	1.772	2.165	.535	4.921	.787	1.968	ETX6	**TG206734862**	Price
EFPR-6-055075	.236	Right	2.165	2.953	.535	4.921	.787	1.968	ETX6	**TG206734864**	Price
EFPR-6-075120	.236	Right	2.953	4.724	.535	5.512	.787	1.968	ETX6	**TG206734866**	Price
EFPR-6-120200	.236	Right	4.724	7.874	.535	5.512	.787	2.559	ETX6	**TG206734868**	Price
EFPR-6-200500	.236	Right	7.874	19.685	.535	4.921	.787	2.559	ETX6	**TG206734870**	Price
EFPL-6-200500	.236	Left	7.874	19.685	.535	5.512	.787	2.559	ETX6	**TG206734871**	Price

EASY MCUT EGP Parting Off Blades





Model No.	Shank Size (in.)	OAL (in.)	Max. Depth (in.)	Insert Width (in.)	Uses Insert Style	Wrench	Order No.	Price
EGP32-4D-CHP	1.260	5.906	3.937	.157	E..4...	ECW-456EF	**TG206744000**	Price
EGP32-5D-CHP	1.260	5.906	4.724	.197	E..5...	ECW-456EF	**TG206744001**	Price
EGP32-6D-CHP	1.260	5.906	4.724	.236	E..6...	ECW-456EF	**TG206744002**	Price

EASY MCUT Inserts

EGM & ETX Style

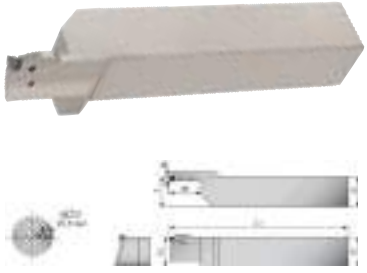
- Single-ended inserts for external, internal, face grooving and turning
- AH725 grade is good for low carbon steels, carbon steels, alloy steels, prehardened steels, and stainless
- ETX style insert shown



Model No.	Grade	Width (in.)	Length (in.)	Radius	Order No.	Price
EGM4 030	AH725	.157	.315	.012	**TG556991271**	Price
ETX4 040	AH725	.157	.315	.016	**TG556991279**	Price
ETX5 040	AH725	.197	.39	.016	**TG556991282**	Price
ETX6 040	AH725	.236	.472	.016	**TG556991285**	Price

EASY MCUT ETF - Face Grooving Tool Holders

Model No.	Shank Size (in.)	OAL (in.)	Dimension F (in.)	Min. Dia. (in.)	Max. Dia. (in.)	Max. Depth (in.)	Insert Width (in.)	Uses Insert Style	Wrench	Order No.	Price
ETFR16-4T15-030035-CHP	1 x 1	6.000	1.020	1.181	1.378	.591	.157	ETX4...	ECW-456EF	**TG206733940**	Price
ETFR16-4T22-035045-CHP	1 x 1	6.000	1.020	1.378	1.772	.866	.157	ETX4...	ECW-456EF	**TG206733942**	Price
ETFR16-4T25-045055-CHP	1 x 1	6.000	1.020	1.772	2.165	.984	.157	ETX4...	ECW-456EF	**TG206733944**	Price
ETFR16-4T25-055075-CHP	1 x 1	6.000	1.020	2.165	2.953	.984	.157	ETX4...	ECW-456EF	**TG206733946**	Price
ETFR16-4T25-075120-CHP	1 x 1	6.000	1.020	2.953	4.724	.984	.157	ETX4...	ECW-456EF	**TG206733948**	Price
ETFR16-4T25-120200-CHP	1 x 1	6.000	1.020	4.724	7.874	.984	.157	ETX4...	ECW-456EF	**TG206742866**	Price
ETFR16-4T25-200500-CHP	1 x 1	6.000	1.020	7.874	19.685	.984	.157	ETX4...	ECW-456EF	**TG206742867**	Price



TUNGCUT

Tool Blocks for CGP Blades

- For deep grooving and part-off

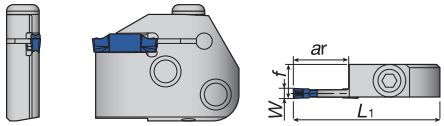


Model No.	Insert Width	Shank Width	Shank Height	OAL	Dm	Clamp	Clamp Screw	Wrench	Order No.	Price
CTBU16-030-4U-CHP	.157	.905	1.00	4.331	1.181	CT-110	CM6x30-S	P-5	**TG206734884**	Price
CTBU16-035-4/5U-CHP	.157, .197	.905	1.00	4.331	1.378	CT-110	CM6x30-S	P-5	**TG206734885**	Price
CTBU16-045-4/5U-CHP	.157, .197	.905	1.00	4.331	1.772	CT-110	CM6x30-S	P-5	**TG206734886**	Price
CTBU16-045-6U-CHP	.236	.905	1.00	4.331	1.772	CT-110	CM6x30-S	P-5	**TG206734891**	Price
CTBU16-055-4/5U-CHP	.157, .197	.905	1.00	4.331	2.165	CT-110	CM6x30-S	P-5	**TG206734887**	Price
CTBU16-055-6U-CHP	.236	.905	1.00	4.331	2.165	CT-110	CM6x30-S	P-5	**TG206734892**	Price
CTBU16-075-4/5U-CHP	.157, .197	.905	1.00	4.331	2.953	CT-110	CM6x30-S	P-5	**TG206734888**	Price
CTBU16-075-6U-CHP	.236	.905	1.00	4.331	2.953	CT-110	CM6x30-S	P-5	**TG206734893**	Price
CTBU16-120-4/5U-CHP	.157, .197	.905	1.00	4.331	4.724	CT-110	CM6x30-S	P-5	**TG206734889**	Price
CTBU16-120-6U-CHP	.236	.905	1.00	4.331	4.724	CT-110	CM6x30-S	P-5	**TG206734894**	Price
CTBU16-200-4/5U-CHP	.157, .197	.905	1.00	4.331	7.874	CT-110	CM6x30-S	P-5	**TG206734890**	Price
CTBU16-200-6U-CHP	.236	.905	1.00	4.331	7.874	CT-110	CM6x30-S	P-5	**TG206734895**	Price
CTBU16-32-U	-	.906	1.00	4.331	-	CT-110	CM6x30-S	P-5	**TG202302500**	Price

Cut-Off Blades

CAEL/R Style

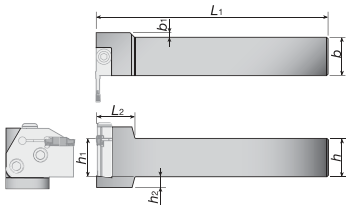
Description	Insert Seat Size	Inserts	Shank	Clamp Screw	Wrench	Order No.	Price
CAER-3T16	3	DGM*_***	CHSR/CHFVR	BHM6-20-A	P-4	**TG206860582**	Price
CAEL-3T16	3	DGM*_***	CHSL/CHFVL	BHM6-20-A	P-4	**TG206860419**	Price
CAER-4T16	4	DGM*_***	CHSR/CHFVR	BHM6-20-A	P-4	**TG206860469**	Price
CAEL-4T16	4	DGM*_***	CHSL/CHFVL	BHM6-20-A	P-4	**TG206860508**	Price
CAER-5T20	5	DGM*_***	CHSR/CHFVR	BHM6-20-A	P-4	**TG206860470**	Price
CAEL-5T20	5	DGM*_***	CHSL/CHFVL	BHM6-20-A	P-4	**TG206860623**	Price
CAER-6T20	6	DGM*_***	CHSR/CHFVR	BHM6-20-A	P-4	**TG206860583**	Price
CAEL-6T20	6	DGM*_***	CHSL/CHFVL	BHM6-20-A	P-4	**TG206860509**	Price



Cut-Off Holders – Vertical Type

CHFVL/R Style

Description	Shank Height (in.)	OAL (in.)	Blade	Clamp Screw	Wrench	Order No.	Price
CHFVR12-U	1.00	6.00	CAER	CSHB-6-A	P-4	**TG206860476**	Price
CHFVL12-U	.75	6.00	CAEL	CSHB-6-A	P-4	**TG206860331**	Price
CHFVR16-U	.75	6.00	CAER	CSHB-6-A	P-4	**TG206860431**	Price
CHFVL16-U	1.00	6.00	CAEL	CSHB-6-A	P-4	**TG206860382**	Price
CHFVR20-U	1.25	7.00	CAER	CSHB-6-A	P-4	**TG206860637**	Price
CHFVL20-U	1.25	7.00	CAEL	CSHB-6-A	P-4	**TG206860383**	Price
CHFVR2525	25mm	150mm	CAER	CSHB-6-A	P-4	**TG206860705**	Price



Cut-Off Holders – Horizontal Type

CHSL/R Style

Description	Shank Height (in.)	OAL (in.)	Blade	Clamp Screw	Wrench	Order No.	Price
CHSR12-U	.75	5.33	CAER	CSHB-6-A	P-4	**TG206860654**	Price
CHSL12-U	.75	5.33	CAER	CSHB-6-A	P-4	**TG206860810**	Price
CHSR16-U	1.00	5.33	CAEL	CSHB-6-A	P-4	**TG206860780**	Price
CHSL16-U	1.00	5.33	CAEL	CSHB-6-A	P-4	**TG206860683**	Price
CHSR20-U	1.25	6.33	CAER	CSHB-6-A	P-4	**TG206860812**	Price
CHSL20-U	1.25	6.33	CAEL	CSHB-6-A	P-4	**TG206860684**	Price
CHSR2020	20mm	133mm	CAER	CSHB-6-A	P-4	**TG206860655**	Price
CHSL2020	20mm	133mm	CAEL	CSHB-6-A	P-4	**TG206860811**	Price
CHSR2525	25mm	133mm	CAER	CSHB-6-A	P-4	**TG206860685**	Price
CHSL2525	25mm	133mm	CAEL	CSHB-6-A	P-4	**TG206860864**	Price

Cut-Off Blades

CGP Style

Insert Seat Size	Height (in.)	Length (in.)	Order No.	Price
1	1.02	5.90	**TG206860635**	Price
1	1.02	5.90	**TG206860776**	Price
2	1.02	5.90	**TG206860328**	Price
2	1.25	5.90	**TG206860523**	Price
3	1.02	5.90	**TG206860777**	Price

Insert Seat Size	Height (in.)	Length (in.)	Order No.	Price
3	1.25	5.90	**TG206860429**	Price
4	1.02	5.90	**TG206860522**	Price
4	1.25	5.90	**TG206860524**	Price
4	1.77	5.90	**TG206860779**	Price
5	1.25	5.90	**TG206860329**	Price
6	1.25	5.90	**TG206860778**	Price
8	3.15	5.90	**TG206860330**	Price



TUNGFREC Indexable End Mills

EPAV Style



- Mini square shoulder 90°

Model Number	Cutter Dia. (in.)	Shank Dia. (in.)	Number of Inserts	Head Length Lf	OAL (in.)	Max ap	Uses Insert	Order No.	Price
EPAV06U0.31C0.37R01	.313	.375	1	.787	3.250	.236	AVGT06__	**TG256733146**	Price
EPAV06U0.37C0.37R01	.375	.375	1	.787	3.250	.236	AVGT06__	**TG256733147**	Price
EPAV06U0.37C0.37R01L	.375	.375	1	1.378	4.000	.236	AVGT06__	**TG256733152**	Price
EPAV06U0.50C0.50R02	.500	.500	2	.787	3.250	.236	AVGT06__	**TG256733148**	Price
EPAV06U0.50C0.50R03	.500	.500	3	.787	3.250	.236	AVGT06__	**TG256733150**	Price
EPAV06U0.50C0.50R02L	.500	.500	2	1.378	4.750	.236	AVGT06__	**TG256733153**	Price
EPAV06U0.62C0.62R03	.625	.625	3	.787	3.500	.236	AVGT06__	**TG256733149**	Price
EPAV06U0.62C0.62R03L	.625	.625	4	.787	3.500	.236	AVGT06__	**TG256733154**	Price
EPAV06U0.62C0.62R04	.625	.625	3	1.378	5.500	.236	AVGT06__	**TG256733151**	Price

DOFTRI Indexable End Mills

EPTN12 Style



- Square shoulder milling cutters for use with double-sided triangular inserts

Model No.	Cutter Dia. (in.)	Shank Dia. (in.)	Depth Max. ap	Head Length (in.)	OAL (in.)	No. of Inserts	Uses Insert	Order No.	Price
EPTN12U1.25C1.25R03N	1.250	1.250	.433	1.500	4.500	3	TN*U12**	**TG256730276**	Price
EPTN12U1.50C1.25R04N	1.500	1.250	.433	1.500	4.500	4	TN*U12**	**TG256730277**	Price

DOFEED Indexable End Mills

EXN Style



- High accuracy
- Economical small diameter end mill
- Carbide and DLC inserts

Model No.	Cutting Dia. (in.)	No. of Inserts	Shank Dia. (in.)	Uses Insert	Order No.	Price
EXN03R062U0062-02	.625	2	.625	LNMU0303ZER-M	**TG256865490**	Price
EXN03R062U0062-02L	.625	2	.625	LNMU0303ZER-M	**TG256864929**	Price
EXN03R068U0062-02	.688	2	.625	LNMU0303ZER-M	**TG256865371**	Price
EXN03R068U0062-02L	.688	2	.625	LNMU0303ZER-M	**TG256865372**	Price
EXN03R075U0075-02	.750	2	.750	LNMU0303ZER-M	**TG256715182**	Price
EXN03R075U0075-03	.750	3	.750	LNMU0303ZER-M	**TG256864898**	Price
EXN03R075U0075-03L	.750	3	.750	LNMU0303ZER-M	**TG256864899**	Price
EXN03R087U0075-02	.875	2	.750	LNMU0303ZER-M	**TG256715183**	Price
EXN03R087U0075-03	.875	3	.750	LNMU0303ZER-M	**TG256864956**	Price
EXN03R087U0075-03L	.875	3	.750	LNMU0303ZER-M	**TG256864957**	Price
EXN03R100U0100-04	1.000	4	1.000	LNMU0303ZER-M	**TG256715184**	Price
EXN03R100U0100-04L	1.000	4	1.000	LNMU0303ZER-M	**TG256864873**	Price
EXN03R100U0100-05	1.000	5	1.000	LNMU0303ZER-M	**TG256864930**	Price
EXN03R112U0100-04	1.125	4	1.000	LNMU0303ZER-M	**TG256715185**	Price
EXN03R112U0100-04L	1.125	4	1.000	LNMU0303ZER-M	**TG256864874**	Price
EXN03R112U0100-05	1.125	5	1.000	LNMU0303ZER-M	**TG256865373**	Price
EXN03R125U0125-05	1.250	5	1.250	LNMU0303ZER-M	**TG256715186**	Price
EXN03R125U0125-05L	1.250	5	1.250	LNMU0303ZER-M	**TG256864900**	Price
EXN03R125U0125-06	1.250	6	1.250	LNMU0303ZER-M	**TG256864901**	Price
EXN06R125U0125-02L	1.250	2	1.250	LNMU06X5ZER-M	**TG256879574**	Price
EXN06R125U0125W02	1.250	2	1.250	LNMU06X5ZER-M	**TG256879573**	Price
EXN06R150U0125-03L	1.500	3	1.250	LNMU06X5ZER-M	**TG256879577**	Price
EXN06R15OU125W03	1.500	3	1.250	LNMU06X5ZER-M	**TG256879576**	Price

TUNGREC Indexable End Mills

EPS Style • 90°



- Versatile cutter
- High accuracy
- No mismatched surfaces

Cutter No.	Cutting Dia. (in.)	Shank Dia. (in.)	No. of Inserts	Uses Insert	Order No.	Price
EPS11050RSU	.500	.625	1	ASMT11T3	**TG256829498**	Price
EPS11050RLU	.500	.625	1	ASMT11T3	**TG256843441**	Price
EPS11062RLU	.625	.625	2	ASMT11T3	**TG256844297**	Price
EPS11062RSU	.625	.625	2	ASMT11T3	**TG256829499**	Price
EPS11075RLU	.750	.750	2	ASMT11T3	**TG256829500**	Price
EPS11075RSBU	.750	.750	3	ASMT11T3	**TG256821734**	Price
EPS11100RLU	1.000	1.000	2	ASMT11T3	**TG256844143**	Price
EPS11100RSBU-3/4	1.000	.750	4	ASMT11T3	**TG256850473**	Price
EPS11100RSBU	1.000	1.000	4	ASMT11T3	**TG256821584**	Price
EPS11125RLU	1.250	1.250	2	ASMT11T3	**TG256843574**	Price
EPS11125RSBU	1.250	1.250	5	ASMT11T3	**TG256829501**	Price

TUNGMILL Chamfering End Mills

ECC Style



- Multi-angle chamfer end mill
- Available in four different sizes

Lead Angle	Max. Dia.	No. of Flutes	Cutter No.	Uses Insert	Order No.	Price
30°	1.338	1	ECC31005RU30	XCET310404ER	**TG256822058**	Price
41°	1.698	2	ECC31005RU41	XCET310404ER	**TG256829415**	Price
45°	1.846	2	ECC31005RU45	XCET310404ER	**TG256811811**	Price
60°	2.204	2	ECC31005RU60	XCET310404ER	**TG256829416**	Price

For insert see page IMC-83

TUNG-TRI Indexable End Mills

EPA Style • Square Shoulder



Model No.	Cutter Dia. (in.)	Shank Dia. (in.)	Height (in.)	OAL (in.)	Max. Cutting Depth (in.)	No. of Inserts	Uses Insert	Order No.	Price
EPA06R050U0050-01N	.500	.500	.750	3.000	.236	1	TOMT0603**PDER-MJ	**TG256996205**	Price
EPA06R063U0063-02N	.625	.625	.937	3.500	.236	2	TOMT0603**PDER-MJ	**TG256996206**	Price
EPA06R075U0075-03N	.750	.750	1.142	4.000	.236	3	TOMT0603**PDER-MJ	**TG256996207**	Price
EPA06R100U0100W-04N	1.000	1.000	1.500	3.780	.236	4	TOMT0603**PDER-MJ	**TG256996208**	Price
EPA10R100U0075W-02N	1.000	.750	1.378	3.740	.394	2	TOMT1004**PDER-MJ	**TG256996209**	Price
EPA10R100U0100W-02L	1.000	1.000	2.752	8.500	.394	2	TOMT1004**PDER-MJ	**TG256996213**	Price
EPA10R100U0100W-02N	1.000	1.000	1.378	3.740	.394	2	TOMT1004**PDER-MJ	**TG256996210**	Price
EPA10R125U0125W-02L	1.250	1.250	10.000	3.000	.394	2	TOMT1004**PDER-MJ	**TG256996214**	Price
EPA10R125U0125W-03ML	1.250	-	-	4.250	.394	3	TOMT1004**PDER-MJ	**TG256761937**	Price
EPA10R125U0125W-03N	1.250	1.250	1.378	3.740	.394	3	TOMT1004**PDER-MJ	**TG256996211**	Price
EPA10R150U0125W-02L	1.500	1.500	2.000	2.000	.394	2	TOMT1004**PDER-MJ	**TG256996215**	Price
EPA10R150U0125W-03ML	1.500	-	-	4.250	.394	3	TOMT1004**PDER-MJ	**TG256761936**	Price
EPA10R150U0125W-04N	1.500	1.250	1.969	5.126	.394	4	TOMT1004**PDER-MJ	**TG256996212**	Price
EPA15R150U0125W-02L	1.500	1.500	4.250	6.500	.590	2	TOMT1506**PDER-MJ	**TG256996218**	Price
EPA15R150U0125W-03N	1.500	1.500	2.250	4.500	.590	3	TOMT1506**PDER-MJ	**TG256996216**	Price
EPA15R200U0125W-04N	2.000	2.000	2.250	4.500	.590	4	TOMT1506**PDER-MJ	**TG256996217**	Price

TUNG-TRI TPA Face Mill Cutters



Model No.	Cutter Dia. (in.)	Mounting Dia. (in.)	Bore Dia. (in.)	Height (in.)	Depth of Cut (in.)	No. of Inserts	Uses Insert	Order No.	Price
TPA06R200U0075A08	2.000	1.693	.750	1.575	.236	8	TOMT0603**PDER-MJ	**TG256996240**	Price
TPA10R200U0075A04	2.000	1.693	.750	1.575	.394	4	TOMT1004**PDER-MJ	**TG256996241**	Price
TPA10R250U0075A06	2.500	1.693	.750	1.575	.394	6	TOMT1004**PDER-MJ	**TG256996242**	Price
TPA10R300U0100A07	3.000	2.283	1.000	1.968	.394	7	TOMT1004**PDER-MJ	**TG256996243**	Price
TPA10R400U0150A08	4.000	3.150	1.500	2.480	.394	8	TOMT1004**PDER-MJ	**TG256996244**	Price
TPA15R200U0075A04	2.000	1.625	.750	1.570	.590	4	TOMT1506**PDER-MJ	**TG256996245**	Price
TPA15R250U0075A05	2.500	2.125	.750	1.570	.590	5	TOMT1506**PDER-MJ	**TG256996246**	Price
TPA15R300U0100A06	3.000	2.250	1.000	1.750	.590	6	TOMT1506**PDER-MJ	**TG256996247**	Price
TPA15R400U0150A07N	4.000	3.000	1.500	2.000	.590	7	TOMT1506**PDER-MJ	**TG256996248**	Price
TPA15R500U0150A08N	5.000	4.000	1.500	2.000	.590	8	TOMT1506**PDER-MJ	**TG256996249**	Price
TPA15R600U0200A10N	-	6.000	2.000	2.000	.590	10	TOMT1506**PDER-MJ	**TG256996250**	Price

TUNG-TRI Roughing Sub Unit for Face Mills



TLA15-S Style

- Sub unit to mount on TLA15-M type for longer Max ap reach

Model No.	Cutter Dia. (in.)	Bore Dia. (in.)	No. of Flutes	No. of Inserts	Height L	Max ap	Uses Insert	Order No.	Price
TLA15R300L110A04SS	3.000	1.024	4	8	1.703	1.102	TOMT15_ _ _	**TG256729157**	Price
TLA15R400L110A05SS	4.000	1.299	5	10	1.814	1.102	TOMT15_ _ _	**TG256729158**	Price

DOFTRI Face Mills



TPTN12

Model Number	Cutter Dia. (in.)	Bore Dia. (in.)	Number of Inserts	Max ap	Uses Insert	Order No.	Price
TPTN12U2.00B.750R05	2.00	.75	5	.433	TN_U 12_ _	**TG256730278**	Price
TPTN12U2.50B.750R06	2.50	.75	6	.433	TN_U 12_ _	**TG256730279**	Price
TPTN12U3.00B1.00R08	3.00	1.00	8	.433	TN_U 12_ _	**TG256730280**	Price
TPTN12U4.00B1.50R10	4.00	1.50	10	.433	TN_U 12_ _	**TG256730281**	Price
TPTN12U5.00B1.50R12	5.00	1.50	12	.433	TN_U 12_ _	**TG256730282**	Price

MILL-Q-FEED Bore Type Milling Cutters



TXSW Style

- Super high feed milling cutter with large depth of cut

Model Number	Cutter Dia. (in.)	Max ap	Number of Inserts	Uses Insert	Height Lf	Order No.	Price
TXSW15U2.00B0.75R03	2.00	.098	3	SWMT15_ _	1.97	**TG256735328**	Price
TXSW15U2.50B0.75R04	2.50	.098	4	SWMT15_ _	1.97	**TG256735329**	Price
TXSW15U3.00B1.00R05	3.00	.098	5	SWMT15_ _	2.48	**TG256735330**	Price
TXSW15U4.00B1.50R06	4.00	.098	6	SWMT15_ _	2.48	**TG256735331**	Price
TXSW15U5.00B1.50R07	5.00	.098	7	SWMT15_ _	2.48	**TG256735332**	Price
TXSW15U6.00B2.00R08	2.00	.098	8	SWMT15_ _	2.48	**TG256735333**	Price

TUNG-TRI Roughing Face Mills



TLA10/TLA15 Style

- Extended flute
- Square shoulder

Model No.	Cutter Dia (in.)	Bore Dia. (in.)	No. of Flutes	No. of Inserts	Height Lf	Max ap	Uses Insert	Order No.	Price
TLA10R200L213U0075A04	2.000	.750	4	24	3.250	2.126	TOMT10_ _ _	**TG256729147**	Price
TLA10R250L213U0100A04	2.000	1.000	4	24	3.250	2.126	TOMT10_ _ _	**TG256729148**	Price
TLA15R300L275U0125A04M	3.000	1.250	4	20	3.940	2.756	TOMT15_ _ _	**TG256729155**	Price
TLA15R400L326U0150A05M	4.000	1.500	5	20	4.375	3.2686	TOMT15_ _ _	**TG256729156**	Price

DoTMill Indexable Milling Cutters



TASN Style

- Face milling cutter to seat double sided square, octagonal, round inserts
- Inserts styles for this cutter are SNGU-MJ, SNGU-W, ONGU-MJ, ONGU-W, RNGU-MJ

Model No.	Cutter Dia. (in.)	No. of Inserts	Outer Dia. (in.)	Height (in.)	Bore Dia. (in.)	Weight	Order No.	Price
TASN13U2.00B0.75R05	2.000	5	1.850	1.575	.750	.90 lbs	**TG256999410**	Price
TASN13U2.50B0.75R06	2.500	6	1.850	1.575	.750	1.32 lbs	**TG256999411**	Price
TASN13U2.50B0.75R08	2.500	8	1.850	1.575	.750	1.54 lbs	**TG256736087**	Price
TASN13U3.00B1.00R08	3.000	8	1.969	1.969	1.000	1.98 lbs	**TG256999416**	Price
TASN13U3.00B1.00R10	3.000	10	1.969	1.969	1.000	2.20 lbs	**TG256999412**	Price
TASN13U4.00B1.50R08	4.000	8	3.150	1.969	1.500	3.75 lbs	**TG256999413**	Price
TASN13U4.00B1.50R12	4.000	12	3.150	1.969	1.500	3.75 lbs	**TG256999417**	Price
TASN13U5.00B1.50R10	5.000	10	3.150	2.480	1.500	5.95 lbs	**TG256999414**	Price
TASN13U5.00B1.50R14	5.000	14	3.150	2.480	1.500	6.72 lbs	**TG256999418**	Price
TASN13U6.00B2.00R12	6.000	12	3.937	2.480	2.000	8.60 lbs	**TG256999415**	Price

DoFeed High Feed Indexable End Mills



HXN Style

- High productivity with excellent chip evacuation and remarkable chip control
- High feed per tooth up to 2mm (.079")
- Economical insert with 4 cutting edges
- Center through coolant
- Low cutting force design
- Wiper insert for excellent surface finish and high feed rate, eliminating semi-finishing operation

Model No.	Cutting Dia.	No. of Inserts	Threaded Shank Size	Insert	OAL (L6)	Order No.	Price
HXN03R016MM08-02	16mm	2	M8	LNMU0303ZER-M	42mm	**TG256990874**	Price
HXN03R018MM08-02	18mm	2	M8	LNMU0303ZER-M	42mm	**TG256990875**	Price
HXN03R020MM10-03	20mm	3	M10	LNMU0303ZER-M	49mm	**TG256995991**	Price
HXN03R020MM10-04	20mm	4	M10	LNMU0303ZER-M	49mm	**TG256992730**	Price
HXN03R022MM10-04	22mm	4	M10	LNMU0303ZER-M_	49mm	**TG256990876**	Price
HXN03R025MM12-04	25mm	4	M12	LNMU0303ZER-M	57mm	**TG256995993**	Price
HXN03R025MM12-05	25mm	5	M12	LNMU0303ZER-M	57mm	**TG256990877**	Price
HXN03R028MM12-05	28mm	5	M12	LNMU0303ZER-M	63mm	**TG256990878**	Price
HXN03R032MM16-05	32mm	5	M16	LNMU0303ZER-M	63mm	**TG256995996**	Price
HXN03R032MM16-06	32mm	6	M16	LNMU0303ZER-M_	63mm	**TG256990880**	Price

DoTMill ONMU Milling Inserts



- Double-sided octagonal inserts, M class, with 16 edges and pressed MJ chipbreaker

Model No.	Grade	P	M	K	N	S	H	Order No.	Price
ONMU 0705ANEN-MJ	AH120	x	x	x	-	x	-	**TG436758744**	Price
ONMU 0705ANEN-MJ	AH3135	x	x	-	-	-	-	**TG436758743**	Price
ONMU 0705ANEN-MJ	T1215	-	-	x	-	-	-	**TG436758746**	Price
ONMU 0705ANEN-MJ	T3225	x	x	-	-	-	-	**TG436758745**	Price

TUNG-TRI TOGT Milling Inserts

- High performance inserts with pressed AJ chipbreaker for non-ferrous metal

ISO Number	Grade	ST	SS	CI	N	S	H	Order No.	Price
TOGT100404PDFR-AJ	KS05F	-	-	x	x	x	-	**TG436752948**	Price
TOGT100408PDFR-AJ	KS05F	-	-	x	x	x	-	**TG436752949**	Price
TOGT150604PDFR AJ	KS05F	-	-	x	x	x	-	**TG436752950**	Price
TOGT150608PDFR AJ	KS05F	-	-	x	x	x	-	**TG436752951**	Price

DoFeed Indexable Face Mills



TXN Style

- Indexable face mill - TXN style

Cat. No.	No. of Inserts	Cutter Dia.	Bore Dia.	Insert	Order No.	Price
TXN03R150U0050A05	5	1.50	.50	LNMU03	**TG256743508**	Price
TXN03R150U0050A06	6	1.50	.50	LNMU03	**TG256736729**	Price
TXN03R200U0075A05	5	2.00	.75	LNMU03	**TG256715174**	Price
TXN03R200U0075A08	8	2.00	.75	LNMU03	**TG256988406**	Price
TXN03R200U0075A10	10	2.00	.75	LNMU03	**TG256683960**	Price
TXN06R200U0075A04	4	2.00	.75	LNMU06	**TG256993972**	Price
TXN06R200U0075A05	5	2.00	.75	LNMU06	**TG256879571**	Price
TXN06R250U0075A04	4	2.50	.75	LNMU06	**TG256705804**	Price
TXN06R250U0075A06	6	2.50	.75	LNMU06	**TG256995674**	Price
TXN06R300U0100A05	5	3.00	1.00	LNMU06	**TG256993973**	Price
TXN06R300U0100A07	7	3.00	1.00	LNMU06	**TG256879572**	Price
TXN06R400U0150A06	6	4.00	1.50	LNMU06	**TG256710722**	Price
TXN06R400U0150A10	10	4.00	1.50	LNMU06	**TG256710726**	Price
TXN06R500U0150A08	8	5.00	1.50	LNMU06	**TG256710723**	Price
TXN06R500U0150A12	12	5.00	1.50	LNMU06	**TG256710727**	Price
TXN06R600U0200A10	10	6.00	2.00	LNMU06	**TG256710724**	Price
TXN06R600U0200A14	14	6.00	2.00	LNMU06	**TG256710728**	Price

TUNGREC ASMT style inserts for EPS Cutters



- PVD TiAlN Coating

Chipbreaker - MJ is general purpose.
Grade AH120 - Versatile grade for steel, stainless steel, cast iron and super alloy applications.

Insert No.	Length (in.)	Width (in.)	Thick-ness (in.)	Grade	Order No.	Price
ASMT11T304PDPR-MJ	.457	.264	.146	AH120	**TG556818305**	Price
ASMT11T308PDPR-MJ	.457	.264	.146	AH120	**TG556822078**	Price
ASMT11T316PDPR-MJ	.457	.264	.146	AH120	**TG556822082**	Price
ASMT11T312PDPR-MJ	.457	.264	.146	AH120	**TG556848047**	Price
ASMT170508PDPR-MJ	.665	.386	.220	AH120	**TG556818307**	Price
ASMT170516PDPR-MJ	.665	.386	.220	AH120	**TG556822090**	Price
ASMT170512PDPR-MJ	.665	.386	.220	AH120	**TG556848051**	Price
ASMT170520PDPR-MJ	.665	.386	.220	AH120	**TG556848054**	Price
ASMT11T304PDPR-MJ	.457	.264	.146	AH120	**TG556818305**	Price
ASMT11T308PDPR-MJ	.457	.264	.146	AH120	**TG556822078**	Price
ASMT11T316PDPR-MJ	.457	.264	.146	AH120	**TG556822082**	Price
ASMT11T312PDPR-MJ	.457	.264	.146	AH120	**TG556848047**	Price
ASMT170508PDPR-MJ	.665	.386	.220	AH120	**TG556818307**	Price
ASMT170516PDPR-MJ	.665	.386	.220	AH120	**TG556822090**	Price
ASMT170512PDPR-MJ	.665	.386	.220	AH120	**TG556848051**	Price
ASMT170520PDPR-MJ	.665	.386	.220	AH120	**TG556848054**	Price
ASMT11T304PDPR-MJ	.457	.264	.146	AH120	**TG556818305**	Price
ASMT11T308PDPR-MJ	.457	.264	.146	AH120	**TG556822078**	Price
ASMT11T312PDPR-MJ	.457	.264	.146	AH120	**TG556848047**	Price
ASMT11T316PDPR-MJ	.457	.264	.146	AH120	**TG556822082**	Price
ASMT170508PDPR-MJ	.665	.386	.220	AH120	**TG556818307**	Price
ASMT170512PDPR-MJ	.665	.386	.220	AH120	**TG556848051**	Price
ASMT170516PDPR-MJ	.665	.386	.220	AH120	**TG556822090**	Price
ASMT170520PDPR-MJ	.665	.386	.220	AH120	**TG556848054**	Price
ASMT11T304PDPR-MJ	.457	.264	.146	AH120	**TG556818305**	Price
ASMT11T308PDPR-MJ	.457	.264	.146	AH120	**TG556822078**	Price
ASMT11T316PDPR-MJ	.457	.264	.146	AH120	**TG556822082**	Price
ASMT11T312PDPR-MJ	.457	.264	.146	AH120	**TG556848047**	Price
ASMT170508PDPR-MJ	.665	.386	.220	AH120	**TG556818307**	Price
ASMT170516PDPR-MJ	.665	.386	.220	AH120	**TG556822090**	Price
ASMT170512PDPR-MJ	.665	.386	.220	AH120	**TG556848051**	Price
ASMT170520PDPR-MJ	.665	.386	.220	AH120	**TG556848054**	Price
ASMT11T304PDPR-MJ	.457	.264	.146	AH120	**TG556818305**	Price
ASMT11T308PDPR-MJ	.457	.264	.146	AH120	**TG556822078**	Price
ASMT11T312PDPR-MJ	.457	.264	.146	AH120	**TG556848047**	Price
ASMT11T316PDPR-MJ	.457	.264	.146	AH120	**TG556822082**	Price
ASMT170508PDPR-MJ	.665	.386	.220	AH120	**TG556818307**	Price
ASMT170512PDPR-MJ	.665	.386	.220	AH120	**TG556848051**	Price
ASMT170516PDPR-MJ	.665	.386	.220	AH120	**TG556822090**	Price
ASMT170520PDPR-MJ	.665	.386	.220	AH120	**TG556848054**	Price

Carbide

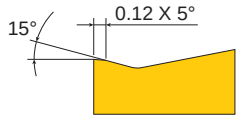
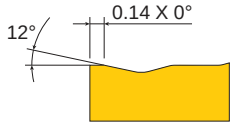
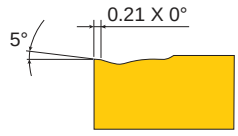
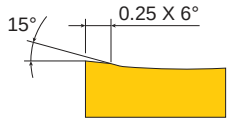
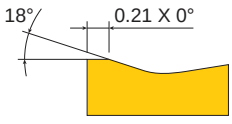
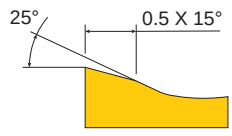
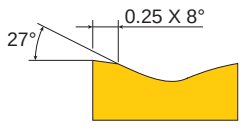
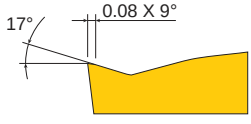
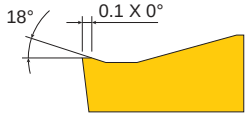
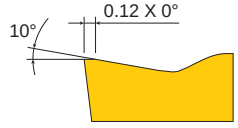
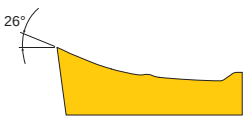


API Inserts B86-B92
Boring Bars, Carbide Tipped & Cobalt . . . B116-B119
Boring Bars, Indexable B34-B61
Boring Bars, Solid Carbide B108-B110
Brazed Carbide Tool Bits B120-B127
Carbide Blanks, Rods & Rounds . . B128, B131-B133
Ceramic Inserts B19
Cermet Inserts B18
Countersinks & Chamfering Tools, Indexable B62-B65
Cut-Off & Grooving Inserts and Tooling B73-B77
Cut-Off Blades & HSS Tool Bits B130
Dovetail Cutters, Indexable. B64-B65
Drills, Indexable B66
End Mills, Indexable B69, B71-B73
Engraving Blanks, Solid Carbide B128
Engraving Indexable B61
Face Milling Cutters, Indexable. B70
Grooving, Indexable B79-B85, B93-B95
Grooving Inserts B79-B83, B93-B95
Grooving, Solid Carbide B111-B112, B114
Grooving Toolholders B84-B85
High Feed Milling Cutter, Indexable B71
Milling Cutters, Indexable B69-B73
Milling Inserts B67-B68, B72
Procut Inserts B11-B17
Profiling Tools, Solid Carbide B114
Rapidkut Boring Bars B34-B36, B94
Rapidkut Boring Bars, Solid Carbide B108
Rapidkut Brazed Carbide Tool Bits B120-B123, B126-B127
Rapidkut Countersink, Indexable B62
Rapidkut Cut-Off Inserts & Blades B73-B75
Rapidkut Engraving Blanks, Carbide B128
Rapidkut Milling Cutters, Indexable B69-B71
Rapidkut Milling Inserts B67, B72
Rapidkut Threading & Grooving B93, B95-B96
Rapidkut Turning Inserts. B5-B10
Rapidkut Turning Tool Holders B20-B21
Spare Parts, Tool Holders. B134-B138
Spotting Drills, Indexable B61
Swiss Machine Toolholders B22-B23
Threading, Indexable B86-B107
Threading, Solid Carbide B113
Tool-Flo. B79-B92
Turning Inserts B5-B19
Turning Tool Holders. B20-B33, B43-B44, B78, B129

RAPIDKUT® Carbide Grades

GRADE	COATING PROCESS	COATING	ISO MATERIAL	APPLICATION	DESCRIPTION	AVAILABLE CHIPBREAKERS
KT1125	CVD	TiCN-Al2O3-TiN	K	TURNING	The ideal choice for medium turning applications in cast iron. Offers high wear resistance and superior toughness. Use for semi-finishing to roughing applications and continuous to heavy interruptions.	M45, R53, M51
NT9125	N/A	UNCOATED	N	TURNING	Ideal for semi-finishing to roughing in aluminum alloys and other non-ferrous materials. Offers high hardness and wear resistance.	MAU
PT1115	CVD	TiN-TiCN-Al2O3-TiN	P	TURNING	First recommendation for high speed maching in steel. Good combination of wear resistance and toughness. Improved chipping resistance.	F41, F43, M45, M46, M51, M86, R52, R53
PT1225	CVD	TiN-TiCN-Al2O3-TiN	P	TURNING	Use for general machining in steel. Wide application range thanks to good wear resistance and toughness. Imporved chipping resistance.	F41, F43, M45, M46, M51, M86, R52, R53
PT425	CVD	TiN-TiCN-Al2O3-TiN	P	TURNING	For general machinging and semi-finishing in Low Carbon Steel, Low Carbon Alloy Steel and Stainless Steel. Use for interrupted cutting in general Steel. Provides excellent toughness.	F41, M42, M45, M46
ME9125	N/A	UNCOATED	N	MILLING	Ideal for semi-finishing to roughing in aluminum alloys and other non-ferrous materials. Offers high hardness and wear resistance. Mirror like J-polish on the top surface.	NONE
ME425	PVD	TiAlN	P, M, K, S	MILLING	Designed for a wide range of medium machining applications. Use for semi-finishing to light roughing. Excellent wear resistance and tool likfe in a wide variety of materias. General purpose grade.	NONE
ME8425	PVD	AlCrN	P, M, K	MILLING	Complimentary grade for Steel, Stainless Steel and Cast Iron materials. High hardness substrate offers increased wear resistance.	HM, MM
ME8430	PVD	TiAlN	P, M, K, S, H	MILLING	Universal fisrt-choice grade with broad application range. Use in Steel, Stainless Steel, Cast Iron and Heat-resistant Super Alloys. Outstanding wear resistance and long tool life in difficult cutting conditions.	HM, MM
ME3125	PVD	TiAlN	P, M, K	GROOVING	Great for finishing to semi-finishing operations in Steel, Stainless Steel and Cast Iron. High resistance to thermal and mechanical shock with excellent wear resistance.	Molded Chipbreaker
ME435	CVD	TiN	P, M, K, S	CUT-OFF	A general purpose grade suitable for a wide range of materials with primary usage in steel and stainless steel. Suitable for interrupted cuts and unfavorable cutting conditions with lower to medium cutting speeds.	NONE
ME1025	PVD	TiCN	P, M	CUT-OFF	Use for general cut off operations in steel, alloy steels, and stainless steel. Hffers high toughness at medium cutting speeds.	NONE
ME2205	PVD	TiN -TiCN	P, M	CUT-OFF	Designed for use in Stainless Steel, carbon steel, alloy steel, aluminum alloys, cast steel and exotc alloys. Use for roughing at low speeds with high feed. Use for interrupted cuts, has high resistance to mechanical and thermal shock.	NONE

RAPIDKUT® Chipbreakers

Type	Chipbreaker	Application	Edge Geometry
NEGATIVE	F41	For medium machining and finishing applications. Good chip evacuation in low feed and depth of cut. Excellent chip control.	
	F43	For semi-finishing to medium machining in steel and alloy steel. Balanced between strength and sharpness. Good chip control in profiling.	
	M86	For semi-finishing, medium and semi-roughing in steel. Use for a wide range of turning. Low cutting force with good chip evacuation in low and high depth of cut.	
	M46	For medium machining of carbon steel and alloy steel. Also for medium machinging to finishing of cast iron. Suitable for coninuous to interrupted machining. Geometry of low cutting force.	
	R53	For medium to roughing applications in steel and cast iron. Has strong cutting edge. Recommended for unstable conditions.	
	M42	For medium machining in stainless steel and low carbon steel. Low cutting force with sharp edge geometry.	
	M45	For medium machining in stainless steel, low carbon steel and low carbon alloy steel. For semi-finishing operations in cast iron. Minimum of built-up edge from sharp edge geometry.	
POSITIVE	F41	For finishing in boring applications. Good chip evacuation in low feed and depth of cut. Low cutting force and good chip control.	
	M51	Used for semi-finishing to medium machining. Good chip evacuation in low feed and depth of cut. Good chip control.	
	R52	For medium machining to roughing applications in steel and cast iron. Use for both interrupted and continuous cutting operations.	
	MAU	For aluminum machining. Low cutting force, excellent chip evacuation.	

Rapidkut High Feed Milling Recommendations.

WorkPiece Material	Hardness	Grade	Recommended Cutting Speed	RPM 2" Diameter
*Calculations use starting vlaues				
Mild Steel	< HB200	ME8430	680 (570 - 750)	1300 (1100 - 1400)
Carbon Steel / Alloy Steel	< HRc 35	ME8430	570 (450 - 750)	1100 (860 - 1400)
Carbon Steel / Alloy Steel	HRc 35-45	ME8430	450 (340 - 550)	860 (650 - 1100)
Stainless Steel	< HRc 35	ME8430	450 (340 - 550)	860 (650 - 1100)
Cast Iron / Nodular Cast Iron	HB < 350	ME8430	680 (570 - 750)	1300 (1100 - 1400)
Heat Resitant Super Alloys / Titanium Alloy	< HRc 35	ME8430	150 (115 - 230)	290 (220 - 375)
Hardened Steel	HRc 45-55	ME8430	300 (230 - 380)	573 (375 - 725)

Medium Machining Parameters		Roughing Machining Parameters	
Feed Per Tooth Medium	2 inch dia 4 tooth IPM	Feed per Tooth Roughing	2 inch dia 4 tooth IPM
.047 (.031 - .060)	244 IPM	.06 (.039 - .079)	312 IPM
.047 (.031 - .060)	206 IPM	.06 (.039 - .079)	264 IPM
.039 (.022 - .047)	134 IPM	.047 (.031 - .060)	160 IPM
.031 (.024 - .039)	107 IPM	.039 (.031 - .047)	134 IPM
.047 (.031 - .060)	206 IPM	.06 (.039 - .079)	264 IPM
.012 (.006 - .016)	14 IPM	.016 (.008 - .024)	18 IPM
.008 (.004 - .012)	18 IPM	.012 (.006 - .016)	27 IPM

Turning Grade Comparison Chart

GRADE	Sandvik	Taegu Tec	Walter	Tungaloy	Mitsubishi	Iscar	Kennametal	Sumitomo	Kyocera	Seco
ME115 PT1115	GC4015 GC4205	TT8115 TT8125	WPP01 WPP05 WAK20	T9105 T9115	UE6105 UE6110	IC9150 IC8150 IC425	KCP10 TN7005 TN7010	AC810P AC820P	CA5505 CA5515 CA5525	TP0500 TP1500 TP2500
ME125 PT1115	GC4015 GC4225 GC4025 GC4215	TT8125 TT5100	WPP10 WPP20	T9115 T9125 T9015	UE6110 UE6010 UE6020	IC9250 IC8250 IC9150 IC8150	KCP25 TN7015	AC820P AC830P	CA5515 CA5525 CA5025 CR9025	TP1500 TP2500 TP200 TP2000
ME1225 PT1225	GC4015 GC4225 GC4025 GC4215	TT8125 TT5100	WPP10 WPP20	T9115 T9125 T9015	UE6110 UE6010 UE6020	IC9250 IC8250 IC9150 IC8150	KCP25 TN7015	AC820P AC830P	CA5515 CA5525 CA5025 CR9025	TP1500 TP2500 TP200 TP2000
ME1135	GC4225 GC4235 GC4025 GC4035	TT8125 TT8135 TT5100 TT7100	WPP20 WPP30	T9125 T9135 T9025	UE6020 UE6035 UH6400	IC8350 IC9350 IC656	KCP30 TN7025	AC820P AC830P	CA5525 CA5535 CR9025	TP2500 TP3500 TP300 TP3000
ME425 PT425	GC1025 GG1125	TT9020 TT7010 TT7220	WSM21 WSM20	AH710 AH725 SH730	VP15TF VP20MF	IC807 IC907 IC808 IC908	KCU25 KC5025 KC5525		PR915 PR930 PR1115 PR1225	CP200 TS2500
MS3115	GC1115 GC1025 GC1125 GC4125	TT5080 TT9020 TT9080	WSM10 WSM20 WSM21	AH725 GH330 SH730 GH330	VP15TF VP20MF	IC3028 IC354 IC907	KCU25 KC5025 KC5525	AC520U	PR915 PR930 PR1115 PR1225	TS2500 CP200 CP500
ME1125	GC2015 GC2025	TT9215 TT9225		T6120 T9125 T6020	MC7015 MC7025 US7020	IC6015 IC6025 IC8250	KCM15 KCM25 TN7015	AC610M AC630M	CA6525 CA6515	TM2000 TM4000
ME3125	GC1125 GC2035	TT8020 TT9020 TT9080	WSM20 WSM21 WSM30	AH120 AH725 GH130	VP15TF VP20MF	IC3028 IC354 IC908 IC928	KC5025 KC5525	AC520U AC530U	PR1025 PR1125 PR1225	CP500
ME9125 NT9125	H10 H13A	K10	WK1	KS15F TH10	HTi10	IC20	K313	H1	KW10	890
KT1125 MK1125	GC3215	TT7015 TT7310	WAK10 WAK20 WPP10	T5115 T5125	UC5115 MC5015	IC5010	KCK20 KCP25	AC415K AC420K	CA4515 CA4115 CA4120	TK2001 TP2500
ME435	GC4035	TT9030	WXP20 WTA41	TD915 T7020	F7030 UE6035	IC950 IC9025	KC725 KC9040	AC230 AC3000		F30M
ME1025	GC4025 GC1025	TT7220			AP25N UP35N	IC354	KC810 KC850	T2000Z T130Z		T25M S25M
ME2205	GC2040	TT8020			UE6010 UE6020	IC328	KC720	ACZ350		T25M

RAPIDKUT Turning Inserts

Style CCGT



- 80 Degree diamond shape
- 7 Degree relief with countersunk hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CCGT 21.50.5-MAU	NT9125	MAU	1/4	.094	.008	N	**ME1062610**	Price
CCGT 21.51-MAU	NT9125	MAU	1/4	.094	.016	N	**ME1062620**	Price
CCGT 32.50.5-MAU	NT9125	MAU	3/8	.156	.008	N	**ME1062630**	Price
CCGT 32.51-MAU	NT9125	MAU	3/8	.156	.016	N	**ME1062640**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CCGT 32.52-MAU	NT9125	MAU	3/8	.156	.031	N	**ME1062650**	Price
CCGT 431-MAU	NT9125	MAU	1/2	.187	.016	N	**ME1062660**	Price
CCGT 432-MAU	NT9125	MAU	1/2	.187	.031	N	**ME1062670**	Price

RAPIDKUT Turning Inserts

Style CCMT



- 80 Degree diamond shape
- 7 Degree relief with countersunk hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CCMT 21.51-F41	PT1115	F41	1/4	.094	.016	P	**RE1010010**	Price
CCMT 21.51-F41	PT1225	F41	1/4	.094	.016	P	**RE1010020**	Price
CCMT 21.51-R52	PT1115	R52	1/4	.094	.016	P	**RE1010030**	Price
CCMT 21.51-R52	PT1225	R52	1/4	.094	.016	P	**RE1010040**	Price
CCMT 32.51-F41	PT1115	F41	3/8	.156	.016	P	**RE1010050**	Price
CCMT 32.51-F41	PT1225	F41	3/8	.156	.016	P	**RE1010060**	Price
CCMT 32.51-M51	KT1125	M51	3/8	.156	.016	K	**RE1010070**	Price
CCMT 32.51-M51	PT1115	M51	3/8	.156	.016	P	**RE1010080**	Price
CCMT 32.51-M51	PT1225	M51	3/8	.156	.016	P	**RE1010090**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CCMT 32.51-R52	PT1115	R52	3/8	.156	.016	P	**RE1010100**	Price
CCMT 32.51-R52	PT1225	R52	3/8	.156	.016	P	**RE1010110**	Price
CCMT 32.52-F41	PT1115	F41	3/8	.156	.031	P	**RE1010120**	Price
CCMT 32.52-F41	PT1225	F41	3/8	.156	.031	P	**RE1010130**	Price
CCMT 32.52-M51	KT1125	M51	3/8	.156	.031	K	**RE1010140**	Price
CCMT 32.52-M51	PT1115	M51	3/8	.156	.031	P	**RE1010150**	Price
CCMT 32.52-M51	PT1225	M51	3/8	.156	.031	P	**RE1010160**	Price
CCMT 32.52-R52	PT1115	R52	3/8	.156	.031	P	**RE1010170**	Price
CCMT 32.52-R52	PT1225	R52	3/8	.156	.031	P	**RE1010180**	Price

RAPIDKUT Turning Inserts

Style CNMA



- 80 Degree diamond shape
- Negative with hole

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CNMA 431	KT1125	1/2	.187	.016	K	**RE1010190**	Price
CNMA 432	KT1125	1/2	.187	.031	K	**RE1010200**	Price

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CNMA 433	KT1125	1/2	.187	.047	K	**RE1010210**	Price

RAPIDKUT Turning Inserts

Style CNMG



- 80 Degree diamond shape
- Negative with hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CNMG 431-F41	PT1115	F41	1/2	.187	.016	P	**RE1010230**	Price
CNMG 431-F41	PT1225	F41	1/2	.187	.016	P	**RE1010240**	Price
CNMG 431-F41	PT425	F41	1/2	.187	.016	P,M,K	**RE1010220**	Price
CNMG 431-F43	PT1115	F43	1/2	.187	.016	P	**RE1010260**	Price
CNMG 431-F43	PT1225	F43	1/2	.187	.016	P	**RE1010270**	Price
CNMG 431-M42	PT425	M42	1/2	.187	.016	P,M,K	**RE1010250**	Price
CNMG 431-M45	PT1115	M45	1/2	.187	.016	P	**RE1010290**	Price
CNMG 431-M45	PT1225	M45	1/2	.187	.016	P	**RE1010300**	Price
CNMG 431-M45	PT425	M45	1/2	.187	.016	P,M,K	**RE1010280**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CNMG 431-M46	PT1115	M46	1/2	.187	.016	P	**RE1010320**	Price
CNMG 431-M46	PT1225	M46	1/2	.187	.016	P	**RE1010330**	Price
CNMG 431-M46	PT425	M46	1/2	.187	.016	P,M,K	**RE1010310**	Price
CNMG 431-R53	KT1125	R53	1/2	.187	.016	K	**RE1010340**	Price
CNMG 431-R53	PT1115	R53	1/2	.187	.016	P	**RE1010350**	Price
CNMG 431-R53	PT1225	R53	1/2	.187	.016	P	**RE1010360**	Price
CNMG 432-F41	PT1115	F41	1/2	.187	.031	P	**RE1010380**	Price
CNMG 432-F41	PT1225	F41	1/2	.187	.031	P	**RE1010390**	Price
CNMG 432-F41	PT425	F41	1/2	.187	.031	P,M,K	**RE1010370**	Price

(continued)

RAPIDKUT Turning Inserts

Style CNMG

- 80 Degree diamond shape
- Negative with hole



(continued)

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CNMG 432-F43	PT1115	F43	1/2	.187	.031	P	**RE1010410**	Price
CNMG 432-F43	PT1225	F43	1/2	.187	.031	P	**RE1010420**	Price
CNMG 432-M42	PT425	M42	1/2	.187	.031	P,M,K	**RE1010400**	Price
CNMG 432-M45	PT1115	M45	1/2	.187	.031	P	**RE1010440**	Price
CNMG 432-M45	PT1225	M45	1/2	.187	.031	P	**RE1010450**	Price
CNMG 432-M45	PT425	M45	1/2	.187	.031	P,M,K	**RE1010430**	Price
CNMG 432-M46	KT1125	M46	1/2	.187	.031	K	**RE1010470**	Price
CNMG 432-M46	PT1115	M46	1/2	.187	.031	P	**RE1010480**	Price
CNMG 432-M46	PT1225	M46	1/2	.187	.031	P	**RE1010490**	Price
CNMG 432-M46	PT425	M46	1/2	.187	.031	P,M,K	**RE1010460**	Price
CNMG 432-M86	PT1115	M86	1/2	.187	.031	P	**RE1010530**	Price
CNMG 432-M86	PT1225	M86	1/2	.187	.031	P	**RE1010540**	Price
CNMG 432-R53	KT1125	R53	1/2	.187	.031	K	**RE1010500**	Price
CNMG 432-R53	PT1115	R53	1/2	.187	.031	P	**RE1010510**	Price
CNMG 432-R53	PT1225	R53	1/2	.187	.031	P	**RE1010520**	Price
CNMG 433-F41	PT1115	F41	1/2	.187	.047	P	**RE1010550**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
CNMG 433-F41	PT1225	F41	1/2	.187	.047	P	**RE1010560**	Price
CNMG 433-F43	PT1115	F43	1/2	.187	.047	P	**RE1010580**	Price
CNMG 433-F43	PT1225	F43	1/2	.187	.047	P	**RE1010590**	Price
CNMG 433-M42	PT425	M42	1/2	.187	.047	P,M,K	**RE1010570**	Price
CNMG 433-M45	PT1115	M45	1/2	.187	.047	P	**RE1010610**	Price
CNMG 433-M45	PT1225	M45	1/2	.187	.047	P	**RE1010620**	Price
CNMG 433-M45	PT425	M45	1/2	.187	.047	P,M,K	**RE1010600**	Price
CNMG 433-M46	KT1125	M46	1/2	.187	.047	K	**RE1010640**	Price
CNMG 433-M46	PT1115	M46	1/2	.187	.047	P	**RE1010650**	Price
CNMG 433-M46	PT1225	M46	1/2	.187	.047	P	**RE1010660**	Price
CNMG 433-M46	PT425	M46	1/2	.187	.047	P,M,K	**RE1010630**	Price
CNMG 433-M86	PT1115	M86	1/2	.187	.047	P	**RE1010700**	Price
CNMG 433-M86	PT1225	M86	1/2	.187	.047	P	**RE1010710**	Price
CNMG 433-R53	KT1125	R53	1/2	.187	.047	K	**RE1010670**	Price
CNMG 433-R53	PT1115	R53	1/2	.187	.047	P	**RE1010680**	Price
CNMG 433-R53	PT1225	R53	1/2	.187	.047	P	**RE1010690**	Price

RAPIDKUT Turning Inserts

Style DCGT

- 55 Degree diamond shape
- 7 Degree relief with countersunk hole



Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DCGT 21.50.5-MAU	NT9125	MAU	1/4	.094	.008	N	**ME1062680**	Price
DCGT 21.51-MAU	NT9125	MAU	1/4	.094	.016	N	**ME1062690**	Price
DCGT 32.50.5-MAU	NT9125	MAU	3/8	.156	.008	N	**ME1062700**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DCGT 32.51-MAU	NT9125	MAU	3/8	.156	.016	N	**ME1062710**	Price
DCGT 32.52-MAU	NT9125	MAU	3/8	.156	.031	N	**ME1062720**	Price

RAPIDKUT Turning Inserts

Style DCMT

- 55 Degree diamond shape
- 7 Degree relief with countersunk hole



Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DCMT 21.51-R52	PT1115	R52	1/4	.094	.016	P	**RE1010720**	Price
DCMT 21.51-R52	PT1225	R52	1/4	.094	.016	P	**RE1010730**	Price
DCMT 32.51-F41	PT1115	F41	3/8	.156	.016	P	**RE1010740**	Price
DCMT 32.51-F41	PT1225	F41	3/8	.156	.016	P	**RE1010750**	Price
DCMT 32.51-M51	KT1125	M51	3/8	.156	.016	K	**RE1010760**	Price
DCMT 32.51-M51	PT1115	M51	3/8	.156	.016	P	**RE1010770**	Price
DCMT 32.51-M51	PT1225	M51	3/8	.156	.016	P	**RE1010780**	Price
DCMT 32.51-R52	PT1115	R52	3/8	.156	.016	P	**RE1010790**	Price
DCMT 32.51-R52	PT1225	R52	3/8	.156	.016	P	**RE1010800**	Price
DCMT 32.52-F41	PT1115	F41	3/8	.156	.031	P	**RE1010820**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DCMT 32.52-F41	PT1225	F41	3/8	.156	.031	P	**RE1010830**	Price
DCMT 32.52-F41	PT425	F41	3/8	.156	.031	P,M,K	**RE1010810**	Price
DCMT 32.52-M51	KT1125	M51	3/8	.156	.031	K	**RE1010840**	Price
DCMT 32.52-M51	PT1115	M51	3/8	.156	.031	P	**RE1010850**	Price
DCMT 32.52-M51	PT1225	M51	3/8	.156	.031	P	**RE1010860**	Price
DCMT 32.52-R52	PT1115	R52	3/8	.156	.031	P	**RE1010870**	Price
DCMT 32.52-R52	PT1225	R52	3/8	.156	.031	P	**RE1010880**	Price
DCMT 32.53-M51	KT1125	M51	3/8	.156	.047	K	**RE1010890**	Price
DCMT 32.53-M51	PT1115	M51	3/8	.156	.047	P	**RE1010900**	Price
DCMT 32.53-M51	PT1225	M51	3/8	.156	.047	P	**RE1010910**	Price

RAPIDKUT Turning Inserts

Style DNMA



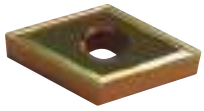
- 55 Degree diamond shape
- Negative with hole

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DNMA 433	KT1125	1/2	.187	.047	K	**RE1010920**	Price

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DNMA 442	KT1125	1/2	.187	.031	K	**RE1010930**	Price

RAPIDKUT Turning Inserts

Style DNMG



- 55 Degree diamond shape
- Negative with hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DNMG 432-F41	PT1115	F41	1/2	.187	.031	P	**RE1010940**	Price
DNMG 432-F41	PT1225	F41	1/2	.187	.031	P	**RE1010950**	Price
DNMG 432-F43	PT1115	F43	1/2	.187	.031	P	**RE1010960**	Price
DNMG 432-F43	PT1225	F43	1/2	.187	.031	P	**RE1010970**	Price
DNMG 432-M46	PT1225	M46	1/2	.187	.031	P	**RE1011000**	Price
DNMG 432-M86	PT1115	M86	1/2	.187	.031	P	**RE1010980**	Price
DNMG 432-M86	PT1225	M86	1/2	.187	.031	P	**RE1010990**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
DNMG 433-F43	PT1115	F43	1/2	.187	.047	P	**RE1011010**	Price
DNMG 433-F43	PT1225	F43	1/2	.187	.047	P	**RE1011020**	Price
DNMG 433-M45	PT1115	M45	1/2	.187	.047	P	**RE1011030**	Price
DNMG 433-R53	KT1125	R53	1/2	.187	.047	K	**RE1011040**	Price
DNMG 441-M42	PT425	M42	1/2	.250	.016	P,M,K	**RE1011050**	Price
DNMG 442-M42	PT425	M42	1/2	.250	.031	P,M,K	**RE1011060**	Price
DNMG 443-M42	PT425	M42	1/2	.250	.047	P,M,K	**RE1011070**	Price

RAPIDKUT Turning Inserts

Style SCGT



- Square shape
- 7 Degree relief with countersunk hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SCGT 431-MAU	NT9125	MAU	1/2	.187	.016	N	**ME1062730**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SCGT 432-MAU	NT9125	MAU	1/2	.187	.031	N	**ME1062740**	Price

RAPIDKUT Turning Inserts

Style SCMT



- Square shape
- 7 Degree relief with countersunk hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SCMT 32.51-F41	PT1115	F41	3/8	.156	.016	P	**RE1011080**	Price
SCMT 32.51-F41	PT1225	F41	3/8	.156	.016	P	**RE1011090**	Price
SCMT 32.51-M51	KT1125	M51	3/8	.156	.016	K	**RE1011100**	Price
SCMT 32.51-M51	PT1115	M51	3/8	.156	.016	P	**RE1011110**	Price
SCMT 32.51-M51	PT1225	M51	3/8	.156	.016	P	**RE1011120**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SCMT 32.52-F41	PT1115	F41	3/8	.156	.031	P	**RE1011130**	Price
SCMT 32.52-F41	PT1225	F41	3/8	.156	.031	P	**RE1011140**	Price
SCMT 32.52-M51	KT1125	M51	3/8	.156	.031	K	**RE1011150**	Price
SCMT 32.52-M51	PT1115	M51	3/8	.156	.031	P	**RE1011160**	Price
SCMT 32.52-M51	PT1225	M51	3/8	.156	.031	P	**RE1011170**	Price

RAPIDKUT Turning Inserts

Style SNMA



- Square shape
- Negative with hole

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SNMA 432	KT1125	1/2	.187	.031	K	**RE1011180**	Price

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SNMA 433	KT1125	1/2	.187	.047	K	**RE1011190**	Price

RAPIDKUT Turning Inserts

Style SNMG



- Square shape
- Negative with hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SNMG 431-M42	PT425	M42	1/2	.187	.016	P,M,K	**RE1011200**	Price
SNMG 431-M45	PT1115	M45	1/2	.187	.016	P	**RE1011220**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SNMG 431-M45	PT1225	M45	1/2	.187	.016	P	**RE1011230**	Price

(continued)

RAPIDKUT® Turning Inserts

Style SNMG

- Square shape
- Negative with hole



(continued)

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SNMG 431-M45	PT425	M45	1/2	.187	.016	P,M,K	**RE1011210**	Price
SNMG 431-M46	PT1115	M46	1/2	.187	.016	P	**RE1011250**	Price
SNMG 431-M46	PT1225	M46	1/2	.187	.016	P	**RE1011260**	Price
SNMG 431-M46	PT425	M46	1/2	.187	.016	P,M,K	**RE1011240**	Price
SNMG 431-R53	KT1125	R53	1/2	.187	.016	K	**RE1011270**	Price
SNMG 431-R53	PT1115	R53	1/2	.187	.016	P	**RE1011280**	Price
SNMG 431-R53	PT1225	R53	1/2	.187	.016	P	**RE1011290**	Price
SNMG 432-F41	PT1115	F41	1/2	.187	.031	P	**RE1011300**	Price
SNMG 432-M42	PT425	M42	1/2	.187	.031	P,M,K	**RE1011310**	Price
SNMG 432-M45	PT1115	M45	1/2	.187	.031	P	**RE1011330**	Price
SNMG 432-M45	PT1225	M45	1/2	.187	.031	P	**RE1011340**	Price
SNMG 432-M45	PT425	M45	1/2	.187	.031	P,M,K	**RE1011320**	Price
SNMG 432-M46	KT1125	M46	1/2	.187	.031	K	**RE1011360**	Price
SNMG 432-M46	PT1115	M46	1/2	.187	.031	P	**RE1011370**	Price
SNMG 432-M46	PT1225	M46	1/2	.187	.031	P	**RE1011380**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
SNMG 432-M46	PT425	M46	1/2	.187	.031	P,M,K	**RE1011350**	Price
SNMG 432-R53	KT1125	R53	1/2	.187	.031	K	**RE1011390**	Price
SNMG 432-R53	PT1115	R53	1/2	.187	.031	P	**RE1011400**	Price
SNMG 432-R53	PT1225	R53	1/2	.187	.031	P	**RE1011410**	Price
SNMG 433-M42	PT425	M42	1/2	.187	.047	P,M,K	**RE1011420**	Price
SNMG 433-M45	PT1115	M45	1/2	.187	.047	P	**RE1011440**	Price
SNMG 433-M45	PT1225	M45	1/2	.187	.047	P	**RE1011450**	Price
SNMG 433-M45	PT425	M45	1/2	.187	.047	P,M,K	**RE1011430**	Price
SNMG 433-M46	KT1125	M46	1/2	.187	.047	K	**RE1011470**	Price
SNMG 433-M46	PT1115	M46	1/2	.187	.047	P	**RE1011480**	Price
SNMG 433-M46	PT1225	M46	1/2	.187	.047	P	**RE1011490**	Price
SNMG 433-M46	PT425	M46	1/2	.187	.047	P,M,K	**RE1011460**	Price
SNMG 433-R53	KT1125	R53	1/2	.187	.047	K	**RE1011500**	Price
SNMG 433-R53	PT1115	R53	1/2	.187	.047	P	**RE1011510**	Price
SNMG 433-R53	PT1225	R53	1/2	.187	.047	P	**RE1011520**	Price

RAPIDKUT® Turning Inserts

Style TCGT

- Triangle shape
- 7 Degree relief with countersunk hole



Item No.	Grade	Chip Breaker	IC (in.)	Thickness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TCGT 32.51-MAU	NT9125	MAU	3/8	.156	.016	N	**ME1062760**	Price

RAPIDKUT® Turning Inserts

Style TCMT

- Triangle shape
- 7 Degree relief with countersunk hole



Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TCMT 21.51-R52	PT1115	R52	1/4	.094	.016	P	**RE1011530**	Price
TCMT 21.51-R52	PT1225	R52	1/4	.094	.016	P	**RE1011540**	Price
TCMT 32.51-F41	PT1115	F41	3/8	.156	.016	P	**RE1011550**	Price
TCMT 32.51-F41	PT1225	F41	3/8	.156	.016	P	**RE1011560**	Price
TCMT 32.51-M51	KT1125	M51	3/8	.156	.016	K	**RE1011570**	Price
TCMT 32.51-M51	PT1115	M51	3/8	.156	.016	P	**RE1011580**	Price
TCMT 32.51-M51	PT1225	M51	3/8	.156	.016	P	**RE1011590**	Price
TCMT 32.52-F41	PT1115	F41	3/8	.156	.031	P	**RE1011600**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TCMT 32.52-F41	PT1225	F41	3/8	.156	.031	P	**RE1011610**	Price
TCMT 32.52-M51	KT1125	M51	3/8	.156	.031	K	**RE1011620**	Price
TCMT 32.52-M51	PT1115	M51	3/8	.156	.031	P	**RE1011630**	Price
TCMT 32.52-M51	PT1225	M51	3/8	.156	.031	P	**RE1011640**	Price
TCMT 32.53-M51	KT1125	M51	3/8	.156	.047	K	**RE1011650**	Price
TCMT 32.53-M51	PT1115	M51	3/8	.156	.047	P	**RE1011660**	Price
TCMT 32.53-M51	PT1225	M51	3/8	.156	.047	P	**RE1011670**	Price

RAPIDKUT® Turning Inserts

Style TNMA

- Triangle shape
- Negative with hole



Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TNMA 331	KT1125	3/8	.187	.016	K	**RE1011680**	Price
TNMA 332	KT1125	3/8	.187	.031	K	**RE1011690**	Price

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TNMA 333	KT1125	3/8	.187	.047	K	**RE1011700**	Price

RAPIDKUT Turning Inserts

Style TNMG



- Triangle shape
- Negative with hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TNMG 331-F41	PT1115	F41	3/8	.187	.016	P	**RE1011710**	Price
TNMG 331-F41	PT1225	F41	3/8	.187	.016	P	**RE1011720**	Price
TNMG 331-F43	PT1115	F43	3/8	.187	.016	P	**RE1011740**	Price
TNMG 331-F43	PT1225	F43	3/8	.187	.016	P	**RE1011750**	Price
TNMG 331-M42	PT425	M42	3/8	.187	.016	P,M,K	**RE1011730**	Price
TNMG 331-M45	PT1115	M45	3/8	.187	.016	P	**RE1011770**	Price
TNMG 331-M45	PT1225	M45	3/8	.187	.016	P	**RE1011780**	Price
TNMG 331-M45	PT425	M45	3/8	.187	.016	P,M,K	**RE1011760**	Price
TNMG 331-M46	PT1115	M46	3/8	.187	.016	P	**RE1011800**	Price
TNMG 331-M46	PT1225	M46	3/8	.187	.016	P	**RE1011810**	Price
TNMG 331-M46	PT425	M46	3/8	.187	.016	P,M,K	**RE1011790**	Price
TNMG 331-R53	KT1125	R53	3/8	.187	.016	K	**RE1011820**	Price
TNMG 331-R53	PT1115	R53	3/8	.187	.016	P	**RE1011830**	Price
TNMG 331-R53	PT1225	R53	3/8	.187	.016	P	**RE1011840**	Price
TNMG 332-F41	PT1115	F41	3/8	.187	.031	P	**RE1011850**	Price
TNMG 332-F41	PT1225	F41	3/8	.187	.031	P	**RE1011860**	Price
TNMG 332-F43	PT1115	F43	3/8	.187	.031	P	**RE1011880**	Price
TNMG 332-F43	PT1225	F43	3/8	.187	.031	P	**RE1011890**	Price
TNMG 332-M42	PT425	M42	3/8	.187	.031	P,M,K	**RE1011870**	Price
TNMG 332-M45	PT1115	M45	3/8	.187	.031	P	**RE1011910**	Price
TNMG 332-M45	PT1225	M45	3/8	.187	.031	P	**RE1011920**	Price
TNMG 332-M45	PT425	M45	3/8	.187	.031	P,M,K	**RE1011900**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
TNMG 332-M46	KT1125	M46	3/8	.187	.031	K	**RE1011960**	Price
TNMG 332-M46	PT1115	M46	3/8	.187	.031	P	**RE1011970**	Price
TNMG 332-M46	PT1225	M46	3/8	.187	.031	P	**RE1011980**	Price
TNMG 332-M46	PT425	M46	3/8	.187	.031	P,M,K	**RE1011950**	Price
TNMG 332-M86	PT1115	M86	3/8	.187	.031	P	**RE1011930**	Price
TNMG 332-M86	PT1225	M86	3/8	.187	.031	P	**RE1011940**	Price
TNMG 332-R53	KT1125	R53	3/8	.187	.031	K	**RE1011990**	Price
TNMG 332-R53	PT1115	R53	3/8	.187	.031	P	**RE1012000**	Price
TNMG 332-R53	PT1225	R53	3/8	.187	.031	P	**RE1012010**	Price
TNMG 333-F43	PT1115	F43	3/8	.187	.047	P	**RE1012030**	Price
TNMG 333-F43	PT1225	F43	3/8	.187	.047	P	**RE1012040**	Price
TNMG 333-M42	PT425	M42	3/8	.187	.047	P,M,K	**RE1012020**	Price
TNMG 333-M45	PT1115	M45	3/8	.187	.047	P	**RE1012060**	Price
TNMG 333-M45	PT1225	M45	3/8	.187	.047	P	**RE1012070**	Price
TNMG 333-M45	PT425	M45	3/8	.187	.047	P,M,K	**RE1012050**	Price
TNMG 333-M46	KT1125	M46	3/8	.187	.047	K	**RE1012090**	Price
TNMG 333-M46	PT1115	M46	3/8	.187	.047	P	**RE1012100**	Price
TNMG 333-M46	PT1225	M46	3/8	.187	.047	P	**RE1012110**	Price
TNMG 333-M46	PT425	M46	3/8	.187	.047	P,M,K	**RE1012080**	Price
TNMG 333-R53	KT1125	R53	3/8	.187	.047	K	**RE1012120**	Price
TNMG 333-R53	PT1115	R53	3/8	.187	.047	P	**RE1012130**	Price
TNMG 333-R53	PT1225	R53	3/8	.187	.047	P	**RE1012140**	Price

RAPIDKUT Turning Inserts

Style VBMT



- 35 Degree diamond shape
- 5 Degree relief

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VBMT 331-F41	PT1115	F41	3/8	.187	.016	P	**RE1012150**	Price
VBMT 331-F41	PT1225	F41	3/8	.187	.016	P	**RE1012160**	Price
VBMT 331-M51	KT1125	M51	3/8	.187	.016	K	**RE1012170**	Price
VBMT 331-M51	PT1115	M51	3/8	.187	.016	P	**RE1012180**	Price
VBMT 331-M51	PT1225	M51	3/8	.187	.016	P	**RE1012190**	Price
VBMT 331-R52	PT1115	R52	3/8	.187	.016	P	**RE1012200**	Price
VBMT 331-R52	PT1225	R52	3/8	.187	.016	P	**RE1012210**	Price
VBMT 332-F41	PT1115	F41	3/8	.187	.031	P	**RE1012220**	Price
VBMT 332-F41	PT1225	F41	3/8	.187	.031	P	**RE1012230**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VBMT 332-M51	KT1125	M51	3/8	.187	.031	K	**RE1012240**	Price
VBMT 332-M51	PT1115	M51	3/8	.187	.031	P	**RE1012250**	Price
VBMT 332-M51	PT1225	M51	3/8	.187	.031	P	**RE1012260**	Price
VBMT 332-R52	PT1115	R52	3/8	.187	.031	P	**RE1012270**	Price
VBMT 332-R52	PT1225	R52	3/8	.187	.031	P	**RE1012280**	Price
VBMT 333-M51	KT1125	M51	3/8	.187	.047	K	**RE1012290**	Price
VBMT 333-M51	PT1115	M51	3/8	.187	.047	P	**RE1012300**	Price
VBMT 333-M51	PT1225	M51	3/8	.187	.047	P	**RE1012310**	Price

RAPIDKUT Turning Inserts

Style VBMT



Item No.	Grade	Chip-breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VBMT 221-XF	ME1125	XF	1/4	.125	.016	M	**ME1062370**	Price
VBMT 221-XF	ME115	XF	1/4	.125	.016	P,K	**ME1062372**	Price
VBMT 221-XF	ME1225	XF	1/4	.125	.016	P	**ME1062374**	Price
VBMT 221-XF	MS3115	XF	1/4	.125	.016	M,S	**ME1062376**	Price
VBMT 331-XF	ME1125	XF	3/8	.187	.016	M	**ME1062378**	Price
VBMT 331-XF	ME115	XF	3/8	.187	.016	P,K	**ME1062380**	Price

Item No.	Grade	Chip-breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VBMT 331-XF	ME1225	XF	3/8	.187	.016	P	**ME1062382**	Price
VBMT 331-XF	MS3115	XF	3/8	.187	.016	M,S	**ME1062384**	Price
VBMT 332-XF	ME1125	XF	3/8	.187	.031	M	**ME1062386**	Price
VBMT 332-XF	ME115	XF	3/8	.187	.031	P,K	**ME1062388**	Price
VBMT 332-XF	ME1225	XF	3/8	.187	.031	P	**ME1062390**	Price
VBMT 332-XF	MS3115	XF	3/8	.187	.031	M,S	**ME1062392**	Price

RAPIDKUT Turning Inserts

Style VCGT



- 35 Degree diamond shape
- 7 Degree relief with countersunk hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VCGT 220.5-MAU	NT9125	MAU	1/4	.125	.008	N	**ME1062780**	Price
VCGT 221-MAU	NT9125	MAU	1/4	.125	.016	N	**ME1062790**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VCGT 331-MAU	NT9125	MAU	3/8	.187	.016	N	**ME1062800**	Price
VCGT 332-MAU	NT9125	MAU	3/8	.187	.031	N	**ME1062810**	Price

RAPIDKUT Turning Inserts

Style VNMG



- 35 Degree diamond shape
- Negative with hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VNMG 331-F41	PT1115	F41	3/8	.187	.016	P	**RE1012320**	Price
VNMG 331-F41	PT1225	F41	3/8	.187	.016	P	**RE1012330**	Price
VNMG 331-M45	PT1115	M45	3/8	.187	.016	P	**RE1012350**	Price
VNMG 331-M45	PT1225	M45	3/8	.187	.016	P	**RE1012360**	Price
VNMG 331-M45	PT425	M45	3/8	.187	.016	P,M,K	**RE1012340**	Price
VNMG 331-M46	PT1115	M46	3/8	.187	.016	P	**RE1012380**	Price
VNMG 331-M46	PT1225	M46	3/8	.187	.016	P	**RE1012390**	Price
VNMG 331-M46	PT425	M46	3/8	.187	.016	P,M,K	**RE1012370**	Price
VNMG 331-R53	KT1125	R53	3/8	.187	.016	K	**RE1012400**	Price
VNMG 331-R53	PT1115	R53	3/8	.187	.016	P	**RE1012410**	Price
VNMG 331-R53	PT1225	R53	3/8	.187	.016	P	**RE1012420**	Price
VNMG 332-F41	PT1115	F41	3/8	.187	.031	P	**RE1012430**	Price
VNMG 332-F41	PT1225	F41	3/8	.187	.031	P	**RE1012440**	Price
VNMG 332-M45	PT1115	M45	3/8	.187	.031	P	**RE1012460**	Price
VNMG 332-M45	PT1225	M45	3/8	.187	.031	P	**RE1012470**	Price
VNMG 332-M45	PT425	M45	3/8	.187	.031	P,M,K	**RE1012450**	Price
VNMG 332-M46	KT1125	M46	3/8	.187	.031	K	**RE1012490**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
VNMG 332-M46	PT1115	M46	3/8	.187	.031	P	**RE1012500**	Price
VNMG 332-M46	PT1225	M46	3/8	.187	.031	P	**RE1012510**	Price
VNMG 332-M46	PT425	M46	3/8	.187	.031	P,M,K	**RE1012480**	Price
VNMG 332-R53	KT1125	R53	3/8	.187	.031	K	**RE1012520**	Price
VNMG 332-R53	PT1115	R53	3/8	.187	.031	P	**RE1012530**	Price
VNMG 332-R53	PT1225	R53	3/8	.187	.031	P	**RE1012540**	Price
VNMG 333-M45	PT1115	M45	3/8	.187	.047	P	**RE1012560**	Price
VNMG 333-M45	PT1225	M45	3/8	.187	.047	P	**RE1012570**	Price
VNMG 333-M45	PT425	M45	3/8	.187	.047	P,M,K	**RE1012550**	Price
VNMG 333-M46	KT1125	M46	3/8	.187	.047	K	**RE1012590**	Price
VNMG 333-M46	PT1115	M46	3/8	.187	.047	P	**RE1012600**	Price
VNMG 333-M46	PT1225	M46	3/8	.187	.047	P	**RE1012610**	Price
VNMG 333-M46	PT425	M46	3/8	.187	.047	P,M,K	**RE1012580**	Price
VNMG 333-R53	KT1125	R53	3/8	.187	.047	K	**RE1012620**	Price
VNMG 333-R53	PT1115	R53	3/8	.187	.047	P	**RE1012630**	Price
VNMG 333-R53	PT1225	R53	3/8	.187	.047	P	**RE1012640**	Price

RAPIDKUT Turning Inserts

Style WNMA



- 80 Degree trigon shape
- Negative with hole

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
WNMA 432	KT1125	1/2	.187	.031	K	**RE1012650**	Price

Item No.	Grade	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
WNMA 433	KT1125	1/2	.187	.047	K	**RE1012660**	Price

RAPIDKUT Turning Inserts

Style WNMG



- 80 Degree trigon shape
- Negative with hole

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
WNMG 331-M45	PT1115	M45	3/8	.187	.016	P	**RE1012680**	Price
WNMG 331-M45	PT1225	M45	3/8	.187	.016	P	**RE1012690**	Price
WNMG 331-M45	PT425	M45	3/8	.187	.016	P,M,K	**RE1012670**	Price
WNMG 332-M45	PT1115	M45	3/8	.187	.031	P	**RE1012710**	Price
WNMG 332-M45	PT1225	M45	3/8	.187	.031	P	**RE1012720**	Price
WNMG 332-M45	PT425	M45	3/8	.187	.031	P,M,K	**RE1012700**	Price
WNMG 431-F41	PT1115	F41	1/2	.187	.016	P	**RE1012730**	Price
WNMG 431-F43	PT1115	F43	1/2	.187	.016	P	**RE1012750**	Price
WNMG 431-F43	PT1225	F43	1/2	.187	.016	P	**RE1012760**	Price
WNMG 431-M42	PT425	M42	1/2	.187	.016	P,M,K	**RE1012740**	Price
WNMG 431-M45	PT1115	M45	1/2	.187	.016	P	**RE1012780**	Price
WNMG 431-M45	PT1225	M45	1/2	.187	.016	P	**RE1012790**	Price
WNMG 431-M45	PT425	M45	1/2	.187	.016	P,M,K	**RE1012770**	Price
WNMG 431-M46	PT1115	M46	1/2	.187	.016	P	**RE1012810**	Price
WNMG 431-M46	PT1225	M46	1/2	.187	.016	P	**RE1012820**	Price
WNMG 431-M46	PT425	M46	1/2	.187	.016	P,M,K	**RE1012800**	Price
WNMG 431-R53	KT1125	R53	1/2	.187	.016	K	**RE1012830**	Price
WNMG 432-F41	PT1115	F41	1/2	.187	.031	P	**RE1012850**	Price
WNMG 432-F41	PT1225	F41	1/2	.187	.031	P	**RE1012860**	Price
WNMG 432-F41	PT425	F41	1/2	.187	.031	P,M,K	**RE1012840**	Price
WNMG 432-F43	PT1115	F43	1/2	.187	.031	P	**RE1012880**	Price
WNMG 432-F43	PT1225	F43	1/2	.187	.031	P	**RE1012890**	Price
WNMG 432-M42	PT425	M42	1/2	.187	.031	P,M,K	**RE1012870**	Price
WNMG 432-M45	PT1115	M45	1/2	.187	.031	P	**RE1012910**	Price
WNMG 432-M45	PT1225	M45	1/2	.187	.031	P	**RE1012920**	Price
WNMG 432-M45	PT425	M45	1/2	.187	.031	P,M,K	**RE1012900**	Price

Item No.	Grade	Chip Breaker	IC (in.)	Thick-ness (in.)	Radius (in.)	For Use with ISO Code(s)	Order No.	Price
WNMG 432-M46	KT1125	M46	1/2	.187	.031	K	**RE1012960**	Price
WNMG 432-M46	PT1115	M46	1/2	.187	.031	P	**RE1012970**	Price
WNMG 432-M46	PT1225	M46	1/2	.187	.031	P	**RE1012980**	Price
WNMG 432-M46	PT425	M46	1/2	.187	.031	P,M,K	**RE1012950**	Price
WNMG 432-M86	PT1115	M86	1/2	.187	.031	P	**RE1012930**	Price
WNMG 432-M86	PT1225	M86	1/2	.187	.031	P	**RE1012940**	Price
WNMG 432-R53	KT1125	R53	1/2	.187	.031	K	**RE1012990**	Price
WNMG 433-F41	PT1115	F41	1/2	.187	.047	P	**RE1013000**	Price
WNMG 433-F41	PT1225	F41	1/2	.187	.047	P	**RE1013010**	Price
WNMG 433-F43	PT1115	F43	1/2	.187	.047	P	**RE1013030**	Price
WNMG 433-F43	PT1225	F43	1/2	.187	.047	P	**RE1013040**	Price
WNMG 433-M42	PT425	M42	1/2	.187	.047	P,M,K	**RE1013020**	Price
WNMG 433-M45	PT1115	M45	1/2	.187	.047	P	**RE1013060**	Price
WNMG 433-M45	PT1115	M45	1/2	.187	.047	P	**RE1013090**	Price
WNMG 433-M45	PT1225	M45	1/2	.187	.047	P	**RE1013070**	Price
WNMG 433-M45	PT1225	M45	1/2	.187	.047	P	**RE1013100**	Price
WNMG 433-M45	PT425	M45	1/2	.187	.047	P,M,K	**RE1013050**	Price
WNMG 433-M45	PT425	M45	1/2	.187	.047	P,M,K	**RE1013080**	Price
WNMG 433-M46	KT1125	M46	1/2	.187	.047	K	**RE1013140**	Price
WNMG 433-M46	PT1115	M46	1/2	.187	.047	P	**RE1013150**	Price
WNMG 433-M46	PT1225	M46	1/2	.187	.047	P	**RE1013160**	Price
WNMG 433-M46	PT425	M46	1/2	.187	.047	P,M,K	**RE1013130**	Price
WNMG 433-M86	PT1115	M86	1/2	.187	.047	P	**RE1013110**	Price
WNMG 433-M86	PT1225	M86	1/2	.187	.047	P	**RE1013120**	Price
WNMG 433-R53	KT1125	R53	1/2	.187	.047	K	**RE1013170**	Price
WNMG 433-R53	PT1225	R53	1/2	.187	.047	P	**RE1013180**	Price

PROCUT CCMT – 80° Diamond 7° Positive with Molded Chipbreaker

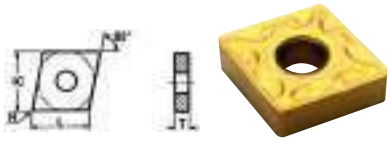
- Single-sided for semi-finishing and finishing
- Chip breaking in moderate range of feeds
- Positive cut, low cutting forces
- For a wide range of materials, soft materials and exotic alloys



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
CCMT 2-1	1/4	.248	.094	.016	**FF4810000**	Price	**FF4850000**	Price	**FF4820000**	Price	**FF4830000**	Price
CCMT 2-2	1/4	.248	.094	.031	**FF4810010**	Price	**FF4850010**	Price	**FF4820010**	Price	**FF4830010**	Price
CCMT 3-1	3/8	.374	.156	.016	**FF4810020**	Price	**FF4850020**	Price	**FF4820020**	Price	**FF4830020**	Price
CCMT 3-2	3/8	.374	.156	.031	**FF4810030**	Price	**FF4850030**	Price	**FF4820030**	Price	**FF4830030**	Price
CCMT 432	1/2	.508	.187	.031	**FF4810040**	Price	**FF4850040**	Price	**FF4820040**	Price	**FF4830040**	Price

PROCUT CNMG – 80° Diamond Negative with Molded Chipbreaker

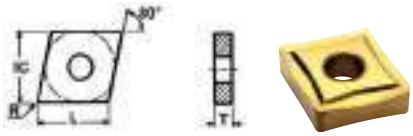
- Double-sided for semi-roughing and roughing
- Chip breaking in feed range from .007 to .024 IPR
- For a wide range of materials and machining conditions



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
CNMG 431	1/2	.508	.187	.016	-	-	**FF5050150**	Price	-	-	**FF5030150**	Price
CNMG 432	1/2	.508	.187	.031	**FF5010160**	Price	**FF5050160**	Price	**FF5020160**	Price	**FF5030160**	Price
CNMG 543	5/8	.626	.250	.047	-	-	**FF5050200**	Price	-	-	-	-
CNMG 642	3/4	.760	.250	.031	**FF5010210**	Price	-	-	-	-	**FF5030210**	Price
CNMG 643	3/4	.760	.250	.047	-	-	-	-	-	-	**FF5030220**	Price

PROCUT CNMP – 80° Diamond Negative 5° Positive Chipbreaker

- Double-sided for semi-finishing and finishing
- Chip breaking in feed range from .004 to .160”
- Positive cut (+5)
- Low cutting forces for machining soft materials and exotic alloys



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC300	
					Order No.	Price
CNMP 431	1/2	.508	.187	.016	**FF5030260**	Price
CNMP 432	1/2	.508	.187	.031	**FF5030270**	Price

PROCUT CPG – 80° Diamond 11° Positive Ground All Over

- Single-sided without chipformer
- Positive cut, low cutting forces
- Suited to problem-free chip forming materials



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
CPG 421	1/2	.500	.125	.016	**FF5010320**	Price	**FF5050320**	Price	-	-	**FF5030320**	Price
CPG 422	1/2	.500	.125	.031	**FF5010330**	Price	**FF5050330**	Price	**FF5020330**	Price	**FF5030330**	Price

PROCUT CPGM – 80° Diamond 11° Positive with Molded Chipbreaker

- Single-sided for semi-finishing and finishing
- Chip breaking in moderate range of feeds
- Positive cut, low cutting forces
- For a wide range of materials, soft materials and exotic alloys



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC5		PC300	
					Order No.	Price	Order No.	Price
CPGM 32.51	3/8	.540	.156	.016	**FF5050380**	Price	-	-
CPGM 32.52	3/8	.540	.156	.031	-	-	**FF5030390**	Price

Carbide Grades

PC2 - **(C2)** General purpose for cast iron and non-ferrous metals (exotics)

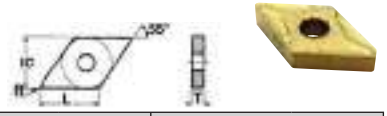
PC5 - **(C5)** Steel cutting

PC200 - **(C2 Coated)** Aluminum oxide coated for cast iron and non-ferrous metals exotics

PC300 - **(C5 Coated)** TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

DNMG – 55° Diamond Negative with Molded Chipbreaker

- Double-sided for semi-roughing and roughing
- Chip breaking in feed range from .007 to .024 IPR
- For a wide range of materials and machining conditions



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
DNMG 431	1/2	.500	.187	.016	-	-	-	-	**FF5020420**	Price	**FF5030420**	Price
DNMG 432	1/2	.500	.187	.031	**FF5010430**	Price	**FF5050430**	Price	**FF5020430**	Price	**FF5030430**	Price
DNMG 542	5/8	.625	.250	.031	-	-	**FF5050490**	Price	-	-	**FF5030490**	Price
DNMG 543	5/8	.625	.250	.047	-	-	-	-	-	-	**FF5030500**	Price

RNG – Round Negative Ground All Over

- Plain, double-sided inserts for machining short chipping materials such as cast iron, hardened steel or when a very strong cutting edge is needed



Insert Style	I.C. (in.)	L (in.)	T (in.)	PC2		PC5	
				Order No.	Price	Order No.	Price
RNG 32	3/8	.375	.125	**FF5010530**	Price	**FF5050530**	Price
RNG 42	1/2	.500	.125	**FF5010540**	Price	-	-

RNMA – Round Negative Ground Top and Bottom

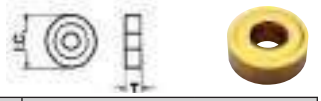
- Plain, double-sided inserts for machining short chipping materials such as cast iron, hardened steel or when a very strong cutting edge is needed



Insert Style	I.C. (in.)	L (in.)	T (in.)	PC2		PC5		PC300	
				Order No.	Price	Order No.	Price	Order No.	Price
RNMA 32	3/8	.375	.125	-	-	**FF5050570**	Price	**FF5030570**	Price
RNMA 43	1/2	.500	.187	**FF5010580**	Price	-	-	**FF5030580**	Price
RNMA 84	1	1.00	.250	-	-	**FF5050610**	Price	-	-

RNMG – Round Negative with Molded Chipbreaker

- Double-sided inserts for general machining at medium feeds
- Suitable for straight turning ductile materials



Insert Style	I.C. (in.)	L (in.)	T (in.)	PC5		PC200		PC300	
				Order No.	Price	Order No.	Price	Order No.	Price
RNMG 43	1/2	.500	.187	**FF5050650**	Price	**FF5020650**	Price	**FF5030650**	Price
RNMG 64	3/4	.750	.250	**FF5050670**	Price	-	-	**FF5030670**	Price
RNMG 86	1	1.00	.375	-	-	**FF5020690**	Price	**FF5030690**	Price

RPG – Round Positive Ground All Over

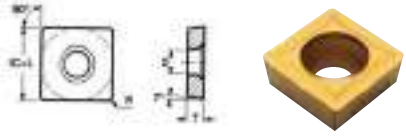
- Round positive for higher metal removal rates, better finish, more cutting edges



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price
RPG 42	1/2	-	.125	-	**FF5013510**	Price	**FF5053510**	Price	**FF5033510**	Price

SCMT – Square 7° Positive with Molded Chipbreaker

- Single-sided for semi-finishing and finishing
- Chip breaking in moderate range of feeds
- Positive cut, low cutting forces
- For a wide range of materials and exotic alloys

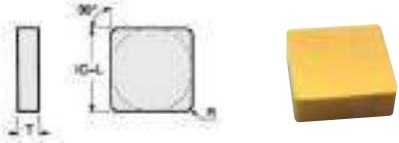


Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC300	
					Order No.	Price
SCMT 432	1/2	.500	.187	.031	**FF5030740**	Price

SNG – Square Negative Ground All Over

Carbide Grades
PC2 - (C2) General purpose for cast iron and non-ferrous metals (exotics)
PC5 - (C5) Steel cutting
PC300 - (C5 Coated) TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

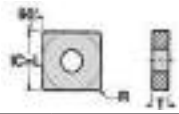
- Double-sided, without chipformer
- Suited to problem-free chip forming materials, i.e. cast iron



Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price
SNG 432	1/2	.500	.187	.031	-	-	-	-	**FF5030850**	Price
SNG 433	1/2	.500	.187	.047	-	-	**FF5050860**	Price	**FF5030860**	Price
SNG 434	1/2	.500	.187	.063	-	-	-	-	**FF5030870**	Price
SNG 633	3/4	.750	.187	.047	-	-	**FF5050930**	Price	**FF5030930**	Price
SNG 634	3/4	.750	.187	.063	**FF5010940**	Price	-	-	**FF5030940**	Price
SNG 638	3/4	.750	.187	.125	-	-	**FF5050950**	Price	-	-

SNMA – Square Negative with Hole

- Double-sided, without chipformer
- Suited to problem-free chip forming materials, i.e. cast iron

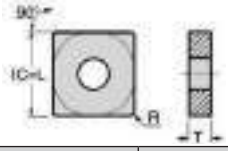




Insert Style	I.C. (in.)	(in.)	T (in.)	R	PC2		PC5		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price
SNMA 322	3/8	.375	.125	.016	-	-	**FF5050970**	Price	**FF5030970**	Price
SNMA 432	1/2	.500	.187	.031	**FF5010980**	Price	-	-	-	-
SNMA 543	5/8	.625	.250	.047	-	-	**FF5051010**	Price	-	-
SNMA 866	1	1.00	.375	.094	-	-	**FF5051050**	Price	-	-

SNMG – Square Negative Molded Chipbreaker

- Double-sided, for semi-roughing and roughing
- Chip breaking in feed range from .007 to .024 IPR
- For a wide range of materials and machining conditions

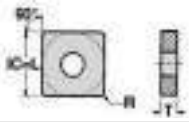




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC5		PC300	
					Order No.	Price	Order No.	Price
SNMG 322	3/8	.375	.125	.031	-	-	**FF5031070**	Price
SNMG 432	1/2	.500	.187	.031	-	-	**FF5031100**	Price
SNMG 542	5/8	.625	.250	.031	-	-	**FF5031130**	Price
SNMG 643	3/4	.750	.250	.047	**FF5051180**	Price	**FF5031180**	Price
SNMG 644	3/4	.750	.250	.063	-	-	**FF5031190**	Price

SNU – Square Negative Ground Top and Bottom

- Double-sided, without chipformer
- Suited to problem-free chip forming materials, i.e. cast iron



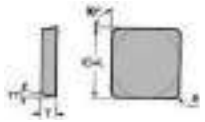


Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC5		PC300	
					Order No.	Price	Order No.	Price
SNU 432	1/2	.500	.187	.031	**FF5051350**	Price	**FF5031350**	Price
SNU 433	1/2	.500	.187	.047	**FF5051360**	Price	**FF5031360**	Price
SNU 633	3/4	.750	.187	.047	**FF5051390**	Price	**FF5031390**	Price
SNU 634	3/4	.750	.187	.063	**FF5051400**	Price	**FF5031400**	Price

SPG – Square 11° Positive Ground All Over

- Single-sided, without chipformer
- Positive cut, low cutting forces
- Suited to short chipping materials

Carbide Grades
PC2 - (C2) General purpose for cast iron and non-ferrous metals (exotics).
PC5 - (C5) Steel cutting.
PC200 - (C2 Coated) Aluminum oxide coated for cast iron and non-ferrous metals (exotics)
PC300 - (C5 Coated) TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

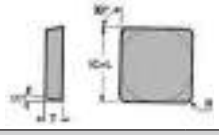


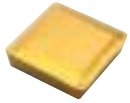


Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
SPG 322	3/8	.375	.125	.031	**FF5011460**	Price	-	-	-	-	-	-
SPG 420	1/2	.500	.125	.005	-	-	-	-	-	-	**FF5031490**	Price
SPG 421	1/2	.500	.125	.016	-	-	**FF5051500**	Price	-	-	**FF5031500**	Price
SPG 422	1/2	.500	.125	.031	**FF5011510**	Price	**FF5051510**	Price	**FF5021510**	Price	**FF5031510**	Price
SPG 423	1/2	.500	.125	.047	-	-	**FF5051520**	Price	-	-	**FF5031520**	Price
SPG 424	1/2	.500	.125	.063	**FF5011530**	Price	**FF5051530**	Price	**FF5021530**	Price	**FF5031530**	Price
SPG 432	1/2	.500	.187	.031	-	-	**FF5051540**	Price	-	-	**FF5031540**	Price
SPG 433	1/2	.500	.187	.047	-	-	**FF5051550**	Price	-	-	**FF5031550**	Price
SPG 533	5/8	.625	.187	.031	-	-	-	-	-	-	**FF5031590**	Price
SPG 631	3/4	.750	.187	.016	-	-	-	-	-	-	**FF5031610**	Price
SPG 632	3/4	.750	.187	.031	**FF5011620**	Price	**FF5051620**	Price	**FF5021620**	Price	**FF5031620**	Price
SPG 633	3/4	.750	.187	.047	-	-	**FF5051630**	Price	-	-	**FF5031630**	Price
SPG 634	3/4	.750	.187	.063	**FF5011640**	Price	**FF5051640**	Price	-	-	**FF5031640**	Price
SPG 638	3/4	.750	.187	.125	-	-	**FF5051650**	Price	-	-	**FF5031650**	Price

SPMR – Square 11° Positive Molded Chipbreaker

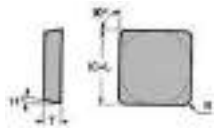
- Single-sided, without chipformer
- Positive cut, low cutting forces
- Suited to short chipping materials

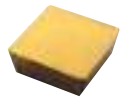




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC300	
					Order No.	Price
SPMR 422	1/2	.500	.187	.031	**FF5031690**	Price

SPU – Square 11° Positive Ground Top and Bottom

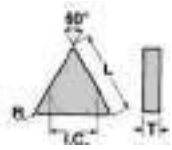




- Single-sided, without chipformer
- Positive cut, low cutting forces
- Suited to short chipping materials

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC5		PC300	
					Order No.	Price	Order No.	Price
SPU 422	1/2	.500	.125	.031	**FF5051750**	Price	**FF5031750**	Price
SPU 423	1/2	.500	.125	.047	**-**	-	**FF5031760**	Price
SPU 432	1/2	.500	.187	.031	**FF5051790**	Price	**FF5031790**	Price
SPU 533	5/8	.625	.187	.047	**FF5051820**	Price	**FF5031820**	Price
SPU 632	3/4	.750	.187	.031	**-**	-	**FF5031840**	Price
SPU 633	3/4	.750	.187	.047	**FF5051850**	Price	**FF5031850**	Price

TCMT – Triangle 7° Positive with Molded Chipbreaker

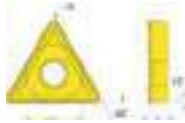


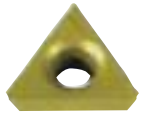


- Single-sided for semi-finishing and finishing
- Chip breaking in moderate range of feeds
- Positive cut, low cutting forces
- For a wide range of materials, soft materials and exotic alloys

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
TCMT 21	1/4	.433	.094	.016	**FF4811870**	Price	**FF4851870**	Price	**FF4821870**	Price	**FF4831870**	Price
TCMT 22	1/4	.433	.094	.031	**-**	-	**FF4851880**	Price	**FF4821880**	Price	**FF4831880**	Price
TCMT 31	3/8	.650	.156	.016	**FF4811890**	Price	**FF4851890**	Price	**FF4821890**	Price	**FF4831890**	Price
TCMT 32	3/8	.650	.156	.031	**FF4811900**	Price	**-**	-	**FF4821900**	Price	**FF4831900**	Price
TCMT 432	1/2	.866	.187	.031	**-**	-	**FF4851910**	Price	**-**	-	**FF4831910**	Price

TDGW – Triangle 15° Positive without Chipbreaker





Grade Description
C-2 uncoated = DM22
C-5 TiN coated = PVD56

Insert Style	I.C. (in.)	T (in.)	R	Hole Dia.	DM22		PVD56	
					Order No.	Price	Order No.	Price
TDGW 21.51E	1/4	.094	.016	.110	**-**	-	**EJ90127114**	Price
TDGW 21.52E	1/4	.094	.031	.110	**-**	-	**EJ90127115**	Price
TDGW 321E	3/8	.125	.016	.168	**EJ90127110**	Price	**EJ90127116**	Price
TDGW 322E	3/8	.125	.031	.168	**EJ90127111**	Price	**EJ90127117**	Price
TDGW 431E	1/2	.187	.016	.180	**EJ90127112**	Price	**-**	-
TDGW 432E	1/2	.187	.031	.180	**EJ90127113**	Price	**EJ90127120**	Price

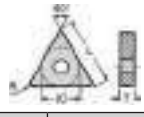
TNG – Triangle Negative Ground All Over



- Double-sided, without chipformer
- Suited to short chipping materials, i.e. cast iron

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC300	
					Order No.	Price
TNG 221	1/4	.433	.125	.016	**FF5031930**	Price
TNG 322	3/8	.650	.125	.031	**FF5031980**	Price
TNG 332	3/8	.650	.187	.031	**FF5032030**	Price
TNG 432	1/2	.866	.187	.031	**FF5032090**	Price

TNMA – Triangle Negative Ground Top and Bottom





- Double-sided, without chipformer
- Suited to roughing and semi-roughing short chipping materials

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price
TNMA 322	3/8	.650	.125	.031	**FF5012180**	Price	**FF5052180**	Price	**FF5032180**	Price
TNMA 323	3/8	.650	.125	.047	**-**	-	**-**	-	**FF5032190**	Price
TNMA 324	3/8	.650	.125	.063	**FF5012200**	Price	**-**	-	**FF5032200**	Price
TNMA 431	1/2	.866	.187	.016	**FF5012210**	Price	**-**	-	**-**	-
TNMA 432	1/2	.866	.187	.031	**FF5012220**	Price	**-**	-	**-**	-
TNMA 433	1/2	.866	.187	.047	**-**	-	**FF5052230**	Price	**-**	-
TNMA 434	1/2	.866	.187	.063	**-**	-	**FF5052240**	Price	**-**	-
TNMA 438	1/2	.866	.187	.125	**-**	-	**FF5052250**	Price	**FF5032250**	Price

Carbide Grades

PC2 - **(C2)** General purpose for cast iron and non-ferrous metals (exotics)

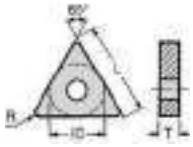
PC5 - **(C5)** Steel cutting

PC200 - **(C2 Coated)** Aluminum oxide coated for cast iron and non-ferrous metals exotics

PC300 - **(C5 Coated)** TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

PROCUT TNMG – Triangle Negative Molded Chipbreaker

Carbide Grades
PC2 - (C2) General purpose for cast iron and non-ferrous metals (exotics)
PC5 - (C5) Steel cutting
PC200 - (C2 Coated) Aluminum oxide coated for cast iron and non-ferrous metals (exotics)
PC300 - (C5 Coated) TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

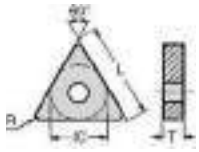




- Double-sided, for semi-roughing and roughing
- Chip breaking in feed range from .007 to .024 IPR
- For a wide range of materials and machining conditions
- Inserts with .094 in corner radius have a special chipformer for heavy machining

					PC2		PC5		PC200		PC300	
Insert Style	I.C. (in.)	L (in.)	T (in.)	R	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
TNMG 221	1/4	.433	.125	.016	-	-	FF5052300	Price	FF5022300	Price	FF5032300	Price
TNMG 222	1/4	.433	.125	.031	-	-	FF5052310	Price	-	-	FF5032310	Price
TNMG 321	3/8	.650	.125	.016	FF5012320	Price	FF5052320	Price	FF5022320	Price	FF5032320	Price
TNMG 322	3/8	.650	.125	.031	FF5012330	Price	FF5052330	Price	FF5022330	Price	FF5032330	Price
TNMG 323	3/8	.650	.125	.047	-	-	FF5052340	Price	-	-	FF5032340	Price
TNMG 324	3/8	.650	.125	.063	-	-	FF5052350	Price	-	-	-	-
TNMG 331	3/8	.650	.187	.016	-	-	-	-	-	-	FF5032360	Price
TNMG 332	3/8	.650	.187	.031	FF5012370	Price	FF5052370	Price	-	-	FF5032370	Price
TNMG 431	1/2	.866	.187	.016	-	-	FF5052390	Price	-	-	FF5032390	Price
TNMG 432	1/2	.866	.187	.031	FF5012400	Price	FF5052400	Price	FF5022400	Price	FF5032400	Price
TNMG 433	1/2	.866	.187	.047	-	-	FF5052410	Price	-	-	-	-
TNMG 434	1/2	.866	.187	.063	FF5012420	Price	FF5052420	Price	-	-	FF5032420	Price
TNMG 438	1/2	.866	.187	.125	-	-	FF5052450	Price	-	-	FF5032450	Price
TNMG 542	5/8	1.083	.250	.031	FF5012460	Price	FF5052460	Price	-	-	FF5032460	Price
TNMG 543	5/8	1.083	.250	.047	-	-	FF5052470	Price	-	-	FF5032470	Price
TNMG 544	5/8	1.083	.250	.063	-	-	-	-	-	-	FF5032480	Price
TNMG 666	3/4	1.300	.375	.094	-	-	-	-	-	-	FF5032500	Price

PROCUT TNMP – Square Negative Ground All Over

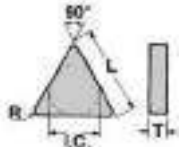




- Double-sided, for semi-finishing and finishing
- Chip breaking in feed range from .004 to .016 IPR
- Depths of cut from .04 to .016”
- Positive cut (+5°).
- Low cutting forces for machining soft materials and exotic alloys

					PC5		PC300	
Insert Style	I.C. (in.)	L (in.)	T (in.)	R	Order No.	Price	Order No.	Price
TNMP 321	3/8	.650	.125	.016	-	-	FF5032510	Price
TNMP 322	3/8	.650	.125	.031	FF5052520	Price	FF5032520	Price
TNMP 331	3/8	.650	.187	.016	-	-	FF5032540	Price
TNMP 332	3/8	.650	.187	.031	-	-	FF5032550	Price
TNMP 431	1/2	.866	.187	.016	-	-	FF5032570	Price
TNMP 432	1/2	.866	.187	.031	-	-	FF5032580	Price

PROCUT TNU – Triangle Negative Ground Top and Bottom





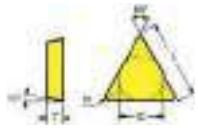
- Double-sided, without chipformer
- Suited to short chipping materials, i.e. cast iron

					PC300	
Insert Style	I.C. (in.)	L (in.)	T (in.)	R	Order No.	Price
TNU 433	1/2	.866	.187	.047	FF5032760	Price

TPG – Triangle Positive Ground All Over

Carbide Grades
PC2 - (C2) General purpose for cast iron and non-ferrous metals (exotics)
PC5 - (C5) Steel cutting
PC200 - (C2 coated) Aluminum oxide coated for cast iron and non-ferrous metals (exotics)
PC300 - (C5 coated) TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

- Single-sided, ground all over without chipformer
- Positive cut, low cutting forces
- Suited for short chipping materials

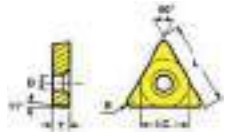


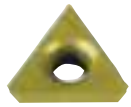


					PC2		PC5		PC200		PC300	
Insert Style	I.C. (in.)	L (in.)	T (in.)	R	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
TPG 221	1/4	.433	.125	.016	**FF5012820**	Price	**FF5052820**	Price	**FF5022820**	Price	**FF5032820**	Price
TPG 222	1/4	.433	.125	.031	**-**	-	**FF5052830**	Price	**-**	-	**FF5032830**	Price
TPG 320	3/8	.650	.125	.005	**FF5012840**	Price	**FF5052840**	Price	**FF5022840**	Price	**FF5032840**	Price
TPG 321	3/8	.650	.125	.016	**FF5012850**	Price	**FF5052850**	Price	**FF5022850**	Price	**FF5032850**	Price
TPG 322	3/8	.650	.125	.031	**FF5012860**	Price	**FF5052860**	Price	**FF5022860**	Price	**FF5032860**	Price
TPG 323	3/8	.650	.125	.047	**FF5012870**	Price	**FF5052870**	Price	**-**	-	**FF5032870**	Price
TPG 324	3/8	.650	.125	.063	**FF5012880**	Price	**FF5052880**	Price	**FF5022880**	Price	**FF5032880**	Price
TPG 332	3/8	.650	.187	.031	**-**	-	**FF5052900**	Price	**-**	-	**-**	-
TPG 431	1/2	.866	.187	.016	**FF5012930**	Price	**FF5052930**	Price	**FF5022930**	Price	**FF5032930**	Price
TPG 432	1/2	.866	.187	.031	**FF5012940**	Price	**FF5052940**	Price	**FF5022940**	Price	**FF5032940**	Price
TPG 433	1/2	.866	.187	.047	**FF5012950**	Price	**FF5052950**	Price	**-**	-	**FF5032950**	Price
TPG 434	1/2	.866	.187	.063	**-**	-	**FF5052960**	Price	**-**	-	**FF5032960**	Price
TPG 438	1/2	.866	.187	.125	**-**	-	**-**	-	**-**	-	**FF5032970**	Price
TPG 542	5/8	1.083	.250	.031	**-**	-	**-**	-	**-**	-	**FF5033000**	Price

TPGB – Triangle 11° Positive Countersink Hole

- Single-sided, without chipformer
- Suited to short chipping materials, i.e. cast iron





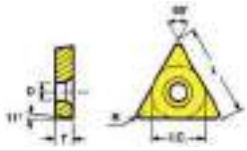
					PC2		PC5		PC300	
Insert Style	I.C. (in.)	L (in.)	T (in.)	R	Order No.	Price	Order No.	Price	Order No.	Price
TPGB 321	3/8	.650	.125	.016	**FF4813110**	Price	**FF4853110**	Price	**FF4833110**	Price
TPGB 322	3/8	.650	.125	.031	**FF4813120**	Price	**FF4853120**	Price	**FF4833120**	Price

TPGH – Triangle 11° Positive with Chipbreaker

				PC2		PC5		PC300	
Insert Style	I.C. (in.)	T (in.)	R	Order No.	Price	Order No.	Price	Order No.	Price
TPGH 21.50	1/4	.094	.005	**FF48126982**	Price	**-**	-	**-**	-
TPGH 21.51	1/4	.094	.016	**FF48126997**	Price	**-**	-	**FF48127001**	Price
TPGH 21.52	1/4	.094	.031	**-**	-	**FF48127006**	Price	**FF48127009**	Price
TPGH 321	3/8	.125	.016	**FF48014242**	Price	**FF48059412**	Price	**FF48054734**	Price

TPGM – Triangle 11° Positive with Molded Chipbreaker

- Single-sided for semi-finishing and finishing
- Chip breaking in moderate range of feeds
- Positive cut, low cutting forces
- For a wide range of materials, soft materials and exotic alloys

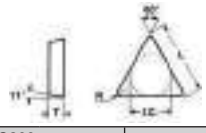




					PC5		PC300	
Insert Style	I.C. (in.)	Length (in.)	T (in.)	R	Order No.	Price	Order No.	Price
TPGM 21.51	1/4	.371	.094	.016	**-**	-	**FF5033170**	Price
TPGM 21.52	1/4	.371	.094	.031	**-**	-	**FF5033180**	Price
TPGM 32.51	3/8	.546	.156	.016	**FF5053190**	Price	**FF5033190**	Price
TPGM 32.52	3/8	.546	.156	.031	**FF5053200**	Price	**FF5033200**	Price
TPGM 321	3/8	.650	.125	.016	**-**	-	**FF50097631**	Price

TPMR – Triangle 11° Positive with Molded Chipbreaker

- Single-sided for semi-finishing and finishing
- Positive chipformer, low cutting forces
- Especially suited to internal turning

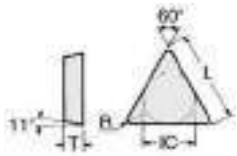




					PC2		PC5		PC200		PC300	
Insert Style	I.C. (in.)	L (in.)	T (in.)	R	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
TPMR 221	1/4	.433	.125	.016	**-**	-	**-**	-	**-**	-	**FF5033230**	Price
TPMR 222	1/4	.433	.125	.031	**-**	-	**-**	-	**-**	-	**FF5033240**	Price
TPMR 321	3/8	.650	.125	.016	**-**	-	**FF5053250**	Price	**FF5023250**	Price	**FF5033250**	Price
TPMR 322	3/8	.650	.125	.031	**FF5013260**	Price	**FF5053260**	Price	**-**	-	**FF5033260**	Price
TPMR 432	1/2	.866	.187	.031	**-**	-	**FF5053280**	Price	**-**	-	**FF5033280**	Price

PROCUT TPU – Triangle 11° Positive Ground Top and Bottom

- Single-sided, molded, without chipformer
- Positive cut, low cutting forces
- Suited for short chipping materials





Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
TPU 221	1/4	.433	.125	.016	-	-	**FF5053290**	Price	-	-	**FF5033290**	Price
TPU 222	1/4	.433	.125	.031	-	-	**FF5053300**	Price	-	-	**FF5033300**	Price
TPU 321	3/8	.650	.125	.016	**FF5013310**	Price	-	-	-	-	**FF5033310**	Price
TPU 322	3/8	.650	.125	.031	**FF5013320**	Price	**FF5053320**	Price	**FF5023320**	Price	**FF5033320**	Price
TPU 323	3/8	.650	.125	.047	-	-	**FF5053330**	Price	-	-	**FF5033330**	Price
TPU 324	3/8	.650	.125	.063	-	-	**FF5053340**	Price	-	-	**FF5033340**	Price
TPU 431	1/2	.866	.187	.016	**FF5013350**	Price	-	-	-	-	**FF5033350**	Price
TPU 432	1/2	.866	.187	.031	**FF5013360**	Price	**FF5053360**	Price	-	-	**FF5033360**	Price
TPU 433	1/2	.866	.187	.047	-	-	**FF5053370**	Price	-	-	-	-
TPU 434	1/2	.866	.187	.063	-	-	**FF5053380**	Price	**FF5023380**	Price	-	-
TPU 544	5/8	1.083	.250	.063	-	-	**FF5053390**	Price	-	-	-	-

PROCUT VBMT – 35° Diamond 5° Positive with Molded Chipbreaker

- Single-sided for semi-finishing and finishing
- Chip breaking in moderate range of feeds
- Positive cut, low cutting forces
- For a wide range of materials, soft materials and exotic alloys

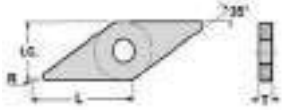




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC5		PC300	
					Order No.	Price	Order No.	Price
VBMT 331	3/8	.654	.187	.016	**FF5053400**	Price	**FF5033400**	Price
VBMT 332	3/8	.654	.187	.031	**FF5053410**	Price	**FF5033410**	Price

PROCUT VNMG – 35° Diamond Negative with Molded Chipbreaker

- Double-sided, for semi-roughing and roughing
- Chip breaking in feed range from .007 to .024 IPR
- For a wide range of materials and machining conditions

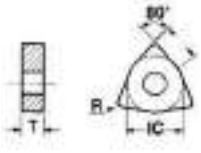




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PC2		PC5		PC200		PC300	
					Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
VNMG 331	3/8	.654	.187	.016	-	-	**FF5053420**	Price	-	-	**FF5033420**	Price
VNMG 332	3/8	.654	.187	.031	**FF5013430**	Price	**FF5053430**	Price	-	-	**FF5033430**	Price
VNMG 431	1/2	.870	.187	.016	-	-	-	-	**FF5023450**	Price	**FF5033450**	Price
VNMG 432	1/2	.870	.187	.031	**FF5013460**	Price	**FF5053460**	Price	**FF5023460**	Price	**FF5033460**	Price
VNMG 433	1/2	.870	.187	.047	-	-	-	-	**FF5023470**	Price	-	-

PROCUT WNMG – Negative Trigon with Hole and Chipbreaker

- The trigon shape combines the advantage of six cutting edges with the strength of the 80° C-geometry
- For general purpose machining





Insert Style	I.C. (in.)	T (in.)	R	PC5		PC300	
				Order No.	Price	Order No.	Price
WNMG 432	1/2	.187	.031	**FF48WNMG432PC5**	Price	**FF48026199**	Price

CERMET

Of uniform structure and composition, CERMET is composed of titanium carbide (TiC) and titanium nitrade (TiN) with a super-alloy metal binder. CERMET has a low friction coefficient which eliminates built up edge and improves surface finish. Its high resistance to thermal deformation and its low conductivity make higher cutting speeds possible and result in lower flank wear and edge cratering. Its high degree of hardness and toughness, with resistance to oxidation, extend tool life.

