

Precision in laser welding:

Mobile Welder

The modular laser system - for tools up to 25 tons



Innovation and precision for tool- and mould-making industry

Mobile Welder

Laser power up to 500 watts

Wide range with extra performance-and with even more on request

The Mobile Welder modular laser system has been specially designed for repairing large tools and moulds. These may range in size up to 25 tons. Mobile Welder is so flexible that even hard-to-reach places can be processed extremly accurately and at astonishing speed.

The system is available with laser powers from 60 to 500 Watts. The innovative power level technology allows the laser to be upgraded to higher powers any time later. Therefore, Mobile Welder can be individually adapted to your applications.



The core benefits of the Mobile Welder:

- Designed specifically for the welding of large tools
- Stable construction
- Smooth axis

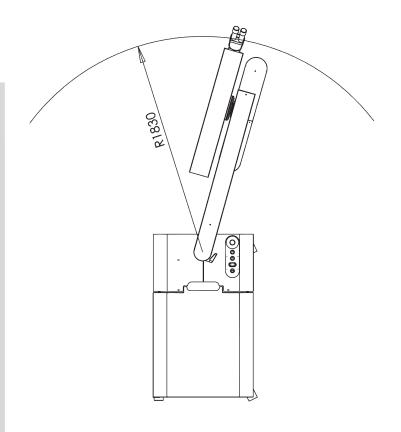
- Mobile construction on steered rollers
- Long travel
- Modular upgrades available up to 500 watts

Safe transport and safe working in any position



The folding rotary and swivel arm reduces the space required in the transport position, thus providing easy, safe transportation.

The swivel arm has an impressively high degree of flexibility and, above all, a wide range.



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 seperately. 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-offfunction additionally provides control of movement through the buttons.



An overview of the joystick:

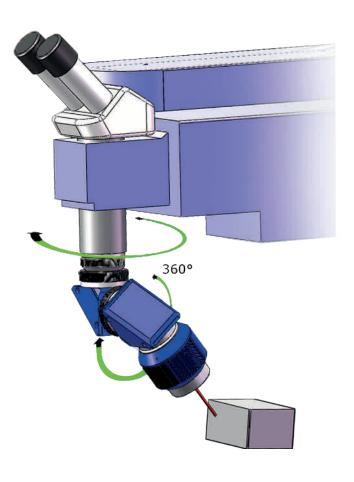
- Analogue and digital operation possible
- Jog-off-function
- Vmax-function for fast operation
- Coordinate inversion function
- 4-axis control: control of a motorized rotation device is already integrated
- Freely-programmable buttons for your own applications
- Pulse-automatic

More possibilities for more movement: Accessories

Motorized rotation device

- Drive and control already integrated in the system (no retrofitting required)
- Suitable for very large parts
- Clearance hole Ø 50 mm
- Swivels





Swivelling optics

- Increases accessibility
- Swivels through 360°
- Telescopic lens for rapid focusing

Mobile Welder in action



1. High degree of flexibility and mobility 2. wide range, long travel 3. up to 25-ton components

Technical Data*	MW 60	MW 120	MW 160	MW 220	MW 330	MW 420	MW 500
Nd:YAG-Laser	wave length 1064 nm						
Power Level	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
Memory function	50 storage places (upgradeable to 100)						
Controlling optics	Leica binocular with large oculars						
Dimensions							
weight	250 kg	300 kg	300 kg	350 kg	450 kg	475 kg	475 kg
B x L x H in mm	760 x 1300 x 1200						
traverse path	600 x 600 x 400 mm						
Line voltage	380 V / 3 Ph / 50 Hz						
Cooling system	water/air water/air - external						

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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