

Laser welding with precision:

# Stationary Laser

The compact laser system - for tools weighting up to 250 kg



Innovation and precision for tool- and mould-making industry

# Stationary Laser

Laser power  
up to 500 watts

## Compact Ergonomic Modular

Our laser systems are designed to satisfy the specific requirements of the tool- and mould-making industry.

The compact and reliable stationary laser system is designed for repairing of tools weighting up to 250 kg. The open construction is a design feature that ensures high ergonomic efficiency for the user during continuous operation, and ease of handling.

Our modular construction principle permits the unit to be converted to a closed system.

In this way, the SL can be operated as a class 1 or 4 laser, depending on production requirements.

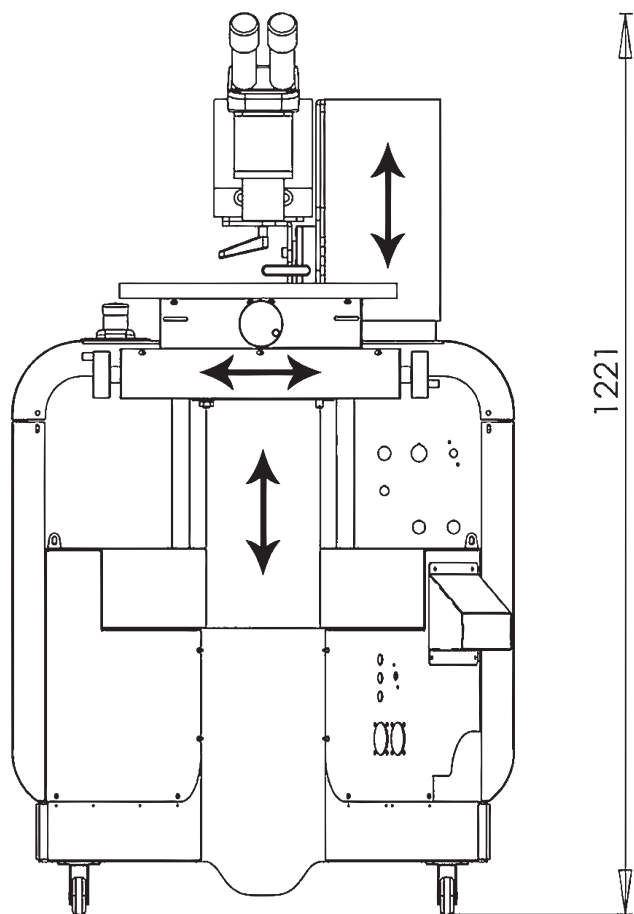


## Modular construction:

The operation of the working table is manually or motorized. Both manually and the motorized working table provide high precision during the process of welding. The pivoting arm maximizes the accessibility. Two motorized z-axes are integrated as standard in order to provide the required ergonomical operation.

Beside that, "SL" can be upgraded to a Mobile Welder at any time.

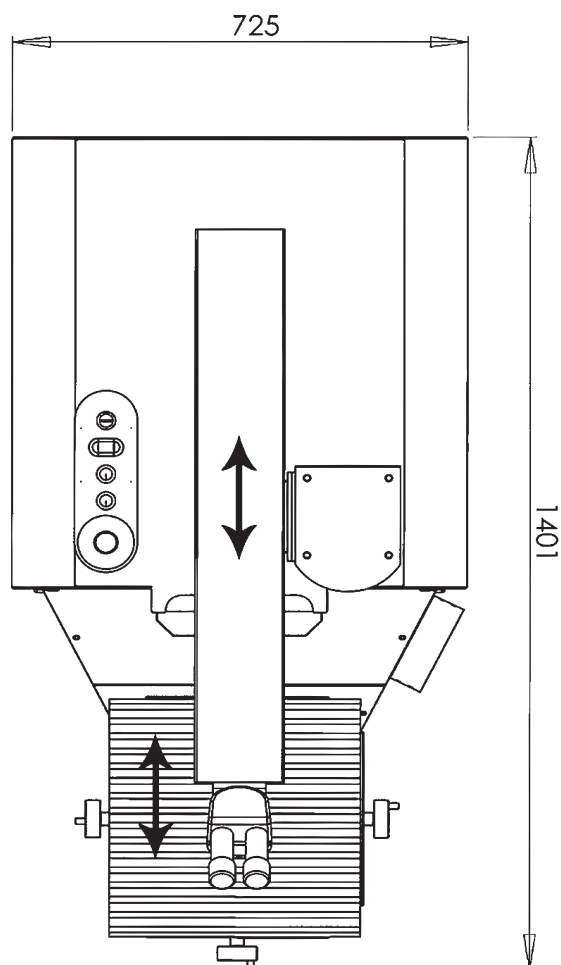
Due to the innovative power level technology our laser power can be upgraded from 60 to 500 Watts at any time.