PCT20:

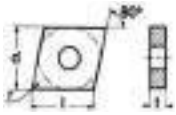
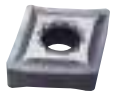
- Of TiCN alloy, good red hardness, high wear resistance, and good oxidation resistance.

Physical Properties:

- Hardness: 91.8/92.5
- Strength: 1700ISO
- Grade: K05/K10/M10/P05/P15
- Typical Applications: Suitable for finishing and semi-finishing of low-alloy steels and stainless steels.

CNMG

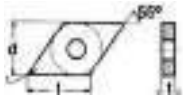
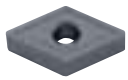
- Double-sided for semi-finishing and finishing
- Suitable for general use

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
CNMG 432	1/2	.500	.187	.031	**FF5640010**	Price
CNMG 433	1/2	.500	.187	.047	**FF5640020**	Price

DNMG

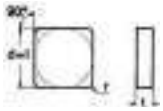
- Double-sided for semi-finishing and finishing
- Suitable for general use

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
DNMG 431	1/2	.500	.187	.016	**FF5640040**	Price
DNMG 432	1/2	.500	.187	.031	**FF5640050**	Price

SNG

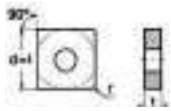
- Double-sided without chipformer
- Suited to problem-free forming materials




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
SNG 321	3/8	.375	.125	.016	**FF5640060**	Price
SNG 322	3/8	.375	.125	.031	**FF5640070**	Price
SNG 323	3/8	.375	.125	.047	**FF5640080**	Price
SNG 431	1/2	.500	.187	.016	**FF5640090**	Price
SNG 432	1/2	.500	.187	.031	**FF5640100**	Price
SNG 433	1/2	.500	.187	.047	**FF5640110**	Price
SNG 434	1/2	.500	.187	.063	**FF5640120**	Price

SNMG

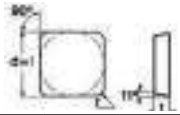
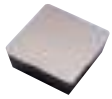
- Double-sided for semi-finishing and finishing
- Suitable for general use




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
SNMG 322	3/8	.375	.125	.031	**FF5640140**	Price
SNMG 431	1/2	.500	.187	.016	**FF5640160**	Price
SNMG 432	1/2	.500	.187	.031	**FF5640170**	Price
SNMG 433	1/2	.500	.187	.047	**FF5640180**	Price

SPG

- Single-sided, without chipformer
- Positive cut, low cutting forces
- Suited to short chipping materials

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
SPG 421	1/2	.500	.125	.016	**FF5640200**	Price
SPG 422	1/2	.500	.125	.031	**FF5640210**	Price
SPG 423	1/2	.500	.125	.047	**FF5640220**	Price
SPG 432	1/2	.500	.187	.031	**FF5640230**	Price
SPG 433	1/2	.500	.187	.047	**FF5640240**	Price

TNG

- Double-sided, without chipformer
- Suited to short chipping materials



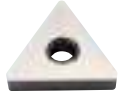


Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
TNG 221	1/4	.359	.125	.016	**FF5640250**	Price
TNG 321	3/8	.546	.125	.016	**FF5640270**	Price
TNG 322	3/8	.532	.125	.031	**FF5640280**	Price
TNG 331	3/8	.546	.187	.016	**FF5640300**	Price
TNG 332	3/8	.532	.187	.031	**FF5640310**	Price
TNG 432	1/2	.719	.187	.031	**FF5640340**	Price
TNG 433	1/2	.703	.187	.047	**FF5640350**	Price

TNMA

- Double-sided, without chipformer
- Suited to roughing and semi-roughing, short chipping materials

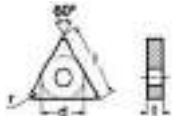




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
TNMA 432	1/2	.719	.187	.031	**FF5640360**	Price

TNMG

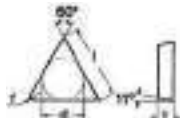
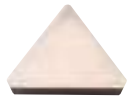
- Double-sided for semi-finishing and finishing
- Suitable for general use




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
TNMG 321	3/8	.546	.125	.016	**FF5640380**	Price
TNMG 322	3/8	.532	.125	.031	**FF5640390**	Price
TNMG 332	3/8	.532	.187	.031	**FF5640400**	Price
TNMG 432	1/4	.719	.187	.031	**FF5640430**	Price

TPG

- Double-sided for semi-finishing and finishing
- Suitable for general use

Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
TPG 221	1/4	.359	.125	.016	**FF5640450**	Price
TPG 222	1/4	.344	.125	.031	**FF5640460**	Price
TPG 321	3/8	.546	.125	.016	**FF5640470**	Price
TPG 322	3/8	.532	.125	.031	**FF5640480**	Price
TPG 323	3/8	.516	.125	.047	**FF5640490**	Price
TPG 432	1/2	.719	.187	.031	**FF5640510**	Price
TPG 433	1/2	.703	.187	.047	**FF5640520**	Price

VNMG

- Double-sided for semi-roughing and roughing
- Chip breaking in feed range from 0.18 to .04mm/rev
- For a wide range of materials and machining conditions




Insert Style	I.C. (in.)	L (in.)	T (in.)	R	PCT20 Order No.	PCT20 Price
VNMG 332	3/8	.375	.187	.031	**FF5640530**	Price
VNMG 432	1/2	.500	.187	.031	**FF5640540**	Price

Ceramic Inserts

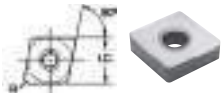
ISO 9001

Application Data
Use the strongest shape and largest nose radius possible. Round and square inserts should be used whenever possible since they are stronger than diamonds and triangles. For heavier cuts, 5/16" thick inserts are recommended. Use the largest lead angle possible. Use the largest side cutting edge that the shape of the workpiece allows. As the side cutting angle is increased, the length of the cutting edge that contracts the workpiece is increased and the load is distributed over a greater area of the cutting edge. Use proper edge preparation techniques. Proper edge factors in successfully applying ceramics over a wide range of materials and applications.

PCA-2 is Hot Pressed Black Ceramic
Roughing and finishing of hardened steel and chilled cast irons, and for machining cast irons with sandcast scale. Also clean irons or steel of hardness below 425 BHP or about rockwell C-45.

PCH-1 is Hydrostatic Pressed White Ceramic
Used for roughing and finishing of cast irons, carbon and alloy steel, ferritic and martensitic stainless steels, and annealed tool and die steels. Inserts demand a rigid setup in machining operations and are not suited to milling or machining very hard iron or steel.

PRODUCT CNGA 80° Negative Diamond With Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price
CNGA 432	1/2	.187	.031	**FF5510000**	Price
CNGA 434	1/2	.187	.063	**FF5510020**	Price
CNGA 643	3/4	.250	.047	**FF5510030**	Price
CNGA 644	3/4	.250	.063	**FF5510040**	Price

PRODUCT CNGN 80° Negative Diamond Without Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
CNGN 432	1/2	.187	.031	**FF5510050**	Price	**-**	-
CNGN 433	1/2	.187	.047	**FF5510060**	Price	**FF5520050**	Price
CNGN 644	3/4	.250	.063	**FF5510080**	Price	**-**	-
CNGN 648	3/4	.250	.125	**FF5510090**	Price	**-**	-

PRODUCT DNGA 55° Negative Diamond With Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
DNGA 432	1/2	.187	.031	**FF5510100**	Price	**FF5520080**	Price
DNGA 433	1/2	.187	.047	**FF5510110**	Price	**-**	-
DNGA 434	1/2	.187	.063	**FF5510120**	Price	**-**	-
DNGA 543	5/8	.250	.047	**FF5510130**	Price	**-**	-

PRODUCT DNGN 55° Negative Diamond Without Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
DNGN 432	1/2	.187	.031	**FF5510140**	Price	**FF5520120**	Price
DNGN 433	1/2	.187	.047	**FF5510150**	Price	**FF5520130**	Price
DNGN 434	1/2	.187	.063	**FF5510160**	Price	**FF5520140**	Price

PRODUCT VNGN 35° Negative Diamond Without Hole



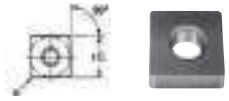
Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price
VNGN 332	3/8	.187	.031	**FF5510660**	Price

PRODUCT RNGN Negative Round Without Hole



Insert Style	I.C (in.)	T (in.)	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
RNGN 32	3/8	.125	**FF5510210**	Price	**FF5520190**	Price
RNGN 33	3/8	.187	**FF5510220**	Price	**-**	-
RNGN 43	1/2	.187	**FF5510230**	Price	**FF5520210**	Price
RNGN 84	1	.250	**-**	-	**FF5520230**	Price

PRODUCT SNGA Negative Square With Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
SNGA 322	3/8	.125	.031	**FF5510270**	Price	**-**	-
SNGA 433	1/2	.187	.047	**FF5510290**	Price	**-**	-
SNGA 434	1/2	.187	.063	**FF5510300**	Price	**FF5520280**	Price

PRODUCT SNGN Negative Square Without Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
SNGN 322	3/8	.125	.031	**FF5510320**	Price	**FF5520300**	Price
SNGN 432	1/2	.187	.031	**FF5510330**	Price	**FF5520310**	Price
SNGN 433	1/2	.187	.047	**FF5510340**	Price	**FF5520320**	Price
SNGN 434	1/2	.187	.063	**FF5510350**	Price	**FF5520330**	Price
SNGN 643	3/4	.250	.063	**FF5510360**	Price	**FF5520340**	Price
SNGN 644	3/4	.250	.063	**FF5510370**	Price	**FF5520350**	Price

PRODUCT TNGA Negative Triangle With Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
TNGA 322	3/8	.125	.031	**FF5510380**	Price	**-**	-
TNGA 333	3/8	.187	.047	**FF5510400**	Price	**FF5520370**	Price
TNGA 432	1/2	.187	.031	**FF5510410**	Price	**-**	-
TNGA 434	1/2	.187	.063	**FF5510430**	Price	**-**	-

PRODUCT TNGN Negative Triangle Without Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price	PCH1 Order No.	PCH1 Price
TNGN 222	1/4	.125	.031	**FF5510450**	Price	**-**	-
TNGN 322	3/8	.125	.031	**FF5510460**	Price	**FF5520430**	Price
TNGN 324	3/8	.125	.063	**-**	-	**FF5520440**	Price
TNGN 331	3/8	.187	.016	**FF5510480**	Price	**-**	-
TNGN 332	3/8	.187	.031	**-**	-	**FF5520450**	Price
TNGN 333	3/8	.187	.047	**FF5510500**	Price	**FF5520460**	Price
TNGN 334	3/8	.187	.063	**FF5510510**	Price	**FF5520470**	Price
TNGN 432	1/2	.187	.031	**FF5510520**	Price	**FF5520480**	Price
TNGN 433	1/2	.187	.047	**-**	-	**FF5520490**	Price

PRODUCT TPGN 11° Positive Triangle Without Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price
TPGN 321	3/8	.125	.016	**FF5510570**	Price
TPGN 322	3/8	.125	.031	**FF5510580**	Price
TPGN 431	1/2	.187	.016	**FF5510590**	Price
TPGN 432	1/2	.187	.031	**FF5510600**	Price

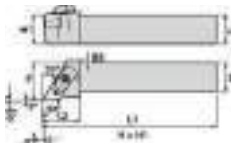
PRODUCT VNGA 35° Diamond With Hole



Insert Style	I.C. (in.)	T (in.)	R	PCA2 Order No.	PCA2 Price
VNGA 332	3/8	.187	.031	**FF5510610**	Price

RAPIDKUT DCLNR/L Toolholders

- For turning, facing or contouring
- 95° lead angle
- Uses CNMG, CNMA, CNMP, CNGA or CNMM 80° diamond inserts
- Right hand shown, left hand opposite

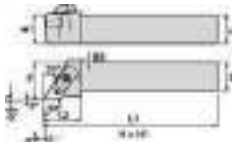




Shank Size (Sq.)	OAL	Head Length	Head Width	Uses Insert Style	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
									Model Number	Order No.	Price	Model Number	Order No.	Price
.750	4.50	1.300	1.000	CN__432	ICSN433	PBSS4	PBCL4	PBCS4	DCLNL124B	**ME2420245**	Price	DCLNR124B	**ME2420240**	Price
1.000	6.00	1.600	1.250	CN__432	ICSN433	PBSS4	PBCL4	PBCS4	DCLNL164D	**ME2420265**	Price	DCLNR164D	**ME2420260**	Price
1.250	6.00	1.600	1.500	CN__432	ICSN433	PBSS4	PBCL4	PBCS4	DCLNL204D	**ME2420285**	Price	DCLNR204D	**ME2420280**	Price
1.250	6.00	1.600	1.500	CN__543	ICSN533	PBSS5	PBCL5	PBCS5	DCLNL205D	**ME2420325**	Price	DCLNR205D	**ME2420320**	Price
1.250	6.00	1.800	1.500	CN__643	ICSN633	PBSS6	PBCL6	PBCS6	DCLNL206D	**ME2420345**	Price	DCLNR206D	**ME2420340**	Price
1.500	6.00	1.800	2.000	CN__543	ICSN533	PBSS5	PBCL5	PBCS5	DCLNL245D	**ME2420365**	Price	DCLNR245D	**ME2420360**	Price
1.500	6.00	1.800	2.000	CN__643	ICSN633	PBSS6	PBCL6	PBCS6	DCLNL246D	**ME2420385**	Price	DCLNR246D	**ME2420380**	Price

RAPIDKUT DDJNR/L Toolholders

- For turning and profiling
- 3° lead angle
- Uses DNMG, DNMA, DNMP, DNGA or DNMM 55° diamond inserts
- Right hand shown, left hand opposite

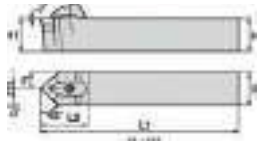




Shank Size (Sq.)	OAL	Head Length	Head Width	Uses Insert Style	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
									Model Number	Order No.	Price	Model Number	Order No.	Price
.750	4.50	1.770	1.000	DN__432	IDSN433	PBSS4	PBCL4	PBCS4	DDJNL124B	**ME2421245**	Price	DDJNR124B	**ME2421240**	Price
1.000	6.00	1.600	1.250	DN__432	IDSN433	PBSS4	PBCL4	PBCS4	DDJNL164D	**ME2421263**	Price	DDJNR164D	**ME2421260**	Price
1.250	6.00	1.600	1.500	DN__432	IDSN433	PBSS4	PBCL4	PBCS4	DDJNL204D	**ME2421285**	Price	DDJNR204D	**ME2421280**	Price

RAPIDKUT DSDNR/L Toolholders

- For turning and chamfering
- 45° Cutting angle
- 0° Lead
- Uses SNMA, SNMG, SNMP, SNG or SNU inserts
- Right hand shown, left hand opposite

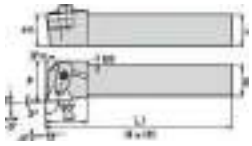




Shank Size (Sq.)	OAL	Head Length	Head Width	Uses Insert Style	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
									Model Number	Order No.	Price	Model Number	Order No.	Price
1.000	6.00	1.440	1.250	SN__432	ISSN433	PBSS4	PBCL4	PBCS4	DSDNL164D	**ME2421305**	Price	DSDNR164D	**ME2421300**	Price
1.250	6.00	1.600	1.500	SN__543	ISSN533	PBSS5	PBCL5	PBCS5	DSDNL205D	**ME2421325**	Price	DSDNR205D	**ME2421320**	Price
1.250	6.00	1.600	1.500	SN__643	ISSN633	PBSS6	PBCL6	PBCS6	DSDNL206D	**ME2421345**	Price	DSDNR206D	**ME2421340**	Price
1.500	6.00	1.800	2.000	SN__543	ISSN533	PBSS5	PBCL5	PBCS5	DSDNL245D	**ME2421365**	Price	DSDNR245D	**ME2421360**	Price
1.500	6.00	1.800	2.000	SN__643	ISSN633	PBSS6	PBCL6	PBCS6	DSDNL246D	**ME2421385**	Price	DSDNR246D	**ME2421380**	Price

RAPIDKUT DTJNR/L Toolholders

- For turning and profiling
- 3° lead angle
- Uses TNMA, TNMG, TNMP, TNGA, TNMM, TNG or TNU inserts
- Right hand shown, left hand opposite

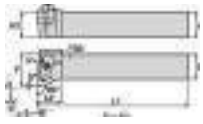




Shank Size (Sq.)	OAL	Head Length	Head Width	Uses Insert Style	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
									Model Number	Order No.	Price	Model Number	Order No.	Price
1.000	6.00	1.000	1.250	TN__332	ITSN333	PBSS3	PBCL3	PBCS3	DTJNL163D	**ME2421405**	Price	DTJNR163D	**ME2421400**	Price
1.000	6.00	1.000	1.250	TN__432	ITSN433	PBSS4	PBCL4	PBCS4	DTJNL164D	**ME2421425**	Price	DTJNR164D	**ME2421420**	Price
1.250	6.00	1.000	1.500	TN__543	ITSN533	PBSS5	PBCL5	PBCS5	DTJNL205D	**ME2421445**	Price	DTJNR205D	**ME2421440**	Price
1.250	6.00	1.000	1.500	TN__643	ITSN633	PBSS6	PBCL5	PBCS6	DTJNL206D	**ME2421465**	Price	DTJNR206D	**ME2421460**	Price
1.500	6.00	1.000	2.000	TN__543	ITSN533	PBSS5	PBCL5	PBCS5	DTJNL245D	**ME2421485**	Price	DTJNR245D	**ME2421480**	Price
1.500	6.00	1.000	2.000	TN__643	ITSN633	PBSS6	PBCL6	PBCS6	DTJNL246D	**ME2421505**	Price	DTJNR246D	**ME2421500**	Price

RAPIDKUT DWLNR Toolholder

- 95° lead angle
- Uses WNMG, WNMP or WNMA inserts





Model Number	Shank Size (Sq.)	OAL	Head Length	Head Width	Uses Insert Style	Shim	Shim Screw	Clamp	Clamp Screw	Order No.	Price
DWLNR124B	.750	4.50	1.000	1.000	WN__432	IWSN433	PBSS4	PBCL4	PBCS4	**ME2421520**	Price
DWLNR164D	1.000	6.00	1.000	1.250	WN__432	IWSN433	PBSS4	PBCL4	PBCS4	**ME2421540**	Price
DWLNR204D	1.250	6.00	1.000	1.500	WN__432	IWSN433	PBSS4	PBCL4	PBCS4	**ME2421560**	Price

RAPIDKUT D Style Holder Replacement Parts

Type - Clamp		
Model No.	Order No.	Price
PBCL3	**ME2622640**	Price
PBCL4	**ME2622680**	Price
PBCL5	**ME2622720**	Price
PBCL5V	**ME2622730**	Price
PBCL6	**ME2622725**	Price
PBCS3	**ME2622760**	Price
PBCS4	**ME2622800**	Price
PBCS5	**ME2622840**	Price
PBCS6	**ME2622880**	Price

Type - Screw		
Model No.	Order No.	Price
PBSS3	**ME2622480**	Price
PBSS4	**ME2622520**	Price
PBSS5	**ME2622560**	Price
PBSS6	**ME2622600**	Price

Type - Shim		
Model No.	Order No.	Price
ICSN433	**ME2622000**	Price
ICSN533	**ME2622040**	Price

Type - Shim		
Model No.	Order No.	Price
ICSN633	**ME2622080**	Price
IDSN433	**ME2622120**	Price
ISSN433	**ME2622200**	Price
ISSN533	**ME2622240**	Price
ISSN633	**ME2622280**	Price
ITSN333	**ME2622320**	Price
ITSN433	**ME2622360**	Price
ITSN533	**ME2622400**	Price

Type - Shim		
Model No.	Order No.	Price
ITSN633	**ME2622440**	Price
IVSN322	**ME2622445**	Price
IWSN433	**ME2622160**	Price

RAPIDKUT MCLNR/L Toolholder





- For turning, facing or contouring
- Negative 5° lead angle
- Uses CNMG, CNMA, CNMP, CNGA or CNMM 80° diamond inserts
- Right hand shown

Shank Size (in.)	OAL (in.)	Head Length (in.)	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
.750	4.50	1.250	CNM_43_	ICSN433	S46	NL46	CL20	XNS48	MCLNL124B	**ME1910000**	Price	MCLNR124B	**ME1910010**	Price
1.000	6.00	1.250	CNM_43_	ICSN433	S46	NL46	CL20	XNS48	MCLNL164D	**ME1910005**	Price	MCLNR164D	**ME1910015**	Price

RAPIDKUT MDJNR Toolholder





- For turning and profiling
- Negative 3° lead angle
- Uses DNMG, DNMA, DNMP, DNGA or DNMM 55° diamond inserts

Model No.	Shank Size (in.)	OAL (in.)	Head Length	Uses Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Right	
										Order No.	Price
MDJNR164D	1.000	6.00	1.250	DNM_43_	IDSN433	S46	NL46	CL20	XNS48	**ME1910025**	Price

RAPIDKUT MSDNN Toolholder





- For turning and chamfering
- 45° cutting angle
- Uses SNMA, SNMG, SNMP, SNG or SNU inserts

Model No.	Shank Size (in.)	OAL (in.)	Head Length	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Neutral	
										Order No.	Price
MSDNN124B	.750	4.50	1.375	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**ME1910030**	Price
MSDNN164D	1.000	6.00	1.375	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**ME1910035**	Price

RAPIDKUT MTENN Toolholder





- For turning and chamfering
- 60° cutting angle
- Uses TNMA, TNMG, TNMP, TNG, or TNU inserts

Model No.	Shank Size (in.)	OAL (in.)	Head Length	Insert Style	Seat	Lock Pin	Clamp	Clamp Screw	Neutral	
									Order No.	Price
MTENN103B	.625	4.50	1.125	TNM_32_	ITSN333	NL34L	CL6	XNS36	**ME1910040**	Price
MTENN124B	.750	4.50	1.500	TNM_43_	ITSN433	NL46	CL9	XNS59	**ME1910045**	Price
MTENN164D	1.000	6.00	1.500	TNM_43_	ITSN433	NL46	CL9	XNS59	**ME1910050**	Price

RAPIDKUT MTJNL/R Toolholder





- For turning and profiling
- Negative 3° lead angle
- Uses TNMA, TNMG, TNMP, TNGA, TNMM, TNG or TNU inserts
- Right hand shown

Shank Size	OAL (in.)	Head Length (in.)	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
.750	4.50	1.000	TNM_32_	ITSN322	S34	NL34L	CL6	XNS36	MTJNL123B	**ME1910055**	Price	MTJNR123B	**ME1910065**	Price
1.000	6.00	1.000	TNM_32_	ITSN322	S34	NL34L	CL6	XNS36	-	**-**	-	MTJNR163D	**ME1910070**	Price
1.000	6.00	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	MTJNL164D	**ME1910060**	Price	MTJNR164D	**ME1910080**	Price

RAPIDKUT MVJNL/R Toolholder





- For turning and profiling
- Negative 3° lead angle
- Uses VNMA, VNMG, VNMP, VNGA, or VNMS inserts
- Right hand shown

Shank Size	OAL (in.)	Head Length (in.)	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
.750	4.50	1.750	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	MVJNL123B	**ME1910085**	Price	-	**-**	-
1.000	6.00	1.750	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	MVJNL163D	**ME1910090**	Price	MVJNR163D	**ME1910100**	Price

RAPIDKUT MWLNR Toolholder





- Negative 5° lead angle
- Uses WNMG, WNMP or WNMA inserts

Model No.	Shank Size (in.)	OAL (in.)	Head Length (in.)	Uses Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Right	
										Order No.	Price
MWLNR124B	.750	4.50	1.250	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**ME1910105**	Price
MWLNR164D	1.000	6.00	1.250	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**ME1910110**	Price

Parts for above holders on pages B134-B138

Thru Coolant ADDN-TFR/L Toolholders for Swiss Machines

Thru Coolant External Turning, Grooving & Cut-Off



- Multiple coolant entry points
- High pressure coolant at edge
- Increased tool life
- Improved chip breaking and control

- Inch													
Shank Size	Insert Width	Overall Length	E (Tool Stop)	Grooving Depth	Max. Dia..	Insert	Left			Right			
							Model Number	Order No.	Price	Model Number	Order No.	Price
1/2	.079	4-1/4	1.250	12mm	.945	DN -22 N20	ADDN-TFL-08-20A-12	**FL4561045**	Price	ADDN-TFR-08-20A-12	**FL4561044**	Price
1/2	.118	4-1/4	1.250	14mm	1.102	DN -22 N30-	ADDN-TFL-08-30A-14	**FL4561047**	Price	ADDN-TFR-08-30A-14	**FL4561046**	Price

- Metric												
Shank Size	Insert Width	Overall Length	E (Tool Stop)	Grooving Depth	Max. Dia..	Insert	Left			Right		
							Model Number	Order No.	Price	Model Number	Order No.	Price
10mm	2mm	107mm	32mm	12mm	24mm	DN -22 N20	ADDN-TFL-1010-H20-12	**FL4561011**	Price	ADDN-TFR-1010-H20-12	**FL4561010**	Price
12mm	2mm	107mm	32mm	12mm	24mm	DN -22 N20	ADDN-TFL-1212-H20-12	**FL4561013**	Price	ADDN-TFR-1212-H20-12	**FL4561012**	Price
12mm	3mm	107mm	32mm	14mm	28mm	DN -22 N30-	ADDN-TFL-1212-H30-14	**FL4561019**	Price	ADDN-TFR-1212-H30-14	**FL4561018**	Price
16mm	2mm	107mm	32mm	12mm	24mm	DN -22 N20	ADDN-TFL-1616-H20-12	**FL4561015**	Price	ADDN-TFR-1616-H20-12	**FL4561014**	Price
16mm	3mm	107mm	32mm	14mm	28mm	DN -22 N30-	ADDN-TFL-1616-H30-14	**FL4561017**	Price	ADDN-TFR-1616-H30-14	**FL4561016**	Price
20mm	2mm	132mm	32mm	12mm	24mm	DN -22 N20	ADDN-TFL-2020-K20-12	**FL4561033**	Price	ADDN-TFR-2020-K20-12	**FL4561032**	Price
20mm	3mm	132mm	32mm	14mm	28mm	DN -22 N30-	ADDN-TFL-2020-K30-14	**FL4561035**	Price	ADDN-TFR-2020-K30-14	**FL4561034**	Price

Thru Coolant ASCNC R/L Toolholders for Swiss Machines

Style N

Negative 5° End or Side Cutting Edge Angle for 7° Positive 80° Diamond CC_W Inserts



- Multiple coolant entry points
- High pressure coolant at edge
- Increased tool life
- Improved chip breaking and control

Shank Size	OAL	E (Tool Stop)	Insert Style	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
1/2	4.000	.500	CCGW 21.51	ASCNCL08-2A	**FL4560699**	Price	ASCNCR08-2A	**FL4560698**	Price
1/2	4.000	.500	CCGW 32.52	ASCNCL08-3A	**FL4560702**	Price	ASCNCR08-3A	**FL4560701**	Price
10mm	100mm	25mm	CCGW 060204	ASCNCL1010-H06	**FL4560771**	Price	ASCNCR1010-H06	**FL4560770**	Price
12mm	100mm	25mm	CCGW 060204	ASCNCL1212-H06	**FL4560773**	Price	ASCNCR1212-H06	**FL4560772**	Price
12mm	100mm	25mm	CCGW 09T308	ASCNCL1212-H09	**FL4560777**	Price	ASCNCR1212-H09	**FL4560776**	Price
16mm	100mm	25mm	CCGW 060204	ASCNCL1616-H06	**FL4560775**	Price	ASCNCR1616-H06	**FL4560774**	Price
16mm	100mm	25mm	CCGW 09T308	ASCNCL1616-H09	**FL4560779**	Price	ASCNCR1616-H09	**FL4560778**	Price
20mm	125mm	25mm	CCGW 09T308	ASCNCL2020-K09	**FL4560781**	Price	ASCNCR2020-K09	**FL4560780**	Price

Thru Coolant ASDNC R/L Toolholders for Swiss Machines

Style N

3° Side Cutting Edge Angle for 7° Positive 55° Diamond DC_W Inserts

Right hand shown
Left hand opposite



R = Right hand
L = Left hand

- Inch									
Shank Size	OAL	E (Tool Stop)	Insert Style	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
1/2	4.000	1.000	DCGW 21.51	ASDNCL08-2A	**FL4560709**	Price	ASDNCR08-2A	**FL4560708**	Price
1/2	4.000	1.000	DCGW 32.52	ASDNCL08-3A	**FL4560712**	Price	-	**-**	-

- Metric									
Shank Size	OAL	E (Tool Stop)	Insert Style	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
10mm	100mm	25mm	DCGW 070204	-	**-**	-	ASDNCR1010-H07	**FL4560810**	Price
12mm	100mm	25mm	DCGW 070204	ASDNCL1212-H07	**FL4560813**	Price	ASDNCR1212-H07	**FL4560812**	Price
12mm	100mm	25mm	DCGW 11T308	ASDNCL1212-H11	**FL4560817**	Price	ASDNCR1212-H11	**FL4560816**	Price
16mm	100mm	25mm	DCGW 11T308	ASDNCL1616-H07	**FL4560815**	Price	-	**-**	-
16mm	100mm	25mm	DCGW 11T308	ASDNCL1616-H11	**FL4560819**	Price	ASDNCR1616-H11	**FL4560818**	Price
20mm	125mm	25mm	DCGW 11T308	ASDNCL2020-K11	**FL4560821**	Price	ASDNCR2020-K11	**FL4560820**	Price

High Pressure Disconnecting Pliers

To disconnect the hydraulic coolant hose, follow two safe and easy steps:

1. Plase the thinner section of the wrench-nose between the coolant hose and the connector
2. Close the wrench and it will disconnect notch 1 of the coolant hose. Use the thicker section of the wrench-nose and close again to disconnect notch 2.



Order No.	Price
FL4560476	Price

7 Pc. Coolant Hose Kit

- Swiss high pressure quick release coolant kit



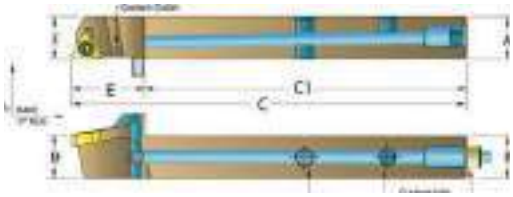
Order No.	Price
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Thru Coolant ASE R/L Threading Toolbar for Swiss Machines

For Laydown Inserts

Right hand shown
Left hand opposite

R = Right hand
L = Left hand



Shank Size	OAL	E (Tool Stop)	Insert Style	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
10mm	100mm	25mm	11-A60	-	-	-	ASER1010-H11	**FL4561078**	Price
12mm	100mm	25mm	11-A60	-	-	-	ASER1212-H11	**FL4561080**	Price
16mm	100mm	25mm	16-G60	ASEL1616-H16	**FL4561083**	Price	ASER1616-H16	**FL4561082**	Price

Thru Coolant ASVNC R/L Toolholders for Swiss Machines

Style N

3° Side Cutting Edge Angle for 7° Positive 35° Diamond VC_W Inserts

Right hand shown
Left hand opposite

R = Right hand
L = Left hand



- Inch									
Shank Size	OAL	E (Tool Stop)	Insert Style	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
1/2	4.000	1.000	VCGW 221	ASVNCL08-2A	**FL4560739**	Price	ASVNCR08-2A	**FL4560738**	Price
1/2	4.250	1.250	VCGW 332	ASVNCL08-3A	**FL4560742**	Price	ASVNCR08-3A	**FL4560741**	Price

- Metric									
Shank Size	OAL	E (Tool Stop)	Insert Style	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
10mm	100mm	25mm	VCGW 110304	ASVNCL1010-H11	**FL4560915**	Price	ASVNCR1010-H11	**FL4560914**	Price
12mm	100mm	25mm	VCGW 110304	ASVNCL1212-H11	**FL4560917**	Price	ASVNCR1212-H11	**FL4560916**	Price
12mm	107mm	32mm	VCGW 160408	ASVNCL1212-K16	**FL4560921**	Price	ASVNCR1212-K16	**FL4560920**	Price
16mm	100mm	25mm	VCGW 110304	ASVNCL1616-H11	**FL4560919**	Price	ASVNCR1616-H11	**FL4560918**	Price
16mm	107mm	32mm	VCGW 160408	ASVNCL1616-K16	**FL4560923**	Price	ASVNCR1616-K16	**FL4560922**	Price
20mm	132mm	32mm	VCGW 160408	ASVNCL2020-K16	**FL4560925**	Price	ASVNCR2020-K16	**FL4560924**	Price

ULTRA-DEX SDJCR/L Swiss Style Toolholders

MADE IN THE USA

Positive 55° Diamond (-3° Lead) • No Coolant

- Proper insert alignment for Swiss processes
- Accepts standard inserts



Inch/Metric - Inch										
A & B	C	F	Uses Insert	Insert Screw	Left			Right		
					Description	Order No.	Price	Description	Order No.	Price
1/2	4	1/2	DCMT 32.51	MTS 35	SDJCL 08-3A	**FG5512121**	Price	SDJCR 08-3A	**FG5512126**	Price
5/8	4	5/8	DCMT 32.51	MTS 35	SDJCL 10-3A	**FG5512122**	Price	SDJCR 10-3A	**FG5512127**	Price

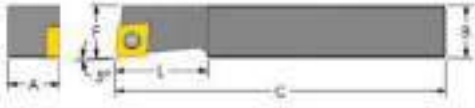
Inch/Metric - Metric										
A & B	C	F	Uses Insert	Insert Screw	Left			Right		
					Description	Order No.	Price	Description	Order No.	Price
12mm	100mm	12mm	DCMT 32.51	MTS 35	SDJCL 1212-3A	**FG5512123**	Price	SDJCR 1212-3A	**FG5512128**	Price
16mm	100mm	16mm	DCMT 32.51	MTS 35	SDJCL 1616-3A	**FG5512124**	Price	SDJCR 1616-3A	**FG5512129**	Price

ULTRA-DEX SCLCR/L Swiss Style Toolholders

MADE IN THE USA

Positive 80° Diamond (-5° Lead) • No Coolant

- Proper insert alignment for Swiss processes
- Accepts standard inserts



Inch/Metric - Inch										
A & B	C	F	Uses Insert	Insert Screw	Left			Right		
					Description	Order No.	Price	Description	Order No.	Price
1/2	4	1/2	CCMT 32.51	MTS 35	SCLCL 08-3A	**FG5512001**	Price	SCLCR 08-3A	**FG5512006**	Price
5/8	4	5/8	CCMT 32.51	MTS 35	SCLCL 10-3A	**FG5512002**	Price	SCLCR 10-3A	**FG5512008**	Price

Inch/Metric - Metric										
A & B	C	F	Uses Insert	Insert Screw	Left			Right		
					Description	Order No.	Price	Description	Order No.	Price
12mm	100mm	12mm	CCMT 32.51	MTS 35	SCLCL 1212-3A	**FG5512003**	Price	SCLCR 1212-3A	**FG5512012**	Price
16mm	100mm	16mm	CCMT 32.51	MTS 35	SCLCL 1616-3A	**FG5512004**	Price	SCLCR 1616-3A	**FG5512014**	Price

CTAP R/L Toolholders

MADE IN THE USA

Style A

0° Side Cutting Edge Angle for Positive Triangle TPG_ Inserts

Right hand shown
Left hand opposite





Right/Left Hand - Left												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Seat Screw	Clamp Clip	Clamp	Clamp Screw	Order No.	Price
CTAPL 08-2J	.500	3.50	.875	.515	TPG 22	-	-	-	HC9	CS96	**FL4540030**	Price
CTAPL 12-3B	.750	4.50	1.250	.765	TPG 32	SM41	S4	CLP12	HC12	CS126	**FL4540090**	Price
CTAPL 16-3D	1.000	6.00	1.250	1.015	TPG 32	SM41	S4	CLP12	HC12	CS126	**FL4540110**	Price

Right/Left Hand - Right												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Seat Screw	Clamp Clip	Clamp	Clamp Screw	Order No.	Price
CTAPR 08-2J	.500	3.50	.875	.515	TPG 22	-	-	-	HC9	CS96	**FL4540020**	Price
CTAPR 12-3B	.750	4.50	1.250	.765	TPG 32	SM41	S4	CLP12	HC12	CS126	**FL4540080**	Price
CTAPR 16-3D	1.000	6.00	1.250	1.015	TPG 32	SM41	S4	CLP12	HC12	CS126	**FL4540100**	Price

See pages B134-B138 for spare parts

CTGP R/L Toolholders

MADE IN THE USA

Style G

0° Side Cutting Edge Angle for 11° Positive Triangle TPG_ Inserts

Right hand shown, Left hand opposite



Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Seat Screw	Clamp Clip	Clamp	Clamp Screw	Right/Left Hand - Left		Right/Left Hand - Right	
											Order No.	Price	Order No.	Price
CTGPR/L 10-3B	.625	4.50	1.000	.875	TPG 32	SM41	S4	CLP12	HC12	CS126	**FL4551493**	Price	**FL4551492**	Price
CTGPR/L 12-3B	.750	4.50	1.000	1.000	TPG 32	SM41	S4	CLP12	HC12	CS126	**FL4551497**	Price	**FL4551496**	Price

See pages B134-B138 for spare parts

MCKN R/L Toolholders

Style K

15° End Cutting Edge Angle for Negative 80° Diamond CNM_ Inserts

Right hand shown, Left hand opposite



Right/Left Hand - Left												
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	U (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MCKNL 16-4D	1.000	6.00	1.250	1.250	.123	CNM 43	ICSN433	S46	NL46	CL20	XNS48	**FL4550075**	Price
MCKNL 16-5D	1.000	6.00	1.375	1.250	.151	CNM 54	ICSN543	S58	NL58	CL9	XNS59	**FL4540398**	Price
MCKNL 20-6D	1.250	6.00	1.500	1.500	.184	CNM 64	ICSN643	S68	NL68	CL12	XNS510	**FL4540396**	Price

Right/Left Hand - Right												
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	U (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MCKNR12-4B	.750	4.50	1.250	1.000	.123	CNM 43	ICSN433	S46	NL46	CL20	XNS48	**FL4550066**	Price
MCKNR 16-4C	1.000	5.00	1.250	1.250	.123	CNM 43	ICSN433	S46	NL46	CL20	XNS48	**FL4550070**	Price
MCKNR 16-4D	1.000	6.00	1.250	1.250	.123	CNM 43	ICSN433	S46	NL46	CL20	XNS48	**FL4540401**	Price
MCKNR 16-5D	1.000	6.00	1.375	1.250	.151	CNM 54	ICSN543	S58	NL58	CL9	XNS59	**FL4540402**	Price
MCKNR 20-4D	1.250	6.00	1.250	1.500	.123	CNM 43	ICSN433	S46	NL46	CL20	XNS48	**FL4540391**	Price
MCKNR 20-6D	1.250	6.00	1.500	1.500	.184	CNM 64	ICSN643	S68	NL68	CL12	XNS510	**FL4540395**	Price

See pages B134-B138 for spare parts

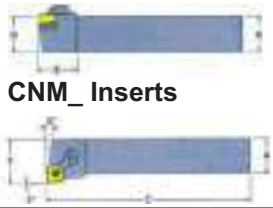
MCLN R/L Toolholders

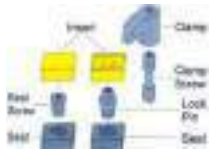
MADE IN THE USA

Style L

Negative 5° End or Side Cutting Edge Angle for Negative 80° Diamond CNM_ Inserts

Right hand shown
Left hand opposite





A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Left			Right		
											Order No.	Price		Order No.	Price
.500	4.00	1.000	.750	CNM 32	-	-	NL33	CL6	XNS37	-	-	-	MCLNR08-3A	**FL4550108**	Price
.625	4.00	1.000	.875	CNM 32	-	-	NL33	CL6	XNS37	-	-	-	MCLNR10-3A	**FL4550118**	Price
.625	4.50	1.250	1.000	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL10-4B	**FL4540410**	Price	MCLNR10-4B	**FL4540400**	Price
.750	4.50	1.000	1.000	CNM 32	ICSN322	S34	NL34L	CL6	XNS37	MCLNL12-3B	**FL4550111**	Price	MCLNR12-3B	**FL4550110**	Price
.750	4.50	1.250	1.000	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL12-4B	**FL4540430**	Price	MCLNR12-4B	**FL4540420**	Price
1.000	5.00	1.250	1.250	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL16-4C	**FL4540450**	Price	MCLNR16-4C	**FL4540440**	Price
1.000	6.00	1.250	1.250	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL16-4D	**FL4540470**	Price	MCLNR16-4D	**FL4540460**	Price
1.000	6.00	1.375	1.250	CNM 54	ICSN533	S58	NL58	CL9	XNS59	MCLNL16-5D	**FL4540570**	Price	MCLNR16-5D	**FL4540560**	Price
1.000	6.00	1.500	1.250	CNM 64	ICSN633	S68	NL68	CL12	XNS510	MCLNL16-6D	**FL4540650**	Price	MCLNR16-6D	**FL4540640**	Price
1.250	6.00	1.250	1.500	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL20-4D	**FL4540490**	Price	MCLNR20-4D	**FL4540480**	Price
1.250	6.00	1.375	1.500	CNM 54	ICSN533	S58	NL58	CL9	XNS59	MCLNL20-5D	**FL4540590**	Price	MCLNR20-5D	**FL4540580**	Price
1.250	6.00	1.500	1.500	CNM 64	ICSN633	S68	NL68	CL12	XNS510	MCLNL20-6D	**FL4540670**	Price	MCLNR20-6D	**FL4540660**	Price
1.250	7.00	1.500	1.500	CNM 64	ICSN633	S68	NL68	CL12	XNS510	MCLNL20-6E	**FL4550175**	Price	MCLNR20-6E	**FL4550174**	Price
1.500	6.00	1.250	2.000	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL24-4D	**FL4550137**	Price	MCLNR24-4D	**FL4550136**	Price
1.500	6.00	1.500	2.000	CNM 64	ICSN633	S68	NL68	CL12	XNS510	MCLNL24-6D	**FL4550177**	Price	MCLNR24-6D	**FL4550176**	Price
1.500	7.00	1.250	2.000	CNM 43	ICSN433	S46	NL46	CL20	XNS48	MCLNL24-4E	**FL4540510**	Price	MCLNR24-4E	**FL4540500**	Price
1.500	7.00	1.500	2.000	CNM 64	ICSN633	S68	NL68	CL12	XNS510	MCLNL24-6E	**FL4540690**	Price	MCLNR24-6E	**FL4540680**	Price

See pages B134-B138 for spare parts

SCLC R/L Toolholders



Style L
Negative 5° End or Side Cutting Angle for 7° Positive 80° Diamond CC_T Inserts

Right hand shown, Left hand opposite

						Left			Right		
A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Torx Screw	Description	Order No.	Price	Description	Order No.	Price
.375	3.50	.500	.500	CC_T 21.5_	TS25456M2	SCLCL06-2J	**FL4551801**	Price	SCLCR06-2J	**FL4551800**	Price
.500	4.00	.688	.625	CC_T 32.5_	TS4710M1	SCLCL08-3A	**FL4544120**	Price	SCLCR08-3A	**FL4544110**	Price
.625	4.50	.688	.750	CC_T 32.5_	TS4710M1	SCLCL10-3B	**FL4551809**	Price	SCLCR10-3B	**FL4551808**	Price
.750	4.50	.688	1.000	CC_T 32.5_	TS4710M1	SCLCL12-3B	**FL4544140**	Price	SCLCR12-3B	**FL4544130**	Price

See pages B134-B138 for spare parts

SDJC R/L Toolholders



Style J
Negative 3° Side Cutting Edge Angle for 7° Positive 55° Diamond DC_T Inserts

Right hand shown, Left hand opposite

						Left			Right		
A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Torx Screw	Description	Order No.	Price	Description	Order No.	Price
.375	3.50	.688	.500	DC_T 21.5_	TS25456M2	SDJCL06-2J	**FL4551873**	Price	SDJCR06-2J	**FL4551872**	Price
.500	4.00	1.000	.625	DC_T 32.5_	TS478M1	SDJCL08-3A	**FL4544180**	Price	SDJCR08-3A	**FL4544170**	Price
.750	4.50	1.000	1.000	DC_T 32.5_	TS478M1	SDJCL12-3B	**FL4544200**	Price	SDJCR12-3B	**FL4544190**	Price
.500	4.00	.688	.625	DC_T 21.5_	TS25456M2	SDJCL08-2A	**FL4544160**	Price	SDJCR08-2A	**FL4544150**	Price
.625	4.50	1.000	.750	DC_T 32.5_	TS478M1	SDJCL10-3B	**FL4551885**	Price	SDJCR10-3B	**FL4551884**	Price

See pages B134-B138 for spare parts

SSDCN Toolholders

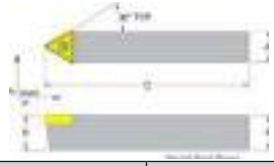


Style D
45° Side Cutting Edge Angle for 7° Positive SC_T Inserts

Model No.	A & B (in.)	C (in.)	Insert Style	Torx Screw	Order No.	Price
SSDCN08-3A	.500	4.00	SC_T 32.5_	TS4710M1	**FL4551932**	Price
SSDCN10-3B	.625	4.50	SC_T 32.5_	TS4710M1	**FL4551934**	Price
SSDCN12-3B	.750	4.50	SC_T 32.5_	TS4710M1	**FL4551936**	Price
SSDCN16-4D	1.000	6.00	SC_T 43_	TS5810M1	**FL4551938**	Price

See pages B134-B138 for spare parts

STECN Toolholders



Style E

Negative 30° Side Cutting Edge Angle for 7° Positive Triangle TC_T Inserts

A & B (in.)	Model No.	C (in.)	Insert Style	Order No.	Price
.375	STECN06-2	2.50	TC_T 21.5_	**FL4551622**	Price
.500	STECN08-2J	3.50	TC_T 21.5_	**FL4551624**	Price
.750	STECN12-3D	4.50	TC_T 32.5_	**FL4551628**	Price
1.000	STECN64-3D	6.00	TC_T 32.5_	**FL4551630**	Price

See pages B134-B138 for spare parts

STNCR Toolholders



Style N
3° Side Cutting Edge Angle for 7° Positive Triangle TC_T Inserts

Right hand shown, left hand available

Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Torx Screw	Order No.	Price
STNCR06-2	.375	2.50	.625	-	TC_T 21.5_	TS25456M2	**FL4551734**	Price
STNCR64-3D	1.000	6.00	1.125	-	TC_T 32.5_	TS478M1	**FL4551742**	Price
STNCR08-2J	.500	3.50	.625	.500	TC_T 21.5_	TS25456M2	**FL4551736**	Price
STNCR10-2A	.625	4.00	.625	.625	TC_T 21.5_	TS25456M2	**FL4551738**	Price
STNCR12-3B	.750	4.50	1.125	.750	TC_T 32.5_	TS478M1	**FL4551740**	Price

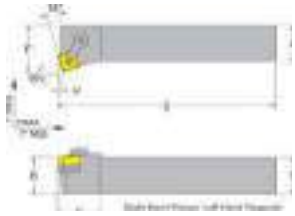
See pages B134-B138 for spare parts

MSKN R/L Toolholders

Style K

Negative 15° End Cutting Edge Angle for Negative Square SNM_ Inserts

Right hand shown, left hand opposite



- Left													
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	U (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MSKNL 16-4D	1.000	6.00	1.000	1.250	.123	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4550457**	Price
MSKNL 16-5D	1.000	6.00	1.375	1.250	.151	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4550461**	Price
MSKNL 20-6D	1.250	6.00	1.500	1.500	.183	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4550473**	Price

- Right													
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	U (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MSKNR 16-4D	1.000	6.00	1.000	1.250	.123	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541484**	Price
MSKNR 16-5D	1.000	6.00	1.375	1.250	.151	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4550460**	Price
MSKNR 20-6D	1.250	6.00	1.500	1.500	.183	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4550472**	Price

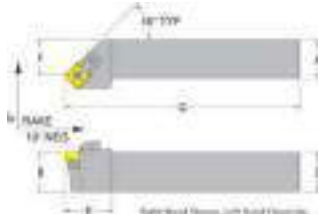
See pages B134-B138 for spare parts

MSSN R/L Toolholders

Style S

Negative 15° Side Cutting Edge Angle for Negative Square SNM_ Inserts

Right hand shown, left hand opposite



Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MSSNL 16-4D	1.000	6.00	1.250	.925	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541782**	Price
MSSNR 16-4D	1.000	6.00	1.250	.925	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4550580**	Price
MSSNR 20-5D	1.250	6.00	1.375	1.097	SNM_54_	ISSN533	S58	NL58	CL9	XNS510	**FL4541786**	Price
MSSNL 20-5D	1.250	6.00	1.375	1.097	SNM_54_	ISSN533	S58	NL58	CL9	XNS510	**FL4550589**	Price
MSSNR 20-6D	1.250	6.00	1.500	1.011	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4550592**	Price
MSSNL 20-6D	1.250	6.00	1.500	1.011	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4550593**	Price

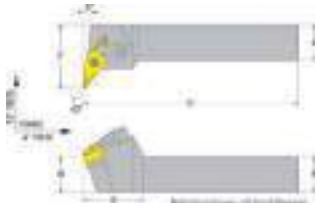
See pages B134-B138 for spare parts

MVLN R/L Toolholders

Style L

Negative 5° End Cutting Edge Angle for Negative 35° Diamond VNM_ Inserts

Right hand shown, left hand opposite



Right/Left Hand - Left											
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVLNL 16-4D	1.000	6.00	1.500	1.750	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542764**	Price
MVLNL 20-4D	1.250	6.00	1.500	2.000	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4551117**	Price

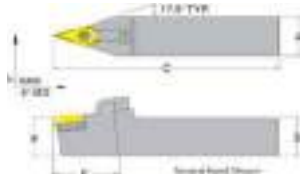
Right/Left Hand - Right											
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVLNR 16-4D	1.000	6.00	1.500	1.750	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542763**	Price
MVLNR 20-4D	1.250	6.00	1.500	2.000	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4551116**	Price

See pages B134-B138 for spare parts

MVLNN Toolholders

Style V

Negative 17.5° Side Cutting Edge Angle for Negative 35° Diamond VNM_ Inserts



										Neutral	
Model No.	A & B (in.)	C (in.)	E (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVVNN12-3B	.750	4.50	1.750	VNM_33_	IVSN322	S34	NL34L	CL30	XNS58	**FL4542957**	Price
MVVNN16-3D	1.000	6.00	1.750	VNM_33_	IVSN322	S34	NL34L	CL30	XNS58	**FL4542958**	Price
MVVNN16-4D	1.000	6.00	2.250	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542959**	Price

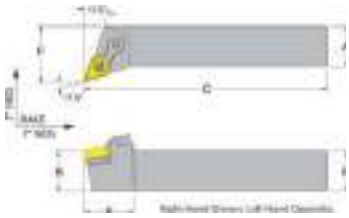
See pages B134-B138 for spare parts

MDQN R/L Toolholders

Style N

Negative 17.5° Side Cutting Edge Angle for Negative Diamond DNM_ Inserts

Right hand shown, left hand opposite



Right/Left Hand - Left												
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MDQNL 16-4D	1.000	6.00	1.375	1.250	DNM_43_	IDSN433	S46	NL46	CL20	XNS48	**FL4550381**	Price
MDQNL 20-4D	1.250	6.00	1.375	1.500	DNM_43_	IDSN433	S46	NL46	CL20	XNS48	**FL4550385**	Price

Right/Left Hand - Right												
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MDQNR 16-4D	1.000	6.00	1.375	1.250	DNM_43_	IDSN433	S46	NL46	CL20	XNS48	**FL4550379**	Price
MDQNR 20-4D	1.250	6.00	1.375	1.500	DNM_43_	IDSN433	S46	NL46	CL20	XNS48	**FL454550383**	Price

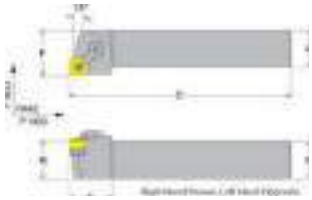
See pages B134-B138 for spare parts

MRGN R/L Toolholders

Style G

0° Side Cutting Edge Angle for Negative Round RNM_ Inserts

Right hand shown, left hand opposite



Right/Left Hand - Left												
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MRGNL 12-4B	.750	4.50	1.250	1.250	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4541324**	Price
MRGNL 16-3D	1.000	6.00	1.250	1.250	RNM_32	IRSN32	S34	NL34L	CL6	XNS36	**FL4551191**	Price
MRGNL 16-4D	1.000	6.00	1.250	1.250	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4551207**	Price
MRGNL 16-5D	1.000	6.00	1.250	1.250	RNM_54	IRSN53	S58	NL58	CL9	XNS58	**FL4551227**	Price
MRGNL 20-4D	1.250	6.00	1.250	1.500	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4551211**	Price
MRGNL 20-6D	1.500	6.00	1.375	1.500	RNM_64	IRSN63	S69	NL68	CL12	XNS58	**FL4541328**	Price
MRGNL 24-4E	1.500	7.00	1.250	2.000	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4551215**	Price
MRGNL 24-6E	1.500	7.00	1.375	1.004	RNM_64	IRSN63	S68	NL68	CL12	XNS58	**FL4551235**	Price

Right/Left Hand - Right												
Description	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MRGNR 12-4B	.750	4.50	1.250	1.250	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4541323**	Price
MRGNR 16-3D	1.000	6.00	1.250	1.250	RNM_32	IRSN32	S34	NL34L	CL6	XNS36	**FL4551190**	Price
MRGNR 16-4D	1.000	6.00	1.250	1.250	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4551206**	Price
MRGNR 16-5D	1.000	6.00	1.250	1.250	RNM_54	IRSN53	S58	NL58	CL9	XNS58	**FL4551226**	Price
MRGNR 20-4D	1.250	6.00	1.250	1.500	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4551210**	Price
MRGNR 20-6D	1.250	6.00	1.375	1.500	RNM_64	IRSN63	S69	NL68	CL12	XNS58	**FL4541327**	Price
MRGNR 24-4E	1.500	7.00	1.250	2.000	RNM_43	IRSN43	S46	NL46	CL9	XNS59	**FL4551214**	Price
MRGNR 24-6E	1.500	7.00	1.375	1.004	RNM_64	IRSN63	S68	NL68	CL12	XNS58	**FL4551234**	Price

See pages B134-B138 for spare parts

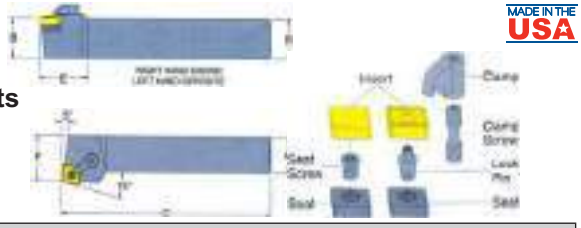
MCRN R/L Toolholders

MADE IN THE USA

Style R

15° Side Cutting Edge Angle for Negative 80° Diamond CNM_ Inserts

Right hand shown
Left hand opposite



Right/Left Hand - Left												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MCRNL 16-4D	1.000	6.00	1.250	1.250	CNM_43_	ICSN433	S46	NL46	CL9	XNS58	**FL4540770**	Price
MCRNL 16-5D	1.000	6.00	1.375	1.250	CNMG-54_	ICSN533	S58	NL58	CL9	XNS510	**FL4540830**	Price
MCRNL 20-4D	1.250	6.00	1.250	1.500	CNM_43_	ICSN433	S46	NL46	CL9	XNS58	**FL4540790**	Price
MCRNL 20-5D	1.250	6.00	1.375	1.500	CNM_54_	ICSN533	S58	NL58	CL9	XNS510	**FL4540850**	Price
MCRNL 20-6D	1.250	6.00	1.500	1.500	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4540910**	Price
MCRNL 24-6E	1.500	7.00	1.500	2.000	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4540930**	Price

Right/Left Hand - Right												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MCRNR 12-4B	.750	4.50	1.250	.750	CNM_43_	ICSN433	S46	NL46	CL9	XNS58	**FL4540720**	Price
MCRNR 16-4D	1.000	6.00	1.250	1.250	CNM_43_	ICSN433	S46	NL46	CL9	XNS58	**FL4540760**	Price
MCRNR 16-5D	1.000	6.00	1.375	1.250	CNMG-54_	ICSN533	S58	NL58	CL9	XNS510	**FL4540820**	Price
MCRNR 20-4D	1.250	6.00	1.250	1.500	CNM_43_	ICSN433	S46	NL46	CL9	XNS58	**FL4540780**	Price
MCRNR 20-5D	1.250	6.00	1.375	1.500	CNM_54_	ICSN533	S58	NL58	CL9	XNS510	**FL4540840**	Price
MCRNR 20-6D	1.250	6.00	1.500	1.500	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4540900**	Price
MCRNR 24-6E	1.500	7.00	1.500	2.000	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4540920**	Price

See pages B134-B138 for spare parts

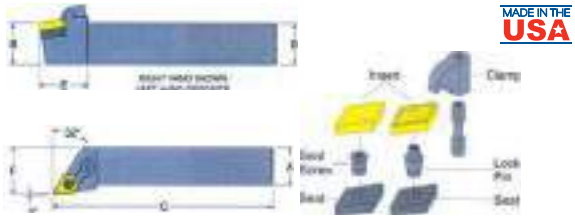
MDJN R/L Toolholders

MADE IN THE USA

Style J

3° Side Cutting Edge Angle for Negative 55° Diamond DNM_ Inserts

Right hand shown
Left hand opposite



Right/Left Hand - Left												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MDJNL 12-3B	.750	4.50	1.250	1.000	DNM_33_	IDSN322	S34	NL34L	CL7	XNS36	**FL4550313**	Price
MDJNL 12-4B	.750	4.50	1.250	1.000	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541010**	Price
MDJNL 16-3C	1.000	5.00	1.250	1.250	DNM_33_	IDSN322	S34	NL33	CL7	XNS36	**FL4550315**	Price
MDJNL 16-4C	1.000	5.00	1.250	1.250	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541030**	Price
MDJNL 16-4D	1.000	6.00	1.250	1.250	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541050**	Price
MDJNL 16-5D	1.000	6.00	1.750	1.250	DNM_54_	IDSN533	S58	NL58	CL12	XNS510	**FL4541170**	Price
MDJNL 20-4D	1.250	6.00	1.250	1.500	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541070**	Price
MDJNL 20-5D	1.250	6.00	1.750	1.500	DNM_54_	IDSN533	S58	NL58	CL12	XNS510	**FL4541190**	Price
MDJNL 24-4D	1.500	6.00	1.250	2.000	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541090**	Price
MDJNL 24-4E	1.500	7.00	1.250	2.000	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541110**	Price

Right/Left Hand - Right												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MDJNR 08-3A	.500	4.00	1.300	.750	DNM_33_	IDSN322	-	NL33	CL7	XNS36	**FL4540960**	Price
MDJNR 10-3B	.625	4.50	1.300	.875	DNM_33_	IDSN322	S34	NL33	CL7	XNS36	**FL4540980**	Price
MDJNR 12-3B	.750	4.50	1.250	1.000	DNM_33_	IDSN322	S34	NL34L	CL7	XNS36	**FL4550312**	Price
MDJNR 12-4B	.750	4.50	1.250	1.000	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541000**	Price
MDJNR 16-3C	1.000	4.50	1.250	1.250	DNM_33_	IDSN322	S34	NL33	CL7	XNS36	**FL4550314**	Price
MDJNR 16-4C	1.000	5.00	1.250	1.250	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541020**	Price
MDJNR 16-4D	1.000	6.00	1.250	1.250	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541040**	Price
MDJNR 16-5D	1.000	6.00	1.750	1.250	DNM_54_	IDSN533	S58	NL58	CL12	XNS510	**FL4541160**	Price
MDJNR 20-4D	1.250	6.00	1.250	1.500	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541060**	Price
MDJNR 20-5D	1.250	6.00	1.750	1.500	DNM_54_	IDSN533	S58	NL58	CL12	XNS510	**FL4541180**	Price
MDJNR 24-4D	1.500	6.00	1.250	2.000	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541080**	Price
MDJNR 24-4E	1.500	7.00	1.250	2.000	DNM_43_	IDSN433	S46	NL46	CL7	XNS36	**FL4541100**	Price

See pages B134-B138 for spare parts

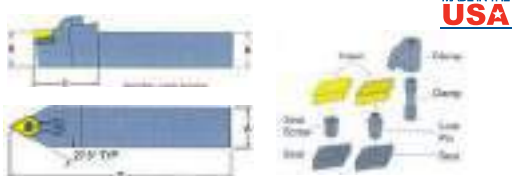
MDPN Toolholders

MADE IN THE USA

Style P

27.5° Side Cutting Edge Angle for Negative 55° Diamond DNM_ Inserts

Neutral hand shown



Description	A x B (in.)	C (in.)	E (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MDPNN12-4B	.750	4.50	1.750	DNM_43_	IDSN433	S46	NL46	CL12	XNS510	**FL4541260**	Price
MDPNN16-4D	1.000	6.00	1.750	DNM_43_	IDSN433	S46	NL46	CL12	XNS510	**FL4541270**	Price
MDPNN20-4D	1.250	6.00	1.750	DNM_43_	IDSN433	S46	NL46	CL12	XNS510	**FL4541280**	Price

See pages B134-B138 for spare parts

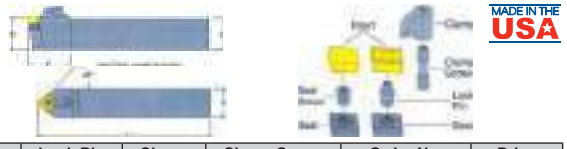
MSDNN Toolholders

MADE IN THE USA

Style D

45° Side Cutting Edge Angle for Negative Square SNM_ Inserts

Neutral hand shown



Description	A x B (in.)	C (in.)	E (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MSDNN08-3A	.500	4.00	1.000	SNM_32_	ISSN322	S34	NL34	CL6	XNS36	**FL4541330**	Price
MSDNN08-3B	.500	4.50	1.000	SNM_32_	ISSN322	S34	NL34	CL6	XNS36	**FL4541340**	Price
MSDNN10-3B	.625	4.50	1.000	SNM_32_	ISSN322	S34	NL34	CL6	XNS36	**FL4541350**	Price
MSDNN12-3B	.750	4.50	1.000	SNM_32_	ISSN322	S34	NL34	CL6	XNS36	**FL4541360**	Price
MSDNN12-4B	.750	4.50	1.375	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541370**	Price
MSDNN16-4D	1.000	6.00	1.375	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541380**	Price
MSDNN16-5D	1.000	6.00	1.625	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541400**	Price
MSDNN16-6D	1.000	6.00	1.750	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541440**	Price
MSDNN20-5D	1.250	6.00	1.625	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541410**	Price
MSDNN20-6D	1.250	6.00	1.750	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541450**	Price
MSDNN24-6E	1.500	7.00	1.750	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541460**	Price
MSDNN85-4D	1.000 x 1.250	6.00	1.375	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541390**	Price
MSDNN85-5D	1.000 x 1.250	6.00	1.625	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541420**	Price

See pages B134-B138 for spare parts

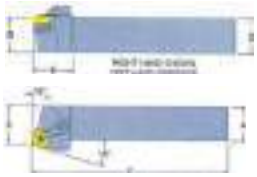
MSRN R/L Toolholders

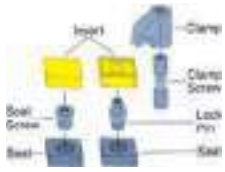
MADE IN THE USA

Style R

15° Side Cutting Edge Angle for Negative Square SNM_ Inserts

Right hand shown
Left hand opposite





Right/Left Hand - Left												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MSRNL 12-3B	.750	4.50	1.000	.910	SNM_32_	ISSN322	S34	NL34	CL6	XNS36	**FL4541560**	Price
MSRNL 12-4B	.750	4.50	1.250	.880	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541580**	Price
MSRNL 16-4D	1.000	6.00	1.250	1.130	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541600**	Price
MSRNL 16-5D	1.000	6.00	1.375	1.103	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541660**	Price
MSRNL 16-6D	1.000	6.00	1.500	1.071	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541720**	Price
MSRNL 20-5D	1.250	6.00	1.375	1.353	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541680**	Price
MSRNL 20-6D	1.250	6.00	1.500	1.315	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541740**	Price
MSRNL 24-6E	1.500	7.00	1.500	1.821	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541760**	Price

Right/Left Hand - Right												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MSRNR 12-3B	.750	4.50	1.000	.910	SNM_32_	ISSN322	S34	NL34	CL6	XNS36	**FL4541550**	Price
MSRNR 12-4B	.750	4.50	1.250	.880	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541570**	Price
MSRNR 16-4D	1.000	6.00	1.250	1.130	SNM_43_	ISSN433	S46	NL46	CL9	XNS59	**FL4541590**	Price
MSRNR 16-5D	1.000	6.00	1.375	1.103	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541650**	Price
MSRNR 16-6D	1.000	6.00	1.500	1.071	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541710**	Price
MSRNR 20-5D	1.250	6.00	1.375	1.353	SNM_54_	ISSN533	S58	NL58	CL12	XNS510	**FL4541670**	Price
MSRNR 20-6D	1.250	6.00	1.500	1.315	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541730**	Price
MSRNR 24-6E	1.500	7.00	1.500	1.821	SNM_64_	ISSN633	S68	NL68	CL12	XNS510	**FL4541750**	Price

See pages B134-B138 for spare parts

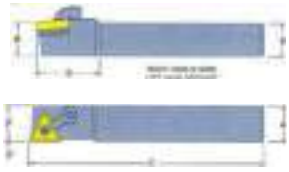
MTAN R/L Toolholders

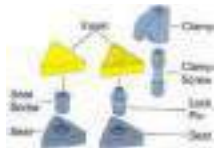
MADE IN THE USA

Style A

0° Side Cutting Edge Angle for Negative Triangle TNM_ Inserts

Right hand shown
Left hand opposite





Right/Left Hand - Left											
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTANL08-2A	.500	4.00	.875	.500	TNM_22_	-	-	NL23	CL19	XNS36	**FL4541800**	Price
MTANL10-3B	.625	4.50	1.000	.625	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4541840**	Price
MTANL12-3B	.750	4.50	1.000	.750	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4541860**	Price
MTANL16-4D	1.000	6.00	1.300	1.000	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4541900**	Price

Right/Left Hand - Right											
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTANR10-3B	.625	4.50	1.000	.625	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4541830**	Price
MTANR12-3B	.750	4.50	1.000	.750	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4541850**	Price
MTANR16-4D	1.000	6.00	1.300	1.000	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4541890**	Price

See pages B134-B138 for spare parts

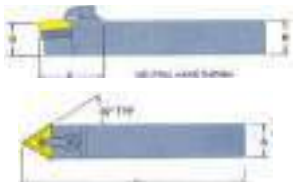
MTEN Toolholders

MADE IN THE USA

Style E

30° Side Cutting Edge Angle for Negtaive Triangle TNM_ Inserts

Neutral hand shown





Model No.	A x B (in.)	C (in.)	E (in.)	Insert Style	Seat	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTENN08-2A	.500	4.00	1.000	TNM_22_	-	NL23	CL19	XNS36	**FL4542030**	Price
MTENN10-3B	.625	4.50	1.125	TNM_32_	ITSN333	NL34L	CL6	XNS36	**FL4542040**	Price
MTENN12-3B	.750	4.50	1.125	TNM_33_	ITSN332	NL34L	CL6	XNS36	**FL4542050**	Price
MTENN12-4B	.750	4.50	1.500	TNM_43_	ITSN433	NL46	CL9	XNS59	**FL4542070**	Price
MTENN16-4D	1.000	6.00	1.500	TNM_43_	ITSN433	NL46	CL9	XNS59	**FL4542080**	Price
MTENN20-5D	1.250	6.00	1.625	TNM_54_	ITSN533	NL58	CL9	XNS510	**FL4542110**	Price
MTENN20-5E	1.250	7.00	1.625	TNM_54_	ITSN533	NL58	CL9	XNS510	**FL4550708**	Price
MTENN24-5E	1.500	7.00	1.625	TNM_54_	ITSN533	NL58	CL9	XNS510	**FL4542120**	Price
MTENN85-4D	1.000 x 1.250	6.00	1.500	TNM_43_	ITSN433	NL46	CL9	XNS59	**FL4542090**	Price

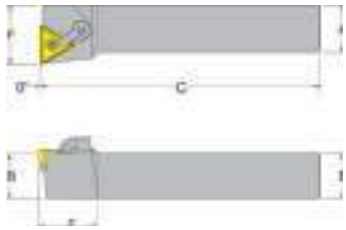
See pages B134-B138 for spare parts

MTFN R/L Toolholders

Style F

0° End Cutting Edge Angle for Negative Triangle TNM_ Inserts

Right hand shown, Left hand opposite



Right/Left Hand - Left												
Model No.	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTFNL12-3B	.750	4.50	1.000	1.000	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4550739**	Price
MTFNL16-4D	1.000	6.00	1.250	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4550755**	Price
MTFNL20-5D	1.250	6.00	1.375	1.500	TNM_54_	ITSN533	S58	NL58	CL12	XNS510	**FL4550779**	Price

Right/Left Hand - Right												
Model No.	A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTFNR12-3B	.750	4.50	1.000	1.000	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4550738**	Price
MTFNR16-4D	1.000	6.00	1.250	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4550754**	Price
MTFNR20-5D	1.250	6.00	1.375	1.500	TNM_54_	ITSN533	S58	NL58	CL12	XNS510	**FL4550778**	Price

See pages B134-B138 for spare parts

MTGN R/L Toolholders

MADE IN THE USA

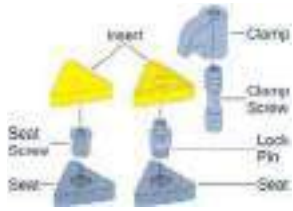
Style G

0° Side Cutting Edge Angle for Negative Triangle TNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left												
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTGNL08-2A	.500	4.00	.875	.625	TNM_22_	-	-	NL23	CL19	XNS36	**FL4542150**	Price
MTGNL10-3B	.625	4.50	1.000	.875	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4542190**	Price
MTGNL12-3B	.750	4.50	1.000	1.000	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4542210**	Price
MTGNL16-4D	1.000	6.00	1.375	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4542270**	Price

Right/Left Hand - Right												
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTGNR08-2A	.500	4.00	.875	.625	TNM_22_	-	-	NL23	CL19	XNS36	**FL4542140**	Price
MTGNR10-3B	.625	4.50	1.000	.875	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4542180**	Price
MTGNR12-3B	.750	4.50	1.000	1.000	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4542200**	Price
MTGNR16-4D	1.000	6.00	1.375	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4542260**	Price

See pages B134-B138 for spare parts

MTJN R/L Toolholders

MADE IN THE USA

Style J

3° Side Cutting Edge Angle for Negative Triangle TNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTJNL08-2A	.500	4.00	1.000	.625	TNM_22_	-	-	NL23	CL19	XNS36	**FL4542490**	Price
MTJNL10-3B	.625	4.50	1.000	.875	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4542530**	Price
MTJNL12-3B	.750	4.50	1.000	1.000	TNM_32_	ITSN322	S34	NL34L	CL6	XNS36	**FL4542550**	Price
MTJNL16-3D	1.000	6.00	1.000	1.250	TNM_32_	ITSN322	S34	NL34L	CL6	XNS36	**FL4542570**	Price
MTJNL16-4D	1.000	6.00	1.250	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4542590**	Price
MTJNL 16-5D	1.000	6.00	1.500	1.250	TNM_54_	ITSN533	S58	NL58	CL9	XNS510	**FL4542650**	Price
MTJNL20-4D	1.250	6.00	1.250	1.500	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4542610**	Price
MTJNL20-5D	1.250	6.00	1.500	1.500	TNM_54_	ITSN533	S58	NL58	CL12	XNS510	**FL4542670**	Price
MTJNL24-5E	1.500	7.00	1.500	2.000	TNM_54_	ITSN533	S58	NL58	CL12	XNS510	**FL4542690**	Price
MTJNL24-6E	1.500	7.00	1.625	2.000	TNM_66_	ITSN636	S68	NL68L	CL12	XNS510	**FL4542750**	Price

Right/Left Hand - Right												
Description	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MTJNR08-2A	.500	4.00	1.000	.625	TNM_22_	-	-	NL23	CL19	XNS36	**FL4542480**	Price
MTJNR10-3B	.625	4.50	1.000	.875	TNM_32_	ITSN333	S34	NL34L	CL6	XNS36	**FL4542520**	Price
MTJNR12-3B	.750	4.50	1.000	1.000	TNM_32_	ITSN322	S34	NL34L	CL6	XNS36	**FL4542540**	Price
MTJNR16-3D	1.000	6.00	1.000	1.250	TNM_32_	ITSN322	S34	NL34L	CL6	XNS36	**FL4542560**	Price
MTJNR16-4D	1.000	6.00	1.250	1.250	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4542580**	Price
MTJNR 16-5D	1.000	6.00	1.500	1.250	TNM_54_	ITSN533	S58	NL58	CL9	XNS510	**FL4542640**	Price
MTJNR20-4D	1.250	6.00	1.250	1.500	TNM_43_	ITSN433	S46	NL46	CL9	XNS510	**FL4542600**	Price
MTJNR20-5D	1.250	6.00	1.500	1.500	TNM_54_	ITSN533	S58	NL58	CL12	XNS510	**FL4542660**	Price
MTJNR24-5E	1.500	7.00	1.500	2.000	TNM_54_	ITSN533	S58	NL58	CL12	XNS510	**FL4542680**	Price
MTJNR24-6E	1.500	7.00	1.625	2.000	TNM_66_	ITSN636	S68	NL68L	CL12	XNS510	**FL4542740**	Price

See pages B134-B138 for spare parts

MVJN R/L Toolholders

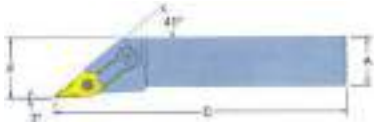
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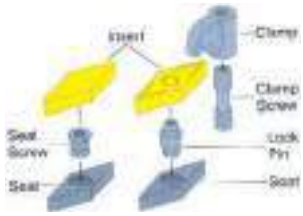
Style J

Negative 3° Side Cutting Edge Angle for Negative 35° Diamond VNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left												
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVJNL12-3B	.750	4.50	1.750	1.000	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542770**	Price
MVJNL16-3C	1.000	5.00	1.750	1.250	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542790**	Price
MVJNL16-3D	1.000	6.00	1.750	1.250	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542810**	Price
MVJNL16-4D	1.000	6.00	2.125	1.250	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542910**	Price
MVJNL20-3D	1.250	6.00	1.750	1.500	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542830**	Price
MVJNL20-4D	1.250	6.00	2.125	1.500	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542930**	Price
MVJNL24-4E	1.500	7.00	2.125	2.000	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542950**	Price

Right/Left Hand - Right												
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVJNR12-3B	.750	4.50	1.750	1.000	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542760**	Price
MVJNR16-3C	1.000	5.00	1.750	1.250	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542780**	Price
MVJNR16-3D	1.000	6.00	1.750	1.250	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542800**	Price
MVJNR16-4D	1.000	6.00	2.125	1.250	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542900**	Price
MVJNR20-3D	1.250	6.00	1.750	1.500	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542820**	Price
MVJNR20-4D	1.250	6.00	2.125	1.500	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542920**	Price
MVJNR24-4E	1.500	7.00	2.125	2.000	VNM_43_	IVSN433	S46	NL46	CL30	XNS510	**FL4542940**	Price

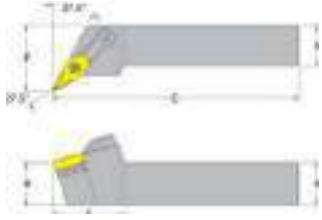
See pages B134-B138 for spare parts

MVTN R/L Toolholders

Style N

Negative 27.5° End Cutting Edge Angle for Negative 35° Diamond VNM_ Inserts

Right hand shown, Left hand opposite



Right/Left Hand - Left												
Model No.	A & B (in.)	C (in.)	E (in.)	F (in.)	Inset Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVTNL16-3D	1.000	6.00	1.625	1.250	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542954**	Price
MVTNL20-3D	1.250	6.00	1.625	1.500	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4551147**	Price

Right/Left Hand - Right												
Model No.	A & B (in.)	C (in.)	E (in.)	F (in.)	Inset Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MVTNR16-3D	1.000	6.00	1.625	1.250	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4542953**	Price
MVTNR20-3D	1.250	6.00	1.625	1.500	VNM_33_	IVSN322	S34	NL34L	CL30	XNS510	**FL4551146**	Price

See pages B134-B138 for spare parts

MWLN R/L Toolholders

MADE IN THE USA

Style L

Negative 5° End or Side Cutting Edge Angle for Negative 80° Trigon WNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left												
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MWLNL 12-3B	.750	4.50	1.000	1.000	WNM_33_	IWSN322	S34	NL34L	CL6	XNS36	**FL4542970**	Price
MWLNL 12-4B	.750	4.50	1.250	1.000	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**FL4542990**	Price
MWLNL 16-4D	1.000	6.00	1.250	1.250	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**FL4543010**	Price
MWLNL 20-4D	1.250	6.00	1.250	1.500	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**FL4543030**	Price

Right/Left Hand - Right												
Model No.	A x B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Seat	Optional Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
MWLNR 12-3B	.750	4.50	1.000	1.000	WNM_33_	IWSN322	S34	NL34L	CL6	XNS36	**FL4542960**	Price
MWLNR 12-4B	.750	4.50	1.250	1.000	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**FL4542980**	Price
MWLNR 16-4D	1.000	6.00	1.250	1.250	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**FL4543000**	Price
MWLNR 20-4D	1.250	6.00	1.250	1.500	WNM_43_	IWSN432	S46	NL46	CL9	XNS59	**FL4543020**	Price

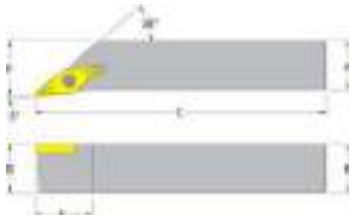
See pages B134-B138 for spare parts

SVJB R/L Toolholders

Style J

Negative 3° Cutting Edge Angle for 5° Positive 35° Diamond VB_T Inserts

Right hand shown, left hand opposite



MADE IN THE USA

A & B (in.)	C (in.)	E (in.)	F (in.)	Insert Style	Torx Screw	Left			Right		
						Description	Order No.	Price	Description	Order No.	Price
.750	4.50	1.250	1.000	VC_T 33_	TS478M1	SVJBL12-3B	**FL4544220**	Price	SVJBR12-3B	**FL4544210**	Price
1.000	6.00	1.250	1.250	VC_T 33_	TS478M1	SVJBL16-3D	**FL4544240**	Price	SVJBR16-3D	**FL4544230**	Price

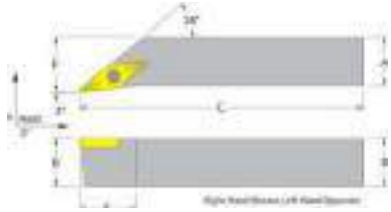
See pages B134-B138 for spare parts

SVJC R/L Toolholders

Style J

Negative 3° Cutting Edge Angle for 7° Positive 35° Diamond VC_T Inserts

Right hand shown, left hand opposite



A & B (in.)	C (in.)	E (in.)	Insert Style	Torx Screw	Left			Right		
					Model No.	Order No.	Price	Model No.	Order No.	Price
.500	4.00	1.000	VC_T 22_	TS25458M2	SVJCL08-2A	**FL4552033**	Price	SVJCR08-2A	**FL4552032**	Price
.625	4.50	1.000	VC_T 22_	TS25458M2	-	**-**	-	SVJCR10-2B	**FL4552036**	Price
.750	4.50	1.250	VC_T 33	TS4710M1	-	**-**	-	SVJCR12-3B	**FL4552040**	Price
1.000	6.00	1.250	VC_T 33_	TS4710M1	SVJCL16-3D	**FL4552049**	Price	SVJCR16-3D	**FL4552048**	Price

See pages B134-B138 for spare parts

ULTRA-DEX SVTBR/L Undercut & Profiling Toolholders

Positive 35° Diamond (-27.5° Lead) • No Coolant



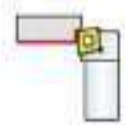
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A & B (in.)	C (in.)	F (in.)	Uses Insert	Insert Screw	Left			Right		
					Description	Order No.	Price	Description	Order No.	Price
1	4.50	.935	VBMT 331	MTS 3.5L	SVTBL 16-3D	**FG5512852**	Price	SVTBR 16-3D	**FG5512858**	Price
3/4	4.50	.935	VBMT 21.51	MTS 2.5L	SVTBL 12-2B	**FG5512849**	Price	SVTBR 12-2B	**FG5512854**	Price
3/4	4.50	.935	VBMT 331	MTS 3.5L	SVTBL 12-3B	**FG5512850**	Price	SVTBR 12-3B	**FG5512856**	Price

MICRO 100 Multi-Purpose Sets

Turning & Facing Without Coolant

- Each holder includes high precision M2.5 x T-8 torx screw and torx key







Square Shank Size 6 Pcs. (in.)	Round Shank Size 1 Pc.	Set Includes	Order No.	Price
1/4	1/4	Set of 7 Pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	**GE45407101**	Price
5/16	1/4	Set of 7 Pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	**GE45407102**	Price
3/8	5/16	Set of 7 Pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	**GE45407103**	Price
1/2	3/8	Set of 7 Pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	**GE45407104**	Price
5/8	1/2	Set of 7 Pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	**GE45407105**	Price

RAPIDKUT Tool Holder and Insert Kits

- Kit comes complete with (1) tool holder and (10) coated inserts
- Inserts are grade PT1225 and are used for medium machining applications in steel





Holder Style	Shank Size (in.)	OAL (in.)	Insert Style	Order No.	Price
MCLNR164D	1.00	6.00	CNMG 432	**ME2010020**	Price
MDJNR164D	1.00	6.00	DNMG 432	**ME2010025**	Price
MWLNR164D	1.00	6.00	WNMG 432	**ME2010030**	Price

7 Pc. Turning and Boring Sets

- Consists of 1) of each SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR and SCLCR toolholders, boring bar, inserts, screws, and key
- CCMT 21.51 coated inserts are used for general machining applications in steel
- Includes case

WORLD CLASS QUALITY



Tool Holder Shank	Boring Bar Shank	Order No.	Price
5/16	1/4	**FL5230300**	Price
3/8	5/16	**FL5230400**	Price
1/2	3/8	**FL5230500**	Price

Indexable Carbide Turning Tools & Accessories

Style	Shank Size (in.)	OAL (in.)	I.C. (in.)	Uses Insert Style	Borite Order No.	Borite Price	Quality Import Order No.	Quality Import Price
AL6	3/8 x 3/8	2-1/2	1/4	TT221	**GA52AL6**	Price	**FL5220040**	Price
AL8	1/2 x 1/2	3-1/2	3/8	TT321	**GA52AL8**	Price	**FL5220050**	Price
AL10	5/8 x 5/8	4	3/8	TT321	**GA52AL10**	Price	**FL5220000**	Price
AL12	3/4 x 3/4	4-1/2	3/8	TT321	**GA52AL12**	Price	**FL5220010**	Price
AL16	1 x 1	6	1/2	TT431	**GA52AL16**	Price	**FL5220030**	Price
AR6	3/8 x 3/8	2-1/2	1/4	TT221	**GA52AR6**	Price	**FL5220090**	Price
AR8	1/2 x 1/2	3-1/2	3/8	TT321	**GA52AR8**	Price	**FL5220100**	Price
AR10	5/8 x 5/8	4	3/8	TT321	**GA52AR10**	Price	**FL5220060**	Price
AR12	3/4 x 3/4	4-1/2	3/8	TT321	**GA52AR12**	Price	**FL5220070**	Price
AR16	1 x 1	6	1/2	TT431	**GA52AR16**	Price	**FL5220080**	Price
BL6	3/8 x 3/8	2-1/2	1/4	TT221	**GA52BL6**	Price	**FL5220140**	Price
BL8	1/2 x 1/2	3-1/2	3/8	TT321	**GA52BL8**	Price	**FL5220150**	Price
BL10	5/8 x 5/8	4	3/8	TT321	**GA52BL10**	Price	**FL5220110**	Price
BL12	3/4 x 3/4	4-1/2	3/8	TT321	**GA52BL12**	Price	**FL5220120**	Price
BL16	1 x 1	6	1/2	TT431	**GA52BL16**	Price	**FL5220130**	Price
BR6	3/8 x 3/8	2-1/2	1/4	TT221	**GA52BR6**	Price	**FL5220190**	Price
BR8	1/2 x 1/2	3-1/2	3/8	TT321	**GA52BR8**	Price	**FL5220200**	Price
BR10	5/8 x 5/8	4	3/8	TT321	**GA52BR10**	Price	**FL5220160**	Price
BR12	3/4 x 3/4	4-1/2	3/8	TT321	**GA52BR12**	Price	**FL5220170**	Price
BR16	1 x 1	6	1/2	TT431	**GA52BR16**	Price	**FL5220180**	Price
E6	3/8 x 3/8	2-1/2	1/4	TT221	**GA52E6**	Price	**FL5220230**	Price
E8	1/2 x 1/2	3-1/2	3/8	TT321	**GA52E8**	Price	**FL5220240**	Price
E10	5/8 x 5/8	4	3/8	TT321	**GA52E10**	Price	**FL5220250**	Price
E12	3/4 x 3/4	4-1/2	3/8	TT321	**GA52E12**	Price	**FL5220210**	Price
E16	1 x 1	6	1/2	TT431	**GA52E16**	Price	**FL5220220**	Price

Use 7° inserts for FL52 tool bits
Use 11° inserts for GA52 Borite

- **Efficiency:**
  A versatile and economical way to replace carbide tipped tool bits. Each tool cuts right, left, or plunges. Positive rake cutting and built-in chip breaker groove.
- Style AL - Left hand - suitable for facing to a square shoulder
- Style AR - Right hand - suitable for machining to a 90° square shoulder
- Style BR - Right hand 15° lead angle - for rough turning where a square shoulder is not required
- Style BL - Left hand 15° lead angle - for rough facing to center or where no shoulder is needed
- Style E - Neutral threading tool 60° included angle; used for U.S. standard universal threading. V-grooving, chamfering, turning, boring and facing



Indexable Carbide Turning Sets

- Sets include: 1 ea. same shank size AR, AL, BR, BL, & E.
- Note: Import sets do not include inserts

SQ (in.)	OAL (in.)	I.C. Insert (in.)	Borite Order No.	Borite Price	Quality Import Order No.	Quality Import Price
3/8 x 3/8	2-1/2	1/4	**GA52BICT6**	Price	**FL5220290**	Price
1/2 x 1/2	3-1/2	3/8	**GA52BICT8**	Price	**FL5220260**	Price
5/8 x 5/8	4	3/8	**GA52BICT10**	Price	**FL5220300**	Price
3/4 x 3/4	4-1/2	3/8	**GA52BICT12**	Price	**FL5220280**	Price
1 x 1	6	1/2	**GA52BICT16**	Price	**FL5220270**	Price



Replacement Screws

Item No.	Used With	Insert I.C. (in.)	Borite Order No.	Borite Price	Quality Import Order No.	Quality Import Price
SB2	6A	1/4	**GA526SCREW**	Price	**FL5220320**	Price
SB6	8A, 10A, 12A	3/8	**GA528SCREW**	Price	**FL5220330**	Price
SB10	16A	1/2	**GA5216SCREW**	Price	**FL5220310**	Price

Carbide Grades
PC2 - (C-2) general purpose for cast iron and non-ferrous metals (exotics)
PC5 - (C-5) steel cutting
PC300 - (C-5 coated) TiN-TiC-TiN steel cutting at higher speeds with greater lubricity

Carbide Inserts

Carbide Grades
PC2 - (C-2) general purpose for cast iron and non-ferrous metals (exotics)
PC5 - (C-5) steel cutting
PC300 - (C-5 coated) TiN-TiC-TiN steel cutting at higher speeds with greater lubricity

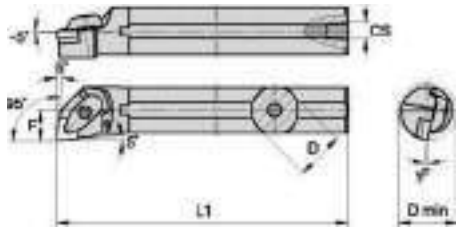
Insert Style	I.C. (in.)	Radius	11° Positive Rake for Borite Tool Bits: PC2 Order No.	PC2 Price	PC5 Order No.	PC5 Price	PC300 Order No.	PC300 Price	7° Positive Rake - Triangle For FL52 Tool Bits: PC2 Order No.	PC2 Price	PC5 Order No.	PC5 Price	PC300 Order No.	PC300 Price
TT 221	1/4	.016	**FF4842000**	Price	**FF4842020**	Price	**FF4842010**	Price	**FF4840000**	Price	**FF4840020**	Price	**FF4840010**	Price
TT 222	1/4	.031	**FF4842030**	Price	**FF4842050**	Price	**FF4842040**	Price	**FF4840030**	Price	**FF4840050**	Price	**FF4840040**	Price
TT 321	3/8	.016	**FF4842060**	Price	**FF4842080**	Price	**FF4842070**	Price	**FF4840060**	Price	**FF4840080**	Price	**FF4840070**	Price
TT 322	3/8	.031	**FF4842090**	Price	**FF4842110**	Price	**FF4842100**	Price	**FF4840090**	Price	**FF4840110**	Price	**FF4840100**	Price
TT 323	3/8	.047	**-**	-	**-**	-	**FF4842130**	Price	**-**	-	**FF4840140**	Price	**FF4840130**	Price
TT 431	1/2	.016	**FF4842150**	Price	**FF4842170**	Price	**FF4842160**	Price	**FF4840150**	Price	**FF4840170**	Price	**FF4840160**	Price
TT 432	1/2	.031	**FF4842180**	Price	**-**	-	**FF4842190**	Price	**-**	-	**FF4840200**	Price	**FF4840190**	Price
TT 433	1/2	.047	**-**	-	**FF4842240**	Price	**FF4842230**	Price	**FF4840210**	Price	**-**	-	**FF4840230**	Price

RAPIDKUT Clamp Style Boring Bars

Steel Shank • Coolant Thru • Style DCLNR

- 1/4-18 NPT Coupling size
- Right hand shown, left hand opposite





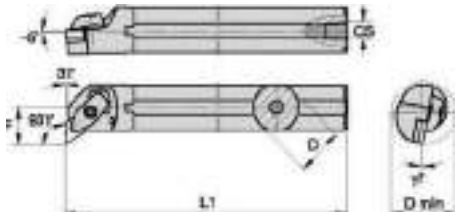
D Shank Dia.	D min Minimum Bore	F	Lead Angle	L1 OAL	Uses Insert	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
1.000	1.200	.640	95	10.000	CN_ _432	ICSN433	PBSS4	PBCL4	PBCS4	A16SDCLNL4	**ME2335125**	Price	A16SDCLNR4	**ME2335120**	Price
1.250	1.470	.765	95	14.000	CN_ _432	ICSN433	PBSS4	PBCL4	PBCS4	A20UDCLNL4	**ME2335145**	Price	A20UDCLNR4	**ME2335140**	Price
1.500	1.760	.890	95	14.000	CN_ _432	ICSN433	PBSS4	PBCL4	PBCS4	A24UDCLNL4	**ME2335165**	Price	A24UDCLNR4	**ME2335160**	Price
2.000	2.400	1.281	95	16.000	CN_ _432	ICSN433	PBSS4	PBCL4	PBCS4	A32VDCLNL4	**ME2335185**	Price	A32VDCLNR4	**ME2335180**	Price
2.000	2.400	1.281	95	16.000	CN_ _543	ICSN533	PBSS5	PBCL5	PBCS5	A32VDCLNL5	**ME2335205**	Price	A32VDCLNR5	**ME2335200**	Price
2.500	3.030	1.531	95	16.000	CN_ _543	ICSN533	PBSS5	PBCL5	PBCS5	A40VDCLNL5	**ME2335225**	Price	A40VDCLNR5	**ME2335220**	Price
2.500	3.030	1.531	95	16.000	CN_ _643	ICSN633	PBSS6	PBCL6	PBCS6	A40VDCLNL6	**ME2335245**	Price	A40VDCLNR6	**ME2335240**	Price

RAPIDKUT Clamp Style Boring Bars

Steel Shank • Coolant Thru • Style DDUNR

- 1/4-18 NPT Coupling size
- Right hand shown, left hand opposite





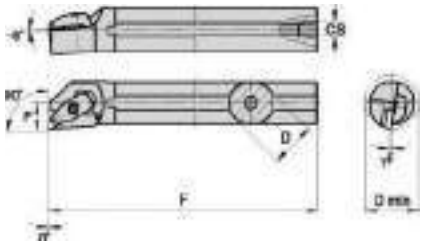
D Shank Dia.	D min Minimum Bore	F	Lead Angle	L1 OAL	Uses Insert	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
1.500	2.000	1.125	93	14.000	DN_ _432	IDSN443	PBSS4	PBCL4	PBCS4	A24UDDUNL4	**ME2335265**	Price	A24UDDUNR4	**ME2335260**	Price
2.000	2.500	1.375	93	16.000	DN_ _432	IDSN443	PBSS4	PBCL4	PBCS4	A32VDDUNL4	**ME2335285**	Price	A32VDDUNR4	**ME2335280**	Price

RAPIDKUT Clamp Style Boring Bars

Steel Shank • Coolant Thru • Style DTFNR

- 1/4-18 NPT Coupling size
- Right hand shown, left hand opposite





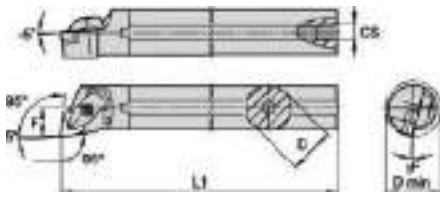
D Shank Dia.	D min Minimum Bore	F	Lead Angle	L1 OAL	Uses Insert	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
1.250	1.470	.765	93	14.000	TN_ _332	-	PBSS3	PBCL3	PBCS3	A20UDTFNL3	**ME2335305**	Price	A20UDTFNR3	**ME2335300**	Price
1.500	1.760	.890	90	14.000	TN_ _432	ITSN423	PBSS4	PBCL4	PBCS4	A24UDTFNL4	**ME2335325**	Price	A24UDTFNR4	**ME2335320**	Price
2.000	2.400	1.281	90	16.000	TN_ _432	ITSN433	PBSS4	PBCL4	PBCS4	A32VDTFNL4	**ME2335345**	Price	A32VDTFNR4	**ME2335340**	Price
2.000	2.400	1.281	90	16.000	TN_ _543	ITSN533	PBSS5	PBCL5	PBCS5	A32VDTFNL5	**ME2335365**	Price	A32VDTFNR5	**ME2335360**	Price
2.500	3.030	1.531	90	16.000	TN_ _643	ITSN633	PBSS6	PBCL6	PBCS6	A40VDTFNL6	**ME2335385**	Price	A40VDTFNR6	**ME2335380**	Price

RAPIDKUT Clamp Style Boring Bars

Steel Shank • Coolant Thru • Style DWLNR

- 1/4-18 NPT Coupling size
- Right hand shown, left hand opposite





D Shank Dia.	D min Minimum Bore	F	Lead Angle	L1 OAL	Uses Insert	Shim	Shim Screw	Clamp	Clamp Screw	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
1.500	1.760	.890	95	14.000	WN_ _432	IWSN433	PBSS4	PBCL4	PBCS4	A24UDWLNL4	**ME2335405**	Price	A24UDWLNR4	**ME2335400**	Price
2.000	2.400	1.281	95	16.000	WN_ _432	IWSN433	PBSS4	PBCL4	PBCS4	A32VDWLNL4	**ME2335425**	Price	A32VDWLNR4	**ME2335420**	Price

RAPIDKUT Steel Boring Bars





SCLC Style
- Positive 80°
- Uses CCMT style inserts

SDUC Style
- Positive 55°
- Uses DCMT style inserts

STFC Style
- Positive 60°
- Uses TCMT style inserts

Right hand shown

Type - SCLC											
						Left			Right		
Shank Dia. (in.)	Min. Bore	OAL (in.)	Use Insert	Screw	Wrench	Model No.	Order No.	Price	Model No.	Order No.	Price
5/16	.3350	4.000	CCMT 21.5_	TX25	CT08	S05HSCLCL2	**ME1210125**	Price	S05HSCLCR2	**ME1210100**	Price
3/8	.4130	4.500	CCMT 21.5_	TX25	CT08	S06JSCLCL2	**ME1210130**	Price	S06JSCLCR2	**ME1210105**	Price
1/2	.5400	5.000	CCMT 21.5_	TX25	CT08	S08KSCLCL2	**ME1210135**	Price	S08KSCLCR2	**ME1210110**	Price
5/8	.6650	6.000	CCMT 21.5_	TX25	CT08	S10MSCLCL2	**ME1210140**	Price	S10MSCLCR2	**ME1210115**	Price
5/8	.7500	8.000	CCMT 32.5_	TX35	CT15	S10RSCLCL3	**ME1220009**	Price	S10RSCLCR3	**ME1220007**	Price
3/4	1.0000	10.000	CCMT 32.5_	TX25	CT08	S12SSCLCL3	**ME1210145**	Price	S12SSCLCR3	**ME1210120**	Price
1	1.2500	12.000	CCMT 32.5_	TX35	CT15	S16TSCLCL3	**ME1210146**	Price	S16TSCLCR3	**ME1210122**	Price

Type - SDUC											
						Left			Right		
Shank Dia. (in.)	Min. Bore	OAL (in.)	Use Insert	Screw	Wrench	Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	.4130	4.500	DCMT 21.5_	TX25	CT08	S06JSDUCL2	**ME1210165**	Price	S06JSDUCR2	**ME1210150**	Price
1/2	.5400	5.000	DCMT 21.5_	TX25	CT08	S08KSDUCL2	**ME1210170**	Price	S08KSDUCR2	**ME1210151**	Price
5/8	.6650	6.000	DCMT 21.5_	TX25	CT08	S10MSDUCL2	**ME1210175**	Price	S10MSDUCR2	**ME1210155**	Price
5/8	.7500	8.000	DCMT 21.5_	TX25	CT08	S10RSDUCL2	**ME1210136**	Price	S10RSDUCR2	**ME1210156**	Price
3/4	1.0000	10.000	DCMT 32.5_	TX25	CT08	S12SSDUCL3	**ME1210180**	Price	S12SSDUCR3	**ME1210160**	Price
1	1.2500	12.000	DCMT 32.5_	TX35	CT15	S16TSDUCL3	**ME1210162**	Price	S16TSDUCR3	**ME1210182**	Price

Type - STFC											
						Left			Right		
Shank Dia. (in.)	Min. Bore	OAL (in.)	Use Insert	Screw	Wrench	Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	.4130	4.500	TCMT 21.5_	TX25	CT08	S06JSTFCL2	**ME1210185**	Price	S06JSTFCR2	**ME1210190**	Price
1/2	.5400	5.000	TCMT 21.5_	TX25	CT08	S08KSTFCL2	**ME1210195**	Price	S08KSTFCR2	**ME1210200**	Price
5/8	.6650	6.000	TCMT 21.5_	TX25	CT08	S10MSTFCL2	**ME1210205**	Price	S10MSTFCR2	**ME1210210**	Price
5/8	.7500	8.000	TCMT 32.5_	TX35	CT15	S10RSTFCL3	**ME1210215**	Price	S10RSTFCR3	**ME1210220**	Price
3/4	1.0000	10.000	TCMT 32.5_	TX35	CT15	S12SSTFCL3	**ME1210225**	Price	S12SSTFCR3	**ME1210230**	Price
1	1.2500	12.000	TCMT 32.5_	TX35	CT15	S16TSTFCL3	**ME1210235**	Price	S16TSTFCR3	**ME1210240**	Price

RAPIDKUT Coolant Thru Steel Boring Bars

SCLC Style
- Positive 80°
- Uses CCMT style inserts

SDUC Style
- Positive 55°
- Uses DCMT style inserts

STFC Style
- Positive 60°
- Uses TCMT style inserts



Right hand shown

Type - SCLC											
						Left			Right		
Shank Dia.	Min. Bore	OAL (in.)	Use Insert	Screw	Wrench	Model Number	Order No.	Price	Model Number	Order No.	Price
.312	.335	4.000	CCMT 21.5_	TX25	CT08	A05HSCLCL2	**ME1210002**	Price	A05HSCLCR2	**ME1210001**	Price
.375	.413	4.500	CCMT 21.5_	TX25	CT08	A06JSCLCL2	**ME1210003**	Price	A06JSCLCR2	**ME1210006**	Price
.500	.540	5.000	CCMT 21.5_	TX25	CT08	A08KSCLCL2	**ME1210011**	Price	A08KSCLCR2	**ME1210016**	Price
.625	.665	6.000	CCMT 21.5_	TX25	CT08	A10MSCLCL2	**ME1210021**	Price	A10MSCLCR2	**ME1220026**	Price
.625	.750	8.000	CCMT 32.5_	TX35	CT15	A10RSCLCL3	**ME1220017**	Price	A10RSCLCR3	**ME1220019**	Price
.750	1.000	10.000	CCMT 32.5_	TX35	CT15	A12SSCLCL3	**ME1210036**	Price	A12SSCLCR3	**ME1210038**	Price
1.000	1.250	12.000	CCMT 32.5_	TX35	CT15	A16TSCLCL3	**ME1210032**	Price	A16TSCLCR3	**ME1210037**	Price

Type - SDUC											
						Left			Right		
Shank Dia.	Min. Bore	OAL (in.)	Use Insert	Screw	Wrench	Model Number	Order No.	Price	Model Number	Order No.	Price
.375	.413	4.500	DCMT 21.5_	TX25	CT08	A06JSDUCL2	**ME1210041**	Price	A06JSDUCR2	**ME1210046**	Price
.500	.540	5.000	DCMT 21.5_	TX25	CT08	A08KSDUCL2	**ME1210051**	Price	A08KSDUCR2	**ME1210056**	Price
.625	.665	6.000	DCMT 21.5_	TX25	CT08	A10MSDUCL2	**ME1210061**	Price	A10MSDUCR2	**ME1210066**	Price
.625	.750	8.000	DCMT 21.5_	TX25	CT08	A10RSDUCL2	**ME1210068**	Price	A10RSDUCR2	**ME1210069**	Price
.750	1.000	10.000	DCMT 32.5_	TX35	CT15	A12SSDUCL3	**ME1210071**	Price	A12SSDUCR3	**ME1210077**	Price
1.000	1.250	12.000	DCMT 32.5_	TX35	CT15	A16TSDUCL3	**ME1210078**	Price	A16TSDUCR3	**ME1210079**	Price

Type - STFC											
						Left			Right		
Shank Dia.	Min. Bore	OAL (in.)	Use Insert	Screw	Wrench	Model Number	Order No.	Price	Model Number	Order No.	Price
.375	.413	4.500	TCMT 21.5_	TX25	CT08	A06JSTFCL2	**ME1210245**	Price	A06JSTFCR2	**ME1210250**	Price
.500	.540	5.000	TCMT 21.5_	TX25	CT08	A08KSTFCL2	**ME1210255**	Price	A08KSTFCR2	**ME1210260**	Price
.625	.665	6.000	TCMT 21.5_	TX25	CT08	A10MSTFCL2	**ME1210265**	Price	A10MSTFCR2	**ME1210270**	Price
.625	.750	8.000	TCMT 32.5_	TX35	CT15	A10RSTFCL3	**ME1210275**	Price	A10RSTFCR3	**ME1210280**	Price
.750	1.000	10.000	TCMT 32.5_	TX35	CT15	A12SSTFCL3	**ME1210285**	Price	A12SSTFCR3	**ME1210290**	Price
1.000	1.250	12.000	TCMT 32.5_	TX35	CT15	A16TSTFCL3	**ME1210295**	Price	A16TSTFCR3	**ME1210300**	Price

RAPIDKUT Solid & Coolant Thru Boring Bar Kits

- Uses CCMT, DCMT or TCMT 21.5_ inserts
- Inserts sold separately
- Coolant-thru and non coolant-thru available



Description	Set Includes	Uses Insert Style	Order No.	Price
Kit of 4 SCLCR Steel Boring Bars	S05HSCLCR2, S06JSCLCR2, S08KSCLCR2, S10MSCLCR2	CCMT	**ME1220005**	Price
Kit of 3 SDUCR Steel Boring Bars	S06JSDUCR2, S08KSDUCR2, S10MSDUCR2	DCMT	**ME1220000**	Price
Kit of 3 STFCR Steel Boring Bars	S06JSTFCR2, S08KSTFCR2, S10MSTFCR2	TCMT	**ME1220020**	Price
Kit of 4 SCLCR Coolant Thru Steel Boring Bars	A05HSCLCR2, A06JSCLCR2, A08KSCLCR2, A10MSCLCR2	CCMT	**ME1220015**	Price
Kit of 3 SDUCR Coolant Thru Steel Boring Bars	A06JSDUCR2, A08KSDUCR2, A10MSDUCR2	DCMT	**ME1220010**	Price
Kit of 3 STFCR Coolant Thru Steel Boring Bars	A06JSTFCR2, A08KSTFCR2, A10MSTFCR2	TCMT	**ME1220030**	Price

RAPIDKUT Boring Bar Kits

- Kit includes bar and 10 inserts
- 80° SCLC Style
- Uses CCMT21.51 or CCMT32.51 inserts
- All right hand
- Steel shank – coolant thru



Shank Dia. (in.)	Min. Bore (in.)	OAL (in.)	Model No.	Uses Insert	Order No.	Price
.375	.470	4.500	A06JSCLCR2	CCMT21.5_	**ME2010035**	Price
.500	.550	5.000	A08KSCLCR2	CCMT21.5_	**ME2010040**	Price
5/8	.7000	6.0000	A10MSCLCR2	CCMT21.5_	**ME2010045**	Price
.750	1.000	10.000	A12SSCLCR3	CCMT32.5_	**ME2010050**	Price

Replacement inserts - CCMT2151 grade PT1225 (order no. RE1010020, CCMT32.51 grade PT1225 (order no. RE1010060)
Material application: steel, stainless steel, cast iron and hi-temp alloys

RAPIDKUT Spare Parts

Model Number	Type	Order No.	Price
VS12	Clamp	**ME1490012**	Price
1240	Insert Screw	**ME1490005**	Price
1425	Insert Screw	**ME1490010**	Price
1440	Insert Screw	**ME1490015**	Price
TX25	Insert Screw	**ME1490100**	Price
TX25C	Insert Screw	**ME1490105**	Price
TX35	Insert Screw	**ME1490110**	Price
TX35L	Insert Screw	**ME1490115**	Price

Model Number	Type	Order No.	Price
TX40G	Insert Screw	**ME1490540**	Price
TX50	Insert Screw	**ME1490500**	Price
SSE10.3	Shim	**ME1490102**	Price
VF3	Shim Screw	**ME1490300**	Price
CHT4	Screwdriver	**ME1490400**	Price
CT08	Torx Driver	**ME1490120**	Price
CT15	Torx Driver	**ME1490125**	Price
CT20	Torx Driver	**ME1490220**	Price

RAPIDKUT Boring Bar Inserts

Popular Sizes for Boring Bars



Model No.	Grade	IC (in.)	Thickness (in.)	Radius (in.)	Order No.	Price
CCMT 21.51-F41	PT1225	1/4	.094	.016	**RE1010020**	Price
CCMT 32.51-F41	PT1115	3/8	.156	.016	**RE1010050**	Price
CCMT 32.51-M51	PT1225	3/8	.156	.016	**RE1010090**	Price
CCMT 32.52-F41	PT1225	3/8	.156	.031	**RE1010130**	Price
CCMT 32.52-M51	PT1225	3/8	.156	.031	**RE1010160**	Price
DCMT 21.51-R52	PT1115	1/4	.094	.016	**RE1010720**	Price
DCMT 32.51-F41	PT1115	3/8	.156	.016	**RE1010740**	Price
DCMT 32.51-M51	PT1225	3/8	.156	.016	**RE1010780**	Price

Model No.	Grade	IC (in.)	Thickness (in.)	Radius (in.)	Order No.	Price
DCMT 32.52-F41	PT1225	3/8	.156	.031	**RE1010830**	Price
DCMT 32.52-M51	PT1225	3/8	.156	.031	**RE1010860**	Price
TCMT 21.51-R52	PT1225	1/4	.094	.016	**RE1011540**	Price
TCMT 32.51-F41	PT1225	3/8	.156	.016	**RE1011560**	Price
TCMT 32.51-M51	PT1225	3/8	.156	.016	**RE1011590**	Price
TCMT 32.52-F41	PT1225	3/8	.156	.031	**RE1011610**	Price
TCMT 32.52-M51	PT1225	3/8	.156	.031	**RE1011640**	Price

See pages B1 - B3 for technical information

Criterion TFX & CFX Boring Bars

Steel Shank



- Designed to accept either a flat top or a chip-controlled insert
- These bars are equally effective for internal bores as well as OD turning.
- The offset head permits an easy disposal of chips and a more than adequate coolant flow
- Features ground shank diameter for use in round holders and four flats for use on a flat surface — such as a turret-post holder
- When held in a round holder their 3-point contact assures solid clamping and maximum holding power and the set screw flats place the cutting edge on the exact centerline of the bar

Model No.	Shank Dia. A (in.)	Min. Bore D (in.)	OAL B (in.)	Insert I.C. (in.)	Uses Insert Style	Center Height	Insert Screw	Screw Wrench	Order No.	Price
CFX-0500	1/2	3/4	6	1/4	CP_ _	.380	SN-89TX	T7	**GE60CFX500**	Price
TFX-0500	1/2	3/4	6	1/4	TP_ _	.370	SN-116TX	T7	**GE60TFX500**	Price
CFX-0750	3/4	1	8	3/8	CP_ _	.500	TXS-009-1	T15	**GE60CFX750**	Price
TFX-0750	3/4	1	8	3/8	TP_ _	.500	SN-100TX	T20	**GE60TFX750**	Price
CFX-1000	1	1-3/8	10	3/8	CP_ _	.690	SN-59TX	T15	**GE60CFX1000**	Price
TFX-1000	1	1-3/8	10	3/8	TP_ _	.690	SN-100TX	T20	**GE60TFX1000**	Price

PROCUT Inserts



Grade Info

PC300 – C5 Coated TiN-TiC-TiN insert designed for steel cutting at higher speeds with greater lubricity

PC5 – General purpose steel cutting grade

				PC5		PC300	
Item	IC (in.)	R (in.)	T (in.)	Order No.	Price	Order No.	Price
CPMT 21.51	1/4	.016	.094	**FF4830050**	Price	**FF4850050**	Price
CPMT 32.51	3/8	.016	.156	**FF4830055**	Price	**FF4850055**	Price
CCMT 432	1/2	.031	.187	**FF4850040**	Price	**FF4830040**	Price

				PC5		PC300	
Item	IC (in.)	R (in.)	T (in.)	Order No.	Price	Order No.	Price
TPGT 21.51	1/4	.016	.094	**FF4834000**	Price	**-**	-
TPGT 321	3/8	.016	.125	**FF4834005**	Price	**FF4854005**	Price
TPGT 322	3/8	.031	.125	**FF4831040**	Price	**FF4854010**	Price

Borite Boring Bars

The ultimate in boring tools for fine precision tool room or production boring work.

