

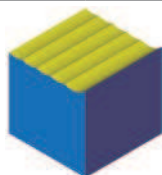


# Speed & Feed Recommendations

56B Fractional	HARDNESS BRINELL	CUT Type	SPEED sfm	FEED (inch/flute)							
				1/32	1/16	1/8	3/16	1/4	3/8	1/2	3/4
 STEEL, TOOL STEEL, MOLD & DIE STEEL 300M, 4340, 52100, HP 9-4-20, M-50, A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 370	Heavy	625	0.0006	0.0015	0.0030	0.0040	0.0050	0.0080	0.0100	0.0120
		Light	950	0.0007	0.0017	0.0033	0.0044	0.0044	0.0088	0.0110	0.0130
	> 370 ≤ 475	Heavy	750	0.0005	0.0011	0.0023	0.0030	0.0038	0.0060	0.0075	0.0085
		Light	1150	0.0006	0.0012	0.0025	0.0033	0.0042	0.0066	0.0082	0.0100
	> 475 ≤ 655	Heavy	500	0.0004	0.0008	0.0017	0.0023	0.0029	0.0045	0.0057	0.0063
		Light	1000	0.0005	0.0009	0.0019	0.0025	0.0032	0.0050	0.0063	0.0071

56MB Metric	HARDNESS BRINELL	CUT Type	SPEED m/min	FEED (mm/flute)							
				1	1.5	3	5	6	10	12	20
 STEEL, TOOL STEEL, MOLD & DIE STEEL 300M, 4340, 52100, HP 9-4-20, M-50, A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 370	Heavy	191	0.015	0.038	0.076	0.102	0.127	0.203	0.254	0.305
		Light	290	0.018	0.043	0.084	0.112	0.112	0.224	0.279	0.330
	> 370 ≤ 475	Heavy	229	0.013	0.028	0.058	0.076	0.097	0.152	0.191	0.216
		Light	351	0.015	0.030	0.064	0.084	0.107	0.168	0.208	0.254
	> 475 ≤ 655	Heavy	152	0.010	0.020	0.043	0.058	0.074	0.114	0.145	0.160
		Light	305	0.013	0.023	0.048	0.064	0.081	0.127	0.160	0.180

CUT TYPE					
< 370 BRINELL		> 370 ≤ BRINELL		> 475 ≤ BRINELL	
HEAVY	LIGHT*	HEAVY	LIGHT*	HEAVY	LIGHT*
Rw = .4 x D <sub>1</sub> Ad = .1 x D <sub>1</sub>	Rw = .4 x D <sub>1</sub> Ad = .03 x D <sub>1</sub>	Rw = .4 x D <sub>1</sub> Ad = .05 x D <sub>1</sub>	Rw = .4 x D <sub>1</sub> Ad = .02 x D <sub>1</sub>	Rw = .4 x D <sub>1</sub> Ad = .04 x D <sub>1</sub>	Rw = .4 x D <sub>1</sub> Ad = .01 x D <sub>1</sub>



$\text{rpm} = \text{sfm} \times 3.82 / D_1$   
 $\text{rpm} = (1000 \times \text{m/min}) / (3.14 \times D_1)$   
 $\text{ipm} = (\text{inch/flute}) \times 2 \times \text{rpm}$   
 $\text{mm/min} = (\text{mm/flute}) \times 2 \times \text{rpm}$   
 $\text{Rw} = \text{Pitch}$

- maximum recommended depths shown
- \* finish cuts typically require reduced feed and cutting depths of .02 x D<sub>1</sub> maximum
- refer to the SGS Tool Wizard for more complete technical information (available at )