Fractional

Material	Rc	SFM (Vc)	CHIPLOAD PER FLUTE Recommendations (Fz)										*Profiling	Slotting
			1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	Radial	Axial
Stainless Steel: 303		290-375	.0003"-.0005"	.0004"-.0008"	.0008"-.0010"	.0010"-.0015"	.0013"-.0020"	.0015"-.0020"	.0020"-.0030"	.0025"-.0035"	.0030"-.0040"	.0035"-.0045"	1 x D	1 x D
Stainless Steel: 304, 316, 400 Series, Kovar, Invar		250-300	.0003"-.0005"	.0003"-.0006"	.0006"-.0010"	.0008"-.0015"	.0010"-.0020"	.0012"-.0020"	.0015"-.0020"	.0020"-.0025"	.0025"-.0030"	.0025"-.0035"	1 x D	1 x D
Stainless Steel: 304L, 316L, 8620, 17/4, 15/5, 13/8, PH Mat'l	<35 >35	250-300 200-250	.0003"-.0005" .0003"-.0005"	.0003"-.0006" .0003"-.0006"	.0006"-.0008" .0006"-.0008"	.0007"-.0010" .0007"-.0010"	.0010"-.0015" .0008"-.0010"	.0015"-.0020" .0010"-.0015"	.0015"-.0025" .0010"-.0020"	.0020"-.0030" .0015"-.0025"	.0025"-.0035" .0020"-.0030"	.0030"-.0040" .0020"-.0030"	1 x D 0.5 x D	1 x D 0.5 x D
High Temperature Alloys: Inconel 625/718, A286	<35 >35	125-175 80-100	.0003"-.0005" .0002"-.0004"	.0004"-.0008" .0003"-.0006"	.0008"-.0010" .0007"-.0010"	.0010"-.0015" .0008"-.0010"	.0012"-.0020" .0010"-.0015"	.0020"-.0025" .0010"-.0015"	.0025"-.0030" .0010"-.0015"	.0030"-.0035" .0012"-.0020"	.0030"-.0035" .0015"-.0025"	.0030"-.0040" .0015"-.0025"	0.5 x D 0.2 x D	0.3 x D 0.2 x D
Titanium: 6Al4V, CP		150-200	.0003"-.0005"	.0004"-.0008"	.0008"-.0010"	.0010"-.0015"	.0010"-.0020"	.0015"-.0020"	.0020"-.0030"	.0025"-.0030"	.0030"-.0035"	.0030"-.0040"	1 x D	1 x D
Carbon Steels: 1000 Series	<35 >35	400-600 275-425	.0003"-.0005" .0002"-.0004"	.0004"-.0008" .0003"-.0006"	.0008"-.0010" .0006"-.0008"	.0010"-.0015" .0008"-.0012"	.0010"-.0020" .0010"-.0015"	.0015"-.0020" .0010"-.0020"	.0020"-.0030" .0015"-.0025"	.0025"-.0035" .0020"-.0025"	.0030"-.0040" .0020"-.0030"	.0035"-.0045" .0025"-.0035"	0.3 x D 0.3 x D	0.5 x D 0.5 x D
High Strength Tool Steel: 4130, 4140, A2, D2, P20, H13	<30	250-400	.0003"-.0005"	.0003"-.0006"	.0006"-.0010"	.0008"-.0015"	.0010"-.0020"	.0012"-.0020"	.0015"-.0022"	.0020"-.0025"	.0025"-.0030"	.0025"-.0035"	0.5 x D	0.5 x D
	30-38	250-400	.0003"-.0005"	.0003"-.0006"	.0006"-.0008"	.0007"-.0010"	.0008"-.0010"	.0010"-.0015"	.0010"-.0020"	.0015"-.0025"	.0020"-.0030"	.0020"-.0030"	0.3 x D	0.5 x D
	>38	*(SEE HIGH ROCKWELL CHART - PAGE 288)*												
Gray Cast Iron		400-500	.0003"-.0005"	.0005"-.0010"	.0010"-.0020"	.0010"-.0020"	.0015"-.0020"	.0015"-.0025"	.0020"-.0035"	.0025"-.0035"	.0030"-.0040"	.0040"-.0050"	1 x D	1 x D

Metric

Material	Rc	M/Min. (Vc)	CHIPLOAD PER FLUTE - Metric Recommendations (Fz)										*Profiling	Slotting
			1.5	3.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0	25.0	Radial	Axial
Stainless Steel: 303		90-115	.008-.012	.010-.020	.020-.025	.025-.038	.033-.050	.038-.050	.050-.076	.063-.089	.076-.102	.089-.114	1 x D	1 x D
Stainless Steel: 304, 316, 400 Series, Kovar, Invar		75-90	.005-.010	.008-.015	.015-.025	.020-.038	.025-.050	.030-.050	.038-.050	.050-.063	.063-.076	.063-.089	1 x D	1 x D
Stainless Steel: 304L, 316L, 17/4, 15/5, 13/8, PH Materials	<35 >35	75-85 60-75	.005-.010 .005-.010	.008-.015 .008-.015	.015-.020 .015-.020	.018-.025 .018-.025	.025-.038 .020-.025	.038-.050 .025-.038	.038-.063 .025-.050	.050-.076 .038-.063	.063-.089 .050-.076	.076-.102 .050-.076	1 x D 0.5 x D	1 x D 0.5 x D
High Temperature Alloys: Inconel 625/718, A286	<35 >35	40-55 25-30	.008-.012 .005-.010	.010-.020 .008-.015	.020-.025 .018-.025	.025-.038 .020-.025	.030-.050 .025-.038	.050-.063 .025-.038	.063-.076 .025-.038	.076-.089 .030-.050	.076-.089 .038-.063	.076-.102 .038-.063	0.5 x D 0.2 x D	0.3 x D 0.2 x D
Titanium: 6Al4V, CP		45-60	.008-.012	.010-.020	.020-.025	.025-.038	.025-.050	.038-.050	.050-.076	.063-.076	.076-.089	.076-.102	1 x D	1 x D
Carbon Steels: 1000 Series	<35 >35	125-185 85-130	.008-.012 .006-.010	.010-.020 .008-.015	.020-.025 .015-.020	.025-.038 .020-.030	.025-.050 .025-.038	.038-.050 .025-.050	.050-.076 .038-.063	.063-.089 .050-.063	.076-.102 .050-.076	.089-.114 .063-.089	0.3 x D 0.3 x D	0.5 x D 0.5 x D
High Strength Tool Steel: 4130, 4140, A2, D2, P20, H13	<30	75-125	.005-.010	.008-.015	.015-.025	.020-.038	.025-.050	.030-.050	.038-.056	.050-.063	.063-.076	.063-.089	0.5 x D	0.5 x D
	30-38	75-125	.004-.008	.006-.015	.015-.020	.018-.025	.020-.025	.025-.038	.025-.050	.038-.063	.050-.076	.050-.076	0.3 x D	0.5 x D
	>38	*(SEE HIGH ROCKWELL CHART - PAGE 289)*												
Gray Cast Iron		125-150	.010-.015	.013-.025	.025-.050	.025-.050	.038-.050	.038-.063	.050-.089	.063-.089	.076-.102	.102-.127	1 x D	1 x D

*** For profiling, axial = 1xD**

NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.