



iQLASER



Fast and economical

On-site repair welding

The new laser welding

Flexibility pays off

With the IQ Laser, OR Laser presents a laser welding system which sets new standards in repair welding. The experience gained by our customers in practice, in addition to several years of research and development, have been incorporated into the construction of this mobile laser system.

The IQ laser is compact, quickly ready for operation, precise, and combines the highest technical demands with practice-oriented ease of operation and enables repair welding „on the spot“.

Save time and money

OR Laser has always been an ideal partner if you are looking for economic efficiency and flexibility in tool and mold making. The new IQ laser is a ready-to-operate complete solution which can result in enormous savings for any company.

In future, expensive transport costs and long downtimes can be avoided by carrying out repair work on your tools at the jobsite, at any time. This means that the IQ laser saves time and money even with low usage.

IQ Laser: ready to operate any time, any place.

The IQ laser was specially developed to carry out localised smaller repairs on site, for example on injection molding machines. The 5 m long glass fibre cable makes it possible to reach any location on larger moldings and components. Even precision components such as turbines, medical components and rollers can be quickly repaired without complications. There are also no limits on the materials: aluminium, steel, and copper alloys can also be processed by the IQ laser without problems. The 10 inch LCD display ensures an excellent overview and guarantees safe and precise welding.

**The Taskforce
for repair welding**



Touchit

...one click for everything.

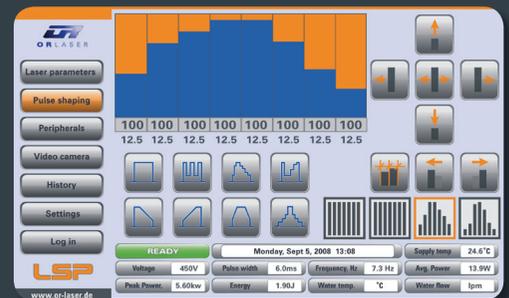
iQLASER



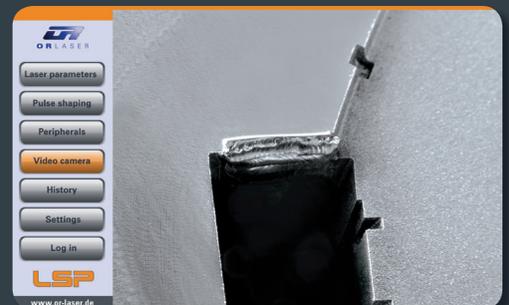
Software and control using the touchscreen

Operation of the laser system takes place intuitively using a colour 10 inch touchscreen display. All the important functions can be reached with just a few clicks. In addition to direct input of technological data such as laser power, pulse duration and others, you can also access data which has already been saved. If you have discovered new technological data for your specific process, it is also possible to save these.

Programming the ideal settings



Welding with the LCD display



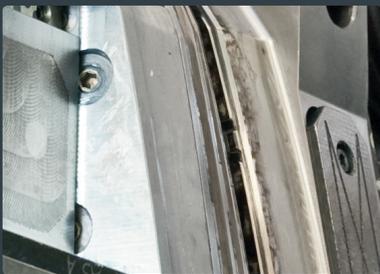
Feel it

...perceptibly simple repairs!

Injection molding machine



The mold to be welded



Simple, safe and precise welding ...



...using the LCD display.



In Line Laser Repair

Simply weld on the spot, job done. The process is ready to start again once you have carried out inspection and postworking.

IN LINE LASER REPAIR

OR Laser presents an innovative concept with **In Line Laser Repair**.
Your benefits: the component to be repaired no longer needs to be removed.



