

END MILLS, DRILLS, TAPS AND ROTARY TOOLING



**YG INVENTORY CATALOG
HUNTINGTON BEACH, CA**

2018-2019

5,000 SQ. FT. STOCKING WAREHOUSE IN HUNTINGTON BEACH, CA



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SPECIAL SHIPPING PROGRAM FROM CHICAGO or IES

UPS NEXT DAY AIR FLAT \$15.50 FOR SHIPMENTS UNDER 5 LBS

2ND DAY AIR FLAT \$10.50 FOR SHIPMENTS UNDER 10 LBS

WILL CALL FROM IES UNTIL 4:30 PM
SHIPPING FROM IES SAME DAY UNTIL 3:45 PM



4 FLUTE REGULAR LENGTH CARBIDE, 30 DEGREE HELIX

EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
UGMF89004	1/16	1/8	3/16	1-1/2
UGMF89005	5/64	1/8	3/16	1-1/2
UGMF89006	3/32	1/8	3/8	1-1/2
UGMF89007	7/64	1/8	3/8	1-1/2
UGMF89008	1/8	1/8	1/2	1-1/2
UGMF89009	9/64	3/16	1/2	2
UGMF89010	5/32	3/16	9/16	2
UGMF89011	11/64	3/16	5/8	2
UGMF89012	3/16	3/16	5/8	2
UGMF89013	13/64	1/4	5/8	2-1/2
UGMF89014	7/32	1/4	5/8	2-1/2
UGMF89015	15/64	1/4	3/4	2-1/2
UGMF89016	1/4	1/4	3/4	2-1/2
UGMF89018	9/32	5/16	13/16	2-1/2
UGMF89020	5/16	5/16	13/16	2-1/2
UGMF89024	3/8	3/8	1	2-1/2
UGMF89028	7/16	7/16	1	2-3/4
UGMF89032	1/2	1/2	1	3
UGMF89036	9/16	9/16	1-1/4	3-1/2
UGMF89040	5/8	5/8	1-1/4	3-1/2
UGMF89048	3/4	3/4	1-1/2	4
UGMF89056	7/8	7/8	1-1/2	4
UGMF89064	1	1	1-1/2	4

ALL MADE IN USA
TOOLS COME
STANDARD WITH
YG1'S TAILOR
MADE COATING



4 FLUTE REGULAR LENGTH BALL NOSE CARBIDE, 30 DEGREE HELIX

EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
UGMF91008	1/8	1/8	1/2	1-1/2
UGMF91012	3/16	3/16	5/8	2
UGMF91016	1/4	1/4	3/4	2-1/2
UGMF91024	3/8	3/8	1	2-1/2
UGMF91032	1/2	1/2	1	3
UGMF91040	5/8	5/8	1-1/4	3-1/2
UGMF91048	3/4	3/4	1-1/2	4
UGMF91064	1	1	1-1/2	4





4 FLUTE STUB LENGTH CARBIDE, 30 DEGREE HELIX

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
31554	31554TF	1/16	1/8	1/8	1-1/2
31556	31556TF	3/32	1/8	3/16	1-1/2
31558	31558TF	1/8	1/8	1/4	1-1/2
31561	31561TF	5/32	3/16	5/16	2
31565	31565TF	3/16	3/16	3/8	2
31570	31570TF	7/32	1/4	7/16	2
31573	31573TF	1/4	1/4	7/16	2
31579	31579TF	5/16	5/16	1/2	2
31584	31584TF	3/8	3/8	5/8	2
31588	31588TF	7/16	7/16	5/8	2-1/2
31593	31593TF	1/2	1/2	5/8	2-1/2
31595	31595TF	5/8	5/8	3/4	3
31598	31598TF	3/4	3/4	1	3



4 FLUTE REGULAR LENGTH CARBIDE, 30 DEGREE HELIX

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
07554	07554TF	1/16	1/8	3/16	1-1/2
07555	07555TF	5/64	1/8	3/16	1-1/2
07556	07556TF	3/32	1/8	3/8	1-1/2
07557	07557TF	7/64	1/8	3/8	1-1/2
07558	07558TF	1/8	1/8	1/2	1-1/2
07560	07560TF	9/64	3/16	1/2	2
07561	07561TF	5/32	3/16	9/16	2
07564	07564TF	11/64	3/16	5/8	2
07565	07565TF	3/16	3/16	5/8	2
07569	07569TF	13/64	1/4	3/4	2-1/2
07570	07570TF	7/32	1/4	5/8	2-1/2
07572	07572TF	15/64	1/4	3/4	2-1/2
07573	07573TF	1/4	1/4	3/4	2-1/2
07576	07576TF	9/32	5/16	3/4	2-1/2
07579	07579TF	5/16	5/16	13/16	2-1/2
07584	07584TF	3/8	3/8	1	2-1/2
07588	07588TF	7/16	7/16	1	2-3/4
07593	07593TF	1/2	1/2	1	3
07595	07595TF	5/8	5/8	1-1/4	3-1/2
07598	07598TF	3/4	3/4	1-1/2	4
07600	07600TF	1	1	2	4





4 FLUTE LONG LENGTH CARBIDE, 30 DEGREE HELIX

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
08558	08558TF	1/8	1/8	3/4	2-1/4
08565	08565TF	3/16	3/16	3/4	2-1/2
08573	08573TF	1/4	1/4	1-1/8	3
08579	08579TF	5/16	5/16	1-1/8	3
08584	08584TF	3/8	3/8	1-1/8	3
08588	08588TF	7/16	7/16	2	4
08593	08593TF	1/2	1/2	2	4
08595	08595TF	5/8	5/8	2-1/4	2
08598	08598TF	3/4	3/4	2-1/4	5
08600	08600TF	1	1	2-1/4	5



4 FLUTE EXTRA LONG LENGTH CARBIDE, 30 DEGREE HELIX

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
55558	55558TF	1/8	1/8	1	3
55565	55565TF	3/16	3/16	1-1/8	3
55904	55904TF	3/16	3/16	1	3
55573	55573TF	1/4	1/4	1-1/2	4
55901	55901TF	1/4	1/4	1-1/2	6
55579	55579TF	5/16	5/16	1-5/8	4
55584	55584TF	3/8	3/8	1-3/4	4
55902	55902TF	3/8	3/8	1-1/2	6
55588	55588TF	7/16	7/16	3	6
55593	55593TF	1/2	1/2	3	6
55903	55903TF	1/2	1/2	1-1/2	6
55595	55595TF	5/8	5/8	3	6
55598	55598TF	3/4	3/4	3	6
55600	55600TF	1	1	3	6



4 FLUTE REGULAR LENGTH BALL NOSE CARBIDE, 30 DEGREE

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
43558	43558TF	1/8	1/8	1/2	1-1/2
43561	43561TF	5/32	3/16	9/16	2
43565	43565TF	3/16	3/16	5/8	2
43570	43570TF	7/32	1/4	5/8	2-1/2
43573	43573TF	1/4	1/4	3/4	2-1/2
43579	43579TF	5/16	5/16	13/16	2-1/2
43584	43584TF	3/8	3/8	1	2-1/2
43588	43588TF	7/16	7/16	1	2-3/4
43593	43593TF	1/2	1/2	1	3
43595	43595TF	5/8	5/8	1-1/4	3-1/2
43598	43598TF	3/4	3/4	1-1/2	4
43600	43600TF	1	1	1-1/2	4



4 FLUTE LONG LENGTH BALL NOSE CARBIDE, 30 DEGREE HELIX

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
51558	51558TF	1/8	1/8	3/4	2-1/4
51565	51565TF	3/16	3/16	3/4	2-1/2
51573	51573TF	1/4	1/4	1-1/8	3
51579	51579TF	5/16	5/16	1-1/8	3
51584	51584TF	3/8	3/8	1-1/8	3
51588	51588TF	7/16	7/16	2	4
51593	51593TF	1/2	1/2	2	4
51595	51595TF	5/8	5/8	2-1/4	5
51598	51598TF	3/4	3/4	2-1/4	5
51600	51600TF	1	1	2-1/4	5



4 FLUTE EXTRA LONG LENGTH BALL NOSE CARBIDE, 30 DEGREE HELIX

UNCOATED	TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
53558	53558TF	1/8	1/8	1	3
53565	53565TF	3/16	3/16	1-1/8	3
53573	53573TF	1/4	1/4	1-1/2	4
53901	53901TF	1/4	1/4	1-1/2	6
53579	53579TF	5/16	5/16	1-5/8	4
53584	53584TF	3/8	3/8	1-3/4	4
53902	53902TF	3/8	3/8	1-1/2	6
53588	53588TF	7/16	7/16	3	6
53903	53903TF	1/2	1/2	1-1/2	6
53593	53593TF	1/2	1/2	3	6
53595	53595TF	5/8	5/8	3	6
53904	53904TF	5/8	5/8	1-1/2	6
53598	53598TF	3/4	3/4	3	6
53905	53905TF	3/4	3/4	1-1/2	6
53600	53600TF	1	1	3	6
53906	53906TF	1	1	1-1/2	6

4 FLUTE REGULAR LENGTH CORNER RADIUS CARBIDE, 30 DEGREE



TIALN	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
07558TF-015R	.015	1/8	1/8	1/2	1-1/2
07558TF-030R	.030	1/8	1/8	1/2	1-1/2
07565TF-015R	.015	3/16	3/16	5/8	2
07565TF-030R	.030	3/16	3/16	5/8	2
07573TF-015R	.015	1/4	1/4	3/4	2-1/2
07573TF-030R	.030	1/4	1/4	3/4	2-1/2
07573TF-045R	.045	1/4	1/4	3/4	2-1/2
07579TF-015R	.015	5/16	5/16	13/16	2-1/2
07579TF-030R	.030	5/16	5/16	13/16	2-1/2
07579TF-045R	.045	5/16	5/16	13/16	2-1/2
07584TF-015R	.015	3/8	3/8	1	2-1/2
07584TF-030R	.030	3/8	3/8	1	2-1/2
07584TF-045R	.045	3/8	3/8	1	2-1/2
07584TF-060R	.060	3/8	3/8	1	2-1/2



4 FLUTE REGULAR LENGTH CORNER RADIUS CARBIDE, 30 DEGREE HELIX



TIALN	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
07588TF-015R	.015	7/16	7/16	1	2-1/2
07588TF-030R	.030	7/16	7/16	1	2-1/2
07588TF-045R	.045	7/16	7/16	1	2-1/2
07588TF-060R	.060	7/16	7/16	1	2-1/2
07588TF-090R	.090	7/16	7/16	1	2-1/2
07593TF-015R	.015	1/2	1/2	1	3
07593TF-030R	.030	1/2	1/2	1	3
07593TF-045R	.045	1/2	1/2	1	3
07593TF-060R	.060	1/2	1/2	1	3
07593TF-090R	.090	1/2	1/2	1	3
07593TF-125R	.125	1/2	1/2	1	3
07595TF-015R	.015	5/8	5/8	1-1/4	3-1/2
07595TF-030R	.030	5/8	5/8	1-1/4	3-1/2
07595TF-045R	.045	5/8	5/8	1-1/4	3-1/2
07595TF-060R	.060	5/8	5/8	1-1/4	3-1/2
07595TF-090R	.090	5/8	5/8	1-1/4	3-1/2
07595TF-125R	.125	5/8	5/8	1-1/4	3-1/2
07598TF-015R	.015	3/4	3/4	1-1/2	4
07598TF-030R	.030	3/4	3/4	1-1/2	4
07598TF-045R	.045	3/4	3/4	1-1/2	4
07598TF-060R	.060	3/4	3/4	1-1/2	4
07598TF-090R	.090	3/4	3/4	1-1/2	4
07598TF-125R	.125	3/4	3/4	1-1/2	4
07600TF-015R	.015	1	1	1-1/2	4
07600TF-030R	.030	1	1	1-1/2	4
07600TF-045R	.045	1	1	1-1/2	4
07600TF-060R	.060	1	1	1-1/2	4
07600TF-090R	.090	1	1	1-1/2	4
07600TF-125R	.125	1	1	1-1/2	4



5 FLUTE STUB LENGTH CARBIDE, 45 DEGREE HELIX



TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
85558TF	1/8	1/8	1/4	1-1/2
85561TF	5/32	3/16	5/16	2
85565TF	3/16	3/16	5/16	2
85570TF	7/32	1/4	3/8	2
85573TF	1/4	1/4	3/8	2
85579TF	5/16	5/16	7/16	2
85584TF	3/8	3/8	1/2	2
85588TF	7/16	7/16	9/16	2-1/2
85593TF	1/2	1/2	5/8	2-1/2
85595TF	5/8	5/8	3/4	3
85598TF	3/4	3/4	1	3
85600TF	1	1	1-1/4	3

5 FLUTE REGULAR LENGTH CARBIDE, 45 DEGREE HELIX



TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
86558TF	1/8	1/8	1/2	1-1/2
86561TF	5/32	3/16	9/16	2
86565TF	3/16	3/16	9/16	2
86570TF	7/32	1/4	3/4	2-1/2
86573TF	1/4	1/4	3/4	2-1/2
86579TF	5/16	5/16	13/16	2-1/2
86584TF	3/8	3/8	1	2-1/2
86588TF	7/16	7/16	1	2-3/4
86593TF	1/2	1/2	1-1/4	3
86595TF	5/8	5/8	1-5/8	3-1/2
86598TF	3/4	3/4	1-5/8	4
86600TF	1	1	2	4



5 FLUTE LONG LENGTH CARBIDE, 45 DEGREE HELIX



TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
58573TF	1/4	1/4	1-1/4	4
58579TF	5/16	5/16	1-1/4	4
58584TF	3/8	3/8	1-1/2	4
58588TF	7/16	7/16	2	4
58593TF	1/2	1/2	2	4
58595TF	5/8	5/8	2-1/2	5
58598TF	3/4	3/4	3-1/4	6
58901TF	3/4	3/4	2-1/4	5
58600TF	1	1	3-1/4	6
58902TF	1	1	2-5/8	6

5 FLUTE EXTRA LONG LENGTH CARBIDE, 45 DEGREE HELIX

TIALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
59579TF	5/16	5/16	2-1/8	4
59584TF	3/8	3/8	2-1/2	6
59593TF	1/2	1/2	3-1/8	6
59595TF	5/8	5/8	4	6
59598TF	3/4	3/4	4	6
59600TF	1	1	4-1/8	7



5 FLUTE REGULAR LENGTH CORNER RADIUS CARBIDE, 45 DEGREE HELIX



TIALN	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
86573TF-030R	.030	1/4	1/4	3/4	2-1/2
86584TF-030R	.030	3/8	3/8	1	2-1/2
86584TF-060R	.060	3/8	3/8	1	2-1/2
86593TF-030R	.030	1/2	1/2	1-1/4	3
86593TF-060R	.060	1/2	1/2	1-1/4	3
86593TF-090R	.090	1/2	1/2	1-1/4	3
86585TF-030R	.030	5/8	5/8	1-5/8	3-1/2
86595TF-060R	.060	5/8	5/8	1-5/8	3-1/2
86595TF-090R	.090	5/8	5/8	1-5/8	3-1/2
86595TF-125R	.125	5/8	5/8	1-5/8	3-1/2
86598TF-030R	.030	3/4	3/4	1-5/8	4
86598TF-060R	.060	3/4	3/4	1-5/8	4
86598TF-090R	.090	3/4	3/4	1-5/8	4
86598TF-125R	.125	3/4	3/4	1-5/8	4



5 FLUTE REGULAR LENGTH CORNER RADIUS CARBIDE, 45 DEGREE HELIX



TIALN	CORNER RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
86598TF-156R	.156	3/4	3/4	1-5/8	4
86598TF-187R	.187	3/4	3/4	1-5/8	4
86600TF-030R	.030	1	1	2	4
86600TF-060R	.060	1	1	2	4
86600TF-090R	.090	1	1	2	4
86600TF-125R	.125	1	1	2	4
86600TF-156R	.156	1	1	2	4
86600TF-187R	.187	1	1	2	4

JET-POWER STUB LENGTH FINE PITCH CARBIDE, 30 DEGREE HELIX



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	FLUTES
95072	1/4	1/4	5/16	2-1/8	3
95073	5/16	5/16	3/8	2-1/4	3
95074	3/8	3/8	9/16	2-1/2	3
95075	1/2	1/2	5/8	3	4
95076	5/8	5/8	7/8	4	4
95077	3/4	3/4	1	3-3/4	4
95078	1	1	1	4	5

JET-POWER REGULAR LENGTH FINE PITCH CARBIDE, 30 DEGREE HELIX



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	FLUTES
95079	1/4	1/4	3/4	2-1/2	3
95080	5/16	5/16	3/4	2-1/2	3
95081	3/8	3/8	7/8	2-1/2	3
95082	1/2	1/2	1	3	4
95083	5/8	5/8	1-1/4	4	4
95084	3/4	3/4	1-5/8	4	4
95085	1	1	1-3/4	4	5



JET-POWER REGULAR LENGTH FINE PITCH CARBIDE, 45 DEGREE HELIX

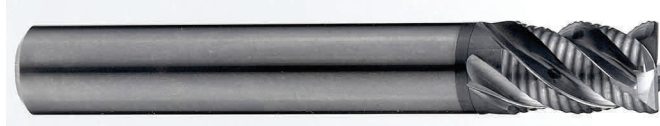


EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	FLUTES
95107	3/16	1/4	1/2	2-1/4	3
95108	1/4	1/4	3/4	2-1/2	4
95109	5/16	5/16	3/4	2-1/2	4
95110	3/8	3/8	7/8	2-1/2	4
95111	1/2	1/2	1	3	4
95112	5/8	5/8	1-1/4	3-1/2	5
95113	3/4	3/4	1-5/8	4	6
95114	1	1	1-3/4	4	6

JET-POWER LONG REACH, EXT. NECK FINE PITCH CARBIDE, 45 DEGREE HELIX



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	LENGTH BELOW SHANK	OVERALL LENGTH	FLUTES
95101	1/4	1/4	3/4	7/8	2-1/2	4
95102	5/16	5/16	3/4	1	2-1/2	4
95103	3/8	3/8	7/8	1-1/4	2-1/2	4
95104	1/2	1/2	1	1-1/2	3	4
95105	5/8	5/8	1-1/4	2	4	5
95106	3/4	3/4	1-5/8	2-3/8	4-3/8	6



X-SPEED STUB LENGTH FINE PITCH CARBIDE W/ RADIUS

EDP PLAIN	EDP FLAT	RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	FLUTES
G90716	-	.020	1/4	1/4	3/8	2	4
G90720	-	.020	5/16	5/16	7/16	2	4
G90724	G92824	.020	3/8	3/8	1/2	2-1/4	4
G90732	G92832	.020	1/2	1/2	5/8	2-1/2	4
G90740	G92840	.040	5/8	5/8	3/4	3	5
G90748	G92848	.040	3/4	3/4	1	3-1/4	5
G90764	G92864	.040	1	1	1-1/4	4	5

X-SPEED REGULAR LENGTH FINE PITCH CARBIDE W/ RADIUS

EDP PLAIN	EDP FLAT	RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	FLUTES
G90816	-	.020	1/4	1/4	5/8	2-1/2	4
G90820	-	.020	5/16	5/16	3/4	2-1/2	4
G90824	G92924	.020	3/8	3/8	7/8	2-1/2	4
G90832	G92932	.020	1/2	1/2	1	3	4
G90840	G92940	.040	5/8	5/8	1-1/4	3-1/2	5
G90848	G92948	.040	3/4	3/4	1-5/8	4	5
G90864	G92964	.040	1	1	1-3/4	4-1/4	5

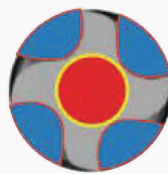
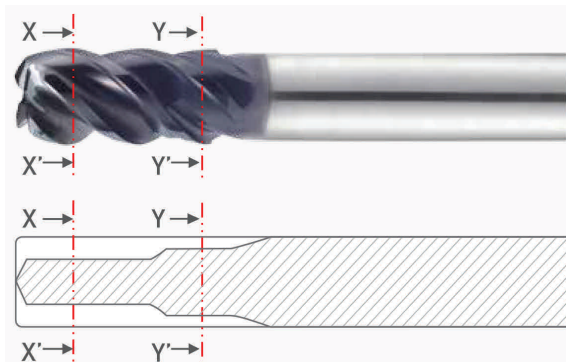
X-SPEED EXTENDED REACH FINE PITCH CARBIDE W/ RADIUS

