



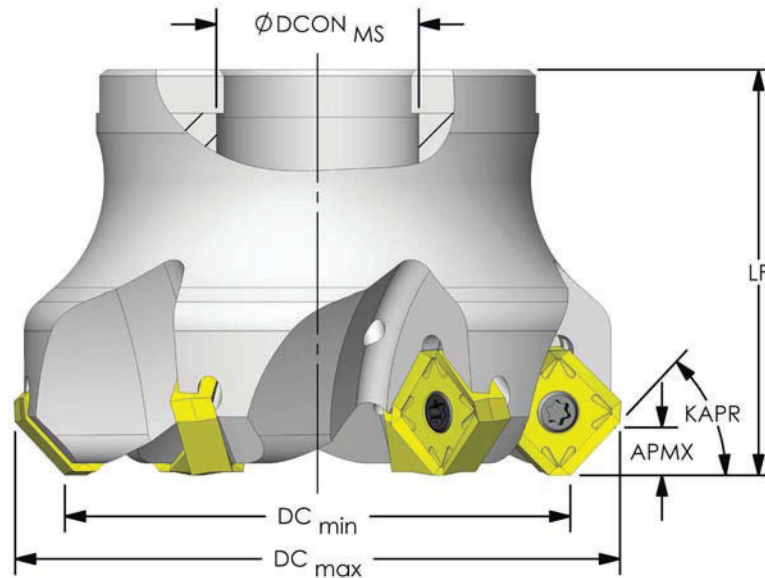
INDEXABLE MILLING

THE COMPLETE TOOL MAKING AUTHORITY®



PM1

- General first choice for face and chamfer milling applications
- Well balanced radial and axial cutting forces
- Smooth entry into cut
- Low vibration tendency when used in long overhang situations
- Face and Chamfer milling applications (in every shop)
- Double-sided insert – 8 cutting edges
- Positive geometry insert – Free cutting
- Efficient cutting parameters due to chip thinning (Hex)
- Directed through coolant at each insert providing excellent chip evacuation



KAPR: 45°



PRODUCT #	Designation	DCmax	DCmin	APMX	ZC	LF	DCON MS	KAPR	Insert	Screw
970-000-092	PM1-1.25-3-.500-12	1.738	1.250	0.236	3	1.750	0.500	45.0	PM1 1205	PM1-4
970-000-093	PM1-1.50-4-.500-12	1.988	1.500	0.236	4	1.750	0.500	45.0	PM1 1205	PM1-4
970-000-094	PM1-2.00-5-.750-12	2.488	2.000	0.236	5	1.750	0.750	45.0	PM1 1205	PM1-4
970-000-095	PM1-2.50-6-1.00-12	2.988	2.500	0.236	6	2.000	1.000	45.0	PM1 1205	PM1-4
970-000-096	PM1-3.00-8-1.00-12	3.488	3.000	0.236	8	2.000	1.000	45.0	PM1 1205	PM1-4
970-000-097	PM1-4.00-10-1.25-12	4.488	4.000	0.236	10	2.000	1.250	45.0	PM1 1205	PM1-4



Recommendations:

- Keep the cutter constantly engaged, when possible, to reduce enter and exit onto the machined component
- Utilize roll technique around all corners to avoid harsh directional changes
- The width of cut, a_p , should be 30% or 70% of DC to ensure maximum efficiency and process security
- Program tool paths around interruptions and holes when possible



HCX



SCX



PRODUCT #	Designation	HP470	HM470	HS470	HS480	HK430	HN432
914-000-104	PM1 1205-HCX	•					
914-000-105	PM1 1205-HCX					•	
914-000-106	PM1 1205-SCX		•				
914-000-107	PM1 1205-SCX			•			

PACKAGE SIZE OF 10

Part #	Insert Screw
968-000-119	PM1-4
968-000-120	PM2-3
968-000-121	PM2-4
968-000-122	PM3-35
968-000-123	PM4-4

PACKAGE SIZE OF 5

Chipbreaker:

HCX : Medium to roughing applications in steel and cast iron

SCX : Medium to finishing application in steels, stainless steels, hardened steels, and super alloys

ISO	MATERIAL	HARDNESS	CHIPBREAKER	GRADE	Vc (SFM)*	Fz (INCH PER TOOTH)*
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	HCX	HP470	300-800	.005 - .020
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC			220-720	.003 - .018
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	SCX	HM470	230-650	.003 - .0015
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC			260-700	.003 - .015
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	HCX	HK430	400 - 1100	.005 - .022
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC			350 - 850	.005 - .016
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	SCX	HS470	80-280	.004 - .011
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	SCX	HS470	60 - 250	.003 - .009
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC			90 - 300	.004 - .012

Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

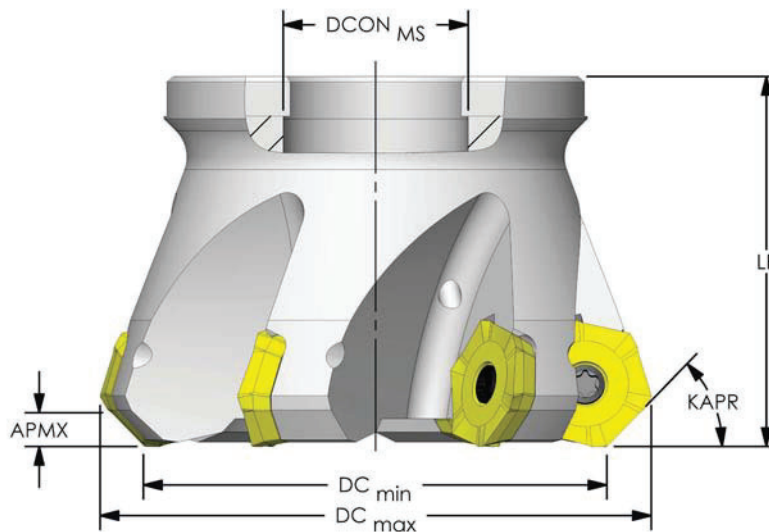
*LOWER Vc AND Fz = MED.- HEAVY Ap / Ae

*HIGHER Vc AND Fz = LIGHT-MED. Ap / Ae



PM4

- Face and chamfer milling in all ISO material applications
- Well balanced radial and axial cutting forces
- Ideal in low-powered machines due to very low cutting forces
- Smooth entry into cut with a true 45° entering angle
- Low vibration tendency when used in long overhang situations
- Cost efficient insert – 6 cutting edges
- Positive geometry insert and cutter body – High shear cutting action
- Efficient cutting parameters due to chip thinning (Hex)
- Directed through coolant at each insert providing excellent chip evacuation



KAPR: 45°



PRODUCT #	Designation	DCmax	DCmin	APMX	ZC	LF	DCON MS	KAPR	Insert	Screw
970-000-110	PM4-1.50-4-.500-06	1.980	1.500	0.177	4	1.750	0.500	45.0	PM4 0604	PM4-4
970-000-111	PM4-2.00-5-.750-06	2.480	2.000	0.177	5	1.750	0.750	45.0		
970-000-112	PM4-2.50-6-1.00-06	2.980	2.500	0.177	6	2.000	1.000	45.0		
970-000-113	PM4-3.00-7-1.00-06	3.480	3.000	0.177	7	2.000	1.000	45.0		
970-000-114	PM4-4.00-9-1.25-06	4.480	4.000	0.177	9	2.000	1.250	45.0		

Recommendations:

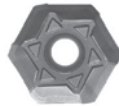
- Keep the cutter constantly engaged, when possible, to reduce enter and exit onto the machined component
- Utilize roll technique around all corners to avoid harsh directional changes
- The width of cut, a_p , should be 30% or 70% of DC to ensure maximum efficiency and process security
- Program tool paths around interruptions and holes when possible



by **Ultra-Dex**



HCX



SCX



LCX

PRODUCT #	Designation	HP470	HM470	HS470	HS480	HK430	HN432
914-000-125	PM4 0604-HCX	•					
914-000-124						•	
914-000-127	PM4 0604-SCX		•				
914-000-128				•			
914-000-126	PM4 0604-LCX						•

PACKAGE SIZE OF 10

Part #	Insert Screw
968-000-119	PM1-4
968-000-120	PM2-3
968-000-121	PM2-4
968-000-122	PM3-35
968-000-123	PM4-4

PACKAGE SIZE OF 5

Chipbreaker:

HCX : Strong cutting edge. Medium to roughing applications in steels and cast irons

SCX : Sharp cutting edge. Medium to finishing application in steels, stainless steels, hardened steels, and super alloys

LCX : Positive up sharp cutting edge. Light finishing to medium roughing applications in non ferrous materials

ISO	MATERIAL	HARDNESS	CHIPBREAKER	GRADE	Vc (SFM)*	Fz (INCH PER TOOTH)*
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	HCX	HP470	300-800	.005 - .018
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC			220-720	.005 - .016
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	SCX	HM470	230-650	.003 - .012
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC			260-700	.003 - .014
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	HCX	HK430	400 - 950	.005 - .020
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC			350 - 800	.005 - .016
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	LCX	HK430	400 - 1100	.007 - .020
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	SCX	HS470	80-250	.004 - .011
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	SCX	HS470	60 - 200	.003 - .008
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC				.003 - .010

Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

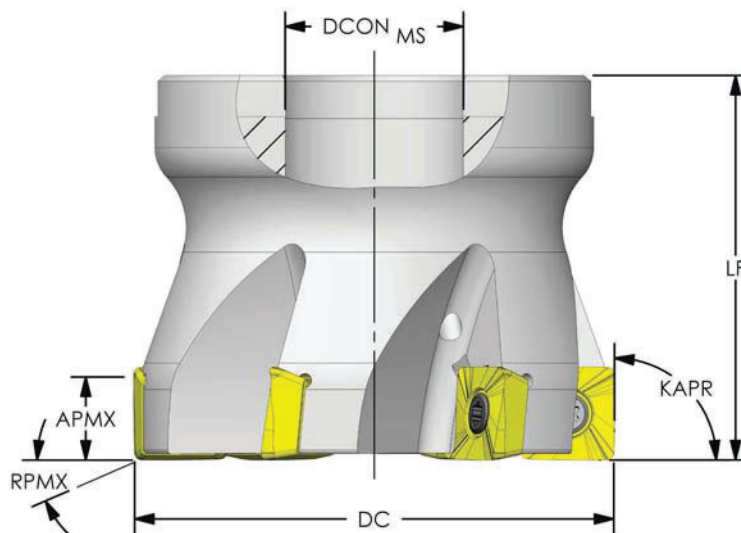
*LOWER Vc AND Fz = MED.- HEAVY Ap / Ae

*HIGHER Vc AND Fz = LIGHT-MED. Ap / Ae



PM2

- General first choice for shoulder and slot milling applications
- Face milling, high feed edge milling, and plunge milling
- Cost efficient insert – 4 cutting edges
- Excellent surface finish and higher utilization of low-powered machines
- Precise insert location providing a true 90° shoulder with minimal mismatch
- Positive geometry insert – Free cutting
- Directed through coolant at each insert providing excellent chip evacuation



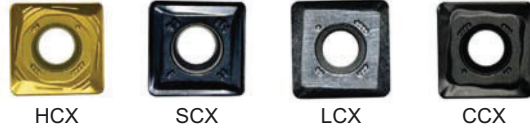
KAPR: 90°



PRODUCT #	Designation	DC	APMX	ZC	LF	DCON MS	RPMX	KAPR	Insert	Screw
970-000-098	PM2-1.25-4-.500-09	1.250	0.314	4	1.750	0.500	2.20°	90.0	PM2 09T308	PM2-3
970-000-100	PM2-1.50-5-.500-09	1.500	0.314	5	1.750	0.500	0.75°	90.0		
970-000-102	PM2-2.00-6-.750-09	2.000	0.314	6	1.750	0.750	0.50°	90.0		
970-000-104	PM2-2.50-7-1.00-09	2.500	0.314	7	2.000	1.000	0.35°	90.0		
970-000-106	PM2-3.00-9-1.00-09	3.000	0.314	9	2.000	1.000	0.25°	90.0		
970-000-099	PM2-1.50-4-.500-12	1.500	0.394	4	1.750	0.500	0.75°	90.0	PM2 120508	PM2-4
970-000-101	PM2-2.00-5-.750-12	2.000	0.394	5	1.750	0.750	0.40°	90.0		
970-000-103	PM2-2.50-6-1.00-12	2.500	0.394	6	2.000	1.000	0.30°	90.0		
970-000-105	PM2-3.00-7-1.00-12	3.000	0.394	7	2.000	1.000	0.25°	90.0		

Recommendations:

- Keep the cutter constantly engaged, when possible, to reduce enter and exit onto the machined component
- Utilize roll technique around all corners to avoid harsh directional changes
- The width of cut, a_p , should be 30% or 70% of DC to ensure maximum efficiency and process security
- Program tool paths around interruptions and holes when possible



PRODUCT #	Designation	HP470	HM470	HS470	HS480	HK430	HN432
914-000-109	PM2 09T308-HCX	•					
914-000-111			•				
914-000-112	PM2 09T308-SCX			•			
914-000-113					•		
914-000-108	PM2 09T308-CCX					•	
914-000-110	PM2 09T308-LCX						•
914-000-115	PM2 120508-HCX	•					
914-000-116			•				
914-000-117	PM2 120508-SCX			•			
914-000-118					•		
914-000-114	PM2 120508-CCX					•	

Part #	Insert Screw
968-000-119	PM1-4
968-000-120	PM2-3
968-000-121	PM2-4
968-000-122	PM3-35
968-000-123	PM4-4

PACKAGE SIZE OF 5

PACKAGE SIZE OF 10

Chipbreaker:

HCX : Strong cutting edge. Medium to roughing applications in steels and cast irons

SCX : Sharp cutting edge. Medium to finishing application in steels, stainless steels, hardened steels, and super alloys

CCX : Strong cutting edge for cast iron applications

LCX : Positive up sharp cutting edge. Light finishing to medium roughing applications in non ferrous materials

ISO	MATERIAL	HARDNESS	CHIPBREAKER	GRADE	Vc (SFM)*	Fz (INCH PER TOOTH)*
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	HCX	HP470	230-800	.003 - .010
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC			230-700	.003 - .008
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	SCX	HM470	200-600	.003 - .009
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC			200-600	.003 - .009
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	CCX / HCX	HK430	400 - 950	.004 - .015
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC			300 - 700	.003 - .011
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	LCX	HK430	400 - 1000	.006 - .018
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	SCX / HCX	HS470	80-250	.003 - .009
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	SCX	HS470	60 - 200	.0025 - .007
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC			90 - 350	.003 - .010

Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

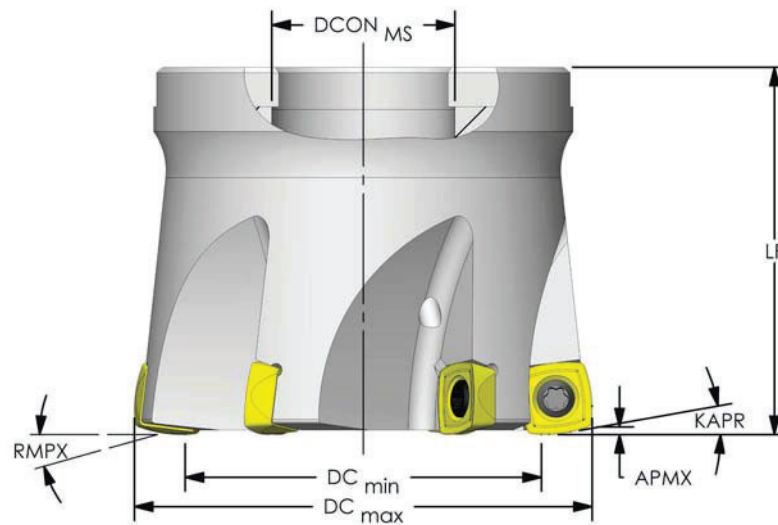
*LOWER Vc AND Fz = MED.- HEAVY Ap / Ae

*HIGHER Vc AND Fz = LIGHT-MED. Ap / Ae



PM3

- General first choice for high feed face and plunge milling applications
- Multipurpose tool with helical boring, ramping and plunging capabilities
- Extremely low radial cutting forces allowing for aggressive feed rates
- Cost efficient insert geometries that excel in HRSA and Stainless steels
- High table feed due to the chip thinning effect – high metal removal rates
- First consideration when face milling in long overhang machining applications
- Positive geometry insert – Free cutting
- Directed through coolant at each insert providing excellent chip evacuation



KAPR: 10°

PRODUCT #	Designation	DCXmax	DCmin	APMX	ZC	LF	DCON MS	RPMX	KAPR	Insert	Screw
970-000-107	PM3-1.50-4-.500-10	1.500	1.035	0.039	4	1.750	0.500	1.2°	10.0		
970-000-108	PM3-2.00-5-.750-10	2.000	1.535	0.039	5	1.750	0.750	0.9°	10.0	PM3 10T308	PM3-3.5
970-000-109	PM3-2.50-6-1.00-10	2.500	2.035	0.039	6	1.750	1.000	0.8°	10.0		

Recommendations:

- Keep the cutter constantly engaged, when possible, to reduce enter and exit onto the machined component
- Utilize roll technique around all corners to avoid harsh directional changes
- The width of cut, ae, should be 30% or 70% of DC to ensure maximum efficiency and process security
- Program tool paths around interruptions and holes when possible



HCX



SCX



PRODUCT #	Designation	HP470	HM470	HS470	HS480	HK430	HN432
914-000-119	PM3 10T308-HCX	•					
914-000-120						•	
914-000-121	PM3 10T308-SCX		•				
914-000-122				•			
914-000-123						•	

PACKAGE SIZE OF 10

Part #	Insert Screw
968-000-119	PM1-4
968-000-120	PM2-3
968-000-121	PM2-4
968-000-122	PM3-35
968-000-123	PM4-4

PACKAGE SIZE OF 5

Chipbreaker:

HCX : Strong cutting edge for general steels, cast irons, and hard conditions in milling application

SCX : Sharp cutting edge for general stainless steels and super alloy applications

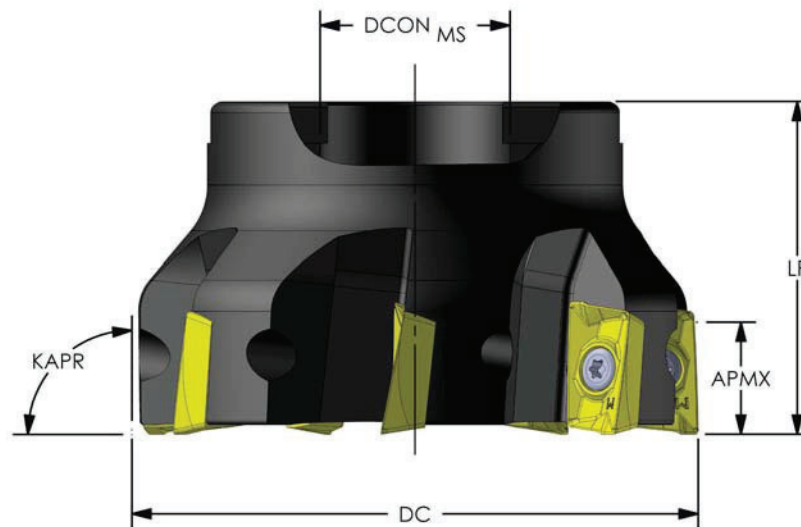
ISO	MATERIAL	HARDNESS	CHIPBREAKER	GRADE	Vc (SFM)*	Fz (INCH PER TOOTH)*
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	HCX	HP470	220 - 820	.009 - .075
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC			220-720	.009 - .065
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	SCX	HM470	230-650	.009 - .045
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC			260-700	.009 - .045
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	HCX	HK430	400 - 900	.009 - .063
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC			300 - 850	.009 - .055
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	SCX	HS470	100-350	.009 - .040
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	SCX	HS470	60 - 220	.007 - .035
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC			90 - 400	.008 - .050

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.



F90AP

- Shoulder and slot milling in all ISO material applications
- Linear and helical ramping capabilities
- Deep shoulder milling based on APMX of insert
- Excellent surface finish and higher utilization of low-powered machines
- Positive geometry insert – Free cutting



KAPR: 95°

PRODUCT #	Designation	DC	ZC	LF	APMX	DCON MS	KAPR	Inserts	Screw
946-000-032	F90AP D2.00-5-.750-11	2.000	5	1.570	0.315	0.750	95.0	APKT 11T308	SR34505L
946-000-035	F90AP D2.50-7-1.00-11	2.500	7	1.750	0.315	1.000	95.0		SR34505L
946-000-038	F90AP D3.00-8-1.00-11	3.000	8	1.750	0.315	1.000	95.0		SR34505L
946-000-033	F90AP D2.00-5-.750-16	2.000	5	1.570	0.472	0.750	95.0	APKT 160408	SR14544
946-000-034	F90AP D2.50-5-1.00-16	2.500	5	1.750	0.472	1.000	95.0		SR14544
946-000-036	F90AP D3.00-5-1.00-16	3.000	5	1.750	0.472	1.000	95.0		SR14544
946-000-037	F90AP D3.00-7-1.00-16	3.000	7	1.750	0.472	1.000	95.0		SR14544
946-000-039	F90AP D4.00-7-1.25-16	4.000	7	2.000	0.472	1.250	95.0		SR14544



PRODUCT #	Designation	Radius	UD1	UD204	UD404	UD602
913-000-029				•		
913-000-030	APKT 11T304-PF	0.015			•	
913-000-031						•
913-000-039	APKT 11T308-PF	0.031		•		
913-000-040					•	
913-000-046	APKT 11T316-PF	0.062		•		
913-000-047					•	
913-000-051	APKT 160408-PF	0.031			•	
913-000-052						•
913-000-032				•		
913-000-033	APKT 11T304-PM	0.015			•	
913-000-034						•
913-000-041				•		
913-000-042	APKT 11T308-PM	0.031			•	
913-000-043						•
913-000-045	APKT 11T312-PM	0.046			•	
913-000-048	APKT 11T316-PM	0.062		•		
913-000-049					•	
913-000-053				•		
913-000-054	APKT 160408-PM	0.031			•	
913-000-055						•
913-000-035				•		
913-000-036	APKT 11T304-PR	0.015			•	
913-000-037						•
913-000-028	APKT 11T304-AL	0.015	•			
913-000-038	APKT 11T308-AL	0.031	•			
913-000-050	APKT 160408-AL	0.031	•			

PRODUCT #	Insert Screw
968-000-134	SR34505
968-000-133	SR14544
968-000-135	SR34505L

PACKAGE SIZE OF 5

PACKAGE SIZE OF 10

APKT 11T308



Feed Per Tooth (inch)

AP (inch)	Light	Medium	Heavy
.315	.0028	.0031	.0039
.236	.0039	.0047	.0059
.157	.0047	.0059	.0079

f/t

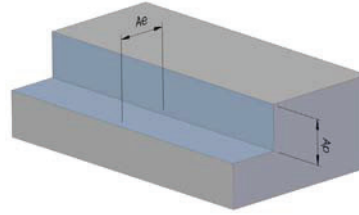
APKT 160408



Feed Per Tooth (inch)

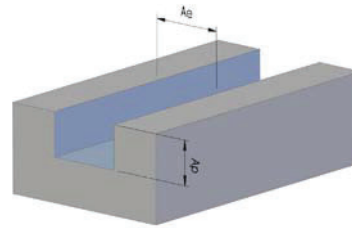
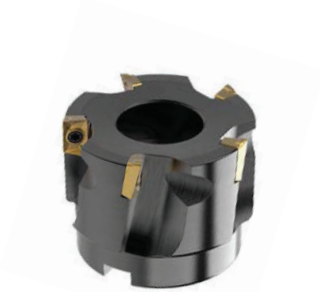
AP (inch)	Light	Medium	Heavy
.472	.0028	.0031	.0039
.315	.0039	.0047	.0059
.197	.0047	.0059	.0079

f/t



				SQUARE SHOULDER MILLING			
				Fz (INCH PER TOOTH)*		APMX	
ISO	MATERIAL	HARDNESS	Vc (SFM)*	-PF /-AL	-PM /-PR	APKT11T3	APKT1604
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	550-900	0.003 - 0.009	0.003 - 0.012	0.315	0.472
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	450-850	0.003 - 0.0075	0.003 - 0.010	0.315	0.472
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	350 - 875	0.003 - 0.009	0.003 - 0.012	0.315	0.472
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	250 - 800	0.003 - 0.0075	0.003 - 0.010	0.315	0.472
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	400 - 1000	0.004 - 0.010	0.004 - 0.012	0.315	0.472
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	300 - 800	0.004 - 0.012	0.004 - 0.012	0.315	0.472
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	600-1200	0.004 - 0.014	0.004 - 0.016	0.315	0.472
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 555 BHN or ≤ 55 HRC	190 - 500	0.003 - 0.007	0.003 - 0.009	0.315	0.472
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	70-220	0.002 - 0.006	0.002 - 0.007	0.315	0.472
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	230-450	0.003 - 0.0085	0.003 - 0.010	0.315	0.472

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.



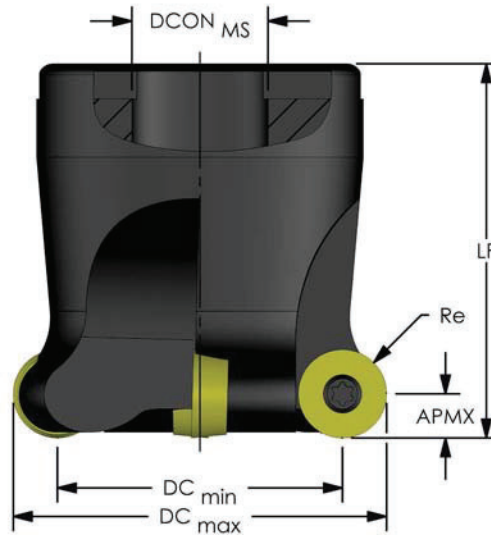
				SQUARE SLOT MILLING			
				Fz (INCH PER TOOTH)*		APMX	
ISO	MATERIAL	HARDNESS	Vc (SFM)*	-PF /-AL	-PM /-PR	APKT11T3	APKT1604
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	550-900	0.003 - 0.006	0.003 - 0.010	0.315	0.472
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	450-850	0.003 - 0.006	0.003 - 0.0085	0.315	0.472
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	350 - 875	0.003 - 0.007	0.003 - 0.010	0.315	0.472
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	250 - 800	0.003 - 0.006	0.003 - 0.010	0.315	0.472
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	400 - 1000	0.004 - 0.008	0.004 - 0.010	0.315	0.472
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	300 - 800	0.004 - 0.008	0.004 - 0.010	0.315	0.472
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	600-1200	0.004 - 0.011	0.004 - 0.014	0.315	0.472
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 555 BHN or ≤ 55 HRC	190 - 500	0.003 - 0.006	0.003 - 0.007	0.315	0.472
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	70-220	0.002 - 0.006	0.002 - 0.007	0.315	0.472
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	230-450	0.003 - 0.006	0.003 - 0.008	0.315	0.472

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.



FR ARBOR MOUNT

- Profile, contouring and slot milling in all ISO material applications
- Linear and helical ramping capabilities
- High feed milling capabilities based on programed AP of insert
- Excellent surface finish and higher utilization of low-powered machines
- Positive geometry insert – Free cutting



PRODUCT #	Designation	DCmax	DCmin	Re	L	DCON MS	APMX	ZC	Insert	Screw
946-000-041	FR-D2.00-4-.750-12	2.000	1.528	0.236 (6mm)	2.000	0.750	0.236 (6mm)	4	RCKT 1204	MTS-35
946-000-042	FR-D2.00-4-.750-4	2.000	1.500	0.250	2.000	0.750	0.250	4	RCMT 43	MTS-4
946-000-040	FR-D2.00-3-.750-16	2.000	1.370	0.315 (8mm)	2.000	0.750	0.315 (8mm)	3	RCKT 1606	MTS-4
946-000-044	FR-D3.00-5-1.00-4	3.000	2.500	0.250	1.750	1.000	0.250	5	RCMT 43	MTS-4
946-000-043	FR-D3.00-5-1.00-16	3.000	2.370	0.315 (8mm)	1.750	1.000	0.315 (8mm)	5	RCKT 1606	MTS-4
946-000-046	FR-D4.00-6-1.25-4	4.000	3.500	0.250	1.750	1.250	0.250	6	RCMT 43	MTS-4
946-000-045	FR-D4.00-6-1.25-16	4.000	3.370	0.315 (8mm)	1.750	1.250	0.315 (8mm)	6	RCKT 1606	MTS-4

Recommendations:

Productivity and tooling performance is not only influenced by grade and geometry, but also by clamping the tool securely and accurately as possible.

It is recommended to use precision holders i.e. hydraulic, shrink fit



PRODUCT #	Insert Screw
968-000-087	MTS-184
968-000-088	MTS-2
968-000-092	MTS-255
968-000-082	MTS-25-DR
968-000-084	MTS-3-DR
968-000-083	MTS-35-DR
968-000-085	MTS-4-DR

PACKAGE SIZE OF 5

PRODUCT #	Designation	UD1	UD404	UD602
913-000-360	RDKW 0803		•	
913-000-361				•
913-000-337	RCKT 10T3	•		
913-000-338			•	
913-000-339				•
913-000-340	RCKT 1204	•		
913-000-341			•	
913-000-342	RCKT 1606			•
913-000-343			•	
913-000-344				•

PACKAGE SIZE OF 10

PRODUCT #	Designation	UD51	UD52	UD2	UD21	UD22
913-000-348	RCMT 21.5	•				
913-000-349			•			
913-000-345					•	
913-000-346						•
913-000-347	RCMT 32.5					•
913-000-353		•				
913-000-354			•			
913-000-350				•		
913-000-351						•
913-000-352	RCMT 43					•
913-000-358		•				
913-000-359			•			
913-000-355				•		
913-000-356						•
913-000-357						•

PACKAGE SIZE OF 10

ISO	MATERIAL	HARDNESS	GRADE	Vc (SFM)*	Fz (INCH PER TOOTH)* at 50% insert I.C. APMX**
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	UD51 UD52 UD404 UD602	300-850	.006 - .018
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC		200-700	.005 - .015
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	UD32	200-650	.003 - .010
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC		260-700	.003 - .012
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	UD21	250-900	.005 - .020
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC		200-700	.005 - .015
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	UD1 UD2	400-975	.006 - .020
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	UD32 UD404	80-400	.004 - .012
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	UD32 UD52 UD404	40-250	.003 - .008
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC		100-550	.003 - .010

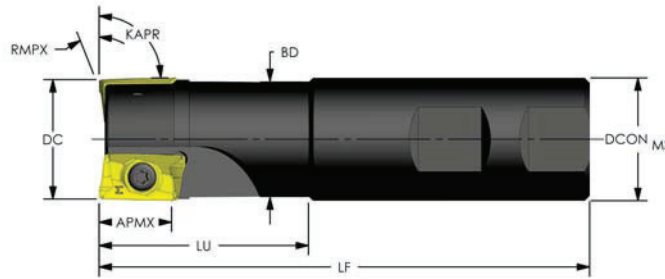
Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

**** If the axial depth of cut (Ap) is less than 50% of the full radius Insert I.C., increase the feed rate (Fz) to compensate for the thinning (Hex) of the actual chip thickness.**



E90AP

- Shoulder and slot milling in all ISO material applications
- Linear and helical ramping capabilities
- Deep shoulder milling based on APMX of insert
- Excellent surface finish and higher utilization of low-powered machines
- Positive geometry insert – Free cutting
- Directed through coolant at each insert providing excellent chip evacuation



KAPR: 90°

No Coolant

PRODUCT #	Designation	DC	LF	LU	APMX	DCON MS	BD	RMPX	ZC	KAPR	Insert	Screw
946-000-001	E90AP D0.500-1-W.500-11	0.500	3.375	0.975	0.315	0.500	0.455	10°	1	90.0	APKT 11T308	SR34505
946-000-002	E90AP D.625-2-W.625-11	0.625	3.375	0.975	0.315	0.625	0.580	10°	2	90.0		SR34505
946-000-003	E90AP D.750-2-W.750-11	0.750	3.375	0.975	0.315	0.750	0.705	5°	2	90.0		SR34505L
946-000-005	E90AP D.750-3-W.750-11	0.750	3.375	0.975	0.315	0.750	0.705	5°	3	90.0		SR34505L
946-000-007	E90AP D.750-3-W.750-6-11	0.750	6.000	3.000	0.315	0.750	0.705	5°	3	90.0		SR34505L
946-000-010	E90AP D1.00-3-W.750-11	1.000	4.000	1.500	0.315	0.750	0.955	5°	3	90.0		SR34505L
946-000-011	E90AP D1.00-3-W1.00-11	1.000	4.000	1.500	0.315	1.000	0.955	4.5°	3	90.0		SR34505L
946-000-013	E90AP D1.00-3-W1.00-6-11	1.000	6.000	3.000	0.315	1.000	0.955	4.5°	3	90.0		SR34505L
946-000-015	E90AP D1.250-3-W.750-11	1.250	4.000	1.500	0.315	0.750	1.205	3°	3	90.0		SR34505L
946-000-016	E90AP D1.250-3-W1.00-11	1.250	4.000	1.500	0.315	1.000	1.205	3°	3	90.0		SR34505L
946-000-021	E90AP D1.500-5-W1.00-11	1.500	4.000	1.500	0.315	1.000	1.475	2°	5	90.0		SR34505L
946-000-008	E90AP D1.00-2-W1.00-16	1.000	4.000	1.750	0.472	1.000	0.940	6°	2	90.0	APKT 160408	SR14544
946-000-009	E90AP D1.00-2-W1.00-6-16	1.000	6.000	4.000	0.472	1.000	0.940	6°	2	90.0		SR14544
946-000-014	E90AP D1.250-2-W1.00-16	1.250	4.000	1.500	0.472	1.000	1.190	4.5°	2	90.0		SR14544
946-000-017	E90AP D1.250-3-W1.00-16	1.250	4.000	1.500	0.472	1.000	1.190	4.5°	3	90.0		SR14544
946-000-019	E90AP D1.500-3-W1.00-16	1.500	4.000	1.500	0.472	1.000	1.425	2.5°	3	90.0		SR14544

Coolant Thru

PRODUCT #	Designation	DC	LF	LU	APMX	DCON MS	BD	RMPX	ZC	KAPR	Insert	Screw
946-000-004	E90AP D.750-2-W.750-11-C	0.750	3.375	0.975	0.315	0.750	0.705	5°	2	90.0	APKT 11T308	SR34505L
946-000-006	E90AP D.750-3-W.750-11-C	0.750	3.375	0.975	0.315	0.750	0.705	5°	3	90.0		SR34505L
946-000-012	E90AP D1.00-3-W1.00-11-C	1.000	4.000	1.500	0.315	1.000	0.940	4.5°	3	90.0		SR34505L
946-000-018	E90AP D1.250-3-W1.00-16-C	1.250	4.000	1.500	0.472	1.000	1.190	4.5°	3	90.0	APKT 160408	SR14544
946-000-020	E90AP D1.500-3-W1.00-16-C	1.500	4.000	1.500	0.472	1.000	1.425	2.5°	3	90.0		SR14544



PRODUCT #	Designation	Radius	UD1	UD204	UD404	UD602
913-000-029				•		
913-000-030	APKT 11T304-PF	0.015			•	
913-000-031						•
913-000-039	APKT 11T308-PF	0.031		•		
913-000-040					•	
913-000-046	APKT 11T316-PF	0.062		•		
913-000-051	APKT 160408-PF	0.031			•	
913-000-052						•
913-000-032				•		
913-000-033	APKT 11T304-PM	0.015			•	
913-000-034						•
913-000-041				•		
913-000-042	APKT 11T308-PM	0.031			•	
913-000-043						•
913-000-045	APKT 11T312-PM	0.046			•	
913-000-048	APKT 11T316-PM	0.062		•		
913-000-049					•	
913-000-053	APKT 160408-PM	0.031		•		
913-000-054					•	
913-000-055						•
913-000-035				•		
913-000-036	APKT 11T304-PR	0.015			•	
913-000-037						•
913-000-028	APKT 11T304-AL	0.015	•			
913-000-038	APKT 11T308-AL	0.031	•			
913-000-050	APKT 160408-AL	0.031	•			

PRODUCT #	Insert Screw
968-000-134	SR34505
968-000-133	SR14544
968-000-135	SR34505L

PACKAGE SIZE OF 5

PACKAGE SIZE OF 10

APKT 11T308



Depth of cut ↑

Feed Per Tooth (inch)

AP (inch)	Light	Medium	Heavy
.315	.0028	.0031	.0039
.236	.0039	.0047	.0059
.157	.0047	.0059	.0079

f/t →

APKT 160408

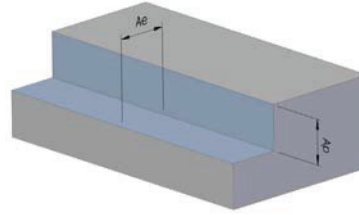


Depth of cut ↑

Feed Per Tooth (inch)

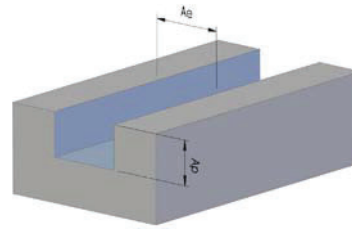
AP (inch)	Light	Medium	Heavy
.472	.0028	.0031	.0039
.315	.0039	.0047	.0059
.197	.0047	.0059	.0079

f/t →



								SQUARE SHOULDER MILLING			
								Fz (INCH PER TOOTH)*		APMX	
ISO	MATERIAL	HARDNESS	Vc (SFM)*	-PF /-AL	-PM /-PR	APKT11T3	APKT1604				
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	550-900	0.003 - 0.009	0.003 - 0.012	0.315	0.472				
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	450-850	0.003 - 0.0075	0.003 - 0.010	0.315	0.472				
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	350 - 875	0.003 - 0.009	0.003 - 0.012	0.315	0.472				
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	250 - 800	0.003 - 0.0075	0.003 - 0.010	0.315	0.472				
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	400 - 1000	0.004 - 0.010	0.004 - 0.012	0.315	0.472				
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	300 - 800	0.004 - 0.012	0.004 - 0.012	0.315	0.472				
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	600-1200	0.004 - 0.014	0.004 - 0.016	0.315	0.472				
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 555 BHN or ≤ 55 HRC	190 - 500	0.003 - 0.007	0.003 - 0.009	0.315	0.472				
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	70-220	0.002 - 0.006	0.002 - 0.007	0.315	0.472				
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	230-450	0.003 - 0.0085	0.003 - 0.010	0.315	0.472				

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.



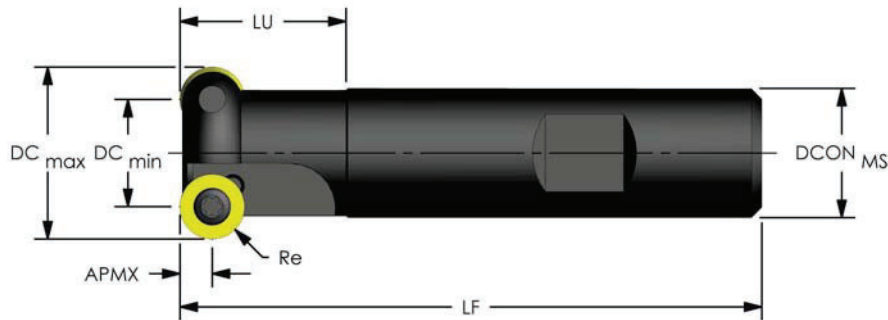
				SQUARE SLOT MILLING			
				Fz (INCH PER TOOTH)*		APMX	
ISO	MATERIAL	HARDNESS	Vc (SFM)*	-PF /-AL	-PM /-PR	APKT11T3	APKT1604
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	550-900	0.003 - 0.006	0.003 - 0.010	0.315	0.472
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	450-850	0.003 - 0.006	0.003 - 0.0085	0.315	0.472
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	350 - 875	0.003 - 0.007	0.003 - 0.010	0.315	0.472
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	250 - 800	0.003 - 0.006	0.003 - 0.010	0.315	0.472
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	400 - 1000	0.004 - 0.008	0.004 - 0.010	0.315	0.472
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	300 - 800	0.004 - 0.008	0.004 - 0.010	0.315	0.472
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	600-1200	0.004 - 0.011	0.004 - 0.014	0.315	0.472
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 555 BHN or ≤ 55 HRC	190 - 500	0.003 - 0.006	0.003 - 0.007	0.315	0.472
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	70-220	0.002 - 0.006	0.002 - 0.007	0.315	0.472
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC	230-450	0.003 - 0.006	0.003 - 0.008	0.315	0.472

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.



ER WELDON SHANK

- Shoulder and slot milling in all ISO material applications
- Linear and helical ramping capabilities
- Deep shoulder milling based on APMX of insert
- Excellent surface finish and higher utilization of low-powered machines
- Positive geometry insert – Free cutting
- Directed through coolant at each insert providing excellent chip evacuation



PRODUCT #	Designation	DCmax	DCmin	Re	LF	LU	DCON MS	ZC	APMX	Insert	Screw
946-000-022	ER-D.750-2-.750-08	0.750	0.436	0.157 / 4mm	3.380	0.975	0.750	2	0.157 / 4mm	RDKW 0803	MTS-3-DR
946-000-023	ER-D.750-2-.750-2	0.750	0.500	0.125	3.380	0.975	0.750	2	0.125	RCMT 21.5	MTS-2.5L
946-000-025	ER-D1.00-2-.750-10	1.000	0.606	0.197 / 5mm	3.380	1.500	0.750	2	0.197 / 5mm	RCKT 10T3	MTS-35
946-000-027	ER-D1.00-2-.750-3	1.000	0.625	0.188	3.380	1.500	0.750	2	0.188	RCMT 32.5	MTS-4-DR
946-000-024	ER-D1.00-2-.750-08	1.000	0.686	0.157 / 4mm	3.380	1.500	0.750	2	0.157 / 4mm	RDKW 0803	MTS-3-DR
946-000-026	ER-D1.00-2-.750-2	1.000	0.750	0.125	3.380	1.500	0.750	2	0.125	RCMT 21.5	MTS-2.5L
946-000-029	ER-D1.25-3-1.00-10	1.250	0.856	0.197 / 5mm	4.000	1.500	1.000	3	0.197 / 5mm	RCKT 10T3	MTS-35
946-000-028	ER-D1.25-2-1.00-3	1.250	0.875	0.188	4.000	1.500	1.000	2	0.188	RCMT 32.5	MTS-4-DR
946-000-031	ER-D1.50-3-1.00-4	1.500	1.000	0.250	4.000	1.500	1.000	3	0.250	RCMT 43	MTS-4
946-000-030	ER-D1.50-3-1.00-12	1.500	1.028	0.236 / 6mm	4.000	1.500	1.000	3	0.236 / 6mm	RCKT 1204	MTS-35

Recommendations:

Productivity and tooling performance is not only influenced by grade and geometry, but also by clamping the tool securely and accurately as possible.

It is recommended to use precision holders i.e. hydraulic, shrink fit



PRODUCT #	Insert Screw
968-000-087	MTS-184
968-000-088	MTS-2
968-000-092	MTS-255
968-000-082	MTS-25-DR
968-000-084	MTS-3-DR
968-000-083	MTS-35-DR
968-000-085	MTS-4-DR

PACKAGE SIZE OF 5



PRODUCT #	Designation	UD1	UD404	UD602
913-000-360	RDKW 0803		•	
913-000-361				•
913-000-337	RCKT 10T3	•		
913-000-338			•	
913-000-339	RCKT 1204			•
913-000-340		•		
913-000-341	RCKT 1606		•	
913-000-342				•
913-000-343	RCKT 1606		•	
913-000-344				•

PACKAGE SIZE OF 10



PRODUCT #	Designation	UD51	UD52	UD2	UD21	UD22
913-000-348	RCMT 21.5	•				
913-000-349			•			
913-000-345					•	
913-000-346						•
913-000-347	RCMT 32.5					•
913-000-353		•				
913-000-354			•			
913-000-350				•		
913-000-351	RCMT 43				•	
913-000-352						•
913-000-358		•				
913-000-359			•			
913-000-355	RCMT 43			•		
913-000-356					•	
913-000-357						•

PACKAGE SIZE OF 10

ISO	MATERIAL	HARDNESS	GRADE	Vc (SFM)*	Fz (INCH PER TOOTH)* at 50% insert I.C. APMX**
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	UD51 UD52 UD404 UD602	300-850	.006 - .018
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC		200-700	.005 - .015
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	UD32	200-650	.003 - .010
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC		260-700	.003 - .012
K	GRAY IRONS Class 20, 30, 40, 50, 60, G3000, G3500	≤ 220 BHN or ≤ 19 HRC	UD21	250-900	.005 - .020
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC		200-700	.005 - .015
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	UD1 UD2	400-975	.006 - .020
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	UD32 UD404	80-400	.004 - .012
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	UD32 UD52 UD404	40-250	.003 - .008
	TITANIUM 6AL-4V, ASTM 1, 2, 3, 6AL-2S	≤ 275 BHN or ≤ 28 HRC		100-550	.003 - .010

Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.

** If the axial depth of cut (Ap) is less than 50% of the full radius Insert I.C., increase the feed rate (Fz) to compensate for the thinning (Hex) of the actual chip thickness.



