Solid Carbide End Mills

Cutting parameters for PML/PM series end mills

Workpiece material	Cast iron, Carbon steel, Alloy steel ~30HRC		Stainless steel		Pre-hardened steel, quenched and tempered steel ~40HRC		Pre-hardened steel, quenched and tempered steel ~50HRC		Hardened steel ~55HRC	
Diameter (mm)	Rotating speed (min ⁻¹)	Feed speed (mm/min)	Rotating speed (min ⁻¹)	Feed speed (mm/min)	Rotating speed (min ⁻¹)	Feed speed (mm/min)	Rotating speed (min ⁻¹)	Feed speed (mm/min)	Rotating speed (min ⁻¹)	Feed speed (mm/min)
6	7000	780	3700	180	5300	600	4200	470	3710	340
8	5200	775	2800	180	4000	595	3200	475	2785	350
10	4200	755	2200	180	3200	575	2500	455	2230	325
12	3500	755	1850	180	2650	575	2100	455	1855	325
16	2600	710	1400	155	2000	545	1600	425	1390	310
20	2050	700	1100	155	1600	540	1250	420	1115	305
Maximum cutting depth	a _e =0.1D						a _e =0.05D a _e =0.03D a _p =1.2D			
	a _e =1D a _p =0.5D						a _e =1D a _p =0.2D			

- 1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
- 2. Please select high-precision machine and tool holder.
- 3. Please use air blow or cutting liquid with high mist retardant property.
- 4. Down milling is recommended in the case of side milling.
- 5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- 6.Make overhang of tool as short as possible in conditions of non-interference.