EDP PLAIN	EDP FLAT	RADIUS	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH	OVERALL LENGTH	FLUTES
G90916	-	.020	1/4	1/4	3/8	7/8	2-1/2	4
G90920	-	.020	5/16	5/16	7/16	1	2-1/2	4
G90924	G93024	.020	3/8	3/8	1/2	1	2-3/4	4
G90932	G93032	.020	1/2	1/2	5/8	1-1/4	3-1/4	4
G90940	G93040	.040	5/8	5/8	3/4	2	4	5
G90948	G93048	.040	3/4	3/4	1	2-3/8	4-1/2	5

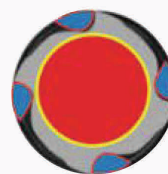
4 FLUTE CORNER RADIUS MULTIPLE HELIX WITH DOUBLE CORE, Y-COATED SOLID CARBIDE END MILS



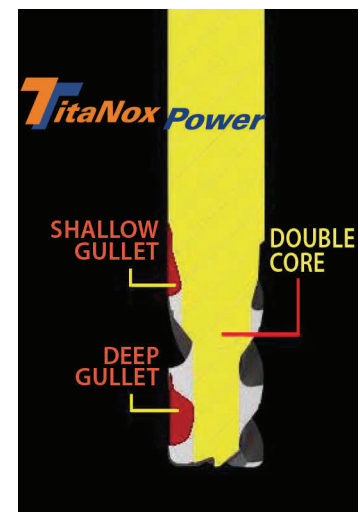
DIA	SD	LOC	OAL	CORNER RADIUS							
				0.010	0.015	0.030	0.060	0.090	0.125	0.190	0.250
				EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/4	1/4	9/16	2-1/2		UGMG42016	UGMG42901	UGMG42902				
		3/4	2-1/2			UGMG42924	UGMG42925				
		1	3			UGMG42S926	UGMG42S927				
3/8	3/8	1/2	2-1/2			UGMG42K998	UGMG42K999	UGMG42K801			
		7/8	2-1/2			UGMG42928	UGMG42929	UGMG42930			
		13/16	2-1/2	UGMG42931		UGMG42905	UGMG42906	UGMG42907			
		1	3	UGMG42932		UGMG42933	UGMG42934	UGMG42935			
		1-1/4	3	UGMG42S936		UGMG42S937	UGMG42S938	UGMG42S939			
1/2	1/2	1	3	UGMG42940		UGMG42908	UGMG42909	UGMG42910	UGMG42911		
		1-1/4	3-1/2			UGMG42912	UGMG42941	UGMG42942	UGMG42943		
		1-5/8	4			UGMG42S944	UGMG42S945	UGMG42S946	UGMG42S947		
5/8	5/8	1-1/4	3-1/2			UGMG42040	UGMG42913	UGMG42914	UGMG42915		
		1-5/8	4			UGMG42948	UGMG42949	UGMG42950	UGMG42951		
		2	4			UGMG42S952	UGMG42S953	UGMG42S954	UGMG42S955		
		3-1/4	6			UGMG42S956	UGMG42S957	UGMG42S958	UGMG42S959		
3/4	3/4	1-1/2	4			UGMG42048	UGMG42916	UGMG42917	UGMG42918	UGMG42919	UGMG42960
		1-7/8	4			UGMG42961	UGMG42962	UGMG42963	UGMG42964	UGMG42965	UGMG42966
		2-1/4	5			UGMG42967	UGMG42968	UGMG42969	UGMG42970	UGMG42971	UGMG42972
		3-1/4	6			UGMG42S973	UGMG42S974	UGMG42S975	UGMG42S976	UGMG42S977	UGMG42S978
1	1	2	5			UGMG42064	UGMG42920	UGMG42921	UGMG42922	UGMG42923	UGMG42979
		2-5/8	5			UGMG42980	UGMG42981	UGMG42982	UGMG42983	UGMG42984	UGMG42985
		3	6			UGMG42986	UGMG42987	UGMG42988	UGMG42989	UGMG42990	UGMG42991
		4-1/4	7			UGMG42S992	UGMG42S993	UGMG42S994	UGMG42S995	UGMG42S996	UGMG42S997



SECTION X-X'
Excellent chip
evacuation



SECTION Y-Y'
Higher rigidity





**5 FLUTE CORNER CHAMFER MULTIPLE HELIX WITH, Y-COATED SOLID
CARBIDE END MILLS EXCELLENT FOR ROUGHING AND FINISHING
TITANIUM AND NICKEL ALLOYS**



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	CHAMFER
UGMG32008	1/8	1/8	1/4	1-1/2	.004
UGMG32901			3/8	1-1/2	.004
UGMG32012	3/16	3/16	5/16	2	.006
UGMG32902			9/16	2	.006
UGMG32016	1/4	1/4	3/8	2-1/2	.007
UGMG32903			3/4	2-1/2	.007
UGMG32020	5/16	5/16	7/16	2	.007
UGMG32904			13/16	2-1/2	.007
UGMG32024	3/8	3/8	1/2	2-1/2	.011
UGMG32905			1	3	.011
UGMG32032	1/2	1/2	5/8	2-1/2	.013
UGMG32906			1	3	.013
UGMG32907			1-1/4	3-1/2	.013
UGMG32040	5/8	5/8	3/4	3	.015
UGMG32908			1-1/4	3-1/2	.015
UGMG32048	3/4	3/4	1	3-1/2	.019
UGMG32909			1-1/2	4	.019
UGMG32064	1	1	1-1/8	4	.019
UGMG32910			1-1/2	4	.019
UGMG32911			2	5	.019



5 FLUTE MULTIPLE HELIX WITH, Y-COATED SOLID CARBIDE END MILLS
EXCELLENT FOR ROUGHING AND FINISHING
TITANIUM AND NICKEL ALLOYS



DIA	SD	LOC	OAL	SHARP CORNER	CORNER RADIUS						
					0.015	0.030	0.060	0.090	0.125	0.190	0.250
				EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/8	1/8	1/4	1-1/2	UGMH12008	UGMG34008	UGMG34950					
		3/8	1-1/2	UGMH12901	UGMG34901	UGMG34951					
		1/2	2-1/2	UGMH12S902	UGMG34S952	UGMG34S953					
		3/4	2-1/2	UGMH12S903	UGMG34S954	UGMG34S955					
3/16	3/16	5/16	2	UGMH12012	UGMG34012	UGMG34956					
		9/16	2	UGMH12904	UGMG34902	UGMG34957					
		3/4	2-1/2	UGMH12S905	UGMG34S958	UGMG34S959					
1/4	1/4	3/8	2	UGMH12016	UGMG34960	UGMG34016	UGMG34961				
		1/2	2-1/2	UGMH12906	UGMG34962	UGMG34963	UGMG34964				
		3/4	2-1/2	UGMH12907	UGMG34903	UGMG34904	UGMG34905				
		1	3	UGMH12S908	UGMG34S965	UGMG34S966	UGMG34S967				
		1-1/4	3	UGMH12S909	UGMG34S968	UGMG34S969	UGMG34S970				
5/16	5/16	7/16	2	UGMH12020	UGMG34971	UGMG34020	UGMG34972				
		13/16	2-1/2	UGMH12910	UGMG34906	UGMG34907	UGMG34908				
		1	3	UGMH12S911	UGMG34S973	UGMG34S974	UGMG34S975				
3/8	3/8	1/2	2-1/2	UGMH12024	UGMG34976	UGMG34024	UGMG34909	UGMG34977			
		1	3	UGMH12912	UGMG34910	UGMG34911	UGMG34912	UGMG34978			
		1-1/4	3	UGMH12S913	UGMG34S979	UGMG34S980	UGMG34S981	UGMG34S982			
		1-1/2	4	UGMH12S914	UGMG34S983	UGMG34S984	UGMG34S985	UGMG34S986			
1/2	1/2	5/8	2-1/2	UGMH12032	UGMG34032	UGMG34913	UGMG34914	UGMG34987	UGMG34988		
		1	3	UGMH12915	UGMG34915	UGMG34916	UGMG34917	UGMG34918	UGMG34919		
		1-1/4	3-1/2	UGMH12916	UGMG34920	UGMG34921	UGMG34922	UGMG34923	UGMG34924		
		1-5/8	4	UGMH12S917	UGMG34S989	UGMG34S990	UGMG34S991	UGMG34S992	UGMG34S993		
		2	4	UGMH12S918	UGMG34S994	UGMG34S995	UGMG34S996	UGMG34S997	UGMG34S998		
5/8	5/8	3/4	3	UGMH12040		UGMG34040	UGMG34925	UGMG34999	UGMG34801		
		1-1/4	3-1/2	UGMH12919	UGMG34926	UGMG34927	UGMG34928	UGMG34929	UGMG34930		
		1-5/8	4	UGMH12920		UGMG34802	UGMG34803	UGMG34804	UGMG34805		
		2-1/8	4-1/2	UGMH12S921		UGMG34S806	UGMG34S807	UGMG34S808	UGMG34S809		
		2-1/2	5	UGMH12S922		UGMG34S810	UGMG34S811	UGMG34S812	UGMG34S813		
3/4	3/4	1	3-1/2	UGMH12048		UGMG34048	UGMG34931	UGMG34932	UGMG34814	UGMG34815	UGMG34816
		1-1/2	4"	UGMH12923	UGMG34933	UGMG34934	UGMG34935	UGMG34936	UGMG34937	UGMG34938	UGMG34817
		1-7/8	5"	UGMH12924		UGMG34818	UGMG34819	UGMG34820	UGMG34821	UGMG34822	UGMG34823
		2-1/4	5"	UGMH12925		UGMG34824	UGMG34825	UGMG34826	UGMG34827	UGMG34828	UGMG34829
		2-3/4	5"	UGMH12S926		UGMG34S830	UGMG34S831	UGMG34S832	UGMG34S833	UGMG34S834	UGMG34S835
		3-1/4	6"	UGMH12S927		UGMG34S836	UGMG34S837	UGMG34S838	UGMG34S839	UGMG34S840	UGMG34S841

5 FLUTE MULTIPLE HELIX WITH, Y-COATED SOLID CARBIDE END MILLS
EXCELLENT FOR ROUGHING AND FINISHING
TITANIUM AND NICKEL ALLOYS

DIA	SD	LOC	OAL	CORNER RADIUS							
				SHARP CPORNER	0.015	0.03	0.06	0.09	0.125	0.19	0.25
				EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1	1	1-1/8	4	UGMH12064		UGMG34064	UGMG34939	UGMG34940	UGMG34842	UGMG34843	UGMG34844
		1-1/2	4	UGMH12928	UGMG34941	UGMG34942	UGMG34943	UGMG34944	UGMG34945	UGMG34946	UGMG34845
		2	5	UGMH12929		UGMG34947	UGMG34948	UGMG34949	UGMG34846	UGMG34847	UGMG34848
		2-5/8	5	UGMH12930		UGMG34849	UGMG34850	UGMG34851	UGMG34852	UGMG34853	UGMG34854
		3-1/4	6	UGMH12S931		UGMG34S855	UGMG34S856	UGMG34S857	UGMG34S858	UGMG34S859	UGMG34S860
		4-1/4	7	UGMH12S932		UGMG34S861	UGMG34S862	UGMG34S863	UGMG34S864	UGMG34S865	UGMG34S866
1-1/4	1-1/4	1-1/2	4-1/2	UGMH12116			UGMG34116	UGMG34867	UGMG34868	UGMG34869	UGMG34870
		2	4-1/2	UGMH12933			UGMG34871	UGMG34872	UGMG34873	UGMG34874	UGMG34875
		2-5/8	5-1/2	UGMH12934			UGMG34876	UGMG34877	UGMG34878	UGMG34879	UGMG34880
		3-1/4	6	UGMH12935			UGMG34881	UGMG34882	UGMG34883	UGMG34884	UGMG34885
		4-1/2	7	UGMH12S936			UGMG34S886	UGMG34S887	UGMG34S888	UGMG34S889	UGMG34S890



5 FLUTE EXTENDED REACH MULTIPLE HELIX WITH, Y-COATED SOLID CARBIDE END MILLS



OD	SD	LOC	OAL	LBS	SHARP CORNER	CORNER RADIUS					
						0.030	0.060	0.090	0.125	0.190	0.250
					EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/8	1/8	5/32	3	3/8	UGMH06008	UGMH07008					
		5/32	3	1/2	UGMH06901	UGMH07901					
		5/32	3	5/8	UGMH06902	UGMH07902					
3/16	3/16	7/32	3	1/2	UGMH06012	UGMH07012					
		7/32	3	3/4	UGMH06903	UGMH07903					
		7/32	3	1	UGMH06904	UGMH07904					
1/4	1/4	3/8	4	3/4	UGMH06016	UGMH07016	UGMH07905				
		3/8	4	1-1/8	UGMH06905	UGMH07906	UGMH07907				
		3/8	4	2-1/8	UGMH06906	UGMH07908	UGMH07909				
3/8	3/8	1/2	4	1-1/8	UGMH06024	UGMH07024	UGMH07910	UGMH07911			
		1/2	4	2-1/8	UGMH06907	UGMH07912	UGMH07913	UGMH07914			
		1/2	6	3-1/8	UGMH06908	UGMH07915	UGMH07916	UGMH07917			
		1/2	6	4-1/8	UGMH06909	UGMH07918	UGMH07919	UGMH07920			
1/2	1/2	5/8	4	1-1/2	UGMH06032	UGMH07032	UGMH07921	UGMH07922	UGMH07923		
		5/8	4	2-1/4	UGMH06910	UGMH07924	UGMH07925	UGMH07926	UGMH07927		
		5/8	6	3-3/8	UGMH06911	UGMH07928	UGMH07929	UGMH07930	UGMH07931		
		5/8	6	4-1/8	UGMH06912	UGMH07932	UGMH07933	UGMH07934	UGMH07935		
5/8	5/8	3/4	4	1-5/8	UGMH06040	UGMH07040	UGMH07936	UGMH07937	UGMH07938		
		3/4	6	2-3/8	UGMH06913	UGMH07939	UGMH07940	UGMH07941	UGMH07942		
		3/4	6	3-3/8	UGMH06914	UGMH07943	UGMH07944	UGMH07945	UGMH07946		
		3/4	6	4-1/8	UGMH06915	UGMH07947	UGMH07948	UGMH07949	UGMH07950		
3/4	3/4	1-1/8	4	2	UGMH06048	UGMH07048	UGMH07951	UGMH07952	UGMH07953	UGMH07954	UGMH07955
		1-1/8	5	2-5/8	UGMH06916	UGMH07956	UGMH07957	UGMH07958	UGMH07959	UGMH07960	UGMH07961
		1-1/8	6	3-1/4	UGMH06917	UGMH07962	UGMH07963	UGMH07964	UGMH07965	UGMH07966	UGMH07967
		1-1/8	7	4-1/4	UGMH06918	UGMH07968	UGMH07969	UGMH07970	UGMH07971	UGMH07972	UGMH07973
1	1	1-1/4	4	2-1/4	UGMH06064	UGMH07064	UGMH07974	UGMH07975	UGMH07976	UGMH07977	UGMH07978
		1-1/4	5	2-5/8	UGMH06919	UGMH07979	UGMH07980	UGMH07981	UGMH07982	UGMH07983	UGMH07984
		1-1/4	6	3-1/4	UGMH06920	UGMH07985	UGMH07986	UGMH07987	UGMH07988	UGMH07989	UGMH07990
		1-1/4	7	4-1/4	UGMH06921	UGMH07991	UGMH07992	UGMH07993	UGMH07994	UGMH07995	UGMH07996
		1-1/4	8	5-1/4	UGMH06922	UGMH07997	UGMH07998	UGMH07999	UGMH07801	UGMH07802	UGMH07803



4 FLUTE MULTIPLE HELIX, UNEQUAL INDEX
HIGH PERFORMANCE CARBIDE END MILLS FOR STEEL,
STAINLESS STEEL, NICKEL ALLOYS AND TITANIUM



DIA	SD	LOC	OAL	SHARP CORNER	CORNER RADIUS								
					.010	.015	.030	.060	.090	.125	.190	.250	BALL
				EDP No.									
1/8	1/8	1/8	1-1/2	UGMF68008	UGMF70008		UGMF70955						UGMG53901
	1/8	3/8	1-1/2	UGMF68901	UGMF70901		UGMF70902						UGMG53008
	1/8	1/2	2-1/2	UGMF68S915	UGMF70S956		UGMF70S957						UGMG53S902
5/32	3/16	3/16	2	UGMF68010	UGMF70010								UGMG53903
	3/16	7/16	2	UGMF68902	UGMF70958								UGMG53010
3/16	3/16	3/16	2	UGMF68012	UGMF70012								UGMG53904
	3/16	5/16	2	UGMF68916	UGMF70959		UGMF70960						UGMG53905
	3/16	7/16	2	UGMF68903	UGMF70903		UGMF70904						UGMG53012
	3/16	5/8	2-1/2	UGMF68S917	UGMF70S961		UGMF70S962						UGMG53S906
7/32	1/4	1/4	2	UGMF68014	UGMF70014								UGMG53907
	1/4	7/16	2-1/2	UGMF68904	UGMF70963								UGMG53014
1/4	1/4	3/8	2	UGMF68016	UGMF70016		UGMF70905	UGMF70906					UGMG53908
	1/4	1/2	2-1/2	UGMF68918		UGMF70964	UGMF70965	UGMF70966					UGMG53016
	1/4	3/4	2-1/2	UGMF68905	UGMF70907	UGMF70908	UGMF70909	UGMF70967					UGMG53909
	1/4	1	3	UGMF68S919		UGMF70S968	UGMF70S969	UGMF70S970					UGMG53S910
9/32	5/16	5/8	2-1/2	UGMF68018		UGMF70018	UGMF70971	UGMF70972					UGMG53018
	5/16	1	3	UGMF68S920		UGMF70S973	UGMF70S974						UGMG53S911
5/16	5/16	7/16	2	UGMF68020			UGMF70020						UGMG53912
	5/16	13/16	2-1/2	UGMF68906	UGMF70910		UGMF70911	UGMF70912					UGMG53020
	5/16	1-1/4	3	UGMF68S921		UGMF70S975	UGMF70S976	UGMF70S977					UGMG53S913
11/32	3/8	1/2	2-1/2	UGMF68022			UGMF70022						UGMG53914
	3/8	13/16	2-1/2	UGMF68922			UGMF70978						UGMG53022
3/8	3/8	1/2	2-1/2	UGMF68024	UGMF70024		UGMF70913	UGMF70914	UGMF70979				UGMG53915
	3/8	7/8	2-1/2	UGMF68907	UGMF70915		UGMF70916	UGMF70917	UGMF70980				UGMG53024
	3/8	1	3	UGMF68923	UGMF70981		UGMF70982	UGMF70983	UGMF70984				UGMG53916
	3/8	1-1/4	3	UGMF68S924	UGMF70S985		UGMF70S986	UGMF70S987	UGMF70S988				UGMG53S917
13/32	7/16	1/2	2-3/4	UGMF68026			UGMF70026						UGMG53026
	7/16	15/16	2-3/4	UGMF68925			UGMF70989						UGMG53918
7/16	7/16	5/8	2-1/2	UGMF68028		UGMF70028	UGMF70918	UGMF70990	UGMF70991				UGMG53919
	7/16	7/8	2-3/4	UGMF68926		UGMF70992	UGMF70993	UGMF70994	UGMF70995				UGMG53920
	7/16	1	2-3/4	UGMF68908	UGMF70919		UGMF70920	UGMF70921					UGMG53028
15/32	1/2	5/8	2-1/2	UGMF68030			UGMF70030						UGMG53030
	1/2	1	3	UGMF68927			UGMF70996						UGMG53921
	1/2	1-1/4	3-1/2	UGMF68928			UGMF70997						UGMG53922



4 FLUTE MULTIPLE HELIX, UNEQUAL INDEX
HIGH PERFORMANCE CARBIDE END MILLS FOR STEEL,
STAINLESS STEEL, NICKEL ALLOYS AND TITANIUM



