Biscuit shape: milled on a VCE 900 Pro-X

Thanks to its 2.5D, 3D, HSC and 5-axis strategies and numerous optimisation functions, hyperMILL® enables tool and mould manufacturers to respond quickly and flexibly to customer requirements. All machining strategies are available under one user interface, which means that even rarely used strategies are easier to apply.

2D contour milling: Based on canned cycles support for 2D machining, for example the actual diameter of the tool used can be taken into account by means of radius compensation, and the milling precision can easily be achieved.

Z-level finishing with path filleting: Machining takes place close to the contour on planes with uniform Z infeed, and additional functions allow a targeted optimisation of the machining. In the inner corners, paths can be filleted e.g. for HSC machining.

Profile finishing: The definition of milling and stop surfaces for profile finishing makes high-precision machining possible. Bordering areas are not touched and the surface quality is improved.

Machine: VCE 900 Pro-X

<table>
<thead>
<tr>
<th>Processing</th>
<th>Tool</th>
<th>Diameter [mm]</th>
<th>Corner Radius [mm]</th>
<th>Number of Teeth</th>
<th>Spindle Speed [min⁻¹]</th>
<th>Feed Rate [mm/min]</th>
<th>Latent Feed [mm]</th>
<th>Axial Feed [mm]</th>
<th>Processing Time [min']</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roughing</td>
<td>Torus cutter</td>
<td>12</td>
<td>1.5</td>
<td>2</td>
<td>14.000</td>
<td>5.000</td>
<td>6</td>
<td>2.5</td>
<td>12'43&quot;</td>
</tr>
<tr>
<td>Counterboring</td>
<td>End mill</td>
<td>3</td>
<td>–</td>
<td>2</td>
<td>12.000</td>
<td>2.000</td>
<td>–</td>
<td>0.5</td>
<td>2'00&quot;</td>
</tr>
<tr>
<td>Rest machining</td>
<td>Torus cutter</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>12.000</td>
<td>3.000</td>
<td>3</td>
<td>1</td>
<td>18'10&quot;</td>
</tr>
<tr>
<td>Rest machining</td>
<td>Torus cutter</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>12.000</td>
<td>3.000</td>
<td>3</td>
<td>0.3</td>
<td>13'39&quot;</td>
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<tr>
<td>Finishing</td>
<td>Conical ball mil</td>
<td>3</td>
<td>1.5</td>
<td>2</td>
<td>13.000</td>
<td>1.500</td>
<td>–</td>
<td>–</td>
<td>404'48&quot;</td>
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<tr>
<td>Processing Time (Total)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>451'20&quot;</td>
</tr>
</tbody>
</table>

Spindle with 16.000 min⁻¹ Material Aluminium Specification high surface quality

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