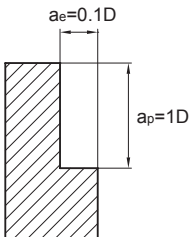
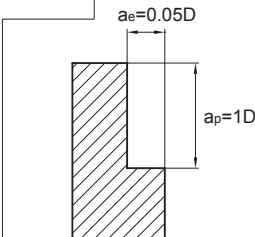
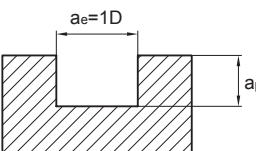
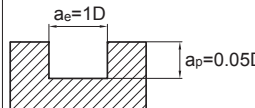


GM-2E★GM-2EL★GM-2EBL/X

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		Pre-hardened steel, quenched and tempered steel ~50HRC	
	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)	Rotating speed (min ⁻¹)
1	20000	165	20000	165	20000	135	20000	135	20000	50	20000	100
2	15000	265	15000	265	15000	240	15000	235	11150	70	13000	150
3	14000	455	14000	455	13000	420	10600	350	7500	100	8500	275
4	10800	465	10800	465	10000	430	8000	355	5500	110	6500	280
5	8200	485	8200	485	7600	450	6400	370	4500	110	5000	295
6	7000	500	7000	500	6400	460	5300	385	3700	115	4200	300
8	5200	495	5200	495	4800	455	4000	380	2800	115	3200	305
10	4200	485	4200	485	3800	450	3200	370	2200	115	2500	290
12	3500	485	3500	485	3200	450	2650	370	1850	115	2100	290
14	3000	455	3000	455	2700	420	2300	350	1600	110	1800	275
16	2600	455	2600	455	2400	420	2000	350	1400	100	1600	275
18	2300	445	2300	445	2100	410	1800	345	1250	100	1400	270
20	2050	445	2050	445	1900	410	1600	345	1100	100	1250	270

Maximum cutting depth				
				
	Diameter range	Cutting depth a_p		
	$\varnothing 1 \leq D < \varnothing 3$	0.15D		
	$\varnothing 3 \leq D$	0.3D		

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

GM-2F★GM-2FL

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		Pre-hardened steel, quenched and tempered steel ~50HRC						
	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)	Rotating speed (min ⁻¹)	Feed speed (mm/min)				
1	20000	115	20000	115	20000	95	20000	95	20000	35	20000	70					
2	15000	185	15000	185	15000	170	15000	165	11150	50	13000	105					
3	14000	320	14000	320	13000	295	10600	245	7500	70	8500	190					
4	10800	325	10800	325	10000	300	8000	250	5500	80	6500	195					
5	8200	340	8200	340	7600	315	6400	260	4500	80	5000	205					
6	7000	350	7000	350	6400	320	5300	270	3700	80	4200	210					
8	5200	345	5200	345	4800	320	4000	265	2800	80	3200	210					
10	4200	340	4200	340	3800	315	3200	260	2200	80	2500	200					
12	3500	340	3500	340	3200	315	2650	260	1850	80	2100	200					
14	3000	320	3000	320	2700	295	2300	245	1600	80	1800	190					
16	2600	320	2600	320	2400	295	2000	245	1400	70	1600	190					
18	2300	310	2300	310	2100	290	1800	240	1250	70	1400	190					
20	2050	310	2050	310	1900	290	1600	240	1100	70	1250	190					
Maximum cutting depth																	
	<table border="1"> <thead> <tr> <th>Diameter range</th> <th>Cutting depth a_p</th> </tr> </thead> <tbody> <tr> <td>$\varnothing 1 \leq D < \varnothing 3$</td> <td>0.15D</td> </tr> <tr> <td>$\varnothing 3 \leq D$</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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Indexable milling tools

Solid carbide end mills

Cutting parameters for GM series end mills