

HIGH POWER LASER CL 1000



Laser system CL1000 (mobile system)

Basic system

- 1000 W laser power (CW)
- Diode pumped solid-state laser
- Real-time controlling
- Optional air or water cooling
- Optional with beam-switch
- Suitable for robust industrial application
- Various laser optics for manual and automated applications available

LASER SYSTEMS FOR INDUSTRIAL APPLICATION

cleanLASER CL 1000 is a high-power laser system suitable for a wide range of industrial applications. The diode pumped laser module enables a nearly maintenance-free application of the system. The system can optionally be delivered with laser optics suitable for automated applications and with typical fieldbus interfaces for automation integration.

Typical applications are large-scale adhesive bonding pre-treatment, paint removal or weld seam pre-treatment at high rates of feed. Due to an integrated cooling system and a compact design - despite 1000 watt of laser power – the system is mobile. Only a three-phase electrical connection and, if necessary, separate house cooling water are required to operate the laser. Further media such as protective gas are not necessary.



Application examples for automated and manual use

APPLICATION EXAMPLES

- **Weld seam pre-treatment for aluminum alloys**
- **Pre-treatment for adhesive bonding**
- **Fast cleaning of oily surfaces**
- **Complete or selective paint removal**
- **Mold cleaning**

TECHNICAL DATA



Laser system in industrial control cabinet

OPTIONS

- Circular optical fiber
- Square optical fiber
- Visualization system for up to 6 systems
- Pilot laser mirrored into the optical path of the laser
- Teleservice-module CLQ-Control
- Fieldbus, e.g.: profinet, profibus, interbus
- Cooling system water – air
- Tailored suction and filter technology
- Separate recooling systems (water / air)
- Plasma sensor for process control

Specified power of laser source (CW mode)	950 W ($\pm 5\%$)
Minimal pulse width	75 ns
Maximum pulse energy	45 mJ
Pulse frequency	24 – 40 kHz
Wavelength	1064 ± 2 nm
Length of fibre optic (standard)	10 m (optionally up to 50 m)
Maximum power consumption	13 kVA
Power supply (German vision)	400V / 16 A, 3 Ph., N, PE (CEE plug)
Minimum/maximum ambient temperature	10°C / 38°C (36°C for air-cooled version)
Humidity	10 % - 95 %, non condensing
Control system	μ -controller w/ safety circuits
Cooling system	water – water/ optional air – water
Necessary external cooling water quality	< 19°C, pressure difference 1,5-4 bar, particles < 150 μ m, non corrosive, pH-neutral
Technical availability according to DIN	> 98%
MTBF time of laser diodes	> 10.000 hours
Size (W x D x H)	745 x 1608 x 1280 mm ³
Weight (ca.)	~ 525 kg

2020. Subject to technical changes

PLEASE CONTACT US. WE ARE HAPPY TO ADVISE!

 **cleanLASER**
cleaning with light