CLH
COAXIAL
LASER HARDENING

ADVANTAGES
- No optical elements inside the bore hole and thus no risk of contamination and collision
- No need for rotation axes and thus less additional effort for plant integration
- Easy adaptability using the scapacs®-Kit

APPLICATIONS
- Inner surfaces of bore and blind holes
- Small-diameter shaft hardening
- Grooves
- End faces

PRINCIPLE
- Best laser absorption on the surface by using:
  - Flat angle of incidence
  - Circular laserspot
## TECHNICAL DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>1030 – 1080 nm</td>
</tr>
<tr>
<td>Laser power</td>
<td>Max. 8 KW</td>
</tr>
<tr>
<td>Fiber couplings</td>
<td>Trumpf-B, Trumpf-D, Optoskand QBH</td>
</tr>
<tr>
<td>Beam parameter product (BPP)</td>
<td>&lt; 30mm* mrad</td>
</tr>
<tr>
<td>IP protection degree</td>
<td>Processing head: IP64</td>
</tr>
</tbody>
</table>

## OPTIONS

- Integration of a camera + crosshair generator for adjustment
- Integration of a pyrometer to use a closed loop control

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## CONTACT

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Circular Intensity Profile of the laser beam