DIA	SD	LOC	OAL	SHARP CORNER	CORNER RADIUS								
					.010	.015	.030	.060	.090	.125	.190	.250	BALL
					EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/2	1/2	5/8	2_1/2	UGMF68032	UGMF70032	UGMF70922	UGMF70923	UGMF70924	UGMF70998	UGMF70999			UGMG53923
	1/2	1"	3"	UGMF68909	UGMF70925	UGMF70801	UGMF70926	UGMF70927	UGMF70802	UGMF70928			UGMG53032
	1/2	1_1/4	3_1/2	UGMF68910	UGMF70929	UGMF70930	UGMF70931	UGMF70932	UGMF70803	UGMF70933			UGMG53924
	1/2	1_5/8	4"	UGMF68S929		UGMF70S804	UGMF70S805	UGMF70S806	UGMF70S807	UGMF70S808			UGMG53S925
5/8	5/8	3/4	3"	UGMF68040	UGMF70040	UGMF70809	UGMF70934	UGMF70935	UGMF70810	UGMF70811			UGMG53926
	5/8	1_1/4	3_1/2	UGMF68911	UGMF70936	UGMF70937	UGMF70938	UGMF70939	UGMF70812	UGMF70940			UGMG53040
	5/8	1_5/8	4"	UGMF68930		UGMF70813	UGMF70814	UGMF70815	UGMF70816	UGMF70817			UGMG53927
	5/8	2"	4"	UGMF68S931		UGMF70S818	UGMF70S819	UGMF70S820	UGMF70S821	UGMF70S822			UGMG53S928
	5/8	3_1/4	6"	UGMF68S932		UGMF70S823	UGMF70S824	UGMF70S825	UGMF70S826	UGMF70S827			UGMG53S929
3/4	3/4	3/4	3"	UGMF68048		UGMF70828	UGMF70048	UGMF70941	UGMF70829	UGMF70830	UGMF70831	UGMF70832	UGMG53930
	3/4	1_1/2	4"	UGMF68912		UGMF70942	UGMF70943	UGMF70944	UGMF70833	UGMF70945	UGMF70834	UGMF70835	UGMG53048
	3/4	1_7/8	4"	UGMF68933		UGMF70836	UGMF70837	UGMF70838	UGMF70839	UGMF70840	UGMF70841	UGMF70842	UGMG53931
	3/4	2_1/4	5"	UGMF68934		UGMF70843	UGMF70844	UGMF70845	UGMF70846	UGMF70847	UGMF70848	UGMF70849	UGMG53932
	3/4	3_1/4	6"	UGMF68S935		UGMF70S850	UGMF70S851	UGMF70S852	UGMF70S853	UGMF70S854	UGMF70S855	UGMF70S856	UGMG53S933
1	1"	1"	4"	UGMF68064		UGMF70064	UGMF70946	UGMF70947	UGMF70857	UGMF70858	UGMF70859	UGMF70860	UGMG53934
	1"	1_1/2	4"	UGMF68913		UGMF70948	UGMF70949	UGMF70950	UGMF70861	UGMF70951	UGMF70862	UGMF70863	UGMG53064
	1"	2"	5"	UGMF68914		UGMF70952	UGMF70953	UGMF70954	UGMF70864	UGMF70865	UGMF70866	UGMF70867	UGMG53935
	1"	2_5/8	5"	UGMF68936		UGMF70868	UGMF70869	UGMF70870	UGMF70871	UGMF70872	UGMF70873	UGMF70874	UGMG53936
	1"	3"	6"	UGMF68937		UGMF70875	UGMF70876	UGMF70877	UGMF70878	UGMF70879	UGMF70880	UGMF70881	UGMG53937
	1"	4_1/4	7"	UGMF68S938		UGMF70S882	UGMF70S883	UGMF70S884	UGMF70S885	UGMF70S886	UGMF70S887	UGMF70S888	UGMG53S938



4 FLUTE EXTENDED NECK MULTIPLE HELIX, UNEQUAL INDEX
HIGH PERFORMANCE CARBIDE END MILLS FOR STEEL, STAINLESS STEEL, NICKEL
ALLOYS AND TITANIUM



OD	SD	LOC	LBS	OAL	SHARP CORNER	CORNER RADIUS								BALL
						0.010	0.015	0.030	0.060	0.090	0.125	0.190	0.250	
						EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	
1/8	1/8	5/32	3/8	3	UGMF72008	UGMF74008		UGMF74913						UGMH10008
		5/32	1/2	3	UGMF72913	UGMF74914		UGMF74915						UGMH10901
		5/32	5/8	3	UGMF72914	UGMF74916		UGMF74917						UGMH10902
3/16	3/16	7/32	1/2	3	UGMF72012	UGMF74012		UGMF74918						UGMH10012
		7/32	3/4	3	UGMF72915	UGMF74919		UGMF74920						UGMH10903
		7/32	1	3	UGMF72916	UGMF74921		UGMF74922						UGMH10904
1/4	1/4	3/8	3/4	4	UGMF72016		UGMF74016	UGMF74923	UGMF74924					UGMH10016
		3/8	1-1/8	4	UGMF72901		UGMF74901	UGMF74925	UGMF74926					UGMH10905
		3/8	2-1/8	4	UGMF72902		UGMF74902	UGMF74927	UGMF74928					UGMH10906
3/8	3/8	1/2	1-1/8	4	UGMF72024		UGMF74929	UGMF74024	UGMF74930	UGMF74931				UGMH10024
		1/2	2-1/8	4	UGMF72903		UGMF74932	UGMF74903	UGMF74933	UGMF74934				UGMH10907
		1/2	3-1/8	6	UGMF72904		UGMF74935	UGMF74904	UGMF74936	UGMF74937				UGMH10908
		1/2	4-1/8	6	UGMF72917		UGMF74938	UGMF74939	UGMF74940	UGMF74941				UGMH10909
1/2	1/2	5/8	1-1/2	4	UGMF72032		UGMF74942	UGMF74032	UGMF74943	UGMF74944	UGMF74945			UGMH10032
		5/8	2-1/4	4	UGMF72905		UGMF74946	UGMF74905	UGMF74947	UGMF74948	UGMF74949			UGMH10910
		5/8	3-3/8	6	UGMF72906		UGMF74950	UGMF74906	UGMF74951	UGMF74952	UGMF74953			UGMH10911
		5/8	4-1/8	6	UGMF72918		UGMF74954	UGMF74955	UGMF74956	UGMF74957	UGMF74958			UGMH10912
5/8	5/8	3/4	1-5/8	4	UGMF72040			UGMF74040	UGMF74959	UGMF74960	UGMF74961			UGMH10040
		3/4	2-3/8	6	UGMF72907			UGMF74907	UGMF74962	UGMF74963	UGMF74964			UGMH10913
		3/4	3-3/8	6	UGMF72908			UGMF74908	UGMF74965	UGMF74966	UGMF74967			UGMH10914
		3/4	4-1/8	6	UGMF72919			UGMF74968	UGMF74969	UGMF74970	UGMF74971			UGMH10915
3/4	3/4	1	2	4	UGMF72048			UGMF74048	UGMF74972	UGMF74973	UGMF74974	UGMF74975	UGMF74976	UGMH10048
		1	2-1/2	6	UGMF72920			UGMF74977	UGMF74978	UGMF74979	UGMF74980	UGMF74981	UGMF74982	UGMH10916
		1	3	6	UGMF72909			UGMF74909	UGMF74983	UGMF74984	UGMF74985	UGMF74986	UGMF74987	UGMH10917
		1	4	6	UGMF72910			UGMF74910	UGMF74988	UGMF74989	UGMF74990	UGMF74991	UGMF74992	UGMH10918
1"	1"	1-1/8	2	4	UGMF72064			UGMF74064	UGMF74993	UGMF74994	UGMF74995	UGMF74996	UGMF74997	UGMH10064
		1-1/8	2-5/8	6	UGMF72921			UGMF74998	UGMF74999	UGMF74801	UGMF74802	UGMF74803	UGMF74804	UGMH10919
		1-1/8	3	6	UGMF72911			UGMF74911	UGMF74805	UGMF74806	UGMF74807	UGMF74808	UGMF74809	UGMH10920
		1-1/8	4	6	UGMF72912			UGMF74912	UGMF74810	UGMF74811	UGMF74812	UGMF74813	UGMF74814	UGMH10921

6 FLUTE VARIABLE PITCH

**HIGH PERFORMANCE CARBIDE END MILLS FOR STAINLESS STEEL, TITANIUM
AND OTHER ALLOYS**



OD	SD	LOC	OAL	SHARP CORNER	Corner Radius						
					0.015	0.030	0.060	0.090	0.125	0.190	0.250
					EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/4	1/4	1/2	2-1/2	UGMG20914	UGMG22956	UGMG22957	UGMG22958				
		3/4	2-1/2	UGMG20016	UGMG22016	UGMG22959	UGMG22960				
		1-1/8	3	UGMG20901	UGMG22901	UGMG22902	UGMG22961				
		1-1/2	4	UGMG20902	UGMG22903	UGMG22904	UGMG22962				
5/16	5/16	3/4	2-1/2	UGMG20020							
		1-1/4	3	UGMG20903							
		1-5/8	4	UGMG20904							
3/8	3/8	5/8	2-1/2	UGMG20915	UGMG22963	UGMG22964	UGMG22965	UGMG22966			
		1	3	UGMG20024	UGMG22024	UGMG22909	UGMG22910	UGMG22967			
		1-1/2	4	UGMG20905	UGMG22911	UGMG22912	UGMG22913	UGMG22968			
		2	4	UGMG20906	UGMG22914	UGMG22915	UGMG22916	UGMG22969			
1/2	1/2	5/8	3	UGMG20916	UGMG22970	UGMG22971	UGMG22972	UGMG22973	UGMG22974		
		1	3-1/4	UGMG20032							
		1	3	UGMG20917	UGMG22032	UGMG22917	UGMG22918	UGMG22975	UGMG22976		
		1-1/4	3-1/2	UGMG20907	UGMG22977	UGMG22919	UGMG22920	UGMG22921	UGMG22978		
		1-5/8	4	UGMG20918	UGMG22979	UGMG22980	UGMG22981	UGMG22982	UGMG22983		
		2	4	UGMG20908	UGMG22984	UGMG22923	UGMG22924	UGMG22925	UGMG22985		
		2-5/8	5	UGMG20919	UGMG22986	UGMG22987	UGMG22988	UGMG22989	UGMG22990		
		3	5	UGMG20909	UGMG22991	UGMG22927	UGMG22928	UGMG22929	UGMG22992		
5/8	5/8	3/4	3	UGMG20920	UGMG22993	UGMG22994	UGMG22995	UGMG22996	UGMG22997		
		1-1/4	3-1/2	UGMG20040	UGMG22998	UGMG22040	UGMG22931	UGMG22932	UGMG22999		
		1-7/8	4	UGMG20921	UGMG22801	UGMG22802	UGMG22803	UGMG22804	UGMG22805		
		2	4	UGMG20910	UGMG22806	UGMG22934	UGMG22935	UGMG22936	UGMG22807		
		2-5/8	5	UGMG20922	UGMG22808	UGMG22809	UGMG22810	UGMG22811	UGMG22812		
		3	5	UGMG20911	UGMG22813	UGMG22938	UGMG22939	UGMG22940	UGMG22814		
3/4	3/4	1	3-1/2	UGMG20923	UGMG22815	UGMG22816	UGMG22817	UGMG22818	UGMG22819	UGMG22820	UGMG22821
		1-1/2	4	UGMG20048	UGMG22822	UGMG22048	UGMG22942	UGMG22943	UGMG22823	UGMG22824	UGMG22825
		1-7/8	5	UGMG20924	UGMG22826	UGMG22827	UGMG22828	UGMG22829	UGMG22830	UGMG22831	UGMG22832
		2-1/4	5	UGMG20925	UGMG22833	UGMG22834	UGMG22835	UGMG22836	UGMG22837	UGMG22838	UGMG22839
		2-3/4	5	UGMG20926	UGMG22840	UGMG22841	UGMG22842	UGMG22843	UGMG22844	UGMG22845	UGMG22846
		3	5-1/2	UGMG20912	UGMG22847	UGMG22945	UGMG22946	UGMG22947	UGMG22848	UGMG22849	UGMG22850
1	1	1-1/2	4	UGMG20064	UGMG22851	UGMG22064	UGMG22949	UGMG22950	UGMG22852	UGMG22853	UGMG22854
		2	5	UGMG20927	UGMG22855	UGMG22856	UGMG22857	UGMG22858	UGMG22859	UGMG22860	UGMG22861
		2-5/8	5	UGMG20928	UGMG22862	UGMG22863	UGMG22864	UGMG22865	UGMG22866	UGMG22867	UGMG22868
		3-1/4	6	UGMG20929	UGMG22869	UGMG22870	UGMG22871	UGMG22872	UGMG22873	UGMG22874	UGMG22875
		4	7	UGMG20913	UGMG22876	UGMG22952	UGMG22953	UGMG22954	UGMG22877	UGMG22878	UGMG22879

6 FLUTE EXTENDED REACH VARIABLE PITCH
HIGH PERFORMANCE CARBIDE END MILLS FOR STAINLESS STEEL, TITANIUM
AND OTHER ALLOYS



OD	SD	LOC	LBS	OAL	SHARP CORNER	CORNER RADIUS					
						0.030	0.060	0.090	0.125	0.190	0.250
						EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/8	1/8	5/32	3/8	3							
		5/32	1/2	3							
		5/32	5/8	3							
3/16	3/16	7/32	1/2	3							
		7/32	3/4	3							
		7/32	1"	3							
1/4	1/4	3/8	3/4	4	UGMH08016	UGMH09016	UGMH09901				
		3/8	1-1/8	4	UGMH08901	UGMH09902	UGMH09903				
		3/8	2-1/8	4	UGMH08902	UGMH09904	UGMH09905				
3/8	3/8	1/2	1-1/8	4	UGMH08024	UGMH09024	UGMH09906	UGMH09907			
		1/2	2-1/8	4	UGMH08903	UGMH09908	UGMH09909	UGMH09910			
		1/2	3-1/8	6	UGMH08904	UGMH09911	UGMH09912	UGMH09913			
		1/2	4-1/8	6	UGMH08905	UGMH09914	UGMH09915	UGMH09916			
1/2	1/2	5/8	1-1/2	4	UGMH08032	UGMH09032	UGMH09917	UGMH09918	UGMH09919		
		5/8	2-1/4	4	UGMH08906	UGMH09920	UGMH09921	UGMH09922	UGMH09923		
		5/8	3-3/8	6	UGMH08907	UGMH09924	UGMH09925	UGMH09926	UGMH09927		
		5/8	4-1/8	6	UGMH08908	UGMH09928	UGMH09929	UGMH09930	UGMH09931		
5/8	5/8	3/4	1-5/8	4	UGMH08040	UGMH09040	UGMH09932	UGMH09933	UGMH09934		
		3/4	2-3/8	6	UGMH08909	UGMH09935	UGMH09936	UGMH09937	UGMH09938		
		3/4	3-3/8	6	UGMH08910	UGMH09939	UGMH09940	UGMH09941	UGMH09942		
		3/4	4-1/8	6	UGMH08911	UGMH09943	UGMH09944	UGMH09945	UGMH09946		
3/4	3/4	1-1/8	2	4	UGMH08048	UGMH09048	UGMH09947	UGMH09948	UGMH09949	UGMH09950	UGMH09951
		1-1/8	2-5/8	5	UGMH08912	UGMH09952	UGMH09953	UGMH09954	UGMH09955	UGMH09956	UGMH09957
		1-1/8	3-1/4	6	UGMH08913	UGMH09958	UGMH09959	UGMH09960	UGMH09961	UGMH09962	UGMH09963
		1-1/8	4-1/4	7	UGMH08914	UGMH09964	UGMH09965	UGMH09966	UGMH09967	UGMH09968	UGMH09969
1"	1"	1-1/4	2-1/4	4	UGMH08064	UGMH09064	UGMH09970	UGMH09971	UGMH09972	UGMH09973	UGMH09974
		1-1/4	2-5/8	5	UGMH08915	UGMH09975	UGMH09976	UGMH09977	UGMH09978	UGMH09979	UGMH09980
		1-1/4	3-1/4	6	UGMH08916	UGMH09981	UGMH09982	UGMH09983	UGMH09984	UGMH09985	UGMH09986
		1-1/4	4-1/4	7	UGMH08917	UGMH09987	UGMH09988	UGMH09989	UGMH09990	UGMH09991	UGMH09992
		1-1/4	5-1/4	8	UGMH08918	UGMH09993	UGMH09994	UGMH09995	UGMH09996	UGMH09997	UGMH09998



V7 INOX, 4 FLUTE VARIABLE HELIX, STUB LENGTH



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
EMC75008	1/8	1/8	1/8	1-1/2
EMC75010	5/32	3/16	3/16	2
EMC75012	3/16	3/16	3/16	2
EMC75014	7/32	1/4	1/4	2
EMC75016	1/4	1/4	1/4	2
EMC75020	5/16	5/16	5/16	2
EMD60024	3/8	3/8	3/8	2
EMD60028	7/16	7/16	7/16	2-1/2
EMD60032	1/2	1/2	1/2	2-1/2
EMD60040	5/8	5/8	5/8	3
EMD60048	3/4	3/4	3/4	3
EMD60064	1	1	1	4

V7 INOX, 4 FLUTE VARIABLE HELIX, STUB LENGTH, CORNER RADIUS



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	CORNER RADIUS
EMC76008	1/8	1/8	1/8	1-1/2	.015
EMC76010	5/32	3/16	3/16	2	.015
EMC76012	3/16	3/16	3/16	2	.015
EMC76014	7/32	1/4	1/4	2	.020
EMC76016	1/4	1/4	1/4	2	.020
EMC76020	5/16	5/16	5/16	2	.020
EMD61024	3/8	3/8	3/8	2	.020
EMD61028	7/16	7/16	7/16	2-1/2	.020
EMD61032	1/2	1/2	1/2	2-1/2	.030
EMD61040	5/8	5/8	5/8	3	.040
EMD61048	3/4	3/4	3/4	3	.040
EMD61064	1	1	1	4	.040

****SHANKS 3/8" AND OVER COME WITH FLATS**



V7 INOX, 4 FLUTE VARIABLE HELIX, REGULAR LENGTH

EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
EMB12008	1/8	1/8	3/8	1-1/2
EMB12010	5/32	3/16	7/16	2
EMB12012	3/16	3/16	7/16	2
EMB12014	7/32	1/4	7/16	2-1/2
EMB12016	1/4	1/4	1/2	2-1/2
EMB12018	9/32	5/16	5/8	2-1/2
EMB12020	5/16	5/16	13/16	2-1/2
EMB12022	11/32	3/8	13/16	2-1/2
EMB37024	3/8	3/8	7/8	2-1/2
EMB37026	13/32	7/16	15/16	2-3/4
EMB37028	7/16	7/16	1	2-3/4
EMB37030	15/32	1/2	1	3
EMB37032	1/2	1/2	1	3
EMB37036	9/16	9/16	1-1/8	3-1/2
EMB37040	5/8	5/8	1-1/4	3-1/2
EMB37048	3/4	3/4	1-1/2	4
EMB37064	1	1	1-1/2	4



V7 INOX, 4 FLUTE VARIABLE HELIX, REGULAR LENGTH, CORNER RADIUS



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	CORNER RADIUS
EMB13008	1/8	1/8	3/8	1-1/2	.010~.015
EMB13012	3/16	3/16	7/16	2	.010~.015
EMB13016	1/4	1/4	1/2	2-1/2	.015~.020
EMB13020	5/16	5/16	13/16	2-1/2	.015~.020
EMB38024	3/8	3/8	7/8	2-1/2	.015~.020
EMB38028	7/16	7/16	1	2-3/4	.015~.020
EMB38032	1/2	1/2	1	3	.025~.030
EMB38036	9/16	9/16	1-1/8	3-1/2	.025~.030
EMB38040	5/8	5/8	1-1/4	3-1/2	.035~.040
EMB38048	3/4	3/4	1-1/2	4	.035~.040
EMB38064	1	1	1-1/2	4	.035~.040

