



ECO
LASER



ECO Laser 2600 // 3300 // 4600

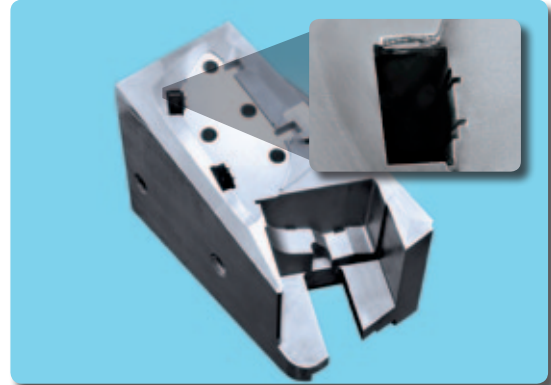
ECO Applications

Elektronics



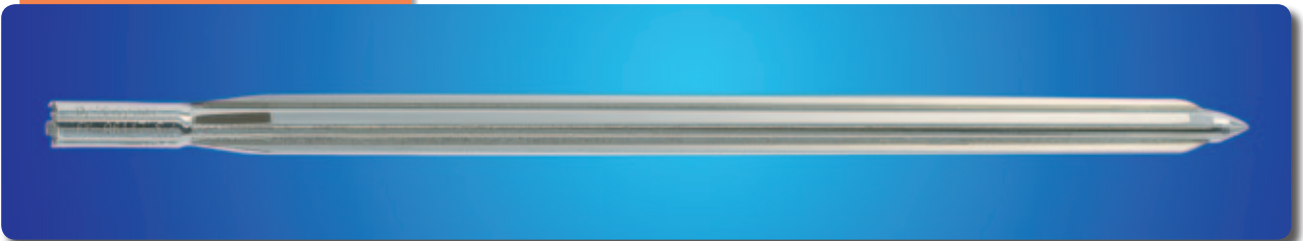
Point welding of keyboards

Tool and die making



Die insert injection moulding tool

Medical technology



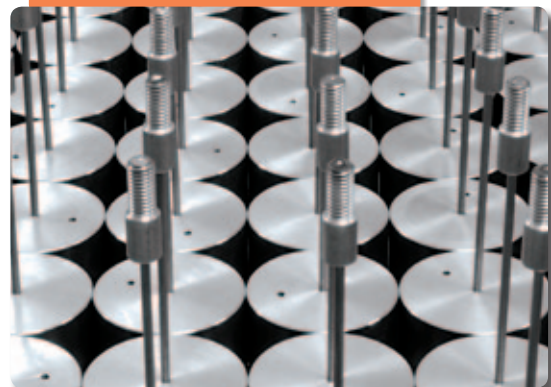
Implants for invasive transplants

Aviation engineering



Drive components for military and civil aviation

Mechanical engineering



Machine parts with complex alloys

The ECO Laser System

Economic value. Ergomic design.



ECO Laser

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.

ECO

L A S E R

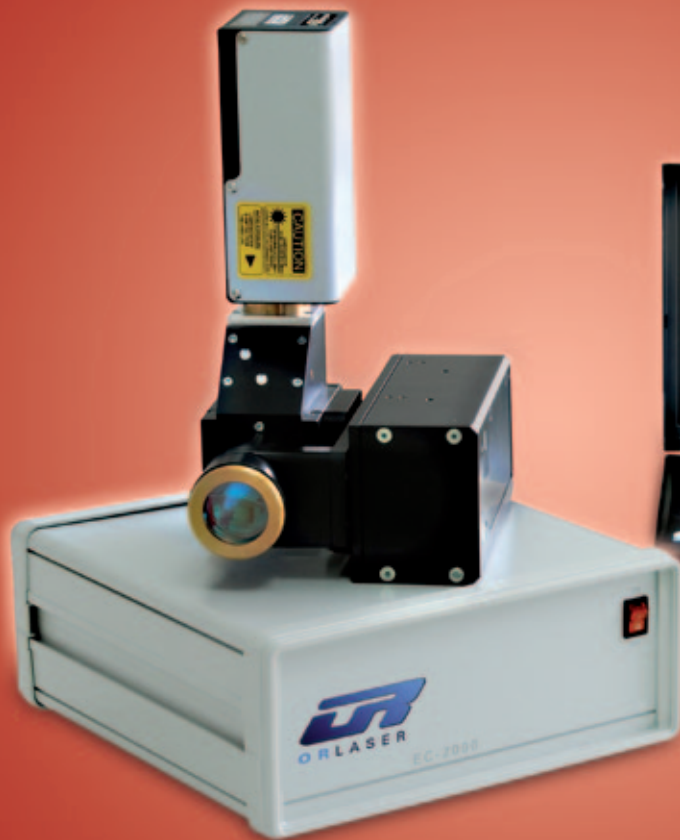
ECO laser system. Uncompromisingly cost-efficient!

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!

