

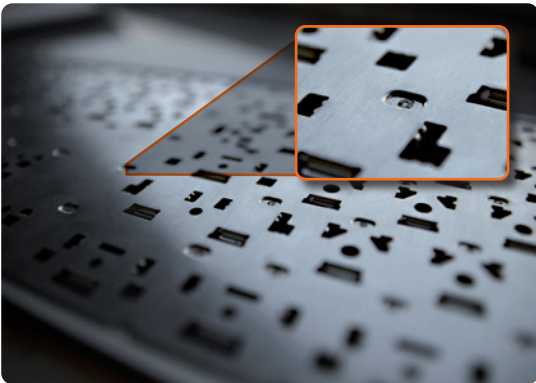
Entry Level

Cost-efficient laser welding system for
small series and individual parts



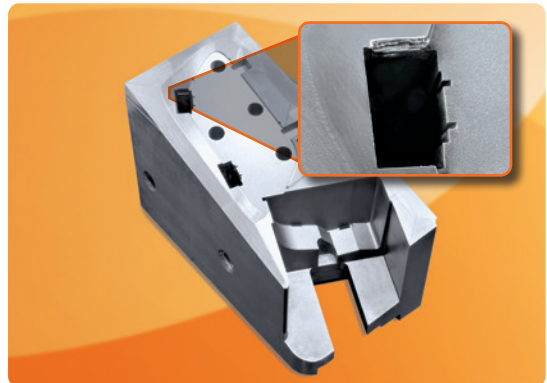
Various industries, always ready for use: ECO LASER

Electronics



Point welding of keyboards

Tool and die making



Die insert injection molding tool

Medical technology



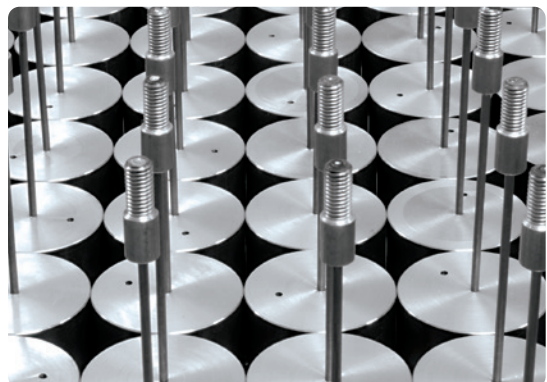
Implants for invasive transplants

Aviation engineering



Engine components for military and civil aviation

Mechanical engineering



Machine parts with complex alloys

Cost effectiveness meets ergonomic design

The rising demand for inexpensive laser welding solutions for very small series or individual parts motivated us to develop a new laser welding system for individual needs. In addition to our own practical experience, we also implemented suggestions from our customers.

The practically-oriented operation of the laser welding system offers sufficient user comfort for efficient laser welding. Continue reading to learn about all the new developments and form your own opinion.



*dimensions: width 472 mm x height 1270 mm x length 1160 mm
weight: 190 kg netto*



ECO LASER system. Uncompromisingly cost-efficient

This new development offers an inexpensive introduction to laser welding, particularly for small-sized companies and young entrepreneurs who make their first steps in this field. Of course, this laser welding system is also suitable for experts who would like to expand their welding capacities. It is small and compact, can be quickly readied for use and is extremely precise in order to satisfy

rising user requirements, such as in tool and die making. No compromises were made in the area of user comfort in particular. The motor-controlled table (x/y/z) with a carrying capacity of 150 kg allows axis-synchronous laser welding. This is also possible with 4 axes in connection with the motorised rotary axis.

Joystick

Always at hand and as individual as your working style. Along with the display, the joystick functions as the central operating element. It can be used directly for selecting and executing important functions. This increases the efficiency during laser welding since all laser parameters are directly modified via the joystick.



Also effective for smaller components

Constructive application of laser welding in the manufacturing of tools and molds



Basic component

Mold core for the production of bottle caps. Consisting of tool steel 1.2343 combined with CuBe (Copper Beryllium)



First step

Edge protection by means of material coating



Second step

Fusing mold core with insert



Third step

Entire application of a 0.2 mm thick protection and wear-resistant coating

Innovative display

The laser system is intuitively operated via a 10" touchscreen display. All important parameters are clearly arranged, and the most important functions can be reached with a touch of a finger. In addition, all technical parameters can be stored and recalled again when needed.



Useful accessories

For the ECO LASER system we offer a whole range of accessories to facilitate your work.



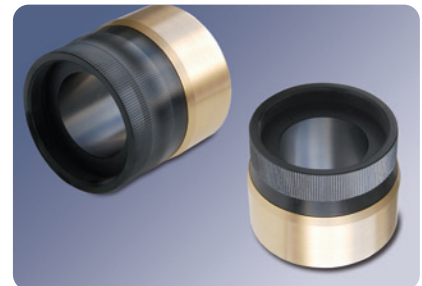
Magnetic ball

The ideal accessory for simple handling of your welding parts.



Rotating device

Rotating device with fully adjustable 3-Jaw chuck, 90° tilting and 360° swivel makes working on tools quick and easy.



Telescope optics

The telescopic extension allows continuous real time changes in focal positions up to 20 mm.

Not enough? We will be happy to send you the current accessories catalogue by e-mail or post.