****SHANKS 3/8" AND OVER COME WITH FLATS**



V7 INOX, 4 FLUTE VARIABLE HELIX, EXTENDED NECK



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH LENGTH	OVERALL LENGTH
EMB20160	1/4	1/4	3/8	1-1/4	4
EMB20240	3/8	3/8	7/8	1-7/8	4
EMB20320	1/2	1/2	5/8	2-1/4	4
EMB20400	5/8	5/8	3/4	2-1/4	4-1/8
EMB20401	5/8	5/8	3/4	3-1/4	5
EMB20480	3/4	3/4	1	2-1/4	4-1/4
EMB20481	3/4	3/4	1	3-1/4	5-1/2
EMB20640	1	1	1-1/8	2-1/4	4-1/2
EMB20641	1	1	1-1/8	3-1/4	5-1/2
EMB20642	1	1	1-1/8	4-1/4	6-1/2

V7 INOX, 4 FLUTE VARIABLE HELIX, REGULAR LENGTH, BALL NOSE

EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
EMB78008	1/8	1/8	3/8	1-1/2
EMB78010	5/32	3/16	7/16	2
EMB78012	3/16	3/16	7/16	2
EMB78016	1/4	1/4	1/2	2-1/2
EMB78020	5/16	5/16	13/16	2-1/2
EMB79024	3/8	3/8	7/8	2-1/2
EMB79032	1/2	1/2	1	3
EMB79040	5/8	5/8	1-1/4	3-1/2
EMB79048	3/4	3/4	1-1/2	4
EMB79064	1	1	1-1/2	4



V7 INOX, 5 FLUTE VARIABLE HELIX, REGULAR LENGTH



EDP	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
EMB76016	1/4	1/4	1/2	2-1/2
EMB76020	5/16	5/16	13/16	2-1/2
EMB77024	3/8	3/8	7/8	2-1/2
EMB77032	1/2	1/2	1	3
EMB77036	9/16	9/16	1-1/8	3-1/2
EMB77040	5/8	5/8	1-1/4	3-1/2
EMB77048	3/4	3/4	1-1/2	4
EMB77064	1	1	1-1/2	4



ALU-POWER HPC

**3 FLUTE 37 DEGREE CARBIDE END MILL FOR ROUGHING, SLOTTING
AND FINISHING ALUMINUM ALLOYS**



OD	SD	LOC	OAL	SHARP CORNER	CORNER RADIUS-UNCOATED/POLISHED FLUTES						
					0.010	0.030	0.060	0.090	0.120	0.190	0.250
					EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/8	1/8	1/4	1-1/2	E5G95008	E5G97008	E5G97901					
		3/8	1-1/2	E5G95901	E5G97902	E5G97903					
3/16	3/16	5/16	2	E5G95012	E5G97012	E5G97904					
		9/16	2	E5G95902	E5G97905	E5G97906					
1/4	1/4	3/8	2	E5G95016	E5G97016	E5G97907	E5G97908				
		5/8	2-1/2	E5G95903	E5G97909	E5G97910	E5G97911				
		1-1/4	3-1/4	E5G95904	E5G97912	E5G97913	E5G97914				
5/16	5/16	7/16	2	E5G95020	E5G97020	E5G97915	E5G97916	E5G97917			
		5/8	2-1/2	E5G95905	E5G97918	E5G97919	E5G97920	E5G97921			
		1-1/4	3-1/2	E5G95906	E5G97922	E5G97923	E5G97924	E5G97925			
3/8	3/8	1/2	2	E5G95024	E5G97024	E5G97926	E5G97927	E5G97928	E5G97929		
		1	2-1/2	E5G95907	E5G97930	E5G97931	E5G97932	E5G97933	E5G97934		
		1-1/2	3-1/2	E5G95908	E5G97935	E5G97936	E5G97937	E5G97938	E5G97939		
		2	4	E5G95909	E5G97940	E5G97941	E5G97942	E5G97943	E5G97944		
7/16	7/16	9/16	2-1/2	E5G95028	E5G97028	E5G97945	E5G97946	E5G97947	E5G97948		
		1-1/4	2-3/4	E5G95910	E5G97949	E5G97950	E5G97951	E5G97952	E5G97953		
		2	4	E5G95911	E5G97954	E5G97955	E5G97956	E5G97957	E5G97958		
1/2	1/2	5/8	2-1/2	E5G95032	E5G97032	E5G97959	E5G97960	E5G97961	E5G97962	E5G97963	
		1-1/4	3	E5G95912	E5G97964	E5G97965	E5G97966	E5G97967	E5G97968	E5G97969	
		1-5/8	4	E5G95913	E5G97970	E5G97971	E5G97972	E5G97973	E5G97974	E5G97975	
		2	4	E5G95914	E5G97976	E5G97977	E5G97978	E5G97979	E5G97980	E5G97981	
		2-1/2	5	E5G95915	E5G97982	E5G97983	E5G97984	E5G97985	E5G97986	E5G97987	
		3	5	E5G95916	E5G97988	E5G97989	E5G97990	E5G97991	E5G97992	E5G97993	
5/8	5/8	3/4	3	E5G95040	E5G97040	E5G97994	E5G97995	E5G97996	E5G97997	E5G97998	
		1-5/8	3-1/2	E5G95917	E5G97999	E5G97801	E5G97802	E5G97803	E5G97804	E5G97805	
		2-1/2	5	E5G95918	E5G97806	E5G97807	E5G97808	E5G97809	E5G97810	E5G97811	
		3	5-1/4	E5G95919	E5G97812	E5G97813	E5G97814	E5G97815	E5G97816	E5G97817	
3/4	3/4	1	3	E5G95048	E5G97048	E5G97818	E5G97819	E5G97820	E5G97821	E5G97822	E5G97823
		1-5/8	4	E5G95920	E5G97824	E5G97825	E5G97826	E5G97827	E5G97828	E5G97829	E5G97830
		2-1/4	5	E5G95921	E5G97831	E5G97832	E5G97833	E5G97834	E5G97835	E5G97836	E5G97837
		3-1/4	6	E5G95922	E5G97838	E5G97839	E5G97840	E5G97841	E5G97842	E5G97843	E5G97844
		4	6-1/4	E5G95923	E5G97845	E5G97846	E5G97847	E5G97848	E5G97849	E5G97850	E5G97851
1	1	1-1/4	3	E5G95064	E5G97064	E5G97852	E5G97853	E5G97854	E5G97855	E5G97856	E5G97857
		2	5	E5G95924	E5G97858	E5G97859	E5G97860	E5G97861	E5G97862	E5G97863	E5G97864
		3-1/4	6	E5G95925	E5G97865	E5G97866	E5G97867	E5G97868	E5G97869	E5G97870	E5G97871
		4	7	E5G95926	E5G97872	E5G97873	E5G97874	E5G97875	E5G97876	E5G97877	E5G97878



ALU-POWER HPC

**3 FLUTE 37 DEGREE CARBIDE END MILL FOR ROUGHING, SLOTTING
AND FINISHING ALUMINUM ALLOYS**



OD	SD	LOC	OAL	SHARP CORNER	CORNER RADIUS-COATED WITH DLC						
					0.010	0.030	0.060	0.090	0.120	0.190	0.250
					EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/8	1/8	1/4	1-1/2	JAG95008	JAG97008	JAG97901					
		3/8	1-1/2	JAG95901	JAG97902	JAG97903					
3/16	3/16	5/16	2	JAG95012	JAG97012	JAG97904					
		9/16	2	JAG95902	JAG97905	JAG97906					
1/4	1/4	3/8	2	JAG95016	JAG97016	JAG97907	JAG97908				
		5/8	2-1/2	JAG95903	JAG97909	JAG97910	JAG97911				
		1-1/4	3-1/4	JAG95904	JAG97912	JAG97913	JAG97914				
5/16	5/16	7/16	2	JAG95020	JAG97020	JAG97915	JAG97916	JAG97917			
		5/8	2-1/2	JAG95905	JAG97918	JAG97919	JAG97920	JAG97921			
		1-1/4	3-1/2	JAG95906	JAG97922	JAG97923	JAG97924	JAG97925			
3/8	3/8	1/2	2	JAG95024	JAG97024	JAG97926	JAG97927	JAG97928	JAG97929		
		1	2-1/2	JAG95907	JAG97930	JAG97931	JAG97932	JAG97933	JAG97934		
		1-1/2	3-1/2	JAG95908	JAG97935	JAG97936	JAG97937	JAG97938	JAG97939		
		2	4	JAG95909	JAG97940	JAG97941	JAG97942	JAG97943	JAG97944		
7/16	7/16	9/16	2-1/2	JAG95028	JAG97028	JAG97945	JAG97946	JAG97947	JAG97948		
		1-1/4	2-3/4	JAG95910	JAG97949	JAG97950	JAG97951	JAG97952	JAG97953		
		2	4	JAG95911	JAG97954	JAG97955	JAG97956	JAG97957	JAG97958		
1/2	1/2	5/8	2-1/2	JAG95032	JAG97032	JAG97959	JAG97960	JAG97961	JAG97962	JAG97963	
		1-1/4	3	JAG95912	JAG97964	JAG97965	JAG97966	JAG97967	JAG97968	JAG97969	
		1-5/8	4	JAG95913	JAG97970	JAG97971	JAG97972	JAG97973	JAG97974	JAG97975	
		2	4	JAG95914	JAG97976	JAG97977	JAG97978	JAG97979	JAG97980	JAG97981	
		2-1/2	5	JAG95915	JAG97982	JAG97983	JAG97984	JAG97985	JAG97986	JAG97987	
		3	5	JAG95916	JAG97988	JAG97989	JAG97990	JAG97991	JAG97992	JAG97993	
5/8	5/8	3/4	3	JAG95040	JAG97040	JAG97994	JAG97995	JAG97996	JAG97997	JAG97998	
		1-5/8	3-1/2	JAG95917	JAG97999	JAG97801	JAG97802	JAG97803	JAG97804	JAG97805	
		2-1/2	5	JAG95918	JAG97806	JAG97807	JAG97808	JAG97809	JAG97810	JAG97811	
		3	5-1/4	JAG95919	JAG97812	JAG97813	JAG97814	JAG97815	JAG97816	JAG97817	
3/4	3/4	1	3	JAG95048	JAG97048	JAG97818	JAG97819	JAG97820	JAG97821	JAG97822	JAG97823
		1-5/8	4	JAG95920	JAG97824	JAG97825	JAG97826	JAG97827	JAG97828	JAG97829	JAG97830
		2-1/4	5	JAG95921	JAG97831	JAG97832	JAG97833	JAG97834	JAG97835	JAG97836	JAG97837
		3-1/4	6	JAG95922	JAG97838	JAG97839	JAG97840	JAG97841	JAG97842	JAG97843	JAG97844
		4	6-1/4	JAG95923	JAG97845	JAG97846	JAG97847	JAG97848	JAG97849	JAG97850	JAG97851
1	1	1-1/4	3	JAG95064	JAG97064	JAG97852	JAG97853	JAG97854	JAG97855	JAG97856	JAG97857
		2	5	JAG95924	JAG97858	JAG97859	JAG97860	JAG97861	JAG97862	JAG97863	JAG97864
		3-1/4	6	JAG95925	JAG97865	JAG97866	JAG97867	JAG97868	JAG97869	JAG97870	JAG97871
		4	7	JAG95926	JAG97872	JAG97873	JAG97874	JAG97875	JAG97876	JAG97877	JAG97878

ALU-POWER HPC

**3 FLUTE 37 DEGREE EXT. NECK CARBIDE END MILLS FOR ROUGHING,
SLOTTING AND FINISHING ALUMINUM ALLOYS**

OD	SD	LOC	LBS	ND	OAL	SHARP CORNER	CORNER RADIUS-UNCOATED/POLISHED FLUTES						
							.010	.030	.060	.090	.120	.190	.250
							EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/4	1/4	3/8	3/4	.220	2-1/2	E5G96016	E5G98016	E5G98901	E5G98902				
		3/8	1-1/8	.220	3	E5G96901	E5G98903	E5G98904	E5G98905				
3/8	3/8	1/2	1-1/8	.345	3	E5G96024	E5G98024	E5G98906	E5G98907	E5G98908	E5G98909		
		1/2	2-1/8	.345	4	E5G96902	E5G98910	E5G98911	E5G98912	E5G98913	E5G98914		
1/2	1/2	5/8	1-3/8	.470	3	E5G96032	E5G98032	E5G98915	E5G98916	E5G98917	E5G98918	E5G98919	
		5/8	2-1/4	.470	4	E5G96903	E5G98920	E5G98921	E5G98922	E5G98923	E5G98924	E5G98925	
		5/8	3-3/8	.470	5	E5G96904	E5G98926	E5G98927	E5G98928	E5G98929	E5G98930	E5G98931	
		5/8	4-1/4	.470	6	E5G96905	E5G98932	E5G98933	E5G98934	E5G98935	E5G98936	E5G98937	
5/8	5/8	3/4	1-5/8	.585	4	E5G96040	E5G98040	E5G98938	E5G98939	E5G98940	E5G98941	E5G98942	
		3/4	33/8	.585	6	E5G96906	E5G98943	E5G98944	E5G98945	E5G98946	E5G98947	E5G98948	
3/4	3/4	1	2	.710	4	E5G96048	E5G98048	E5G98949	E5G98950	E5G98951	E5G98952	E5G98953	E5G98954
		1	3-3/8	.710	6	E5G96907	E5G98955	E5G98956	E5G98957	E5G98958	E5G98959	E5G98960	E5G98961
		1	5	.710	7	E5G96908	E5G98962	E5G98963	E5G98964	E5G98965	E5G98966	E5G98967	E5G98968
1	1	1-1/4	2-5/8	.960	5	E5G96064	E5G98064	E5G98969	E5G98970	E5G98971	E5G98972	E5G98973	E5G98974
		1-1/4	3-3/8	.960	6	E5G96909	E5G98975	E5G98976	E5G98977	E5G98978	E5G98979	E5G98980	E5G98981
		1-1/4	4-3/8	.960	7	E5G96910	E5G98982	E5G98983	E5G98984	E5G98985	E5G98986	E5G98987	E5G98988
		1-1/4	6	.960	9	E5G96911	E5G98989	E5G98990	E5G98991	E5G98992	E5G98993	E5G98994	E5G98995



OD	SD	LOC	LBS	ND	OAL	SHARP CORNER	CORNER RADIUS-COATED WITH DLC						
							0.010	0.030	0.060	0.090	0.120	0.190	0.250
							EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.	EDP No.
1/4	1/4	3/8	3/4	.220	2-1/2	JAG96016	JAG98016	JAG98901	JAG98902				
		3/8	1-1/8	.220	3	JAG96901	JAG98903	JAG98904	JAG98905				
3/8	3/8	1/2	1-1/8	.345	3	JAG96024	JAG98024	JAG98906	JAG98907	JAG98908	JAG98909		
		1/2	2-1/8	.345	4	JAG96902	JAG98910	JAG98911	JAG98912	JAG98913	JAG98914		
1/2	1/2	5/8	1-3/8	.470	3	JAG96032	JAG98032	JAG98915	JAG98916	JAG98917	JAG98918	JAG98919	
		5/8	2-1/4	.470	4	JAG96903	JAG98920	JAG98921	JAG98922	JAG98923	JAG98924	JAG98925	
		5/8	3-3/8	.470	5	JAG96904	JAG98926	JAG98927	JAG98928	JAG98929	JAG98930	JAG98931	
		5/8	4-1/4	.470	6	JAG96905	JAG98932	JAG98933	JAG98934	JAG98935	JAG98936	JAG98937	
5/8	5/8	3/4	1-5/8	.585	4	JAG96040	JAG98040	JAG98938	JAG98939	JAG98940	JAG98941	JAG98942	
		3/4	3-3/8	.585	6	JAG96906	JAG98943	JAG98944	JAG98945	JAG98946	JAG98947	JAG98948	
3/4	3/4	1	2	.710	4	JAG96048	JAG98048	JAG98949	JAG98950	JAG98951	JAG98952	JAG98953	JAG98954
		1	3-3/8	.710	6	JAG96907	JAG98955	JAG98956	JAG98957	JAG98958	JAG98959	JAG98960	JAG98961
		1	5	.710	7	JAG96908	JAG98962	JAG98963	JAG98964	JAG98965	JAG98966	JAG98967	JAG98968
1	1	1-1/4	2-5/8	.960	5	JAG96064	JAG98064	JAG98969	JAG98970	JAG98971	JAG98972	JAG98973	JAG98974
		1-1/4	3-3/8	.960	6	JAG96909	JAG98975	JAG98976	JAG98977	JAG98978	JAG98979	JAG98980	JAG98981
		1-1/4	4-3/8	.960	7	JAG96910	JAG98982	JAG98983	JAG98984	JAG98985	JAG98986	JAG98987	JAG98988
		1-1/4	6	.960	9	JAG96911	JAG98989	JAG98990	JAG98991	JAG98992	JAG98993	JAG98994	JAG98995



ALU-POWER, 2 FLUTE 42 DEGREE REGULAR LENGTH

POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
17574	17574TC	1/4	3/8	3/4	2-1/2
17580	17580TC	5/16	3/8	13/16	2-1/2
17584	17584TC	3/8	3/8	1	2-1/2
17593	17593TC	1/2	1/2	1	3
18593	18593TC	1/2	1/2	2	4
17595	17595TC	5/8	5/8	1-1/4	3-1/2
17598	17598TC	3/4	3/4	1-1/2	4
18598	18598TC	3/4	3/4	3	5-1/2
17600	17600TC	1	1	1-1/2	4
18600	18600TC	1	1	3	5-1/2

* WITH FLAT



ALU-POWER, 2 FLUTE 42 DEGREE REGULAR LENGTH

POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
21554	21554TC	1/16	1/8	1/8	1-1/2
21556	21556TC	3/32	1/8	1/4	1-1/2
21601	21601TC	1/8	1/4	5/16	1-3/4
21566	21566TC	3/16	1/4	7/16	2
21574	21574TC	1/4	3/8	3/4	2-1/2
21580	21580TC	5/16	3/8	13/16	2-1/2
21584	21584TC	3/8	3/8	1	2-1/2
21588	21588TC	7/16	7/16	1	2-3/4
21593	21593TC	1/2	1/2	1	3
21901	21901TC	1/2	1/2	2	4
21595	21595TC	5/8	5/8	1-1/4	3-1/2
21598	21598TC	3/4	3/4	1-1/2	4
21902	21902TC	3/4	3/4	3	5-1/2
21600	21600TC	1	1	1-1/2	4
21903	21903TC	1	1	3	5-1/2

* WITHOUT FLAT

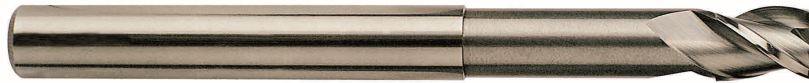


ALU-POWER, 2 FLUTE 37 DEGREE, EXTENDED NECK



POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH LENGTH	OVERALL LENGTH
39573	39573TC	1/4	1/4	3/8	2-1/4	4
39584	39584TC	3/8	3/8	1/2	2-1/4	4
39593	39593TC	1/2	1/2	5/8	2-1/4	5
39908	39908TC	1/2	1/2	5/8	3-1/4	6
39901	39901TC	1/2	1/2	5/8	4	6
39595	39595TC	5/8	5/8	3/4	2-1/4	5
39902	39902TC	5/8	5/8	3/4	3-1/4	6
39903	39903TC	5/8	5/8	3/4	4-1/4	7
39598	39598TC	3/4	3/4	1	2-1/4	5
39904	39904TC	3/4	3/4	1	3-1/4	6
39905	39905TC	3/4	3/4	1	4-1/4	7
39600	39600TC	1	1	1-1/8	2-1/4	5
39906	39906TC	1	1	1-1/8	3-1/4	6
39907	39907TC	1	1	1-1/8	4-1/4	7

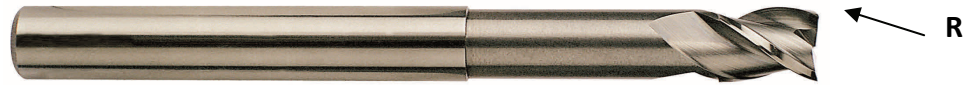
ALU-POWER, 3 FLUTE 37 DEGREE REGULAR LENGTH



POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH LENGTH	OVERALL LENGTH
40573	40573TC	1/4	1/4	3/8	2-1/4	4
40584	40584TC	3/8	3/8	1/2	2-1/4	4
40593	40593TC	1/2	1/2	5/8	2-1/4	5
40901	40901TC	1/2	1/2	5/8	3-1/4	6
40902	40902TC	1/2	1/2	5/8	4	6
40595	40595TC	5/8	5/8	3/4	2-1/4	5
40903	40903TC	5/8	5/8	3/4	3-1/4	6
40904	40904TC	5/8	5/8	3/4	4-1/4	7
40598	40598TC	3/4	3/4	1	2-1/4	5
40905	40905TC	3/4	3/4	1	3-1/4	6
40906	40906TC	3/4	3/4	1	4-1/4	7
40600	40600TC	1	1	1-1/8	2-1/4	5
40907	40907TC	1	1	1-1/8	3-1/4	6
40908	40908TC	1	1	1-1/8	4-1/4	7



ALU-POWER, 2 FLUTE 37 DEGREE, EXTENDED NECK W/ RADIUS



POLISHED FLUTES	TiCN	RADIUS	DIA	SHANK	LOC	REACH	OAL
EA40321	EA40321C	.060	1/2	1/2	5/8	3-1/4	6
EA40322	EA40322C	.060	1/2	1/2	5/8	4	6
EA40401	EA40401C	.060	5/8	5/8	3/4	2-1/4	5
EA40402	EA40402C	.060	5/8	5/8	3/4	3-1/4	6
EA40403	EA40403C	.060	5/8	5/8	3/4	4-1/4	7
EA40481	EA40481C	.060	3/4	3/4	1	2-1/4	5
EA40482	EA40482C	.060	3/4	3/4	1	3-1/4	6
EA40483	EA40483C	.060	3/4	3/4	1	4-1/4	7
EA40641	EA40641C	.060	1	1	1-1/8	2-1/4	5
EA40642	EA40642C	.060	1	1	1-1/8	3-1/4	6
EA40643	EA40643C	.060	1	1	1-1/8	4-1/4	7

ALU-POWER, 3 FLUTE 37 DEGREE, EXTENDED NECK W/ RADIUS



POLISHED FLUTES	TiCN	RADIUS	DIA	SHANK	LOC	REACH	OAL
EA10321	EA10321C	.120	1/2	1/2	5/8	3-1/4	6
EA10322	EA10322C	.120	1/2	1/2	5/8	4	6
EA10401	EA10401C	.120	5/8	5/8	3/4	2-1/4	5
EA10402	EA10402C	.120	5/8	5/8	3/4	3-1/4	6
EA10403	EA10403C	.120	5/8	5/8	3/4	4-1/4	7
EA10481	EA10481C	.120	3/4	3/4	1	2-1/4	5
EA10482	EA10482C	.120	3/4	3/4	1	3-1/4	6
EA10483	EA10483C	.120	3/4	3/4	1	4-1/4	7
EA10641	EA10641C	.120	1	1	1-1/8	2-1/4	5
EA10642	EA10642C	.120	1	1	1-1/8	3-1/4	6
EA10643	EA10643C	.120	1	1	1-1/8	4-1/4	7



ALU-POWER, 3 FLUTE 45 DEGREE REGULAR LENGTH



POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
25558	25558TC	1/8	1/8	1/4	1-1/2
25565	25565TC	3/16	3/16	5/16	2
25573	25573TC	1/4	1/4	3/8	2
25579	25579TC	5/16	5/16	7/16	2
25584	25584TC	3/8	3/8	1/2	2
25588	25588TC	7/16	7/16	9/16	2-1/2
25593	25593TC	1/2	1/2	5/8	2-1/2
25595	25595TC	5/8	5/8	3/4	3
25598	25598TC	3/4	3/4	1	3
25600	25600TC	1	1	1-1/4	3

ALU-POWER, 3 FLUTE 45 DEGREE LONG AND EXTRA LONG LENGTH



POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
28558	28558TC	1/8	1/8	3/8	1-1/2
28565	28565TC	3/16	3/16	9/16	2
28573	28573TC	1/4	1/4	5/8	2-1/2
28579	28579TC	5/16	5/16	5/8	2-1/2
28584	28584TC	3/8	3/8	1	2-1/2
28588	28588TC	7/16	7/16	1-1/4	2-3/4
28593	28593TC	1/2	1/2	1-1/4	3
28595	28595TC	5/8	5/8	1-5/8	3-1/2
28598	28598TC	3/4	3/4	1-5/8	4
28600	28600TC	1	1	2	5



POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
36573	36573TC	1/4	1/4	1-1/4	3-1/4
36579	36579TC	5/16	5/16	1-1/4	3-1/2
36584	36584TC	3/8	3/8	1-1/2	3-1/2
36588	36588TC	7/16	7/16	2	4
36593	36593TC	1/2	1/2	2	4
36595	36595TC	5/8	5/8	2-1/2	5
36598	36598TC	3/4	3/4	3-1/4	6
36600	36600TC	1	1	3-1/4	6



ALU-POWER, 3 FLUTE 45 DEGREE, WITH .010 AND .030 RADIUS



POLISHED FLUTES	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
28573-010R	1/4	1/4	5/8	2-1/2
28573-030R	1/4	1/4	5/8	2-1/2
36573-030R	1/4	1/4	1-1/4	3-1/4
28584-010R	3/8	3/8	1	2-1/2
36584-030R	3/8	3/8	1-1/2	3-1/2
28593-030R	1/2	1/2	1-1/4	3
36593-030R	1/2	1/2	2	4
28595-030R	5/8	5/8	1-5/8	3-1/2
36595-030R	5/8	5/8	2-1/2	5
28598-030R	3/4	3/4	1-5/8	4
36598-030R	3/4	3/4	3-1/4	6
28600-030R	1	1	2	5
36600-030R	1	1	3-1/4	6



ALU-POWER, 3 FLUTE 45 DEGREE, WITH .060 RADIUS

POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
28584-060R		3/8	3/8	1	2-1/2
EA50321	EA50321C	1/2	1/2	1-1/4	3
EA60321	EA60321C	1/2	1/2	2	4
EA50401	EA50401C	5/8	5/8	1-5/8	3-1/2
EA60401	EA60401C	5/8	5/8	2-1/2	5
EA50481	EA50481C	3/4	3/4	1-5/8	4
EA60481	EA60481C	3/4	3/4	3-1/4	6
EA50641	EA50641C	1	1	2	5
EA60641	EA60641C	1	1	3-1/4	6

ALU-POWER, 3 FLUTE 45 DEGREE, WITH .120 RADIUS

POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
EA20321	EA20321C	1/2	1/2	1-1/4	3
EA30321	EA30321C	1/2	1/2	2	4
EA20401	EA20401C	5/8	5/8	1-5/8	3-1/2
EA30401	EA30401C	5/8	5/8	2-1/2	5
EA20481	EA20481C	3/4	3/4	1-5/8	4
EA30481	EA30481C	3/4	3/4	3-1/4	6
EA20641	EA20641C	1	1	2	5
EA30641	EA30641C	1	1	3-1/4	6



ALU-POWER, 2 FLUTE 37 DEGREE, EXTENDED NECK, BALL NOSE

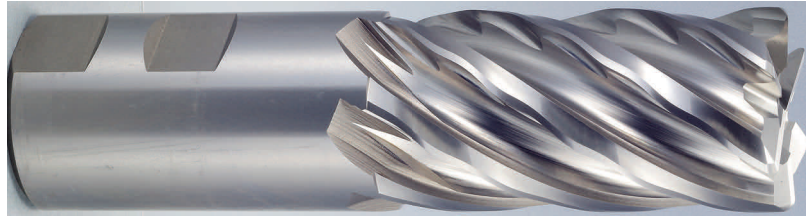


POLISHED FLUTES	TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH LENGTH	OVERALL LENGTH
89573	89573TC	1/4	1/4	3/8	2-1/4	4
89584	89584TC	3/8	3/8	1/2	2-1/4	4
89593	89593TC	1/2	1/2	5/8	2-1/4	5
89901	89901TC	1/2	1/2	5/8	3-1/4	6
89902	89902TC	1/2	1/2	5/8	4	6
89595	89595TC	5/8	5/8	3/4	2-1/4	5
89903	89903TC	5/8	5/8	3/4	3-1/4	6
89904	89904TC	5/8	5/8	3/4	4-1/4	7
89598	89598TC	3/4	3/4	1	2-1/4	5
89905	89905TC	3/4	3/4	1	3-1/4	6
89906	89906TC	3/4	3/4	1	4-1/4	7
89600	89600TC	1	1	1-1/8	2-1/4	5
89907	89907TC	1	1	1-1/8	3-1/4	6
89908	89908TC	1	1	1-1/8	4-1/4	7





SINE POWER HIGH PERFORMANCE ROUGHER FOR TITANIUM



EDP UNCOATED	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	CHAMFER	NO. OF FLUTE
E2F64048	3/4	3/4	1-5/8	3-7/8	.030	4
E2F64901	3/4	3/4	2-1/4	4-1/2	.030	4
E2F64902	3/4	3/4	3	5-1/4	.030	4
E2F64064	1	1	2	4-1/2	.030	4
E2F64903	1	1	2	4-1/2	.030	6
E2F64904	1	1	3	5-1/2	.030	4
E2F64905	1	1	3	5-1/2	.030	6
E2F64906	1	1	4	6-1/2	.030	4
E2F64907	1	1	4	6-1/2	.030	6
E2F64116	1-1/4	1-1/4	2	4-1/2	.040	4
E2F64908	1-1/4	1-1/4	2	4-1/2	.040	6
E2F64909	1-1/4	1-1/4	3	5-1/2	.040	4
E2F64910	1-1/4	1-1/4	3	5-1/2	.040	6
E2F64911	1-1/4	1-1/4	4	6-1/2	.040	4
E2F64912	1-1/4	1-1/4	4	6-1/2	.040	6
E2F64132	1-1/2	1-1/4	2	4-1/2	.040	6
E2F64913	1-1/2	1-1/4	3	5-1/2	.040	6
E2F64914	1-1/2	1-1/4	4	6-1/2	.040	6
E2F64915	1-1/2	1-1/4	6	8-1/2	.040	6
E2F64200	2	2	2	5-3/4	.040	6
E2F64916	2	2	3	6-3/4	.040	6
E2F64917	2	2	4	4-3/4	.040	6
E2F64918	2	2	6	9-3/4	.040	6
E2F64919	2	2	8	11-3/4	.040	6

**ASP 60 POWDERED METAL FINE PITCH ROUGHERS FOR STAINLESS,
TITANIUM AND NICKEL ALLOYS. 30 DEGREE HELIX**



EDP No.	DIA	SHANK	LOC	OAL	FLUTE	CHAMFER
GYG68016	1/4	3/8	5/8	2-7/16	3	.020
GYG68020	5/16	3/8	3/4	2-1/2	3	.020
GYG68901	5/16	3/8	1-3/8	3-3/16	3	.020
GYG68024	3/8	3/8	3/4	2-1/2	4	.020
GYG68902	3/8	3/8	1-1/2	3-1/4	4	.020
GYG68032	1/2	1/2	1-1/4	3-1/4	4	.030
GYG68903	1/2	1/2	2	4	4	.030
GYG68040	5/8	5/8	1-5/8	3-3/4	4	.030
GYG68904	5/8	5/8	2-1/2	4-5/8	4	.030
GYG68048	3/4	3/4	1-5/8	3-7/8	4	.030
GYG68905	3/4	3/4	2-1/2	4-3/4	4	.030
GYG68906	3/4	3/4	3	5-1/4	4	.030
GYG68064	1	1	2	4-1/2	5	.030
GYG68907	1	1	4	6-1/2	5	.030
GYG68116	1-1/4	1-1/4	2	4-1/2	6	.042

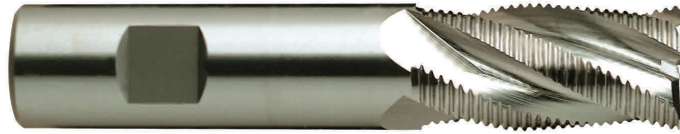
**ASP 60 POWDERED METAL FINE PITCH ROUGHERS FOR STAINLESS,
TITANIUM AND NICKEL ALLOYS. MULTIPLE HELIX**

EDP No.	RADIUS	DIA	SHANK	LOC	OAL	FLUTE
GYG69016	R.020	1/4	3/8	5/8	2-7/16	4
GYG69020	R.020	5/16	3/8	3/4	2-1/2	4
GYG69024	R.020	3/8	3/8	3/4	2-1/2	4
GYG69032	R.020	1/2	1/2	1-1/4	3-1/4	4
GYG69040	R.040	5/8	5/8	1-1/4	3-3/8	5
GYG69048	R.040	3/4	3/4	1-5/8	3-7/8	5
GYG69064	R.040	1	1	2	4-1/2	5





**TANK POWER POWDERED METAL, REGULAR AND MEDIUM LENGTH,
FINE PITCH ROUGHERS, C/C**



EDP UNCOATED	EDP TiALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	NO. OF FLUTE
E9990024	E9990024TF	3/8	3/8	3/4	2-1/2	4
E9990032	E9990032TF	1/2	1/2	1-1/4	3-1/4	4
E9990908	E9990908TF	1/2	1/2	1-5/8	3-5/8	4
E9990040	E9990040TF	5/8	5/8	1-5/8	3-7/8	4
E9990048	E9990048TF	3/4	3/4	1-5/8	3-7/8	4
E9990909	E9990909TF	3/4	3/4	2-1/2	4-3/4	4
E9990064	E9990064TF	1	1	2	5-1/2	5
E9990905	E9990905TF	1	1	3	6-1/2	5
E9990116	E9990116TF	1-1/4	1-1/4	2	4-1/2	6
E9990906	E9990906TF	1-1/4	1-1/4	3	5-1/2	6

TANK POWER POWDERED METAL, LONG LENGTH, FINE PITCH ROUGHERS, C/C



EDP UNCOATED	EDP TiALN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH	NO. OF FLUTE
E9A86024	E9A86024TF	3/8	3/8	1-1/2	3-1/4	4
E9A86924	E9A86924TF	3/8	3/8	1-1/2	4	4
E9A86032	E9A86032TF	1/2	1/2	2	4	4
E9A86040	E9A86040TF	5/8	5/8	2-1/2	4-5/8	4
E9990902	E9990902TF	3/4	3/4	3	5-1/4	4
E9990903	E9990903TF	1	1	4	6-1/2	5
E9990904	E9990904TF	1-1/4	1-1/4	4	6-1/2	6



TANK POWER POWDERED METAL, EXTENDED NECK, FINE PITCH, C/C



EDP UNCOATED	EDP TiAlN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH	OVERALL LENGTH	NO. OF FLUTE
EP20322	EP20322F	1/2	1/2	1-1/4	3	5	5
EP20402	EP20402F	5/8	5/8	1-5/8	4	6-1/8	5
EP20482	EP20482F	3/4	3/4	1-5/8	4	6-1/4	5
EP20484	EP20484F	3/4	3/4	1-5/8	6	8-1/4	5
EP20642	EP20642F	1	1	2	4	6-1/2	6
EP20643	EP20643F	1	1	2	6	8-1/2	6
EP21161	EP21161F	1-1/4	1-1/4	2	4	6-1/2	6
EP21162	EP21162F	1-1/4	1-1/4	2	6	8-1/2	6

T-15 POWDERED METAL, EXTENDED NECK, 3 FLUTE ROUGHERS AND FINISHERS



EDP UNCOATED	EDP TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH	OVERALL LENGTH
EK10482	EK10482C	3/4	3/4	1-1/2	3	5-1/4
EK10483	EK10483C	3/4	3/4	1-1/2	4	6-1/4
EK10642	EK10642C	1	1	1-1/2	3	5-1/2
EK10643	EK10643C	1	1	2	4	6-1/2
EK10644	EK10644C	1	1	2	6	8-1/2
EK11601	EK11601C	1-1/4	1-1/4	2	4	6-1/2
EK11602	EK11602C	1-1/4	1-1/4	2	6	8-1/2



EDP UNCOATED	EDP TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	REACH	OVERALL LENGTH
EK13210	EK13210C	3/4	3/4	1-1/2	3	5-1/4
EK13211	EK13211C	3/4	3/4	1-1/2	4	6-1/4
EK13212	EK13212C	1	1	1-1/2	3	5-1/2
EK13213	EK13213C	1	1	2	4	6-1/2
EK13214	EK13214C	1	1	2	6	8-1/2
EK13215	EK13215C	1-1/4	1-1/4	2	4	6-1/2
EK13216	EK13216C	1-1/4	1-1/4	2	6	8-1/2



**SPEED FREAK T-15 , 3 FLUTE REGULAR, MEDIUM AND LONG LENGTH,
ROUGHING AND FINISHING FOR ALUMINUM**



EDP TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
66515PC	1/2	1/2	1-1/4	3-1/4
67515PC	1/2	1/2	2	4
66519PC	5/8	5/8	1-5/8	3-3/4
67519PC	5/8	5/8	2-1/2	4-5/8
66524PC	3/4	3/4	1-5/8	3-7/8
80524PC	3/4	3/4	2-1/4	4-5/8
67524PC	3/4	3/4	3	5-1/4
66540PC	1	1	2	4-1/2
80540PC	1	1	3	5-1/2
67540PC	1	1	4	6-1/2
66541PC	1-1/4	1-1/4	2	4-1/2
80541PC	1-1/4	1-1/4	3	5-1/2
67541PC	1-1/4	1-1/4	4	6-12
66542PC	1-1/2	1-1/4	2	4-1/2
80542PC	1-1/2	1-1/4	3	5-1/2
67542PC	1-1/2	1-1/4	4	6-1/2

EDP UNCOATED	EDP TiCN	MILL DIAMETER	SHANK DIAMETER	LENGTH OF CUT	OVERALL LENGTH
EP10323	EP10323C	1/2	1/2	1-1/4	3-1/4
EP10324	EP10324C	1/2	1/2	2	4
EP10403	EP10403C	5/8	5/8	1-5/8	3-3/4
EP10404	EP10404C	5/8	5/8	2-1/2	4-5/8
EP10484	EP10484C	3/4	3/4	1-5/8	3-7/8
EP10485	EP10485C	3/4	3/4	2-1/4	4-5/8
EP10486	EP10486C	3/4	3/4	3	5-1/4
EP10644	EP10644C	1	1	2	4-1/2
EP10645	EP10645C	1	1	3	5-1/2
EP10646	EP10646C	1	1	4	6-1/2
EP11165	EP11165C	1-1/4	1-1/4	2	4-1/2
EP11166	EP11166C	1-1/4	1-1/4	3	5-1/2
EP11167	EP11167C	1-1/4	1-1/4	4	6-1/2
EP11324	EP11324C	1-1/2	1-1/4	2	4-1/2
EP11325	EP11325C	1-1/2	1-1/2	3	5-1/2
EP11326	EP11326C	1-1/2	1-1/4	4	6-1/2





TiAIN COATED CARBIDE DREAM DRILLS 3XD, NON-COOLANT THRU



EDP TiALN	FRACTIONAL	DECIMAL	OVERALL LENGTH	FLUTE LENGTH
0081ATF	1/8	.1250	1-59/64	45/64
0091ATF	9/64	.1406	2-3/64	25/32
0101ATF	5/32	.1562	2-3/16	7/8
0111ATF	11/64	.1719	2-9/32	15/16
0121ATF	3/16	.1875	2-7/16	1
0131ATF	13/64	.2031	2-7/16	1
0141ATF	7/32	.2188	2-5/8	1-1/8
0151ATF	15/64	.2344	2-5/8	1-1/8
0161ATF	1/4	.2500	3-17/64	1-11/16
2061ATF	F	.2570	3-17/64	1-11/16
0171ATF	17/64	.2656	3-17/64	1-11/64
2091ATF	I	.2720	3-17/64	1-11/16
0181ATF	9/32	.2812	3-7/16	1-3/4
0191ATF	19/64	.2969	3-9/16	1-7/8
0201ATF	5/16	.3125	3-9/16	1-7/8
0211ATF	21/64	.3281	3-3/4	2-1/16
2171ATF	Q	.3320	3-3/4	2-1/16
0221ATF	11/32	.3438	3-7/8	2-3/16
0231ATF	23/64	.3594	4	2-9/32
2211ATF	U	.3680	4	2-9/32
0241ATF	3/8	.3750	4-1/8	2-3/8
0251ATF	25/64	.3906	4-1/8	2-3/8
0261ATF	13/32	.4062	4-13/32	2-5/8
0271ATF	27/64	.4219	4-1/2	2-11/16
0281ATF	7/16	.4375	4-5/8	2-13/16
0291ATF	29/64	.4531	4-3/4	2-7/8
0301ATF	15/32	.4688	4-3/4	2-7/8
0311ATF	31/64	.4844	5-5/16	3
0321ATF	1/2	.5000	5-3/8	3-1/16
0331ATF	33/64	.5156	5-11/16	3-11/32
0341ATF	17/32	.5312	5-11/16	3-11/32
0361ATF	9/16	.5625	5-15/16	3-1/2
0371ATF	37/64	.5781	6	3-37/64
0401ATF	5/8	.6250	6-19/64	3-25/32



