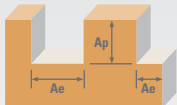


Diamond 1, 1B, 3, 3B Fractional	Hardness BRINELL			Vc (SFM)	Diameter (D ₁) (inch)						
		Ae x D ₁	Ap x D ₁		1/8	1/4	5/16	3/8	1/2		
GRAPHITE Ultrafine, Superfine	N/A		≤ 0.25	≤ 1.5	720	RPM	22003	11002	8801	7334	5501
					(576-864)	Fz	0.0009	0.0023	0.0036	0.0043	0.0058
						Feed 2 flutes (IPM)	38.3	50.6	63.4	63.1	63.8
						Feed 3 flutes (IPM)	76.6	101.2	126.7	126.2	127.6
						580	RPM	17725	8862	7090	5908
			≤ 1	≤ 1	(464-696)	Fz	0.0075	0.0020	0.0031	0.0038	0.0050
						Feed 2 flutes (IPM)	265.9	35.4	44.0	44.9	44.3
						Feed 3 flutes (IPM)	531.7	70.9	87.9	89.8	88.6
						580	RPM	17725	8862	7090	5908
					COMPOSITES FRP, CFRP, GRP	N/A		≤ 0.25	≤ 1.5	385	RPM
(308-462)	Fz	0.0005	0.0014	0.0022						0.0026	0.0035
	Feed 2 flutes (IPM)	12.2	16.5	20.7						20.4	20.6
	Feed 3 flutes (IPM)	24.5	32.9	41.4						40.8	41.2
	350	RPM	10696	5348						4278	3565
	≤ 1	≤ 1	(280-420)	Fz			0.0005	0.0012	0.0019	0.0023	0.0030
				Feed 2 flutes (IPM)			9.6	12.8	16.3	16.4	16.0
				Feed 3 flutes (IPM)			19.3	25.7	32.5	32.8	32.1
				350			RPM	10696	5348	4278	3565
			PLASTICS Polycarbonate, PVC, Polypropylene	N/A				≤ 0.25	≤ 1.5	1200	RPM
(960-1440)	Fz	0.0009			0.0023	0.0036				0.0043	0.0058
	Feed 2 flutes (IPM)	63.8			84.3	105.6				105.1	106.3
	Feed 3 flutes (IPM)	127.6			168.7	211.2				210.3	212.7
	960	RPM			29338	14669				11735	9779
	≤ 1	≤ 1			(768-1152)	Fz	0.0008	0.0020	0.0031	0.0038	0.0050
						Feed 2 flutes (IPM)	44.0	58.7	72.8	74.3	73.3
						Feed 3 flutes (IPM)	88.0	117.4	145.5	148.6	146.7
						960	RPM	29338	14669	11735	9779

rpm = sfm x 3.82 / D₁

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

limit cut depths on long and extra long flute mills to .05 x D₁ when slotting or profilingfinish cuts typically require reduced feed and cut depths (.02 x D₁ maximum)

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