SOLID MILLING

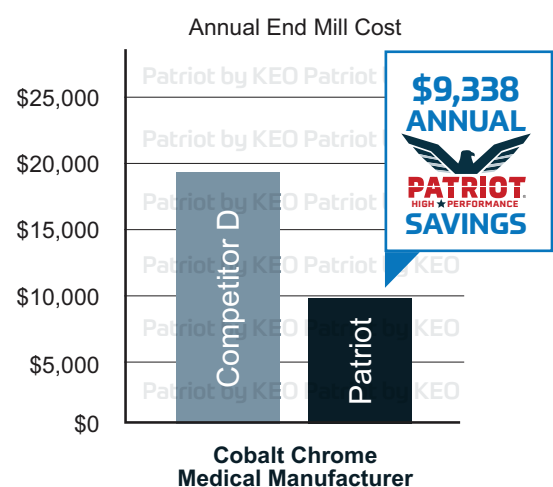
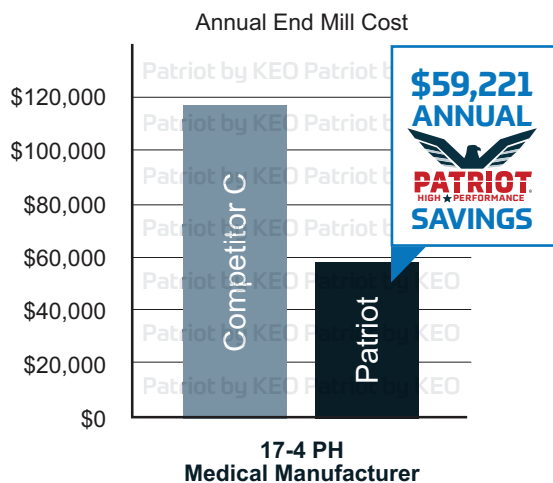
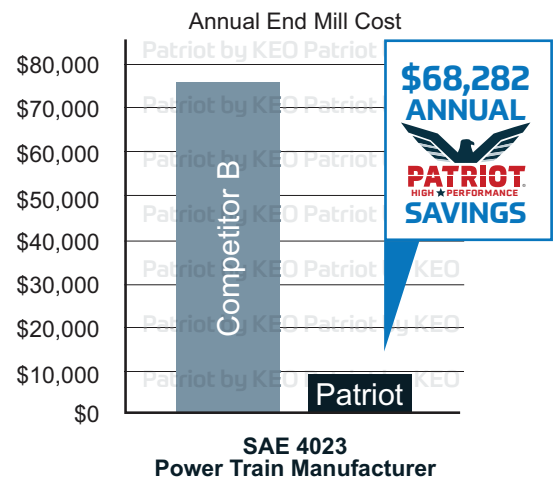
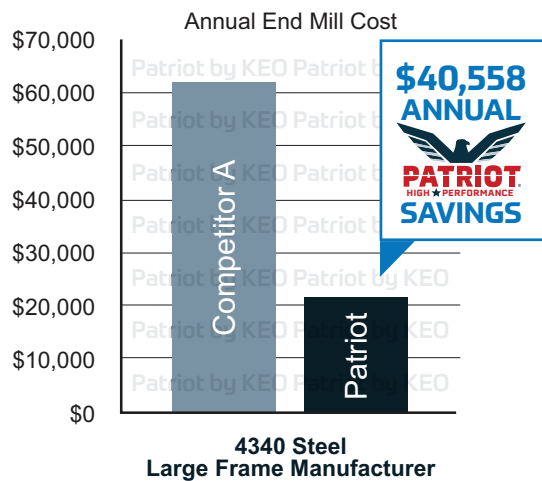
Originally optimized to tackle difficult to machine applications such as in titanium & pre-hardened steels, this High-Performance End Mill has excelled in a wide array of exotic, alloyed and ferrous part materials. The Patriot family of high-performance end mills is designed with advanced proprietary geometry. There is a thin film coating that consistently delivers increased tool life, superior part finish and aggressive metal removal rates. This is all accomplished within a machining environment that generates extreme working temperatures.



TOOL BENEFITS:

- Ranging from 0.125”- 1.00” diameters
- Can be used in roughing, profiling, slotting, and finishing applications
- Increased tool life — high performance coating that offers high wear resistance complimented by toughness and stability at high temperatures
- Significantly reduces chatter and improve surface finish
- Increase material removal rates by increased cutting depth and feed rates

CASE STUDIES



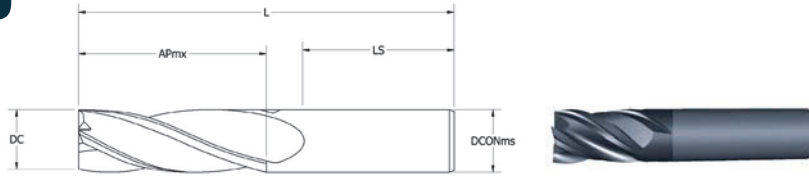
Proprietary to ARCH Cutting Tools

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CARBIDE



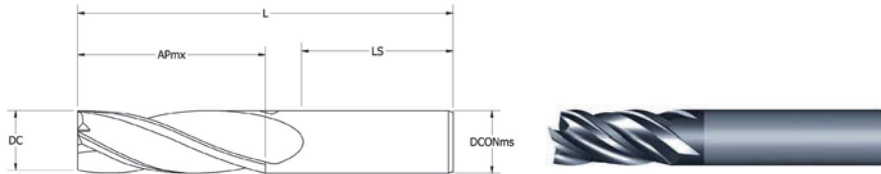
VARIABLE HELIX



4-FLUTE - STUB LENGTH - SQUARE END



DC	DCONms	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.2500	0.8750	1.5000	976-000-001
0.1875	0.1875	0.3750	1.2500	2.0000	976-000-002
0.2500	0.2500	0.5000	1.1250	2.0000	976-000-003
0.3125	0.3125	0.5000	1.1250	2.0000	976-000-004
0.3750	0.3750	0.6250	1.0000	2.0000	976-000-005
0.4375	0.4375	0.6250	1.5000	2.5000	976-000-006
0.5000	0.5000	0.7500	1.3750	2.5000	976-000-007
0.6250	0.6250	0.7500	1.8750	3.0000	976-000-008
0.7500	0.7500	1.0000	1.6250	3.0000	976-000-009

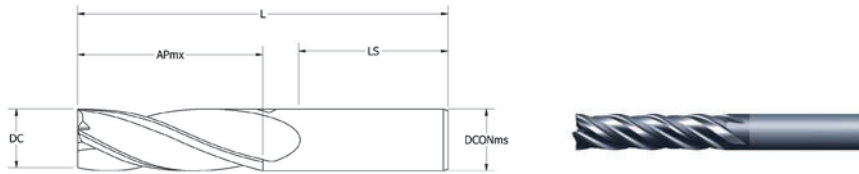


4-FLUTE - STANDARD LENGTH - SQUARE END



DC	DCONms	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.5000	0.6250	1.5000	976-000-010
0.1875	0.1875	0.6250	1.0000	2.0000	976-000-011
0.2500	0.2500	0.7500	1.3750	2.5000	976-000-012
0.2500	0.2500	1.0000	1.1250	2.5000	976-000-013
0.2500	0.2500	1.2500	0.8750	2.5000	976-000-014
0.3125	0.3125	0.8125	1.3125	2.5000	976-000-015
0.3750	0.3750	0.8750	1.2500	2.5000	976-000-016
0.3750	0.3750	1.0000	1.1250	2.5000	976-000-017
0.3750	0.3750	1.2500	0.8750	2.5000	976-000-018
0.4375	0.4375	1.0000	1.3750	2.7500	976-000-019
0.5000	0.5000	1.0000	1.6250	3.0000	976-000-020
0.5000	0.5000	1.2500	1.3750	3.0000	976-000-021
0.5000	0.5000	1.5000	1.1250	3.0000	976-000-022
0.5000	0.5000	1.5000	1.6250	3.5000	976-000-023
0.5000	0.5000	1.7500	1.3750	3.5000	976-000-024
0.6250	0.6250	1.5000	1.6250	3.5000	976-000-025
0.6250	0.6250	1.7500	1.3750	3.5000	976-000-026
0.7500	0.7500	1.7500	1.8750	4.0000	976-000-027
1.0000	1.0000	1.7500	1.8750	4.0000	976-000-028

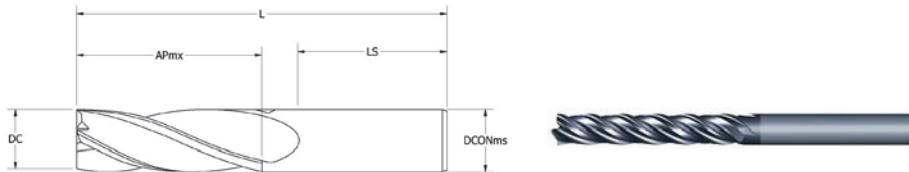
VARIABLE HELIX



4-FLUTE - LONG LENGTH - SQUARE END



DC	DCONms	APmax	LS	L	PRODUCT #
0.1250	0.1250	0.7500	1.3750	2.5000	976-000-029
0.1875	0.1875	0.7500	1.3750	2.5000	976-000-030
0.2500	0.2500	1.1250	1.5000	3.0000	976-000-031
0.3125	0.3125	1.1250	1.5000	3.0000	976-000-032
0.3750	0.3750	1.2500	1.3750	3.0000	976-000-033
0.4375	0.4375	2.0000	1.6250	4.0000	976-000-034
0.5000	0.5000	2.0000	1.6250	4.0000	976-000-035
0.6250	0.6250	2.2500	2.3750	5.0000	976-000-036
0.7500	0.7500	2.2500	2.3750	5.0000	976-000-037
1.0000	1.0000	2.2500	2.3750	5.0000	976-000-038



4-FLUTE - X LONG LENGTH - SQUARE END

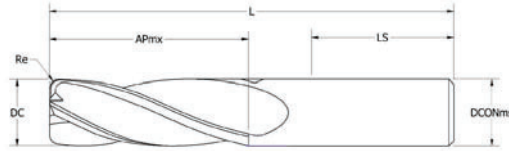


DC	DCONms	APmax	LS	L	PRODUCT #
0.1250	0.1250	1.0000	1.6250	3.0000	976-000-039
0.1875	0.1875	1.1250	1.5000	3.0000	976-000-040
0.2500	0.2500	1.5000	2.1250	4.0000	976-000-041
0.3125	0.3125	1.6250	2.0000	4.0000	976-000-042
0.3750	0.3750	2.0000	1.6250	4.0000	976-000-043
0.4375	0.4375	3.0000	2.6250	6.0000	976-000-044
0.5000	0.5000	3.0000	2.6250	6.0000	976-000-045
0.6250	0.6250	3.0000	2.6250	6.0000	976-000-046
0.7500	0.7500	3.0000	2.6250	6.0000	976-000-047
1.0000	1.0000	3.0000	2.6250	6.0000	976-000-048

CARBIDE

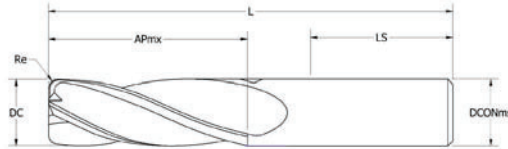


VARIABLE HELIX



4-FLUTE - STUB LENGTH - CORNER RADIUS

DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0100	0.2500	0.8750	1.5000	976-000-128
0.1875	0.1875	0.0100	0.3750	1.2500	2.0000	976-000-129
0.2500	0.2500	0.0200	0.5000	1.1250	2.0000	976-000-130
0.3125	0.3125	0.0200	0.5000	1.1250	2.0000	976-000-131
0.3750	0.3750	0.0200	0.6250	1.0000	2.0000	976-000-132
0.4375	0.4375	0.0300	0.6250	1.5000	2.5000	976-000-133
0.5000	0.5000	0.0300	0.7500	1.3750	2.5000	976-000-134
0.6250	0.6250	0.0400	0.7500	1.8750	3.0000	976-000-135
0.7500	0.7500	0.0400	1.0000	1.6250	3.0000	976-000-136



4-FLUTE - STANDARD LENGTH - CORNER RADIUS

DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0100	0.5000	0.6250	1.5000	976-000-137
0.1250	0.1250	0.0150	0.5000	0.6250	1.5000	976-000-138
0.1250	0.1250	0.0200	0.5000	0.6250	1.5000	976-000-139
0.1875	0.1875	0.0100	0.6250	1.0000	2.0000	976-000-140
0.1875	0.1875	0.0150	0.6250	1.0000	2.0000	976-000-141
0.1875	0.1875	0.0200	0.6250	1.0000	2.0000	976-000-142
0.1875	0.1875	0.0300	0.6250	1.0000	2.0000	976-000-143
0.2500	0.2500	0.0100	0.7500	1.3750	2.5000	976-000-144
0.2500	0.2500	0.0150	0.7500	1.3750	2.5000	976-000-145
0.2500	0.2500	0.0200	0.7500	1.3750	2.5000	976-000-146
0.2500	0.2500	0.0300	0.7500	1.3750	2.5000	976-000-147
0.2500	0.2500	0.0600	0.7500	1.3750	2.5000	976-000-148
0.2500	0.2500	0.0100	1.0000	1.1250	2.5000	976-000-149
0.2500	0.2500	0.0150	1.0000	1.1250	2.5000	976-000-150
0.2500	0.2500	0.0200	1.0000	1.1250	2.5000	976-000-151
0.2500	0.2500	0.0300	1.0000	1.1250	2.5000	976-000-152
0.2500	0.2500	0.0600	1.0000	1.1250	2.5000	976-000-153
0.2500	0.2500	0.0100	1.2500	0.8750	2.5000	976-000-154
0.2500	0.2500	0.0150	1.2500	0.8750	2.5000	976-000-155
0.2500	0.2500	0.0200	1.2500	0.8750	2.5000	976-000-156
0.2500	0.2500	0.0300	1.2500	0.8750	2.5000	976-000-157
0.2500	0.2500	0.0600	1.2500	0.8750	2.5000	976-000-158
0.3125	0.3125	0.0100	0.8125	1.3125	2.5000	976-000-159
0.3125	0.3125	0.0150	0.8125	1.3125	2.5000	976-000-160
0.3125	0.3125	0.0200	0.8125	1.3125	2.5000	976-000-161

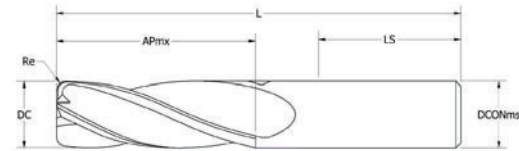


4-FLUTE - STANDARD LENGTH - CORNER RADIUS

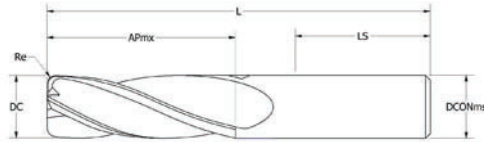


CARBIDE

DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.3125	0.3125	0.0300	0.8125	1.3125	2.5000	976-000-162
0.3125	0.3125	0.0600	0.8125	1.3125	2.5000	976-000-163
0.3750	0.3750	0.0100	0.8750	1.2500	2.5000	976-000-164
0.3750	0.3750	0.0150	0.8750	1.2500	2.5000	976-000-165
0.3750	0.3750	0.0200	0.8750	1.2500	2.5000	976-000-166
0.3750	0.3750	0.0300	0.8750	1.2500	2.5000	976-000-167
0.3750	0.3750	0.0600	0.8750	1.2500	2.5000	976-000-168
0.3750	0.3750	0.0100	1.0000	1.1250	2.5000	976-000-169
0.3750	0.3750	0.0150	1.0000	1.1250	2.5000	976-000-170
0.3750	0.3750	0.0200	1.0000	1.1250	2.5000	976-000-171
0.3750	0.3750	0.0300	1.0000	1.1250	2.5000	976-000-172
0.3750	0.3750	0.0600	1.0000	1.1250	2.5000	976-000-173
0.3750	0.3750	0.0100	1.2500	0.8750	2.5000	976-000-174
0.3750	0.3750	0.0150	1.2500	0.8750	2.5000	976-000-175
0.3750	0.3750	0.0200	1.2500	0.8750	2.5000	976-000-176
0.3750	0.3750	0.0300	1.2500	0.8750	2.5000	976-000-177
0.3750	0.3750	0.0600	1.2500	0.8750	2.5000	976-000-178
0.4375	0.4375	0.0150	1.0000	1.3750	2.7500	976-000-179
0.4375	0.4375	0.0200	1.0000	1.3750	2.7500	976-000-180
0.4375	0.4375	0.0300	1.0000	1.3750	2.7500	976-000-181
0.4375	0.4375	0.0600	1.0000	1.3750	2.7500	976-000-182
0.5000	0.5000	0.0100	1.0000	1.6250	3.0000	976-000-183
0.5000	0.5000	0.0150	1.0000	1.6250	3.0000	976-000-184
0.5000	0.5000	0.0300	1.0000	1.6250	3.0000	976-000-185
0.5000	0.5000	0.0600	1.0000	1.6250	3.0000	976-000-186
0.5000	0.5000	0.0900	1.0000	1.6250	3.0000	976-000-187
0.5000	0.5000	0.1200	1.0000	1.6250	3.0000	976-000-188
0.5000	0.5000	0.0100	1.2500	1.3750	3.0000	976-000-189
0.5000	0.5000	0.0150	1.2500	1.3750	3.0000	976-000-190
0.5000	0.5000	0.0300	1.2500	1.3750	3.0000	976-000-191
0.5000	0.5000	0.0600	1.2500	1.3750	3.0000	976-000-192
0.5000	0.5000	0.0900	1.2500	1.3750	3.0000	976-000-193
0.5000	0.5000	0.1200	1.2500	1.3750	3.0000	976-000-194
0.5000	0.5000	0.0100	1.5000	1.1250	3.0000	976-000-195
0.5000	0.5000	0.0150	1.5000	1.1250	3.0000	976-000-196
0.5000	0.5000	0.0300	1.5000	1.1250	3.0000	976-000-197
0.5000	0.5000	0.0600	1.5000	1.1250	3.0000	976-000-198
0.5000	0.5000	0.0900	1.5000	1.1250	3.0000	976-000-199
0.5000	0.5000	0.1200	1.5000	1.1250	3.0000	976-000-200
0.5000	0.5000	0.0100	1.5000	1.6250	3.5000	976-000-201
0.5000	0.5000	0.0150	1.5000	1.6250	3.5000	976-000-202
0.5000	0.5000	0.0300	1.5000	1.6250	3.5000	976-000-203
0.5000	0.5000	0.0600	1.5000	1.6250	3.5000	976-000-204
0.5000	0.5000	0.0900	1.5000	1.6250	3.5000	976-000-205
0.5000	0.5000	0.1200	1.5000	1.6250	3.5000	976-000-206
0.5000	0.5000	0.0100	1.7500	1.3750	3.5000	976-000-207
0.5000	0.5000	0.0150	1.7500	1.3750	3.5000	976-000-208



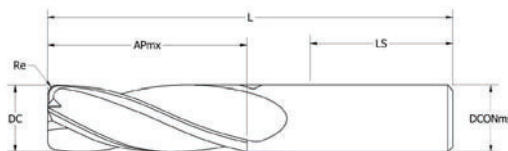
CARBIDE



4-FLUTE - STANDARD LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.5000	0.5000	0.0300	1.7500	1.3750	3.5000	976-000-209
0.5000	0.5000	0.0600	1.7500	1.3750	3.5000	976-000-210
0.5000	0.5000	0.0900	1.7500	1.3750	3.5000	976-000-211
0.5000	0.5000	0.1200	1.7500	1.3750	3.5000	976-000-212
0.6250	0.6250	0.0300	1.5000	1.6250	3.5000	976-000-213
0.6250	0.6250	0.0400	1.5000	1.6250	3.5000	976-000-214
0.6250	0.6250	0.0600	1.5000	1.6250	3.5000	976-000-215
0.6250	0.6250	0.0900	1.5000	1.6250	3.5000	976-000-216
0.6250	0.6250	0.1200	1.5000	1.6250	3.5000	976-000-217
0.6250	0.6250	0.0300	1.7500	1.3750	3.5000	976-000-218
0.6250	0.6250	0.0400	1.7500	1.3750	3.5000	976-000-219
0.6250	0.6250	0.0600	1.7500	1.3750	3.5000	976-000-220
0.6250	0.6250	0.0900	1.7500	1.3750	3.5000	976-000-221
0.6250	0.6250	0.1200	1.7500	1.3750	3.5000	976-000-222
0.7500	0.7500	0.0300	1.7500	1.8750	4.0000	976-000-223
0.7500	0.7500	0.0400	1.7500	1.8750	4.0000	976-000-224
0.7500	0.7500	0.0600	1.7500	1.8750	4.0000	976-000-225
0.7500	0.7500	0.0900	1.7500	1.8750	4.0000	976-000-226
0.7500	0.7500	0.1200	1.7500	1.8750	4.0000	976-000-227
1.0000	1.0000	0.0300	1.7500	1.8750	4.0000	976-000-228
1.0000	1.0000	0.0400	1.7500	1.8750	4.0000	976-000-229
1.0000	1.0000	0.0600	1.7500	1.8750	4.0000	976-000-230
1.0000	1.0000	0.0900	1.7500	1.8750	4.0000	976-000-231
1.0000	1.0000	0.1200	1.7500	1.8750	4.0000	976-000-232



4-FLUTE - STANDARD LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.2500	0.2500	0.0200	0.7500	1.3750	2.5000	976-000-529
0.3750	0.3750	0.0200	0.8750	1.2500	2.5000	976-000-530
0.5000	0.5000	0.0300	1.0000	1.6250	3.0000	976-000-531
0.6250	0.6250	0.0400	1.5000	1.6250	3.5000	976-000-532
0.7500	0.7500	0.0400	1.7500	1.8750	4.0000	976-000-533
1.0000	1.0000	0.0400	1.7500	1.8750	4.0000	976-000-534

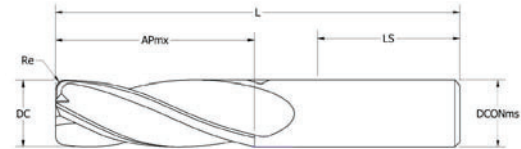


4-FLUTE - LONG LENGTH - CORNER RADIUS



CARBIDE

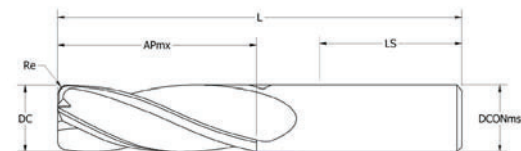
DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0150	0.7500	1.3750	2.5000	976-000-233
0.1250	0.1250	0.0300	0.7500	1.3750	2.5000	976-000-234
0.1875	0.1875	0.0150	0.7500	1.3750	2.5000	976-000-235
0.1875	0.1875	0.0300	0.7500	1.3750	2.5000	976-000-236
0.2500	0.2500	0.0150	1.1250	1.5000	3.0000	976-000-237
0.2500	0.2500	0.0300	1.1250	1.5000	3.0000	976-000-238
0.3125	0.3125	0.0150	1.1250	1.5000	3.0000	976-000-239
0.3125	0.3125	0.0300	1.1250	1.5000	3.0000	976-000-240
0.3750	0.3750	0.0300	1.2500	1.3750	3.0000	976-000-241
0.3750	0.3750	0.0600	1.2500	1.3750	3.0000	976-000-242
0.4375	0.4375	0.0300	2.0000	1.6250	4.0000	976-000-243
0.4375	0.4375	0.0600	2.0000	1.6250	4.0000	976-000-244
0.5000	0.5000	0.0300	2.0000	1.6250	4.0000	976-000-245
0.5000	0.5000	0.0600	2.0000	1.6250	4.0000	976-000-246
0.6250	0.6250	0.0300	2.2500	2.3750	5.0000	976-000-247
0.6250	0.6250	0.0600	2.2500	2.3750	5.0000	976-000-248
0.7500	0.7500	0.0300	2.2500	2.3750	5.0000	976-000-249
0.7500	0.7500	0.0600	2.2500	2.3750	5.0000	976-000-250
1.0000	1.0000	0.0300	2.2500	2.3750	5.0000	976-000-251
1.0000	1.0000	0.0600	2.2500	2.3750	5.0000	976-000-252



4-FLUTE - X LONG LENGTH - CORNER RADIUS



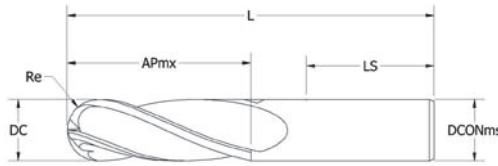
DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0150	1.0000	1.6250	3.0000	976-000-253
0.1250	0.1250	0.0300	1.0000	1.6250	3.0000	976-000-255
0.1875	0.1875	0.0150	1.1250	1.5000	3.0000	976-000-256
0.1875	0.1875	0.0300	1.1250	1.5000	3.0000	976-000-257
0.2500	0.2500	0.0150	1.5000	2.1250	4.0000	976-000-258
0.2500	0.2500	0.0300	1.5000	2.1250	4.0000	976-000-259
0.3125	0.3125	0.0300	1.6250	2.0000	4.0000	976-000-260
0.3125	0.3125	0.0600	1.6250	2.0000	4.0000	976-000-262
0.3750	0.3750	0.0300	2.0000	1.6250	4.0000	976-000-263
0.3750	0.3750	0.0600	2.0000	1.6250	4.0000	976-000-264
0.4375	0.4375	0.0300	3.0000	2.6250	6.0000	976-000-265
0.4375	0.4375	0.0600	3.0000	2.6250	6.0000	976-000-267
0.5000	0.5000	0.0300	3.0000	2.6250	6.0000	976-000-268
0.5000	0.5000	0.0600	3.0000	2.6250	6.0000	976-000-269
0.6250	0.6250	0.0300	3.0000	2.6250	6.0000	976-000-270
0.6250	0.6250	0.0600	3.0000	2.6250	6.0000	976-000-271
0.7500	0.7500	0.0300	3.0000	2.6250	6.0000	976-000-272
0.7500	0.7500	0.0600	3.0000	2.6250	6.0000	976-000-273
1.0000	1.0000	0.0300	3.0000	2.6250	6.0000	976-000-274
1.0000	1.0000	0.0600	3.0000	2.6250	6.0000	976-000-275



CARBIDE



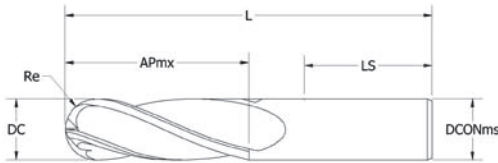
VARIABLE HELIX



4-FLUTE - STUB LENGTH - BALL END



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0625	0.2500	0.8750	1.5000	976-000-488
0.1875	0.1875	0.0938	0.3750	1.2500	2.0000	976-000-489
0.2500	0.2500	0.1250	0.5000	1.1250	2.0000	976-000-490
0.3125	0.3125	0.1563	0.5000	1.1250	2.0000	976-000-491
0.3750	0.3750	0.1875	0.6250	1.0000	2.0000	976-000-492
0.4375	0.4375	0.2188	0.6250	1.5000	2.5000	976-000-493
0.5000	0.5000	0.2500	0.7500	1.3750	2.5000	976-000-494
0.6250	0.6250	0.3125	0.7500	1.8750	3.0000	976-000-495
0.7500	0.7500	0.3750	1.0000	1.6250	3.0000	976-000-496

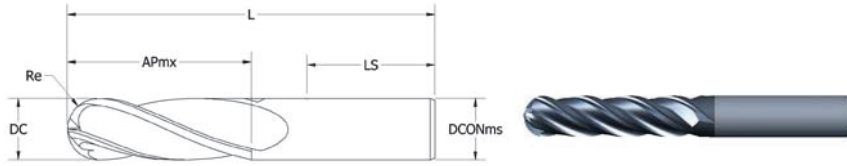


4-FLUTE - STANDARD LENGTH - BALL END



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0625	0.5000	0.6250	1.5000	976-000-497
0.1875	0.1875	0.0938	0.6250	1.0000	2.0000	976-000-498
0.2500	0.2500	0.1250	0.7500	1.3750	2.5000	976-000-499
0.3125	0.3125	0.1563	0.8125	1.3125	2.5000	976-000-500
0.3750	0.3750	0.1875	0.8750	1.2500	2.5000	976-000-501
0.3750	0.3750	0.1875	1.0000	1.1250	2.5000	976-000-502
0.4375	0.4375	0.2188	1.0000	1.3750	2.7500	976-000-503
0.5000	0.5000	0.2500	1.0000	1.6250	3.0000	976-000-504
0.5000	0.5000	0.2500	1.2500	1.3750	3.0000	976-000-505
0.6250	0.6250	0.3125	1.5000	1.6250	3.5000	976-000-506
0.7500	0.7500	0.3750	1.7500	1.8750	4.0000	976-000-507
1.0000	1.0000	0.5000	1.7500	1.8750	4.0000	976-000-508

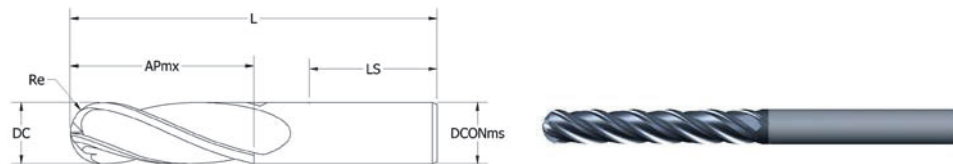
VARIABLE HELIX



4-FLUTE - LONG LENGTH - BALL END



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0625	0.7500	1.3750	2.5000	976-000-509
0.1875	0.1875	0.0938	0.7500	1.3750	2.5000	976-000-510
0.2500	0.2500	0.1250	1.1250	1.5000	3.0000	976-000-511
0.3125	0.3125	0.1563	1.1250	1.5000	3.0000	976-000-512
0.3750	0.3750	0.1875	1.2500	1.3750	3.0000	976-000-513
0.4375	0.4375	0.2188	2.0000	1.6250	4.0000	976-000-514
0.5000	0.5000	0.2500	2.0000	1.6250	4.0000	976-000-515
0.6250	0.6250	0.3125	2.2500	2.3750	5.0000	976-000-516
0.7500	0.7500	0.3750	2.2500	2.3750	5.0000	976-000-517
1.0000	1.0000	0.5000	2.2500	2.3750	5.0000	976-000-518

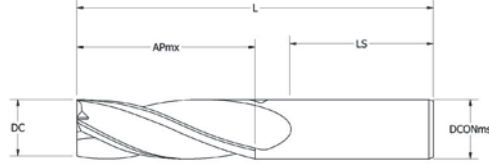


4-FLUTE - X LONG LENGTH - BALL END



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0625	1.0000	1.6250	3.0000	976-000-519
0.1875	0.1875	0.0938	1.1250	1.5000	3.0000	976-000-520
0.2500	0.2500	0.1250	1.5000	2.1250	4.0000	976-000-521
0.3125	0.3125	0.1563	1.6250	2.0000	4.0000	976-000-522
0.3750	0.3750	0.1875	1.7500	1.8750	4.0000	976-000-523
0.4375	0.4375	0.2188	3.0000	2.6250	6.0000	976-000-524
0.5000	0.5000	0.2500	3.0000	2.6250	6.0000	976-000-525
0.6250	0.6250	0.3125	3.0000	2.6250	6.0000	976-000-526
0.7500	0.7500	0.3750	3.0000	2.6250	6.0000	976-000-527
1.0000	1.0000	0.5000	3.0000	2.6250	6.0000	976-000-528

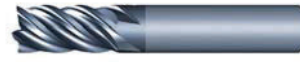
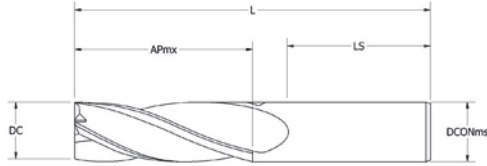
CARBIDE



5-FLUTE - STUB LENGTH - SQUARE END



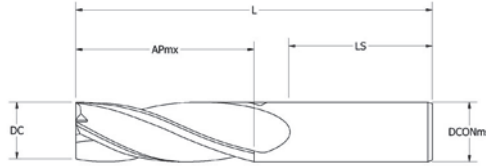
DC	DCONms	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.2500	0.8750	1.5000	976-000-049
0.1875	0.1875	0.3750	1.2500	2.0000	976-000-050
0.2500	0.2500	0.5000	1.1250	2.0000	976-000-051
0.3125	0.3125	0.5000	1.1250	2.0000	976-000-052
0.3750	0.3750	0.6250	1.0000	2.0000	976-000-053
0.4375	0.4375	0.6250	1.5000	2.5000	976-000-054
0.5000	0.5000	0.7500	1.3750	2.5000	976-000-055
0.6250	0.6250	0.7500	1.8750	3.0000	976-000-056
0.7500	0.7500	1.0000	1.6250	3.0000	976-000-057



5-FLUTE - STANDARD LENGTH - SQUARE END



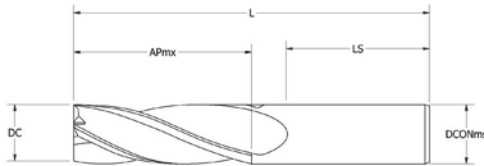
DC	DCONms	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.5000	0.6250	1.5000	976-000-058
0.1875	0.1875	0.6250	1.0000	2.0000	976-000-059
0.2500	0.2500	0.7500	1.3750	2.5000	976-000-060
0.2500	0.2500	1.0000	1.1250	2.5000	976-000-061
0.2500	0.2500	1.2500	0.8750	2.5000	976-000-062
0.3125	0.3125	0.8125	1.3125	2.5000	976-000-063
0.3750	0.3750	0.8750	1.2500	2.5000	976-000-064
0.3750	0.3750	1.0000	1.1250	2.5000	976-000-065
0.3750	0.3750	1.2500	0.8750	2.5000	976-000-066
0.4375	0.4375	1.0000	1.3750	2.7500	976-000-067
0.5000	0.5000	1.0000	1.6250	3.0000	976-000-068
0.5000	0.5000	1.2500	1.3750	3.0000	976-000-069
0.5000	0.5000	1.5000	1.1250	3.0000	976-000-070
0.5000	0.5000	1.5000	1.6250	3.5000	976-000-071
0.5000	0.5000	1.7500	1.3750	3.5000	976-000-072
0.6250	0.6250	1.5000	1.6250	3.5000	976-000-073
0.6250	0.6250	1.7500	1.3750	3.5000	976-000-074
0.7500	0.7500	1.7500	1.8750	4.0000	976-000-075
1.0000	1.0000	1.7500	1.8750	4.0000	976-000-076



5-FLUTE - LONG LENGTH - SQUARE END



DC	DCONms	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.7500	1.3750	2.5000	976-000-077
0.1875	0.1875	0.7500	1.3750	2.5000	976-000-078
0.2500	0.2500	1.1250	1.5000	3.0000	976-000-079
0.3125	0.3125	1.1250	1.5000	3.0000	976-000-080
0.3750	0.3750	1.2500	1.3750	3.0000	976-000-081
0.4375	0.4375	2.0000	1.6250	4.0000	976-000-082
0.5000	0.5000	2.0000	1.6250	4.0000	976-000-083
0.6250	0.6250	2.2500	2.3750	5.0000	976-000-084
0.7500	0.7500	2.2500	2.3750	5.0000	976-000-085
1.0000	1.0000	2.2500	2.3750	5.0000	976-000-086

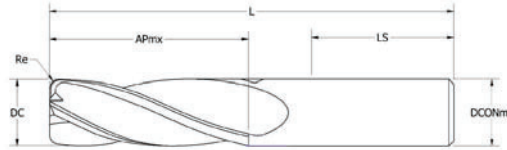


5-FLUTE - X LONG LENGTH - SQUARE END



DC	DCONms	APmx	LS	L	PRODUCT #
0.1250	0.1250	1.0000	1.6250	3.0000	976-000-087
0.1875	0.1875	1.1250	1.5000	3.0000	976-000-088
0.2500	0.2500	1.5000	2.1250	4.0000	976-000-089
0.3125	0.3125	1.6250	2.0000	4.0000	976-000-090
0.3750	0.3750	2.0000	1.6250	4.0000	976-000-091
0.4375	0.4375	3.0000	2.6250	6.0000	976-000-092
0.5000	0.5000	3.0000	2.6250	6.0000	976-000-093
0.6250	0.6250	3.0000	2.6250	6.0000	976-000-094
0.7500	0.7500	3.0000	2.6250	6.0000	976-000-095
1.0000	1.0000	3.0000	2.6250	6.0000	976-000-096

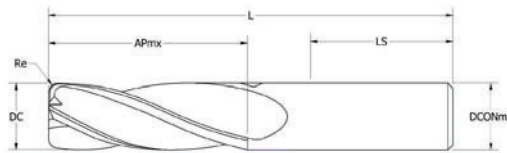
CARBIDE



5-FLUTE - STUB LENGTH - CORNER RADIUS



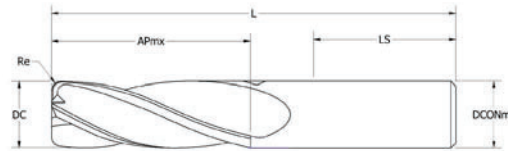
DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0100	0.2500	0.8750	1.5000	976-000-276
0.1875	0.1875	0.0100	0.3750	1.2500	2.0000	976-000-277
0.2500	0.2500	0.0200	0.5000	1.1250	2.0000	976-000-278
0.3125	0.3125	0.0200	0.5000	1.1250	2.0000	976-000-279
0.3750	0.3750	0.0200	0.6250	1.0000	2.0000	976-000-280
0.4375	0.4375	0.0300	0.6250	1.5000	2.5000	976-000-281
0.5000	0.5000	0.0300	0.7500	1.3750	2.5000	976-000-282
0.6250	0.6250	0.0400	0.7500	1.8750	3.0000	976-000-283
0.7500	0.7500	0.0400	1.0000	1.6250	3.0000	976-000-284



5-FLUTE - STANDARD LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0100	0.5000	0.6250	1.5000	976-000-285
0.1250	0.1250	0.0150	0.5000	0.6250	1.5000	976-000-286
0.1250	0.1250	0.0200	0.5000	0.6250	1.5000	976-000-287
0.1875	0.1875	0.0100	0.6250	1.0000	2.0000	976-000-288
0.1875	0.1875	0.0150	0.6250	1.0000	2.0000	976-000-289
0.1875	0.1875	0.0200	0.6250	1.0000	2.0000	976-000-290
0.1875	0.1875	0.0300	0.6250	1.0000	2.0000	976-000-291
0.2500	0.2500	0.0100	0.7500	1.3750	2.5000	976-000-292
0.2500	0.2500	0.0150	0.7500	1.3750	2.5000	976-000-293
0.2500	0.2500	0.0200	0.7500	1.3750	2.5000	976-000-294
0.2500	0.2500	0.0300	0.7500	1.3750	2.5000	976-000-295
0.2500	0.2500	0.0600	0.7500	1.3750	2.5000	976-000-296
0.2500	0.2500	0.0100	1.0000	1.1250	2.5000	976-000-297
0.2500	0.2500	0.0150	1.0000	1.1250	2.5000	976-000-298
0.2500	0.2500	0.0200	1.0000	1.1250	2.5000	976-000-299
0.2500	0.2500	0.0300	1.0000	1.1250	2.5000	976-000-300
0.2500	0.2500	0.0600	1.0000	1.1250	2.5000	976-000-301
0.2500	0.2500	0.0100	1.2500	0.8750	2.5000	976-000-302
0.2500	0.2500	0.0150	1.2500	0.8750	2.5000	976-000-303
0.2500	0.2500	0.0200	1.2500	0.8750	2.5000	976-000-304
0.2500	0.2500	0.0300	1.2500	0.8750	2.5000	976-000-305
0.2500	0.2500	0.0600	1.2500	0.8750	2.5000	976-000-306



CARBIDE

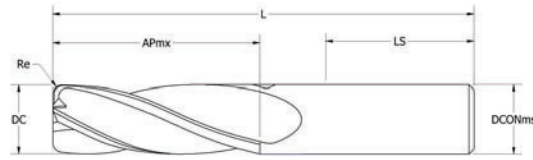


5-FLUTE - STANDARD LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.3125	0.3125	0.0100	0.8125	1.3125	2.5000	976-000-307
0.3125	0.3125	0.0150	0.8125	1.3125	2.5000	976-000-308
0.3125	0.3125	0.0200	0.8125	1.3125	2.5000	976-000-309
0.3125	0.3125	0.0300	0.8125	1.3125	2.5000	976-000-310
0.3125	0.3125	0.0600	0.8125	1.3125	2.5000	976-000-311
0.3750	0.3750	0.0100	0.8750	1.2500	2.5000	976-000-312
0.3750	0.3750	0.0150	0.8750	1.2500	2.5000	976-000-313
0.3750	0.3750	0.0200	0.8750	1.2500	2.5000	976-000-314
0.3750	0.3750	0.0300	0.8750	1.2500	2.5000	976-000-315
0.3750	0.3750	0.0600	0.8750	1.2500	2.5000	976-000-316
0.3750	0.3750	0.0100	1.0000	1.1250	2.5000	976-000-317
0.3750	0.3750	0.0150	1.0000	1.1250	2.5000	976-000-318
0.3750	0.3750	0.0200	1.0000	1.1250	2.5000	976-000-319
0.3750	0.3750	0.0300	1.0000	1.1250	2.5000	976-000-320
0.3750	0.3750	0.0600	1.0000	1.1250	2.5000	976-000-321
0.3750	0.3750	0.0100	1.2500	0.8750	2.5000	976-000-322
0.3750	0.3750	0.0150	1.2500	0.8750	2.5000	976-000-323
0.3750	0.3750	0.0200	1.2500	0.8750	2.5000	976-000-324
0.3750	0.3750	0.0300	1.2500	0.8750	2.5000	976-000-325
0.3750	0.3750	0.0600	1.2500	0.8750	2.5000	976-000-326
0.4375	0.4375	0.0150	1.0000	1.3750	2.7500	976-000-327
0.4375	0.4375	0.0200	1.0000	1.3750	2.7500	976-000-328
0.4375	0.4375	0.0300	1.0000	1.3750	2.7500	976-000-329
0.4375	0.4375	0.0600	1.0000	1.3750	2.7500	976-000-330
0.5000	0.5000	0.0100	1.0000	1.6250	3.0000	976-000-331
0.5000	0.5000	0.0150	1.0000	1.6250	3.0000	976-000-332
0.5000	0.5000	0.0300	1.0000	1.6250	3.0000	976-000-333
0.5000	0.5000	0.0600	1.0000	1.6250	3.0000	976-000-334
0.5000	0.5000	0.0900	1.0000	1.6250	3.0000	976-000-335
0.5000	0.5000	0.1200	1.0000	1.6250	3.0000	976-000-336
0.5000	0.5000	0.0100	1.2500	1.3750	3.0000	976-000-337
0.5000	0.5000	0.0150	1.2500	1.3750	3.0000	976-000-338
0.5000	0.5000	0.0300	1.2500	1.3750	3.0000	976-000-339
0.5000	0.5000	0.0600	1.2500	1.3750	3.0000	976-000-340
0.5000	0.5000	0.0900	1.2500	1.3750	3.0000	976-000-341
0.5000	0.5000	0.1200	1.2500	1.3750	3.0000	976-000-342
0.5000	0.5000	0.0100	1.5000	1.1250	3.0000	976-000-343
0.5000	0.5000	0.0150	1.5000	1.1250	3.0000	976-000-344
0.5000	0.5000	0.0300	1.5000	1.1250	3.0000	976-000-345
0.5000	0.5000	0.0600	1.5000	1.1250	3.0000	976-000-346
0.5000	0.5000	0.0900	1.5000	1.1250	3.0000	976-000-347
0.5000	0.5000	0.1200	1.5000	1.1250	3.0000	976-000-348

CARBIDE



5-FLUTE - STANDARD LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.5000	0.5000	0.0100	1.5000	1.6250	3.5000	976-000-349
0.5000	0.5000	0.0150	1.5000	1.6250	3.5000	976-000-350
0.5000	0.5000	0.0300	1.5000	1.6250	3.5000	976-000-351
0.5000	0.5000	0.0600	1.5000	1.6250	3.5000	976-000-352
0.5000	0.5000	0.0900	1.5000	1.6250	3.5000	976-000-353
0.5000	0.5000	0.1200	1.5000	1.6250	3.5000	976-000-354
0.5000	0.5000	0.0100	1.7500	1.3750	3.5000	976-000-355
0.5000	0.5000	0.0150	1.7500	1.3750	3.5000	976-000-356
0.5000	0.5000	0.0300	1.7500	1.3750	3.5000	976-000-357
0.5000	0.5000	0.0600	1.7500	1.3750	3.5000	976-000-358
0.5000	0.5000	0.0900	1.7500	1.3750	3.5000	976-000-359
0.5000	0.5000	0.1200	1.7500	1.3750	3.5000	976-000-360
0.6250	0.6250	0.0300	1.5000	1.6250	3.5000	976-000-361
0.6250	0.6250	0.0400	1.5000	1.6250	3.5000	976-000-362
0.6250	0.6250	0.0600	1.5000	1.6250	3.5000	976-000-363
0.6250	0.6250	0.0900	1.5000	1.6250	3.5000	976-000-364
0.6250	0.6250	0.1200	1.5000	1.6250	3.5000	976-000-365
0.6250	0.6250	0.0300	1.7500	1.8750	4.0000	976-000-366
0.6250	0.6250	0.0400	1.7500	1.8750	4.0000	976-000-367
0.6250	0.6250	0.0600	1.7500	1.8750	4.0000	976-000-368
0.6250	0.6250	0.0900	1.7500	1.8750	4.0000	976-000-369
0.6250	0.6250	0.1200	1.7500	1.8750	4.0000	976-000-370
0.7500	0.7500	0.0300	1.7500	1.8750	4.0000	976-000-371
0.7500	0.7500	0.0400	1.7500	1.8750	4.0000	976-000-372
0.7500	0.7500	0.0600	1.7500	1.8750	4.0000	976-000-373
0.7500	0.7500	0.0900	1.7500	1.8750	4.0000	976-000-374
0.7500	0.7500	0.1200	1.7500	1.8750	4.0000	976-000-375
1.0000	1.0000	0.0300	1.7500	1.8750	4.0000	976-000-376
1.0000	1.0000	0.0400	1.7500	1.8750	4.0000	976-000-377
1.0000	1.0000	0.0600	1.7500	1.8750	4.0000	976-000-378
1.0000	1.0000	0.0900	1.7500	1.8750	4.0000	976-000-379
1.0000	1.0000	0.1200	1.7500	1.8750	4.0000	976-000-380