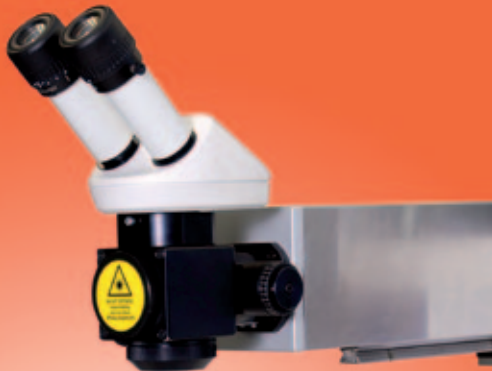
Always at hand and as individual as your working style. Along with the display, the joystick functions as the central operating element. It can be used directly for selecting and executing important functions. This increases the efficiency during laser welding since all laser parameters are directly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





The autofocus system of OR Laser.

- Automatic online focusing
- Fast and precise work
- Coaxial distance regulation
- Measurement precision at 15 μm
- 750 Hz scanning rate



Expandable!

The welding capabilities can be further improved with the autofocus system. This optional expansion allows automated adaptation of the working distance during welding. This automatically corrects for small shape deviations, allowing consistent weld seam quality. 360° rotating optics and telescoping extension are additional optional expansions that make the **ECO Laser** from O.R. Lasertechnology GmbH an even more efficient laser welding.



Innovative display!

The laser system is intuitively operated via a 5" touchscreen display. All important parameters are clearly arranged, and the most important functions can be reached with single finger touches. In addition, all technical parameters can be stored and reloaded again when needed.

Technical data

| Laser type | ECO 2600 | ECO 3300 | ECO 4600 |
|------------------------|--------------------|--------------------|--------------------|
| Lasertype | Nd: YAG | Nd: YAG | Nd:YAG |
| Max. mean power | 100 W | 120 W | 160 W |
| Pulse peak power | 3,5 kW | 6 kW | 7,5 kW |
| Max. pulse energy | 60 J | 70 J | 80 J |
| Pulse duration | 0,5 - 20 ms | 0,5 - 20 ms | 0,5 - 20 ms |
| Pulse frequency | 0,5 - 20 Hz | 0,5 - 20 Hz | 0,5 - 20 Hz |
| Focus diameter | 0,2 - 2,5 mm | 0,2 - 2,5 mm | 0,2 - 2,5 mm |
| Line voltage (V/Ph/Hz) | EU 240 / 1 / 50-60 | EU 400 / 3 / 50-60 | EU 400 / 3 / 50-60 |
| Line voltage (V/Ph/Hz) | US 110 / 1 / 50-60 | | |

System equipment

Laser system

- Laser resonator comprising
- Pump chamber
- Laser rod
- Cavity
- Resonator mirror
- 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
- Lamp switch
- Industry controller for setting and display of power, pulse duration, pulse frequency with external trigger via foot switch
- Capacitor bank
- Internal water-air cooling system

Processing optics

- Variable beam expansion
- LCD flash protection
- Beam deflection
- Binoculars 10 - X
- Safety glass
- Focussing lens f=100mm standard

Linear system

- 4-axis Controller
- Operation via joystick
- Traverse range Z-Axis: 400 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: 150 mm
- LED lightening
- Swiveling unit for resonator for the motor-controlled welding of large molds
- Inert gas supply directly controlled via magnetic valve

Dimensions and weight

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

References ..which speak for themselves!

SIEMENS



BOSCH



DR. SCHNEIDER
KUNSTSTOFFWERKE GMBH



General Electrics

TRW

GEBERIT

FOSTAG
the key to precision in moulds

hotec



Kronacher Kunststoffwerk GmbH

MEPLA WÄLFIT
Feel the motion!



hager

GÖDING +PARTNER



...and many others

Get more information

...and visit our website www.or-laser.de





Heat Office

Germany

O.R. Lasertechnologie GmbH // Güterstrasse 7 // 64807 Dieburg
Tel.: +49 (0) 6071 - 209 89 0 // Fax: +49 (0) 6071 - 209 89 99
www.or-laser.de // info@or-laser.de

Branch

USA

O.R. Lasertechnology Inc. // 1420 Howard Street // Elk Grove Village, IL 60007
Tel.: +1 847-593-5711 // Fax: +1 847-593-5752
www.or-laser.com // sales@or-laser.com

Israel

Laser-Tech 3000 LTD. // Hacharoschet Street 35 // 21651 Karmiel
Tel.: +972 (0) 58 380 468 // www.or-laser.de // info@or-laser.de

Turkey

OR LAZER Kaynak Makinaları Tic. Ltd. Şti
İkitelli O.S.B İpkas San. Sit. 9/A Blok No:24 // İkitelli K. Çekmece – İstanbul 34000
Tel: +90 (0) 212 671 83 30 // Fax: +90 (0) 212 671 84 39
www.orlazer.com.tr // info@orlazer.com.tr

India

O.R. LASER TECHNOLOGIE INDIA P LTD. // Regd Office: #1 Dhruva Tara // 241
Dr.Rajendra Prasad Road Tatabad Coimbatore – 641 012
Tel.: 0422- 2493 786 // 4377 909
www.or-laser.com // info@or-laser.com

Romania

OR Laser Romania // Strada Baciului 2-4 // 3400 Cluj-Napoca
Tel.: +40 (0)264 436 180 // Fax: +40 (0)264 436 181
www.or-laser.de // info@or-laser.de

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