Precision Cylindrical Components
Computer Generated Hologram tested quality

Know-how:
- Technology und Manufacturing Equipment:
  CNC grinding, conventional polishing,
  CNC polishing, CCP, MRF
- Measurement:
  2D/3D tactile,
  interferometric (Computer Generated Hologram*)
- Design:
  Optical Design Department
- Application:
  Laser projection, holography, optical information
  processing and computing, mirrors, imaging lenses

* Proprietary know-how and technology for design and manufacture of CGHs.
Precision Cylindrical Components

Specifications

Manufacturing Range

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Test range</th>
<th>Units of measure</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>20 mm - 200 mm</td>
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<tr>
<td>Dimension</td>
<td>20 x 20 mm² to 200 x 200 mm²</td>
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<tr>
<td>Workpiece radius range</td>
<td>cx hemisphere, cc &gt;100 mm</td>
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<tr>
<td>Material</td>
<td>Optical glasses, Zerodur®, fused silica, calcium fluoride, crystals, IR-materials</td>
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<td>Edge Shape</td>
<td>On customer’s request</td>
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Manufacturing Tolerances

- Total error root mean square of surface flaw
  - ≤ 25 mm nm: 10
  - > 25 mm nm: 15
  - > 50 mm nm: 35
  - > 100 mm nm: 50

Test wavefront transformation from planar to cylindrical.

1) Interferometrical Test-Lens JENfizar®
2) Cylinder CGH
3) Cylindrical Lens

It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.