

VIOLET END MILLS

HSS

VA2SS

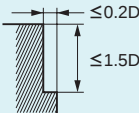
End mill, Short cut length, 2 flute

VA2MS

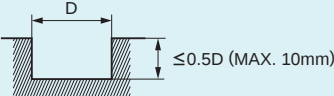
End mill, Medium cut length, 2 flute

RECOMMENDED CUTTING CONDITIONS

Shoulder milling

Work material	Structural steel, Cast iron, Carbon steel		Carbon steel, Alloy steel (20—30HRC)		Alloy steel, Tool steel, Pre-hardened steel (30—35HRC)		Austenitic stainless steel, Alloy steel, Tool steel (35—40HRC)	
	Ck45, GG25, Cf53		Ck55		X40CrMoV51, X210Cr12		X5CrNi1810, X5CrNiMo17-12-2	
Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)
3	5400	170	4000	125	2700	85	2200	65
4	4300	200	3200	150	2100	100	1800	75
5	3600	210	2700	160	1800	105	1500	80
6	3200	220	2400	165	1600	110	1300	85
8	2400	240	1800	180	1200	120	1000	90
10	1900	260	1400	190	950	130	800	100
12	1600	240	1200	180	800	120	660	90
16	1200	210	900	160	600	105	500	80
20	950	180	720	135	480	90	400	70
25	760	150	570	115	380	75	320	60
30	640	130	480	100	320	65	270	50
40	470	100	350	75	240	50	200	40
Depth of cut								

Slotting

Work material	Structural steel, Cast iron, Carbon steel		Carbon steel, Alloy steel (20—30HRC)		Alloy steel, Tool steel, Pre-hardened steel (30—35HRC)		Austenitic stainless steel, Alloy steel, Tool steel (35—40HRC)	
	Ck45, GG25, Cf53		Ck55		X40CrMoV51, X210Cr12		X5CrNi1810, X5CrNiMo17-12-2	
Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)
3	3700	110	3000	95	2100	65	1600	50
4	3200	140	2800	130	1800	75	1400	60
5	2900	160	2400	145	1500	80	1200	60
6	2600	170	2100	150	1300	85	1000	70
8	2000	190	1600	160	1000	90	800	70
10	1600	210	1300	180	800	100	640	80
12	1300	190	1100	165	660	90	530	70
16	1000	170	800	140	500	80	400	65
20	720	130	640	120	400	70	320	55
25	570	110	450	90	320	60	230	40
30	480	90	370	75	270	50	190	35
40	360	70	280	60	200	40	140	25
Depth of cut								

- 1) Supply cutting fluid sufficiently during slotting. When dry cut, slotting decrease the revolution and feed rate by 20—30% proportionately.
- 2) When drilling, please set the feed rate at 1/3 or below the values above.
- 3) If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.