

## ■ Factors for End Mill Operation

Factor	Instruction and Advice
Rigidity of Machine	<ol style="list-style-type: none"> <li>1. Use a right machine.</li> <li>2. Adjust cutting conditions according to the rigidity of machine.</li> </ol>
Collet Chuck and Run out of End Mill	<ol style="list-style-type: none"> <li>1. Use a right and precise collet chuck.</li> <li>2. Minimize the run out of end mill.</li> </ol>
Work Clamp	<ol style="list-style-type: none"> <li>1. Work piece must be firmly clamped.</li> <li>2. In case work piece cannot be firmly clamped, relieve cutting condition.</li> </ol>
Cutting Fluid and Chips	<ol style="list-style-type: none"> <li>1. Give a sufficient cutting fluid.</li> <li>2. Recommend water-base cutting fluid for heavy cutting.</li> <li>3. Some end mills apply dry cutting only.</li> <li>4. Use air blow for dry cutting.</li> <li>5. Remove chips from working area.</li> </ol>
Selection of End Mill	<ol style="list-style-type: none"> <li>1. Select most suitable end mills according to work material and dimension.</li> <li>2. Refer to the index table on front page.</li> </ol>
Cutting Conditions	<ol style="list-style-type: none"> <li>1. Refer to recommended milling condition table.</li> <li>2. It is necessary to adjust conditions according to the machine rigidity and clamping condition of work piece.</li> </ol>
Overhang of End Mill from tool holder	<ol style="list-style-type: none"> <li>1. Overhang of end mill must be as short as possible from tool holder.</li> <li>2. In case overhang cannot be shorten, relieve cutting condition.</li> </ol>