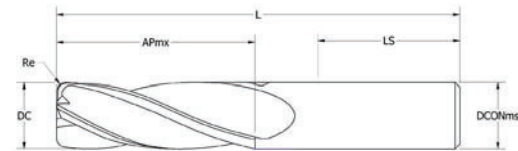


5-FLUTE - LONG LENGTH - CORNER RADIUS



CARBIDE

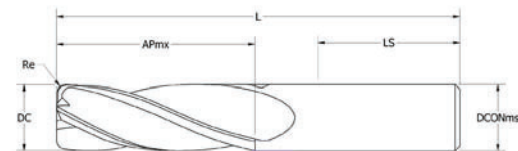
DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0150	0.7500	1.3750	2.5000	976-000-381
0.1250	0.1250	0.0300	0.7500	1.3750	2.5000	976-000-382
0.1875	0.1875	0.0150	0.7500	1.3750	2.5000	976-000-383
0.1875	0.1875	0.0300	0.7500	1.3750	2.5000	976-000-384
0.2500	0.2500	0.0150	1.1250	1.5000	3.0000	976-000-385
0.2500	0.2500	0.0300	1.1250	1.5000	3.0000	976-000-386
0.3125	0.3125	0.0150	1.1250	1.5000	3.0000	976-000-387
0.3125	0.3125	0.0300	1.1250	1.5000	3.0000	976-000-388
0.3750	0.3750	0.0300	1.2500	1.3750	3.0000	976-000-389
0.3750	0.3750	0.0600	1.2500	1.3750	3.0000	976-000-390
0.4375	0.4375	0.0300	2.0000	1.6250	4.0000	976-000-391
0.4375	0.4375	0.0600	2.0000	1.6250	4.0000	976-000-392
0.5000	0.5000	0.0300	2.0000	1.6250	4.0000	976-000-393
0.5000	0.5000	0.0600	2.0000	1.6250	4.0000	976-000-394
0.6250	0.6250	0.0300	2.2500	2.3750	5.0000	976-000-395
0.6250	0.6250	0.0600	2.2500	2.3750	5.0000	976-000-396
0.7500	0.7500	0.0300	2.2500	2.3750	5.0000	976-000-397
0.7500	0.7500	0.0600	2.2500	2.3750	5.0000	976-000-398
1.0000	1.0000	0.0300	2.2500	2.3750	5.0000	976-000-399
1.0000	1.0000	0.0600	2.2500	2.3750	5.0000	976-000-400



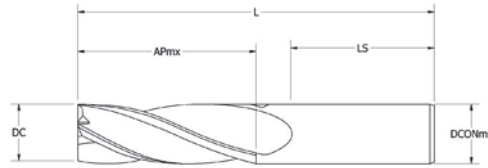
5-FLUTE - X - LONG LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1250	0.1250	0.0150	1.0000	1.3750	3.0000	976-000-401
0.1250	0.1250	0.0300	1.0000	1.3750	3.0000	976-000-403
0.1875	0.1875	0.0150	1.1250	1.3750	3.0000	976-000-404
0.1875	0.1875	0.0300	1.1250	1.3750	3.0000	976-000-405
0.2500	0.2500	0.0150	1.5000	1.5000	4.0000	976-000-406
0.2500	0.2500	0.0300	1.5000	1.5000	4.0000	976-000-407
0.3125	0.3125	0.0300	1.6250	1.5000	4.0000	976-000-408
0.3125	0.3125	0.0600	1.6250	1.5000	4.0000	976-000-410
0.3750	0.3750	0.0300	2.0000	1.3750	6.0000	976-000-411
0.3750	0.3750	0.0600	2.0000	1.3750	6.0000	976-000-412
0.4375	0.4375	0.0300	3.0000	1.6250	6.0000	976-000-413
0.4375	0.4375	0.0600	3.0000	1.6250	6.0000	976-000-415
0.5000	0.5000	0.0300	3.0000	1.6250	6.0000	976-000-416
0.5000	0.5000	0.0600	3.0000	1.6250	6.0000	976-000-417
0.6250	0.6250	0.0300	3.0000	2.3750	6.0000	976-000-418
0.6250	0.6250	0.0600	3.0000	2.3750	6.0000	976-000-419
0.7500	0.7500	0.0300	3.0000	2.3750	6.0000	976-000-420
0.7500	0.7500	0.0600	3.0000	2.3750	6.0000	976-000-421
1.0000	1.0000	0.0300	3.0000	2.3750	6.0000	976-000-422
1.0000	1.0000	0.0600	3.0000	2.3750	6.0000	976-000-423



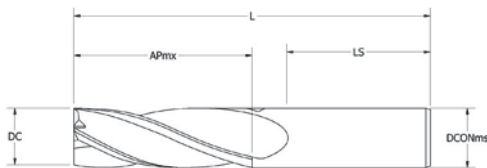
CARBIDE



7-FLUTE - STUB LENGTH - SQUARE END



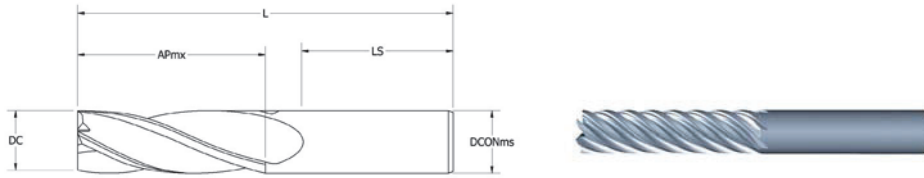
DC	DCONms	APmx	LS	L	PRODUCT #
0.1875	0.1875	0.3750	2.1250	2.0000	976-000-097
0.2500	0.2500	0.5000	1.1250	2.0000	976-000-098
0.3125	0.3125	0.5000	1.1250	2.0000	976-000-099
0.3750	0.3750	0.6250	1.0000	2.0000	976-000-100
0.4375	0.4375	0.6250	1.5000	2.5000	976-000-101
0.5000	0.5000	0.7500	1.3750	2.5000	976-000-102
0.6250	0.6250	0.7500	1.8750	3.0000	976-000-103
0.7500	0.7500	1.0000	1.6250	3.0000	976-000-104



7-FLUTE - STANDARD LENGTH - SQUARE END



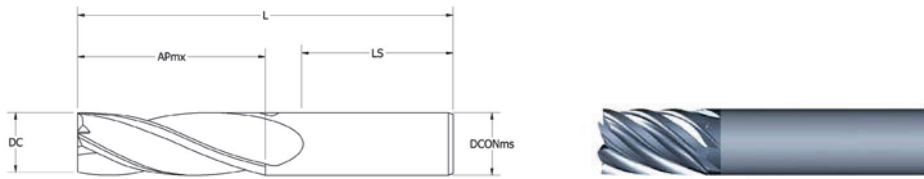
DC	DCONms	APmx	LS	L	PRODUCT #
0.1875	0.1875	0.6250	1.0000	2.0000	976-000-105
0.2500	0.2500	0.7500	1.3750	2.5000	976-000-106
0.2500	0.2500	1.0000	1.1250	2.5000	976-000-107
0.3125	0.3125	0.8125	1.3125	2.5000	976-000-108
0.3750	0.3750	0.8750	1.2500	2.5000	976-000-109
0.3750	0.3750	1.0000	1.1250	2.5000	976-000-110
0.4375	0.4375	1.0000	1.3750	2.7500	976-000-111
0.5000	0.5000	1.0000	1.6250	3.0000	976-000-112
0.5000	0.5000	1.2500	1.3750	3.0000	976-000-113
0.5000	0.5000	1.5000	1.6250	3.5000	976-000-114
0.5000	0.5000	1.7500	1.3750	3.5000	976-000-115
0.6250	0.6250	1.5000	1.6250	3.5000	976-000-116
0.7500	0.7500	1.7500	1.8750	4.0000	976-000-117
1.0000	1.0000	1.7500	1.8750	4.0000	976-000-118



7-FLUTE - LONG LENGTH - SQUARE END



DC	DCONms	APmx	LS	L	PRODUCT #
0.1875	0.1875	0.7500	1.3750	2.5000	976-000-119
0.2500	0.2500	1.1250	1.5000	3.0000	976-000-120
0.3125	0.3125	1.1250	1.5000	3.0000	976-000-121
0.3750	0.3750	1.2500	1.3750	3.0000	976-000-122
0.4375	0.4375	2.0000	1.6250	4.0000	976-000-123
0.5000	0.5000	2.0000	1.6250	4.0000	976-000-124
0.6250	0.6250	2.2500	2.3750	5.0000	976-000-125
0.7500	0.7500	2.2500	2.3750	5.0000	976-000-126
1.0000	1.0000	2.2500	2.3750	5.0000	976-000-127

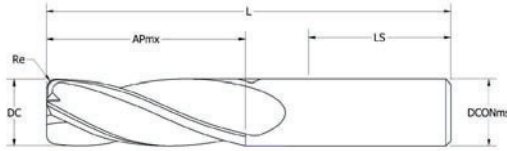


7-FLUTE - STUB LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1875	0.1875	0.0100	0.3750	1.2500	2.0000	976-000-424
0.2500	0.2500	0.0200	0.5000	1.1250	2.0000	976-000-425
0.3125	0.3125	0.0200	0.5000	1.1250	2.0000	976-000-426
0.3750	0.3750	0.0200	0.6250	1.0000	2.0000	976-000-427
0.4375	0.4375	0.0300	0.6250	1.5000	2.5000	976-000-428
0.5000	0.5000	0.0300	0.7500	1.3750	2.5000	976-000-429
0.6250	0.6250	0.0400	0.7500	1.8750	3.0000	976-000-430
0.7500	0.7500	0.0400	1.0000	1.6250	3.0000	976-000-431

CARBIDE



7-FLUTE - STANDARD LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1875	0.1875	0.0150	0.6250	1.0000	2.0000	976-000-432
0.1875	0.1875	0.0300	0.6250	1.0000	2.0000	976-000-433
0.2500	0.2500	0.0150	0.7500	1.3750	2.5000	976-000-434
0.2500	0.2500	0.0300	0.7500	1.3750	2.5000	976-000-435
0.2500	0.2500	0.0150	1.0000	1.1250	2.5000	976-000-436
0.2500	0.2500	0.0300	1.0000	1.1250	2.5000	976-000-437
0.3125	0.3125	0.0150	0.8125	1.3125	2.5000	976-000-438
0.3125	0.3125	0.0300	0.8125	1.3125	2.5000	976-000-439
0.3750	0.3750	0.0150	0.8750	1.2500	2.5000	976-000-440
0.3750	0.3750	0.0300	0.8750	1.2500	2.5000	976-000-441
0.3750	0.3750	0.0600	0.8750	1.2500	2.5000	976-000-442
0.3750	0.3750	0.0150	1.0000	1.1250	2.5000	976-000-443
0.3750	0.3750	0.0300	1.0000	1.1250	2.5000	976-000-444
0.3750	0.3750	0.0600	1.0000	1.1250	2.5000	976-000-445
0.4375	0.4375	0.0150	1.0000	1.3750	2.7500	976-000-446
0.4375	0.4375	0.0300	1.0000	1.3750	2.7500	976-000-447
0.4375	0.4375	0.0600	1.0000	1.3750	2.7500	976-000-448
0.5000	0.5000	0.0150	1.0000	1.6250	3.0000	976-000-449
0.5000	0.5000	0.0300	1.0000	1.6250	3.0000	976-000-450
0.5000	0.5000	0.0600	1.0000	1.6250	3.0000	976-000-451
0.5000	0.5000	0.0150	1.2500	1.3750	3.0000	976-000-452
0.5000	0.5000	0.0300	1.2500	1.3750	3.0000	976-000-453
0.5000	0.5000	0.0600	1.2500	1.3750	3.0000	976-000-454
0.5000	0.5000	0.0150	1.5000	1.1250	3.0000	976-000-455
0.5000	0.5000	0.0300	1.5000	1.1250	3.0000	976-000-456
0.5000	0.5000	0.0600	1.5000	1.1250	3.0000	976-000-457
0.5000	0.5000	0.0150	1.7500	1.3750	3.5000	976-000-458
0.5000	0.5000	0.0300	1.7500	1.3750	3.5000	976-000-459
0.5000	0.5000	0.0600	1.7500	1.3750	3.5000	976-000-460
0.6250	0.6250	0.0300	1.5000	1.6250	3.5000	976-000-461
0.6250	0.6250	0.0600	1.5000	1.6250	3.5000	976-000-462
0.6250	0.6250	0.0900	1.5000	1.6250	3.5000	976-000-463
0.7500	0.7500	0.0300	1.7500	1.8750	4.0000	976-000-464
0.7500	0.7500	0.0600	1.7500	1.8750	4.0000	976-000-465
0.7500	0.7500	0.0900	1.7500	1.8750	4.0000	976-000-466
1.0000	1.0000	0.0300	1.7500	1.8750	4.0000	976-000-467
1.0000	1.0000	0.0600	1.7500	1.8750	4.0000	976-000-468
1.0000	1.0000	0.0900	1.7500	1.8750	4.0000	976-000-469



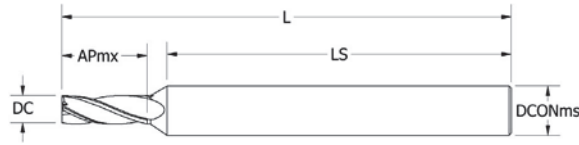
7-FLUTE - LONG LENGTH - CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PRODUCT #
0.1875	0.1875	0.0150	0.7500	1.3750	2.5000	976-000-470
0.1875	0.1875	0.0300	0.7500	1.3750	2.5000	976-000-471
0.2500	0.2500	0.0150	1.1250	1.5000	3.0000	976-000-472
0.2500	0.2500	0.0300	1.1250	1.5000	3.0000	976-000-473
0.3125	0.3125	0.0150	1.1250	1.5000	3.0000	976-000-474
0.3125	0.3125	0.0300	1.1250	1.5000	3.0000	976-000-475
0.3750	0.3750	0.0300	1.2500	1.3750	3.0000	976-000-476
0.3750	0.3750	0.0600	1.2500	1.3750	3.0000	976-000-477
0.4375	0.4375	0.0300	2.0000	1.6250	4.0000	976-000-478
0.4375	0.4375	0.0600	2.0000	1.6250	4.0000	976-000-479
0.5000	0.5000	0.0300	2.0000	1.6250	4.0000	976-000-480
0.5000	0.5000	0.0600	2.0000	1.6250	4.0000	976-000-481
0.6250	0.6250	0.0300	2.2500	2.3750	5.0000	976-000-482
0.6250	0.6250	0.0600	2.2500	2.3750	5.0000	976-000-483
0.7500	0.7500	0.0300	2.2500	2.3750	5.0000	976-000-484
0.7500	0.7500	0.0600	2.2500	2.3750	5.0000	976-000-485
1.0000	1.0000	0.0300	2.2500	2.3750	5.0000	976-000-486
1.0000	1.0000	0.0600	2.2500	2.3750	5.0000	976-000-487



Ø .005" - .045"

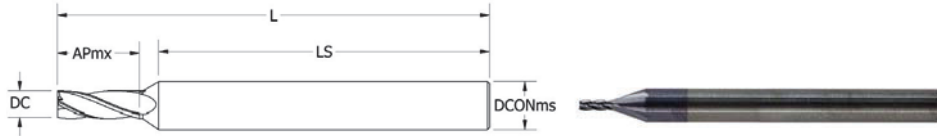


DC	DCONms	APmx	LS	L	UNCOATED			AITIN COATED	
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0050	0.1250	0.0150	1.1342	1.5000	930-000-243	N/A	N/A	930-000-527	N/A
0.0060	0.1250	0.0180	1.1342	1.5000	930-000-245	N/A	N/A	930-000-528	N/A
0.0070	0.1250	0.0210	1.1342	1.5000	930-000-246	N/A	N/A	930-000-529	N/A
0.0080	0.1250	0.0240	1.1342	1.5000	930-000-247	N/A	N/A	930-000-530	N/A
0.0090	0.1250	0.0270	1.1342	1.5000	930-000-248	N/A	N/A	930-000-531	N/A
0.0100	0.1250	0.0300	1.1742	1.5000	930-000-249	930-002-678	930-000-635	930-000-532	930-001-031
0.0100	0.1250	0.0330	1.1738	1.5000	930-000-251	930-002-679	930-000-637	930-000-533	930-001-032
0.0110	0.1250	0.0360	1.1733	1.5000	930-000-252	930-002-680	930-000-638	930-000-534	930-001-033
0.0120	0.1250	0.0390	1.1729	1.5000	930-000-253	930-002-681	930-000-639	930-000-535	930-001-034
0.0130	0.1250	0.0420	1.1725	1.5000	930-000-254	930-002-682	930-000-640	930-000-536	930-001-035
0.0140	0.1250	0.0450	1.1720	1.5000	930-000-255	930-002-683	930-000-641	930-000-537	930-001-036
0.0150	0.1250	0.0468	1.1718	1.5000	930-000-362	930-002-727	930-000-748	N/A	N/A
0.0160	0.1250	0.0480	1.1716	1.5000	930-000-257	N/A	930-000-643	930-000-538	930-001-037
0.0170	0.1250	0.0510	1.1712	1.5000	930-000-258	N/A	930-000-644	930-000-539	930-001-038
0.0180	0.1250	0.0540	1.1708	1.5000	930-000-259	930-002-684	930-000-645	930-000-540	930-001-039
0.0190	0.1250	0.0570	1.1703	1.5000	930-000-260	N/A	930-000-646	930-000-541	930-001-040
0.0197	0.1250	0.0591	1.1700	1.5000	930-000-343	930-002-715	930-000-729	N/A	N/A
0.0200	0.1250	0.0600	1.1699	1.5000	930-000-261	930-002-685	930-000-647	930-000-542	930-001-041
0.0200	0.1250	0.0600	1.2600	1.5000	930-000-263	N/A	930-000-649	930-000-543	930-001-042
0.0210	0.1250	0.0630	1.1695	1.5000	930-000-264	N/A	930-000-650	930-000-544	930-001-043
0.0220	0.1250	0.0660	1.1691	1.5000	930-000-265	930-002-686	930-000-651	930-000-545	930-001-044
0.0230	0.1250	0.0690	1.1686	1.5000	930-000-266	930-002-687	930-000-652	930-000-546	930-001-045
0.0240	0.1250	0.0720	1.1682	1.5000	930-000-267	930-002-688	930-000-653	930-000-547	930-001-046
0.0250	0.1250	0.0750	1.1678	1.5000	930-000-269	930-002-689	930-000-655	930-000-548	930-001-047
0.0270	0.1250	0.0810	1.1669	1.5000	930-000-270	N/A	930-000-656	930-000-549	930-001-048
0.0280	0.1250	0.0840	1.1665	1.5000	930-000-271	N/A	930-000-657	930-000-550	930-001-049
0.0290	0.1250	0.0870	1.1661	1.5000	930-000-272	930-002-690	930-000-658	930-000-551	930-001-050
0.0300	0.1250	0.0900	1.1656	1.5000	930-000-273	930-002-691	930-000-659	930-000-552	930-001-051
0.0310	0.1250	0.0930	1.1652	1.5000	930-000-275	930-002-692	930-000-661	930-000-553	930-001-052
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0.0330	0.1250	0.0990	1.1644	1.5000	930-000-277	930-002-693	930-000-663	930-000-555	930-001-054
0.0340	0.1250	0.1020	1.1639	1.5000	930-000-278	N/A	930-000-664	930-000-556	930-001-055
0.0350	0.1250	0.1050	1.1635	1.5000	930-000-279	930-002-694	930-000-665	930-000-557	930-001-056
0.0360	0.1250	0.1080	1.1631	1.5000	930-000-281	N/A	930-000-667	930-000-558	930-001-057
0.0370	0.1250	0.1110	1.1626	1.5000	930-000-282	N/A	930-000-668	930-000-559	930-001-058
0.0380	0.1250	0.1140	1.1622	1.5000	930-000-283	N/A	930-000-669	930-000-560	930-001-059
0.0390	0.1250	0.1170	1.1618	1.5000	930-000-284	N/A	930-000-670	930-000-561	930-001-060
0.0394	0.1250	0.1182	1.1616	1.5000	930-000-350	930-002-716	930-000-736	930-000-601	930-001-103
0.0400	0.1250	0.1200	1.1614	1.5000	930-000-285	930-002-695	930-000-671	930-000-562	930-001-061
0.0410	0.1250	0.1230	1.1609	1.5000	930-000-287	N/A	930-000-673	930-000-563	930-001-062
0.0420	0.1250	0.1260	1.1605	1.5000	930-000-288	N/A	930-000-674	930-000-564	930-001-063
0.0430	0.1250	0.1290	1.1601	1.5000	930-000-289	N/A	930-000-675	930-000-565	930-001-064
0.0440	0.1250	0.1320	1.1596	1.5000	930-000-290	N/A	930-000-676	930-000-566	930-001-065
0.0450	0.1250	0.1350	1.1592	1.5000	930-000-291	930-002-696	930-000-677	930-000-567	930-001-066

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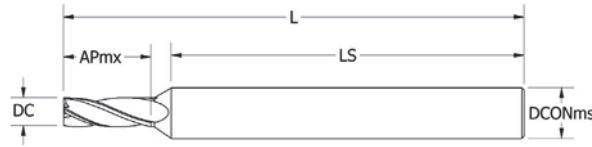


DC	DCONms	APmx	LS	L	TiAIN COATED			AMORPHOUS DIAMOND COATED		
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	3 FLUTE	4 FLUTE
0.0050	0.1250	0.0150	1.1342	1.5000	930-000-439	N/A	N/A	930-000-364	N/A	N/A
0.0060	0.1250	0.0180	1.1342	1.5000	930-000-440	N/A	N/A	930-000-365	N/A	N/A
0.0070	0.1250	0.0210	1.1342	1.5000	930-000-441	N/A	N/A	930-000-366	N/A	N/A
0.0080	0.1250	0.0240	1.1342	1.5000	930-000-442	N/A	N/A	930-000-367	N/A	N/A
0.0090	0.1250	0.0270	1.1342	1.5000	930-000-443	N/A	N/A	930-000-368	N/A	N/A
0.0100	0.1250	0.0300	1.1742	1.5000	930-000-444	930-002-750	930-000-881	930-000-369	930-002-729	930-000-750
0.0110	0.1250	0.0330	1.1738	1.5000	930-000-445	930-002-751	930-000-882	930-000-370	N/A	930-000-751
0.0120	0.1250	0.0360	1.1733	1.5000	930-000-446	930-002-752	930-000-883	930-000-371	N/A	930-000-752
0.0130	0.1250	0.0390	1.1729	1.5000	930-000-447	930-002-753	930-000-884	930-000-372	N/A	930-000-753
0.0140	0.1250	0.0420	1.1725	1.5000	930-000-448	930-002-754	930-000-885	930-000-373	N/A	930-000-754
0.0150	0.1250	0.0450	1.1720	1.5000	930-000-449	930-002-755	930-000-886	930-000-374	930-002-730	930-000-755
0.0156	0.1250	0.0468	1.1718	1.5000	930-000-525	930-002-795	930-000-961	N/A	N/A	N/A
0.0160	0.1250	0.0480	1.1716	1.5000	930-000-450	N/A	930-000-887	930-000-375	N/A	930-000-756
0.0170	0.1250	0.0510	1.1712	1.5000	930-000-451	N/A	930-000-888	930-000-376	N/A	930-000-757
0.0180	0.1250	0.0540	1.1708	1.5000	930-000-452	930-002-756	930-000-889	930-000-377	N/A	930-000-758
0.0190	0.1250	0.0570	1.1703	1.5000	930-000-453	N/A	930-000-890	930-000-378	N/A	930-000-759
0.0197	0.1250	0.0591	1.1700	1.5000	930-000-513	930-002-783	930-000-949	N/A	N/A	N/A
0.0200	0.1250	0.0600	1.1699	1.5000	930-000-454	930-002-757	930-000-891	930-000-379	930-002-731	930-000-760
0.0210	0.1250	0.0630	1.1695	1.5000	930-000-455	N/A	930-000-892	930-000-380	N/A	930-000-761
0.0220	0.1250	0.0660	1.1691	1.5000	930-000-456	N/A	930-000-893	930-000-381	N/A	930-000-762
0.0230	0.1250	0.0690	1.1686	1.5000	930-000-457	930-002-758	930-000-894	930-000-382	N/A	930-000-763
0.0240	0.1250	0.0720	1.1682	1.5000	930-000-458	930-002-759	930-000-895	930-000-383	N/A	930-000-764
0.0250	0.1250	0.0750	1.1678	1.5000	930-000-459	930-002-760	930-000-896	930-000-384	930-002-732	930-000-765
0.0260	0.1250	0.0780	1.1673	1.5000	930-000-460	N/A	930-000-897	930-000-385	N/A	930-000-766
0.0270	0.1250	0.0810	1.1669	1.5000	930-000-461	N/A	930-000-898	930-000-386	N/A	930-000-767
0.0280	0.1250	0.0840	1.1665	1.5000	930-000-462	N/A	930-000-899	930-000-387	N/A	930-000-768
0.0290	0.1250	0.0870	1.1661	1.5000	930-000-463	930-002-761	930-000-900	930-000-388	N/A	930-000-769
0.0300	0.1250	0.0900	1.1656	1.5000	930-000-464	930-002-762	930-000-901	930-000-389	930-002-733	930-000-770
0.0310	0.1250	0.0930	1.1652	1.5000	930-000-465	930-002-763	930-000-902	930-000-390	930-002-734	930-000-771
0.0320	0.1250	0.0960	1.1648	1.5000	930-000-466	N/A	930-000-903	930-000-391	N/A	930-000-772
0.0330	0.1250	0.0990	1.1644	1.5000	930-000-467	N/A	930-000-904	930-000-392	N/A	930-000-773
0.0340	0.1250	0.1020	1.1639	1.5000	930-000-468	N/A	930-000-905	930-000-393	N/A	930-000-774
0.0350	0.1250	0.1050	1.1635	1.5000	930-000-469	930-002-764	930-000-906	930-000-394	930-002-735	930-000-775
0.0360	0.1250	0.1080	1.1631	1.5000	930-000-470	N/A	930-000-907	930-000-395	N/A	930-000-776
0.0370	0.1250	0.1110	1.1626	1.5000	930-000-471	N/A	930-000-908	930-000-396	N/A	930-000-777
0.0380	0.1250	0.1140	1.1622	1.5000	930-000-472	N/A	930-000-909	930-000-397	N/A	930-000-778
0.0390	0.1250	0.1170	1.1618	1.5000	930-000-473	N/A	930-000-910	930-000-398	N/A	930-000-779
0.0394	0.1250	0.1182	1.1616	1.5000	930-000-514	930-002-784	930-000-950	930-000-434	N/A	930-000-815
0.0400	0.1250	0.1200	1.1614	1.5000	930-000-474	930-002-765	930-000-911	930-000-399	930-002-736	930-000-780
0.0410	0.1250	0.1230	1.1609	1.5000	930-000-475	N/A	930-000-912	930-000-400	N/A	930-000-781
0.0420	0.1250	0.1260	1.1605	1.5000	930-000-476	N/A	930-000-913	930-000-401	N/A	930-000-782
0.0430	0.1250	0.1290	1.1601	1.5000	930-000-477	N/A	930-000-914	930-000-402	N/A	930-000-783
0.0440	0.1250	0.1320	1.1596	1.5000	930-000-478	N/A	930-000-915	930-000-403	N/A	930-000-784
0.0450	0.1250	0.1350	1.1592	1.5000	930-000-479	930-002-766	930-000-916	930-000-404	930-002-737	930-000-785

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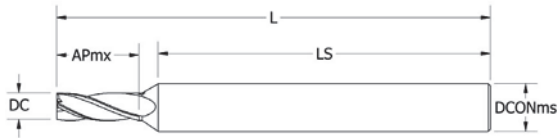


DC	DCONms	APmx	LS	L	UNCOATED			AITiN COATED	
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0460	0.1250	0.1380	1.1588	1.5000	930-000-293	N/A	930-000-679	N/A	N/A
0.0470	0.1250	0.1410	1.1584	1.5000	930-000-294	930-000-697	930-000-680	N/A	N/A
0.0480	0.1250	0.1440	1.1579	1.5000	930-000-295	N/A	930-000-681	N/A	N/A
0.0490	0.1250	0.1470	1.1575	1.5000	930-000-296	N/A	930-000-682	N/A	N/A
0.0492	0.1250	0.1476	1.1574	1.5000	930-000-351	930-002-717	930-000-737	N/A	N/A
0.0500	0.1250	0.1500	1.1571	1.5000	930-000-297	930-000-698	930-000-683	N/A	N/A
0.0510	0.1250	0.1530	1.1567	1.5000	930-000-299	N/A	930-000-685	930-000-573	930-001-072
0.0520	0.1250	0.1560	1.1562	1.5000	930-000-300	N/A	930-000-686	930-000-574	930-001-073
0.0530	0.1250	0.1590	1.1558	1.5000	930-000-301	N/A	930-000-687	930-000-575	930-001-074
0.0540	0.1250	0.1620	1.1554	1.5000	930-000-302	N/A	930-000-688	930-000-576	930-001-075
0.0550	0.1250	0.1650	1.1549	1.5000	930-000-303	930-002-699	930-000-689	930-000-577	930-001-076
0.0560	0.1250	0.1680	1.1545	1.5000	930-000-305	N/A	930-000-691	930-000-578	930-001-077
0.0570	0.1250	0.1710	1.1541	1.5000	930-000-306	N/A	930-000-692	930-000-579	930-001-078
0.0580	0.1250	0.1740	1.1537	1.5000	930-000-307	N/A	930-000-693	930-000-580	930-001-079
0.0590	0.1250	0.1770	1.1532	1.5000	930-000-308	N/A	930-000-694	930-000-581	930-001-080
0.0591	0.1250	0.1773	1.1532	1.5000	930-000-353	930-002-718	930-000-739	930-000-603	930-001-105
0.0600	0.1250	0.1800	1.1528	1.5000	930-000-309	930-002-700	930-000-695	930-000-582	930-001-081
0.0620	0.1250	0.1860	1.1519	1.5000	930-000-311	930-002-701	930-000-697	930-000-583	930-001-082
0.0630	0.1250	0.1890	1.1515	1.5000	930-000-354	930-002-719	930-000-740	N/A	N/A
0.0640	0.1250	0.1920	1.1511	1.5000	930-000-312	930-002-702	930-000-698	N/A	N/A
0.0650	0.1250	0.1950	1.1507	1.5000	930-000-313	930-002-703	930-000-699	930-000-584	930-001-083
0.0700	0.1250	0.2100	1.1485	1.5000	930-000-315	930-002-704	930-000-701	930-000-585	930-001-084
0.0709	0.1250	0.2127	1.1481	1.5000	930-000-355	930-002-720	930-000-741	N/A	N/A
0.0750	0.1250	0.2250	1.1464	1.5000	930-000-317	930-002-705	930-000-703	930-000-586	930-001-085
0.0780	0.1250	0.2340	1.1451	1.5000	930-000-318	930-002-706	930-000-704	930-000-587	930-001-086
0.0787	0.1250	0.2361	1.1448	1.5000	930-000-356	930-002-721	930-000-742	N/A	N/A
0.0800	0.1250	0.2400	1.1442	1.5000	930-000-319	930-002-707	930-000-705	930-000-588	930-001-087
0.0850	0.1250	0.2550	1.1421	1.5000	930-000-321	930-002-708	930-000-707	930-000-589	930-001-088
0.0866	0.1250	0.2598	1.1414	1.5000	930-000-357	930-002-722	930-000-743	N/A	N/A
0.0900	0.1250	0.2700	1.1400	1.5000	930-000-322	930-002-709	930-000-708	930-000-590	930-001-089
0.0930	0.1250	0.2790	1.1387	1.5000	930-000-324	930-002-710	930-000-710	930-000-591	930-001-090
0.0950	0.1250	0.2850	1.1378	1.5000	930-000-325	930-002-711	930-000-711	930-000-592	930-001-091
0.0984	0.1250	0.2952	1.1364	1.5000	930-000-358	930-002-723	930-000-744	N/A	N/A
0.1000	0.1250	0.3000	1.1357	1.5000	930-000-326	930-002-712	930-000-712	930-000-593	930-001-092
0.1030	0.1250	0.3090	1.1344	1.5000	930-000-328	930-002-713	930-000-714	N/A	N/A
0.1050	0.1250	0.3150	1.1336	1.5000	930-000-329	N/A	930-000-715	930-000-594	930-001-093
0.1102	0.1250	0.3306	1.1313	1.5000	930-000-359	930-002-724	930-000-745	930-000-604	930-001-106
0.1150	0.1250	0.3450	1.1293	1.5000	930-000-330	N/A	930-000-716	930-000-595	930-001-094
0.1181	0.1250	0.3543	1.1280	1.5000	930-000-360	930-002-725	930-000-746	930-000-605	930-001-107
0.1200	0.1250	0.3600	1.1271	1.5000	930-000-331	930-002-714	930-000-717	930-000-596	930-001-095
0.1378	0.1875	0.4134	1.4588	2.0000	930-000-361	930-002-726	930-000-747	N/A	N/A
0.1772	0.1875	0.5316	1.4419	2.0000	930-000-363	930-002-728	930-000-749	N/A	N/A

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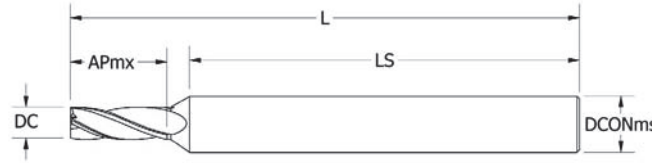


DC	DCONms	APmx	LS	L	TiAIN COATED			AMORPHOUS DIAMOND		
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	3 FLUTE	4 FLUTE
0.0460	0.1250	0.1380	1.1588	1.5000	930-000-480	N/A	930-000-916	930-000-405	N/A	930-000-786
0.0470	0.1250	0.1410	1.1584	1.5000	930-000-481	930-002-767	930-000-917	930-000-406	930-000-738	930-000-787
0.0480	0.1250	0.1440	1.1579	1.5000	930-000-482	N/A	930-000-918	930-000-407	N/A	930-000-788
0.0490	0.1250	0.1470	1.1575	1.5000	930-000-483	N/A	930-000-919	930-000-408	N/A	930-000-789
0.0492	0.1250	0.1476	1.1574	1.5000	930-000-515	930-002-785	930-000-951	930-000-435	N/A	N/A
0.0500	0.1250	0.1500	1.1571	1.5000	930-000-484	930-002-768	930-000-920	930-000-409	930-000-739	930-000-790
0.0510	0.1250	0.1530	1.1567	1.5000	930-000-485	N/A	930-000-921	930-000-410	N/A	930-000-791
0.0520	0.1250	0.1560	1.1562	1.5000	930-000-486	N/A	930-000-922	930-000-411	N/A	930-000-792
0.0530	0.1250	0.1590	1.1558	1.5000	930-000-487	N/A	930-000-923	930-000-412	N/A	930-000-793
0.0540	0.1250	0.1620	1.1554	1.5000	930-000-488	N/A	930-000-924	930-000-413	N/A	930-000-794
0.0550	0.1250	0.1650	1.1549	1.5000	930-000-489	930-002-769	930-000-925	930-000-414	930-000-740	930-000-795
0.0560	0.1250	0.1680	1.1545	1.5000	930-000-490	N/A	930-000-926	930-000-415	N/A	930-000-796
0.0570	0.1250	0.1710	1.1541	1.5000	930-000-491	N/A	930-000-927	930-000-416	N/A	930-000-797
0.0580	0.1250	0.1740	1.1537	1.5000	930-000-492	N/A	930-000-928	930-000-417	N/A	930-000-798
0.0590	0.1250	0.1770	1.1532	1.5000	930-000-493	N/A	930-000-929	930-000-418	N/A	930-000-799
0.0591	0.1250	0.1773	1.1532	1.5000	930-000-516	930-002-786	930-000-952	930-000-436	N/A N/A	930-000-815
0.0600	0.1250	0.1800	1.1528	1.5000	930-000-494	930-002-770	930-000-930	930-000-419	930-000-741	930-000-800
0.0620	0.1250	0.1860	1.1519	1.5000	930-000-495	930-002-771	930-000-931	930-000-420	930-000-742	930-000-801
0.0630	0.1250	0.1890	1.1515	1.5000	930-000-517	930-002-787	930-000-953	N/A	N/A	N/A
0.0650	0.1250	0.1950	1.1507	1.5000	930-000-496	930-002-772	930-000-932	930-000-421	930-000-743	930-000-802
0.0700	0.1250	0.2100	1.1485	1.5000	930-000-497	930-002-773	930-000-933	930-000-422	930-000-744	930-000-803
0.0709	0.1250	0.2127	1.1481	1.5000	930-000-518	930-002-788	930-000-954	N/A	N/A	N/A
0.0750	0.1250	0.2250	1.1464	1.5000	930-000-498	930-002-774	930-000-934	930-000-423	N/A	930-000-804
0.0780	0.1250	0.2340	1.1451	1.5000	930-000-499	930-002-775	930-000-935	930-000-424	930-000-745	930-000-805
0.0787	0.1250	0.2361	1.1448	1.5000	930-000-519	930-002-789	930-000-955	N/A	N/A	N/A
0.0800	0.1250	0.2400	1.1442	1.5000	930-000-500	930-002-776	930-000-936	930-000-425	930-000-746	930-000-806
0.0850	0.1250	0.2550	1.1421	1.5000	930-000-501	930-002-777	930-000-937	930-000-426	N/A	930-000-807
0.0866	0.1250	0.2598	1.1414	1.5000	930-000-520	930-002-790	930-000-956	N/A	N/A	N/A
0.0900	0.1250	0.2700	1.1400	1.5000	930-000-502	930-002-778	930-000-938	930-000-427	930-000-747	930-000-808
0.0930	0.1250	0.2790	1.1387	1.5000	930-000-503	930-002-779	930-000-939	930-000-428	930-000-748	930-000-809
0.0950	0.1250	0.2850	1.1378	1.5000	930-000-504	930-002-780	930-000-940	930-000-429	N/A	930-000-810
0.0984	0.1250	0.2952	1.1364	1.5000	930-000-521	930-002-791	930-000-957	N/A	N/A	N/A
0.1000	0.1250	0.3000	1.1357	1.5000	930-000-505	930-002-781	930-000-941	930-000-430	930-000-749	930-000-811
0.1050	0.1250	0.3150	1.1336	1.5000	N/A	N/A	N/A	930-000-431	N/A	930-000-812
0.1102	0.1250	0.3306	1.1313	1.5000	930-000-522	930-002-792	930-000-958	930-000-437	N/A	930-000-816
0.1150	0.1250	0.3450	1.1293	1.5000	N/A	N/A	N/A	930-000-432	N/A	930-000-813
0.1181	0.1250	0.3543	1.1280	1.5000	930-000-523	930-002-793	930-000-959	930-000-438	N/A	930-000-818
0.1200	0.1250	0.3600	1.1271	1.5000	930-000-506	930-002-782	930-000-942	930-000-433	N/A	930-000-814
0.1378	0.1875	0.4134	1.4588	2.0000	930-000-524	930-002-794	930-000-960	N/A	N/A	N/A
0.1772	0.1875	0.5316	1.4419	2.0000	930-000-526	930-002-796	930-000-961	N/A	N/A	N/A

CARBIDE



Ø .005" - .040"

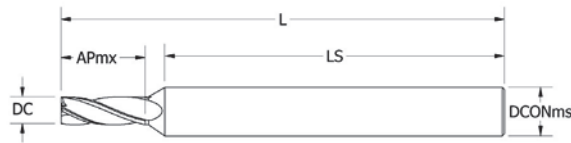


DC	DCONms	APmx	LS	L	UNCOATED		AITiN COATED
					2 FLUTE	4 FLUTE	2 FLUTE
0.0050	0.1250	0.0075	1.1342	1.5000	930-001-391	N/A	930-001-564
0.0060	0.1250	0.0090	1.1342	1.5000	930-001-392	N/A	930-001-565
0.0070	0.1250	0.0105	1.1342	1.5000	930-001-393	N/A	930-001-566
0.0080	0.1250	0.0120	1.1342	1.5000	930-001-394	N/A	930-001-567
0.0090	0.1250	0.0135	1.1342	1.5000	930-001-395	N/A	930-001-568
0.0100	0.1250	0.0150	1.1892	1.5000	930-001-396	930-001-622	930-001-569
0.0110	0.1250	0.0165	1.1903	1.5000	930-001-397	930-001-623	930-001-570
0.0120	0.1250	0.0180	1.1913	1.5000	930-001-398	930-001-624	930-001-571
0.0130	0.1250	0.0195	1.1924	1.5000	930-001-399	930-001-625	930-001-572
0.0140	0.1250	0.0210	1.1935	1.5000	930-001-400	930-001-626	930-001-573
0.0150	0.1250	0.0225	1.1945	1.5000	930-001-401	930-001-627	930-001-574
0.0156	0.1250	0.0234	1.1952	1.5000	930-001-467	930-001-685	N/A
0.0160	0.1250	0.0240	1.1956	1.5000	930-001-402	930-001-628	930-001-575
0.0170	0.1250	0.0255	1.1967	1.5000	930-001-403	930-001-629	930-001-576
0.0180	0.1250	0.0270	1.1978	1.5000	930-001-404	930-001-630	930-001-577
0.0190	0.1250	0.0285	1.1988	1.5000	930-001-405	930-001-631	930-001-578
0.0197	0.1250	0.0296	1.1996	1.5000	930-001-454	930-001-673	N/A
0.0200	0.1250	0.0300	1.1999	1.5000	930-001-406	930-001-632	930-001-579
0.0210	0.1250	0.0315	1.2010	1.5000	930-001-407	930-001-633	930-001-580
0.0220	0.1250	0.0330	1.2021	1.5000	930-001-408	930-001-634	930-001-581
0.0230	0.1250	0.0345	1.2031	1.5000	930-001-409	930-001-635	930-001-582
0.0240	0.1250	0.0360	1.2042	1.5000	930-001-410	930-001-636	930-001-583
0.0250	0.1250	0.0375	1.2053	1.5000	930-001-411	930-001-637	930-001-584
0.0260	0.1250	0.0390	1.2063	1.5000	930-001-412	930-001-638	930-001-585
0.0270	0.1250	0.0405	1.2074	1.5000	930-001-413	930-001-639	930-001-586
0.0280	0.1250	0.0420	1.2085	1.5000	930-001-414	930-001-640	930-001-587
0.0290	0.1250	0.0435	1.2096	1.5000	930-001-415	930-001-641	930-001-588
0.0300	0.1250	0.0450	1.2106	1.5000	930-001-416	930-001-642	930-001-589
0.0310	0.1250	0.0465	1.2117	1.5000	930-001-417	930-001-643	930-001-590
0.0320	0.1250	0.0480	1.2128	1.5000	930-001-418	930-001-644	930-001-591
0.0330	0.1250	0.0495	1.2139	1.5000	930-001-419	930-001-645	930-001-592
0.0340	0.1250	0.0510	1.2149	1.5000	930-001-420	930-001-646	930-001-593
0.0350	0.1250	0.0525	1.2160	1.5000	930-001-421	930-001-647	930-001-594
0.0360	0.1250	0.0540	1.2171	1.5000	930-001-422	930-001-648	930-001-595
0.0370	0.1250	0.0555	1.2181	1.5000	930-001-423	930-001-649	930-001-596
0.0380	0.1250	0.0570	1.2192	1.5000	930-001-424	930-001-650	930-001-597
0.0390	0.1250	0.0585	1.2203	1.5000	930-001-425	930-001-651	930-001-598
0.0394	0.1250	0.0591	1.2207	1.5000	930-001-456	930-001-674	930-001-619
0.0400	0.1250	0.0600	1.2214	1.5000	930-001-426	930-001-652	930-001-599

Ø .005" - .040"