- 3-Position ground cutting edges
- Reliability within ±.001”
- Choice of carbide grades
- All bars use 1/4” IC TT style inserts 11° positive



Shank Dia. A (in.)	OAL B (in.)	Bore Depth C (in.)	Min. Bore Depth D (in.)	Order No.	Price
1/2	2-3/4	1-1/4	7/16	**FL517SB**	Price
1/2	3	1-1/2	1/2	**FL518SB**	Price
1/2	3-5/8	2-1/8	7/16	**FL517LB**	Price
1/2	4	2-1/2	1/2	**FL518LB**	Price
5/8	3	1-1/4	7/16	**FL517SD**	Price
5/8	3-1/4	1-1/2	1/2	**FL518SD**	Price
5/8	3-1/2	1-3/4	9/16	**FL519SD**	Price
5/8	3-7/8	2-1/8	7/16	**FL517LD**	Price
5/8	4-1/4	2-1/2	1/2	**FL518LD**	Price
5/8	4-5/8	2-7/8	9/16	**FL519LD**	Price
3/4	3-3/8	1-3/8	7/16	**FL517SC**	Price
3/4	3-5/8	1-5/8	1/2	**FL518SC**	Price
3/4	3-7/8	1-7/8	9/16	**FL519SC**	Price
3/4	4-1/4	2-1/4	7/16	**FL517LC**	Price
3/4	4-1/4	2-1/4	11/16	**FL5111SC**	Price
3/4	4-5/8	2-5/8	1/2	**FL518LC**	Price
3/4	5	3	9/16	**FL519LC**	Price
3/4	5-1/2	3-1/2	11/16	**FL5111LC**	Price

Borite Boring Bar Sets

Shank Dia. A (in.)	Order No.	Price
1/2	**FL51IB500**	Price
5/8	**FL51ID625**	Price
3/4	**FL51IC750**	Price



Carbide Inserts For BIB, BID & BIC Tools Not Shown



Style	Radius (in.)	Grade	Order No.	Price
TBEE 521	.016	PC5	**FF50TBEE521PC5**	Price
TBEE 521	.016	PC300	**FF50032305**	Price
TPEE 730	.005	PC5	**FF50TPEE730PC5**	Price
TPEE 731	.016	PC5	**FF50TPEE731PC5**	Price
TPEE 731	.016	PC300	**FF50040136**	Price
TPG 25.21	.016	PC5	**FF50TPG2521PC5**	Price
TPG 25.21	.016	PC300	**FF50040795**	Price

Inserts

Screw - FL51-ICS2 Box of 6



Insert Style	Radius	Grade	Order No.	Price
TT 221	.016	PC2	**FF4842000**	Price
TT 221	.016	PC5	**FF4842020**	Price
TT 221	.016	PC300	**FF4842010**	Price
TT 222	.031	PC2	**FF4842030**	Price
TT 222	.031	PC5	**FF4842050**	Price
TT 222	.031	PC300	**FF4842040**	Price

Individual Boring Bars

Regular and Long Lengths



Features:
- No special components
- The only replacement part is a cap screw
- Insert is held rigidly by a unique clamp design
- Uses standard 1/4" and 3/8" IC (TPG) triangle inserts-sold separately
- A wide variety of shank sizes and lengths

Shank Dia. (in.) - 1/2						
Min. Bore (in.)	Bore Depth (in.)	Dist. Across Flats (in.)	OAL (in.)	Inserts Size I.C. (in.)	Order No.	Price
1/2	1-1/2	7/16	3	1/4	**FL50LB8S**	Price
1/2	2-1/4	7/16	3-3/4	1/4	**FL50LB8M**	Price
9/16	1-3/4	7/16	3-1/4	1/4	**FL50LB9S**	Price
9/16	2-5/8	7/16	4-1/8	1/4	**FL50LB9M**	Price
9/16	-	7/16	8	1/4	**FL50LB9L**	Price
5/8	2	7/16	3-1/2	1/4	**FL50LB10S**	Price
5/8	3	7/16	4-1/2	1/4	**FL50LB10M**	Price

Shank Dia. (in.) - 5/8						
Min. Bore (in.)	Bore Depth (in.)	Dist. Across Flats (in.)	OAL (in.)	Inserts Size I.C. (in.)	Order No.	Price
1/2	1-1/2	9/16	3-1/4	1/4	**FL50LC8S**	Price
1/2	2-1/4	9/16	4	1/4	**FL50LC8M**	Price
5/8	2	9/16	3-3/4	1/4	**FL50LC10S**	Price
5/8	3	9/16	4-3/4	1/4	**FL50LC10M**	Price
11/16	-	9/16	9	3/8	**FL50LC11L**	Price
3/4	2-3/4	9/16	4-1/2	3/8	**FL50LC12S**	Price
3/4	3-3/4	9/16	5-1/2	3/8	**FL50LC12M**	Price

Shank Dia. (in.) - 3/4						
Min. Bore (in.)	Bore Depth (in.)	Dist. Across Flats (in.)	OAL (in.)	Inserts Size I.C. (in.)	Order No.	Price
1/2	1-1/2	5/8	3-1/2	1/4	**FL50LD8S**	Price
1/2	2-1/4	5/8	4-1/4	1/4	**FL50LD8M**	Price
5/8	2	5/8	4	1/4	**FL50LD10S**	Price
5/8	3	5/8	5	1/4	**FL50LD10M**	Price
3/4	2-3/4	5/8	4-3/4	3/8	**FL50LD12S**	Price
3/4	3-3/4	5/8	5-3/4	3/8	**FL50LD12M**	Price
13/16	3	5/8	5	3/8	**FL50LD13S**	Price
13/16	4-1/2	5/8	6-1/2	3/8	**FL50LD13M**	Price
13/16	-	5/8	10	3/8	**FL50LD13L**	Price

Shank Dia. (in.) - 1						
Min. Bore (in.)	Bore Depth (in.)	Dist. Across Flats (in.)	OAL (in.)	Inserts Size I.C. (in.)	Order No.	Price
3/4	3	7/8	5-1/4	3/8	**FL50LE12S**	Price
3/4	4	7/8	6-1/4	3/8	**FL50LE12M**	Price
13/16	3-1/4	7/8	5-1/2	3/8	**FL50LE13S**	Price
13/16	4-1/2	7/8	6-3/4	3/8	**FL50LE13M**	Price
15/16	3-1/2	7/8	5-3/4	3/8	**FL50LE15S**	Price
15/16	4-3/4	7/8	7	3/8	**FL50LE15M**	Price
1-1/16	4	7/8	6-1/4	3/8	**FL50LE17S**	Price
1-1/16	5-1/4	7/8	7-1/2	3/8	**FL50LE17M**	Price
1-1/16	-	7/8	12	3/8	**FL50LE17L**	Price

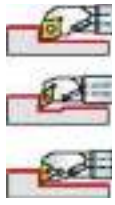
Super-Lok Boring Bar Sets



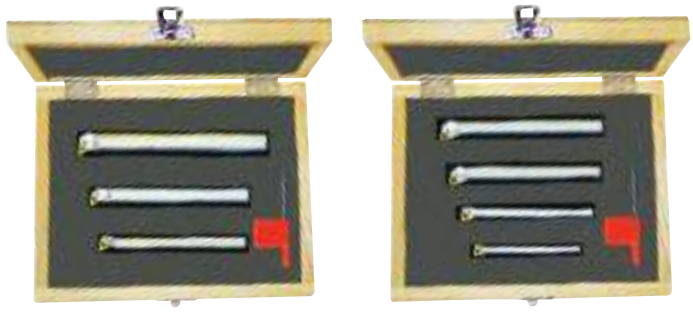
- No special components
- The only replacement part is a cap screw
- Insert is held by a unique clamp design
- Uses TPG22_1/4" IC or TPG32_3/8" IC triangle inserts (not included)
- Wide variety of shank sizes and lengths

Size	Shank Dia. (in.)	Insert IC	Order No.	Price
6-pc.	1/2	1/4	**FL50LB500**	Price
6-pc.	5/8	1/4, 3/8	**FL50LC625**	Price
8-pc.	3/4	1/4, 3/8	**FL50LD750**	Price
9-pc.	1	3/8	**FL50LE100**	Price

Coolant-Thru Boring Bars



Profile Boring & Facing



- High performance
- Heat treated tool holders
- Positive chip control
- Multi-layer coating
- In touch with the future
- Each holder includes high precision M2.5 x T-8 torx screw and torx key



Shank Dia. (in.)	Set Includes	Order No.	Price
1/4, 5/16, 3/8, 1/2	Set of 4 Pcs. SCLCR with CCMT 21.51 insert	**GE45400100**	Price
3/8, 1/2, 5/8	Set of 3 Pcs. SDUCR with DCMT 21.51 insert	**GE45402400**	Price
3/8, 1/2, 5/8	Set of 3 Pcs. STFCR with TCMT 21.51 insert	**GE45402100**	Price

Buy a Complete Boring Bar Set

Includes 4 Boring Bars and 20 TiN Coated Inserts

Set Includes:

Boring Bar No. (1 ea.)	Shank Size	Minimum Bore
• TPBN 06-2	1/2	.430
• TPBN 08-2	1/2	.590
• TPBN 10-2	5/8	.682
• TPBN 12-3	3/4	.845

MADE IN THE USA

- (10) TPGH 21.51 Inserts
- (10) TPGH 321 Inserts
- (1) Torx Key T7
- (1) Torx Key T10
- (1) Storage case



Note: Set includes TiN coated grade DPP306T carbide inserts for general purpose alloy steel, stainless and ductile iron applications.

Order No.	Price
FL4543840	Price

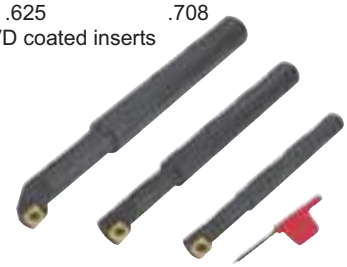
Indexable Miniature Boring Bar Set

- For precision finishing boring operations
- Includes 3 boring bars and 10 CVD coated inserts
- For use in alloy steel and stainless steel

Set Includes:

Boring Bar	Shank Size	Minimum Bore
• S06H-SCLCR-2	.375	.394
• S08K-SCLCR-2	.500	.550
• S10M-SCLCR-2	.625	.708

- (10) CCMT 21.51 CVD coated inserts
- (1) T-8 Torx key
- (1) 82 case



Order No.	Price
FL4585064	Price



TPGH Carbide Inserts

MADE IN THE USA

- Molded chipbreaker
- Positive cut
- Low cutting force

DC20 (C2) / C656 (C5TiN)



I.C. (in.)	Thickness (in.)	Descriptioin	Grade	Order No.	Price
1/4	.094	TPGH 21.51	DC20	**FL4543900**	Price
1/4	.094	TPGH 21.51	DC656	**FL4543910**	Price
1/4	.094	TPGH 21.52	DC20	**FL4543920**	Price
1/4	.094	TPGH 21.52	DC656	**FL4543930**	Price
3/8	.125	TPGH 321	DC20	**FL4543940**	Price
3/8	.125	TPGH 321	DC656	**FL4543950**	Price
3/8	.125	TPGH 322	DC20	**FL4543960**	Price
3/8	.125	TPGH 322	DC656	**FL4543970**	Price

Torx Key

Model Number	Order No.	Price
T7	**FL4592002**	Price
T10	**FL4544070**	Price

TORX® Screw

Model Number	Order No.	Price
TS25.456M1	**FL4590970**	Price
TS443	**FL4544040**	Price

S-STFPR Boring Bars

Style F
0° End Cutting Edge Angle for Positive Triangle TC_T Inserts



Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Order No.	Price
S06M-STFPR-2	.4700	6.0000	.3750	.250	.2500	4°	TPG_21.5_	TS25456M2	T8	**FL4555636**	Price
S08M-STFPR-2	.6000	6.0000	.5000	.312	.3120	2°	TPG_21.5_	TS25456M2	T8	**FL4555640**	Price
S10R-STFPR-2	.7700	8.0000	.6250	.406	.4060	0°	TPG_21.5_	TS25456M2	T8	**FL4555644**	Price
S12S-STFPR-3	.9300	10.0000	.7500	.500	.5000	2°	TPG_3.5_	TS443M	T15	**FL4555648**	Price

S-SVMCR Boring Bars

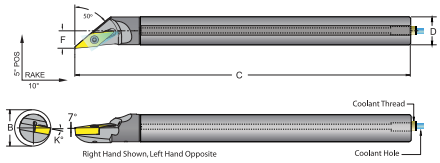
Style M
Negative 5° Side Cutting Edge Angle for 7° Positive 35° Diamond VC_T Inserts



Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Order No.	Price
S08R-SVMCR-2	.5800	8.0000	.5000	1.250	.3120	5°	VC_T22_	TS25456M2	T8	**FL4555730**	Price
S10S-SVMCR-2	.9800	10.0000	.6250	1.500	.4060	5°	VC_T22_	TS25456M2	T8	**FL4555731**	Price
S12S-SVMCR-3	1.0000	10.0000	.7500	1.250	.5000	5°	VC_T33_	TS4710M1	T15	**FL4555732**	Price
S16T-SVMCR-3	1.3000	12.0000	1.0000	2.000	.6400	5°	VC_T33_	TS4710M1	T15	**FL4555733**	Price

E-SVMC R/L Boring Bars • Coolant Thru

Style M
Negative 50° End Cutting Lead Angle for 7° positive 35 diamond VC_T inserts
Right hand shown, left hand opposite



Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
.500	.587	5.230	.312	-50°	.080	6 X 1mm	VCMT 221	TS-25.45-8M2	T8	E08K-SVMCL-2	**FL4659804**	Price	E08K-SVMCR-2	**FL4659803**	Price
.500	.587	8.230	.312	-50°	.080	6 X 1mm	VCMT 221	TS-25.45-8M2	T8	E08R-SVMCL-2	**FL4659808**	Price	E08R-SVMCR-2	**FL4659807**	Price
.625	.750	6.160	.406	-50°	.125	6 X 1mm	VCMT 221	TS-25.45-8M2	T8	E10M-SVMCL-2	**FL4659812**	Price	E10M-SVMCR-2	**FL4659811**	Price
.625	.750	10.160	.406	-50°	.125	6 X 1mm	VCMT 221	TS-25.45-8M2	T8	E10S-SVMCL-2	**FL4659816**	Price	E10S-SVMCR-2	**FL4659815**	Price

E-SDNC R/L Boring Bars • Coolant Thru

Style N
Negative 27.5° Lead Angle for 7° positive 55° diamond DC__ inserts
Right hand shown, left hand opposite

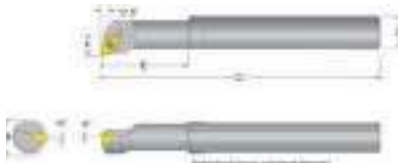


Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
.375	.581	6.000	.375	-27.5°	.060	-	DC_T 21.51	TS-25.45-6M2	T8	E06M-SDNCL-2	**FL4659672**	Price	E06M-SDNCR-2	**FL4659671**	Price
.500	.775	5.000	.500	-27.5°	.080	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E08K-SDNCL-2	**FL4659676**	Price	E08K-SDNCR-2	**FL4659675**	Price
.500	.775	8.000	.500	-27.5°	.080	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E08R-SDNCL-2	**FL4659680**	Price	E08R-SDNCR-2	**FL4659679**	Price
.625	.969	6.000	.625	-27.5°	.125	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E10M-SDNCL-2	**FL4659684**	Price	E10M-SDNCR-2	**FL4659683**	Price
.625	.969	10.000	.625	-27.5°	.125	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E10S-SDNCL-2	**FL4659688**	Price	E10S-SDNCR-2	**FL4659687**	Price

S-SDQCR Boring Bars

Style Q

Negative 17.5° End Cutting Edge Angle for 7° Positive 55° Diamond DC_T Inserts



Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Order No.	Price
S08M-SDQCR-2	.7300	6.0000	.5000	.875	.4370	10°	DC_T21.5_	TS25456M2	T8	**FL4555585**	Price
S10R-SDQCR-2	.8500	8.0000	.6250	1.000	.5000	7°	DC_T21.5_	TS25456M2	T8	**FL4555587**	Price
S12S-SDQCR-3	.9800	10.0000	.7500	1.250	.5620	7°	DC_T32.5_	T4710M1	T15	**FL4555589**	Price

E-SDXC R/L Boring Bars • Coolant Thru

Style X

Negative 5° Back Boring Lead Angle for 7° positive 55° diamond DC_T inserts

Right hand shown, left hand opposite



- Left												
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Model No.	Order No.	Price
.375	.581	5.660	.375	-5° (Back Boring)	.060	-	DC_T 21.51	TS-25.45-6M2	T8	E06M-SDXCL-2	**FL4659732**	Price
.500	.712	4.660	.437	-5° (Back Boring)	.080	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E08K-SDXCL-2	**FL4659736**	Price
.500	.712	7.660	.437	-5° (Back Boring)	.080	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E08R-SDXCL-2	**FL4659740**	Price
.625	.844	5.660	.500	-5° (Back Boring)	.125	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E10M-SDXCL-2	**FL4659744**	Price
.625	.844	9.660	.500	-5° (Back Boring)	.125	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E10S-SDXCL-2	**FL4659748**	Price
.750	.980	7.000	.562	-5° (Back Boring)	.157	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E12Q-SDXCL-3	**FL4660008**	Price
.750	.980	10.000	.562	-5° (Back Boring)	.157	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E12S-SDXCL-3	**FL4660010**	Price
1.000	1.300	8.000	.750	-5° (Back Boring)	.197	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E16R-SDXCL-3	**FL4660012**	Price
1.000	1.300	12.000	.750	-5° (Back Boring)	.197	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E16T-SDXCL-3	**FL4660014**	Price
1.250	1.600	14.000	1.000	-5° (Back Boring)	.197	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E20U-SDXCL-3	**FL4660016**	Price

- Right												
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Model No.	Order No.	Price
.375	.581	5.660	.375	-5° (Back Boring)	.060	-	DC_T 21.51	TS-25.45-6M2	T8	E06M-SDXCR-2	**FL4659731**	Price
.500	.712	4.660	.437	-5° (Back Boring)	.080	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E08K-SDXCR-2	**FL4659735**	Price
.500	.712	7.660	.437	-5° (Back Boring)	.080	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E08R-SDXCR-2	**FL4659739**	Price
.625	.844	5.660	.500	-5° (Back Boring)	.125	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E10M-SDXCR-2	**FL4659743**	Price
.625	.844	9.660	.500	-5° (Back Boring)	.125	6 X 1mm	DC_T 21.51	TS-25.45-6M2	T8	E10S-SDXCR-2	**FL4659747**	Price
.750	.980	7.000	.562	-5° (Back Boring)	.157	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E12Q-SDXCR-3	**FL4660007**	Price
.750	.980	10.000	.562	-5° (Back Boring)	.157	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E12S-SDXCR-3	**FL4660009**	Price
1.000	1.300	8.000	.750	-5° (Back Boring)	.197	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E16R-SDXCR-3	**FL4660011**	Price
1.000	1.300	12.000	.750	-5° (Back Boring)	.197	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E16T-SDXCR-3	**FL4660013**	Price
1.250	1.600	14.000	1.000	-5° (Back Boring)	.197	1/8-27	DC_T 32.52	TS-35.6-9M1	T15	E20U-SDXCR-3	**FL4660015**	Price

E-STUP R/L Boring Bars • Coolant Thru

Style U

Negative 3° Lead Angle for 11° positive triangle TC__ inserts

Right hand shown, left hand opposite

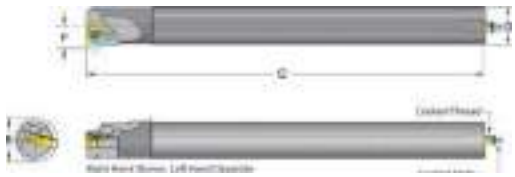


Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
.375	.456	6.000	.250	-3°	.060	-	TPMT 21.51	TS-25.45-6M2	T8	E06M-STUPL-2	**FL4659784**	Price	E06M-STUPR-2	**FL4659783**	Price
.500	.587	5.000	.312	-3°	.080	6 X 1mm	TPMT 21.51	TS-25.45-6M2	T8	E08K-STUPL-2	**FL4659788**	Price	E08K-STUPR-2	**FL4659787**	Price
.500	.587	8.000	.312	-3°	.080	6 X 1mm	TPMT 21.51	TS-25.45-6M2	T8	E08R-STUPL-2	**FL4659792**	Price	E08R-STUPR-2	**FL4659791**	Price
.625	.750	6.000	.406	-3°	.125	6 X 1mm	TPMT 21.51	TS-25.45-6M2	T8	E10M-STUPL-2	**FL4659796**	Price	E10M-STUPR-2	**FL4659795**	Price
.625	.750	10.000	.406	-3°	.125	6 X 1mm	TPMT 21.51	TS-25.45-6M2	T8	E10S-STUPL-2	**FL4659800**	Price	E10S-STUPR-2	**FL4659799**	Price

E-SN R/L Internal Threading Bars • Coolant Thru

For Laydown Threading Inserts

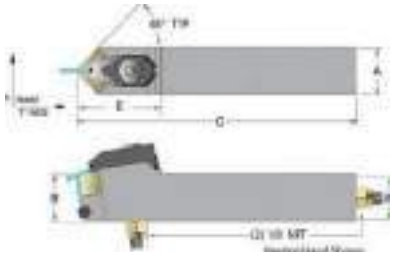
Right hand shown, left hand opposite



Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	Coolant Hole (in.)	Insert Style	Insert Screw	Torx Key	Left			Right		
								Model No.	Order No.	Price	Model No.	Order No.	Price
.218	.249	4.000	.129	.040	06IR A60	TS-06	T6	E03.5H-SNL-06	**FL4659920**	Price	E03.5H-SNR-06	**FL4659919**	Price
.250	.307	4.000	.165	.040	06IR A60	TS-06	T6	E04H-SNL-06	**FL4659924**	Price	E04H-SNR-06	**FL4659923**	Price
.312	.378	5.000	.215	.040	08IR A60	TS-08	T8	E05K-SNL-08	**FL4659928**	Price	E05K-SNR-08	**FL4659927**	Price
.375	.500	6.000	.250	.060	11IR A60	TS-25.45-6M2	T8	E06M-SNL-H11	**FL4659932**	Price	E06M-SNR-H11	**FL4659931**	Price
.500	.590	5.000	.315	.080	11IR A60	TS-25.45-6M2	T8	E08K-SNL-H11	**FL4659936**	Price	E08K-SNR-H11	**FL4659935**	Price
.500	.590	8.000	.315	.080	11IR A60	TS-25.45-6M2	T8	E08R-SNL-H11	**FL4659940**	Price	E08R-SNR-H11	**FL4659939**	Price
.625	.750	6.000	.406	.125	16IR A60	TS-35.6-9M1	T15	E10M-SNL-H16	**FL4659944**	Price	E10M-SNR-H16	**FL4659943**	Price
.625	.750	10.000	.406	.125	16IR A60	TS-35.6-9M1	T15	E10S-SNL-H16	**FL4659948**	Price	E10S-SNR-H16	**FL4659947**	Price

ADSDNN Toolholders

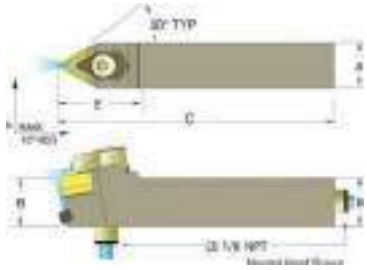
Style D
27.5° Side Cutting Lead Angle for DNMG Inserts



Model No.	Shank Size (in.)	OAL (in.)	Insert Style	Order No.	Price
ADSDNN12-4B	.750	4.500	SNMG 432	**FL4553053**	Price
ADSDNN16-4D	1.000	6.000	SNMG 432	**FL4553054**	Price
ADSDNN20-4D	1.250	6.000	SNMG 432	**FL4553055**	Price
ADSDNN20-5D	1.250	6.000	SNMG 543	**FL4553056**	Price

ADTENN Toolholders

Style E
30° Side Cutting Lead Angle for TNMG Inserts



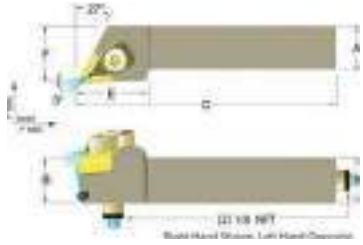
Model No.	Shank Size (in.)	OAL (in.)	Insert Style	Order No.	Price
ADTENN12-3B	.750	4.500	TNMG 332	**FL4553075**	Price
ADTENN12-4B	.750	4.500	TNMG 432	**FL4553076**	Price
ADTENN16-3D	1.000	6.000	TNMG 332	**FL4553077**	Price
ADTENN16-4D	1.000	6.000	TNMG 432	**FL4553078**	Price
ADTENN20-4D	1.250	6.000	TNMG 432	**FL4553079**	Price

ADTJN R/L Toolholders

Style J
3° Side Cutting Lead Angle for TNMG Inserts

Right hand shown
Left hand opposite

R = Right hand
L = Left hand



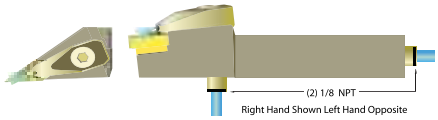
Shank Size (in.)	OAL (in.)	Insert Style	Left			Right		
			Model No.	Order No.	Price	Model No.	Order No.	Price
.750	4.500	TNMG 332	ADTJNL12-3B	**FL4553064**	Price	-	**-**	-
.750	4.500	TNMG 432	ADTJNL12-4B	**FL4553066**	Price	ADTJNR12-4B	**FL4553065**	Price
1.000	6.000	TNMG 332	ADTJNL16-3D	**FL4553068**	Price	ADTJNR16-3D	**FL4553067**	Price
1.000	6.000	TNMG 432	ADTJNL16-4D	**FL4553070**	Price	ADTJNR16-4D	**FL4553069**	Price
1.250	6.000	TNMG 432	ADTJNL20-4D	**FL4553072**	Price	ADTJNR20-4D	**FL4553071**	Price

ADVJN R/L Toolholders

Style J
Negative 3° Side Cutting Edge Angle for Negative 35° Diamond VNM_ Inserts

Right Hand Shown
Left Hand Opposite

R = Right Hand
L = Left Hand



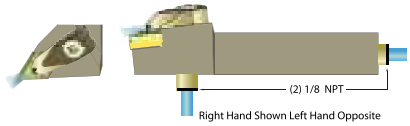
Shank Size (in.)	Insert Style	OAL (in.)	Left			Right		
			Model No.	Order No.	Price	Model No.	Order No.	Price
.750	VNMG 332	4.500	ADVJNL12-3B	**FL4553082**	Price	ADVJNR12-3B	**FL4553081**	Price
1.000	VNMG 332	6.000	ADVJNL16-3D	**FL4553084**	Price	ADVJNR16-3D	**FL4553083**	Price
1.250	VNMG 332	6.000	ADVJNL20-3D	**FL4553086**	Price	ADVJNR20-3D	**FL4553085**	Price

ADDJN R/L Toolholders

Style J
3° Side Cutting Edge Angle for Negative 55° Diamond DNM_ Inserts

Right hand shown
Left hand opposite

R = Right hand
L = Left hand



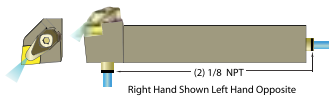
Shank Size (in.)	Insert Style	OAL (in.)	Left			Right		
			Model No.	Order No.	Price	Model No.	Order No.	Price
.750	DNM_332	4.500	ADDJNL-12-3B	**FL4553017**	Price	ADDJNR-12-3B	**FL4553016**	Price
.750	DNM_432	4.500	ADDJNL-12-4B	**FL4553019**	Price	ADDJNR-12-4B	**FL4553018**	Price
1.000	DNM_432	6.000	ADDJNL-16-4D	**FL4553021**	Price	ADDJNR-16-4D	**FL4553020**	Price
1.250	DNM_432	6.000	ADDJNL-20-4D	**FL4553023**	Price	ADDLNR-20-4D	**FL4553022**	Price

ADCLN R/L Toolholders

Style L
Negative 5° End or Side Cutting Edge Angle for Negative 80° Diamond CNM_ Inserts

Right hand shown
Left hand opposite

R = Right hand
L = Left hand



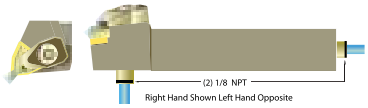
Shank Size (in.)	Insert Style	OAL (in.)	Left			Right		
			Model No.	Order No.	Price	Model No.	Order No.	Price
.750	CNM_432	4.500	ADCLNL-12-4B	**FL4553001**	Price	ADCLNR-12-4B	**FL4553000**	Price
1.000	CNM_432	6.000	ADCLNL-16-4D	**FL4553003**	Price	ADCLNR-16-4D	**FL4553002**	Price
1.250	CNM_432	6.000	ADCLNL-20-4D	**FL4553005**	Price	ADCLNR-20-4D	**FL4553004**	Price
1.250	CNM_543	6.000	ADCLNL-20-5D	**FL4553007**	Price	ADCLNR-20-5D	**FL4553006**	Price

ADWLN R/L Toolholders

Style L
Negative 5° End or Side Cutting Edge Angle for Negative 80° Trigon WNM_ Inserts

Right hand shown
Left hand opposite

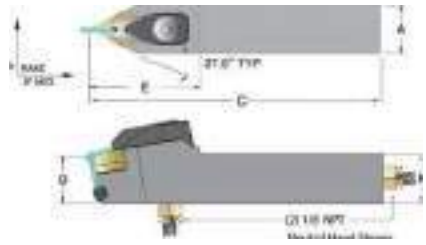
R = Right hand
L = Left hand



Shank Size (in.)	Insert Style	OAL (in.)	Left			Right		
			Model No.	Order No.	Price	Model No.	Order No.	Price
.750	WNMG 332	4.500	ADWLNL12-3B	**FL4553094**	Price	ADWLNR12-3B	**FL4553093**	Price
.750	WNMG 432	4.500	ADWLNL12-4B	**FL4553096**	Price	ADWLNR12-4B	**FL4553095**	Price
1.000	WNMG 332	6.000	ADWLNL16-3D	**FL4553098**	Price	ADWLNR16-3D	**FL4553097**	Price
1.000	WNMG 432	6.000	ADWLNL16-4D	**FL4553100**	Price	ADWLNR16-4D	**FL4553099**	Price
1.250	WNMG 432	6.000	ADWLNL20-4D	**FL4553102**	Price	ADWLNR20-4D	**FL4553101**	Price

ADDPNN Toolholders

Style P
27.5° Side Cutting Lead Angle for DNMG Inserts



Model No.	Shank Size (in.)	OAL (in.)	Insert Style	Order No.	Price
ADDPNN12-3B	.750	4.500	DNMG 332	**FL4553030**	Price
ADDPNN12-4B	.750	4.500	DNMG 432	**FL4553031**	Price
ADDPNN16-3D	1.000	6.000	DNMG 332	**FL4553032**	Price
ADDPNN16-4D	1.000	6.000	DNMG 432	**FL4553033**	Price
ADDPNN20-4D	1.250	6.000	DNMG 432	**FL4553034**	Price

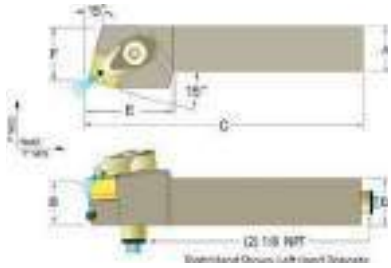
ADSRN R/L Toolholders

Style R

15° Side Cutting Lead Angle for SNMG Inserts

Right hand shown
Left hand opposite

R = Right hand
L = Left hand



Shank Size (in.)	OAL (in.)	Insert Style	Left			Right		
			Model No.	Order No.	Price	Model No.	Order No.	Price
.750	4.500	SNMG 432	ADSRNL12-4B	**FL4553041**	Price	ADSRNR12-4B	**FL4553040**	Price
1.000	6.000	SNMG 432	ADSRNL16-4D	**FL4553044**	Price	ADSRNR16-4D	**FL4553043**	Price
1.250	6.000	SNMG 543	ADSRNL20-5D	**FL4553046**	Price	ADSRNR20-5D	**FL4553045**	Price

ADNS R/L Toolholders

For Threading and Grooving TopNotch Inserts

Right Hand Shown
Left Hand Opposite

R = Right Hand
L = Left Hand



		Left				Right			
Shank (in.)	OAL (in.)	Model No.	Uses Insert	Order No.	Price	Model No.	Uses Insert	Order No.	Price
.750	4.5000	ADNSL12-3B	NG3L	**FL4553451**	Price	ADNSR12-3B	NG3R	**FL4553450**	Price
1.000	6.0000	ADNSL16-3D	NG3L	**FL4553453**	Price	ADNSR16-3D	NG3R	**FL4553452**	Price
1.250	6.0000	ADNSL20-3D	NG3L	**FL4553455**	Price	ADNSR20-3D	NG3R	**FL4553454**	Price

AS-ADCLN R/L Boring Bars

Style L
Negative 5° Side and End Cutting Edge Angle for Negative 80° Diamond CNM_ Inserts

Right hand shown
Left hand opposite



Shank Dia. (in.)	Min. Bore (in.)	Insert Style	Left		
			Model No.	Order No.	Price
.750	1.000	CNM_322	AS-12R-ADCLNL-3	**FL4553121**	Price
1.000	1.282	CNM_432	AS-16R-ADCLNL-4	**FL4553123**	Price
1.250	1.530	CNM_432	AS-20S-ADCLNL-4	**FL4553125**	Price
1.500	1.780	CNM_432	AS-24S-ADCLNL-4	**FL4553127**	Price

S-MCLN R/L Boring Bars

MADE IN THE USA

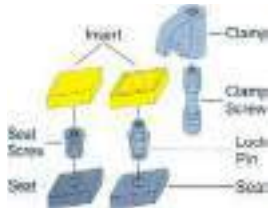
Style L

Negative 5° Side & End Cutting Edge Angle for Negative 80° Diamond CNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left													
Model No.	Min. Bore	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MCLNL-4	1.0000	10.0000	.7500	.5000	14°	CNM_43_	-	-	NL44	CL20	XNS47	**FL4555007**	Price
S16T-MCLNL-4	1.2800	12.0000	1.0000	.6400	14°	CNM_43_	-	-	NL44	CL20	XNS47	**FL4543370**	Price
S20U-MCLNL-4	1.5300	14.0000	1.2500	.7650	14°	CNM_43_	ICSN433	S46	NL46	CL20	XNS47	**FL4543390**	Price
S24U-MCLNL-4	1.7800	14.0000	1.5000	.8900	11°	CNM_43_	ICSN433	S46	NL46	CL20	XNS47	**FL4543410**	Price
S24U-MCLNL-5	2.3740	14.0000	1.5000	1.1870	11°	CNM_54_	ICSN533	S58	NL58	CL12	XNS510	**FL4543450**	Price
S28U-MCLNL-4	2.0300	14.0000	1.3750	1.0150	11°	CNM_43_	ICSN433	S46	NL46	CL20	XNS47	**FL4543430**	Price
S32V-MCLNL-4	2.5620	16.0000	2.0000	1.2810	11°	CNM_43_	ICSN433	S46	NL46	CL20	XNS48	**FL4555025**	Price
S32V-MCLNL-5	2.5620	16.0000	2.0000	1.2810	11°	CNM_54_	ICSN533	S58	NL58	CL12	XNS510	**FL4543470**	Price
S32V-MCLNL-6	2.5620	16.0000	2.0000	1.2810	11°	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4543530**	Price
S40V-MCLNL-5	3.0620	16.0000	2.5000	1.5310	11°	CNM_54_	ICSN533	S58	NL58	CL12	XNS510	**FL4543490**	Price
S40V-MCLNL-6	3.0620	16.0000	2.5000	1.5310	11°	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4543570**	Price

Right/Left Hand - Right													
Model No.	Min. Bore	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MCLNR-4	1.0000	10.0000	.7500	.5000	14°	CNM_43_	-	-	NL44	CL20	XNS47	**FL4555006**	Price
S16T-MCLNR-4	1.2800	12.0000	1.0000	.6400	14°	CNM_43_	-	-	NL44	CL20	XNS47	**FL4543360**	Price
S20U-MCLNR-4	1.5300	14.0000	1.2500	.7650	14°	CNM_43_	ICSN433	S46	NL46	CL20	XNS47	**FL4543380**	Price
S24U-MCLNR-4	1.7800	14.0000	1.5000	.8900	11°	CNM_43_	ICSN433	S46	NL46	CL20	XNS47	**FL4543400**	Price
S24U-MCLNR-5	2.3740	14.0000	1.5000	1.1870	11°	CNM_54_	ICSN533	S58	NL58	CL12	XNS510	**FL4543440**	Price
S28U-MCLNR-4	2.0300	14.0000	1.3750	1.0150	11°	CNM_43_	ICSN433	S46	NL46	CL20	XNS47	**FL4555022**	Price
S32V-MCLNR-4	2.5620	16.0000	2.0000	1.2810	11°	CNM_43_	ICSN433	S46	NL46	CL20	XNS48	**FL4555024**	Price
S32V-MCLNR-5	2.5620	16.0000	2.0000	1.2810	11°	CNM_54_	ICSN533	S58	NL58	CL12	XNS510	**FL4543460**	Price
S32V-MCLNR-6	2.5620	16.0000	2.0000	1.2810	11°	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4543520**	Price
S36V-MCLNR-6	2.8120	16.0000	2.2500	1.4060	11°	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4543540**	Price
S40V-MCLNR-5	3.0620	16.0000	2.5000	1.5310	11°	CNM_54_	ICSN533	S58	NL58	CL12	XNS510	**FL4543480**	Price
S40V-MCLNR-6	3.0620	16.0000	2.5000	1.5310	11°	CNM_64_	ICSN633	S68	NL68	CL12	XNS510	**FL4543560**	Price

See pages B134-B138 for spare parts

S-MDUN R/L Boring Bars

Style U

Negative 3° End Cutting Edge Angle for Negative 55° Diamond DNM_ Inserts

Right hand shown, Left hand opposite



Right/Left Hand - Left													
Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S16T-MDUNL-3	1.3000	12.0000	1.0000	.7500	11°	DNM_33_	-	-	NL33	CL7	XNS36	**FL4555067**	Price
S20U-MDUNL-4	2.0000	14.0000	1.2500	1.0000	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4555071**	Price
S24U-MDUNL-4	2.2500	14.0000	1.5000	1.1250	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4555075**	Price
S28U-MDUNL-4	2.5000	14.0000	1.7500	1.2500	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4555079**	Price
S32V-MDUNL-4	3.0000	16.0000	2.0000	1.3750	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4555083**	Price
S40V-MDUNL-5	3.5000	16.0000	2.5000	1.7500	11°	DNM_54_	IDSN533	S58	NL58	CL30	XNS510	**FL4555099**	Price

Right/Left Hand - Right													
Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S16T-MDUNR-3	1.3000	12.0000	1.0000	.7500	11°	DNM_33_	-	-	NL33	CL7	XNS36	**FL4555066**	Price
S20U-MDUNR-4	2.0000	14.0000	1.2500	1.0000	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4543171**	Price
S24U-MDUNR-4	2.2500	14.0000	1.5000	1.1250	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4543191**	Price
S28U-MDUNR-4	2.5000	14.0000	1.7500	1.2500	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4555078**	Price
S32V-MDUNR-4	3.0000	16.0000	2.0000	1.3750	11°	DNM_43_	IDSN433	S46	NL46	CL12	XNS59	**FL4543291**	Price
S40V-MDUNR-5	3.5000	16.0000	2.5000	1.7500	11°	DNM_54_	IDSN533	S58	NL58	CL30	XNS510	**FL4555098**	Price

See pages B134-B138 for spare parts

S-MTFNR Boring Bars

Sytle F

0° End Cutting Edge Angle for Negative Triangle TNM_ Inserts

Right hand shown, Left hand available



Right/Left Hand - Right													
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MTFNR-3	1.0000	10.0000	.7500	.5000	14°	TNM_32_	-	-	NL33	CL7	XNS35	**FL4555150**	Price
S16T-MTFNR-3	1.2800	12.0000	1.0000	.6400	14°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS36	**FL4543151**	Price
S20U-MTFNR-3	1.5300	14.0000	1.2500	.7650	14°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS36	**FL4555158**	Price
S20U-MTFNR-4	1.5300	14.0000	1.2500	.7650	14°	TNM_43_	ITSN433	S46	NL46	CL9	XNS59	**FL4543172**	Price
S24U-MTFNR-4	2.0600	14.0000	1.5000	.8900	11°	TNM_43_	ITSN433	S46	NL46	CL9	XNS59	**FL4543192**	Price
S32V-MTFNR-4	2.5620	16.0000	2.0000	1.2810	11°	TNM_43_	ITSN433	S46	NL46	CL9	XNS59	**FL4555182**	Price

See pages B134-B138 for spare parts

S-MTUN R/L Boring Bars

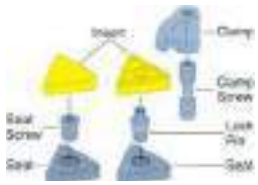
Style U

Negative 3° End Cutting Edge Angle for Negative Triangle TNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left													
Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MTUNL-3	1.0000	10.0000	.7500	.5000	14°	TNM_32_	-	-	NL33	CL7	XNS35	**FL4543590**	Price
S16T-MTUNL-3	1.2800	12.0000	1.0000	.6400	14°	TNM_32_	ITSN333	S-34	NL34L	CL7	XNS35	**FL4543610**	Price
S20U-MTUNL-3	1.5300	14.0000	1.2500	.7650	14°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS35	**FL4543630**	Price
S20U-MTUNL-4	1.5300	14.0000	1.2500	.7650	14°	TNM_43	ITSN432	S46	NL46	CL9	XNS59	**FL4543670**	Price
S24U-MTUNL-3	2.0600	14.0000	1.5000	.8900	11°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS35	**FL4543650**	Price
S24U-MTUNL-4	2.0600	14.0000	1.5000	.8900	11°	TNM_43	ITSN432	S46	NL46	CL9	XNS59	**FL4543690**	Price
S32V-MTUNL-4	2.5620	16.0000	2.0000	1.2810	11°	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4543710**	Price

Right/Left Hand - Right													
Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MTUNR-3	1.0000	10.0000	.7500	.5000	14°	TNM_32_	-	-	NL33	CL7	XNS35	**FL4543580**	Price
S16T-MTUNR-3	1.2800	12.0000	1.0000	.6400	14°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS35	**FL4543600**	Price
S20U-MTUNR-3	1.5300	14.0000	1.2500	.7650	14°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS35	**FL4543620**	Price
S20U-MTUNR-4	1.5300	14.0000	1.2500	.7650	14°	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4543660**	Price
S24U-MTUNR-3	2.0600	14.0000	1.5000	.8900	11°	TNM_32_	ITSN333	S34	NL34L	CL7	XNS35	**FL4543640**	Price
S24U-MTUNR-4	2.0600	14.0000	1.5000	.8900	11°	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4543680**	Price
S32V-MTUNR-4	2.5620	16.0000	2.0000	1.2810	11°	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4543700**	Price
S40V-MTUNR-4	3.0620	16.0000	2.5000	1.5310	11°	TNM_43_	ITSN432	S46	NL46	CL9	XNS59	**FL4543720**	Price

See pages B134-B138 for spare parts

S-MVUN R/L Boring Bars

Style U

Negative 3° Side cutting Edge Angle for Negative 35° Diamond VNM_ Inserts

Right hand shown
Left hand opposite





Right/Left Hand - Left													
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S16T-MVUNL-3	2.0000	12.0000	1.0000	1.0000	14°	VNM_33_	IVSN322	S34	NL34L	CL30	XNS59	**FL4555267**	Price
S20U-MVUNL-3	2.2500	14.0000	1.2500	1.1250	14°	VNM_33_	IVSN322	S34	NL34L	CL30	XNS59	**FL4555271**	Price
S24U-MVUNL-3	2.5000	14.0000	1.5000	1.2500	11°	VNM_33_	IVSN322	S34	NL34L	CL30	XNS59	**FL4555275**	Price
S28U-MVUNL-4	3.0000	14.0000	1.7500	1.5000	11°	VNM_43_	IVSN432	S46	NL46	CL30	XNS510	**FL4555279**	Price
S32V-MVUNL-4	3.2500	16.0000	2.0000	1.6250	11°	VNM_43_	IVSN432	S46	NL46	CL30	XNS510	**FL4555283**	Price

Right/Left Hand - Right													
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Seat Screw	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S16T-MVUNR-3	2.0000	12.0000	1.0000	1.0000	14°	VNM_33_	IVSN322	S34	NL34L	CL30	XNS59	**FL4555266**	Price
S20U-MVUNR-3	2.2500	14.0000	1.2500	1.1250	14°	VNM_33_	IVSN322	S34	NL34L	CL30	XNS59	**FL4543173**	Price
S24U-MVUNR-3	2.5000	14.0000	1.5000	1.2500	11°	VNM_33_	IVSN322	S34	NL34L	CL30	XNS59	**FL4543193**	Price
S28U-MVUNR-4	3.0000	14.0000	1.7500	1.5000	11°	VNM_43_	IVSN432	S46	NL46	CL30	XNS510	**FL4555278**	Price
S32V-MVUNR-4	3.2500	16.0000	2.0000	1.6250	11°	VNM_43_	IVSN432	S46	NL46	CL30	XNS510	**FL4543292**	Price
S40V-MVUNR-4	3.7500	16.0000	2.5000	1.8750	11°	VNM_43_	IVSN432	S46	NL46	CL30	XNS510	**FL4555290**	Price

See pages B134-B138 for spare parts

S-MWLN R/L Boring Bars

Style L

Negative 5° End & Side Cutting Edge Angle for Negative Trigon WNM_ Inserts

Right hand shown
Left hand opposite







Right/Left Hand - Left												
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MWLNL-3	1.0000	10.0000	.7500	.5000	14°	WNM_33_	-	NL33L	DHC7	DSHC7	**FL4543770**	Price
S16T-MWLNL-4	1.2800	12.0000	1.0000	.6400	14°	WNM_43_	-	NL44	CL20	XNS47	**FL4543790**	Price
S20U-MWLNL-4	1.5300	14.0000	1.2500	.7650	14°	WNM_43_	IWSN432	NL46	CL20	XNS47	**FL4543810**	Price
S24U-MWLNL-4	1.7800	14.0000	1.5000	.8900	11°	WNM_43_	IWSN432	NL46	CL20	XNS47	**FL4543830**	Price

Right/Left Hand - Right												
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	F (in.)	K° Rake Angle	Insert Style	Seat	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S12S-MWLNR-3	1.0000	10.0000	.7500	.5000	14°	WNM_33	-	NL33L	DHC7	DSHC7	**FL4543760**	Price
S16T-MWLNR-4	1.2800	12.0000	1.0000	.6400	14°	WNM_43_	-	NL44	CL20	XNS47	**FL4543780**	Price
S20U-MWLNR-4	1.5300	14.0000	1.2500	.7650	14°	WNM_43_	IWSN432	NL46	CL20	XNS47	**FL4543800**	Price
S24U-MWLNR-4	1.7800	14.0000	1.5000	.8900	11°	WNM_43_	IWSN432	NL46	CL20	XNS47	**FL4543820**	Price

See pages B134-B138 for spare parts

S-SCLPR Boring Bars



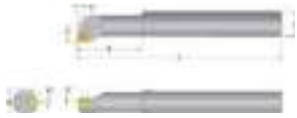
Style L

Negative 5° End & Side Cutting Edge Angle for 11° Positive 80° Diamond CP_T Inserts

Right hand shown, Left hand available

Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Order No.	Price
S06M-SCLPR-2	.4800	6.0000	.3750	.625	.2500	6°	CP_T21.5_	TS25456M1/M2	T7	**FL4555761**	Price
S08R-SCLPR-2	.6000	8.0000	.5000	.750	.3120	3°	CP_T21.5_	TS478M1	T7	**FL4555763**	Price
S10S-SCLPR-3	.7700	10.0000	.6250	1.250	.4060	2°	CP_T32.5_	TS478M1	T15	**FL4555767**	Price
S12S-SCLPR-3	.9300	10.0000	.7500	1.250	.5000	2°	CP_T32.5_	TS478M1	T15	**FL4555769**	Price
S16T-SCLPR-3	1.2000	12.0000	1.0000	1.875	.6400	0°	CP_T32.5_	TS478M1	T15	**FL4555771**	Price

S-SCLC R/L Boring Bars



Style L

Negative 5° End & Side Cutting Edge Angle for 7° Positive 80° Diamond CC_T Inserts

Right hand shown, Left hand opposite

									Right			Left		
Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Depth of Cut E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Model No.	Order No.	Price	Model No.	Order No.	Price
.4770	6.0000	.3750	.625	.2500	15°	CC_T21.5_	TS25456M1/M2	T7	S06M-SCLCR-2	**FL4555470**	Price	S06M-SCLCL-2	**FL4555471**	Price
.6020	6.0000	.5000	.750	.3120	13°	CC_T21.5_	TS25456M1/M2	T7	S08M-SCLCR-2	**FL4543111**	Price	S08M-SCLCL-2	**FL4555475**	Price
.6250	6.0000	.5000	1.250	.3120	13°	CC_T32.5_	TS478M1	T15	-	-	-	S08M-SCLCL-3	**FL4555483**	Price
.7800	6.0000	.5000	1.250	.3120	13°	CC_T32.5_	TS478M1	T15	S08M-SCLCR-3	**FL4543112**	Price	-	-	-
.7970	8.0000	.6250	1.250	.4060	10°	CC_T32.5_	TS478M1	T15	S10R-SCLCR-3	**FL4555486**	Price	S10R-SCLCL-3	**FL4555487**	Price
.8120	8.0000	.6250	1.250	.4060	10°	CC_T21.5_	TS25456M1/M2	T7	S10R-SCLCR-2	**FL4543115**	Price	S10R-SCLCL-2	**FL4555479**	Price
.9540	10.0000	.7500	1.875	.5000	8°	CC_T32.5_	TS478M1	T15	S12S-SCLCR-3	**FL4543131**	Price	S12S-SCLCL-3	**FL4555491**	Price
1.2500	12.0000	1.0000	2.500	.6250	7°	CC_T32.5_	TS478M1	T15	S16T-SCLCR-3	**FL4543152**	Price	S16T-SCLCL-3	**FL4555495**	Price
.3940	6.0000	.3750	1.250	.2360	11°	CC_T21.5_	TS25456M2	T8	S06H-SCLCR-2	**FL4555450**	Price	-	-	-
.5500	6.0000	.5000	1.500	.2750	9°	CC_T21.5_	TS25456M2	T8	S08K-SCLCR-2	**FL4555454**	Price	-	-	-
.7080	8.0000	.6250	2.000	.3540	7°	CC_T21.5_	TS25456M2	T8	S10M-SCLCR-2	**FL4555458**	Price	-	-	-

S-SDUC R/L Boring Bars



Style U

Negative 3° End Cutting Edge Angle for 7° Positive 55° Diamond DC_T Inserts

Right hand shown, Left hand available

Right/Left Hand - Right										
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Order No.	Price
S06H-SDUCR-2	.4920	4.0000	.3750	.875	.3240	11°	DC_T 21.5	TS25456M2	T8	**FL4555540**	Price
S06M-SDUCR-2	.6250	6.0000	.3750	.625	.3750	11°	DC_T21.5_	TS25456M1/M2	T7	**FL4555560**	Price
S08K-SDUCR-2	.6100	5.0000	.5000	1.125	.3830	9°	DC_T 21.5	TS25456M2	T8	**FL4555544**	Price
S08M-SDUCR-2	.7800	6.0000	.5000	.750	.4370	11°	DC_T 21.5_	TS25456M2	T8	**FL4543113**	Price
S10R-SDUCR-2	.8400	8.0000	.6250	1.250	.5000	5°	DC_T21.5	TS25456M1/M2	T7	**FL4543116**	Price
S12S-SDUCR-3	1.1250	10.0000	.7500	1.275	.5620	6°	DC_T32.5_	TS478M1	T15	**FL4543132**	Price
S16T-SDUCR-3	1.5000	12.0000	1.0000	2.500	.7500	4°	DC_T 32.5	TS4710M1	T15	**FL4543153**	Price
S20U-SDUCR-3	1.7500	14.0000	1.1250	2.500	.8750	4°	DC_T32.5_	TS478M1	T15	**FL4555580**	Price

S-STUC R Boring Bars



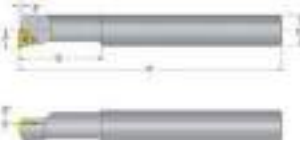
Style U

Negative 3° End Cutting Edge Angle for 7° Positive Triangle TC_T Inserts

Right hand shown

Right/Left Hand - Right										
Description	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	K° Rake Angle	Insert Style	Torx Screw	Torx Key	Order No.	Price
S06M-STUCR-2	.4770	6.0000	.3750	.625	.2500	15°	TC_T21.5_	TS25456M1/M2	T7	**FL4555628**	Price
S08H-STUCR-1.2-2	.2860	4.0000	.5000	-	.1430	7°	TC_T 1.21.20.5	TS06	T6	**FL4555724**	Price
S08H-STUCR-1.2-3	.3130	4.0000	.5000	-	.1570	7°	TC_T 1.21.20.5	TS06	T6	**FL4555726**	Price
S08H-STUCR-1.2-4	.3740	4.0000	.5000	-	.1890	7°	TC_T 1.21.20.5	TS06	T6	**FL4555728**	Price
S08M-STUCR-2	.6020	6.0000	.5000	.750	.3120	13°	TC_T21.5	TS25456M1/M2	T7	**FL4555629**	Price
S10R-STUCR-2	.7970	8.0000	.6250	1.250	.4060	10°	TC_T21.5	TS25456M1/M2	T7	**FL4543117**	Price
S12S-STUCR-3	.9540	10.0000	.7500	1.875	.5000	8°	TC_T32.5_	TS478M1	T15	**FL4555631**	Price
S16T-STUCR-3	1.2800	12.0000	1.0000	2.500	.6400	7°	TC_T32.5_	TS478M1	T15	**FL4555632**	Price

STCMB Boring Bars



From Roughing to Finishing

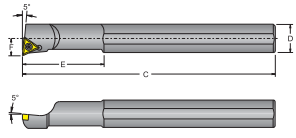
Square Shoulders to Through Bores for 7° positive triangle TC_T Inserts

Right hand shown

Right/Left Hand - Right									
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	Insert Style	Torx Screw	Torx Key	Order No.	Price
STCMB06-2	.5000	5.0000	.5000	1.250	2.0800	TC_T21.5_	TS25456M1/M2	T7	**FL4555738**	Price
STCMB08-2	.5900	6.0000	.5000	1.500	.2870	TC_T21.5_	TS25456M1/M2	T7	**FL4555740**	Price
STCMB10-2	.7500	8.0000	.6250	2.250	.3500	TC_T21.5_	TS25456M1/M2	T7	**FL4555742**	Price
STCMB16-3	1.1150	12.0000	1.0000	3.000	.5550	TC_T32.5_	TS478M1	T15	**FL4543154**	Price
STCMB20-4	1.3700	12.0000	1.2500	3.500	.6820	TC_T43_	TS5810M1	T20	**FL4555748**	Price

TPBN Boring Bars

MADE IN THE USA



From Roughing to Finishing
Square Shoulders to Through Bores for 11° Positive Triangle TPGH or TPGB Inserts

Right hand shown

Right/Left Hand - Right									
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Neck Length E (in.)	F (in.)	TPGH Insert	Torx Screw	Torx Key	Order No.	Price
TPBN06-2	.4300	5.0000	.5000	1.250	.2080	TP_H21.5_	TS25456M1/M2	T7	**FL4543880**	Price
TPBN08-2	.5900	6.0000	.5000	1.500	.2870	TP_H21.5_	TS25456M1/M2	T7	**FL4543890**	Price
TPBN10-2	.6820	8.0000	.6250	2.250	.3500	TP_H21.5_	TS25456M1/M2	T7	**FL4543850**	Price
TPBN12-3	.8450	10.0000	.7500	2.500	.4220	TP_H32.	TS478M1	T15	**FL4543860**	Price
TPBN16-3	1.1150	12.0000	1.0000	3.000	.5550	TP_H32.	TS478M1	T15	**FL4543870**	Price
TPBN20-3	1.3700	12.0000	1.2500	3.500	.6820	TP_H32.	TS478M1	T15	**FL4555668**	Price
TPBN20-4	1.3700	12.0000	1.2500	3.500	.6820	TP_H43_	TS5810M1	T20	**FL4555670**	Price

E-SDUC R/L Boring Bars • Coolant Thru





Style U
Negative 3° Lead Angle for 7° Positive 55° Diamond DC__ Inserts

Right hand shown, left hand opposite

										Left			Right		
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	K°	Torx Key	Model No.	Order No.	Price	Model No.	Order No.	Price
.375	.581	6.000	.375	.060	-	DC__21.51	TS-25.45-6M2	11	T8	E06M-SDUCL-2	**FL4659712**	Price	E06M-SDUCR-2	**FL4559711**	Price
.500	.712	5.000	.437	.080	6 X 1mm	DC__21.51	TS-25.45-6M2	11	T8	E08K-SDUCL-2	**FL4659716**	Price	E08K-SDUCR-2	**FL4559715**	Price
.500	.712	8.000	.437	.080	6 X 1mm	DC__21.51	TS-25.45-6M2	11	T8	E08R-SDUCL-2	**FL4659720**	Price	E08R-SDUCR-2	**FL4559719**	Price
.625	.844	6.000	.500	.125	1/8-27	DC__21.51	TS-25.45-6M2	7	T8	E10M-SDUCL-2	**FL4659724**	Price	E10M-SDUCR-2	**FL4559723**	Price
.625	.844	10.000	.500	.125	1/8-27	DC__21.51	TS-25.45-6M2	7	T8	E10S-SDUCL-2	**FL4659728**	Price	E10S-SDUCR-2	**FL4559727**	Price
.750	1.050	7.000	.562	.157	1/8-27	DC__32.52	TS-4.7-10M1	6	T15	E12Q-SDUCL-3	**FL4659988**	Price	E12Q-SDUCR-3	**FL4559987**	Price
.750	1.050	10.000	.562	.157	1/8-27	DC__32.52	TS-4.7-10M1	6	T15	E12S-SDUCL-3	**FL4659990**	Price	E12S-SDUCR-3	**FL4559989**	Price
1.000	1.300	8.000	.750	.197	1/8-27	DC__32.52	TS-4.7-10M1	4	T15	E16R-SDUCL-3	**FL4659992**	Price	E16R-SDUCR-3	**FL4559991**	Price
1.000	1.300	12.000	.750	.197	1/8-27	DC__32.52	TS-4.7-10M1	4	T15	E16T-SDUCL-3	**FL4659994**	Price	E16T-SDUCR-3	**FL4559993**	Price

E-STUC R/L Boring Bars • Coolant Thru





Style U
Negative 3° Lead Angle for 7° Positive Triangle TC__ Inserts

Right hand shown, left hand opposite

										Left			Right		
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Model No.	Order No.	Price	Model No.	Order No.	Price
.250	.281	4.000	.143	11	.060	-	TC__21.20.2	TS-06	T6	E04H-STUCL-1.2	**FL4659752**	Price	E04H-STUCR-1.2	**FL4559751**	Price
.312	.339	5.000	.167	8	.060	-	TC__21.20.2	TS-06	T6	E05K-STUCL-1.2	**FL4659756**	Price	E05K-STUCR-1.2	**FL4559755**	Price
.375	.409	6.000	.203	7	.060	-	TC__21.20.2	TS-06	T6	E06M-STUCL-1.2	**FL4659760**	Price	E06M-STUCR-1.2	**FL4559759**	Price
.375	.456	6.000	.250	15	.060	-	TC__21.51	TS-25.45-6M2	T8	E06M-STUCL-2	**FL4659764**	Price	E06M-STUCR-2	**FL4559763**	Price
.500	.587	5.000	.312	13	.080	1/8-27	TC__21.51	TS-25.45-6M2	T8	E08K-STUCL-2	**FL4659768**	Price	E08K-STUCR-2	**FL4559767**	Price
.500	.587	8.000	.312	13	.080	1/8-27	TC__21.51	TS-25.45-6M2	T8	E08R-STUCL-2	**FL4659772**	Price	E08R-STUCR-2	**FL4559771**	Price
.625	.750	6.000	.406	10	.125	1/8-27	TC__21.51	TS-25.45-6M2	T8	E10M-STUCL-2	**FL4659776**	Price	E10M-STUCR-2	**FL4559775**	Price
.625	.750	10.000	.406	10	.125	1/8-27	TC__21.51	TS-25.45-6M2	T8	E10S-STUCL-2	**FL4659780**	Price	E10S-STUCR-2	**FL4559779**	Price
.750	.930	7.000	.500	8	.157	1/8-27	TC__32.52	TS-4.7-10M1	T15	E12Q-STUCL-3	**FL4660028**	Price	E12Q-STUCR-3	**FL4560027**	Price
.750	.930	10.000	.500	8	.157	1/8-27	TC__32.52	TS-4.7-10M1	T15	E12S-STUCL-3	**FL4660030**	Price	E12S-STUCR-3	**FL4560029**	Price
1.000	1.200	8.000	.625	7	.197	1/8-27	TC__32.52	TS-4.7-10M1	T15	E16R-STUCL-3	**FL4660032**	Price	E16R-STUCR-3	**FL4560031**	Price
1.000	1.200	12.000	.625	7	.197	1/8-27	TC__32.52	TS-4.7-10M1	T15	E16T-STUCL-3	**FL4660034**	Price	E16T-STUCR-3	**FL4560033**	Price

E-SCLP R/L Boring Bars • Coolant Thru



Style L
Negative 5° Lead Angle for 11° Positive 80° Diamond CP_T Inserts

Right hand shown, left hand opposite

										Left			Right		
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	K°	Torx Key	Model No.	Order No.	Price	Model No.	Order No.	Price
.312	.335	5.000	.167	.040	-	CP__1.81.20.5	TS-06	7	T6	E05K-SCLPL-1.8	**FL4659632**	Price	E05K-SCLPR-1.8	**FL4659631**	Price
.375	.396	6.000	.198	.060	-	CP__21.51	TS-25.45-6M2	6	T8	E06M-SCLPL-2	**FL4659636**	Price	E06M-SCLPR-2	**FL4559635**	Price
.500	.550	5.000	.275	.080	6 X 1mm	CP__21.51	TS-25.45-6M2	3	T8	E08K-SCLPL-2	**FL4659640**	Price	E08K-SCLPR-2	**FL4559639**	Price
.500	.550	8.000	.275	.080	6 X 1mm	CP__21.51	TS-25.45-6M2	3	T8	E08R-SCLPL-2	**FL4659644**	Price	E08R-SCLPR-2	**FL4559643**	Price
.625	.740	6.000	.395	.125	1/8-27	CP__21.51	TS-25.45-6M2	2	T8	E10M-SCLPL-2	**FL4659648**	Price	E10M-SCLPR-2	**FL4559647**	Price
.625	.740	10.000	.395	.125	1/8-27	CP__21.51	TS-25.45-6M2	2	T8	E10S-SCLPL-2	**FL4659652**	Price	E10S-SCLPR-2	**FL4559651**	Price
.500	.550	5.000	.280	.080	6 X 1mm	CP__32.52	TS-4.7-10M1	9	T15	E08K-SCLPL-3	**FL4659656**	Price	E08K-SCLPR-3	**FL4559655**	Price
.500	.550	8.000	.280	.080	6 X 1mm	CP__32.52	TS-4.7-10M1	9	T15	E08R-SCLPL-3	**FL4659660**	Price	E08R-SCLPR-3	**FL4559659**	Price
.625	.740	6.000	.395	.125	1/8-27	CP__32.52	TS-4.7-10M1	5	T15	E10M-SCLPL-3	**FL4659664**	Price	E10M-SCLPR-3	**FL4559663**	Price
.625	.740	10.000	.395	.125	1/8-27	CP__32.52	TS-4.7-10M1	5	T15	E10S-SCLPL-3	**FL4659668**	Price	E10S-SCLPR-3	**FL4559667**	Price

E-SCLD R/L Boring Bars • Coolant Thru

Style L

Negative 5° Lead Angle for 15° Positive 80° Diamond CD_T Inserts

Right hand shown, left hand opposite



- Left											
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Insert Style	Insert Screw	Torx Key	Model No.	Order No.	Price
.156	.175	4.000	.093	12	.040	CD__1.20.60.2	TS-18.35-1M	T6	E02.5H-SCLDL-1.2	**FL4659576**	Price
.187	.205	4.000	.103	9	.040	CD__1.20.60.2	TS-18.35-1M	T6	E03.0H-SCLDL-1.2	**FL4659580**	Price
.218	.245	4.000	.123	7	.040	CD__1.20.60.2	TS-18.35-1M	T6	E03.5H-SCLDL-1.2	**FL4659584**	Price
.250	.270	4.000	.135	7	.040	CD__1.510.5	TS-18.35-1M	T6	E04H-SCLDL-1.5	**FL4659588**	Price
.312	.335	5.000	.167	7	.040	CD__1.510.5	TS-18.35-1M	T6	E05K-SCLDL-1.5	**FL4659592**	Price

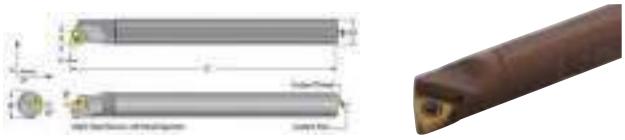
- Right											
Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Insert Style	Insert Screw	Torx Key	Model No.	Order No.	Price
.156	.175	4.000	.093	12	.040	CD__1.20.60.2	TS-18.35-1M	T6	E02.5H-SCLDR-1.2	**FL4559575**	Price
.187	.205	4.000	.103	9	.040	CD__1.20.60.2	TS-18.35-1M	T6	E03.0H-SCLDR-1.2	**FL4559579**	Price
.218	.245	4.000	.123	7	.040	CD__1.20.60.2	TS-18.35-1M	T6	E03.5H-SCLDR-1.2	**FL4559583**	Price
.250	.270	4.000	.135	7	.040	CD__1.510.5	TS-18.35-1M	T6	E04H-SCLDR-1.5	**FL4559587**	Price
.312	.335	5.000	.167	7	.040	CD__1.510.5	TS-18.35-1M	T6	E05K-SCLDR-1.5	**FL4559591**	Price

E-SWLC R/L Boring Bars • Coolant Thru

Style L

Negative 5° Lead Angle for 7° Positive 80° Trigon WC_T Inserts

Right hand shown, left hand opposite



- Left												
Model No.	Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Order No.	Price
E03.0H-SWLCL-1.2	.187	.205	4.000	.103	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659868**	Price
E03.5H-SWLCL-1.2	.218	.245	4.000	.125	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659872**	Price
E04H-SWLCL-1.2	.250	.270	4.000	.135	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659876**	Price
E05K-SWLCL-1.2	.312	.335	5.000	.167	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659880**	Price
E06M-SWLCL-2	.375	.396	6.000	.198	-5°	.060	-	WC_T 21.51	TS-25.45-6M2	T8	**FL4659884**	Price
E08K-SWLCL-2	.500	.550	5.000	.275	-5°	.080	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4659888**	Price
E08K-SWLCL-3	.500	.550	5.000	.275	-5°	.080	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4659904**	Price
E08R-SWLCL-2	.500	.550	8.000	.275	-5°	.080	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4659892**	Price
E08R-SWLCL-3	.500	.550	8.000	.275	-5°	.080	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4659908**	Price
E10M-SWLCL-2	.625	.740	6.000	.395	-5°	.125	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4659896**	Price
E10M-SWLCL-3	.625	.740	6.000	.395	-5°	.125	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4659912**	Price
E10S-SWLCL-2	.625	.740	10.000	.395	-5°	.125	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4659900**	Price
E10S-SWLCL-3	.625	.740	10.000	.395	-5°	.125	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4659916**	Price
E12Q-SWLCL-3	.750	.930	7.000	.500	-5°	.157	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4660048**	Price
E12S-SWLCL-3	.750	.930	10.000	.500	-5°	.157	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4660050**	Price
E16R-SWLCL-3	1.000	1.200	8.000	.625	-5°	.197	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4660052**	Price
E16T-SWLCL-3	1.000	1.200	12.000	.625	-5°	.197	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4660054**	Price
E20U-SWLCL-4	1.250	1.530	14.000	.765	-5°	.197	1/8-27	WC_T 432	TS-5.8-10M1	T20	**FL4660056**	Price

- Right												
Model No.	Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Order No.	Price
E03.0H-SWLCR-1.2	.187	.205	4.000	.103	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659867**	Price
E03.5H-SWLCR-1.2	.218	.245	4.000	.125	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659871**	Price
E04H-SWLCR-1.2	.250	.270	4.000	.135	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659875**	Price
E05K-SWLCR-1.2	.312	.335	5.000	.167	-5°	.040	-	WC_T 1.210.2	TS-18.35-1M1	T6	**FL4659879**	Price
E06M-SWLCR-2	.375	.396	6.000	.198	-5°	.060	-	WC_T 21.51	TS-25.45-6M2	T8	**FL4559883**	Price
E08K-SWLCR-2	.500	.550	5.000	.275	-5°	.080	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4559887**	Price
E08K-SWLCR-3	.500	.550	5.000	.275	-5°	.080	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4559903**	Price
E08R-SWLCR-2	.500	.550	8.000	.275	-5°	.080	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4559891**	Price
E08R-SWLCR-3	.500	.550	8.000	.275	-5°	.080	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4559907**	Price
E10M-SWLCR-2	.625	.740	6.000	.395	-5°	.125	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4559895**	Price
E10M-SWLCR-3	.625	.740	6.000	.395	-5°	.125	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4559911**	Price
E10S-SWLCR-2	.625	.740	10.000	.395	-5°	.125	6 X 1mm	WC_T 21.51	TS-25.45-6M2	T8	**FL4559899**	Price
E10S-SWLCR-3	.625	.740	10.000	.395	-5°	.125	6 X 1mm	WC_T 32.52	TS-35.6-9M1	T15	**FL4559915**	Price
E12Q-SWLCR-3	.750	.930	7.000	.500	-5°	.157	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4560047**	Price
E12S-SWLCR-3	.750	.930	10.000	.500	-5°	.157	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4560049**	Price
E16R-SWLCR-3	1.000	1.200	8.000	.625	-5°	.197	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4560051**	Price
E16T-SWLCR-3	1.000	1.200	12.000	.625	-5°	.197	1/8-27	WC_T 32.52	TS-35.6-9M1	T15	**FL4560053**	Price
E20U-SWLCR-4	1.250	1.530	14.000	.765	-5°	.197	1/8-27	WC_T 432	TS-5.8-10M1	T20	**FL4660055**	Price

E-SCLC R/L Boring Bars • Coolant Thru

Style L

Negative 5° Lead Angle for 7° Positive 80° Diamond CC_T Inserts

Right hand shown, left hand opposite

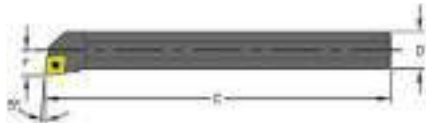


Shank Dia. D (in.)	Min Bore B (in.)	OAL C (in.)	F (in.)	K°	Coolant Hole (in.)	Coolant Thread	Insert Style	Insert Screw	Torx Key	Left			Right		
										Model No.	Order No.	Price	Model No.	Order No.	Price
.375	.396	6.000	.198	-5°	.060	-	CC_T 21.51	TS-25.45-6M2	T8	E06M-SCLCL-2	**FL4659596**	Price	E06M-SCLCR-2	**FL4559595**	Price
.500	.550	5.000	.275	-5°	.080	6 X 1mm	CC_T 21.51	TS-25.45-6M2	T8	E08K-SCLCL-2	**FL4659600**	Price	E08K-SCLCR-2	**FL4559599**	Price
.500	.550	8.000	.275	-5°	.080	6 X 1mm	CC_T 21.51	TS-25.45-6M2	T8	E08R-SCLCL-2	**FL4659604**	Price	E08R-SCLCR-2	**FL4559603**	Price
.625	.740	6.000	.395	-5°	.125	6 X 1mm	CC_T 21.51	TS-25.45-6M2	T8	E10M-SCLCL-2	**FL4659608**	Price	E10M-SCLCR-2	**FL4559607**	Price
.625	.740	10.000	.395	-5°	.125	6 X 1mm	CC_T 21.51	TS-25.45-6M2	T8	E10S-SCLCL-2	**FL4659612**	Price	E10S-SCLCR-2	**FL4559611**	Price
.500	.550	5.000	.275	-5°	.080	6 X 1mm	CC_T 32.52	TS-35.6-7M1	T15	E08K-SCLCL-3	**FL4659616**	Price	E08K-SCLCR-3	**FL4559615**	Price
.500	.550	8.000	.275	-5°	.080	6 X 1mm	CC_T 32.52	TS-35.6-7M1	T15	E08R-SCLCL-3	**FL4659620**	Price	E08R-SCLCR-3	**FL4559619**	Price
.625	.740	6.000	.395	-5°	.125	6 X 1mm	CC_T 32.52	TS-35.6-7M1	T15	E10M-SCLCL-3	**FL4659624**	Price	E10M-SCLCR-3	**FL4559623**	Price
.625	.740	10.000	.395	-5°	.125	6 X 1mm	CC_T 32.52	TS-35.6-7M1	T15	E10S-SCLCL-3	**FL4659628**	Price	E10S-SCLCR-3	**FL4559627**	Price
.750	.930	7.000	.500	-5°	.157	1/8-27	CC_T 32.52	TS-35.6-7M1	T15	E12Q-SCLCL-3	**FL4659968**	Price	E12Q-SCLCR-3	**FL4559967**	Price
.750	.930	10.000	.500	-5°	.157	1/8-27	CC_T 32.52	TS-35.6-7M1	T15	E12S-SCLCL-3	**FL4659970**	Price	E12S-SCLCR-3	**FL4559969**	Price
1.000	1.200	8.000	.625	-5°	.197	1/8-27	CC_T 32.52	TS-35.6-7M1	T15	E16R-SCLCL-3	**FL4659972**	Price	E16R-SCLCR-3	**FL4559971**	Price
1.000	1.200	12.000	.625	-5°	.197	1/8-27	CC_T 32.52	TS-35.6-7M1	T15	E16T-SCLCL-3	**FL4659974**	Price	E16T-SCLCR-3	**FL4559973**	Price
1.250	1.470	14.000	.765	-5°	.197	1/8-27	CC_T 432	TS-5.8-10M1	T20	E20U-SCLCL-4	**FL4659976**	Price	E20U-SCLCR-4	**FL4559975**	Price

ULTRA-DEX Positive 80° Diamond -5° Lead Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Right hand shown

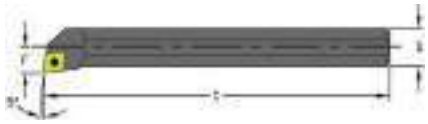


D Dia. (in.)	F (in.)	OAL (in.)	Min. Bore (in.)	Insert	Insert Screw	Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/16	.102	3.5	.205	CDHB 1.20.60	MTS-183	T-6	S03G SCLDL1.2	**FG551299**	Price	S03G SCLDR1.2	**FG551300**	Price
7/32	.125	3.5	.275	CDGW 1.510	MTS-184	T-6	S04G SCLDL1.5	**FG551302**	Price	S04G SCLDR1.5	**FG551304**	Price
3/8	.203	5	.410	CCMT 21.51	MTS-255	T-7	S06K SCLCL2	**FG551328**	Price	S06K SCLCR2	**FG551330**	Price
3/8	.203	5	.410	CPMT 21.51	MTS-255	T-7	S06K SCLPL2	**FG551332**	Price	S06K SCLPR2	**FG551334**	Price
1/2	.281	6	.560	CCMT 21.51	MTS-255	T-7	S08M SCLCL2	**FG551356**	Price	S08M SCLCR2	**FG551359**	Price
1/2	.281	6	.560	CPMT 21.51	MTS-255	T-7	S08M SCLPL2	**FG551362**	Price	S08M SCLPR2	**FG551365**	Price
1/2	.344	6	.625	CCMT 32.51	MTS-35	T-15	S08M SCLCL3	**FG551358**	Price	S08M SCLCR3	**FG551361**	Price
1/2	.344	6	.625	CPMT 32.51	MTS-35	T-15	S08M SCLPL3	**FG551364**	Price	S08M SCLPR3	**FG551367**	Price
5/8	.406	7	.760	CCMT 32.51	MTS-35	T-15	S10Q SCLCL3	**FG551391**	Price	S10Q SCLCR3	**FG551393**	Price
5/8	.406	7	.760	CPMT 32.51	MTS-35	T-15	S10Q SCLPL3	**FG551395**	Price	S10Q SCLPR3	**FG551397**	Price
3/4	.500	7	.920	CCMT 32.51	MTS-35	T-15	S12Q SCLCL3	**FG551417**	Price	S12Q SCLCR3	**FG551418**	Price
3/4	.500	7	.920	CPMT 32.51	MTS-35	T-15	S12Q SCLPL3	**FG551419**	Price	S12Q SCLPR3	**FG551420**	Price
3/4	.500	10	.920	CCMT 32.51	MTS-35	T-15	-	-	-	S12S SCLCR3	**FG551445**	Price
1	.625	8	1.185	CCMT 32.51	MTS-35	T-15	S16R SCLCL3	**FG551448**	Price	S16R SCLCR3	**FG551449**	Price
1-1/4	.765	14	1.465	CCMT 432	MTS-4	T-20	S20U SCLCL4	**FG551502**	Price	S20U SCLCR4	**FG551503**	Price

ULTRA-DEX Positive 80° Diamond -5° Lead Boring Bars Coolant Thru

Steel Bars • 4:1 Ratio

- Right hand shown

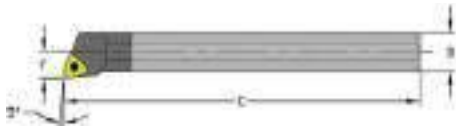


D Dia. (in.)	C OAL (in.)	Min. Bore	Insert	Left			Right		
				Model No.	Order No.	Price	Model No.	Order No.	Price
1/4	3.5	.275	CDGW 1.510	A04G SCLDL1.5	**FG550846**	Price	A04G SCLDR1.5	**FG550848**	Price
5/16	3.5	.340	CPMT 1.81.20.5	A05G SCLPL1.8	**FG550853**	Price	A05G SCLPR1.8	**FG550719**	Price
3/8	5	.410	CCMT 21.51	A06K SCLCL2	**FG550861**	Price	A06K SCLCR2	**FG550726**	Price
3/8	5	.410	CPMT 21.51	A06K SCLPL2	**FG550864**	Price	A06K SCLPR2	**FG550720**	Price
1/2	6	.560	CCMT 21.51	A08M SCLCL2	**FG550881**	Price	A08M SCLCR2	**FG550727**	Price
1/2	6	.560	CPMT 21.51	A08M SCLPL2	**FG550886**	Price	A08M SCLPR2	**FG550721**	Price
1/2	6	.625	CCMT 32.51	A08M SCLCL3	**FG550883**	Price	A08M SCLCR3	**FG550885**	Price
1/2	6	.625	CPMT 32.51	A08M SCLPL3	**FG550888**	Price	A08M SCLPR3	**FG550890**	Price
5/8	7	.760	CCMT 21.51	A10Q SCLCL2	**FG550907**	Price	A10Q SCLCR2	**FG550728**	Price
5/8	7	.760	CPMT 21.51	A10Q SCLPL2	**FG550909**	Price	A10Q SCLPR2	**FG550722**	Price
5/8	7	.760	CCMT 32.51	A10Q SCLCL3	**FG550908**	Price	A10Q SCLCR3	**FG550729**	Price
5/8	7	.760	CPMT 32.51	A10Q SCLPL3	**FG550910**	Price	A10Q SCLPR3	**FG550723**	Price
3/4	7	.920	CCMT 32.51	A12Q SCLCL3	**FG550921**	Price	A12Q SCLCR3	**FG550730**	Price
3/4	7	.920	CPMT 32.51	A12Q SCLPL3	**FG550922**	Price	A12Q SCLPR3	**FG550724**	Price
1	8	1.185	CCMT 32.51	A16R SCLCL3	**FG550943**	Price	A16R SCLCR3	**FG550731**	Price
1	8	1.185	CPMT 32.51	A16R SCLPL3	**FG552002**	Price	A16R SCLPR3	**FG550725**	Price
1-1/4	14	1.465	CCMT 431	A20U SCLCL4	**FG550984**	Price	A20U SCLCR4	**FG550732**	Price
1-1/2	14	1.730	CCMT 431	A24U SCLCL4	**FG550996**	Price	A24U SCLCR4	**FG550733**	Price

ULTRA-DEX Positive Trigon -5° Lead Boring Bars No Coolant

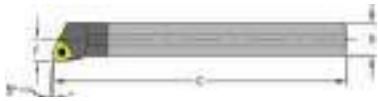
Steel Bars • 4:1 Ratio

- Right hand shown



Shank Dia. (in.)	OAL (in.)	F (in.)	Minimum Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	5	.203	.560	WCMT 21.51	MTS-255	T-7	S06K SWLCL2	**FG551352**	Price	S06K SWLCR2	**FG551353**	Price
1/2	6	.281	.760	WCMT 21.51	MTS-255	T-7	S08M SWLCL2	**FG551384**	Price	S08M SWLCR2	**FG551385**	Price
5/8	7	.406	.760	WCMT 21.51	MTS-255	T-7	S10Q SWLCL2	**FG551410**	Price	S10Q SWLCR2	**FG551412**	Price
5/8	7	.406	.760	WCMT 32.51	MTS-35	T-15	S10Q SWLCL3	**FG551411**	Price	S10Q SWLCR3	**FG551413**	Price
3/4	7	.500	.920	WCMT 32.51	MTS-35	T-15	S12Q SWLCL3	**FG551436**	Price	S12Q SWLCR3	**FG551437**	Price
1	8	.625	1.185	WCMT 32.51	MTS-35	T-15	S16R SWLCL3	**FG551464**	Price	S16R SWLCR3	**FG551465**	Price

ULTRA-DEX Positive Trigon -5° Lead Boring Bars Coolant Thru



Steel Bars • 4:1 Ratio

• Right hand shown

D Dia. (in.)	C OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	5	.203	.410	WCMT 21.51	MTS 255	T-7	A06K SWLCL2	**FG550878**	Price	A06K SWLCR2	**FG550747**	Price
1/2	6	.281	.560	WCMT 21.51	MTS 255	T-7	A08M SWLCL2	**FG550903**	Price	A08M SWLCR2	**FG550748**	Price
5/8	7	.406	.760	WCMT 21.51	MTS 255	T-7	A10Q SWLCL2	**FG550917**	Price	A10Q SWLCR2	**FG550749**	Price
5/8	7	.406	.760	WCMT 32.51	MTS 35	T-15	A10Q SWLCL3	**FG550918**	Price	A10Q SWLCR3	**FG550750**	Price
3/4	7	.500	.920	WCMT 32.51	MTS 35	T-15	A12Q SWLCL3	**FG550933**	Price	A12Q SWLCR3	**FG550751**	Price
1	8	.625	1.180	WCMT 32.51	MTS 35	T-15	A16R SWLCL3	**FG550952**	Price	A16R SWLCR3	**FG550752**	Price

ULTRA-DEX Positive Triangle -3° Lead Boring Bars No Coolant



Steel Bars • 4:1 Ratio

• Right hand shown

D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
1/4	3.5	.138	.275	TCMT 1.21.20.5	MTS-184	T-6	S04G STUCL1.2	**FG551308**	Price	S04G STUCR1.2	**FG551310**	Price
5/16	3.5	.167	.340	TCMT 1.21.20.5	MTS-184	T-6	S05G STUCL1.2	**FG551319**	Price	S05G STUCR1.2	**FG551321**	Price
3/8	5	.203	.410	TCMT 21.51	MTS-255	T-7	S06K STUCL2	**FG551343**	Price	S06K STUCR2	**FG551346**	Price
3/8	5	.203	.410	TPMT 21.51	MTS-255	T-7	S06K STUPL2	**FG551348**	Price	S06K STUPR2	**FG551350**	Price
1/2	6	.281	.560	TCMT 21.51	MTS-255	T-7	S08M STUCL2	**FG551376**	Price	S08M STUCR2	**FG551378**	Price
1/2	6	.281	.560	TPMT 21.51	MTS-255	T-7	S08M STUPL2	**FG551380**	Price	S08M STUPR2	**FG551382**	Price
5/8	7	.406	.760	TCMT 21.51	MTS-255	T-7	S10Q STUCL2	**FG551405**	Price	S10Q STUCR2	**FG551406**	Price
3/4	8	.500	.920	TCMT 32.51	MTS-35	T-15	S12Q STUCL3	**FG551430**	Price	S12Q STUCR3	**FG551431**	Price

ULTRA-DEX Positive Triangle -3° Lead Boring Bars Coolant Thru



Steel Bars • 4:1 Ratio

• Right hand shown

D Dia. (in.)	C OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
1/4	3.5	.138	.275	TCMT 1.21.20.5	MTS 184	T-6	A04G STUCL1.2	**FG550850**	Price	A04G STUCR1.2	**FG550734**	Price
5/16	3.5	.167	.340	TCMT 1.21.20.5	MTS 184	T-6	A05G STUCL1.2	**FG550856**	Price	A05G STUCR1.2	**FG550735**	Price
3/8	5	.203	.410	TCMT 1.21.20.5	MTS 184	T-6	A06K STUCL1.2	**FG550871**	Price	A06K STUCR1.2	**FG550736**	Price
3/8	5	.203	.410	TCMT 21.51	MTS 255	T-7	A06K STUCL2	**FG550873**	Price	A06K STUCR2	**FG550740**	Price
3/8	5	.203	.410	TPMT 21.51	MTS 255	T-7	A06K STUPL2	**FG550875**	Price	A06K STUPR2	**FG550737**	Price
1/2	6	.281	.560	TCMT 21.51	MTS 255	T-7	A08M STUCL2	**FG550898**	Price	A08M STUCR2	**FG550741**	Price
1/2	6	.281	.560	TPMT 21.51	MTS 255	T-7	A08M STUPL2	**FG550900**	Price	A08M STUPR2	**FG550738**	Price
5/8	7	.406	.760	TCMT 21.51	MTS 255	T-7	A10Q STUCL2	**FG550915**	Price	A10Q STUCR2	**FG550742**	Price
5/8	7	.406	.760	TPMT 21.51	MTS 255	T-7	A10Q STUPL2	**FG550916**	Price	A10Q STUPR2	**FG550739**	Price
3/4	7	.500	.920	TCMT 32.51	MTS 35	T-15	A12Q STUCL3	**FG550931**	Price	A12Q STUCR3	**FG550745**	Price
3/4	7	.500	.920	TPMT 32.51	MTS 35	T-15	A12Q STUPL3	**FG550932**	Price	A12Q STUPR3	**FG550743**	Price
1	8	.625	1.185	TCMT 32.51	MTS 35	T-15	A16R STUCL3	**FG550950**	Price	A16R STUCR3	**FG550746**	Price
1	8	.625	1.185	TPMT 32.51	MTS 35	T-15	A16R STUPL3	**FG550951**	Price	A16R STUPR3	**FG550744**	Price

ULTRA-DEX Positive Triangle 0° Lead Boring Bars No Coolant



Steel Bars • 4:1 Ratio

• Right hand shown

D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
1/4	3-1/2	.172	.312	TCMT 1.21.20.5	MTS-184	T-7	S04G STFCL1.2	**FG551306**	Price	S04G STFCR1.2	**FG551307**	Price
5/16	3-1/2	.167	.340	TCMT 1.21.20.5	MTS-184	T-7	S05G STFCL1.2	**FG551317**	Price	S05G STFCR1.2	**FG551318**	Price
3/8	5	.250	.460	TCMT 1.21.20.5	MTS-184	T-7	S06K STFCL1.2	**FG551324**	Price	S06K STFCR1.2	**FG551325**	Price
3/8	5	.203	.410	TCMT 21.51	MTS-255	T-7	-	-	-	S06K STFCR2	**FG551340**	Price
1/2	6	.281	.560	TCMT 21.51	MTS-255	T-7	-	-	-	S08M STFCR2	**FG551374**	Price
1/2	6	.281	.560	TPMT 21.51	MTS-255	T-7	-	-	-	S08M STFPR2	**FG551375**	Price
5/8	7	.406	.760	TCMT 21.51	MTS-255	T-7	-	-	-	S10Q STFCR2	**FG551403**	Price
3/4	7	.500	.920	TCMT 32.51	MTS-35	T-7	-	-	-	S12Q STFCR3	**FG551414**	Price

ULTRA-DEX Positive 55° Diamond -3° Lead Profiling Boring Bars No Coolant



Steel Bars • 4:1 Ratio

• Right hand shown

D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	5	.375	.585	DCMT 21.51	MTS-255	T-7	S06K SDUCL2	**FG551337**	Price	S06K SDUCR2	**FG551338**	Price
1/2	6	.437	.720	DCMT 21.51	MTS-255	T-7	S08M SDUCL2	**FG551369**	Price	S08M SDUCR2	**FG551370**	Price
5/8	7	.500	.850	DCMT 21.51	MTS-255	T-7	S10Q SDUCL2	**FG551400**	Price	S10Q SDUCR2	**FG551401**	Price
3/4	7	.625	1.050	DCMT 32.51	MTS-35	T-15	S12Q SDUCL3	**FG551422**	Price	S12Q SDUCR3	**FG551423**	Price

ULTRA-DEX Positive 55° Diamond -17.5° Lead Profiling Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Available in right hand only

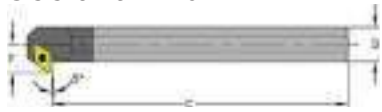


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Right		
							Model No.	Order No.	Price
3/8	5	.281	.490	DCMT 21.51	MTS-255	T-7	S06K SDQCR2	**FG551336**	Price
1/2	6	.341	.620	DCMT 21.51	MTS-255	T-7	S08M SDQCR2	**FG551368**	Price
5/8	7	.406	.760	DCMT 21.51	MTS-255	T-7	S10Q SDQCR2	**FG551399**	Price

ULTRA-DEX Positive 55° Diamond 5° Lead Back Facing Boring Bars Coolant Thru

Steel Bars • 4:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	4.5	.375	.585	DCMT 21.51	MTS 255	T-7	A06J SDXCL2	**FG550859**	Price	A06J SDXCR2	**FG550860**	Price
1/2	6	.437	.720	DCMT 21.51	MTS 255	T-7	A08M SDXCL2	**FG550893**	Price	A08M SDXCR2	**FG550894**	Price
3/4	7	.625	1.050	DCMT 32.51	MTS 35	T-15	A12Q SDXCL3	**FG550927**	Price	A12Q SDXCR3	**FG550928**	Price

ULTRA-DEX Negative 80° Diamond -5° Lead Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
3/4	8	.500	.920	CNMG 322	-	CL-7	XNS-36	NL-33	S12R MCLNL3	**FG551438**	Price	S12R MCLNR3	**FG551439**	Price
1	10	.640	1.200	CNMG 322	-	CL-7	XNS-36	NL-33	S16S MCLNL3	**FG551466**	Price	S16S MCLNR3	**FG551468**	Price
1	10	.640	1.200	CNMG 432	-	CL-20	XNS-47	NL-44	S16S MCLNL4	**FG551467**	Price	S16S MCLNR4	**FG551469**	Price
1-1/4	10	.765	1.470	CNMG 432	ICSN 433	CL-20	XNS-47	NL-46	S20S MCLNL4	**FG551483**	Price	S20S MCLNR4	**FG551484**	Price
1-1/2	14	.890	1.730	CNMG 432	ICSN 433	CL-20	XNS-47	NL-46	S24U MCLNL4	**FG551504**	Price	S24U MCLNR4	**FG551505**	Price
2	16	1.281	2.400	CNMG 432	ICSN 433	CL-20	XNS-47	NL-46	S32V MCLNL4	**FG551517**	Price	S32V MCLNR4	**FG551518**	Price

ULTRA-DEX Negative Trigon -5° Lead Boring Bars Coolant Thru

Steel Bars • 4:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
1	10	.640	1.200	WNMG 332	-	CL7	XNS-36	NL 33L	A16S MWLNL3	**FG550961**	Price	A16S MWLNR3	**FG550963**	Price
1	10	.640	1.200	WNMG 432	IWSN 433	CL20	XNS-47	NL 44	A16S MWLNL4	**FG550962**	Price	A16S MWLNR4	**FG550964**	Price
1-1/4	10	.765	1.470	WNMG 432	IWSN 433	CL20	XNS-47	NL 46	A20S MWLNL4	**FG550969**	Price	A20S MWLNR4	**FG550970**	Price
1-1/4	14	.765	1.470	WNMG 432	IWSN 433	CL20	XNS-47	NL 46	A20U MWLNL4	**FG550982**	Price	A20U MWLNR4	**FG550983**	Price

ULTRA-DEX Negative Triangle -3° Lead Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Available in right hand only



Model No.	D Dia. (in)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Order No.	Price
S16S MTUNR3	1	10	.640	1.200	TNMG 332	-	CL-7	XNS-36	NL-33L	**FG551472**	Price
S20S MTUNR3	1-1/4	10	.765	1.470	TNMG 332	ITSN 323	CL-7	XNS-36	NL-34L	**FG551486**	Price
S20U MTUNR3	1-1/4	10	.765	1.470	TNMG 332	ITSN 323	CL-7	XNS-36	NL-34L	**FG551499**	Price
S24U MTUNR4	1-1/2	14	.890	1.730	TNMG 432	ITSN 433	CL-20	XNS-47	NL-46	**FG551511**	Price

ULTRA-DEX Negative 35° Diamond -3° Lead Profiling Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Available in right hand only



Model No.	Shank Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Order No.	Price
S16S MVUNR3	1	10	.875	1.435	VNMG 332	IVSN-322	CL-20	XNS-47	NL-34L	**FG551473**	Price
S20T MVUNR3	1-1/4	12	1.000	1.705	VNMG 332	IVSN-322	CL-20	XNS-47	NL-34L	**FG551495**	Price
S24U MVUNR3	1-1/2	14	1.120	1.960	VNMG 332	IVSN-322	CL-20	XNS-47	NL-34L	**FG551512**	Price

ULTRA-DEX Negative 55° Diamond -3° Lead Profiling Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Right hand shown

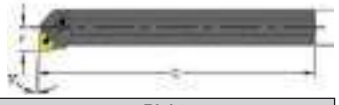


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
1	10	.750	1.310	DNMG 332	-	CL-7	XNS-36	NL-33L	S16S MDUNL3	**FG553070**	Price	S16S MDUNR3	**FG551470**	Price
1-1/4	12	1.000	1.700	DNMG 332	IDSN-322	CL-7	XNS-36	NL-46	S20T MDUNL4	**FG551491**	Price	S20T MDUNR3	**FG551493**	Price
1-1/2	14	1.125	1.960	DNMG 432	IDSN-433	CL-22	XNS-48	NL-46	S20T MDUNL4	**FG551492**	Price	S20T MDUNR4	**FG551494**	Price
1-1/2	14	1.125	1.960	DNMG 432	IDSN-433	CL-22	XNS-48	NL-46	S24U MDUNL4	**FG551508**	Price	S24U MDUNR4	**FG551509**	Price

ULTRA-DEX Negative 80° Diamond -5° Lead Boring Bars Coolant Thru

Steel Bars • 4:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
3/4	8	.500	.920	CNMG 322	-	CL7	XNS-36	NL 33	A12R MCLNL3	**FG550934**	Price	A12R MCLNR3	**FG550935**	Price
1	10	.640	1.200	CNMG 432	-	CL20	XNS-47	NL 44	A16S MCLNL4	**FG550956**	Price	A16S MCLNR4	**FG550958**	Price
1-1/4	14	.765	1.470	CNMG 432	ICSN 433	CL20	XNS-47	NL 46	A20U MCLNL4	**FG550980**	Price	A20U MCLNR4	**FG550981**	Price
1-1/2	14	.890	1.730	CNMG 432	ICSN 433	CL20	XNS-47	NL 46	A24U MCLNL4	**FG550988**	Price	A24U MCLNR4	**FG550989**	Price
2	16	1.281	2.400	CNMG 432	ICSN 433	CL20	XNS-47	NL 46	A32V MCLNL4	**FG550997**	Price	A32V MCLNR4	**FG550998**	Price

ULTRA-DEX Threading/Grooving Top Notch Boring Bars No Coolant

Steel Bars • 4:1 Ratio

- Right hand shown



D Dia. (in)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Clamp	Clamp Screw	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
5/8	-	.500	1.000	NG 2R	CM-74	6-32	S10Q NEL2	**FG551388**	Price	S10Q NER2	**FG551389**	Price
3/4	7	.562	1.120	NG 2L/2R	CM-75	6-32	S12Q NEL2	**FG551415**	Price	S12Q NER2	**FG551416**	Price
1	8	.688	1.180	NG 3L/3R	CM-73	10-32	S16R NEL3	**FG551354**	Price	S12R NER3	**FG551446**	Price
1	8	.688	1.180	NG 3L/3R	CM-73	10-32	S16R NEL3	**FG551355**	Price	S16R NER3	**FG551447**	Price

ULTRA-DEX Positive 55° Diamond 5° Lead Back Facing Boring Bars Coolant Thru

Solid Carbide • 8:1 Ratio

- Right hand shown

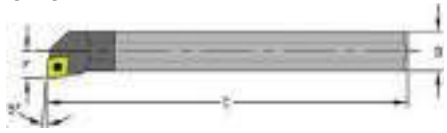


D Dia (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	6	.375	.585	DCMT 21.51	MTS 255	T-7	E06M SDXCL2	**FG550157**	Price	E06M SDXCR2	**FG550156**	Price
1/2	4.5	.437	.720	DCMT 21.51	MTS 255	T-7	E08J SDXCL2	**FG551129**	Price	E08J SDXCR2	**FG551130**	Price
1/2	8	.437	.720	DCMT 21.51	MTS 255	T-7	E08R SDXCL2	**FG550161**	Price	E08R SDXCR2	**FG550160**	Price
5/8	7	.500	.850	DCMT 21.51	MTS 255	T-7	E10Q SDXCL2	**FG551175**	Price	E10Q SDXCR2	**FG551176**	Price
5/8	10	.500	.850	DCMT 21.51	MTS 255	T-7	E10S SDXCL2	**FG551196**	Price	E10S SDXCR2	**FG551197**	Price
3/4	7	.625	1.050	DCMT 32.51	MTS 35	T-15	E12Q SDXCL3	**FG551216**	Price	E12Q SDXCR3	**FG550166**	Price
3/4	10	.625	1.050	DCMT 32.51	MTS 35	T-15	E12S SDXCL3	**FG551235**	Price	E12S SDXCR3	**FG550168**	Price
1	8	.750	1.310	DCMT 32.51	MTS 35	T-15	E16R SDXCL2	**FG551256**	Price	E16R SDXCR3	**FG551257**	Price
1	12	.750	1.310	DCMT 32.51	MTS 35	T-15	E16T SDXCL3	**FG551278**	Price	E16T SDXCR3	**FG550172**	Price

ULTRA-DEX Positive 80° Diamond -5° Lead Boring Bars No Coolant

Solid Carbide • 8:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
7/32	4	.125	.245	CDGW 1.510	MTS-184	T-6	-	-	-	C03.5H SCLDR1.5	**FG551004**	Price
3/16	4	.102	.205	CDHB 1.20.60	MTS-183	T-6	-	-	-	C03H SCLDR1.2	**FG551006**	Price
1/4	4	.138	.275	CDGW 1.510	MTS-184	T-6	C04H SCLDL1.5	**FG550008**	Price	C04H SCLDR1.5	**FG550007**	Price
5/16	5	.167	.340	CPMT 1.81.20.5	MTS-224	T-7	C05K SCLPL1.8	**FG550036**	Price	C05K SCLPR1.8	**FG550035**	Price
3/8	6	.203	.410	CCMT 21.51	MTS-255	T-7	C06M SCLCL2	**FG551020**	Price	C06M SCLCR2	**FG551022**	Price
3/8	6	.203	.410	CPMT 21.51	MTS-255	T-7	C06M SCLPL2	**FG550043**	Price	C06M SCLPR2	**FG550040**	Price
1/2	4.5	.281	.560	CCMT 21.51	MTS-255	T-7	C08J SCLCL2	**FG551036**	Price	C08J SCLCR2	**FG551039**	Price
1/2	4.5	.344	.625	CCMT 32.51	MTS-35	T-15	C08J SCLCL3	**FG551038**	Price	C08J SCLCR3	**FG551041**	Price
1/2	4.5	.281	.560	CPMT 21.51	MTS-255	T-7	-	-	-	C08J SCLPR2	**FG550056**	Price
1/2	4.5	.344	.625	CPMT 32.51	MTS-35	T-15	-	-	-	C08J SCLPR3	**FG551045**	Price
1/2	8	.281	.560	CCMT 21.51	MTS-255	T-7	C08R SCLCL2	**FG551058**	Price	C08R SCLCR2	**FG551061**	Price
1/2	8	.281	.560	CPMT 21.51	MTS-255	T-7	-	-	-	C08R SCLPR2	**FG550061**	Price
1/2	8	.344	.625	CPMT 32.51	MTS-35	T-15	C08R SCLPL3	**FG551065**	Price	C08R SCLPR3	**FG551067**	Price

ULTRA-DEX Positive 80° Diamond -5° Lead Boring Bars Coolant Thru

Solid Carbide • 8:1 Ratio

- Right hand shown

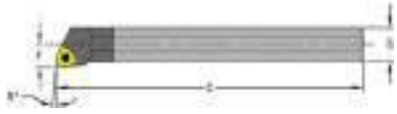


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/16	4	.102	.205	CDHB 1.20.60	MTS 183	T-6	-	-	-	E03H SCLDR1.2	**FG551083**	Price
1/4	4	.138	.270	CDGW 1.510	MTS 184	T-6	E04H SCLDL1.5	**FG550030**	Price	E04H SCLDR1.5	**FG550029**	Price
5/16	5	.167	.340	CPMT 1.81.20.5	MTS 224	T-7	E05K SCLPL1.8	**FG550037**	Price	E05K SCLPR1.8	**FG550033**	Price
3/8	6	.203	.410	CCMT 21.51	MTS 255	T-7	E06M SCLCL2	**FG551099**	Price	E06M SCLCR2	**FG551101**	Price
3/8	6	.203	.410	CPMT 21.51	MTS 255	T-7	E06M SCLPL2	**FG550039**	Price	E06M SCLPR2	**FG550038**	Price
1/2	4.5	.281	.560	CCMT 21.51	MTS 255	T-7	E08J SCLCL2	**FG551117**	Price	E08J SCLCR2	**FG551120**	Price
1/2	4.5	.344	.625	CCMT 32.51	MTS 35	T-15	-	-	-	E08J SCLCR3	**FG551122**	Price
1/2	4.5	.281	.560	CPMT 21.51	MTS 255	T-7	E08J SCLPL2	**FG550060**	Price	E08J SCLPR2	**FG550059**	Price
1/2	4.5	.344	.560	CPMT 32.51	MTS 35	T-15	-	-	-	E08J SCLPR3	**FG551126**	Price
1/2	8	.281	.560	CCMT 21.51	MTS 255	T-7	E08R SCLCL2	**FG551144**	Price	E08R SCLCR2	**FG551147**	Price
1/2	8	.344	.625	CCMT 32.51	MTS 35	T-15	E08R SCLCL3	**FG551146**	Price	E08R SCLCR3	**FG551149**	Price
1/2	8	.281	.560	CPMT 21.51	MTS 255	T-7	E08R SCLPL2	**FG550064**	Price	E08R SCLPR2	**FG550063**	Price
1/2	8	.344	.560	CPMT 32.51	MTS 35	T-15	-	-	-	E08R SCLPR3	**FG551153**	Price
5/8	7	.406	.760	CCMT 21.51	MTS 255	T-7	-	-	-	E10Q SCLCR2	**FG551168**	Price
5/8	7	.406	.760	CCMT 32.51	MTS 35	T-15	-	-	-	E10Q SCLCR3	**FG550079**	Price
5/8	7	.406	.770	CPMT 21.51	MTS 255	T-7	E10Q SCLPL2	**FG551169**	Price	E10Q SCLPR2	**FG551171**	Price
5/8	7	.406	.760	CPMT 32.51	MTS 35	T-15	E10Q SCLPL3	**FG551170**	Price	E10Q SCLPR3	**FG551172**	Price
5/8	10	.406	.760	CCMT 32.51	MTS 35	T-15	E10S SCLCL3	**FG551188**	Price	E10S SCLCR3	**FG550081**	Price
5/8	10	.406	.770	CPMT 21.51	MTS 255	T-7	-	-	-	E10S SCLPR2	**FG551192**	Price
5/8	10	.406	.760	CPMT 32.51	MTS 35	T-15	E10S SCLPL3	**FG551191**	Price	E10S SCLPR3	**FG551193**	Price
3/4	7	.500	.920	CCMT 32.51	MTS 35	T-15	-	-	-	E12Q SCLCR3	**FG550086**	Price
3/4	7	.500	.920	CPMT 32.51	MTS 35	T-15	E12Q SCLPL3	**FG551212**	Price	E12Q SCLPR3	**FG551213**	Price
3/4	10	.500	.920	CCMT 32.51	MTS 35	T-15	-	-	-	E12S SCLCR3	**FG550088**	Price
3/4	10	.500	.920	CPMT 32.51	MTS 35	T-15	-	-	-	E12S SCLPR3	**FG551230**	Price
1	8	.625	1.185	CCMT 32.51	MTS 35	T-15	E16T SCLCL3	**FG551272**	Price	E16R SCLCR3	**FG550095**	Price
1	12	.625	1.185	CCMT 32.51	MTS 35	T-15	-	-	-	E16T SCLCR3	**FG550097**	Price
1	12	.625	1.185	CPMT 32.51	MTS 35	T-15	-	-	-	E16T SCLPR3	**FG551274**	Price