INOX *TiALN-CARBIDE DREAM DRILLS 3XD WITH COOLANT HOLES*



EDP No.	DIA	SHANK	FLUTE	OAL
DH714008	1/8	3/16	1.102	2.992
DH463008	1/8	15/64	1.102	2.992
DH714011	11/64	3/16	1.417	3.386
DH463011	11/64	15/64	1.417	3.386
DH714012	3/16	3/16	1.575	3.543
DH463012	3/16	15/64	1.575	3.543
DH463013	13/64	15/64	1.082	3.228
DH714013	13/64	1/4	1.082	3.228
DH463014	7/32	15/64	1.181	3.228
DH714014	7/32	1/4	1.181	3.228
DH463015	15/64	15/64	1.181	3.228
DH714015	15/64	1/4	1.181	3.228
DH714016	1/4	1/4	1.279	3.465
DH463016	1/4	17/64	1.279	3.465
DH463206	F	17/64	1.279	3.465
DH714206	F	5/16	1.279	3.465
DH463017	17/64	17/64	1.378	3.465
DH714017	17/64	5/16	1.378	3.465
DH463209	I	.2720	1.378	3.465
DH714209	I	5/16	1.378	3.465
DH463018	9/32	5/16	1.476	3.701
DH463019	19/64	5/16	1.476	3.701
DH463020	5/16	5/16	1.575	3.701
DH463021	21/64	11/32	1.673	3.937
DH714021	21/64	3/8	1.673	3.937
DH463217	Q	11/32	1.673	3.937
DH714217	Q	3/8	1.673	3.937
DH463022	11/32	11/32	1.772	3.937
DH714022	11/32	3/8	1.772	3.937
DH714023	23/64	3/8	1.87	4.174
DH463023	23/64	25/64	1.870	4.174

EDP No.	DIA	SHANK	FLUTE	OAL
DH714221	U	3/8	1.87	4.174
DH463221	U	25/64	1.870	4.174
DH714024	3/8	3/8	1.969	4.174
DH463024	3/8	25/64	1.969	4.174
DH463025	25/64	25/64	1.969	4.174
DH714025	25/64	7/16	1.969	4.174
DH463026	13/32	27/64	2.067	4.567
DH714026	13/32	7/16	2.067	4.567
DH463027	27/64	27/64	2.165	4.567
DH714027	27/64	7/16	2.165	4.567
DH714028	7/16	7/16	2.264	4.803
DH463028	7/16	15/32	2.264	4.803
DH463029	29/64	15/32	2.264	4.803
DH714029	29/64	1/2	2.264	4.803
DH463030	15/32	15/32	2.362	4.803
DH714030	15/32	1/2	2.362	4.803
DH463031	31/64	1/2	2.461	5.039
DH463032	1/2	1/2	2.559	5.039
DH463033	33/64	35/64	2.657	5.276
DH714033	33/64	9/16	2.657	5.276
DH463034	17/32	35/64	2.756	5.276
DH714034	17/32	9/16	2.756	5.276
DH463035	35/64	35/64	2.756	5.276
DH714035	35/64	9/16	2.756	5.276
DH714036	9/16	9/16	2.854	5.512
DH463036	9/16	37/64	2.854	5.512
DH463037	37/64	37/64	2.953	5.512
DH714037	37/64	5/8	2.953	5.512
DH463038	19/32	5/8	3.051	5.709
DH463039	39/64	5/8	3.051	5.709
DH463040	5/8	5/8	3.150	5.709





INOX *TiALN-CARBIDE DREAM DRILLS 5XD WITH COOLANT HOLES*



EDP NO.	DIA	SHANK	FLUTE	OAL
DH464013	13/64	15/64	1-3/4	3-15/16
DH715013	13/64	1/4	1-3/4	3-15/16
DH464014	7/32	15/64	1-57/64	3-15/16
DH715014	7/32	1/4	1-57/64	3-15/16
DH464015	15/64	15/64	1-57/64	3-15/16
DH715015	15/64	1/4	1-57/64	3-15/16
DH715016	1/4	1/4	2-3/64	4-19/64
DH464016	1/4	17/64	2-3/64	4-19/64
DH464206	F	17/64	2-13/64	4-19/64
DH715206	F	5/16	2-13/64	4-19/64
DH464017	17/64	17/64	2-13/64	4-19/64
DH715017	17/64	5/16	2-13/64	4-19/64
DH464209	I	.2720	2-13/64	4-19/64
DH715209	I	5/16	2-13/64	4-19/64
DH464018	9/32	5/16	2-23/64	4-41/64
DH464019	19/64	5/16	2-33/64	4-41/64
DH464020	5/16	5/16	2-33/64	4-41/64
DH464021	21/64	11/32	2-43/64	5
DH715021	21/64	3/8	2-43/64	5
DH464217	Q	11/32	2-43/64	5
DH715217	Q	3/8	2-43/64	5
DH464022	11/32	11/32	2-27/32	5
DH715022	11/32	3/8	2-27/32	5
DH715023	23/64	3/8	3	5-23/64
DH464023	23/64	25/64	3	5-23/64
DH715221	U	3/8	3	5-23/64
DH464221	U	25/64	3	5-23/64
DH715024	3/8	3/8	3-5/32	5-23/64
DH464024	3/8	25/64	3-5/32	5-23/64
DH464025	25/64	25/64	3-5/32	5-23/64
DH715025	25/64	7/16	3-5/32	5-23/64
DH464026	13/32	27/64	3-5/16	5-7/8
DH715026	13/32	7/16	3-5/16	5-7/8
DH464027	27/64	27/64	3-15/32	5-7/8
DH715027	27/64	7/16	3-15/32	5-7/8
DH715028	7/16	7/16	3-5/8	6-7/32
DH464028	7/16	15/32	3-5/8	6-7/32
DH464029	29/64	15/32	3-25/32	6-7/32
DH715029	29/64	1/2	3-25/32	6-7/32
DH464030	15/32	15/32	3-25/32	6-7/32
DH715030	15/32	1/2	3-25/32	6-7/32
DH464031	31/64	1/2	3-15/16	6-37/64
DH464032	1/2	1/2	4-3/32	6-37/64





INOX *TIALN-CARBIDE DREAM DRILLS 3XD WITH COOLANT HOLES*



EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH451030	3.0		.1181	6	20	62
DH451031	3.1		.1220	6	20	62
DH451008F	3.175	1/8	.1250	6	20	62
DH451032	3.2		.1260	6	20	62
DH451033	3.3		.1299	6	20	62
DH451034	3.4		.1339	6	20	62
DH451035	3.5		.1378	6	20	62
DH451009F	3.572	9/64	.1406	6	20	62
DH451036	3.6		.1417	6	20	62
DH451037	3.7		.1457	6	20	62
DH451038	3.8		.1496	6	24	66
DH451039	3.9		.1535	6	24	66
DH451010F	3.969	5/32	.1563	6	24	66
DH451040	4.0		.1575	6	24	66
DH451041	4.1		.1614	6	24	66
DH451042	4.2		.1654	6	24	66
DH451043	4.3		.1693	6	24	66
DH451011F	4.366	11/64	.1719	6	24	66
DH451044	4.4		.1732	6	24	66
DH451045	4.5		.1772	6	24	66
DH451046	4.6		.1811	6	24	66
DH451047	4.7		.1850	6	24	66
DH451012F	4.763	3/16	.1875	6	24	66
DH451048	4.8		.1890	6	28	66
DH451049	4.9		.1929	6	28	66
DH451050	5.0		.1969	6	28	66
DH451051	5.1		.2008	6	28	66
DH451013F	5.159	13/64	.2031	6	28	66
DH451052	5.2		.2047	6	28	66
DH451053	5.3		.2087	6	28	66
DH451054	5.4		.2126	6	28	66
DH451055	5.5		.2165	6	28	66
DH451014F	5.556	7/32	.2188	6	28	66
DH451056	5.6		.2205	6	28	66
DH451057	5.7		.2244	6	28	66
DH451058	5.8		.2283	6	28	66
DH451059	5.9		.2323	6	28	66
DH451015F	5.953	15/64	.2344	6	28	66

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH451060	6.0		.2362	6	28	66
DH451061	6.1		.2402	8	34	79
DH451062	6.2		.2441	8	34	79
DH451063	6.3		.2480	8	34	79
DH451016F	6.35	1/4	.2500	8	34	79
DH451064	6.4		.2520	8	34	79
DH451065	6.5		.2559	8	34	79
DH451066	6.6		.2598	8	34	79
DH451067	6.7		.2638	8	34	79
DH451017F	6.747	17/64	.2656	8	34	79
DH451068	6.8		.2677	8	34	79
DH451069	6.9		.2717	8	34	79
DH451070	7.0		.2756	8	34	79
DH451071	7.1		.2795	8	41	79
DH451018F	7.144	9/32	.2812	8	41	79
DH451072	7.2		.2835	8	41	79
DH451073	7.3		.2874	8	41	79
DH451074	7.4		.2913	8	41	79
DH451075	7.5		.2953	8	41	79
DH451019F	7.541	19/64	.2969	8	41	79
DH451076	7.6		.2992	8	41	79
DH451077	7.7		.3031	8	41	79
DH451078	7.8		.3071	8	41	79
DH451079	7.9		.3110	8	41	79
DH451020F	7.938	5/16	.3125	8	41	79
DH451080	8.0		.3150	8	41	79
DH451081	8.1		.3189	10	47	89
DH451082	8.2		.3228	10	47	89
DH451083	8.3		.3268	10	47	89
DH451021F	8.334	21/64	.3281	10	47	89
DH451084	8.4		.3307	10	47	89
DH451085	8.5		.3346	10	47	89
DH451086	8.6		.3386	10	47	89
DH451087	8.7		.3425	10	47	89
DH451022F	8.731	11/32	.3438	10	47	89
DH451088	8.8		.3465	10	47	89
DH451089	8.9		.3504	10	47	89



INOX *TiAlN-CARBIDE DREAM DRILLS 3XD WITH COOLANT HOLES*

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH451090	9.0		.3543	10	47	89
DH451091	9.1		.3583	10	47	89
DH451023F	9.128	23/64	.3594	10	47	89
DH451092	9.2		.3622	10	47	89
DH451093	9.3		.3661	10	47	89
DH451094	9.4		.3701	10	47	89
DH451095	9.5		.3740	10	47	89
DH451024F	9.525	3/8	.3750	10	47	89
DH451096	9.6		.3780	10	47	89
DH451097	9.7		.3819	10	47	89
DH451098	9.8		.3858	10	47	89
DH451099	9.9		.3898	10	47	89
DH451025F	9.922	25/64	.3906	10	47	89
DH451100	10.0		.3937	10	47	89
DH451101	10.1		.3976	12	55	102
DH451102	10.2		.4016	12	55	102
DH451103	10.3		.4055	12	55	102
DH451026F	10.319	13/32	.4062	12	55	102
DH451104	10.4		.4094	12	55	102
DH451105	10.5		.4134	12	55	102
DH451106	10.6		.4173	12	55	102
DH451107	10.7		.4212	12	55	102
DH451027F	10.716	27/64	.4219	12	55	102
DH451108	10.8		.4252	12	55	102
DH451109	10.9		.4291	12	55	102
DH451110	11.0		.4330	12	55	102
DH451111	11.1		.4370	12	55	102
DH451028F	11.113	7/16	.4375	12	55	102
DH451112	11.2		.4409	12	55	102
DH451113	11.3		.4448	12	55	102
DH451114	11.4		.4488	12	55	102
DH451115	11.5		.4527	12	55	102
DH451029F	11.509	29/64	.4531	12	55	102
DH451116	11.6		.4566	12	55	102
DH451117	11.7		.4606	12	55	102
DH451118	11.8		.4645	12	55	102
DH451119	11.9		.4685	12	55	102
DH451030F	11.906	15/32	.4688	12	55	102

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH451120	12.0		.4724	12	55	102
DH451031F	12.303	31/64	.4844	14	60	107
DH451125	12.5		.4921	14	60	107
DH451032F	12.7	1/2	.5000	14	60	107
DH451130	13.0		.5118	14	60	107
DH451135	13.5		.5314	14	60	107
DH451140	14.0		.5512	14	60	107
DH451036F	14.288	9/16	.5625	16	65	115
DH451145	14.5		.5708	16	65	115
DH451150	15.0		.5905	16	65	115
DH451155	15.5		.6102	16	65	115
DH451040F	15.875	5/8	.6250	16	65	115
DH451160	16.0		.6299	16	65	115
DH451165	16.5		.6495	18	73	123
DH451170	17.0		.6692	18	73	123
DH451044F	17.463	11/16	.6875	18	73	123
DH451175	17.5		.6889	18	73	123
DH451180	18.0		.7087	18	73	123
DH451185	18.5		.7283	20	79	131
DH451190	19.0		.7480	20	79	131
DH451048F	19.05	3/4	.7500	20	79	131
DH451195	19.5		.7676	20	79	131
DH451200	20.0		.7874	20	79	131





INOX *TiALN-CARBIDE DREAM DRILLS 5XD WITH COOLANT HOLES*

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH452010	1.0		.0394	3	8	55
DH452011	1.1		.0433	3	12	55
DH452012	1.2		.0472	3	12	55
DH452013	1.3		.0512	3	12	55
DH452014	1.4		.0551	3	12	55
DH452015	1.5		.0591	3	16	55
DH452004F	1.588	1/16	.0625	3	16	55
DH452016	1.6		.0630	3	16	55
DH452017	1.7		.0669	3	16	55
DH452018	1.8		.0709	3	16	55
DH452019	1.9		.0748	3	16	55
DH452005F	1.984	5/64	.0781	3	16	55
DH452020	2.0		.0787	4	21	57
DH452021	2.1		.0827	4	21	57
DH452022	2.2		.0866	4	21	57
DH452023	2.3		.0906	4	21	57
DH452006F	2.381	3/32	.0938	4	21	57
DH452024	2.4		.0945	4	21	57
DH452025	2.5		.0984	4	21	57
DH452026	2.6		.1024	4	21	57
DH452027	2.7		.1063	4	21	57
DH452007F	2.778	7/64	.1094	4	21	57
DH452028	2.8		.1102	4	21	57
DH452029	2.9		.1142	4	21	57
DH452030	3.0		.1181	6	28	66
DH452031	3.1		.1220	6	28	66
DH452008F	3.175	1/8	.1250	6	28	66
DH452032	3.2		.1260	6	28	66
DH452033	3.3		.1299	6	28	66
DH452034	3.4		.1339	6	28	66
DH452035	3.5		.1378	6	28	66
DH452009F	3.572	9/64	.1406	6	28	66
DH452036	3.6		.1417	6	28	66
DH452037	3.7		.1457	6	28	66
DH452038	3.8		.1496	6	36	74
DH452039	3.9		.1535	6	36	74
DH452010F	3.969	5/32	.1563	6	36	74
DH452040	4.0		.1575	6	36	74
DH452041	4.1		.1614	6	36	74
DH452042	4.2		.1654	6	36	74
DH452043	4.3		.1693	6	36	74

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH452011F	4.366	11/64	.1719	6	36	74
DH452044	4.4		.1732	6	36	74
DH452045	4.5		.1772	6	36	74
DH452046	4.6		.1811	6	36	74
DH452047	4.7		.1850	6	36	74
DH452012F	4.763	3/16	.1875	6	36	74
DH452048	4.8		.1890	6	44	82
DH452049	4.9		.1929	6	44	82
DH452050	5.0		.1969	6	44	82
DH452051	5.1		.2008	6	44	82
DH452013F	5.159	13/64	.2031	6	44	82
DH452052	5.2		.2047	6	44	82
DH452053	5.3		.2087	6	44	82
DH452054	5.4		.2126	6	44	82
DH452055	5.5		.2165	6	44	82
DH452014F	5.556	7/32	.2188	6	44	82
DH452056	5.6		.2205	6	44	82
DH452057	5.7		.2244	6	44	82
DH452058	5.8		.2283	6	44	82
DH452059	5.9		.2323	6	44	82
DH452015F	5.953	15/64	.2344	6	44	82
DH452060	6.0		.2362	6	44	82
DH452061	6.1		.2402	8	53	91
DH452062	6.2		.2441	8	53	91
DH452063	6.3		.2480	8	53	91
DH452016F	6.35	1/4	.2500	8	53	91
DH452064	6.4		.2520	8	53	91
DH452065	6.5		.2559	8	53	91
DH452066	6.6		.2598	8	53	91
DH452067	6.7		.2638	8	53	91
DH452017F	6.747	17/64	.2656	8	53	91
DH452068	6.8		.2677	8	53	91
DH452069	6.9		.2717	8	53	91
DH452070	7.0		.2756	8	53	91
DH452071	7.1		.2795	8	53	91
DH452018F	7.144	9/32	.2812	8	53	91
DH452072	7.2		.2835	8	53	91
DH452073	7.3		.2874	8	53	91
DH452074	7.4		.2913	8	53	91
DH452075	7.5		.2953	8	53	91
DH452019F	7.541	19/64	.2969	8	53	91



INOX *TiAlN-CARBIDE DREAM DRILLS 5XD WITH COOLANT HOLES*

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH452076	7.6		.2992	8	53	91
DH452077	7.7		.3031	8	53	91
DH452078	7.8		.3071	8	53	91
DH452079	7.9		.3110	8	53	91
DH452020F	7.938	5/16	.3125	8	53	91
DH452080	8.0		.3150	8	53	91
DH452081	8.1		.3189	10	61	103
DH452082	8.2		.3228	10	61	103
DH452083	8.3		.3268	10	61	103
DH452021F	8.334	21/64	.3281	10	61	103
DH452084	8.4		.3307	10	61	103
DH452085	8.5		.3346	10	61	103
DH452086	8.6		.3386	10	61	103
DH452087	8.7		.3425	10	61	103
DH452022F	8.731	11/32	.3438	10	61	103
DH452088	8.8		.3465	10	61	103
DH452089	8.9		.3504	10	61	103
DH452090	9.0		.3543	10	61	103
DH452091	9.1		.3583	10	61	103
DH452023F	9.128	23/64	.3594	10	61	103
DH452092	9.2		.3622	10	61	103
DH452093	9.3		.3661	10	61	103
DH452094	9.4		.3701	10	61	103
DH452095	9.5		.3740	10	61	103
DH452024F	9.525	3/8	.3750	10	61	103
DH452096	9.6		.3780	10	61	103
DH452097	9.7		.3819	10	61	103
DH452098	9.8		.3858	10	61	103
DH452099	9.9		.3898	10	61	103
DH452025F	9.922	25/64	.3906	10	61	103
DH452100	10.0		.3937	10	61	103
DH452101	10.1		.3976	12	71	118
DH452102	10.2		.4016	12	71	118
DH452103	10.3		.4055	12	71	118
DH452026F	10.319	13/32	.4062	12	71	118
DH452104	10.4		.4094	12	71	118
DH452105	10.5		.4134	12	71	118
DH452106	10.6		.4173	12	71	118
DH452107	10.7		.4212	12	71	118