CARBIDE



DC	DCONms	APmx	LS	L	TiAlN COATED		AMORPHOUS DIAMOND	
					2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0050	0.1250	0.0075	1.1342	1.5000	930-001-523	N/A	930-001-468	N/A
0.0060	0.1250	0.0090	1.1342	1.5000	930-001-524	N/A	930-001-469	N/A
0.0070	0.1250	0.0105	1.1342	1.5000	930-001-525	N/A	930-001-470	N/A
0.0080	0.1250	0.0120	1.1342	1.5000	930-001-526	N/A	930-001-471	N/A
0.0090	0.1250	0.0135	1.1342	1.5000	930-001-527	N/A	930-001-472	N/A
0.0100	0.1250	0.0150	1.1892	1.5000	930-001-528	930-001-750	930-001-473	930-001-686
0.0110	0.1250	0.0165	1.1903	1.5000	930-001-529	930-001-751	930-001-474	930-001-687
0.0120	0.1250	0.0180	1.1913	1.5000	930-001-530	930-001-752	930-001-475	930-001-688
0.0130	0.1250	0.0195	1.1924	1.5000	930-001-531	930-001-753	930-001-476	930-001-689
0.0140	0.1250	0.0210	1.1935	1.5000	930-001-532	930-001-754	930-001-477	930-001-690
0.0150	0.1250	0.0225	1.1945	1.5000	930-001-533	930-001-755	930-001-478	930-001-691
0.0160	0.1250	0.0240	1.1956	1.5000	930-001-534	930-001-756	930-001-479	930-001-692
0.0170	0.1250	0.0255	1.1967	1.5000	930-001-535	930-001-757	930-001-480	930-001-693
0.0180	0.1250	0.0270	1.1978	1.5000	930-001-536	930-001-758	930-001-481	930-001-694
0.0190	0.1250	0.0285	1.1988	1.5000	930-001-537	930-001-759	930-001-482	930-001-695
0.0200	0.1250	0.0300	1.1999	1.5000	930-001-538	930-001-760	930-001-483	930-001-696
0.0210	0.1250	0.0315	1.2010	1.5000	930-001-539	930-001-761	930-001-484	930-001-697
0.0220	0.1250	0.0330	1.2021	1.5000	930-001-540	930-001-762	930-001-485	930-001-698
0.0230	0.1250	0.0345	1.2031	1.5000	930-001-541	930-001-763	930-001-486	930-001-699
0.0240	0.1250	0.0360	1.2042	1.5000	930-001-542	930-001-764	930-001-487	930-001-700
0.0250	0.1250	0.0375	1.2053	1.5000	930-001-543	930-001-765	930-001-488	930-001-701
0.0260	0.1250	0.0390	1.2063	1.5000	930-001-544	930-001-766	930-001-489	930-001-702
0.0270	0.1250	0.0405	1.2074	1.5000	930-001-545	930-001-767	930-001-490	930-001-703
0.0280	0.1250	0.0420	1.2085	1.5000	930-001-546	930-001-768	930-001-491	930-001-704
0.0290	0.1250	0.0435	1.2096	1.5000	930-001-547	930-001-769	930-001-492	930-001-705
0.0300	0.1250	0.0450	1.2106	1.5000	930-001-548	930-001-770	930-001-493	930-001-706
0.0310	0.1250	0.0465	1.2117	1.5000	930-001-549	930-001-771	930-001-494	930-001-707
0.0320	0.1250	0.0480	1.2128	1.5000	930-001-550	930-001-772	930-001-495	930-001-708
0.0330	0.1250	0.0495	1.2139	1.5000	930-001-551	930-001-773	930-001-496	930-001-709
0.0340	0.1250	0.0510	1.2149	1.5000	930-001-552	930-001-774	930-001-497	930-001-710
0.0350	0.1250	0.0525	1.2160	1.5000	930-001-553	930-001-775	930-001-498	930-001-711
0.0360	0.1250	0.0540	1.2171	1.5000	930-001-554	930-001-776	930-001-499	930-001-712
0.0370	0.1250	0.0555	1.2181	1.5000	930-001-555	930-001-777	930-001-500	930-001-713
0.0380	0.1250	0.0570	1.2192	1.5000	930-001-556	930-001-778	930-001-501	930-001-714
0.0390	0.1250	0.0585	1.2203	1.5000	930-001-557	930-001-779	930-001-502	930-001-715
0.0400	0.1250	0.0600	1.2214	1.5000	930-001-558	930-001-780	930-001-503	930-001-716



Ø .045" - .1378"

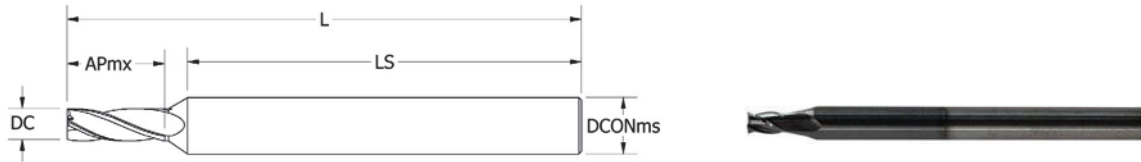


DC	DCONms	APmx	LS	L	UNCOATED		AITIN COATED
					2 FLUTE	4 FLUTE	2 FLUTE
0.0450	0.1250	0.0675	1.2267	1.5000	930-001-427	930-001-653	930-001-600
0.0470	0.1250	0.0705	1.2289	1.5000	930-001-428	930-001-654	930-001-601
0.0492	0.1250	0.0738	1.2312	1.5000	930-001-457	930-001-675	N/A
0.0500	0.1250	0.0750	1.2321	1.5000	930-001-429	930-001-655	930-001-602
0.0550	0.1250	0.0825	1.2374	1.5000	930-001-430	930-001-656	930-001-603
0.0591	0.1250	0.0887	1.2418	1.5000	930-001-458	930-001-676	N/A
0.0600	0.1250	0.0900	1.2428	1.5000	930-001-431	930-001-657	930-001-604
0.0620	0.1250	0.0930	1.2449	1.5000	930-001-432	930-001-658	930-001-605
0.0630	0.1250	0.0945	1.2460	1.5000	930-001-459	930-001-677	N/A
0.0650	0.1250	0.0975	1.2482	1.5000	930-001-433	930-001-659	930-001-606
0.0700	0.1250	0.1050	1.2535	1.5000	930-001-434	930-001-660	930-001-607
0.0709	0.1250	0.1064	1.2545	1.5000	930-001-460	930-001-678	N/A
0.0740	0.1250	0.1110	1.2578	1.5000	930-001-435	930-001-661	N/A
0.0750	0.1250	0.1125	1.2589	1.5000	930-001-436	930-001-662	930-001-608
0.0780	0.1250	0.1170	1.2621	1.5000	930-001-437	930-001-663	930-001-609
0.0787	0.1250	0.1181	1.2629	1.5000	930-001-461	930-001-679	N/A
0.0800	0.1250	0.1200	1.2642	1.5000	930-001-438	930-001-664	930-001-610
0.0850	0.1250	0.1275	1.2696	1.5000	930-001-439	930-001-665	930-001-611
0.0866	0.1250	0.1299	1.2713	1.5000	930-001-462	930-001-680	N/A
0.0900	0.1250	0.1350	1.2750	1.5000	930-001-440	930-001-666	930-001-612
0.0930	0.1250	0.1395	1.2782	1.5000	930-001-441	930-001-667	930-001-613
0.0950	0.1250	0.1425	1.2803	1.5000	930-001-442	930-001-668	930-001-614
0.0984	0.1250	0.1476	1.2840	1.5000	930-001-463	930-001-681	N/A
0.1000	0.1250	0.1500	1.2857	1.5000	930-001-443	930-001-669	930-001-615
0.1050	0.1250	0.1575 (4mm)	1.2911	1.5000	930-001-444	930-001-670	930-001-616
0.1102	0.1250	0.1653	1.2966	1.5000	930-001-464	930-001-682	930-001-620
0.1150	0.1250	0.1725	1.3018	1.5000	930-001-445	930-001-671	930-001-617
0.1181	0.1250	0.1772	1.3051	1.5000	930-001-465	930-001-683	930-001-621
0.1200	0.1250	0.1800	1.3071	1.5000	930-001-446	930-001-672	930-001-618
0.1378	0.1875	0.2067	1.6655	2.0000	930-001-466	930-001-684	N/A

Ø .045" - .120"



CARBIDE

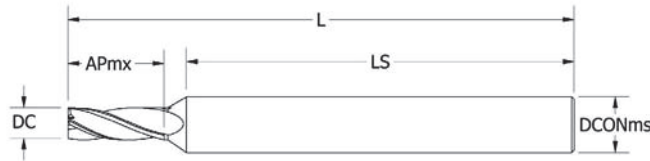


DC	DCONms	APmx	LS	L	AMORPHOUS DIAMOND	
					2 FLUTE	4 FLUTE
0.0450	0.1250	0.0675	1.2267	1.5000	930-001-504	930-001-717
0.0470	0.1250	0.0705	1.2289	1.5000	930-001-505	930-001-718
0.0500	0.1250	0.0750	1.2321	1.5000	930-001-506	930-001-719
0.0550	0.1250	0.0825	1.2374	1.5000	930-001-507	930-001-720
0.0600	0.1250	0.0900	1.2428	1.5000	930-001-508	930-001-721
0.0620	0.1250	0.0930	1.2449	1.5000	930-001-509	930-001-722
0.0650	0.1250	0.0975	1.2482	1.5000	930-001-510	930-001-723
0.0700	0.1250	0.1050	1.2535	1.5000	930-001-511	930-001-724
0.0750	0.1250	0.1125	1.2589	1.5000	930-001-512	930-001-725
0.0780	0.1250	0.1170	1.2621	1.5000	930-001-513	930-001-726
0.0800	0.1250	0.1200	1.2642	1.5000	930-001-514	930-001-727
0.0850	0.1250	0.1275	1.2696	1.5000	930-001-515	930-001-728
0.0900	0.1250	0.1350	1.2750	1.5000	930-001-516	930-001-729
0.0930	0.1250	0.1395	1.2782	1.5000	930-001-517	930-001-730
0.1000	0.1250	0.1500	1.2857	1.5000	930-001-518	930-001-731
0.1050	0.1250	0.1575 (4mm)	1.2911	1.5000	930-001-519	930-001-732
0.1181	0.1250	0.1772	1.3051	1.5000	930-001-520	930-001-733
0.1181	0.1250	0.1772	1.3051	1.5000	930-001-522	930-001-735
0.1200	0.1250	0.1800	1.3071	1.5000	930-001-521	930-001-734

CARBIDE



Ø .010" - .250"

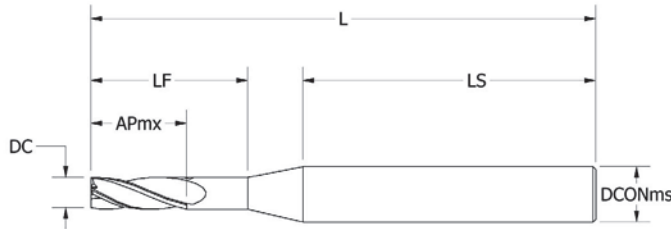


DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
					3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0150	2.1892	2.5000	930-003-004	930-003-569	930-003-032
0.0150	0.1250	0.0225	2.1945	2.5000	930-003-005	930-003-570	930-003-033
0.0200	0.1250	0.0300	2.1999	2.5000	930-003-006	930-003-571	930-003-034
0.0250	0.1250	0.0375	2.2053	2.5000	930-003-007	930-003-572	930-003-035
0.0300	0.1250	0.0450	2.2106	2.5000	930-003-008	930-003-573	930-003-036
0.0310	0.1250	0.0465	2.2117	2.5000	930-003-009	930-003-574	930-003-037
0.0350	0.1250	0.0525	2.2160	2.5000	930-003-010	930-003-575	930-003-038
0.0390	0.1250	0.0585	2.2203	2.5000	930-003-011	930-003-576	930-003-039
0.0400	0.1250	0.0600	2.2214	2.5000	930-003-012	930-003-577	930-003-040
0.0450	0.1250	0.0675	2.2267	2.5000	930-003-013	930-003-578	930-003-041
0.0470	0.1250	0.0705	2.2289	2.5000	930-003-014	930-003-579	930-003-042
0.0500	0.1250	0.0750	2.2321	2.5000	930-003-015	930-003-580	930-003-043
0.0550	0.1250	0.0825	2.2374	2.5000	930-003-016	930-003-581	930-003-044
0.0600	0.1250	0.0900	2.2428	2.5000	930-003-017	930-003-582	930-003-045
0.0620	0.1250	0.0930	2.2449	2.5000	930-003-018	930-003-583	930-003-046
0.0650	0.1250	0.0975	2.2482	2.5000	930-003-019	930-003-584	930-003-047
0.0700	0.1250	0.1050	2.2535	2.5000	930-003-020	930-003-585	930-003-048
0.0750	0.1250	0.1125	2.2589	2.5000	930-003-021	930-003-586	930-003-049
0.0780	0.1250	0.1170	2.2621	2.5000	930-003-022	930-003-587	930-003-050
0.0800	0.1250	0.1200	2.2642	2.5000	930-003-023	930-003-588	930-003-051
0.0850	0.1250	0.1275	2.2696	2.5000	930-003-024	930-003-589	930-003-052
0.0900	0.1250	0.1350	2.2750	2.5000	930-003-025	930-003-590	930-003-053
0.0930	0.1250	0.1395	2.2782	2.5000	930-003-026	930-003-591	930-003-054
0.0950	0.1250	0.1425	2.2803	2.5000	930-003-027	930-003-592	930-003-055
0.1000	0.1250	0.1500	2.2857	2.5000	930-003-028	930-003-593	930-003-056
0.1250	0.1250	0.1875	1.9375	2.5000	930-003-029	931-000-380	931-000-345
0.1875	0.1875	0.2813	2.3438	3.0000	930-003-030	931-000-381	931-000-346
0.2500	0.2500	0.3750	3.2500	4.0000	930-003-031	931-000-382	931-000-347

Ø .010" - .035"



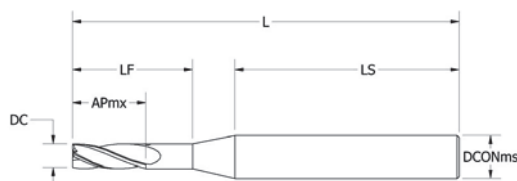
CARBIDE



DC	DCONms	APmx	LS	L	LF	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0150	2.3925	2.5000	0.0500	930-003-794	930-003-658	930-003-114
0.0100	0.1250	0.0150	2.3625	2.5000	0.0800	930-003-821	930-003-685	930-003-138
0.0100	0.1250	0.0150	2.3175	2.5000	0.1250	930-003-730	930-003-594	930-003-057
0.0100	0.1250	0.0150	2.2925	2.5000	0.1500	930-003-757	930-003-621	930-003-081
0.0150	0.1250	0.0225	2.4000	2.5000	0.0450	930-003-788	930-003-652	930-003-108
0.0150	0.1250	0.0225	2.3670	2.5000	0.0780	930-003-795	930-003-659	930-003-115
0.0150	0.1250	0.0225	2.3200	2.5000	0.1250	930-003-822	930-003-686	930-003-139
0.0150	0.1250	0.0225	2.2575	2.5000	0.1875	930-003-731	930-003-595	930-003-058
0.0150	0.1250	0.0225	2.2200	2.5000	0.2250	930-003-758	930-003-622	930-003-082
0.0150	0.1250	0.0225	2.1450	2.5000	0.3000	930-003-776	930-003-640	930-003-097
0.0200	0.1250	0.0300	2.3475	2.5000	0.1000	930-003-796	930-003-660	930-003-116
0.0200	0.1250	0.0300	2.2875	2.5000	0.1600	930-003-823	930-003-687	930-003-140
0.0200	0.1250	0.0300	2.1975	2.5000	0.2500	930-003-732	930-003-596	930-003-059
0.0200	0.1250	0.0300	2.1475	2.5000	0.3000	930-003-759	930-003-623	930-003-083
0.0200	0.1250	0.0300	2.0475	2.5000	0.4000	930-003-777	930-003-642	930-003-098
0.0250	0.1250	0.0375	2.3250	2.5000	0.1250	930-003-797	930-003-661	930-003-117
0.0250	0.1250	0.0375	2.2500	2.5000	0.2000	930-003-824	930-003-688	930-003-141
0.0250	0.1250	0.0375	2.1375	2.5000	0.3125	930-003-733	930-003-597	930-003-060
0.0250	0.1250	0.0375	2.0750	2.5000	0.3750	930-003-760	930-003-624	930-003-084
0.0250	0.1250	0.0375	1.9500	2.5000	0.5000	930-003-778	930-003-642	930-003-099
0.0300	0.1250	0.0450	2.3025	2.5000	0.1500	930-003-798	930-003-662	930-003-118
0.0300	0.1250	0.0450	2.2025	2.5000	0.2500	930-003-825	930-003-689	930-003-142
0.0300	0.1250	0.0450	2.0775	2.5000	0.3750	930-003-734	930-003-598	930-003-061
0.0300	0.1250	0.0450	2.0025	2.5000	0.4500	930-003-761	930-003-625	930-003-085
0.0310	0.1250	0.0465	2.3600	2.5000	0.0930	930-003-789	930-003-653	930-003-109
0.0310	0.1250	0.0465	2.2980	2.5000	0.1550	930-003-799	930-003-663	930-003-119
0.0310	0.1250	0.0465	2.2030	2.5000	0.2500	930-003-826	930-003-690	930-003-143
0.0310	0.1250	0.0465	2.0780	2.5000	0.3750	930-003-735	930-003-599	930-003-062
0.0310	0.1250	0.0465	1.9830	2.5000	0.4700	930-003-762	930-003-626	930-003-086
0.0310	0.1250	0.0465	1.8280	2.5000	0.6250	930-003-779	930-003-643	930-003-100
0.0350	0.1250	0.0525	2.2680	2.5000	0.1870	930-003-800	930-003-664	930-003-120
0.0350	0.1250	0.0525	2.1750	2.5000	0.2800	930-003-827	930-003-691	930-003-144
0.0350	0.1250	0.0525	2.0300	2.5000	0.4250	930-003-736	930-003-600	930-003-063
0.0350	0.1250	0.0525	1.9300	2.5000	0.5250	930-003-763	930-003-627	930-003-087
0.0350	0.1250	0.0525	1.7550	2.5000	0.7000	930-003-780	930-003-644	930-003-101

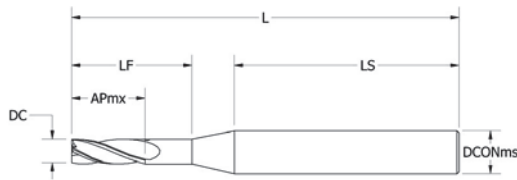


Ø.040" - .075"



DC	DCONms	APmx	LS	L	LF	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0400	0.1250	0.0600	2.2575	2.5000	0.2000	930-003-801	930-003-665	930-003-121
0.0400	0.1250	0.0600	2.1325	2.5000	0.3250	930-003-692	930-003-692	930-003-145
0.0400	0.1250	0.0600	1.9775	2.5000	0.4800	930-003-737	930-003-601	930-003-064
0.0400	0.1250	0.0600	1.8575	2.5000	0.6000	930-003-764	930-003-628	930-003-088
0.0400	0.1250	0.0600	1.6575	2.5000	0.8000	930-003-781	930-003-645	930-003-102
0.0450	0.1250	0.0675	2.2350	2.5000	0.2250	930-003-802	930-003-666	930-003-122
0.0450	0.1250	0.0675	2.0850	2.5000	0.3750	930-003-829	930-003-693	930-003-146
0.0450	0.1250	0.0675	1.9100	2.5000	0.5500	930-003-738	930-003-602	930-003-065
0.0450	0.1250	0.0675	1.7800	2.5000	0.6800	930-003-765	930-003-629	930-003-089
0.0450	0.1250	0.0675	1.5600	2.5000	0.9000	930-003-782	930-003-646	930-003-103
0.0470	0.1250	0.0705	2.3200	2.5000	0.1410	930-003-790	930-003-654	930-003-110
0.0470	0.1250	0.0705	2.2110	2.5000	0.2500	930-003-803	930-003-667	930-003-123
0.0470	0.1250	0.0705	2.0860	2.5000	0.3750	930-003-830	930-003-694	930-003-147
0.0470	0.1250	0.0705	1.8910	2.5000	0.5700	930-003-739	930-003-603	930-003-066
0.0470	0.1250	0.0705	1.7510	2.5000	0.7100	930-003-766	930-003-630	930-003-090
0.0470	0.1250	0.0705	1.5110	2.5000	0.9500	930-003-783	930-003-647	930-003-104
0.0500	0.1250	0.0750	2.2125	2.5000	0.2500	930-003-804	930-003-668	930-003-124
0.0500	0.1250	0.0750	2.0625	2.5000	0.4000	930-003-831	930-003-695	930-003-148
0.0500	0.1250	0.0750	1.8625	2.5000	0.6000	930-003-740	930-003-604	930-003-067
0.0500	0.1250	0.0750	1.7125	2.5000	0.7500	930-003-767	930-003-631	930-003-091
0.0550	0.1250	0.0825	2.1900	2.5000	0.2750	930-003-805	930-003-669	930-003-125
0.0550	0.1250	0.0825	2.0150	2.5000	0.4500	930-003-832	930-003-696	930-003-149
0.0550	0.1250	0.0825	1.8050	2.5000	0.6600	930-003-741	930-003-605	930-003-068
0.0550	0.1250	0.0825	1.6400	2.5000	0.8250	930-003-768	930-003-632	930-003-092
0.0600	0.1250	0.0900	2.1555	2.5000	0.3120	930-003-806	930-003-670	930-003-126
0.0600	0.1250	0.0900	1.9675	2.5000	0.5000	930-003-833	930-003-697	930-003-150
0.0600	0.1250	0.0900	1.7475	2.5000	0.7200	930-003-742	930-003-606	930-003-069
0.0600	0.1250	0.0900	1.5675	2.5000	0.9000	930-003-769	930-003-633	930-003-093
0.0620	0.1250	0.0930	2.2825	2.5000	0.1860	930-003-791	930-003-655	930-003-111
0.0620	0.1250	0.0930	2.1565	2.5000	0.3120	930-003-807	930-003-671	930-003-127
0.0620	0.1250	0.0930	1.9685	2.5000	0.5000	930-003-834	930-003-698	930-003-151
0.0620	0.1250	0.0930	1.7185	2.5000	0.7500	930-003-743	930-003-607	930-003-070
0.0620	0.1250	0.0930	1.5185	2.5000	0.9500	930-003-770	930-003-634	930-003-094
0.0620	0.1250	0.0930	1.2185	2.5000	1.2500	930-003-784	930-003-648	930-003-105
0.0650	0.1250	0.0975	2.1450	2.5000	0.3250	930-003-808	930-003-672	930-003-128
0.0650	0.1250	0.0975	1.9450	2.5000	0.5250	930-003-835	930-003-699	930-003-152
0.0650	0.1250	0.0975	1.6700	2.5000	0.8000	930-003-744	930-003-608	930-003-071
0.0700	0.1250	0.1050	2.0975	2.5000	0.3750	930-003-809	930-003-673	930-003-129
0.0700	0.1250	0.1050	1.9025	2.5000	0.5700	930-003-836	930-003-700	930-003-153
0.0700	0.1250	0.1050	1.6225	2.5000	0.8500	930-003-745	930-003-609	930-003-072
0.0750	0.1250	0.1125	2.1000	2.5000	0.3750	930-003-810	930-003-674	930-003-130
0.0750	0.1250	0.1125	1.8500	2.5000	0.6250	930-003-837	930-003-701	930-003-154
0.0750	0.1250	0.1125	1.5750	2.5000	0.9000	930-003-746	930-003-610	930-003-073

Ø .078" - .250"



CARBIDE

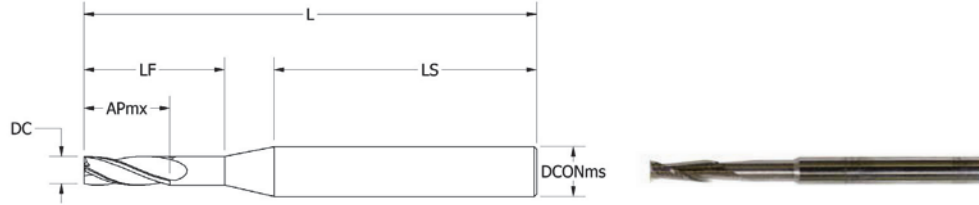


DC	DCONms	APmx	LS	L	LF	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0780	0.1250	0.1170	2.2425	2.5000	0.2340	930-003-792	930-003-656	930-003-112
0.0780	0.1250	0.1170	2.0765	2.5000	0.4000	930-003-811	930-003-675	930-003-131
0.0780	0.1250	0.1170	1.8515	2.5000	0.6250	930-003-838	930-003-702	930-003-155
0.0780	0.1250	0.1170	1.5365	2.5000	0.9400	930-003-747	930-003-611	930-003-074
0.0780	0.1250	0.1170	1.2895	2.5000	1.1870	930-003-771	930-003-635	930-003-095
0.0780	0.1250	0.1170	1.4145	3.0000	1.5620	930-003-785	930-003-649	930-003-106
0.0800	0.1250	0.1200	2.0775	2.5000	0.4000	930-003-812	930-003-676	930-003-132
0.0800	0.1250	0.1200	1.8275	2.5000	0.6500	930-003-839	930-003-703	930-003-156
0.0800	0.1250	0.1200	1.5175	2.5000	0.9600	930-003-748	930-003-612	930-003-075
0.0850	0.1250	0.1275	2.0550	2.5000	0.4250	930-003-813	930-003-677	930-003-133
0.0850	0.1250	0.1275	1.7800	2.5000	0.7000	930-003-840	930-003-704	930-003-157
0.0850	0.1250	0.1275	1.4600	2.5000	1.0200	930-003-749	930-003-613	930-003-076
0.0900	0.1250	0.1350	2.0325	2.5000	0.4500	930-003-814	930-003-678	930-003-134
0.0900	0.1250	0.1350	1.7325	2.5000	0.7500	930-003-841	930-003-705	930-003-158
0.0900	0.1250	0.1350	1.4025	2.5000	1.0800	930-003-750	930-003-614	930-003-077
0.0930	0.1250	0.1395	2.2140	2.5000	0.2700	930-003-793	930-003-657	930-003-113
0.0930	0.1250	0.1395	1.9840	2.5000	0.5000	930-003-815	930-003-679	930-003-135
0.0930	0.1250	0.1395	1.7340	2.5000	0.7500	930-003-842	930-003-706	930-003-159
0.0930	0.1250	0.1395	1.3590	2.5000	1.1250	930-003-751	930-003-615	930-003-078
0.0930	0.1250	0.1395	1.5840	3.0000	1.4000	930-003-772	930-003-636	930-003-096
0.0930	0.1250	0.1395	2.1090	4.0000	1.8750	930-003-786	930-003-650	930-003-107
0.0950	0.1250	0.1425	1.9850	2.5000	0.5000	930-003-816	930-003-680	930-003-136
0.0950	0.1250	0.1425	1.7350	2.5000	0.7500	930-003-843	930-003-707	930-003-160
0.0950	0.1250	0.1425	1.3350	2.5000	1.1500	930-003-752	930-003-616	930-003-079
0.1000	0.1250	0.1500	1.9875	2.5000	0.5000	930-003-817	930-003-681	930-003-137
0.1000	0.1250	0.1500	1.6875	2.5000	0.8000	930-003-844	930-003-708	930-003-161
0.1000	0.1250	0.1500	1.2875	2.5000	1.2000	930-003-753	930-003-617	930-003-080
0.1250	0.1250	0.1875	1.8750	2.5000	0.6250	930-003-818	930-003-682	931-000-355
0.1250	0.1250	0.1875	1.5000	2.5000	1.0000	930-003-845	930-003-709	931-000-358
0.1250	0.1250	0.1875	1.5000	3.0000	1.5000	930-003-754	930-003-618	931-000-348
0.1250	0.1250	0.1875	1.1250	3.0000	1.8750	930-003-773	930-003-637	931-000-351
0.1250	0.1250	0.1875	1.5000	4.0000	2.5000	930-003-787	930-003-651	931-000-354
0.1875	0.1875	0.2813	2.0000	3.0000	1.0000	930-003-819	930-003-683	931-000-356
0.1875	0.1875	0.2813	1.5000	3.0000	1.5000	930-003-846	930-003-710	931-000-359
0.1875	0.1875	0.2813	1.7500	4.0000	2.2500	930-003-755	930-003-619	931-000-349
0.1875	0.1875	0.2813	1.1880	4.0000	2.8120	930-003-774	930-003-638	931-000-352
0.2500	0.2500	0.3750	2.7500	4.0000	1.2500	930-003-820	930-003-684	931-000-357
0.2500	0.2500	0.3750	2.0000	4.0000	2.0000	930-003-847	930-003-711	931-000-360
0.2500	0.2500	0.3750	0.3750	3.0000	6.0000	930-003-756	930-003-620	931-000-350
0.2500	0.2500	0.3750	2.2500	6.0000	3.7500	930-003-775	930-003-639	931-000-353

CARBIDE



Ø .005" - .100"

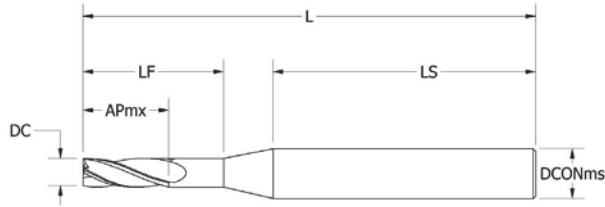


DC	DCONms	APmx	LS	L	LF	UNCOATED	
						2 FLUTE	4 FLUTE
0.0050	0.1250	0.0150	1.1342	1.5000	0.0470	930-000-244	N/A
0.0100	0.1250	0.0300	1.3625	1.5000	0.0800	930-000-620	930-001-140
0.0100	0.1250	0.0300	1.3488	1.5000	0.0937	930-000-250	930-000-636
0.0150	0.1250	0.0450	1.3200	1.5000	0.1250	930-000-256	930-000-642
0.0200	0.1250	0.0600	1.2775	1.5000	0.1700	930-000-621	930-001-141
0.0200	0.1250	0.0600	1.2600	1.5000	0.1875	930-000-262	930-000-648
0.0250	0.1250	0.0750	1.2370	1.5000	0.2130	930-000-622	930-001-142
0.0250	0.1250	0.0750	1.2000	1.5000	0.2500	930-000-268	930-000-654
0.0300	0.1250	0.0900	1.2025	1.5000	0.2500	930-000-274	930-000-660
0.0300	0.1250	0.0900	1.1825	1.5000	0.2700	930-000-623	930-001-143
0.0310	0.1250	0.0930	1.1740	1.5000	0.2790	930-000-624	930-001-144
0.0350	0.1250	0.1050	1.2050	1.5000	0.2500	930-000-280	930-000-666
0.0350	0.1250	0.1050	1.1400	1.5000	0.3150 (8mm)	930-000-625	930-001-145
0.0400	0.1250	0.1200	1.2075	1.5000	0.2500	930-000-286	930-000-672
0.0400	0.1250	0.1200	1.0975	1.5000	0.3600	930-000-626	930-001-146
0.0450	0.1250	0.1350	1.0550	1.5000	0.4050	930-000-627	930-001-147
0.0450	0.1250	0.1350	0.9600	1.5000	0.5000	930-000-292	930-000-678
0.0470	0.1250	0.1410	1.0380	1.5000	0.4230	930-000-628	930-001-148
0.0500	0.1250	0.1500	0.9625	1.5000	0.5000	930-000-298	930-000-684
0.0550	0.1250	0.1650	0.9650	1.5000	0.5000	930-000-304	930-000-690
0.0600	0.1250	0.1800	0.9675	1.5000	0.5000	930-000-310	930-000-696
0.0620	0.1250	0.1860	0.9685	1.5000	0.5000	930-000-629	930-001-149
0.0650	0.1250	0.1950	0.9700	1.5000	0.5000	930-000-314	930-000-700
0.0700	0.1250	0.2100	0.9725	1.5000	0.5000	930-000-316	930-000-702
0.0780	0.1250	0.2340	0.9765	1.5000	0.5000	930-000-630	930-001-150
0.0800	0.1250	0.2400	0.9775	1.5000	0.5000	930-000-320	930-000-706
0.0900	0.1250	0.2700	0.9825	1.5000	0.5000	930-000-323	930-000-709
0.0900	0.1250	0.2700	0.8575	1.5000	0.6250	930-000-631	930-001-151
0.0930	0.1250	0.2790	0.8590	1.5000	0.6250	930-000-632	930-001-152
0.0950	0.1250	0.2850	0.8600	1.5000	0.6250	930-000-633	930-001-153
0.1000	0.1250	0.3000	0.9875	1.5000	0.5000	930-000-327	930-000-713
0.1000	0.1250	0.3000	0.8625	1.5000	0.6250	930-000-634	930-001-154

Ø .010" - .250"



CARBIDE

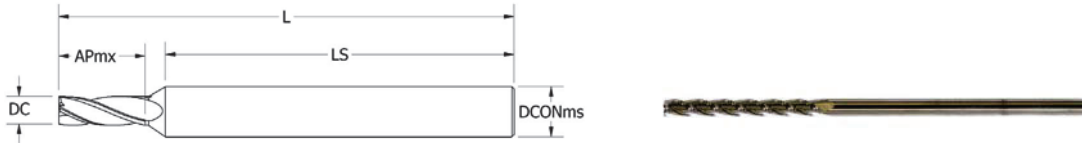


DC	DCONms	APmx	LS	L	LF	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0500	2.3425	2.5000	0.1000	930-002-966	N/A	930-002-797
0.0150	0.1250	0.0750	2.2950	2.5000	0.1500	930-002-967	N/A	930-002-798
0.0200	0.1250	0.1000	2.2475	2.5000	0.2000	930-002-968	930-002-933	930-002-799
0.0250	0.1250	0.1250	2.2000	2.5000	0.2500	930-002-969	930-002-934	930-002-800
0.0300	0.1250	0.1500	2.1525	2.5000	0.3000	930-002-970	930-002-935	930-002-801
0.0310	0.1250	0.1550	2.1530	2.5000	0.3000	930-002-971	930-002-936	930-002-802
0.0350	0.1250	0.1750	2.1050	2.5000	0.3500	930-002-972	930-002-937	930-002-803
0.0400	0.1250	0.2000	2.0575	2.5000	0.4000	930-002-973	930-002-938	930-002-804
0.0450	0.1250	0.2250	2.0100	2.5000	0.4500	930-002-974	930-002-939	930-002-805
0.0470	0.1250	0.2500	1.9610	2.5000	0.5000	930-002-975	930-002-940	930-002-806
0.0500	0.1250	0.3000	1.8625	2.5000	0.6000	930-002-976	930-002-941	930-002-807
0.0550	0.1250	0.3850	1.6950	2.5000	0.7700	930-002-977	930-002-942	930-002-808
0.0600	0.1250	0.5000	1.4675	2.5000	1.0000	930-002-978	930-002-943	930-002-809
0.0620	0.1250	0.5000	1.4685	2.5000	1.0000	930-002-979	N/A	930-002-810
0.0650	0.1250	0.5000	1.4700	2.5000	1.0000	930-002-980	930-002-944	930-002-811
0.0700	0.1250	0.5000	1.4725	2.5000	1.0000	930-002-981	930-002-945	930-002-812
0.0750	0.1250	0.5000	1.4750	2.5000	1.0000	930-002-982	930-002-946	930-002-813
0.0780	0.1250	0.5000	1.4765	2.5000	1.0000	930-002-983	930-002-947	930-002-814
0.0800	0.1250	0.7500	1.2275	2.5000	1.2500	930-002-984	930-002-948	930-002-815
0.0850	0.1250	0.7500	1.2300	2.5000	1.2500	930-002-985	930-002-949	930-002-816
0.0900	0.1250	0.7500	1.2325	2.5000	1.2500	930-002-986	930-002-950	930-002-817
0.0930	0.1250	0.7500	1.2340	2.5000	1.2500	930-002-987	930-002-951	930-002-818
0.0950	0.1250	0.7500	1.2350	2.5000	1.2500	930-002-988	930-002-952	930-002-819
0.1000	0.1250	0.7500	1.2375	2.5000	1.2500	930-002-989	930-002-953	930-002-820
0.1250	0.1250	1.0000	2.5000	2.5000	N/A	930-002-990	930-002-954	931-000-333
0.1875	0.1875	1.1250	3.0000	3.0000	N/A	930-002-991	930-002-955	931-000-334
0.2500	0.2500	1.5000	2.0000	4.0000	N/A	930-002-992	N/A	931-000-335

CARBIDE



Ø .031" - .125"

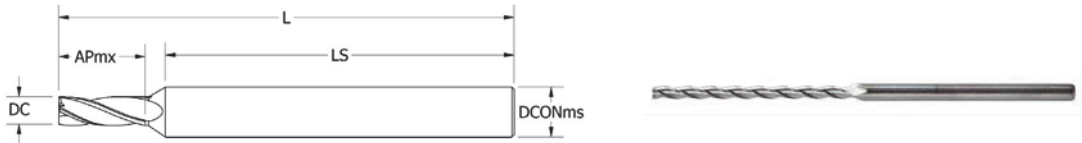


12X FLUTE LENGTH



DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
					3 FLUTE	3 FLUTE	3 FLUTE
0.0310	0.1250	0.3750	1.8832	2.5000	930-002-993	930-002-956	930-002-821
0.0470	0.1250	0.5700	1.7294	2.5000	930-002-994	930-002-957	930-002-822
0.0620	0.1250	0.7500	1.5879	2.5000	930-002-995	930-002-958	930-002-823
0.0780	0.1250	0.9400	1.4391	2.5000	930-002-996	930-002-959	930-002-824
0.0930	0.1250	1.1250	1.2927	2.5000	930-002-997	930-002-960	930-002-825
0.1250	0.1250	1.5000	1.1250	3.0000	930-002-998	930-002-961	930-002-826

Ø .062" - .125"

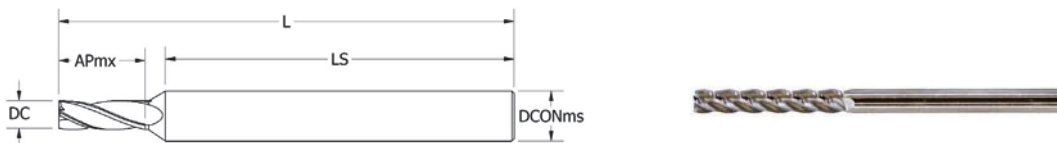


15X FLUTE LENGTH



DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
					3 FLUTE	3 FLUTE	3 FLUTE
0.0620	0.1250	0.9500	1.3879	2.5000	930-002-999	930-002-962	930-002-827
0.0780	0.1250	1.1870	1.1921	2.5000	930-003-001	930-002-963	930-002-828
0.0930	0.1250	1.4000	1.5177	3.0000	930-003-002	930-002-964	930-002-829
0.1250	0.1250	1.8750	0.7500	3.0000	930-003-003	930-002-965	931-000-336

Ø .156" - .250"

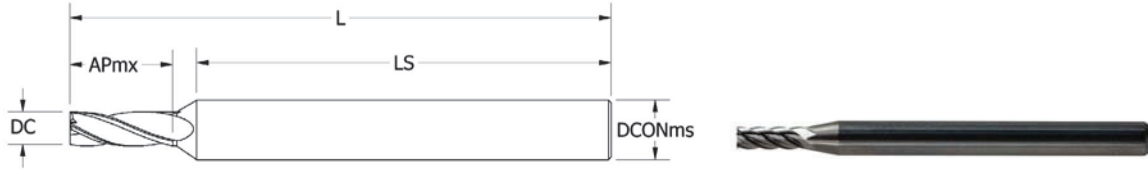


12X FLUTE LENGTH



DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
					4 FLUTE	4 FLUTE	4 FLUTE
0.1563	0.1875	1.8750	2.0446	4.0000	930-001-170	930-001-161	931-000-256
0.1875	0.1875	2.2500	1.3750	4.0000	930-001-171	930-001-162	931-000-257
0.2500	0.2500	3.0000	2.6250	6.0000	930-001-172	930-001-163	931-000-258

Ø .015" - .100"



MULTI - FLUTE



DC	DCONms	APmx	LS	L	UNCOATED	AITIN COATED
					5 FLUTE	5 FLUTE
0.0310	0.1250	0.0930	1.1652	1.5000	930-003-848	930-003-867
0.0400	0.1250	0.1200	1.1614	1.5000	930-003-849	930-003-868
0.0470	0.1250	0.1410	1.1584	1.5000	930-003-850	930-003-869
0.0500	0.1250	0.1500	1.1571	1.5000	930-003-851	930-003-870
0.0600	0.1250	0.1800	1.1528	1.5000	930-003-852	930-003-871
0.0620	0.1250	0.1860	1.1519	1.5000	930-003-853	930-003-872
0.0700	0.1250	0.2100	1.1485	1.5000	930-003-854	930-003-873
0.0780	0.1250	0.2340	1.1451	1.5000	930-003-855	930-003-874
0.0800	0.1250	0.2400	1.1442	1.5000	930-003-856	930-003-875
0.0930	0.1250	0.2790	1.1387	1.5000	930-003-857	930-003-876
0.1000	0.1250	0.3000	1.1357	1.5000	930-003-858	930-003-877

Ø .093" - .100"



HIGH HELIX

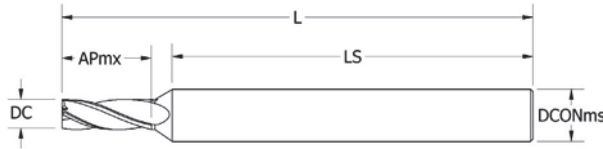


DC	DCONms	APmx	LS	L	UNCOATED
					2 FLUTE
0.0150	0.1250	0.0450	1.1720	1.5000	930-000-606
0.0310	0.1250	0.0930	1.1652	1.5000	930-000-607
0.0470	0.1250	0.1410	1.1584	1.5000	930-000-608
0.0620	0.1250	0.1860	1.1519	1.5000	930-000-609
0.0780	0.1250	0.2340	1.1451	1.5000	930-000-610
0.0930	0.1250	0.2790	1.1387	1.5000	930-000-611

CARBIDE

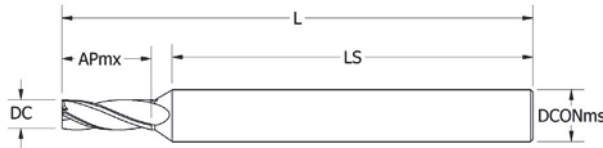


Ø .015" - .093"



DC	DCONms	APmx	LS	L	CVD COATED
					4 FLUTE
0.0150	0.1250	0.0450	1.1720	1.5000	930-001-025
0.0200	0.1250	0.0600	1.1699	1.5000	930-001-026
0.0310	0.1250	0.0930	1.1652	1.5000	930-001-027
0.0470	0.1250	0.1410	1.1584	1.5000	930-001-028
0.0620	0.1250	0.1860	1.1519	1.5000	930-001-029
0.0930	0.1250	0.2790	1.1387	1.5000	930-001-030

Ø .015" - .093"

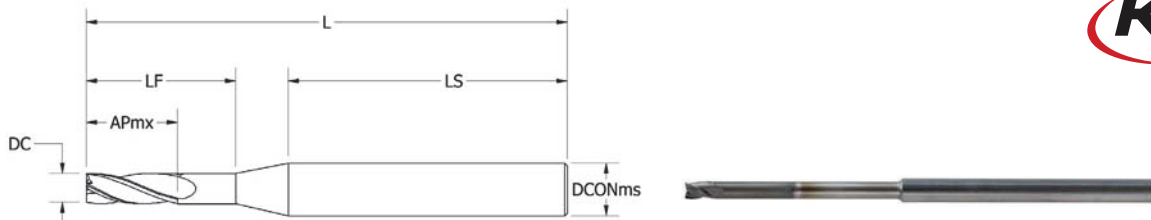


LONG SHANK, STUB



DC	DCONms	APmx	LS	L	CVD COATED
					3 FLUTE
0.0150	0.1250	0.0225	2.1945	2.5000	930-003-563
0.0200	0.1250	0.0300	2.1999	2.5000	930-003-564
0.0310	0.1250	0.0465	2.2117	2.5000	930-003-565
0.0470	0.1250	0.0705	2.2289	2.5000	930-003-566
0.0620	0.1250	0.0930	2.2449	2.5000	930-003-567
0.0930	0.1250	0.1395	2.2782	2.5000	930-003-568

Ø .015" - .093"

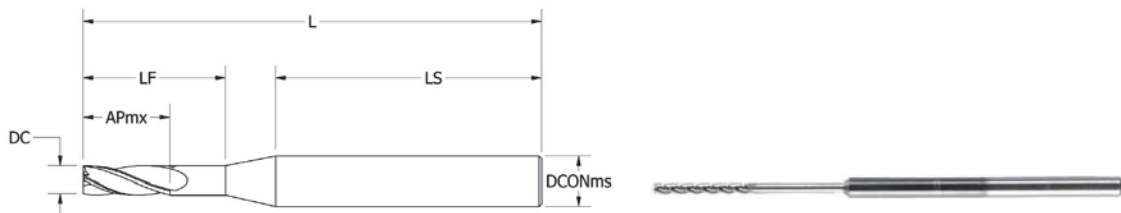


LONG REACH, STUB



DC	DCONms	APmx	LS	L	LF	CVD COATED
						3 FLUTE
0.0150	0.1250	0.0225	2.3670	2.5000	0.0780	930-003-718
0.0150	0.1250	0.0225	2.3200	2.5000	0.1250	930-003-724
0.0150	0.1250	0.0225	2.2575	2.5000	0.1875	930-003-712
0.0200	0.1250	0.0300	2.3475	2.5000	0.1000	930-003-719
0.0200	0.1250	0.0300	2.2875	2.5000	0.1600	930-003-725
0.0200	0.1250	0.0300	2.1975	2.5000	0.2500	930-003-713
0.0310	0.1250	0.0465	2.2980	2.5000	0.1550	930-003-720
0.0310	0.1250	0.0465	2.2030	2.5000	0.2500	930-003-726
0.0310	0.1250	0.0465	2.0780	2.5000	0.3750	930-003-714
0.0470	0.1250	0.0705	2.2110	2.5000	0.2500	930-003-721
0.0470	0.1250	0.0705	2.0860	2.5000	0.3750	930-003-727
0.0470	0.1250	0.0705	1.8910	2.5000	0.5700	930-003-715
0.0620	0.1250	0.0930	2.1565	2.5000	0.3120	930-003-722
0.0620	0.1250	0.0930	1.9685	2.5000	0.5000	930-003-728
0.0620	0.1250	0.0930	1.7185	2.5000	0.7500	930-003-716
0.0930	0.1250	0.1395	1.9840	2.5000	0.5000	930-003-723
0.0930	0.1250	0.1395	1.7340	2.5000	0.7500	930-003-729
0.0930	0.1250	0.1395	1.3590	2.5000	1.1250	930-003-717

