
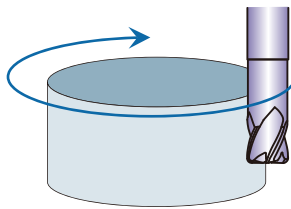
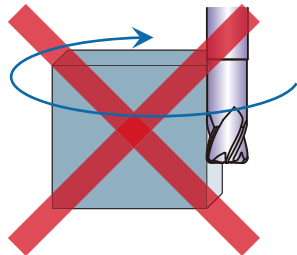
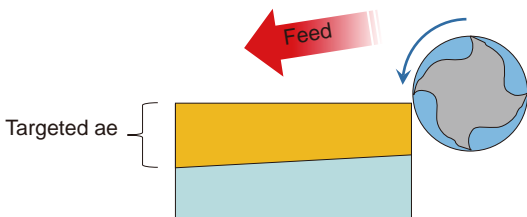
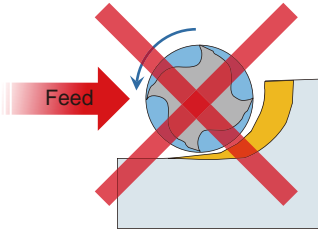
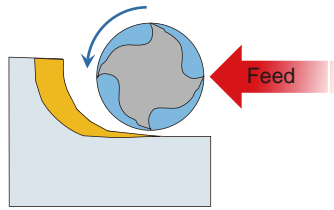


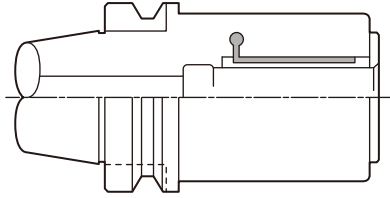
Precaution

Cutting Conditions	<p>Requires high cutting speeds (from 350m/min to 1000m/min) High speed cutting is required to generate the heat needed to soften materials without causing abrasion or other damage.</p>
	<p>Recommendation for air blow Do not use coolant, it can cause thermal cracking. Air blow is not used for the purpose of cooling and should not be directed at the tool. It should only be used for good chip evacuation.</p> <div data-bbox="1066 504 1449 689" style="float: right;"> <p>Example of thermal cracking</p>  </div>
Applications	<p>Recommendations for continuous Continuous cutting is highly recommended. Damage or chipping can occur during interrupted cutting.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="507 853 799 1133" style="text-align: center;">  <p>Continuous cutting</p> </div> <div data-bbox="895 853 1193 1133" style="text-align: center;">  <p>Interrupted machining</p> </div> </div>
	<p>Using maximum width and depth of cut from the start of machining may cause damage. Increase the width of cut (ae) gradually to maintain tool life.</p> <div data-bbox="533 1361 1062 1576" style="text-align: center;">  </div>
	<p>Method: Down cut (climb milling) Down cut / climb milling is highly recommended. Up cutting can be unstable.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="512 1765 831 2024" style="text-align: center;">  <p>Up cut</p> </div> <div data-bbox="858 1787 1193 2024" style="text-align: center;">  <p>Down cut / climb milling</p> </div> </div>

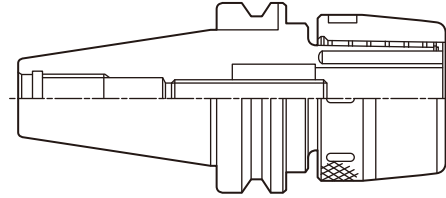
Precaution

Tool holder recommendation - Hydraulic chuck

First recommendation for tool holding is a hydraulic chuck, second recommendation is a precision milling chuck. Collet chucks are not suitable.



Hydraulic chuck



Precision milling chuck

Do not remove the built up edge

Do not remove any built up edge manually after machining as this may cause chipping. The built up edge will be removed by the heat generated during the next cutting cycle.

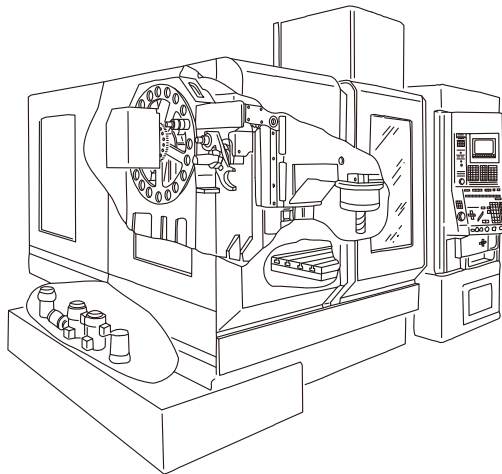
Final machining allowance of more than 0.3mm

Leave a minimum of 0.3mm finishing allowance. Machining with ceramic end mills at high temperatures can affect the outermost layer of the machined material, therefore a final machining allowance must remain.

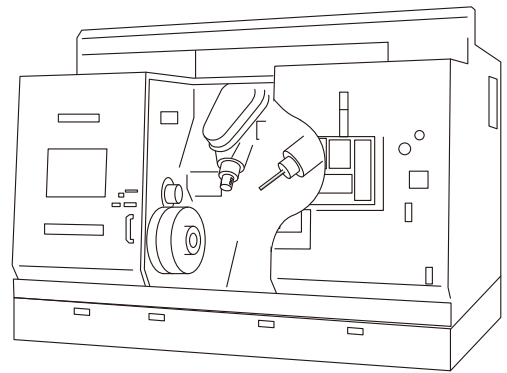
Others

Do not use open type machines

The chips generated during machining are at extremely high temperatures. Ensure the inside of the machine is free from any combustible materials.



Covered machining centre



Covered turn mill type machine