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH452027F	10.716	27/64	.4219	12	71	118
DH452108	10.8		.4252	12	71	118
DH452109	10.9		.4291	12	71	118
DH452110	11.0		.4330	12	71	118
DH452111	11.1		.4370	12	71	118
DH452028F	11.113	7/16	.4375	12	71	118
DH452112	11.2		.4409	12	71	118
DH452113	11.3		.4448	12	71	118
DH452114	11.4		.4488	12	71	118
DH452115	11.5		.4527	12	71	118
DH452029F	11.509	29/64	.4531	12	71	118
DH452116	11.6		.4566	12	71	118
DH452117	11.7		.4606	12	71	118
DH452118	11.8		.4645	12	71	118
DH452119	11.9		.4685	12	71	118
DH452030F	11.906	15/32	.4688	12	71	118
DH452120	12.0		.4724	12	71	118
DH452031F	12.303	31/64	.4844	14	77	124
DH452125	12.5		.4921	14	77	124
DH452032F	12.7	1/2	.5000	14	77	124
DH452130	13.0		.5118	14	77	124
DH452135	13.5		.5314	14	77	124
DH452140	14.0		.5512	14	77	124
DH452036F	14.288	9/16	.5625	16	83	133
DH452145	14.5		.5708	16	83	133
DH452150	15.0		.5905	16	83	133
DH452155	15.5		.6102	16	83	133
DH452040F	15.875	5/8	.6250	16	83	133
DH452160	16.0		.6299	16	83	133
DH452165	16.5		.6495	18	93	143
DH452170	17.0		.6692	18	93	143
DH452175	17.5		.6889	18	93	143
DH452180	18.0		.7087	18	93	143
DH452185	18.5		.7283	20	101	153
DH452190	19.0		.7480	20	101	153
DH452048F	19.05	3/4	.7500	20	101	153
DH452195	19.5		.7676	20	101	153
DH452200	20.0		.7874	20	101	153



INOX *TiAlN-CARBIDE DREAM DRILLS 8XD WITH COOLANT HOLES*

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH453030	3.0		.1181	6	34	72
DH453031	3.1		.1220	6	34	72
DH453008F	3.175	1/8	.1250	6	34	72
DH453032	3.2		.1260	6	34	72
DH453033	3.3		.1299	6	34	72
DH453034	3.4		.1339	6	34	72
DH453229G	3.454	#29	.1360	6	34	72
DH453035	3.5		.1378	6	34	72
DH453009F	3.572	9/64	.1406	6	34	72
DH453036	3.6		.1417	6	34	72
DH453037	3.7		.1457	6	34	72
DH453038	3.8		.1496	6	43	81
DH453039	3.9		.1535	6	43	81
DH453010F	3.969	5/32	.1563	6	43	81
DH453040	4.0		.1575	6	43	81
DH453221G	4.038	#21	.1590	6	43	81
DH453041	4.1		.1614	6	43	81
DH453042	4.2		.1654	6	43	81
DH453043	4.3		.1693	6	43	81
DH453011F	4.366	11/64	.1719	6	43	81
DH453044	4.4		.1732	6	43	81
DH453045	4.5		.1772	6	43	81
DH453046	4.6		.1811	6	43	81
DH453047	4.7		.1850	6	43	81
DH453012F	4.763	3/16	.1875	6	57	95
DH453048	4.8		.1890	6	57	95
DH453049	4.9		.1929	6	57	95
DH453050	5.0		.1969	6	57	95
DH453051	5.1		.2008	6	57	95
DH453013F	5.159	13/64	.2031	6	57	95
DH453052	5.2		.2047	6	57	95
DH453053	5.3		.2087	6	57	95
DH453054	5.4		.2126	6	57	95
DH453055	5.5		.2165	6	57	95
DH453014F	5.556	7/32	.2188	6	57	95
DH453056	5.6		.2205	6	57	95
DH453057	5.7		.2244	6	57	95
DH453058	5.8		.2283	6	57	95
DH453059	5.9		.2323	6	57	95
DH453015F	5.953	15/64	.2344	6	57	95

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH453060	6.0		.2362	6	57	95
DH453061	6.1		.2402	8	76	114
DH453062	6.2		.2441	8	76	114
DH453063	6.3		.2480	8	76	114
DH453016F	6.35	1/4	.2500	8	76	114
DH453064	6.4		.2520	8	76	114
DH453065	6.5		.2559	8	76	114
DH453106L	6.527	F	.2570	8	76	114
DH453066	6.6		.2598	8	76	114
DH453067	6.7		.2638	8	76	114
DH453017F	6.747	17/64	.2656	8	76	114
DH453068	6.8		.2677	8	76	114
DH453069	6.9		.2717	8	76	114
DH453070	7.0		.2756	8	76	114
DH453071	7.1		.2795	8	76	114
DH453018F	7.144	9/32	.2813	8	76	114
DH453072	7.2		.2835	8	76	114
DH453073	7.3		.2874	8	76	114
DH453074	7.4		.2913	8	76	114
DH453075	7.5		.2953	8	76	114
DH453019F	7.541	19/64	.2969	8	76	114
DH453076	7.6		.2992	8	76	114
DH453077	7.7		.3031	8	76	114
DH453078	7.8		.3071	8	76	114
DH453079	7.9		.3110	8	76	114
DH453020F	7.938	5/16	.3125	8	76	114





INOX TiALN-CARBIDE DREAM DRILLS 8XD WITH COOLANT HOLES

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH453080	8.0		.3150	8	76	114
DH453081	8.1		.3189	10	95	142
DH453082	8.2		.3228	10	95	142
DH453083	8.3		.3268	10	95	142
DH453021F	8.334	21/64	.3281	10	95	142
DH453084	8.4		.3307	10	95	142
DH453117L	8.432	Q	.3320	10	95	142
DH453085	8.5		.3346	10	95	142
DH453086	8.6		.3386	10	95	142
DH453087	8.7		.3425	10	95	142
DH453022F	8.731	11/32	.3438	10	95	142
DH453088	8.8		.3465	10	95	142
DH453089	8.9		.3504	10	95	142
DH453090	9.0		.3543	10	95	142
DH453091	9.1		.3583	10	95	142
DH453023F	9.128	23/64	.3594	10	95	142
DH453092	9.2		.3622	10	95	142
DH453093	9.3		.3661	10	95	142
DH453121L	9.347	U	.3680	10	95	142
DH453094	9.4		.3701	10	95	142
DH453095	9.5		.3740	10	95	142
DH453024F	9.525	3/8	.3750	10	95	142
DH453096	9.6		.3780	10	95	142
DH453097	9.7		.3819	10	95	142
DH453098	9.8		.3858	10	95	142
DH453099	9.9		.3898	10	95	142
DH453025F	9.922	25/64	.3906	10	95	142
DH453100	10.0		.3937	10	95	142
DH453101	10.1		.3976	12	114	162
DH453102	10.2		.4016	12	114	162
DH453103	10.3		.4055	12	114	162
DH453026F	10.319	13/32	.4063	12	114	162

EDP No.	DIAMETER		DECIMAL	SHANK	FLUTE	OAL
	METRIC	INCH				
DH453104	10.4		.4094	12	114	162
DH453105	10.5		.4134	12	114	162
DH453106	10.6		.4173	12	114	162
DH453107	10.7		.4212	12	114	162
DH453027F	10.716	27/64	.4219	12	114	162
DH453108	10.8		.4252	12	114	162
DH453109	10.9		.4291	12	114	162
DH453110	11.0		.4330	12	114	162
DH453111	11.1		.4370	12	114	162
DH453028F	11.113	7/16	.4375	12	114	162
DH453112	11.2		.4409	12	114	162
DH453113	11.3		.4448	12	114	162
DH453114	11.4		.4488	12	114	162
DH453115	11.5		.4527	12	114	162
DH453116	11.6		.4566	12	114	162
DH453117	11.7		.4606	12	114	162
DH453118	11.8		.4645	12	114	162
DH453119	11.9		.4685	12	114	162
DH453030F	11.906	15/32	.4688	12	114	162
DH453120	12.0		.4724	12	114	162
DH453031F	12.303	31/64	.4844	14	133	178
DH453125	12.5		.4921	14	133	178
DH453032F	12.7	1/2	.5000	14	133	178
DH453130	13.0		.5118	14	133	178
DH453033F	13.097	33/64	.5156	14	133	178
DH453135	13.5		.5314	14	133	178
DH453140	14.0		.5512	14	133	178





COBALT NC SPOTTING DRILLS



90 DEGREE

EDP	DIA	FLUTE	OAL
0081L	1/8	.472	1.93
0121L	3/16	.590	2.44
0161L	1/4	.669	2.76
0201L	5/16	.984	3.11
0241L	3/8	.827	3.50
0321L	1/2	.984	4.02
0401L	5/8	1.575	4.53
0481L	3/4	1.968	5.316
0641L	1	1.968	6.14



120 DEGREE

EDP	DIA	FLUTE	OAL
2081L	1/8	.472	1.93
2121L	3/16	.590	2.44
2161L	1/4	.669	2.76
2201L	5/16	.984	3.11
2241L	3/8	.827	3.50
2321L	1/2	.984	4.02
2401L	5/8	1.575	4.53
2481L	3/4	1.968	5.316
2641L	1	1.968	6.14



SOLID CARBIDE THREAD MILLS FOR UNIFIED INTERNAL THREADS



EDP TiAlN	SIZE	PITCH T.P.I.	CUTTER DIAMETER	SHANK DIAMETER	THREAD LENGTH	OVERALL LENGTH	NO. OF FLUTE
TE080	#2	56	.065	.125	.125	2.00	3
TE120	#3	48	.075	.125	.167	2.00	3
TE220	#5	44	.095	.125	.228	2.00	3
TE160	#4	40	.085	.125	.175	2.00	3
TE300	#8	36	.115	.125	.250	2.00	3
TE240	#6	32	.100	.125	.218	2.00	3
TE280	#8	32	.115	.125	.250	2.00	3
TE340	#10	32	.120	.125	.312	2.00	3
TEF90	1/2	32	.370	.375	1.00	3.50	4
TEK90	#10	28	.120	.125	.312	2.00	3
TE420	1/4	20	.180	.187	.500	2.50	3
TE590	1/2	28	.370	.375	1.00	3.50	4
TE320	#10	24	.120	.125	.312	2.00	3
TE460	5/16	24	.235	.250	.625	2.50	3
TE500	3/8	24	.285	.312	.750	3.00	4
TE570	1/2	24	.370	.375	1.00	3.50	4
TE400	1/4	20	.180	.187	.500	2.50	3
TE540	7/16	20	.335	.375	.875	3.50	4
TE580	1/2	20	.370	.375	1.00	3.50	4
TE440	5/16	18	.235	.250	.625	2.50	3
TE620	9/16	18	.370	.375	.875	3.50	4
TE480	3/8	16	.285	.312	.750	3.00	4
TE720	3/4	16	.490	.500	1.250	3.50	4
TE520	7/16	14	.305	.312	.750	3.00	4
TE760	7/8	14	.490	.500	1.250	3.50	4
TE560	1/2	13	.350	.375	.875	3.50	4
TE600	9/16	12	.370	.375	.875	3.50	4
TE710	3/4	12	.495	.500	1.250	3.50	4
TE640	5/8	11	.470	.500	1.250	3.50	4
TE700	3/4	10	.495	.500	1.250	3.50	4
TE740	7/8	9	.620	.625	1.375	4.00	4
TE780	1	8	.620	.625	1.375	4.00	4
TE800	1	12	.745	.750	1.500	4.00	5
TE820	1-1/8 & 1-1/4	7	.745	.750	1.572	4.50	5



**SUPER HSS 'BLUE RING' TAPS WITH HARDSLICK COATING FOR
AEROSPACE ALLOYS-SPIRAL FLUTE**

EDP HARDSLICK	SIZE	THREAD LIMIT		THREAD LIMIT	FLUTE
		UNC	UNF		
BI082	#2	56		H2	2
BI162	#4	40		H2	2
BI163	#4	40		H3	2
BI164	#4	40		H4	2
BI202	#5	40		H2	3
BI242	#6	32		H2	3
BI243	#6	32		H3	3
BI244	#6	32		H4	3
BI245	#6	32		H5	3
BI282	#8	32		H2	3
BI283	#8	32		H3	3
BI284	#8	32		H4	3
BI285	#8	32		H5	3
BI286	#8	32		H6	3
BI323	#10	24		H3	3
BI325	#10	24		H5	3
BI342	#10		32	H2	3
BI343	#10		32	H3	3
BI344	#10		32	H4	3
BI345	#10		32	H5	3
BI346	#10		32	H6	3
BI403	1/4	20		H3	3
BI405	1/4	20		H5	3
BI423	1/4		28	H3	3
BI424	1/4		28	H4	3
BI425	1/4		28	H5	3
BI426	1/4		28	H6	3
BI443	5/16	18		H3	3
BI445	5/16	18		H5	3
BI463	5/16		24	H3	3
BI464	5/16		24	H4	3
BI465	5/16		24	H5	3
BI466	5/16		24	H6	3
BI483	3/8	16		H3	3
BI485	3/8	16		H5	3
BI503	3/8		24	H3	3
BI504	3/8		24	H4	3
BI505	3/8		24	H5	3
BI506	3/8		24	H6	3

EDP HARDSLICK	SIZE	THREAD LIMIT		THREAD LIMIT	FLUTE
		UNC	UNF		
BI523	7/16	14		H3	3
BI525	7/16	14		H5	3
BI543	7/16		20	H3	3
BI545	7/16		20	H5	3
BI563	1/2	13		H3	3
BI565	1/2	13		H5	3
BI583	1/2		20	H3	3
BI585	1/2		20	H5	3
BI605	9/16	12		H5	3
BI625	9/16		18	H5	3
BI643	5/8	11		H3	4
BI645	5/8	11		H5	4
BI663	5/8		18	H3	4
BI665	5/8		18	H5	4
BI703	3/4	10		H3	4
BI705	3/4	10		H5	4
BI723	3/4		16	H3	4
BI725	3/4		16	H5	4
BI746	7/8	9		H6	4
BI766	7/8		14	H6	4
BI786	1	8		H6	4
BI806	1		12	H6	4
BI836	1-1/8	8		H6	4
BI876	1-1/4	8		H6	4
BI916	1-3/8	8		H6	4
BI956	1-1/2	8		H6	4





SUPER HSS 'BLUE RING' TAPS WITH HARDSLICK COATING FOR AEROSPACE ALLOYS-SPIRAL POINT

EDP HARDSLICK	SIZE	THREAD PER INCH		THREAD LIMIT	FLUTE
		UNC	UNF		
01082	2	56	-	H2	2
01162	4	40	-	H2	2
01163	4	40	-	H3	2
01164	4	40	-	H4	2
01165	4	40	-	H5	2
01202	5	40	-	H2	3
01242	6	32	-	H2	3
01243	6	32	-	H3	3
01244	6	32	-	H4	3
01245	6	32	-	H5	3
01246	6	32	-	H6	3
01282	8	32	-	H2	3
01283	8	32	-	H3	3
01284	8	32	-	H4	3
01285	8	32	-	H5	3
01286	8	32	-	H6	3
01323	10	24	-	H3	3
01325	10	24	-	H5	3
01342	10	-	32	H2	3
01343	10	-	32	H3	3
01344	10	-	32	H4	3
01345	10	-	32	H5	3
01346	10	-	32	H6	3
01403	1/4	20	-	H3	3
01405	1/4	20	-	H5	3
01423	1/4	-	28	H3	3
01424	1/4	-	28	H4	3
01425	1/4	-	28	H5	3
01426	1/4	-	28	H6	3
01443	5/16	18	-	H3	3
01445	5/16	18	-	H5	3
01463	5/16	-	24	H3	3
01464	5/16	-	24	H4	3
01465	5/16	-	24	H5	3
01466	5/16	-	24	H6	3
01483	3/8	16	-	H3	3
01485	3/8	16	-	H5	3
01503	3/8	-	24	H3	3
01504	3/8	-	24	H4	3
01505	3/8	-	24	H5	3
01506	3/8	-	24	H6	3

EDP No HARDSLICK	SIZE	THREAD PER INCH		THREAD LIMIT	FLUTE
		UNC	UNF		
01523	7/16	14	-	H3	3
01525	7/16	14	-	H5	3
01543	7/16	-	20	H3	3
01545	7/16	-	20	H5	3
01563	1/2	13	-	H3	3
01565	1/2	13	-	H5	3
01583	1/2	-	20	H3	3
01585	1/2	-	20	H5	3
01605	9/16	12	-	H5	3
01625	9/16	-	18	H5	3
01643	5/8	11	-	H3	3
01645	5/8	11	-	H5	3
01663	5/8	-	18	H3	3
01665	5/8	-	18	H5	3
01703	3/4	10	-	H3	3
01705	3/4	10	-	H5	3
01723	3/4	-	16	H3	3
01725	3/4	-	16	H5	3
01746	7/8	9	-	H6	3
01766	7/8	-	14	H6	3
01786	1	8	-	H6	3
01806	1	-	12	H6	3
01836	1-1/8	8	-	H6	4
01876	1-1/4	8	-	H6	4
01916	1-3/8	8	-	H6	4
01956	1-1/2	8	-	H6	4





HSSE-V3 **STI** TAPS WITH HARDSLICK COATING

SPIRAL POINT AND SPIRAL FLUTE



EDP No. HARDSLICK	SIZE	THREAD PER INCH		THREAD LIMIT	FLUTE
		UNC	UNF		
SI162	#4	40	—	2B	3
ST182	#4	—	48	2B	3
SI242	#6	32	—	2B	3
ST262	#6	—	40	2B	3
SI282	#8	32	—	2B	3
ST302	#8	—	36	2B	3
SI322	#10	24	—	2B	3
ST342	#10	—	32	2B	3
SI402	1/4	20	—	2B	3
ST422	1/4	—	28	2B	3
SI442	5/16	18	—	2B	3
ST462	5/16	—	24	2B	3
SI482	3/8	16	—	2B	3
ST502	3/8	—	24	2B	3
SI522	7/16	14	—	2B	3
ST542	7/16	—	20	2B	3
SI562	1/2	13	—	2B	3
ST582	1/2	—	20	2B	3
SI602	9/16	12	—	2B	3
ST622	9/16	—	18	2B	3
SI642	5/8	11	—	2B	3
ST662	5/8	—	18	2B	3
SI702	3/4	10	—	2B	3
ST722	3/4	—	16	2B	3

EDP No. HARDSLICK	SIZE	THREAD PER INCH		THREAD LIMIT	FLUTE
		UNC	UNF		
ST162	#4	40	—	2B	3
SI182	#4	—	48	2B	3
ST202	#5	40	—	2B	3
SI222	#5	—	44	2B	3
ST242	#6	32	—	2B	3
SI262	#6	—	40	2B	3
ST282	#8	32	—	2B	3
SI302	#8	—	36	2B	3
ST322	#10	24	—	2B	3
SI342	#10	—	32	2B	3
ST362	#12	24	—	2B	3
SI382	#12	—	28	2B	3
ST402	1/4	20	—	2B	3
SI422	1/4	—	28	2B	3
ST442	5/16	18	—	2B	3
SI462	5/16	—	24	2B	3
ST482	3/8	16	—	2B	3
SI502	3/8	—	24	2B	3
ST522	7/16	14	—	2B	3
SI542	7/16	—	20	2B	3
ST562	1/2	13	—	2B	3
SI582	1/2	—	20	2B	3
ST602	9/16	12	—	2B	4
SI622	9/16	—	18	2B	4
ST642	5/8	11	—	2B	4
SI662	5/8	—	18	2B	4
ST702	3/4	10	—	2B	4
SI722	3/4	—	16	2B	4



