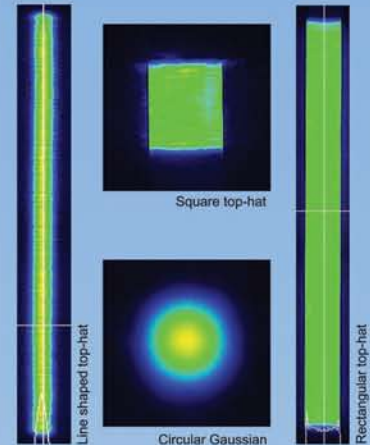


Pico Second INNOSLAB Lasers QX-Series



Advantages

- Compact and robust setup: high reliability
- High average power: high productivity and low cost of ownership
- Ultra short pulse length: high controllability and nearly no thermal influence
- High pulse energy and high peak power: large parameter window and suitable for parallel processing

Favourable applications

- Printing, e. g. engraving of press cylinder
- Toolmaking and mechanical engineering, e.g. 3D structuring
- Glass, e.g. drilling, cutting and micro processing of glass
- Display, e.g. cutting of touch screen, structuring of conduction layer
- Photovoltaic, e.g. scribing, ablation of conduction or dielectric layers of thin film solar and crystalline Si solar cells
- Automotive, e.g. the manufacture of fuel injection valves



Moulding tools engraved by ps laser



Press cylinder engraved by ps laser

Overview of QX-Series

| Model | QXxxI | QXxxII | QXxxIII | QXxxIV |
|---|----------------------------|---------|---------|---------|
| Wavelength [nm] | IR | Green | UV | DUV |
| Highest beam quality M ² | 1.5 | 1.5 | 1.8 | 2 |
| Max. average power [W] | 400 | 200 | 120 | 40 |
| Max. repetition rate [MHz] | 15 | 15 | 15 | 15 |
| Max. pulse energy [μJ] | 1000 | 500 | 120 | 40 |
| Min. Pulse width [ps] | 8 | 8 | 8 | 8 |
| Energy stability [%] rms | 1 | 2 | 3 | 4 |
| Timing stability [ns] | 60 | 60 | 60 | 60 |
| Polarisation | > 100:1 | > 100:1 | > 100:1 | > 100:1 |
| Beam ellipticity (far field) [%] | < 10 | < 10 | < 10 | < 10 |
| Diameter at window [mm] | 5 | 5 | 5 | 5 |
| Divergence full angle [μrad] | 406 | 203 | 163 | 136 |
| Point stability [μrad] | < 60 | < 60 | < 60 | < 60 |
| Warm-up time, from cold start [min] | 15 | 20 | 30 | 30 |
| from standby [min] | 8 | 15 | 30 | 30 |
| Utility & Ambient Requirements | | | | |
| Power supply | 180 – 264V, 50/60Hz | | | |
| Power, maximum | 4kW | | | |
| Chiller | 230V, 50Hz; 460/208V, 60Hz | | | |
| Power, maximum | 3kW | | | |
| Operating ambient Temperature | 15°C to 35°C | | | |
| Relative Humidity, non-condensing | 10% to 80% | | | |
| Dimensions & Weights | | | | |
| Laser head | 650mm x 444mm x 167mm | | | |
| Supply incl. Chiller | 19" x 20HU x 750mm | | | |
| Laser head | 56kg | | | |
| Supply incl. Chiller | 110kg | | | |

EdgeWave follows a policy of continuous product improvement. Specifications are subject to change without notice.

