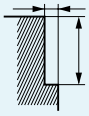
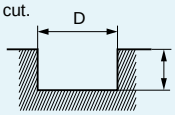
RECOMMENDED CUTTING CONDITIONS

Work material	Alloy steel, Tool steel, Pre-hardened steel X40CrMoV51			Hardened steel (45－55HRC) X40CrMoV51			Hardened steel (55－62HRC) X210Cr12		
Dia. (mm)	Revolution (min^{-1})	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min^{-1})	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min^{-1})	Feed rate (mm/min)	Depth of cut (mm)
0.5	40000	1000	0.015	40000	960	0.015	30000	600	0.01
1	40000	2000	0.06	32000	1600	0.06	16000	550	0.05
1.5	40000	3000	0.12	32000	1900	0.08	10600	500	0.08
2	30000	3000	0.18	24000	1900	0.10	8100	400	0.1
2.5	24000	2600	0.25	19000	1600	0.13	6400	350	0.13
3	20000	2300	0.30	16000	1400	0.15	5400	300	0.15
4	15000	2000	0.40	12000	1200	0.20	4000	240	0.2
5	12000	1600	0.50	9000	900	0.25	3200	190	0.2
6	10000	1400	0.60	7000	700	0.30	2700	160	0.2

Depth of cut

≤Please refer to the list above for depth of cut.





≤Please refer to the list above for depth of cut.

D:Dia.

1) When slotting, reduce the revolutions by 50－70% and the feed rate by 40－60%.
2) For austenitic stainless steels, titanium and heat-resistant alloys, the VFMHV is recommended.
3) The irregular helix flute end mill has a larger effect on controlling vibration when compared to standard end mills. However, if the rigidity of the machine or the workpiece installation is poor, vibration or abonrmal sound can occur. In this case, please reduce the revolution and feed rate proportionately, or set a lower depth of cut.