The NA 100 / 200 / 302 / 502 N lasers drill blind holes in eyeless needles for microsurgery with utmost precision.

- Precise drilling of blind holes in microsurgical needles with high aspect ratio.
- Compatible with most medical-grade steels.
- Designed for mass production in a 24/7 environment.
- Ultra stable granite table construction.
- Lowest drilling cost per needle in 24/7 manufacturing.
### Specifications

**LASAG NA N**

<table>
<thead>
<tr>
<th>Laser source</th>
<th>NA 100 N</th>
<th>NA 200 N</th>
<th>NA 302 N</th>
<th>NA 502 N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser type</td>
<td>pulsed Nd:YAG solid state laser</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wavelength</td>
<td>1064 nm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beam diameter</td>
<td>6 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse length</td>
<td>0.01-0.5 ms</td>
<td>0.01-0.5 ms</td>
<td>0.01-1 ms</td>
<td>0.01-1 ms</td>
</tr>
<tr>
<td>Pulse frequency</td>
<td>0.1-4 Hz</td>
<td>0.1-4 Hz</td>
<td>0.1-5 Hz</td>
<td>0.1-5 Hz</td>
</tr>
<tr>
<td>Pulse energy max.</td>
<td>5 J</td>
<td>7 J</td>
<td>30 J</td>
<td>30 J</td>
</tr>
<tr>
<td>Pulse power at 1 ms max.</td>
<td>30 kW</td>
<td>30 kW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse Power at 0.5 ms max.</td>
<td>10 kW</td>
<td>14 kW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Power max.</td>
<td>20 W</td>
<td>28 W</td>
<td>150 W</td>
<td>150 W</td>
</tr>
</tbody>
</table>

**Line Power**

- Configuration: 3-phase + ground
- Multitap transformer for: 3 x 200 to 480 VAC ±10%
- Power consumption max.: 25 kVA

**Cooling**

- Water inlet max.: 20°C / 8 bar
- Pressure drop to outlet, min.: 4 bar
- Cooling power max.: 14 kW

**Weight**

- Supply cabinet: 970 kg
- Optical system: 1500 kg

**Ambient conditions**

- Ambient temperature: 10－35 °C (stabilized ± 2°C)
- Relative humidity max.: 80%

**Emissions**

- Heat dissipation max.: 0.4 kW + laser beam power
- Noise at 1 m, idle: 65 dBA

**Compliance with standards**

- CE compliant, FDA compliant

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Specifications subject to change without notice.