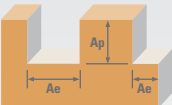


Speed & Feed Recommendations

Series 61 Fractional	Hardness BRINELL			Vc (SFM)	Diameter (D ₁) (inch)					
		Ae x D ₁	Ap x D ₁		1/4	3/8	1/2	3/4	1	
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 175	 Profile ≤ 0.5 ≤ 1.5	500	RPM	7640	5093	3820	2547	1910
				(400-600)	Fz	0.0006	0.0011	0.0014	0.0017	0.0020
					Feed (IPM)	13.8	16.8	21.4	17.3	19.1
			 Slot 1 ≤ 1	400	RPM	6112	4075	3056	2037	1528
				(320-480)	Fz	0.0006	0.0011	0.0014	0.0017	0.0020
					Feed (IPM)	7.3	9.0	8.6	6.9	6.1
P	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 50100	≤ 275	 Profile ≤ 0.5 ≤ 1.5	365	RPM	5577	3718	2789	1859	1394
				(292-438)	Fz	0.0004	0.0008	0.0011	0.0013	0.0015
					Feed (IPM)	4.5	5.9	6.1	4.8	4.2
			 Slot 1 ≤ 1	295	RPM	4508	3005	2254	1503	1127
				(236-354)	Fz	0.0004	0.0008	0.0011	0.0013	0.0015
					Feed (IPM)	3.6	4.8	5.0	3.9	3.4
P	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 250	 Profile ≤ 0.5 ≤ 1.5	345	RPM	5272	3514	2636	1757	1318
				(276-414)	Fz	0.0006	0.0009	0.0015	0.0018	0.0021
					Feed (IPM)	6.3	6.3	7.9	6.3	5.5
			 Slot 1 ≤ 1	275	RPM	4202	2801	2101	1401	1051
				(220-330)	Fz	0.0006	0.0009	0.0015	0.0018	0.0021
					Feed (IPM)	5.0	5.0	6.3	5.0	4.4
K	CAST IRONS Gray, Malleable, Ductile	≤ 220	 Profile ≤ 0.5 ≤ 1.5	365	RPM	5577	3718	2789	1859	1394
				(292-438)	Fz	0.0008	0.0015	0.0020	0.0024	0.0028
					Feed (IPM)	8.9	11.2	11.2	8.9	7.8
			 Slot 1 ≤ 1	295	RPM	4508	3005	2254	1503	1127
				(236-354)	Fz	0.0008	0.0015	0.0020	0.0024	0.0028
					Feed (IPM)	7.2	9.0	9.0	7.2	6.3

rpm = sfm x 3.82 / D₁

ipm = (inch / flute) x number of flutes x rpm

reduce speed and feed for materials harder than listed

refer to the SGS Tool Wizard for complete technical information ()