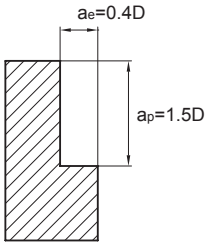
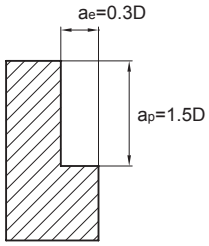
Cutting parameters for GM series end mills

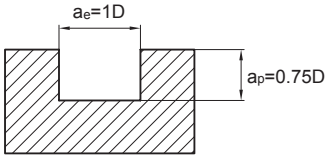
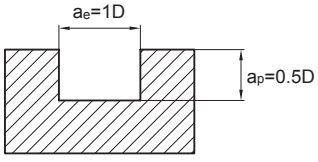
GM-4W—side cutting

Workpiece material	Cast iron, Nodular cast iron		Carbon steel, Alloy steel ~750N/mm^2		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel, quenched and tempered steel ~40HRC		Stainless steel	
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	6350	760	5300	640	4500	360	3450	280	2650	210
7	5460	760	4550	640	3650	360	3000	280	2250	310
8	4750	760	4000	640	3400	410	2650	310	2000	240
9	4250	760	3540	640	2850	410	2300	310	1750	240
10	3800	760	3200	640	2700	430	2050	330	1600	260
11	3470	760	2900	640	2400	430	1850	330	1450	260
12	3200	770	2250	650	1950	470	1500	360	1150	280
16	2400	770	2000	640	1700	480	1300	360	1000	280
20	1900	760	1600	610	1350	470	1050	350	800	260
Maximum cutting depth										

1.Please select high-precision machine and tool holder.
2.Please use air blow or cutting liquid with high mist retardant property.
3.Down milling is recommended in the case of side milling.
4.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.
5.Make overhang of tool as short as possible in conditions of non-interference.

Cutting parameters for GM series end mills

GM-4W—slot cutting

Workpiece material	Cast iron, Nodular cast iron		Carbon steel, Alloy steel ~750N/mm²		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel, quenched and tempered steel ~40HRC		Stainless steel	
Cutting speed	80~120 m/min		70~100m/min		60~90m/min		40~70m/min		30~60m/min	
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	5300	640	4500	540	3700	300	2900	230	2400	190
7	4500	630	3800	540	3200	300	2500	230	2050	190
8	4000	640	3400	540	2800	340	2200	260	1800	220
9	3500	630	3000	540	2450	340	1950	260	1600	220
10	3200	640	2700	540	2250	360	1750	280	1450	230
11	3000	630	2450	540	2050	360	1600	280	1300	230
12	2650	640	2250	540	1850	370	1450	290	1200	240
16	2000	640	1700	540	1400	390	1100	310	900	250
20	1600	640	1350	510	1100	390	900	300	700	230
Maximum cutting depth	 Maximum a_p=12mm									

1.Please select high-precision machine and tool holder.
2.Please use air blow or cutting liquid with high mist retardant property.
3.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.
4.Make overhang of tool as short as possible in conditions of non-interference.