Ø .015" - .093"



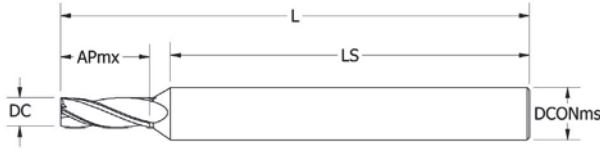
5X FLUTE, 10X REACH



DC	DCONms	APmx	LS	L	LF	CVD COATED
						4 FLUTE
0.0150	0.1250	0.0750	2.2890	2.5000	0.1560	930-001-164
0.0310	0.1250	0.1550	2.1410	2.5000	0.3120	930-001-165
0.0470	0.1250	0.2350	1.9810	2.5000	0.4800	930-001-166
0.0620	0.1250	0.3120	1.8435	2.5000	0.6250	930-001-167
0.0780	0.1250	0.3900	1.6765	2.5000	0.8000	930-001-168
0.0930	0.1250	0.4650	1.5340	2.5000	0.9500	930-001-169

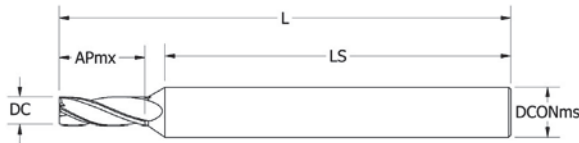
CARBIDE

Ø .0313" - .50"



DC	DCONms	APmx	LS	L	UNCOATED		AITiN COATED	
					2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0313	0.1250	0.0938	1.1651	1.5000	930-000-332	930-000-718	N/A	N/A
0.0469	0.1250	0.1406	1.1584	1.5000	930-000-333	930-000-719	N/A	N/A
0.0625	0.1250	0.1875	1.1517	1.5000	930-000-334	930-000-720	N/A	N/A
0.0781	0.1250	0.2344	1.1450	1.5000	930-000-335	930-000-721	N/A	N/A
0.0938	0.1250	0.2813	1.1384	1.5000	930-000-336	930-000-722	N/A	N/A
0.1094	0.1250	0.3281	1.1317	1.5000	930-000-337	930-000-723	N/A	N/A
0.1250	0.1250	0.5000	0.6250	1.5000	930-000-338	930-000-724	930-000-597	931-000-252
0.1406	0.1875	0.4219	1.4575	2.0000	930-000-339	930-000-725	931-000-247	930-001-096
0.1563	0.1875	0.4688	1.4509	2.0000	930-000-340	930-000-726	930-000-598	930-001-097
0.1719	0.1875	0.5156	1.4442	2.0000	930-000-341	930-000-727	N/A	930-001-098
0.1875	0.1875	0.6250	1.0000	2.0000	930-000-342	930-000-728	930-000-599	930-001-099
0.2031	0.2500	0.6094	1.7700	2.5000	930-000-344	930-000-730	N/A	930-001-100
0.2188	0.2500	0.6563	1.7634	2.5000	930-000-345	930-000-731	931-000-248	930-001-101
0.2344	0.2500	0.7031	1.7567	2.5000	930-000-346	930-000-732	N/A	930-001-102
0.2500	0.2500	0.7500	1.3750	2.5000	930-000-347	930-000-733	930-000-600	931-000-253
0.3125	0.3125	0.8125	1.3125	2.5000	930-000-348	930-000-734	931-000-249	931-000-254
0.3750	0.3750	1.0000	1.1250	2.5000	930-000-349	930-000-735	931-000-250	931-000-255
0.5000	0.5000	1.0000	1.6250	3.0000	930-000-352	930-000-738	931-000-251	930-001-104

Ø .0313" - .250"



STUB

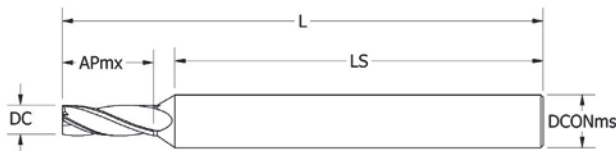
DC	DCONms	APmx	LS	L	UNCOATED	
					2 FLUTE	4 FLUTE
0.0313	0.1250	0.0625	1.1963	1.5000	930-001-447	931-000-265
0.0469	0.1250	0.0625	1.2365	1.5000	930-001-448	931-000-266
0.0625	0.1250	0.1250	1.2142	1.5000	930-001-449	931-000-267
0.0938	0.1250	0.1875	1.2321	1.5000	930-001-450	931-000-268
0.1250	0.1250	0.2500	0.8750	1.5000	930-001-451	931-000-269
0.1563	0.1875	0.3750	1.5446	2.0000	930-001-452	931-000-270
0.1875	0.1875	0.3750	1.2500	2.0000	930-001-453	931-000-271
0.2500	0.2500	0.5000	1.1250	2.0000	930-001-455	931-000-272

Ø .0313" - .50"



DC	DCONms	APmx	LS	L	TiAIN COATED			AMORPHOUS DIAMOND	
					2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0313	0.1250	0.0938	1.1651	1.5000	930-000-507	931-000-120	930-000-943	931-000-386	931-000-412
0.0469	0.1250	0.1406	1.1584	1.5000	930-000-508	931-000-123	930-000-944	931-000-388	931-000-414
0.0625	0.1250	0.1875	1.1517	1.5000	930-000-509	931-000-126	930-000-945	931-000-390	931-000-416
0.0781	0.1250	0.2344	1.1450	1.5000	930-000-510	931-000-129	930-000-946	931-000-392	931-000-418
0.0938	0.1250	0.2813	1.1384	1.5000	930-000-511	931-000-132	930-000-947	931-000-394	931-000-420
0.1094	0.1250	0.4375	1.0223	1.5000	N/A	N/A	N/A	931-000-396	931-000-422
0.1250	0.1250	0.5000	0.6250	1.5000	930-000-512	931-000-136	930-000-948	931-000-398	931-000-424
0.1406	0.1875	0.5000	1.3794	2.0000	N/A	N/A	N/A	931-000-400	931-000-429
0.1563	0.1875	0.5625	1.3571	2.0000	N/A	N/A	N/A	931-000-402	931-000-431
0.1875	0.1875	0.6250	1.0000	2.0000	N/A	N/A	N/A	931-000-404	931-000-433
0.2500	0.2500	0.7500	1.3750	2.5000	N/A	N/A	N/A	931-000-406	931-000-438
0.3750	0.3750	1.0000	1.1250	2.5000	N/A	N/A	N/A	931-000-408	931-000-445
0.5000	0.5000	1.0000	1.6250	3.0000	N/A	N/A	N/A	931-000-410	931-000-449

Ø .0313" - .125"

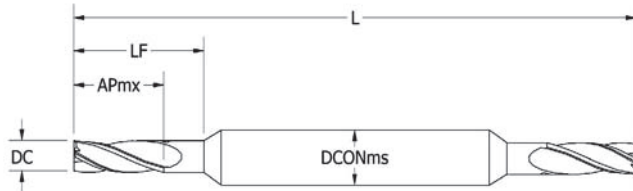


STUB



DC	DCONms	APmx	LS	L	TiAIN COATED	
					2 FLUTE	4 FLUTE
0.0313	0.1250	0.0625	1.1963	1.5000	930-001-559	931-000-273
0.0469	0.1250	0.0625	1.2365	1.5000	930-001-560	931-000-274
0.0625	0.1250	0.1250	1.2142	1.5000	930-001-561	931-000-275
0.0938	0.1250	0.1875	1.2321	1.5000	930-001-562	931-000-276
0.1250	0.1250	0.2500	0.8750	1.5000	930-001-563	931-000-277

Ø .0313" - .375"

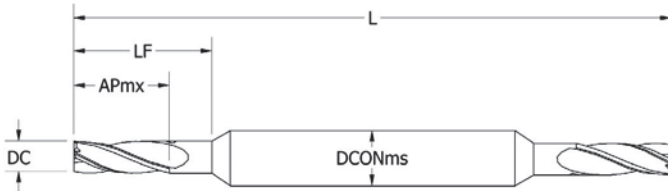


DC	DCONms	APmx	LS	L	LF	UNCOATED
						2 FLUTE
0.0313	0.1250	0.0625	0.7500	1.5000	0.0625	931-000-217
0.0469	0.1250	0.0625	0.7500	1.5000	0.0625	931-000-218
0.0625	0.1250	0.1250	0.7500	1.5000	0.1250	931-000-219
0.0781	0.1250	0.1250	0.7500	1.5000	0.1250	931-000-220
0.0938	0.1250	0.1875	0.7500	1.5000	0.1875	931-000-221
0.1094	0.1250	0.2500	0.7500	1.5000	0.2500	931-000-222
0.1250	0.1250	0.2500	0.7500	1.5000	N/A	931-000-223
0.1406	0.1875	0.3125	1.0000	2.0000	0.3125	931-000-224
0.1563	0.1875	0.3125	1.0000	2.0000	0.3125	931-000-225
0.1719	0.1875	0.3750	1.0000	2.0000	0.3750	931-000-226
0.1875	0.1875	0.3750	1.0000	2.0000	N/A	931-000-227
0.2188	0.2500	0.5000	1.2500	2.5000	0.5000	931-000-228
0.2500	0.2500	0.5000	1.2500	2.5000	N/A	931-000-229
0.3125	0.3125	0.5000	1.2500	2.5000	N/A	931-000-230
0.3750	0.3125	0.5000	1.2500	2.5000	N/A	931-000-231

Ø .0313" - .375"

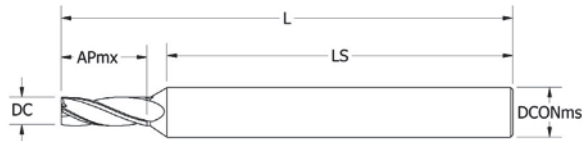


CARBIDE



DC	DCONms	APmx	LS	L	LF	UNCOATED
						4 FLUTE
0.0313	0.1250	0.0625	0.7500	1.5000	0.0625	931-000-232
0.0469	0.1250	0.0625	0.7500	1.5000	0.0625	931-000-233
0.0625	0.1250	0.1250	0.7500	1.5000	0.1250	931-000-234
0.0781	0.1250	0.1250	0.7500	1.5000	0.1250	931-000-235
0.0938	0.1250	0.1875	0.7500	1.5000	0.1875	931-000-236
0.1094	0.1250	0.2500	0.7500	1.5000	0.2500	931-000-237
0.1250	0.1250	0.2500	0.7500	1.5000	N/A	931-000-238
0.1406	0.1875	0.3125	1.0000	2.0000	0.3125	931-000-239
0.1563	0.1875	0.3125	1.0000	2.0000	0.3125	931-000-240
0.1719	0.1875	0.3750	1.0000	2.0000	0.3750	931-000-241
0.1875	0.1875	0.3750	1.0000	2.0000	N/A	931-000-242
0.2188	0.2500	0.5000	1.2500	2.5000	0.5000	931-000-243
0.2500	0.2500	0.5000	1.2500	2.5000	N/A	931-000-244
0.3125	0.3125	0.5000	1.2500	2.5000	N/A	931-000-245
0.3750	0.3750	0.5000	1.2500	2.5000	N/A	931-000-246

Ø .0156"-.125"

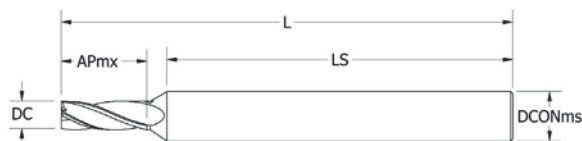


G MILLS



DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
					3 FLUTE	3 FLUTE	3 FLUTE
0.0156	0.1250	0.0781	2.1405	2.5000	931-000-193	930-000-126	931-000-456
0.0313	0.1250	0.1563	2.1026	2.5000	931-000-195	930-000-127	931-000-462
0.0469	0.1250	0.2500	2.0490	2.5000	931-000-200	930-000-129	931-000-474
0.0625	0.1250	0.5000	1.8392	2.5000	931-000-202	930-000-131	931-000-480
0.0781	0.1250	0.5000	1.8794	2.5000	931-000-206	930-000-132	931-000-492
0.0938	0.1250	0.7500	1.6696	2.5000	931-000-209	930-000-133	931-000-498
0.1250	0.1250	1.0000	1.6250	3.0000	931-000-214	930-000-134	931-000-510

Ø .0313"-.0938"



STUB



DC	DCONms	APmx	LS	L	LF	UNCOATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE
0.0313	0.1250	0.0625	2.2031	2.5000	0.2500	931-000-198	931-000-464
0.0313	0.1250	0.0625	2.0781	2.5000	0.3750	N/A	931-000-472
0.0313	0.1250	0.0625	1.9531	2.5000	0.5000	N/A	931-000-468
0.0625	0.1250	0.1250	1.9688	2.5000	0.5000	931-000-204	931-000-482
0.0625	0.1250	0.1250	1.7188	2.5000	0.7500	N/A	931-000-490
0.0625	0.1250	0.1250	1.4688	2.5000	1.0000	N/A	931-000-486
0.0938	0.1250	0.1875	1.7344	2.5000	0.7500	931-000-212	931-000-500
0.0938	0.1250	0.1875	1.4844	2.5000	1.0000	N/A	931-000-508
0.0938	0.1250	0.1875	1.2344	2.5000	1.2500	N/A	931-000-504

Ø .0156" - .250"



CARBIDE



LONG FLUTE



DC	DCONms	APmx	LS	L	LF	AMORPHOUS DIAMOND
						3 FLUTE
0.0156	0.1250	0.0781	2.2953	2.5000	0.1500	931-000-460
0.0156	0.1250	0.0781	2.1953	2.5000	0.2500	931-000-458
0.0313	0.1250	0.1563	2.2031	2.5000	0.2500	931-000-470
0.0313	0.1250	0.1563	2.0781	2.5000	0.3750	931-000-466
0.0469	0.1250	0.2500	2.0859	2.5000	0.3750	931-000-478
0.0469	0.1250	0.2500	1.9609	2.5000	0.5000	931-000-476
0.0625	0.1250	0.5000	1.7188	2.5000	0.7500	931-000-488
0.0625	0.1250	0.5000	1.4688	2.5000	1.0000	931-000-484
0.0781	0.1250	0.5000	1.7266	2.5000	0.7500	931-000-496
0.0781	0.1250	0.5000	1.4766	2.5000	1.0000	931-000-494
0.0938	0.1250	0.7500	1.4844	2.5000	1.0000	931-000-506
0.0938	0.1250	0.7500	1.2344	2.5000	1.2500	931-000-502
0.1250	0.1250	1.0000	1.7500	3.0000	1.2500	931-000-514
0.1250	0.1250	1.0000	1.5000	3.0000	1.5000	931-000-512



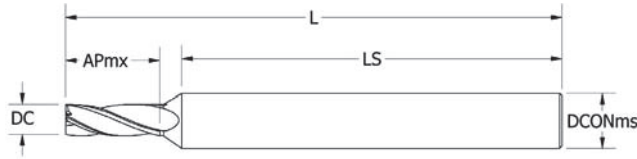
Ø .1875" - .250"



DC	DCONms	APmx	LS	L	LF	UNCOATED
						4 FLUTE
0.1875	0.1875	1.1250	1.5000	3.0000	1.5000	931-000-520
0.1875	0.1875	1.1250	1.2500	3.0000	1.7500	931-000-518
0.2500	0.2500	1.5000	2.0000	4.0000	2.0000	931-000-526
0.2500	0.2500	1.5000	1.5000	4.0000	2.5000	931-000-524

CARBIDE

Ø .0313"- .250"

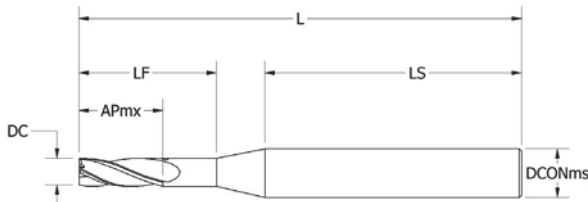


MULTI - FLUTE



DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED
					5 FLUTE	5 FLUTE
0.0313	0.1250	0.0938	1.1651	1.5000	930-003-859	N/A
0.0469	0.1250	0.1406	1.1584	1.5000	930-003-860	N/A
0.0625	0.1250	0.1875	1.1517	1.5000	930-003-861	N/A
0.0781	0.1250	0.1875	1.1919	1.5000	930-003-862	N/A
0.0938	0.1250	0.3750	1.0446	1.5000	930-003-863	N/A
0.1250	0.1250	0.5000	0.6250	1.5000	930-003-864	931-000-383
0.1875	0.1875	0.6250	1.0000	2.0000	930-003-865	931-000-384
0.2500	0.2500	0.7500	1.3750	2.5000	930-003-866	931-000-385

Ø .0313"- .250"



STUB, REACHED

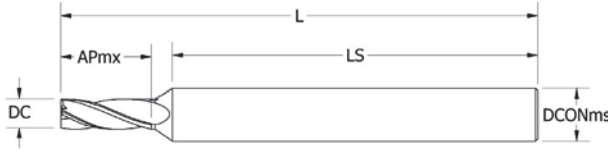


DC	DCONms	APmx	LS	L	LF	UNCOATED	TiCN COATED
						3 FLUTE	3 FLUTE
0.0313	0.2500	0.0625	2.2356	2.5000	0.1550	930-002-640	931-000-295
0.0469	0.2500	0.0938	2.1684	2.5000	0.2300	930-002-642	931-000-297
0.0625	0.2500	0.1250	2.0943	2.5000	0.3120	930-002-644	931-000-299
0.0781	0.2500	0.1563	2.0241	2.5000	0.3900	930-002-646	931-000-301
0.0938	0.2500	0.1875	1.9569	2.5000	0.4650	930-002-648	931-000-303
0.1094	0.2500	0.2188	1.8847	2.5000	0.5450	930-002-650	931-000-305
0.1250	0.2500	0.2500	1.8125	2.5000	0.6250	930-002-652	931-000-307
0.1563	0.2500	0.3750	1.6731	2.5000	0.7800	930-002-654	931-000-309
0.1875	0.2500	0.3750	1.5313	2.5000	0.9375	930-002-656	931-000-311
0.2188	0.2500	0.3750	1.3914	2.5000	1.0930	930-002-658	931-000-313
0.2500	0.2500	0.5000	1.2500	2.5000	1.2500	930-002-660	931-000-315

Ø .0313" - .375"



CARBIDE

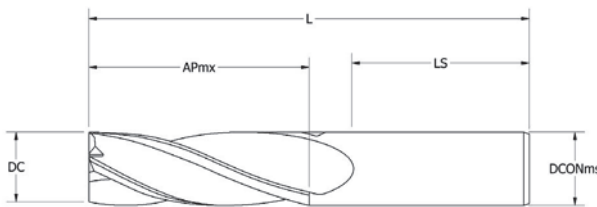


45 DEG. HELIX



DC	DCONms	APmx	LS	L	UNCOATED
					2 FLUTE
0.0313	0.1250	0.0938	1.1651	1.5000	930-000-612
0.0469	0.1250	0.1406	1.1584	1.5000	930-000-613
0.0625	0.1250	0.1875	1.1517	1.5000	930-000-614
0.0781	0.1250	0.1875	1.1919	1.5000	930-000-615
0.0938	0.1250	0.3750	1.0446	1.5000	930-000-616
0.1250	0.1250	0.3750	0.7500	1.5000	930-000-617
0.1875	0.1875	0.6250	1.0000	2.0000	930-000-618
0.2500	0.2500	0.7500	1.3750	2.5000	930-000-619

Ø .1250" - .375"

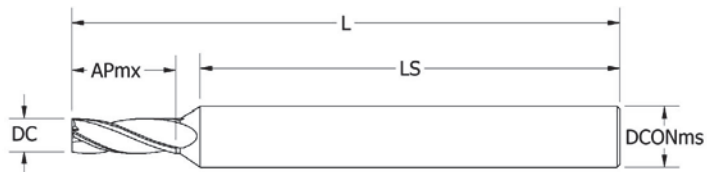


60 DEG. HELIX



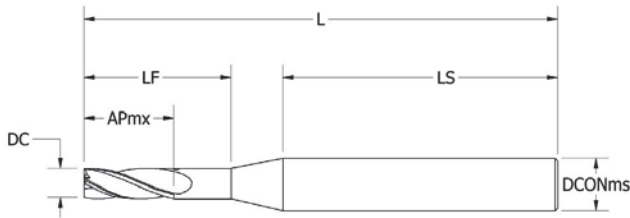
DC	DCONms	APmx	LS	L	UNCOATED	AITiN COATED
					3 FLUTE	3 FLUTE
0.1250	0.1250	0.5000	0.6250	1.5000	931-000-011	931-000-016
0.1875	0.1875	0.6250	1.0000	2.0000	931-000-012	931-000-017
0.2500	0.2500	0.7500	1.3750	2.5000	931-000-013	931-000-018
0.3125	0.3125	0.8125	1.3125	2.5000	931-000-014	931-000-019
0.3750	0.3750	0.8750	1.2500	2.5000	931-000-015	931-000-020

Ø .5 mm - 12 mm



DC	DCONms	APmx	LS	L	UNCOATED	
					2 FLUTE	4 FLUTE
0.50	3.00	1.50	30.07	38.00	930-000-001	930-000-033
1.00	3.00	3.00	29.86	38.00	930-000-002	930-000-034
1.50	3.00	4.50	29.64	38.00	930-000-003	930-000-035
3.00	3.00	6.00	29.43	38.00	930-000-004	930-000-036
2.50	3.00	8.00	28.71	38.00	930-000-005	930-000-037
3.00	3.00	10.00	18.00	38.00	930-000-006	930-000-038
3.50	4.00	12.00	36.71	50.00	930-000-007	930-000-039
4.00	4.00	12.00	28.00	50.00	930-000-008	930-000-040
4.50	5.00	14.00	34.71	50.00	930-000-009	930-000-041
5.00	5.00	15.00	25.00	50.00	930-000-010	930-000-042
6.00	6.00	18.00	35.00	63.00	930-000-011	930-000-043
7.00	8.00	20.00	40.43	63.00	930-000-012	930-000-044
8.00	8.00	20.00	33.00	63.00	930-000-013	930-000-045
9.00	10.00	22.00	38.43	63.00	930-000-014	930-000-046
10.00	10.00	22.00	31.00	63.00	930-000-015	930-000-047
12.00	12.00	25.00	40.00	75.00	930-000-016	930-000-048

Ø .4 mm - 12 mm

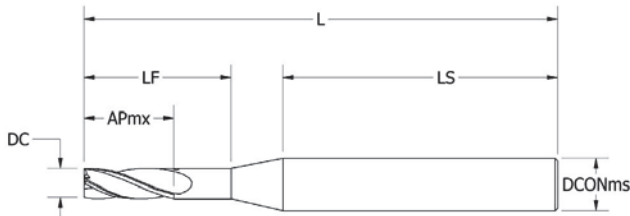


STUB, 8X REACH LENGTH



DC	DCONms	APmx	LS	L	LF	AMORPHOUS DIAMOND
						3 FLUTE
0.40	3.00	0.60	70.50	75.00	3.20	930-000-095
0.50	3.00	0.75	69.75	75.00	4.00	930-000-096
0.60	3.00	0.90	69.00	75.00	4.80	930-000-097
0.80	3.00	1.20	67.50	75.00	6.40	930-000-098
1.00	3.00	1.50	66.00	75.00	8.00	930-000-099
1.50	3.00	2.25	62.25	75.00	12.00	930-000-100
2.00	3.00	3.00	58.50	75.00	16.00	930-000-101
2.50	3.00	3.75	54.75	75.00	20.00	930-000-102
3.00	3.00	4.50	51.00	75.00	24.00	930-000-103
4.00	4.00	6.00	43.00	75.00	32.00	930-000-104
6.00	6.00	9.00	52.00	100.00	48.00	930-000-105
8.00	8.00	12.00	36.00	100.00	64.00	930-000-106
10.00	10.00	15.00	40.00	120.00	80.00	930-000-107
12.00	12.00	18.00	54.00	150.00	96.00	930-000-108

Ø .4 mm - 12 mm



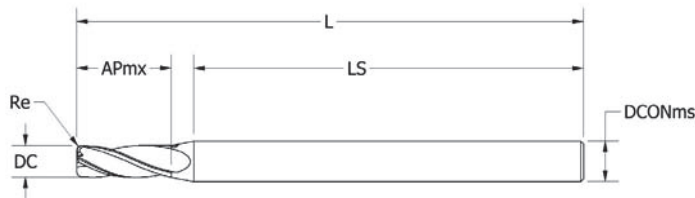
5X FLUTE LENGTH, 10X REACH LENGTH



DC	DCONms	APmx	LS	L	LF	AMORPHOUS DIAMOND
						3 FLUTE
0.40	3.00	2.00	69.70	75.00	4.00	930-000-065
0.50	3.00	2.50	68.75	75.00	5.00	930-000-066
0.60	3.00	3.00	67.80	75.00	6.00	930-000-067
0.80	3.00	4.00	65.90	75.00	8.00	930-000-068
1.00	3.00	5.00	64.00	75.00	10.00	930-000-069
1.20	3.00	6.00	62.10	75.00	12.00	930-000-070
1.50	3.00	7.50	59.25	75.00	15.00	930-000-071
2.00	3.00	10.00	54.50	75.00	20.00	930-000-072
2.50	3.00	12.50	49.75	75.00	25.00	930-000-073
3.00	3.00	15.00	45.00	75.00	30.00	930-000-074
4.00	4.00	20.00	35.00	75.00	40.00	930-000-075
6.00	6.00	30.00	40.00	100.00	60.00	930-000-076
8.00	8.00	40.00	30.00	100.00	70.00	930-000-077
10.00	10.00	50.00	40.00	120.00	80.00	930-000-078
12.00	12.00	60.00	65.00	150.00	85.00	930-000-079

CARBIDE

Ø .020" - .100"

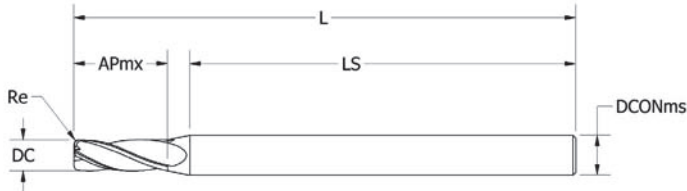


DC	DCONms	Re	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
						4 FLUTE	4 FLUTE	4 FLUTE
0.0200	0.1250	0.0050	0.0600	1.1699	1.5000	930-001-003	930-001-125	930-000-858
0.0250	0.1250	0.0050	0.0750	1.1678	1.5000	930-001-004	930-001-126	930-000-859
0.0300	0.1250	0.0050	0.0900	1.1656	1.5000	930-001-005	930-001-127	930-000-860
0.0300	0.1250	0.0100	0.0900	1.1656	1.5000	930-000-963	N/A	930-000-819
0.0310	0.1250	0.0050	0.0930	1.1652	1.5000	930-001-006	930-001-128	930-000-861
0.0310	0.1250	0.0100	0.0930	1.1652	1.5000	930-000-964	N/A	930-000-820
0.0350	0.1250	0.0050	0.1050	1.1635	1.5000	930-001-007	930-001-129	930-000-862
0.0350	0.1250	0.0100	0.1050	1.1635	1.5000	930-000-965	N/A	930-000-821
0.0400	0.1250	0.0050	0.1200	1.1614	1.5000	930-001-008	930-001-130	930-000-863
0.0400	0.1250	0.0100	0.1200	1.1614	1.5000	930-000-966	930-001-108	930-000-822
0.0450	0.1250	0.0050	0.1350	1.1592	1.5000	930-001-009	930-001-131	930-000-864
0.0450	0.1250	0.0100	0.1350	1.1592	1.5000	930-000-967	930-001-109	930-000-823
0.0450	0.1250	0.0150	0.1350	1.1592	1.5000	930-000-983	N/A	930-000-839
0.0470	0.1250	0.0050	0.1410	1.1584	1.5000	930-001-010	930-001-132	930-000-865
0.0470	0.1250	0.0100	0.1410	1.1584	1.5000	930-000-968	930-001-110	930-000-824
0.0470	0.1250	0.0150	0.1410	1.1584	1.5000	930-000-984	930-001-117	930-000-840
0.0500	0.1250	0.0050	0.1500	1.1571	1.5000	930-001-011	930-001-133	930-000-866
0.0500	0.1250	0.0100	0.1500	1.1571	1.5000	930-000-969	930-001-111	930-000-825
0.0500	0.1250	0.0150	0.1500	1.1571	1.5000	930-000-985	930-001-118	930-000-841
0.0550	0.1250	0.0050	0.1650	1.1549	1.5000	930-001-012	930-001-134	930-000-867
0.0550	0.1250	0.0100	0.1650	1.1549	1.5000	930-000-970	N/A	930-000-826
0.0550	0.1250	0.0150	0.1650	1.1549	1.5000	930-000-986	N/A	930-000-842
0.0600	0.1250	0.0050	0.1800	1.1528	1.5000	930-001-013	930-001-135	930-000-868
0.0600	0.1250	0.0100	0.1800	1.1528	1.5000	930-000-971	930-001-112	930-000-827
0.0600	0.1250	0.0150	0.1800	1.1528	1.5000	930-000-987	930-001-119	930-000-843
0.0620	0.1250	0.0050	0.1860	1.1519	1.5000	930-001-014	N/A	930-000-869
0.0620	0.1250	0.0100	0.1860	1.1519	1.5000	930-000-972	N/A	930-000-828
0.0620	0.1250	0.0150	0.1860	1.1519	1.5000	930-000-988	N/A	930-000-844
0.0620	0.1250	0.0200	0.1860	1.1519	1.5000	930-000-999	N/A	930-000-855
0.0650	0.1250	0.0050	0.1950	1.1507	1.5000	930-001-015	N/A	930-000-870
0.0650	0.1250	0.0100	0.1950	1.1507	1.5000	930-000-973	N/A	930-000-829
0.0650	0.1250	0.0150	0.1950	1.1507	1.5000	930-000-989	N/A	930-000-845

Ø .020" - .100"



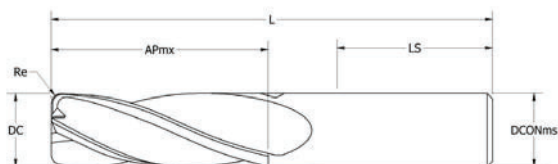
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
						4 FLUTE	4 FLUTE	4 FLUTE
0.0700	0.1250	0.0050	0.2100	1.1485	1.5000	930-001-016	930-001-136	930-000-871
0.0700	0.1250	0.0100	0.2100	1.1485	1.5000	930-000-974	930-001-113	930-000-830
0.0700	0.1250	0.0150	0.2100	1.1485	1.5000	930-000-990	930-001-121	930-000-846
0.0750	0.1250	0.0050	0.2250	1.1464	1.5000	930-001-017	N/A	930-000-872
0.0750	0.1250	0.0100	0.2250	1.1464	1.5000	930-000-975	N/A	930-000-831
0.0750	0.1250	0.0150	0.2250	1.1464	1.5000	930-000-991	N/A	930-000-847
0.0780	0.1250	0.0050	0.2340	1.1451	1.5000	930-001-018	N/A	930-000-873
0.0780	0.1250	0.0100	0.2340	1.1451	1.5000	930-000-976	N/A	930-000-832
0.0780	0.1250	0.0150	0.2340	1.1451	1.5000	930-000-992	N/A	930-000-848
0.0780	0.1250	0.0200	0.2340	1.1451	1.5000	930-001-001	N/A	930-000-856
0.0800	0.1250	0.0050	0.2400	1.1442	1.5000	930-001-019	930-001-137	930-000-874
0.0800	0.1250	0.0100	0.2400	1.1442	1.5000	930-000-977	930-001-114	930-000-833
0.0800	0.1250	0.0150	0.2400	1.1442	1.5000	930-000-993	930-001-122	930-000-849
0.0850	0.1250	0.0050	0.2550	1.1421	1.5000	930-001-020	N/A	930-000-875
0.0850	0.1250	0.0100	0.2550	1.1421	1.5000	930-000-978	N/A	930-000-834
0.0850	0.1250	0.0150	0.2550	1.1421	1.5000	930-000-994	N/A	930-000-850
0.0900	0.1250	0.0050	0.2700	1.1400	1.5000	930-001-021	930-001-138	930-000-876
0.0900	0.1250	0.0100	0.2700	1.1400	1.5000	930-000-979	930-001-115	930-000-835
0.0900	0.1250	0.0150	0.2700	1.1400	1.5000	930-000-995	930-001-123	930-000-851
0.0930	0.1250	0.0050	0.2790	1.1387	1.5000	930-001-022	N/A	930-000-877
0.0930	0.1250	0.0100	0.2790	1.1387	1.5000	930-000-980	N/A	930-000-836
0.0930	0.1250	0.0150	0.2790	1.1387	1.5000	930-000-996	N/A	930-000-852
0.0930	0.1250	0.0200	0.2790	1.1387	1.5000	930-001-002	N/A	930-000-857
0.0950	0.1250	0.0050	0.2850	1.1378	1.5000	930-001-023	N/A	930-000-878
0.0950	0.1250	0.0100	0.2850	1.1378	1.5000	930-000-981	N/A	930-000-837
0.0950	0.1250	0.0150	0.2850	1.1378	1.5000	930-000-997	N/A	930-000-853
0.1000	0.1250	0.0050	0.3000	1.1357	1.5000	930-001-024	930-001-139	930-000-879
0.1000	0.1250	0.0100	0.3000	1.1357	1.5000	930-000-982	930-001-116	930-000-838
0.1000	0.1250	0.0150	0.3000	1.1357	1.5000	930-000-998	930-001-124	930-000-854

CARBIDE

Ø .125" - .375"

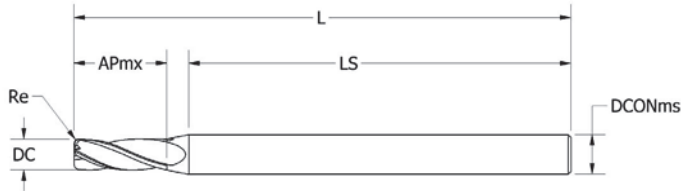


DC	DCONms	Re	APmx	LS	L	UNCOATED		AITiN COATED	AMORPHOUS DIAMOND
						2 FLUTE	4 FLUTE	4 FLUTE	4 FLUTE
0.1250	0.1250	0.0100	0.5000	0.6250	1.5000	931-000-098	931-000-147	931-000-150	931-000-426
0.1250	0.1250	0.0150	0.5000	0.6250	1.5000	931-000-099	931-000-148	931-000-151	931-000-427
0.1250	0.1250	0.0200	0.5000	0.6250	1.5000	931-000-100	931-000-149	931-000-152	931-000-428
0.1875	0.1875	0.0100	0.6250	1.0000	2.0000	931-000-101	931-000-153	931-000-156	931-000-435
0.1875	0.1875	0.0150	0.6250	1.0000	2.0000	931-000-102	931-000-154	931-000-157	931-000-436
0.1875	0.1875	0.0300	0.6250	1.0000	2.0000	931-000-103	931-000-155	931-000-158	931-000-437
0.2500	0.2500	0.0150	0.7500	1.3750	2.5000	931-000-104	931-000-159	931-000-164	931-000-440
0.2500	0.2500	0.0200	0.7500	1.3750	2.5000	931-000-105	931-000-160	931-000-165	931-000-441
0.2500	0.2500	0.0300	0.7500	1.3750	2.5000	931-000-106	931-000-161	931-000-166	931-000-442
0.2500	0.2500	0.0450	0.7500	1.3750	2.5000	931-000-107	931-000-162	931-000-167	931-000-443
0.2500	0.2500	0.0600	0.7500	1.3750	2.5000	931-000-108	931-000-163	931-000-168	931-000-444
0.3125	0.3125	0.0150	0.8125	1.3125	2.5000	931-000-109	931-000-169	N/A	N/A
0.3125	0.3125	0.0200	0.8125	1.3125	2.5000	931-000-110	931-000-170	N/A	N/A
0.3125	0.3125	0.0300	0.8125	1.3125	2.5000	931-000-111	931-000-171	931-000-174	N/A
0.3125	0.3125	0.0450	0.8125	1.3125	2.5000	931-000-112	931-000-172	931-000-175	N/A
0.3125	0.3125	0.0600	0.8125	1.3125	2.5000	931-000-113	931-000-173	931-000-176	N/A
0.3750	0.3750	0.0150	1.0000	1.1250	2.5000	931-000-114	931-000-177	N/A	N/A
0.3750	0.3750	0.0300	1.0000	1.1250	2.5000	931-000-115	931-000-178	931-000-181	931-000-447
0.3750	0.3750	0.0450	1.0000	1.1250	2.5000	931-000-116	931-000-179	931-000-182	N/A
0.3750	0.3750	0.0600	1.0000	1.1250	2.5000	931-000-117	931-000-180	931-000-183	931-000-448

Ø .020" - .093"

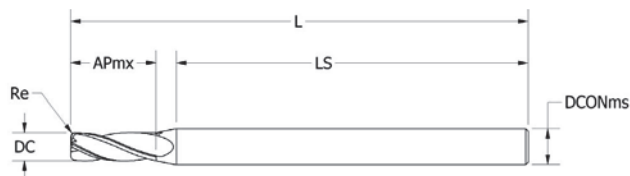


CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
						4 FLUTE	4 FLUTE	4 FLUTE
0.0200	0.1250	0.0050	0.0300	1.1999	1.5000	930-001-802	930-001-788	930-001-743
0.0250	0.1250	0.0050	0.0375	1.2053	1.5000	930-001-803	930-001-789	930-001-744
0.0310	0.1250	0.0050	0.0465	1.2117	1.5000	930-001-804	930-001-790	930-001-745
0.0470	0.1250	0.0050	0.0705	1.2289	1.5000	930-001-805	930-001-791	930-001-746
0.0470	0.1250	0.0100	0.0705	1.2289	1.5000	930-001-795	930-001-781	930-001-736
0.0620	0.1250	0.0050	0.0930	1.2449	1.5000	930-001-806	930-001-792	930-001-747
0.0620	0.1250	0.0100	0.0930	1.2449	1.5000	930-001-796	930-001-782	930-001-737
0.0620	0.1250	0.0150	0.0930	1.2449	1.5000	930-001-799	930-001-785	930-001-740
0.0780	0.1250	0.0050	0.1170	1.2621	1.5000	930-001-807	930-001-793	930-001-748
0.0780	0.1250	0.0100	0.1170	1.2621	1.5000	930-001-797	930-001-783	930-001-738
0.0780	0.1250	0.0150	0.1170	1.2621	1.5000	930-001-800	930-001-786	930-001-741
0.0930	0.1250	0.0050	0.1395	1.2782	1.5000	930-001-808	930-001-794	930-001-749
0.0930	0.1250	0.0100	0.1395	1.2782	1.5000	930-001-798	930-001-784	930-001-739
0.0930	0.1250	0.0150	0.1395	1.2782	1.5000	930-001-801	930-001-787	930-001-742

Ø .015" - .093"

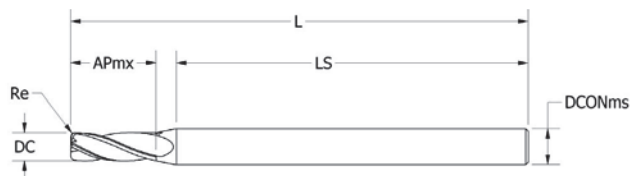


HARD MILL



DC	DCONms	Re	APmx	LS	L	HARD MILL COATED
						4 FLUTE
0.0150	0.1250	0.0020	0.0225	1.1945	1.5000	930-001-809
0.0310	0.1250	0.0030	0.0465	1.2117	1.5000	930-001-810
0.0470	0.1250	0.0050	0.0705	1.2289	1.5000	930-001-811
0.0620	0.1250	0.0060	0.0930	1.2449	1.5000	930-001-812
0.0780	0.1250	0.0080	0.1170	1.2621	1.5000	930-001-813
0.0930	0.1250	0.0090	0.1395	1.2782	1.5000	930-001-814

Ø .0313" - .25"



HARD MILL, STUB

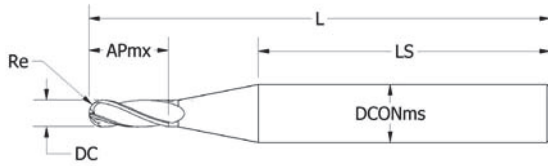


DC	DCONms	Re	APmx	LS	L	HARD MILL COATED
						4 FLUTE
0.0313	0.1250	0.0030	0.0625	1.1963	1.5000	931-000-278
0.0469	0.1250	0.0050	0.0625	1.2365	1.5000	931-000-279
0.0625	0.1250	0.0060	0.1250	1.2142	1.5000	931-000-280
0.0781	0.1250	0.0080	0.1250	1.2544	1.5000	931-000-281
0.0938	0.1250	0.0090	0.1875	1.2321	1.5000	931-000-282
0.1250	0.1250	0.0130	0.2500	0.8750	1.5000	931-000-283
0.1875	0.1875	0.0190	0.3750	1.2500	2.0000	931-000-284
0.2500	0.2500	0.0250	0.5000	1.6250	2.5000	931-000-285

Ø .005" - .044"



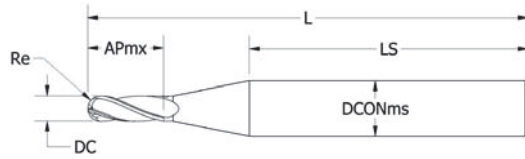
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED		AITiN COATED
						2 FLUTE	4 FLUTE	2 FLUTE
0.0050	0.1250	0.0025	0.0150	1.1342	1.5000	930-001-965	N/A	930-002-249
0.0060	0.1250	0.0030	0.0180	1.1342	1.5000	930-001-967	N/A	930-002-250
0.0070	0.1250	0.0035	0.0210	1.1342	1.5000	930-001-968	N/A	930-002-251
0.0080	0.1250	0.0040	0.0240	1.1342	1.5000	930-001-969	N/A	930-002-252
0.0090	0.1250	0.0045	0.0270	1.1342	1.5000	930-001-970	N/A	930-002-253
0.0100	0.1250	0.0050	0.0300	1.1742	1.5000	930-001-971	930-002-341	930-002-254
0.0110	0.1250	0.0055	0.0330	1.1738	1.5000	930-001-973	930-002-343	930-002-255
0.0120	0.1250	0.0060	0.0360	1.1733	1.5000	930-001-974	930-002-344	930-002-256
0.0130	0.1250	0.0065	0.0390	1.1729	1.5000	930-001-975	930-002-345	930-002-257
0.0140	0.1250	0.0070	0.0420	1.1725	1.5000	930-001-976	930-002-346	930-002-258
0.0150	0.1250	0.0075	0.0450	1.1720	1.5000	930-001-977	930-002-347	930-002-259
0.0156	0.1250	0.0078	0.0468	1.1718	1.5000	930-002-084	930-002-453	N/A
0.0160	0.1250	0.0080	0.0480	1.1716	1.5000	930-001-979	930-002-349	930-002-260
0.0170	0.1250	0.0085	0.0510	1.1712	1.5000	930-001-980	930-002-350	930-002-261
0.0180	0.1250	0.0090	0.0540	1.1708	1.5000	930-001-981	930-002-351	930-002-262
0.0190	0.1250	0.0095	0.0570	1.1703	1.5000	930-001-982	930-002-352	930-002-263
0.0197	0.1250	0.0099	0.0591	1.1700	1.5000	930-002-065	930-002-434	N/A
0.0200	0.1250	0.0100	0.0600	1.1699	1.5000	930-001-983	930-002-353	930-002-264
0.0210	0.1250	0.0105	0.0630	1.1695	1.5000	930-001-985	930-002-355	930-002-265
0.0220	0.1250	0.0110	0.0660	1.1691	1.5000	930-001-986	930-002-356	930-002-266
0.0230	0.1250	0.0115	0.0690	1.1686	1.5000	930-001-987	930-002-357	930-002-267
0.0240	0.1250	0.0120	0.0720	1.1682	1.5000	930-001-988	930-002-358	930-002-268
0.0250	0.1250	0.0125	0.0750	1.1678	1.5000	930-001-989	930-002-359	930-002-269
0.0260	0.1250	0.0130	0.0780	1.1673	1.5000	930-001-991	930-002-361	930-002-270
0.0270	0.1250	0.0135	0.0810	1.1669	1.5000	930-001-992	930-002-362	930-002-271
0.0280	0.1250	0.0140	0.0840	1.1665	1.5000	930-001-993	930-002-363	930-002-272
0.0290	0.1250	0.0145	0.0870	1.1661	1.5000	930-001-994	930-002-364	930-002-273
0.0300	0.1250	0.0150	0.0900	1.1656	1.5000	930-001-995	930-002-365	930-002-274
0.0312	0.1250	0.0156	0.0936	1.1651	1.5000	930-001-997	930-002-367	930-002-275
0.0320	0.1250	0.0160	0.0960	1.1648	1.5000	930-001-998	930-002-368	930-002-276
0.0330	0.1250	0.0165	0.0990	1.1644	1.5000	930-001-999	930-002-369	930-002-277
0.0340	0.1250	0.0170	0.1020	1.1639	1.5000	930-002-001	930-002-370	930-002-278
0.0350	0.1250	0.0175	0.1050	1.1635	1.5000	930-002-002	930-002-371	930-002-279
0.0360	0.1250	0.0180	0.1080	1.1631	1.5000	930-002-004	930-002-373	930-002-280
0.0370	0.1250	0.0185	0.1110	1.1626	1.5000	930-002-005	930-002-374	930-002-281
0.0380	0.1250	0.0190	0.1140	1.1622	1.5000	930-002-006	930-002-375	930-002-282
0.0390	0.1250	0.0195	0.1170	1.1618	1.5000	930-002-007	930-002-376	930-002-283
0.0394	0.1250	0.0197	0.1182	1.1616	1.5000	930-002-072	930-002-441	882-E-0394
0.0400	0.1250	0.0200	0.1200	1.1614	1.5000	930-002-008	930-002-377	930-002-284
0.0410	0.1250	0.0205	0.1230	1.1609	1.5000	930-002-010	930-002-379	930-002-285
0.0420	0.1250	0.0210	0.1260	1.1605	1.5000	930-002-011	930-002-380	930-002-286
0.0430	0.1250	0.0215	0.1290	1.1601	1.5000	930-002-012	930-002-381	930-002-287
0.0440	0.1250	0.0220	0.1320	1.1596	1.5000	930-002-013	930-002-382	930-002-288

