

Speeds and Feeds



How To Use This Chart:

- 1) Select your material in the ISO colored chart
- 2) Select your Insert Cutting Width in the columns
- 3) Start with the middle range of the recommended sfm (vc) and feed (inch/rev)
-Adjust the sfm and/or feed rate based on your cutting conditions.

Grooving				Insert Grade	Cutting Width (inch)					
ISO	ANSI	Material Description			HU25	0.031-0.047	0.062-0.094	0.125	0.189	0.25
P	P1-P3	Non-alloy steel	●	Cutting Speed (vc = sfm)	300 - 880	300 - 880	300 - 880	300 - 880	300 - 880	300 - 880
				Feed (fn = lpr)	0.002 - 0.008	0.003 - 0.008	0.003 - 0.009	0.004 - 0.012	0.004 - 0.012	
P	P4-P6	Low alloy steel	●	Cutting Speed (vc = sfm)	300 - 800	300 - 800	300 - 800	300 - 800	300 - 800	300 - 800
				Feed (fn = lpr)	0.002 - 0.008	0.003 - 0.008	0.003 - 0.009	0.004 - 0.012	0.004 - 0.012	
M	M1-M3	Stainless steel	●	Cutting Speed (vc = sfm)	150 - 600	150 - 600	150 - 600	150 - 600	150 - 600	150 - 600
				Feed (fn = lpr)	0.002 - 0.005	0.003 - 0.005	0.003 - 0.006	0.003 - 0.007	0.004 - 0.008	
K	K1-K3	Grey cast iron		Cutting Speed (vc = sfm)	160 - 650	160 - 650	160 - 650	160 - 650	160 - 650	160 - 650
				Feed (fn = lpr)	0.002 - 0.008	0.003 - 0.008	0.003 - 0.009	0.004 - 0.012	0.004 - 0.012	
N	N1-N7	Non-ferrous metals		Cutting Speed (vc = sfm)	400 - 2500	400 - 2500	400 - 2500	400 - 2500	400 - 2500	400 - 2500
				Feed (fn = lpr)	0.003 - 0.008	0.003 - 0.008	0.004 - 0.009	0.004 - 0.012	0.004 - 0.012	
S	S1-S3	Super Alloys	●	Cutting Speed (vc = sfm)	25 - 350	25 - 350	25 - 350	25 - 350	25 - 350	25 - 350
				Feed (fn = lpr)	0.002 - 0.005	0.003 - 0.005	0.003 - 0.006	0.003 - 0.007	0.004 - 0.008	
H	H1-H4	Hardened		Cutting Speed (vc = sfm)	50 - 350	50 - 350	50 - 350	50 - 350	50 - 350	50 - 350
				Feed (fn = lpr)	0.002 - 0.004	0.002 - 0.004	0.002 - 0.004	0.002 - 0.004	0.002 - 0.004	

● Optimal	Secondary
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