



Speed & Feed Recommendations

ZH1CR Fractional	HARDNESS	CUT	SPEED	FEED (inch/flute)				
	BRINELL	Type	sfm	1/4	3/8	1/2	3/4	1
HIGH TEMPERATURE ALLOY A-286, Hastelloy, Haynes, Incoloy, Inconel, Rene, Udimet, Waspalloy	≤ 300	Slot	70	0.0007	0.0012	0.0017	0.0020	0.0023
		Profile	85	0.0007	0.0012	0.0017	0.0020	0.0023
		Light	145	0.0015	0.0028	0.0038	0.0045	0.0053
	> 300	Slot	55	0.0005	0.0009	0.0012	0.0014	0.0016
		Profile	70	0.0005	0.0009	0.0012	0.0014	0.0016
		Light	110	0.0011	0.0020	0.0026	0.0032	0.0037

ZH1MCR Metric	HARDNESS	CUT	SPEED	FEED (mm/flute)				
	BRINELL	Type	m/min	6	10	12	20	25
HIGH TEMPERATURE ALLOY A-286, Hastelloy, Haynes, Incoloy, Inconel, Rene, Udimet, Waspalloy	≤ 300	Slot	21	0.017	0.032	0.041	0.053	0.058
		Profile	27	0.017	0.032	0.041	0.053	0.058
		Light	45	0.036	0.075	0.091	0.120	0.133
	> 300	Slot	16	0.012	0.024	0.029	0.037	0.040
		Profile	21	0.012	0.024	0.029	0.037	0.040
		Light	34	0.026	0.053	0.062	0.085	0.093

CUT TYPE			
SLOT	PROFILE	LIGHT*	
Rw = D ₁ Ad = D ₁	Rw = .5 x D ₁ Ad = 1.5 x D ₁	Rw = .05 x D ₁ Ad = 1.5 x D ₁	$\text{rpm} = \text{sfm} \times 3.82 / D_1$ $\text{rpm} = (1000 \times \text{m/min}) / (3.14 \times D_1)$ $\text{ipm} = (\text{inch/flute}) \times 4 \times \text{rpm}$ $\text{mm/min} = (\text{mm/flute}) \times 4 \times \text{rpm}$
			<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 D₁ maximum • refer to the SGS Tool Wizard for more complete technical information (available at)