CARBIDE

Ø .005" - .044"

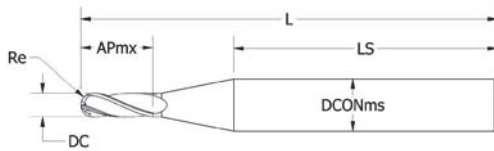


DC	DCONms	Re	APmx	LS	L	TIAlN COATED		AMORPHOUS DIAMOND	
						2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0050	0.1250	0.0025	0.0150	1.1342	1.5000	930-002-161	N/A	930-002-086	N/A
0.0060	0.1250	0.0030	0.0180	1.1342	1.5000	930-002-162	N/A	930-002-087	N/A
0.0070	0.1250	0.0035	0.0210	1.1342	1.5000	930-002-163	N/A	930-002-088	N/A
0.0080	0.1250	0.0040	0.0240	1.1342	1.5000	930-002-164	N/A	930-002-089	N/A
0.0090	0.1250	0.0045	0.0270	1.1342	1.5000	930-002-165	N/A	930-002-090	N/A
0.0100	0.1250	0.0050	0.0300	1.1742	1.5000	930-002-166	930-002-523	930-002-091	930-002-455
0.0110	0.1250	0.0055	0.0330	1.1738	1.5000	930-002-167	930-002-524	930-002-092	930-002-456
0.0120	0.1250	0.0060	0.0360	1.1733	1.5000	930-002-168	930-002-525	930-002-093	930-002-457
0.0130	0.1250	0.0065	0.0390	1.1729	1.5000	930-002-169	930-002-526	930-002-094	930-002-458
0.0140	0.1250	0.0070	0.0420	1.1725	1.5000	930-002-170	930-002-527	930-002-095	930-002-459
0.0150	0.1250	0.0075	0.0450	1.1720	1.5000	930-002-171	930-002-528	930-002-096	930-002-460
0.0156	0.1250	0.0078	0.0468	1.1718	1.5000	930-002-247	883-C-1560	N/A	N/A
0.0160	0.1250	0.0080	0.0480	1.1716	1.5000	930-002-172	930-002-529	930-002-097	930-002-461
0.0170	0.1250	0.0085	0.0510	1.1712	1.5000	930-002-173	930-002-530	930-002-098	930-002-462
0.0180	0.1250	0.0090	0.0540	1.1708	1.5000	930-002-174	930-002-531	930-002-099	930-002-463
0.0190	0.1250	0.0095	0.0570	1.1703	1.5000	930-002-175	930-002-532	930-002-100	930-002-464
0.0197	0.1250	0.0099	0.0591	1.1700	1.5000	930-002-235	930-002-592	N/A	N/A
0.0200	0.1250	0.0100	0.0600	1.1699	1.5000	930-002-176	930-002-533	930-002-101	930-002-465
0.0210	0.1250	0.0105	0.0630	1.1695	1.5000	930-002-177	930-002-534	930-002-102	930-002-466
0.0220	0.1250	0.0110	0.0660	1.1691	1.5000	930-002-178	930-002-535	930-002-103	930-002-467
0.0230	0.1250	0.0115	0.0690	1.1686	1.5000	930-002-179	930-002-536	930-002-104	930-002-468
0.0240	0.1250	0.0120	0.0720	1.1682	1.5000	930-002-180	930-002-537	930-002-105	930-002-469
0.0250	0.1250	0.0125	0.0750	1.1678	1.5000	930-002-181	930-002-538	930-002-106	930-002-470
0.0260	0.1250	0.0130	0.0780	1.1673	1.5000	930-002-182	930-002-539	930-002-107	930-002-471
0.0270	0.1250	0.0135	0.0810	1.1669	1.5000	930-002-183	930-002-540	930-002-108	930-002-472
0.0280	0.1250	0.0140	0.0840	1.1665	1.5000	930-002-184	930-002-541	930-002-109	930-002-473
0.0290	0.1250	0.0145	0.0870	1.1661	1.5000	930-002-185	930-002-542	930-002-110	930-002-474
0.0300	0.1250	0.0150	0.0900	1.1656	1.5000	930-002-186	930-002-543	930-002-111	930-002-475
0.0310	0.1250	0.0155	0.0930	1.1652	1.5000	930-002-187	930-002-544	930-002-112	930-002-476
0.0320	0.1250	0.0160	0.0960	1.1648	1.5000	930-002-188	930-002-545	930-002-113	930-002-477
0.0330	0.1250	0.0165	0.0990	1.1644	1.5000	930-002-189	930-002-546	930-002-114	930-002-478
0.0340	0.1250	0.0170	0.1020	1.1639	1.5000	930-002-190	930-002-547	930-002-115	930-002-479
0.0350	0.1250	0.0175	0.1050	1.1635	1.5000	930-002-191	930-002-548	930-002-116	930-002-480
0.0360	0.1250	0.0180	0.1080	1.1631	1.5000	930-002-192	930-002-549	930-002-117	930-002-481
0.0370	0.1250	0.0185	0.1110	1.1626	1.5000	930-002-193	930-002-550	930-002-118	930-002-482
0.0380	0.1250	0.0190	0.1140	1.1622	1.5000	930-002-194	930-002-551	930-002-119	930-002-483
0.0390	0.1250	0.0195	0.1170	1.1618	1.5000	930-002-195	930-002-552	930-002-120	930-002-484
0.0394	0.1250	0.0197	0.1182	1.1616	1.5000	930-002-236	930-002-593	930-002-156	930-002-518
0.0400	0.1250	0.0200	0.1200	1.1614	1.5000	930-002-196	930-002-553	930-002-121	930-002-485
0.0410	0.1250	0.0205	0.1230	1.1609	1.5000	930-002-197	930-002-554	930-002-122	930-002-486
0.0420	0.1250	0.0210	0.1260	1.1605	1.5000	930-002-198	930-002-555	930-002-123	930-002-487
0.0430	0.1250	0.0215	0.1290	1.1601	1.5000	930-002-199	930-002-556	930-002-124	930-002-488
0.0440	0.1250	0.0220	0.1320	1.1596	1.5000	930-002-200	930-002-557	930-002-125	930-002-489

Ø .045" - .1772"



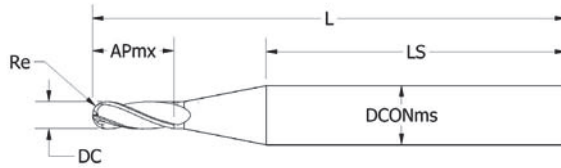
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED		AITIN COATED
						2 FLUTE	4 FLUTE	2 FLUTE
0.0450	0.1250	0.0225	0.1350	1.1592	1.5000	930-002-014	930-002-383	930-002-289
0.0460	0.1250	0.0230	0.1380	1.1588	1.5000	930-002-016	930-002-385	930-002-290
0.0468	0.1250	0.0234	0.1404	1.1584	1.5000	930-002-017	930-002-386	930-002-291
0.0480	0.1250	0.0240	0.1440	1.1579	1.5000	930-002-018	930-002-387	930-002-292
0.0490	0.1250	0.0245	0.1470	1.1575	1.5000	930-002-019	930-002-388	930-002-293
0.0492	0.1250	0.0246	0.1476	1.1574	1.5000	930-002-073	930-002-442	930-003-878
0.0500	0.1250	0.0250	0.1500	1.1571	1.5000	930-002-020	930-002-389	930-002-294
0.0510	0.1250	0.0255	0.1530	1.1567	1.5000	930-002-022	930-002-391	930-002-295
0.0520	0.1250	0.0260	0.1560	1.1562	1.5000	930-002-023	930-002-392	930-002-296
0.0530	0.1250	0.0265	0.1590	1.1558	1.5000	930-002-024	930-002-393	930-002-297
0.0540	0.1250	0.0270	0.1620	1.1554	1.5000	930-002-025	930-002-394	930-002-298
0.0550	0.1250	0.0275	0.1650	1.1549	1.5000	930-002-026	930-002-395	930-002-299
0.0560	0.1250	0.0280	0.1680	1.1545	1.5000	930-002-028	930-002-397	930-002-300
0.0570	0.1250	0.0285	0.1710	1.1541	1.5000	930-002-029	930-002-398	930-002-301
0.0580	0.1250	0.0290	0.1740	1.1537	1.5000	930-002-030	930-002-399	930-002-302
0.0590	0.1250	0.0295	0.1770	1.1532	1.5000	930-002-031	930-002-400	930-002-303
0.0591	0.1250	0.0296	0.1773	1.1532	1.5000	930-002-075	930-002-444	930-002-322
0.0600	0.1250	0.0300	0.1800	1.1528	1.5000	930-002-032	930-002-401	930-002-304
0.0620	0.1250	0.0310	0.1860	1.1519	1.5000	930-002-034	930-002-403	930-002-305
0.0630	0.1250	0.0315	0.1890	1.1515	1.5000	930-002-076	930-002-445	N/A
0.0640	0.1250	0.0320	0.1920	1.1511	1.5000	930-002-035	930-002-404	N/A
0.0650	0.1250	0.0325	0.1950	1.1507	1.5000	930-002-036	930-002-405	930-002-304
0.0700	0.1250	0.0350	0.2100	1.1485	1.5000	930-002-038	930-002-407	930-002-305
0.0709	0.1250	0.0355	0.2127	1.1481	1.5000	930-002-077	930-002-446	N/A
0.0750	0.1250	0.0375	0.2250	1.1464	1.5000	930-002-040	930-002-409	930-002-308
0.0781	0.1250	0.0391	0.2343	1.1451	1.5000	930-002-041	930-002-410	930-002-309
0.0787	0.1250	0.0394	0.2361	1.1448	1.5000	930-002-078	930-002-447	N/A
0.0800	0.1250	0.0400	0.2400	1.1442	1.5000	930-002-042	930-002-411	930-002-310
0.0850	0.1250	0.0425	0.2550	1.1421	1.5000	930-002-044	930-002-413	930-002-311
0.0866	0.1250	0.0433	0.2598	1.1414	1.5000	930-002-079	930-002-448	N/A
0.0900	0.1250	0.0450	0.2700	1.1400	1.5000	930-002-045	930-002-414	930-002-312
0.0938	0.1250	0.0469	0.2814	1.1383	1.5000	930-002-047	930-002-416	930-002-313
0.0950	0.1250	0.0475	0.2850	1.1378	1.5000	930-002-048	930-002-417	930-002-314
0.0984	0.1250	0.0492	0.2952	1.1364	1.5000	930-002-080	930-002-449	N/A
0.1000	0.1250	0.0500	0.3000	1.1357	1.5000	930-002-049	930-002-418	930-002-315
0.1050	0.1250	0.0525	0.3150	1.1336	1.5000	930-002-051	930-002-420	930-002-316
0.1102	0.1250	0.0551	0.3306	1.1313	1.5000	930-002-081	930-002-450	930-002-323
0.1150	0.1250	0.0575	0.3450	1.1293	1.5000	930-002-052	930-002-421	930-002-317
0.1181	0.1250	0.0591	0.3543	1.1280	1.5000	930-002-082	930-002-451	930-002-324
0.1200	0.1250	0.0600	0.3600	1.1271	1.5000	930-002-053	930-002-422	930-002-318
0.1378	0.1875	0.0689	0.4134	1.4588	2.0000	930-002-083	930-002-452	N/A
0.1772	0.1875	0.0886	0.5316	1.4419	2.0000	930-002-085	930-002-454	N/A

CARBIDE

Ø .045" - .1772"

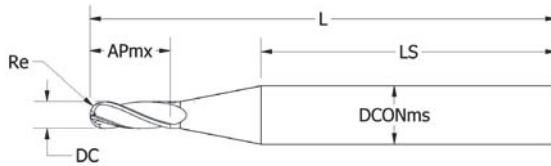


DC	DCONms	Re	APmx	LS	L	TiAIN COATED		AMORPHOUS DIAMOND	
						2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0450	0.1250	0.0225	0.1350	1.1592	1.5000	930-002-201	930-002-558	930-002-126	930-002-490
0.0460	0.1250	0.0230	0.1380	1.1588	1.5000	930-002-202	930-002-559	930-002-127	930-002-491
0.0470	0.1250	0.0235	0.1410	1.1584	1.5000	930-002-203	930-002-560	930-002-128	930-002-492
0.0480	0.1250	0.0240	0.1440	1.1579	1.5000	930-002-204	930-002-561	930-002-129	930-002-493
0.0490	0.1250	0.0245	0.1470	1.1575	1.5000	930-002-205	930-002-562	930-002-130	930-002-494
0.0492	0.1250	0.0246	0.1476	1.1574	1.5000	930-002-237	930-002-594	930-002-157	930-002-519
0.0500	0.1250	0.0250	0.1500	1.1571	1.5000	930-002-206	930-002-563	930-002-131	930-002-495
0.0510	0.1250	0.0255	0.1530	1.1567	1.5000	930-002-207	930-002-564	930-002-132	930-002-496
0.0520	0.1250	0.0260	0.1560	1.1562	1.5000	930-002-208	930-002-565	930-002-133	930-002-497
0.0530	0.1250	0.0265	0.1590	1.1558	1.5000	930-002-209	930-002-566	930-002-134	930-002-498
0.0540	0.1250	0.0270	0.1620	1.1554	1.5000	930-002-210	930-002-567	930-002-135	930-002-499
0.0550	0.1250	0.0275	0.1650	1.1549	1.5000	930-002-211	930-002-568	930-002-136	930-002-500
0.0560	0.1250	0.0280	0.1680	1.1545	1.5000	930-002-212	930-002-569	930-002-137	930-002-501
0.0570	0.1250	0.0285	0.1710	1.1541	1.5000	930-002-213	930-002-570	930-002-138	930-002-502
0.0580	0.1250	0.0290	0.1740	1.1537	1.5000	930-002-214	930-002-571	930-002-139	930-002-503
0.0590	0.1250	0.0295	0.1770	1.1532	1.5000	930-002-215	930-002-572	930-002-140	930-002-504
0.0591	0.1250	0.0296	0.1773	1.1532	1.5000	930-002-238	930-002-595	930-002-158	930-002-520
0.0600	0.1250	0.0300	0.1800	1.1528	1.5000	930-002-216	930-002-573	930-002-141	930-002-505
0.0620	0.1250	0.0310	0.1860	1.1519	1.5000	930-002-217	930-002-574	930-002-142	930-002-506
0.0630	0.1250	0.0315	0.1890	1.1515	1.5000	930-002-239	930-002-596	N/A	N/A
0.0650	0.1250	0.0325	0.1950	1.1507	1.5000	930-002-218	930-002-575	930-002-143	930-002-507
0.0700	0.1250	0.0350	0.2100	1.1485	1.5000	930-002-219	930-002-576	N/A	N/A
0.0709	0.1250	0.0355	0.2127	1.1481	1.5000	930-002-240	930-002-597	N/A	N/A
0.0750	0.1250	0.0375	0.2250	1.1464	1.5000	930-002-220	930-002-577	930-002-145	930-002-509
0.0781	0.1250	0.0391	0.2343	1.1451	1.5000	930-002-221	930-002-578	930-002-146	930-002-510
0.0787	0.1250	0.0394	0.2361	1.1448	1.5000	930-002-241	930-002-598	N/A	N/A
0.0800	0.1250	0.0400	0.2400	1.1442	1.5000	930-002-222	930-002-579	930-002-147	930-002-511
0.0850	0.1250	0.0425	0.2550	1.1421	1.5000	930-002-223	930-002-580	930-002-148	930-002-512
0.0866	0.1250	0.0433	0.2598	1.1414	1.5000	930-002-242	930-002-599	N/A	N/A
0.0900	0.1250	0.0450	0.2700	1.1400	1.5000	930-002-224	930-002-581	930-002-149	930-002-513
0.0938	0.1250	0.0469	0.2814	1.1383	1.5000	930-002-225	930-002-582	930-002-150	930-002-514
0.0950	0.1250	0.0475	0.2850	1.1378	1.5000	930-002-226	930-002-583	930-002-151	930-002-515
0.0984	0.1250	0.0492	0.2952	1.1364	1.5000	930-002-243	930-002-600	N/A	N/A
0.1000	0.1250	0.0500	0.3000	1.1357	1.5000	930-002-227	930-002-584	930-002-152	930-002-516
0.1102	0.1250	0.0551	0.3306	1.1313	1.5000	930-002-244	930-002-601	930-002-159	930-002-521
0.1181	0.1250	0.0591	0.3543	1.1280	1.5000	930-002-245	930-002-602	930-002-160	930-002-522
0.1200	0.1250	0.0600	0.3600	1.1271	1.5000	930-002-228	930-002-585	930-002-155	930-002-517
0.1378	0.1875	0.0689	0.4134	1.4588	2.0000	930-002-246	930-002-603	N/A	N/A
0.1772	0.1875	0.0886	0.5316	1.4419	2.0000	930-002-248	930-002-605	N/A	N/A

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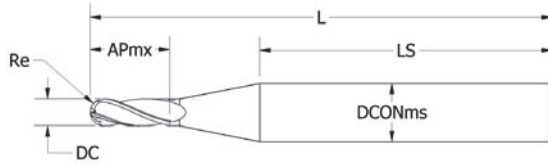
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED		AITIN COATED
						2 FLUTE	4 FLUTE	2 FLUTE
0.0050	0.1250	0.0025	0.0080	1.1342	1.5000	930-001-173	N/A	930-001-337
0.0060	0.1250	0.0030	0.0090	1.1342	1.5000	930-001-174	N/A	930-001-338
0.0070	0.1250	0.0035	0.0110	1.1342	1.5000	930-001-175	N/A	930-001-339
0.0080	0.1250	0.0040	0.0120	1.1342	1.5000	930-001-176	N/A	930-001-340
0.0090	0.1250	0.0045	0.0140	1.1342	1.5000	930-001-177	N/A	930-001-341
0.0100	0.1250	0.0050	0.0150	1.1892	1.5000	930-001-178	930-001-815	930-001-342
0.0110	0.1250	0.0055	0.0165	1.1903	1.5000	930-001-179	930-001-816	930-001-343
0.0120	0.1250	0.0060	0.0180	1.1913	1.5000	930-001-180	930-001-817	930-001-344
0.0130	0.1250	0.0065	0.0195	1.1924	1.5000	930-001-181	930-001-818	930-001-345
0.0140	0.1250	0.0070	0.0210	1.1935	1.5000	930-001-182	930-001-819	930-001-346
0.0150	0.1250	0.0075	0.0225	1.1945	1.5000	930-001-183	930-001-820	930-001-347
0.0156	0.1250	0.0078	0.0234	1.1952	1.5000	930-001-246	930-001-883	N/A
0.0160	0.1250	0.0080	0.0240	1.1956	1.5000	930-001-184	930-001-821	930-001-348
0.0170	0.1250	0.0085	0.0255	1.1967	1.5000	930-001-185	930-001-822	930-001-349
0.0180	0.1250	0.0090	0.0270	1.1978	1.5000	930-001-186	930-001-823	930-001-350
0.0190	0.1250	0.0095	0.0285	1.1988	1.5000	930-001-187	930-001-824	930-001-351
0.0197	0.1250	0.0099	0.0296	1.1996	1.5000	930-001-233	930-001-870	N/A
0.0200	0.1250	0.0100	0.0300	1.1999	1.5000	930-001-188	930-001-825	930-001-352
0.0210	0.1250	0.0105	0.0315	1.2010	1.5000	930-001-189	930-001-826	930-001-353
0.0220	0.1250	0.0110	0.0330	1.2021	1.5000	930-001-190	930-001-827	930-001-354
0.0230	0.1250	0.0115	0.0345	1.2031	1.5000	930-001-191	930-001-828	930-001-355
0.0240	0.1250	0.0120	0.0360	1.2042	1.5000	930-001-192	930-001-829	930-001-356
0.0250	0.1250	0.0125	0.0375	1.2053	1.5000	930-001-193	930-001-830	930-001-357
0.0260	0.1250	0.0130	0.0390	1.2063	1.5000	930-001-194	930-001-831	930-001-358
0.0270	0.1250	0.0135	0.0405	1.2074	1.5000	930-001-195	930-001-832	930-001-359
0.0280	0.1250	0.0140	0.0420	1.2085	1.5000	930-001-196	930-001-833	930-001-360
0.0290	0.1250	0.0145	0.0435	1.2096	1.5000	930-001-197	930-001-834	930-001-361
0.0300	0.1250	0.0150	0.0450	1.2106	1.5000	930-001-198	930-001-835	930-001-362
0.0310	0.1250	0.0155	0.0465	1.2117	1.5000	930-001-199	930-001-836	930-001-363
0.0320	0.1250	0.0160	0.0480	1.2128	1.5000	930-001-200	930-001-837	930-001-364
0.0330	0.1250	0.0165	0.0495	1.2139	1.5000	930-001-201	930-001-838	930-001-365
0.0340	0.1250	0.0170	0.0510	1.2149	1.5000	930-001-202	930-001-839	930-001-366
0.0350	0.1250	0.0175	0.0525	1.2160	1.5000	930-001-203	930-001-840	930-001-367
0.0360	0.1250	0.0180	0.0540	1.2171	1.5000	930-001-204	930-001-841	930-001-368
0.0370	0.1250	0.0185	0.0555	1.2181	1.5000	930-001-205	930-001-842	930-001-369
0.0380	0.1250	0.0190	0.0570	1.2192	1.5000	930-001-206	930-001-843	930-001-370
0.0390	0.1250	0.0195	0.0585	1.2203	1.5000	930-001-207	930-001-844	930-001-371
0.0394	0.1250	0.0197	0.0591	1.2207	1.5000	930-001-235	930-001-872	930-001-390
0.0400	0.1250	0.0200	0.0600	1.2214	1.5000	930-001-208	930-001-845	930-001-372

CARBIDE

Ø .005"- .040"

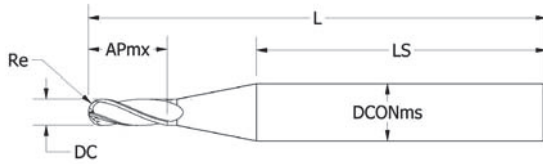


DC	DCONms	Re	APmx	LS	L	TiAlN COATED		AMORPHOUS DIAMOND	
						2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0050	0.1250	0.0025	0.0080	1.1342	1.5000	930-001-296	N/A	930-001-247	N/A
0.0060	0.1250	0.0030	0.0090	1.1342	1.5000	930-001-297	N/A	930-001-248	N/A
0.0070	0.1250	0.0035	0.0110	1.1342	1.5000	930-001-298	N/A	930-001-249	N/A
0.0080	0.1250	0.0040	0.0120	1.1342	1.5000	930-001-299	N/A	930-001-250	N/A
0.0090	0.1250	0.0045	0.0140	1.1342	1.5000	930-001-300	N/A	930-001-251	N/A
0.0100	0.1250	0.0050	0.0150	1.1892	1.5000	930-001-301	930-001-929	930-001-252	930-001-884
0.0110	0.1250	0.0055	0.0165	1.1903	1.5000	930-001-302	930-001-930	930-001-253	930-001-885
0.0120	0.1250	0.0060	0.0180	1.1913	1.5000	930-001-303	930-001-931	930-001-254	930-001-886
0.0130	0.1250	0.0065	0.0195	1.1924	1.5000	930-001-304	930-001-932	930-001-255	930-001-887
0.0140	0.1250	0.0070	0.0210	1.1935	1.5000	930-001-305	930-001-933	930-001-256	930-001-888
0.0150	0.1250	0.0075	0.0225	1.1945	1.5000	930-001-306	930-001-934	930-001-257	930-001-889
0.0160	0.1250	0.0080	0.0240	1.1956	1.5000	930-001-307	930-001-935	930-001-258	930-001-890
0.0170	0.1250	0.0085	0.0255	1.1967	1.5000	930-001-308	930-001-936	930-001-259	930-001-891
0.0180	0.1250	0.0090	0.0270	1.1978	1.5000	930-001-309	930-001-937	930-001-260	930-001-892
0.0190	0.1250	0.0095	0.0285	1.1988	1.5000	930-001-310	930-001-938	930-001-261	930-001-893
0.0200	0.1250	0.0100	0.0300	1.1988	1.5000	930-001-311	930-001-939	930-001-262	930-001-894
0.0210	0.1250	0.0105	0.0315	1.2010	1.5000	930-001-312	930-001-940	930-001-263	930-001-895
0.0220	0.1250	0.0110	0.0330	1.2021	1.5000	930-001-313	930-001-941	930-001-264	930-001-896
0.0230	0.1250	0.0115	0.0345	1.2031	1.5000	930-001-314	930-001-942	930-001-265	930-001-897
0.0240	0.1250	0.0120	0.0360	1.2042	1.5000	930-001-315	930-001-943	930-001-266	930-001-898
0.0250	0.1250	0.0125	0.0375	1.2053	1.5000	930-001-316	930-001-944	930-001-267	930-001-899
0.0260	0.1250	0.0130	0.0390	1.2063	1.5000	930-001-317	930-001-945	930-001-268	930-001-900
0.0270	0.1250	0.0135	0.0405	1.2074	1.5000	930-001-318	930-001-946	930-001-269	930-001-901
0.0280	0.1250	0.0140	0.0420	1.2085	1.5000	930-001-319	930-001-947	930-001-270	930-001-902
0.0290	0.1250	0.0145	0.0435	1.2096	1.5000	930-001-320	930-001-948	930-001-271	930-001-903
0.0300	0.1250	0.0150	0.0450	1.2106	1.5000	930-001-321	930-001-949	930-001-272	930-001-904
0.0310	0.1250	0.0155	0.0465	1.2117	1.5000	930-001-322	930-001-950	930-001-273	930-001-905
0.0320	0.1250	0.0160	0.0480	1.2128	1.5000	930-001-323	930-001-951	930-001-274	930-001-906
0.0330	0.1250	0.0165	0.0495	1.2139	1.5000	930-001-324	930-001-952	930-001-275	930-001-907
0.0340	0.1250	0.0170	0.0510	1.2149	1.5000	930-001-325	930-001-953	930-001-276	930-001-908
0.0350	0.1250	0.0175	0.0525	1.2160	1.5000	930-001-326	930-001-954	930-001-277	930-001-909
0.0360	0.1250	0.0180	0.0540	1.2171	1.5000	930-001-327	930-001-955	930-001-278	930-001-910
0.0370	0.1250	0.0185	0.0555	1.2181	1.5000	930-001-328	930-001-956	930-001-279	930-001-911
0.0380	0.1250	0.0190	0.0570	1.2192	1.5000	930-001-329	930-001-957	930-001-280	930-001-912
0.0390	0.1250	0.0195	0.0585	1.2203	1.5000	930-001-330	930-001-958	930-001-281	930-001-913
0.0400	0.1250	0.0200	0.0600	1.2214	1.5000	930-001-331	930-001-959	930-001-282	930-001-914

Ø .045" - .1378"



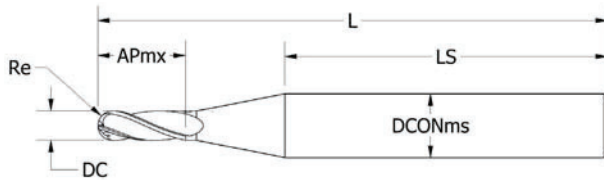
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED		AITIN COATED
						2 FLUTE	4 FLUTE	2 FLUTE
0.0450	0.1250	0.0225	0.0675	1.2267	1.5000	930-001-209	930-001-846	930-001-373
0.0470	0.1250	0.0235	0.0705	1.2289	1.5000	930-001-210	930-001-847	930-001-374
0.0492	0.1250	0.0246	0.0738	1.2312	1.5000	930-001-236	930-001-873	N/A
0.0500	0.1250	0.0250	0.0750	1.2321	1.5000	930-001-211	930-001-848	930-001-375
0.0550	0.1250	0.0275	0.0825	1.2374	1.5000	930-001-212	930-001-849	930-001-376
0.0591	0.1250	0.0296	0.0887	1.2418	1.5000	930-001-237	930-001-874	N/A
0.0600	0.1250	0.0300	0.0900	1.2428	1.5000	930-001-213	930-001-850	930-001-377
0.0620	0.1250	0.0310	0.0930	1.2449	1.5000	930-001-214	930-001-851	930-001-378
0.0630	0.1250	0.0315	0.0945	1.2460	1.5000	930-001-238	930-001-875	N/A
0.0650	0.1250	0.0325	0.0975	1.2482	1.5000	930-001-215	930-001-852	930-001-379
0.0700	0.1250	0.0350	0.1050	1.2535	1.5000	930-001-216	930-001-853	930-001-380
0.0709	0.1250	0.0355	0.1064	1.2545	1.5000	930-001-239	930-001-876	N/A
0.0750	0.1250	0.0375	0.1125	1.2589	1.5000	930-001-217	930-001-854	930-001-381
0.0780	0.1250	0.0390	0.1170	1.2621	1.5000	930-001-218	930-001-855	930-001-382
0.0787	0.1250	0.0394	0.1181	1.2629	1.5000	930-001-240	930-001-877	N/A
0.0800	0.1250	0.0400	0.1200	1.2642	1.5000	930-001-219	930-001-856	930-001-383
0.0850	0.1250	0.0425	0.1275	1.2696	1.5000	930-001-220	930-001-857	930-001-384
0.0866	0.1250	0.0433	0.1299	1.2713	1.5000	930-001-241	930-001-878	N/A
0.0900	0.1250	0.0450	0.1350	1.2750	1.5000	930-001-221	930-001-858	930-001-385
0.0930	0.1250	0.0465	0.1395	1.2782	1.5000	930-001-222	930-001-859	N/A
0.0950	0.1250	0.0475	0.1425	1.2803	1.5000	930-001-223	930-001-860	930-001-387
0.0984	0.1250	0.0492	0.1476	1.2840	1.5000	930-001-242	930-001-879	N/A
0.1000	0.1250	0.0500	0.1500	1.2857	1.5000	930-001-224	930-001-861	930-001-388
0.1102	0.1250	0.0551	0.1653	1.2966	1.5000	930-001-243	930-001-880	N/A
0.1181	0.1250	0.0591	0.1772	1.3051	1.5000	930-001-244	930-001-881	N/A
0.1200	0.1250	0.0600	0.1800	1.3071	1.5000	930-001-225	930-001-862	N/A
0.1378	0.1875	0.0689	0.2067	1.6655	2.0000	930-001-245	930-001-882	N/A

CARBIDE

Ø .045" - .100"

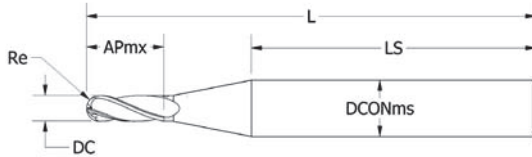


DC	DCONms	Re	APmx	LS	L	AMORPHOUS DIAMOND	
						2 FLUTE	4 FLUTE
0.0450	0.1250	0.0225	0.0675	1.2267	1.5000	930-001-283	930-001-915
0.0470	0.1250	0.0235	0.0705	1.2289	1.5000	930-001-284	930-001-916
0.0500	0.1250	0.0250	0.0750	1.2321	1.5000	930-001-285	930-001-917
0.0550	0.1250	0.0275	0.0825	1.2374	1.5000	930-001-286	930-001-918
0.0600	0.1250	0.0300	0.0900	1.2428	1.5000	930-001-287	930-001-919
0.0620	0.1250	0.0310	0.0930	1.2449	1.5000	930-001-288	930-001-920
0.0650	0.1250	0.0325	0.0975	1.2482	1.5000	930-001-289	930-001-921
0.0700	0.1250	0.0350	0.1050	1.2535	1.5000	930-001-290	930-001-922
0.0780	0.1250	0.0390	0.1170	1.2621	1.5000	930-001-291	930-001-923
0.0800	0.1250	0.0400	0.1200	1.2642	1.5000	930-001-292	930-001-924
0.0900	0.1250	0.0450	0.1350	1.2750	1.5000	930-001-293	930-001-925
0.0930	0.1250	0.0465	0.1395	1.2782	1.5000	930-001-294	930-001-926
0.1000	0.1250	0.0500	0.1500	1.2857	1.5000	930-001-295	930-001-928

Ø .010" - .250"



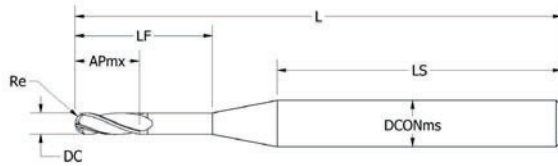
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0050	0.0150	2.1892	2.5000	930-003-162	930-003-311	930-003-189
0.0150	0.1250	0.0075	0.0225	2.1945	2.5000	930-003-163	930-003-312	930-003-190
0.0200	0.1250	0.0100	0.0300	2.1999	2.5000	930-003-164	930-003-313	930-003-191
0.0250	0.1250	0.0125	0.0375	2.2053	2.5000	930-003-165	930-003-314	930-003-192
0.0300	0.1250	0.0150	0.0450	2.2106	2.5000	930-003-166	930-003-315	930-003-193
0.0310	0.1250	0.0155	0.0465	2.2117	2.5000	930-003-167	930-003-316	930-003-194
0.0350	0.1250	0.0175	0.0525	2.2160	2.5000	930-003-168	930-003-317	930-003-195
0.0400	0.1250	0.0200	0.0600	2.2214	2.5000	930-003-169	930-003-318	930-003-196
0.0450	0.1250	0.0225	0.0675	2.2267	2.5000	930-003-170	930-003-319	930-003-197
0.0470	0.1250	0.0235	0.0705	2.2289	2.5000	930-003-171	930-003-320	930-003-198
0.0500	0.1250	0.0250	0.0750	2.2321	2.5000	930-003-172	930-003-321	930-003-199
0.0550	0.1250	0.0275	0.0825	2.2374	2.5000	930-003-173	930-003-322	930-003-200
0.0600	0.1250	0.0300	0.0900	2.2428	2.5000	930-003-174	930-003-323	930-003-201
0.0620	0.1250	0.0310	0.0930	2.2449	2.5000	930-003-175	930-003-324	930-003-202
0.0650	0.1250	0.0325	0.0975	2.2482	2.5000	930-003-176	930-003-325	930-003-203
0.0700	0.1250	0.0350	0.1050	2.2535	2.5000	930-003-177	930-003-326	930-003-204
0.0750	0.1250	0.0375	0.1125	2.2589	2.5000	930-003-178	930-003-327	930-003-205
0.0780	0.1250	0.0390	0.1170	2.2621	2.5000	930-003-179	930-003-328	930-003-206
0.0800	0.1250	0.0400	0.1200	2.2642	2.5000	930-003-180	930-003-329	930-003-207
0.0850	0.1250	0.0425	0.1275	2.2696	2.5000	930-003-181	930-003-330	930-003-208
0.0900	0.1250	0.0450	0.1350	2.2750	2.5000	930-003-182	930-003-331	930-003-209
0.0930	0.1250	0.0465	0.1395	2.2782	2.5000	930-003-183	930-003-332	930-003-210
0.0950	0.1250	0.0475	0.1425	2.2803	2.5000	930-003-184	930-003-333	930-003-211
0.1000	0.1250	0.0500	0.1500	2.2857	2.5000	930-003-185	930-003-334	930-003-212
0.1250	0.1250	0.0625	0.1875	1.9375	2.5000	930-003-186	931-000-377	931-000-361
0.1875	0.1875	0.0938	0.2813	2.3438	3.0000	930-003-187	931-000-378	931-000-362
0.2500	0.2500	0.1250	0.3750	3.2500	4.0000	930-003-188	931-000-379	931-000-363

CARBIDE

Ø .010"-.035"

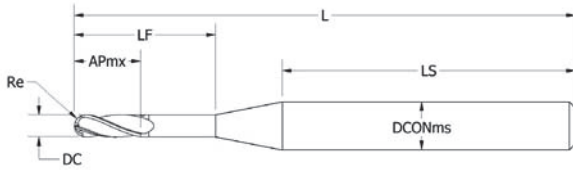


DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
							3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0050	0.0150	2.3925	2.5000	0.0500	930-003-509	930-003-386	930-003-257
0.0100	0.1250	0.0050	0.0150	2.3625	2.5000	0.0800	930-003-536	930-003-413	930-003-281
0.0100	0.1250	0.0050	0.0150	2.3175	2.5000	0.1250	930-003-458	930-003-335	930-003-213
0.0100	0.1250	0.0050	0.0150	2.2925	2.5000	0.1500	930-003-477	930-003-354	930-003-229
0.0150	0.1250	0.0075	0.0225	2.4000	2.5000	0.0450	930-003-503	930-003-380	930-003-251
0.0150	0.1250	0.0075	0.0225	2.3670	2.5000	0.0780	930-003-510	930-003-387	930-003-258
0.0150	0.1250	0.0075	0.0225	2.3200	2.5000	0.1250	930-003-537	930-003-414	930-003-282
0.0150	0.1250	0.0075	0.0225	2.2575	2.5000	0.1875	930-003-459	930-003-336	930-003-214
0.0150	0.1250	0.0075	0.0225	2.2200	2.5000	0.2250	930-003-478	930-003-355	930-003-230
0.0150	0.1250	0.0075	0.0225	2.1450	2.5000	0.3000	930-003-494	930-003-371	930-003-243
0.0200	0.1250	0.0100	0.0300	2.3475	2.5000	0.1000	930-003-511	930-003-388	930-003-259
0.0200	0.1250	0.0100	0.0300	2.2875	2.5000	0.1600	930-003-538	930-003-415	930-003-283
0.0200	0.1250	0.0100	0.0300	2.1975	2.5000	0.2500	930-003-460	930-003-337	930-003-215
0.0200	0.1250	0.0100	0.0300	2.1475	2.5000	0.3000	930-003-479	930-003-356	930-003-231
0.0200	0.1250	0.0100	0.0300	2.0475	2.5000	0.4000	930-003-495	930-003-372	930-003-244
0.0250	0.1250	0.0125	0.0375	2.3250	2.5000	0.1250	930-003-512	930-003-389	930-003-260
0.0250	0.1250	0.0125	0.0375	2.2500	2.5000	0.2000	930-003-539	930-003-416	930-003-284
0.0250	0.1250	0.0125	0.0375	2.1375	2.5000	0.3125	930-003-461	930-003-338	930-003-216
0.0250	0.1250	0.0125	0.0375	2.0750	2.5000	0.3750	930-003-480	930-003-357	930-003-232
0.0300	0.1250	0.0150	0.0450	2.3025	2.5000	0.1500	930-003-513	930-003-390	930-003-261
0.0300	0.1250	0.0150	0.0450	2.2025	2.5000	0.2500	930-003-540	930-003-417	930-003-285
0.0300	0.1250	0.0150	0.0450	2.0775	2.5000	0.3750	930-003-462	930-003-339	930-003-217
0.0300	0.1250	0.0150	0.0450	2.0025	2.5000	0.4500	930-003-481	930-003-358	930-003-233
0.0310	0.1250	0.0155	0.0465	2.3600	2.5000	0.0930	930-003-504	930-003-381	930-003-252
0.0310	0.1250	0.0155	0.0465	2.2980	2.5000	0.1550	930-003-514	930-003-391	930-003-262
0.0310	0.1250	0.0155	0.0465	2.2030	2.5000	0.2500	930-003-541	930-003-418	930-003-286
0.0310	0.1250	0.0155	0.0465	2.0780	2.5000	0.3750	930-003-463	930-003-340	930-003-218
0.0310	0.1250	0.0155	0.0465	1.9830	2.5000	0.4700	930-003-482	930-003-359	930-003-234
0.0310	0.1250	0.0155	0.0465	1.8280	2.5000	0.6250	930-003-496	930-003-373	930-003-245
0.0350	0.1250	0.0175	0.0525	2.2680	2.5000	0.1870	930-003-515	930-003-392	930-003-263
0.0350	0.1250	0.0175	0.0525	2.1750	2.5000	0.2800	930-003-542	930-003-419	930-003-287
0.0350	0.1250	0.0175	0.0525	2.0300	2.5000	0.4250	930-003-464	930-003-341	930-003-219
0.0350	0.1250	0.0175	0.0525	1.9300	2.5000	0.5250	930-003-483	930-003-360	930-003-235

Ø .040" - .075"



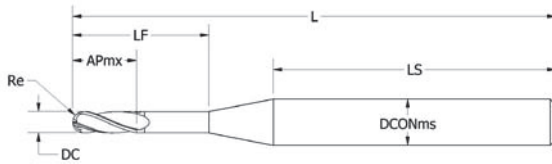
CARBIDE



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
							3 FLUTE	3 FLUTE	3 FLUTE
0.0400	0.1250	0.0200	0.0600	2.2575	2.5000	0.2000	930-003-516	930-003-393	930-003-264
0.0400	0.1250	0.0200	0.0600	2.1325	2.5000	0.3250	930-003-543	930-003-420	930-003-288
0.0400	0.1250	0.0200	0.0600	1.9775	2.5000	0.4800	930-003-465	930-003-342	930-003-220
0.0400	0.1250	0.0200	0.0600	1.8575	2.5000	0.6000	930-003-484	930-003-361	930-003-236
0.0400	0.1250	0.0200	0.0600	1.6575	2.5000	0.8000	930-003-497	930-003-374	930-003-246
0.0450	0.1250	0.0225	0.0675	2.2350	2.5000	0.2250	930-003-517	930-003-394	930-003-265
0.0450	0.1250	0.0225	0.0675	2.0850	2.5000	0.3750	930-003-544	930-003-421	930-003-289
0.0450	0.1250	0.0225	0.0675	1.9100	2.5000	0.5500	930-003-466	930-003-343	930-003-221
0.0450	0.1250	0.0225	0.0675	1.7800	2.5000	0.6800	930-003-485	930-003-362	930-003-237
0.0470	0.1250	0.0235	0.0705	2.3200	2.5000	0.1410	930-003-505	930-003-382	930-003-253
0.0470	0.1250	0.0235	0.0705	2.2110	2.5000	0.2500	930-003-518	930-003-395	930-003-266
0.0470	0.1250	0.0235	0.0705	2.0860	2.5000	0.3750	930-003-545	930-003-422	930-003-290
0.0470	0.1250	0.0235	0.0705	1.8910	2.5000	0.5700	930-003-467	930-003-344	930-003-222
0.0470	0.1250	0.0235	0.0705	1.7510	2.5000	0.7100	930-003-486	930-003-363	930-003-238
0.0470	0.1250	0.0235	0.0705	1.5110	2.5000	0.9500	930-003-498	930-003-375	930-003-247
0.0500	0.1250	0.0250	0.0750	2.2125	2.5000	0.2500	930-003-519	930-003-396	930-003-267
0.0500	0.1250	0.0250	0.0750	2.0625	2.5000	0.4000	930-003-546	930-003-423	930-003-291
0.0500	0.1250	0.0250	0.0750	1.8625	2.5000	0.6000	930-003-468	930-003-345	930-003-223
0.0550	0.1250	0.0275	0.0825	2.1900	2.5000	0.2750	930-003-520	930-003-397	930-003-268
0.0550	0.1250	0.0275	0.0825	2.0150	2.5000	0.4500	930-003-547	930-003-424	930-003-292
0.0550	0.1250	0.0275	0.0825	1.8050	2.5000	0.6600	930-003-469	930-003-346	930-003-224
0.0600	0.1250	0.0300	0.0900	2.1555	2.5000	0.3120	930-003-521	930-003-398	930-003-269
0.0600	0.1250	0.0300	0.0900	1.9675	2.5000	0.5000	930-003-548	930-003-425	930-003-293
0.0600	0.1250	0.0300	0.0900	1.7475	2.5000	0.7200	930-003-470	930-003-347	930-003-225
0.0600	0.1250	0.0300	0.0900	1.5675	2.5000	0.9000	930-003-487	930-003-364	930-003-239
0.0620	0.1250	0.0310	0.0930	2.2825	2.5000	0.1860	930-003-506	930-003-383	930-003-254
0.0620	0.1250	0.0310	0.0930	2.1565	2.5000	0.3120	930-003-522	930-003-399	930-003-270
0.0620	0.1250	0.0310	0.0930	1.9685	2.5000	0.5000	930-003-549	930-003-426	930-003-294
0.0620	0.1250	0.0310	0.0930	1.7185	2.5000	0.7500	930-003-471	930-003-348	930-003-226
0.0620	0.1250	0.0310	0.0930	1.5185	2.5000	0.9500	930-003-488	930-003-365	930-003-240
0.0620	0.1250	0.0310	0.0930	1.2185	2.5000	1.2500	930-003-499	930-003-376	930-003-248
0.0650	0.1250	0.0325	0.0975	2.1450	2.5000	0.3250	930-003-523	930-003-400	930-003-271
0.0650	0.1250	0.0325	0.0975	1.9450	2.5000	0.5250	930-003-550	930-003-427	930-003-295
0.0700	0.1250	0.0350	0.1050	2.0975	2.5000	0.3750	930-003-524	930-003-401	930-003-272
0.0700	0.1250	0.0350	0.1050	1.9025	2.5000	0.5700	930-003-551	930-003-428	930-003-296
0.0750	0.1250	0.0375	0.1125	2.1000	2.5000	0.3750	930-003-525	930-003-402	930-003-273
0.0750	0.1250	0.0375	0.1125	1.8500	2.5000	0.6250	930-003-552	930-003-429	930-003-297

