

GM-4EFP

Workpiece material	Cast iron, Nodular cast iron		Carbon steel, Alloy steel ~750N/mm <sup>2</sup>		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel, quenched and tempered steel ~40HRC		Stainless steel		Pre-hardened steel, quenched and tempered steel ~50HRC						
	Rotating speed (min <sup>-1</sup> )	Feed speed (mm/min)	Rotating speed (min <sup>-1</sup> )	Feed speed (mm/min)	Rotating speed (min <sup>-1</sup> )	Feed speed (mm/min)	Rotating speed (min <sup>-1</sup> )	Feed speed (mm/min)	Rotating speed (min <sup>-1</sup> )	Feed speed (mm/min)	Rotating speed (min <sup>-1</sup> )	Feed speed (mm/min)					
<b>6</b>	7000	975	7000	975	6400	900	5300	750	3700	175	4200	585					
<b>8</b>	5200	960	5200	960	4800	995	4000	735	2800	175	3200	600					
<b>10</b>	4200	950	4200	950	3800	970	3200	730	2200	175	2500	565					
<b>12</b>	3500	950	3500	950	3200	970	2650	730	1850	175	2100	565					
<b>16</b>	2600	885	2600	885	2400	820	2000	680	1400	155	1600	535					
<b>20</b>	2050	870	2050	870	1900	805	1600	670	1100	135	1250	525					
Maximum cutting depth																	
	<table border="1"> <thead> <tr> <th>Diameter range</th> <th>Cutting depth <math>a_p</math></th> </tr> </thead> <tbody> <tr> <td><math>\varnothing 1 \leq D &lt; \varnothing 3</math></td> <td>0.15D</td> </tr> <tr> <td><math>\varnothing 3 \leq D</math></td> <td>0.3D</td> </tr> </tbody> </table>						Diameter range	Cutting depth $a_p$	$\varnothing 1 \leq D < \varnothing 3$	0.15D	$\varnothing 3 \leq D$	0.3D					
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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.

Indexable milling tools

Solid carbide end mills

Cutting parameters for GM series end mills