CAT 40/50 SIDE LOCK **END MILL HOLDERS**

AD/B COOLANT SYSTEM, BALANCED TO 15K RPM



EDP No.	TAPER	DESCRIPTION	d	D	L
AK206	40	CAT40 - EMH 1/2 - 1.75	0.500	1.25	1.75
AK208		CAT40 - EMH 5/8 - 1.75	0.625	1.50	1.75
AK210		CAT40 - EMH 3/4 - 1.75	0.750	1.75	1.75
AK214		CAT40 - EMH 1" - 1.75	1.000	1.75	1.75
AK217		CAT40 - EMH 1 1/4 - 2.00	1.250	2.25	2.00
AK000B	40	CAT40 AD/B - EMH 1/8 - 2.50	0.125	0.69	2.50
AK001B		CAT40 AD/B - EMH 3/16 - 2.50	0.187	0.69	2.50
AK002B		CAT40 AD/B - EMH 1/4 - 2.50	0.250	0.78	2.50
AK003B		CAT40 AD/B - EMH 5/16 - 2.50	0.312	0.88	2.50
AK004B		CAT40 AD/B - EMH 3/8 - 2.50	0.375	1.00	2.50
AK005B		CAT40 AD/B - EMH 7/16 - 2.50	0.437	1.13	2.50
AK006B		CAT40 AD/B - EMH 1/2 - 2.63	0.500	1.25	2.63
AK008B		CAT40 AD/B - EMH 5/8 - 3.75	0.625	1.50	3.75
AK010B		CAT40 AD/B - EMH 3/4 - 3.75	0.750	1.75	3.75
AK012B		CAT40 AD/B - EMH 7/8 - 4.00	0.875	1.88	4.00
AK014B		CAT40 AD/B - EMH 1" - 4.00	1.000	2.00	4.00
AK017B		CAT40 AD/B - EMH 1 1/4 - 4.25	1.250	2.50	4.25
AK021B		CAT40 AD/B - EMH 1 1/2 - 4.63	1.500	2.50	4.63
AL002B	50	CAT50 AD/B - EMH 1/4 - 2.50	0.250	0.78	2.50
AL003B		CAT50 AD/B - EMH 5/16 - 2.50	0.312	0.88	2.50
AL004B		CAT50 AD/B - EMH 3/8 - 2.50	0.375	1.00	2.50
AL005B		CAT50 AD/B - EMH 7/16 - 2.63	0.437	1.13	2.63
AL006B		CAT50 AD/B - EMH 1/2 - 2.63	0.500	1.25	2.63
AL008B		CAT50 AD/B - EMH 5/8 - 3.75	0.625	1.50	3.75
AL010B		CAT50 AD/B - EMH 3/4 - 3.75	0.750	1.75	3.75
AL012B		CAT50 AD/B - EMH 7/8 - 3.75	0.875	1.88	3.75
AL014B		CAT50 AD/B - EMH 1" - 4.00	1.000	2.00	4.00
AL017B		CAT50 AD/B - EMH 1 1/4 - 4.00	1.250	2.50	4.00
AL021B		CAT50 AD/B - EMH 1 1/2 - 4.00	1.500	2.50	4.00
AL029B		CAT50 AD/B - EMH 2" - 5.63	2.000	3.75	5.63
AK104B	40	CAT40 AD/B - EMH 3/8 - 4.50	0.375	1.00	4.50
AK106B		CAT40 AD/B - EMH 1/2 - 4.63	0.500	1.25	4.63
AK108B		CAT40 AD/B - EMH 5/8 - 5.75	0.625	1.50	5.75
AK110B		CAT40 AD/B - EMH 3/4 - 5.75	0.750	1.75	5.75
AK112B		CAT40 AD/B - EMH 7/8 - 6.00	0.875	1.88	6.00
AK114B		CAT40 AD/B - EMH 1" - 6.00	1.000	2.00	6.00
AK117B		CAT40 AD/B - EMH 1 1/4 - 6.25	1.250	2.50	6.25
AK121B		CAT40 AD/B - EMH 1 1/2 - 6.63	1.500	2.50	6.63
AL104B	50	CAT50 AD/B - EMH 3/8 - 4.50	0.375	1.00	4.50
AL106B		CAT50 AD/B - EMH 1/2 - 4.63	0.500	1.25	4.63
AL108B		CAT50 AD/B - EMH 5/8 - 5.75	0.625	1.50	5.75
AL110B		CAT50 AD/B - EMH 3/4 - 5.75	0.750	1.75	5.75
AL112B		CAT50 AD/B - EMH 7/8 - 5.75	0.875	1.88	5.75
AL114B		CAT50 AD/B - EMH 1" - 6.00	1.000	2.00	6.00
AL117B		CAT50 AD/B - EMH 1 1/4 - 6.00	1.250	2.50	6.00
AL121B		CAT50 AD/B - EMH 1 1/2 - 6.00	1.500	2.50	6.00
AL129B		CAT50 AD/B - EMH 2" - 7.63	2.000	3.75	7.63



CAT 40/50 SIDE LOCK **END MILL HOLDERS**

FRONT COOLANT PORT, BALANCED TO 15K RPM

EDP No.	TAPER	DESCRIPTION	d	D	L
AK002C	40	CAT40AD/B - EMH 1/4C-1.97	0.250	0.780	1.969
AK003C		CAT40AD/B - EMH 5/16C-1.97	0.313	0.880	1.969
AK004C		CAT40AD/B - EMH 3/8C-1.97	0.375	1.000	1.969
AK005C		CAT40AD/B - EMH 1/2C-1.97	0.500	1.250	1.969
AK008C		CAT40AD/B - EMH 5/8C-2.48	0.625	1.500	2.480
AK010C		CAT40AD/B - EMH 3/4C-2.48	0.750	1.750	2.480
AK012C		CAT40AD/B - EMH 1C-3.94	1.000	2.000	3.937
AK017C		CAT40AD/B - EMH 1 1/4C-3.94	1.250	2.500	3.937
AL002C	50	CAT50AD/B - EMH 1/4C-2.48	0.250	0.780	2.480
AL003C		CAT50AD/B - EMH 5/16C-2.48	0.313	0.880	2.480
AL004C		CAT50AD/B - EMH 3/8C-2.48	0.375	1.000	2.480
AL005C		CAT50AD/B - EMH 1/2C-2.48	0.500	1.250	2.480
AL008C		CAT50AD/B - EMH 5/8C-2.48	0.625	1.500	2.480
AL010C		CAT50AD/B - EMH 3/4C-2.48	0.750	1.750	2.480
AL012C		CAT50AD/B - EMH 1C-3.15	1.000	2.000	3.150
AL017C		CAT50AD/B - EMH 1 1/4C-3.94	1.250	2.500	3.937

ER COLLET CHUCK **AD/B COOLANT SYSTEM 15K-RPM**

EDP No.	TAPER	DESCRIPTION	CLAMPING RANGE	D	L
BK232B	40	CAT40 AD/B - ER20 - 2.55	0.039-0.511	1.26	2.55
BK233B		CAT40 AD/B - ER25 - 2.50	0.039-0.629	1.65	2.50
BK234B		CAT40 AD/B - ER32 - 2.70	0.078-0.787	1.88	2.70
BK030B	40	CAT40 AD/B - ER11 - 3.00	0.019-0.275	0.75	3.00
BK031B		CAT40 AD/B - ER16 - 3.00	0.019-0.393	1.10	3.00
BK032B		CAT40 AD/B - ER20 - 4.00	0.039-0.511	1.33	4.00
BK133B		CAT40 AD/B - ER25 - 4.00	0.039-0.629	1.65	4.00
BK134B		CAT40 AD/B - ER32 - 4.00	0.078-0.787	1.96	4.00
BK136B		CAT40 AD/B - ER40 - 4.00	0.118-1.024	2.48	4.00
BL031B	50	CAT50 AD/B - ER16 - 4.00	0.031-0.406	1.10	4.00
BL032B		CAT50 AD/B - ER20 - 4.00	0.039-0.511	1.33	4.00
BL033B		CAT50 AD/B - ER25 - 4.00	0.039-0.629	1.65	4.00
BL034B		CAT50 AD/B - ER32 - 4.00	0.078-0.787	1.96	4.00
BL036B		CAT50 AD/B - ER40 - 4.00	0.118-1.024	2.48	4.00
BK331B	40	CAT40 AD/B - ER16 - 6.00	0.019-0.393	1.10	6.00
BK332B		CAT40 AD/B - ER20 - 6.00	0.039-0.511	1.33	6.00
BK333B		CAT40 AD/B - ER25 - 6.00	0.039-0.629	1.65	6.00
BK334B		CAT40 AD/B - ER32 - 6.00	0.078-0.787	1.96	6.00
BL331B	50	CAT50 AD/B - ER16 - 6.00	0.031-0.406	1.10	6.00
BL332B		CAT50 AD/B - ER20 - 6.00	0.039-0.511	1.33	6.00
BL333B		CAT50 AD/B - ER25 - 6.00	0.039-0.629	1.65	6.00
BL334B		CAT50 AD/B - ER32 - 6.00	0.078-0.787	1.96	6.00
BK432B	40	CAT40 AD/B - ER20 - 8.00	0.039-0.511	1.33	8.00



HYDRAULIC CHUCK (SLIM) AD/B COOLANT SYSTEM-25K

CAT 40/50 AND HSK63A



EDP No.	TAPER	DESCRIPTION	d	D	l
WK020	40	CAT40 AD/B - HC1/4-4.00	0.25	1.024	4.00
WK022		CAT40 AD/B - HC3/8-4.00	0.38	1.181	4.00
WK024		CAT40 AD/B - HC1/2-4.00	0.50	1.260	4.00
WK026		CAT40 AD/B - HC5/8-4.00	0.63	1.496	4.00
WK028		CAT40 AD/B - HC3/4-4.00	0.75	1.654	4.00
WK030		CAT40 AD/B - HC1-4.00	1.00	2.165	4.00
WK032		CAT40 AD/B - HC1 1/4-4.00	1.25	2.480	4.00
WL020	50	CAT50 AD/B - HC1/4-4.00	0.25	1.024	4.00
WL022		CAT50 AD/B - HC3/8-4.00	0.38	1.181	4.00
WL024		CAT50 AD/B - HC1/2-4.00	0.50	1.260	4.00
WL026		CAT50 AD/B - HC5/8-4.00	0.63	1.496	4.00
WL028		CAT50 AD/B - HC3/4-4.00	0.75	1.654	4.00
WL030		CAT50 AD/B - HC1-4.00	1.00	2.244	4.00
WL032		CAT50 AD/B - HC1 1/4-4.00	1.25	2.520	4.00
WQ020	63A	HSK63A - HC 1/4-2.76	0.250	1.024	2.756
WQ022		HSK63A - HC 3/8-3.15	0.375	1.181	3.150
WQ024		HSK63A - HC 1/2-3.35	0.500	1.260	3.346
WQ026		HSK63A - HC 3/4-3.54	0.750	1.654	3.543
WQ028		HSK63A - HC 1-4.72	1.000	2.244	4.724
WQ030		HSK63A - HC 1 1/4-4.92	1.250	2.520	4.921

HYDRAULIC CHUCK (SHORT & RIGID) AD/B COOLANT SYSTEM-25K

EDP No.	TAPER	DESCRIPTION	d	D	L
WK020SNR	40	CAT40 AD/B - HC 1/2S-2.52	0.500	1.260	1.654
WK021SNR		CAT40 AD/B - HC 5/8S-2.52	0.625	1.362	1.752
WK022SNR		CAT40 AD/B - HC 3/4S-2.52	0.750	1.469	1.949
WK024SNR		CAT40 AD/B - HC 1S-3.50	1.000	2.244	2.598
WL020SNR	50	CAT50 AD/B - HC 1/2S-3.19	0.500	1.879	2.752
WL022SNR		CAT50 AD/B - HC 5/8S-3.19	0.625	1.819	2.752
WL024SNR		CAT50 AD/B - HC 3/4S-3.19	0.750	2.185	2.752
WL026SNR		CAT50 AD/B - HC 1.00S-3.19	1.000	2.185	2.752
WL028SNR		CAT50 AD/B - HC 1.25S-3.19	1.250	2.185	2.752





HYDRAULIC CHUCK *REDUCTION SLEEVES, OPEN & CLOSED TYPE*

HYDRAULIC CHUCK COLLET (REDUCTION SLEEVE : OPEN TYPE)				
EDP No.	SIZE		d	D
612108	HK 1/2	1/8	0.125	0.500
612316		3/16	0.188	0.500
612104		1/4	0.250	0.500
612516		5/16	0.313	0.500
625108	HK 3/4	1/8	0.125	0.750
625316		3/16	0.188	0.750
625104		1/4	0.250	0.750
625516		5/16	0.313	0.750
625308		3/8	0.375	0.750
625102		1/2	0.500	0.750
625508	HK 1-1/4	5/8	0.625	0.750
632108		1/8	0.125	1.250
632316		3/16	0.188	1.250
632104		1/4	0.250	1.250
632516		5/16	0.313	1.250
632308		3/8	0.375	1.250
632102		1/2	0.500	1.250
632508		5/8	0.625	1.250
632304		3/4	0.750	1.250
632100		1	1.000	1.250

HYDRAULIC CHUCK COLLET (REDUCTION SLEEVE : CLOSED TYPE)				
EDP No.	SIZE		d	D
712108	HS 1/2	1/8	0.125	0.500
712316		3/16	0.188	0.500
712104		1/4	0.250	0.500
712516		5/16	0.313	0.500
725108	HS 3/4	1/8	0.125	0.750
725316		3/16	0.188	0.750
725104		1/4	0.250	0.750
725516		5/16	0.313	0.750
725308		3/8	0.375	0.750
725102		1/2	0.500	0.750
725508	HS 1-1/4	5/8	0.625	0.750
732108		1/8	0.125	1.250
732316		3/16	0.188	1.250
732104		1/4	0.250	1.250
732516		5/16	0.313	1.250
732308		3/8	0.375	1.250
732102		1/2	0.500	1.250
732508		5/8	0.625	1.250
732304		3/4	0.750	1.250
732100		1	1.000	1.250

MILLING CHUCK *CAT 40/50*

EDP No.	TAPER	DESCRIPTION	d	D	L
LK010	40	CAT40 3/4-4.13	0.750	2.050	4.13
LK014		CAT40 1-4.13	1.000	2.360	4.13
LK017		CAT40 1-1/4-4.13	1.250	2.835	4.13
LL010	50	CAT50 3/4-4.13	.0750	2.050	4.13
LL014		CAT50 1-4.13	1.000	2.360	4.13
LL017		CAT50 1-1/4-4.13	1.250	2.835	4.13

SHRINK FIT HOLDER *CAT 40/50*

AD/B COOLANT SYSTEM-25K RPM

EDP No.	TAPER	DESCRIPTION	d	D	L
VK020	40	CAT40 AD/B - SFH1/8-3.15	0.125	0.394	3.150
VK022		CAT40 AD/B - SFH3/16-3.15	0.188	0.394	3.150
VK024		CAT40 AD/B - SFH1/4-3.15	0.250	0.827	3.150
VK026		CAT40 AD/B - SFH1/4-6.30	0.250	0.827	6.299
VK028		CAT40 AD/B - SFH3/8-3.15	0.375	0.945	3.150
VK030		CAT40 AD/B - SFH3/8-6.30	0.375	0.945	6.299
VK032		CAT40 AD/B - SFH1/2-3.15	0.500	0.945	3.150
VK034		CAT40 AD/B - SFH1/2-6.30	0.500	0.945	6.299
VK036		CAT40 AD/B - SFH5/8-3.15	0.625	1.063	3.150
VK038		CAT40 AD/B - SFH5/8-6.30	0.625	1.063	6.299
VK040		CAT40 AD/B - SFH3/4-3.15	0.750	1.299	3.150
VK042		CAT40 AD/B - SFH3/4-6.30	0.750	1.299	6.299
VK044		CAT40 AD/B - SFH1-3.94	1.000	1.732	3.937
VK046		CAT40 AD/B - SFH1-6.30	1.000	1.732	6.299
VK048		CAT40 AD/B - SFH1-1/4-3.94	1.250	1.732	3.937
VK050		CAT40 AD/B - SFH1-1/4-6.30	1.250	1.732	6.299
VL020	50	CAT50 AD/B - SFH1/8-3.15	0.125	0.394	3.150
VL022		CAT50 AD/B - SFH3/16-3.15	0.188	0.394	3.150
VL024		CAT50 AD/B - SFH1/4-3.15	0.250	0.827	3.150
VL026		CAT50 AD/B - SFH1/4-6.30	0.250	0.827	6.299
VL028		CAT50 AD/B - SFH3/8-3.15	0.375	0.945	3.150
VL030		CAT50 AD/B - SFH3/8-6.30	0.375	0.945	6.299
VL032		CAT50 AD/B - SFH1/2-3.15	0.500	0.945	3.150
VL034		CAT50 AD/B - SFH1/2-6.30	0.500	0.945	6.299
VL036		CAT50 AD/B - SFH5/8-3.15	0.625	1.063	3.150
VL038		CAT50 AD/B - SFH5/8-6.30	0.625	1.063	6.299
VL040		CAT50 AD/B - SFH3/4-3.15	0.750	1.299	3.150
VL042		CAT50 AD/B - SFH3/4-6.30	0.750	1.299	6.299
VL044		CAT50 AD/B - SFH1-3.94	1.000	1.732	3.937
VL046		CAT50 AD/B - SFH1-6.30	1.000	1.732	6.299
VL048		CAT50 AD/B - SFH1-1/4-3.94	1.250	1.732	3.937
VL050		CAT50 AD/B - SFH1-1/4-6.30	1.250	1.732	6.299



SHRINK FIT HOLDER HSK63A **AD COOLANT SYSTEM-25K RPM**

EDP No.	TAPER	DESCRIPTION	d1	D1	L
VQ020	63A	HSK63A - SFH1/8-3.15	0.125	0.394	3.150
VQ022		HSK63A - SFH3/16-3.15	0.188	0.394	3.150
VQ024		HSK63A - SFH1/4-3.15	0.250	0.827	3.150
VQ026		HSK63A - SFH1/4-6.30	0.250	0.827	6.299
VQ028		HSK63A - SFH3/8-3.35	0.375	0.945	3.346
VQ030		HSK63A - SFH3/8-6.30	0.375	0.945	6.299
VQ032		HSK63A - SFH1/2-3.54	0.500	0.945	3.543
VQ034		HSK63A - SFH1/2-6.30	0.500	0.945	6.299
VQ036		HSK63A - SFH5/8-3.74	0.625	1.063	3.740
VQ038		HSK63A - SFH5/8-6.30	0.625	1.063	6.299
VQ040		HSK63A - SFH3/4-3.94	0.750	1.299	3.937
VQ042		HSK63A - SFH3/4-6.30	0.750	1.299	6.299
VQ046		HSK63A - SFH1-4.53	1.000	1.732	4.528
VQ048		HSK63A - SFH1-6.30	1.000	1.732	6.299

SHRINK FIT HOLDER CAT 40/50 & HSK63A **FRONT COOLANT PORT**

VK028J	40	CAT40 AD/B-SFH3/8C-3.15	VL028J	50	CAT50 AD/B-SFH3/8C-3.15
VK030J		CAT40 AD/B-SFH3/8C-6.30	VL030J		CAT50 AD/B-SFH3/8C-6.30
VK032J		CAT40 AD/B-SFH1/2C-3.15	VL032J		CAT50 AD/B-SFH1/2C-3.15
VK034J		CAT40 AD/B-SFH1/2C-6.30	VL034J		CAT50 AD/B-SFH1/2C-6.30
VK036J		CAT40 AD/B-SFH5/8C-3.15	VL036J		CAT50 AD/B-SFH5/8C-3.15
VK038J		CAT40 AD/B-SFH5/8C-6.30	VL038J		CAT50 AD/B-SFH5/8C-6.30
VK040J		CAT40 AD/B-SFH3/4C-3.15	VL040J		CAT50 AD/B-SFH3/4C-3.15
VK042J		CAT40 AD/B-SFH3/4C-6.30	VL042J		CAT50 AD/B-SFH3/4C-6.30
VK044J		CAT40 AD/B-SFH1C-3.94	VL044J		CAT50 AD/B-SFH1C-3.94
VK046J		CAT40 AD/B-SFH1C-6.30	VL046J		CAT50 AD/B-SFH1C-6.30
VK048J		CAT40 AD/B-SFH1 1/4C-3.94	VL048J		CAT50 AD/B-SFH1 1/4C-3.94
VK050J		CAT40 AD/B-SFH1 1/4C-6.30	VL050J		CAT50 AD/B-SFH1 1/4C-6.30



VQ028J	63A	HSK63A-SFH3/8C-3.35
VQ030J		HSK63A-SFH3/8C-6.30
VQ032J		HSK63A-SFH1/2C-3.54
VQ034J		HSK63A-SFH1/2C-6.30
VQ036J		HSK63A-SFH5/8C-3.75
VQ038J		HSK63A-SFH5/8C-6.30
VQ040J		HSK63A-SFH3/4C-3.94
VQ042J		HSK63A-SFH3/4C-6.30
VQ046J		HSK63A-SFH1-4C.53
VQ048J		HSK63A-SFH1C-6.30



NOTES:

FOR MORE INFORMATION PLEASE CALL:



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