CARBIDE

Ø .078"-.250"

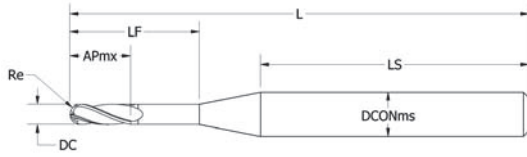


DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
							3 FLUTE	3 FLUTE	3 FLUTE
0.0780	0.1250	0.0390	0.1170	2.2425	2.5000	0.2340	930-003-507	930-003-384	930-003-255
0.0780	0.1250	0.0390	0.1170	2.0765	2.5000	0.4000	930-003-526	930-003-403	930-003-274
0.0780	0.1250	0.0390	0.1170	1.8515	2.5000	0.6250	930-003-553	930-003-430	930-003-298
0.0780	0.1250	0.0390	0.1170	1.5365	2.5000	0.9400	930-003-472	930-003-349	930-003-227
0.0780	0.1250	0.0390	0.1170	1.2895	2.5000	1.1870	930-003-489	930-003-366	930-003-241
0.0780	0.1250	0.0390	0.1170	1.4145	3.0000	1.5620	930-003-500	930-003-377	930-003-249
0.0800	0.1250	0.0400	0.1200	2.0775	2.5000	0.4000	930-003-527	930-003-404	930-003-275
0.0800	0.1250	0.0400	0.1200	1.8275	2.5000	0.6500	930-003-554	930-003-431	930-003-299
0.0850	0.1250	0.0425	0.1275	2.0550	2.5000	0.4250	930-003-528	930-003-405	930-003-276
0.0850	0.1250	0.0425	0.1275	1.7800	2.5000	0.7000	930-003-555	930-003-432	930-003-300
0.0900	0.1250	0.0450	0.1350	2.0325	2.5000	0.4500	930-003-529	930-003-406	930-003-277
0.0900	0.1250	0.0450	0.1350	1.7325	2.5000	0.7500	930-003-556	930-003-433	930-003-301
0.0930	0.1250	0.0465	0.1395	2.2140	2.5000	0.2700	930-003-508	930-003-385	930-003-256
0.0930	0.1250	0.0465	0.1395	1.9840	2.5000	0.5000	930-003-530	930-003-407	930-003-278
0.0930	0.1250	0.0465	0.1395	1.7340	2.5000	0.7500	930-003-557	930-003-434	930-003-302
0.0930	0.1250	0.0465	0.1395	1.3590	2.5000	1.1250	930-003-473	930-003-350	930-003-228
0.0930	0.1250	0.0465	0.1395	1.5840	3.0000	1.4000	930-003-490	930-003-367	930-003-242
0.0930	0.1250	0.0465	0.1395	2.1090	4.0000	1.8750	930-003-501	930-003-378	930-003-250
0.0950	0.1250	0.0475	0.1425	1.9850	2.5000	0.5000	930-003-531	930-003-408	930-003-279
0.0950	0.1250	0.0475	0.1425	1.7350	2.5000	0.7500	930-003-558	930-003-435	930-003-303
0.1000	0.1250	0.0500	0.1500	1.9875	2.5000	0.5000	930-003-532	930-003-409	930-003-280
0.1000	0.1250	0.0500	0.1500	1.6875	2.5000	0.8000	930-003-559	930-003-436	930-003-304
0.1250	0.1250	0.0625	0.1875	1.8750	2.5000	0.6250	930-003-533	930-003-410	931-000-371
0.1250	0.1250	0.0625	0.1875	1.5000	2.5000	1.0000	930-003-560	930-003-437	931-000-374
0.1250	0.1250	0.0625	0.1875	1.5000	3.0000	1.5000	930-003-474	930-003-351	931-000-364
0.1250	0.1250	0.0625	0.1875	1.1250	3.0000	1.8750	930-003-491	930-003-368	931-000-367
0.1250	0.1250	0.0625	0.1875	1.5000	4.0000	2.5000	930-003-502	930-003-379	931-000-370
0.1875	0.1875	0.0938	0.2813	2.0000	3.0000	1.0000	930-003-534	930-003-411	931-000-372
0.1875	0.1875	0.0938	0.2813	1.5000	3.0000	1.5000	930-003-561	930-003-438	931-000-375
0.1875	0.1875	0.0938	0.2813	1.7500	4.0000	2.2500	930-003-475	930-003-352	931-000-365
0.1875	0.1875	0.0938	0.2813	1.1880	4.0000	2.8120	930-003-492	930-003-369	931-000-368
0.2500	0.2500	0.1250	0.3750	2.7500	4.0000	1.2500	930-003-535	930-003-412	931-000-373
0.2500	0.2500	0.1250	0.3750	2.0000	4.0000	2.0000	930-003-562	930-003-439	931-000-376
0.2500	0.2500	0.1250	0.3750	3.0000	6.0000	3.0000	930-003-476	930-003-353	931-000-366
0.2500	0.2500	0.1250	0.3750	2.2500	6.0000	3.7500	930-003-493	930-003-370	931-000-369

Ø .005"-.100"



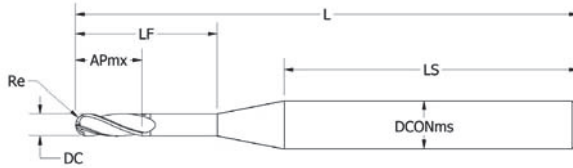
CARBIDE



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	
							2 FLUTE	4 FLUTE
0.0050	0.1250	0.0025	0.0150	1.3930	1.5000	0.0470	930-001-966	N/A
0.0100	0.1250	0.0050	0.0300	1.3625	1.5000	0.0800	930-002-326	930-002-624
0.0100	0.1250	0.0050	0.0300	1.3488	1.5000	0.0937	930-001-972	930-002-342
0.0150	0.1250	0.0075	0.0450	1.3200	1.5000	0.1250	930-001-978	930-002-348
0.0200	0.1250	0.0100	0.0600	1.2775	1.5000	0.1700	930-002-327	930-002-625
0.0200	0.1250	0.0100	0.0600	1.2600	1.5000	0.1875	930-001-984	930-002-354
0.0250	0.1250	0.0125	0.0750	1.2370	1.5000	0.2130	930-002-328	930-002-626
0.0250	0.1250	0.0125	0.0750	1.2000	1.5000	0.2500	930-001-990	930-002-360
0.0300	0.1250	0.0150	0.0900	1.2025	1.5000	0.2500	930-001-996	930-002-366
0.0300	0.1250	0.0150	0.0900	1.1825	1.5000	0.2700	930-002-329	930-002-627
0.0310	0.1250	0.0155	0.0930	1.1740	1.5000	0.2790	930-002-330	930-002-628
0.0350	0.1250	0.0175	0.1050	1.2050	1.5000	0.2500	930-002-003	930-002-372
0.0350	0.1250	0.0175	0.1050	1.1400	1.5000	0.3150	930-002-331	930-002-629
0.0400	0.1250	0.0200	0.1200	1.2075	1.5000	0.2500	930-002-009	930-002-378
0.0400	0.1250	0.0200	0.1200	1.0975	1.5000	0.3600	930-002-332	930-002-630
0.0450	0.1250	0.0225	0.1350	1.0550	1.5000	0.4050	930-002-333	930-002-631
0.0450	0.1250	0.0225	0.1350	0.9600	1.5000	0.5000	930-002-015	930-002-384
0.0470	0.1250	0.0235	0.1410	1.0380	1.5000	0.4230	930-002-334	930-002-632
0.0500	0.1250	0.0250	0.1500	0.9625	1.5000	0.5000	930-002-021	930-002-390
0.0550	0.1250	0.0275	0.1650	0.9650	1.5000	0.5000	930-002-027	930-002-396
0.0600	0.1250	0.0300	0.1800	0.9675	1.5000	0.5000	930-002-033	930-002-402
0.0620	0.1250	0.0310	0.1860	0.9685	1.5000	0.5000	930-002-335	930-002-633
0.0650	0.1250	0.0325	0.1950	0.9700	1.5000	0.5000	930-002-037	930-002-406
0.0700	0.1250	0.0350	0.2100	0.9725	1.5000	0.5000	930-002-039	930-002-408
0.0780	0.1250	0.0390	0.2340	0.9765	1.5000	0.5000	930-002-336	930-002-634
0.0800	0.1250	0.0400	0.2400	0.9775	1.5000	0.5000	930-002-043	930-002-412
0.0900	0.1250	0.0450	0.2700	0.9825	1.5000	0.5000	930-002-046	930-002-415
0.0900	0.1250	0.0450	0.2700	0.8575	1.5000	0.6250	930-002-337	930-002-635
0.0930	0.1250	0.0465	0.2790	0.8590	1.5000	0.6250	930-002-338	930-002-636
0.0950	0.1250	0.0475	0.2850	0.8600	1.5000	0.6250	930-002-339	930-002-637
0.1000	0.1250	0.0500	0.3000	0.9875	1.5000	0.5000	930-002-050	930-002-419
0.1000	0.1250	0.0500	0.3000	0.8625	1.5000	0.6250	930-002-340	930-002-638

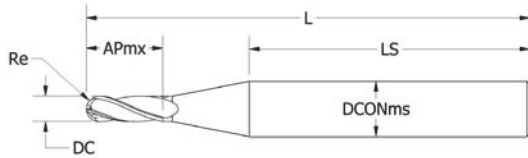
CARBIDE

Ø .010"-.250"



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	AITIN COATED	AMORPHOUS DIAMOND
							3 FLUTE	3 FLUTE	3 FLUTE
0.0100	0.1250	0.0050	0.0500	2.3425	2.5000	0.1000	930-002-896	930-002-862	930-002-830
0.0150	0.1250	0.0075	0.0750	2.2950	2.5000	0.1500	930-002-897	930-002-863	930-002-831
0.0200	0.1250	0.0100	0.1000	2.2475	2.5000	0.2000	930-002-898	930-002-864	930-002-832
0.0250	0.1250	0.0125	0.1250	2.2000	2.5000	0.2500	930-002-899	930-002-865	930-002-833
0.0300	0.1250	0.0150	0.1500	2.1525	2.5000	0.3000	930-002-900	930-002-866	930-002-834
0.0310	0.1250	0.0155	0.1550	2.1530	2.5000	0.3000	930-002-901	930-002-867	930-002-835
0.0350	0.1250	0.0175	0.1750	2.1050	2.5000	0.3500	930-002-902	930-002-868	930-002-836
0.0400	0.1250	0.0200	0.2000	2.0575	2.5000	0.4000	930-002-903	930-002-869	930-002-837
0.0450	0.1250	0.0225	0.2250	2.0100	2.5000	0.4500	930-002-904	930-002-870	930-002-838
0.0470	0.1250	0.0235	0.2500	1.9610	2.5000	0.5000	930-002-905	930-002-871	930-002-839
0.0500	0.1250	0.0250	0.3000	1.8625	2.5000	0.6000	930-002-906	930-002-872	930-002-840
0.0550	0.1250	0.0275	0.3850	1.6950	2.5000	0.7700	930-002-907	930-002-873	930-002-841
0.0600	0.1250	0.0300	0.5000	1.4675	2.5000	1.0000	930-002-908	930-002-874	930-002-842
0.0620	0.1250	0.0310	0.5000	1.4685	2.5000	1.0000	930-002-909	930-002-875	930-002-843
0.0650	0.1250	0.0325	0.5000	1.4700	2.5000	1.0000	930-002-910	930-002-876	930-002-844
0.0700	0.1250	0.0350	0.5000	1.4725	2.5000	1.0000	930-002-911	930-002-877	930-002-845
0.0750	0.1250	0.0375	0.5000	1.4750	2.5000	1.0000	930-002-912	930-002-878	930-002-846
0.0780	0.1250	0.0390	0.5000	1.4765	2.5000	1.0000	930-002-913	930-002-879	930-002-847
0.0800	0.1250	0.0400	0.7500	1.2275	2.5000	1.2500	930-002-914	930-002-880	930-002-848
0.0850	0.1250	0.0425	0.7500	1.2300	2.5000	1.2500	930-002-915	930-002-881	930-002-849
0.0900	0.1250	0.0450	0.7500	1.2325	2.5000	1.2500	930-002-916	930-002-882	930-002-850
0.0930	0.1250	0.0465	0.7500	1.2340	2.5000	1.2500	930-002-917	930-002-883	930-002-851
0.0950	0.1250	0.0475	0.7500	1.2350	2.5000	1.2500	930-002-918	930-002-884	930-002-852
0.1000	0.1250	0.0500	0.7500	1.2375	2.5000	1.2500	930-002-919	930-002-885	930-002-853
0.1250	0.1250	0.0625	1.0000	1.0000	2.5000	1.5000	930-002-920	930-002-886	931-000-337
0.1875	0.1875	0.0938	1.1250	1.3750	3.0000	1.6250	930-002-921	931-000-342	931-000-338
0.2500	0.2500	0.1250	1.5000	2.0000	4.0000	2.0000	930-002-922	931-000-343	931-000-339

Ø .031" - .125"

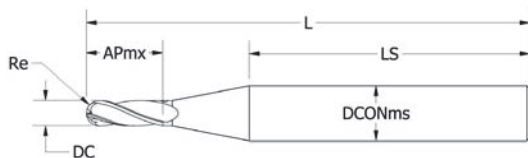


12X FLUTE LENGTH



DC	DCONms	Re	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0310	0.1250	0.0155	0.3750	1.8832	2.5000	930-002-923	930-002-887	930-002-854
0.0470	0.1250	0.0235	0.5700	1.7294	2.5000	930-002-924	930-002-888	930-002-855
0.0620	0.1250	0.0310	0.7500	1.5879	2.5000	930-002-925	930-002-889	930-002-856
0.0780	0.1250	0.0390	0.9400	1.4391	2.5000	930-002-926	930-002-890	930-002-857
0.0930	0.1250	0.0465	1.1250	1.2927	2.5000	930-002-927	930-002-891	930-002-858
0.1250	0.1250	0.0625	1.5000	1.1250	3.0000	930-002-928	930-002-892	931-000-340

Ø .062" - .125"



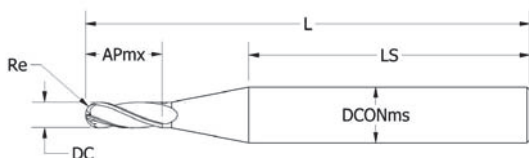
15X FLUTE LENGTH



DC	DCONms	Re	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0620	0.1250	0.0310	0.9500	1.3879	2.5000	930-002-929	930-002-893	930-002-859
0.0780	0.1250	0.0390	1.1870	1.1921	2.5000	930-002-930	930-002-894	930-002-860
0.0930	0.1250	0.0465	1.4000	1.5177	3.0000	930-002-931	930-002-895	930-002-861
0.1250	0.1250	0.0625	1.8750	0.7500	3.0000	930-002-932	931-000-344	931-000-341



Ø .015"-.093"

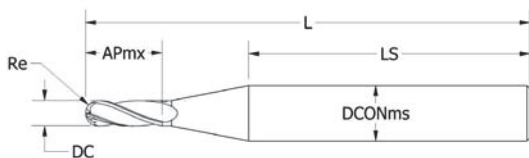


STANDARD



DC	DCONms	Re	APmx	LS	L	CVD COATED
						4 FLUTE
0.0150	0.1250	0.0075	0.0450	1.1720	1.5000	930-002-606
0.0200	0.1250	0.0100	0.0600	1.1699	1.5000	930-002-607
0.0310	0.1250	0.0155	0.0930	1.1652	1.5000	930-002-608
0.0470	0.1250	0.0235	0.1410	1.1584	1.5000	930-002-609
0.0620	0.1250	0.0310	0.1860	1.1519	1.5000	930-002-610
0.0930	0.1250	0.0465	0.2790	1.1387	1.5000	930-002-611

Ø .015"-.093"

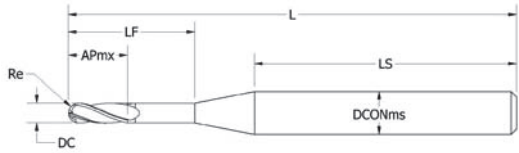


LONG SHANK, STUB



DC	DCONms	Re	APmx	LS	L	CVD COATED
						3 FLUTE
0.0150	0.1250	0.0075	0.0225	2.1945	2.5000	930-003-305
0.0200	0.1250	0.0100	0.0300	2.1999	2.5000	930-003-306
0.0310	0.1250	0.0155	0.0465	2.2117	2.5000	930-003-307
0.0470	0.1250	0.0235	0.0705	2.2289	2.5000	930-003-308
0.0620	0.1250	0.0310	0.0930	2.2449	2.5000	930-003-309
0.0930	0.1250	0.0465	0.1395	2.2782	2.5000	930-003-310

Ø .015"-.093"

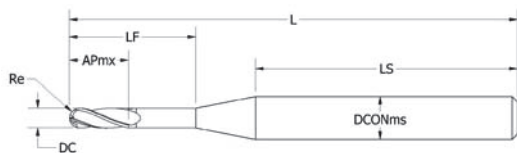


LONG REACH, STUB



DC	DCONms	Re	APmx	LS	L	LF	CVD COATED
							3 FLUTE
0.0150	0.1250	0.0075	0.0225	2.3670	2.5000	0.0780	930-003-446
0.0150	0.1250	0.0075	0.0225	2.3200	2.5000	0.1250	930-003-452
0.0150	0.1250	0.0075	0.0225	2.2575	2.5000	0.1875	930-003-440
0.0200	0.1250	0.0100	0.0300	2.3475	2.5000	0.1000	930-003-447
0.0200	0.1250	0.0100	0.0300	2.2875	2.5000	0.1600	930-003-453
0.0200	0.1250	0.0100	0.0300	2.1975	2.5000	0.2500	930-003-441
0.0310	0.1250	0.0155	0.0465	2.2980	2.5000	0.1550	930-003-448
0.0310	0.1250	0.0155	0.0465	2.2030	2.5000	0.2500	930-003-454
0.0310	0.1250	0.0155	0.0465	2.0780	2.5000	0.3750	930-003-442
0.0470	0.1250	0.0235	0.0705	2.2110	2.5000	0.2500	930-003-449
0.0470	0.1250	0.0235	0.0705	2.0860	2.5000	0.3750	930-003-455
0.0470	0.1250	0.0235	0.0705	1.8910	2.5000	0.5700	930-003-443
0.0620	0.1250	0.0310	0.0930	2.1565	2.5000	0.3120	930-003-450
0.0620	0.1250	0.0310	0.0930	1.9685	2.5000	0.5000	930-003-456
0.0620	0.1250	0.0310	0.0930	1.7185	2.5000	0.7500	930-003-444
0.0930	0.1250	0.0465	0.1395	1.9840	2.5000	0.5000	930-003-451
0.0930	0.1250	0.0465	0.1395	1.7340	2.5000	0.7500	930-003-457
0.0930	0.1250	0.0465	0.1395	1.3590	2.5000	1.1250	930-003-445

Ø .015"-.093"



5X FLUTE, 10X REACH

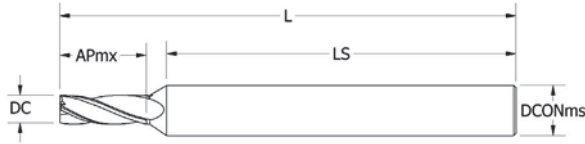


DC	DCONms	Re	APmx	LS	L	LF	CVD COATED
							4 FLUTE
0.0150	0.1250	0.0075	0.0750	2.2890	2.5000	0.1560	930-001-155
0.0310	0.1250	0.0155	0.1550	2.1410	2.5000	0.3120	930-001-156
0.0470	0.1250	0.0235	0.2350	1.9810	2.5000	0.4800	930-001-157
0.0620	0.1250	0.0310	0.3125	1.8435	2.5000	0.6250	930-001-158
0.0780	0.1250	0.0390	0.3900	1.6765	2.5000	0.8000	930-001-159
0.0930	0.1250	0.0465	0.4650	1.5340	2.5000	0.9500	930-001-160

CARBIDE

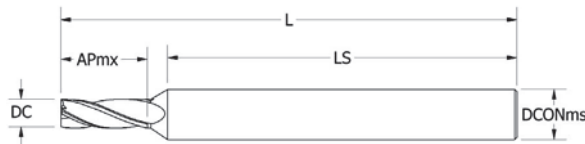


Ø .0313"-.25"



DC	DCONms	APmx	LS	L	UNCOATED	TiCN COATED
					3 FLUTE	3 FLUTE
0.0313	0.2500	0.0938	1.8436	2.5000	930-002-667	931-000-322
0.0469	0.2500	0.1406	1.8369	2.5000	930-002-668	931-000-323
0.0625	0.2500	0.1875	1.8302	2.5000	930-002-669	931-000-324
0.0781	0.2500	0.1875	1.8704	2.5000	930-002-670	931-000-325
0.0938	0.2500	0.3750	1.7231	2.5000	930-002-671	931-000-326
0.1094	0.2500	0.4375	1.7008	2.5000	930-002-672	931-000-327
0.1250	0.2500	0.5000	1.6785	2.5000	930-002-673	931-000-328
0.1563	0.2500	0.5625	1.6963	2.5000	930-002-674	931-000-329
0.1875	0.2500	0.6250	1.7142	2.5000	930-002-675	931-000-330
0.2188	0.2500	0.6250	1.7946	2.5000	930-002-676	931-000-331
0.2500	0.2500	0.7500	1.3750	2.5000	930-002-677	931-000-332

Ø .0313"-.25"

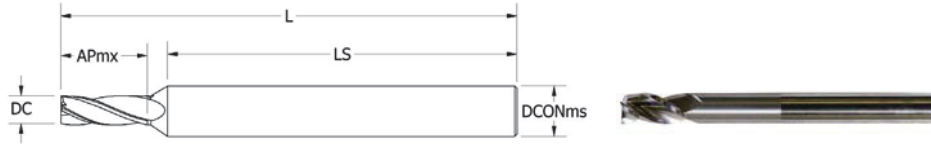


STUB



DC	DCONms	APmx	LS	L	UNCOATED	TiCN COATED
					3 FLUTE	3 FLUTE
0.0313	0.2500	0.0625	1.8748	2.5000	930-002-639	931-000-294
0.0469	0.2500	0.0938	1.8838	2.5000	930-002-641	931-000-296
0.0625	0.2500	0.1250	1.8927	2.5000	930-002-643	931-000-298
0.0781	0.2500	0.1250	1.9329	2.5000	930-002-645	931-000-300
0.0938	0.2500	0.1875	1.9106	2.5000	930-002-647	931-000-302
0.1094	0.2500	0.1875	1.9508	2.5000	930-002-649	931-000-304
0.1250	0.2500	0.2500	1.9285	2.5000	930-002-651	931-000-306
0.1563	0.2500	0.3750	1.8838	2.5000	930-002-653	931-000-308
0.1875	0.2500	0.3750	1.9642	2.5000	930-002-655	931-000-310
0.2188	0.2500	0.3750	2.0446	2.5000	930-002-657	931-000-312
0.2500	0.2500	0.5000	1.6250	2.5000	930-002-659	931-000-314

Ø .0313"-.25"

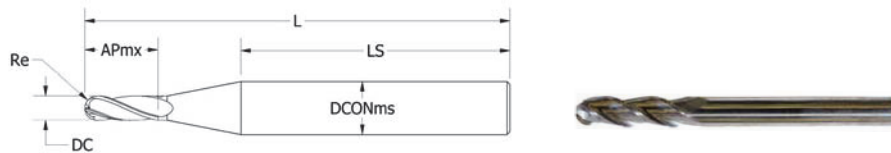


STUB, REACHED



DC	DCONms	APmx	LS	L	LF	UNCOATED	TiCN COATED
						3 FLUTE	3 FLUTE
0.0313	0.2500	0.0625	2.2356	2.5000	0.1550	930-002-640	931-000-295
0.0469	0.2500	0.0938	2.1684	2.5000	0.2300	930-002-642	931-000-297
0.0625	0.2500	0.1250	2.0943	2.5000	0.3120	930-002-644	931-000-299
0.0781	0.2500	0.1563	2.0241	2.5000	0.3900	930-002-646	931-000-301
0.0938	0.2500	0.1875	1.9569	2.5000	0.4650	930-002-648	931-000-303
0.1094	0.2500	0.2188	1.8847	2.5000	0.5450	930-002-650	931-000-305
0.1250	0.2500	0.2500	1.8125	2.5000	0.6250	930-002-652	931-000-307
0.1563	0.2500	0.3750	1.6731	2.5000	0.7800	930-002-654	931-000-309
0.1875	0.2500	0.3750	1.5313	2.5000	0.9375	930-002-656	931-000-311
0.2188	0.2500	0.3750	1.3914	2.5000	1.0930	930-002-658	931-000-313
0.2500	0.2500	0.5000	1.2500	2.5000	1.2500	930-002-660	931-000-315

Ø .0313"-.25"



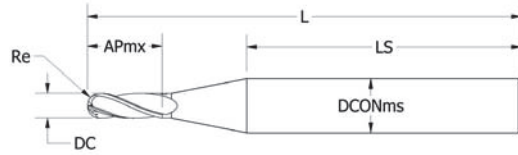
BALL, STANDARD



DC	DCONms	Re	APmx	LS	L	UNCOATED	TiCN COATED
						3 FLUTE	3 FLUTE
0.0313	0.2500	0.0156	0.0938	1.8436	2.5000	930-002-661	931-000-316
0.0625	0.2500	0.0313	0.1875	1.8302	2.5000	930-002-662	931-000-317
0.0938	0.2500	0.0469	0.3750	1.7231	2.5000	930-002-663	931-000-318
0.1250	0.2500	0.0625	0.5000	1.6785	2.5000	930-002-664	931-000-319
0.1875	0.2500	0.0938	0.6250	1.7142	2.5000	930-002-665	931-000-320
0.2500	0.2500	0.1250	0.7500	1.3750	2.5000	930-002-666	931-000-321

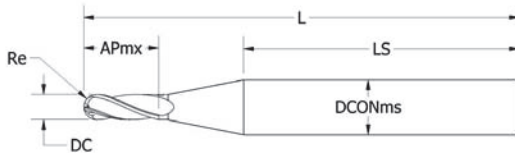
CARBIDE

Ø .0313"-.050"



DC	DCONms	Re	APmx	LS	L	UNCOATED		AITIN COATED	
						2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0313	0.1250	0.0156	0.0938	1.1651	1.5000	930-002-054	930-002-423	N/A	930-002-612
0.0469	0.1250	0.0234	0.1406	1.1584	1.5000	930-002-055	930-002-424	N/A	930-002-613
0.0625	0.1250	0.0313	0.1875	1.1517	1.5000	930-002-056	930-002-425	N/A	930-002-614
0.0781	0.1250	0.0391	0.1875	1.1919	1.5000	930-002-057	930-002-426	N/A	930-002-615
0.0938	0.1250	0.0469	0.3750	1.0446	1.5000	930-002-058	930-002-427	N/A	930-002-616
0.1094	0.1250	0.0547	0.4375	1.0223	1.5000	930-002-059	930-002-428	N/A	930-002-617
0.1250	0.1250	0.0625	0.5000	0.6250	1.5000	930-002-060	930-002-429	931-000-289	930-002-618
0.1406	0.1875	0.0703	0.5000	1.3794	2.0000	930-002-061	930-002-430	930-002-319	930-002-619
0.1563	0.1875	0.0781	0.5625	1.3571	2.0000	930-002-062	930-002-431	931-000-290	930-002-620
0.1719	0.1875	0.0859	0.6250	1.3348	2.0000	930-002-063	930-002-432	N/A	N/A
0.1875	0.1875	0.0938	0.6250	1.0000	2.0000	930-002-064	930-002-433	931-000-291	930-002-621
0.2031	0.2500	0.1016	0.6250	1.7544	2.5000	930-002-066	930-002-435	N/A	N/A
0.2188	0.2500	0.1094	0.6250	1.7946	2.5000	930-002-067	930-002-436	930-002-320	930-002-622
0.2344	0.2500	0.1172	0.6250	1.8348	2.5000	930-002-068	930-002-437	N/A	N/A
0.2500	0.2500	0.1250	0.7500	1.3750	2.5000	930-002-069	930-002-438	931-000-292	930-002-623
0.3125	0.3125	0.1563	0.8125	1.3125	2.5000	930-002-070	930-002-439	N/A	N/A
0.3750	0.3750	0.1875	1.0000	1.1250	2.5000	930-002-071	930-002-440	N/A	N/A
0.5000	0.5000	0.2500	1.0000	1.6250	3.0000	930-002-074	930-002-443	N/A	931-000-293

Ø .0313"-.25"



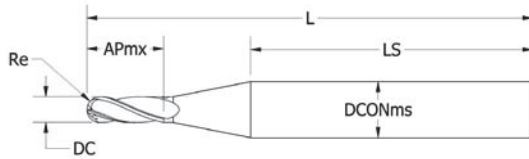
STUB

DC	DCONms	Re	APmx	LS	L	UNCOATED		AITIN COATED
						2 FLUTE	4 FLUTE	2 FLUTE
0.0313	0.1250	0.0156	0.0625	1.1963	1.5000	930-001-226	930-001-863	N/A
0.0469	0.1250	0.0234	0.0625	1.2365	1.5000	930-001-227	930-001-864	N/A
0.0625	0.1250	0.0313	0.1250	1.2142	1.5000	930-001-228	930-001-865	N/A
0.0938	0.1250	0.0469	0.1875	1.2321	1.5000	930-001-229	930-001-866	N/A
0.1250	0.1250	0.0625	0.2500	0.8750	1.5000	930-001-230	930-001-867	931-000-262
0.1563	0.1875	0.0781	0.3750	1.5446	2.0000	930-001-231	930-001-868	930-001-389
0.1875	0.1875	0.0938	0.3750	1.2500	2.0000	930-001-232	930-001-869	931-000-263
0.2500	0.2500	0.1250	0.5000	1.1250	2.0000	930-001-234	930-001-871	931-000-264

Ø .0313"-.050"

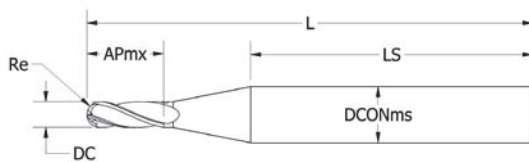


CARBIDE



DC	DCONms	Re	APmx	LS	L	TiAIN COATED			AMORPHOUS DIAMOND	
						2 FLUTE	3 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0313	0.1250	0.0156	0.0938	1.1651	1.5000	930-002-229	931-000-119	930-002-586	931-000-387	931-000-413
0.0469	0.1250	0.0234	0.1406	1.1584	1.5000	930-002-230	931-000-122	930-002-587	931-000-389	931-000-415
0.0625	0.1250	0.0313	0.1875	1.1517	1.5000	930-002-231	931-000-125	930-002-588	931-000-391	931-000-417
0.0781	0.1250	0.0391	0.1875	1.1919	1.5000	930-002-232	931-000-128	930-002-589	931-000-393	931-000-419
0.0938	0.1250	0.0469	0.3750	1.0446	1.5000	930-002-233	931-000-131	930-002-590	931-000-395	931-000-421
0.1094	0.1250	0.0547	0.4375	1.0223	1.5000	N/A	N/A	N/A	931-000-397	931-000-423
0.1250	0.1250	0.0625	0.5000	0.6250	1.5000	930-002-234	931-000-135	930-002-591	931-000-399	931-000-425
0.1406	0.1875	0.0703	0.5000	1.3794	2.0000	N/A	N/A	N/A	931-000-401	931-000-430
0.1563	0.1875	0.0781	0.5625	1.3571	2.0000	N/A	N/A	N/A	931-000-403	931-000-432
0.1875	0.1875	0.0938	0.6250	1.0000	2.0000	N/A	N/A	N/A	931-000-405	931-000-434
0.2500	0.2500	0.1250	0.7500	1.3750	2.5000	N/A	N/A	N/A	931-000-407	931-000-439
0.3750	0.3750	0.1875	1.0000	1.1250	2.5000	N/A	N/A	N/A	931-000-409	931-000-446
0.5000	0.5000	0.2500	1.0000	1.6250	3.0000	N/A	N/A	N/A	931-000-411	931-000-450

Ø .0313"-.25"

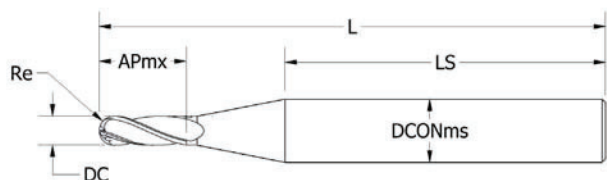


STUB



DC	DCONms	Re	APmx	LS	L	TiAIN COATED		AMORPHOUS DIAMOND	
						2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0313	0.1250	0.0156	0.0625	1.1963	1.5000	930-001-332	930-001-960	N/A	N/A
0.0469	0.1250	0.0234	0.0625	1.2365	1.5000	930-001-333	930-001-961	N/A	N/A
0.0625	0.1250	0.0313	0.1250	1.2142	1.5000	930-001-334	930-001-962	N/A	N/A
0.0938	0.1250	0.0469	0.1875	1.2321	1.5000	930-001-335	930-001-963	N/A	N/A
0.1250	0.1250	0.0625	0.2500	0.8750	1.5000	930-001-336	930-001-964	931-000-259	931-000-286
0.1875	0.1875	0.0938	0.3750	1.2500	2.0000	N/A	N/A	931-000-260	931-000-287
0.2500	0.2500	0.1250	0.5000	1.1250	2.0000	N/A	N/A	931-000-261	931-000-288

Ø .0156"-.250"

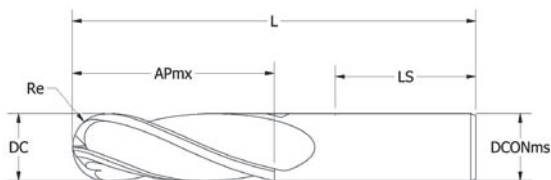


G MILLS



DC	DCONms	Re	APmx	LS	L	UNCOATED	AITiN COATED	AMORPHOUS DIAMOND
						3 FLUTE	3 FLUTE	3 FLUTE
0.0156	0.1250	0.0078	0.0780	2.1407	2.5000	931-000-194	930-000-125	931-000-457
0.0313	0.1250	0.0156	0.1560	2.1028	2.5000	931-000-196	931-000-197	931-000-463
0.0469	0.1250	0.0234	0.2500	2.0490	2.5000	931-000-201	930-000-128	931-000-475
0.0625	0.1250	0.0313	0.5000	1.8392	2.5000	931-000-203	930-000-130	931-000-481
0.0781	0.1250	0.0391	0.5000	1.8794	2.5000	931-000-207	931-000-208	931-000-493
0.0938	0.1250	0.0469	0.7500	1.6696	2.5000	931-000-210	931-000-211	931-000-499
0.1250	0.1250	0.0625	1.0000	1.6250	3.0000	931-000-215	931-000-216	931-000-511

Ø .1875"-.250"

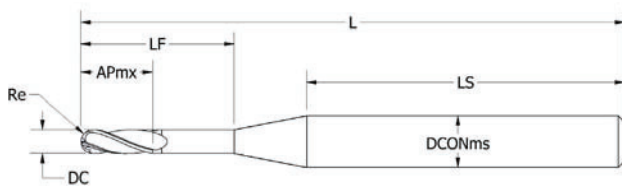


DC	DCONms	Re	APmx	LS	L	AMORPHOUS DIAMOND
						4 FLUTE
0.1875	0.1875	0.0938	1.1250	1.5000	3.0000	931-000-517
0.2500	0.2500	0.1250	1.5000	2.1250	4.0000	931-000-523

Ø .0313"-.0938"



CARBIDE



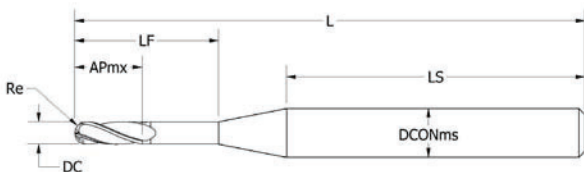
STUB, LONG REACH



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	AMORPHOUS DIAMOND
							3 FLUTE	3 FLUTE
0.0313	0.1250	0.0156	0.0625	2.2031	2.5000	0.2500	931-000-199	931-000-465
0.0313	0.1250	0.0156	0.0625	2.0781	2.5000	0.3750	N/A	931-000-473
0.0313	0.1250	0.0156	0.0625	1.9531	2.5000	0.5000	N/A	931-000-469
0.0625	0.1250	0.0313	0.1250	1.9688	2.5000	0.5000	931-000-205	931-000-483
0.0625	0.1250	0.0313	0.1250	1.7188	2.5000	0.7500	N/A	931-000-491
0.0625	0.1250	0.0313	0.1250	1.4688	2.5000	1.0000	N/A	931-000-487
0.0938	0.1250	0.0469	0.1875	1.7344	2.5000	0.7500	931-000-213	931-000-501
0.0938	0.1250	0.0469	0.1875	1.4844	2.5000	1.0000	N/A	931-000-509
0.0938	0.1250	0.0469	0.1875	1.2344	2.5000	1.2500	N/A	931-000-505

CARBIDE

Ø .0156"-.250"

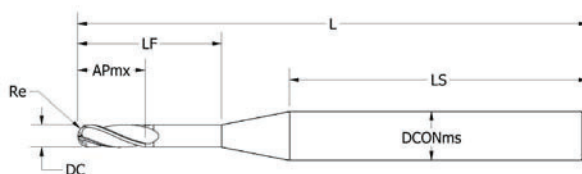


LONG FLUTE, LONG REACH



DC	DCONms	Re	APmx	LS	L	LF	AMORPHOUS DIAMOND
							3 FLUTE
0.0156	0.1250	0.0078	0.0781	2.2953	2.5000	0.1500	931-000-461
0.0156	0.1250	0.0078	0.0781	2.1953	2.5000	0.2500	931-000-459
0.0313	0.1250	0.0156	0.1563	2.2031	2.5000	0.2500	931-000-471
0.0313	0.1250	0.0156	0.1563	2.0781	2.5000	0.3750	931-000-467
0.0469	0.1250	0.0234	0.2500	2.0859	2.5000	0.3750	931-000-479
0.0469	0.1250	0.0234	0.2500	1.9609	2.5000	0.5000	931-000-477
0.0625	0.1250	0.0313	0.5000	1.7188	2.5000	0.7500	931-000-489
0.0625	0.1250	0.0313	0.5000	1.4688	2.5000	1.0000	931-000-485
0.0781	0.1250	0.0391	0.5000	1.7266	2.5000	0.7500	931-000-497
0.0781	0.1250	0.0391	0.5000	1.4766	2.5000	1.0000	931-000-495
0.0938	0.1250	0.0469	0.7500	1.4844	2.5000	1.0000	931-000-507
0.0938	0.1250	0.0469	0.7500	1.2344	2.5000	1.2500	931-000-503
0.1250	0.1250	0.0625	1.0000	1.7500	3.0000	1.2500	931-000-515
0.1250	0.1250	0.0625	1.0000	1.5000	3.0000	1.5000	931-000-513

Ø .0156"-.250"

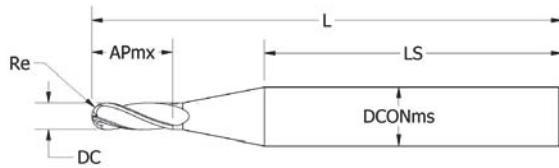


DC	DCONms	Re	APmx	LS	L	LF	4 FLUTE
0.1875	0.1875	0.0938	1.1250	1.5000	3.0000	1.5000	931-000-521
0.1875	0.1875	0.0938	1.1250	1.2500	3.0000	1.7500	931-000-519
0.2500	0.2500	0.1250	1.5000	2.0000	4.0000	2.0000	931-000-527
0.2500	0.2500	0.1250	1.5000	1.5000	4.0000	2.5000	931-000-525

Ø .5 mm-12 mm



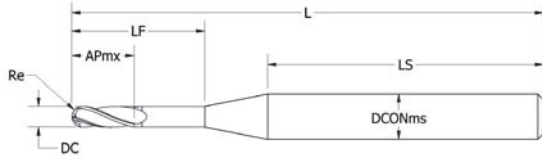
CARBIDE



DC	DCONms	Re	APmx	LS	L	UNCOATED	
						2 FLUTE	4 FLUTE
0.50	3.00	0.25	1.50	30.07	38.00	930-000-017	930-000-049
1.00	3.00	0.50	3.00	29.86	38.00	930-000-018	930-000-050
1.50	3.00	0.75	4.50	29.64	38.00	930-000-019	930-000-051
2.00	3.00	1.00	6.00	29.43	38.00	930-000-020	930-000-052
2.50	3.00	1.25	8.00	28.71	38.00	930-000-021	930-000-053
3.00	3.00	1.50	10.00	18.00	38.00	930-000-022	930-000-054
3.50	4.00	1.75	12.00	36.71	50.00	930-000-023	930-000-055
4.00	4.00	2.00	12.00	28.00	50.00	930-000-024	930-000-056
4.50	5.00	2.25	14.00	34.71	50.00	930-000-025	930-000-057
5.00	5.00	2.50	15.00	25.00	50.00	930-000-026	930-000-058
6.00	6.00	3.00	18.00	35.00	63.00	930-000-027	930-000-059
7.00	8.00	3.50	20.00	40.43	63.00	930-000-028	930-000-060
8.00	4.00	4.00	20.00	33.00	63.00	930-000-029	930-000-061
9.00	10.00	4.50	22.00	38.43	63.00	930-000-030	930-000-062
10.00	10.00	5.00	22.00	31.00	63.00	930-000-031	930-000-063
12.00	12.00	6.00	25.00	40.00	75.00	930-000-032	930-000-064

CARBIDE

Ø .4 mm-12 mm

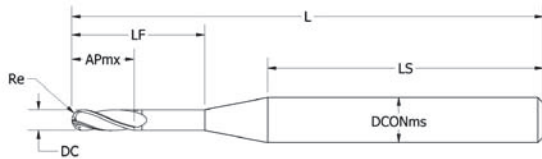


STUB, 8X REACH LENGTH



DC	DCONms	Re	APmx	LS	L	LF	AMORPHOUS DIAMOND
							3 FLUTE
0.40	3.00	0.20	0.60	70.50	75.00	3.20	930-000-109
0.50	3.00	0.25	0.75	69.75	75.00	4.00	930-000-110
0.60	3.00	0.30	0.90	69.00	75.00	4.80	930-000-111
0.80	3.00	0.40	1.20	67.50	75.00	6.40	930-000-112
1.00	3.00	0.50	1.50	66.00	75.00	8.00	930-000-113
1.50	3.00	0.75	2.25	62.25	75.00	12.00	930-000-114
2.00	3.00	1.00	3.00	58.50	75.00	16.00	930-000-115
2.50	3.00	1.25	3.75	54.75	75.00	20.00	930-000-116
3.00	3.00	1.50	4.50	51.00	75.00	24.00	930-000-117
4.00	4.00	2.00	6.00	43.00	75.00	32.00	930-000-118
6.00	6.00	3.00	9.00	52.00	100.00	48.00	930-000-119
8.00	8.00	4.00	12.00	36.00	100.00	64.00	930-000-120
10.00	10.00	5.00	15.00	40.00	120.00	80.00	930-000-121
12.00	12.00	6.00	18.00	54.00	150.00	96.00	930-000-122

