## TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions (L x W x H)</strong></td>
<td>2,900 mm x 2,800 mm x 2,700 mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>5,000 - 5,500 kg</td>
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<tr>
<td><strong>Power supply</strong></td>
<td>200 - 480 V</td>
</tr>
<tr>
<td><strong>Compressed dry air</strong></td>
<td>6 - 7 bar</td>
</tr>
<tr>
<td><strong>Cooling Water</strong></td>
<td>5 - 20 l/min</td>
</tr>
<tr>
<td><strong>Working area</strong></td>
<td>2 x 2 chucks</td>
</tr>
<tr>
<td><strong>Scan field</strong></td>
<td>55 mm x 55 mm</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>&lt; ±20 μm absolute</td>
</tr>
<tr>
<td></td>
<td>&lt; ±10 μm repeatability</td>
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<tr>
<td><strong>Laser sources</strong></td>
<td>Several laser sources</td>
</tr>
<tr>
<td><strong>Laser spot size</strong></td>
<td>10 - 300 μm</td>
</tr>
<tr>
<td><strong>Beam delivery</strong></td>
<td>Scanner</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>CE</td>
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</tbody>
</table>

### PROCESS AND SYSTEM VALUES

- **Material**: Plane sapphire (different crystal orientations)
- **Material thicknesses**: < 650 μm
- **Sidewall roughness values**: ~ 0.8 μm
- **Ablation rate**: 25 mm³/min (parallel operation of 2 scanner)
- **Generation of chamfer possible**

### PROCESS AND SYSTEM LIMITATIONS

- Occurrence of side wall taper angle (~ 10°)
- For basic trials only mechanical aligners possible
- Distance between neighboring structures > 750 μm

### FEATURES

- Universal cutting system
- Scanner setup
- Highly modular system design
- Fast manufacturing
- High volumes and quick ramp-up
- Highly accurate system
- Standalone and line integrable system
- 4 x Scanner heads
- Highly effective exhaust system

### OPTIONAL

- Several laser sources available
- Fully automatic handling (mass production)
- Semi-automatic handling (R&D)
- MES interface
- Integrated process metrology
- Import of CAD files (e.g. DXF, DWG)
- Vision system
- 1 x or 2 x Scanner heads