## Ergonomic:

Two motorized z-axes are integrated as standard.

Motorized table with joystick is available as option.



## Compact:

The laser system provides all required options for repairing of tools within a compact area.

# Special features

## Everything in view - and under control

The detachable display with its magnetic holders simplifies the operation of the system and the control of the laser parameters.

You can save various welding parameters in 50 memory units.

The control's greatest strength is that remote diagnostics are possible through the error memory function.



## The display functions:

- + 50 memory units: Welding parameters can be saved and easily retrieved
- + Remote diagnostics: integrated sensor technology in the control unit checks each electronic module separately. In the case of malfunctions, the control reports an error code with a description of the fault
- + Detachable display with magnetic retainers and 1.5 meters of cable
- + Menu navigation for operational data such as pulse status and operating hours
- + Self-test function

## Analogue, digital - for any situation the right choice

Using the multifunctional joystick, the system is controlled extremely accurately, quickly and easily. One further ergonomic benefit is provided by the automatic pulse function.

A great special feature that distinguishes this device from others: the joystick allows both analogue and digital operation. The jog-off-function additionally provides control of movement through the buttons.



### An overview of the joystick:

- + Analogue and digital operation possible
- + Jog-off-function
- + Vmax-function for fast operation
- + Coordinate inversion function
- + 4-axis control: control of a motorized rotation device is already integrated
- + Freely-programmable buttons for your own applications
- + Pulse-automatic



# More potential for more movement

## CNC-Controller

- + Upgrade with CNC-Controller available
- + Interpolation of 4 axes
- + Up to 8 axes upgradeable
- + Teach-In-Function and 4 GB memory
- + Integrated G-Code interpreter
- + Network compatible
- + Driver for peripheral devices



Technical Data*	SL 60	SL 120	SL 160	SL 220	SL 330	SL 420	SL 500
<b>Nd:YAG-Laser</b>	wavelength 1064 nm						
<b>Power level</b>	L1	L1	L1 / L 2	L2	L2 / L3	L3	L3
max. mean power	60 W	120 W	160 W	220 W	330 W	420 W	500 W
max. pulse energy	60 J	80 J	120 J	120 J	120 J	120 J	120 J
pulse peak power	6 kW	9 kW	13 kW	13 kW	13 kW	13 kW	13 kW
pulse duration	0,5-20 ms	0,5-20 ms	0,5-50 ms	0,5-50 ms	0,5-50 ms	0,5-100 ms	0,5-100 ms
repetition rate	0,5-20 Hz	0,5-20 Hz	0,5-20 Hz	0,5-20 Hz	0,5-40 Hz	0,5-40 Hz	0,5-40 Hz
focus diameter	0,2-2,0 mm						
beam expander	motorized						
pulse shaping	no	yes	yes	yes	yes	yes	yes
flash lamps	1	2	2	2	2	2	2
<b>Memory function</b>	50 storage places (upgradeable to 100)						
<b>Controlling optics</b>	Leica binocular with large oculars						
<b>Dimensions</b>							
weight	210 kg	250 kg	250 kg	300 kg	400 kg	425 kg	425 kg
B x L x H in mm	725 x 1401 x 1221						
traverse path	200 x 200 x 300 mm with 250 kg mechanical load capacity						
<b>Power supply</b>	380 V / 3 Ph / 50 Hz						
<b>Cooling system</b>	_____ water/air _____			_____ water/air - external _____			

## Options

- > selectable power level
- > motorized rotation device
- > remote diagnostics
- > CNC-controller
- > swivel optics with telescopic lense
- > Leica camera system
- > Sig-CAD-Software, Teach-In or CAD-Data transfer
- > automatic wire feed system
- > optional high power cooling system
- > upgrade to “Mobile Welder”

# Contact

## Laser innovations from Germany - represented around the world.

Sigma Laser GmbH stands for the highest quality and expertise in the field of laser technology. Through our innovations, we supply state-of-the-art solutions for industry.

Sigma Laser is represented in 21 further countries.



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