ULTRA-DEX Positive Trigon -5° Lead Boring Bars No Coolant

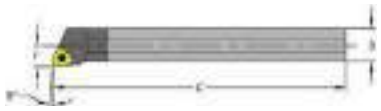
Solid Carbide • 8:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Wrench	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/16	4	.102	.205	WCMT 1.210.5	MTS-183	T-6	-	-	-	C03H SWLCR1.2	**FG551007**	Price
1/4	4	.138	.275	WCMT 1.210.5	MTS-184	T-6	-	-	-	C04H SWLCR1.2	**FG551012**	Price
3/8	6	.203	.400	WCMT 21.51	MTS-255	T-7	-	-	-	C06M SWLCR2	**FG550194**	Price
1/2	4.5	.281	.560	WCMT 21.51	MTS-255	T-7	C08J SWLCL2	**FG550203**	Price	C08J SWLCR2	**FG550202**	Price
1/2	8	.281	.560	WCMT 21.51	MTS-255	T-7	C08R SWLCL2	**FG550207**	Price	C08R SWLCR2	**FG550206**	Price

ULTRA-DEX Positive Trigon -5° Lead Boring Bars Coolant Thru



Solid Carbide • 8:1 Ratio

• Right hand shown

D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/16	4	.102	.205	WCMT 1.210.5	MTS 183	T-6	-	-	-	E03H SWLCR1.2	**FG551084**	Price
1/4	4	.138	.275	WCMT 1.210.5	MTS 184	T-6	-	-	-	E04H SWLCR1.2	**FG551091**	Price
5/16	5	.167	.345	WCMT 1.51.50.5	MTS 2	T-6	-	-	-	E05K SWLCR1.5	**FG551098**	Price
3/8	6	.203	.410	WCMT 21.51	MTS 255	T-7	E06M SWLCL2	**FG550197**	Price	E06M SWLCR2	**FG550196**	Price
1/2	4.5	.281	.560	WCMT 21.51	MTS 255	T-7	E08J SWLCL2	**FG550205**	Price	E08J SWLCR2	**FG550204**	Price
1/2	8	.281	.560	WCMT 21.51	MTS 255	T-7	-	-	-	E08R SWLCR2	**FG550208**	Price
5/8	7	.406	.760	WCMT 21.51	MTS 255	T-7	E10Q SWLCL2	**FG551182**	Price	E10Q SWLCR2	**FG551184**	Price
5/8	7	.406	.760	WCMT 32.51	MTS 35	T-15	E10Q SWLCL3	**FG551183**	Price	E10Q SWLCR3	**FG550214**	Price
5/8	10	.406	.760	WCMT 32.51	MTS 35	T-15	E10S SWLCL3	**FG551206**	Price	E10S SWLCR3	**FG550216**	Price
5/8	10	.406	.760	WCMT 21.51	MTS 255	T-7	E10S SWLCL2	**FG551205**	Price	E10S SWLCR2	**FG551207**	Price
3/4	7	.500	.920	WCMT 32.51	MTS 35	T-15	E12Q SWLCL3	**FG550223**	Price	E12Q SWLCR3	**FG550222**	Price
3/4	10	.500	.920	WCMT 32.51	MTS 35	T-15	E12S SWLCL3	**FG551243**	Price	E12S SWLCR3	**FG550224**	Price
1	8	.625	1.185	WCMT 32.51	MTS 35	T-15	E16R SWLCL3	**FG550231**	Price	E16R SWLCR3	**FG550230**	Price
1	12	.625	1.185	WCMT 32.51	MTS 35	T-15	E16T SWLCL3	**FG551284**	Price	E16T SWLCR3	**FG550232**	Price

ULTRA-DEX Positive Triangle -3° Lead Boring Bars No Coolant



Solid Carbide • 8:1 Ratio

• Right hand shown

D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
5/16	5	.167	.340	TCMT 1.21.20.5	MTS-184	T-6	C05K STUCL1.2	**FG551015**	Price	C05K STUCR1.2	**FG551017**	Price
3/8	6	.203	.410	TCMT 21.51	MTS-255	T-7	C06M STUCL2	**FG550546**	Price	C06M STUCR2	**FG550545**	Price
3/8	6	.203	.410	TPMT 21.51	MTS-255	T-7	C06M STUPL2	**FG551032**	Price	C06M STUPR2	**FG551034**	Price
1/2	4.5	.281	.560	TCMT 21.51	MTS-255	T-7	C08J STUCL2	**FG550566**	Price	C08J STUCR2	**FG550565**	Price
1/2	8	.281	.570	TCMT 21.51	MTS-255	T-7	C08R STUCL2	**FG550574**	Price	C08R STUCR2	**FG550573**	Price
1/2	8	.281	.560	TPMT 21.51	MTS-255	T-7	C08R STUPL2	**FG551072**	Price	C08R STUPR2	**FG551074**	Price

ULTRA-DEX Positive Triangle -3° Lead Boring Bars Coolant Thru



Solid Carbide • 8:1 Ratio

• Right hand shown

Inch/Metric - Inch

D Dia.	OAL	F	Min. Bore	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	6	.203	.410	TCMT 21.51	MTS 255	T-7	E06M STUCL2	**FG550550**	Price	E06M STUCR2	**FG550549**	Price
1/2	4.5	.281	.560	TCMT 21.51	MTS 255	T-7	E08J STUCL2	**FG550570**	Price	E08J STUCR2	**FG550569**	Price
1/2	8	.281	.560	TCMT 21.51	MTS 255	T-7	E08R STUCL2	**FG550576**	Price	E08R STUCR2	**FG550575**	Price
5/8	7	.406	.760	TCMT 21.51	MTS 255	T-7	E10Q STUCL3	**FG551179**	Price	E10Q STUCR2	**FG550587**	Price
5/8	10	.406	.760	TCMT 21.51	MTS 35	T-7	E10S STUCL2	**FG551201**	Price	E10S STUCR2	**FG550591**	Price
3/4	7	.500	.920	TCMT 32.51	MTS 35	T-15	E12Q STUCL3	**FG550604**	Price	E12Q STUCR3	**FG550603**	Price
3/4	10	.500	.920	TCMT 32.51	MTS 35	T-15	E12Q STUCL3	**FG551238**	Price	E12S STUCR3	**FG550607**	Price
1	8	.625	1.185	TCMT 32.51	MTS 35	T-15	E16R STUCL3	**FG550618**	Price	E16R STUCR3	**FG550617**	Price
1	12	.625	1.185	TCMT 32.51	MTS 35	T-15	E16T STUCL3	**FG551281**	Price	E16T STUCR3	**FG550621**	Price

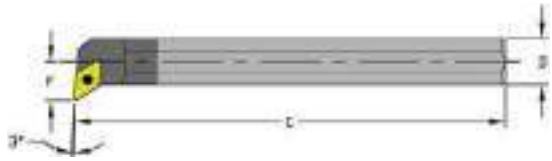
Inch/Metric - Metric

D Dia.	OAL	F	Min. Bore	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
6mm	100mm	3.5mm	7mm	TCMT 1.21.20.5	MTS 184	T-6	M-E06H STUCL06	**FG5561010**	Price	M-E06H STUCR06	**FG5561015**	Price
8mm	125mm	6mm	11mm	TCMT 1.21.20.5	MTS 184	T-6	M-E08K STUCL06	**FG5561030**	Price	M-E08K STUCR06	**FG5561035**	Price
10mm	150mm	7mm	13mm	TCMT 21.51	MTS 255	T-7	M-E10M STUCL11	**FG5561060**	Price	M-E10M STUCR11	**FG5561065**	Price
12mm	180mm	9mm	16mm	TCMT 21.51	MTS 255	T-7	M-E12Q STUCL11	**FG5561090**	Price	M-E12Q STUCR11	**FG5561095**	Price
16mm	200mm	11mm	20mm	TCMT 21.51	MTS 255	T-7	M-E16R STUCL11	**FG5561120**	Price	M-E16R STUCR11	**FG5561125**	Price
20mm	250mm	13mm	25mm	TCMT 32.51	MTS 35	T-15	M-E20S STUCL16	**FG5561150**	Price	M-E20S STUCR16	**FG5561155**	Price
25mm	300mm	17mm	32mm	TCMT 32.51	MTS 35	T-15	M-E25T STUCL16	**FG5561180**	Price	M-E25T STUCR16	**FG5561185**	Price

ULTRA-DEX Positive 55° Diamond -3° Lead Profiling Boring Bars No Coolant

Solid Carbide • 8:1 Ratio

- Right hand shown

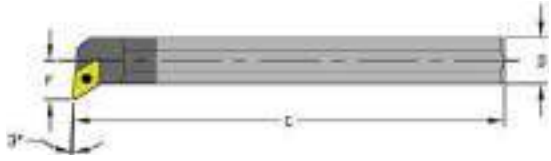


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Wrench	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	6	.375	.585	DCMT 21.51	MTS-255	T-7	C06M-SDUCL2	**FG550110**	Price	C06M SDUCR2	**FG550109**	Price
1/2	4.5	.437	.720	DCMT 21.51	MTS-255	T-7	C08J SDUCL2	**FG551046**	Price	C08J SDUCR2	**FG551047**	Price
1/2	8	.437	.720	DCMT 21.51	MTS-255	T-7	C08R-SDUCL2	**FG550118**	Price	C08R SDUCR2	**FG550117**	Price

ULTRA-DEX Positive 55° Diamond -3° Lead Profiling Boring Bars Coolant Thru

Solid Carbide • 8:1 Ratio

- Right hand shown



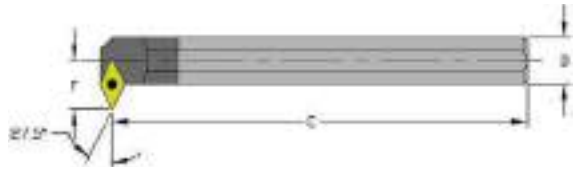
Inch/Metric- Inch												
D Dia.	OAL	F	Min. Bore	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	6	.375	.585	DCMT 21.51	MTS 255	T-7	E06M SDUCL2	**FG550112**	Price	E06M SDUCR2	**FG550111**	Price
1/2	4.5	.437	.720	DCMT 21.51	MTS 255	T-7	E08J SDUCL2	**FG551127**	Price	E08J SDUCR2	**FG551128**	Price
1/2	8	.437	.720	DCMT 21.51	MTS 255	T-7	E08R SDUCL2	**FG550120**	Price	E08R SDUCR2	**FG550119**	Price
5/8	7	.500	.850	DCMT 21.51	MTS 255	T-7	E10Q SDUCL2	**FG551174**	Price	E10Q SDUCR2	**FG550125**	Price
5/8	10	.500	.850	DCMT 21.51	MTS 255	T-7	E10S SDUCL2	**FG551195**	Price	E10S SDUCR2	**FG550126**	Price
3/4	7	.625	1.050	DCMT 32.51	MTS 35	T-15	E12Q SDUCL3	**FG550135**	Price	E12Q SDUCR3	**FG550134**	Price
3/4	7	.625	1.050	DPMT 32.51	MTS 35	T-15	E12Q SDUPL3	**FG551214**	Price	E12Q SDUPR3	**FG551215**	Price
3/4	10	.625	1.050	DCMT 32.51	MTS 35	T-15	E12S SDUCL3	**FG551232**	Price	E12S SDUCR3	**FG550136**	Price
1	8	.750	1.310	DCMT 32.51	MTS 35	T-15	E16R SDUCL3	**FG550145**	Price	E16R SDUCR3	**FG550144**	Price
1	12	.750	1.310	DCMT 32.51	MTS 35	T-15	E16T SDUCL3	**FG551275**	Price	E16T SDUCR3	**FG550146**	Price
1	12	.750	1.310	DPMT 32.51	MTS 35	T-15	E16T SDUPL3	**FG551276**	Price	E16T SDUPR3	**FG551277**	Price

Inch/ Metric- Metric												
D Dia.	OAL	F	Min. Bore	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
10mm	150mm	9mm	15mm	DCMT 21.51	MTS 255	T-7	M-E10M SDUCL07	**FG5561050**	Price	M-E10M SDUCR07	**FG5561055**	Price
12mm	180mm	11mm	18mm	DCMT 21.51	MTS 255	T-7	M-E12Q SDUCL07	**FG5561080**	Price	M-E12Q SDUCR07	**FG5561085**	Price
16mm	200mm	13mm	22mm	DCMT 21.51	MTS 255	T-7	M-E16R SDUCL07	**FG5561110**	Price	M-E16R SDUCR07	**FG5561115**	Price
20mm	250mm	15mm	27mm	DCMT 32.51	MTS 35	T-15	M-E20S SDUCL11	**FG5561140**	Price	M-E20S SDUCR11	**FG5561145**	Price
25mm	300mm	18mm	33mm	DCMT 32.51	MTS 35	T-15	M-E25T SDUCL11	**FG5561170**	Price	M-E25T SDUCR11	**FG5561175**	Price

ULTRA-DEX Positive 55° Diamond 27.5° Lead Profiling Boring Bars Coolant Thru

Solid Carbide • 8:1 Ratio

- Available in right hand only

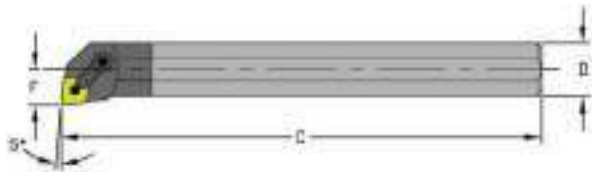


Model No.	D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Order No.	Price
E10Q SDNCR2	5/8	6.86	.562	.920	DCMT 21.51	MTS 255	T-7	**FG551173**	Price
E12S SDNCR3	3/4	9.8	.765	1.190	DCMT 32.51	MTS 35	T-15	**FG551231**	Price

ULTRA-DEX Negative 80° Diamond -5° Lead Boring Bars Coolant Thru

Solid Carbide • 8:1 Ratio

- Right hand shown

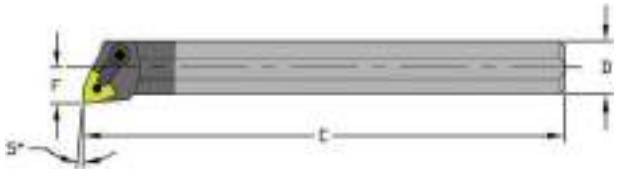


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
3/4	7	.500	.920	CNMG 322	-	CL7	XNS-36	NL 33	-	-	-	E12Q MCLNR3	**FG551211**	Price
3/4	10	.500	.920	CNMG 322	-	CL7	XNS-36	NL 33	-	-	-	E12S MCLNR3	**FG551224**	Price
1	8	.640	1.200	CNMG 432	-	CL20	XNS-47	NL 44	E16R MCLNL4	**FG551247**	Price	E16R MCLNR4	**FG551249**	Price
1	12	.640	1.200	CNMG 432	-	CL20	XNS-47	NL 44	-	-	-	E16T MCLNR4	**FG551268**	Price
1-1/4	14	.765	1.470	CNMG 432	ICSN-433	CL20	XNS-47	NL 46	E20U MCLNL4	**FG551287**	Price	E20U MCLNR4	**FG551288**	Price
1-1/2	14	.890	1.730	CNMG 432	ICSN-433	CL20	XNS-47	NL 46	-	-	-	E24U MCLNR4	**FG551292**	Price

ULTRA-DEX Negative Trigon -5° Lead Boring Bars Coolant Thru

Solid Carbide • 8:1 Ratio

- Right hand shown



D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Seat	Clamp	Clamp Screw	Lock Pin	Left			Right		
									Model No.	Order No.	Price	Model No.	Order No.	Price
3/4	7	.500	.920	WNMG 332	-	CL7	XNS-36	NL 33L	-	-	-	E12Q MWLNR3	**FG550246**	Price
3/4	10	.500	.920	WNMG 332	-	CL7	XNS-36	NL 33L	-	-	-	E12S MWLNR3	**FG550248**	Price
1	8	.640	1.200	WNMG 332	-	CL7	XNS-36	NL 33L	E16R MWLNL3	**FG550251**	Price	E16R MWLNR3	**FG550250**	Price
1	12	.640	1.200	WNMG 332	-	CL7	XNS-36	NL 33L	-	-	-	E16T MWLNR3	**FG551271**	Price
1	12	.640	1.200	WNMG 432	-	CL20	XNS-47	NL 44	-	-	-	E16T MWLNR4	**FG550256**	Price
1-1/4	14	.765	1.470	WNMG 432	IWSN-433	CL20	XNS-47	NL 46	E20U MWLNL4	**FG551289**	Price	E20U MWLNR4	**FG550258**	Price

ULTRA-DEX Carbide Inserts

- Grade UD21 is a TiAlN coated grade in the C2 ISO category for cast iron, aluminum and non-ferrous materials
- Grade UD52 is a TiAlN coated grade in the C5 ISO category for use on steels and exotic steels

Insert	UD21		UD52	
	Order No.	Price	Order No.	Price
CDGW 1.510	**FG550347**	Price	**FG550344**	Price
CDGW 1.510.5	**FG550350**	Price	**FG550353**	Price
CDGW 1.511	**FG550356**	Price	**FG550359**	Price
CDHB 1.20.60	**FG553314**	Price	**FG550361**	Price
CPMT 1.81.20.5	**FG550300**	Price	**FG550304**	Price
CPMT 1.81.21	**FG550306**	Price	**FG550309**	Price
TCMT 1.21.20.5	**FG550759**	Price	**FG550760**	Price

Screws

Screw	Order No.	Price
MTS182	**FG550701**	Price
MTS183	**FG550702**	Price
MTS184	**FG550703**	Price
MTS224	**FG550704**	Price
MTS255	**FG550705**	Price
MTS35	**FG550706**	Price
MTS4	**FG550707**	Price
XNS36	**FF7173800**	Price
XNS47	**FF7173840**	Price

Clamps

Clamp	Order No.	Price
CL7	**FF7173380**	Price
CL20	**FF7173420**	Price

Wrenches

Wrench	Order No.	Price
T6	**KN5436306**	Price
T7	**KN5436307**	Price
T15	**KN5436315**	Price
T20	**KN5436320**	Price

Pins

NL Pin	Order No.	Price
NL33L	**FF7172460**	Price
NL44	**FF7172500**	Price
NL46L	**FF7172520**	Price

ULTRA-DEX Heavy Metal Positive 80° Diamond -5° Lead Boring Bars-Coolant Thru

Vibration Dampening • 6:1 Ratio

- Help reduce chatter in your application
- 2 Times heavier than steel
- Machine deeper bores
- Achieve better precision and finish
- Right hand shown

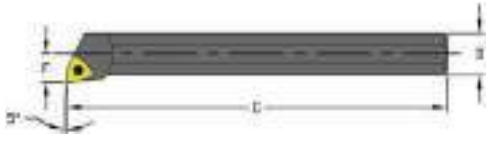


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	4.5	.203	.410	CCMT 21.51	MTS 255	T-7	HM06J SCLPL2	**FG552154**	Price	HM06J SCLCR2	**FG552152**	Price
3/8	4.5	.203	.410	CPMT 21.51	MTS 255	T-7	-	-	-	HM06J SCLPR2	**FG552156**	Price
3/8	7	.203	.410	CPMT 21.51	MTS 255	T-7	-	-	-	HM06Q SCLPR2	**FG552180**	Price
1/2	4.5	.281	.560	CCMT 21.51	MTS 255	T-7	-	-	-	HM08J SCLCR2	**FG552196**	Price
1/2	4.5	.281	.560	CPMT 21.51	MTS 255	T-7	-	-	-	HM08J SCLPR2	**FG552200**	Price
1/2	7	.281	.560	CCMT 21.51	MTS 255	T-7	HM08Q SCLPL2	**FG552218**	Price	HM08Q SCLCR2	**FG552216**	Price
1/2	7	.281	.560	CPMT 21.51	MTS 255	T-7	-	-	-	HM08Q SCLPR2	**FG552220**	Price
5/8	4.5	.406	.760	CPMT 21.51	MTS 255	T-7	-	-	-	HM10J SCLPR2	**FG552242**	Price
5/8	7	.406	.760	CCMT 32.51	MTS 35	T-15	-	-	-	HM10J SCLCR3	**FG553250**	Price
5/8	7	.406	.760	CCMT 32.51	MTS 35	T-15	-	-	-	HM10Q SCLCR3	**FG552260**	Price
5/8	7	.406	.760	CPMT 32.51	MTS 255	T-7	HM10Q SCLPL2	**FG552262**	Price	HM10Q SCLPR2	**FG552266**	Price

ULTRA-DEX Heavy Metal Positive Trigon -5° Lead Boring Bars-Coolant Thru

Vibration Dampening • 6:1 Ratio

- Help reduce chatter in your application
- 2 Times heavier than steel
- Machine deeper bores
- Achieve better precision and finish
- Right hand shown

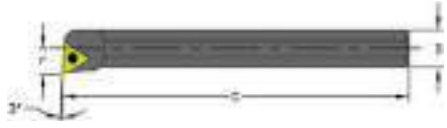


D Dia. (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Insert Screw	Torx Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	4.5	.203	.410	WCMT 21.51	MTS 255	T-7	-	-	-	HM06J SWLCR2	**FG553252**	Price
1/2	4.5	.281	.560	WCMT 21.51	MTS 255	T-7	HM08J SWLCL2	**FG553256**	Price	HM08J SWLCR2	**FG553254**	Price
1/2	7	.281	.560	WCMT 21.51	MTS 255	T-7	-	-	-	HM08Q SWLCR2	**FG553258**	Price
5/8	4.5	.406	.760	WCMT 21.51	MTS 255	T-7	-	-	-	HM10J SWLCR2	**FG553260**	Price
5/8	4.5	.406	.760	WCMT 32.51	MTS 35	T-15	HM10J SWLCL2	**FG553262**	Price	HM10J SWLCR3	**FG553264**	Price
3/4	4.5	.500	.920	WCMT 32.51	MTS 35	T-15	-	-	-	HM12J SWLCR3	**FG553266**	Price
3/4	7	.500	.920	WCMT 32.51	MTS 35	T-15	-	-	-	HM12Q SWLCR3	**FG553268**	Price

ULTRA-DEX Heavy Metal Positive Triangle -3° Lead Boring Bars-Coolant Thru

Vibration Dampening • 6:1 Ratio

- Help reduce chatter in your application
- 2 Times heavier than steel
- Machine deeper bores
- Achieve better precision and finish



Size (in.)	OAL (in.)	F (in.)	Min. Bore (in.)	Insert	Screw	Key	Left			Right		
							Model No.	Order No.	Price	Model No.	Order No.	Price
3/8	4.5	.203	.410	TPMT 21.51	MTS 255	T-7	-	-	-	HM06J STUPR2	**FG552168**	Price
3/8	7	.203	.410	TCMT 21.51	MTS 255	T-7	-	-	-	HM06Q STUCR2	**FG552188**	Price
1/2	4.5	.281	.560	TPMT 21.51	MTS 255	T-7	HM08J STUPL2	**FG552206**	Price	HM08J STUPR2	**FG552208**	Price
1/2	7	.281	.560	TCMT 21.51	MTS 255	T-7	HM08Q STUCL2	**FG552222**	Price	HM08Q STUCR2	**FG552224**	Price
5/8	4.5	.406	.760	TPMT 21.51	MTS 255	T-7	HM10J STUPL2	**FG552250**	Price	HM10J STUPR2	**FG552252**	Price
5/8	7	.406	.760	TCMT 21.51	MTS 255	T-7	-	-	-	HM10Q STUCR2	**FG552272**	Price
3/4	4.5	.500	.920	TCMT 32.51	MTS 35	T-15	-	-	-	HM12J STUCR3	**FG552288**	Price
3/4	4.5	.500	.920	TPMT 32.51	MTS 35	T-15	-	-	-	HM12J STUPR3	**FG552292**	Price
3/4	7	.500	.920	TCMT 32.51	MTS 35	T-15	-	-	-	HM12Q STUCR3	**FG552316**	Price

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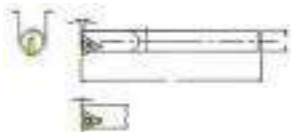
Small Hole Boring Tools — Minimum Bore 0.180" thru 0.290"

MADE IN THE USA

- Minimum bore diameter .180" – 1.094"
- Free cutting action due to positive rake angle
- Use solid carbide shank tools are available where vibration and chattering is a problem
- Fig. 1 Bars are cylindrical shanks without a flat
- Fig. 2 Bars have flats - (2) opposing







Style - Alloy Steel Boring Bars - 1 Flat					
Min. Bore	OAL	Shank Dia.	Insert Style	Order No.	Price
.230	2.5	.187	WCGT-0xx	**FG70SE5010**	Price
.300	4.00	.250	WCGT-0xx	**FG70SE6000**	Price
.438	5.00	.375	WCGT-2xx	**FG70SG6700**	Price
.563	6.00	.500	WCGT-2xx	**FG70SG6800**	Price
.719	7.00	.625	WCGT-3xx	**FG70SH7500**	Price
.844	8.00	.750	WCGT-3xx	**FG70SH7600**	Price
1.094	10.00	1.000	WCGT-3xx	**FG70SH7700**	Price

Style - Alloy Steel Boring Bars - Fig. 1						
Min. Bore	OAL	Shank Dia.	Bore Depth	Insert Style	Order No.	Price
.208	2.25	.375	1.00	CDCD	**FG70SA1405**	Price
.208	2.50	.500	1.00	CDCD	**FG70SA1605**	Price
.230	2.25	.375	1.00	CDCD	**FG70SA1420**	Price
.230	2.50	.500	1.00	CDCD	**FG70SA1620**	Price
.270	2.50	.500	1.00	TDAB/TDAC	**FG70SB2410**	Price
.270	4.00	.625	1.00	TDAB/TDAC	**FG70SB2510**	Price
.290	2.50	.375	1.25	CDCD	**FG70SA1440**	Price
.290	2.75	.500	1.25	CDCD	**FG70SA1640**	Price
.300	2.75	.500	1.25	TDAB/TDAC	**FG70SB2430**	Price
.300	4.00	.625	1.25	TDAB/TDAC	**FG70SB2530**	Price
.360	3.00	.500	1.50	TDAB/TDAC	**FG70SB2450**	Price
.438	4.00	.500	1.875	TPGB2/TPGH2/TPGC2	**FG70SC3030**	Price

Style - Alloy Steel Boring Bars - Fig. 2					
Min. Bore	OAL	Shank Dia.	Insert Style	Order No.	Price
.180	2.50	.187	CDCD	**FG70SA1000**	Price
.208	2.50	.187	CDCD	**FG70SA1005**	Price
.230	2.50	.187	CDCD	**FG70SA1010**	Price
.270	3.50	.187	TDAB/TDAC	**FG70SB1800**	Price
.290	3.00	.250	CDCD	**FG70SA1100**	Price
.300	4.00	.250	TDAB/TDAC	**FG70SB2000**	Price
.360	4.00	.312	TDAB/TDAC	**FG70SB2100**	Price
.438	5.00	.375	TPGB2/TPGH2/TPGC2	**FG70SC2700**	Price
.563	6.00	.500	TPGB2/TPGH2/TPGC2	**FG70SC2800**	Price
.625	6.00	.500	TPGB3/TPGH3/TPGC3	**FG70SD3400**	Price
.844	8.00	.750	TPGB3/TPGH3/TPGC3	**FG70SD3600**	Price
1.094	10.00	1.000	TPGB3/TPGH3/TPGC3	**FG70SD3700**	Price

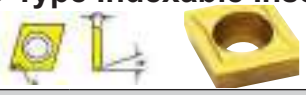
Style - Carbide Boring Bars - 1 Flat					
Min. Bore	OAL	Shank Dia.	Insert Style	Order No.	Price
.230	4.00	.187	WCGT-0xx	**FG70CE5215**	Price
.300	6.00	.250	WCGT-0xx	**FG70CE5300**	Price
.438	6.00	.375	WCGT-2xx	**FG70CG6900**	Price
.563	6.00	.500	WCGT-2xx	**FG70CG7000**	Price
.719	10.00	.625	WCGT-3xx	**FG70CH7910**	Price
.844	10.00	.750	WCGT-3xx	**FG70CH8010**	Price
1.094	12.00	1.000	WCGT-3xx	**FG70CH8110**	Price

Style - Carbide Boring Bars - Fig. 1						
Min. Bore	OAL	Shank Dia.	Bore Depth	Insert Style	Order No.	Price
.208	2.375	.500	1.875	CDCD	**FG70CA1705**	Price
.230	3.50	.500	2.000	CDCD	**FG70CA1720**	Price
.270	3.50	.500	2.000	TDAB/TDAC	**FG70CB2462**	Price
.290	4.00	.500	2.500	CDCD	**FG70CA1740**	Price
.300	4.00	.500	2.500	TDAB/TDAC	**FG70CB2465**	Price
.360	4.625	.500	3.125	TDAB/TDAC	**FG70CB2470**	Price

Style - Carbide Boring Bars - Fig. 2					
Min. Bore	OAL	Shank Dia.	Insert Style	Order No.	Price
.180	4.00	.187	CDCD	**FG70CA1200**	Price
.208	4.00	.187	CDCD	**FG70CA1205**	Price
.230	4.00	.187	CDCD	**FG70CA1215**	Price
.270	4.00	.187	TDAB/TDAC	**FG70CB1900**	Price
.290	4.00	.250	CDCD	**FG70CA1300**	Price
.300	4.00	.250	TDAB/TDAC	**FG70CB2200**	Price
.360	6.00	.312	TDAB/TDAC	**FG70CB2310**	Price
.438	6.00	.375	TPGB2/TPGH2/TPGC2	**FG70CC2900**	Price
.563	8.00	.500	TPGB2/TPGH2/TPGC2	**FG70CC3000**	Price
.844	10.00	.750	TPGB3/TPGH3/TPGC3	**FG70CD4010**	Price
1.094	12.00	1.000	TPGB3/TPGH3/TPGC3	**FG70CD4110**	Price

EVEREDE TOOL COMPANY

CDCD Type Indexable Inserts



Grade - CS2 I.C. (in.) - 5/32 Thickness T (in.) - .040		
Radius R (in.)	Order No.	Price
.002	**FG71CDCD02CS2**	Price
.007	**FG71CDCD07CS2**	Price
.016	**FG71CDCD15CS2**	Price

Grade - CS6 I.C. (in.) - 5/32 Thickness T (in.) - .040		
Radius R (in.)	Order No.	Price
.002	**FG71CDCD02CS6**	Price
.007	**FG71CDCD07CS6**	Price
.016	**FG71CDCD15CS6**	Price

Grade - CVM2 I.C. (in.) - 5/32 Thickness T (in.) - .040		
Radius R (in.)	Order No.	Price
.002	**FG71CDCD02CVM2**	Price
.007	**FG71CDCD07CVM2**	Price
.016	**FG71CDCD15CVM2**	Price

Grade - TL120 I.C. (in.) - 5/32 Thickness T (in.) - .040		
Radius R (in.)	Order No.	Price
.002	**FG71CDCD02TL120**	Price
.007	**FG71CDCD07TL120**	Price
.016	**FG71CDCD15TL120**	Price

TDAB Type



Grade - CS2 I.C. (in.) - .160 Thickness T (in.) - .047		
Radius R (in.)	Order No.	Price
.002	**FG71TDAB02CS2**	Price
.007	**FG71TDAB07CS2**	Price
.016	**FG71TDAB15CS2**	Price
.031	**FG71TDAB31CS2**	Price

Grade - CS6 I.C. (in.) - .160 Thickness T (in.) - .047		
Radius R (in.)	Order No.	Price
.002	**FG71TDAB02CS6**	Price
.007	**FG71TDAB07CS6**	Price
.016	**FG71TDAB15CS6**	Price
.031	**FG71TDAB31CS6**	Price

Grade - CVM2 I.C. (in.) - .160 Thickness T (in.) - .047		
Radius R (in.)	Order No.	Price
.002	**FG71TDAB02CVM2**	Price
.007	**FG71TDAB07CVM2**	Price
.016	**FG71TDAB15CVM2**	Price
.031	**FG71TDAB31CVM2**	Price

Grade - TL120 I.C. (in.) - .160 Thickness T (in.) - .047		
Radius R (in.)	Order No.	Price
.002	**FG71TDAB02TL120**	Price
.007	**FG71TDAB07TL120**	Price
.016	**FG71TDAB15TL120**	Price

TPGH2 Type



Grade - CS2 I.C. (in.) - 1/4 Thickness T (in.) - .096		
Radius R (in.)	Order No.	Price
.002	**FG71TPGH202CS2**	Price
.007	**FG71TPGH207CS2**	Price
.016	**FG71TPGH215CS2**	Price
.031	**FG71TPGH231CS2**	Price

Grade - CS6 I.C. (in.) - 1/4 Thickness T (in.) - .096		
Radius R (in.)	Order No.	Price
.002	**FG71TPGH202CS6**	Price
.007	**FG71TPGH207CS6**	Price
.031	**FG71TPGH231CS6**	Price

Grade - CV6 I.C. (in.) - 1/4 Thickness T (in.) - .093		
Radius R (in.)	Order No.	Price
.016	**FG71TPGH215CV6**	Price

Grade - CVM2 I.C. (in.) - 1/4 Thickness T (in.) - .096		
Radius R (in.)	Order No.	Price
.007	**FG71TPGH207CVM2**	Price
.031	**FG71TPGH231CVM2**	Price

Grade - TL120 I.C. (in.) - 1/4 Thickness T (in.) - .094		
Radius R (in.)	Order No.	Price
.007	**FG7110073**	Price
.016	**FG7110074**	Price

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Replacement Parts – Torx Wrenches

Insert Style	Order No.	Price
TDAB/TDAC	**FG7019552**	Price
TPGB2/TPGH2/TPGC2	**FG7019553**	Price
WCGT-0xx	**FG7019551**	Price
WCGT-3xx	**FG7019555**	Price

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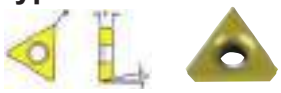
Replacement Parts – Screws

Insert Style	Order No.	Price
TDAB/TDAC	**FG7019503**	Price
TPGB2/TPGH2/TPGC2	**FG7019504**	Price
TPGB3/TPGH3/TPGC3	**FG7019507**	Price



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TPGB2 Type



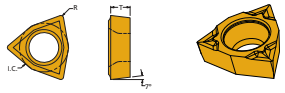
Grade - CS2 I.C. (in.) - 1/4 Thickness T (in.) - .096		
Radius R (in.)	Order No.	Price
.016	FG71TPGB215CS2	Price
.031	FG71TPGB231CS2	Price

Grade - CS6 I.C. (in.) - 1/4 Thickness T (in.) - .096		
Radius R (in.)	Order No.	Price
.016	FG71TPGB215CS6	Price
.031	FG71TPGB231CS6	Price

Grade - CVM2 I.C. (in.) - 1/4 Thickness T (in.) - .096		
Radius R (in.)	Order No.	Price
.016	FG71TPGB215CVM2	Price
.031	FG71TPGB231CVM2	Price

Grade - TL120 I.C. (in.) - 1/4 Thickness T (in.) - .094		
Radius R (in.)	Order No.	Price
.016	FG7110071	Price
.031	FG7110072	Price

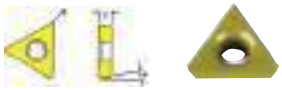
WCGT Type



Grade - CS2 I.C. (in.) - 1/4 Thickness T (in.) - .094		
Radius R (in.)	Order No.	Price
.008	FG71WCGT208CS2	Price
.016	FG71WCGT215CS2	Price

Grade - CS2 I.C. (in.) - 3/8 Thickness T (in.) - .156		
Radius R (in.)	Order No.	Price
.016	FG71WCGT315CS2	Price
.031	FG71WCGT331CS2	Price

TPGB3 Type



Grade - CS2 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGB315CS2	Price
.031	FG71TPGB331CS2	Price

Grade - CS6 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGB315CS6	Price
.031	FG71TPGB331CS6	Price

Grade - CVM2 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGB315CVM2	Price
.031	FG71TPGB331CVM2	Price

Grade - CS2 I.C. (in.) - 5/32 Thickness T (in.) - .062		
Radius R (in.)	Order No.	Price
.002	FG71WCGT002CS2	Price
.008	FG71WCGT008CS2	Price

Grade - TL120 I.C. (in.) - 0.187 Thickness T (in.) - .094		
Radius R (in.)	Order No.	Price
.008	FG7120010	Price

Grade - TL120 I.C. (in.) - 1/4 Thickness T (in.) - .094		
Radius R (in.)	Order No.	Price
.008	FG7110079	Price
.016	FG7110080	Price

TPGH3 Type



Grade - CS2 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGH315CS2	Price
.031	FG71TPGH331CS2	Price

Grade - CS6 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGH315CS6	Price
.031	FG71TPGH331CS6	Price

Grade - CV6 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGH315CV6	Price

Grade - CVM2 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG71TPGH315CVM2	Price
.031	FG71TPGH331CVM2	Price

Grade - TL120 I.C. (in.) - 3/8 Thickness T (in.) - .125		
Radius R (in.)	Order No.	Price
.016	FG7110075	Price
.031	FG7110076	Price

Grade - TL120 I.C. (in.) - 3/8 Thickness T (in.) - .156		
Radius R (in.)	Order No.	Price
.016	FG7110081	Price
.031	FG7110082	Price

Grade - TL120 I.C. (in.) - 5/32 Thickness T (in.) - .062		
Radius R (in.)	Order No.	Price
.002	FG7110077	Price
.008	FG7110078	Price

Grade Selection

CVM2 — Gold coated CM-2. Recommended applications are machining and finishing steel at high speeds. Can be used on some steels and alloys heat treated up to 60 RC. Extremely high wear resistance.

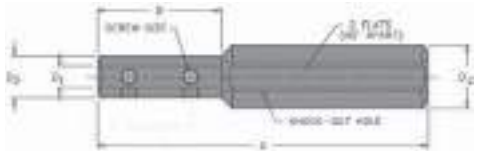
CS2 — General purpose machining, cast iron, high temperature alloys and non-ferrous materials. Excellent wear resistance.

CS6 — General purpose milling, turning and boring for light cuts at high cutting speeds on steels and alloyed irons.

EVEREDGE TOOL COMPANY

Boring Bar Sleeves

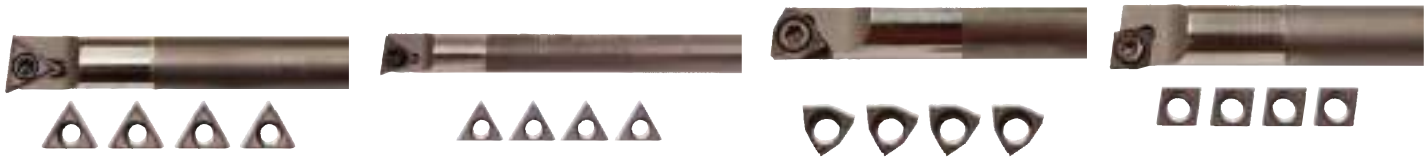
Bar Dia. (in.)	Shank Dia. (in.)	Bar Depth (in.)	OAL (in.)	Order No.	Price
1/8	3/8	3/4	4	FG7010001	Price
1/8	1/2	3/4	4	FG7010002	Price
1/8	5/8	3/4	4	FG7010003	Price
1/8	3/4	3/4	5	FG7010004	Price
1/8	1	3/4	6	FG7010000	Price
5/32	3/8	3/4	4	FG7010008	Price
5/32	1/2	3/4	4	FG7010009	Price
5/32	5/8	3/4	4	FG7010010	Price
5/32	3/4	3/4	5	FG7010011	Price
5/32	1	3/4	6	FG7010005	Price
5/32	1-1/4	3/4	8	FG7010006	Price
3/16	3/8	3/4	4	FG7010015	Price
3/16	1/2	3/4	4	FG7010016	Price
3/16	5/8	3/4	4	FG7010017	Price
3/16	3/4	3/4	5	FG7010018	Price
3/16	1	3/4	6	FG7010012	Price
3/16	1-1/4	3/4	8	FG7010013	Price
3/16	1-1/2	3/4	8	FG7010014	Price
1/4	1/2	1	4	FG7010022	Price
1/4	5/8	1	4	FG7010023	Price
1/4	3/4	1	5	FG7010024	Price
1/4	1	1	6	FG7010019	Price
1/4	1-1/4	1	8	FG7010020	Price
1/4	1-1/2	1	8	FG7010021	Price
5/16	5/8	1-1/4	4	FG7010028	Price



Bar Dia. (in.)	Shank Dia. (in.)	Bar Depth (in.)	OAL (in.)	Order No.	Price
5/16	3/4	1-1/4	5	FG7010029	Price
5/16	1	1-1/4	6	FG7010025	Price
5/16	1-1/4	1-1/4	8	FG7010026	Price
5/16	1-1/2	1-1/4	8	FG7010027	Price
3/8	5/8	1-1/2	4	FG7010033	Price
3/8	3/4	1-1/2	5	FG7010034	Price
3/8	1	1-1/2	6	FG7010030	Price
3/8	1-1/4	1-1/2	8	FG7010031	Price
3/8	1-1/2	1-1/2	8	FG7010032	Price
1/2	3/4	2	5	FG7010038	Price
1/2	1	2	6	FG7010035	Price
1/2	1-1/4	2	8	FG7010036	Price
1/2	1-1/2	2	8	FG7010037	Price
5/8	1-1/4	2	8	FG7010039	Price
5/8	1-1/2	2	8	FG7010040	Price
3/4	1-1/4	2-1/2	8	FG7010041	Price
3/4	1-1/2	2-1/2	8	FG7010042	Price

Boring Bar Kits

- TL120 Grade is suitable for multiple industries, broad range of material groups and wide range of applications



Model No.	Holder	Shank Dia. (in.)	OAL (in.)	Min. Bore Dia.	Set Includes	Order No.	Price
CB1900/TL120 KIT	CB1900	3/16	4	.270	(1) carbide bar, (5) TDAB-07-TL120 inserts, (1) insert wrench	**FG70BBKIT1**	Price
CB2200/TL120 KIT	CV2200	1/4	4	.300	(1) carbide bar, (5) TDAB-07-TL120 inserts, (1) insert wrench	**FG70BBKIT2**	Price
CB2300/TL120 KIT	CB2300	5/16	4	.360	(1) carbide bar, (5) TDAB-07-TL120 inserts, (1) insert wrench	**FG70BBKIT3**	Price
CB2900/TL120 KIT	CC2900	3/8	6	.438	(1) carbide bar, (5) TPGH-215-TL120, (1) insert wrench	**FG70BBKIT4**	Price
CB3000/TL120 KIT	CC3000	1/2	8	.563	(1) carbide bar, (5) TPGH-215-TL120, (1) insert wrench	**FG70BBKIT5**	Price
CA1205/TL120 KIT	CA1205	3/16	4	.208	(1) carbide bar, (5) CDCH-07-TL120 inserts, (1) wrench	**FG70BBKIT6**	Price
CA1300/TL120 KIT	CA1300	1/4	4	.290	(1) carbide bar, (5) CDCH-07-TL120 inserts, (1) wrench	**FG70BBKIT7**	Price
CA1330/TL120 KIT	CA1330	5/16	6	.356	(1) carbide bar, (5) CDCH-07-TL120 inserts, (1) wrench	**FG70BBKIT8**	Price
CE5215/TL120 KIT	CE5215	3/16	4	.230	(1) carbide bar with flat, (5) WCGT-008-TL120 inserts, (1) wrench	**FG70BBKIT9**	Price
CE5300/TL120 KIT	CE5300	1/4	4	.290	(1) carbide bar with flat, (5) WCGT-008-TL120 inserts, (1) wrench	**FG70BBKIT10**	Price
CF6300/TL120 KIT	CF6300	5/16	4	.360	(1) carbide bar with flat, (5) WCGT-108-TL120 inserts, (1) wrench	**FG70BBKIT11**	Price

Engraving Tool

- High positive rake angle
- High speeds, high feed rates - -up to 20,000 RPM
- Economical with each insert having two cutting edges with excellent repeatability



Angle	Holder	Inserts	Shank (in.)	Length (in.)	Order No.	Price
45°	99619-V045-06	V04506T1W06-NC2071	.236	1.575	**FG7010068**	Price
60°	99619-V060-06	V06006T1W06-NC2071	.236	1.575	**FG7010069**	Price

Spotting Drills

- One tool will perform multiple applications
- Each insert has two or four cutting edges
- Great for spotting, chamfering, grooving and engraving applications



Angle - 82°						
Shank (in.)	Length (in.)	Angle	Holder	Inserts	Order No.	Price
3/8	3.5	82°	99619-V082-3/8	V0820802-NC2071	**FG7010060†**	Price
5/8	4	82°	99619-V082-5/8	V08212T3-NC2071	**FG7010061**	Price

Angle - 90°						
Shank (in.)	Length (in.)	Angle	Holder	Inserts	Order No.	Price
1/4	1.378	90°	99616-04-1/4	N9MT05T1CT-NC2071	**FG7010062**	Price
3/8	3.543	90°	99616-3/8	N9MT080204CT-NC40	**FG7010063**	Price
5/8	4	90°	99616-14-5/8	N9MT11T3CT-NC40	**FG7010064**	Price
1	6	90°	99616-22-1	N9MT1704CT-NC2071	**FG7010065**	Price

Angle - 142°						
Shank (in.)	Length (in.)	Angle	Holder	Inserts	Order No.	Price
5/8	4	142°	99619-V142-5/8	V1420803-NC2071	**FG7010066‡**	Price
1	4.75	142°	99619-V142-1.000	V1421604-NC2071	**FG7010067‡**	Price

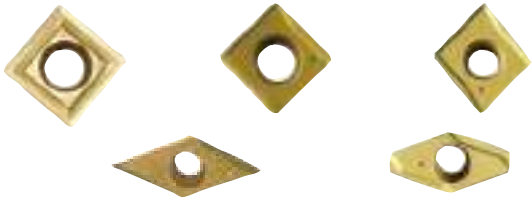
† For spotting, chamfering, grooving & engraving ‡ For spotting

Spot Drill and Engraving Inserts

Grade Selection

NC40 – TiN coated universal insert for carbon steel, alloy steel and cast iron applications

NC2071 – TiN coated high positive geometry, fully ground edge and relief angle. Universal grade for most all materials.



IC (in.)	Thickness T (in.)	Radius R (in.)	Insert Description	Grade	Order No.	Price
.196	.071	.016	N9MT05T1CT	NC2071	**FG7120002**	Price
.236	.079	.008	V04506T1W06	NC2071	**FG7120008**	Price
.236	.079	.008	V06006T1W06	NC2071	**FG7120009**	Price
.312	.094	.031	N9MT080208CT	NC40	**FG7120003**	Price
.315	.094	.016	V0820802	NC2071	**FG7120000**	Price

IC (in.)	Thickness T (in.)	Radius R (in.)	Insert Description	Grade	Order No.	Price
.315	.094	.031	V1420803	NC2071	**FG7120006**	Price
.433	.156	.031	N9MT11T3CT	NC40	**FG7120004**	Price
.472	.156	.031	V08212T3	NC2071	**FG7120001**	Price
.630	.187	.047	V1421604	NC2071	**FG7120007**	Price
.669	.187	.047	N9MT1704CT	NC2071	**FG7120005**	Price

RAPIDKUT Indexable Positive Rake Countersinks

45 and 60 Degree

- Takes TCMT style inserts



Pt. Angle - 60°						
D. min.	Shank Dia. (in.)	OAL (in.)	Number of Inserts	Uses Insert	Order No.	Price
.212	.500	3	1	TCMT21.5_	**ME1480160**	Price
.567	.625	3	2	TCMT21.5_	**ME1480165**	Price
.669	1.00	4	2	TCMT32.5_	**ME1480170**	Price

Pt. Angle - 82°						
D. min.	Shank Dia. (in.)	OAL (in.)	Number of Inserts	Uses Insert	Order No.	Price
.109	.500	3	1	TCMT21.5_	**ME1480175**	Price
.435	.625	3	2	TCMT21.5_	**ME1480180**	Price
.609	1.00	4	2	TCMT32.5_	**ME1480185**	Price

Pt. Angle - 90°						
D. min.	Shank Dia. (in.)	OAL (in.)	Number of Inserts	Uses Insert	Order No.	Price
.047	.500	3	1	TCMT21.5_	**ME1480145**	Price
.244	.625	3	2	TCMT21.5_	**ME1480150**	Price
.409	1.00	4	2	TCMT32.5_	**ME1480155**	Price

RAPIDKUT Indexable Countersink Sets with Inserts

New!

Each set includes

- (1) Of each of the countersinks for that angle (3 total)
- (10) Of each TCMT 21.31 & TCMT 32.52 C5 inserts included in each set
- Handy, durable storage box



Angle	Order No.	Price
60°	**ME2120150**	Price
82°	**ME2120200**	Price
90°	**ME2120100**	Price

Indexable Countersink and Chamfering Tools

- Positive rake for smooth cutting without chatter
- Supplied with C6 (steel cutting) insert
- Uses inserts DG50 series only



Point Angle - 60°					
Cutter Body Min. (in.)	Cutter Body Max. (in.)	Shank Size (in.)	Use Insert No.	Order No.	Price
1/4	3/4	1/2	TPGH321	**DG50CC160**	Price
1/2	1-3/4	1/2	SPGH433	**DG50CC260**	Price
1-1/4	2-1/2	3/4	SPGH433	**DG50CC360**	Price

Point Angle - 82°					
Cutter Body Min. (in.)	Cutter Body Max. (in.)	Shank Size (in.)	Use Insert No.	Order No.	Price
1/4	3/4	1/2	TPGH321	**DG50CC182**	Price
1/2	1-3/4	1/2	SPGH433	**DG50CC282**	Price
1-1/4	2-1/2	3/4	SPGH433	**DG50CC382**	Price

Point Angle - 90°					
Cutter Body Min. (in.)	Cutter Body Max. (in.)	Shank Size (in.)	Use Insert No.	Order No.	Price
1/4	3/4	1/2	TPGH321	**DG50CC190**	Price
1/2	1-3/4	1/2	SPGH433	**DG50CC290**	Price
1-1/4	2-1/2	3/4	SPGH433	**DG50CC390**	Price

3 Pc. Indexable Countersink & Chamfering Sets

- Contains 1 of each: 1/4", 1/2" and 1-1/4" (min.)
- Inserts included with each set
- Supplied in wood block



Point Angle	Order No.	Price
60°	**DG50CCS60**	Price
82°	**DG50CCS82**	Price
90°	**DG50CCS90**	Price

EVEREDGE TOOL COMPANY Indexable Countersinks

- Precision ground shanks for true concentricity
- Inserts are above center for better cutting action
- Inserts sold separately



Model Number	Body Size (in.)	Shank Dia. (in.)	Min. Cut Dia.	Max Cut Dia.	Included Angle	Uses Insert	Order No.	Price
IND-16-8-125	5/8	3/8	.125	.583	82°	TPGH 215	**FG7001286**	Price
IND-16-9-125	5/8	3/8	.125	.621	90°	TPGH 215	**FG7001287**	Price
IND-17-8-250	3/4	1/2	.250	.708	82°	TPGH 215	**FG7001290**	Price
IND-17-9-250	3/4	1/2	.250	.844	90°	TPGH 215	**FG7201291**	Price
IND-18-8-375	7/8	1/2	.375	.833	82°	TPGH 215	**FG7001296**	Price
IND-18-9-375	7/8	1/2	.375	.871	90°	TPGH 215	**FG7001297**	Price

EVEREDGE TOOL COMPANY Indexable Countersink Kits

- TL120 grade is TiAlN coated, general purpose grade suitable for steel, stainless steel, cast iron, and hi-temp alloy applications
- Precision ground shanks for true concentricity
- Inserts are above center for better cutting action
- Each kit includes (1) holder, (5) TPGH-215-TL120 inserts, (1) wrench



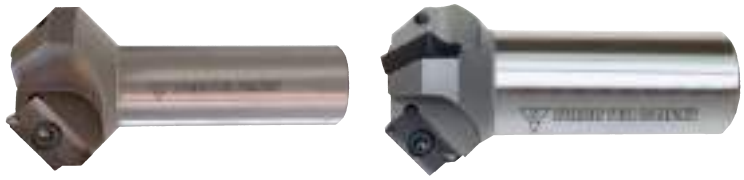


Included Angle - 82°						
Model No.	Holder	Included Angle	Shank Dia. (in.)	Chamfer Length	Order No.	Price
IND-16-8-125/TL120 KIT	IND-16-8-125	82°	3/8	.125-.583	**FG70BBKIT12**	Price
IND-17-8-250/TL120 KIT	IND-17-8-250	82°	1/2	.250-.708	**FG70BBKIT13**	Price
IND-18-8-375/TL120 KIT	IND-18-8-375	82°	1/2	.375-.833	**FG70BBKIT14**	Price

Included Angle - 90°						
Model No.	Holder	Included Angle	Shank Dia. (in.)	Chamfer Length	Order No.	Price
IND-16-9-125/TL120 KIT	IND-16-9-125	90°	3/8	.125-.621	**FG70BBKIT15**	Price
IND-17-9-250/TL120 KIT	IND-17-9-250	90°	1/2	.250-.746	**FG70BBKIT16**	Price
IND-18-9-375/TL120 KIT	IND-18-9-375	90°	1/2	.375-.871	**FG70BBKIT17**	Price

Chamfer Mills

- Can be used for countersinking, chamfer milling and face milling
- Extra length of cut can be achieved when using a parallelogram insert
- Inserts sold separately



Model No.	Shank Size	Minimum Cut	Maximum Cut	Included Angle	Uses Insert	No. of Inserts Required	Order No.	Price
CHM-688-41	3/4	.688	1.414	82°	APLT 347	2	**FG7001268**	Price
CHM-688-45	3/4	.688	1.471	90°	APLT 347	2	**FG7001269**	Price
CHM-750-30	3/4	.750	1.303	60°	APLT 347	2	**FG7001270**	Price
CHM-938-41	1	.938	1.664	82°	APLT 347	3	**FG7001272**	Price
CHM-938-45	1	.938	1.721	90°	APLT 347	3	**FG7001273**	Price
CHM-1.000-30	1	1.000	1.553	60°	APLT 347	3	**FG7001258**	Price

Chamfer Mill Kits

- TL120 grade is TiAlN coated, general purpose grade suitable for steel, stainless steel, cast iron, and hi-temp alloy applications
- Can be used for countersinking, chamfer milling and face milling
- Extra length of cut can be achieved when using a parallelogram insert



Model No.	Holder	Included Angle	Shank Dia. (in.)	Chamfer Length	Set Includes	Order No.	Price
CHM-688-41/TL120 KIT	CHM-688-41	82°	3/4	.688-1.414	(1) holder, (6) APLT-347-TL120 inserts, (1) wrench	**FG70BBKIT19**	Price
CHM-688-45/TL120 KIT	CHM-688-45	90°	3/4	.688-1.471	(1) holder, (6) APLT-347-TL120 inserts, (1) wrench	**FG70BBKIT20**	Price
CHM-750-30/ TL120 KIT	CHM-750-30	60°	3/4	.750-1.303	(1) holder, (6) APLT-347-TL120 inserts, (1) wrench	**FG70BBKIT18**	Price
CHM-938-41/TL120 KIT	CHM-938-41	82°	1	.938-1.664	(1) holder, (6) APLT-347-TL120 inserts, (1) wrench	**FG70BBKIT22**	Price
CHM-938-45/TL120 KIT	CHM-938-45	90°	1	.938-1.721	(1) holder, (6) APLT-347-TL120 inserts, (1) wrench	**FG70BBKIT23**	Price
CHM-1.000-30/TL120 KIT	CHM-1.000-30	60°	1	1.000-1.553	(1) holder, (6) APLT-347-TL120 inserts, (1) wrench	**FG70BBKIT21**	Price

Chamfer Mills

- Can be used for countersinking, chamfer milling and face milling
- Extra length of cut can be achieved when using a parallelogram insert
- Inserts sold separately



Model No.	Min. Dia.	Max. Dia.	Shank Size	OAL	Uses Insert	Number of Inserts	Order No.	Price
99616-C10	.276	.433	.394	2.362	N9GX04T002	2	**FG7020388**	Price
99616-C20	.433	.630	.472	3.937	N9GX04T002	4	**FG7220391**	Price
99616-C30	.590	.827	.630	4.724	N9GX060204	4	**FG7220392**	Price
99616-C40	.748	.984	.787	5.118	N9GX060204	4	**FG7020395**	Price
99616-C50	.866	1.260	.787	5.118	N9GX090308	4	**FG7020396**	Price

Inserts

Model Number	Grade	Order No.	Price
APLT 347	CS2	**FG7104003**	Price
APLT 347	CV6	**FG7104000**	Price
APLT 347	TL120	**FG70APLT347TL12**	Price
N9GX04T002	NC9071	**FG7220081**	Price
N9GX04T002	NC2032	**FG7120080**	Price
N9GX060204	NC2032	**FG7120082**	Price
N9GX060204	NC9071	**FG7220083**	Price
N9GX090308	NC2032	**FG7120084**	Price
N9GX090308	NC9071	**FG7120085**	Price
TPGH 21.51	TL120	**FG7110074**	Price

Grade Selection

CS2 Fine grain K20 roughing/semi-finish grade for non-ferrous applications.

CS6 Multi-layer CVD TiN/TiC/TiCN/P30 (gold) coating. General purpose steel cutting grade with minimum hone. Works well in low to medium heat applications and at low to medium speeds and feeds.

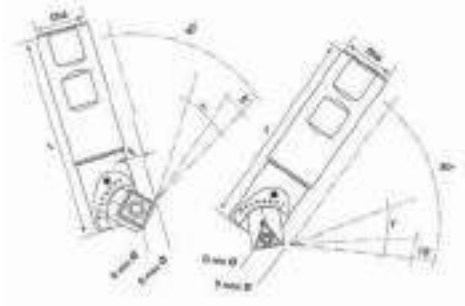
NC2032 K20F Grade, AlTiN coated. First choice for high carbon, high alloy and hardened steels as well as cast iron.

NC9071 K20F Grade, TiN coated. High positive rake angle and honed sharp edge. The best choice for low carbon steel, low carbon alloy steel, stainless steel, Al, Al-alloy, brass, bronze and most non-ferrous metal.

TL120 Multi-layer PVD TiAlN/K30 (black) coating. For tool steel 400/500 & PH series stainless, gray nodular cast iron and high-temp/high strength alloys in high heat applications at higher speeds. Works best in dry machining applications.

Niko Fleximill Countersink & Chamfering Tool 10° and 80°

Each tool comes with two pockets for & triangle inserts





Shank Size (in.)	Order No.	Price
3/4	**FG40330W2750**	Price
1	**FG40340W2100**	Price

Inserts sold separately. Industry standard.

NIKO Fleximill

Countersink & Chamfering Tool 10° to 80°

Square Pocket

D h6	L	Y	D. min. Ø	D. max. Ø				
1.000" / .750"	4"	10°	.292"	1.170"	S 12A	SCMT 43...	VT 50	T 20
		20°	.390"	1.248"				
		30°	.570"	1.267"				
		40°	.643"	1.306"				
		45°	.682"	1.306"				
		50°	.741"	1.306"				
		60°	.858"	1.306"				
		70°	.955"	1.306"				
		80°	1.053"	1.209"				

See page B12 for SCMT inserts

Triangle Pocket

D h6	L	Y	D. min.	D. max.				
1.000" / .750"	4"	10°	.195"	1.248"	S 16A	TCMT 3-2	VT 40	T 15
		20°	.234"	1.287"				
		30°	.273"	1.326"				
		40°	.390"	1.287"				
		45°	.429"	1.287"				
		50°	.507"	1.248"				
		60°	.624"	1.209"				
		70°	.741"	1.131"				
		80°	.897"	1.053"				

See page B14 for TCMT inserts

Parts for Fleximill

Type	Order No.	Price
Pocket for Square Flexmill	**FG40S12A**	Price
Pocket for Triangle Flexmill	**FG40S16A**	Price
3/4 Swing Plate	**FG40S11**	Price
1" Swing Plate	**FG40S16**	Price
3/4" Plate Screw	**FG401005**	Price
1" Plate Screw	**FG401006**	Price
Metric Hex Key	**KN60040**	Price
VT25 Screw	**FG40VT25**	Price
VT40 Screw	**FG40VT40**	Price
VT40A Insert Screw	**FG40VT40A**	Price
VT50 Insert Screw	**FG40VT50**	Price

Fleximill-Single Pocket

- Uses standard TCMT inserts (inserts sold separately)
- Capable of cutting angles from 10 to 80° with a simple twist of a torx key





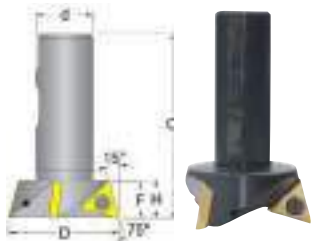
Dia. (in.)	Length L (in.)	Pt. Angle Y (in.)	D. min. ø	D. max. ø	Swing Plate	Insert	Torx Key	Screw	Order No.	Price
.750	4.00	10°-80°	ø.200	ø1.000	S11	TCMT2-1	T-8 / T-20	VT25	**FG40330W750**	Price
1.000	4.00	10°-80°	ø.200	ø1.250	S16	TCMT3-1	T-15 / 4mm	VT40A	**FG40340W100**	Price

See page B14 for TCMT inserts

15° Dovetail Cutter

Cutting Rake - 15° for 15° Positive TDEX Inserts

Description	C (in.)	D (in.)	Shank Size (in.)	F (in.)	H (in.)	Insert Qty.	Insert Style	Insert Torx Screw	Insert Torx Key	Order No.	Price
D15X-050-TD11-037	2.420	.5000	.375	.359	.420	1	TDEX 1102	TS25456M1/M2	T7	**FL4565225**	Price
D15X-100-TD11-050	2.420	1.0000	.500	.359	.420	3	TDEX 1102	TS25456M1/M2	T7	**FL4565226**	Price
D15X-187-TD16-075	3.200	1.8750	.750	.550	.750	3	TDEX 1603	TS478M1	T15	**FL4565227**	Price
D15X-250-TD22-100	3.750	2.5000	1.000	.750	1.000	3	TDEX 2204	TS5810M1	T20	**FL4565228**	Price



45° Dovetail Cutter

Cutting Rake - 11° for 11° Positive TDEX Inserts

Description	C (in.)	D (in.)	Shank Size (in.)	F (in.)	H (in.)	Insert Qty.	Insert Style	Insert Torx Screw	Insert Torx Key	Order No.	Price
D45X-050-TD09-037	2.390	.5000	.375	.247	.125	1	TDEX 0902	TS25456M1/M2	T7	**FL4565233**	Price
D45X-075-TD09-037	2.390	.7500	.375	.247	.214	2	TDEX 0902	TS25456M1/M2	T7	**FL4565234**	Price
D45X-100-TD09-050	2.390	1.0000	.500	.250	.244	3	TDEX 0902	TS25456M1/M2	T7	**FL4565235**	Price
D45X-137-TD17-062	2.940	1.3750	.625	.375	.320	2	TDEX 17T3	TS478M1	T15	**FL4565236**	Price
D45X-187-TD17-075	2.940	1.8750	.750	.468	.444	3	TDEX 17T3	TS478M1	T15	**FL4565237**	Price
D45X-225-TD25-100	3.500	2.2500	1.000	.700	.696	2	TDEX 2504	TS5810M1	T20	**FL4565238**	Price
D45X-250-TD25-100	3.500	2.5000	1.000	.700	.700	3	TDEX 2504	TS5810M1	T20	**FL4565239**	Price



Double 45° Chamfer Mill

Cutting Rake - 15° for 15° Positive Square SDHW & SPHX Inserts

Description	C (in.)	D1 (in.)	Shank Size (in.)	F (in.)	H (in.)	Insert Qty.	Insert Style	Insert Torx Screw	Insert Torx Key	Order No.	Price
C45-062-SP06-062	3.000	.6250	.625	.159	.750	1	SPMT 060304	TS25456M1/M2	T7	**FL4565410**	Price
C45-075-SP06-062	3.000	.7500	.625	.159	.750	2	SPMT 060304	TS25456M1/M2	T7	**FL4565411**	Price
C45-112-SD09-075	3.375	1.1250	.750	.230	.750	2	SDHW 090308	TS478M1	T15	**FL4565414**	Price
C45-125-SD09-075	3.375	1.2500	.750	.230	.750	2	SDHW 090308	TS478M1	T15	**FL4565416**	Price
C45-150-SD09-100	3.500	1.5000	1.000	.230	1.000	3	SDHW 090308	TS478M1	T15	**FL4565418**	Price
C45XL-112-SD09-075	7.750	1.1250	.750	.230	.750	2	SDHW 090308	TS478M1	T15	**FL4565420**	Price
C45XL-150-SD09-100	7.750	1.5000	1.000	.230	1.000	3	SDHW 090308	TS478M1	T15	**FL4565421**	Price



60° Dovetail Cutter

Cutting Rake - 15° for 15° Positive Triangle TDEX Inserts

Description	C (in.)	D (in.)	Shank Size (in.)	F (in.)	H (in.)	Insert Qty.	Insert Style	Insert Torx Screw	Insert Torx Key	Order No.	Price
D60X-050-TD11-037	2.390	.5000	.375	.325	.142	1	TDEX 1102	TS25456M1/M2	T7	**FL4565244**	Price
D60X-075-TD11-037	2.390	.7500	.375	.325	.282	2	TDEX 1102	TS25456M1/M2	T7	**FL4565245**	Price
D60X-100-TD11-050	2.390	1.0000	.500	.325	.375	3	TDEX 1102	TS25456M1/M2	T7	**FL4565246**	Price
D60X-137-TD16-062	2.862	1.3750	.625	.510	.550	3	TDEX 1603	TS478M1	T15	**FL4565247**	Price
D60X-187-TD16-075	3.000	1.8750	.750	.510	.550	3	TDEX 1603	TS478M1	T15	**FL4565248**	Price
D60X-225-TD22-100	3.500	2.2500	1.000	.700	.750	3	TDEX 2204	TS5810M1	T20	**FL4565249**	Price
D60X-250-TD22-100	3.500	2.5000	1.000	.700	.750	3	TDEX 2204	TS5810M1	T20	**FL4565250**	Price



Inserts

DASK25B

C2 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of non-ferrous metals such as aluminum, copper, brass, and bronze, high temp alloys, 300-series stainless steels and cast iron with medium to high SFM.



DASP35B/DUP30M

C5 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

Insert Style	Corner Radius (in.)	Grade	Order No.	Price
SDHW 090308-EN	.030	DASK25B	**FL4594998**	Price
SDHW 090308-EN	.030	DASP35B	**FL4595002**	Price
SPMT 060304-EN	.015	DUP30M	**FL3195051**	Price
TDEX 090202-EN	.008	DASK25B	**FL4595492**	Price
TDEX 090202-EN	.008	DASP35B	**FL4595495**	Price
TDEX 090204-EN	.015	DASK25B	**FL4595502**	Price
TDEX 090204-EN	.015	DASP35B	**FL4595505**	Price
TDEX 110204-EN	.015	DASK25B	**FL4595422**	Price

Insert Style	Corner Radius (in.)	Grade	Order No.	Price
TDEX 110204-EN	.015	DASP35B	**FL4595426**	Price
TDEX 110208-EN	.030	DASK25B	**FL4595432**	Price
TDEX 110208-EN	.030	DASP35B	**FL4595436**	Price
TDEX 160304-EN	.015	DASK25B	**FL4595442**	Price
TDEX 160304-EN	.015	DASP35B	**FL4595446**	Price
TDEX 160308-EN	.030	DASK25B	**FL4595452**	Price
TDEX 160308-EN	.030	DASP35B	**FL4595456**	Price
TDEX 17T304-EN	.015	DASK25B	**FL4595512**	Price
TDEX 17T304-EN	.015	DASP35B	**FL4595515**	Price
TDEX 17T308-EN	.030	DASK25B	**FL4595522**	Price
TDEX 17T308-EN	.030	DASP35B	**FL4595525**	Price
TDEX 220404-EN	.015	DASK25B	**FL4595462**	Price
TDEX 220404-EN	.015	DASP35B	**FL4595466**	Price
TDEX 220408-EN	.030	DASP35B	**FL4595476**	Price
TDEX 250404-EN	.015	DASK25B	**FL4595532**	Price
TDEX 250404-EN	.015	DASP35B	**FL4595535**	Price
TDEX 250408-EN	.030	DASK25B	**FL4595542**	Price
TDEX 250408-EN	.030	DASP35B	**FL4595545**	Price

ULTRA-DEX Indexable Drills

2xD, 2.5xD, and 4xD

- 80° Trigon inserts offer 3 cutting edges
- Coolant-thru access on bottom of shank and the side of the drill body
- Spiral flutes to improve chip evacuation
- Insert pockets precisely positioned to keep cutting forces low and evenly distributed
- ION nitride coating available for tough applications
- Proudly made in the USA



Diameter Range	Uses Insert
.437 - .500	WCMT 1.211
.531 - .593	WCMT 1.51.51
.625 - .719	WCMX 1.81.52
.750 - .968	WCMX 21.52
1.000 - 1.219	WCMX 2.522
1.250 - 1.687	WCMX 32.52
1.750 - 2.375	WCMX 433

Type - 2xD

Model No.	Cutting Dia. D (in.)	Shank Dia. d (in.)	Head Dia. d1 (in.)	Head Lgth. L2 (in.)	Order No.	Price
UD-0625-2D-063	.625	.625	.987	1.375	**FG5530000**	Price
UD-0656-2D-063	.656	.625	.987	1.406	**FG5530005**	Price
UD-0687-2D-063	.687	.625	.987	1.437	**FG5530010**	Price
UD-0719-2D-063	.719	.625	.987	1.467	**FG5530020**	Price
UD-0750-2D-075	.750	.750	1.220	1.748	**FG5530025**	Price
UD-0781-2D-075	.781	.750	1.220	1.780	**FG5530030**	Price
UD-0812-2D-075	.812	.750	1.220	1.811	**FG5530035**	Price
UD-0844-2D-075	.844	.750	1.220	1.850	**FG5530040**	Price
UD-0875-2D-075	.875	.750	1.220	1.874	**FG5530045**	Price
UD-0906-2D-075	.906	.750	1.220	1.910	**FG5530050**	Price
UD-0937-2D-075	.937	.750	1.220	1.935	**FG5530055**	Price
UD-0968-2D-075	.968	.750	1.220	1.970	**FG5530060**	Price
UD-1000-2D-100	1.000	1.000	1.450	2.345	**FG5530065**	Price
UD-1031-2D-100	1.031	1.000	1.450	2.375	**FG5530070**	Price
UD-1062-2D-100	1.062	1.000	1.450	2.406	**FG5530075**	Price
UD-1094-2D-100	1.094	1.000	1.450	2.438	**FG5530080**	Price
UD-1125-2D-100	1.125	1.000	1.450	2.469	**FG5530085**	Price
UD-1156-2D-100	1.156	1.000	1.450	2.500	**FG5530090**	Price
UD-1187-2D-100	1.187	1.000	1.450	2.532	**FG5530095**	Price
UD-1219-2D-100	1.219	1.000	1.450	2.564	**FG5530100**	Price
UD-1250-2D-125	1.250	1.250	1.730	2.710	**FG5530105**	Price
UD-1312-2D-125	1.312	1.250	1.730	2.771	**FG5530110**	Price
UD-1343-2D-125	1.343	1.250	1.730	2.802	**FG5530115**	Price
UD-1375-2D-125	1.375	1.250	1.730	2.833	**FG5530120**	Price
UD-1437-2D-125	1.437	1.250	1.730	2.896	**FG5530125**	Price
UD-1500-2D-125	1.500	1.250	1.970	3.250	**FG5530130**	Price
UD-1562-2D-125	1.562	1.250	1.970	3.312	**FG5530135**	Price
UD-1625-2D-125	1.625	1.250	1.970	3.375	**FG5530140**	Price
UD-1687-2D-125	1.687	1.250	1.970	3.437	**FG5530145**	Price
UD-1750-2D-150	1.750	1.500	2.220	3.850	**FG553282**	Price
UD-1812-2D-150	1.812	1.500	2.220	3.912	**FG553284**	Price
UD-1875-2D-150	1.875	1.500	2.220	3.975	**FG553286**	Price
UD-1937-2D-150	1.937	1.500	2.220	4.036	**FG553288**	Price
UD-2000-2D-150	2.000	1.500	2.470	4.469	**FG553290**	Price
UD-2125-2D-150	2.125	1.500	2.470	4.593	**FG553292**	Price
UD-2250-2D-150	2.250	1.500	2.470	4.717	**FG553294**	Price
UD-2375-2D-150	2.375	1.500	2.470	4.840	**FG553296**	Price

Type - 4xD

Model No.	Cutting Dia. D (in.)	Shank Dia. d (in.)	Head Dia. d1 (in.)	Head Lgth. L2 (in.)	Order No.	Price
UD-0625-4D-063	.625	.625	.987	2.815	**FG5530150**	Price
UD-0656-4D-063	.656	.625	.987	2.847	**FG5530155**	Price
UD-0687-4D-063	.687	.625	.987	2.878	**FG5530160**	Price
UD-0719-4D-063	.719	.625	.987	2.911	**FG5530165**	Price
UD-0750-4D-075	.750	.750	1.220	3.698	**FG5530170**	Price
UD-0781-4D-075	.781	.750	1.220	3.729	**FG5530175**	Price
UD-0812-4D-075	.812	.750	1.220	3.761	**FG5530180**	Price
UD-0844-4D-075	.844	.750	1.220	3.792	**FG5530185**	Price
UD-0875-4D-075	.875	.750	1.220	3.824	**FG5530190**	Price
UD-0906-4D-075	.906	.750	1.220	3.855	**FG5530195**	Price
UD-0937-4D-075	.937	.750	1.220	3.855	**FG5530200**	Price
UD-0968-4D-075	.968	.750	1.220	3.918	**FG5530205**	Price
UD-1000-4D-100	1.000	1.000	1.450	4.635	**FG5530210**	Price
UD-1031-4D-100	1.031	1.000	1.450	4.666	**FG5530215**	Price
UD-1062-4D-100	1.062	1.000	1.450	4.696	**FG5530220**	Price
UD-1094-4D-100	1.094	1.000	1.450	4.728	**FG5530225**	Price
UD-1125-4D-100	1.125	1.000	1.450	4.760	**FG5530230**	Price
UD-1156-4D-100	1.156	1.000	1.450	4.792	**FG5530235**	Price
UD-1187-4D-100	1.187	1.000	1.450	4.822	**FG5530240**	Price
UD-1219-4D-100	1.219	1.000	1.450	4.864	**FG5530245**	Price
UD-1250-4D-125	1.250	1.250	1.730	5.585	**FG5530250**	Price
UD-1312-4D-125	1.312	1.250	1.730	5.646	**FG5530255**	Price
UD-1375-4D-125	1.375	1.250	1.730	5.708	**FG5530260**	Price
UD-1437-4D-125	1.437	1.250	1.730	5.771	**FG5530265**	Price
UD-1500-4D-125	1.500	1.250	1.970	6.632	**FG5530270**	Price
UD-1562-4D-125	1.562	1.250	1.970	6.695	**FG5530275**	Price
UD-1625-4D-125	1.625	1.250	1.970	6.757	**FG5530280**	Price
UD-1687-4D-125	1.687	1.250	1.970	6.820	**FG5530285**	Price
UD-1750-4D-150	1.750	1.500	2.220	7.724	**FG553298**	Price
UD-1812-4D-150	1.812	1.500	2.220	7.786	**FG553300**	Price
UD-1875-4D-150	1.875	1.500	2.220	7.849	**FG553302**	Price
UD-1937-4D-150	1.937	1.500	2.220	7.911	**FG553304**	Price
UD-2000-4D-150	2.000	1.500	2.470	9.263	**FG553306**	Price
UD-2125-4D-150	2.125	1.500	2.470	9.387	**FG553308**	Price
UD-2250-4D-150	2.250	1.500	2.470	9.512	**FG553310**	Price
UD-2375-4D-150	2.375	1.500	2.470	9.637	**FG553312**	Price

Type - 2.5xD

Model No.	Cutting Dia. D (in.)	Shank Dia. d (in.)	Head Dia. d1 (in.)	Head Lgth. L2 (in.)	Order No.	Price
UD-0437-2D-063	.437	.625	.970	1.280	**FG553270**	Price
UD-0468-2D-063	.468	.625	.970	1.310	**FG553272**	Price
UD-0500-2D-063	.500	.625	.970	1.340	**FG553274**	Price
UD-0531-2D-063	.531	.625	.970	1.370	**FG553276**	Price
UD-0562-2D-063	.562	.625	.970	1.400	**FG553278**	Price
UD-0593-2D-063	.593	.625	.970	1.430	**FG553280**	Price

Mini Drills

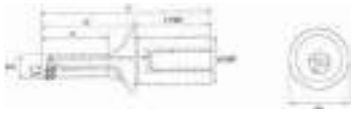
Coolant-Thru

WORLD CLASS QUALITY

- Introducing unique “Mini-Drills” that utilize a single, standard CCMT insert.
- Finally, a drill that lets you drill from solid, bore, internal turn and face without being locked into a special high priced insert or single source
- Designed to fit directly into turret, or 1” boring bar adapter
- ***For ØD 3/8”, tool must be .060”off center, X = .060”**
  For ØD 1/2”, tool must be .020”off center, X = .020”
  For ØD 5/8”, tool must be .050”off center, X = .050”

Actual bore produced:
3/8 = .490”
1/2 = .530”
5/8 = .725”





Drill Designation	ØD (in.)	D1 (in.)	LT (in.)	L1 (in.)	L2 (in.)	Insert	Torx Key	Screw	Order No.	Price
D-3/8	.375	1.380	3.620	1.000	1.870	CCMT 2-...	T-8	VT25	**FG40D38**	Price
D-1/2	.500	1.380	3.820	1.200	2.070	CCMT 2-...	T-8	VT25	**FG40D12**	Price
D-5/8	.625	1.380	4.600	2.000	2.850	CCMT 3-...	T-15	VT40	**FG40D58**	Price

ULTRA-DEX Inserts

- UD21 - for cast iron, stainless steel & nickel based high temp alloys
- UD32 - used in high speed applications for stainless steel and finishing of high temperature alloys
- UD52 - tough, general purpose grade for alloy steel, aluminum alloys, austenitic stainless & carbon steels



Insert	Grade	Order No.	Price
WCMT 1.211	UD21	**FG553327**	Price
WCMT 1.211	UD52	**FG553326**	Price
WCMT 1.51.51	UD21	**FG553329**	Price
WCMT 1.51.51	UD52	**FG553328**	Price
WCMT 21.51	UD21	**FG553320**	Price
WCMT 21.51	UD52	**FG550479**	Price
WCMT 21.52	UD21	**FG553322**	Price
WCMT 21.52	UD52	**FG550406**	Price
WCMT 32.51	UD52	**FG550408**	Price
WCMT 32.52	UD21	**FG553324**	Price
WCMT 32.52	UD52	**FG550410**	Price
WCMX 1.81.52	UD32	**FG5530425**	Price
WCMX 1.81.52	UD51	**FG5530400**	Price
WCMX 2.522	UD32	**FG5530435**	Price
WCMX 2.522	UD51	**FG5530410**	Price
WCMX 21.52	UD32	**FG5530430**	Price
WCMX 21.52	UD51	**FG5530405**	Price
WCMX 32.52	UD32	**FG5530440**	Price
WCMX 32.52	UD51	**FG5530415**	Price
WCMX 433	UD32	**FG5530445**	Price
WCMX 433	UD51	**FG5530420**	Price

RAPIDKUT Milling Inserts

- Grade ME425 is a PVD TiAlN coated insert designed for use with steel, stainless steel, cast iron and hi-temp alloy applications
- Grade ME9125 is for aluminum and aluminum alloys

Model No.	Length (in.)	Thickness (in.)	Grade	Order No.	Price
APGT 113508PDFR-AL	11mm	3.5mm	ME9125	**ME1059800**	Price
APKT 113508PDER-HM	11mm	3.5mm	ME8430	**ME1020012**	Price
APKT 113508PDER-LM	11mm	3.5mm	ME8430	**ME1020005**	Price
APKT 113508PDER-MM	11mm	3.5mm	ME8430	**ME1020011**	Price
APKT 160416PDER-M	.640	.187	ME425	**ME1020014**	Price
SEET 12T3AGEN-LM	12mm	3.97mm	ME8430	**ME1060090**	Price
SEET 12T3AGEN-MM	12mm	3.97mm	ME8430	**ME1060095**	Price
SEET 12T3AGSN-HM	12mm	3.97mm	ME8430	**ME1060105**	Price
SNEX 1306ANEN-LM	13.5mm	6.8mm	ME8430	**ME1060107**	Price
SNEX 1306ANEN-LM	13.5mm	6.8mm	MK4215	**ME1060110**	Price
SNEX 1306ANEN-MM	13.5mm	6.8mm	ME8430	**ME1060115**	Price
SNEX 1306ANEN-MM	13.5mm	6.8mm	MK4215	**ME1060120**	Price
SNEX 1306ANEN-WM	13.5mm	6.8mm	ME8430	**ME1060125**	Price
SNEX 1306ANEN-WM	13.5mm	6.8mm	MK4215	**ME1060130**	Price
SNEX 1306ANSN-HM	13.5mm	6.8mm	ME8430	**ME1060135**	Price
SNEX 1306ANSN-HM	13.5mm	6.8mm	MK4215	**ME1060140**	Price

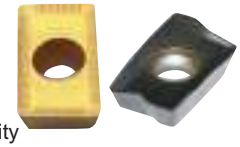


Model No.	Length (in.)	Thickness (in.)	Grade	Order No.	Price
ADKT 1505	15mm	.222	ME425	**ME2712120**	Price
ADKT 1705PETR	.669	.189	ME425	**ME1350005**	Price
AOMT 1236PETR	.472	.142	ME425	**ME1350000**	Price
APGT 1604PDFR-AL	.640	.187	ME9125	**ME1059990**	Price
APKT 1003	10mm	3.5mm	ME425	**ME2713130**	Price
APKT 1604	16mm	5.25mm	ME425	**ME2713500**	Price
APKT 160408PDER-M	.640	.187	ME425	**ME1020000**	Price
RPMT 1204MO	.500	.187	ME425	**ME1120200**	Price
RPMW 1204M0	.500	.187	ME425	**ME1120220**	Price
RPMW 1204M0T	.500	.187	ME425	**ME1120225**	Price
SEHT 43	.500	.187	ME425	**ME2714050**	Price
SEHX 43	.500	.187	ME425	**ME2714100**	Price
SEKN 42AFSN	.500	.125	ME425	**ME1120205**	Price
SEKN 42AFTN	.500	.125	ME425	**ME1120210**	Price
SNMX 1205	.500	.250	ME425	**ME2714110**	Price
XNEX 040304	-	.130	ME425	**ME2714120**	Price
XNEX 080608	-	.250	ME425	**ME2714130**	Price

PROCUT Milling Inserts

Many of the most popular sizes!

- PC5 is C-5 steel cutting
- PC300 is C-5 (coated) TiN-TiC-TiN steel cutting at higher speeds with greater lubricity

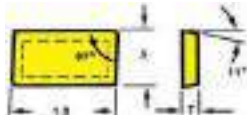


Brand - ProCut					
Model No.	Length	Thickness	Grade	Order No.	Price
APKT 10035PDSR	.413	.137	PC5	**FF5010035**	Price
APKT 10035PDSR	.413	.137	PC300	**FF5010036**	Price
APKT 1604PDR	.669	.188	PC2	**FF5016042**	Price
APKT 1604PDR	.669	.188	PC5	**FF5016045**	Price
APKT 1604PDR	.669	.188	PC300	**FF5016043**	Price
ADKT 1505PDSR	.600	.221	PC5	**FF5010037**	Price
ADKT 1505PDSR	.600	.221	PC300	**FF5010038**	Price

Ready Reference Grade Chart		
Grade	**ISO Grade**	**General Application**
PC2M	**C-2**	**Non Ferrous Metals**
PC5M	**C-5**	**Steel Cutting**
PC300M	**C5 TiN TiC TiN**	**Steel Cutting H.S.**

PROCUT BCB – 11° Positive 87° Parallelogram

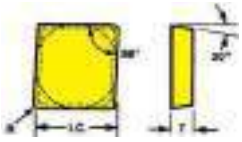
Tolerance: ±.001 IC ±.001 T



PROCUT Part No.	Carboloy Futurmill	IC (in.)	T (in.)	Radius	PC5M		PC300M	
					Order No.	Price	Order No.	Price
BCBP 15	BCBP15	-	1/8	.046	**FF7050000**	Price	**FF7030000**	Price

PROCUT MEC – 20° Positive 86° Parallelogram

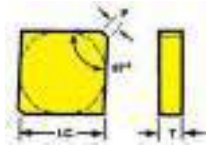
Tolerance: ± .0005 IC ± .001 T



PROCUT Part No.	Carboloy Futurmill	IC (in.)	T (in.)	Radius	PC5M		PC300M	
					Order No.	Price	Order No.	Price
MEC 632	MEC662A	3/4	3/16	.031	**FF7050040**	Price	**FF7030040**	Price

PROCUT NNC-N – Negative 87° Parallelogram

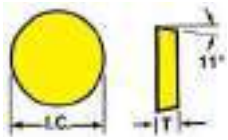
Tolerance: ± .0005 IC ± .001 T



PROCUT Part No.	Carboloy Futurmill	IC (in.)	T (in.)	X-Corner	PC5M	
					Order No.	Price
NNC 63N2	P66-NC1E	3/4	3/16	1/32-Flat	**FF7050070**	Price

PROCUT RPC – 11° Positive Round

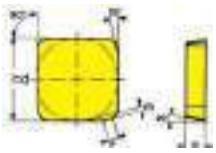
Tolerance: ± .0005 IC ± .001 T



PROCUT Part No.	Carboloy Futurmill	IC (in.)	T (in.)	PC300M	
				Order No.	Price
RPC 63	R66PE	3/4	3/16	**FF7030110**	Price

PROCUT SEAN-AFTN – Square 20° Positive

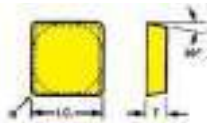
Tolerance: ± .0001 IC ± .001 T



PROCUT Part No.	I.C. (in.)	T (in.)	X-Corner	PC2M		PC5M		PC300M	
				Order No.	Price	Order No.	Price	Order No.	Price
SEAN 42AFTN	1/2	1/8	3/32 x 45°	**FF7010120**	Price	**FF7050120**	Price	**FF7030120**	Price
SEAN 43AFTN	1/2	3/16	3/32 x 45°	**-**	-	**FF7050130**	Price	**FF7030130**	Price
SEAN 53AFTN	5/8	3/16	1/8 x 45°	**-**	-	**FF7050140**	Price	**FF7030140**	Price

SEC – Square 20° Positive

Tolerance: ±.0005 IC ±.001 T

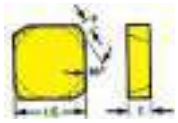


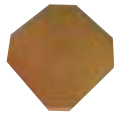


PROCUT Part No.	Carboloy Futurmill	I.C. (in.)	T (in.)	X-Corner	PC2M		PC5M		PC300M	
					Order No.	Price	Order No.	Price	Order No.	Price
SEC 422	SEC44R2	1/2	1/8	1/32- R x 20°	**FF7010150**	Price	**FF7050150**	Price	**FF7030150**	Price
SEC 432	SEC46R2	1/2	3/16	1/32- R x 20°	**-**	-	**FF7050170**	Price	**FF7030170**	Price
SEC 532	SEC53R2	5/8	3/16	1/32- R x 20°	**-**	-	**FF7050175**	Price	**FF7030175**	Price
SEC 634	SEC66R4	3/4	3/16	1/16- R x 20°	**FF7010180**	Price	**FF7050180**	Price	**FF7030180**	Price

SHC-D – Square 0° Negative / 11° Positive

Tolerance: ±.0005 IC ±.001 T

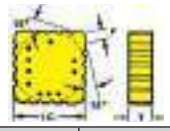




PROCUT Part No.	Carboloy Futurmill	I.C. (in.)	T (in.)	X-Corner	PC300M	
					Order No.	Price
SHC 63D9R	S66NPK8E	3/4	3/16	5/64 x 30° RH	**FF7030210**	Price

SNW – Square 0° Negative / Heavy Stock Removal

Tolerance: ±.002 IC ±.001 T

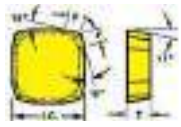


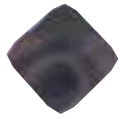


PROCUT Part No.	Carboloy Futurmill	IC (in.)	T (in.)	PC5M		PC300M	
				Order No.	Price	Order No.	Price
SNW 63	SNW66	3/4	3/16	**FF7050370**	Price	**FF7030370**	Price
SNW 64	SNW68	3/4	1/4	**-**	-	**FF7030380**	Price

SPC – Square 11° Positive

Tolerance: ±.0005 IC ±.001 T

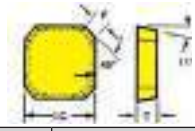




PROCUT Part No.	Carboloy Futurmill	I.C. (in.)	T (in.)	X-Corner	PC2M		PC5M		PC300M	
					Order No.	Price	Order No.	Price	Order No.	Price
SPC 42E4	SPC42ZR	1/2	1/8	.060 x 15° RH	**FF7010390**	Price	**FF7050390**	Price	**FF7030390**	Price
SPC 53E4	SPC53ZR	5/8	3/16	.060 x 15° RH	**-**	-	**FF7050420**	Price	**FF7030420**	Price
SPC 53H4	SPC53ZL	5/8	3/16	.060 x 15° LH	**-**	-	**FF7050430**	Price	**FF7030430**	Price

SPC-A – Square 11° Positive

Tolerance: ±.0005 IC ±.001 T

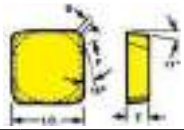


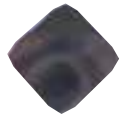


PROCUT Part No.	Carboloy Futurmill	I.C. (in.)	T (in.)	X-Corner	PC300M	
					Order No.	Price
SPC 43A3	S46PC2E	1/2	3/16	3/64 x 45°	**FF7030440**	Price

SRC-H – Square 11° Positive

Tolerance: ±.0005 IC ±.001 T

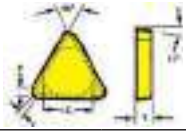




PROCUT Part No.	Carboloy Futurmill	I.C. (in.)	T (in.)	X-Corner	PC2M		PC5M	
					Order No.	Price	Order No.	Price
SRC 63H4R	S66PJ4E	3/4	3/16	1/16-1/8 x 15° RH	**FF7010500**	Price	**FF7050500**	Price

TPC / TRC – Triangle 11° Positive

Tolerance: ±.0005 IC ±.001 T





PROCUT Part No.	Carboloy Futurmill	I.C. (in.)	T (in.)	X-Corner	PC2M		PC5M		PC300M	
					Order No.	Price	Order No.	Price	Order No.	Price
T32P3R	TPE32X	3/8	1/8	1/32 x 30° Incl RH	**FF7010530**	Price	**FF7050530**	Price	**FF7030530**	Price
TPC 43P4R	T46PY4E	1/2	3/16	1/16 x 30° INCL RH	**FF7010550**	Price	**-**	-	**FF7030550**	Price
TRC 53R4R	T56PY4E	5/8	3/16	1/16 x 30° INCL RH	**-**	-	**FF7050570**	Price	**FF7030570**	Price
T32P3L	TPE32Z	3/8	1/8	1/32 x 30° INCL LH	**-**	-	**FF7050540**	Price	**-**	-

RAPIDKUT® 45° Indexable End Mills

Use SEHX Inserts

- Suitable for surface milling for roughing
- Recommended for CNC and traditional milling machines
- Uses SEHX 4-edged inserts
- SEHX43 Grade ME425
  ME2714100



Cutter Dia. (in.)	No. of Inserts	Shank Dia. (in.)	OAL (in.)	Uses Insert	Screw	Wrench	Order No.	Price
1-1/2	4	1	5	SEHX 43	TX50	CT20	**ME1440150**	Price
2	4	1	5	SEHX 43	TX50	CT20	**ME1440200**	Price

RAPIDKUT® 90° Indexable End Mills

- For shoulder milling, slotting and countersinking
- Industry standard cutters and inserts for economy and high quality





Uses Insert - ADKT 1505							
Cutting Dia. (in.)	Shank Dia. (in.)	No. of Inserts	OAL (in.)	Screw	Wrench	Order No.	Price
1	1	2	4-1/2	TX35L	CT15	**ME1492710**	Price
1	1	2	7-7/8	TX35L	CT15	**ME14927107**	Price
1-1/4	1	3	5	TX35L	CT15	**ME1492712**	Price
1-1/4	1	3	7-7/8	TX35L	CT15	**ME14927127**	Price
1-1/2	1	4	5-3/8	TX35L	CT15	**ME1492715**	Price

Uses Insert - APKT 1003							
Cutting Dia. (in.)	Shank Dia. (in.)	No. of Inserts	OAL (in.)	Screw	Wrench	Order No.	Price
3/8	1/2	1	3	TX25C	CT08	**ME1492403**	Price
1/2	5/8	1	3-1/4	TX25C	CT08	**ME1492405**	Price
5/8	5/8	2	3-1/4	TX25C	CT08	**ME1492406**	Price
5/8	5/8	2	7-7/8	TX25C	CT08	**ME14924067**	Price
7/8	3/4	4	4-1/2	TX25C	CT08	**ME1492408**	Price
7/8	3/4	3	7-7/8	TX25C	CT08	**ME14924087**	Price
3/4	3/4	3	4	TX25C	CT08	**ME1492407**	Price
3/4	3/4	3	7-7/8	TX25C	CT08	**ME14924077**	Price
1	1	4	4-1/2	TX25C	CT08	**ME1492410**	Price
1	1	4	7-7/8	TX25C	CT08	**ME14924107**	Price
1-1/4	1	5	5	TX25C	CT08	**ME1492412**	Price
1-1/4	1	5	7-7/8	TX25C	CT08	**ME14924127**	Price
1-1/2	1	4	7-7/8	TX25C	CT08	**ME14926157**	Price

Uses Insert - APKT 1604							
Cutting Dia. (in.)	Shank Dia. (in.)	No. of Inserts	OAL (in.)	Screw	Wrench	Order No.	Price
1	1	2	4-1/2	TX35	CT15	**ME1492110**	Price
1-1/4	1	3	5	TX35	CT15	**ME1492112**	Price
1-1/4	1	3	7-7/8	TX35	CT15	**ME14921127**	Price
1-1/2	1	4	5-3/8	TX35	CT15	**ME1492115**	Price
1-1/2	1-1/4	4	7-7/8	TX35	CT15	**ME14921157**	Price

RAPIDKUT® 3 Pc 90° Indexable End Mill Kits

With Inserts

- For shoulder milling, slotting and countersinking
- Complete with (3) cutters and (20) inserts with case
- Includes 1", 1-1/4", 1-1/2" end mills



Order No.	Insert	Price
ME2110500	APKT1604	Price
ME2110550	ADKT1505	Price

RAPIDKUT® 90° Indexable End Mills

Use XNEX Inserts

- Suitable for shoulder milling, surface milling for roughing
- Weldon style shank
- Uses XNEX 6-edged inserts



Cutter Dia. (in.)	No. of Inserts	Shank Dia. (in.)	OAL (in.)	Uses Insert	Screw	Wrench	Order No.	Price
3/4	2	3/4	4-1/2	XNEX 040304	TX25	CT08	**ME1481075**	Price
1	4	1	4-1/2	XNEX 040304	TX25	CT08	**ME1481100**	Price
1-1/4	5	1-1/4	5	XNEX 040304	TX25	CT08	**ME1481125**	Price
1-1/2	3	1-1/4	4-1/2	XNEX 080608	TX40G	CT15	**ME1481150**	Price
2	4	1-1/4	5	XNEX 080608	TX40G	CT15	**ME1481200**	Price

RAPIDKUT® 90° Indexable End Mill Kits

With XNEX Inserts

- Suitable for shoulder milling, surface milling for roughing
- Weldon style shank
- Uses XNEX 6-edged inserts (10 included in set)
- Sturdy case



Set Includes	Order No.	Price
3/4" 90Deg Indexable End Mill with 10 XNEX 040304 Inserts, Case	**ME2110700**	Price
1" 90Deg Indexable End Mill with 10 XNEX 040304 Inserts, Case	**ME2110750**	Price

RAPIDKUT® 90° Indexable End Mill Kits

With APKT Inserts

- For shoulder milling, slotting and countersinking
- Complete with industry standard cutters and inserts for economy and high quality



Set Includes	Order No.	Price
3/4" 90Deg Indexable End Mill with 10 APKT.PM 1003 Inserts, Case	**ME2110600**	Price
1" 90Deg Indexable End Mill with 10 APKT.PM 1003 Inserts, Case	**ME2110650**	Price

RAPIDKUT®

90° Indexable End Mill Kits

- Kit comes complete with 10 inserts



Uses Insert - ADKT 1505		
Description	Order No.	Price
1", 1-1/4" & 1-1/2" 90 Degree Indexable End Mills PLUS 10 Inserts	**ME1410005**	Price

Uses Insert - APKT 1003		
Description	Order No.	Price
3/8", 1/2", 5/8" & 3/4" 90 Degree Indexable End Mills PLUS 10 Inserts	**ME1410001**	Price
5/8", 3/4" & 1" 90 Degree Indexable End Mills PLUS 10 Inserts	**ME1410150**	Price

Uses Insert - APKT 1604		
Description	Order No.	Price
1", 1-1/4" & 1-1/2" 90 Degree Indexable End Mills PLUS 10 Inserts	**ME1410100**	Price

RAPIDKUT® 45° Face Mills

Use SEKN Inserts

- Suitable for surface milling for roughing
- Recommended for CNC and traditional milling machines
- Uses SEKN 4-edged inserts



Cutter Dia. (in.)	No. of Inserts	Bore Dia. (in.)	Height (in.)	Uses Insert	Shim	Screw	Wrench	Order No.	Price
2	4	3/4	1.97	SEKN 42	SSE 10.3	VF3	CHT4	**ME1480200**	Price
2-1/2	5	3/4	1.97	SEKN 42	SSE 10.3	VF3	CHT4	**ME1480250**	Price
3	5	1	1.97	SEKN 42	SSE 10.3	VF3	CHT4	**ME1480300**	Price
4	6	1-1/2	1.97	SEKN 42	SSE 10.3	VF3	CHT4	**ME1480400**	Price
5	7	1-1/2	1.97	SEKN 42	SSE 10.3	VF3	CHT4	**ME1480500**	Price
6	8	2	1.97	SEKN 42	SSE 10.3	VF3	CHT4	**ME1480600**	Price

RAPIDKUT® 45° Face Mills

Use SNMX Inserts

- Suitable for surface milling for roughing
- Recommended for CNC and traditional milling machines
- Uses SNMX 8-edged inserts



Cutter Dia. (in.)	No. of Inserts	Bore Dia. (in.)	Height H (in.)	Uses Insert	Screw	Wrench	Order No.	Price
2	5	3/4	1.97	SNMX 1205	TX45	CT20	**ME1430200**	Price
2-1/2	6	3/4	1.97	SNMX 1205	TX45	CT20	**ME1430250**	Price
3	7	1	1.97	SNMX 1205	TX45	CT20	**ME1430300**	Price
4	8	1-1/2	1.97	SNMX 1205	TX45	CT20	**ME1430400**	Price
5	9	1-1/2	1.97	SNMX 1205	TX45	CT20	**ME1430500**	Price
6	10	2	1.97	SNMX 1205	TX45	CT20	**ME1430600**	Price

RAPIDKUT® 45° Face Mill Cutters

Use SEHX / SEHT Inserts

- Suitable for surface milling for roughing
- Recommended for CNC and traditional milling machines
- Uses SEHX / SEHT 4-edged inserts



Cutter Dia. (in.)	No. of Inserts	Bore Dia. (in.)	Height H (in.)	Uses Insert	Screw	Wrench	Order No.	Price
1-1/2	4	3/4	1.57	SEH_ 43	TX50	CT20	**ME1440155**	Price
2	4	3/4	1.57	SEH_ 43	TX50	CT20	**ME1440205**	Price
2-1/2	5	3/4	1.57	SEH_ 43	TX50	CT20	**ME1440255**	Price
3	6	1	1.97	SEH_ 43	TX50	CT20	**ME1440305**	Price
4	7	1-1/2	1.97	SEH_ 43	TX50	CT20	**ME1440405**	Price
5	7	1-1/2	1.97	SEH_ 43	TX50	CT20	**ME1440505**	Price
6	9	2	1.97	SEH_ 43	TX50	CT20	**ME1440605**	Price

RAPIDKUT® 45° Face Mill Kits

With Inserts

- Suitable for surface milling for roughing
- Includes case



Insert Style - SEHX		
Set Includes	Order No.	Price
2" 45 Degree Face Mill w/20 SEHX 43 Inserts	**ME2112200**	Price
3" 45 Degree Face Mill w/20 SEHX 43 Inserts	**ME2112250**	Price

Insert Style - SEKN		
Set Includes	Order No.	Price
2" 45 Degree Face Mill w/20 SEKN 42 Inserts	**ME2112300**	Price
3" 45 Degree Face Mill w/20 SEKN 42 Inserts	**ME2112350**	Price

Insert Style - SNMX		
Set Includes	Order No.	Price
2" 45 Degree Face Mill w/20 SNMX.M 1205 Inserts	**ME2112400**	Price
3" 45 Degree Face Mill w/20 SNMX.M 1205 Inserts	**ME2112450**	Price

RAPIDKUT® 75° Face Mill Cutters

- For CNC and traditional milling machines
- Uses APKT or ADKT style inserts
- Perfect for medium to roughing applications



Cutter Dia. (in.)	No. of Inserts	H (in.)	Bore Dia. (in.)	Uses Insert	Screw	Torx Key	Order No.	Price
2-1/2	4	1.57	3/4	ADKT 1505	TX35L	CT 15	**ME1480115**	Price
2-1/2	7	1.57	3/4	APKT 1003	TX25C	CT 08	**ME1480130**	Price
2-1/2	4	1.57	3/4	APKT 1604	TX35	CT 15	**ME1480100**	Price
3	5	1.97	1	ADKT 1505	TX35L	CT 15	**ME1480120**	Price
3	8	1.97	1	APKT 1003	TX25C	CT 08	**ME1480135**	Price
3	5	1.97	1	APKT 1604	TX35	CT 15	**ME1480105**	Price
4	6	1.97	1-1/2	ADKT 1505	TX35L	CT 15	**ME1480125**	Price
4	11	1.97	1-1/2	APKT 1003	TX25C	CT 08	**ME1480140**	Price
4	6	1.97	1-1/2	APKT 1604	TX35	CT 15	**ME1480110**	Price

RAPIDKUT 90° Face Mills

- 90° Mills for shoulder milling, slotting and countersinking
- Industry standard cutters and inserts for economy and high quality
- Uses APKT / ADKT inserts





Uses Insert - ADKT 1505							
Cutting Dia. (in.)	No. of Inserts	Bore Dia.	Height H (in.)	Screw	Wrench	Order No.	Price
2	4	3/4	1.57	TX35	CT15	**ME1492620**	Price

Uses Insert - ADKT1505							
Cutting Dia. (in.)	No. of Inserts	Bore Dia.	Height H (in.)	Screw	Wrench	Order No.	Price
2-1/2	5	-	1.57	TX35L	CT15	**ME1492632**	Price
3	6	1	1.97	TX35L	CT15	**ME1492630**	Price

Uses Insert - APKT 1604							
Cutting Dia. (in.)	No. of Inserts	Bore Dia.	Height H (in.)	Screw	Wrench	Order No.	Price
2	4	3/4	1.57	TX35	CT15	**ME1492020**	Price
2-1/2	5	3/4	1.57	TX35	CT15	**ME1492025**	Price
3	6	1	1.97	TX35	CT15	**ME1492030**	Price

RAPIDKUT 90° Face Mill Kits

With Inserts

- Suitable for shoulder milling, surface milling or roughing
- Includes case



Insert Style - ADKT		
Set Includes	Order No.	Price
2" 90 Degree Face Mill W/20 ADKT 150512 Inserts	**ME2110350**	Price
3" 90 Degree Face Mill W/20 ADKT 150512 Inserts	**ME2110400**	Price

Insert Style - APKT		
Set Includes	Order No.	Price
2" 90 Degree Face Mill W/20 APKT.PM 1604 Inserts	**ME2110200**	Price
2-1/2" 90 Degree Face Mill W/20 APKT.PM 1604 Inserts	**ME2110250**	Price
3" 90 Degree Face Mill W/20 APKT.PM 1604 Inserts	**ME2110300**	Price

Insert Style - XNEX		
Set Includes	Order No.	Price
2" 90 Degree Face Mill W/20 XNEX 080608 Inserts	**ME2110100**	Price
3" 90 Degree Face Mill W/20 XNEX 080608 Inserts	**ME2110150**	Price

RAPIDKUT 90° Face Mills

Use XNEX Inserts

- Suitable for shoulder milling, surface milling for roughing
- Recommended for CNC and traditional milling machines
- Uses XNEX 6-edged inserts





Cutter Dia. (in.)	No. of Inserts	Bore Dia. (in.)	Height H (in.)	Uses Insert	Screw	Wrench	Order No.	Price
1-1/2	6	3/4	1-3/4	XNEX 040304	TX25	CT08	**ME1482150**	Price
2	4	3/4	1-3/4	XNEX 080608	TX40G	CT15	**ME1482204**	Price
2	8	3/4	1-3/4	XNEX 040304	TX25	CT08	**ME1482208**	Price
2-1/2	5	3/4	1-3/4	XNEX 080608	TX40G	CT15	**ME1482255**	Price
2-1/2	9	3/4	1-3/4	XNEX 040304	TX25	CT08	**ME1482259**	Price
3	6	1	2	XNEX 080608	TX40G	CT15	**ME1482300**	Price
4	8	1-1/2	2	XNEX 080608	TX40G	CT15	**ME1482400**	Price
5	8	1-1/2	2	XNEX 080608	TX40G	CT15	**ME1482500**	Price
6	10	2	2	XNEX 080608	TX40G	CT15	**ME1482600**	Price

RAPIDKUT High Feed Indexable End Mills



- Cylindrical Shank			
Cutting Diameter	Shank Dia./Style	Order No.	Price
1-1/2	1-1/2 Cylindrical	**ME2540120**	Price
1-1/2	1-1/4 Cylindrical	**ME2540110**	Price

- Weldon Shank			
Cutting Diameter	Shank Dia./Style	Order No.	Price
1-1/2	1-1/2 Weldon	**ME2540125**	Price
1-1/2	1-1/4 Weldon	**ME2540115**	Price

RAPIDKUT High Feed Milling Cutters

- Designed for high feed roughing in a variety of materials with depths of cut up to .150"
- Economical but robust insert with 4 cutting edges achieves excellent tool life at aggressive feed rates
- Positive geometry insert placement enables smooth chip evacuation and low cutting forces
- Electroless nickel plated finish gives a smooth hard surface that enhances chip flow and increases durability
- Uses MEHF style high feed milling inserts
- Theoretical radius: 12mm insert = .130"; 15mm insert = .197"





D1 Cutting Dia.	D2	D Bore Dia.	L Height	Ap MAX	Number of Inserts	Insert IC	Screw	Order No.	Price
1-1/2	1.13	16mm	1.88	.095	3	12mm	HFMS12	**ME2540100†**	Price
2	1.75	3/4	1.70	.095	4	12mm	HFMS12	**ME2540140**	Price
2	1.75	3/4	1.70	.095	5	12mm	HFMS12	**ME2540180**	Price
2-1/2	2.20	1	2.00	.150	4	15mm	HFMS15	**ME2540220**	Price
2-1/2	2.20	1	2.00	.150	5	15mm	HFMS15	**ME2540260**	Price
3	2.75	1	2.30	.150	5	15mm	HFMS15	**ME2540300**	Price
3	2.75	1	2.30	.095	7	12mm	HFMS12	**ME2540340**	Price
4	3.80	1-1/2	2.30	.095	6	15mm	HFMS15	**ME2540400**	Price
4	3.80	1-1/2	2.30	.095	9	12mm	HFMS12	**ME2540380**	Price

† 1.50" Dia. milling cutter has M16 ISO milling connection

RAPIDKUT® High Feed Milling Inserts

- Grade ME8425 is a new AlCrN PVD coating on top of a submicron substrate which allows for a broad application range of materials
- Grade ME8430 is used in a wide variety of applications on steel, stainless steel, cast iron and heat resistant super alloys
- HM = heavy roughing
- MM = medium roughing



Grade - ME8425				
ISO Number	IC	Thickness	Order No.	Price
MEHF 120512-HM	12mm	5mm	**ME1020562**	Price
MEHF 120512-MM	12mm	5mm	**ME1020552**	Price
MEHF 150512-HM	15mm	5mm	**ME1020582**	Price
MEHF 150512-MM	15mm	5mm	**ME1020572**	Price

Grade - ME8430				
ISO Number	IC	Thickness	Order No.	Price
MEHF 120512-HM	12mm	5mm	**ME1020522**	Price
MEHF 120512-MM	12mm	5mm	**ME1020512**	Price
MEHF 150512-HM	15mm	5mm	**ME1020542**	Price
MEHF 150512-MM	15mm	5mm	**ME1020532**	Price

RAPIDKUT® Hi-Feed Cutter Replacement Screws

Model No.	Order No.	Price
HFMS12	**ME2622920**	Price
HFMS15	**ME2622960**	Price

R-8 Bridgeport Shank Set

Buy A Set & Save

- Quick, accurate reindexing
- Uses standard triangular carbide inserts
- Lower cost



Shank (in.)	Consists of Sizes (in.)	Order No.	Price
Bridgeport R8	2, 2-1/2 & 3	**EJ609015505**	Price

Set includes hex wrench, attractive hardwood block.
Packed in a specially designed box for protection in transit.

Quad-Mill Indexable End Mills

15° & 45° Lead

Positive rake

- Uses SPG/SPU42_ inserts



Shank Style - 1-1/4 Weldon				
Lead	Cutter Dia. (in.)	No. of Inserts	Order No.	Price
15°	2	3	**DG80QM20125**	Price
15°	2-1/2	5	**DG80QM250125**	Price
15°	3	5	**DG80QM30125**	Price
45°	2	3	**DG80QMD20125**	Price

Shank Style - R-8 Bridgeport				
Lead	Cutter Dia. (in.)	No. of Inserts	Order No.	Price
15°	2	3	**DG80QM20R8**	Price
15°	2-1/2	5	**DG80QM250R8**	Price
15°	3	5	**DG80QM30R8**	Price
45°	2	3	**DG80QMD20R8**	Price

Prices DO NOT Include Inserts.

