



Speed & Feed Recommendations

ZD1MCR Metric	HARDNESS	CUT	SPEED	FEED (mm/flute)					
	BRINELL	Type	m/min	3	6	10	12	16	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	≤ 420	Slot	66	0.016	0.032	0.048	0.064	0.079	0.097
		Profile	81	0.023	0.046	0.066	0.089	0.112	0.135
		Light	171	0.028	0.056	0.084	0.112	0.140	0.168
	> 420 ≤ 560	Slot	37	0.013	0.025	0.038	0.051	0.064	0.076
		Profile	46	0.018	0.036	0.053	0.071	0.089	0.107
		Light	149	0.023	0.046	0.066	0.089	0.112	0.135
	> 560 ≤ 655	Slot	20	0.010	0.020	0.028	0.038	0.048	0.058
		Profile	24	0.013	0.028	0.041	0.053	0.066	0.081
		Light	76	0.015	0.033	0.048	0.064	0.079	0.097

CUT TYPE					
SLOT		PROFILE		LIGHT*	
≤ 560 Brinell $a_p = 0.5 \times D_1$ $a_e = D_1$	> 560 ≤ 655 Brinell $a_p = 0.3 \times D_1$ $a_e = D_1$	≤ 560 Brinell $a_p = D_1$ $a_e = 0.5 \times D_1$	> 560 ≤ 655 Brinell Rw $a_p = D_1$ $a_e = 0.3 \times D_1$	≤ 655 Brinell $a_p = 0.1 \times D_1$ $a_e = 0.1 \times D_1$	$rpm = (1000 \times m/min) / (3.14 \times D_1)$ $mm/min = (mm/flute) \times rpm$ <ul style="list-style-type: none"> • maximum recommended depths shown • reduce speed and feed for materials harder than listed • * finish cuts typically require reduced feed and cutting depths of .02 x D_1 maximum • refer to the SGS Tool Wizard for more complete technical information (available at) • Max. ramp angle = 6° / Max. ramp depth = 1xD (reduce feed accordingly)
					