Technical data

POWER

	TYP: ECO-D 150	TYP: ECO-D 300	TYP: ECO-D 450	TYP: ECO-D 600
Lasertype	Diode Pumped	Diode Pumped	Diode Pumped	Diode Pumped
Max. mean power	150 W	300 W	450 W	600 W
Pulse peak power	1,5 kW	3 kW	7,5 kW	9 kW
Max. pulse energy	15 J	30 J	80 J	100 J
Pulse duration	0,1 - 50 ms	0,1 - 50 ms	0,1 - 50 ms	0,1 - 50 ms
Pulse frequency	0,1 - 100 Hz	0,1 - 100 Hz	0,1 - 100 Hz	0,1 - 100 Hz
Focus diameter	0,05 - 2,0 mm	0,05 - 2,0 mm	0,05 - 2,0 mm	0,05 - 2,0 mm
Line voltage (V/Ph/Hz)	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50

SYSTEM EQUIPMENT

Laser system

- Laser resonator inclusive resonator mechanics
- Safety shutter
- Beam extension
- Power supply including circuit breaker
- Power disconnecting switch
- Emergency stop switch
- Motor protection switch
- Extra low voltage power supply 24 VDC
- Interface with hardware monitoring function
- Industry controller for setting and display of power, pulse duration, pulse frequency with external trigger via foot switch
- Internal air cooling system

Processing optics

- Variable beam expansion
- Beam deflection
- Safety glass
- LCD anti-glare
- Binoculars 10x
- Focussing lens

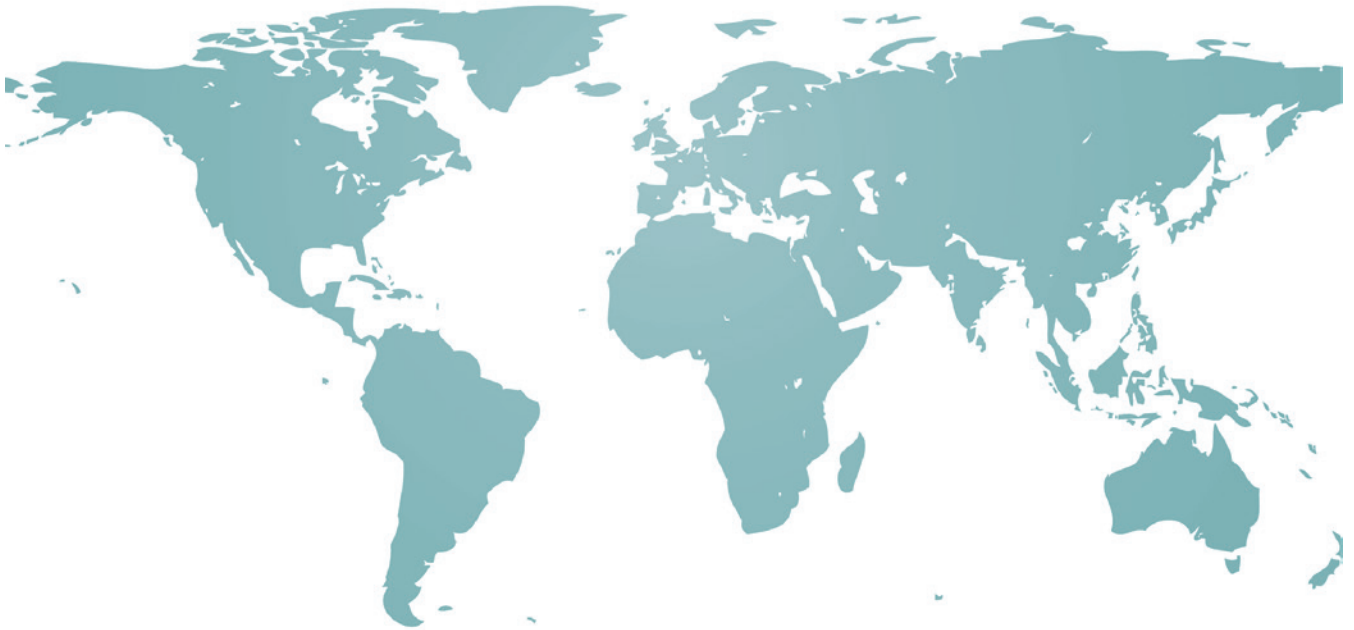
Linear system

- 4-axis controller
- Operation via joystick
- Traverse range z-axis: 420 mm (table)
- x-y axis for working table with stepper motor
- Positioning speed 0,5 - 15 mm/s
- Travel: x-axis: 200 mm / y-axis: 100 mm
- LED lightening
- Inert gas supply directly controlled via magnetic valve

Dimensions and weight

Dimensions: width 472 mm x height 1270 mm x length 1160 mm
 Weight: 190 kg net

wORLD of LASER



HEADQUARTERS

Germany

O.R. Laserservice GmbH
Roentngenstr. 8b
64846, Gross-Zimmern
Germany

P. + 49 (0) 60718202427

INFO  OR-LASERSERVICE.COM

WWW.OR-LASERSERVICE.COM

PARTNERS

USA

India

Romania

PARTNERS

Europe

Benelux · Germany
UK · France · Italy
Austria · Poland · Portugal
Russia · Switzerland · Serbia
Slowakei · Slovenia · Czech
Republic · Hungary · Spain

Asia

China · Hong Kong · India
Malaysia · Singapore
South Korea · Thailand
Japan

Middle East

United Arab Emirates

Africa

South Africa

Central and South America

Argentina · Brazil
Mexico · Columbia

Ozeania

Australia · New Zealand



YOUR ENGINEERING QUALITY IS ALWAYS ON OUR FOCUS