RAPIDKUT® Shanks for High Feed Milling Cutters



Shank	Projection (in.)	Order No.	Price
Cat40	5	**ME2540130**	Price
Cat50	6	**ME2540135**	Price
1-1/4 Cylindrical	8	**ME2540145**	Price
1-1/4 Weldon	8	**ME2540150**	Price
1-1/2 Cylindrical	8	**ME2540155**	Price
1-1/2 Weldon	8	**ME2540160**	Price

Indexable Tooling System – End Mills

Positive Rake 90° – Right Hand Cut – Available Right Hand Only

Tool Angles:

- Cutting rake angle 0°
- Setting angle 90°
- Axial rake angle 0°
- Positive rake 90°

Note: end mIlls are furnished without cutting inserts





Size (in.)	No. of Inserts	Shank (in.)	Style of Insert	Order No.	Price
1	2	Weldon 3/4	TPG/TPU22	**EJ60901010**	Price
1	2	Bridgeport R8	TPG/TPU22	**EJ60901510**	Price
1-1/4	2	Weldon 3/4	TPG/TPU32	**EJ60901015**	Price
1-1/4	2	Bridgeport R8	TPG/TPU32	**EJ60901515**	Price
1-1/2	3	Weldon 3/4	TPG/TPU32	**EJ60901020**	Price
1-1/2	3	Weldon 1	TPG/TPU32	**EJ60901070**	Price
1-1/2	2	Bridgeport R8	TPG/TPU32	**EJ60901520**	Price
1-3/4	3	Bridgeport R8	TPG/TPU32	**EJ60901525**	Price
2	3	Weldon 3/4	TPG/TPU32	**EJ60901030**	Price
2	3	Weldon 1	TPG/TPU32	**EJ60901080**	Price
2	3	Bridgeport R8	TPG/TPU32	**EJ60901530**	Price
2-1/2	4	Bridgeport R8	TPG/TPU32	**EJ60901535**	Price
3	5	Bridgeport R8	TPG/TPU32	**EJ60901540**	Price

See pages B16-B17 for inserts

Spare Parts for 901 Style End Mills

Locking Screws

Used With Cutter Size	Order No.	Price
1/2	**EJ60999260**	Price
3/4, 7/8 & 1	**EJ60999262**	Price
1-1/2	**EJ60999268**	Price
all other sizes	**EJ60999270**	Price



Tri-Dex Sets

Inserts sold separately-see below.



Shank Dia. (in.)	Cutting Dia. (in.)	Order No.	Price
3/4	3/4, 7/8, 1	**DG50EM34**	Price
3/4	1-1/4, 1-1/2, 2	**DG50EM750**	Price
1	1-1/4, 1-1/2, 2	**DG50EM1000**	Price
R8	1, 1-1/4, 1-1/2	**DG50EM8R1**	Price
R8	2, 2-1/2, 3	**DG50EM8R2**	Price

Supplied in wood block

Tri-Dex Indexable End Mills

- Constructed with a minimum of parts
- Very adaptable for NC machining
- Uses standard 3/8 IC positive rake inserts (sold separately-see triangular insert ads on this page)
- 90° Positive rake
- Cutter body length is 1-5/8" on all sizes
- All straight shank end mills have an overall length of 3-7/8" with a shank length of 2-1/4"



Shank Dia. or Style - 3/4			
Cutting Dia. (in.)	No. of Inserts	Order No.	Price
3/4	1	**DG50EM07534**	Price
7/8	1	**DG50EM08734**	Price
1	1	**DG50EM10034**	Price
1-1/4	2	**DG50EM12534**	Price
1-3/8	2	**DG50EM13734**	Price
1-1/2	3	**DG50EM15034**	Price
1-3/4	3	**DG50EM17534**	Price
2	3	**DG50EM2034**	Price

Shank Dia. or Style - 1			
Cutting Dia. (in.)	No. of Inserts	Order No.	Price
1	1	**DG50EM1001**	Price
1-1/4	2	**DG50EM1251**	Price
1-3/8	2	**DG50EM1371**	Price
1-1/2	3	**DG50EM1501**	Price
1-5/8	3	**DG50EM1621**	Price
1-3/4	3	**DG50EM1751**	Price
2	3	**DG50EM201**	Price

Shank Dia. or Style - 1-1/4			
Cutting Dia. (in.)	No. of Inserts	Order No.	Price
2-1/2	5	**DG50EM250125**	Price
3	5	**DG50EM300125**	Price

Shank Dia. or Style - 30 STD			
Cutting Dia. (in.)	No. of Inserts	Order No.	Price
2	3	**DG50EM20S30**	Price

Shank Dia. or Style - 40 STD			
Cutting Dia. (in.)	No. of Inserts	Order No.	Price
2	3	**DG50EM20S40**	Price
3	5	**DG50EM300S40**	Price

Shank Dia. or Style - R8			
Cutting Dia. (in.)	No. of Inserts	Order No.	Price
1	1	**DG50EM100R8**	Price
1-1/4	2	**DG50EM125R8**	Price
1-3/8	2	**DG50EM137R8**	Price
1-1/2	3	**DG50EM150R8**	Price
1-5/8	3	**DG50EM162R8**	Price
1-3/4	3	**DG50EM175R8**	Price
2	3	**DG50EM20R8**	Price
2-1/2	5	**DG50EM250R8**	Price
3	5	**DG50EM300R8**	Price

Spare Parts for all DG50 & DG80 Cutters

Description	Order No.	Price
Hex Key for 6-32 Screw	**DG50CSW6**	Price
Hex Key for 8-32 Screw	**DG50CSW8**	Price

RAPIDKUT® Tool Blocks

- Positive blade design creates a strengthened clamping force for higher stability while machining
- For use on conventional or CNC machines
- Holds "MEFH" cut-off blade insert holders



Model No.	Blade Height	OAL (in.)	Height (in.)	Use with Holder No.	Order No.	Price
METBN162	.75	2.992	.625	MEFH19-2	**ME1710100**	Price
METBN195	1.03	3.425	.750	MEFH26-2 or 26-3	**ME1710105**	Price
METBN196	1.25	4.331	.750	MEFH32-2, 32-3, or 32-4	**ME1710115**	Price
METBN2545	1.03	3.425	1.00	MEFH26-2 or 26-3	**ME1710110**	Price
METBN2546	1.25	4.331	1.00	MEFH32-2, 32-3, or 32-4	**ME1710120**	Price
METBN3186	1.25	4.724	1.25	MEFH32-2, 32-3, or 32-4	**ME1710125**	Price

RAPIDKUT® Cut Off Blades

- Positive stop cut-off blades - "F" style
- Positive blade design creates a strengthened clamping force for higher stability while machining
- For use on conventional or CNC machines
- Uses "MEGFN" style inserts



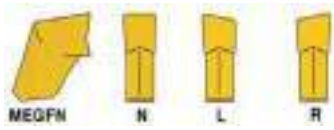
Insert Width	Max. Depth	Blade Thickness	Blade Height	OAL	Center Height	Use Insert(s)	Model No.	Order No.	Price
.079	1.50	.062	.75	3.375	.609	MEGFN/L/R2	MEFH19-2	**ME1710000**	Price
.079	2.00	.062	1.03	4.31	.840	MEGFN/L/R2	MEFH26-2	**ME1710001**	Price
.079	2.00	.062	1.25	5.87	.980	MEGFN/L/R2	MEFH32-2	**ME1710003**	Price
.122	3.00	.094	1.03	4.31	.840	MEGFN/L/R3	MEFH26-3	**ME1710002**	Price
.122	4.00	.094	1.25	5.87	.980	MEGFN/L/R3	MEFH32-3	**ME1710004**	Price
.161	4.00	.125	1.25	5.87	.980	MEGFN/L/R4	MEFH32-4	**ME1710005**	Price

RAPIDKUT® Cut Off Inserts

F Style

- Grade ME435 is AlTiN CVD coated
- Grades ME1025 and ME2205 are TiCN PVD coated
- Available in Left, Right, or Neutral





Width	Model No.	Radius	Angle	ST	SS	CI	S	Right/Left Hand	Grade	Order No.	Price
.079	MEGFL 2	.016	8°	x	x	x	x	Left	ME435	**ME1810006**	Price
.079	MEGFR 2	.016	8°	x	x	x	x	Right	ME435	**ME1810013**	Price
.079	MEGFN 2	.016	0°	x	x	x	x	Neutral	ME435	**ME1810009**	Price
.079	MEGFN 2	.016	0°	x	x	-	-	Neutral	ME1025	**ME1821000**	Price
.079	MEGFN 2	.016	0°	-	x	-	-	Neutral	ME2205	**ME1822000**	Price
.079	MEGFL 2-4D	.016	4°	x	x	-	-	Left	ME1025	**ME1821005**	Price
.079	MEGFR 2-4D	.016	4°	x	x	-	-	Right	ME1025	**ME1821010**	Price
.122	MEGFL 3	.020	8°	x	x	x	x	Left	ME435	**ME1810007**	Price
.122	MEGFR 3	.020	8°	x	x	x	x	Right	ME435	**ME1810014**	Price
.122	MEGFN 3	.020	0°	x	x	x	x	Neutral	ME435	**ME1810010**	Price
.122	MEGFN 3	.020	0°	x	x	-	-	Neutral	ME1025	**ME1821015**	Price
.122	MEGFN 3	.020	0°	-	x	-	-	Neutral	ME2205	**ME1822005**	Price
.122	MEGFR 3-4D	.020	4°	x	x	-	-	Right	ME1025	**ME1821030**	Price
.122	MEGFL 3-4D	.020	4°	x	x	-	-	Left	ME1025	**ME1821020**	Price
.122	MEGFR 3-4D	.020	4°	-	x	-	-	Right	ME2205	**ME1822010**	Price
.122	MEGFR 3-8D	.020	8°	x	x	-	-	Right	ME1025	**ME1821035**	Price
.122	MEGFR 3-8D	.020	8°	-	x	-	-	Right	ME2205	**ME1822015**	Price
.122	MEGFL 3-8D	.020	8°	x	x	-	-	Left	ME1025	**ME1821025**	Price
.161	MEGFL 4	.024	8°	x	x	x	x	Left	ME435	**ME1810008**	Price
.161	MEGFR 4	.024	8°	x	x	x	x	Right	ME435	**ME1810015**	Price
.161	MEGFN 4	.024	0°	x	x	x	x	Neutral	ME435	**ME1810011**	Price
.161	MEGFN 4	.024	0°	x	x	-	-	Neutral	ME1025	**ME1821040**	Price
.161	MEGFN 4	.024	0°	-	x	-	-	Neutral	ME2205	**ME1822020**	Price
.161	MEGFL 4-4D	.024	4°	x	x	-	-	Left	ME1025	**ME1821045**	Price
.161	MEGFR 4-4D	.024	4°	x	x	-	-	Right	ME1025	**ME1821055**	Price
.161	MEGFL 4-8D	.024	8°	x	x	-	-	Left	ME1025	**ME1821050**	Price
.161	MEGFR 4-8D	.024	8°	x	x	-	-	Right	ME1025	**ME1821060**	Price
.161	MEGFR 4-8D	.024	8°	-	x	-	-	Right	ME2205	**ME1822025**	Price
.201	MEGFN 5	.028	0°	x	x	x	x	Neutral	ME435	**ME1810012**	Price
.201	MEGFN 5	.028	0°	x	x	-	-	Neutral	ME1025	**ME1821065**	Price
.201	MEGFN 5	.028	0°	-	x	-	-	Neutral	ME2205	**ME1822030**	Price
.201	MEGFR 5-8D	.028	8°	x	x	-	-	Right	ME1025	**ME1821070**	Price

RAPIDKUT® Cut Off Inserts

T Style

- Grades ME1025 and ME2205 are TiCN PVD coated
- Available in left hand, right hand, or neutral
- Grades ME1025 and ME2205 are TiCN PVD coated
- Available in left hand, right hand, or neutral



Width	Model No.	Radius	Angle	ST	SS	CI	S	Right/Left Hand	Grade	Order No.	Price
.079	MEGTN 2	.016	0°	x	x	-	-	Neutral	ME1025	**ME1823000**	Price
.079	MEGTN 2	.016	0°	-	x	-	-	Neutral	ME2205	**ME1824000**	Price
.079	MEGTL 2-4D	.016	4°	x	x	-	-	Left	ME1025	**ME1823005**	Price
.079	MEGTR 2-4D	.016	4°	x	x	-	-	Right	ME1025	**ME1823010**	Price
.122	MEGTN 3	.020	0°	x	x	-	-	Neutral	ME1025	**ME1823015**	Price
.122	MEGTN 3	.020	0°	-	x	-	-	Neutral	ME2205	**ME1824005**	Price
.122	MEGTL 3-4D	.020	4°	x	x	-	-	Left	ME1025	**ME1823020**	Price
.122	MEGTR 3-4D	.020	4°	x	x	-	-	Right	ME1025	**ME1823025**	Price
.122	MEGTR 3-8D	.020	8°	x	x	-	-	Right	ME1025	**ME1823030**	Price
.161	MEGTN 4	.024	0°	x	x	-	-	Neutral	ME1025	**ME1823040**	Price
.161	MEGTN 4	.024	0°	-	x	-	-	Neutral	ME2205	**ME1824010**	Price
.161	MEGTL 4-4D	.024	4°	x	x	-	-	Left	ME1025	**ME1823045**	Price
.161	MEGTR 4-4D	.024	4°	x	x	-	-	Right	ME1025	**ME1823050**	Price
.201	MEGTN 5	.028	0°	x	x	-	-	Neutral	ME1025	**ME1823055**	Price
.201	MEGTN 5	.028	0°	-	x	-	-	Neutral	ME2205	**ME1824015**	Price
.201	MEGTR 5-8D	.028	8°	x	x	-	-	Right	ME1025	**ME1823065**	Price

RAPIDKUT "F" Style Cut-Off & Grooving Kits

- Kit comes with 1 blade and 10 AlTiN CVD coated inserts
- Positive stop design creates a strengthened clamping force for higher stability while machining
- Uses GFN style insert



Blade Description	Insert Width (in.)	Max Depth (in.)	OAL (in.)	Uses Insert	Order No.	Price
MEFH26-3	.122	3	4.31	MEGFN - 3	**ME2010000**	Price
MEFH32-3	.122	4	5.87	MEGFN/L/R - 3	**ME2010005**	Price

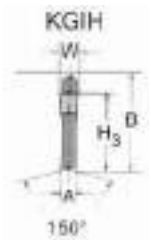
Replacement MEGFN-3 inserts - order no. ME1810010

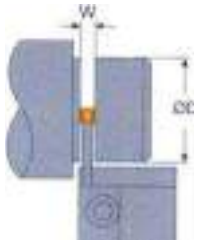
PRODUCUT D-GRIP KGIH Adjustable Cut-Off and Grooving Blades

All D-Grip Products are interchangeable with other major T-Style cut-off and grooving tool systems.

- No wrenches
- No clamps
- No screws
- No springs







Insert Width W ± .004 (in.)	Max. Depth D (in.)	Blade Thickness A (in.)	Blade Hght. B (in.)	OAL L (in.)	Center Hght. H3 (in.)	Inserts	Description	Order No.	Price
.087 & .094	1.50	.062	.75	3.375	.609	KGTN/L/R2; 2.4	KGIH192	**EJ412300609**	Price
.087 & .094	2.00	.062	1.03	4.31	.840	KGTN/L/R2; 2.4	KGIH262	**EJ412300610**	Price
.087 & .094	2.00	.062	1.25	5.87	.980	KGTN/L/R2; 2.4	KGIH322	**EJ412300618**	Price
.122	3.00	.094	1.03	4.31	.840	KGTN/L/R3	KGIH263	**EJ412300612**	Price
.122	4.00	.094	1.25	5.87	.980	KGTN/L/R3	KGIH323	**EJ412300619**	Price
.161	3.00	.125	1.03	4.31	.840	KGTN/L/R4	KGIH264	**EJ412300614**	Price
.161	4.00	.125	1.25	5.87	.980	KGTN/L/R4	KGIH324	**EJ412300622**	Price
.250	3.00	.203	1.03	4.31	.840	KGTN/L/R6	KGIH266	**EJ412300617**	Price
.250	5.00	.203	1.25	5.87	.980	KGTN/L/R6	KGIH326	**EJ412300626**	Price

PRODUCUT Compare Our Prices and Our Quality for Tremendous Savings

D-GRIP KGTN/R/L Cut-Off and Grooving Inserts

The cutting forces help lock the insert firmly into place and increase the grip on the insert. Removal is possible by using a tool at the back of the insert. The unique chip breaker design of the insert shapes the chips which are narrower than the slot. The system has a cut-off capacity up to 23" diameter. KGTN neutral, KGTL left hand, KGTR right hand





Notes on Selecting Insert Size

- Use 8° to reduce burr size
- Use KGTN 0° for flatness of surface, chip flow, large depth to width of cut ratio and high feed rate
- Use 0° and 8° for tubing

Lead angle: standard and neutral 0°, right 8°
See below for carbide grade selection chart

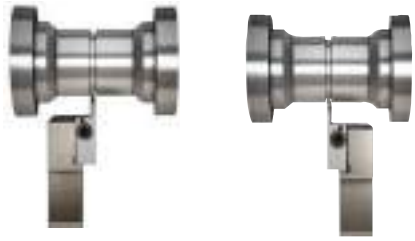
Carbide Grade Selection

For steel cutting
DC340 (C5) recommended for machining steel, austenitic stainless steel, machining to center, and interrupted cuts.
DC740 (C5-C6) TiC+TiCN+TiN coating, recommended for interrupted cuts, machining of steel, austenitic and martensitic stainless steel and pipes.

For cast iron and non-ferrous materials
DC210 (C2-C3) recommended for cast iron, non ferrous materials and plastics.

K Lead Angle (in.)	W ± .004 (in.)	Description	DC210		DC340		DC740	
			Order No.	Price	Order No.	Price	Order No.	Price
0°	.087	KGTN2	**EJ406000812**	Price	**EJ406000818**	Price	**EJ406000821**	Price
0°	.122	KGTN3	**EJ406000836**	Price	**EJ406000842**	Price	**EJ406000847**	Price
8°	.122	KGTR38D	**-**	-	**-**	-	**EJ406001013**	Price
0°	.161	KGTN4	**-**	-	**EJ406000874**	Price	**EJ406000878**	Price
8°	.161	KGTR48D	**-**	-	**-**	-	**EJ406001049**	Price
0°	.200	KGTN5	**-**	-	**EJ406000909**	Price	**EJ406000912**	Price
0°	.250	KGTN6	**-**	-	**EJ406000926**	Price	**-**	-

Kool Cut™ Modular Turning & Grooving System



- Modular with serrated connection
- Serrations provide precision, repeatability and rigidity
- Double jet coolant system for maximum insert life
- Interchangeable shanks and cartridges
- DUP35UG grade inserts optimized for multi material applications, primarily carbon and alloy steels and stainless steels but also affective on high temp alloys, cast irons and non-ferrous metals
- DNTQ and DNTR inserts have 3 chipbreakers for partoff and grooving as well as bi-directional turning operations

ADDN-MT R/L Straight Toolholders

Right hand shown, left hand opposite



Shank Size (in.)	Left			Right		
	Model Number	Order No.	Price	Model Number	Order No.	Price
.750	ADDN-MTL-12-C	**FL4561990**	Price	ADDN-MTR-12-C	**FL4561987**	Price
1.000	ADDN-MTL-16-D	**FL4561991**	Price	ADDN-MTR-16-D	**FL4561988**	Price
1.250	ADDN-MTL-20-E	**FL4561992**	Price	ADDN-MTR-20-E	**FL4561989**	Price

ADDN-MG R/L Gang 90° Toolholders

Right hand shown, left hand opposite



Shank Size (in.)	Left			Right		
	Model No.	Order No.	Price	Model No.	Order No.	Price
.750	ADDN-MGL-12-C	**FL4561993**	Price	ADDN-MGR-12-C	**FL4561996**	Price
1.000	ADDN-MGL-16-D	**FL4561994**	Price	ADDN-MGR-16-D	**FL4561997**	Price
1.250	ADDN-MGL-20-E	**FL4561995**	Price	ADDN-MGR-20-E	**FL4561998**	Price

ADKDN UR/UL Undercut Cartridges

Right hand shown, left hand opposite



Insert Width (in.)	Max. Groove Depth (in.)	Left			Right		
		Model No.	Order No.	Price	Model No.	Order No.	Price
.118	.236	ADKDN-UL30-06	**FL4561916**	Price	ADKDN-UR30-06	**FL4561911**	Price
.157	.315	ADKDN-UL40-08	**FL4561917**	Price	ADKDN-UR40-08	**FL4561912**	Price
.197	.394	ADKDN-UL50-10	**FL4561918**	Price	ADKDN-UR50-10	**FL4561913**	Price

ADKDN TR/TL Turning - Grooving - Partoff Cartridges

Right hand shown, left hand opposite



Insert Width (in.)	Max. Groove Depth (in.)	Left			Right		
		Model Number	Order No.	Price	Model Number	Order No.	Price
.079	.236	ADKDN-TL20-06	**FL4561768**	Price	ADKDN-TR20-06	**FL4561750**	Price
.079	.472	ADKDN-TL20-12	**FL4561769**	Price	ADKDN-TR20-12	**FL4561751**	Price
.079	.709	ADKDN-TL20-18	**FL4561770**	Price	ADKDN-TR20-18	**FL4561752**	Price
.118	.354	ADKDN-TL30-09	**FL4561771**	Price	ADKDN-TR30-09	**FL4561753**	Price
.118	.709	ADKDN-TL30-18	**FL4561772**	Price	ADKDN-TR30-18	**FL4561754**	Price
.118	1.063	ADKDN-TL30-27	**FL4561773**	Price	ADKDN-TR30-27	**FL4561755**	Price
.157	.472	ADKDN-TL40-12	**FL4561774**	Price	ADKDN-TR40-12	**FL4561756**	Price
.157	.709	ADKDN-TL40-18	**FL4561775**	Price	ADKDN-TR40-18	**FL4561757**	Price
.157	.945	ADKDN-TL40-24	**FL4561776**	Price	ADKDN-TR40-24	**FL4561758**	Price
.157	1.181	ADKDN-TL40-30	**FL4561777**	Price	ADKDN-TR40-30	**FL4561759**	Price
.197	.394	ADKDN-TL50-10	**FL4561778**	Price	ADKDN-TR50-10	**FL4561760**	Price
.197	.591	ADKDN-TL50-15	**FL4561779**	Price	ADKDN-TR50-15	**FL4561761**	Price
.197	.984	ADKDN-TL50-25	**FL4561780**	Price	ADKDN-TR50-25	**FL4561762**	Price
.197	1.575	ADKDN-TL50-40	**FL4561781**	Price	ADKDN-TR50-40	**FL4561763**	Price
.236	.472	ADKDN-TL60-12	**FL4561782**	Price	ADKDN-TR60-12	**FL4561764**	Price
.236	.709	ADKDN-TL60-18	**FL4561783**	Price	ADKDN-TR60-18	**FL4561765**	Price
.236	1.181	ADKDN-TL60-30	**FL4561784**	Price	ADKDN-TR60-30	**FL4561766**	Price
.236	1.890	ADKDN-TL60-48	**FL4561785**	Price	ADKDN-TR60-48	**FL4561767**	Price

ADCDN-FL Face Grooving Cartridges



Insert Width (in.)	Max. Groove Depth (in.)	First Cut Min. Dia. (in.)	First Cut Max. Dia. (in.)	Model No.	Order No.	Price
.118	.472	.866	1.181	ADCDN-FL30-022030-12	**FL4562208**	Price
.118	.472	1.181	1.496	ADCDN-FL30-030038-12	**FL4562209**	Price
.118	.472	1.496	1.890	ADCDN-FL30-038048-12	**FL4562210**	Price
.118	.472	1.890	2.362	ADCDN-FL30-048060-12	**FL4562211**	Price
.118	.472	2.362	2.953	ADCDN-FL30-060075-12	**FL4562212**	Price
.118	.472	2.953	3.937	ADCDN-FL30-075100-12	**FL4562213**	Price
.118	.472	3.937	7.874	ADCDN-FL30-100200-12	**FL4562214**	Price
.118	.472	7.874	11.811	ADCDN-FL30-200300-12	**FL4562215**	Price
.118	.472	11.81	>	ADCDN-FL30-300->-12	**FL4562216**	Price
.118	.709	2.362	2.953	ADCDN-FL30-060075-18	**FL4562217**	Price
.118	.709	2.953	3.937	ADCDN-FL30-075100-18	**FL4562218**	Price
.118	.709	3.937	7.874	ADCDN-FL30-100200-18	**FL4562219**	Price
.118	.709	7.874	11.811	ADCDN-FL30-200300-18	**FL4562220**	Price
.118	.709	11.811	>	ADCDN-FL30-300->-18	**FL4562221**	Price
.118	.945	3.937	7.874	ADCDN-FL30-100200-24	**FL4562222**	Price
.118	.945	7.874	11.811	ADCDN-FL30-200300-24	**FL4562223**	Price
.118	.945	11.811	>	ADCDN-FL30-300->-24	**FL4562224**	Price
.236	.512	1.969	2.953	ADCDN-FL60-050075-13	**FL4562253**	Price
.236	.512	2.953	5.118	ADCDN-FL60-075130-13	**FL4562254**	Price
.236	.512	5.118	11.811	ADCDN-FL60-130300-13	**FL4562255**	Price
.236	.512	11.811	19.685	ADCDN-FL60-300500-13	**FL4562256**	Price
.236	.512	19.685	>	ADCDN-FL60-500->-13	**FL4562257**	Price

Insert Width (in.)	Max. Groove Depth (in.)	First Cut Min. Dia. (in.)	First Cut Max. Dia. (in.)	Model No.	Order No.	Price
.236	1.024	2.953	5.118	ADCDN-FL60-075130-26	**FL4562258**	Price
.236	1.024	5.118	11.811	ADCDN-FL60-130300-26	**FL4562259**	Price
.236	1.024	11.811	19.685	ADCDN-FL60-300500-26	**FL4562260**	Price
.236	1.024	19.685	>	ADCDN-FL60-500->-26	**FL4562261**	Price
.236	1.535	2.953	5.118	ADCDN-FL60-075130-39	**FL4562262**	Price
.236	1.535	5.118	11.811	ADCDN-FL60-130300-39	**FL4562263**	Price
.236	1.535	11.811	19.685	ADCDN-FL60-300500-39	**FL4562264**	Price
.236	1.535	19.685	>	ADCDN-FL60-500->-39	**FL4562265**	Price

DNTQ / DNTR Grooving Inserts

- DUP35UG grade inserts optimized for multi material applications, primarily carbon and alloy steels and stainless steels but also affective on high temp alloys, cast irons and non-ferrous metals
- DNTQ (regular) and DNTR (full radius nose) inserts have 3 chipbreakers for partoff and grooving as well as bi-directional turning operations

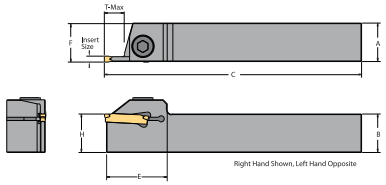


Style - Full Radius			
Insert Width (in.)	Insert Length (in.)	Order No.	Price
.118	.866	**FL4582459**	Price
.157	.984	**FL4582460**	Price
.197	.984	**FL4582461**	Price

Style - Regular			
Insert Width (in.)	Insert Length (in.)	Order No.	Price
.079	.866	**FL4582440**	Price
.118	.866	**FL4582442**	Price
.157	.984	**FL4582443**	Price
.197	.984	**FL4582444**	Price
.236	.984	**FL4582445**	Price

DETGF R/L Toolholders

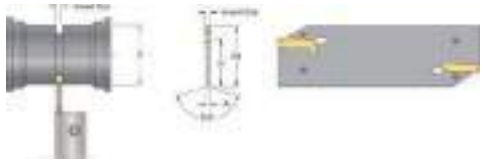
Non-Coolant Turning, Grooving, and Partoff



Shank Size (in.)	OAL C (in.)	H (in.)	F (in.)	Insert Width (in.)	Tmax (in.)	Left			Right		
						Model No.	Order No.	Price	Model No.	Order No.	Price
3/4 x 3/4	5.000	.750	.762	.118	.354	DETGFL12-030C-S09	**FL4563607**	Price	DETGFR12-030C-S09	**FL4563606**	Price
3/4 x 3/4	5.000	.750	.762	.157	.472	DETGFL12-040C-S12	**FL4563609**	Price	DETGFR12-040C-S12	**FL4563608**	Price
3/4 x 3/4	5.000	.750	.762	.118	.551	DETGFL12-030C-M14	**FL4563637**	Price	DETGFR12-030C-M14	**FL4563636**	Price
3/4 x 3/4	5.000	.750	.762	.157	.709	DETGFL12-040C-M18	**FL4563639**	Price	DETGFR12-040C-M18	**FL4563638**	Price
3/4 x 3/4	5.000	.750	.762	.118	.787	-	**-**	-	DETGFR12-030C-L20	**FL4563666**	Price
3/4 x 3/4	5.000	.750	.762	.157	.945	DETGFL12-040C-L24	**FL4563669**	Price	DETGFR12-040C-L24	**FL4563668**	Price
1 x 1	6.000	1.000	1.012	.118	.354	DETGFL16-030D-S09	**FL4563615**	Price	DETGFR16-030D-S09	**FL4563614**	Price
1 x 1	6.000	1.000	1.012	.157	.472	DETGFL16-040D-S12	**FL4563617**	Price	DETGFR16-040D-S12	**FL4563616**	Price
1 x 1	6.000	1.000	1.012	.118	.551	DETGFL16-030D-M14	**FL4563645**	Price	DETGFR16-030D-M14	**FL4563644**	Price
1 x 1	6.000	1.000	1.012	.157	.709	DETGFL16-040D-M18	**FL4563647**	Price	DETGFR16-040D-M18	**FL4563646**	Price
1 x 1	6.000	1.000	1.012	.157	.945	DETGFL16-040D-L24	**FL4563677**	Price	DETGFR16-040D-L24	**FL4563676**	Price
1 x 1-1/4	7.000	1.250	1.012	.118	.354	DETGFL85-030D-S09	**FL4563623**	Price	DETGFR85-030D-S09	**FL4563622**	Price
1 x 1-1/4	7.000	1.250	1.012	.157	.472	DETGFL85-040D-S12	**FL4563625**	Price	DETGFR85-040D-S12	**FL4563624**	Price
1 x 1-1/4	7.000	1.250	1.012	.118	.551	DETGFL85-030D-M14	**FL4563653**	Price	DETGFR85-030D-M14	**FL4563652**	Price
1 x 1-1/4	7.000	1.250	1.012	.157	.709	DETGFL85-040D-M18	**FL4563655**	Price	DETGFR85-040D-M18	**FL4563654**	Price
1 x 1-1/4	7.000	1.250	1.012	.118	.787	DETGFL85-030D-L20	**FL4563683**	Price	DETGFR85-030D-L20	**FL4563682**	Price
1 x 1-1/4	7.000	1.250	1.012	.157	.945	DETGFL85-040D-L24	**FL4563685**	Price	DETGFR85-040D-L24	**FL4563684**	Price

TWECOB-DNTF Blades

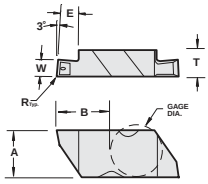
- 4.43" Overall length



Model No.	Blade Height (mm)	Tmax (in.)	Insert Width (in.)	Order No.	Price
TWECOB-DNTF-26-20	26mm	1.000	.079	**FL4561965**	Price
TWECOB-DNTF-26-30	26mm	1.550	.118	**FL4561966**	Price
TWECOB-DNTF-26-40	26mm	1.650	.157	**FL4561967**	Price
TWECOB-DNTF-32-20	32mm	1.150	.079	**FL4561968**	Price
TWECOB-DNTF-32-30	32mm	1.750	.118	**FL4561969**	Price
TWECOB-DNTF-32-40	32mm	1.950	.157	**FL4561970**	Price
TWECOB-DNTF-32-50	32mm	2.350	.197	**FL4561971**	Price
TWECOB-DNTF-32-60	32mm	2.750	.236	**FL4561972**	Price

TOOL-FLO Member IMC Group Flo-Lock Grooving Inserts

FLG





Carbide Grades

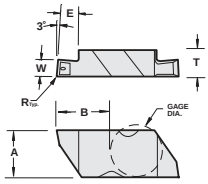
- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

						AC3			AC50			GP50		
Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	T (in.)	E (in.)	Grade w/Hone	Order No.	Price	Grade w/ Hone	Order No.	Price	Grade w/ Hone	Order No.	Price
FLG-2031R	.031	.219	.002/.005	.150	.050	AC3R	**FG31562631RAC3R**	Price	AC50C	**FG31026170**	Price	GP50C	**FG31026190**	Price
FLG-2041R	.041	.219	.002/.005	.150	.050	-	**-**	-	-	**-**	-	GP50C	**FG31026210**	Price
FLG-2041L	.041	.219	.002/.005	.150	.050	-	**-**	-	-	**-**	-	GP50C	**FG31562641LN4C**	Price
FLG-2047R	.047	.219	.002/.005	.150	.050	AC3R	**FG31FLG2047RA**	Price	AC50C	**FG31026260**	Price	-	**-**	-
FLG-2047L	.047	.219	.002/.005	.150	.050	AC3R	**FG31FLG2047LA**	Price	AC50C	**FG31026220**	Price	-	**-**	-
FLG-2058L	.058	.219	.005/.010	.150	.050	-	**-**	-	-	**-**	-	GP50C	**FG31026310**	Price
FLG-2058R	.058	.219	.005/.010	.150	.050	-	**-**	-	-	**-**	-	GP50C	**FG31026330**	Price
FLG-2062R	.062	.219	.005/.010	.150	.110	AC3R	**FG31FLG2062RA**	Price	AC50C	**FG31026390**	Price	-	**-**	-
FLG-2062L	.062	.219	.005/.010	.150	.110	AC3R	**FG31FLG2062LA**	Price	AC50C	**FG31026350**	Price	-	**-**	-
FLG-2094R	.094	.219	.005/.010	.150	.110	AC3R	**FG31FLG2094RA**	Price	AC50C	**FG31026560**	Price	-	**-**	-
FLG-2094L	.094	.219	.005/.010	.150	.110	AC3R	**FG31FLG2094LA**	Price	AC50C	**FG31026510**	Price	-	**-**	-
FLG-2125R	.125	.219	.005/.010	.150	.110	AC3R	**FG31FLG2125RA**	Price	AC50C	**FG31562825RAC50**	Price	-	**-**	-
FLG-2125L	.125	.219	.005/.010	.150	.110	AC3R	**FG31FLG2125LA**	Price	AC50C	**FG31026610**	Price	-	**-**	-
FLG-3031R	.031	.344	.002/.005	.195	.050	AC3R	**FG3114080**	Price	AC50C	**FG31563631RAC50**	Price	GP50	**FG31563631RN4C**	Price
FLG-3031L	.031	.344	.002/.005	.195	.050	AC3R	**FG31027680**	Price	AC50C	**FG31563631LAC50**	Price	-	**-**	-
FLG-3047R	.047	.344	.005/.010	.195	.075	AC3R	**FG31FLG3047RA**	Price	AC50C	**FG31027830**	Price	-	**-**	-
FLG-3047L	.047	.344	.005/.010	.195	.075	AC3R	**FG31FLG3047LA**	Price	AC50C	**FG31027770**	Price	-	**-**	-
FLG-3062R	.062	.344	.005/.010	.195	.120	AC3R	**FG31FLG3062RA**	Price	AC50C	**FG31563662RAC50**	Price	-	**-**	-
FLG-3062L	.062	.344	.005/.010	.195	.120	AC3R	**FG31FLG3062LA**	Price	AC50C	**FG31563662LAC50**	Price	-	**-**	-
FLG-3072R	.072	.344	.005/.010	.195	.120	AC3R	**FG31028000**	Price	AC50C	**FG31028010**	Price	GP50C	**FG31028030**	Price
FLG-3072L	.072	.344	.005/.010	.195	.120	AC3R	**FG31027910**	Price	AC50C	**FG31027920**	Price	GP50C	**FG31027940**	Price
FLG-3078R	.078	.344	.005/.010	.195	.120	AC3R	**FG31028180**	Price	AC50C	**FG31028190**	Price	GP50	**FG315078**	Price
FLG-3078L	.078	.344	.005/.010	.195	.120	AC3R	**FG31028100**	Price	AC50C	**FG31028110**	Price	GP50C	**FG31028130**	Price
FLG-3088R	.088	.344	.005/.010	.195	.180	AC3R	**FG31563688RAC3R**	Price	AC50C	**FG31028330**	Price	GP50C	**FG31028350**	Price
FLG-3088L	.088	.344	.005/.010	.195	.180	AC3R	**FG31028260**	Price	AC50C	**FG31028270**	Price	GP50C	**FG31028280**	Price
FLG-3094R	.094	.344	.005/.010	.195	.195	AC3R	**FG31FLG3094RA**	Price	AC50C	**FG31563694RAC50**	Price	-	**-**	-
FLG-3094L	.094	.344	.005/.010	.195	.180	AC3R	**FG31FLG3094LA**	Price	AC50C	**FG31563694LAC50**	Price	-	**-**	-
FLG-3097R	.097	.344	.010/.015	.195	.180	AC3R	**FG31028550**	Price	-	**-**	-	GP50	**FG31563697RN4C**	Price
FLG-3097L	.097	.344	.010/.015	.195	.180	AC3R	**FG31028480**	Price	AC50C	**FG31028490**	Price	GP50C	**FG31028510**	Price
FLG-3105R	.105	.344	.005/.010	.195	.180	AC3R	**FG31028660**	Price	AC50C	**FG31028670**	Price	GP50C	**FG31563805RN4C**	Price
FLG-3105L	.105	.344	.005/.010	.195	.180	AC3R	**FG31028620**	Price	AC50C	**FG31028630**	Price	GP50C	**FG31028650**	Price
FLG-3110R	.110	.344	.005/.010	.195	.180	AC3R	**FG31028740**	Price	AC50C	**FG31563810RAC50**	Price	GP50C	**FG31028760**	Price
FLG-3110L	.110	.344	.005/.010	.195	.180	AC3R	**FG31028690**	Price	AC50C	**FG31028700**	Price	GP50C	**FG31028720**	Price
FLG-3122R	.122	.344	.005/.010	.195	.180	AC3R	**FG31028820**	Price	AC50C	**FG31028830**	Price	GP50C	**FG31028850**	Price
FLG-3122L	.122	.344	.005/.010	.195	.180	AC3R	**FG31028770**	Price	AC50C	**FG31028780**	Price	GP50C	**FG31028810**	Price
FLG-3125R	.125	.344	.005/.010	.195	.195	AC3R	**FG31FLG3125RA**	Price	AC50C	**FG31028920**	Price	-	**-**	-
FLG-3125L	.125	.344	.005/.010	.195	.180	AC3R	**FG31FLG3125LA**	Price	AC50C	**FG31563825LAC50**	Price	-	**-**	-
FLG-3142R	.142	.344	.005/.010	.195	.180	AC3R	**FG31563842RAC3R**	Price	AC50C	**FG31028980**	Price	GP50C	**FG31029000**	Price
FLG-3142L	.142	.344	.005/.010	.195	.180	AC3R	**FG31563842LAC3R**	Price	AC50C	**FG31563842LAC50**	Price	GP50C	**FG31028960**	Price
FLG-3156R	.156	.344	.005/.010	.195	.180	AC3R	**FG31563856RAC3R**	Price	AC50C	**FG31029060**	Price	GP50C	**FG31029080**	Price
FLG-3156L	.156	.344	.005/.010	.195	.180	-	**-**	-	AC50C	**FG31029030**	Price	GP50C	**FG31029050**	Price
FLG-3178R	.178	.344	.005/.010	.195	.180	AC3R	**FG31029130**	Price	AC50C	**FG31029140**	Price	GP50C	**FG31029160**	Price
FLG-3178L	.178	.344	.005/.010	.195	.180	AC3R	**FG31029090**	Price	AC50C	**FG31029100**	Price	GP50C	**FG31029120**	Price
FLG-3185R	.185	.344	.020/.025	.195	.180	AC3R	**FG31029200**	Price	AC50C	**FG31029210**	Price	GP50C	**FG31029230**	Price
FLG-3185L	.185	.344	.020/.025	.195	.180	AC3R	**FG31029170**	Price	-	**-**	-	GP50C	**FG31029190**	Price
FLG-3189R	.189	.344	.020/.025	.195	.180	AC3R	**FG31563889RAC3R**	Price	AC50C	**FG31029320**	Price	GP50	**FG3153189R**	Price

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TOOL-FLO Member IMC Group Flo-Lock Grooving Inserts *(continued)*

FLG





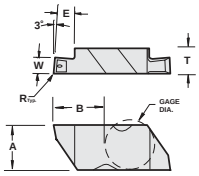
Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	T (in.)	E (in.)	AC3			AC50			GP50		
						Grade w/Hone	Order No.	Price	Grade w/ Hone	Order No.	Price	Grade w/ Hone	Order No.	Price
FLG-3189L	.189	.344	.020/.025	.195	.180	AC3R	**FG31029240**	Price	AC50C	**FG31029250**	Price	GP50	**FG3153189L**	Price
FLG-4125R	.125	.453	.005/.010	.255	.250	-	-	-	AC50C	**FG31030540**	Price	GP50C	**FG3114090**	Price
FLG-4125L	.125	.453	.005/.010	.255	.250	-	-	-	AC50C	**FG31564825LAC50**	Price	GP50	**FG31564825LN4C**	Price
FLG-4189R	.189	.453	.020/.025	.255	.250	AC3R	**FG31564889RAC3R**	Price	AC50C	**FG31030660**	Price	GP50C	**FG31030680**	Price
FLG-4189L	.189	.453	.020/.025	.255	.250	AC3R	**FG31564889LAC3R**	Price	AC50C	**FG31564889LAC50**	Price	GP50C	**FG31030620**	Price
FLG-4213R	.213	.453	.005/.010	.255	.250	-	-	-	-	-	-	GP50C	**FG31030730**	Price
FLG-4213L	.213	.453	.005/.010	.255	.250	-	-	-	-	-	-	GP50C	**FG31030710**	Price
FLG-4219R	.219	.453	.020/.025	.255	.250	-	-	-	-	-	-	GP50C	**FG31030770**	Price
FLG-4219L	.219	.453	.020/.025	.255	.250	-	-	-	-	-	-	GP50C	**FG31030750**	Price
FLG-4250R	.250	.453	.020/.025	.255	.250	AC3A	**FG31030850**	Price	AC50E	**FG31030860**	Price	-	-	-
FLG-4250L	.250	.453	.020/.025	.255	.550	AC3A	**FG31030780**	Price	AC50E	**FG31030790**	Price	GP50E	**FG3115015**	Price
FLG-4312R	.312	.453	.030/.035	.312	.250	-	-	-	-	-	-	GP50E	**FG31574212RN4E**	Price
FLG-4312L	.312	.453	.030/.035	.312	.250	-	-	-	-	-	-	GP50E	**FG31574212LN4E**	Price
FLG-6281R	.281	.453	.030/.035	.383	.250	-	-	-	-	-	-	GP50E	**FG31031030**	Price
FLG-6281L	.281	.453	.030/.035	.383	.250	-	-	-	-	-	-	GP50E	**FG31031020**	Price
FLG-6312R	.312	.453	.030/.035	.383	.250	-	-	-	-	-	-	GP50E	**FG31031050**	Price
FLG-6312L	.312	.453	.030/.035	.383	.250	-	-	-	-	-	-	GP50E	**FG31031040**	Price
FLG-6375R	.375	.453	.030/.035	.383	.250	-	-	-	-	-	-	GP50E	**FG31031070**	Price
FLG-6375L	.375	.453	.030/.035	.383	.250	-	-	-	-	-	-	GP50E	**FG31031060**	Price

TOOL-FLO Member IMC Group Chip-Flo Grooving Inserts with Chipbreaker

FLG-CB





Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

Tool-Flo	A (in.)	Width (in.)	Radius R (in.)	T (in.)	E (in.)	AC3			AC50			GP50		
						Grade W/Hone	Order No.	Price	Grade W/Hone	Order No.	Price	Grade W/Hone	Order No.	Price
FLG-2047R-CB	.219	.047	.002/.005	.150	.050	AC3R	**FG31FLG2047RCB**	Price	AC50C	**FG31026280**	Price	GP50	**FG315020**	Price
FLG-2047L-CB	.219	.047	.002/.005	.150	.050	AC3R	**FG31FLG2047LCB**	Price	AC50C	**FG31026240**	Price	GP50	**FG315021**	Price
FLG-2062R-CB	.219	.062	.005/.010	.150	.110	AC3R	**FG31FLG2062RCB**	Price	AC50C	**FG312662PRAC50C**	Price	GP50	**FG315022**	Price
FLG-2062L-CB	.219	.062	.005/.010	.150	.110	AC3R	**FG31FLG2062LCB**	Price	AC50C	**FG312662PLAC50C**	Price	GP50	**FG315023**	Price
FLG-2078R-CB	.219	.078	.005/.010	.150	.110	AC3R	**FG31026470**	Price	AC50C	**FG31026480**	Price	GP50C	**FG31026500**	Price
FLG-2078L-CB	.219	.078	.005/.010	.150	.110	AC3R	**FG31026430**	Price	AC50C	**FG31026440**	Price	GP50C	**FG31026460**	Price
FLG-2094R-CB	.219	.094	.005/.010	.150	.110	AC3R	**FG31FLG2094RCB**	Price	AC50C	**FG31026590**	Price	GP50	**FG315024**	Price
FLG-2094L-CB	.219	.094	.005/.010	.150	.110	AC3R	**FG31FLG2094LCB**	Price	AC50C	**FG31026540**	Price	GP50	**FG315025**	Price
FLG-2125R-CB	.219	.125	.005/.010	.150	.110	AC3R	**FG31FLG2125RCB**	Price	AC50C	**FG31026680**	Price	GP50	**FG315026**	Price
FLG-2125L-CB	.219	.125	.005/.010	.150	.110	AC3R	**FG31FLG2125LCB**	Price	AC50C	**FG31026640**	Price	GP50	**FG315027**	Price
FLG-3031R-CB	.344	.031	.002/.005	.195	.050	AC3R	**FG31027740**	Price	AC50C	**FG31563631PRAC5**	Price	GP50	**FG315031R**	Price
FLG-3031L-CB	.344	.031	.002/.005	.195	.050	AC3R	**FG31027710**	Price	AC50C	**FG31563631PLAC5**	Price	GP50	**FG315031L**	Price
FLG-3047R-CB	.344	.047	.005/.010	.195	.075	AC3R	**FG31FLG3047RCB**	Price	AC50C	**FG31563647PRAC5**	Price	GP50	**FG315028**	Price
FLG-3047L-CB	.344	.047	.005/.010	.195	.075	AC3R	**FG31FLG3047LCB**	Price	AC50C	**FG31027800**	Price	GP50	**FG315029**	Price
FLG-3062R-CB	.344	.062	.005/.010	.195	.120	AC3R	**FG31FLG3062RCB**	Price	AC50C	**FG31563662PRAC5**	Price	GP50	**FG315030**	Price
FLG-3062L-CB	.344	.062	.005/.010	.195	.120	AC3R	**FG31FLG3062LCB**	Price	AC50C	**FG31563662PLAC5**	Price	GP50	**FG315031**	Price
FLG-3072R-CB	.344	.072	.005/.010	.195	.120	AC3R	**FG31028040**	Price	AC50C	**FG31028050**	Price	GP50C	**FG31028070**	Price

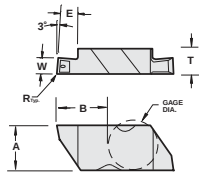
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TOOLFLO Member IMC Group Chip-Flo Grooving Inserts with Chipbreaker *(continued)*

FLG-CB

Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel





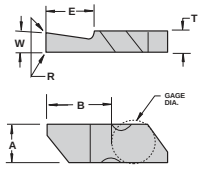
						AC3			AC50			GP50		
Tool-Flo	A (in.)	Width (in.)	Radius R (in.)	T (in.)	E (in.)	Grade W/Hone	Order No.	Price	Grade W/Hone	Order No.	Price	Grade W/Hone	Order No.	Price
FLG-3072L-CB	.344	.072	.005/.010	.195	.120	AC3R	**FG31027950**	Price	AC50C	**FG31027960**	Price	GP50C	**FG31027980**	Price
FLG-3078R-CB	.344	.078	.005/.010	.195	.120	AC3	**FG31028230**	Price	AC50C	**FG31028210**	Price	GP50	**FG315078R**	Price
FLG-3078L-CB	.344	.078	.005/.010	.195	.120	AC3R	**FG31028140**	Price	AC50C	**FG31028150**	Price	GP50	**FG315078L**	Price
FLG-3088R-CB	.344	.088	.005/.010	.195	.180	AC3R	**FG31028360**	Price	AC50C	**FG31028370**	Price	GP50	**FG31563688PRN4**	Price
FLG-3088L-CB	.344	.088	.005/.010	.195	.180	AC3R	**FG31028290**	Price	AC50C	**FG31028300**	Price	GP50C	**FG31028320**	Price
FLG-3094R-CB	.344	.094	.005/.010	.195	.195	AC3R	**FG31FLG3094RCB**	Price	AC50C	**FG31563694PRAC5**	Price	GP50	**FG315032**	Price
FLG-3094L-CB	.344	.094	.005/.010	.195	.195	AC3R	**FG31FLG3094LCB**	Price	AC50C	**FG31563694PLAC5**	Price	GP50C	**FG31563694PLN4C**	Price
FLG-3097R-CB	.344	.097	.010/.015	.195	.180	AC3R	**FG31028570**	Price	AC50C	**FG31028580**	Price	-	**-**	-
FLG-3097L-CB	.344	.097	.010/.015	.195	.180	-	**-**	-	-	**-**	-	GP50C	**FG31028540**	Price
FLG-3110L-CB	.344	.110	.005/.010	.195	.180	-	**-**	-	-	**-**	-	GP50C	**FG31028730**	Price
FLG-3125R-CB	.344	.125	.005/.010	.195	.195	AC3R	**FG31FLG3125RCB**	Price	AC50C	**FG31563825PRAC5**	Price	-	**-**	-
FLG-3142R-CB	.344	.142	.005/.010	.195	.180	-	**-**	-	AC50C	**FG31029010**	Price	-	**-**	-
FLG-3125L-CB	.344	.125	.005/.010	.195	.195	AC3R	**FG31FLG3125LCB**	Price	AC50C	**FG31028880**	Price	-	**-**	-
FLG-3189R-CB	.344	.189	.020/.025	.195	.180	AC3	**FG31029370**	Price	AC50C	**FG31029350**	Price	GP50	**FG31563889PRN4C**	Price
FLG-3189L-CB	.344	.189	.020/.025	.195	.180	AC3R	**FG31029290**	Price	AC50C	**FG31563889PLAC5**	Price	GP50C	**FG31563889PLN4C**	Price
FLG-4125R-CB	.453	.125	.005/.010	.255	.250	AC3R	**FG31030560**	Price	AC50C	**FG31030570**	Price	GP50C	**FG31030590**	Price
FLG-4125L-CB	.453	.125	.005/.010	.255	.250	AC3R	**FG31564825PLAC3**	Price	AC50C	**FG31030510**	Price	GP50C	**FG31564825PLN4C**	Price
FLG-4189R-CB	.453	.189	.020/.025	.255	.250	AC3	**FG31564889PRAC3**	Price	AC50C	**FG31564889PRAC5**	Price	GP50C	**FG31030690**	Price
FLG-4189L-CB	.453	.189	.020/.025	.255	.250	AC3	**FG31564889PLAC3**	Price	AC50C	**FG31564889PLAC5**	Price	GP50C	**FG31030640**	Price
FLG-4250R-CB	.453	.250	.020/.025	.255	.250	AC3A	**FG31574050PRAC3**	Price	AC50E	**FG31030880**	Price	GP50E	**FG31574050PRN4E**	Price
FLG-4250L-CB	.453	.250	.020/.025	.255	.250	AC3A	**FG31030810**	Price	AC50E	**FG31030820**	Price	GP50E	**FG31030840**	Price

TOOLFLO Member IMC Group Chip-Flo Deep Grooving Inserts Without Chipbreaker

FLGD

Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

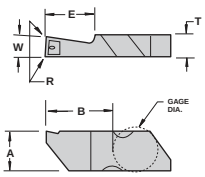




							AC3			AC50			GP50		
Tool-Flo	A (in.)	Width (in.)	Radius R (in.)	T (in.)	E (in.)	B (in.)	Grade w/Hone	Order No.	Price	Grade w/ Hone	Order No.	Price	Grade w/ Hone	Order No.	Price
FLGD-3062R	.344	.062	.005/.010	.195	.250	.5050	-	**-**	-	-	**-**	-	GP50C	**FG31031110**	Price
FLGD-3062L	.344	.062	.005/.010	.195	.250	.5050	-	**-**	-	-	**-**	-	GP50C	**FG31031090**	Price
FLGD-3094R	.344	.094	.005/.010	.195	.250	.5050	-	**-**	-	-	**-**	-	GP50	**FG315120**	Price
FLGD-3094L	.344	.094	.005/.010	.195	.250	.5050	AC3R	**FG39031120**	Price	-	**-**	-	GP50	**FG315121**	Price
FLGD-3125R	.344	.125	.005/.010	.195	.250	.5050	AC3R	**FG316334125RAC3**	Price	AC50C	**FG312411918**	Price	GP50	**FG315122**	Price
FLGD-3125L	.344	.125	.005/.010	.195	.250	.5050	AC3R	**FG39031210**	Price	AC50C	**FG31031220**	Price	GP50	**FG315123**	Price
FLGD-3189L	.344	.189	.020/.025	.195	.250	.5050	-	**-**	-	-	**-**	-	GP50	**FG315125**	Price
FLGD-3189R	.344	.189	.020/.025	.195	.250	.5050	-	**-**	-	-	**-**	-	GP50	**FG315124**	Price
FLGD-4125R	.453	.125	.005/.010	.255	.250	.6360	-	**-**	-	-	**-**	-	GP50	**FG315126**	Price
FLGD-4125L	.453	.125	.005/.010	.255	.250	.6360	-	**-**	-	-	**-**	-	GP50	**FG315127**	Price
FLGD-4189R	.453	.189	.020/.025	.255	.375	.7610	AC3R	**FG31031660**	Price	-	**-**	-	GP50	**FG315128**	Price
FLGD-4189L	.453	.189	.020/.025	.255	.375	.7610	AC3R	**FG316344189LAC3**	Price	-	**-**	-	GP50	**FG315129**	Price
FLGD-4250R	.453	.250	.020/.025	.255	.500	.8860	-	**-**	-	-	**-**	-	GP50	**FG315130**	Price
FLGD-4250L	.453	.250	.020/.025	.255	.500	.8860	-	**-**	-	-	**-**	-	GP50	**FG315131**	Price

TOOLFLO Member IMC Group Chip-Flo Deep Grooving Inserts with Chipbreaker

FLGD-CB





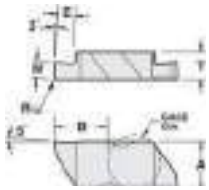
Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	T (in.)	E (in.)	B (in.)	AC3			AC50			GP50		
							Grade w/Hone	Order No.	Price	Grade w/ Hone	Order No.	Price	Grade w/ Hone	Order No.	Price
FLGD-3094R-CB	.094	.344	.005/.010	.195	.250	.5050	AC3R	**FG31031170**	Price	AC50	**FG31FLGD3094RCB**	Price	GP50	**FG315100**	Price
FLGD-3094L-CB	.094	.344	.005/.010	.195	.250	.5050	AC3	**FG31031130**	Price	-	**-**	-	-	**-**	-
FLGD-3125R-CB	.125	.344	.005/.010	.195	.250	.5050	AC3R	**FG31031280**	Price	AC50	**FG31FLGD3125RCB**	Price	GP50	**FG315102**	Price
FLGD-3125L-CB	.125	.344	.005/.010	.195	.250	.5050	AC3R	**FG316335125PLAC**	Price	AC50	**FG31FLGD3125LCB**	Price	GP50	**FG315103**	Price
FLGD-3189R-CB	.189	.344	.020/.025	.195	.250	.5050	AC3R	**FG31031390**	Price	AC50C	**FG31031400**	Price	GP50	**FG315104**	Price
FLGD-3189L-CB	.189	.344	.020/.025	.195	.250	.5050	AC3R	**FG31031330**	Price	AC50	**FG31FLGD3189LCB**	Price	GP50	**FG315105**	Price
FLGD-4125R-CB	.125	.453	.005/.010	.255	.250	.6360	AC3R	**FG31031530**	Price	AC50C	**FG31031540**	Price	GP50C	**FG31031560**	Price
FLGD-4125L-CB	.125	.453	.005/.010	.255	.250	.6360	AC3R	**FG31031460**	Price	AC50C	**FG31031470**	Price	-	**-**	-
FLGD-4189R-CB	.189	.453	.020/.025	.255	.375	.7610	AC3R	**FG31031680**	Price	AC50	**FG31FLGD4189RCB**	Price	GP50	**FG315106**	Price
FLGD-4189L-CB	.189	.453	.020/.025	.255	.375	.7610	AC3R	**FG31031610**	Price	AC50	**FG31FLGD4189LCB**	Price	GP50	**FG315107**	Price
FLGD-4250R-CB	.250	.453	.020/.025	.255	.500	.8860	AC3A	**FG3145250PRAC3A**	Price	AC50	**FG31FLGD4250RCB**	Price	GP50	**FG315108**	Price
FLGD-4250L-CB	.250	.453	.020/.025	.255	.500	.8860	AC3A	**FG31031740**	Price	AC50	**FG31FLGD4250LCB**	Price	GP50	**FG315109**	Price

TOOLFLO Member IMC Group Grooving Inserts

FLGP • Positive Rake





Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	E (in.)	T (in.)	AC3			AC50			GP50		
						Grade w/ Hone	Order No.	Price	Grade w/ Hone	Order No.	Price	Grade w/ Hone	Order No.	Price
FLGP-2031L	.031	.219	.002/.005	.050	.150	AC3R	**FG31031840**	Price	AC50C	**FG31031850**	Price	-	**-**	-
FLGP-2031R	.031	.219	.002/.005	.050	.150	AC3R	**FG31031870**	Price	AC50C	**FG31031880**	Price	GP50	**FG31572431RN4C**	Price
FLGP-2062L	.062	.219	.005/.010	.110	.150	AC3R	**FG31031940**	Price	AC50C	**FG31031950**	Price	GP50C	**FG31031970**	Price
FLGP-2062R	.062	.219	.005/.010	.110	.150	AC3R	**FG31031980**	Price	AC50C	**FG31031990**	Price	GP50	**FG31572462RN4C**	Price
FLGP-2125L	.125	.219	.005/.010	.110	.150	-	**-**	-	-	**-**	-	GP50C	**FG31032030**	Price
FLGP-2125R	.125	.219	.005/.010	.110	.150	AC3R	**FG31032040**	Price	-	**-**	-	GP50C	**FG31032070**	Price
FLGP-3047L	.047	.344	.005/.010	.075	.195	AC3R	**FG31032080**	Price	-	**-**	-	GP50C	**FG31032100**	Price
FLGP-3047R	.047	.344	.005/.010	.075	.195	AC3R	**FG31032120**	Price	AC50C	**FG31032130**	Price	GP50C	**FG31032160**	Price
FLGP-3062L	.062	.344	.005/.010	.120	.195	AC3R	**FG31573462LAC3R**	Price	AC50C	**FG31032180**	Price	GP50C	**FG31032200**	Price
FLGP-3062R	.062	.344	.005/.010	.120	.195	AC3R	**FG31573462RAC3R**	Price	AC50C	**FG31032220**	Price	GP50C	**FG31032240**	Price
FLGP-3088L	.088	.344	.005/.010	.180	.195	AC3R	**FG31032260**	Price	-	**-**	-	GP50C	**FG31032280**	Price
FLGP-3088R	.088	.344	.005/.010	.180	.195	AC3R	**FG31032290**	Price	-	**-**	-	GP50C	**FG31032310**	Price
FLGP-3094L	.094	.344	.005/.010	.180	.195	AC3R	**FG31573494LAC3R**	Price	AC50C	**FG31032320**	Price	GP50C	**FG31032340**	Price
FLGP-3094R	.094	.344	.005/.010	.180	.195	AC3R	**FG31573494RAC3R**	Price	AC50C	**FG31032360**	Price	GP50C	**FG31032390**	Price
FLGP-3125L	.125	.344	.005/.010	.180	.195	AC3R	**FG31032410**	Price	AC50C	**FG31032420**	Price	GP50C	**FG31032430**	Price
FLGP-3125R	.125	.344	.005/.010	.180	.195	AC3R	**FG31573625RAC3R**	Price	AC50C	**FG31032450**	Price	GP50C	**FG31032470**	Price
FLGP-3156L	.156	.344	.005/.010	.180	.195	-	**-**	-	-	**-**	-	GP50C	**FG31032500**	Price
FLGP-3156R	.156	.344	.005/.010	.180	.195	-	**-**	-	AC50C	**FG31573656RAC50**	Price	GP50C	**FG31032530**	Price
FLGP-3189L	.189	.344	.020/.025	.180	.195	AC3R	**FG31032550**	Price	AC50C	**FG31032560**	Price	GP50C	**FG31032580**	Price
FLGP-3189R	.189	.344	.020/.025	.180	.195	AC3R	**FG31032600**	Price	-	**-**	-	GP50C	**FG31032630**	Price
FLGP-4125L	.125	.453	.005/.010	.250	.255	AC3R	**FG31032650**	Price	-	**-**	-	GP50C	**FG31032670**	Price
FLGP-4125R	.125	.453	.005/.010	.250	.255	AC3R	**FG31032680**	Price	-	**-**	-	GP50C	**FG31574625RN4C**	Price
FLGP-4189L	.189	.453	.020/.025	.250	.255	AC3R	**FG31032700**	Price	-	**-**	-	GP50C	**FG31032720**	Price
FLGP-4189R	.189	.453	.020/.025	.250	.255	AC3R	**FG31032730**	Price	-	**-**	-	GP50C	**FG31032750**	Price
FLGP-4250L	.250	.453	.020/.025	.250	.255	AC3A	**FG31032760**	Price	AC50E	**FG31032770**	Price	GP50E	**FG31032790**	Price
FLGP-4250R	.250	.453	.020/.025	.250	.255	AC3A	**FG31032800**	Price	AC50E	**FG31032810**	Price	GP50	**FG315132**	Price

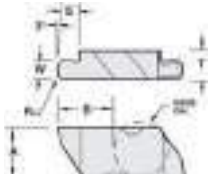
TOOLFLO Member IMC Group Grooving Inserts

FLR

- Full nose radius

Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel





Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	E (in.)	T (in.)	AC3 Grade w/Hone	AC3 Order No.	AC3 Price	AC50 Grade w/ Hone	AC50 Order No.	AC50 Price	GP50 Grade w/ Hone	GP50 Order No.	GP50 Price
FLR-2031L	.062	.219	.031	.110	.150	AC3R	**FG3114096**	Price	AC50	**FG31592031LAC50**	Price	GP50	**FG3152031L**	Price
FLR-2031R	.062	.219	.031	.110	.150	AC3R	**FG3114095**	Price	AC50C	**FG31035680**	Price	GP50C	**FG31035690**	Price
FLR-2047L	.094	.219	.047	.110	.150	AC3R	**FG31035700**	Price	AC50C	**FG31035710**	Price	GP50C	**FG31035730**	Price
FLR-2047R	.094	.219	.047	.110	.150	AC3R	**FG3114105**	Price	AC50C	**FG31035740**	Price	GP50C	**FG31035760**	Price
FLR-2062L	.125	.219	.062	.110	.150	AC3R	**FG31035770**	Price	AC50C	**FG31035780**	Price	GP50C	**FG31592062LN4C**	Price
FLR-2062R	.125	.219	.062	.110	.150	AC3R	**FG31035820**	Price	AC50C	**FG31035800**	Price	GP50C	**FG31592062RN4C**	Price
FLR-3031L	.062	.344	.031	.125	.195	AC3R	**FG31593031LAC3R**	Price	AC50C	**FG31593031LAC50**	Price	GP50C	**FG31593031LN4C**	Price
FLR-3031R	.062	.344	.031	.125	.195	AC3R	**FG3114110**	Price	AC50C	**FG31035900**	Price	GP50C	**FG3114115**	Price
FLR-3047L	.094	.344	.047	.180	.195	AC3R	**FG31593047LAC3R**	Price	AC50C	**FG31035950**	Price	GP50C	**FG31035980**	Price
FLR-3047R	.094	.344	.047	.180	.195	AC3R	**FG31036030**	Price	AC50C	**FG31036040**	Price	GP50C	**FG31593047RN4C**	Price
FLR-3062L	.125	.344	.062	.180	.195	AC3R	**FG31593062LAC3R**	Price	AC50C	**FG31593062LAC50**	Price	GP50C	**FG3114125**	Price
FLR-3062R	.125	.344	.062	.180	.195	AC3R	**FG31593062RAC3R**	Price	AC50C	**FG31593062RAC50**	Price	GP50C	**FG3113050**	Price
FLR-3078L	.156	.344	.078	.180	.195	AC3R	**FG31036190**	Price	AC50C	**FG31593078LAC50**	Price	GP50C	**FG31036210**	Price
FLR-3078R	.156	.344	.078	.180	.195	AC3R	**FG31036230**	Price	AC50C	**FG3114130**	Price	GP50C	**FG31036250**	Price
FLR-3094L	.189	.344	.094	.180	.195	AC3R	**FG31036290**	Price	AC50C	**FG31593094LAC50**	Price	GP50C	**FG31036310**	Price
FLR-3094R	.189	.344	.094	.180	.195	AC3R	**FG31593094RAC3R**	Price	AC50C	**FG31593094RAC50**	Price	GP50C	**FG31593094RN4C**	Price
FLR-3125L	.250	.344	.125	.180	.195	-	**-**	-	-	**-**	-	GP50E	**FG31036330**	Price
FLR-3125R	.250	.344	.125	.180	.195	-	**-**	-	-	**-**	-	GP50E	**FG31036340**	Price
FLR-4062L	.125	.453	.062	.250	.255	AC3R	**FG31594062LAC3R**	Price	AC50C	**FG31594062LAC50**	Price	GP50C	**FG31594062LN4C**	Price
FLR-4062R	.125	.453	.062	.250	.255	AC3R	**FG31594062RAC3R**	Price	AC50C	**FG31036410**	Price	GP50C	**FG31594062RN4C**	Price
FLR-4094L	.189	.453	.094	.250	.255	AC3R	**FG31036440**	Price	AC50C	**FG31036450**	Price	GP50C	**FG3114140**	Price
FLR-4094R	.189	.453	.094	.250	.255	AC3R	**FG31036480**	Price	AC50C	**FG31036490**	Price	GP50C	**FG31594094RN4C**	Price
FLR-4125L	.250	.453	.125	.250	.255	AC3A	**FG31036520**	Price	AC50E	**FG31594225LAC50**	Price	GP50E	**FG3114145**	Price
FLR-4125R	.250	.453	.125	.250	.255	AC3A	**FG31036550**	Price	AC50E	**FG31594225RAC50**	Price	GP50E	**FG31594225RN4C**	Price

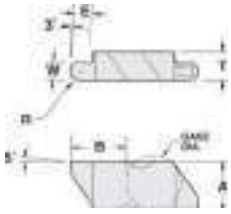
TOOLFLO Member IMC Group Grooving Inserts

FLRP

- Full nose radius
- Positive rake

Carbide Grades:

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel





Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	E (in.)	T (in.)	AC3 Grade w/Hone	AC3 Order No.	AC3 Price	AC50 Grade w/ Hone	AC50 Order No.	AC50 Price	GP50 Grade w/ Hone	GP50 Order No.	GP50 Price
FLRP-3031L	.062	.344	.031	.079	.195	AC3R	**FG31036890**	Price	AC50C	**FG31036900**	Price	GP50	**FG31593831LN4C**	Price
FLRP-3031R	.062	.344	.031	.079	.195	AC3R	**FG3114150**	Price	AC50C	**FG31036930**	Price	GP50C	**FG31036950**	Price
FLRP-3047L	.094	.344	.047	.180	.195	AC3R	**FG31036960**	Price	AC50C	**FG31593847LAC50**	Price	GP50	**FG31593847LN4C**	Price
FLRP-3047R	.094	.344	.047	.180	.195	AC3R	**FG31593847RAC3R**	Price	AC50C	**FG31036990**	Price	GP50	**FG31593847RN4C**	Price
FLRP-3062L	.125	.344	.062	.180	.195	AC3R	**FG31037010**	Price	AC50C	**FG31037020**	Price	GP50C	**FG31037050**	Price
FLRP-3062R	.125	.344	.062	.180	.195	AC3R	**FG3114155**	Price	AC50C	**FG31037060**	Price	GP50	**FG31593862RN4C**	Price
FLRP-3078L	.156	.344	.078	.180	.195	-	**-**	-	-	**-**	-	GP50C	**FG31037100**	Price
FLRP-3078R	.156	.344	.078	.180	.195	AC3R	**FG31037110**	Price	AC50C	**FG31037120**	Price	GP50C	**FG31037140**	Price
FLRP-3094L	.189	.344	.094	.180	.195	AC3R	**FG31037150**	Price	AC50C	**FG31037160**	Price	GP50C	**FG31037190**	Price
FLRP-3094R	.189	.344	.094	.180	.195	AC3R	**FG31037200**	Price	AC50C	**FG31037210**	Price	GP50C	**FG31037240**	Price
FLRP-4062L	.125	.453	.062	.250	.255	AC3R	**FG31037250**	Price	AC50C	**FG31037260**	Price	GP50C	**FG31037280**	Price
FLRP-4062R	.125	.453	.062	.250	.255	AC3R	**FG31037290**	Price	AC50C	**FG31037300**	Price	GP50C	**FG31037320**	Price
FLRP-4094L	.189	.453	.094	.250	.255	AC3R	**FG31037330**	Price	-	**-**	-	GP50C	**FG31037350**	Price
FLRP-4094R	.189	.453	.094	.250	.255	AC3R	**FG31037360**	Price	-	**-**	-	GP50C	**FG31037380**	Price
FLRP-4125L	.250	.453	.125	.250	.255	AC3R	**FG31604025LAC3R**	Price	AC50E	**FG31037390**	Price	GP50E	**FG31037410**	Price
FLRP-4125R	.250	.453	.125	.250	.255	AC3R	**FG31037420**	Price	AC50E	**FG31037430**	Price	GP50A	**FG31037450**	Price

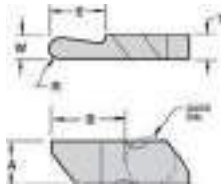
TOOLFLO Member IMC Group Grooving Inserts

FLRD

- Single end
- Full nose radius

Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

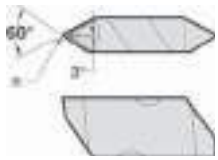




Tool-Flo	Width (in.)	A (in.)	Radius R (in.)	E (in.)	T (in.)	AC3 Grade W/ Hone	AC3 Order No.	AC3 Price	AC50 Grade W/ Hone	AC50 Order No.	AC50 Price	GP50 Grade W/ Hone	GP50 Order No.	GP50 Price
FLRD-3062L	.125	.344	.062	.250	.195	AC3R	**FG316336062LAC3**	Price	-	**-**	-	GP50C	**FG31036580**	Price
FLRD-3062R	.125	.344	.062	.250	.195	AC3R	**FG316336062RAC3**	Price	-	**-**	-	GP50C	**FG31036600**	Price
FLRD-3094L	.189	.344	.094	.250	.195	AC3R	**FG31036610**	Price	AC50C	**FG31036620**	Price	GP50C	**FG31036640**	Price
FLRD-3094R	.189	.344	.094	.250	.195	AC3R	**FG316336094RAC3**	Price	AC50C	**FG31036650**	Price	GP50C	**FG31036670**	Price
FLRD-4062L	.125	.453	.062	.500	.255	-	**-**	-	-	**-**	-	GP50C	**FG31036690**	Price
FLRD-4062R	.125	.453	.062	.500	.255	-	**-**	-	-	**-**	-	GP50C	**FG31036700**	Price
FLRD-4094L	.189	.453	.094	.500	.255	AC3R	**FG31036710**	Price	AC50C	**FG31036720**	Price	GP50C	**FG31036740**	Price
FLRD-4094R	.189	.453	.094	.500	.255	AC3R	**FG31036750**	Price	AC50C	**FG31036760**	Price	GP50C	**FG31036780**	Price
FLRD-4125L	.250	.453	.125	.500	.255	AC3A	**FG31036790**	Price	AC50C	**FG31036800**	Price	GP50E	**FG31036820**	Price
FLRD-4125R	.250	.453	.125	.500	.255	AC3A	**FG31036830**	Price	AC50C	**FG31036840**	Price	GP50E	**FG31036860**	Price

TOOLFLO Member IMC Group Flo-Lock/Chip-Flo Threading Inserts

FLT



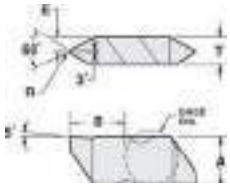


Carbide Grades:
- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

TPI External / Internal	Radius R	A (in.)	B (in.)	E (in.)	T (in.)	Gage Dia. (in.)	Grade w/ Hone	Left			Right		
								Tool-Flo	Order No.	Price	Tool-Flo	Order No.	Price
7-20 / 8-36	.003 / .005	.219	.2661	.075	.150	.1875	AC3R	FLT-2L	**FG31FLT2LA**	Price	FLT-2R	**FG31FLT2RA**	Price
7-20 / 8-36	.003 / .005	.219	.2661	.075	.150	.1875	AC50C	FLT-2L	**FG31038160**	Price	FLT-2R	**FG31038190**	Price
7-20 / 8-36	.003 / .005	.219	.2661	.075	.150	.1875	GP50	FLT-2L	**FG315041**	Price	FLT-2R	**FG315040**	Price
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	AC3R	FLT-3L	**FG31FLT3LA**	Price	FLT-3R	**FG31FLT3RA**	Price
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	AC50C	-	-	-	FLT-3R	**FG31603600RAC50**	Price
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	AC50	FLT-3L	**FG31FLT3L**	Price	-	-	-
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	GP50	FLT-3L	**FG315043**	Price	FLT-3R	**FG315042**	Price
5-12 / 6-18	.009 / .011	.344	.3999	.098	.195	.3750	AC3R	-	-	-	FLT-3010R	**FG31038250**	Price
5-12 / 6-18	.009 / .011	.344	.3999	.098	.195	.3750	AC50C	-	-	-	FLT-3010R	**FG31038260**	Price
5-12 / 6-18	.009 / .011	.344	.3999	.098	.195	.3750	GP50C	FLT-3010L	**FG31038240**	Price	FLT-3010R	**FG31038280**	Price
4-12 / 4-20	.005 / .008	.453	.6298	.128	.255	.3750	AC3A	FLT-4L	**FG31038600**	Price	FLT-4R	**FG31038620**	Price
4-12 / 4-20	.005 / .008	.453	.6298	.128	.255	.3750	AC50	FLT-4L	**FG31FLT4LAC50**	Price	FLT-4R	**FG31FLT4R**	Price
4-12 / 4-20	.005 / .008	.453	.6298	.128	.255	.3750	GP50E	FLT-4L	**FG315046**	Price	FLT-4R	**FG315047**	Price

TOOLFLO Member IMC Group 60° V-Threading Inserts

FLTP





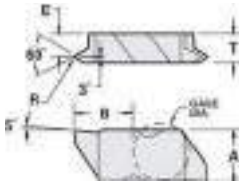
- Positive rake

Carbide Grades:
- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

TPI Int./Ext.	Radius R (in.)	A (in.)	B (in.)	E (in.)	T (in.)	Gage Dia. (in.)	Grade w/Hone	Left			Right		
								Tool-Flo	Order No.	Price	Tool-Flo	Order No.	Price
7-20 / 8-36	.003 / .005	.219	.2661	.075	.150	.1875	AC3R	FLTP-2L	**FG31612800LAC3R**	Price	FLTP-2R	**FG3114220**	Price
7-20 / 8-36	.003 / .005	.219	.2661	.075	.150	.1875	AC50C	FLTP-2L	**FG31040250**	Price	FLTP-2R	**FG31040270**	Price
7-20 / 8-36	.003 / .005	.219	.2661	.075	.150	.1875	GP50C	FLTP-2L	**FG31612800LN4C**	Price	FLTP-2R	**FG31040280**	Price
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	AC3R	FLTP-3L	**FG3114224**	Price	FLTP-3R	**FG3114225**	Price
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	AC50C	FLTP-3L	**FG31040290**	Price	FLTP-3R	**FG3114235**	Price
5-12 / 6-20	.005 / .008	.344	.3999	.098	.195	.3750	GP50	FLTP-3L	**FG315135L**	Price	FLTP-3R	**FG315135R**	Price
4-12 / 4-20	.005 / .008	.453	.6293	.128	.255	.3750	AC3A	FLTP-4L	**FG31040340**	Price	FLTP-4R	**FG31040370**	Price
4-12 / 4-20	.005 / .008	.453	.6293	.128	.255	.3750	AC50E	FLTP-4L	**FG3114800LAC50E**	Price	FLTP-4R	**FG3114800RAC50E**	Price
4-12 / 4-20	.005 / .008	.453	.6293	.128	.255	.3750	GP50E	FLTP-4L	**FG31040360**	Price	FLTP-4R	**FG31614800RN4E**	Price

TOOLFLO Member IMC Group 60° V-Threading Inserts

FLTK





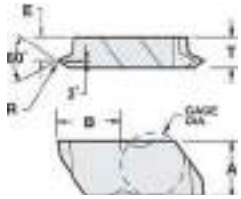
- Positive rake

Carbide Grades
- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

TPI Int/Ext	Radius R (in.)	A (in.)	B (in.)	E (in.)	T (in.)	Gage Dia. (in.)	Grade w/ Hone	Left			Right		
								Tool-Flo	Order No.	Price	Tool-Flo	Order No.	Price
12-24 / 14-44	.002 / .004	.219	.2679	.110	.150	.1875	AC3R	FLTK-2L	**FG31040100**	Price	FLTK-2R	**FG3114195**	Price
12-24 / 14-44	.002 / .004	.219	.2679	.110	.150	.1875	AC50C	FLTK-2L	**FG3112600LAC50C**	Price	FLTK-2R	**FG3112600RAC50C**	Price
12-24 / 14-44	.002 / .004	.219	.2679	.110	.150	.1875	GP50C	FLTK-2L	**FG31040120**	Price	FLTK-2R	**FG31612600RN4C**	Price
9-24 / 10-44	.002 / .004	.344	.4022	.141	.195	.3750	AC3R	FLTK-3L	**FG3114200**	Price	FLTK-3R	**FG3114210**	Price
9-24 / 10-44	.002 / .004	.344	.4022	.141	.195	.3750	AC50	FLTK-3L	**FG31040150**	Price	FLTK-3R	**FG31613600RAC50**	Price
9-24 / 10-44	.002 / .004	.344	.4022	.141	.195	.3750	GP50C	FLTK-3L	**FG31040180**	Price	FLTK-3R	**FG3114215**	Price
9-24 / 10-44	.002 / .004	.453	.6322	.201	.255	.3750	AC50C	FLTK-4L	**FG31040200**	Price	FLTK-4R	**FG31040230**	Price
9-24 / 10-44	.002 / .004	.453	.6322	.201	.255	.3750	GP50C	FLTK-4L	**FG31040220**	Price	FLTK-4R	**FG31040240**	Price

TOOLFLO Member IMC Group 60° V-Threading Inserts

FLTF





- Fine pitch

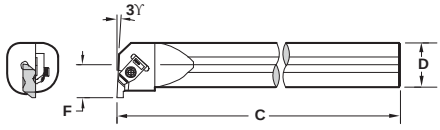
Carbide Grades:
- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel

TPI Int./Ext.	Radius R (in.)	A (in.)	B (in.)	E (in.)	T (in.)	Grade w/ Hone	Left			Right		
							Tool-Flo	Order No.	Price	Tool-Flo	Order No.	Price
12-24 / 14-44	.002 / .004	.219	.2679	.110	.150	AC3R	FLTF-2L	**FG3114170**	Price	FLTF-2R	**FG3114175**	Price
12-24 / 14-44	.002 / .004	.219	.2679	.110	.150	AC50C	FLTF-2L	**FG31039940**	Price	FLTF-2R	**FG31039970**	Price
12-24 / 14-44	.002 / .004	.219	.2679	.110	.150	GP50C	FLTF-2L	**FG31612400LN4C**	Price	FLTF-2R	**FG31612400RN4C**	Price
9-24 / 10-44	.002 / .004	.344	.4022	.141	.195	AC3R	FLTF-3L	**FG31040000**	Price	FLTF-3R	**FG3114180**	Price
9-24 / 10-44	.002 / .004	.344	.4022	.141	.195	AC50C	FLTF-3L	**FG31040010**	Price	FLTF-3R	**FG31040040**	Price
9-24 / 10-44	.002 / .004	.344	.4022	.141	.195	GP50C	FLTF-3L	**FG31613400LN4C**	Price	FLTF-3R	**FG31613400RN4**	Price
9-24 / 10-44	.002 / .004	.453	.6322	.201	.255	AC3R	FLTF-4L	**FG31040060**	Price	FLTF-4R	**FG31040090**	Price
9-24 / 10-44	.002 / .004	.453	.6322	.201	.255	GP50	FLTF-4L	**FG31614400LN4C**	Price	FLTF-4R	**FG31040080**	Price

TOOLFLO Member IMC Group Flo-Lock Internal Bars

A-FLER/L

- Right hand shown
- Right hand holders (R) take left hand (L) inserts
- Left hand holders (L) take right hand (R) inserts





Right/Left Hand - Left									
Tool-Flo	D (in.)	Min. Bore (in.)	Insert	C (in.)	F† (in.)	Clamp	Clamp Screw	Order No.	Price
A08-FLEL2	.500	.730	FL-2R	8.000	.437	TF-74	S-310	**FG31009600**	Price
A10-FLEL2	.625	1.000	FL-2R	10.000	.500	TF-74	S-310	**FG31009640**	Price
A12-FLEL2	.750	1.125	FL-2R	10.000	.562	TF-74	S-310	**FG31009680**	Price
A16-FLEL2	1.000	1.375	FL-2R	12.000	.688	TF-74	S-310	**FG31009750**	Price
A16-FLEL3	1.000	1.375	FL-3R	12.000	.688	TF-72	S-412	**FG31009760**	Price
A20-FLEL3	1.250	1.750	FL-3R	14.000	.875	TF-72	S-412	**FG31009890**	Price
A28-FLEL4	1.750	2.250	FL-4R	16.000	1.250	TF-72	S-412	**FG31010100**	Price
A32-FLEL3	2.000	2.500	FL-3R	16.000	1.250	TF-72	S-412	**FG31010190**	Price
A32-FLEL4	2.000	2.750	FL-4R	16.000	1.296	TF-72	S-412	**FG31010200**	Price
A32-FLEL6	2.000	2.750	FL-6R	16.000	1.375	CM-121	S-412	**FG31010210**	Price

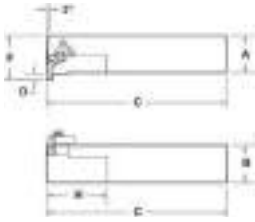
Right/Left Hand - Right									
Tool-Flo	D (in.)	Min. Bore (in.)	Insert	C (in.)	F† (in.)	Clamp	Clamp Screw	Order No.	Price
A08-FLER2	.500	.730	FL-2L	8.000	.437	TF-75	S-39	**FG31009610**	Price
A10-FLER2	.625	1.000	FL-2L	10.000	.500	TF-75	S-310	**FG31009650**	Price
A12-FLER2	.750	1.125	FL-2L	10.000	.562	TF-74	S-310	**FG31009690**	Price
A16-FLER3	1.000	1.375	FL-3L	12.000	.688	TF-73	S-412	**FG31009780**	Price
A16-FLER2	1.000	1.375	FL-2L	12.000	.688	TF-75	S-310	**FG31009770**	Price
A24-FLER3	1.500	2.000	FL-3L	14.000	1.000	TF-73	S-412	**FG31010000**	Price
A28-FLER3	1.750	2.250	FL-3L	14.000	1.125	TF-73	S-412	**FG31010110**	Price
A28-FLER4	1.750	2.250	FL-4L	16.000	1.250	TF-73	S-412	**FG31010120**	Price
A32-FLER3	2.000	2.500	FL-3L	16.000	1.250	TF-73	S-412	**FG31010220**	Price
A32-FLER4	2.000	2.750	FL-4L	16.000	1.296	TF-73	S-412	**FG31010230**	Price
A32-FLER6	2.000	2.750	FL-6L	16.000	1.375	CM-121	S-412	**FG31010240**	Price

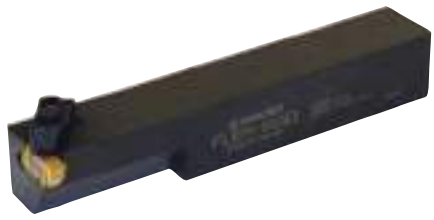
† "F" DIM. over sharp point of grooving insert

TOOLFLO Member IMC Group Grooving Tool Holders

FLER/L

- Right hand shown
- Right hand holders (R) take left hand inserts (L) inserts
- Left hand holders (L) take right hand (R) inserts





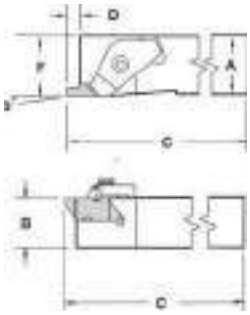
Right/Left Hand - Left										
Tool-Flo	Shank Size (in.)	Uses Insert Style	OAL (in.)	D (in.)	F (in.)	H (in.)	Clamp	Screw	Order No.	Price
FLEL-122B	3/4 x 3/4	FL_-2R	4.500	.1400	1.000	1.000	TF-74	S-310	**FG31024910**	Price
FLEL-123B	3/4 x 3/4	FL_-3R	4.500	.2100	1.250	2.000	TF-73	S-310	**FG31024920**	Price
FLEL-162C	1 x 1	FL_-2R	5.000	.1400	1.250	1.000	TF-74	S-310	**FG31024930**	Price
FLEL-163D	1 x 1	FL_-3R	6.000	.2100	1.250	2.000	TF-72	S-412	**FG31024940**	Price
FLEL-164D	1 x 1	FL_-4R	6.000	.2900	1.375	2.000	TF-72	S-412	**FG31024950**	Price
FLEL-203D	1-1/4 x 1-1/4	FL_-3R	6.000	.2100	1.500	2.000	TF-72	S-412	**FG31024960**	Price
FLEL-204D	1-1/4 x 1-1/4	FL_-4R	6.000	.2900	1.625	2.000	TF-72	S-412	**FG31024970**	Price
FLEL-205D	1-1/4 x 1-1/4	FL_-5R	6.000	.2900	2.000	2.000	TF-80	S-412	**FG31024980**	Price
FLEL-206D	1-1/4 x 1-1/4	FL_-6R	6.000	.2900	1.625	2.000	TF-120	S-412	**FG31024990**	Price

Right/Left Hand - Right										
Tool-Flo	Shank Size (in.)	Uses Insert Style	OAL (in.)	D (in.)	F (in.)	H (in.)	Clamp	Screw	Order No.	Price
FLER-82V	1/2 x 1/2	FL_-2L	3.500	.1400	.750	1.000	TF-75	S-310	**FG31025110**	Price
FLER-122B	3/4 x 3/4	FL_-2L	4.500	.1400	1.000	1.000	TF-75	S-310	**FG31025010**	Price
FLER-123B	3/4 x 3/4	FL_-3L	4.500	.2100	1.125	2.000	TF-73	S-310	**FG31025020**	Price
FLER-162C	1 x 1	FL_-2L	5.000	.1400	1.250	1.000	TF-75	S-310	**FG31025030**	Price
FLER-163D	1 x 1	FL_-3L	6.000	.2100	1.250	2.000	TF-73	S-412	**FG31025040**	Price
FLER-164D	1 x 1	FL_-4L	6.000	.2900	1.375	2.000	TF-73	S-412	**FG31025050**	Price
FLER-203D	1-1/4 x 1-1/4	FL_-3L	6.000	.2100	1.500	2.000	TF-73	S-412	**FG31025070**	Price
FLER-204D	1-1/4 x 1-1/4	FL_-3L	6.000	.2900	1.500	2.000	TF-73	S-412	**FG31025080**	Price
FLER-205D	1-1/4 x 1-1/4	FL_-4L	6.000	.2900	1.625	2.000	TF-81	S-412	**FG31025090**	Price
FLER-206D	1-1/4 x 1-1/4	FL_-5L	6.000	.2900	1.625	2.000	TF-121	S-412	**FG31025100**	Price

TOOL-FLO Member IMC Group Grooving Tool Holders

FLASR/L

- Right hand shown
- Right hand holders (R) take right hand inserts (R) inserts
- Left hand holders (L) take left hand (L) inserts





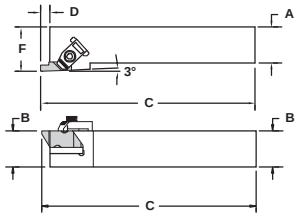
Right/Left Hand - Left									
Tool-Flo	Shank Size (in.)	Uses Insert Style	OAL C (in.)	D (in.)	F (in.)	Clamp	Screw	Order No.	Price
FLASL-082D	1/2 x 1/2	FL_-2L	6.000	.1380	.500	TF-182	S-310	**FG31023680**	Price
FLASL-103B	5/8 x 5/8	FL_-3L	4.500	.2100	.625	TF-185	S-412	**FG31023700**	Price

Right/Left Hand - Right									
Tool-Flo	Shank Size (in.)	Uses Insert Style	OAL C (in.)	D (in.)	F (in.)	Clamp	Screw	Order No.	Price
FLASR-062D	3/8 X 3/8	FL_-2R	6.000	.1380	.375	TF-182	S-310	**FG31023730**	Price
FLASR-082D	1/2 x 1/2	FL_-2R	6.000	.1380	.500	TF-182	S-310	**FG31023740**	Price
FLASR-102B	5/8 x 5/8	FL_-2R	4.500	.1380	.625	TF-185	S-412	**FG31023770**	Price
FLASR-103B	5/8 x 5/8	FL_-3R	4.500	.2100	.625	TF-185	S-412	**FG31023780**	Price

TOOL-FLO Member IMC Group Flo-Lock External Holders

FLSR/L

- Right hand shown
- Right hand holders (R) take right hand inserts (R) inserts
- Left hand holders (L) take left hand (L) inserts





Right/Left - Left									
Tool-Flo	A x B (in.)	Insert	C (in.)	D (in.)	F† (in.)	Clamp	Clamp Screw	Order No.	Price
FLSL-62C	3/8 x 3/8	FL_-2L	2.500	.1400	.562	TF-75	S-310	**FG31037810**	Price
FLSL-82V	1/2 x 1/2	FL_-2L	3.500	.1400	.750	TF-75	S-310	**FG31037820**	Price
FLSL-122B	3/4 x 3/4	FL_-2L	4.500	.1400	1.000	TF-75	S-310	**FG31037660**	Price
FLSL-123B	3/4 x 3/4	FL_-3L	4.500	.2100	1.000	TF-73	S-412	**FG31037670**	Price
FLSL-162C	1 x 1	FL_-2L	5.000	.1400	1.250	TF-75	S-310	**FG31037680**	Price
FLSL-163C	1 x 1	FL_-3R	5.000	.2100	1.250	TF-72	S-412	**FG31037690**	Price
FLSL-163D	1 x 1	FL_-3L	6.000	.2100	1.250	TF-73	S-412	**FG31037700**	Price
FLSL-164D	1 x 1	FL_-4L	6.000	.2900	1.250	TF-73	S-412	**FG31037710**	Price
FLSL-203D	1-1/4 x 1-1/4	FL_-3L	6.000	.2100	1.500	TF-73	S-412	**FG31037750**	Price
FLSL-204D	1-1/4 x 1-1/4	FL_-4L	6.000	.2900	1.500	TF-73	S-412	**FG31037760**	Price
FLSL-205D	1-1/4 x 1-1/4	FL_-5L	6.000	.4000	1.500	TF-81	S-352	**FG31037770**	Price

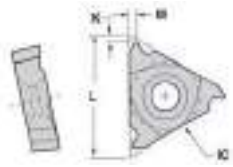
Right/Left - Right									
Tool-Flo	A x B (in.)	Insert	C (in.)	D (in.)	F† (in.)	Clamp	Clamp Screw	Order No.	Price
FLSR-62	3/8 x 3/8	FL_-2R	2.500	.1400	.562	TF-74	S-310	**FG31038080**	Price
FLSR-82V	1/2 x 1/2	FL_-2R	3.500	.1400	.750	TF-74	S-310	**FG31038090**	Price
FLSR-102B	5/8 x 5/8	FL_-2R	4.500	.1400	1.000	TF-74	S-310	**FG31037880**	Price
FLSR-122B	3/4 x 3/4	FL_-2R	4.500	.1400	1.000	TF-74	S-310	**FG31037890**	Price
FLSR-123B	3/4 x 3/4	FL_-3R	4.500	.2100	1.000	TF-72	S-412	**FG31037900**	Price
FLSR-162C	1 x 1	FL_-2R	5.000	.1400	1.250	TF-74	S-310	**FG31037910**	Price
FLSR-163C	1 x 1	FL_-3R	5.000	.2100	1.250	TF-72	S-412	**FG31037920**	Price
FLSR-163D	1 x 1	FL_-3R	6.000	.2100	1.250	TF-72	S-412	**FG31037930**	Price
FLSR-164D	1 x 1	FL_-4R	6.000	.2900	1.250	TF-72	S-412	**FG31037940**	Price
FLSR-203D	1-1/4 x 1-1/4	FL_-3R	6.000	.2100	1.500	TF-72	S-412	**FG31037990**	Price
FLSR-204D	1-1/4 x 1-1/4	FL_-4R	6.000	.2900	1.500	TF-72	S-412	**FG31038000**	Price
FLSR-205D	1-1/4 x 1-1/4	FL_-5R	6.000	.4000	1.500	TF-80	S-352	**FG31038010**	Price

† "F" DIM. over sharp point of grooving insert

TOOLFLO Member IMC Group LAYDOWN-LT

API Round Threading - Multi-Tooth

New!



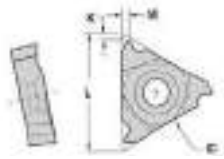


Description	TPI	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
						Order No.	Price	Order No.	Price
22ER 10RD2M	10	1/2	.870	.146	.094	**FG312412997**	Price	**FG31006980**	Price
27ER 8RD2M	8	5/8	1.080	.177	.114	**FG33009050**	Price	**FG33009060**	Price
22IR 10RD2M	10	1/2	.870	.146	.094	**FG312413051**	Price	**FG31007920**	Price
27IR 8RD2M	8	5/8	1.080	.177	.114	**FG33009540**	Price	**FG33009550**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

API VO.055 - American MT, AMT & AMMT*
Connection - NC10-NC16, VO .055, 1, 1-1/2 REG

New!





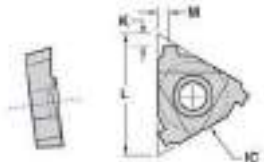
Description	TPI	TPF	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
							Order No.	Price	Order No.	Price
16ER 6P VO .055 MT	6	1-1/2	3/8	.650	.059	.051	**FG32002880**	Price	**FG332468658**	Price
22ER 6P VO .055 MT	6	1-1/2	1/2	.870	.072	.060	**FG31007520**	Price	**FG312404103**	Price
16IR 6P VO .055 MT	6	1-1/2	3/8	.650	.059	.051	**FG32005880**	Price	**FG312404104**	Price
22IR 6P VO .055 MT	6	1-1/2	1/2	.870	.072	.060	**FG31008460**	Price	**FG312404106**	Price

*** MT is Macaroni Tubing. AMT is American Macaroni Tubing and AMMT is American Mining Macaroni Tubing.**

TOOLFLO Member IMC Group LAYDOWN-LT

API VAM Threading

New!



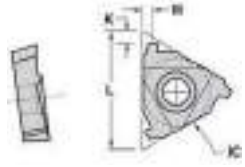


Description	TPI	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
						Order No.	Price	Order No.	Price
22ER 8VAM	8	1/2	.870	.059	.059	**FG332469876**	Price	**FG332469877**	Price
22ER 6VAM	6	1/2	.870	.079	.079	**FG332469874**	Price	**FG312404108**	Price
22ER 5VAM	5	1/2	.870	.079	.079	**FG332469872**	Price	**FG312404109**	Price
22IR 8VAM	8	1/2	.870	.059	.059	**FG332470036**	Price	**FG332470037**	Price
22IR 6VAM	6	1/2	.870	.079	.079	**FG332470033**	Price	**FG312404110**	Price
22IR 5VAM	5	1/2	.870	.079	.079	**FG332470030**	Price	**FG312404111**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

API X-Line Threading
Connection: 5 - 7-5/8 8-5/8 - 10-3/4

New!



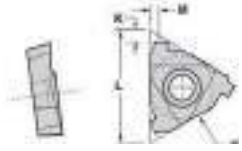


Description	TPI	TPF	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
							Order No.	Price		
22ER 6XL75	6	3/4	1/2	.870	.075	.078	**FG312489542**	Price	**FG312489326**	Price
22ER 6XL15	6	1-1/2	1/2	.870	.075	.086	**FG312489543**	Price	**FG312489327**	Price
22ER 5XL12	5	1-1/4	1/2	.870	.087	.083	**FG312489544**	Price	**FG312489328**	Price
22IR 6XL75	6	3/4	1/2	.870	.075	.078	**FG312489545**	Price	**FG312489329**	Price
22IR 6XL15	6	1-1/2	1/2	.870	.075	.086	**FG312489546**	Price	**FG312489330**	Price
22IR 5XL12	5	1-1/4	1/2	.870	.087	.083	**FG312404112**	Price	**FG312489331**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

API Buttress Threading
U.S. Improved Buttress 4-1/2 - 13-3/8 16 and larger

New!



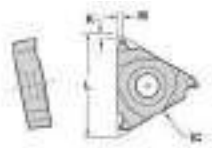


Description	TPI	TPF	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
							Order No.	Price	Order No.	Price
22ER 8B75	8	3/4	1/2	.870	.102	.073	**FG332488856**	Price	**FG332488850**	Price
22ER 5B75	5	3/4	1/2	.870	.087	.087	**FG31007400**	Price	**FG31007410**	Price
22ER 5B1	5	1	1/2	.870	.095	.087	**FG31007350**	Price	**FG31007360**	Price
22IR 8B75	8	3/4	1/2	.870	.102	.073	**FG332488857**	Price	**FG332489292**	Price
22IR 5B75	5	3/4	1/2	.870	.087	.087	**FG31008340**	Price	**FG31008350**	Price
22IR 5B1	5	1	1/2	.870	.095	.090	**FG31008300**	Price	**FG31008310**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

NPT Threading With Chipbreaker

New!



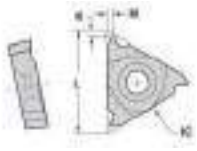


Description	TPI	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
						Order No.	Price	Order No.	Price
16ER 27NPT-CB	27	3/8	.650	.030	.020	**FG32002490**	Price	**FG32002500**	Price
16ER 18NPT-CB	18	3/8	.650	.030	.020	**FG32001860**	Price	**FG32001870**	Price
16ER 14NPT-CB	14	3/8	.650	.060	.020	**FG32001470**	Price	**FG32001480**	Price
16ER 11.5NPT-CB	11.5	3/8	.650	.060	.040	**FG32001030**	Price	**FG32001040**	Price
16ER 8NPT-CB	8	3/8	.650	.060	.040	**FG32003860**	Price	**FG32003000**	Price
16IR 27NPT-CB	27	3/8	.650	.030	.020	**FG32005690**	Price	**FG322493380**	Price
16IR 18NPT-CB	18	3/8	.650	.030	.020	**FG32005230**	Price	**FG322493387**	Price
16IR 14NPT-CB	14	3/8	.650	.060	.040	**FG32004900**	Price	**FG32004910**	Price
16IR 11.5NPT-CB	11.5	3/8	.650	.060	.040	**FG32004550**	Price	**FG32004560**	Price
16IR 8NPT-CB	8	3/8	.650	.060	.040	**FG32006810**	Price	**FG32005980**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

NPT Threading

New!



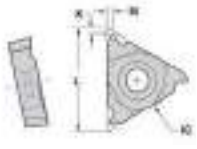


Description	TPI	IC	Length L (in.)	M	K	Grade	Order No.	Price
16ER 27NPT	27	3/8	.650	.030	.030	AC22	**FG325902132**	Price
16ER 18NPT	18	3/8	.650	.040	.030	AC22	**FG325902115**	Price
16ER 14NPT	14	3/8	.650	.050	.040	AC22	**FG325993047**	Price
16ER 11 .5NPT	11.5	3/8	.650	.060	.040	AC22	**FG325901814**	Price
16ER 8NPT	8	3/8	.650	.070	.050	AC22	**FG325901968**	Price
11IR 18NPT	18	1/4	.430	.040	.030	AC22	**FG325902041**	Price
16IR 27NPT	27	3/8	.650	.030	.030	AC22	**FG325996115**	Price
16IR 18NPT	18	3/8	.650	.040	.030	AC22	**FG325902181**	Price
16IR 14NPT	14	3/8	.650	.050	.040	AC22	**FG325993037**	Price
16IR 11 .5NPT	11.5	3/8	.650	.060	.040	AC22	**FG325901939**	Price
16IR 8NPT	8	3/8	.650	.060	.050	AC22	**FG325901938**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

NPT Threading – Multi-Tooth

New!



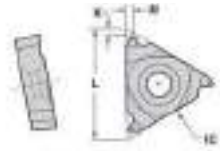


Description	No of Teeth	TPI	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
							Order No.	Price	Order No.	Price
22ER 11 .5NPT2M	2	11 .5	1/2	.870	.130	.090	**FG312498333**	Price	**FG31007000**	Price
27ER 11 .5NPT3M	3	11 .5	5/8	1.080	.220	.140	**FG312404101**	Price	**FG312489305**	Price
27ER 8NPT2M	2	8	5/8	1.080	.190	.110	**FG33009010**	Price	**FG312493399**	Price
22IR 11 .5NPT2M	2	11 .5	1/2	.870	.130	.090	**FG332470065**	Price	**FG31007940**	Price
27NR 11 .5NPT3M	3	11 .5	5/8	1.080	.220	.140	**FG312404102**	Price	**FG33009190**	Price
27NR 8NPT2M	2	8	5/8	1.080	.190	.110	**FG332470345**	Price	**FG33009520**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

NPTF Threading With Chipbreaker

New!



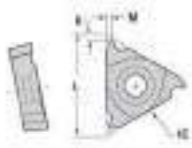


Description	TPI	IC	Length L (in.)	M	K	Grade	Order No.	Price
16ER 27NPTF-CB	27	3/8	.650	.030	.030	AC22	**FG332417545**	Price
16ER 18NPTF-CB	18	3/8	.650	.040	.030	AC22	**FG332417012**	Price
16ER 14NPTF-CB	14	3/8	.650	.050	.040	AC22	**FG332417009**	Price
16ER 11.5NPTF-CB	11.5	3/8	.650	.060	.040	AC22	**FG332417550**	Price
16ER 8NPTF-CB	8	3/8	.650	.070	.050	AC22	**FG332417551**	Price
16IR 27NPTF-CB	27	3/8	.650	.030	.030	AC22	**FG332488947**	Price
16IR 18NPTF-CB	18	3/8	.650	.030	.020	AC22	**FG332487196**	Price
16IR 14NPTF-CB	14	3/8	.650	.060	.040	AC22	**FG332487197**	Price
16IR 11.5NPTF-CB	11.5	3/8	.650	.060	.040	AC22	**FG332487199**	Price
16IR 8NPTF-CB	8	3/8	.650	.060	.040	AC22	**FG332487200**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

NPTF Threading

New!



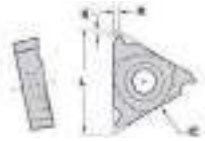


Description	TPI	IC	Length L (in.)	M	K	Grade	Order No.	Price
16ER 27NPTF	27	3/8	.650	.030	.030	AC22	**FG325902408**	Price
16ER 18NPTF	18	3/8	.650	.040	.030	AC22	**FG325902409**	Price
16ER 14NPTF	14	3/8	.650	.050	.040	AC22	**FG325902315**	Price
16ER 11 .5NPTF	11.5	3/8	.650	.060	.040	AC22	**FG325902314**	Price
16ER 8NPTF	8	3/8	.650	.070	.050	AC22	**FG312489691**	Price
11IR 27NPTF	27	1/4	.430	.030	.030	AC22	**FG312489535**	Price
16IR 27NPTF	27	3/8	.650	.030	.030	AC22	**FG312489632**	Price
16IR 18NPTF	18	3/8	.650	.040	.030	AC22	**FG325902526**	Price
16IR 14NPTF	14	3/8	.650	.050	.040	AC22	**FG325902515**	Price
16IR 11.5NPTF	11.5	3/8	.650	.060	.040	AC22	**FG325990378**	Price
16IR 8NPTF	8	3/8	.650	.070	.050	AC22	**FG325993665**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

API Rotary Shoulder Connection Threading

New!



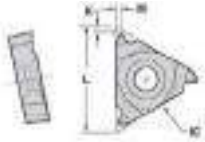


Description	TPI	TPF	IC	Length L (in.)	M	K	Grade AC22		Grade AC50	
							Order No.	Price	Order No.	Price
22ER 530	5	3	1/2	.870	.100	.080	**FG31007290**	Price	**FG31007310**	Price
22ER 4PAC	4	1-1/2	1/2	.870	.110	.080	**FG31007250**	Price	**FG312404099**	Price
22ER 438	4	3	1/2	.870	.110	.110	**FG31007210**	Price	**FG31007220**	Price
22ER 435	4	3	1/2	.870	.110	.080	**FG31007170**	Price	**FG31007180**	Price
22ER 42F	4	2	1/2	.870	.110	.080	**FG312489702**	Price	**FG312489323**	Price
22ER 428	4	2	1/2	.870	.100	.080	**FG31007120**	Price	**FG31007130**	Price
22ER 425	4	2	1/2	.870	.100	.080	**FG31007060**	Price	**FG31007080**	Price
22IR 530	5	3	1/2	.870	.100	.080	**FG31008250**	Price	**FG31008260**	Price
22IR 4PAC	4	1-1/2	1/2	.870	.110	.080	**FG31008200**	Price	**FG312404100**	Price
22IR 438	4	3	1/2	.870	.110	.110	**FG31008160**	Price	**FG31008170**	Price
22IR 435	4	3	1/2	.870	.110	.080	**FG31008120**	Price	**FG31008130**	Price
22IR 42F	4	2	1/2	.870	.110	.080	**FG312489703**	Price	**FG312489324**	Price
22IR 428	4	2	1/2	.870	.100	.080	**FG31008080**	Price	**FG312411865**	Price
22IR 425	4	2	1/2	.870	.100	.080	**FG31008040**	Price	**FG31008050**	Price
27ER 530	5	3	5/8	.108	.100	.070	**FG33009120**	Price	**FG332487943**	Price
27ER 438	4	3	5/8	.108	.110	.080	**FG332487935**	Price	**FG332487936**	Price
27ER 435	4	3	5/8	.108	.120	.080	**FG332487930**	Price	**FG332493034**	Price
27ER 428	4	2	5/8	.108	.110	.080	**FG332487916**	Price	**FG332487919**	Price
27ER 425	4	2	5/8	.108	.120	.080	**FG332487908**	Price	**FG332487909**	Price
27IR 530	5	3	5/8	.108	.110	.080	**FG332488041**	Price	**FG332488039**	Price
27IR 438	4	3	5/8	.108	.110	.080	**FG332487999**	Price	**FG332493055**	Price
27IR 435	4	3	5/8	.108	.120	.080	**FG332487990**	Price	**FG332493060**	Price
27IR 428	4	2	5/8	.108	.110	.080	**FG332487962**	Price	**FG332487964**	Price
27IR 425	4	2	5/8	.108	.120	.080	**FG332487950**	Price	**FG332487954**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

API Round Threading With Chipbreaker

New!



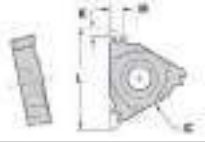


Description	TPI	IC	Length L (in.)	M	K	Grade	Order No.	Price
16ER 8RD-CB	8	3/8	.650	.051	.059	AC50	**FG32003120**	Price
16ER 10RD-CB	10	3/8	.650	.047	.059	AC50	**FG32000800**	Price
16IR 8RD-CB	8	3/8	.650	.051	.059	AC50	**FG32006090**	Price
16IR 10RD-CB	10	3/8	.650	.047	.059	AC50	**FG32004380**	Price

TOOLFLO Member IMC Group LAYDOWN-LT

API Round Threading

New!





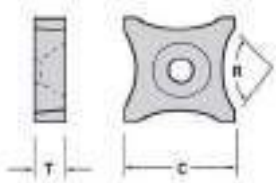
Description	TPI	TPF	IC	Length L (in.)	M	K	Grade	Order No.	Price
16ER 8RD	8	3/4	3/8	.650	.059	.056	AC50	**FG32003070**	Price
16ER 10RD	10	3/4	3/8	.650	.059	.056	AC50	**FG32000760**	Price
22ER 8RD	8	3/4	1/2	.870	.060	.056	AC50	**FG31007760**	Price
22ER 10RD	10	3/4	1/2	.870	.046	.048	AC50	**FG31006950**	Price
16IR 8RD	8	3/4	3/8	.650	.059	.056	AC50	**FG32006040**	Price
16IR 10RD	10	3/4	3/8	.650	.059	.056	AC50	**FG32004350**	Price
22IR 8RD	8	3/4	1/2	.870	.060	.056	AC50	**FG31008680**	Price
22IR 10RD	10	3/4	1/2	.870	.046	.048	AC50	**FG31007890**	Price

TOOLFLO Member IMC Group External Scarfing Inserts

SPUB-63 - External

3/4" Square 4-sided - OD

New!





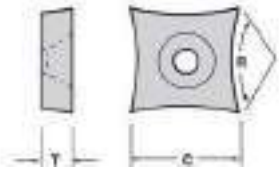
Description	Tube Diameter	Thickness (in.)	Width C (in.)	R - Radius (in.)	Grade	Order No.	Price
SPUB-63B-E	up to 7/8”	3/16	3/4	.475	ZA54	**FG33053450**	Price
SPUB-63C-E	7/8 - 1-1/8"	3/16	3/4	.590	ZA54	**FG33053470**	Price
SPUB-63D-E	1-1/8 - 1-1/2”	3/16	3/4	.785	ZA54	**FG33053490**	Price
SPUB-63E-E	1-1/2 - 1-7/8”	3/16	3/4	.985	ZA54	**FG332439001**	Price
SPUB-63F-E	1-7/8 - 2-1/4”	3/16	3/4	1.180	ZA54	**FG332439003**	Price
SPUB-63G-E	2-1/4 - 3-1/8”	3/16	3/4	1.575	ZA54	**FG332439005**	Price
SPUB-63H-E	3-1/8 - 3-7/8”	3/16	3/4	1.970	ZA54	**FG33053510**	Price
SPUB-63I-E	3-7/8 - 4-7/8”	3/16	3/4	2.470	ZA54	**FG33053530**	Price
SPUB-63J-E	4-7/8 - 5-7/8”	3/16	3/4	2.970	ZA54	**FG332492465**	Price
SPUB-63K-E	5-7/8 - 6-7/8”	3/16	3/4	3.470	ZA54	**FG33053570**	Price
SPUB-63L-E	6-7/8 - 7-7/8”	3/16	3/4	3.970	ZA54	**FG332439016**	Price
SPUB-63M-E	7-7/8 and up	3/16	3/4	None	ZA54	**FG332439018**	Price
SPUB-63M-30-E	30° Relief	3/16	3/4	None	ZA54	**FG332439020**	Price

TOOLFLO Member IMC Group External Scarfing Inserts

SQ86 - External

1” Square 4-sided - OD

New!