Ø .4 mm-12 mm

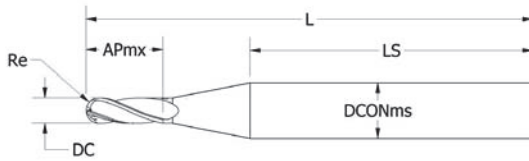


5X FLUTE LENGTH, 10X REACH LENGTH



DC	DCONms	Re	APmx	LS	L	LF	AMORPHOUS DIAMOND
							3 FLUTE
0.40	3.00	0.20	2.00	69.70	75.00	4 mm	930-000-080
0.50	3.00	0.25	2.50	68.75	75.00	5 mm	930-000-081
0.60	3.00	0.30	3.00	67.80	75.00	6 mm	930-000-082
0.80	3.00	0.40	4.00	65.90	75.00	8 mm	930-000-083
1.00	3.00	0.50	5.00	64.00	75.00	10 mm	930-000-084
1.20	3.00	0.60	6.00	62.10	75.00	12 mm	930-000-085
1.50	3.00	0.75	7.50	59.25	75.00	15 mm	930-000-086
2.00	3.00	1.00	10.00	54.50	75.00	20 mm	930-000-087
2.50	3.00	1.25	12.50	49.75	75.00	25 mm	930-000-088
3.00	3.00	1.50	15.00	45.00	75.00	30 mm	930-000-089
4.00	4.00	2.00	20.00	35.00	75.00	40 mm	930-000-090
6.00	6.00	3.00	30.00	40.00	100.00	60 mm	930-000-091
8.00	8.00	4.00	40.00	30.00	100.00	70 mm	930-000-092
10.00	10.00	5.00	50.00	40.00	120.00	80 mm	930-000-093
12.00	12.00	6.00	60.00	65.00	150.00	85 mm	930-000-094

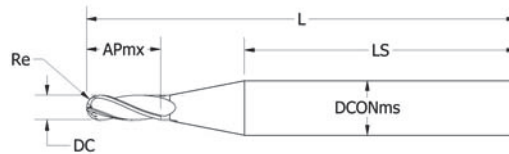
Ø .020"-.060"



LONG FLUTE

DC	DCONms	Re	APmx	LS	L	A	UNCOATED	TiAIN NANO COATED
							4 FLUTE	4 FLUTE
0.0200	0.1875	0.0100	0.1400	2.4291	3.0000	N/A	930-000-151	930-000-161
0.0300	0.1875	0.0150	0.2100	2.3849	3.0000	N/A	930-000-152	930-000-162
0.0400	0.1875	0.0200	0.2800	2.3406	3.0000	N/A	930-000-153	930-000-163
0.0500	0.1875	0.0250	0.3500	2.2963	3.0000	N/A	930-000-154	930-000-164
0.0600	0.1875	0.0300	0.4200	2.2520	3.0000	N/A	930-000-155	930-000-165
0.0200	0.1875	0.0100	0.1400	2.4350	3.0000	1.0	930-000-203	930-000-223
0.0300	0.1875	0.0150	0.2100	2.3936	3.0000	1.0	930-000-204	930-000-224
0.0400	0.1875	0.0200	0.2800	2.3523	3.0000	1.0	930-000-205	930-000-225
0.0500	0.1875	0.0250	0.3500	2.3109	3.0000	1.0	930-000-206	930-000-226
0.0600	0.1875	0.0300	0.4200	2.2695	3.0000	1.0	930-000-207	930-000-227
0.0200	0.1875	0.0100	0.1400	2.4408	3.0000	2.0	930-000-213	930-000-233
0.0300	0.1875	0.0150	0.2100	2.4024	3.0000	2.0	930-000-214	930-000-234
0.0400	0.1875	0.0200	0.2800	2.3639	3.0000	2.0	930-000-215	930-000-235
0.0500	0.1875	0.0250	0.3500	2.3255	3.0000	2.0	930-000-216	930-000-236
0.0600	0.1875	0.0300	0.4200	2.2871	3.0000	2.0	930-000-217	930-000-237

Ø .020"-.060"



EXTRA LONG FLUTE

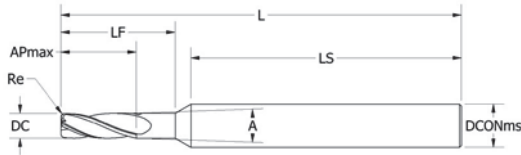


DC	DCONms	Re	APmx	LS	L	A	UNCOATED	TiAIN NANO COATED
							4 FLUTE	4 FLUTE
0.0200	0.1875	0.0100	0.2800	2.2891	3.0000	N/A	930-000-156	930-000-166
0.0300	0.1875	0.0150	0.4100	2.1849	3.0000	N/A	930-000-157	930-000-167
0.0400	0.1875	0.0200	0.5600	2.0606	3.0000	N/A	930-000-158	930-000-168
0.0500	0.1875	0.0250	0.7000	1.9463	3.0000	N/A	930-000-159	930-000-169
0.0600	0.1875	0.0300	0.8400	1.8320	3.0000	N/A	930-000-160	930-000-170
0.0200	0.1875	0.0100	0.2800	2.3013	3.0000	1.0	930-000-208	930-000-228
0.0300	0.1875	0.0150	0.4100	2.2026	3.0000	1.0	930-000-209	930-000-229
0.0400	0.1875	0.0200	0.5600	2.0848	3.0000	1.0	930-000-210	930-000-230
0.0500	0.1875	0.0250	0.7000	1.9766	3.0000	1.0	930-000-211	930-000-231
0.0600	0.1875	0.0300	0.8400	1.8684	3.0000	1.0	930-000-212	930-000-232
0.0200	0.1875	0.0100	0.2800	2.3134	3.0000	2.0	930-000-218	930-000-238
0.0300	0.1875	0.0150	0.4100	2.2203	3.0000	2.0	930-000-219	930-000-239
0.0400	0.1875	0.0200	0.5600	2.1091	3.0000	2.0	930-000-220	930-000-240
0.0500	0.1875	0.0250	0.7000	2.0069	3.0000	2.0	930-000-221	930-000-241
0.0600	0.1875	0.0300	0.8400	1.9048	3.0000	2.0	930-000-222	930-000-242

CARBIDE



Ø .030"-.060"

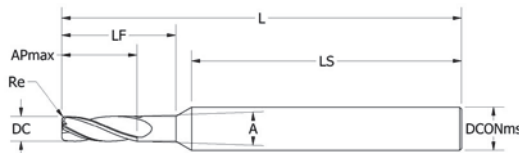


LONG FLUTE



DC	DCONms	Re	APmx	LS	L	A	UNCOATED	TiAIN NANO COATED
							4 FLUTE	4 FLUTE
0.0300	0.1875	0.0100	0.2100	2.3849	3.0000	N/A	930-000-135	930-000-143
0.0400	0.1875	0.0100	0.2800	2.3406	3.0000	N/A	930-000-136	930-000-144
0.0500	0.1875	0.0100	0.3500	2.2963	3.0000	N/A	930-000-137	930-000-145
0.0600	0.1875	0.0100	0.4200	2.2520	3.0000	N/A	930-000-138	930-000-146
0.0300	0.1875	0.0100	0.2100	2.3938	3.0000	1.0	930-000-171	930-000-187
0.0400	0.1875	0.0100	0.2800	2.3527	3.0000	1.0	930-000-172	930-000-188
0.0500	0.1875	0.0100	0.3500	2.3116	3.0000	1.0	930-000-173	930-000-189
0.0600	0.1875	0.0100	0.4200	2.2704	3.0000	1.0	930-000-174	930-000-190
0.0300	0.1875	0.0100	0.2100	2.4028	3.0000	2.0	930-000-179	930-000-195
0.0400	0.1875	0.0100	0.2800	2.3648	3.0000	2.0	930-000-180	930-000-196
0.0500	0.1875	0.0100	0.3500	2.3268	3.0000	2.0	930-000-181	930-000-197
0.0600	0.1875	0.0100	0.4200	2.2889	3.0000	2.0	930-000-182	930-000-198

Ø .030"-.060"

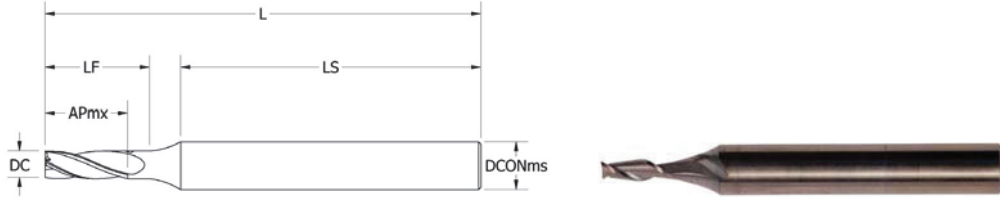


EXTRA LONG FLUTE



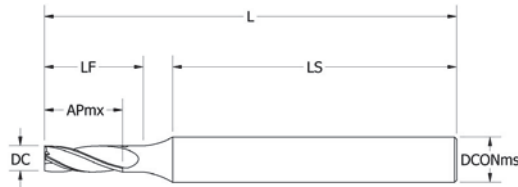
DC	DCONms	Re	APmx	LS	L	A	UNCOATED	TiAIN NANO COATED
							4 FLUTE	4 FLUTE
0.0300	0.1875	0.0100	0.4100	2.1849	3.0000	N/A	930-000-139	930-000-147
0.0400	0.1875	0.0100	0.5600	2.0606	3.0000	N/A	930-000-140	930-000-148
0.0500	0.1875	0.0100	0.7000	1.9463	3.0000	N/A	930-000-141	930-000-149
0.0600	0.1875	0.0100	0.8400	1.8320	3.0000	N/A	930-000-142	930-000-150
0.0300	0.1875	0.0100	0.4100	2.2028	3.0000	1.0	930-000-175	930-000-191
0.0400	0.1875	0.0100	0.5600	2.0853	3.0000	1.0	930-000-176	930-000-192
0.0500	0.1875	0.0100	0.7000	1.9773	3.0000	1.0	930-000-177	930-000-193
0.0600	0.1875	0.0100	0.8400	1.8693	3.0000	1.0	930-000-178	930-000-194
0.0300	0.1875	0.0100	0.4100	2.2208	3.0000	2.0	930-000-183	930-000-199
0.0400	0.1875	0.0100	0.5600	2.1100	3.0000	2.0	930-000-184	930-000-200
0.0500	0.1875	0.0100	0.7000	2.0083	3.0000	2.0	930-000-185	930-000-201
0.0600	0.1875	0.0100	0.8400	1.9066	3.0000	2.0	930-000-186	930-000-202

Ø.005"-.1378"



DC	DCONms	APmx	LS	L	LF	UNCOATED	TiCN COATED
						2 FLUTE	2 FLUTE
0.0050	0.1250	0.0150	1.2815	1.5000	N/A	934-000-109	934-000-154
0.0100	0.1250	0.0300	1.2705	1.5000	0.0310	934-000-110	934-000-155
0.0150	0.1250	0.0450	1.2595	1.5000	0.0475	934-000-111	934-000-156
0.0050	0.1250	0.0150	1.2815	1.5000	N/A	934-000-154	N/A
0.0197	0.1250	0.0591	1.2493	1.5000	N/A	934-000-141	N/A
0.0200	0.1250	0.0600	1.2486	1.5000	0.0630	934-000-112	934-000-157
0.0250	0.1250	0.0750	1.2379	1.5000	0.0780	934-000-113	N/A
0.0300	0.1250	0.0900	1.2273	1.5000	0.0930	934-000-114	934-000-158
0.0350	0.1875	0.1050	1.1683	1.5000	0.1100	934-000-115	N/A
0.0394	0.1875	0.1182	1.1581	1.5000	0.1232	934-000-142	N/A
0.0400	0.1875	0.1200	1.1567	1.5000	0.1250	934-000-116	934-000-159
0.0450	0.1875	0.1350	1.1451	1.5000	0.1400	934-000-117	N/A
0.0492	0.1875	0.1476	1.1354	1.5000	0.1526	934-000-143	N/A
0.0500	0.1875	0.1500	1.1336	1.5000	0.1550	934-000-118	934-000-160
0.0550	0.1875	0.1650	1.1222	1.5000	0.1700	934-000-119	N/A
0.0591	0.1875	0.1773	1.1129	1.5000	0.1823	934-000-144	N/A
0.0600	0.1875	0.1800	1.1108	1.5000	0.1850	934-000-120	934-000-161
0.0630	0.1875	0.1890	1.1041	1.5000	0.1940	934-000-145	N/A
0.0650	0.1875	0.1950	1.0996	1.5000	0.2000	934-000-121	N/A
0.0700	0.1875	0.2100	1.0885	1.5000	0.2150	934-000-122	934-000-162
0.0709	0.1875	0.2127	1.0865	1.5000	0.2177	934-000-146	N/A
0.0750	0.1875	0.2250	1.0775	1.5000	0.2300	934-000-123	N/A
0.0787	0.1875	0.2361	1.0694	1.5000	0.2411	934-000-147	N/A
0.0800	0.1875	0.2400	1.0665	1.5000	0.2450	934-000-124	934-000-163
0.0850	0.1875	0.2550	1.0558	1.5000	0.2600	934-000-125	N/A
0.0866	0.1875	0.2598	1.0523	1.5000	0.2648	934-000-148	N/A
0.0900	0.1875	0.2700	1.0451	1.5000	0.2750	934-000-126	934-000-164
0.0950	0.1875	0.2850	1.0346	1.5000	0.2900	934-000-127	N/A
0.0984	0.1875	0.2952	1.0275	1.5000	0.3002	934-000-149	N/A
0.1000	0.1875	0.3000	1.0242	1.5000	0.3050	934-000-128	934-000-165
0.1102	0.1875	0.3306	1.0036	1.5000	0.3356	934-000-150	N/A
0.1181	0.1875	0.3543	0.9882	1.5000	0.3593	934-000-151	N/A
0.1200	0.1875	0.3600	0.9845	1.5000	0.3650	934-000-129	N/A
0.1378	0.1875	0.4134	0.9524	1.5000	0.4184	934-000-152	N/A

Ø .005" - .1378"



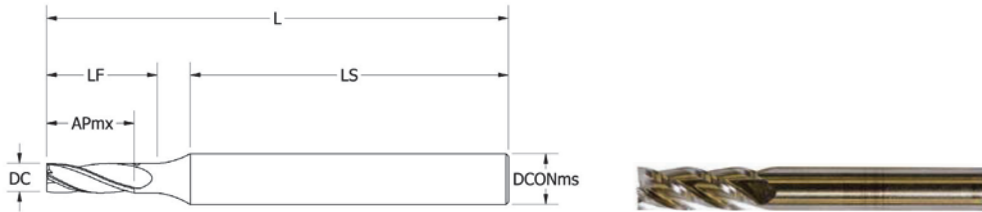
DC	DCONms	APmx	LS	L	LF	UNCOATED
						2 FLUTE
0.0050	0.1250	0.0075	1.3300	1.5000	N/A	934-000-190
0.0100	0.1250	0.0150	1.2855	1.5000	0.0150	934-000-191
0.0150	0.1250	0.0225	1.2820	1.5000	0.0225	934-000-192
0.0156	0.1250	0.0234	1.2816	1.5000	0.0234	934-000-223
0.0197	0.1250	0.0296	1.2788	1.5000	0.0296	934-000-211
0.0200	0.1250	0.0300	1.2786	1.5000	0.0300	934-000-193
0.0250	0.1250	0.0375	1.2754	1.5000	0.0375	934-000-194
0.0300	0.1250	0.0450	1.2723	1.5000	0.0450	934-000-195
0.0350	0.1875	0.0525	1.2208	1.5000	0.0525	934-000-196
0.0394	0.1875	0.0591	1.2172	1.5000	0.0591	934-000-212
0.0400	0.1875	0.0600	1.2167	1.5000	0.0600	934-000-197
0.0450	0.1875	0.0675	1.2126	1.5000	0.0675	934-000-198
0.0492	0.1875	0.0738	1.2092	1.5000	0.0738	934-000-213
0.0500	0.1875	0.0750	1.2086	1.5000	0.0750	934-000-199
0.0550	0.1875	0.0825	1.2047	1.5000	0.0825	934-000-200
0.0591	0.1875	0.0887	1.2015	1.5000	0.0887	934-000-214
0.0600	0.1875	0.0900	1.2008	1.5000	0.0900	934-000-201
0.0630	0.1875	0.0945	1.1986	1.5000	0.0945	934-000-215
0.0650	0.1875	0.0975	1.1971	1.5000	0.0975	934-000-202
0.0700	0.1875	0.1050	1.1935	1.5000	0.1050	934-000-203
0.0709	0.1875	0.1064	1.1928	1.5000	0.1064	934-000-216
0.0750	0.1875	0.1125	1.1900	1.5000	0.1125	934-000-204
0.0787	0.1875	0.1181	1.1874	1.5000	0.1181	934-000-217
0.0800	0.1875	0.1200	1.1865	1.5000	0.1200	934-000-205
0.0850	0.1875	0.1275	1.1833	1.5000	0.1275	934-000-206
0.0866	0.1875	0.1299	1.1822	1.5000	0.1299	934-000-218
0.0900	0.1875	0.1350	1.1801	1.5000	0.1350	934-000-207
0.0950	0.1875	0.1425	1.1771	1.5000	0.1425	934-000-208
0.0984	0.1875	0.1476	1.1751	1.5000	0.1476	934-000-219
0.1000	0.1875	0.1500	1.1742	1.5000	0.1500	934-000-209
0.1102	0.1875	0.1653	1.1689	1.5000	0.1653	934-000-220
0.1181	0.1875	0.1772	1.1653	1.5000	0.1772	934-000-221
0.1200	0.1875	0.1800	1.1645	1.5000	0.1800	934-000-210
0.1378	0.1875	0.2067	1.1591	1.5000	0.2067	934-000-222

HSS

Ø .0156" - .1875"

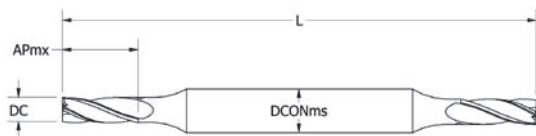


HSS



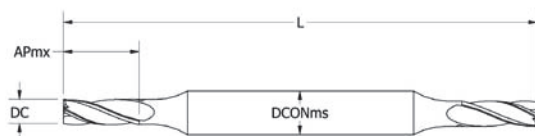
DC	DCONms	APmx	LS	L	LF	UNCOATED		TICN COATED	
						2 FLUTE	4 FLUTE	2 FLUTE	4 FLUTE
0.0156	0.1250	0.0468	1.2582	1.5000	0.0493	934-000-153	N/A	934-000-172	N/A
0.0313	0.1875	0.0938	1.1771	1.5000	0.0988	934-000-130	934-000-173	934-000-166	934-000-184
0.0469	0.1875	0.1406	1.1408	1.5000	0.1456	934-000-131	934-000-174	934-000-167	934-000-185
0.0625	0.1875	0.1875	1.1052	1.5000	0.1925	934-000-132	934-000-175	934-000-168	934-000-186
0.0781	0.1875	0.2344	1.0706	1.5000	0.2394	934-000-133	934-000-176	934-000-169	934-000-187
0.0938	0.1875	0.2813	1.0372	1.5000	0.2863	934-000-134	934-000-177	934-000-170	934-000-188
0.1094	0.1875	0.3281	1.0052	1.5000	0.3331	934-000-135	934-000-178	N/A	N/A
0.1250	0.1875	0.3750	0.9751	1.5000	0.3800	934-000-136	934-000-179	934-000-171	934-000-189
0.1406	0.1875	0.4063	0.9633	1.5000	0.4113	934-000-137	934-000-180	N/A	N/A
0.1563	0.1875	0.4375	0.9554	1.5000	0.4425	934-000-138	934-000-181	N/A	N/A
0.1719	0.1875	0.5000	0.9239	1.5000	0.5050	934-000-139	934-000-182	N/A	N/A
0.1875	0.1875	0.5000	0.6250	1.5000	N/A	934-000-140	934-000-183	N/A	N/A

Ø .0313" - .1875"



DC	DCONms	APmx	LS	L	UNCOATED
					2 FLUTE
0.0313	0.1875	0.0938	1.1250	2.2500	934-000-001
0.0469	0.1875	0.1406	1.1250	2.2500	934-000-002
0.0625	0.1875	0.1875	1.1250	2.2500	934-000-003
0.0781	0.1875	0.2344	1.1250	2.2500	934-000-004
0.0938	0.1875	0.2813	1.1250	2.2500	934-000-005
0.1094	0.1875	0.3281	1.1250	2.2500	934-000-006
0.1250	0.1875	0.3750	1.1250	2.2500	934-000-007
0.1406	0.1875	0.4063	1.1250	2.2500	934-000-008
0.1563	0.1875	0.4375	1.1250	2.2500	934-000-009
0.1719	0.1875	0.5025	1.1250	2.2500	934-000-010
0.1875	0.1875	0.5000	1.2500	2.5000	934-000-011

Ø .0313" - .1875"



DC	DCONms	APmx	LS	L	UNCOATED
					4 FLUTE
0.0313	0.1875	0.0938	1.1250	2.2500	934-000-055
0.0469	0.1875	0.1406	1.1250	2.2500	934-000-056
0.0625	0.1875	0.1875	1.1250	2.2500	934-000-057
0.0781	0.1875	0.2344	1.1250	2.2500	934-000-058
0.0938	0.1875	0.2813	1.1250	2.2500	934-000-059
0.1094	0.1875	0.3281	1.1250	2.2500	934-000-060
0.1250	0.1875	0.3750	1.1250	2.2500	934-000-061
0.1406	0.1875	0.4063	1.1250	2.2500	934-000-062
0.1563	0.1875	0.4375	1.1250	2.2500	934-000-063
0.1719	0.1875	0.5000	1.1250	2.2500	934-000-064
0.1875	0.1875	0.5000	1.1250	2.2500	934-000-065

Ø .0313" - .1875"



DC	DCONms	APmx	LS	L	UNCOATED
					2 FLUTE
0.0313	0.1875	0.0469	1.0000	2.0000	934-000-023
0.0469	0.1875	0.0625	1.0000	2.0000	934-000-024
0.0625	0.1875	0.0938	1.0000	2.0000	934-000-025
0.0781	0.1875	0.1250	1.0000	2.0000	934-000-026
0.0938	0.1875	0.1406	1.0000	2.0000	934-000-027
0.1094	0.1875	0.1563	1.0000	2.0000	934-000-028
0.1250	0.1875	0.1875	1.0000	2.0000	934-000-029
0.1406	0.1875	0.2188	1.0000	2.0000	934-000-030
0.1563	0.1875	0.2344	1.0000	2.0000	934-000-031
0.1719	0.1875	0.2500	1.0000	2.0000	934-000-032
0.1875	0.1875	0.2813	1.0000	2.0000	934-000-033

COBALT

Ø .0313" - .1875"

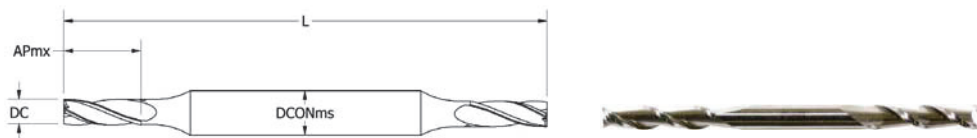


DC	DCONms	APmx	LS	L	UNCOATED
					4 FLUTE
0.0313	0.1875	0.0469	1.0000	2.0000	934-000-077
0.0469	0.1875	0.0625	1.0000	2.0000	934-000-078
0.0625	0.1875	0.0938	1.0000	2.0000	934-000-079
0.0781	0.1875	0.1250	1.0000	2.0000	934-000-080
0.0938	0.1875	0.1406	1.0000	2.0000	934-000-081
0.1094	0.1875	0.1563	1.0000	2.0000	934-000-082
0.1250	0.1875	0.1875	1.0000	2.0000	934-000-083
0.1406	0.1875	0.2188	1.0000	2.0000	934-000-084
0.1563	0.1875	0.2344	1.0000	2.0000	934-000-085
0.1719	0.1875	0.2500	1.0000	2.0000	934-000-086
0.1875	0.1875	0.2813	1.0000	2.0000	934-000-087

Ø .0625"-.1875"

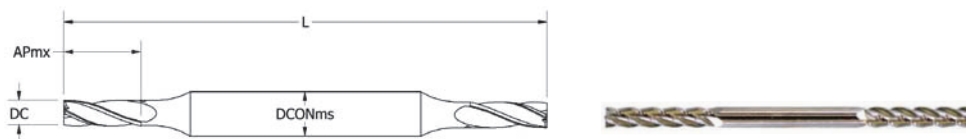


Cobalt



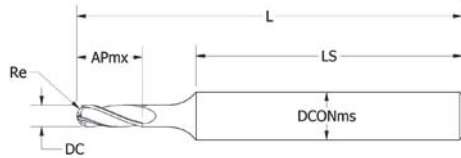
DC	DCONms	APmx	LS	L	UNCOATED
					2 FLUTE
0.0625	0.1875	0.2188	1.2500	2.5000	934-000-045
0.0938	0.1875	0.2813	1.3125	2.6250	934-000-046
0.1250	0.1875	0.7500	1.5625	3.1250	934-000-047
0.1563	0.1875	0.8750	1.6250	3.2500	934-000-048
0.1875	0.1875	1.0000	1.6875	3.3750	934-000-049

Ø .0625"-.1875"



DC	DCONms	APmx	LS	L	UNCOATED
					4 FLUTE
0.0625	0.1875	0.2188	1.2500	2.5000	934-000-099
0.0938	0.1875	0.2813	1.3125	2.6250	934-000-100
0.1250	0.1875	0.7500	1.5625	3.1250	934-000-101
0.1563	0.1875	0.8750	1.6250	3.2500	934-000-102
0.1875	0.1875	1.0000	1.6875	3.3750	934-000-103

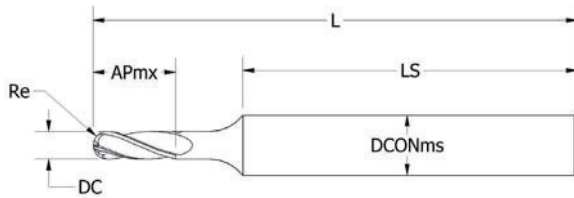
Ø .005" - .1378"



HSS

DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	TiCN COATED
							2 FLUTE	2 FLUTE
0.0050	0.1250	0.0025	0.0150	1.3225	1.5000	N/A	934-000-258	934-000-303
0.0100	0.1250	0.0050	0.0300	1.2705	1.5000	0.0310	934-000-259	934-000-304
0.0150	0.1250	0.0075	0.0450	1.2595	1.5000	0.0475	934-000-260	934-000-305
0.0156	0.1250	0.0078	0.0468	1.2582	1.5000	0.0493	934-000-302	934-000-321
0.0197	0.1250	0.0099	0.0591	1.2493	1.5000	0.0621	934-000-290	N/A
0.0200	0.1250	0.0100	0.0600	1.2486	1.5000	0.0630	934-000-261	934-000-306
0.0250	0.1250	0.0125	0.0750	1.2379	1.5000	0.0780	934-000-262	N/A
0.0300	0.1250	0.0150	0.0900	1.2273	1.5000	0.0930	934-000-263	934-000-307
0.0350	0.1875	0.0175	0.1050	1.1683	1.5000	0.1100	934-000-264	N/A
0.0394	0.1875	0.0197	0.1182	1.1581	1.5000	0.1232	934-000-291	N/A
0.0400	0.1875	0.0200	0.1200	1.1567	1.5000	0.1250	934-000-265	934-000-308
0.0450	0.1875	0.0225	0.1350	1.1451	1.5000	0.1400	934-000-266	N/A
0.0492	0.1875	0.0246	0.1476	1.1354	1.5000	0.1526	934-000-292	N/A
0.0500	0.1875	0.0250	0.1500	1.1336	1.5000	0.1550	934-000-267	934-000-309
0.0550	0.1875	0.0275	0.1650	1.1222	1.5000	0.1700	934-000-268	N/A
0.0591	0.1875	0.0296	0.1773	1.1129	1.5000	0.1823	934-000-293	N/A
0.0600	0.1875	0.0300	0.1800	1.1108	1.5000	0.1850	934-000-269	934-000-310
0.0630	0.1875	0.0315	0.1890	1.1041	1.5000	0.1940	934-000-294	N/A
0.0650	0.1875	0.0325	0.1950	1.0996	1.5000	0.2000	934-000-270	N/A
0.0700	0.1875	0.0350	0.2100	1.0885	1.5000	0.2150	934-000-271	934-000-311
0.0709	0.1875	0.0355	0.2127	1.0865	1.5000	0.2177	934-000-295	N/A
0.0750	0.1875	0.0375	0.2250	1.0775	1.5000	0.2300	934-000-272	N/A
0.0787	0.1875	0.0394	0.2361	1.0694	1.5000	0.2411	934-000-296	N/A
0.0800	0.1875	0.0400	0.2400	1.0665	1.5000	0.2450	934-000-273	934-000-312
0.0850	0.1875	0.0425	0.2550	1.0558	1.5000	0.2600	934-000-274	N/A
0.0866	0.1875	0.0433	0.2598	1.0523	1.5000	0.2648	934-000-297	N/A
0.0900	0.1875	0.0450	0.2700	1.0451	1.5000	0.2750	934-000-275	934-000-313
0.0950	0.1875	0.0475	0.2850	1.0346	1.5000	0.2900	934-000-276	N/A
0.0984	0.1875	0.0492	0.2952	1.0275	1.5000	0.3002	934-000-298	N/A
0.1000	0.1875	0.0500	0.3000	1.0242	1.5000	0.3050	934-000-277	934-000-314
0.1102	0.1875	0.0551	0.3306	1.0036	1.5000	0.3356	934-000-299	N/A
0.1181	0.1875	0.0591	0.3543	0.9882	1.5000	0.3593	934-000-300	N/A
0.1200	0.1875	0.0600	0.3600	0.9845	1.5000	0.3650	934-000-278	N/A
0.1378	0.1875	0.0689	0.4134	0.9524	1.5000	0.4184	934-000-301	N/A

Ø .0313" - .1875"



HSS

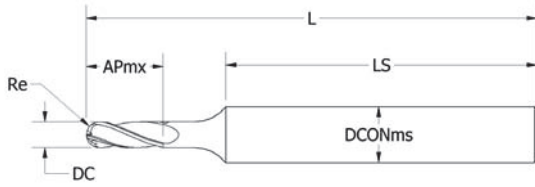


1.50 Length



DC	DCONms	Re	APmx	LS	L	LF	UNCOATED	TiCN COATED
							2 FLUTE	2 FLUTE
0.0313	0.1875	0.0156	0.0938	1.1771	1.5000	0.0988	934-000-279	934-000-315
0.0469	0.1875	0.0234	0.1406	1.1408	1.5000	0.1456	934-000-280	934-000-316
0.0625	0.1875	0.0313	0.1875	1.1052	1.5000	0.1925	934-000-281	934-000-317
0.0781	0.1875	0.0391	0.2344	1.0706	1.5000	0.2394	934-000-282	934-000-318
0.0938	0.1875	0.0469	0.2188	1.0997	1.5000	0.2238	934-000-283	934-000-319
0.1094	0.1875	0.0547	0.3281	1.0052	1.5000	0.3331	934-000-284	N/A
0.1250	0.1875	0.0625	0.7500	0.6001	1.5000	0.7550	934-000-285	934-000-320
0.1406	0.1875	0.0703	0.4063	0.9633	1.5000	0.4113	934-000-286	N/A
0.1563	0.1875	0.0781	0.4375	0.9554	1.5000	0.4425	934-000-287	N/A
0.1719	0.1875	0.0859	0.5000	0.9239	1.5000	0.5050	934-000-288	N/A
0.1875	0.1875	0.0938	0.5000	0.6250	1.5000	N/A	934-000-289	N/A

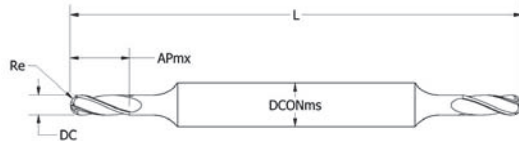
Ø .005"- .1378"



HSS

DC	DCONms	Re	APmx	LS	L	LF	UNCOATED
							2 FLUTE
0.0050	0.1250	0.0025	0.0075	1.3300	1.5000	N/A	934-000-224
0.0100	0.1250	0.0050	0.0150	1.2855	1.5000	0.0150	934-000-225
0.0150	0.1250	0.0075	0.0225	1.2820	1.5000	0.0225	934-000-226
0.0156	0.1250	0.0078	0.0234	1.2816	1.5000	0.0234	934-000-257
0.0197	0.1875	0.0099	0.0296	1.2340	1.5000	0.0296	934-000-245
0.0200	0.1250	0.0100	0.0300	1.2786	1.5000	0.0300	934-000-227
0.0250	0.1250	0.0125	0.0375	1.2754	1.5000	0.0375	934-000-228
0.0300	0.1250	0.0150	0.0450	1.2723	1.5000	0.0450	934-000-229
0.0350	0.1875	0.0175	0.0525	1.2208	1.5000	0.0525	934-000-230
0.0394	0.1875	0.0197	0.0591	1.2172	1.5000	0.0591	934-000-246
0.0400	0.1875	0.0200	0.0600	1.2167	1.5000	0.0600	934-000-231
0.0450	0.1875	0.0225	0.0675	1.2126	1.5000	0.0675	934-000-232
0.0492	0.1875	0.0246	0.0738	1.2092	1.5000	0.0738	934-000-247
0.0500	0.1875	0.0250	0.0750	1.2086	1.5000	0.0750	934-000-233
0.0550	0.1875	0.0275	0.0825	1.2047	1.5000	0.0825	934-000-234
0.0591	0.1875	0.0296	0.0887	1.2015	1.5000	0.0887	934-000-248
0.0600	0.1875	0.0300	0.0900	1.2008	1.5000	0.0900	934-000-235
0.0630	0.1875	0.0315	0.0945	1.1986	1.5000	0.0945	934-000-249
0.0650	0.1875	0.0325	0.0975	1.1971	1.5000	0.0975	934-000-236
0.0700	0.1875	0.0350	0.1050	1.1935	1.5000	0.1050	934-000-237
0.0709	0.1875	0.0355	0.1064	1.1928	1.5000	0.1064	934-000-250
0.0750	0.1875	0.0375	0.1125	1.1900	1.5000	0.1125	934-000-238
0.0787	0.1875	0.0394	0.1181	1.1874	1.5000	0.1181	934-000-251
0.0800	0.1875	0.0400	0.1200	1.1865	1.5000	0.1200	934-000-239
0.0850	0.1875	0.0425	0.1275	1.1833	1.5000	0.1275	934-000-240
0.0866	0.1875	0.0433	0.1299	1.1822	1.5000	0.1299	934-000-252
0.0900	0.1875	0.0450	0.1350	1.1801	1.5000	0.1350	934-000-241
0.0950	0.1875	0.0475	0.1425	1.1771	1.5000	0.1425	934-000-242
0.0984	0.1875	0.0492	0.1476	1.1751	1.5000	0.1476	934-000-253
0.1000	0.1875	0.0500	0.1500	1.1742	1.5000	0.1500	934-000-243
0.1102	0.1875	0.0551	0.1653	1.1689	1.5000	0.1653	934-000-254
0.1181	0.1875	0.0591	0.1772	1.1653	1.5000	0.1772	934-000-255
0.1200	0.1875	0.0600	0.1800	1.1645	1.5000	0.1800	934-000-244
0.1378	0.1875	0.0689	0.2067	1.1591	1.5000	0.2067	934-000-256

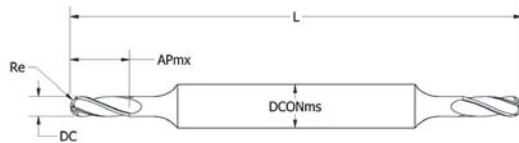
Ø .0313"-.1875"



DC	DCONms	Re	APmx	LS	L	UNCOATED
						2 FLUTE
0.0313	0.1875	0.0156	0.0938	1.1250	2.2500	934-000-012
0.0469	0.1875	0.0234	0.1406	1.1250	2.2500	934-000-013
0.0625	0.1875	0.0313	0.1875	1.1250	2.2500	934-000-014
0.0781	0.1875	0.0391	0.2344	1.1250	2.2500	934-000-015
0.0938	0.1875	0.0469	0.2813	1.1250	2.2500	934-000-016
0.1094	0.1875	0.0547	0.3281	1.1250	2.2500	934-000-017
0.1250	0.1875	0.0625	0.3750	1.1250	2.2500	934-000-018
0.1406	0.1875	0.0703	0.4063	1.1250	2.2500	934-000-019
0.1563	0.1875	0.0781	0.4375	1.1250	2.2500	934-000-020
0.1719	0.1875	0.0859	0.5000	1.1250	2.2500	934-000-021
0.1875*	0.1875	0.0938	0.5000	1.1250	2.2500	934-000-022

3/16": +000/.0025

Ø .0313"-.1875"

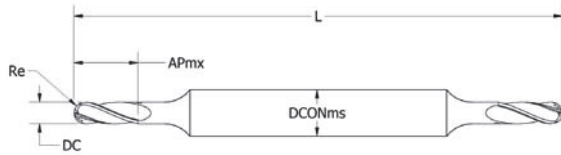


DC	DCONms	Re	APmx	LS	L	UNCOATED
						4 FLUTE
0.0313	0.1875	0.0156	0.0938	1.1250	2.2500	934-000-066
0.0469	0.1875	0.0234	0.1406	1.1250	2.2500	934-000-067
0.0625	0.1875	0.0313	0.1875	1.1250	2.2500	934-000-068
0.0781	0.1875	0.0391	0.2344	1.1250	2.2500	934-000-069
0.0938	0.1875	0.0469	0.2188	1.1250	2.2500	934-000-070
0.1094	0.1875	0.0547	0.3281	1.1250	2.2500	934-000-071
0.1250	0.1875	0.0625	0.3750	1.1250	2.2500	934-000-072
0.1406	0.1875	0.0703	0.4063	1.1250	2.2500	934-000-073
0.1563	0.1875	0.0781	0.4375	1.1250	2.2500	934-000-074
0.1719	0.1875	0.0859	0.5000	1.1250	2.2500	934-000-075
0.1875*	0.1875	0.0938	0.5000	1.1250	2.2500	934-000-076

3/16": +000/.0025

COBALT

Ø .0313" - .1875"



2.000 Length

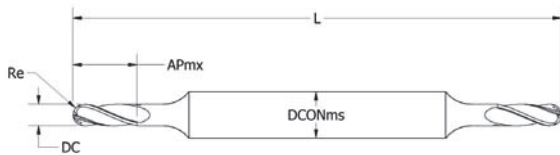


DC	DCONms	Re	APmx	LS	L	UNCOATED
						2 FLUTE
0.0313	0.1875	0.0156	0.0469	1.0000	2.0000	934-000-034
0.0469	0.1875	0.0234	0.0625	1.0000	2.0000	934-000-035
0.0625	0.1875	0.0313	0.0938	1.0000	2.0000	934-000-036
0.0781	0.1875	0.0391	0.1250	1.0000	2.0000	934-000-037
0.0938	0.1875	0.0469	0.1406	1.0000	2.0000	934-000-038
0.1094	0.1875	0.0547	0.1563	1.0000	2.0000	934-000-039
0.1250	0.1875	0.0625	0.1875	1.0000	2.0000	934-000-040
0.1406	0.1875	0.0703	0.2188	1.0000	2.0000	934-000-041
0.1563	0.1875	0.0781	0.2344	1.0000	2.0000	934-000-042
0.1719	0.1875	0.0859	0.2500	1.0000	2.0000	934-000-043
0.1875*	0.1875	0.0938	0.2813	1.0000	2.0000	934-000-044

3/16": +000/.0025

COBALT

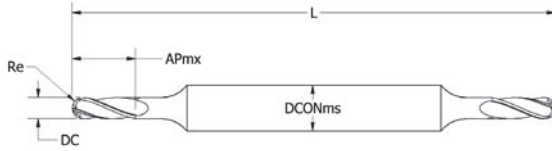
Ø .0313" - .1875"



DC	DCONms	Re	APmx	LS	L	UNCOATED
						4 FLUTE
0.0313	0.1875	0.0156	0.0469	1.0000	2.0000	934-000-088
0.0469	0.1875	0.0234	0.0625	1.0000	2.0000	934-000-089
0.0625	0.1875	0.0313	0.0938	1.0000	2.0000	934-000-090
0.0781	0.1875	0.0391	0.1250	1.0000	2.0000	934-000-091
0.0938	0.1875	0.0469	0.1406	1.0000	2.0000	934-000-092
0.1094	0.1875	0.0547	0.1563	1.0000	2.0000	934-000-093
0.1250	0.1875	0.0625	0.1875	1.0000	2.0000	934-000-094
0.1406	0.1875	0.0703	0.2188	1.0000	2.0000	934-000-095
0.1563	0.1875	0.0781	0.2344	1.0000	2.0000	934-000-096
0.1719	0.1875	0.0859	0.2500	1.0000	2.0000	934-000-097
0.1875*	0.1875	0.0938	0.2813	1.0000	2.0000	934-000-098

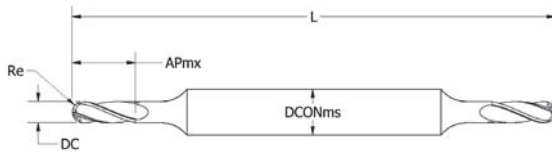
3/16": +000/.0025

Ø .0625"-.1875"



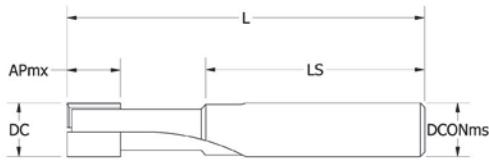
DC	DCONms	Re	APmx	LS	L	UNCOATED
						2 FLUTE
0.0625	0.1875	0.0313	0.2188	1.2500	2.5000	934-000-050
0.0938	0.1875	0.0469	0.2813	1.3125	2.6250	934-000-051
0.1250	0.1875	0.0625	0.7500	1.5625	3.1250	934-000-052
0.1563	0.1875	0.0781	0.8750	1.6250	3.2500	934-000-053
0.1875	0.1875	0.0938	1.0000	1.6875	3.3750	934-000-054

Ø .0625"-.1875"



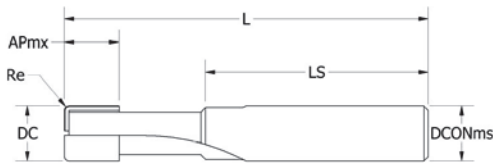
DC	DCONms	Re	APmx	LS	L	UNCOATED
						4 FLUTE
0.0625	0.1875	0.0313	0.2188	1.2500	2.5000	934-000-104
0.0938	0.1875	0.0469	0.2813	1.3125	2.6250	934-000-105
0.1250	0.1875	0.0625	0.7500	1.5625	3.1250	934-000-106
0.1563	0.1875	0.0781	0.8750	1.6250	3.2500	934-000-107
0.1875	0.1875	0.0938	1.0000	1.6875	3.3750	934-000-108

Ø.0938"- 0.75"



DC	DCONms	APmx	LS	L	PCD BRAZED	
					1 FLUTE	2 FLUTE
0.0938	0.1250	0.1875	1.1250	1.5000	935-000-001	N/A
0.1250	0.1250	0.2500	1.0000	1.5000	935-000-002	N/A
0.1875	0.1875	0.2500	1.3750	2.0000	N/A	935-000-003
0.2500	0.2500	0.2500	1.7500	2.5000	N/A	935-000-004
0.3750	0.3750	0.2500	1.5625	2.5000	N/A	935-000-005
0.5000	0.5000	0.0250	2.0000	3.0000	N/A	935-000-006
0.6250	0.6250	0.3750	2.5000	3.5000	N/A	935-000-007
0.7500	0.7500	0.3750	2.8750	4.0000	N/A	935-000-008

Ø .0938"-.5"

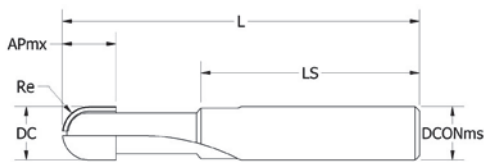


CORNER RADIUS



DC	DCONms	Re	APmx	LS	L	PCD BRAZED	
						1 FLUTE	2 FLUTE
0.0938	0.1250	0.0100	0.1875	1.1250	1.5000	935-000-009	N/A
0.1250	0.1250	0.0150	0.2500	1.0000	1.5000	935-000-010	N/A
0.1875	0.1875	0.0150	0.2500	1.3750	2.0000	N/A	935-000-011
0.2500	0.2500	0.0300	0.2500	1.7500	2.5000	N/A	935-000-012
0.3750	0.3750	0.0300	0.2500	1.5625	2.5000	N/A	935-000-013
0.5000	0.5000	0.0300	0.2500	2.0000	3.0000	N/A	935-000-014

Ø .0938"-.5"



BALL END



DC	DCONms	Re	APmx	LS	L	PCD BRAZED	
						1 FLUTE	2 FLUTE
0.0938	0.1250	0.0469	0.1875	1.1250	1.5000	935-000-015	N/A
0.1250	0.1250	0.0625	0.2500	1.0000	1.5000	935-000-016	N/A
0.1875	0.1875	0.0938	0.2500	1.3750	2.0000	N/A	935-000-017
0.2500	0.2500	0.1250	0.3125	1.7500	2.5000	N/A	935-000-018
0.3750	0.3750	0.1875	0.4375	1.5625	2.5000	N/A	935-000-019
0.5000	0.5000	0.2500	0.5000	2.0000	3.0000	N/A	935-000-020