

VaryDisk

PICO

DAUSINGER+
GIESEN GMBH

PICO 500i

High power pulsed disk laser

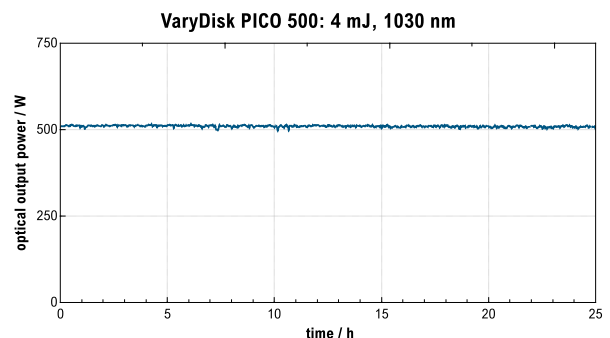


FEATURES

- Wavelength: 1030 nm
- Pulse duration^{a)}: 10 ps
- Pulse energy^{b)}: 4 mJ
- Repetition rate: 125 kHz
- Average power: 500 W
- Optional SHG (250 W) and THG (100 W)
- High beam quality: $M^2 < 1,3$
- Variable repetition rates optional
- Customizable network Interface

APPLICATIONS

- Industrial applications, e.g.
 - Cutting, welding, scribing of transparent materials
 - High speed and precision large surface machining
 - cutting and drilling of ceramics
 - OLED processing
 - ITO drilling / scribing
 - Direct interference patterning
- Scientific research



The VaryDisk PICO is a fully functional laser system for industrial applications and/or scientific research. Its pulse characteristics is mainly determined by its seed laser. Our standard configurations include a 10 ps seed, however other pulse durations are

possible, depending on the customer's needs. The choice of pulse duration determines the maximum energy available with this laser system. The system is characterized by its robustness and simplicity.

a) Depends on choice of seed laser
b) Max. pulse energy scales with output pulse duration



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SPECIFICATIONS

OPTICAL OUTPUT

Wavelengths	1030 nm	515 nm (optional)	343 nm (optional)
Pulse duration ^{a)}	10 ps		
Pulse energy ^{b)}	4 mJ		
Repetition rate	≥ 125 kHz		
Average Power	500 W	250 W	100 W
Beam quality M ²	1,3	1,3	1,5
Beam diameter	4 mm	12 mm	12 mm
Polarization	linear		
Energy stability	RMS deviation < 3 %		
Power stability	RMS deviation < 2 %		
Warm-up time	≈ 20 min		

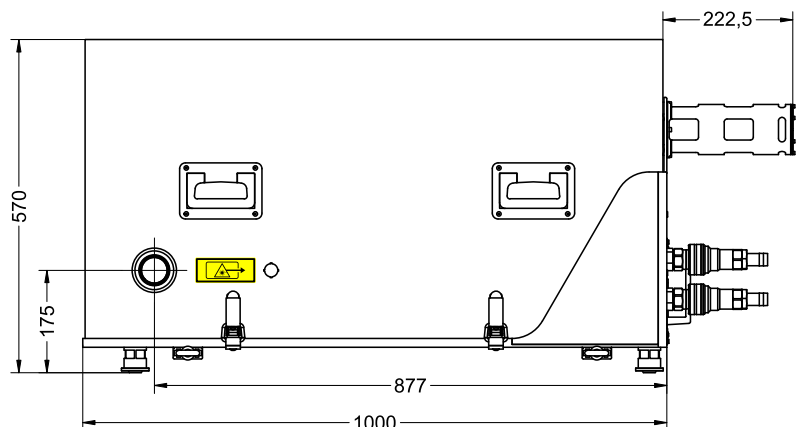
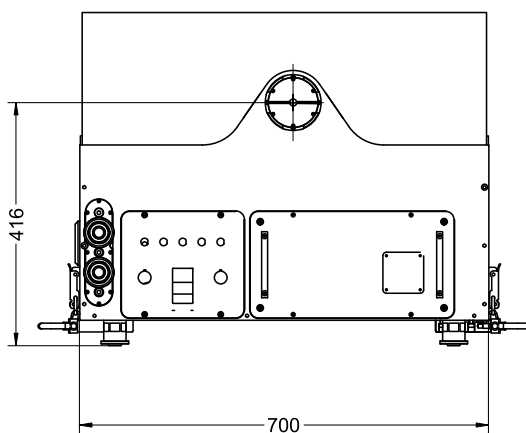
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DIMENSIONS / WEIGHT

Laser head	109 x 80 x 54 cm ³ , 200 kg
Power Supply	82 x 55 x 1000 cm ³ , 175 kg
Connectors length	≈ 4 m
Chiller	97 x 38 x 108 cm ³ , 130 kg

OPERATING CONDITIONS

Power supply	380 V, 50 Hz + N + ground, CEE 32 A plug
Power consumption	< 4 ... 6 kW
Cooling water	15 l / min @ 12 ... 25 °C
Operating temperature	20 ... 25 °C



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