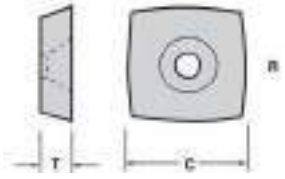
Description	Tube Diameter	Thickness (in.)	Width C (in.)	R - Radius (in.)	Grade	Order No.	Price
SQ86-14-0-E	ANY	3/8	1 .000	-	ZA54	**FG332496479**	Price
SQ86-14-2.5-E	3 - 4-3/4"	3/8	1 .000	2 .500	ZA54	**FG332439029**	Price
SQ86-10-3.4-E	4-3/4 - 6-3/4”	3/8	1 .000	3 .400	ZA54	**FG332439031**	Price
SQ86-14-4.5-E	6-3/4 - 8-3/4”	3/8	1 .000	4 .500	ZA54	**FG332439036**	Price
SQ86-10-9.5-E	8-3/4 - 18”	3/8	1 .000	9 .500	ZA54	**FG332439040**	Price

TOOLFLO Member IMC Group Scarfing Inserts

SQ86 - Internal

1” Square 4-sided - ID

New!



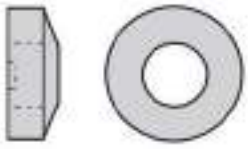


Description	Tube Diameter	Thickness (in.)	Width C (in.)	R - Radius	Grade	Order No.	Price
SQ86-14-0-I	ANY	3/8	1 .000	-	ZA54	**FG332439042**	Price
SQ86-14-2.5-I	3 - 4-3/4"	3/8	1 .000	2 .500	ZA54	**FG332439045**	Price
SQ86-10-3.4-I	4-3/4 - 6-3/4”	3/8	1 .000	3 .400	ZA54	**FG332439049**	Price

TOOLFLO Member IMC Group Internal Scarfing Inserts

IDR

New!



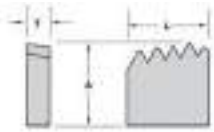


Description	Int'l Tube Diameter	Description	Grade	Order No.	Price
IDR-2010	9/16 - 11/16”	#1	ZA54	**FG332425584**	Price
IDR-2020	11/16 - 13/16"	#2	ZA54	**FG332425585**	Price
IDR-2030	13/16 - 1-1/32”	#3	ZA54	**FG332425586**	Price
IDR-2040	1-1/32 - 1-3/8”	#4	ZA54	**FG332425587**	Price
IDR-2050	5/16 - 1-7/16”	#5	ZA54	**FG332425588**	Price
IDR-2060	1-1/32 - 1-1/8”	#6	ZA54	**FG332425589**	Price
IDR-2070	1-1/8 - 1-3/16”	#7	ZA54	**FG332425590**	Price
IDR-2080	1-3/16 - 1-3/8”	#8	ZA54	**FG332425591**	Price
IDR-2090	1-14 - 1-5/8”	#9	ZA54	**FG332425592**	Price
IDR-2100	1-5/8 - 2”	#10	ZA54	**FG332425593**	Price
IDR-2110	1-7/8 - 2-7/8”	#11	ZA54	**FG332425594**	Price
IDR-2120	2-3/4 - 3-3/8"	#12	ZA54	**FG332452090**	Price
IDR-2130	3-3/8 - 4"	#13	ZA54	**FG332425596**	Price
IDR-2140	4 - 5"	#14	ZA54	**FG332489823**	Price
IDR-2150	5 - 6-1/4"	#15	ZA54	**FG332425598**	Price
IDR-2160	6 - 10-1/4"	#16	ZA54	**FG332425599**	Price

TOOLFLO Member IMC Group Chasers

External NPT and Waterwell

New!





Description	TPI	TPF	Length L (in.)	Height A (in.)	Thickness (in.)	No. of Teeth	Grade	Order No.	Price
CR-8NPT-4E	8	3/4	.625	.620	.203	4	AC50	**FG33018460**	Price
CR-11.5NPT-4E	11.5	3/4	.625	.620	.1875	4	AC50	**FG33017980**	Price
CR-8P-3E WW	8	0'	.630	.592	.203	3	AC50	**FG332411410**	Price

TOOLFLO Member IMC Group Chasers

Internal NPT and Waterwell

New!



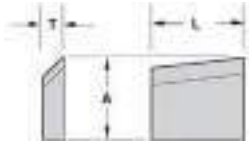


Description	TPI	TPF	Length L (in.)	Height A (in.)	Thickness (in.)	No. of Teeth	Grade	Order No.	Price
CR-8NPT-4I	8	3/4	.625	.620	.203	4	AC50	**FG33018462**	Price
CR-11.5NPT-4I	11.5	3/4	.625	.620	.1875	4	AC50	**FG332434586**	Price
CR-8NPT-7I	8	3/4	.625	.620	.1875	7	AC50	**FG332434583**	Price
CR-8P-3I WW	8	0°	.630	.592	.203	3	AC50	**FG332411397**	Price

TOOLFLO Member IMC Group Chipbreakers

External

New!



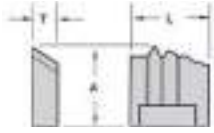


Description	Length L (in.)	Height A (in.)	Thickness (in.)	Inserts	Grade	Order No.	Price
CR-5B75/5B1-4E-CB	.800	.500	.125	CR-5B75-4E/CR-5B1-4E	AC2	**FG302413126**	Price
CR-8R/10R-3E/4E-CB	.630	.560	.125	CR-8R-3E/CR-8R-4E/CR-10R-3E/CR-8NPT-4E	AC2	**FG302412419**	Price
#3 CB W/O Coolant Grooves .170	.618	.560	.170	CR-8R-3E/CR-8R-4E/CR-10R-3E/CR-8NPT-4E	AC2	**FG302404096**	Price

TOOLFLO Member IMC Group Chipbreakers

External with coolant grooves

New!



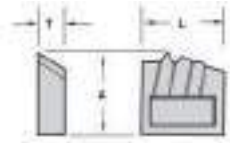


Description	Length L (in.)	Height A (in.)	Thickness (in.)	Coolant Grooves	Inserts	Grade	Order No.	Price
TD4601 5B75-1-CB	.665	.550	.170	x	CR-5B75-3E #1	AC2	**FG302412111**	Price
TD4602 5B75-2-CB	.668	.550	.170	x	CR-5B75-3E #2	AC2	**FG302412112**	Price
TD4603 5B75-3-CB	.668	.550	.170	x	CR-5B75-3E #3	AC2	**FG302412113**	Price
TD3931 8R-1-CB	.628	.510	.165	x	CR-8R-3E #1	AC2	**FG302412108**	Price
TD3932 8R-2-CB	.635	.526	.165	x	CR-8R-3E #2	AC2	**FG302412109**	Price
TD3933 8R-3-CB	.628	.520	.165	x	CR-8R-3E #3	AC2	**FG302412110**	Price
TA2237 10R-1-CB	.628	.503	.175	x	CR-10R-3E #1	AC2	**FG302486490**	Price
TA2238 10R-2-CB	.628	.512	.175	x	CR-10R-3E #2	AC2	**FG302486491**	Price
TA2238 10R-2-CB	.628	.515	.175	x	CR-10R-3E #3	AC2	**FG302486492**	Price
#3 CB W/Coolant Grooves .170	.618	.460	.170	x	CR-8R-3E	AC2	**FG302413038**	Price

TOOLFLO Member IMC Group Chipbreakers

External with coolant grooves and cavity

New!



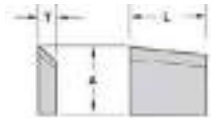


Description	Length L (in.)	Height A (in.)	Thickness (in.)	Coolant Grooves	Inserts	Grade	Order No.	Price
TD4601 5B75-1-CB w/Cavity	.665	.550	.170	x	CR-5B75-3E #1	AC2	**FG302412339**	Price
TD4602 5B75-2-CB w/Cavity	.668	.550	.170	x	CR-5B75-3E #2	AC2	**FG302412340**	Price
TD4603 5B75-3-CB w/Cavity	.665	.560	.170	x	CR-5B75-3E #3	AC2	**FG302412341**	Price
TD3931 8R-1-CB w/Cavity	.628	.518	.165	x	CR-8R-3E #1	AC2	**FG302412338**	Price
TD3932 8R-2-CB w/Cavity	.635	.526	.165	x	CR-8R-3E #2	AC2	**FG302412337**	Price
TD3933 8R-3-CB w/Cavity	.628	.520	.165	x	CR-8R-3E #3	AC2	**FG302412336**	Price

TOOLFLO Member IMC Group Chipbreakers

Internal

New!



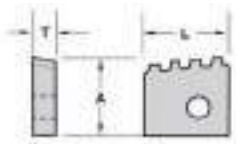


Description	Length L (in.)	Height A (in.)	Thickness (in.)	Coolant Grooves	Inserts	Grade	Order No.	Price
CR-5B75/5B1-4I-CB	.800	.500	.125		CR-5B75/5B1-4I/	AC2	**FG302413039**	Price
CR-8R/10R-3I/4I-CB	.630	.488	.125		CR-8R-3I/CR-8R-4I/CR-10R-3I/CR-8LPT-4I	AC2	**FG302413128**	Price
CR-5B75-5I-CB	1.000	.540	.125	x	CR-5B75-5I	AC2	**FG302412114**	Price
CR-8R-7I-CB	1.000	.520	.125		CR-8R-7I	AC2	**FG302413127**	Price
CR-8R-7I-CB	2.000	.520	.125	x	CR-8R-7I	AC2	**FG302412115**	Price

TOOLFLO Member IMC Group Chasers

External API Buttress

New!



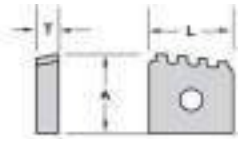


Description	TPI	TPF	Length L (in.)	Height A (in.)	Thickness (in.)	No. of Teeth	Grade	Order No.	Price
CR-5B75-3E #1	5	3/4	.670	.573	.205	3	ZA3	**FG392434274**	Price
CR-5B75-3E #2	5	3/4	.670	.582	.205	3	ZA3	**FG392417716**	Price
CR-5B75-3E #3	5	3/4	.670	.590	.205	3	ZA3	**FG392417549**	Price
CR-5B75-4E	5	3/4	.804	.625	.200	4	ZA3	**FG392414115**	Price
CR-5B1-4E	5	1	.800	.640	.200	4	ZA3	**FG332486470**	Price
CR-8B75-4E	8	3/4	.800	.605	.200	4	ZA3	**FG332486474**	Price

TOOLFLO Member IMC Group Chasers

Internal API Buttress

New!



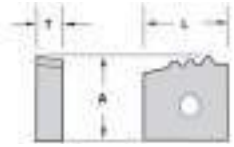


Description	TPI	TPF	Length L (in.)	Height A (in.)	Thickness (in.)	No. of Teeth	Grade	Order No.	Price
CR-5B75-2I	5	3/4	.630	.622	.204	2	ZA3	**FG392419658**	Price
CR-5B75-3I	5	3/4	.630	.577	.204	3	ZA3	**FG332486477**	Price
CR-5B75-4I	5	3/4	.800	.582	.205	4	ZA3	**FG332486479**	Price
CR-5B75-5I	5	3/4	1 .000	.590	.205	5	ZA3	**FG332414019**	Price
CR-5B1-3I	5	1	.635	.635	.200	3	ZA3	**FG332486487**	Price
CR-5B1-4I	5	1	.800	.640	.200	4	ZA3	**FG332486489**	Price
CR-8B75-4I	8	3/4	.800	.590	.205	4	ZA3	**FG332486572**	Price

TOOLFLO Member IMC Group Chasers

External API Round

New!



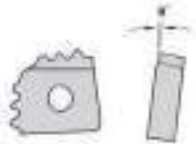


Description	TPI	TPF	Length L (in.)	Height A (in.)	Thickness (in.)	No. of Teeth	Grade	Order No.	Price
CR-8R-3E #1	8	3/4	.630	.577	.204	3	AC50	**FG33018530**	Price
CR-8R-3E #2	8	3/4	.630	.586	.204	3	AC50	**FG33018560**	Price
CR-8R-3E #3	8	3/4	.630	.591	.204	3	AC50	**FG33018590**	Price
CR-8R-3E	8	3/4	.630	.592	.204	3	AC50	**FG33018620**	Price
CR-8R-3E 6°	8	3/4	.640	.625	.200	4	AC50	**FG33018710**	Price
CR-8R-4E 12°	8	3/4	.635	.625	.200	4	AC50	**FG33018680**	Price
CR-10R-3E #1	10	3/4	.628	.563	.204	3	AC50	**FG33017840**	Price
CR-10R-3E #2	10	3/4	.628	.572	.204	3	AC50	**FG33017860**	Price
CR-10R-3E #3	10	3/4	.628	.572	.204	3	AC50	**FG33017890**	Price
CR-10R-3E	10	3/4	.630	.625	.204	3	AC50	**FG33017920**	Price

TOOLFLO Member IMC Group Chasers

External API Round and Buttress
CNGA Double Sided (2 cutting edges)

New!



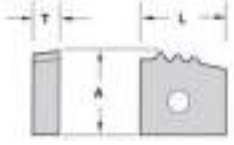


Description	TPI	TPF	No. of Teeth	Grade	Order No.	Price
CNGA-8R-3E	8	3/4	3	AC50	**FG33017350**	Price
CNGA-10R-3E	10	3/4	3	AC50	**FG33016950**	Price
CNGA-5B75-3E	5	3/4	3	AC50	**FG332414122**	Price
CNGA-5B75-3E	5	3/4	3	ZA3	**FG302419536**	Price

TOOLFLO Member IMC Group Chasers

Internal API Round

New!



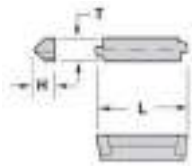


Description	TPI	TPF	Length L (in.)	Height A (in.)	Thickness (in.)	No. of Teeth	Grade	Order No.	
CR-8R-3I	8	3/4	.640	.592	.200	3	AC50	**FG33018650**	Price
CR-8R-4I 6"	8	3/4	.640	.625	.200	4	AC50	**FG33018740**	Price
CR-8R-4I	8	3/4	.640	.625	.200	4	AC50	**FG332410623**	Price
CR-8R-7I	8	3/4	1 .000	.625	.200	7	AC50	**FG332410619**	Price
CR-10R-3I	10	3/4	.630	.625	.200	3	AC50	**FG33018810**	Price

TOOLFLO Member IMC Group — VEE-Bottom

API X-Line Threading

New!



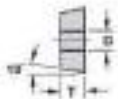


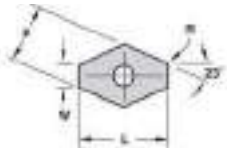
Description	TPI	TPF	Thickness (in.)	Length L (in.)	H	Connection	Grade	Order No.	Price
V84 5XL12 EXT	5	1-1/4	.250	1.000	.250	8-5/8 - 10-3/4	AC50	**FG332486763**	Price
V84 5XL12 INT	5	1-1/4	.250	1.000	.250	8-5/8 - 10-3/4	AC50	**FG332486766**	Price
V84 6XL15 EXT	6	1-1/2	.250	1.000	.250	5 - 7-5/8	AC50	**FG332486768**	Price
V84 6XL15 INT	6	1-1/2	.250	1.000	.250	5 - 7-5/8	AC50	**FG332486771**	Price
V84 6XL75 EXT	6	3/4	.250	1.000	.250	-	AC50	**FG332486773**	Price
V84 6XL75 INT	6	3/4	.250	1.000	.250	-	AC50	**FG332486775**	Price

TOOLFLO Member IMC Group — Ring Grooving

API 46
APIP

New!





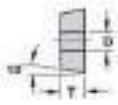


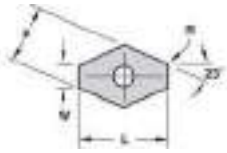
Description	Radius (in.)	W	P	Thickness (in.)	Length L (in.)	Hole Dia. D (in.)	Style	Grade AC6		Grade GP6	
								Order No.	Price	Order No.	Price
APIP 086-3	.015	.079	.372	.187	3/4	-	Clamp	**FG39754000AC6D**	Price	**FG39754000N1C**	Price
APIP 131-3	.031	.125	.407	.187	3/4	-	Clamp	**FG332418378**	Price	**FG332419322**	Price
APIP (PGN-1A)	.031	.131	.415	.187	3/4	-	Clamp	**FG332415580**	Price	**FG332416869**	Price
APIP 162-3 (PGN-6A)	.031	.156	.437	.187	3/4	-	Clamp	**FG332415401**	Price	**FG33011710**	Price
APIP (PGN-7A)	.031	.203	.484	.187	3/4	-	Clamp	**FG332486705**	Price	**FG332416662**	Price
APIP 203-3 (PGN-2A)	.031	.197	.574	.187	1”	-	Clamp	**FG332415421**	Price	**FG33011740**	Price
APIP 203-3H	.031	.197	.574	.187	1”	.203	Lock Pin	**FG332414818**	Price	**FG33011750**	Price
APIP 213-3	.062	.206	.574	.187	1”	.203	Lock Pin	**FG332486709**	Price	**FG33011500**	Price
APIP 265-3	.031	.260	.633	.187	1”	.250	Lock Pin	**FG332486711**	Price	**FG33011530**	Price
APIP 281-3	.031	.277	.645	.187	1”	.250	Lock Pin	**FG332486712**	Price	**FG312490553**	Price
APIP 300-3	.031	.295	.662	.187	1”	.250	Lock Pin	**FG332486713**	Price	**FG332417184**	Price
APIP 329-3	.031	.325	.683	.187	1”	.250	Lock Pin	**FG332486714**	Price	**FG33011590**	Price
APIP 355-3	.031	.350	.712	.187	1”	.250	Lock Pin	**FG332474076**	Price	**FG332418176**	Price
APIP 420-3	.031	.415	.772	.187	1”	.250	Lock Pin	**FG332486716**	Price	**FG332416682**	Price

TOOLFLO Member IMC Group — Ring Grooving

API 46
APIP Heavy Duty

New!







Description	Radius (in.)	W	P	Thickness (in.)	Length L (in.)	Hole Dia. D (in.)	Style	Grade AC6		Grade GP6	
								Order No.	Price	Order No.	Price
APIP 284-3	.062	.278	.713	.187	1-3/16	.250	Lock Pin	**FG332486718**	Price	**FG33011570**	Price
APIP 162-4NL	.031	.156	.733	.250	1-1/2	.250	Lock Pin	**FG332474031**	Price	**FG332418116**	Price
APIP 162-4 (Counter sink hole)	.031	.156	.733	.250	1-1/2	.250	Screw	**FG332413808**	Price	**FG33011720**	Price
APIP 203-4NL	.031	.197	.773	.250	1-1/2	.250	Lock Pin	**FG332486720**	Price	**FG33011480**	Price
APIP 203-4 (Counter sink hole)	.031	.197	.773	.250	1-1/2	.250	Screw	**FG33011450**	Price	**FG33011470**	Price
APIP 213-4 (Counter sink hole)	.062	.206	.773	.250	1-1/2	.250	Screw	**FG332474054**	Price	**FG332416874**	Price
APIP 265-4 (Counter sink hole)	.031	.260	.773	.250	1-3/8	.250	Screw	**FG332474060**	Price	**FG33011540**	Price
APIP 281-4 (Counter sink hole)	.031	.277	.773	.250	1-5/16	.250	Screw	**FG332416738**	Price	**FG33011560**	Price
APIP 300-4 (Counter sink hole)	.031	.295	.773	.250	1-9/32	.250	Screw	**FG332474066**	Price	**FG332474072**	Price
APIP 329-4	.031	.324	.773	.250	1-7/32	.250	Lock Pin	**FG332486721**	Price	**FG332419263**	Price
APIP 355-4	.031	.350	.773	.250	1-5/32	.250	Lock Pin	**FG332486722**	Price	**FG332419194**	Price
APIP 420-4	.031	.415	.773	.250	1”	.250	Lock Pin	**FG332416575**	Price	**FG312495615**	Price

RAPIDKUT Top Notch Grooving Inserts

Ground Positive Rake



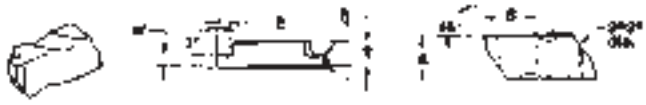
- Grade 3125 is a PVD coated insert suitable for all cutting materials in finishing to general machining applications

Maxx Edge Model No.	Industry Standard	Radius (in.)	Width (in.)	Depth of Cut (in.)	ME3125	
					Order No.	Price
MEGP2047R	NG 2	.0035	.047	.050	**ME1620004**	Price
MEGP2047L	NG 2	.0035	.047	.050	**ME1620005**	Price
MEGP2062R	NG 2	.0075	.062	.110	**ME1620006**	Price
MEGP2062L	NG 2	.0075	.062	.110	**ME1620007**	Price
MEGP2094R	NG 2	.0075	.094	.110	**ME1620008**	Price
MEGP2094L	NG 2	.0075	.094	.110	**ME1620009**	Price
MEGP2125R	NG 2	.0075	.125	.110	**ME1620010**	Price
MEGP2125L	NG 2	.0075	.125	.110	**ME1620011**	Price
MEGP3047R	NG 3	.0075	.047	.075	**ME1620012**	Price
MEGP3047L	NG 3	.0075	.047	.075	**ME1620013**	Price
MEGP3062R	NG 3	.0075	.062	.094	**ME1620014**	Price
MEGP3062L	NG 3	.0075	.062	.094	**ME1620015**	Price
MEGP3094R	NG 3	.0075	.094	.150	**ME1620016**	Price
MEGP3094L	NG 3	.0075	.094	.150	**ME1620017**	Price
MEGP3125R	NG 3	.0075	.125	.150	**ME1620018**	Price
MEGP3125L	NG 3	.0075	.125	.150	**ME1620019**	Price

PROCUT PCG/NG Top Lock Grooving Inserts

Neutral
Precision
R = Right hand
L = Left hand
Interchangeable with standard industry NG-K but without chipform.





Carbide Grades
PC2 - (C2) General purpose for cast iron and non-ferrous metals (exotics)
PC5 - (C5) Steel cutting
PC300 - (C5 coated) TiN-TiC-TiN steel cutting at higher speeds with greater lubricity

Width W (in.)	Radius R (in.)	B (in.)	T (in.)	E (in.)	A (in.)	Gage Dia. (in.)	ProCut	Industry Standard	PC5		PC300	
									Order No.	Price	Order No.	Price
.041	.002/.005	.2700	.150	.0500	.219	.1875	PCG2041R	NG2041R	-	-	**FF4530080**	Price
.047	.005/.010	.4050	.195	.0750	.344	.3750	PCG3047R	NG3047R	-	-	**FF4530200**	Price
.062	.005/.010	.2700	.150	.1100	.219	.1875	PCG2062L	NG2062L	**FF4550150**	Price	**FF4530150**	Price
.062	.005/.010	.4050	.195	.0940	.344	.3750	PCG3062L	NG3062L	-	-	**FF4530230**	Price
.062	.005/.010	.4050	.195	.0940	.344	.3750	PCG3062R	NG3062R	**FF4550220**	Price	**FF4530220**	Price
.072	.005/.010	.4050	.195	.0940	.344	.3750	PCG3072L	NG3072L	**FF4550250**	Price	**FF4530250**	Price
.072	.005/.010	.4050	.195	.0940	.344	.3750	PCG3072R	NG3072R	-	-	**FF4530240**	Price
.088	.005/.010	.4050	.195	.0940	.344	.3750	PCG3088R	NG3088R	-	-	**FF4530280**	Price
.094	.005/.010	.2700	.150	.1100	.219	.1875	PCG2094L	NG2094L	-	-	**FF4530170**	Price
.094	.005/.010	.4050	.195	.1500	.344	.3750	PCG3094R	NG3094R	**FF4550300**	Price	**FF4530300**	Price
.105	.005/.010	.4050	.195	.1500	.344	.3750	PCG3105L	NG3105L	-	-	**FF4530350**	Price
.105	.005/.010	.4050	.195	.1500	.344	.3750	PCG3105R	NG3105R	-	-	**FF4530340**	Price
.125	.005/.010	.4050	.195	.1500	.344	.3750	PCG3125L	NG3125L	**FF4550410**	Price	**FF4530410**	Price
.125	.005/.010	.6360	.255	.1500	.453	.3750	PCG4125R	NG4125R	-	-	**FF4530520**	Price
.159	.020/.025	.6360	.255	.2500	.453	.3750	PCG4189L	NG4189L	-	-	**FF4530550**	Price
.185	.020/.025	.4050	.195	.1500	.344	.3750	PCG3185R	NG3185R	**FF4550480**	Price	**FF4530480**	Price
.250	.020/.025	.6360	.255	.2500	.453	.3750	PCG4250R	NG4250R	-	-	**FF4530600**	Price
.062	.005/.010	.2700	.150	.1100	.219	.1875	PCG2062R	NG2062R	-	-	**FF4530140**	Price
.094	.005/.010	.4050	.195	.1500	.344	.3750	PCG3094L	NG3094L	-	-	**FF4530310**	Price
.125	.005/.010	.4050	.195	.1500	.344	.3750	PCG3125R	NG3125R	**FF4550400**	Price	**FF4530400**	Price
.189	.020/.025	.4050	.195	.1500	.344	.3750	PCG3189L	NG3189L	-	-	**FF4530510**	Price

See index for tool holders, blocks, and blades.

RAPIDKUT Top Notch Holders

- External toolholder
- For use with all Top Notch and Top Lock style threading and grooving inserts





R/L - Left										
Model No.	A x B (in.)	C OAL (in.)	D	E (in.)	F (in.)	Uses Inserts	Clamp	Clamp Screw	Order No.	Price
NSL 10-2B	5/8 x 5/8	4.500	.138	.750	.875	NT 2, NG 2, NR 2	CM75	S310	**ME2210100**	Price
NSL 12-2B	3/4 x 3/4	4.500	.138	.750	1.000	NT 2, NG 2, NR 2	CM75	S310	**ME2210110**	Price
NSL 12-3B	3/4 x 3/4	4.500	.210	1.250	1.000	NT 3, NG 3, NR 3	CM73	S412	**ME2210130**	Price
NSL 16-2D	1 x 1	6.000	.138	.750	1.250	NT 2, NG 2, NR 2	CM75	S310	**ME2210120**	Price
NSL 16-3D	1 x 1	6.000	.210	1.250	1.250	NT 3, NG 3, NR 3	CM73	S412	**ME2210140**	Price
NSL 16-4D	1 x 1	6.000	.294	1.380	1.250	NT 4, NG 4, NR 4	CM73	S412	**ME2210160**	Price
NSL 20-3D	1-1/4 x 1-1/4	6.000	.210	1.250	1.500	NT 3, NG 3, NR 3	CM73	S412	**ME2210150**	Price
NSL 20-4D	1-1/4 x 1-1/4	6.000	.294	1.380	1.500	NT 4, NG 4, NR 4	CM73	S412	**ME2210170**	Price

R/L - Right										
Model No.	A x B (in.)	C OAL (in.)	D	E (in.)	F (in.)	Uses Inserts	Clamp	Clamp Screw	Order No.	Price
NSR 10-2B	5/8 x 5/8	4.500	.138	.750	.875	NT 2, NG 2, NR 2	CM74	S310	**ME2210180**	Price
NSR 12-2B	3/4 x 3/4	4.500	.138	.750	1.000	NT 2, NG 2, NR 2	CM74	S310	**ME2210190**	Price
NSR 12-3B	3/4 x 3/4	4.500	.210	1.250	1.000	NT 3, NG 3, NR 3	CM72	S412	**ME2210210**	Price
NSR 16-2D	1 x 1	6.000	.138	.750	1.250	NT 2, NG 2, NR 2	CM74	S310	**ME2210200**	Price
NSR 16-3D	1 x 1	6.000	.210	1.250	1.250	NT 3, NG 3, NR 3	CM72	S412	**ME2210220**	Price
NSR 16-4D	1 x 1	6.000	.294	1.380	1.250	NT 4, NG 4, NR 4	CM72	S412	**ME2210240**	Price
NSR 20-3D	1-1/4 x 1-1/4	6.000	.210	1.250	1.500	NT 3, NG 3, NR 3	CM72	S412	**ME2210230**	Price
NSR 20-4D	1-1/4 x 1-1/4	6.000	.294	1.380	1.500	NT 4, NG 4, NR 4	CM72	S412	**ME2210250**	Price

RAPIDKUT® Top Notch Boring Bars

- Internal toolholder
- For use with all Top Notch and Top Lock style threading and grooving inserts





R/L - Left									
Model No.	D Shank Dia. (in.)	C OAL (in.)	B (in.)	F (in.)	Uses Insert	Clamp	Clamp Screw	Order No.	Price
S08 NEL 2	1/2	10.000	.7500	.455	NT 2, NG 2, NR 2	CM74	S310	**ME2210260**	Price
S10 NEL 2	5/8	10.000	1.0000	.500	NT 2, NG 2, NR 2	CM74	S310	**ME2210270**	Price
S12 NEL 2	3/4	10.000	1.1250	.562	NT 2, NG 2, NR 2	CM74	S310	**ME2210280**	Price
S16 NEL 3	1	12.000	1.3750	.688	NT 3, NG 3, NR 3	CM72	S412	**ME2210290**	Price
S20 NEL 3	1-1/4	14.000	1.7500	.875	NT 3, NG 3, NR 3	CM72	S412	**ME2210300**	Price
S20 NEL 4	1-1/4	14.000	1.7500	.875	NT 4, NG 4, NR 4	CM72	S412	**ME2210310**	Price
S24 NEL 4	1-1/2	14.000	2.0000	1.000	NT 4, NG 4, NR 4	CM72	S412	**ME2210320**	Price

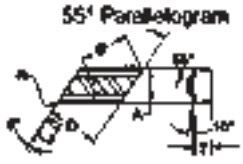
R/L - Right									
Model No.	D Shank Dia. (in.)	C OAL (in.)	B (in.)	F (in.)	Uses Insert	Clamp	Clamp Screw	Order No.	Price
S08 NER 2	1/2	10.000	.7500	.455	NT 2, NG 2, NR 2	CM75	S310	**ME2210330**	Price
S10 NER 2	5/8	10.000	1.0000	.500	NT 2, NG 2, NR 2	CM75	S310	**ME2210340**	Price
S12 NER 2	3/4	10.000	1.1250	.562	NT 2, NG 2, NR 2	CM75	S310	**ME2210350**	Price
S16 NER 3	1	12.000	1.3750	.688	NT 3, NG 3, NR 3	CM73	S412	**ME2210360**	Price
S20 NER 3	1-1/4	14.000	1.7500	.875	NT 3, NG 3, NR 3	CM73	S412	**ME2210370**	Price
S20 NER 4	1-1/4	14.000	1.7500	.875	NT 4, NG 4, NR 4	CM73	S412	**ME2210380**	Price
S24 NER 4	1-1/2	14.000	2.0000	1.000	NT 4, NG 4, NR 4	CM73	S412	**ME2210390**	Price

PROCUT Top Lock Profiling Inserts

PCP/NP

10° Positive
Precision ground







ProCut	Industry Standard	B (in.)	T (in.)	R (in.)	A (in.)	D (in.)	PC300	
							Order No.	Price
PCPL51	NPL51	.359	.125	.0156	.250	.375	**FF4530930**	Price
PCPR51	NPR51	.359	.125	.0156	.250	.375	**FF4530920**	Price
PCPR52	NPR52	.341	.125	.0312	.250	.375	**FF4530940**	Price

See index for toolholders

PROCUT PCR/NR Top Lock Grooving

Full radius
Neutral precision







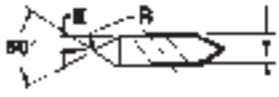
ProCut	Industry Standard	W (in.)	B (in.)	T (in.)	E (in.)	A (in.)	R (in.)	Gage Dia. (in.)	PC5		PC300	
									Order No.	Price	Order No.	Price
PCR3031L	NR3031L	.062	.4033	.195	.0940	.344	.031	.3750	-	-	**FF4530750**	Price
PCR3031R	NR3031R	.062	.4033	.195	.0940	.344	.031	.3750	**FF4550740**	Price	**FF4530740**	Price
PCR3047L	NR3047L	.094	.4025	.195	.1500	.344	.047	.3750	-	-	**FF4530770**	Price
PCR3047R	NR3047R	.094	.4025	.195	.0940	.344	.047	.3750	**FF4550760**	Price	**FF4530760**	Price
PCR3062R	NR3062R	.125	.4017	.195	.1500	.344	.062	.3750	**FF4550780**	Price	**FF4530780**	Price
PCR3078R	NR3078R	.156	.2600	.195	.1500	.344	.078	.3750	**FF4550800**	Price	**FF4530800**	Price
PCR3094R	NR3094R	.188	.4000	.195	.1500	.344	.094	.3750	-	-	**FF4530820**	Price

See index for toolholders

PROCUT PCTP/NTP

5° • Positive Precision

Positive cutting action for threading aluminum, exotics and difficult to machine material.







ProCut	Industry Standard	B Over Gage (in.)	T (in.)	E (in.)	A (in.)	R	Gage Dia. (in.)	PC2		PC5		PC300	
								Order No.	Price	Order No.	Price	Order No.	Price
PCTP2R	NTP2R	.2661	.150	.075	.219	.003/.005	3/16	-	-	**FF4550620**	Price	**FF4530620**	Price
PCTP3L	NTP3L	.3999	.195	.098	.344	.005/.008	3/8	-	-	**FF4550650**	Price	**FF4530650**	Price
PCTP3R	NTP3R	.3999	.195	.098	.344	.005/.008	3/8	**FF4510640**	Price	-	-	**FF4530640**	Price
PCTP4L	NTP4L	.6293	.255	.128	.453	.005/.008	3/8	-	-	-	-	**FF4530670**	Price
PCTP4R	NTP4R	.6293	.255	.128	.453	.005/.008	3/8	**FF4510660**	Price	-	-	**FF4530660**	Price

See index for toolholders

RAPIDKUT® TNMA/C On Edge Grooving Inserts

- Grade 3125 is a PVD coated insert suitable for all cutting materials in finishing to general machining applications
- TNMA has straight hole
- TNMC has countersunk hole
- R= Right hand
- L= Left hand



- TNMA						
					ME3125	
Industry Standard	Thickness (in.)	I.C. (in.)	Depth of Cut (in.)	Width (in.)	Order No.	Price
TNMA32NG.125	.127	3/8	.150	.125	**ME1620024**	Price
TNMA32NGL.062	.127	3/8	.150	.062	**ME1620020**	Price
TNMA32NGL.093	.127	3/8	.150	.093	**ME1620022**	Price
TNMA32NGR.062	.127	3/8	.150	.062	**ME1620021**	Price
TNMA32NGR.093	.127	3/8	.150	.093	**ME1620023**	Price
TNMA43NG.187	.189	1/2	.215	.187	**ME1620025**	Price
TNMA43NGL.125	.189	1/2	.215	.125	**ME1620026**	Price
TNMA43NGR.125	.189	1/2	.215	.125	**ME1620027**	Price

- TNMC						
					ME3125	
Industry Standard	Thickness (in.)	I.C. (in.)	Depth of Cut (in.)	Width (in.)	Order No.	Price
TNMC32NG.125	.127	3/8	.150	.125	**ME1620028**	Price
TNMC32NGL.062	.127	3/8	.150	.062	**ME1620029**	Price
TNMC32NGL.093	.127	3/8	.150	.093	**ME1620031**	Price
TNMC32NGR.062	.127	3/8	.150	.062	**ME1620030**	Price
TNMC32NGR.093	.127	3/8	.150	.093	**ME1620032**	Price
TNMC43NG.187	.189	1/2	.215	.187	**ME1620033**	Price
TNMC43NGL.125	.189	1/2	.215	.125	**ME1620034**	Price
TNMC43NGR.125	.189	1/2	.215	.125	**ME1620035**	Price
TNMC43NGR.156	.189	1/2	.215	.156	**ME1620036**	Price
TNMC54NG.187	.252	5/8	.275	.187	**ME1620037**	Price

PROCUT On Edge Grooving Inserts
TNMA/C-NG Grooving

TNMA has a straight hole
TNMC has a countersink hole

R = Right hand
L = Left hand





- TNMA											
					PC2		PC5		PC300	
Insert Style	I.C. (in.)	T (in.)	D (in.)	W (in.)	Order No.	Price	Order No.	Price	Order No.	Price
TNMA32NGL	3/8	.125	.1560	.093	-	-	-	-	**FF4630060**	Price
TNMA32NGR	3/8	.125	.1560	.062	-	-	-	-	**FF4630010**	Price
TNMA32NGR	3/8	.125	.1560	.125	-	-	**FF4650090**	Price	-	-
TNMA43NG	1/2	.187	.2340	.187	**FF4620210**	Price	**FF4650220**	Price	**FF4630220**	Price
TNMA43NGR	1/2	.187	.2340	.125	-	-	**FF4650130**	Price	**FF4630130**	Price

- TNMC										
					PC2		PC5		PC300	
Insert Style	I.C. (in.)	T (in.)	D (in.)	W (in.)	Order No.	Price	Order No.	Price	Order No.	Price
TNMC32NG	3/8	.125	.1560	.125	-	-	**FF4650110**	Price	**FF4630110**	Price
TNMC32NGL	3/8	.125	.1560	.062	-	-	**FF4650040**	Price	**FF4630040**	Price
TNMC32NGR	3/8	.125	.1560	.062	-	-	**FF4650030**	Price	**FF4630030**	Price
TNMC32NGR	3/8	.125	.1560	.093	-	-	**FF4650070**	Price	**FF4630070**	Price
TNMC43NG	1/2	.187	.2340	.187	**FF4620230**	Price	-	-	-	-
TNMC43NGL	1/2	.187	.2340	.125	-	-	-	-	**FF4630160**	Price
TNMC43NGR	1/2	.187	.2340	.125	-	-	**FF4650150**	Price	**FF4630150**	Price
TNMC54NGR	5/8	.250	.2960	.187	-	-	-	-	**FF4630270**	Price

See index for toolholders

RAPIDKUT® TPMA/C 10° Positive Rake Grooving Inserts

- Grade 3125 is a PVD coated insert suitable for all cutting materials in finishing to general machining applications
- TPMA has straight hole
- TPMC has countersunk hole
- R=Right hand
- L=Left hand



					ME3125	
Industry Standard	I.C. (in.)	Thickness (in.)	Depth of Cut (in.)	Width (in.)	Order No.	Price
TPMA32NGL.125	3/8	.127	.150	.125	**ME1620038**	Price
TPMA43NGR.062	1/2	.189	.156	.062	**ME1620040**	Price
TPMC43NGR.125	1/2	.189	.125	.125	**ME1620041**	Price

Carbide Grades

PC2 - **(C2)** General purpose for cast iron and non-ferrous metals (exotics)

PC5 - **(C5)** Steel cutting

PC300 - **(C5 Coated)** TiN-TiC-TiN Steel cutting at higher speeds with greater lubricity

PROCUT TPMA/C-NG
10° Positive Rake, Grooving

TPMA has a straight hole
TPMC has a countersink hole

R = Right Hand
L = Left Hand





					PC5		PC300	
Insert Style	I.C. (in.)	T (in.)	D (in.)	W (in.)	Order No.	Price	Order No.	Price
TPMA32NGL	3/8	.125	.1560	.125	**FF4650620**	Price	**FF4630620**	Price
TPMC32NGR	3/8	.125	.1560	.062	**FF4650550**	Price	**FF4630550**	Price

RAPIDKUT® Top Notch Threading Inserts

60° Threading • Ground Positive Rake



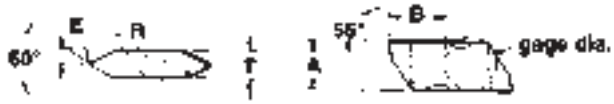
- Grade 3125 is a PVD coated insert suitable for all cutting materials in finishing to general machining applications

Maxx Edge Model No.	Thickness	Radius	IC	Width	ME3125	
					Order No.	Price
METP2R	.150	.0040	3/16	.075	**ME1620000**	Price
METP2L	.150	.0040	3/16	.075	**ME1620001**	Price
METP3R	.195	.0065	3/8	.098	**ME1620002**	Price
METP3L	.195	.0065	3/8	.098	**ME1620003**	Price

PROCUT Top Lock Threading

PCT/NT

Neutral precision
For general purpose threading





ProCut	Industry Standard	B (in.)	T (in.)	E (in.)	A (in.)	R	Gage Dia. (in.)	PC5		PC300	
								Order No.	Price	Order No.	Price
PCT2L	NT2L	.2661	.150	.075	.219	.003/.005	3/16	**FF4550010**	Price	**FF4530010**	Price
PCT3L	NT3L	.3999	.195	.098	.344	.005/.008	3/8	**FF4550030**	Price	**FF4530030**	Price
PCT3R	NT3R	.3999	.195	.098	.344	.005/.008	3/8	**FF4550020**	Price	**FF4530020**	Price
PCT4R	NT4R	.6293	.255	.128	.453	.005/.008	3/8	**-**	-	**FF4530040**	Price

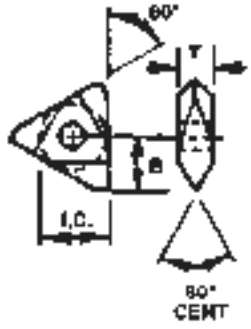
See index for toolholders

PROCUT On Edge Threading and Grooving

TNMA/C-NV 60° Vee Threading

TNMA has a straight hole
TNMC has a countersink hole



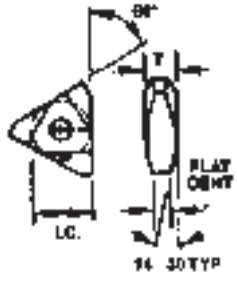


I.C. (in.)	B (in.)	T (in.)	Insert Style	PC2		PC5		PC300	
				Order No.	Price	Order No.	Price	Order No.	Price
3/8	.306	.125	TNMA32NV	**FF4621010**	Price	**FF4651010**	Price	**FF4631010**	Price
3/8	.306	.125	TNMC32NV	**FF4621020**	Price	**FF4651020**	Price	**FF4631020**	Price
1/2	.415	.187	TNMA43NV	**FF4621030**	Price	**FF4651030**	Price	**FF4631030**	Price
1/2	.415	.187	TNMC43NV	**FF4621040**	Price	**FF4651040**	Price	**FF4631040**	Price
5/8	.522	.250	TNMA54NV	**-**	-	**FF4651050**	Price	**FF4631050**	Price
5/8	.522	.250	TNMC54NV	**-**	-	**FF4651060**	Price	**FF4631060**	Price
3/4	.631	.375	TNMC66NV	**-**	-	**-**	-	**FF4631100**	Price

PROCUT TNMA/C-NT 29° Acme Threading

TNMA has a straight hole
TNMC has a countersink hole



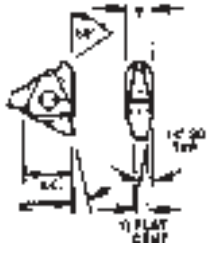


Insert Style	I.C. (in.)	T (in.)	Pitch	PC5		PC300	
				Order No.	Price	Order No.	Price
TNMC32NT	3/8	.125	6	**-**	-	**FF4631220**	Price
TNMC32NT	3/8	.125	8	**FF4651240**	Price	**FF4631240**	Price
TNMC43NT	1/2	.187	4	**-**	-	**FF4631300**	Price
TNMA43NT	1/2	.187	5	**FF4651310**	Price	**FF4631310**	Price
TNMC43NT	1/2	.187	6	**FF4651340**	Price	**FF4631340**	Price

PROCUT TPMA/C-NT 10° Positive Rake, 29° Acme Threading

TPMA has a straight hole
TPMC has a countersink hole



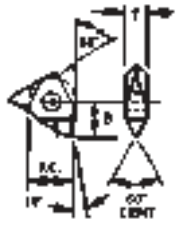


Insert Style	I.C. (in.)	T (in.)	Pitch	PC5		PC300	
				Order No.	Price	Order No.	Price
TPMC32NT	3/8	.125	10	**FF4651420**	Price	**FF4631420**	Price
TPMC43NT	1/2	.187	4	**FF4651460**	Price	**FF4631460**	Price

PROCUT TPMA/C-NV 10° Positive Rake, 60° Vee Threading

TPMA has a straight hole
TPMC has a countersink hole





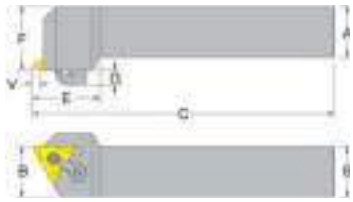
I.C. (in.)	B (in.)	T (in.)	Insert Style	PC2		PC5		PC300	
				Order No.	Price	Order No.	Price	Order No.	Price
3/8	.306	.125	TPMC32NV	**FF4621120**	Price	**FF4651120**	Price	**FF4631120**	Price
1/2	.415	.187	TPMC43NV	**FF4621140**	Price	**FF4651140**	Price	**FF4631140**	Price
5/8	.522	.250	TPMC54NV	**-**	-	**-**	-	**FF4631160**	Price

MTVO-A - On Edge Threading Toolholders

Style V

O.D. Threading and Shallow Grooving for Triangular TNMA Inserts

Right hand shown, Left hand opposite



Description	A & B (in.)	C (in.)	F	G	Max. Grv. Depth V	Gage Insert	Lock Pin	Clamp	Clamp Screw	Right	
										Order No.	Price
MTVOR08-3B-A	.500	4.50	.625	.250	.150	TNMA32_	NL33	CL6	XNS35	**FL4558126**	Price
MTVOR12-4B-A	.750	4.50	.875	.250	.230	TNMA43_	NL44	CL6	XNS36	**FL4558142**	Price
MTVOR16-3D-A	1.00	6.00	1.250	.250	.150	TNMA32_	NL33	CL6	XNS36	**FL4558138**	Price
MTVOR16-4D-A	1.00	6.00	1.250	.250	.230	TNMA43_	NL44	CL6	XNS36	**FL4558146**	Price
MTVOR20-4D-A	1.25	6.00	1.500	.250	.230	TNMA43_	NL44	CL6	XNS36	**FL4558150**	Price

See pages B134-B138 for spare parts

STVO-A R/L Threading Toolholders

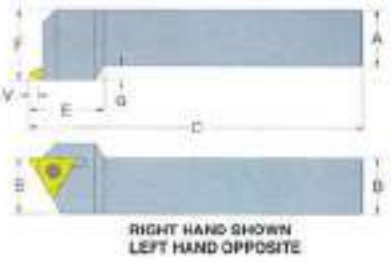
Style V

O.D. Threading and Shallow Grooving Triangle TNMC Inserts

Right hand shown, left hand opposite







Right/Left Hand - Left										
Model No.	A & B (in.)	C (in.)	F	G	Max. Grv. Depth V (in.)	Gage Insert	Insert Screw	Torx Key	Order No.	Price
STVOL10-3B	.625	4.50	.750	.125	.150	TNMC32_	GTS1	T10	**FL4558075**	Price
STVOL12-3B	.750	4.50	.875	.125	.150	TNMC32_	GTS1	T10	**FL4558079**	Price
STVOL12-4B	.750	4.50	.875	.125	.230	TNMC43_	GTS2	T20	**FL4558087**	Price
STVOL16-3D	1.00	6.00	1.250	.250	.150	TNMC32_	GTS1	T10	**FL4558083**	Price
STVOL16-4D	1.00	6.00	1.250	.250	.230	TNMC43_	GTS2	T20	**FL4558091**	Price
STVOL16-5D	1.00	6.00	1.250	.250	.292	TNMC54_	GTS3	T20	**FL4558103**	Price
STVOL20-4D	1.25	6.00	1.500	.250	.230	TNMC43_	GTS2	T20	**FL4558095**	Price

Right/Left Hand - Right										
Model No.	A & B (in.)	C (in.)	F	G	Max. Grv. Depth V (in.)	Gage Insert	Insert Screw	Torx Key	Order No.	Price
STVOR 08-3A	.500	4.00	.625	.125	.150	TNMC32_	GTS1	T10	**FL4558070**	Price
STVOR 10-3B	.625	4.50	.750	.125	.150	TNMC32_	GTS1	T10	**FL4558074**	Price
STVOR 12-3B	.750	4.50	.875	.125	.150	TNMC32_	GTS1	T10	**FL4558078**	Price
STVOR 12-4B	.750	4.50	.875	.125	.230	TNMC43_	GTS2	T20	**FL4558086**	Price
STVOR 16-3D	1.00	6.00	1.250	.250	.150	TNMC32_	GTS1	T10	**FL4558082**	Price
STVOR 16-4D	1.00	6.00	1.250	.250	.230	TNMC43_	GTS2	T20	**FL4558090**	Price
STVOR 20-4D	1.25	6.00	1.500	.250	.230	TNMC43_	GTS2	T20	**FL4558094**	Price
STVOR16-5D	1.00	6.00	1.250	.250	.292	TNMC54_	GTS3	T20	**FL4558102**	Price
STVOR20-5D	1.25	6.00	1.500	.250	.292	TNMC54_	GTS3	T20	**FL4558106**	Price

See pages B134-B138 for spare parts

NS - DORNOTCH Threading Toolholders

Style External

For Threading and Grooving DorNotch Inserts

Gage inserts - *for right hand tool; **for left hand tool
Right hand shown, left hand opposite



Right/Left Hand - Left									
Model No.	A & B (in.)	C (in.)	D (in.)	F	Gage Insert	Clamp	Clamp Screw	Order No.	Price
NSL12-2B	.750	4.50	.138	.188	**NG-2L	CM75	-	**FL4558783**	Price
NSL12-3B	.750	4.50	.210	1.000	*NG-3R, **NG-3L	CM73	S412	**FL4558795**	Price
NSL16-3D	1.00	6.00	.210	1.250	*NG-3R, **NG-3L	CM73	S412	**FL4558803**	Price
NSL16-4D	1.00	6.00	.294	1.250	*NG-4R, **NG-4L	CM73	S412	**FL4558815**	Price
NSL20-3D	1.25	6.00	.210	1.500	*NG-3R, **NG-3L	CM73	S412	**FL4558807**	Price

Right/Left Hand - Right									
Model No.	A & B (in.)	C (in.)	D (in.)	F	Gage Insert	Clamp	Clamp Screw	Order No.	Price
NSR 20-3D	1.25	6.00	.210	1.500	*NG-3R, **NG-3L	CM72	S412	**FL4558806**	Price
NSR12-2B	.750	4.50	.138	.188	*NG-2R	CM74	-	**FL4558782**	Price
NSR12-3B	.750	4.50	.210	1.000	*NG-3R, **NG-3L	CM72	S412	**FL4558794**	Price
NSR16-3D	1.00	6.00	.210	1.250	*NG-3R, **NG-3L	CM72	S412	**FL4558802**	Price
NSR16-4D	1.00	6.00	.294	1.250	*NG-4R, **NG-4L	CM72	S412	**FL4558814**	Price

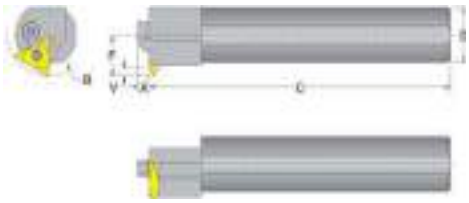
See pages B134-B138 for spare parts

S-MTHO-A - On Edge Threading Bars

Style H

I.D. Threading and Shallow Grooving for Triangular TNMA Inserts

Right hand shown, Left hand opposite



Right/Left Hand - Left										
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Max. Grv. Depth V	Gage Insert	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S16T-MTHOL-3-A	1.3880	12.0000	1.0000	.1200	TNMA32_	NL33	CL5	XNS36	**FL4558347**	Price
S20U-MTHOL-4-A	1.8120	14.0000	1.2500	.1900	TNMA43_	NL44	CL6	XNS37	**FL4558355**	Price
S24U-MTHOL-4-A	2.2500	14.0000	1.5000	.1900	TNMA43_	NL44	CL6	XNS37	**FL4558359**	Price
S32V-MTHOL-4-A	3.0000	16.0000	2.0000	.1900	TNMA43_	NL44	CL6	XNS37	**FL4558363**	Price
S32V-MTHOL-5-A	3.5000	16.0000	2.0000	.2500	TNMA54_	NL56	CL6	XNS37	**FL4558367**	Price
S40V-MTHOL-5-A	3.7500	16.0000	2.5000	.2500	TNMA54_	NL56	CL6	XNS37	**FL4558371**	Price

Right/Left Hand - Right										
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Max. Grv. Depth V	Gage Insert	Lock Pin	Clamp	Clamp Screw	Order No.	Price
S16T-MTHOR-3-A	1.3880	12.0000	1.0000	.1200	TNMA32_	NL33	CL5	XNS36	**FL4558346**	Price
S20U-MTHOR-4-A	1.8120	14.0000	1.2500	.1900	TNMA43_	NL44	CL6	XNS37	**FL4558354**	Price
S24U-MTHOR-4-A	2.2500	14.0000	1.5000	.1900	TNMA43_	NL44	CL6	XNS37	**FL4558358**	Price
S32V-MTHOR-4-A	3.0000	16.0000	2.0000	.1900	TNMA43_	NL44	CL6	XNS37	**FL4558362**	Price
S32V-MTHOR-5-A	3.5000	16.0000	2.0000	.2500	TNMA54_	NL56	CL6	XNS37	**FL4558366**	Price
S40V-MTHOR-5-A	3.7500	16.0000	2.5000	.2500	TNMA54_	NL56	CL6	XNS37	**FL4558370**	Price
S40V-MTHOR-66-A	4.0000	16.0000	2.5000	.3120	TNMA66_	NL66L	CL12	XNS59	**FL4558378**	Price

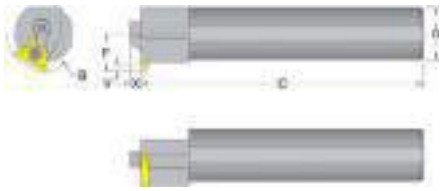
See pages B134-B138 for spare parts

S-MTHO-C - On Edge Threading Bars

Style H

I.D. Threading and Shallow Grooving for Triangular TNMC Inserts

Right hand shown, Left hand opposite



Right/Left Hand - Left											
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Max. Grv. Depth V	Gage Insert	Insert Screw	Torx Key	Clamp	Clamp Screw	Order No.	Price
S20U-MTHOL-4-C	1.8120	14.0000	1.2500	.1900	TNMC43_	GTS2	T20	CL7	XNS36	**FL4558309**	Price
S24U-MTHOL-4-C	2.2500	14.0000	1.5000	.1900	TNMC43_	GTS2	T20	CL7	XNS36	**FL4558313**	Price
S32V-MTHOL-4-C	3.0000	16.0000	2.0000	.1900	TNMC43_	GTS2	T20	CL7	XNS36	**FL4558317**	Price
S32V-MTHOL-5-C	3.5000	16.0000	2.0000	.2500	TNMC54_	GTS3	T20	CL20	XNS47	**FL4558321**	Price

Right/Left Hand - Right											
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Max. Grv. Depth V	Gage Insert	Insert Screw	Torx Key	Clamp	Clamp Screw	Order No.	Price
S16T-MTHOR-3-C	1.3880	12.0000	1.0000	.1200	TNMC32_	GTS1	T10	CL19	XNS36	**FL4558300**	Price
S20U-MTHOR-3-C	1.6560	14.0000	1.2500	.1200	TNMC32_	GTS1	T10	CL19	XNS36	**FL4558304**	Price
S20U-MTHOR-4-C	1.8120	14.0000	1.2500	.1900	TNMC43_	GTS2	T20	CL7	XNS36	**FL4558308**	Price
S24U-MTHOR-4-C	2.2500	14.0000	1.5000	.1900	TNMC43_	GTS2	T20	CL7	XNS36	**FL4558312**	Price
S32V-MTHOR-4-C	3.0000	16.0000	2.0000	.1900	TNMC43_	GTS2	T20	CL7	XNS36	**FL4558316**	Price
S32V-MTHOR-5C	3.5000	16.0000	2.0000	.2500	TNMC54_	GTS3	T20	CL20	XNS47	**FL4558320**	Price

See pages B134-B138 for spare parts

S-NE-DORNOTCH Threading Bars

Style Internal

For Threading and Grooving DorNotch Inserts

Gage insert - *for left hand tool; **for right hand tool
Right hand shown, left hand opposite
Right hand tool uses left hand insert



Right/Left Hand - Left									
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Gage Line F (in.)	Gage Insert	Clamp	Clamp Screw	Order No.	Price
S10S-NEL-2	1.0000	10.0000	.6250	.500	*NG-2L, **NG-2R	CM75	S310	**FL4558971**	Price
S16T-NEL-3	1.3750	12.0000	1.0000	.688	*NG-3L, **NG-3R	CM73	S412	**FL4558979**	Price
S20U-NEL-3	1.7500	14.0000	1.2500	.875	*NG-3L, **NG-3R	CM73	S412	**FL4558983**	Price
S24U-NEL-3	2.0000	14.0000	1.5000	1.000	*NG-3L, **NG-3R	CM73	S412	**FL4558987**	Price

Right/Left Hand - Right									
Model No.	Min. Bore (in.)	OAL C (in.)	Shank Dia. D (in.)	Gage Line F (in.)	Gage Insert	Clamp	Clamp Screw	Order No.	Price
S10S-NER-2	1.0000	10.0000	.6250	.500	*NG-2L, **NG-2R	CM74	S310	**FL4558970**	Price
S16T-NER-3	1.3750	12.0000	1.0000	.688	*NG-3L, **NG-3R	CM72	S412	**FL4558978**	Price
S20U-NER-3	1.7500	14.0000	1.2500	.875	*NG-3L, **NG-3R	CM72	S412	**FL4558982**	Price
S24U-NER-3	2.0000	14.0000	1.5000	1.000	*NG-3L, **NG-3R	CM72	S412	**FL4558986**	Price

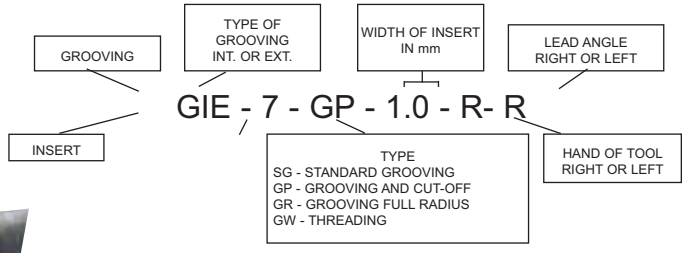
See pages B134-B138 for spare parts

NIKCOLE MINI-SYSTEMS™ Grooving and Cut-Off Inserts (GIE-7-GP)

Nikcole Mini-Systems™ is the only system that provides two cutting edges in one insert in extremely narrow widths. This system also features a full range of toolholders with minimum hardware...only one positive locking insert screw and the unique insert pocket design assures a repeatable cutting edge location.
Standard inserts are stocked in widths from .019" to .078" in uncoated and coated carbide grades.
The Mini-System™ is a unique method of producing narrow grooves and providing an economical means of cut-off...all in a wide variety of materials.
For grooving and cut-off under .078" width.

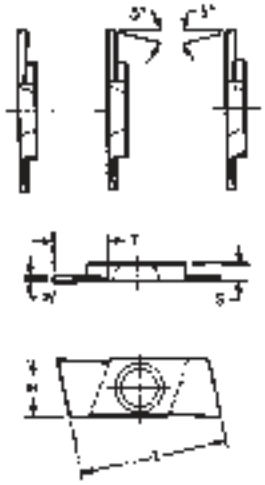
Carbide Grade Application
C2 - Uncoated grade recommended for cast iron and non-ferrous materials.
C5-PV - Coated grade recommended for machining steels, cutting solid bars to the center and for interrupted cuts.
C6-PV - Coated grade recommended for machining steels, cutting off and grooving at higher speeds.

For Grooving and Cut-Off Under .078″ Width



Lead angle, neutral, left hand, right hand
Right hand shown
T = .235"
H = .275"
S = .078"
l = .669"
Tolerance width +.0009" - .0000"





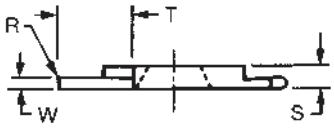
Item	Width W (in.)	C2		C5-PV Coated		C6-PV Coated	
		Order No.	Price	Order No.	Price	Order No.	Price
GIE-7-GP-1.0 L-L	.039	**FG4040020**	Price	**FG4040030**	Price	**FG4040040**	Price
GIE-7-GP-1.0 L-N	.039	**FG4040050**	Price	**FG4040060**	Price	**FG4040070**	Price
GIE-7-GP-1.0 L-R	.039	**FG4040080**	Price	**FG4040090**	Price	**FG4040100**	Price
GIE-7-GP-1.0 R-L	.039	**FG4040110**	Price	**FG4040120**	Price	**FG4040130**	Price
GIE-7-GP-1.0 R-N	.039	**FG4040000**	Price	**FG4040140**	Price	**FG4040150**	Price
GIE-7-GP-1.0 R-R	.039	**FG4040160**	Price	**FG4040170**	Price	**FG4040180**	Price
GIE-7-GP-1.5 L-L	.059	**FG4040190**	Price	**FG4040200**	Price	**FG4040210**	Price
GIE-7-GP-1.5 L-N	.059	**FG4040220**	Price	**FG4040230**	Price	**FG4040240**	Price
GIE-7-GP-1.5 L-R	.059	**FG4040250**	Price	**FG4040260**	Price	**FG4040270**	Price
GIE-7-GP-1.5 R-L	.059	**FG4040280**	Price	**FG4040290**	Price	**FG4040300**	Price
GIE-7-GP-1.5 R-N	.059	**FG4040310**	Price	**FG4040320**	Price	**FG4040330**	Price
GIE-7-GP-1.5 R-R	.059	**FG4040340**	Price	**FG4040350**	Price	**FG4040360**	Price
GIE-7-GP-2.0 L-L	.078	**FG4040370**	Price	**FG4040380**	Price	**FG4040390**	Price
GIE-7-GP-2.0 L-N	.078	**FG4040400**	Price	**FG4040410**	Price	**FG4040420**	Price
GIE-7-GP-2.0 L-R	.078	**FG4040430**	Price	**FG4040440**	Price	**FG4040450**	Price
GIE-7-GP-2.0 R-L	.078	**FG4040460**	Price	**FG4040470**	Price	**FG4040480**	Price
GIE-7-GP-2.0 R-N	.078	**FG4040490**	Price	**FG4040500**	Price	**FG4040510**	Price
GIE-7-GP-2.0 R-R	.078	**FG4040520**	Price	**FG4040530**	Price	**FG4040540**	Price

Right hand tools can only be used with left hand toolholders.
Left hand inserts can only be used with right hand toolholders.

NIKCOLE MINI-SYSTEMS™ Full Radius Grooving Inserts (GIE-7-GR)

T = .235"
H = .275"
S = .078" Right hand shown
l = .669" Tolerance width +.0009" -.0000"





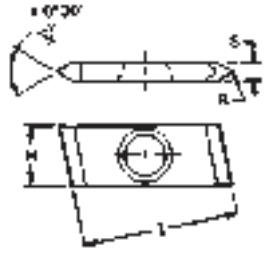
Item	Width W (in.)	Radius R (in.)	C2		C5-PV Coated		C6-PV Coated	
			Order No.	Price	Order No.	Price	Order No.	Price
GIE-7-GR-1.0 L	.039	.019	**FG4040630**	Price	**FG4040640**	Price	**FG4040550**	Price
GIE-7-GR-1.0 R	.039	.019	**FG4040560**	Price	**FG4040570**	Price	**FG4040580**	Price
GIE-7-GR-1.5 L	.059	.029	**FG4040650**	Price	**FG4040660**	Price	**FG4040590**	Price
GIE-7-GR-1.5 R	.059	.029	**FG4040600**	Price	**FG4040610**	Price	**FG4040620**	Price
GIE-7-GR-2.0 L	.078	.039	**FG4040710**	Price	**FG4040010**	Price	**FG4040670**	Price
GIE-7-GR-2.0 R	.078	.039	**FG4040680**	Price	**FG4040690**	Price	**FG4040700**	Price

Right hand tools can only be used with left hand toolholders.
Left hand inserts can only be used with right hand toolholders.

NIKCOLE MINI-SYSTEMS™ Full Threading Inserts (GIE-7-GW)

R = .004 / .005"
H = .275"
S = .078"
l = .669"
Right hand shown



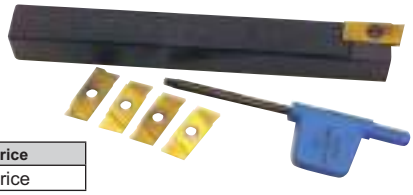


Item	Nose Angle	C2		C5-PV Coated		C6-PV Coated	
		Order No.	Price	Order No.	Price	Order No.	Price
GIE-7-GW-55 L	55°	**FG4040720**	Price	**FG4040730**	Price	**FG4040740**	Price
GIE-7-GW-55 R	55°	**FG4040750**	Price	**FG4040760**	Price	**FG4040770**	Price
GIE-7-GW-60 L	60°	**FG4040790**	Price	**FG4040800**	Price	**FG4040810**	Price
GIE-7-GW-60 R	60°	**FG4040820**	Price	**FG4040830**	Price	**FG4040780**	Price

Right hand tools can only be used with left hand toolholders.
Left hand inserts can only be used with right hand toolholders.

NIKCOLE MINI-SYSTEMS™ Carbide Indexable Grooving & Cut Off Kit

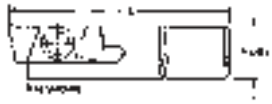
Set Includes
- (1) Toolholder (1/2" sq. shank, 4-1/2" long)
- (5) Carbide inserts, grade C6-PV (TiN Coated) in widths, .035", .043", .051", .063", .073
- (1) Torx screw & Torx key
- (1) Fitted case



Order No.	Price
FG4041340	Price

NIKCOLE MINI-SYSTEMS™ Mini-System Toolholders - Square Shank

External holders will accept all mini-system inserts of the same hand
Left hand shown





A Square (in.)	L (in.)	Left			Right		
		Item	Order No.	Price	Item	Order No.	Price
.375	4-1/2	THE738L	**FG4041400**	Price	THE738R	**FG4041410**	Price
.500	4-1/2	THE712L	**FG4041360**	Price	THE712R	**FG4041370**	Price
.625	5	THE758L	**FG4041420**	Price	THE758R	**FG4041430**	Price
1.000	4-3/4	-	**-**	-	THE710R	**FG4041500**	Price
16mm	125mm	THE1616L	**FG4041380**	Price	THE1616R	**FG4041390**	Price

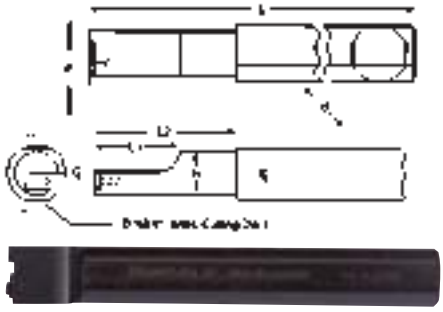
NIKCOLE MINI-SYSTEMS™ Grooving Inserts / For Standard Grooves (GIE-7-SG)
Two Cutting Edges in One Insert for Grooving & Cut-Off Under .078" Width



Item	Width W (in.)	T (in.)	Width	C2		C5-PV Coated		C6-PV Coated	
				Order No.	Price	Order No.	Price	Order No.	Price
GIE-7-SG-0.5 L	.019	.100	.019	**FG4040840**	Price	**FG4040850**	Price	**FG4040860**	Price
GIE-7-SG-0.5 R	.019	.100	.019	**FG4040870**	Price	**FG4040880**	Price	**FG4040890**	Price
GIE-7-SG-0.7 L	.027	.100	.027	**FG4040900**	Price	**FG4040910**	Price	**FG4040920**	Price
GIE-7-SG-0.7 R	.027	.100	.027	**FG4040930**	Price	**FG4040940**	Price	**FG4040950**	Price
GIE-7-SG-0.8 L	.031	.100	.031	**FG4040960**	Price	**FG4040980**	Price	**FG4040990**	Price
GIE-7-SG-0.8 R	.031	.100	.031	**FG4041000**	Price	**FG4041010**	Price	**FG4041020**	Price
GIE-7-SG-0.9 L	.035	.100	.035	**FG4041030**	Price	**FG4041040**	Price	**FG4041050**	Price
GIE-7-SG-0.9 R	.035	.100	.035	**FG4041060**	Price	**FG4041070**	Price	**FG4041080**	Price
GIE-7-SG-1.1 L	.043	.235	.043	**FG4041320**	Price	**FG4041130**	Price	**FG4041120**	Price
GIE-7-SG-1.1 R	.043	.235	.043	**FG4041090**	Price	**FG4041100**	Price	**FG4041110**	Price
GIE-7-SG-1.3 L	.051	.235	.057	**FG4041140**	Price	**FG4041150**	Price	**FG4041160**	Price
GIE-7-SG-1.3 R	.051	.235	.057	**FG4041170**	Price	**FG4041180**	Price	**FG4041190**	Price
GIE-7-SG-1.6 L	.063	.235	.063	**FG4041200**	Price	**FG4041210**	Price	**FG4041220**	Price
GIE-7-SG-1.6 R	.063	.235	.063	**FG4041230**	Price	**FG4041240**	Price	**FG4041250**	Price
GIE-7-SG-1.85 L	.073	.235	.073	**FG4041260**	Price	**FG4041310**	Price	**FG4041270**	Price
GIE-7-SG-1.85 R	.073	.235	.073	**FG4041280**	Price	**FG4041290**	Price	**FG4041300**	Price

Right hand inserts can only be used with left hand toolholders.
Left hand inserts can only be used with right hand toolholders.
R = .004/.005

NIKCOLE MINI-SYSTEMS™ Internal Toolholders



Holder Designation	d +.003 -.003 (in.)	h (in.)	L (in.)	L1 (in.)	L2 (in.)	F (in.)	D=Min. (in.)	Order No.	Price
THI-7-.75L	.750	.7500	5.5000	1.0000	2.000	.525	1.5000	**FG4041520**	Price
THI-7-.75R	.750	.7500	5.5000	1.0000	2.000	.525	1.5000	**FG4041510**	Price
THI-7-1.00L	1.000	.7500	6.0000	1.2500	2.500	.525	1.5000	**FG4041540**	Price
THI-7-1.00R	1.000	.7500	6.0000	1.2500	2.500	.525	1.5000	**FG4041530**	Price
THI-7-1.25L	1.250	.7500	6.0000	1.2500	2.500	.575	1.5000	**FG4041560**	Price
THI-7-1.25R	1.250	.7500	6.0000	1.2500	2.500	.575	1.5000	**FG4041550**	Price

Right hand inserts can only be used with left hand toolholders.
Left hand inserts can only be used with right hand toolholders.

Replacement Torx Screw



Model Number	Order No.	Price
M3 x 8.0	**FG4041350**	Price

Replacement Torx Wrench



Model Number	Order No.	Price
T8	**FG4041480**	Price

Carbide Grade Application

C2 - Uncoated grade recommended for cast iron and non-ferrous materials.

C5-PV - Coated grade recommended for machining steels, cutting solid bars to the center and for interrupted cuts.

C6-PV - Coated grade recommended for machining steels, cutting off and grooving at higher speeds.

Carmex Precision Tools Ltd. Threading Sets

- A versatile solution for those who cut a variety of thread types in limited quantity and do not want to sacrifice thread quality

UN external kit FF59CTKE60 includes:
Inserts: 16 ER A60 P25C, 16 ER G60 P25C, 16 ER AG60 P25C, 16ER 8 UN P25C, 16 ER 12 UN P25C, 16 ER 14 UN P25C, 16 ER 16 UN P25C, 16 ER 18 UN P25C, 16 ER 20 UN P25C, 16 ER 24 UN P25C
3/4" Toolholder: SER 0750 K16

UN internal kit FF59CTKI60 includes:
Inserts: 16 IR A60 P25C, 16 IR G60 P25C, 16 IR AG60 P25C, 16 IR 8 UN P25C, 16 IR 12 UN P25C, 16 IR 14 UN P25C, 16 14 16 UN P25C, 16 IR 18 UN P25C, 16 IR 20 UN P25C, 16 IR 24 UN P25C
3/4' Toolholder SIR 0750 K16



Type	Order No.	Price
External	**FF59CTKE60**	Price
Internal	**FF59CTKI60**	Price

Carmex Precision Tools Ltd. Miniature Threading Kit

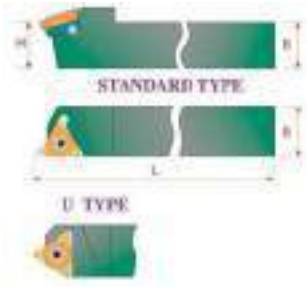
- An amazing combination of 06 (3/16") ultra miniature and 08 (5/32") miniature threading insert
- This product bites into a range considered until today a tap range
- Coated BXC low speed grade

Type	No. of Insrets	Insert	Grade	Boring Bars	Order No.	Price
Miniature	10	08IR A60	BXC	SIR 0265 K08	**FF59UM80**	Price



Carmex Precision Tools Ltd. External Toolholders

mm	IC	B=H Inch	L (in.)	Order No.	Price
16	3/8	.38 x .38	2.50	**FF59SER0375D16**	Price
16	3/8	.50 x .50	3.25	**FF59SER0500F16**	Price
16	3/8	.63 x .63	4.00	**FF59SER0625H16**	Price
16	3/8	.75 x .75	5.00	**FF59SER0750K16**	Price
16	3/8	1.00 x 1.00	6.00	**FF59SER1000M16**	Price
16	3/8	1.25 x 1.25	7.00	**FF59SER1250P16**	Price



Carmex Precision Tools Ltd. Internal Toolholders

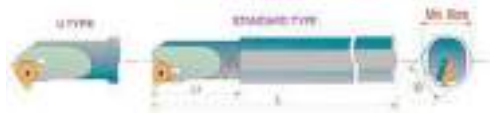
Right/Left Hand - Left								
mm	IC	D (in.)	D1 (in.)	Min. Bore Dia.	L (in.)	L1 (in.)	Order No.	Price
16	3/8	.62	.50	.64	6.00	1.25	**FF59SIL0500M16†**	Price
16	3/8	.75	.75	.90	7.00	-	**FF59SIL0750P16**	Price

Right/Left Hand - Right								
mm	IC	D (in.)	D1 (in.)	Min. Bore Dia.	L (in.)	L1 (in.)	Order No.	Price
6	5/32	.50	.20	.24	4.00	.47	**FF59SIR0205H06†**	Price
8	3/16	.62	.26	.31	5.00	.70	**FF59SIR0265K08†**	Price
11	1/4	.38	.38	.47	4.00	-	**FF59SIR0375H11†**	Price
11	1/4	.62	.38	.47	5.00	1.00	**FF59SIR0375K11†**	Price
11	1/4	.62	.50	.58	5.50	1.25	**FF59SIR0500L11†**	Price
16	3/8	.62	.50	.64	6.00	1.25	**FF59SIR0500M16†**	Price
16	3/8	.75	.62	.75	7.00	1.57	**FF59SIR0625P16†**	Price
16	3/8	.75	.75	.90	7.00	-	**FF59SIR0750P16**	Price
16	3/8	1.00	1.00	1.16	8.00	-	**FF59SIR1000R16**	Price
16	3/8	1.25	1.25	1.40	10.00	-	**FF59SIR1250S16**	Price
16	3/8	1.50	1.50	1.65	12.00	-	**FF59SIR1500T16**	Price

† Supplied without anvil



Right Hand Shown



Spare Parts



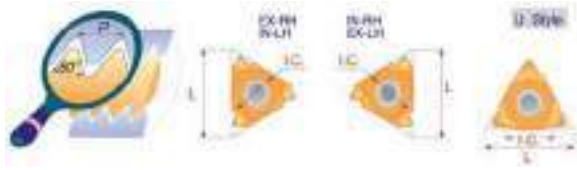





mm Insert Size	Insert Screw		Torx Key		Anvil Screw		ER & IL Anvils		IR & EL Anvils	
	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
06	**FF59S6**	Price	**FF59K6**	Price	**-**	-	**-**	-	**-**	-
08	**FF59S8**	Price	**FF59K8**	Price	**-**	-	**-**	-	**-**	-
11	**FF59S11**	Price	**FF59K11**	Price	**-**	-	**-**	-	**-**	-
16	**FF59S16**	Price	**FF59K16**	Price	**FF59A16**	Price	**FF59AE16**	Price	**FF59AI16**	Price
22	**FF59S22**	Price	**FF59K22**	Price	**FF59A22**	Price	**FF59AE22**	Price	**FF59AI22**	Price
22U	**-**	-	**-**	-	**-**	-	**FF59AE22U**	Price	**FF59AI22U**	Price
27	**FF59S27**	Price	**FF59K27**	Price	**FF59A27**	Price	**FF59AE27**	Price	**FF59AI27**	Price
27U	**-**	-	**-**	-	**-**	-	**FF59AE27U**	Price	**FF59AI27U**	Price

Carmex Precision Tools Ltd. UN (Unified) Full Profile Inserts

- To form a quality complete thread profile including the crest
- For every thread standard and pitch a separate insert is required
- Inserts are supplied in packages of 10 inserts
- Price listed is per piece



Grade - BXC Style - Miniature					
Length (mm)	IC (in.)	Pitch Range TPI	Insert Style	Order No.	Price
8	3/16	14	08IR14UN	**FF58014604**	Price
8	3/16	16	08IR16UN	**FF58078956**	Price
8	3/16	18	08IR18UN	**FF58035102**	Price
8	3/16	20	08IR20UN	**FF58072214**	Price
8	3/16	24	08IR24UN	**FF58101715**	Price
8	3/16	28	08IR28UN	**FF58065194**	Price
8	3/16	32	08IR32UN	**FF58091255**	Price

Grade - BXC Style - Ultra Miniature					
Length (mm)	IC (in.)	Pitch Range TPI	Insert Style	Order No.	Price
6	5/32	18	06IR18UN	**FF58059977**	Price
6	5/32	20	06IR20UN	**FF58045751**	Price
6	5/32	24	06IR24UN	**FF58092942**	Price
6	5/32	28	06IR28UN	**FF58019142**	Price
6	5/32	32	06IR32UN	**FF58025194**	Price

Carmex Precision Tools Ltd. Partial Profile 60° Inserts

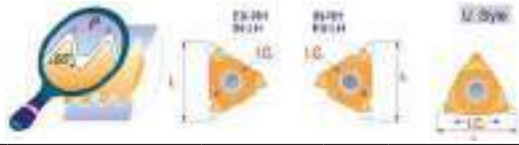
- The V (partial) profile insert cuts without “topping” the OD of the thread
- The same insert can be used for a range of different thread pitches
- Inserts are supplied in packages of 10 inserts (price listed is per piece)



Length (mm)	IC (in.)	TPI External / Internal	Insert Style	BMA		BXC		MXC	
				Order No.	Price	Order No.	Price	Order No.	Price
6	5/32	48-20	06IRA60	-	-	**FF58043927**	Price	-	-
8	3/16	48-16	08IRA60	-	-	**FF58018905**	Price	-	-
11	1/4	48-16	11IRA60	**FF58120003**	Price	-	-	**FF58128385**	Price
16	3/8	14-8	16ERG60	**FF58120009**	Price	-	-	**FF58133762**	Price
16	3/8	14-8	16IRG60	**FF58120011**	Price	-	-	**FF58133765**	Price
16	3/8	48-8	16ERAG60	**FF58120013**	Price	-	-	**FF58128405**	Price
16	3/8	48-8	16IRAG60	**FF58120015**	Price	-	-	**FF58133763**	Price
16	3/8	48-16	16ERA60	**FF58120005**	Price	-	-	**FF58128389**	Price
16	3/8	48-16	16IRA60	**FF58120007**	Price	-	-	**FF58133764**	Price

Carmex Precision Tools Ltd. UN (Unified) Full Profile Inserts

- To form a quality complete thread profile including the crest
- For every thread standard and pitch a separate insert is required
- Inserts are supplied in packages of 10 inserts (price listed is per piece)



Length (mm)	IC (in.)	TPI External / Internal	Insert Style	BMA		MXC	
				Order No.	Price	Order No.	Price
11	1/4	11	11IR11UN	**FF5812077**	Price	**FF58128685**	Price
11	1/4	12	11IR12UN	**FF5812075**	Price	**FF58128667**	Price
11	1/4	13	11IR13UN	**FF5812073**	Price	**FF58128659**	Price
11	1/4	14	11IR14UN	**FF5812071**	Price	**FF58128655**	Price
11	1/4	16	11IR16UN	**FF5812067**	Price	**FF58128647**	Price
11	1/4	18	11IR18UN	**FF5812063**	Price	**FF58128639**	Price
11	1/4	20	11IR20UN	**FF5812059**	Price	**FF58128631**	Price
11	1/4	24	11IR24UN	**FF5812055**	Price	**FF58128581**	Price
11	1/4	28	11IR28UN	**FF5812047**	Price	**FF58128545**	Price
11	1/4	32	11IR32UN	**FF5812043**	Price	**FF58128528**	Price
11	1/4	40	11IR40UN	**FF5812035**	Price	**FF58128508**	Price
16	3/8	8	16ER8UN	**FF58120143**	Price	**FF58128844**	Price
16	3/8	8	16IR8UN	**FF58120145**	Price	**FF58128848**	Price
16	3/8	9	16ER9UN	**FF58120139**	Price	**FF58128836**	Price
16	3/8	9	16IR9UN	**FF58120141**	Price	**FF58128840**	Price
16	3/8	10	16ER10UN	**FF58120135**	Price	**FF58128828**	Price
16	3/8	10	16IR10UN	**FF58120137**	Price	**FF58128832**	Price
16	3/8	11	16ER11UN	**FF58120131**	Price	**FF58128820**	Price
16	3/8	11	16IR11UN	**FF58120133**	Price	**FF58128824**	Price
16	3/8	12	16ER12UN	**FF58120123**	Price	**FF58128794**	Price

Length (mm)	IC (in.)	TPI External / Internal	Insert Style	BMA		MXC	
				Order No.	Price	Order No.	Price
16	3/8	12	16IR12UN	**FF58120125**	Price	**FF58128798**	Price
16	3/8	13	16ER13UN	**FF58120119**	Price	**FF58128785**	Price
16	3/8	13	16IR13UN	**FF58120121**	Price	**FF58128789**	Price
16	3/8	14	16ER14UN	**FF58120115**	Price	**FF58128777**	Price
16	3/8	14	16IR14UN	**FF58120117**	Price	**FF58128781**	Price
16	3/8	16	16IR16UN	**FF58120113**	Price	**FF58128772**	Price
16	3/8	16	16ER16UN	**FF58120111**	Price	**FF58128768**	Price
16	3/8	18	16ER18UN	**FF58120107**	Price	**FF58128760**	Price
16	3/8	18	16IR18UN	**FF58120109**	Price	**FF58128764**	Price
16	3/8	20	16ER20UN	**FF58120103**	Price	**FF58128752**	Price
16	3/8	20	16IR20UN	**FF58120105**	Price	**FF58128756**	Price
16	3/8	24	16ER24UN	**FF58120099**	Price	**FF58128744**	Price
16	3/8	24	16IR24UN	**FF58120101**	Price	**FF58128748**	Price
16	3/8	28	16ER28UN	**FF58120091**	Price	**FF58128728**	Price
16	3/8	28	16IR28UN	**FF58120093**	Price	**FF58128732**	Price
16	3/8	32	16ER32UN	**FF58120087**	Price	**FF58128720**	Price
16	3/8	32	16IR32UN	**FF58120089**	Price	**FF58128724**	Price
16	3/8	40	16ER40UN	**FF58120079**	Price	**FF58128694**	Price
16	3/8	40	16IR40UN	**FF58120081**	Price	**FF58128708**	Price

Turning Thread Methods



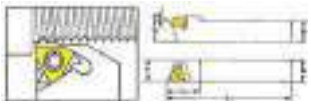
Insert Grade Selection

BMA (C-2 TiAlN)	PVD TiAlN coated sub-micrograin grade for stainless steels and exotic materials at medium to high cutting speeds.
BXC	PVD TiN coated grade for applications that require Super Low cutting speeds (such as very small diameters in which even high rotational speed generates only a low cutting speed).
MXC (K10-K20 P10-P25)	PVD TiN coated micrograin for steel, hard alloys, stainless steel and cast iron.

VARGUS USA External Toolholder

ISO 9002

- Prefix N = no anvil
- Prefix A = supplied with anvil
- Right hand shown



Insert Size I.C. (in.)	H= H1=B (in.)	F (in.)	L1 (in.)	L2 (in.)	Order No.	Price
1/4	.31 x .31	.43	5.37	.69	**FF65NL0312RH**	Price
3/8	.37 x .37	.63	2.45	.76	**FF65AL383RH**	Price
3/8	.37 x .37	.63	2.45	.76	**FF65AL383LH**	Price
3/8	.5 x .5	.63	3.25	.87	**FF65AL0503RH**	Price
3/8	.5 x .5	.63	3.25	.87	**FF65AL0503LH**	Price
3/8	.63 x .63	.63	5.00	1.20	**FF65AL06253RH**	Price
3/8	.63 x .63	.63	5.00	1.20	**FF65AL06253LH**	Price
3/8	.75 x .75	.75	5.00	1.20	**FF65AL0753RH**	Price
3/8	.75 x .75	.75	5.00	1.20	**FF65AL0753LH**	Price
3/8	1 x 1	1.00	6.00	1.20	**FF65AL1003RH**	Price
3/8	1 x 1	1.00	6.00	1.20	**FF65AL1003LH**	Price
3/8	1.25 x 1.25	1.25	7.00	1.18	**FF65AL1253RH**	Price
3/8	1.25 x 1.25	1.25	7.00	1.18	**FF65AL1253LH**	Price
1/2	1 x 1	1.00	6.00	1.42	**FF65AL1004RH**	Price
1/2	1 x 1	1.00	6.00	1.42	**FF65AL1004LH**	Price
1/2	1.25 x 1.25	1.25	7.00	1.42	**FF65AL1254RH**	Price
1/2	1.25 x 1.25	1.25	7.00	1.42	**FF65AL1254LH**	Price
1/2	1.5 x 1.5	1.50	8.00	1.42	**FF65AL1504RH**	Price
1/2	1.5 x 1.5	1.50	8.00	1.42	**FF65AL1504LH**	Price
5/8	1.25 x 1.25	1.25	7.00	1.47	**FF65AL1255RH**	Price
5/8	1.25 x 1.25	1.25	7.00	1.47	**FF65AL1255LH**	Price
5/8	1.5 x 1.5	1.50	8.00	1.57	**FF65AL1505RH**	Price

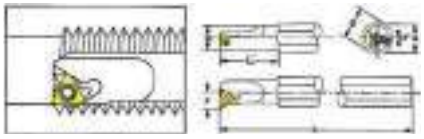
VARGUS USA Internal Boring Bar

ISO 9002

Coolant Thru • Right Hand

- Left hand available
- Supplied with 1-1/2° helix-angle - to obtain other angles see Vardex catalog
- Prefix N = no anvil used
- Prefix A = supplied with anvil





Insert Size I.C. (in.)	A (in.)	L (in.)	L1 (in.)	D (in.)	D1 (in.)	F (in.)	Min. Dia. of Thread	Right	
								Order No.	Price
1/4	.67	7.00	1.00	.75	.375	.28	.50	**FF65NVRC03752RH**	Price
1/4	.67	7.00	1.25	.75	.50	.34	.65	**FF65NVRC0502RH**	Price
3/8	.67	7.00	1.50	.75	.625	.46	.80	**FF65NVRC06253RH**	Price
3/8	1.12	10.00	2.50	1.25	1.25	.77	1.45	**FF65AVRC1253RH**	Price
5/8	1.12	10.00	2.50	1.25	1.25	.88	1.65	**FF65AVRC1255RH**	Price
3/8	.67	7.00	2.00	.75	.75	.51	.90	**FF65AVRC0753RH**	Price
3/8	1.12	10.00	2.50	1.25	1.00	.65	1.20	**FF65AVRC1003RH**	Price
1/2	.67	7.00	2.00	.75	.75	.59	1.00	**FF65NVRC0754RH**	Price
1/2	1.12	10.00	2.50	1.25	1.25	.85	1.50	**FF65AVRC1254RH**	Price
1/2	1.12	10.00	2.50	1.25	1.00	.71	1.25	**FF65AVRC1004RH**	Price

VARGUS USA 60° Partial Profile Threading Inserts

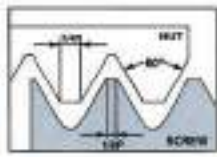
ISO 9002

- The V (partial) profile inserts cut without "topping" the OD of the thread
- The same insert can be used for a range of different thread pitches
- Stocked in 60° thread angle and are supplied in boxes of 10, with two Allen screws and one key (price listed is per insert)
- Made for right hand (RH) and left hand (LH), for internal (IN) and eternal (EX) threading

Style
ER - External right hand
EL - External left hand
IR - Internal right hand
IL - Internal left hand







Internal/External - External							
				Grade - VKX		Grade - VTX	
I.C. (in.)	Pitch (mm)	TPI	Style	Order No.	Price	Order No.	Price
1/4	.50 - 1.5	48-16	ER	**FF672ERA60VKX**	Price	**FF672ERA60VTX**	Price
3/8	.50 - 3.0	14-8	EL	**FF673ELG60VKX**	Price	-	-
3/8	.50 - 3.0	48-8	ER	**FF673ERAG60VKX**	Price	**FF673ERAG60VTX**	Price
3/8	1.75 - 3.0	48-8	EL	**FF673ELAG60VKX**	Price	-	-
3/8	.50 - 1.5	48-16	ER	**FF673ERA60VKX**	Price	-	-
3/8	.50 - 1.5	48-16	ER	**FF673ERG60VKX**	Price		
3/8	.50 - 1.5	8-14	ER	**-**	-	**FF6750993**	Price
3/8	.50 - 1.5	48-16	EL	**FF673ELA60VKX**	Price	**FF6754230**	Price
1/2	3.5 - 5.0	7-5	ER	**FF674ERN60VKX**	Price	-	-
1/2	3.5 - 5.0	7-5	EL	**FF674ELN60VKX**	Price	-	-
5/8	5.5 - 6	4.5-4	ER	**FF665ERQ60VKX**	Price	-	-

Internal/External - Internal							
				Grade - VKX		Grade - VTX	
I.C. (in.)	Pitch (mm)	TPI	Style	Order No.	Price	Order No.	Price
1/4	.50 - 1.5	48-16	IR	**FF672IRA60VKX**	Price	**FF6750272**	Price
1/4	.50 - 1.5	48-16	IL	**FF672ILA60VKX**	Price	-	-
3/8	1.75 - 3.0	14-8	IR	**FF673IRG60VKX**	Price	**FF6752216**	Price
3/8	1.75 - 3.0	14-8	IL	**FF673ILA60VKX**	Price	**FF6751973**	Price
3/8	1.75 - 3.0	14-8	IL	**FF673ILG60VKX**	Price	-	-
3/8	.50 - 3.0	48-8	IR	**FF673IRAG60VKX**	Price	**FF673IRAG60VTX**	Price
3/8	.50 - 3.0	48-8	IL	**FF673ILAG60VKX**	Price	**FF6753217**	Price
3/8	.50 - 1.5	48-16	IR	**FF673IRA60VKX**	Price	**FF6752195**	Price
1/2	3.5 - 5.0	7-5	IR	**FF674IRN60VKX**	Price	**FF6758722**	Price
1/2	3.5 - 5.0	7-5	IL	**FF674ILN60VKX**	Price	-	-
5/8	5.5 - 6	4.5-4	IR	**FF665IRQ60VKX**	Price	**FF665IRQ60VTX**	Price
5/8	5.5 - 6	4.5-4	IL	**FF605ILQ60VKX**	Price	-	-

See index for tool holders

NOTE: *Price shown is per insert*

VARGUS USA 60° Full-Profile Threading Inserts

ISO 9002

American UN External or Internal Threading — Right Hand

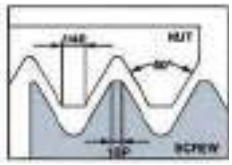


- The "Full-Profile" inserts will form the complete thread-profile, including the crest - for every thread pitch a separate insert is required
- Inserts are supplied in boxes of 10, with two Allen screws and one key; 5/8 IC supplied in boxes of 5 (price listed is per insert)

Style
E - External
I - Internal







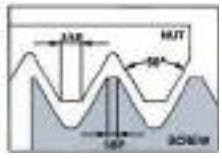
Internal/External - External						
I.C. (in.)	Pitch	Style	VKX		VTX	
			Order No.	Price	Order No.	Price
3/8	8	E	**FF673ER8UNVKX**	Price	**FF6751924**	Price
3/8	9	E	**FF673ER9UNVKX**	Price	**FF6754236**	Price
3/8	10	E	**FF673ER10UNVKX**	Price	**-**	-
3/8	11	E	**FF673ER11UNVKX**	Price	**-**	-
3/8	11.5	E	**FF673ER115UNVKX**	Price	**FF6753533**	Price
3/8	12	E	**FF673ER12UNVKX**	Price	**FF6751291**	Price
3/8	13	E	**FF673ER13UNVKX**	Price	**FF6752889**	Price
3/8	14	E	**FF673ER14UNVKX**	Price	**FF6751383**	Price
3/8	16	E	**FF673ER16UNVKX**	Price	**FF6751451**	Price
3/8	18	E	**FF673ER18UNVKX**	Price	**-**	-
3/8	20	E	**FF673ER20UNVKX**	Price	**FF6751591**	Price
3/8	27	E	**FF673ER27UNVKX**	Price	**-**	-
3/8	24	E	**FF673ER24UNVKX**	Price	**-**	-
3/8	28	E	**-**	-	**FF6751697**	Price
3/8	32	E	**-**	-	**FF6751746**	Price
3/8	40	E	**FF673ER40UNVKX**	Price	**FF6753669**	Price
3/8	44	E	**FF673ER44UNVKX**	Price	**-**	-
5/8	4	E	**FF665ER4UNVKX**	Price	**FF6658983**	Price
5/8	4.5	E	**FF665ER45UNVKX**	Price	**FF6658988**	Price

Internal/External - Internal						
I.C. (in.)	Pitch	Style	VKX		VTX	
			Order No.	Price	Order No.	Price
3/8	8	I	**FF673IR8UNVKX**	Price	**FF6752853**	Price
3/8	9	I	**FF673IR9UNVKX**	Price	**-**	-
3/8	10	I	**FF673IR10UNVKX**	Price	**-**	-
3/8	11	I	**FF673IR11UNVKX**	Price	**-**	-
3/8	11.5	I	**FF673IR115UNVKX**	Price	**FF6753534**	Price
3/8	12	I	**FF673IR12UNVKX**	Price	**FF6752421**	Price
3/8	13	I	**FF673IR13UNVKX**	Price	**FF6754242**	Price
3/8	14	I	**FF673IR14UNVKX**	Price	**-**	-
3/8	16	I	**FF673IR16UNVKX**	Price	**FF6752556**	Price
3/8	18	I	**FF673IR18UNVKX**	Price	**-**	-
3/8	20	I	**FF673IR20UNVKX**	Price	**-**	-
3/8	24	I	**FF673IR24UNVKX**	Price	**-**	-
3/8	28	I	**FF673IR28UNVKX**	Price	**-**	-
3/8	32	I	**FF673IR32UNVKX**	Price	**-**	-
3/8	40	I	**FF673IR40UNVKX**	Price	**-**	-
5/8	4	I	**FF665IR4UNVKX**	Price	**FF6659491**	Price
5/8	4.5	I	**FF665IR45UNVKX**	Price	**FF665IR45UNVTX**	Price

VARGUS USA Style J Full-Profile Threading Inserts

ISO 9002

UNJ External or Internal Threading — Right Hand



- "Full-profile" inserts will form the complete thread-profile, including the crest - for every thread pitch a separate insert is required
- Inserts are supplied in boxes of 10, with two Allen screws and one key (price shown is per insert)

Style
E - External
I - Internal







Internal/External - External				
I.C. (in.)	Pitch	Style	VKX	
			Order No.	Price
1/4	14	E	**FF672ER14UNJVKX**	Price
1/4	16	E	**FF672ER16UNJVKX**	Price
1/4	24	E	**FF672ER24UNJVKX**	Price
1/4	28	E	**FF672ER28UNJVKX**	Price
1/4	32	E	**FF672ER32UNJVKX**	Price
3/8	12	E	**FF673ER12UNJVKX**	Price
3/8	13	E	**FF673ER13UNJVKX**	Price
3/8	14	E	**FF673ER14UNJVKX**	Price
3/8	16	E	**FF673ER16UNJVKX**	Price
3/8	18	E	**FF673ER18UNJVKX**	Price
3/8	20	E	**FF673ER20UNJVKX**	Price
3/8	24	E	**FF673ER24UNJVKX**	Price
3/8	28	E	**FF673ER28UNJVKX**	Price
3/8	32	E	**FF673ER32UNJVKX**	Price
3/8	44	E	**FF673ER44UNJVKX**	Price
5/8	4	E	**FF665ER4UNJVKX**	Price

Internal/External - Internal				
I.C. (in.)	Pitch	Style	VKX	
			Order No.	Price
1/4	14	I	**FF672IR14UNJVKX**	Price
1/4	16	I	**FF672IR16UNJVKX**	Price
1/4	18	I	**FF672IR18UNJVKX**	Price
1/4	20	I	**FF672IR20UNJVKX**	Price
1/4	24	I	**FF672IR24UNJVKX**	Price
1/4	28	I	**FF672IR28UNJVKX**	Price
3/8	8	I	**FF673IR8UNJVKX**	Price
3/8	9	I	**FF673IR9UNJVKX**	Price
3/8	10	I	**FF673IR10UNJVKX**	Price
3/8	11	I	**FF673IR11UNJVKX**	Price
3/8	12	I	**FF673IR12UNJVKX**	Price
3/8	13	I	**FF673IR13UNJVKX**	Price
3/8	14	I	**FF673IR14UNJVKX**	Price
3/8	16	I	**FF673IR16UNJVKX**	Price
3/8	18	I	**FF673IR18UNJVKX**	Price
3/8	20	I	**FF673IR20UNJVKX**	Price
3/8	28	I	**FF673IR28UNJVKX**	Price
3/8	36	I	**FF673IR36UNJVKX**	Price
3/8	40	I	**FF673IR40UNJVKX**	Price
3/8	44	I	**FF673IR44UNJVKX**	Price
3/8	48	I	**FF673IR48UNJVKX**	Price

See Index for Tool Holders

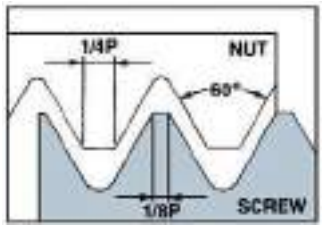
VARGUS USA For CNC Machining Centers and Milling Machines

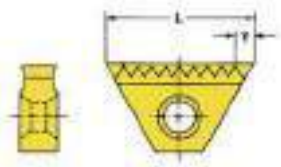
ISO 9001

American UN

- Work for making a thread on a non-rotable bulky part
- Higher machine speeds
- Multi-tooth type inserts
- Less downtime and tooling changes
- Cost saving tooling system less expensive than high speed steel taps and dies
- Less machine power required
- Better thread surface finish yields better sealing and engagement
- No undercut is necessary due to CNC control accuracy
- Carbide inserts for a wide variety of workpiece materials







Internal/External - External									
				VK2		VKX		VTX	
Insert Size I.C. (in.)	L (in.)	Pitch TPI	Y (in.)	Order No.	Price	Order No.	Price	Order No.	Price
1/4	.43	16	.06	-	-	FF662E16UNTMVKX	Price	FF6664132	Price
1/4	.43	18	.05	FF662E18UNTMVK2	Price	FF662E18UNTMVKX	Price	-	-
1/4	.43	20	.05	-	-	FF662E20UNTMVKX	Price	-	-
1/4	.43	24	.05	-	-	FF662E24UNTMVKX	Price	-	-
1/4	.43	28	.04	-	-	FF662E28UNTMVKX	Price	-	-
1/4	.43	32	.03	FF662E32UNTMVK2	Price	-	-	-	-
3/8	.65	12	.07	FF663E12UNTMVK2	Price	FF663E12UNTMVKX	Price	FF6664387	Price
3/8	.65	13	.10	FF663E13UNTMVK2	Price	FF663E13UNTMVKX	Price	-	-
3/8	.65	14	.07	FF663E14UNTMVK2	Price	FF663E14UNTMVKX	Price	-	-
3/8	.65	16	.07	FF663E16UNTMVK2	Price	FF663E16UNTMVKX	Price	-	-
3/8	.65	18	.07	FF663E18UNTMVK2	Price	FF663E18UNTMVKX	Price	-	-
3/8	.65	20	.07	FF663E20UNTMVK2	Price	FF663E20UNTMVKX	Price	-	-
3/8	.65	24	.05	FF663E24UNTMVK2	Price	FF663E24UNTMVKX	Price	-	-
3/8	.65	28	.05	FF663E28UNTMVK2	Price	FF663E28UNTMVKX	Price	-	-
5/8	1.08	6	.21	-	-	FF665E6UNTMVKX	Price	-	-
5/8	1.08	8	.16	FF665E8UNTMVK2	Price	FF665E8UNTMVKX	Price	-	-
5/8	1.08	9	.15	-	-	FF665E9UNTMVKX	Price	-	-
5/8	1.08	10	.14	FF665E10UNTMVK2	Price	FF665E10UNTMVKX	Price	-	-
5/8	1.08	11	.09	-	-	FF665E11UNTMVKX	Price	-	-
5/8	1.08	12	.08	FF665E12UNTMVK2	Price	FF665E12UNTMVKX	Price	-	-
5/8	1.08	13	.08	-	-	FF665E13UNTMVKX	Price	-	-
5/8	1.08	14	.08	FF665E14UNTMVK2	Price	FF665E14UNTMVKX	Price	-	-
5/8	1.08	16	.07	FF665E16UNTMVK2	Price	FF665E16UNTMVKX	Price	-	-
5/8	1.08	18	.07	FF665E18UNTMVK2	Price	-	-	-	-
5/8	1.08	20	.07	-	-	FF665E20UNTMVKX	Price	-	-
5/8	1.08	24	.06	FF665E24UNTMVK2	Price	FF665E24UNTMVKX	Price	-	-

Internal/External - Internal									
				VK2		VKX		VTX	
Insert Size I.C. (in.)	L (in.)	Pitch TPI	Y (in.)	Order No.	Price	Order No.	Price	Order No.	Price
1/4	.43	16	.06	FF662I16UNTMVK2	Price	FF662I16UNTMVKX	Price	-	-
1/4	.43	18	.05	FF662I18UNTMVK2	Price	FF662I18UNTMVKX	Price	-	-
1/4	.43	20	.04	FF662I20UNTMVK2	Price	FF662I20UNTMVKX	Price	FF6664905	Price
1/4	.43	24	.05	-	-	FF662I24UNTMVKX	Price	FF6664205	Price
1/4	.43	28	.04	-	-	FF662I28UNTMVKX	Price	-	-
1/4	.43	32	.03	FF662I32UNTMVK2	Price	-	-	-	-
3/8	.65	12	.07	FF663I12UNTMVK2	Price	FF663I12UNTMVKX	Price	FF6664475	Price
3/8	.65	13	.10	FF663I13UNTMVK2	Price	FF663I13UNTMVKX	Price	-	-
3/8	.65	14	.07	FF663I14UNTMVK2	Price	-	-	FF6664486	Price
3/8	.65	16	.07	FF663I16UNTMVK2	Price	FF663I16UNTMVKX	Price	FF6664493	Price
3/8	.65	18	.07	FF663I18UNTMVK2	Price	FF663I18UNTMVKX	Price	FF6664500	Price
3/8	.65	20	.07	FF663I20UNTMVK2	Price	FF663I20UNTMVKX	Price	FF663I20UNTMVTX	Price
3/8	.65	24	.05	-	-	FF663I24UNTMVKX	Price	FF6664519	Price
3/8	.65	28	.05	FF663I28UNTMVK2	Price	FF663I28UNTMVKX	Price	-	-
3/8	.65	32	.04	-	-	FF663I32UNTMVKX	Price	FF6664891	Price
5/8	1.08	6	.13	FF665I6UNTMVK2	Price	FF665I6UNTMVKX	Price	-	-
5/8	1.08	7	.11	-	-	FF665I7UNTMVKX	Price	-	-
5/8	1.08	8	.16	FF665I8UNTMVK2	Price	FF665I8UNTMVKX	Price	-	-
5/8	1.08	9	.15	FF665I9UNTMVK2	Price	-	-	FF6664747	Price
5/8	1.08	10	.09	FF665I10UNTMVK2	Price	FF665I10UNTMVKX	Price	-	-
5/8	1.08	11	.09	-	-	FF665I11UNTMVKX	Price	-	-
5/8	1.08	12	.08	FF665I12UNTMVK2	Price	FF665I12UNTMVKX	Price	FF6664686	Price
5/8	1.08	14	.08	FF665I14UNTMVK2	Price	FF665I14UNTMVKX	Price	-	-
5/8	1.08	16	.07	-	-	FF665I16UNTMVKX	Price	FF6664698	Price
5/8	1.08	18	.07	FF665I18UNTMVK2	Price	FF665I18UNTMVKX	Price	-	-
5/8	1.08	20	.07	FF665I20UNTMVK2	Price	FF665I20UNTMVKX	Price	-	-
5/8	1.08	24	.06	FF665I24UNTMVK2	Price	-	-	-	-

VARGUS USA American NPT Internal and External Threading

ISO 9002

Style: E = External I = Internal
Grade VK2-RH, V30-RH = Uncoated
Grade VSX-RH (VTX), VKX-RH = Coated






Internal/External - External				
			VKX Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/4	14	2ER14NPT	**FF67117124**	Price
3/8	8	3ER8NPT	**FF67118225**	Price
3/8	11.5	3ER11.5NPT	**FF67117188**	Price
3/8	14	3ER14NPT	**FF67117194**	Price
3/8	18	3ER18NPT	**FF67205962**	Price
3/8	27	3ER27NPT	**FF67119639**	Price

Internal/External - Internal				
			VKX Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/4	14	2IR14NPT	**FF67117147**	Price
1/4	27	2IR27NPT	**FF67117163**	Price
3/8	8	3IR8NPT	**FF67117253**	Price
3/8	11.5	3IR11.5NPT	**FF67116418**	Price
3/8	14	3IR14NPT	**FF67117243**	Price
3/8	18	3IR18NPT	**FF67205967**	Price
3/8	27	3IR27NPT	**FF67117246**	Price

Left hand available

VARGUS USA Thread Milling Cutters



ISO 9002

Insert Size I.C. (in.)	L (in.)	L1 (in.)	D (in.)	D1 (in.)	D2 (in.)	Order No.	Price
1/4	2.75	.47	.50	.35	.45	**FF65TMC0502**	Price
1/4	3.50	.79	.75	.35	.45	**FF65TMC0752**	Price
3/8	3.56	.87	.63	.54	.67	**FF65TMC06253**	Price
3/8	3.75	1.68	.75	.65	.79	**FF65TMC0753**	Price
5/8	4.38	2.03	1.00	.94	1.18	**FF65TMC1005**	Price
5/8	4.75	2.41	1.25	1.22	1.46	**FF65TMC1255**	Price

Left hand cutters available

VARGUS USA Long Thread Milling Cutters

ISO 9002

Insert Size I.C. (in.)	L (in.)	L1 (in.)	D (in.)	D1 (in.)	D2 (in.)	Order No.	Price
3/8	5.00	1.00	1.00	.65	.79	**FF65TMLC1003**	Price
5/8	5.88	3.53	1.00	.94	1.18	**FF65TMLC1005**	Price
5/8	6.33	4.00	1.25	1.22	1.46	**FF65TMLC1255**	Price

C = Coolant
All cutters supplied w/coolant hole
Left hand cutters available

VARGUS USA American Buttress Internal and External Threading

ISO 9002

Partial Profile Inserts

- For applications involving exceptionally high stresses along the thread axis in one direction

Style
ER - External right hand
EL - External left hand
IR - Internal right hand
IL - Internal left hand





Internal/External - External				
			VKX Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/4	16	2ER16ABUT	**FF67117127**	Price
3/8	10	3ER10ABUT	**FF67117186**	Price
3/8	10	3EL10ABUT	**FF67117167**	Price
3/8	12	3ER12ABUT	**FF67117191**	Price
3/8	12	3EL12ABUT	**FF67117172**	Price
3/8	16	3ER16ABUT	**FF67205933**	Price
3/8	16	3EL16ABUT	**FF67205945**	Price
3/8	20	3ER20ABUT	**FF67205941**	Price
1/2	6	4ER6ABUT	**FF67117262**	Price
1/2	8	4ER8ABUT	**FF67117265**	Price
1/2U	4	4UER4ABUT	**FF67117282**	Price
1/2U	4	4UEL4ABUT	**FF67117279**	Price

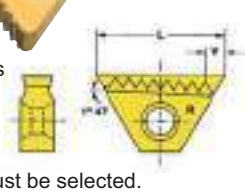
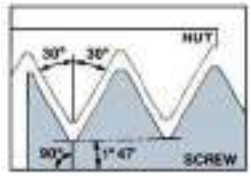
Internal/External - Internal				
			VKX Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/4	16	2IR16ABUT	**FF67117150**	Price
3/8	10	3IR10ABUT	**FF67117231**	Price
3/8	12	3IR12ABUT	**FF67117240**	Price
3/8	12	3IL12ABUT	**FF67117211**	Price
3/8	16	3IR16ABUT	**FF67119660**	Price
3/8	20	3IR20ABUT	**FF67119650**	Price
1/2	6	4IR6ABUT	**FF67118226**	Price
1/2	6	4IL6ABUT	**FF67117268**	Price
1/2	8	4IR8ABUT	**FF67117276**	Price
1/2U	4	4UIL4ABUT	**FF67117285**	Price

VARGUS USA External & Internal Inserts

ISO 9002

American NPT

- For CNC machining centers and milling machines
- Work for making a thread on a non-rotatable bulky part
- Higher machine speeds
- Multi-tooth type inserts
- Less downtime and tooling changes
- Less machine power required
- Better thread surface finish yields better sealing and engagement
- No undercut is necessary due to CNC control accuracy

NOTE: milling inserts can be used either right hand or left hand. However, appropriate holder must be selected. Right hand is standard, left hand is available on request.

