Design Your Own Centering Bells
Available in Toolbox™ Design Software

- Precisely manufactured with state-of-the-art metalworking equipment in-house by OptiPro’s team of machinists
- Made from one solid piece of 100% Tungsten Carbide for added integrity
- High quality centering bells minimize any damage risk to the clamped optic
- Available in 12mm and 25mm shaft sizes with a 6-8 week delivery
- Centering bells are customizable for specific job requirements

Tungsten Carbide Centering Bells
Achieve Exceptional Centering Results

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Unparalleled Dedication to Customer Success

Sales
Developing Partnerships

Service
Reinforcing Relationships

Support
Ensuring Excellence

www.optipro.com/the-optipro-difference
Exceptional precision and repeatability.

Efficient centering of precision optics can noticeably increase your bottom line. Watch parts go out the door faster with the exceptional precision, production, and repeatability of the PRO 160C CNC optical centering machine. Save time and money with fast job setups, optimal cycle times, and quick turn-around times. Accomplish fast and precise centering of spheres and aspheres or perform truncations, facets, steps, bevels, tapers, and freeform edge shaping. Whether your job requires precision centering of glass, ceramics, or IR materials, the advanced capabilities of the PRO 160C will help your company prosper.

High Performance Machines
Engineered for precision and repeatability

- Rigid granite base for excellent stability and consistent part-to-part accuracy
- High quality machine components including quick-change high speed HSK63F tool spindles and tungsten carbide centering bells
- Tungsten carbide centering bells made by OptiPro with precision to minimize any damage risk to the surface of the clamped optic

Intelligent Software Technology
C Series Software: User-friendly yet highly capable

- Clear and simple interface guides the operator through all aspects of optical centering
- For parts that have multiple geometric features, more than one operation can be completed in a single cycle
- 3D animation preview of the part program displays the wheels and part geometry as you build the program and detects any potential collisions

Specifications*

<table>
<thead>
<tr>
<th>Specification</th>
<th>PRO 160C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece Optimal Diameter Range</td>
<td>Up to 200 mm (7.87&quot;) Up to 70mm (2.76&quot;)</td>
</tr>
<tr>
<td>Work Spindle Maximum RPM</td>
<td>2,000 rpm</td>
</tr>
<tr>
<td>C-Axis Position and Hold</td>
<td>Standard</td>
</tr>
<tr>
<td>Precise Clamping Pressure</td>
<td>Up to 1,000N</td>
</tr>
<tr>
<td>Tool Spindle Quick Change HSK63F</td>
<td>Available</td>
</tr>
<tr>
<td>Tool Spindle Maximum RPM</td>
<td>1,000 - 12,000 rpm</td>
</tr>
<tr>
<td>Spindle Power 7kW (9.5hp)</td>
<td></td>
</tr>
<tr>
<td>Travels X1 - Axis Travel</td>
<td>220 mm (8.66&quot;)</td>
</tr>
<tr>
<td>Z1 - Axis Travel</td>
<td>180 mm (7.08&quot;)</td>
</tr>
<tr>
<td>C1 - Axis Travel</td>
<td>85 mm (3.35&quot;)</td>
</tr>
<tr>
<td>Repeatable Positioning Accuracy</td>
<td>+/- 0.001 mm</td>
</tr>
<tr>
<td>Communication Interface</td>
<td>Standard Ethernet Standard USB</td>
</tr>
<tr>
<td>Machine Dimensions Width</td>
<td>2,032 mm (80&quot;&quot;)</td>
</tr>
<tr>
<td>Height</td>
<td>2,282 mm (89.8&quot;)</td>
</tr>
<tr>
<td>Weight</td>
<td>2,494 kg (5,500 lbs.)</td>
</tr>
<tr>
<td>Facility Requirements Voltage</td>
<td>480V +/- 10%, 58A</td>
</tr>
<tr>
<td>Air Supply</td>
<td>100PSI, 5 CFM clean dry air</td>
</tr>
</tbody>
</table>

* Specifications subject to change. Contact OptiPro for the latest specifications.
Design Your Own Centering Bells
Available in Toolbox™ Design Software

- Quickly configure centering bells based on diameter, wall thickness and height
- Centering bell limits based on capabilities of PRO 160C, but further customization is available upon request
- Toolbox displays Active Warnings if input geometries would cause errors in rules that drive the generation of parts
- Available to PRO-tect customers, Toolbox software simplifies the centering bell design process, making your company more productive and profitable

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