

VFR4MV

RECOMMENDED CUTTING CONDITIONS

Material	DC	n	f	ap
P Pre-hardened steel (35 – 45 HRC) Carbon steel	6	10000	2100	0.6
	8	8000	1500	0.8
	10	6400	1400	1.0
	12	5400	1200	1.0
	16	2400	550	3.0
	20	1900	480	4.0
H Hardened steel (45 – 55 HRC)	6	7000	1400	0.3
	8	5600	1100	0.4
	10	4500	950	0.5
	12	3800	860	0.5
	16	1200	280	0.8
	20	1000	240	1.0
	6	2700	320	0.2
	8	2000	240	0.2
	10	1600	210	0.3
	12	1300	160	0.3
H Hardened steel (55 – 62 HRC)	16	1000	130	0.3
	20	800	100	0.3
	6	1600	130	0.1
	8	1200	100	0.1
	10	960	80	0.2
	12	800	60	0.2
	16	600	50	0.2
	20	480	40	0.2
H Hardened steel (62 – 70 HRC)	6	1600	130	0.1
	8	1200	100	0.1
	10	960	80	0.2
	12	800	60	0.2
	16	600	50	0.2

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1. When slotting, reduce the revolutions by 50 – 70 % and the feed rate by 40 – 60 %.
2. If the depth of cut is shallow, the revolution and feed rate can be increased.
3. Vibration damping end mills are more effective in suppressing chatter and vibration compared to general end mills, but may still occur if the rigidity of the machine or the workpiece material is low. In this case, please adjust the spindle speed, feed rate and depth of cut according to the table above.