I.C. (in.)	L (in.)	Pitch TPI	Y (in.)	Insert Style	VK2 Order No.	VK2 Price	VKX Order No.	VKX Price	VTX Order No.	VTX Price
3/8	.65	11.5	.09	3EI11.5NPTTM	-	-	**FF66114019**	Price	**FF6664316**	Price
5/8	1.08	8	.15	5EI8NPTTM	**FF66026076**	Price	-	-	-	-
5/8	1.08	11.5	.12	5EI11.5NPTTM	**FF66104079**	Price	**FF66114047**	Price	**FF6664558**	Price

VARGUS USA 29° Acme Internal and External Threading

ISO 9002

Style
ER - External right hand
EL - External left hand
IR - Internal right hand
IL - Internal left hand







Internal/External - External				
			VKX	
			Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/4	16	2ER16ACME	**FF67112421**	Price
1/4	16	2EL16ACME	**FF67112424**	Price
3/8	8	3EL8ACME	**FF67117728**	Price
3/8	8	3ER8ACME	**FF67117340**	Price
3/8	10	3ER10ACME	**FF67117736**	Price
3/8	12	3ER12ACME	**FF67112438**	Price
3/8	14	3ER14ACME	**FF67112433**	Price
3/8	14	3EL14ACME	**FF67112436**	Price
3/8	16	3ER16ACME	**FF67112427**	Price
1/2	5	4ER5ACME	**FF67117369**	Price
1/2	5	4EL5ACME	**FF67112446**	Price
1/2	6	4ER6ACME	**FF67117373**	Price
5/8	4	5ER4ACME	**FF66112448**	Price
5/8	4	5EL4ACME	**FF66112451**	Price

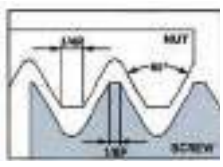
Internal/External - Internal				
			VKX	
			Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/4	16	2IR16ACME	**FF67112454**	Price
1/4	16	2IL16ACME	**FF67112457**	Price
3/8	8	3IR8ACME	**FF67112482**	Price
3/8	8	3IL8ACME	**FF67112485**	Price
3/8	10	3IR10ACME	**FF67112476**	Price
3/8	10	3IL10ACME	**FF67112479**	Price
3/8	12	3IR12ACME	**FF67112471**	Price
3/8	12	3IL12ACME	**FF67112474**	Price
3/8	14	3IR14ACME	**FF67112465**	Price
3/8	14	3IL14ACME	**FF67112468**	Price
5/8	4	5IR4ACME	**FF66112499**	Price
5/8	4	5IL4ACME	**FF66112502**	Price

VARGUS USA American UN Multi-Tooth Inserts

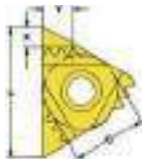
Internal and External Threading

Style
E - External
I - Internal









Internal/External - External						
			VKX		VTX	
			Coated		Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price	Order No.	Price
3/8	16	3ER16UN2M	-	-	**FF6663037**	Price
1/2	12	4ER12UN2M	**FF66117497**	Price	**FF6663347**	Price
1/2	12	4ER12UN3M	-	-	**FF6663138**	Price
1/2	16	4ER16UN3M	-	-	**FF6663150**	Price
5/8	8	5ER8UN2M	-	-	**FF665ER8UN2MVTX**	Price

Internal/External - Internal				
			VTX	
			Coated	
I.C. (in.)	Pitch TPI	Insert Style	Order No.	Price
1/2	12	4IR12UN2M	**FF6663352**	Price
5/8	8	5IR8UN2M	**FF6663348**	Price

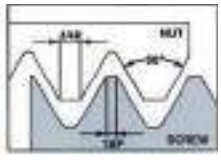
VARGUS USA American NPT Multi-Tooth Inserts

ISO 9002

Internal and External Threading-

Style:
E = External
I = Internal









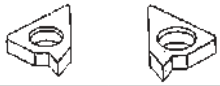
Internal/External - External							
				VK2		VTX	
				Uncoated		Coated	
I.C. (in.)	Pitch TPI	No. of Teeth	Inset Style	Order No.	Price	Order No.	Price
5/8	8	2	5ER8NPT2M	**FF66062723**	Price	**FF6663339**	Price

Internal/External - Internal					
				VKX	
				Coated	
I.C. (in.)	Pitch TPI	No. of Teeth	Inset Style	Order No.	Price
1/2	11.5	2	4IR11.5NPT2M	**FF66117529**	Price

Spare Parts

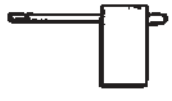


Insert Size I.C. (in.)	Order No.	Price
1/4	**FF65SN2T**	Price
3/8	**FF65SA3T**	Price
3/8	**FF65SY3T**	Price
1/2, 1/2U	**FF65SA4T**	Price
1/2, 1/2U	**FF65SY4T**	Price
5/8, 5/8U	**FF65SA5T**	Price
5/8, 5/8U	**FF65SY5T**	Price



Insert Size I.C. (in.)	LH Anvil		RH Anvil	
	Order No.	Price	Order No.	Price
3/8	**FF65YE3**	Price	**FF65YI3**	Price
1/2	**FF65YE4**	Price	**FF65YI4**	Price
1/2U	**FF65YE4U**	Price	**FF65YI4U**	Price
5/8	**FF65YE5**	Price	**FF65YI5**	Price
5/8U	**FF65YE5U**	Price	**FF65YI5U**	Price

Key



Insert Size I.C. (in.)	Order No.	Price
1/4	**FF65K2T**	Price
3/8	**FF65K3T**	Price
1/2, 1/2U	**FF65K4T**	Price
5/8, 5/8U	**FF65K5T**	Price

RAPIDKUT® Solid Carbide Boring Bars

- 4RMS finish
- Mirror polished cutting surface
- Lockdown flat automatically locates tool on center
- Diameter tolerance +.0000 /-.0005”



- 1/8” Shank Diameter - .003-.005” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.050	1-1/2	.150	.013	**CB10050150**	Price
.050	1-1/2	.200	.013	**CB10050200**	Price
.050	1-1/2	.300	.013	**CB10050300**	Price
.050	1-1/2	.400	.013	**CB10050400**	Price
.060	1-1/2	.150	.015	**CB10060150**	Price
.060	1-1/2	.200	.015	**CB10060200**	Price
.060	1-1/2	.300	.015	**CB10060300**	Price
.060	1-1/2	.400	.015	**CB10060400**	Price
.060	1-1/2	.500	.015	**CB10060500**	Price
.080	1-1/2	.150	.020	**CB10080150**	Price
.080	1-1/2	.200	.020	**CB10080200**	Price
.080	1-1/2	.300	.020	**CB10080300**	Price
.080	1-1/2	.400	.020	**CB10080400**	Price
.080	1-1/2	.500	.020	**CB10080500**	Price
.080	1-1/2	.600	.020	**CB10080600**	Price
.100	1-1/2	.150	.025	**CB10100150**	Price
.100	1-1/2	.200	.025	**CB10100200**	Price
.100	1-1/2	.300	.025	**CB10100300**	Price
.100	1-1/2	.400	.025	**CB10100400**	Price
.100	1-1/2	.500	.025	**CB10100500**	Price
.100	1-1/2	.600	.025	**CB10100600**	Price
.100	1-1/2	.700	.025	**CB10100700**	Price
.110	1-1/2	.150	.028	**CB10110150**	Price
.110	1-1/2	.200	.028	**CB10110200**	Price
.110	1-1/2	.300	.028	**CB10110300**	Price
.110	1-1/2	.400	.028	**CB10110400**	Price
.110	1-1/2	.500	.028	**CB10110500**	Price
.110	1-1/2	.600	.028	**CB10110600**	Price
.110	1-1/2	.700	.028	**CB10110700**	Price

- 3/16” Shank Diameter - .005-.008” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.120	2	.250	.030	**CB10120250**	Price
.120	2	.350	.030	**CB10120350**	Price
.120	2	.500	.030	**CB10120500**	Price
.120	2	.600	.030	**CB10120600**	Price
.120	2	.700	.030	**CB10120700**	Price
.120	2	.800	.030	**CB10120800**	Price
.140	2	.250	.035	**CB10140250**	Price
.140	2	.400	.035	**CB10140400**	Price
.140	2	.500	.035	**CB10140500**	Price
.140	2	.600	.035	**CB10140600**	Price
.140	2	.700	.035	**CB10140700**	Price
.140	2	.750	.035	**CB10140750**	Price
.140	2	.800	.035	**CB10140800**	Price
.160	2	.250	.040	**CB10160250**	Price
.160	2	.400	.040	**CB10160400**	Price
.160	2	.500	.040	**CB10160500**	Price
.160	2	.600	.040	**CB10160600**	Price
.160	2	.750	.040	**CB10160750**	Price
.160	2	.900	.040	**CB10160900**	Price
.160	2	1.000	.040	**CB10161000**	Price

- 1/4” Shank Diameter - .005-.008” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.180	2-1/2	.350	.045	**CB10180350**	Price
.180	2-1/2	.500	.045	**CB10180500**	Price
.180	2-1/2	.600	.045	**CB10180600**	Price
.180	2-1/2	.750	.045	**CB10180750**	Price
.180	2-1/2	.900	.045	**CB10180900**	Price
.180	2-1/2	1.000	.045	**CB10181000**	Price
.180	2-1/2	1.100	.045	**CB10181100**	Price
.180	2-1/2	1.250	.045	**CB10181250**	Price
.180	2-1/2	1.500	.045	**CB10181500**	Price
.200	2-1/2	.400	.050	**CB10200400**	Price
.200	2-1/2	.500	.050	**CB10200500**	Price
.200	2-1/2	.600	.050	**CB10200600**	Price
.200	2-1/2	.700	.050	**CB10200700**	Price

- 1/4” Shank Diameter - .005-.008” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.200	2-1/2	.800	.050	**CB10200800**	Price
.200	2-1/2	.900	.050	**CB10200900**	Price
.200	2-1/2	1.000	.050	**CB10201000**	Price
.200	2-1/2	1.100	.050	**CB10201100**	Price
.200	2-1/2	1.200	.050	**CB10201200**	Price
.200	2-1/2	1.300	.050	**CB10201300**	Price

- 5/16” Shank Diameter - .005-.008” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.230	2-1/2	.400	.058	**CB10230400**	Price
.230	2-1/2	.500	.058	**CB10230500**	Price
.230	2-1/2	.600	.058	**CB10230600**	Price
.230	2-1/2	.700	.058	**CB10230700**	Price
.230	2-1/2	.800	.058	**CB10230800**	Price
.230	2-1/2	.900	.058	**CB10230900**	Price
.230	2-1/2	1.000	.058	**CB10231000**	Price
.230	2-1/2	1.100	.058	**CB10231100**	Price
.230	2-1/2	1.150	.058	**CB10231150**	Price
.230	2-1/2	1.200	.058	**CB10231200**	Price
.230	2-1/2	1.250	.058	**CB10231250**	Price
.230	2-1/2	1.400	.058	**CB10231400**	Price
.230	2-1/2	1.500	.058	**CB10231500**	Price
.230	2-1/2	1.600	.058	**CB10231600**	Price
.290	2-1/2	.500	.073	**CB10290500**	Price
.290	2-1/2	.600	.073	**CB10290600**	Price
.290	2-1/2	.750	.073	**CB10290750**	Price
.290	2-1/2	.900	.073	**CB10290900**	Price
.290	2-1/2	1.000	.073	**CB10291000**	Price
.290	2-1/2	1.100	.073	**CB10291100**	Price
.290	2-1/2	1.250	.073	**CB10291250**	Price
.290	2-1/2	1.350	.073	**CB10291350**	Price
.290	2-1/2	1.500	.073	**CB10291500**	Price
.290	2-1/2	1.600	.073	**CB10291600**	Price
.290	2-1/2	1.750	.073	**CB10291750**	Price

- 3/8” Shank Diameter - .005-.008” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.320	2-1/2	.500	.080	**CB10320500**	Price
.320	2-1/2	.600	.080	**CB10320600**	Price
.320	2-1/2	.750	.080	**CB10320750**	Price
.320	2-1/2	.900	.080	**CB10320900**	Price
.320	2-1/2	1.000	.080	**CB10321000**	Price
.320	2-1/2	1.100	.080	**CB10321100**	Price
.320	2-1/2	1.250	.080	**CB10321250**	Price
.320	2-1/2	1.500	.080	**CB10321500**	Price
.320	2-1/2	1.600	.080	**CB10321600**	Price
.320	2-1/2	1.800	.080	**CB10321800**	Price
.320	4	2.000	.080	**CB10322000**	Price
.320	4	2.500	.080	**CB10322500**	Price
.320	4	3.000	.080	**CB10323000**	Price
.360	2-1/2	.500	.090	**CB10360500**	Price
.360	2-1/2	.600	.090	**CB10360600**	Price
.360	2-1/2	.750	.090	**CB10360750**	Price
.360	2-1/2	.900	.090	**CB10360900**	Price
.360	2-1/2	1.000	.090	**CB10361000**	Price
.360	2-1/2	1.150	.090	**CB10361150**	Price
.360	2-1/2	1.250	.090	**CB10361250**	Price
.360	2-1/2	1.500	.090	**CB10361500**	Price
.360	2-1/2	1.600	.090	**CB10361600**	Price
.360	2-1/2	1.800	.090	**CB10361800**	Price
.360	4	2.000	.090	**CB10362000**	Price
.360	4	2.500	.090	**CB10362500**	Price
.360	4	3.000	.090	**CB10363000**	Price

- 1/2” Shank Diameter - .005-.008” Radius					
Min. Bore (in.)	OAL (in.)	Max. Bore (in.)	Proj. (in.)	Order No.	Price
.490	3	.750	.123	**CB10490750**	Price
.490	3	1.000	.123	**CB10491000**	Price
.490	3	1.250	.123	**CB10491250**	Price
.490	3	1.500	.123	**CB10491500**	Price
.490	4	2.000	.123	**CB10492000**	Price
.490	4	2.500	.123	**CB10492500**	Price
.490	4	2.600	.123	**CB10492600**	Price
.490	4	2.750	.123	**CB10492750**	Price
.490	6	3.000	.123	**CB10493000**	Price
.490	6	3.500	.123	**CB10493500**	Price
.490	6	4.000	.123	**CB10494000**	Price
.490	6	4.500	.123	**CB10494500**	Price

Solid Carbide Boring Bars

- Unique “2 Point” locking system engineered for maximum tool rigidity and centerline repeatability within ±.0005” from tool to tool
- Reduce machine setup, downtime, and tooling cost while boosting productivity

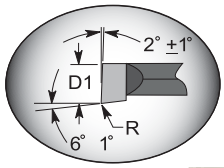
Super Carbide Tolerance

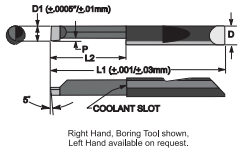
- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum bore diameter: +.000-.005”
- Maximum bore depth: +.050-.000”
- Overall length: ±1/64”

Quick Change Tolerance

- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum bore diameter: ±.0005” (±0.01mm)
- Maximum bore depth: ±.050” (±1.27mm)

30 Second Tool Change





Right Hand, Boring Tool shown.
Left Hand available on request.





Shank Diameter (in.) - 1/8				
		Solid Carbide Boring Tools		
Min. Bore	Max. Bore	OAL	Order No.	Price
.050	.150	1-1/2	**GE45BB050150**	Price
.050	.200	1-1/2	**GE45BB050200**	Price
.050	.300	1-1/2	**GE45BB050300**	Price
.050	.400	1-1/2	**GE45BB050400**	Price
.060	.150	1-1/2	**GE45BB060150**	Price
.060	.200	1-1/2	**GE45BB060200**	Price
.060	.300	1-1/2	**GE45BB060300**	Price
.060	.400	1-1/2	**GE45BB060400**	Price
.060	.500	1-1/2	**GE45BB060500**	Price
.080	.150	1-1/2	**GE45BB080150**	Price
.080	.200	1-1/2	**GE45BB080200**	Price
.080	.300	1-1/2	**GE45BB080300**	Price
.080	.400	1-1/2	**GE45BB080400**	Price
.080	.500	1-1/2	**GE45BB080500**	Price
.080	.600	1-1/2	**GE45BB080600**	Price
.100	.150	1-1/2	**GE45BB100150**	Price
.100	.200	1-1/2	**GE45BB100200**	Price
.100	.300	1-1/2	**GE45BB100300**	Price
.100	.400	1-1/2	**GE45BB100400**	Price
.100	.500	1-1/2	**GE45BB100500**	Price
.100	.600	1-1/2	**GE45BB100600**	Price
.100	.700	1-1/2	**GE45BB100700**	Price
.110	.150	1-1/2	**GE45BB110150**	Price
.110	.200	1-1/2	**GE45BB110200**	Price
.110	.300	1-1/2	**GE45BB110300**	Price
.110	.400	1-1/2	**GE45BB110400**	Price
.110	.500	1-1/2	**GE45BB110500**	Price
.110	.600	1-1/2	**GE45BB110600**	Price
.110	.700	1-1/2	**GE45BB110700**	Price

Shank Diameter (in.) - 3/16							
		Quik Change Boring Tools			Solid Carbide Boring Tools		
Min. Bore	Max. Bore	OAL	Order No.	Price	OAL	Order No.	Price
.050	.150	1-1/2	**GE46QBB050150**	Price	-	-	-
.060	.150	1-1/2	**GE46QBB060150**	Price	-	-	-
.080	.300	1-1/2	**GE46QBB080300**	Price	-	-	-
.080	.600	2	**GE46QBB080600**	Price	-	-	-
.100	.300	1-1/2	**GE46QBB100300**	Price	-	-	-
.120	.250	1-1/2	**GE46QBB120250**	Price	2	**GE45BB120250**	Price
.120	.350	1-1/2	**GE46QBB120350**	Price	2	**GE45BB120350**	Price

Shank Diameter (in.) - 3/16							
		Quik Change Boring Tools			Solid Carbide Boring Tools		
Min. Bore	Max. Bore	OAL	Order No.	Price	OAL	Order No.	Price
.120	.500	1-1/2	**GE46QBB120500**	Price	2	**GE45BB120500**	Price
.120	.600	-	-	-	2	**GE45BB120600**	Price
.120	.700	2	**GE46QBB120700**	Price	2	**GE45BB120700**	Price
.120	.800	2	**GE46QBB120800**	Price	2	**GE45BB120800**	Price
.140	.250	-	-	-	2	**GE45BB140250**	Price
.140	.400	1-1/2	**GE46QBB140400**	Price	2	**GE45BB140400**	Price
.140	.500	-	-	-	2	**GE45BB140500**	Price
.140	.600	2	**GE46QBB140600**	Price	2	**GE45BB140600**	Price
.140	.700	-	-	-	2	**GE45BB140700**	Price
.140	.750	-	-	-	2	**GE45BB140750**	Price
.140	.800	2	**GE46QBB140800**	Price	2	**GE45BB140800**	Price
.160	.250	-	-	-	2	**GE45BB160250**	Price
.160	.400	1-1/2	**GE46QBB160400**	Price	2	**GE45BB160400**	Price
.160	.500	-	-	-	2	**GE45BB160500**	Price
.160	.600	2	**GE46QBB160600**	Price	2	**GE45BB160600**	Price
.160	.750	2	**GE46QBB160750**	Price	2	**GE45BB160750**	Price
.160	.900	-	-	-	2	**GE45BB160900**	Price
.160	1.00	2	**GE46QBB1601000**	Price	2	**GE45BB1601000**	Price

Shank Diameter (in.) - 1/4							
		Quik Change Boring Tools			Solid Carbide Boring Tools		
Min. Bore	Max. Bore	OAL	Order No.	Price	OAL	Order No.	Price
.180	.350	-	-	-	2-1/2	**GE45BB180350**	Price
.180	.500	2	**GE46QBB180500**	Price	2-1/2	**GE45BB180500**	Price
.180	.600	-	-	-	2-1/2	**GE45BB180600**	Price
.180	.750	2	**GE46QBB180750**	Price	2-1/2	**GE45BB180750**	Price
.180	.900	-	-	-	2-1/2	**GE45BB180900**	Price
.180	1.00	2-1/2	**GE46QBB1801000**	Price	2-1/2	**GE45BB1801000**	Price
.180	1.10	-	-	-	2-1/2	**GE45BB1801100**	Price
.200	.400	-	-	-	2-1/2	**GE45BB200400**	Price
.200	.500	2	**GE46QBB200500**	Price	2-1/2	**GE45BB200500**	Price
.200	.600	-	-	-	2-1/2	**GE45BB200600**	Price
.200	.700	2	**GE46QBB200750**	Price	2-1/2	**GE45BB200700**	Price
.200	.800	-	-	-	2-1/2	**GE45BB200800**	Price
.200	.900	-	-	-	2-1/2	**GE45BB200900**	Price
.200	1.00	2-1/2	**GE46QBB2001000**	Price	2-1/2	**GE45BB2001000**	Price
.200	1.10	-	-	-	2-1/2	**GE45BB2001100**	Price
.200	1.20	2-1/2	**GE46QBB2001200**	Price	2-1/2	**GE45BB2001200**	Price
.200	1.30	-	-	-	2-1/2	**GE45BB2001300**	Price

(continued)

MICRO 100 Solid Carbide Boring Bars

- Unique “2 Point” locking system engineered for maximum tool rigidity and centerline repeatability within ±.0005” from tool to tool
- Reduce machine setup, downtime, and tooling cost while boosting productivity

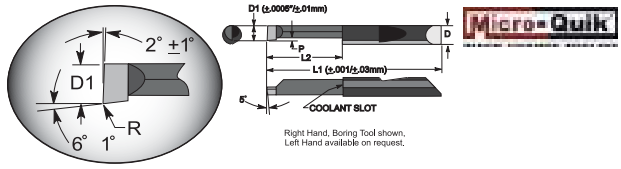
Super Carbide Tolerance

- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum bore diameter: +.000-.005”
- Maximum bore depth: +.050-.000”
- Overall length: ±1/64”

30 Second Tool Change

Quick Change Tolerance

- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum bore diameter: ±.0005” (±0.01mm)
- Maximum bore depth: ±.050” (±1.27mm)







(continued)

Shank Diameter (in.) - 5/16

Min. Bore	Max. Bore	Quik Change Boring Tools OAL	Quik Change Boring Tools Order No.	Quik Change Boring Tools Price	Solid Carbide Boring Tools OAL	Solid Carbide Boring Tools Order No.	Solid Carbide Boring Tools Price
.230	.400	-	-	-	2-1/2	GE45BB230400	Price
.230	.500	2	GE46QBB230500	Price	2-1/2	GE45BB230500	Price
.230	.600	-	-	-	2-1/2	GE45BB230600	Price
.230	.700	-	-	-	2-1/2	GE45BB230700	Price
.230	.800	-	-	-	2-1/2	GE45BB230800	Price
.230	.900	-	-	-	2-1/2	GE45BB230900	Price
.230	1.00	2-1/2	GE46QBB2301000	Price	2-1/2	GE45BB2301000	Price
.230	1.15	-	-	-	2-1/2	GE45BB2301150	Price
.230	1.20	-	-	-	2-1/2	GE45BB2301200	Price
.230	1.25	2-1/2	GE46QBB2301250	Price	2-1/2	GE45BB2301250	Price
.230	1.40	-	-	-	2-1/2	GE45BB2301400	Price
.230	1.50	3	GE46QBB2301500	Price	2-1/2	GE45BB2301500	Price
.230	1.60	3	GE46QBB2301600	Price	2-1/2	GE45BB2301600	Price
.290	.500	2	GE46QBB290500	Price	2-1/2	GE45BB290500	Price
.290	.600	-	-	-	2-1/2	GE45BB290600	Price
.290	.750	2	GE46QBB290750	Price	2-1/2	GE45BB290750	Price
.290	.900	-	-	-	2-1/2	GE45BB290900	Price
.290	1.00	2-1/2	GE46QBB2901000	Price	2-1/2	GE45BB2901000	Price
.290	1.10	-	-	-	2-1/2	GE45BB2901100	Price
.290	1.25	-	-	-	2-1/2	GE45BB2901250	Price
.290	1.35	-	-	-	2-1/2	GE45BB2901350	Price
.290	1.50	3	GE46QBB2901500	Price	2-1/2	GE45BB2901500	Price
.290	1.60	-	-	-	2-1/2	GE45BB2901600	Price
.290	1.75	3	GE46QBB2901750	Price	2-1/2	GE45BB2901750	Price

Shank Diameter (in.) - 3/8

Min. Bore	Max. Bore	Quik Change Boring Tools OAL	Quik Change Boring Tools Order No.	Quik Change Boring Tools Price	Solid Carbide Boring Tools OAL	Solid Carbide Boring Tools Order No.	Solid Carbide Boring Tools Price
.320	.500	2	GE46QBB320500	Price	2-1/2	GE45BB320500	Price
.320	.600	-	-	-	2-1/2	GE45BB320600	Price
.320	.750	-	-	-	2-1/2	GE45BB320750	Price
.320	.900	-	-	-	2-1/2	GE45BB320900	Price
.320	1.00	2-1/2	GE46QBB3201000	Price	2-1/2	GE45BB3201000	Price
.320	1.10	-	-	-	2-1/2	GE45BB3201100	Price

Shank Diameter (in.) - 3/8

Min. Bore	Max. Bore	Quik Change Boring Tools OAL	Quik Change Boring Tools Order No.	Quik Change Boring Tools Price	Solid Carbide Boring Tools OAL	Solid Carbide Boring Tools Order No.	Solid Carbide Boring Tools Price
.320	1.25	2-1/2	GE46QBB3201250	Price	2-1/2	GE45BB3201250	Price
.320	1.50	3	GE46QBB3201500	Price	2-1/2	GE45BB3201500	Price
.320	1.60	-	-	-	2-1/2	GE45BB3201600	Price
.320	1.80	-	-	-	2-1/2	GE45BB3201800	Price
.320	2.00	-	-	-	4	GE45BB3202000	Price
.320	2.50	-	-	-	4	GE45BB3202500	Price
.320	3.00	-	-	-	4	GE45BB3203000	Price
.360	.500	-	-	-	2-1/2	GE45BB360500	Price
.360	.600	-	-	-	2-1/2	GE45BB360600	Price
.360	.750	-	-	-	2-1/2	GE45BB360750	Price
.360	.900	-	-	-	2-1/2	GE45BB360900	Price
.360	1.00	-	-	-	2-1/2	GE45BB3601000	Price
.360	1.15	-	-	-	2-1/2	GE45BB3601150	Price
.360	1.25	-	-	-	2-1/2	GE45BB3601250	Price
.360	1.50	-	-	-	2-1/2	GE45BB3601500	Price
.360	1.60	-	-	-	2-1/2	GE45BB3601600	Price
.360	1.80	-	-	-	2-1/2	GE45BB3601800	Price
.360	2.00	-	-	-	4	GE45BB3602000	Price
.360	2.50	-	-	-	4	GE45BB3602500	Price
.360	3.00	-	-	-	4	GE45BB3603000	Price

Shank Diameter (in.) - 1/2

Min. Bore	Max. Bore	Quik Change Boring Tools OAL	Quik Change Boring Tools Order No.	Quik Change Boring Tools Price	Solid Carbide Boring Tools OAL	Solid Carbide Boring Tools Order No.	Solid Carbide Boring Tools Price
.490	.750	-	-	-	3	GE45BB490750	Price
.490	1.00	2-1/2	GE46QBB4901000	Price	3	GE45BB4901000	Price
.490	1.25	-	-	-	3	GE45BB4901250	Price
.490	1.50	-	-	-	3	GE45BB4901500	Price
.490	2.00	3-1/2	GE46QBB4902000	Price	4	GE45BB4902000	Price
.490	2.50	4	GE46QBB4902500	Price	4	GE45BB4902500	Price
.490	3.00	-	-	-	6	GE45BB4903000	Price
.490	4.50	-	-	-	6	GE45BB4904500	Price

MICRO 100 Solid Carbide Groove Tools

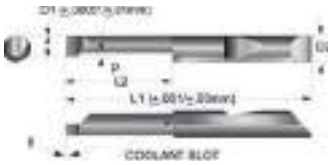
Super Carbide Tolerance

- Shank diameter: -.0001" (-0.005mm) to -.0002" (-0.01mm)
- Minimum hole diameter: +.000-.005"
- Maximum hole depth: +.050-.000"
- Overall length: ±1/64"



Quik Change Tolerance

- Shank diameter: -.0001" (-0.005mm) to -.0002" (-0.01mm)
- Minimum bore diameter: ±.0005" (±0.01mm)
- Maximum bore depth: ±.050" (+1.27mm)



Micro-Quik







Min. Hole Dia. (in.) - .1000

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
5/16	.3750	.1000	.0330/.0340	2.0000	**GE46QRR0336**	Price

Min. Hole Dia. (in.) - .1800

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
3/16	.2500	.0300	.0170	1.5000	**GE46QRR0174**	Price
3/16	.3750	.0300	.0170	1.5000	**GE46QRR0176**	Price
3/16	.5000	.0300	.0170	1.5000	**GE46QRR0178**	Price
3/16	.6250	.0300	.0170	2.0000	**GE46QRR01710**	Price
3/16	.2500	.0300	.0200	1.5000	**GE46QRR0204**	Price
3/16	.3750	.0300	.0200	1.5000	**GE46QRR0206**	Price
3/16	.5000	.0300	.0200	1.5000	**GE46QRR0208**	Price
3/16	.6250	.0300	.0200	2.0000	**GE46QRR02010**	Price

Min. Hole Dia. (in.) - .2450

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
1/4	.2500	.0500	.0250/.0260	2.0000	**GE46QRR0254**	Price
1/4	.3750	.0500	.0250/.0260	2.0000	**GE46QRR0256**	Price
1/4	.5000	.0500	.0250/.0260	2.0000	**GE46QRR0258**	Price
1/4	.6250	.0500	.0250/.0260	2.0000	**GE46QRR02510**	Price
1/4	.2500	.0500	.0300/.0310	2.0000	**GE46QRR0304**	Price
1/4	.3750	.0500	.0300/.0310	2.0000	**GE46QRR0306**	Price
1/4	.5000	.0500	.0300/.0310	2.0000	**GE46QRR0308**	Price
1/4	.6250	.0500	.0300/.0310	2.0000	**GE46QRR03010**	Price

Min. Hole Dia. (in.) - .2500

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	RH Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
1/4	.2500	.0500	.0170/.0180	2.5000	**GE45RR0174•**	Price
1/4	.3750	.0500	.0170/.0180	2.5000	**GE45RR0176**	Price
1/4	.5000	.0500	.0170/.0180	2.5000	**GE45RR0178**	Price
1/4	.6250	.0500	.0170/.0180	2.5000	**GE45RR01710**	Price
1/4	.2500	.0500	.0250/.0260	2.5000	**GE45RR0254**	Price
1/4	.3750	.0500	.0250/.0260	2.5000	**GE45RR0256**	Price
1/4	.5000	.0500	.0250/.0260	2.5000	**GE45RR0258**	Price
1/4	.6250	.0500	.0250/.0260	2.5000	**GE45RR02510•**	Price
1/4	.2500	.0500	.0300/.0310	2.5000	**GE45RR0304**	Price
1/4	.3750	.0500	.0300/.0310	2.5000	**GE45RR0306**	Price
1/4	.5000	.0500	.0300/.0310	2.5000	**GE45RR0308•**	Price
1/4	.6250	.0500	.0300/.0310	2.5000	**GE45RR03010•**	Price

Min. Hole Dia. (in.) - .3100

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
5/16	.5000	.1000	.0330/.0340	2.0000	**GE46QRR0338**	Price
5/16	.7500	.1000	.0330/.0340	2.0000	**GE46QRR03312**	Price

Min. Hole Dia. (in.) - .3100

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
5/16	.3750	.1000	.0380/.0390	2.0000	**GE46QRR0386**	Price
5/16	.5000	.1000	.0380/.0390	2.0000	**GE46QRR0388**	Price
5/16	.7500	.1000	.0380/.0390	2.0000	**GE46QRR03812**	Price

Min. Hole Dia. (in.) - .3125

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	RH Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
5/16	.2500	.1000	.0330/.0340	2.5000	**GE45RR0334**	Price
5/16	.3750	.1000	.0330/.0340	2.5000	**GE45RR0336**	Price
5/16	.5000	.1000	.0330/.0340	2.5000	**GE45RR0338**	Price
5/16	.7500	.0500	.0330/.0340	2.5000	**GE45RR03312**	Price
5/16	.2500	.1000	.0380/.0390	2.5000	**GE45RR0384**	Price
5/16	.3750	.1000	.0380/.0390	2.5000	**GE45RR0386**	Price
5/16	.5000	.1000	.0380/.0390	2.5000	**GE45RR0388•**	Price
5/16	.7500	.1000	.0380/.0390	2.5000	**GE45RR03812•**	Price

Min. Hole Dia. (in.) - .3700

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	Quick Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
3/8	.5000	.1000	.0390/.0410	-	-	-	2.5000	**GE46QRR0398**	Price
3/8	.7500	.1000	.0390/.0410	-	-	-	2.0000	**GE46QRR03912**	Price
3/8	1.0000	.1000	.0390/.0410	-	-	-	2.0000	**GE46QRR03916**	Price
3/8	1.2500	.1000	.0390/.0410	-	-	-	2.0000	**GE46QRR03920**	Price
3/8	.5000	.1000	.0460/.0480	-	-	-	2.0000	**GE46QRR0468**	Price
3/8	.7500	.1000	.0460/.0480	-	-	-	2.0000	**GE46QRR04612**	Price
3/8	1.0000	.1000	.0460/.0480	-	-	-	2.5000	**GE46QRR04616**	Price
3/8	1.2500	.1000	.0460/.0480	-	-	-	2.5000	**GE46QRR04620**	Price
3/8	1.2500	.1000	.0550	-	-	-	2.5000	**GE46QRR05520**	Price
3/8	.5000	.1000	.0550/.0570	-	-	-	2.0000	**GE46QRR0558**	Price
3/8	.7500	.1000	.0550/.0570	-	-	-	2.0000	**GE46QRR05512**	Price
3/8	1.0000	.1000	.0550/.0570	-	-	-	2.5000	**GE46QRR05516**	Price
3/8	1.0000	.1000	.0690	2.5000	**GE46QRR06916**	Price	-	-	-

Min. Hole Dia. (in.) - .3750

Shank Dia. (in.)	Max. Hole Depth (in.)	Projection	Groove Width (in.)	RH Retaining Ring Grooving Tool OAL (in.)	Order No.	Price	Quik Change Retaining Ring Grooving Tool OAL (in.)	Order No.	Price
3/8	.2500	.0500	.0390/.0410	2.5000	**GE45RR0394**	Price	-	-	-
3/8	.3750	.0500	.0390/.0410	2.5000	**GE45RR0396**	Price	-	-	-
3/8	.5000	.0500	.0390/.0410	2.5000	**GE45RR0398**	Price	-	-	-
3/8	.7500	.0500	.0390/.0410	2.5000	**GE45RR03912♦**	Price	-	-	-
3/8	1.0000	.0500	.0390/.0410	2.5000	**GE45RR03916**	Price	-	-	-

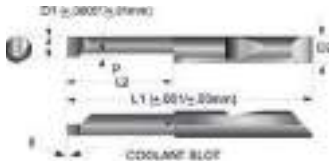
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Solid Carbide Groove Tools

Super Carbide Tolerance
- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum hole diameter: +.000-.005”
- Maximum hole depth: +.050-.000”
- Overall length: ±1/64”



Quik Change Tolerance
- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum bore diameter: ±.0005” (±0.01mm)
- Maximum bore depth: ±.050” (+1.27mm)









(continued)

Min. Hole Dia. (in.) - .3750									
Shank Dia. (in.)	Max. Hole Depth (in.)	Projec-tion	Groove Width (in.)	RH Retaining Ring Grooving Tool			Quik Change Retaining Ring Grooving Tool		
				OAL (in.)	Order No.	Price	OAL (in.)	Order No.	Price
3/8	1.2500	.0500	.0390/.0410	2.5000	**GE45RR03920**	Price	-	-	-
3/8	.2500	.0500	.0460/.0480	2.5000	**GE45RR0464**	Price	-	-	-
3/8	.3750	.0500	.0460/.0480	2.5000	**GE45RR0466**	Price	-	-	-
3/8	.5000	.0500	.0460/.0480	2.5000	**GE45RR0468**	Price	-	-	-
3/8	.7500	.0500	.0460/.0480	2.5000	**GE45RR04612**	Price	-	-	-
3/8	1.0000	.0500	.0460/.0480	2.5000	**GE45RR04616♦**	Price	-	-	-
3/8	1.2500	.0500	.0460/.0480	2.5000	**GE45RR04620♦**	Price	-	-	-
3/8	.3750	.0500	.0550/.0570	2.5000	**GE45RR0556**	Price	-	-	-
3/8	.5000	.0500	.0550/.0570	2.5000	**GE45RR0558**	Price	-	-	-
3/8	.7500	.0500	.0550/.0570	2.5000	**GE45RR05512**	Price	-	-	-
3/8	1.0000	.0500	.0550/.0570	2.5000	**GE45RR05516**	Price	-	-	-
3/8	1.2500	.0500	.0550/.0570	2.5000	**GE45RR05520**	Price	-	-	-
3/8	.2500	.0500	.0620/.0640	2.5000	**GE45RR0624**	Price	-	-	-
3/8	.3750	.0500	.0620/.0640	2.5000	**GE45RR0626**	Price	-	-	-
3/8	.5000	.0500	.0620/.0640	2.5000	**GE45RR0628**	Price	-	-	-
3/8	.5000	.1000	.0620/.0640	-	-	-	2.0000	**GE46QRR0628**	Price
3/8	.7500	.0500	.0620/.0640	2.5000	**GE45RR06212♦**	Price	-	-	-
3/8	.7500	.1000	.0620/.0640	-	-	-	2.0000	**GE46QRR06212**	Price
3/8	1.0000	.0500	.0620/.0640	2.5000	**GE45RR06216**	Price	-	-	-
3/8	1.0000	.1000	.0620/.0640	-	-	-	2.5000	**GE46QRR06216**	Price
3/8	1.2500	.0500	.0620/.0640	2.5000	**GE45RR06220**	Price	-	-	-
3/8	1.2500	.1000	.0620/.0640	-	-	-	2.5000	**GE46QRR06220**	Price
3/8	.3750	.0500	.0690/.0710	2.5000	**GE45RR0696**	Price	-	-	-
3/8	.5000	.0500	.0690/.0710	2.5000	**GE45RR0698**	Price	-	-	-
3/8	.5000	.1000	.0690/.0710	-	-	-	2.0000	**GE46QRR0698**	Price
3/8	.7500	.0500	.0690/.0710	2.5000	**GE45RR06912**	Price	-	-	-
3/8	.7500	.1000	.0690/.0710	-	-	-	2.0000	**GE46QRR06912**	Price
3/8	1.0000	.0500	.0690/.0710	2.5000	**GE45RR06916**	Price	-	-	-
3/8	1.2500	.0500	.0690/.0710	2.5000	**GE45RR06920**	Price	-	-	-
3/8	1.2500	.1000	.0690/.0710	-	-	-	2.5000	**GE46QRR06920**	Price
3/8	.2500	.0500	.0870/.0890	2.5000	**GE45RR0874**	Price	-	-	-
3/8	.3750	.0500	.0870/.0890	2.5000	**GE45RR0876**	Price	-	-	-
3/8	.5000	.0500	.0870/.0890	2.5000	**GE45RR0878**	Price	-	-	-

Min. Hole Dia. (in.) - .3750									
Shank Dia. (in.)	Max. Hole Depth (in.)	Projec-tion	Groove Width (in.)	RH Retaining Ring Grooving Tool			Quik Change Retaining Ring Grooving Tool		
				OAL (in.)	Order No.	Price	OAL (in.)	Order No.	Price
3/8	.5000	.1000	.0870/.0890	-	-	-	2.0000	**GE46QRR0878**	Price
3/8	.7500	.0500	.0870/.0890	2.5000	**GE45RR08712♦**	Price	-	-	-
3/8	.7500	.1000	.0870/.0890	-	-	-	2.0000	**GE46QRR08712**	Price
3/8	1.0000	.0500	.0870/.0890	2.5000	**GE45RR08716**	Price	-	-	-
3/8	1.0000	.1000	.0870/.0890	-	-	-	2.5000	**GE46QRR08716**	Price
3/8	1.2500	.0500	.0870/.0890	2.5000	**GE45RR08720♦**	Price	-	-	-
3/8	1.2500	.1000	.0870/.0890	-	-	-	2.5000	**GE46QRR08720**	Price

Min. Hole Dia. (in.) - .4950									
Shank Dia. (in.)	Max. Hole Depth (in.)	Projec-tion	Groove Width (in.)	Quik Change Full Radius Grooving Tool			Quik Change Retaining Ring Grooving Tool		
				OAL (in.)	Order No.	Price	OAL (in.)	Order No.	Price
1/2	1.5000	.1500	.1250	-	-	-	3.0000	**GE46QRR12524**	Price
1/2	1.0000	.1500	.1560	2.5000	**GE46QRR15616**	Price	-	-	-

Min. Hole Dia. (in.) - .5000									
Shank Dia. (in.)	Max. Hole Depth (in.)	Projec-tion	Groove Width (in.)	RH Retaining Ring Grooving Tool			Quik Change Retaining Ring Grooving Tool		
				OAL (in.)	Order No.	Price	OAL (in.)	Order No.	Price
1/2	.5000	.1500	.0930/.0950	3.0000	**GE45RR0938**	Price	-	-	-
1/2	.7500	.1500	.0930/.0950	3.0000	**GE45RR09312**	Price	2.5000	**GE46QRR09312**	Price
1/2	1.0000	.1500	.0930/.0950	3.0000	**GE45RR09316**	Price	2.5000	**GE46QRR09316**	Price
1/2	1.2500	.1500	.0930/.0950	3.0000	**GE45RR09320**	Price	3.0000	**GE46QRR09320**	Price
1/2	1.5000	.1500	.0930/.0950	3.0000	**GE45RR09324**	Price	3.0000	**GE46QRR09324**	Price
1/2	.7500	.1500	.1250/.1270	3.0000	**GE45RR12512**	Price	2.5000	**GE46QRR12512**	Price
1/2	1.0000	.1500	.1250/.1270	3.0000	**GE45RR12516**	Price	2.5000	**GE46QRR12516**	Price
1/2	1.2500	.1500	.1250/.1270	3.0000	**GE45RR12520**	Price	3.0000	**GE46QRR12520**	Price
1/2	1.5000	.1500	.1250/.1270	3.0000	**GE45RR12524**	Price	-	-	-
1/2	.7500	.1500	.1560/.1580	3.0000	**GE45RR15612**	Price	2.5000	**GE46QRR15612**	Price
1/2	1.0000	.1500	.1560/.1580	3.0000	**GE45RR15616**	Price	-	-	-
1/2	1.2500	.1500	.1560/.1580	3.0000	**GE45RR15620**	Price	3.0000	**GE46QRR15620**	Price
1/2	.7500	.1500	.1870/.1890	3.0000	**GE45RR18712**	Price	2.5000	**GE46QRR18712**	Price
1/2	1.0000	.1500	.1870/.1890	3.0000	**GE45RR18716**	Price	2.5000	**GE46QRR18716**	Price
1/2	1.5000	.1500	.1870/.1890	3.0000	**GE45RR18724**	Price	3.0000	**GE46QRR18724**	Price
1/2	1.0000	.1500	.2500/.2520	3.0000	**GE45RR25016**	Price	-	-	-

Internal Threading Tools

- Shank diameter: -.0001” (-0.005mm) to -.0002” (-0.01mm)
- Minimum hole diameter: +.000-.005”
- Depth +.050-.000”
- Overall length ±1/64”
- Radius ±.001”





Shank Diameter (in.) - 1/8

Proj.	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	TPI	Internal Threading Tool Right OAL (in.)	Order No.	Price
.0200	.050	.200	48 to 76	1-1/2	**GE45IT050200**	Price
.0200	.080	.250	32 to 76	1-1/2	**GE45IT080250**	Price
.0200	.080	.350	32 to 76	1-1/2	**GE45IT080350**	Price
.0200	.080	.500	32 to 76	1-1/2	**GE45IT080500**	Price
.0250	.100	.250	32 to 64	1-1/2	**GE45IT100250**	Price
.0250	.100	.350	32 to 64	1-1/2	**GE45IT100350**	Price
.0250	.100	.600	32 to 64	1-1/2	**GE45IT100600**	Price

Shank Diameter (in.) - 3/16

Proj.	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	TPI	Internal Threading Tool Right OAL (in.)	Order No.	Price	Left OAL (in.)	Order No.	Price	Quick Change Internal Threading Tool Quick Change OAL (in.)	Order No.	Price
.0200	.050	.200	48 to 80	-	-	-	-	-	-	1-1/2	**GE46QIT050200**	Price
.0200	.080	.250	32 to 76	-	-	-	-	-	-	1-1/2	**GE46QIT080250**	Price
.0200	.080	.350	32 to 76	-	-	-	-	-	-	1-1/2	**GE46QIT080350**	Price
.0200	.080	.500	32 to 76	-	-	-	-	-	-	1-1/2	**GE46QIT080500**	Price
.0250	.100	.250	32 to 64	-	-	-	-	-	-	1-1/2	**GE46QIT100250**	Price
.0250	.100	.350	32 to 64	-	-	-	-	-	-	1-1/2	**GE46QIT100350**	Price
.0250	.100	.600	32 to 64	-	-	-	-	-	-	2	**GE46QIT100600**	Price
.0300	.120	.250	24 to 56	2	**GE45IT120250**	Price	2	**GE45ITL120250**	Price	1-1/2	**GE46QIT120250**	Price
.0300	.120	.400	24 to 56	2	**GE45IT120400**	Price	2	**GE45ITL120400**	Price	1-1/2	**GE46QIT120400**	Price
.0300	.120	.500	24 to 56	2	**GE45IT120500**	Price	2	**GE45ITL120500**	Price	1-1/2	**GE46QIT120500**	Price
.0300	.120	.600	24 to 56	2	**GE45IT120600**	Price	-	-	-	-	-	-
.0300	.120	.750	24 to 56	2	**GE45IT120750**	Price	-	-	-	-	-	-
.0350	.140	.250	20 to 56	2	**GE45IT140250**	Price	2	**GE45ITL140250**	Price	1-1/2	**GE46QIT140250**	Price
.0350	.140	.400	20 to 56	2	**GE45IT140400**	Price	2	**GE45ITL140400**	Price	1-1/2	**GE46QIT140400**	Price
.0350	.140	.500	20 to 56	2	**GE45IT140500**	Price	2	**GE45ITL140500**	Price	1-1/2	**GE46QIT140500**	Price
.0350	.140	.750	20 to 56	2	**GE45IT140750**	Price	2	**GE45ITL140750**	Price	2	**GE46QIT140750**	Price
.0400	.160	.500	20 to 56	2	**GE45IT160500**	Price	-	-	-	-	-	-
.0400	.160	.750	20 to 56	2	**GE45IT160750**	Price	-	-	-	-	-	-
.0400	.160	1.000	20 to 56	2	**GE45IT1601000**	Price	-	-	-	-	-	-

Shank Diameter (in.) - 1/4

Proj.	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	TPI	Internal Threading Tool Left OAL (in.)	Order No.	Price	Right OAL (in.)	Order No.	Price	Quick Change Internal Threading Tool Quick Change OAL (in.)	Order No.	Price
.0400	.180	.350	18 to 56	2-1/2	**GE45ITL180350**	Price	2-1/2	**GE45IT180350**	Price	2	**GE46QIT180350**	Price
.0400	.180	.500	18 to 56	2-1/2	**GE45ITL180500**	Price	2-1/2	**GE45IT180500**	Price	2	**GE46QIT180500**	Price
.0400	.180	.750	18 to 56	-	-	-	2-1/2	**GE45IT180750**	Price	2	**GE46QIT180750**	Price
.0400	.180	1.000	18 to 56	-	-	-	2-1/2	**GE45IT1801000**	Price	2-1/2	**GE46QIT1801000**	Price
.0450	.200	.400	16 to 40	2-1/2	**GE45ITL200400**	Price	2-1/2	**GE45IT200400**	Price	2	**GE46QIT200400**	Price
.0450	.200	.600	16 to 40	2-1/2	**GE45ITL200600**	Price	2-1/2	**GE45IT200600**	Price	2	**GE46QIT200600**	Price
.0450	.200	.750	16 to 40	-	-	-	2-1/2	**GE45IT200750**	Price	2	**GE46QIT200750**	Price
.0450	.200	1.000	16 to 40	-	-	-	2-1/2	**GE45IT2001000**	Price	2-1/2	**GE46QIT2001000**	Price

Shank Diameter (in.) - 5/16

Proj.	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	TPI	Internal Threading Tool Left OAL (in.)	Order No.	Price	Right OAL (in.)	Order No.	Price	Quick Change Internal Threading Tool Quick Change OAL (in.)	Order No.	Price
.0550	.230	.400	14 to 40	2-1/2	**GE45ITL230400**	Price	2-1/2	**GE45IT230400**	Price	2	**GE46QIT230400**	Price
.0550	.230	.600	14 to 40	2-1/2	**GE45ITL230600**	Price	2-1/2	**GE45IT230600**	Price	2	**GE46QIT230600**	Price
.0550	.230	.750	14 to 40	2-1/2	**GE45ITL230750**	Price	2-1/2	**GE45IT230750**	Price	2	**GE46QIT230750**	Price
.0550	.230	1.000	14 to 40	2-1/2	**GE45ITL2301000**	Price	2-1/2	**GE45IT2301000**	Price	2-1/2	**GE46QIT2301000**	Price
.0550	.230	1.500	14 to 40	-	-	-	2-1/2	**GE45IT2301500**	Price	2-1/2	**GE46QIT2301500**	Price
.0700	.290	.500	12 to 40	2-1/2	**GE45ITL290500**	Price	2-1/2	**GE45IT290500**	Price	2	**GE46QIT290500**	Price
.0700	.290	.750	12 to 40	2-1/2	**GE45ITL290750**	Price	2-1/2	**GE45IT290750**	Price	2	**GE46QIT290750**	Price
.0700	.290	1.000	12 to 40	2-1/2	**GE45ITL2901000**	Price	2-1/2	**GE45IT2901000**	Price	2	**GE46QIT2901000**	Price
.0700	.290	1.250	12 to 40	-	-	-	2-1/2	**GE45IT2901250**	Price	2-1/2	**GE46QIT2901250**	Price
.0700	.290	1.750	12 to 40	-	-	-	2-1/2	**GE45IT2901750**	Price	2-1/2	**GE46QIT2901750**	Price

Shank Diameter (in.) - 3/8

Proj.	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	TPI	Internal Threading Tool Left OAL (in.)	Order No.	Price	Right OAL (in.)	Order No.	Price	Quick Change Internal Threading Tool Quick Change OAL (in.)	Order No.	Price
.0750	.320	.500	10 to 32	2-1/2	**GE45ITL320500**	Price	2-1/2	**GE45IT320500**	Price	2	**GE46QIT320500**	Price
.0750	.320	.750	10 to 32	2-1/2	**GE45ITL320750**	Price	2-1/2	**GE45IT320750**	Price	2	**GE46QIT320750**	Price
.0750	.320	1.000	10 to 32	2-1/2	**GE45ITL3201000**	Price	-	-	-	2-1/2	**GE46QIT3201000**	Price
.0750	.320	1.000	12 to 40	-	-	-	2-1/2	**GE45IT3201000**	Price	-	-	-
.0750	.320	1.250	10 to 32	2-1/2	**GE45ITL3201250**	Price	2-1/2	**GE45IT3201250**	Price	2-1/2	**GE46QIT3201250**	Price
.0750	.320	1.800	10 to 32	-	-	-	2-1/2	**GE45IT3201800**	Price	3	**GE46QIT3201800**	Price
.0850	.360	.500	10 to 32	2-1/2	**GE45ITL360500**	Price	2-1/2	**GE45IT360500**	Price	2	**GE46QIT360500**	Price
.0850	.360	.750	10 to 32	2-1/2	**GE45ITL360750**	Price	2-1/2	**GE45IT360750**	Price	2	**GE46QIT360750**	Price
.0850	.360	1.000	10 to 32	2-1/2	**GE45ITL3601000**	Price	2-1/2	**GE45IT3601000**	Price	2-1/2	**GE46QIT3601000**	Price
.0850	.360	1.250	10 to 32	2-1/2	**GE45ITL3601250**	Price	2-1/2	**GE45IT3601250**	Price	2-1/2	**GE46QIT3601250**	Price
.0850	.360	1.800	10 to 32	2-1/2	**GE45ITL3601800**	Price	2-1/2	**GE45IT3601800**	Price	3	**GE46QIT3601800**	Price

Shank Diameter (in.) - 1/2

Proj.	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	TPI	Internal Threading Tool Left OAL (in.)	Order No.	Price	Right OAL (in.)	Order No.	Price	Quick Change Internal Threading Tool Quick Change OAL (in.)	Order No.	Price
.1200	.490	.750	8 to 24	2-1/2	**GE45ITL490750**	Price	2-1/2	**GE45IT490750**	Price	2-1/2	**GE46QIT490750**	Price
.1200	.490	1.500	8 to 24	2-1/2	**GE45ITL4901500**	Price	2-1/2	**GE45IT4901500**	Price	3	**GE46QIT4901500**	Price
.1200	.490	2.000	8 to 24	-	-	-	2-1/2	**GE45IT4902000**	Price	3-1/2	**GE46QIT4902000**	Price

MICRO 100 Undercut and Profile Grooving Tools

Solid Carbide

- Lockdown flat automatically locates tool on center



Groove Width (in.)	Shank Dia. (in.)	Projection (in.)	Min. Bore (in.)	Max. Bore Depth (in.)	OAL (in.)	AlTiN		Uncoated	
						Order No.	Price	Order No.	Price
.0300/.0320	1/4	.0500	.2600	1.0000	2.5000	**GE45UP2503016X**	Price	**GE45UP2503016**	Price
.0300/.0330	1/4	.0500	.2600	.5000	2.5000	**GE45UP250308X**	Price	**GE45UP250308**	Price
.0500/.0520	5/16	.1000	.3250	.5000	2.5000	**GE45UP310508X**	Price	**GE45UP310508**	Price
.0500/.0520	5/16	.1000	.3250	1.0000	2.5000	**GE45UP3105016X**	Price	**GE45UP3105016**	Price
.0620/.0640	3/8	.1000	.3850	1.0000	2.5000	**GE45UP3706216X**	Price	**GE45UP3706216**	Price
.0620/.0640	3/8	.1000	.3850	1.2500	2.5000	**GE45UP3706220X**	Price	**GE45UP3706220**	Price
.0620/.0640	5/16	.1000	.3250	1.0000	2.5000	**GE45UP3106216X**	Price	**GE45UP3106216**	Price
.0620/.0640	5/16	.1000	.3250	1.2500	2.5000	**GE45UP3106220X**	Price	**GE45UP3106220**	Price
.0930/.0950	3/8	.1000	.3850	1.0000	2.5000	**GE45UP3709316X**	Price	**GE45UP3709316**	Price
.1250/.1270	3/8	.1000	.3850	1.0000	2.5000	**GE45UP3712516X**	Price	**GE45UP3712516**	Price
.1250/.1280	3/8	.1000	.3850	1.2500	2.5000	**GE45UP3712520X**	Price	**GE45UP3712520**	Price

MICRO 100 Face Grooving Tools

- Lockdown flat automatically locates center on tool
- Shank diameters -.0001" to - .0003" tolerance
- Quick change tool overhang (QGF) .8530"



Groove Width (in.)	Shank Dia. (in.)	Proj. (in.)	Min. Groove Dia. (in.)	OAL (in.)	Order No.	Price
.0200	1/4	.0500	.2500	2.0000	**GE46QFG250020**	Price
.0200	1/4	.0500	.2500	2.0000	**GE46QFG250020X**	Price
.0300	1/4	.0500	.2500	2.0000	**GE46QFG250030**	Price
.0300	1/4	.0500	.2500	2.0000	**GE46QFG250030X**	Price
.0300	5/16	.0500	.3120	2.0000	**GE46QFG312030**	Price
.0300	5/16	.0500	.3120	2.0000	**GE46QFG312030X**	Price
.0400	5/16	.0500	.3120	2.0000	**GE46QFG312040**	Price
.0400	5/16	.0500	.3120	2.0000	**GE46QFG312040X**	Price
.0620	5/16	.1000	.3120	2.0000	**GE46QFG312062**	Price
.0620	5/16	.1000	.3120	2.0000	**GE46QFG312062X**	Price
.0620	3/8	.1000	.3750	2.0000	**GE46QFG375062**	Price
.0620	3/8	.1000	.3750	2.0000	**GE46QFG375062X**	Price
.0930	3/8	.1000	.3750	2.0000	**GE46QFG375093**	Price
.0930	3/8	.1000	.3750	2.0000	**GE46QFG375093X**	Price
.1250	3/8	.1500	.3750	2.0000	**GE46QFG375125**	Price
.1250	3/8	.1500	.3750	2.0000	**GE46QFG375125X**	Price
.0200/.0220	1/4	.0500	.2600	2.5000	**GE45FG250020**	Price
.0200/.0220	1/4	.0500	.2600	2.5000	**GE45FG250020X**	Price
.0300/.0320	1/4	.0500	.2600	2.5000	**GE45FG250030**	Price
.0300/.0320	1/4	.0500	.2600	2.5000	**GE45FG250030X**	Price
.0400/.0420	1/4	.0500	.2600	2.5000	**GE45FG250040**	Price
.0400/.0420	1/4	.0500	.2600	2.5000	**GE45FG250040X**	Price
.0500/.0520	1/4	.0500	.2600	2.5000	**GE45FG250050**	Price
.0500/.0520	1/4	.0500	.2600	2.5000	**GE45FG250050X**	Price
.0300/.0320	5/16	.0500	.3200	2.5000	**GE45FG312030**	Price
.0300/.0320	5/16	.0500	.3200	2.5000	**GE45FG312030X**	Price
.0400/.0420	5/16	.0500	.3200	2.5000	**GE45FG312040**	Price
.0400/.0420	5/16	.0500	.3200	2.5000	**GE45FG312040X**	Price
.0500/.0520	5/16	.0500	.3200	2.5000	**GE45FG312050**	Price
.0500/.0520	5/16	.0500	.3200	2.5000	**GE45FG312050X**	Price
.0620/.0640	5/16	.0750	.3200	2.5000	**GE45FG312062**	Price
.0620/.0640	5/16	.0750	.3200	2.5000	**GE45FG312062X**	Price
.0300/.0320	3/8	.0500	.3850	2.5000	**GE45FG375030**	Price
.0300/.0320	3/8	.0500	.3850	2.5000	**GE45FG375030X**	Price
.0620/.0640	3/8	.0750	.3850	2.5000	**GE45FG375062**	Price
.0620/.0640	3/8	.0750	.3850	2.5000	**GE45FG375062X**	Price
.0930/.0950	3/8	.1000	.3850	2.5000	**GE45FG375093**	Price
.0930/.0950	3/8	.1000	.3850	2.5000	**GE45FG375093X**	Price
.0930/.0950	3/8	.1000	.3850	2.5000	**GE45FG375125X**	Price
.1250	3/8	.1000	.3850	2.5000	**GE45FG375125**	Price

MICRO 100 Full Radius Grooving Tools

- Lockdown flat automatically locates center on tool
- Shank diameters -.0001" to - .0003" tolerance



Groove Width (in.)	Shank Dia. (in.)	Proj. (in.)	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	OAL (in.)	Order No.	Price
.0170/.0180	1/4	.0500	.2500	.6250	2.5000	**GE45FR01710**	Price
.0250/.0260	1/4	.0500	.2500	.2500	2.5000	**GE45FR0254**	Price
.0300/.0310	1/4	.0500	.2500	.2500	2.5000	**GE45FR0304**	Price
.0300/.0310	1/4	.0500	.2500	.3750	2.5000	**GE45FR0306**	Price
.0300/.0310	1/4	.0500	.2500	.5000	2.5000	**GE45FR0308**	Price
.0250/.0260	1/4	.0500	.2500	.6250	2.5000	**GE45FR03010**	Price
.0330/.0340	5/16	.1000	.3125	.2500	2.5000	**GE45FR0334**	Price
.0330/.0340	5/16	.1000	.3125	.3750	2.5000	**GE45FR0336**	Price
.0330/.0340	5/16	.1000	.3125	.5000	2.5000	**GE45FR0338**	Price
.0330/.0340	5/16	.1000	.3125	.6250	2.5000	**GE45FR03310**	Price
.0380/.0390	5/16	.1000	.3125	.3750	2.5000	**GE45FR0386**	Price
.0380/.0390	5/16	.1000	.3125	.6250	2.5000	**GE45FR03810**	Price
.0390/.0410	3/8	.1000	.3125	1.0000	2.5000	**GE45FR03916**	Price
.0550/.0570	3/8	.1000	.3125	.3750	2.5000	**GE45FR0556**	Price
.0550/.0570	3/8	.1000	.3125	.7500	2.5000	**GE45FR05512**	Price
.0620/.0640	3/8	.1000	.3125	.5000	2.5000	**GE45FR0628**	Price
.0620/.0640	3/8	.1000	.3125	.7500	2.5000	**GE45FR06212**	Price
.0620/.0640	3/8	.1000	.3125	1.0000	2.5000	**GE45FR06216**	Price
.0870/.0890	3/8	.1000	.3125	.7500	2.5000	**GE45FR08712**	Price
.1250/.1270	1/2	.1500	.5000	1.5000	3.0000	**GE45FR12524**	Price

MICRO 100 Thread Relief Tools



Cutter Dia. (in.)	Shank Dia. (in.)	Proj. (in.)	Max. Depth (in.)	OAL (in.)	Flat (in.)	Tool Radius (in.)	Order No.	Price
.125	1/8	.0400	.125	1-1/2	1/16	.002-.004	**GE45LTR1256**	Price
.1875	3/16	.0400	.187	2	5/64	.003-.007	**GE45LTR1876**	Price
.1875	3/16	.0400	.187	2	5/64	.003-.007	**GE45LTR18712**	Price
.250	1/4	.0500	.250	2-1/2	3/32	.003-.007	**GE45LTR2508**	Price
.250	1/4	.0500	.250	2-1/2	3/32	.003-.007	**GE45LTR25016**	Price
.3125	5/16	.0750	.312	2-1/2	3/32	.003-.007	**GE45LTR31212**	Price
.3125	5/16	.0750	.312	2-1/2	3/32	.003-.007	**GE45LTR31220**	Price
.375	3/8	.1000	.375	2-1/2	1/8	.003-.007	**GE45LTR37512**	Price
.375	3/8	.1001	.375	2-1/2	1/8	.003-.007	**GE45LTR37520**	Price
.500	1/2	.1250	.500	3	5/32	.008-.012	**GE45LTR50016**	Price
.500	1/2	.1250	.500	3	5/32	.008-.012	**GE45LTR50024**	Price

MICRO 100 Quick Change Toolholders

Inch/Metric - Coolant Through Holes

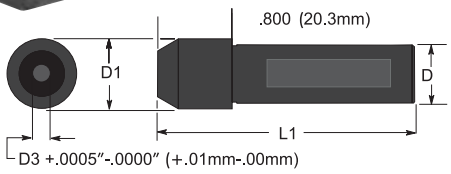
30 Second Tool Change

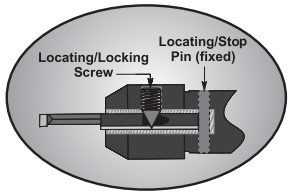
Micro-Quik

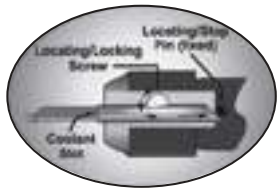


Featuring:

- Unique “2 Point” locking/locating system ensure tool to tool change repeatability of ±.0005”/±.0.01mm from tool to tool
- .0005”/0.01mm T.I.R.
- Coolant through capabilities
- Heat-treated tool holders
- Rotation of locking screw pushes tool downwards and back, against the locating pin for rigidity and centerline repeatability







Fits - 1”/25.4mm Shanks					
Shank Size (in./mm)	ID in./mm)	OAL (in./mm)	Head Dia. (in./mm)	Order No.	Price
1.00/25.4	.1875/4.76	2.80/71	1.06/27.0	**GE46QTH405**	Price
1.00/25.4	.2500/6.35	2.80/71	1.06/27.0	**GE46QTH406**	Price
1.00/25.4	.3125/7.94	2.80/71	1.06/27.0	**GE46QTH407**	Price
1.00/25.4	.3750/9.53	2.80/71	1.06/27.0	**GE46QTH408**	Price
1.00/25.4	.500/12.70	2.80/71	1.06/27.0	**GE46QTH410**	Price

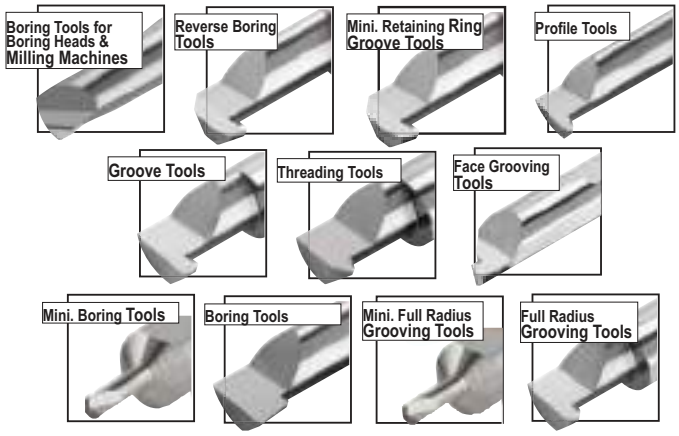
Fits - 1/2” / 12.7mm Shanks					
Shank Size (in./mm)	ID (in./mm)	OAL (in./mm)	Head Dia. (in./mm)	Order No.	Price
.500/12.7	.1875/4.76	2.80/71	.750/19.1	**GE46QTH85**	Price
.500/12.7	.2500/6.35	2.80/71	.750/19.1	**GE46QTH86**	Price
.500/12.7	.1875/4.76	5.80/147	.750/19.1	**GE46QTH85L**	Price
.500/12.7	.2500/6.35	5.80/147	.750/19.1	**GE46QTH86L**	Price

Fits - 3/4” / 19.1mm Shanks					
Shank Size (in./mm)	ID (in./mm)	OAL (in./mm)	Head Dia. (in./mm)	Order No.	Price
.750/19.1	.1875/4.76	5.80/147	.875/22.2	**GE46QTH205L**	Price

Fits - 3/4”/19.1mm Shanks					
Shank Size (in./mm)	ID (in./mm)	OAL (in./mm)	Head Dia. (in./mm)	Order No.	Price
.750/19.1	.1875/4.76	2.80/71	.875/22.2	**GE46QTH205**	Price
.750/19.1	.2500/6.35	2.80/71	.875/22.2	**GE46QTH206**	Price
.750/19.1	.3125/7.94	2.80/71	.875/22.2	**GE46QTH207**	Price
.750/19.1	.3750/9.53	2.80/71	1.00/25.4	**GE46QTH208**	Price
.750/19.1	.500/12.70	2.80/71	1.06/27.0	**GE46QTH210**	Price

Fits - 5/8” / 15.9mm Shanks					
Shank Size (in./mm)	ID (in./mm)	OAL (in./mm)	Head Dia. (in./mm)	Order No.	Price
.625/15.9	.1875/4.76	2.80/71	.750/19.1	**GE46QTH105**	Price
.625/15.9	.2500/6.35	2.80/71	.750/19.1	**GE46QTH106**	Price
.625/15.9	.3125/7.94	2.80/71	.875/22.2	**GE46QTH107**	Price
.625/15.9	.3750/9.53	2.80/71	1.00/25.4	**GE46QTH108**	Price
.625/15.9	.1875/4.76	5.80/147	.750/19.1	**GE46QTH105L**	Price
.625/15.9	.2500/6.35	5.80/147	.750/19.1	**GE46QTH106L**	Price
.625/15.9	.3125/7.94	5.80/147	.875/22.2	**GE46QTH107L**	Price
.625/15.9	.3750/9.53	5.80/147	1.00/25.4	**GE46QTH108L**	Price

Standard tools will not fit in Quick Change holders.

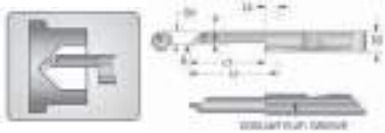


MICRO 100 Profiling Tools

Quick Change



Tool design allow for clearance while machining a 45° cone



Shank Diameter
-.0001" (-.0025mm) to -.0003" (-.0076mm)
Minimum Bore Diameter
+.0005" (+.013mm)
Maximum Bore Depth
+.030" (+0.8mm) -.000" (-.00mm)



Type - QPF Profiling Tool								
					AlTiN		Uncoated	
Min. Bore (in.)	Max. Bore Depth (in.)	Shank Dia. (in.)	Projection	Radius	Order No.	Price	Order No.	Price
.110	.250	3/16	.040	.005	**GE46QPF110250X**	Price	**GE46QPF110250**	Price
.120	.500	3/16	.050	.008	**GE46QPF120500X**	Price	**GE46QPF120500**	Price
.180	.500	1/4	.080	.008	**GE46QPF180500X**	Price	**GE46QPF180500**	Price
.230	.750	5/16	.080	.008	**GE46QPF230750X**	Price	**GE46QPF230750**	Price
.230	1.000	5/16	.080	.008	**GE46QPF2301000X**	Price	**GE46QPF2301000**	Price
.300	1.000	5/16	.100	.008	**GE46QPF3001000X**	Price	**GE46QPF3001000**	Price
.360	1.000	3/8	.130	.008	**GE46QPF3601000X**	Price	**GE46QPF3601000**	Price







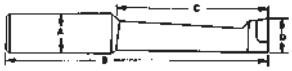


Type - QPR Profiling Tool								
					AlTiN		Uncoated	
Min. Bore (in.)	Max. Bore Depth (in.)	Shank Dia. (in.)	Projection	Radius	Order No.	Price	Order No.	Price
.110	.250	3/16	-	.005	**GE46QPR110250X**	Price	**GE46QPR110250**	Price
.120	.500	3/16	-	.008	**GE46QPR120500X**	Price	**GE46QPR120500**	Price
.180	.500	1/4	-	.008	**GE46QPR180500X**	Price	**GE46QPR180500**	Price
.230	.750	5/16	-	.008	**GE46QPR230750X**	Price	**GE46QPR230750**	Price
.230	1.000	5/16	-	.008	**GE46QPR2301000X**	Price	**GE46QPR2301000**	Price
.300	1.000	5/16	-	.008	**GE46QPR3001000X**	Price	**GE46QPR3001000**	Price
.360	1.000	3/8	-	.008	**GE46QPR3601000X**	Price	**GE46QPR3601000**	Price

BORITE Cobalt — Premium High Speed Steel

- All minimum hole sizes come in three lengths:
  Short — for counter boring and short hole work
  Medium — for general boring
  Long — for those extra depth holes where generally the tool room has to make up special tooling
- These tools are a quality tool designed to be used and sold as a boring tool bit





A Shank Dia. (in.)	B Length (in.)	C Bore Depth (in.)	D Min. Bore (in.)	Order No.	Price
3/8	1-13/16	9/16	3/16	**GA51AH3S**	Price
3/8	2	3/4	1/4	**GA51AH4S**	Price
3/8	2-3/16	15/16	3/16	**GA51AH3L**	Price
3/8	2-3/16	15/16	5/16	**GA51AH5S**	Price
3/8	2-3/8	1-1/8	3/8	**GA51AH6S**	Price
3/8	2-1/2	1-1/4	1/4	**GA51AH4L**	Price
3/8	2-13/16	1-9/16	5/16	**GA51AH5L**	Price
3/8	3-1/8	1-7/8	3/8	**GA51AH6L**	Price
1/2	2-1/8	3/4	1/4	**GA51BH4S**	Price
1/2	2-5/16	15/16	5/16	**GA51BH5S**	Price
1/2	2-1/2	1-1/8	3/8	**GA51BH6S**	Price
1/2	2-5/8	1-1/4	1/4	**GA51BH4L**	Price
1/2	2-11/16	1-5/16	7/16	**GA51BH7S**	Price
1/2	2-7/8	1-1/2	1/2	**GA51BH8S**	Price
1/2	2-15/16	1-9/16	5/16	**GA51BH5L**	Price
1/2	3-1/4	1-7/8	3/8	**GA51BH6L**	Price
1/2	3-9/16	2-3/16	7/16	**GA51BH7L**	Price
1/2	3-7/8	2-1/2	1/2	**GA51BH8L**	Price
5/8	2-5/8	1-1/8	3/8	**GA51DH6S**	Price
5/8	2-13/16	1-5/16	7/16	**GA51DH7S**	Price
5/8	3	1-1/2	1/2	**GA51DH8S**	Price
5/8	3-3/16	1-11/16	9/16	**GA51DH9S**	Price
5/8	3-3/8	1-7/8	3/8	**GA51DH6L**	Price
5/8	3-3/8	1-7/8	5/8	**GA51DH10S**	Price
5/8	3-11/16	2-3/16	7/16	**GA51DH7L**	Price
5/8	4	2-1/2	1/2	**GA51DH8L**	Price
5/8	4-5/16	2-13/16	9/16	**GA51DH9L**	Price
5/8	4-5/8	3-1/8	5/8	**GA51DH10L**	Price
3/4	2-7/8	1-1/8	3/8	**GA51CH6S**	Price
3/4	3-1/16	1-5/16	7/16	**GA51CH7S**	Price
3/4	3-1/4	1-1/2	1/2	**GA51CH8S**	Price
3/4	3-7/16	1-11/16	9/16	**GA51CH9S**	Price
3/4	3-5/8	1-7/8	3/8	**GA51CH6L**	Price
3/4	3-5/8	1-7/8	5/8	**GA51CH10S**	Price
3/4	3-13/16	2-1/16	11/16	**GA51CH11S**	Price
3/4	3-15/16	2-3/16	7/16	**GA51CH7L**	Price
3/4	4	2-1/4	3/4	**GA51CH12S**	Price
3/4	4-1/4	2-1/2	1/2	**GA51CH8L**	Price
3/4	4-9/16	2-13/16	9/16	**GA51CH9L**	Price
3/4	4-7/8	3-1/8	5/8	**GA51CH10L**	Price
3/4	5-3/16	3-7/16	11/16	**GA51CH11L**	Price
3/4	5-1/2	3-3/4	3/4	**GA51CH12L**	Price

BORITE Carbide Tipped — Grade C-2 or C-6



- All minimum hole sizes come in three lengths:
  Short — for counter boring and short hole work
  Medium — for general boring
  Long — for those extra depth holes where generally the tool room has to make up special tooling
- We offer two types of carbide tips:
  C2 —general purpose: for cast iron and non-ferrous
  C6— general purpose: for steel and steel alloys
- These tools are a quality tool designed to be used and sold as a boring tool bit

A Shank Dia. (in.)	B Length (in.)	C Bore Depth (in.)	D Min. Bore (in.)	C2		C6	
				Order No.	Price	Order No.	Price
3/8	2	3/4	5/16	**GA51A5SC2**	Price	**GA51A5SC6**	Price
3/8	2-3/16	15/16	3/8	**GA51A3SC2**	Price	**GA51A3SC6**	Price
3/8	2-3/8	1-1/8	5/16	**GA51A5MC2**	Price	**GA51A5MC6**	Price
3/8	2-3/8	1-1/8	7/16	**GA51A7SC2**	Price	**GA51A7SC6**	Price
3/8	2-21/32	1-13/32	3/8	**GA51A3MC2**	Price	**GA51A3MC6**	Price
3/8	2-3/4	1-1/2	5/16	**GA51A5LC2**	Price	**GA51A5LC6**	Price
3/8	2-15/16	1-11/16	7/16	**GA51A7MC2**	Price	**GA51A7MC6**	Price
3/8	3-1/8	1-7/8	3/8	**GA51A3LC2**	Price	**GA51A3LC6**	Price
3/8	3-1/2	2-1/4	7/16	**GA51A7LC2**	Price	**GA51A7LC6**	Price
1/2	2-1/4	3/4	5/16	**GA51B5SC2**	Price	**GA51B5SC6**	Price
1/2	2-5/8	1-1/8	5/16	**GA51B5MC2**	Price	**GA51B5MC6**	Price
1/2	2-5/8	1-1/8	7/16	**GA51B7SC2**	Price	**GA51B7SC6**	Price
1/2	3	1-1/2	5/16	**GA51B5LC2**	Price	**GA51B5LC6**	Price
1/2	3	1-1/2	9/16	**GA51B9SC2**	Price	**GA51B9SC6**	Price
1/2	3-3/16	1-11/16	7/16	**GA51B7MC2**	Price	**GA51B7MC6**	Price
1/2	3-3/4	2-1/4	7/16	**GA51B7LC2**	Price	**GA51B7LC6**	Price
1/2	3-3/4	2-1/4	9/16	**GA51B9MC2**	Price	**GA51B9MC6**	Price
1/2	4-1/2	3	9/16	**GA51B9LC2**	Price	**GA51B9LC6**	Price
5/8	2-1/4	3/4	5/16	**GA51D5SC2**	Price	**GA51D5SC6**	Price
5/8	2-5/8	1-1/8	5/16	**GA51D5MC2**	Price	**GA51D5MC6**	Price
5/8	2-5/8	1-1/8	7/16	**GA51D7SC2**	Price	**GA51D7SC6**	Price
5/8	3	1-1/2	5/16	**GA51D5LC2**	Price	**GA51D5LC6**	Price
5/8	3	1-1/2	9/16	**GA51D9SC2**	Price	**GA51D9SC6**	Price
5/8	3-3/16	1-11/16	7/16	**GA51D7MC2**	Price	**GA51D7MC6**	Price
5/8	3-3/8	1-7/8	11/16	**GA51D11SC2**	Price	**GA51D11SC6**	Price
5/8	3-3/4	2-1/4	7/16	**GA51D7LC2**	Price	**GA51D7LC6**	Price
5/8	3-3/4	2-1/4	9/16	**GA51D9MC2**	Price	**GA51D9MC6**	Price
5/8	4-5/16	2-13/16	11/16	**GA51D11MC2**	Price	**GA51D11MC6**	Price
5/8	4-1/2	3	9/16	**GA51D9LC2**	Price	**GA51D9LC6**	Price
5/8	5-1/4	3-3/4	11/16	**GA51D11LC2**	Price	**GA51D11LC6**	Price
3/4	3-1/8	1-1/8	7/16	**GA51C7SC2**	Price	**GA51C7SC6**	Price
3/4	3-1/2	1-1/2	9/16	**GA51C9SC2**	Price	**GA51C9SC6**	Price
3/4	3-11/16	1-11/16	7/16	**GA51C7MC2**	Price	**GA51C7MC6**	Price
3/4	3-7/8	1-7/8	11/16	**GA51C11SC2**	Price	**GA51C11SC6**	Price
3/4	4-1/4	2-1/4	7/16	**GA51C7LC2**	Price	**GA51C7LC6**	Price
3/4	4-1/4	2-1/4	9/16	**GA51C9MC2**	Price	**GA51C9MC6**	Price
3/4	4-1/4	2-1/4	13/16	**GA51C13SC2**	Price	**GA51C13SC6**	Price
3/4	4-13/16	2-13/16	11/16	**GA51C11MC2**	Price	**GA51C11MC6**	Price
3/4	5	3	9/16	**GA51C9LC2**	Price	**GA51C9LC6**	Price
3/4	5-3/8	3-3/8	13/16	**GA51C13MC2**	Price	**GA51C13MC6**	Price
3/4	5-3/4	3-3/4	11/16	**GA51C11LC2**	Price	**GA51C11LC6**	Price
3/4	6-1/2	4-1/2	13/16	**GA51C13LC2**	Price	**GA51C13LC6**	Price
1	5	3	9/16	**GA51E9LC2**	Price	**GA51E9LC6**	Price
1	5-3/4	3-3/4	11/16	**GA51E11LC2**	Price	**GA51E11LC6**	Price
1	6-1/2	4-1/2	7/8	**GA51E14LC2**	Price	**GA51E14LC6**	Price
1	6-1/2	4-1/2	1-1/16	**GA51E18LC2**	Price	**GA51E18LC6**	Price
1	7-3/4	5-3/4	1-1/4	**GA51E20LC2**	Price	**GA51E20LC6**	Price
1	8-1/4	6-1/4	1-1/2	**GA51E24LC2**	Price	**GA51E24LC6**	Price
1	9-1/2	7-1/2	1-5/8	**GA51E26LC2**	Price	**GA51E26LC6**	Price

BORITE Carbide & Cobalt Tipped Boring Bars & Sets

- All minimum hole sizes come in three lengths:
  Short - for counter boring and short hole work
  Medium - for general boring
  Long - for those extra depth holes where generally the tool room has to make up special tooling
- We offer two types of carbide sets:
  C-2 - general purpose: cast iron & non-ferrous
  C-6 - general purpose: steel & steel alloys
- These tools are a quality tool designed to be used and sold as a boring tool bit

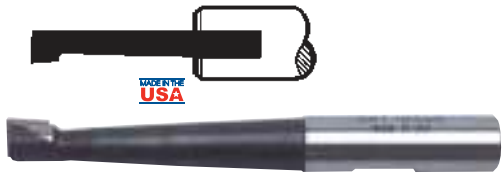


Type - Carbide Tipped Boring Bar Sets				
No. of Pieces	Shank Dia. (in.)	Grade	Order No.	Price
9 Pcs.	3/8	C2	**GA51A375C2**	Price
9 Pcs.	3/8	C6	**GA51A375C6**	Price
9 Pcs.	1/2	C2	**GA51B500C2**	Price
9 Pcs.	1/2	C6	**GA51B500C6**	Price
12 Pcs.	5/8	C2	**GA51D625C2**	Price
12 Pcs.	5/8	C6	**GA51D625C6**	Price
12 Pcs.	3/4	C2	**GA51C750C2**	Price
12 Pcs.	3/4	C6	**GA51C750C6**	Price
12 Pcs.	1	C2	**GA51E100C2**	Price
12 Pcs.	1	C6	**GA51E100C6**	Price

Type - Cobalt Boring Bar Sets				
No. of Pieces	Shank Dia. (in.)	Grade	Order No.	Price
8 Pcs.	3/8	-	**GA51AH375**	Price
10 Pcs.	1/2	-	**GA51BH500**	Price
10 Pcs.	5/8	-	**GA51DH625**	Price
14 Pcs.	3/4	-	**GA51CH750**	Price

Criterion Carbide Tipped Boring Bars

Micrograin Carbide



- Designed with a length to diameter ratio of approximately 4-1/2 to 1
- Features set-screw flats that position the cutting edge on exact centerline when used in a Criterion boring head
- Carbide boring tools with a minimum boring diameters of 1/8, 3/16 and 1/4 feature a solid carbide neck and head as shown

Shank Dia. (in.)	Min. Bore Dia. (in.)	OAL (in.)	Max. Boring Depth (in.)	Micrograin	
				Order No.	Price
3/8	1/8	1-7/8	1/2	**GE60SBT125A**	Price
3/8	3/16	2-5/32	13/16	**GE60SBT187A**	Price
3/8	1/4	2-15/32	1-1/8	**GE60SBT250A**	Price
3/8	5/16	2-13/16	1-1/2	**GE60SBT312A**	Price
3/8	3/8	3-3/16	1-3/4	**GE60SBT375A**	Price
3/8	1/2	3-1/2	2-3/16	**GE60SBT500A**	Price
1/2	1/8	1-7/8	1/2	**GE60SBT125B**	Price
1/2	3/16	2-5/32	13/16	**GE60SBT187B**	Price
1/2	1/4	2-15/32	1-1/8	**GE60SBT250B**	Price
1/2	5/16	2-13/16	1-1/2	**GE60SBT312B**	Price
1/2	3/8	3-3/16	1-3/4	**GE60SBT375B**	Price
1/2	1/2	3-1/2	2-3/16	**GE60SBT500B**	Price

Shank Dia. (in.)	Min. Bore Dia. (in.)	OAL (in.)	Max. Boring Depth (in.)	Micrograin	
				Order No.	Price
5/8	1/8	2-1/4	1/2	**GE60SBT125C**	Price
5/8	3/16	2-9/16	13/16	**GE60SBT187C**	Price
5/8	1/4	2-7/8	1-1/8	**GE60SBT250C**	Price
5/8	3/8	3-1/2	1-3/4	**GE60SBT375C**	Price
5/8	1/2	3-13/16	2-1/8	**GE60SBT500C**	Price
5/8	5/8	4-1/8	2-1/2	**GE60SBT625C**	Price
3/4	1/2	4-1/4	2-1/2	**GE60SBT500D**	Price
3/4	5/8	4-15/32	2-3/4	**GE60SBT625D**	Price
3/4	3/4	4-11/16	3	**GE60SBT750D**	Price
3/4	1	5-1/8	3-1/2	**GE60SBT1000D**	Price
3/4	1-1/4	5-9/16	4	**GE60SBT1250D**	Price

1" Shank boring bars available — POA

Criterion Stubbies

Micrograin Carbide



- This line of stubby boring tools are for when the greater length of a standard tool is a hindrance, rather than a help
- Maximum rigidity is assured whether used in a boring head or in the cross-slide of a lathe

Min. Hole Size (in.)	Max. Boring Dept (in.)	OAL (in.)	Shank Dia. (in.)	C2	
				Order No.	Price
1/8	1/4	1-21/32	1/2	**GE607125B**	Price
3/16	5/16	1-13/16	1/2	**GE607187B**	Price
1/4	7/16	2	1/2	**GE607250B**	Price
5/16	9/16	2-3/16	1/2	**GE607312B**	Price
3/8	11/16	2-3/8	1/2	**GE607375B**	Price
1/2	13/16	2-9/16	1/2	**GE607500B**	Price

Min. Hole Size (in.)	Max. Boring Dept (in.)	OAL (in.)	Shank Dia. (in.)	C2	
				Order No.	Price
1/2	1-5/16	2-15/16	3/4	**GE607500D**	Price
3/4	1-17/32	3-5/32	3/4	**GE607750D**	Price
1	1-3/4	3-3/8	1	**GE6071000E**	Price
1-1/4	1-31/32	3-19/32	1	**GE6071250E**	Price

Sets available - call for pricing!

Carbide Tipped Boring Bars Sets



- Grade C-6 Carbide for general purpose use in steel and steel alloys
- Set includes short, medium, and long length bars for each minimum bore diameter

Shank Dia. (in.)	No. Pcs. in Set	Order No.	Price
3/8	9	**GA51KBS375**	Price
1/2	9	**GA51KBS500**	Price
5/8	12	**GA51KBS625**	Price
3/4	12	**GA51KBS750**	Price

5 Pc. Double End Boring Bar Set



- Includes 1 each of: 1/4", 3/8", 1/2", 5/8", 3/4"
- In wooden block

Order No.	Price
FL60BD459	Price

Steel Boring Bars



- Single end boring bars
- 45° or 90°
- Broached holes to accept standard steel and carbide tool bits
- Tool bits not included

Bar Dia. (in.)	OAL (in.)	Tool Bit Size (in.)	45°		90°	
			Order No.	Price	Order No.	Price
1/4	2-1/2	5/32 Round	**FL60BA1**	Price	**FL60BS1**	Price
5/16	2-1/2	3/16 Round	**FL60BA2**	Price	**FL60BS2**	Price
3/8	3	3/16 Round	**FL60BA3**	Price	**FL60BS3**	Price
1/2	3	3/16 Square	**FL60BA4**	Price	**FL60BS4**	Price
9/16	4-1/2	3/16 Square	**FL60BA5**	Price	**FL60BS5**	Price
5/8	5	1/4 Square	**FL60BA6**	Price	**FL60BS6**	Price
3/4	6	1/4 Square	**FL60BA7**	Price	**FL60BS7**	Price
1	6	5/16 Square	**FL60BA9**	Price	**FL60BS9**	Price
1-1/4	8	1/2 Square	**FL60BA11**	Price	**FL60BS11**	Price
1-1/2	9	1/2 Square	**FL60BA15**	Price	**FL60BS15**	Price

Double End boring Bars

One End 45° — One end 90°



Bar Dia. (in.)	OAL (in.)	Tool Bit Size (in.)	Order No.	Price
1/4	5	5/32 Round	**FL60BD1**	Price
5/16	5	3/16 Round	**FL60BD2**	Price
3/8	6	3/16 Round	**FL60BD3**	Price
1/2	6	3/16 Square	**FL60BD4**	Price
9/16	9	3/16 Square	**FL60BD5**	Price
5/8	10	1/4 Square	**FL60BD6**	Price
3/4	12	1/4 Square	**FL60BD7**	Price
1	12	5/16 Square	**FL60BD9**	Price
1-1/4	16	1/2 Square	**FL60BD11**	Price
1-1/2	18	1/2 Square	**FL60BD15**	Price

Tool bits not included

BORITE Mini Bore Tools



- Ease and precision in small hole boring
- All tools ground from the solid
- Holders are available in four standard shank sizes
- High speed steel and carbide tools are interchangeable in holders

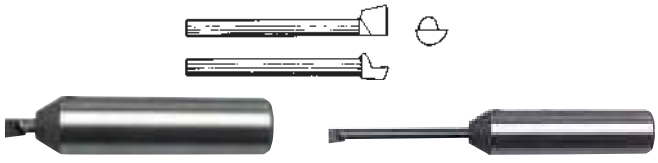
Shank Dia. (in.)	Min. Bore Dia. (in.)	Max. Bore Depth (in.)	OAL (in.)	Carbide Mini Boring Tools		High Speed Steel Mini Boring Tools	
				Order No.	Price	Order No.	Price
1/4	1/16	5/16	2	**GA52C1**	Price	**GA52H1**	Price
1/4	3/32	15/32	2	**GA52C2**	Price	**GA52H2**	Price
1/4	1/8	5/8	2	**GA52C3**	Price	**GA52H3**	Price
1/4	5/32	25/32	2	**GA52C4**	Price	**GA52H4**	Price
1/4	3/16	15/16	2	**GA52C5**	Price	**GA52H5**	Price
1/4	1/4	1-1/4	2	**GA52C6**	Price	**GA52H6**	Price

BORITE Ultrabore Adjustable Length Boring Tools

MADE IN THE USA

Ultrabore Carbide Boring Tools

- Adjustable length allows use of only the neck length necessary, assuring maximum rigidity with finer finishes and straighter, truer holes...eliminating chatter and increasing tool life



Shank Dia. (in.)	Min. Bore Dia. (in.)	OAL (in.)	C2		C6	
			Order No.	Price	Order No.	Price
3/32	1/8	2-5/8	**GA52SC1C2**	Price	**GA52SC1C6**	Price
1/8	3/16	2-11/16	**GA52SC2C2**	Price	**GA52SC2C6**	Price
3/16	1/4	3-1/4	**GA52SC3C2**	Price	**GA52SC3C6**	Price
1/4	3/8	3-3/8	**GA52SC4C2**	Price	**GA52SC4C6**	Price
5/16	1/2	3-3/4	**GA52SC5C2**	Price	**GA52SC5C6**	Price

BORITE Ultrabore Holders

MADE IN THE USA



Shank Dia. (in.)	OAL (in.)	Hole Size (in.)	Order No.	Price
3/8	2-1/2	3/32	**GA52SH138**	Price
3/8	2-1/2	1/8	**GA52SH238**	Price
1/2	2-1/2	3/32	**GA52SH112**	Price
1/2	2-1/2	1/8	**GA52SH212**	Price
1/2	3	3/16	**GA52SH312**	Price
1/2	3	1/4	**GA52SH412**	Price
1/2	3	5/16	**GA52SH512**	Price
5/8	2-1/2	3/32	**GA52SH158**	Price
5/8	2-1/2	1/8	**GA52SH258**	Price
5/8	3	3/16	**GA52SH358**	Price
5/8	3	1/4	**GA52SH458**	Price
5/8	3	5/16	**GA52SH558**	Price
3/4	2-1/2	3/32	**GA52SH134**	Price
3/4	2-1/2	1/8	**GA52SH234**	Price
3/4	3	3/16	**GA52SH334**	Price
3/4	3	1/4	**GA52SH434**	Price
3/4	3	5/16	**GA52SH534**	Price

MICRO 100 Helical Back Rake Boring Tools

Neck is centered to shank for use in jig boring machines. The helical grind provides an ideal top rake for better chip control.
Shank diameter: –.0001 to –.0003”

- Minimum bore diameter: +.001 –.000”
- Maximum bore depth: +.030 –.000”
- Overall length: ± 1/64”



Min. Bore Dia.	Max. Bore Depth (in.)	Shank Dia. (in.)	OAL (in.)	Order No.	Price
.150	1	3/16	2	**GE45HBB1501000**	Price
.180	1-1/4	3/16	2	**GE45HBB1801250**	Price
.180	1-1/2	3/16	2	**GE45HBB1801500**	Price
.210	1	1/4	2-1/2	**GE45HBB2101000**	Price
.210	1-1/2	1/4	2-1/2	**GE45HBB2101500**	Price
.240	1-3/4	1/4	2-1/2	**GE45HBB2401750**	Price
.300	1	5/16	2-1/2	**GE45HBB3001000**	Price
.360	1-1/2	3/8	2-1/2	**GE45HBB3601500**	Price
.360	2-1/2	3/8	4	**GE45HBB3602500**	Price

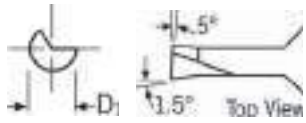
MICRO 100 Miniature Boring Tools Micro-Quik

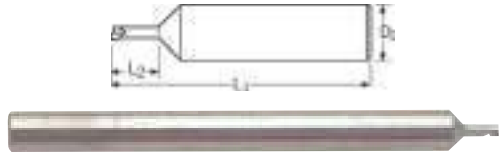
1/8” Shank

Lockdown flat automatically locates tool on center.

Tolerance:

- Shank diameter: –.0001 to –.0003”
- Minimum bore diameter: +.000 –.002”
- Maximum bore depth: +.025 –.000”
- Overall length: ± 1/64”





Min. Bore Dia. (in.)	Max. Bore Depth (in.)	OAL (in.)	Order No.	Price
.025	.100	1-1/2	**GE45MBB025100**	Price
.030	.100	1-1/2	**GE45MBB030100**	Price
.035	.100	1-1/2	**GE45MBB035100**	Price
.035	.150	1-1/2	**GE45MBB035150**	Price
.040	.100	1-1/2	**GE45MBB040100**	Price
.045	.100	1-1/2	**GE45MBB045100**	Price

MICRO 100 Brazed Back Chamfering Tools

For Milling Machines

- Uncoated
- Cutter diameter +.000” / -.005”
- Flat +.000” / -.005”



Cutter Dia. (in.)	Thickness (in.)	No. of Flutes	Shank Length (in.)	Flat (in.)	Order No.	Price
3/8	1/8	4	2-1/2	1/32	**GE45MBC375**	Price
1/2	1/8	5	2-1/2	1/32	**GE45MBC500**	Price
3/4	5/32	6	2-1/2	1/32	**GE45MBC750**	Price
1	3/16	7	3	1/32	**GE45MBC001**	Price

MICRO 100 Brazed Boring Bars Premium Micro-Grain Carbide Tipped

HELPFUL HINT:
When boring tools do not meet your expectations, simply grind 5-10° positive top rake, radius nose .010" to .020" and lightly hone cutting edge.



MADE IN THE USA

Shank Dia. (in.)	Length (in.)	Left Hand		Right Hand	
		Order No.	Price	Order No.	Price
1/4	4	**GE45TBBL250**	Price	**GE45TBB250**	Price
5/16	5	**GE45TBBL312**	Price	**GE45TBB312**	Price
3/8	6	**GE45TBBL375**	Price	**GE45TBB375**	Price
1/2	7	**GE45TBBL500**	Price	**GE45TBB500**	Price
5/8	8	**GE45TBBL625**	Price	**GE45TBB625**	Price
3/4	9	**GE45TBBL750**	Price	**GE45TBB750**	Price
1	10	**GE45TBBL001**	Price	**GE45TBB001**	Price

MICRO 100 Solid Carbide Internal Acme Threading Tools

MADE IN THE USA

29° Included Angle



Min. Bore Dia.	Shank Dia. (in.)	Flat	OAL (in.)	Depth	Projection	TPI	Order No.	Price
.200	1/4	.021	2-1/2	.400	.0450	16	**GE45IAT40016**	Price
.200	1/4	.021	2-1/2	.600	.0450	16	**GE45IAT60016**	Price
.200	1/4	.021	2-1/2	.750	.0450	16	**GE45IAT75016**	Price
.360	3/8	.028	2-1/2	.750	.0850	12	**GE45IAT75012**	Price
.360	3/8	.028	2-1/2	1.000	.0850	12	**GE45IAT100012**	Price
.490	1/2	.032	3	2.000	.1200	10	**GE45IAT200010**	Price
.490	1/2	.041	3	1.500	.1200	8	**GE45IAT15008**	Price
.490	1/2	.041	3	2.000	.1200	8	**GE45IAT20008**	Price
.490	1/2	.057	3	.750	.1200	6	**GE45IAT7506**	Price
.490	1/2	.057	3	1.500	.1200	6	**GE45IAT15006**	Price
.490	1/2	.057	3	2.000	.1200	6	**GE45IAT20006**	Price
.490	1/2	.069	3	1.500	.1200	5	**GE45IAT15005**	Price
.490	1/2	.069	3	2.000	.1200	5	**GE45IAT20005**	Price

MICRO 100 Solid Carbide 6 Pc. 60° Internal Threading Tool Set

Set contains bars:

- IT-180500 thru IT-360750
- 180" thru .360" minimum bore
- 1/4" thru 3/8" shank size
- .500" thru .750" depth
- All bars are 2-1/2" overall length



Order No.	Price
GE45IT1	Price

MICRO 100 5 Pc. Boring Bar Sets

- Includes sizes: 1/4", 3/8", 1/2", 5/8" & 3/4"



Style	Order No.	Price
Left Hand	**GE45TBBL5**	Price
Right Hand	**GE45TBB5**	Price

MICRO 100 Brazed Head Thread Mills

- Designed for milling precision ID and OD threads in all types of steels, non-ferrous metals and exotic materials
- Equally effective in laminated plastics, fiberglass and composites used in the aircraft industry
- Thread form generated is American Standard thread
- Minimum pitch listed is for an internal thread



Cutter Dia. (in.)	Shank Dia. (in.)	Shank Length (in.)	Flat	No. of Flutes	Min. Pitch	Max. Pitch	Order No.	Price
3/8	1/4	2-1/2	.002	4	32	12 to 32	**GE45TM375**	Price
1/2	5/16	2-1/2	.0035	5	20	11 to 32	**GE45TM500**	Price
3/4	3/8	2-1/2	.0045	6	16	7 to 16	**GE45TM750**	Price
1	1/2	3	.009	7	8	5 To 12	**GE45TM001**	Price

MICRO 100 Steel Holders

- Heat treated and precision ground
- Two lockdowns at 90° for secure fastening



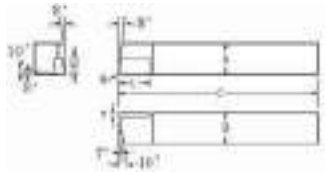


I.D. (in.)	O.D. (in.)	Order No.	Price
1/8	1/2	**GE45TH84**	Price
1/8	5/8	**GE45TH104**	Price
1/8	3/4	**GE45TH204**	Price
3/16	1/2	**GE45TH85**	Price
3/16	5/8	**GE45TH105**	Price
3/16	3/4	**GE45TH205**	Price
1/4	1/2	**GE45TH86**	Price
1/4	5/8	**GE45TH106**	Price
1/4	3/4	**GE45TH206**	Price
5/16	1/2	**GE45TH87**	Price
5/16	5/8	**GE45TH107**	Price
5/16	3/4	**GE45TH207**	Price
3/8	1/2	**GE45TH88**	Price
3/8	5/8	**GE45TH108**	Price
3/8	3/4	**GE45TH208**	Price
1/2	3/4	**GE45TH210**	Price

Styles AR and AL Standard Brazed Tool Bits

- Micrograin carbide
- Right hand shown





MADE IN THE USA

RAPIDKUT® MICRO 100

Cut Style - Left												
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	R Radius (in.)	Rapidkut			Micro 100		
							Style	Order No.	Price	Style	Order No.	Price
1/4	1/4	2	1/16	3/16	1/4	1/64	AL4	**FE3010000**	Price	AL4	**GE40AL4M**	Price
5/16	5/16	2-1/4	1/16	1/4	5/16	1/64	AL5	**FE3010001**	Price	AL5	**GE40AL5M**	Price
3/8	3/8	2-1/2	1/8	1/4	1/2	1/64	AL6	**FE3010002**	Price	AL6	**GE40AL6M**	Price
7/16	7/16	3	1/8	1/4	1/2	1/32	AL7	**FE3010003**	Price	AL7	**GE40AL7M**	Price
1/2	1/2	3-1/2	1/8	1/4	5/8	1/32	AL8	**FE3010004**	Price	AL8	**GE40AL8M**	Price
5/8	5/8	4	5/32	3/8	3/4	1/32	AL10	**FE3010005**	Price	AL10	**GE40AL10M**	Price
3/4	3/4	4-1/2	3/16	7/16	13/16	1/32	AL12	**FE3010006**	Price	AL12	**GE40AL12M**	Price

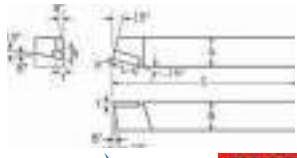
Cut Style - Right												
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	R Radius (in.)	Rapidkut			Micro 100		
							Style	Order No.	Price	Style	Order No.	Price
1/4	1/4	2	1/16	3/16	1/4	1/64	AR4	**FE3010007**	Price	AR4	**GE40AR4M**	Price
5/16	5/16	2-1/4	1/16	1/4	5/16	1/64	AR5	**FE3010008**	Price	AR5	**GE40AR5M**	Price
3/8	3/8	2-1/2	1/8	1/4	1/2	1/64	AR6	**FE3010009**	Price	AR6	**GE40AR6M**	Price
7/16	7/16	3	1/8	1/4	1/2	1/32	AR7	**FE3010010**	Price	AR7	**GE40AR7M**	Price
1/2	1/2	3-1/2	1/8	1/4	5/8	1/32	AR8	**FE3010011**	Price	AR8	**GE40AR8M**	Price
5/8	5/8	4	5/32	3/8	3/4	1/32	AR10	**FE3010012**	Price	AR10	**GE40AR10M**	Price
3/4	3/4	4-1/2	3/16	7/16	13/16	1/32	AR12	**FE3010013**	Price	AR12	**GE40AR12M**	Price

Styles BR and BL Standard Brazed Tool Bits

- Micrograin carbide







MADE IN THE USA

RAPIDKUT® MICRO 100

Cut Style - Left												
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	R Radius (in.)	Rapidkut			Micro 100		
							Style	Order No.	Price	Style	Order No.	Price
3/8	3/8	2-1/2	1/8	1/4	1/2	1/64	BL6	**FE3010014**	Price	BL6	**GE40BL6M**	Price
7/16	7/16	3	1/8	1/4	1/2	1/32	BL7	**FE3010015**	Price	BL7	**GE40BL7M**	Price
1/2	1/2	3-1/2	1/8	1/4	5/8	1/32	BL8	**FE3010016**	Price	BL8	**GE40BL8M**	Price
5/8	5/8	4	5/32	3/8	3/4	1/32	BL10	**FE3010017**	Price	BL10	**GE40BL10M**	Price
3/4	3/4	4-1/2	3/16	7/16	13/16	1/32	BL12	**FE3010018**	Price	-	-	-

Cut Style - Right												
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	R Radius (in.)	Rapidkut			Micro 100		
							Style	Order No.	Price	Style	Order No.	Price
3/8	3/8	2-1/2	1/8	1/4	1/2	1/64	BR6	**FE3010019**	Price	BR6	**GE40BR6M**	Price
7/16	7/16	3	1/8	1/4	1/2	1/32	BR7	**FE3010020**	Price	BR7	**GE40BR7M**	Price
1/2	1/2	3-1/2	1/8	1/4	5/8	1/32	BR8	**FE3010021**	Price	BR8	**GE40BR8M**	Price
5/8	5/8	4	5/32	3/8	3/4	1/32	BR10	**FE3010022**	Price	BR10	**GE40BR10M**	Price
3/4	3/4	4-1/2	3/16	7/16	13/16	1/32	BR12	**FE3010023**	Price	-	-	-

Style C Standard Brazed Tool Bits

- Micrograin carbide





MADE IN THE USA

RAPIDKUT® MICRO 100

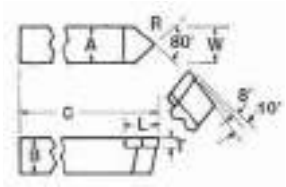
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	Style	Rapidkut		Micro 100	
							Order No.	Price	Order No.	Price
1/4	1/4	2	1/16	1/4	1/4	C4	**FE3010024**	Price	**GE40C4M**	Price
5/16	5/16	2-1/4	3/32	5/16	3/8	C5	**FE3010025**	Price	**GE40C5M**	Price
3/8	3/8	2-1/2	3/32	3/8	3/8	C6	**FE3010026**	Price	**GE40C6M**	Price
7/16	7/16	3	3/32	7/16	1/2	C7	**FE3010027**	Price	**GE40C7M**	Price
1/2	1/2	3-1/2	1/8	1/2	1/2	C8	**FE3010028**	Price	**GE40C8M**	Price
5/8	5/8	4	5/32	5/8	5/8	C10	**FE3010029**	Price	**GE40C10M**	Price
3/4	3/4	4-1/2	3/16	3/4	3/4	C12	**FE3010030**	Price	**GE40C12M**	Price

Style D Standard Brazed Tool Bits

MADE IN THE USA

- Micrograin carbide





RAPIDKUT® MICRO 100

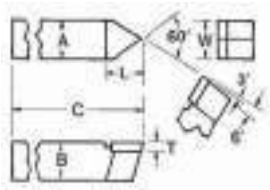
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	R Radius (in.)	Style	Rapidkut		Micro 100	
								Order No.	Price	Order No.	Price
1/4	1/4	2	1/16	1/4	5/16	1/64	D4	**FE3010031**	Price	**GE40D4M**	Price
5/16	5/16	2-1/4	3/32	5/16	3/8	1/64	D5	**FE3010032**	Price	**GE40D5M**	Price
3/8	3/8	2-1/2	3/32	3/8	1/2	1/64	D6	**FE3010033**	Price	**GE40D6M**	Price
7/16	7/16	3	3/32	7/16	1/2	1/32	D7	**FE3010034**	Price	**GE40D7M**	Price
1/2	1/2	3-1/2	1/8	1/2	1/2	1/32	D8	**FE3010035**	Price	**GE40D8M**	Price
5/8	5/8	4	5/32	5/8	5/8	1/32	D10	**FE3010036**	Price	**GE40D10M**	Price
3/4	3/4	4-1/2	3/16	3/4	3/4	1/32	D12	**FE3010037**	Price	**GE40D12M**	Price

Style E Standard Brazed Tool Bits

MADE IN THE USA

- Micrograin carbide





RAPIDKUT® MICRO 100

A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	Style	Rapidkut		Micro 100	
							Order No.	Price	Order No.	Price
1/4	1/4	2	3/32	1/4	3/8	E4	**FE3010038**	Price	**-**	-
5/16	5/16	2-1/4	3/32	5/16	3/8	E5	**FE3010039**	Price	**GE40E5M**	Price
3/8	3/8	2-1/2	3/32	3/8	1/2	E6	**FE3010040**	Price	**GE40E6M**	Price
1/2	1/2	3-1/2	1/8	1/2	1/2	E8	**FE3010041**	Price	**GE40E8M**	Price
5/8	5/8	4	5/32	5/8	5/8	E10	**FE3010042**	Price	**GE40E10M**	Price
3/4	3/4	4-1/2	3/16	3/4	3/4	E12	**FE3010043**	Price	**GE40E12M**	Price

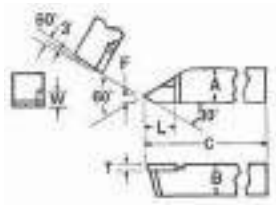
Styles ER and EL Standard Brazed Tool Bits

MADE IN THE USA

- Micrograin carbide



Left Hand



RAPIDKUT® MICRO 100

Cut Style - Left												
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	F Tip Flat (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	Rapidkut			Micro 100		
							Style	Order No.	Price	Style	Order No.	Price
5/16	5/16	2-1/2	1/16	1/8	1/4	1/2	EL5	**FE3010044**	Price	EL5	**GE40EL5M**	Price
3/8	3/8	3	1/16	1/8	1/4	1/2	EL6	**FE3010045**	Price	EL6	**GE40EL6M**	Price
1/2	1/2	3-1/2	3/32	1/8	5/16	5/8	EL8	**FE3010046**	Price	EL8	**GE40EL8M**	Price
5/8	5/8	4	3/32	5/32	5/32	3/4	-	**-**	-	EL10	**GE40EL10M**	Price
3/4	3/4	4-1/2	1/8	3/16	13/16	13/16	EL12	**FE3010047**	Price	EL12	**GE40EL12M**	Price

Cut Style - Right												
A Shank Height (in.)	B Shank Width (in.)	C OAL (in.)	F Tip Flat (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	Rapidkut			Micro 100		
							Style	Order No.	Price	Style	Order No.	Price
5/16	5/16	2-1/2	1/16	1/8	1/4	1/2	ER5	**FE3010048**	Price	ER5	**GE40ER5M**	Price
3/8	3/8	3	1/16	1/8	1/4	1/2	ER6	**FE3010049**	Price	ER6	**GE40ER6M**	Price
1/2	1/2	3-1/2	3/32	1/8	5/16	5/8	ER8	**FE3010050**	Price	ER8	**GE40ER8M**	Price
5/8	5/8	4	3/32	5/32	5/32	3/4	-	**-**	-	ER10	**GE40ER10M**	Price
3/4	3/4	4-1/2	1/8	3/16	13/16	13/16	ER12	**FE3010051**	Price	ER12	**GE40ER12M**	Price

Brazed Cut-Off Tools

Right Hand and Left Hand







Right Hand Shown

- All tools are ground with the required clearance angles
- Cut-off tools carbide protrusion = 3 times thickness specified
- Tolerance on thickness ± .000 -± .030”
- Micrograin carbide

RAPIDKUT®

MICRO 100

X Tip Thickness	OAL (in.)	Shank Dia. (in.)	Rapidkut Right Order No.	Rapidkut Right Price	Micro 100 Left Order No.	Micro 100 Left Price	Micro 100 Right Order No.	Micro 100 Right Price
.040	6	1/4	FE3010079	Price	-	-	-	-
.040	6	3/8	FE3010088	Price	GE45LC375040	Price	GE45RC375040	Price
.040	6	5/16	FE3010084	Price	GE45LC312040	Price	GE45RC312040	Price
.040	6	9/32	FE3010081	Price	-	-	-	-
.060	4	3/4	FE3010105	Price	-	-	GE45RC750060	Price
.060	4	5/8	FE3010100	Price	GE45LC625060	Price	GE45RC625060	Price
.060	6	1/2	FE3010096	Price	GE45LC500060	Price	GE45RC500060	Price
.060	6	1/4	FE3010080	Price	GE45LC250060	Price	-	-
.060	6	3/8	FE3010089	Price	GE45LC375060	Price	GE45RC375060	Price
.060	6	5/16	FE3010085	Price	GE45LC312060	Price	GE45RC312060	Price
.060	6	9/32	FE3010082	Price	-	-	-	-
.080	4	3/4	FE3010106	Price	-	-	GE45RC750080	Price
.080	4	5/8	FE3010101	Price	-	-	GE45RC625080	Price
.080	6	1/2	FE3010097	Price	GE45LC500080	Price	GE45RC500080	Price
.080	6	3/8	FE3010090	Price	GE45LC375080	Price	GE45RC375080	Price
.080	6	5/16	FE3010086	Price	GE45LC312080	Price	GE45RC312080	Price
.080	6	7/16	FE3010093	Price	-	-	-	-
.080	6	9/32	FE3010083	Price	-	-	-	-
.100	4	3/4	FE3010107	Price	GE45LC750100	Price	GE45RC750100	Price
.100	4	5/8	FE3010102	Price	GE45LC625100	Price	GE45RC625100	Price
.100	6	1/2	FE3010098	Price	GE45LC500100	Price	GE45RC500100	Price
.100	6	3/8	FE3010091	Price	GE45LC375100	Price	GE45RC375100	Price
.100	6	5/16	FE3010087	Price	GE45LC312100	Price	GE45RC312100	Price
.100	6	7/16	FE3010094	Price	-	-	-	-
.120	6	1/2	FE3010099	Price	GE45LC500120	Price	GE45RC500120	Price
.120	6	3/8	FE3010092	Price	GE45LC375120	Price	GE45RC375120	Price
.120	6	7/16	FE3010095	Price	GE45LC437120	Price	-	-
.125	4	3/4	FE3010108	Price	GE45LC750125	Price	GE45RC750125	Price
.125	4	5/8	FE3010103	Price	GE45LC625125	Price	GE45RC625125	Price
.187	4	3/4	FE3010109	Price	GE45LC750187	Price	GE45RC750187	Price
.187	4	5/8	FE3010104	Price	GE45LC625187	Price	GE45RC625187	Price

