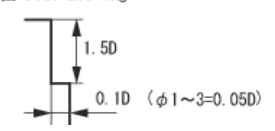
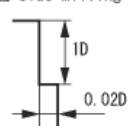


### MSE430

4-Flute Square End Mill

Cutting Conditions for Standard Milling

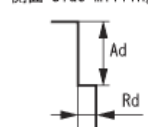
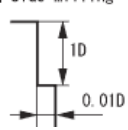
Work Material	Carbon Steel		Alloy Steel		Prehardened Steel		Hardened Steel (~52HRC)	
Cutting Speed	60 ~ 100 m/min		50 ~ 70 m/min		35 ~ 60 m/min		20 ~ 40 m/min	
Dia.	Spindle Speed	Feed	Spindle Speed	Feed	Spindle Speed	Feed	Spindle Speed	Feed
	min <sup>-1</sup>	mm/min	min <sup>-1</sup>	mm/min	min <sup>-1</sup>	mm/min	min <sup>-1</sup>	mm/min
1	20,700	330	19,100	210	14,300	150	9,600	160
2	10,300	330	9,600	270	7,200	160	4,800	180
3	6,900	440	6,400	320	4,800	180	3,200	210
4	5,200	500	4,800	380	3,600	180	2,400	230
5	4,100	520	3,800	380	2,900	200	1,900	250
6	3,400	540	3,200	380	2,400	200	1,600	250
7	3,000	530	2,700	380	2,000	200	1,400	250
8	2,700	520	2,400	380	1,800	200	1,200	250
9	2,300	480	2,100	380	1,600	200	1,100	250
10	2,100	470	1,900	380	1,400	200	1,000	250
12	1,700	440	1,600	380	1,200	200	800	250
14	1,500	430	1,400	360	1,000	190	700	230
15	1,400	430	1,300	350	1,000	180	600	210
16	1,300	420	1,200	330	900	160	600	200
18	1,150	400	1,100	330	800	160	500	200
20	1,050	400	1,000	330	700	160	500	200
Depth of Cut	側面 Side Milling 						側面 Side Milling 	
Notes	<ul style="list-style-type: none"> <li>• Use a rigid machine and tool holder.</li> <li>• Use cutting fluid with smoke retardant.</li> <li>• Adjust both spindle speed and feed according to cutting conditions and machine rigidity.</li> <li>• Speeds &amp; Feeds in this table are intended for initial set-up only. They are also stated with the consideration that all good machining practices have been followed in the initial set-up.</li> <li>• Values are to be used as a guide and may need to be adjusted until optimum set-up can be determined.</li> <li>• Tools, when not in use, should be stored properly to protect personnel as well as the tool.</li> <li>• Specifications may change without notice.</li> </ul>							

### MSE430

4-Flute Square End Mill

Cutting Conditions for High Speed Machining



Work Material	Carbon Steel		Alloy Steel		Prehardened Steel		Hardened Steel (~52HRC)		
Cutting Speed	250 m/min		200 m/min		160 m/min		80 m/min		
Dia.	Spindle Speed	Feed	Spindle Speed	Feed	Spindle Speed	Feed	Spindle Speed	Feed	
	min <sup>-1</sup>	mm/min	min <sup>-1</sup>	mm/min	min <sup>-1</sup>	mm/min	min <sup>-1</sup>	mm/min	
<b>6</b>	13,300	2,600	10,600	2,000	8,500	1,600	4,200	500	
<b>8</b>	10,000	2,600	8,000	2,000	6,400	1,600	3,200	500	
<b>10</b>	8,000	2,600	6,400	2,000	5,100	1,600	2,500	500	
<b>12</b>	6,600	2,600	5,300	2,000	4,200	1,600	2,100	500	
<b>16</b>	5,000	2,000	4,000	1,500	3,200	1,200	1,600	380	
<b>20</b>	4,000	2,000	3,200	1,500	2,500	1,200	1,300	380	
Depth of Cut	 <p>側面 Side Milling</p> <p>Ad <math>\phi 6 \sim 9.5 = 1D</math>  <math>\phi 10 \sim 20 = 1.5D</math>            Rd <math>\phi 6 \sim 9.5 = 0.01D</math>  <math>\phi 10 \sim 20 = 0.02D</math></p>					 <p>側面 Side Milling</p> <p>1D 0.01D</p>			
Notes	<ul style="list-style-type: none"> <li>• Use a rigid machine and tool holder.</li> <li>• Use cutting fluid with smoke retardant.</li> <li>• Adjust both spindle speed and feed according to cutting conditions and machine rigidity.</li> <li>• Speeds &amp; Feeds in this table are intended for initial set-up only. They are also stated with the consideration that all good machining practices have been followed in the initial set-up.</li> <li>• Values are to be used as a guide and may need to be adjusted until optimum set-up can be determined.</li> <li>• Tools, when not in use, should be stored properly to protect personnel as well as the tool.</li> <li>• Specifications may change without notice.</li> </ul>								