

NOVOLAS μ

laser welding



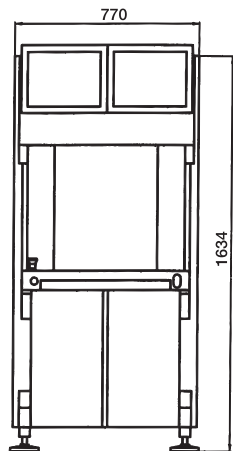
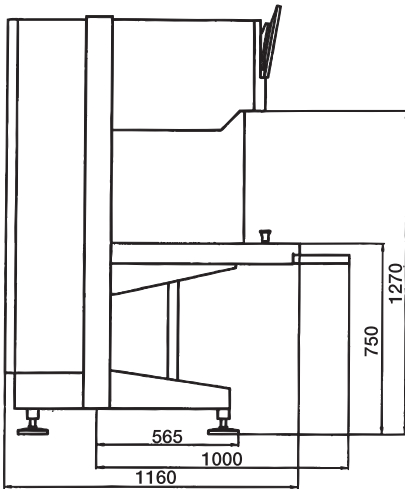
Lasersystems for
Plastic Welding

Precision Welding for
Micro Components

LEISTER®



Dim. in mm



Mask Welding with NOVOLAS μ



The concept of Mask Welding is based on the principal of Transmission Welding. A line, or curtain, of laser light sweeps over a customer defined mask pattern. The components are precisely joined where the laser is allowed to pass through the mask.

The precision of the mask design and software controlled laser power allow for the assembly of microstructures with weld lines as narrow as 100 μ m. Covered areas are not exposed to thermal stress. Though the mask process is perfect for high-speed production, the mask can be easily changed allowing for production flexibility.

Technical Information



An intelligent Adjustment System, incorporating a state-of-the-art Vision System, provides for precise alignment of the parts and mask.

The graphical user interface of the control software, μ -WIN, provides graphical visualization to assist in the setting of parameters.

The NOVOLAS μ Systems were ergonomically designed to simplify handling and allow for increased throughput. The system is suitable for clean-room-conditions.

Customized masks, manufactured by a photolithographic process, are available as requested.

Laser Type	High Powered Diode Laser
Laser Power Output	90 W
Image Processing	Optical
Max. Component Size	110×50×30 mm
Max. Welding Area	110×50 mm
Top Comp. Thickness	2 mm
Axis	9 Step Motors
Clamp Device	Pneumatic
Control	PC Control for Laser and Axis, Process Control
Line Voltage	230 VAC +/- 10% (optional 200 VAC) (Single phase with ground contact / Short Prot. 16A)
Frequency	50 / 60 Hz
Current Consumption	Max. 10 A
Air Pressure	Min. 6bar, 1/4" Tube
Cooling	Air stream, Exhaust Air max. 130°F (55°C)
Environment Conditions	60-105°F (15 – 40°C)
Weight	~1450 lb (ca. 650 kg)
Laser Class	1

CE conform
Technical data subject to change
Further options on request



a division of LEISTER Process Technologies

ISO 9001:2000



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