Styles AR and AL 0° Turning Tools

For turning to square shoulder. FE51 made in the USA





WORLD CLASS QUALITY

Cut Style - Left

Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2) Order No.	883E (C-2) Price	370E (C-5) Order No.	370E (C-5) Price	C2 Order No.	C2 Price	C5/C6 Order No.	C5/C6 Price	K21 (C-5) Order No.	K21 (C-5) Price	K68 (C-2) Order No.	K68 (C-2) Price
AL4	1/4	1/4	2	FE51AL4883	Price	FE51AL4370	Price	FE50AL4C2	Price	FE50AL4C6	Price	FE51AL4K21	Price	FE51AL4K68	Price
AL5	5/16	5/16	2-1/4	FE51AL5883	Price	FE51AL5370	Price	FE50AL5C2	Price	FE50AL5C6	Price	FE51AL5K21	Price	FE51AL5K68	Price
AL6	3/8	3/8	2-1/2	FE51AL6883	Price	FE51AL6370	Price	FE50AL6C2	Price	FE50AL6C6	Price	FE51AL6K21	Price	FE51AL6K68	Price
AL7	7/16	7/16	3	FE51AL7883	Price	FE51AL7370	Price	FE50AL7C2	Price	FE50AL7C6	Price	FE51AL7K21	Price	FE51AL7K68	Price
AL8	1/2	1/2	3-1/2	FE51AL8883	Price	FE51AL8370	Price	FE50AL8C2	Price	FE50AL8C6	Price	FE51AL8K21	Price	FE51AL8K68	Price
AL10	5/8	5/8	4	FE51AL10883	Price	FE51AL10370	Price	FE50AL10C2	Price	FE50AL10C6	Price	FE51AL10K21	Price	FE51AL10K68	Price
AL12	3/4	3/4	4-1/2	FE51AL12883	Price	FE51AL12370	Price	FE50AL12C2	Price	FE50AL12C6	Price	FE51AL12K21	Price	FE51AL12K68	Price
AL16	1	1	7	FE51AL16883	Price	FE51AL16370	Price	FE50AL16C2	Price	FE50AL16C6	Price	FE51AL16K21	Price	FE51AL16K68	Price

Cut Style - Right

Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2) Order No.	883E (C-2) Price	370E (C-5) Order No.	370E (C-5) Price	C2 Order No.	C2 Price	C5/C6 Order No.	C5/C6 Price	K21 (C-5) Order No.	K21 (C-5) Price	K68 (C-2) Order No.	K68 (C-2) Price
AR4	1/4	1/4	2	FE51AR4883	Price	FE51AR4370	Price	FE50AR4C2	Price	FE50AR4C6	Price	FE51AR4K21	Price	FE51AR4K68	Price
AR5	5/16	5/16	2-1/4	FE51AR5883	Price	FE51AR5370	Price	FE50AR5C2	Price	FE50AR5C6	Price	FE51AR5K21	Price	FE51AR5K68	Price
AR6	3/8	3/8	2-1/2	FE51AR6883	Price	FE51AR6370	Price	FE50AR6C2	Price	FE50AR6C6	Price	FE51AR6K21	Price	FE51AR6K68	Price
AR7	7/16	7/16	3	FE51AR7883	Price	FE51AR7370	Price	FE50AR7C2	Price	FE50AR7C6	Price	FE51AR7K21	Price	FE51AR7K68	Price
AR8	1/2	1/2	3-1/2	FE51AR8883	Price	FE51AR8370	Price	FE50AR8C2	Price	FE50AR8C6	Price	FE51AR8K21	Price	FE51AR8K68	Price
AR10	5/8	5/8	4	FE51AR10883	Price	FE51AR10370	Price	FE50AR10C2	Price	FE50AR10C6	Price	FE51AR10K21	Price	FE51AR10K68	Price
AR12	3/4	3/4	4	FE51AR12883	Price	-	-	-	-	-	-	-	-	-	-
AR12	3/4	3/4	4-1/2	-	-	FE51AR12370	Price	FE50AR12C2	Price	FE50AR12C6	Price	FE51AR12K21	Price	FE51AR12K68	Price
AR16	1	1	7	FE51AR16883	Price	FE51AR16370	Price	FE50AR16C2	Price	FE50AR16C6	Price	FE51AR16K21	Price	FE51AR16K68	Price

Styles BR and BL 15° Lead Angle Turning Tools

Used for turning when square shoulder is not required.
FE51 made in the USA



Right Hand



Left Hand

MADE IN THE USA — WORLD CLASS QUALITY — MADE IN THE USA

Cut Style - Left																			
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
BL4	1/4	1/4	2	FE51BL4883	Price	-	-	FE50BL4C2	Price	FE50BL4C6	Price	FE51BL4K68	Price	FE51BL4K21	Price
BL5	5/16	5/16	2-1/4	FE51BL5883	Price	FE51BL5370	Price	FE50BL5C2	Price	FE50BL5C6	Price	FE51BL5K68	Price	FE51BL5K21	Price
BL6	3/8	3/8	2-1/2	FE51BL6883	Price	FE51BL6370	Price	FE50BL6C2	Price	FE50BL6C6	Price	FE51BL6K68	Price	FE51BL6K21	Price
BL7	7/16	7/16	3	FE51BL7883	Price	FE51BL7370	Price	FE50BL7C2	Price	FE50BL7C6	Price	FE51BL7K68	Price	FE51BL7K21	Price
BL8	1/2	1/2	3-1/2	FE51BL8883	Price	FE51BL8370	Price	FE50BL8C2	Price	FE50BL8C6	Price	FE51BL8K68	Price	FE51BL8K21	Price
BL10	5/8	5/8	4	FE51BL10883	Price	FE51BL10370	Price	FE50BL10C2	Price	FE50BL10C6	Price	FE51BL10K68	Price	FE51BL10K21	Price
BL12	3/4	3/4	4-1/2	FE51BL12883	Price	FE51BL12370	Price	FE50BL12C2	Price	FE50BL12C6	Price	FE51BL12K68	Price	FE51BL12K21	Price
BL16	1	1	7	FE51BL16883	Price	-	-	FE50BL16C2	Price	FE50BL16C6	Price	-	-	-	-

Cut Style - Right															
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
BR4	1/4	1/4	2	FE51BR4883	Price	FE51BR4370	Price	FE50BR4C2	Price	FE50BR4C6	Price	FE51BR4K68	Price	FE51BR4K21	Price
BR5	5/16	5/16	2-1/4	FE51BR5883	Price	FE51BR5370	Price	FE50BR5C2	Price	FE50BR5C6	Price	FE51BR5K68	Price	FE51BR5K21	Price
BR6	3/8	3/8	2-1/2	FE51BR6883	Price	FE51BR6370	Price	FE50BR6C2	Price	FE50BR6C6	Price	FE51BR6K68	Price	FE51BR6K21	Price
BR7	7/16	7/16	3	FE51BR7883	Price	FE51BR7370	Price	FE50BR7C2	Price	FE50BR7C6	Price	FE51BR7K68	Price	FE51BR7K21	Price
BR8	1/2	1/2	3-1/2	FE51BR8883	Price	FE51BR8370	Price	FE50BR8C2	Price	FE50BR8C6	Price	FE51BR8K68	Price	FE51BR8K21	Price
BR10	5/8	5/8	4	FE51BR10883	Price	FE51BR10370	Price	FE50BR10C2	Price	FE50BR10C6	Price	FE51BR10K68	Price	FE51BR10K21	Price
BR12	3/4	3/4	4-1/2	FE51BR12883	Price	FE51BR12370	Price	FE50BR12C2	Price	FE50BR12C6	Price	FE51BR12K68	Price	FE51BR12K21	Price
BR16	1	1	7	FE51BR16883	Price	FE51BR16370	Price	FE50BR16C2	Price	FE50BR16C6	Price	-	-	-	-

Style C • Square Nose Tools

Great general purpose tool used for chamfering, facing and turning.
Can also be used to make special form tools. FE51 made in the USA



MADE IN THE USA — WORLD CLASS QUALITY — MADE IN THE USA

Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
C4	1/4	1/4	2	FE51C4883	Price	FE51C4370	Price	FE50C4C2	Price	FE50C4C6	Price	FE51C4K68	Price	FE51C4K21	Price
C5	5/16	5/16	2-1/4	FE51C5883	Price	FE51C5370	Price	FE50C5C2	Price	FE50C5C6	Price	FE51C5K68	Price	FE51C5K21	Price
C6	3/8	3/8	2-1/2	FE51C6883	Price	FE51C6370	Price	FE50C6C2	Price	FE50C6C6	Price	FE51C6K68	Price	FE51C6K21	Price
C7	7/16	7/16	3	FE51C7883	Price	FE51C7370	Price	FE50C7C2	Price	FE50C7C6	Price	FE51C7K68	Price	FE51C7K21	Price
C8	1/2	1/2	3-1/2	FE51C8883	Price	FE51C8370	Price	FE50C8C2	Price	FE50C8C6	Price	FE51C8K68	Price	FE51C8K21	Price
C10	5/8	5/8	4	FE51C10883	Price	FE51C10370	Price	FE50C10C2	Price	FE50C10C6	Price	FE51C10K68	Price	FE51C10K21	Price
C12	3/4	3/4	4-1/2	FE51C12883	Price	FE51C12370	Price	FE50C12C2	Price	FE50C12C6	Price	FE51C12K68	Price	FE51C12K21	Price
C16	1	1	7	FE51C16883	Price	FE51C16370	Price	FE50C16C2	Price	FE50C16C6	Price	FE51C16K68	Price	FE51C16K21	Price

Style D • 80° Included Angle Tools

Chamfering tool used for undercutting and ID and OD Chamfering.
FE51 made in the USA



MADE IN THE USA

Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
D4	1/4	1/4	2	FE51D4883	Price	FE51D4370	Price	FE50D4C2	Price	FE50D4C6	Price	FE51D4K68	Price	FE51D4K21	Price
D5	5/16	5/16	2-1/4	FE51D5883	Price	FE51D5370	Price	FE50D5C2	Price	FE50D5C6	Price	FE51D5K68	Price	FE51D5K21	Price
D6	3/8	3/8	2-1/2	FE51D6883	Price	FE51D6370	Price	FE50D6C2	Price	FE50D6C6	Price	FE51D6K68	Price	FE51D6K21	Price
D7	7/16	7/16	3	FE51D7883	Price	FE51D7370	Price	FE50D7C2	Price	FE50D7C6	Price	FE51D7K68	Price	FE51D7K21	Price
D8	1/2	1/2	3-1/2	FE51D8883	Price	FE51D8370	Price	FE50D8C2	Price	FE50D8C6	Price	FE51D8K68	Price	FE51D8K21	Price
D10	5/8	5/8	4	FE51D10883	Price	FE51D10370	Price	FE50D10C2	Price	FE50D10C6	Price	FE51D10K68	Price	FE51D10K21	Price
D12	3/4	3/4	4-1/2	FE51D12883	Price	FE51D12370	Price	FE50D12C2	Price	FE50D12C6	Price	FE51D12K68	Price	FE51D12K21	Price
D16	1	1	7	FE51D16883	Price	FE51D16370	Price	FE50D16C2	Price	FE50D16C6	Price	-	-	-	-

Styles TSA, TSC, and TSE Boring Tools

These tools are used primarily in steel boring bars.
TSA - for boring to a square shoulder in 90° bars.
TSC - for boring to a square shoulder in a 30° bar
TSE - for boring to a square shoulder in a 45° or for recessing
(Left hand tools shown)
FE51 made in the USA





MADE IN THE USA

WORLD CLASS QUALITY

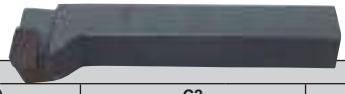
MADE IN THE USA

Style - TSA																
Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
			Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
5/16	5/16	1-1/2	FE51TSA5883	Price	FE51TSA5370	Price	FE50TSA5C2	Price	FE50TSA5C6	Price	FE51TSA5K68	Price	FE51TSA5K21	Price
3/8	3/8	1-3/4	FE51TSA6883	Price	FE51TSA6370	Price	FE50TSA6C2	Price	FE50TSA6C6	Price	FE51TSA6K68	Price	FE51TSA6K21	Price
1/2	1/2	2-1/2	FE51TSA8883	Price	FE51TSA8370	Price	FE50TSA8C2	Price	FE50TSA8C6	Price	FE51TSA8K68	Price	FE51TSA8K21	Price
5/8	5/8	3	FE51TSA10883	Price	FE51TSA10370	Price	FE50TSA10C2	Price	FE50TSA10C6	Price	FE51TSA10K68	Price	FE51TSA10K21	Price
3/4	3/4	3-1/2	FE51TSA12883	Price	FE51TSA12370	Price	FE50TSA12C2	Price	FE50TSA12C6	Price	FE51TSA12K68	Price	FE51TSA12K21	Price

Style - TSC																
Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
			Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
5/16	5/16	1-1/2	FE51TSC5883	Price	FE51TSC5370	Price	FE50TSC5C2	Price	FE50TSC5C6	Price	FE51TSC5K68	Price	FE51TSC5K21	Price
3/8	3/8	1-3/4	FE51TSC6883	Price	FE51TSC6370	Price	FE50TSC6C2	Price	FE50TSC6C6	Price	FE51TSC6K68	Price	FE51TSC6K21	Price
1/2	1/2	2-1/2	FE51TSC8883	Price	FE51TSC8370	Price	FE50TSC8C2	Price	FE50TSC8C6	Price	FE51TSC8K68	Price	FE51TSC8K21	Price
5/8	5/8	3	FE51TSC10883	Price	FE51TSC10370	Price	FE50TSC10C2	Price	FE50TSC10C6	Price	FE51TSC10K68	Price	FE51TSC10K21	Price
3/4	3/4	3-1/2	FE51TSC12883	Price	FE51TSC12370	Price	FE50TSC12C2	Price	FE50TSC12C6	Price	FE51TSC12K68	Price	FE51TSC12K21	Price

Style - TSE																
Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
			Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
5/16	5/16	1-1/2	FE51TSE5883	Price	FE51TSE5370	Price	FE50TSE5C2	Price	FE50TSE5C6	Price	FE51TSE5K68	Price	FE51TSE5K21	Price
3/8	3/8	1-3/4	FE51TSE6883	Price	FE51TSE6370	Price	FE50TSE6C2	Price	FE50TSE6C6	Price	FE51TSE6K68	Price	FE51TSE6K21	Price
1/2	1/2	2-1/2	FE51TSE8883	Price	FE51TSE8370	Price	FE50TSE8C2	Price	FE50TSE8C6	Price	FE51TSE8K68	Price	FE51TSE8K21	Price
5/8	5/8	3	FE51TSE10883	Price	FE51TSE10370	Price	FE50TSE10C2	Price	FE50TSE10C6	Price	FE51TSE10K68	Price	FE51TSE10K21	Price
3/4	3/4	3-1/2	FE51TSE12883	Price	FE51TSE12370	Price	FE50TSE12C2	Price	FE50TSE12C6	Price	FE51TSE12K68	Price	FE51TSE12K21	Price

Styles FR and FL End Cutting Offset Tools

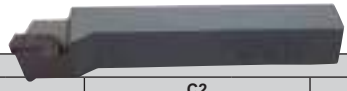


WORLD CLASS QUALITY

Cut Style - Left										
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	370E (C-5)		883E (C-2)		C2		C5/C6	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
FL8	1/2	1/2	3-1/2	FE51FL8370	Price	FE51FL8883	Price	FE50FL8C2	Price	FE50FL8C6	Price
FL10	5/8	5/8	4	FE51FL10370	Price	FE51FL10883	Price	FE50FL10C2	Price	FE50FL10C6	Price
FL12	3/4	3/4	4-1/2	FE51FL12370	Price	FE51FL12883	Price	FE50FL12C2	Price	FE50FL12C6	Price
FL16	1	1	7	-	-	FE51FL16883	Price	FE50FL16C2	Price	FE50FL16C6	Price

Cut Style - Right										
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	370E (C-5)		883E (C-2)		C2		C5/C6	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
FR8	1/2	1/2	3-1/2	FE51FR8370	Price	FE51FR8883	Price	FE50FR8C2	Price	FE50FR8C6	Price
FR10	5/8	5/8	4	FE51FR10370	Price	FE51FR10883	Price	FE50FR10C2	Price	FE50FR10C6	Price
FR12	3/4	3/4	4-1/2	FE51FR12370	Price	FE51FR12883	Price	FE50FR12C2	Price	FE50FR12C6	Price
FR16	1	1	7	-	-	FE51FR16883	Price	FE50FR16C2	Price	FE50FR16C6	Price

Styles GR and GL Side Cutting Offset Tools



WORLD CLASS QUALITY

Cut Style - Left										
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E		370E		C2		C5/C6	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
GL8	1/2	1/2	3-1/2	FE51GL8883	Price	FE51GL8370	Price	FE50GL8C2	Price	FE50GL8C6	Price
GL10	5/8	5/8	4	FE51GL10883	Price	FE51GL10370	Price	FE50GL10C2	Price	FE50GL10C6	Price
GL12	3/4	3/4	4-1/2	FE51GL12883	Price	FE51GL12370	Price	FE50GL12C2	Price	FE50GL12C6	Price
GL16	1	1	7	FE51GL16883	Price	FE51GL16370	Price	FE50GL16C2	Price	FE50GL16C6	Price

Cut Style - Right										
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E		370E		C2		C5/C6	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
GL8	1/2	1/2	3-1/2	FE51GR8883	Price	FE51GR8370	Price	FE50GR8C2	Price	FE50GR8C6	Price
GR10	1/2	1/2	3-1/2	-	-	FE51GR10370	Price	-	-	-	-
GR10	5/8	5/8	4	FE51GR10883	Price	-	-	FE50GR10C2	Price	FE50GR10C6	Price
GR12	3/4	3/4	4-1/2	FE51GR12883	Price	FE51GR12370	Price	FE50GR12C2	Price	FE50GR12C6	Price
GR16	1	1	7	FE51GR16883	Price	FE51GR16370	Price	FE50GR16C2	Price	FE50GR16C6	Price

Grade	Application
(883E, K68) = C2	General Purpose for Use in Cast Iron, Non-Ferrous Materials and Exotics
(370E, K21) = C5 / C6	General Purpose for All Types of Steel and Steel Alloys

Style E • 60° Included Angle Threading Tools

Standard 60° included angle universal threading tool. Can also be used for V-grooving, chamfering, turning, boring and facing. FE51 made in the USA.



MADE IN THE USA — WORLD CLASS QUALITY — MADE IN THE USA

Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	883E (C-2)		370E (C-5)		C2		C5/C6		K68 (C-2)		K21 (C-5)	
				Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
E4	1/4	1/4	2	**FE51E4883**	Price	**FE51E4370**	Price	**FE50E4C2**	Price	**FE50E4C6**	Price	**FE51E4K68**	Price	**FE51E4K21**	Price
E5	5/16	5/16	2-1/4	**FE51E5883**	Price	**FE51E5370**	Price	**FE50E5C2**	Price	**FE50E5C6**	Price	**FE51E5K68**	Price	**FE51E5K21**	Price
E6	3/8	3/8	2-1/2	**FE51E6883**	Price	**FE51E6370**	Price	**FE50E6C2**	Price	**FE50E6C6**	Price	**FE51E6K68**	Price	**FE51E6K21**	Price
E8	1/2	1/2	3-1/2	**FE51E8883**	Price	**FE51E8370**	Price	**FE50E8C2**	Price	**FE50E8C6**	Price	**FE51E8K68**	Price	**FE51E8K21**	Price
E10	5/8	5/8	4	**FE51E10883**	Price	**FE51E10370**	Price	**FE50E10C2**	Price	**FE50E10C6**	Price	**FE51E10K68**	Price	**FE51E10K21**	Price
E12	3/4	3/4	4-1/2	**FE51E12883**	Price	**FE51E12370**	Price	**FE50E12C2**	Price	**FE50E12C6**	Price	**FE51E12K68**	Price	**FE51E12K21**	Price
E16	1	1	7	**FE51E16883**	Price	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-

Styles ER & EL • 60° Offset Tools

- Used for turning in special applications
- Made in the USA



MADE IN THE USA

Cut Style - Left									
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	370E (C-5)		883E (C-2)		K21	
				Order No.	Price	Order No.	Price	Order No.	Price
EL4	1/4	1/4	2	**FE51EL4370**	Price	**-**	-	**-**	-
EL6	3/8	3/8	2-1/2	**FE51EL6370**	Price	**FE51EL6883**	Price	**-**	-
EL8	1/2	1/2	3-1/2	**FE51EL8370**	Price	**FE51EL8883**	Price	**FE51EL8K21**	Price
EL10	5/8	5/8	4	**FE51EL10370**	Price	**FE51EL10883**	Price	**-**	-
EL12	3/4	3/4	4-1/2	**FE51EL12370**	Price	**-**	-	**-**	-

Cut Style - Right							
Style	Shank Height (in.)	Shank Width (in.)	OAL (in.)	370E (C-5)		883E (C-2)	
				Order No.	Price	Order No.	Price
ER4	1/4	1/4	2	**FE51ER4370**	Price	**FE51ER4883**	Price
ER5	5/16	5/16	2-1/4	**FE51ER5370**	Price	**-**	-
ER6	3/8	3/8	2-1/2	**FE51ER6370**	Price	**FE51ER6883**	Price
ER8	1/2	1/2	3-1/2	**FE51ER8370**	Price	**FE51ER8883**	Price
ER10	5/8	5/8	4	**FE51ER10370**	Price	**FE51ER10883**	Price
ER12	3/4	3/4	4-1/2	**FE51ER12370**	Price	**-**	-

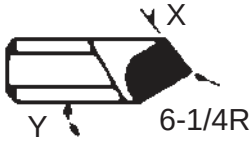
Styles TRC and TRE Boring Tools

TRC - for boring to a square shoulder in 30° bars.
TRE - for boring to a square shoulder in 45° bars.
(Left Hand Tools)

WORLD CLASS QUALITY



Style	Shank Dia. (in.)	OAL (in.)	C2		C5/C6	
			Order No.	Price	Order No.	Price
TRC5	5/16	1-1/2	**FE50TRC5C2**	Price	**FE50TRC5C6**	Price
TRE5	5/16	1-1/2	**-**	-	**FE50TRE5C6**	Price
TRC6	3/8	1-3/4	**FE50TRC6C2**	Price	**FE50TRC6C6**	Price
TRE6	3/8	1-3/4	**FE50TRE6C2**	Price	**FE50TRE6C6**	Price
TRC8	1/2	2-1/2	**FE50TRC8C2**	Price	**FE50TRC8C6**	Price
TRE8	1/2	2-1/2	**FE50TRE8C2**	Price	**FE50TRE8C6**	Price



Round Boring Tools							
Type	Description	Y	X	Type	Description	Y	X
TRC	For Boring to a Square Shoulder in 30° Bars	30°	38°	TRE	For Boring to a Square Shoulder in 45° Bars or with 15° Lead in 30° Bars.	45°	53°

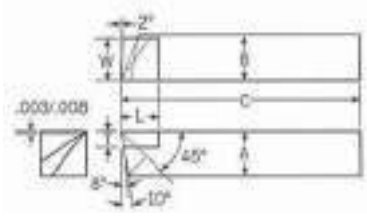
Grade	Application
(883E, K68) = C2	General Purpose for Use in Cast Iron, Non-Ferrous Materials and Exotics
(370E, K21) = C5 / C6	General Purpose for All Types of Steel and Steel Alloys

Brazed Box Turning Tools

For Box-Turning up to 5/8" Depth per Pass

MADE IN THE USA







RAPIDKUT MICRO 100

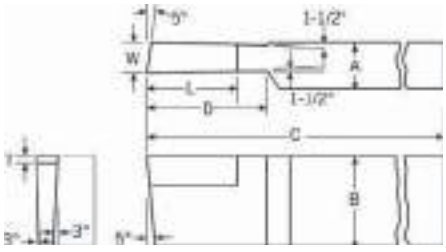
MICRO 100

Cut Style - Left							
B Shank Dia. (in.)	C OAL (in.)	T Tip Thickness (in.)	W Tip Width (in.)	L Tip Length (in.)	Micro 100		
					Style	Order No.	Price
1/4	1-1/2	1/8	3/16	1/4	BTL4	**GE45BTL4**	Price
5/16	1-3/4	1/8	3/16	5/16	BTL5	**GE45BTL5**	Price
3/8	2	3/16	5/16	3/8	BTL6	**GE45BTL6**	Price
7/16	2-1/4	3/16	3/8	7/16	BTL7	**GE45BTL7**	Price
1/2	2-1/2	3/16	3/8	1/2	BTL8	**GE45BTL8**	Price

Cut Style - Right											
B Shank Dia. (in.)	C OAL (in.)	T Tip Thick-ness (in.)	W Tip Width (in.)	L Tip Length (in.)	Rapidkut			Micro 100			
					Style	Order No.	Price	Style	Order No.	Price
1/4	1-1/2	1/8	3/16	1/4	BT4	**FE3010052**	Price	BT4	**GE45BT4**	Price
5/16	1-3/4	1/8	3/16	5/16	BT5	**FE3010053**	Price	BT5	**GE45BT5**	Price
3/8	2	3/16	5/16	3/8	BT6	**FE3010054**	Price	BT6	**GE45BT6**	Price
7/16	2-1/4	3/16	3/8	7/16	BT7	**FE3010055**	Price	BTB7	**GE45BT7**	Price
1/2	2-1/2	3/16	3/8	1/2	BT8	**FE3010056**	Price	BT8	**GE45BT8**	Price
5/8	3	1/4	1/2	5/8	BT10	**FE3010057**	Price	-	-	-

Brazed Cut-Off Tools

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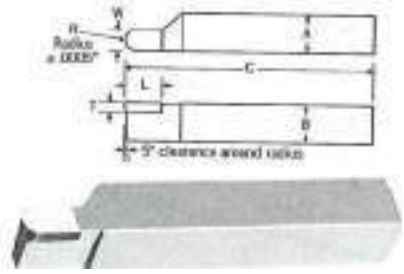


RAPIDKUT MICRO 100

A Shank Width (in.)	B Shank Height (in.)	C OAL (in.)	D Nose Length (in.)	T Tip Thickness (in.)	W Tip Width (in.)	Style	L Tip Length (in.)	Rapidkut		Micro 100	
								Order No.	Price	Order No.	Price
1/2	1	5	1	3/16	5/16	CT120	7/16	**FE3010058**	Price	**GE45CT120**	Price
1/2	1	5	13/16	1/8	3/16	CT122	3/4	**FE3010060**	Price	**GE45CT122**	Price
1/2	1	5	1	1/8	1/4	CT121	3/4	**FE3010059**	Price	**GE45CT121**	Price
5/8	1-1/4	5	1-1/4	3/16	3/8	CT130	1/2	**FE3010061**	Price	**GE45CT130**	Price
3/4	1-1/2	6	1-1/4	3/16	3/8	CT140	5/8	**FE3010062**	Price	**GE45CT140**	Price

MICRO 100 Brazed Full Radius Convex Tools

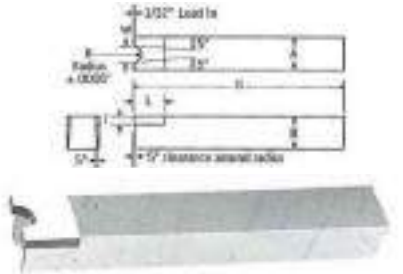
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Radius (in.)	Square Shank (in.)	OAL (in.)	T Tip Thickness (in.)	L Tip Length (in.)	Order No.	Price
1/32	3/8	2-1/2	3/32	3/8	**GE45FRT1**	Price
1/16	3/8	2-1/2	3/32	3/8	**GE45FRT2**	Price
3/32	3/8	2-1/2	3/32	3/8	**GE45FRT3**	Price
1/8	3/8	2-1/2	3/32	3/8	**GE45FRT4**	Price
5/32	3/8	2-1/2	3/32	3/8	**GE45FRT5**	Price
3/16	1/2	3-1/2	1/8	1/2	**GE45FRT6**	Price
1/4	1/2	3-1/2	1/8	1/2	**GE45FRT8**	Price
5/16	5/8	4	5/32	5/8	**GE45FRT10**	Price
3/8	3/4	4-1/2	3/16	3/4	**GE45FRT12**	Price

MICRO 100 Brazed Full Radius Concave Tools

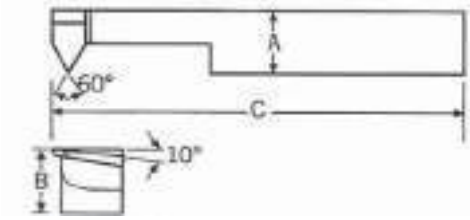
MADE IN THE USA



Radius (in.)	Square Shank (in.)	OAL (in.)	T Tip Thickness (in.)	L Tip Length (in.)	Order No.	Price
1/32	3/8	2-1/2	3/32	3/8	**GE45CRT1**	Price
1/16	3/8	2-1/2	3/32	3/8	**GE45CRT2**	Price
3/32	3/8	2-1/2	3/32	3/8	**GE45CRT3**	Price
1/8	1/2	3-1/2	1/8	1/2	**GE45CRT4**	Price
3/16	1/2	3-1/2	1/8	1/2	**GE45CRT6**	Price
1/4	3/4	4-1/2	3/16	3/4	**GE45CRT8**	Price

MICRO 100 Brazed Internal Threading Tools

Styles IDRT and IDLT





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B Shank Dia. (in.)	C OAL (in.)	Neck Length (in.)	Left		Right	
			Order No.	Price	Order No.	Price
3/8	2-1/2	1/2	**GE45IDLT60**	Price	**GE45IDRT60**	Price
3/8	2-1/2	1	**GE45IDLT61**	Price	**GE45IDRT61**	Price
1/2	3-1/2	3/4	**GE45IDLT80**	Price	**GE45IDRT80**	Price
1/2	3-1/2	1-1/4	**GE45IDLT81**	Price	**GE45IDRT81**	Price

MICRO 100 Brazed Screw Machine Tools

Style RT • For Turning

- Brazed Screw Machine Tools
- Turning, Forming and Cut-Off Right Hand and Left Hand
- All tools are ground with the requiredclearance angles
- Cut-off tools: carbide protrusion = 3 times thickness specified Tolerance on thickness .000 .010”



Shank Dia. (in.)	OAL (in.)	Order No.	Price
1/4	6	**GE45RT250**	Price
9/32	6	**GE45RT281**	Price
5/16	6	**GE45RT312**	Price
3/8	6	**GE45RT375**	Price
7/16	6	**GE45RT437**	Price
1/2	6	**GE45RT500**	Price
5/8	4	**GE45RT625**	Price
3/4	4	**GE45RT750**	Price

MICRO 100 Full Radius Grooving Tools

Brazed Tip

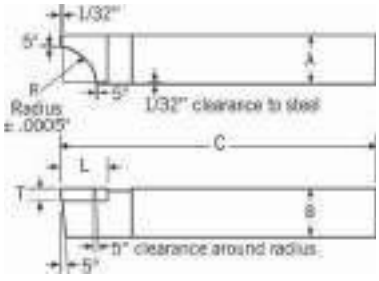
- 3/8 x 3/8” Shank on all
- 3” Overall length



Width (in.)	Tip Length (in.)	OAL (in.)	Order No.	Price
.018/.020	.060	3	**GE45GS018F**	Price
.028/.030	.090	3	**GE45GS028F**	Price
.038/.040	.120	3	**GE45GS038F**	Price
.060/.062	.210	3	**GE45GS060F**	Price

Brazed Radius Tools

- Set of 4: 1/16, 1/8, 1/4, 3/8 radius (RAD21)
- Set of 8: 1/32 to 1/4 radius in 1/32 increments† (RAD22)
- Set of 8: 1/16 to 1/2 radius in 1/16 increments (RAD23)



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RAPIDKUT®

MICRO 100

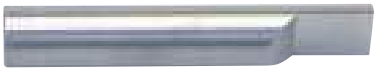
Radius (in.)	Square Shank (in.)	OAL (in.)	T Tip Thickness (in.)	L Tip Length (in.)	Style	Rapidkut		Micro 100	
						Order No.	Price	Order No.	Price
1/32	3/8	2-1/2	3/32	3/8	RAD1	**FE3010063**	Price	**GE45RAD1**	Price
1/16	3/8	2-1/2	3/32	3/8	RAD2	**FE3010064**	Price	**GE45RAD2**	Price
3/32	3/8	2-1/2	3/32	3/8	RAD3	**FE3010065**	Price	**GE45RAD3**	Price
1/8	3/8	2-1/2	3/32	3/8	RAD4	**FE3010066**	Price	**GE45RAD4**	Price
5/32	3/8	2-1/2	3/32	3/8	RAD5	**FE3010067**	Price	**-**	-
3/16	3/8	2-1/2	3/32	3/8	RAD6	**FE3010068**	Price	**GE45RAD6**	Price
7/32	3/8	2-1/2	3/32	3/8	RAD7	**FE3010069**	Price	**GE45RAD7**	Price
1/4	3/8	2-1/2	3/32	3/8	RAD8	**FE3010070**	Price	**GE45RAD8**	Price
9/32	1/2	3-1/2	1/8	1/2	RAD9	**FE3010071**	Price	**GE45RAD9**	Price
5/16	1/2	3-1/2	1/8	1/2	RAD10	**FE3010072**	Price	**GE45RAD10**	Price
11/32	1/2	3-1/2	1/8	1/2	RAD11	**FE3010073**	Price	**-**	-
3/8	1/2	3-1/2	1/8	1/2	RAD12	**FE3010074**	Price	**GE45RAD12**	Price
13/32	3/4	4-1/2	3/16	3/4	RAD13	**FE3010075**	Price	**-**	-
7/16	3/4	4-1/2	3/16	3/4	RAD14	**FE3010076**	Price	**GE45RAD14**	Price
15/32	3/4	4-1/2	3/16	3/4	RAD15	**FE3010077**	Price	**-**	-
1/2	3/4	4-1/2	3/16	3/4	RAD16	**FE3010078**	Price	**GE45RAD16**	Price
1/16,1/8,1/4,3/8	3/8 & 1/2	-	-	-	RAD21	**-**	-	**GE45RAD21**	Price
1/32 to 1/4 x 32nds	3/8	-	-	-	RAD22	**-**	-	**GE45RAD22†**	Price
1/16 to 1/2 x 16ths	3/8, 1/2, & 3/4	-	-	-	RAD23	**-**	-	**GE45RAD23**	Price

† All 3/8” square shanks, ideal for use on chuckers.

Solid Carbide Split End Blanks
Regular Length

MADE IN THE USA

Blank and Engraving Tool Tolerances:
- Shank diameter -.0001 to -.0002" finish ground
- Split tolerance +.001 - .000" of tool center
- Split length in proportion to length of tool



RAPIDKUT® MICRO 100

Blank Style - Double End						
Shank Dia. (in.)	OAL (in.)	Split Length (in.)	Rapidkut		Micro 100	
			Order No.	Price	Order No.	Price
1/8	2	3/8	DD5710011	Price	GE45RS1252	Price
3/16	2	3/8	DD5710013	Price	GE45RS1872	Price
1/4	2-1/2	3/8	DD5710015	Price	GE45RS2502	Price
5/16	2-1/2	1/2	DD5710017	Price	GE45RS3122	Price
3/8	2-1/2	1/2	DD5710019	Price	GE45RS3752	Price
1/2	3	5/8	-	-	GE45RS5002	Price

Blank Style - Single End						
Shank Dia. (in.)	OAL (in.)	Split Length (in.)	Rapidkut		Micro 100	
			Order No.	Price	Order No.	Price
1/8	1-1/2	3/8	DD5710010	Price	GE45RS1251	Price
3/16	2	3/8	DD5710012	Price	GE45RS1871	Price
1/4	2-1/2	3/8	DD5710014	Price	GE45RS2501	Price
5/16	2-1/2	1/2	DD5710016	Price	GE45RS3121	Price
3/8	2-1/2	1/2	DD5710018	Price	GE45RS3751	Price
1/2	3	5/8	-	-	GE45RS5001	Price

MICRO 100 Split End • Extended Length

MADE IN THE USA

- Double end



Shank Dia. (in.)	OAL (in.)	Split Length (in.)	Order No.	Price
1/8	3	3/8	GE45RS12523	Price
3/16	3	3/8	GE45RS18723	Price
1/4	4	3/8	GE45RS25024	Price
5/16	4	1/2	GE45RS31224	Price
3/8	4	1/2	GE45RS37524	Price
1/2	4	5/8	GE45RS50024	Price

Other sizes also available.

MICRO 100 Double End • Extended Length



MADE IN THE USA

Shank Dia. (in.)	OAL (in.)	Split Length (in.)	Point Angle	Order No.	Price
1/8	3	3/8	30°	GE45RTC12523	Price
1/8	3	3/8	60°	GE45RSC12523	Price
1/8	3	3/8	90°	GE45RNC12523	Price
3/16	3	7/16	30°	GE45RTC18723	Price
3/16	3	7/16	60°	GE45RSC18723	Price
3/16	3	7/16	90°	GE45RNC18723	Price
1/4	4	1/2	30°	GE45RTC25024	Price
1/4	4	1/2	60°	GE45RSC25024	Price
1/4	4	1/2	90°	GE45RNC25024	Price

MICRO 100 Split-End Engraving Blanks





MADE IN THE USA

Single & Double End

Shank Dia. (in.)	OAL (in.)	Split Length (in.)	30°				60°				90°			
			Double End		Single End		Double End		Single End		Double End		Single End	
			Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
1/8	1-1/2	3/8	GE45RTC1252	Price	GE45RTC1251	Price	GE45RSC1252	Price	GE45RSC1251	Price	GE45RNC1252	Price	GE45RNC1251	Price
3/16	2	7/16	GE45RTC1872	Price	GE45RTC1871	Price	GE45RSC1872	Price	GE45RSC1871	Price	GE45RNC1872	Price	GE45RNC1871	Price
1/4	2-1/2	1/2	GE45RTC2502	Price	GE45RTC2501	Price	GE45RSC2502	Price	GE45RSC2501	Price	GE45RNC2502	Price	GE45RNC2501	Price
5/16	2-1/2	1/2	GE45RTC3122	Price	GE45RTC3121	Price	GE45RSC3122	Price	GE45RSC3121	Price	GE45RNC3122	Price	GE45RNC3121	Price
3/8	2-1/2	1/2	GE45RTC3752	Price	GE45RTC3751	Price	GE45RSC3752	Price	GE45RSC3751	Price	GE45RNC3752	Price	GE45RNC3751	Price
1/2	3	5/8	-	-	GE45RTC5001	Price	GE45RSC5002	Price	GE45RSC5001	Price	GE45RNC5002	Price	GE45RNC5001	Price

RAPIDKUT® Carbide Split End Engraving Blanks

MADE IN THE USA

Single or Double End





Shank Dia. (in.)	OAL (in.)	Split Length (in.)	30°				60°				90°			
			Double End		Single End		Double End		Single End		Double End		Single End	
			Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price	Order No.	Price
1/4	2-1/2	1/2	DD5710035	Price	DD5710034	Price	DD5710026	Price	DD5710025	Price	DD5710005	Price	DD5710004	Price
1/8	1-1/2	3/8	DD5710029	Price	DD5710028	Price	DD5710020	Price	DD5710040	Price	DD5710001	Price	DD5710000	Price
3/16	2	7/16	DD5710032	Price	DD5710031	Price	DD5710023	Price	DD5710022	Price	DD5710003	Price	DD5710002	Price
3/8	2-1/2	1/2	-	-	-	-	DD5710039	Price	DD5710038	Price	DD5710009	Price	DD5710008	Price
5/16	2-1/2	1/2	-	-	-	-	-	-	-	-	DD5710007	Price	DD5710006	Price

RAPIDKUT® Carbide Split End Engraving Blanks



Extended Length • Double End

Shank Dia. (in.)	OAL (in.)	Split Length (in.)	30°		60°	
			Order No.	Price	Order No.	Price
1/8	3	3/8	DD5710030	Price	DD5710021	Price
3/16	3	7/16	DD5710033	Price	DD5710024	Price
1/4	4	1/2	DD5710036	Price	DD5710027	Price

Cutting-Off Tool Holders

- Cut-off blades not included

Holder Size (in.)	Cut-Off Blade (in.)	Approx. Swing of Lathe	Left		Right		Straight	
			Order No.	Price	Order No.	Price	Order No.	Price
5/16 x 13/16	3/32 x 1/2	6 to 8	**SE5529L**	Price	**SE5529R**	Price	**SE5519**	Price
3/8 x 31/32	3/32 x 5/8	9 to 10	**SE5530L**	Price	**SE5530R**	Price	**SE5520**	Price
1/2 x 1-3/16	1/8 x 3/4	11 to 14	**SE5531L**	Price	**SE5531R**	Price	**SE5521**	Price
5/8 x 1-3/8	1/8 x 7/8	14 to 16	**SE5532L**	Price	**SE5532R**	Price	**SE5522**	Price
3/4 x 1-5/8	3/16 x 1	16	**SE5533L**	Price	**SE5533R**	Price	**SE5523**	Price
7/8 x 1-3/4	3/16 x 1-1/8	18	**SE5534L**	Price	**SE5534R**	Price	**SE5524**	Price



Lathe Turning Tool Holders

For high speed tool bits
Tool bits not included



Holder Size (in.)	Square Size (in.)	Approx. Swing of Lathe	Left Hand		Right Hand		Straight	
			Order No.	Price	Order No.	Price	Order No.	Price
3/8 x 7/8 x 5	1/4	10 to 12	**SE550L**	Price	**SE550R**	Price	**SE550S**	Price
1/2 x 1-1/8 x 6	5/16	14 to 16	**SE551L**	Price	**SE551R**	Price	**SE551S**	Price
5/8 x 1-3/8 x 7	3/8	16 to 18	**SE552L**	Price	**SE552R**	Price	**SE552S**	Price
3/4 x 1-5/8 x 8	7/16	18 to 20	**SE553L**	Price	**SE553R**	Price	**SE553S**	Price
7/8 x 1-3/4 x 9	1/2	24 to 36	**SE554L**	Price	**SE554R**	Price	**SE554S**	Price

Carbide Turning Tool Holders

- For use with carbide tipped single points bits
- Tool bits **not** included



Holder Size (in.)	Square Size (in.)	Approx. Swing of Lathe	Left Hand		Right Hand		Straight	
			Order No.	Price	Order No.	Price	Order No.	Price
3/8 x 15/16 x 6	1/4	9 to 10	**SE55T0L**	Price	**SE55T0R**	Price	**SE55T0S**	Price
1/2 x 1-1/4 x 7	5/16	11 to 14	**SE55T1L**	Price	**SE55T1R**	Price	**SE55T1S**	Price
5/8 x 1-1/2 x 8	3/8	14 to 16	**SE55T2L**	Price	**SE55T2R**	Price	**SE55T2S**	Price
3/4 x 1-3/4 x 9	7/16	16	**SE55T3L**	Price	**SE55T3R**	Price	**SE55T3S**	Price
7/8 x 1-7/8 x 10	1/2	18	**SE55T4L**	Price	**SE55T4R**	Price	**SE55T4S**	Price

3-K Knurling Tool Holders

Revolving Head—Three Pairs of Knurls

- Complete with set of each - fine, medium and coarse knurls



Size of Holder (in.)	Dia. x Face x Hole	For Lathes of Approx. Swing (in.)	Order No.	Price
3/8 x 7/8 x 6	5/8 x 3/16 x 7/32	10 to 12	**SE573K0**	Price
1/2 x 1-1/8 x 7	3/4 x 3/8 x 1/4	14 to 16	**SE573K1**	Price
5/8 x 1-3/8 x 7-1/2	3/4 x 3/8 x 1/4	16 to 18	**SE573K2**	Price

Replacement Knurls

Size (in.)	Order No.	Price
3/4 x 1/4 x 1/4	**SE57E1KMS**	Price

Extra High Speed Knurls



Angle - Left						
Size (in.)	Coarse		Fine		Medium	
	Order No.	Price	Order No.	Price	Order No.	Price
5/8 x 5/16 x 7/32	**SE57EK0CL**	Price	**SE57EK0FL**	Price	**SE57EK0ML**	Price
3/4 x 3/8 x 1/4	**SE57EK1CL**	Price	**SE57EK1FL**	Price	**SE57EK1ML**	Price

Angle - Right						
Size (in.)	Coarse		Fine		Medium	
	Order No.	Price	Order No.	Price	Order No.	Price
5/8 x 5/16 x 7/32	**SE57EK0CR**	Price	**SE57EK0FR**	Price	**SE57EK0MR**	Price
3/4 x 3/8 x 1/4	**SE57EK1CR**	Price	**SE57EK1FR**	Price	**SE57EK1MR**	Price

Pivot Head Knurling Tool

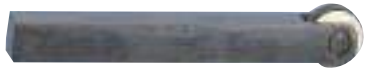
- Self-adjusting
- Pivot head
- One pair of knurls



Size of Holder (in.)	Dia. x Face x Hole	Order No.	Price
1/2 x 1/2 x 4-1/2	3/4 x 3/8 x 1/4	**SE57PH1**	Price

Single Head Knurling Tool

- Supplied with medium cut high speed knurl
- Medium cut replacement knurls only



Holder Size (in.)	Knurl Wheel Size (in.)	Order No.	Price
4 x 1/2 x 1/2	3/4 x 1/4 x 1/4	**SE571K**	Price

Knurl Sets

1 Pair Coarse, Medium, and Fine Knurls

Style	Size (in.)	Order No.	Price
Pair of each-Coarse, Medium, Fine	3/4 x 3/8 x 1/4	**SE57SK0**	Price
Pair of each-Coarse, Medium, Fine	5/8 x 5/16 x 7/32	**SE57SK1**	Price

For additional sizes and styles see index for knurls

MICRO 100 Carbide Tipped Cut-Off Blades

- Hardened and precision ground
- T-style over entire blade length to fit all T-style holders
- Tips are hollow ground for improved chip control
- Superior rupture strength for exceptional machine versatility
- Will not chip or break under normal conditions and is excellent for interrupted cuts
- High shock resistant
- Longer tool life
- Vastly increased feeds



Width (in.)	Height (in.)	Length (in.)	Standard		V-Groove	
			Order No.	Price	Order No.	Price
1/16	1/2	4-1/2	**GE45T100**	Price	**GE45T100V**	Price
5/64	1/2	4-1/2	**GE45T101**	Price	**GE45T101V**	Price
3/32	1/2	4-1/2	**GE45T102**	Price	**GE45T102V**	Price
3/32	11/16	5	**GE45T104**	Price	**GE45T104V**	Price
1/8	1/2	4-1/2	**GE45T103**	Price	**GE45T103V**	Price
1/8	11/16	5	**GE45T105**	Price	**GE45T105V**	Price
1/8	3/4	5	**GE45T108**	Price	**GE45T108V**	Price
1/8	7/8	6	**GE45T111**	Price	**GE45T111V**	Price
1/8	1-1/8	6	**GE45T115**	Price	**GE45T115V**	Price
5/32	11/16	5	**GE45T106**	Price	**GE45T106V**	Price
5/32	3/4	5	**GE45T109**	Price	**GE45T109V**	Price
5/32	7/8	6	**GE45T112**	Price	**GE45T112V**	Price
3/16	11/16	5	**GE45T107**	Price	**GE45T107V**	Price
3/16	3/4	5	**GE45T110**	Price	**GE45T110V**	Price
3/16	7/8	6	**GE45T113**	Price	**GE45T113V**	Price
3/16	1-1/8	6	**GE45T116**	Price	**GE45T116V**	Price

"P" Type Cut-Off Blades

T-Shape Parallel Style

- High speed steel
- Cobalt
- Carbide tipped



Style	Width (in.)	Height (in.)	Length (in.)	High Speed Steel		Cobalt		Carbide Tipped	
				Order No.	Price	Order No.	Price	Order No.	Price
P1	1/16	1/2	4-1/2	**FD50P1**	Price	**FD51P1**	Price	**FD52P1**	Price
P1N	.040	1/2	3-1/2	**FD50P1N**	Price	**FD51P1N**	Price	-	-
P2	3/32	1/2	4-1/2	**FD50P2**	Price	**FD51P2**	Price	**FD52P2**	Price
P2N	5/64	1/2	4-1/2	**FD50P2N**	Price	**FD51P2N**	Price	**FD52P2N**	Price
P3	1/8	11/16	5	**FD50P3**	Price	**FD51P3**	Price	**FD52P3**	Price
P3N	3/32	11/16	5	**FD50P3N**	Price	**FD51P3N**	Price	**FD52P3N**	Price
P3S	1/8	1/2	4-1/2	**FD50P3S**	Price	**FD51P3S**	Price	**FD52P3S**	Price
P3W	1/8	3/4	5	**FD50P3W**	Price	**FD51P3W**	Price	**FD52P3W**	Price
P4	5/32	11/16	5	**FD50P4**	Price	**FD51P4**	Price	**FD52P4**	Price
P4W	5/32	3/4	5	**FD50P4W**	Price	**FD51P4W**	Price	-	-
P5	3/16	7/8	6	**FD50P5**	Price	**FD51P5**	Price	**FD52P5**	Price
P5N	5/32	7/8	6	**FD50P5N**	Price	**FD51P5N**	Price	**FD52P5N**	Price
P5S	3/16	11/16	5	**FD50P5S**	Price	**FD51P5S**	Price	**FD52P5S**	Price
P5W	3/16	3/4	5	**FD50P5W**	Price	-	-	-	-
P5X	1/8	7/8	6	**FD50P5X**	Price	**FD51P5X**	Price	**FD52P5X**	Price
P6	1/4	7/8	6	**FD50P6**	Price	**FD51P6**	Price	-	-
P8	3/16	1-1/8	6-1/2	**FD50P8**	Price	**FD51P8**	Price	**FD52P8**	Price
P8N	5/32	1-1/8	6-1/2	**FD50P8N**	Price	-	-	**FD52P8N**	Price
P8X	1/8	1-1/8	6-1/2	**FD50P8X**	Price	**FD51P8X**	Price	**FD52P8X**	Price
P9	1/4	1-1/8	6-1/2	**FD50P9**	Price	**FD51P9**	Price	-	-

Extra Long Square Tool Bits

Ground Finish



Size (Square)	OAL (in.)	M-2		5% Cobalt		Super Cobalt	
		Order No.	Price	Order No.	Price	Order No.	Price
1/4	4	**FC55001**	Price	**FC65001**	Price	**FC75001**	Price
1/4	6	**FC55002**	Price	**FC65002**	Price	**FC75002**	Price
1/4	8	**FC55003**	Price	**FC65003**	Price	**FC75003**	Price
5/16	4	**FC55004**	Price	**FC65004**	Price	**FC75004**	Price
5/16	6	**FC55005**	Price	**FC65005**	Price	**FC75005**	Price
5/16	8	-	-	**FC65005X**	Price	-	-
3/8	4	**FC55006**	Price	**FC65006**	Price	**FC75006**	Price
3/8	6	**FC55007**	Price	**FC65007**	Price	**FC75007**	Price
3/8	8	**FC55008**	Price	**FC65008**	Price	**FC75008**	Price
7/16	6	**FC55009**	Price	**FC65009**	Price	**FC75009**	Price
1/2	6	**FC55010**	Price	**FC65010**	Price	**FC75010**	Price
1/2	8	**FC55011**	Price	**FC65011**	Price	**FC75011**	Price
5/8	6	**FC55012**	Price	**FC65012**	Price	**FC75012**	Price
5/8	8	**FC55013**	Price	**FC65013**	Price	**FC75013**	Price
3/4	6	**FC55014**	Price	**FC65014**	Price	**FC75014**	Price
3/4	8	**FC55015**	Price	**FC65015**	Price	**FC75015**	Price
1	8	**FC55016**	Price	-	-	-	-

Rectangular Tool Bits

Ground Finish



M-2 High Speed Steel

- Performance and economy
- Use for a wide variety of general purpose applications in both ferrous and non-ferrous materials.

5% Cobalt Steel

- Increased performance
- Use for hard and tough materials, and in longer production runs at higher speeds and feeds in mild materials.

Super Cobalt

- High performance
- For heavy cuts in high tensile, high heat-resistant materials and the machining of milder materials in longer production runs at higher speeds and feeds

Width (in.)	Height (in.)	Length (in.)	M-2		5% Cobalt		Super Cobalt	
			Order No.	Price	Order No.	Price	Order No.	Price
1/8	1/2	4	**FC53020804**	Price	**FC63020804**	Price	**FC73020804**	Price
1/4	3/8	4	**FC53040604**	Price	**FC63040604**	Price	**FC73040604**	Price
1/4	3/8	6	**FC53040606**	Price	**FC63040606**	Price	**FC73040606**	Price
1/4	1/2	4	**FC53040804**	Price	**FC63040804**	Price	**FC73040804**	Price
1/4	1/2	6	**FC53040806**	Price	**FC63040806**	Price	**FC73040806**	Price
1/4	3/4	4	**FC53041204**	Price	**FC63041204**	Price	**FC73041204**	Price
1/4	3/4	6	**FC53041206**	Price	**FC63041206**	Price	**FC73041206**	Price
1/4	1	6	**FC53041606**	Price	**FC63041606**	Price	**FC73041606**	Price
5/16	3/8	4	**FC53050604**	Price	**FC63050604**	Price	**FC73050604**	Price
5/16	7/16	3	**FC53050703**	Price	**FC63050703**	Price	-	-
5/16	1/2	4	**FC53050804**	Price	**FC63050804**	Price	**FC73050804**	Price
5/16	3/4	4	**FC53051204**	Price	**FC63051204**	Price	**FC73051204**	Price
5/16	1	6	**FC53051606**	Price	**FC63051606**	Price	**FC73051606**	Price
3/8	1/2	4	**FC53060804**	Price	**FC63060804**	Price	**FC73060804**	Price
3/8	5/8	4	**FC53061004**	Price	**FC63061004**	Price	**FC73061004**	Price
3/8	5/8	5	**FC53061005**	Price	-	-	-	-
3/8	5/8	6	-	-	**FC63061006**	Price	**FC73061006**	Price
3/8	3/4	4	**FC53061204**	Price	**FC63061204**	Price	**FC73061204**	Price
3/8	3/4	6	**FC53061206**	Price	**FC63061206**	Price	**FC73061206**	Price
3/8	1	6	**FC53061606**	Price	**FC63061606**	Price	**FC73061606**	Price
1/2	3/4	4	**FC53081204**	Price	**FC63081204**	Price	**FC73081204**	Price
1/2	3/4	6	**FC53081206**	Price	**FC63081206**	Price	**FC73081206**	Price
1/2	1	7	**FC53081607**	Price	**FC63081607**	Price	**FC73081607**	Price
1/2	1-1/4	7	**FC53082007**	Price	**FC63082007**	Price	**FC73082007**	Price
1/2	1-1/2	7	**FC53082407**	Price	**FC63082407**	Price	**FC73082407**	Price
5/8	3/4	5	**FC53101205**	Price	**FC63101205**	Price	**FC73101205**	Price
5/8	7/8	6	-	-	**FC63101406**	Price	-	-
5/8	1	7	**FC53101607**	Price	**FC63101607**	Price	**FC73101607**	Price
5/8	1-1/4	7	**FC53102007**	Price	**FC63102007**	Price	**FC73102007**	Price
5/8	1-1/2	7	-	-	**FC63102407**	Price	**FC73102407**	Price
3/4	1	7	**FC53121607**	Price	**FC63121607**	Price	**FC73121607**	Price
3/4	1-1/4	7	**FC53122007**	Price	-	-	**FC73122007**	Price
3/4	1-1/2	7	**FC53122407**	Price	**FC63122407**	Price	**FC73122407**	Price
1	1-1/4	7	**FC53162007**	Price	**FC63162007**	Price	**FC73162007**	Price
1	1-1/2	7	**FC53162407**	Price	**FC63162407**	Price	**FC73162407**	Price

Square Tool Bits

Ground Finish



Size (Square) (in.)	OAL (in.)	M-2		5% Cobalt		Super Cobalt	
		Order No.	Price	Order No.	Price	Order No.	Price
1/8	2-1/2	**FC51002**	Price	**FC61002**	Price	**FC71002**	Price
3/16	2-1/2	**FC51003**	Price	**FC61003**	Price	**FC71003**	Price
1/4	2-1/2	**FC51004**	Price	**FC61004**	Price	**FC71004**	Price
5/16	2-1/2	**FC51005**	Price	**FC61005**	Price	**FC71005**	Price
3/8	3	**FC51006**	Price	**FC61006**	Price	**FC71006**	Price
7/16	3-1/2	**FC51007**	Price	**FC61007**	Price	**FC71007**	Price
1/2	4	**FC51008**	Price	**FC61008**	Price	**FC71008**	Price
5/8	4-1/2	**FC51010**	Price	**FC61010**	Price	**FC71010**	Price
3/4	5	**FC51012**	Price	**FC61012**	Price	**FC71012**	Price
7/8	6	**FC51014**	Price	**FC61014**	Price	**FC71014**	Price
1	7	**FC51016**	Price	**FC61016**	Price	**FC71016**	Price
1-1/2	10	**FC51024**	Price	**FC61024**	Price	-	-

Cobalt Tapered Cut-Off Blades

Ground and Cleared



Width (in.)	Height (in.)	Length (in.)	For Toolholder	Order No.	Price
1/16	1/2	4-1/2	-	**FD60001**	Price
1/16	11/16	5	-	**FD60002**	Price
3/32	1/2	4-1/2	19, 29R, 29L	**FD60003**	Price
3/32	5/8	5	20, 30R, 30L	**FD60004**	Price
1/8	1/2	4-1/2	19, 29R, 29L	**FD60005**	Price
1/8	3/4	5	21, 31R, 31L	**FD60006**	Price
1/8	7/8	6	22, 32R, 32L	**FD60007**	Price
3/16	3/4	6	21, 31R, 31L	**FD60008**	Price
3/16	1	6-1/2	23, 33R, 33L	**FD60009**	Price
3/16	1-1/8	7	24, 34R, 34L	**FD60010**	Price
1/4	1-1/8	7	25, 35R, 35L	**FD60011**	Price
1/4	1-1/4	7	-	**FD60012**	Price

MICRO 100 Solid Carbide Round Blanks

- Unexcelled in interrupted cuts
- Longer tool life
- Vastly increased feeds
- Shock resistant, will not chip or break under normal machining conditions
- High abrasion resistance
- Widest applications with only one carbide grade
- Diameter: -.0001 to -.0002” finish ground

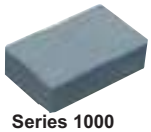
MADE IN THE USA



Dia. (in.)	Length (in.)	Order No.	Price
1/16	1	GE45SR0621	Price
1/16	4	GE45SR0624	Price
1/16	12	GE45SR06212	Price
3/32	6	GE45SR0936	Price
3/32	12	GE45SR09312	Price
1/8	1-1/2	GE45SR12515	Price
1/8	2	GE45SR1252	Price
1/8	3	GE45SR1253	Price
1/8	4	GE45SR1254	Price
1/8	6	GE45SR1256	Price
1/8	12	GE45SR12512	Price
5/32	1-1/2	GE45SR15615	Price
5/32	4	GE45SR1564	Price
5/32	6	GE45SR1566	Price
5/32	12	GE45SR15612	Price
3/16	1-1/2	GE45SR18715	Price
3/16	2	GE45SR1872	Price
3/16	4	GE45SR1874	Price
3/16	6	GE45SR1876	Price
3/16	12	GE45SR18712	Price
1/4	2	GE45SR2502	Price
1/4	2-1/2	GE45SR25025	Price
1/4	3	GE45SR2503	Price
1/4	4	GE45SR2504	Price
1/4	6	GE45SR2506	Price
1/4	12	GE45SR25012	Price
5/16	2	GE45SR3122	Price
5/16	2-1/2	GE45SR31225	Price
5/16	4	GE45SR3124	Price
5/16	12	GE45SR31212	Price
3/8	4	GE45SR3754	Price
3/8	6	GE45SR3756	Price
3/8	12	GE45SR37512	Price
7/16	6	GE45SR4376	Price
1/2	4	GE45SR5004	Price
1/2	6	GE45SR5006	Price
1/2	12	GE45SR50012	Price
5/8	3-1/2	GE45SR62535	Price
5/8	4	GE45SR6254	Price
5/8	6	GE45SR6256	Price
5/8	12	GE45SR62512	Price
3/4	4	GE45SR7504	Price
3/4	6	GE45SR7506	Price
3/4	12	GE45SR75012	Price
1	5	GE45SR0015	Price

MICRO 100 Solid Carbide Blanks

MADE IN THE USA



Series 1000



Series 2000



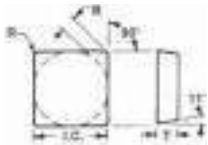
Series 6000

Thickness (in.)	Width (in.)	OAL (in.)	R Radius (in.)	Order No.	Price
1/32	1/16	3/4	-	GE45STB12A	Price
3/64	3/32	13/16	-	GE45STB13A	Price
1/16	1/8	3/4	1/4	GE45RT4	Price
1/16	3/16	1/4	1/8	GE452020	Price
1/16	1/4	1/4	-	GE451025	Price
1/16	1/4	5/16	1/64	GE455030	Price
1/16	1/4	5/16	1/8	GE452030	Price
3/32	3/16	7/8	5/16	GE45RT6	Price
3/32	1/4	3/8	-	GE457060	Price
3/32	5/16	3/8	-	GE451080	Price
3/32	5/16	3/8	-	GE456080	Price
3/32	5/16	3/8	1/64	GE455080	Price
3/32	3/8	3/8	-	GE451090	Price
3/32	3/8	1/2	-	GE456100	Price
3/32	3/8	1/2	1/64	GE455100	Price
3/32	7/16	1/2	-	GE451105	Price
3/32	7/16	1/2	1/32	GE455105	Price
1/8	3/16	5/16	-	GE451114	Price
1/8	1/4	1/2	1/8	GE452120	Price
1/8	1/4	3/4	-	GE451140	Price
1/8	1/4	1-1/4	1/4	GE45STB48	Price
1/8	5/16	5/8	-	GE457170	Price
1/8	1/2	1/2	-	GE451200	Price
1/8	1/2	1/2	-	GE456200	Price
1/8	1/2	1/2	1/32	GE455200	Price
5/32	3/8	3/4	-	GE457230	Price
5/32	3/8	3/4	1/8	GE452230	Price
5/32	5/8	5/8	-	GE451240	Price
5/32	5/8	5/8	-	GE456240	Price
5/32	5/8	5/8	1/32	GE455240	Price
3/16	5/16	7/16	-	GE451250	Price
3/16	3/8	1/2	-	GE451270	Price
1/4	1/2	5/8	-	GE451375	Price
1/4	1/2	3/4	-	GE451380	Price
1/4	1	3/4	1/32	GE455410	Price

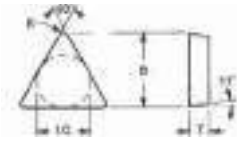
MICRO 100 Style TPG Inserts

- A “space age” micro grain carbide developed for machining high strength thermal resistant alloys
- All surfaces ground
- IC ± .001”
- Thickness ± .005”

MADE IN THE USA









IC (in.)	T (in.)	R	Order No.	Price
1/4	.125	.031	GE45TPG222M	Price
3/8	.125	.016	GE45TPG321M	Price
3/8	.125	.031	GE45TPG322M	Price
1/2	.187	.031	GE45TPG432M	Price

STB Carbide Rectangular Strips

- Solid carbide rectangular strips are widely used as wear-proofing machine parts, tools, grinder rests & appliances
- Standard grade C-2 carbide
- Other grades available on request



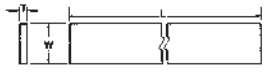
Blank No.	Thickness (in.)	Width (in.)	OAL (in.)	Order No.	Price
STB12	1/32	1/16	1	**FF51STB12**	Price
STB12A	1/32	1/16	1-1/2	**FF51STB12A**	Price
STB13	3/64	3/32	1	**FF51STB13**	Price
STB24A	1/16	1/8	1	**FF51STB24A**	Price
STB24C	1/16	1/8	1-1/4	**FF51STB24C**	Price
STB26A	1/16	3/16	1	**FF51STB26A**	Price
STB26C	1/16	3/16	3	**FF51STB26C**	Price
STB28A	1/16	1/4	1	**FF51STB28A**	Price
STB28B	1/16	1/4	1-1/4	**FF51STB28B**	Price
STB28D	1/16	1/4	3	**FF51STB28D**	Price
STB310A	3/32	5/16	2	**FF51STB310A**	Price
STB310B	3/32	5/16	3	**FF51STB310B**	Price
STB310C	3/32	5/16	5	**FF51STB310C**	Price
STB312	3/32	3/8	5	**FF51STB312**	Price
STB34	3/32	1/8	5	**FF51STB34**	Price
STB36A	3/32	3/16	1-1/4	**FF51STB36A**	Price
STB38A	3/32	1/4	1	**FF51STB38A**	Price
STB38B	3/32	1/4	1-1/2	**FF51STB38B**	Price
STB410	1/8	5/16	6	**FF51STB410**	Price
STB410A	1/8	5/16	1-1/2	**FF51STB410A**	Price
STB410B	1/8	5/16	3	**FF51STB410B**	Price
STB412A	1/8	3/8	2	**FF51STB412A**	Price
STB412B	1/8	3/8	3	**FF51STB412B**	Price
STB412C	1/8	3/8	6	**FF51STB412C**	Price
STB412D	1/8	3/8	1	**FF51STB412D**	Price
STB416	1/8	1/2	6	**FF51STB416**	Price
STB416A	1/8	1/2	1	**FF51STB416A**	Price
STB416B	1/8	1/2	1-1/2	**FF51STB416B**	Price
STB416C	1/8	1/2	3	**FF51STB416C**	Price

Blank No.	Thickness (in.)	Width (in.)	OAL (in.)	Order No.	Price
STB420	1/8	5/8	6	**FF51STB420**	Price
STB424	1/8	3/4	6	**FF51STB424**	Price
STB432	1/8	1	6	**FF51STB432**	Price
STB46	1/8	3/16	6	**FF51STB46**	Price
STB48A	1/8	1/4	1	**FF51STB48A**	Price
STB48B	1/8	1/4	1-1/4	**FF51STB48B**	Price
STB48C	1/8	1/4	2-1/4	**FF51STB48C**	Price
STB48D	1/8	1/4	3	**FF51STB48D**	Price
STB48E	1/8	1/4	6	**FF51STB48E**	Price
STB48F	1/8	1/4	1-1/2	**FF51STB48F**	Price
STB610	3/16	5/16	6	**FF51STB610**	Price
STB610A	3/16	5/16	3	**FF51STB610A**	Price
STB612	3/16	3/8	6	**FF51STB612**	Price
STB612A	3/16	3/8	3	**FF51STB612A**	Price
STB616	3/16	1/2	6	**FF51STB616**	Price
STB616A	3/16	1/2	3	**FF51STB616A**	Price
STB620	3/16	5/8	6	**FF51STB620**	Price
STB624A	3/16	3/4	4	**FF51STB624A**	Price
STB624B	3/16	3/4	2	**FF51STB624B**	Price
STB68	3/16	1/4	6	**FF51STB68**	Price
STB812	1/4	3/8	6	**FF51STB812**	Price
STB812A	1/4	3/8	3	**FF51STB812A**	Price
STB816	1/4	1/2	6	**FF51STB816**	Price
STB816A	1/4	1/2	3	**FF51STB816A**	Price
STB816C	1/4	1/2	2	**FF51STB816C**	Price
STB820	1/4	5/8	6	**FF51STB820**	Price
STB824	1/4	3/4	6	**FF51STB824**	Price
STB824A	1/4	3/4	3	**FF51STB824A**	Price

All blanks are unground with grind stock.

STBL Carbide Long Rectangular Blanks

Blank No.	Thickness (in.)	Width (in.)	OAL (in.)	Order No.	Price
STB22L	1/16	1/16	6	**FF51STB22L**	Price
STB24L	1/16	1/8	6	**FF51STB24L**	Price
STB26L	1/16	3/16	6	**FF51STB26L**	Price
STB28L	1/16	1/4	6	**FF51STB28L**	Price
STB34L	3/32	1/8	8	**FF51STB34L**	Price
STB36L	3/32	3/16	8	**FF51STB36L**	Price
STB38L	3/32	1/4	8	**FF51STB38L**	Price
STB44L	1/8	1/8	12	**FF51STB44L**	Price
STB48L	1/8	1/4	12	**FF51STB48L**	Price
STB66L	3/16	3/16	12	**FF51STB66L**	Price
STB68L	3/16	1/4	12	**FF51STB68L**	Price
STB88L	1/4	1/4	12	**FF51STB88L**	Price
STB210L	1/16	5/16	6	**FF51STB210L**	Price
STB212L	1/16	3/8	6	**FF51STB212L**	Price
STB216L	1/16	1/2	6	**FF51STB216L**	Price
STB220L	1/16	5/8	6	**FF51STB220L**	Price
STB224L	1/16	3/4	6	**FF51STB224L**	Price
STB232L	1/16	1	6	**FF51STB232L**	Price
STB310L	3/32	5/16	8	**FF51STB310L**	Price
STB316L	3/32	1/2	8	**FF51STB316L**	Price





Blank No.	Thickness (in.)	Width (in.)	OAL (in.)	Order No.	Price
STB412L	1/8	3/8	12	**FF51STB412L**	Price
STB416L	1/8	1/2	12	**FF51STB416L**	Price
STB420L	1/8	5/8	12	**FF51STB420L**	Price
STB424L	1/8	3/4	12	**FF51STB424L**	Price
STB616L	3/16	1/2	12	**FF51STB616L**	Price
STB620L	3/16	5/8	12	**FF51STB620L**	Price
STB624L	3/16	3/4	12	**FF51STB624L**	Price
STB632L	3/16	1	12	**FF51STB632L**	Price
STB812L	1/4	3/8	12	**FF51STB812L**	Price
STB816L	1/4	1/2	12	**FF51STB816L**	Price
STB820L	1/4	5/8	12	**FF51STB820L**	Price
STB824L	1/4	3/4	12	**FF51STB824L**	Price
STB832L	1/4	1	12	**FF51STB832L**	Price
STB1212L	3/8	3/8	12	**FF51STB1212L**	Price
STB1216L	3/8	1/2	12	**FF51STB1216L**	Price
STB1224L	3/8	3/4	12	**FF51STB1224L**	Price
STB1616L	1/2	1/2	12	**FF51STB1616L**	Price
STB1624L	1/2	3/4	12	**FF51STB1624L**	Price

RRG 12" Long Carbide Rod - Centerless Ground



- Sub micrograin
- 10% Cobalt
- Ask for special quote on quantities over 1,000 pieces.
- † Tolerance +.0000 - .0005

† Unless otherwise specified, centerless grinding tolerance on all round blanks will be +.0000 - .0005 triangulation and T.I.R. will be guaranteed only within the diameter tolerance, as measured in a V-block. No guarantee will be made on straightness of rods over 6" long or under 1/8" diameter, otherwise .0002" per inch.

Rod Dia. (in.)	Rod Length (in.)	Order No.	Price
.040	12	**FF53RRG212**	Price
1/16	12	**FF53RRG4**	Price
5/64	12	**FF53RRG5**	Price
3/32	12	**FF53RRG6**	Price
1/8	12	**FF53RRG8**	Price
9/64	12	**FF53RRG9**	Price
5/32	12	**FF53RRG10**	Price
11/64	12	**FF53RRG11**	Price
3/16	12	**FF53RRG12**	Price
7/32	12	**FF53RRG14**	Price
1/4	12	**FF53RRG16**	Price
3/8	12	**FF53RRG24**	Price
9/16	12	**FF53RRG36**	Price

Carbide Rounds - Ground



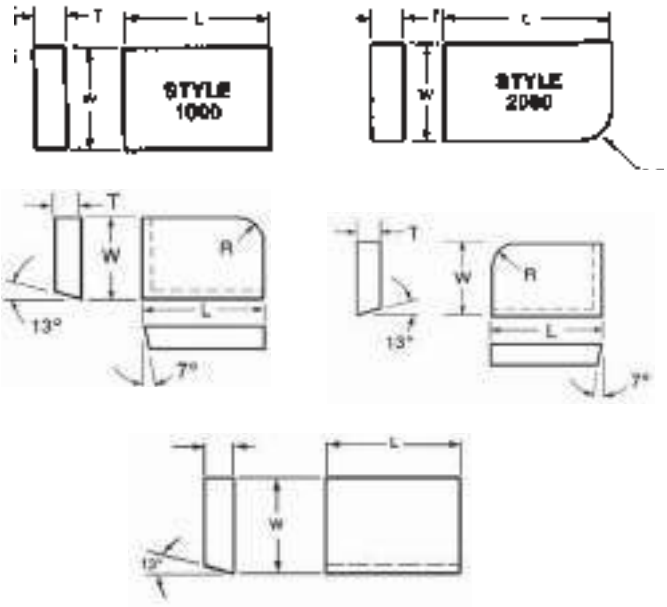
- Sub micrograin
- 10% Cobalt
- † Tolerance +.0000 - .0005

Dia. (in.)	Length (in.)	Order No.	Price
1/16	1-1/2	**FF52CY6**	Price
5/64	2	**FF52CY7**	Price
3/32	2	**FF52CY8**	Price
3/32	2-1/2	**FF52CY9**	Price
1/8	2	**FF52CY13**	Price
1/8	2-1/2	**FF52CY15**	Price
1/8	3	**FF52CY16**	Price
1/8	4	**FF52CY16A**	Price
1/8	6	**FF52CY16B**	Price
5/32	1-1/2	**FF52CY17**	Price
5/32	2	**FF52CY17A**	Price
5/32	2-1/2	**FF52CY18**	Price
5/32	3	**FF52CY18A**	Price
3/16	1-1/2	**FF52CY19**	Price
3/16	2	**FF52CY20**	Price
3/16	2-1/2	**FF52CY21**	Price
3/16	3	**FF52CY22**	Price
3/16	4	**FF52CY23**	Price
3/16	6	**FF52CY23A**	Price
1/4	1-1/4	**FF52CY25**	Price
1/4	1-1/2	**FF52CY24A**	Price
1/4	2	**FF52CY24**	Price
1/4	2-1/2	**FF52CY26**	Price

Dia. (in.)	Length (in.)	Order No.	Price
1/4	3	**FF52CY27**	Price
1/4	4	**FF52CY28**	Price
1/4	6	**FF52CY28A**	Price
5/16	2	**FF52CY29**	Price
5/16	2-1/2	**FF52CY30**	Price
5/16	4	**FF52CY32**	Price
5/16	6	**FF52CY33**	Price
3/8	2	**FF52CY34**	Price
3/8	2-1/2	**FF52CY35**	Price
3/8	3	**FF52CY36**	Price
3/8	4	**FF52CY38**	Price
3/8	6	**FF52CY39**	Price
1/2	2-1/2	**FF52CY43**	Price
1/2	3	**FF52CY44**	Price
1/2	4	**FF52CY46**	Price
1/2	6	**FF52CY47**	Price
5/8	6	**FF52CY50A**	Price
3/4	3-1/2	**FF52CY51**	Price
3/4	4	**FF52CY52**	Price
3/4	6	**FF52CY53**	Price
1	4	**FF52CY54**	Price
1	6	**FF52CY55**	Price

Standard Blanks





Thickness (in.)	Width (in.)	OAL (in.)	Radius (in.)	1000		2000	
				Order No.	Price	Order No.	Price
1/16	1/4	5/16	1/8	**FF541030**	Price	**FF542030**	Price
1/16	1/8	5/8	1/8	**FF541010**	Price	**-**	-
1/16	3/16	1/4	1/8	**FF541020**	Price	**-**	-
3/32	1/4	1/2	1/8	**FF541070**	Price	**-**	-
3/32	1/4	3/8	1/8	**FF541060**	Price	**FF542060**	Price
3/32	3/16	1/2	1/8	**-**	-	**FF542050**	Price
3/32	3/16	5/16	1/8	**FF541040**	Price	**-**	-
3/32	3/8	1/2	3/16	**FF541100**	Price	**-**	-
3/32	3/8	3/8	3/16	**FF541090**	Price	**-**	-
1/8	1/2	1/2	1/4	**FF541200**	Price	**FF542200**	Price
1/8	1/2	3/4	1/4	**FF541210**	Price	**FF542210**	Price
1/8	1/4	1/2	1/8	**FF541120**	Price	**FF542120**	Price
1/8	1/4	3/4	1/8	**FF541140**	Price	**FF542140**	Price
1/8	1/4	5/8	1/8	**FF541130**	Price	**FF542130**	Price
1/8	3/16	3/4	1/8	**FF541110**	Price	**-**	-
1/8	3/4	3/4	1/4	**FF541215**	Price	**FF542215**	Price
1/8	3/8	1/2	3/16	**FF541180**	Price	**FF542180**	Price
1/8	3/8	3/4	3/16	**FF541190**	Price	**FF542190**	Price
1/8	5/16	1/2	3/16	**FF541160**	Price	**FF542160**	Price
1/8	5/16	5/8	3/16	**-**	-	**FF542170**	Price
5/32	3/8	3/4	3/16	**FF541230**	Price	**-**	-
5/32	3/8	9/16	3/16	**FF541220**	Price	**-**	-
5/32	5/8	5/8	1/4	**FF541240**	Price	**-**	-
3/16	1/2	1/2	1/4	**FF541320**	Price	**-**	-
3/16	1/2	3/4	1/4	**FF541330**	Price	**-**	-
3/16	3/4	3/4	1/4	**FF541340**	Price	**-**	-
3/16	3/8	1/2	3/16	**FF541270**	Price	**-**	-
3/16	3/8	3/4	3/16	**FF541290**	Price	**-**	-
3/16	5/16	5/8	3/16	**FF541260**	Price	**-**	-
3/16	5/16	7/16	3/16	**FF541250**	Price	**-**	-
3/16	7/16	13/16	1/4	**FF541310**	Price	**-**	-
3/16	7/16	5/8	1/4	**FF541300**	Price	**-**	-

Also available in other styles call for quote.

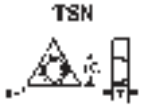
TS Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
TS424	1/2	1/8	1/64	**FF7171760**	Price



TSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
TSN322	3/8	1/8	1/32	**FF7171770**	Price
TSN324	3/8	1/8	1/16	**FF7171790**	Price
TSN332	3/8	3/16	1/32	**FF7171800**	Price
TSN333	3/8	3/16	3/64	**FF7171810**	Price
TSN434	1/2	3/16	1/16	**FF7171820**	Price
TSN435	1/2	3/16	5/64	**FF7171830**	Price
TSN532	5/8	3/16	1/32	**FF7171840**	Price
TSN534	5/8	3/16	1/16	**FF7171850**	Price
TSN535	5/8	3/16	5/64	**FF7171860**	Price
TSN538	5/8	3/16	1/8	**FF7171870**	Price
TSN539	5/8	3/16	9/64	**FF7171880**	Price
TSN633	3/4	3/16	3/64	**FF7171890**	Price
TSN636	3/4	3/16	3/32	**FF7171900**	Price



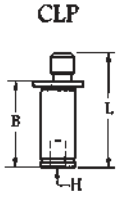
TSP Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
TSP321	3/8	1/8	1/64	**FF7171920**	Price
TSP431	1/2	3/16	1/64	**FF7171930**	Price



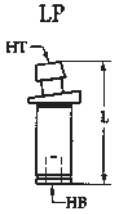
CLP Cam Pins

Model No.	Insert I.C. (in.)	L (in.)	B (in.)	H (in.)	Order No.	Price
CLP25	3/8	.62	.48	3/32	**FF7172990**	Price
CLP36	1/2	.75	.53	1/8	**FF7173010**	Price
CLP38	1/2	1.00	.80	1/8	**FF7173020**	Price
CLP48	5/8	1.00	.73	5/32	**FF7173050**	Price
CLP58	3/4	1.00	.73	5/32	**FF7173080**	Price
CLP312	1/2	1.50	1.28	1/8	**FF7173040**	Price
CLP410	5/8	1.25	.85	5/32	**FF7173060**	Price
CLP510	3/4	1.25	.98	5/32	**FF7173090**	Price
CLP512S	3/4	1.50	1.23	5/32	**FF7173100**	Price
CLP512T	3/4	1.50	1.10	5/32	**FF7173110**	Price
CLP612	1	1.50	1.10	7/32	**FF7173120**	Price
CLP616	1	2.00	1.60	7/32	**FF7173130**	Price



LP Cam Pins

Model No.	Insert I.C. (in.)	L (in.)	HT (in.)	HB (in.)	Order No.	Price
LP31	3/8	.59	3/64	3/32	**FF7173220**	Price
LP32	3/8	.97	3/64	3/32	**FF7173230**	Price
LP53	1/2	.63	3/32	1/8	**FF7173240**	Price
LP55	1/2	.71	3/32	1/8	**FF7173250**	Price
LP56	1/2	.96	3/32	1/8	**FF7173260**	Price
LP57	1/2	1.21	3/32	1/8	**FF7173270**	Price
LP58	1/2	1.46	3/32	1/8	**FF7173280**	Price
LP59	3/8	.45	3/32	1/8	**FF7173290**	Price
LP65	5/8	.97	7/64	5/32	**FF7173300**	Price
LP66	5/8	1.22	7/64	5/32	**FF7173310**	Price
LP67	5/8	1.47	7/64	5/32	**FF7173320**	Price
LP70	3/4	.97	5/32	5/32	**FF7173330**	Price
LP71	3/4	1.22	5/32	5/32	**FF7173340**	Price
LP72	3/4	1.47	5/32	5/32	**FF7173350**	Price



TCLP Cam Pins

Model No.	Insert I.C. (in.)	L (in.)	B (in.)	HT (in.)	HB (in.)	Order No.	Price
TCLP310	1/2	1.25	1.03	7/64	1/8	**FF7173170**	Price
TCLP410	5/8	1.25	.85	1/8	1/8	**FF7173180**	Price



CBS Chipbreakers

Model No.	I.C. (in.)	E.W. (in.)	Order No.	Price
CBS4L	1/2	.063	**FF7172130**	Price
CBS6H	3/4	.188	**FF7172150**	Price
CBS6L	3/4	.063	**FF7172160**	Price
CBS12	3/8	.062	**FF7172170**	Price
CBS16	1/2	.157	**FF7172180**	Price
CBS16F	1/2	.062	**FF7172190**	Price
CBS24	3/4	.188	**FF7172210**	Price
CBS24F	3/4	.062	**FF7172220**	Price
CBS24N	3/4	.101	**FF7172230**	Price



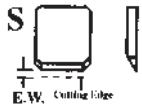
CBT Chipbreakers

Model No.	I.C. (in.)	E.W. (in.)	Order No.	Price
CBT3G	3/8	.094	**FF7171960**	Price
CBT3L	3/8	.063	**FF7171970**	Price
CBT4G	1/2	.094	**FF7171980**	Price
CBT4H	1/2	.156	**FF7171990**	Price
CBT4L	1/2	.063	**FF7172000**	Price
CBT5G	5/8	.156	**FF7172010**	Price
CBT6H	3/4	.345	**FF7172020**	Price
CBT6L	3/4	.156	**FF7172030**	Price
CBT8	1/4	.062	**FF7172040**	Price
CBT12	3/8	.129	**FF7172050**	Price
CBT12F	3/8	.057	**FF7172060**	Price
CBT12N	3/8	.081	**FF7172070**	Price
CBT16	1/2	.191	**FF7172080**	Price
CBT16F	1/2	.054	**FF7172090**	Price
CBT16N	1/2	.101	**FF7172100**	Price
CBT20	5/8	.191	**FF7172110**	Price
CBT20N	5/8	.101	**FF7172120**	Price



S Chipbreakers

Model No.	I.C. (in.)	E.W. (in.)	Order No.	Price
S43AD	1/2	.078	**FF7172260**	Price
S4AC	1/2	.061	**FF7172240**	Price
S63AD	3/4	.071	**FF7172270**	Price
S63AE	3/4	.091	**FF7172280**	Price
S63AG	3/4	.141	**FF7172290**	Price
S63AK	3/4	.203	**FF7172300**	Price



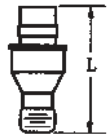
T Chipbreakers

Model No.	I.C. (in.)	E.W. (in.)	Order No.	Price
T2AC	1/4	.061	**FF7172310**	Price
T3AC	3/8	.061	**FF7172320**	Price
T3AE	3/8	.091	**FF7172330**	Price
T3AG	3/8	.125	**FF7172340**	Price
T4AC	1/2	.061	**FF7172350**	Price
T4AE	1/2	.091	**FF7172360**	Price
T4AG	1/2	.125	**FF7172370**	Price
T5AG	5/8	.141	**FF7172380**	Price
T33AC	3/8	.047	**FF7172390**	Price
T33AD	3/8	.071	**FF7172400**	Price
T33AH	3/8	.155	**FF7172410**	Price
T53AG	5/8	.123	**FF7172420**	Price



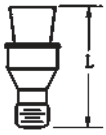
MN Lock Pins

Model No.	Insert I.C. (in.)	L (in.)	H (in.)	Thread	Order No.	Price
MN23	1/4	.30	1/16	8-32	**FF7172810**	Price
MN33	3/8	.32	5/64	10-32	**FF7172820**	Price
MN33L	3/8	.37	5/64	10-32	**FF7172830**	Price
MN34	3/8	.42	5/64	10-32	**FF7172840**	Price
MN34L	3/8	.48	5/64	10-32	**FF7172850**	Price
MN43	1/2	.40	5/64	10-32	**FF7172860**	Price
MN44	1/2	.49	3/32	1/4-28	**FF7172870**	Price
MN46	1/2	.65	3/32	1/4-28	**FF7172880**	Price
MN46L	1/2	.69	3/32	1/4-28	**FF7172890**	Price
MN56	5/8	.70	1/8	5/16-24	**FF7172900**	Price
MN58	5/8	.83	1/8	5/16-24	**FF7172910**	Price
MN66	3/4	.70	9/64	3/8-24	**FF7172920**	Price
MN66L	3/4	.83	9/64	3/8-24	**FF7172930**	Price
MN68	3/4	.83	9/64	3/8-24	**FF7172940**	Price
MN68L	3/4	.95	9/64	3/8-24	**FF7172950**	Price
MN810	1	1.14	5/32	7/16-20	**FF7172960**	Price



PL Lock Pins

Model No.	Insert I.C. (in.)	L (in.)	H (in.)	Thread	Order No.	Price
PL2.53	5/16	.32	1/16	8-32	**FF7172740**	Price
PL33	3/8	.34	5/64	10-32	**FF7172750**	Price
PL34	3/8	.45	5/64	10-32	**FF7172760**	Price
PL44	1/2	.52	3/32	1/4-28	**FF7172770**	Price
PL46	1/2	.67	3/32	1/4-28	**FF7172780**	Price
PL58	5/8	.86	1/8	5/16-24	**FF7172790**	Price
PL68	3/4	.86	9/64	3/8-24	**FF7172800**	Price

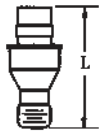


NLM Lock Pins

Model No.	Insert I.C. (in.)	L (mm)	H (mm)	Thread (mm)	Order No.	Price
NLM46	1/2	17.2	2.5mm	M6.3 x 1.0	**FF7172630**	Price
NLM54	5/8	18.6	2.5mm	M6.3 x 1.0	**FF7172640**	Price
NLM58	5/8	21.8	3mm	M8 x 1.0	**FF7172650**	Price
NLM68	3/4	21.8	4mm	M10 x 1.0	**FF7172660**	Price

KL Lock Pins

Model No.	Insert I.C. (in.)	L (in.)	H (in.)	Thread	Order No.	Price
KL33L	3/8	.41	5/64	10-32	**FF7172670**	Price
KL34L	3/8	.51	5/64	10-32	**FF7172680**	Price
KL44	1/2	.51	3/32	1/4-28	**FF7172690**	Price
KL46	1/2	.67	3/32	1/4-28	**FF7172700**	Price
KL68	3/4	.86	9/64	3/8-24	**FF7172710**	Price
KL68L	3/4	.95	9/64	3/8-24	**FF7172720**	Price



CL Clamps

Model No.	A (in.)	C (in.)	D (in.)	T	Order No.	Price
CL5	.28	.52	.35	10-32	**FF7173360**	Price
CL6	.31	.58	.44	10-32	**FF7173370**	Price
CL7	.31	.64	.31	10-32	**FF7173380**	Price
CL9	.43	.75	.66	5/16-24	**FF7173390**	Price
CL12	.43	.88	.66	5/16-24	**FF7173400**	Price
CL19	.31	.55	.31	10-32	**FF7173410**	Price
CL20	.37	.73	.38	1/4-28	**FF7173420**	Price
CL24	.49	1	.78	3/8-24	**FF7173430**	Price
CL30	.43	1	.66	5/16-24	**FF7173440**	Price
CL41	.43	.75	.66	5/16-24	**FF7173450**	Price
CL42	.43	.88	.66	5/16-24	**FF7173460**	Price
CL43	.37	.73	.53	1/4-28	**FF7173470**	Price
CL44	.37	.85	.53	1/4-28	**FF7173471**	Price
CL45	.49	1	.78	3/8-24	**FF7173480**	Price
CL46	.43	1	.66	5/16-24	**FF7173490**	Price
CL48	.31	.64	.31	10-32	**FF7173500**	Price



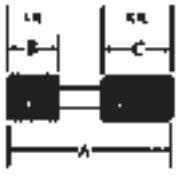
CK Clamps

Model No.	A (in.)	C (in.)	D (in.)	T	Order No.	Price
CK7	.31	.64	.31	10-32	**FF7173580**	Price
CK9	.43	.75	.66	5/16-24	**FF7173590**	Price
CK10	.43	.75	.44	5/16-24	**FF7173600**	Price
CK12	.43	.88	.69	5/16-24	**FF7173610**	Price
CK13	.43	.88	.47	5/16-24	**FF7173620**	Price
CK19	.31	.55	.28	10-32	**FF7173630**	Price
CK20	.37	.73	.40	1/4-28	**FF7173640**	Price
CK21	.37	.73	.53	1/4-28	**FF7173650**	Price
CK24	.49	1	.78	3/8-24	**FF7173660**	Price



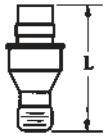
Differential Screws

Model No.	A (in.)	B (in.)	C (in.)	H (in.)	T	Order No.	Price
CS30	1.16	.50	.41	5/32	5/16-24	**FF7173900**	Price
CS32	1.38	.50	.50	3/16	3/8-24	**FF7173910**	Price
CS33	1.16	.45	.45	1/8	1/4-28	**FF7173920**	Price
CS35	.59	.19	.19	3/32	10-32	**FF7173930**	Price
LS20	.62	.25	.25	3/32	10-32	**FF7173940**	Price
LS30	1.00	.40	.40	1/8	1/4-28	**FF7173950**	Price
MS36	.75	.25	.25	3/32	10-32	**FF7173960**	Price
MS48	1.00	.38	.38	1/8	1/4-28	**FF7173970**	Price
MS59	1.12	.50	.50	5/32	5/16-24	**FF7173980**	Price
MS510	1.25	.50	.50	5/32	5/16-24	**FF7173990**	Price
MS610	1.38	.50	.50	3/16	3/8-24	**FF7174000**	Price
STC4	1.16	.50	.41	5/32	5/16-24	**FF7174010**	Price
STC5	.84	.31	.31	3/32	10-32	**FF7174020**	Price
STC8	1.00	.50	.25	5/32	5/16-24	**FF7174030**	Price



NL Lock Pins

Model No.	Insert I.C. (in.)	L (in.)	H (in.)	Thread	Order No.	Price
NL2.52	5/16	.32	1/16	8-32	**FF7172430**	Price
NL23	1/4	.32	1/16	8-32	**FF7172440**	Price
NL33	3/8	.64	5/64	10-32	**FF7172450**	Price
NL33L	3/8	.41	5/64	10-32	**FF7172460**	Price
NL34	3/8	.45	5/64	10-32	**FF7172470**	Price
NL34L	3/8	.51	5/64	10-32	**FF7172480**	Price
NL43	1/2	.42	5/64	10-32	**FF7172490**	Price
NL44	1/2	.51	3/32	1/4-28	**FF7172500**	Price
NL46	1/2	.67	3/32	1/4-28	**FF7172510**	Price
NL46L	1/2	.73	3/32	1/4-28	**FF7172520**	Price
NL55	5/8	.64	1/8	5/16-24	**FF7172530**	Price
NL56	5/8	.70	1/8	5/16-24	**FF7172540**	Price
NL58	5/8	.86	1/8	5/16-24	**FF7172560**	Price
NL58L	5/8	.89	1/8	5/16-24	**FF7172570**	Price
NL66	3/4	.70	9/64	3/8-24	**FF7172580**	Price
NL66L	3/4	.83	9/64	3/8-24	**FF7172590**	Price
NL68	3/4	.86	9/64	3/8-24	**FF7172600**	Price
NL68L	3/4	.95	9/64	3/8-24	**FF7172610**	Price
NL810	1	1.17	5/32	7/16-20	**FF7172620**	Price



KLC Lock Pins

Model No.	Insert I.C. (in.)	L (mm)	H (in.)	Thread (mm)	Order No.	Price
KLC46	1/2	17.2mm	3/32	M6.3 x 1.0	**FF7172730**	Price

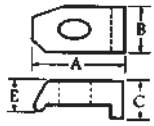
CLI Clamps

Model No.	A (in.)	C (in.)	D (in.)	T	Order No.	Price
CLI6	.31	.58	.44	10-32	**FF7173510**	Price
CLI9	.43	.75	.66	5/16-24	**FF7173520**	Price
CLI12	.43	.88	.66	5/16-24	**FF7173530**	Price
CLI30	.43	1	.66	5/16-24	**FF7173540**	Price



CM Clamps

Model No.	A (in.)	B (in.)	C (in.)	E	Order No.	Price
CM72 (RH)	.86	.43	.37	.31	**FF7173670**	Price
CM73 (LH)	.86	.43	.37	.31	**FF7173680**	Price
CM74 (RH)	.53	.34	.28	.24	**FF7173690**	Price
CM75 (LH)	.53	.34	.28	.24	**FF7173700**	Price



HC Clamps

Model No.	A (in.)	B (in.)	C (in.)	D (in.)	Order No.	Price
HC7	-	15/32	-	-	**FF7173560**	Price
HC9	3/8	5/8	.28	.17	**FF7173550**	Price
HC12	1/2	13/16	.35	.25	**FF7173570**	Price



MC Clamps

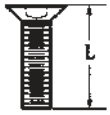
Model No.	A (in.)	C (in.)	D (in.)	Thread	Order No.	Price
MC6	.31	.58	.44	10-32	**FF7173710**	Price
MC9	.43	.75	.66	5/16-24	**FF7173720**	Price
MC12	.43	.88	.66	5/16-24	**FF7173730**	Price
MC19	.31	.55	.31	10-32	**FF7173740**	Price
MC20	.37	.73	.38	1/4-28	**FF7173750**	Price
MC24	.49	1	.78	3/8-24	**FF7173760**	Price
MC30	.43	1	.66	5/16-24	**FF7173770**	Price



Model No.	A (in.)	B (in.)	C (in.)	H (in.)	T	Order No.	Price
STC9	.59	.19	.19	5/32	10-32	**FF7174040**	Price
STC11	.81	.28	.28	1/8	1/4-28	**FF7174050**	Price
STC20	1.16	.45	.45	1/8	1/4-28	**FF7174060**	Price
XNS26	.75	.31	.31	5/64	8-32	**FF7173780**	Price
XNS35	.59	.22	.22	3/32	10-32	**FF7173790**	Price
XNS36	.75	.25	.25	3/32	10-32	**FF7173800**	Price
XNS37	.84	.31	.31	3/32	10-32	**FF7173810**	Price
XNS38	1.00	.37	.37	3/32	10-32	**FF7173820**	Price
XNS46	.75	.31	.31	1/8	1/4-28	**FF7173830**	Price
XNS47	.81	.28	.28	1/8	1/4-28	**FF7173840**	Price
XNS48	1.00	.37	.37	1/8	1/4-28	**FF7173850**	Price
XNS58	1.00	.28	.50	5/32	5/16-24	**FF7173860**	Price
XNS59	1.12	.41	.47	5/32	5/16-24	**FF7173870**	Price
XNS510	1.25	.50	.50	5/32	5/16-24	**FF7173880**	Price
XNS610	1.25	.50	.50	3/16	3/8-24	**FF7173890**	Price

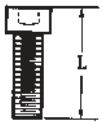
Flat Head Cap Screws

Model No.	L (in.)	T (in.)	Order No.	Price
S111	.375	4-40	**FF7174310**	Price
S125	.375	8-32	**FF7174320**	Price
SC205	.375	4-40	**FF7174330**	Price
SC235	.50	8-32	**FF7174340**	Price



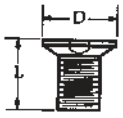
Socket Head Cap Screws

Model No.	L (in.)	T (in.)	Order No.	Price
S304	.188	2-56	**FF7174350**	Price
S327	.75	10-24	**FF7174360**	Price
S330	1.25	10-24	**FF7174370**	Price
S412	.75	10-32	**FF7174380**	Price
SC415	.25	4-40	**FF7174390**	Price



Shim Screws

Model No.	Insert I.C. (in.)	D (in.)	L (in.)	H (in.)	T	Order No.	Price
MF34	3/8	.24	.31	5/64	10-32	**FF7174120**	Price
MF46	1/2	.30	.50	3/32	1/4-28	**FF7174130**	Price
MF58	5/8	.40	.62	1/8	5/16-24	**FF7174140**	Price
MF68	3/4	.46	.62	9/64	3/8-24	**FF7174150**	Price
S34	3/8	.24	.31	5/64	10-32	**FF7174070**	Price
S46	1/2	.30	.50	3/32	1/4-28	**FF7174080**	Price
S58	5/8	.40	.62	1/8	5/16-24	**FF7174090**	Price
S68	3/4	.46	.62	9/64	3/8-24	**FF7174100**	Price



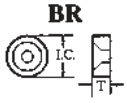
TORX® Lock Screws

Model No.	Insert I.C. (in.)	D (in.)	L (in.)	H (in.)	T	Order No.	Price
GTS3	5/8	.35	.75	T-20	10-32	**FF7174180**	Price
SD1	3/8	.22	.50	T-10	6-40	**FF7174190**	Price
SD2	1/2	.31	.75	3/32	10-32	**FF7174200**	Price
SD3	5/8	.35	.75	T-20	10-32	**FF7174210**	Price
VR1	3/8	.22	.50	T-10	6-40	**FF7174230**	Price
VR2	1/2	.31	.75	T-20	10-32	**FF7174240**	Price
VR3	5/8	.35	.75	T-20	10-32	**FF7174250**	Price
VR4	3/4	.41	1.12	T-30	1/4-20	**FF7174260**	Price



BR Shim Seats

Model No.	I.C. (in.)	T (in.)	Order No.	Price
BR162	1/2	1/8	**FF7170010**	Price



CSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
CSN432	1/2	3/16	1/32	**FF7170020**	Price
CSN433	1/2	3/16	3/64	**FF7170030**	Price
CSN533	5/8	3/16	3/64	**FF7170040**	Price
CSN633	3/4	3/16	3/64	**FF7170050**	Price
CSN643	3/4	1/4	3/64	**FF7170060**	Price
CSN846	1	1/4	3/32	**FF7170070**	Price



DSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
DSN433	1/2	3/16	3/64	**FF7170080**	Price
DSN533	5/8	3/16	3/64	**FF7170090**	Price
DSN534	5/8	3/16	1/16	**FF7170100**	Price



ICSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
ICSN322	3/8	1/8	1/32	**FF7170120**	Price
ICSN422	1/2	1/8	1/32	**FF7170130**	Price
ICSN432	1/2	3/16	1/32	**FF7170140**	Price
ICSN433	1/2	3/16	3/64	**FF7170150**	Price
ICSN533	5/8	3/16	3/64	**FF7170160**	Price
ICSN633	3/4	3/16	3/64	**FF7170170**	Price
ICSN846	1	1/4	3/32	**FF7170180**	Price



IDSN Shim Seats

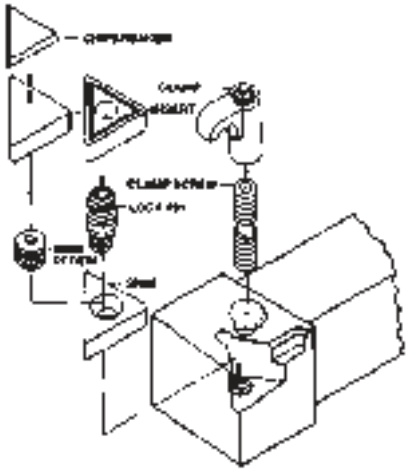
Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
IDSN322	3/8	1/8	1/32	**FF7170190**	Price
IDSN432	1/2	3/16	1/32	**FF7170200**	Price
IDSN433	1/2	3/16	3/64	**FF7170210**	Price
IDSN533	5/8	3/16	3/64	**FF7170220**	Price
IDSN538	5/8	3/16	1/8	**FF7170230**	Price



Clamp Screws

Model No.	D (in.)	L (in.)	H (in.)	T	Order No.	Price
CS94	.37	.58	1/8	10-32	**FF7174270**	Price
CS96	.37	.84	1/8	10-32	**FF7174280**	Price
SHC7	.049	.375	3/32	8-32	**FF7174300**	Price









IRSN Shim Seats

Model No.	I.C. (in.)	T (in.)	Order No.	Price
IRSN32	3/8	1/8	**FF7170240**	Price
IRSN42	1/2	1/8	**FF7170250**	Price
IRSN43	1/2	3/16	**FF7170260**	Price
IRSN44	1/2	1/4	**FF7170270**	Price
IRSN63	3/4	3/16	**FF7170280**	Price
IRSN84	1	1/4	**FF7170290**	Price



ISSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
ISSN322	3/8	1/8	1/32	**FF7170300**	Price
ISSN323	3/8	1/8	3/4	**FF7170310**	Price
ISSN432	1/2	3/16	1/32	**FF7170320**	Price
ISSN433	1/2	3/16	3/64	**FF7170330**	Price
ISSN434	1/2	3/16	1/16	**FF7170340**	Price
ISSN443	1/2	1/4	3/64	**FF7170350**	Price
ISSN533	5/8	3/16	3/64	**FF7170360**	Price
ISSN543	5/8	1/4	3/64	**FF7170370**	Price
ISSN623	3/4	1/8	3/64	**FF7170380**	Price
ISSN633	3/4	3/16	3/64	**FF7170390**	Price
ISSN634	3/4	3/16	1/16	**FF7170400**	Price
ISSN643	3/4	1/4	3/64	**FF7170410**	Price



ITSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
ITSN322	3/8	1/8	1/32	**FF7170420**	Price
ITSN323	3/8	1/8	3/64	**FF7170430**	Price
ITSN324	3/8	1/8	1/16	**FF7170440**	Price
ITSN332	3/8	3/16	1/32	**FF7170450**	Price
ITSN333	3/8	3/16	3/64	**FF7170460**	Price
ITSN423	1/2	1/8	3/64	**FF7170470**	Price
ITSN432	1/2	3/16	1/32	**FF7170480**	Price
ITSN433	1/2	3/16	3/64	**FF7170490**	Price
ITSN434	1/2	3/16	1/16	**FF7170500**	Price
ITSN438	1/2	3/16	1/8	**FF7170520**	Price
ITSN533	5/8	3/16	3/64	**FF7170530**	Price
ITSN534	5/8	3/16	1/16	**FF7170540**	Price
ITSN535	5/8	3/16	5/64	**FF7170550**	Price
ITSN538	5/8	3/16	1/8	**FF7170560**	Price
ITSN539	5/8	3/16	9/64	**FF7170570**	Price
ITSN543	5/8	1/4	3/64	**FF7170580**	Price
ITSN633	3/4	3/16	3/64	**FF7170590**	Price
ITSN636	3/4	3/16	3/32	**FF7170600**	Price
ITSN637	3/4	3/16	7/64	**FF7170610**	Price



MTN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
MTN322	3/8	1/8	1/32	**FF7171010**	Price
MTN323	3/8	1/8	3/64	**FF7171020**	Price
MTN324	3/8	1/8	1/16	**FF7171030**	Price
MTN332	3/8	3/16	1/32	**FF7171040**	Price
MTN334	3/8	3/16	1/16	**FF7171050**	Price
MTN432	1/2	3/16	1/32	**FF7171060**	Price
MTN434	1/2	3/16	1/16	**FF7171070**	Price
MTN438	1/2	3/16	1/8	**FF7171080**	Price
MTN534	5/8	3/16	1/16	**FF7171090**	Price
MTN637	3/4	3/16	7/64	**FF7171100**	Price



IVSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
IVSN322	3/8	1/8	1/32	**FF7170620**	Price
IVSN324	3/8	1/8	1/16	**FF7170630**	Price
IVSN432	1/2	3/16	1/32	**FF7170640**	Price
IVSN433	1/2	3/16	3/64	**FF7170650**	Price



IWSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
IWSN322	3/8	1/8	1/32	**FF7170670**	Price
IWSN432	1/2	3/16	1/32	**FF7170680**	Price
IWSN433	1/2	3/16	3/64	**FF7170690**	Price
IWSN533	5/8	3/16	3/64	**FF7170700**	Price



MCN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
MCN432	1/2	3/16	1/32	**FF7170710**	Price
MCN434	1/2	3/16	1/16	**FF7170720**	Price
MCN442	1/2	1/4	1/32	**FF7170730**	Price
MCN534	5/8	3/16	1/16	**FF7170740**	Price
MCN543	5/8	1/4	3/64	**FF7170750**	Price
MCN634	3/4	3/16	1/16	**FF7170760**	Price
MCN644	3/4	5/8	1/16	**FF7170770**	Price



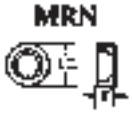
MDN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
MDN322	3/8	1/8	1/32	**FF7170780**	Price
MDN432	1/2	3/16	1/32	**FF7170800**	Price
MDN434	1/2	3/16	1/16	**FF7170810**	Price
MDN442	1/2	1/4	1/32	**FF7170820**	Price
MDN444	1/2	1/4	1/16	**FF7170830**	Price
MDN534	5/8	3/16	1/16	**FF7170840**	Price



MRN Shim Seats

Model No.	I.C. (in.)	T (in.)	Order No.	Price
MRN32	3/8	1/8	**FF7170850**	Price
MRN33	3/8	3/16	**FF7170860**	Price
MRN43	1/2	3/16	**FF7170870**	Price
MRN44	1/2	1/4	**FF7170880**	Price
MRN53	5/8	3/16	**FF7170890**	Price
MRN63	3/4	3/16	**FF7170900**	Price
MRN84	1	1/4	**FF7170910**	Price



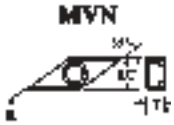
MSN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
MSN323	3/8	1/8	3/64	**FF7170920**	Price
MSN433	1/2	3/16	3/64	**FF7170930**	Price
MSN442	1/2	1/4	1/32	**FF7170940**	Price
MSN443	1/2	1/4	3/64	**FF7170950**	Price
MSN533	5/8	3/16	3/64	**FF7170960**	Price
MSN543	5/8	1/4	3/64	**FF7170970**	Price
MSN634	3/4	3/16	1/16	**FF7170980**	Price
MSN644	3/4	1/4	1/16	**FF7170990**	Price
MSN846	1	1/4	3/32	**FF7171000**	Price



MVN Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
MVN322	3/8	1/8	1/32	**FF7171110**	Price
MVN433	1/2	3/16	3/64	**FF7171120**	Price



PSQ Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
PSQ3	1/2	1/8	1/64	**FF7171130**	Price
PSQ4	3/4	1/8	3/64	**FF7171140**	Price



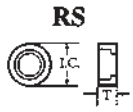
PTP Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
PTP3	3/8	1/8	1/64	**FF7171160**	Price
PTP4	1/2	1/8	3/64	**FF7171170**	Price
PTP4S	1/2	1/8	1/32	**FF7171180**	Price



RS Shim Seats

Model No.	I.C. (in.)	T (in.)	Order No.	Price
RS43P	1/2	3/16	**FF7171190**	Price
RS53P	5/8	3/16	**FF7171200**	Price
RS63P	3/4	3/16	**FF7171210**	Price
RS83P	1	3/16	**FF7171220**	Price



RSN Shim Seats

Model No.	I.C. (in.)	T (in.)	Order No.	Price
RSN32	3/8	1/8	**FF7171240**	Price
RSN33	3/8	3/16	**FF7171250**	Price
RSN43	1/2	3/16	**FF7171260**	Price
RSN53	5/8	3/16	**FF7171270**	Price
RSN63	3/4	3/16	**FF7171280**	Price
RSN84	1	1/4	**FF7171290**	Price



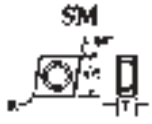
SM Square Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM297	1/2	3/16	1/32	**FF7171310**	Price
SM298	5/8	3/16	3/64	**FF7171320**	Price
SM299	3/4	3/16	3/64	**FF7171330**	Price
SM300	3/4	1/4	3/64	**FF7171340**	Price



SM 80° Diamond Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM303	1/2	3/16	1/32	**FF7171350**	Price
SM304	3/4	3/16	3/64	**FF7171360**	Price
SM390	5/8	3/16	3/64	**FF7171370**	Price



SM 55° Diamond Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM306	1/2	3/16	1/32	**FF7171380**	Price
SM307	5/8	3/16	3/64	**FF7171390**	Price



SM Square with Countersink

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM27	3/4	1/8	3/64	**FF7171410**	Price
SM43	1/2	1/8	1/16	**FF7171420**	Price
SM47	1/2	3/16	1/16	**FF7171430**	Price
SM216	3/4	3/16	3/64	**FF7171460**	Price



SM Square with Countersink

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM36	3/4	1/8	3/64	**FF7171470**	Price
SM40	1/2	1/8	1/32	**FF7171480**	Price



SM Triangle Shim Seats with Countersink

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM290	3/8	1/8	1/32	**FF7171490**	Price
SM292	1/2	3/16	3/64	**FF7171500**	Price
SM294	3/4	3/16	3/32	**FF7171510**	Price



SM Triangle Shim Seats with Countersink

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM26	1/2	1/8	3/64	**FF7171520**	Price
SM42	3/8	1/8	1/32	**FF7171530**	Price
SM48	3/8	3/16	1/32	**FF7171540**	Price
SM72	5/8	3/16	3/64	**FF7171550**	Price



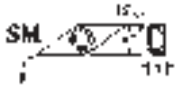
SM Triangle Shim Seats with Countersink

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM37	1/2	1/8	3/64	**FF7171570**	Price
SM41	3/8	1/8	1/64	**FF7171580**	Price



SM 35° Diamond Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SM310	3/8	1/8	1/32	**FF7171590**	Price
SM386	1/2	1/8	1/32	**FF7171600**	Price



SSN Square Shim Seats

Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
SSN43	1/2	1/8	3/64	**FF7171610**	Price
SSN432	1/2	3/16	1/32	**FF7171620**	Price
SSN433	1/2	3/16	3/64	**FF7171630**	Price
SSN532	5/8	3/16	1/32	**FF7171640**	Price
SSN533	5/8	3/16	3/64	**FF7171650**	Price
SSN632	3/4	3/16	1/32	**FF7171670**	Price
SSN633	3/4	3/16	3/64	**FF7171680**	Price
SSN634	3/4	3/16	1/16	**FF7171690**	Price



STN Square Shim Seats

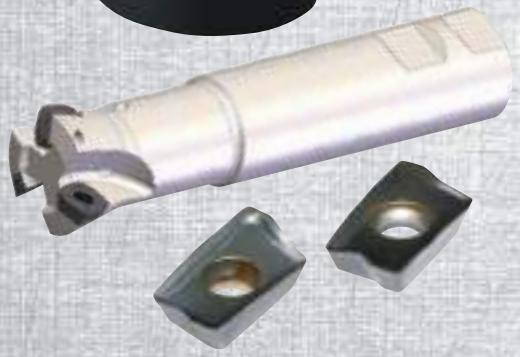
Model No.	I.C. (in.)	T (in.)	R (in.)	Order No.	Price
STN32	3/8	1/8	3/64	**FF7171700**	Price
STN43	1/2	1/8	1/16	**FF7171710**	Price
STN54	5/8	1/8	1/16	**FF7171720**	Price
STN54C	5/8	3/16	1/16	**FF7171730**	Price



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