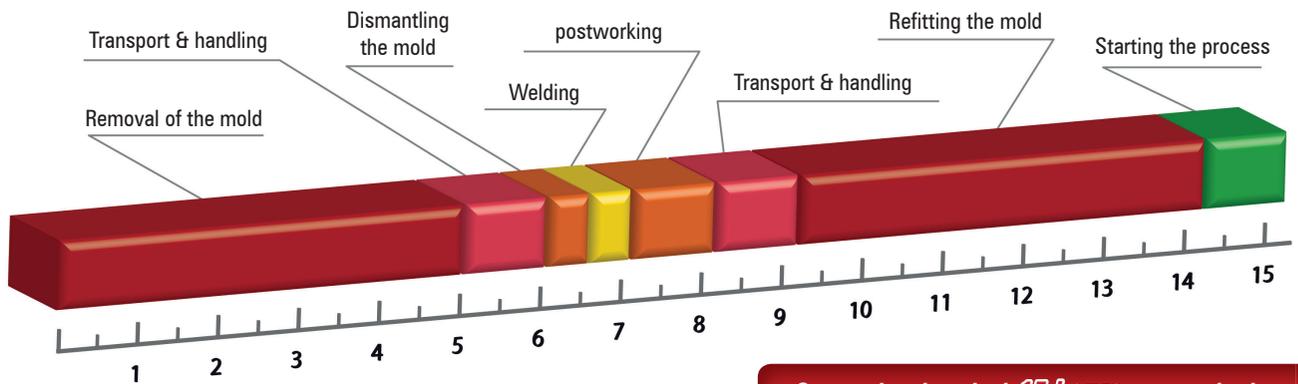
iQLASER vs. standard repair

Time and cost example for a 10t injection mold

Conventional repair methods

In our example, a 10 t injection mold needs to be welded. The conventional operations required are very costly: around 5 hours are required to remove the mold, transport and handling to the workshop takes a further 1 hour. It then takes half an hour to dismantle the mold and remove any inserts, another half-hour to carry out the welding and 1 hour for the die-spotting presses and post-work. Then the same again,

in reversed order: 1 hour for handling and transport, then 5 hours for refitting. On top of all this, another 1 hour is required to restart the process. This makes a total of 15 hours, and on top of this you have to cope with downtime for the injection molding machine plus the transport costs etc.

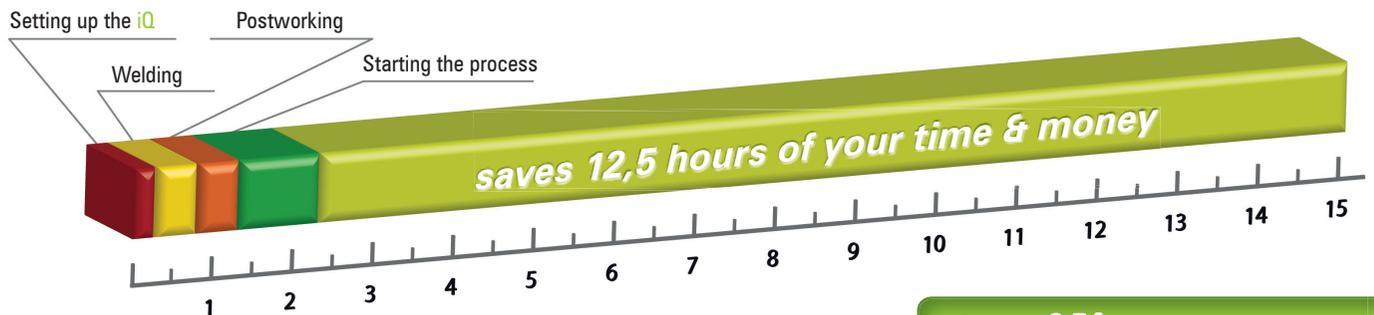


Conventional method: 15 hours are required.

Repairs using the IQ Laser

This is how quickly and simply repairs can be made using the IQ laser. Setting up the laser around 20 minutes, welding operations half an hour, postworking half an hour and

1 hour to restart the process. This makes a total of 2.5 hours. The injection molding machine downtime is considerably reduced, and further costs are avoided.



iQ-Laser: 2,5 hours are required.

The result

When making a direct comparison between the IQ laser and standard repairs, the clear winner is the IQ laser system in almost all categories. The welding quality is identical for both methods. The rest of the points are clearly awarded to the IQ laser system.

Technical data

- Lasertyp:** Nd: YAG // max. average power 55 W // pulse peak power 9 kW // max. pulse energy 80 J // pulse duration 0,2 - 20 ms // Pulse frequency 1,0 - 20 Hz // focus diameter 0,4 - 0,8 mm // main voltage (V/Hz) 230 / 50
- Laser system:** Laser resonator including resonator mechanics · Laser rod · Cavity · Resonator mirror · Safety shutter · Beam expander Mains supply including mains fuse · Mains isolator · Emergency stop switch · Motor protection switch · Low-voltage power supply 24 VDC · Interface with hardware monitoring function · Light switch · Industrial controller for settings and power display, Pulse duration, pulse repetition frequency with external trigger via foot switch · C-Bank · Internal water-air cooling system
- Machining optics:** Variable beam expander · Beam deflector · Safety glass · LCD glare protection · 10 X binoculars · Focusing lens
- Dimensions and weight:** width 420 mm x height 500 mm x length 636 mm // **Weight:** 40 kg net



Head 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

Partners **EUROPE** Germany // France // Italy // Switzerland // Czech Republic // UK // Spain // Austria // Benelux //

Poland // Portugal // Russia // Slovakia // Slovenia // Serbia // Hungary

ASIA Malaysia // Hong Kong // Thailand // Singapore // Japan // South Korea // India // China

MITTLERER OSTEN United Arab Emirates

AFRICA South Africa

CENTRAL & SOUTH AMERICA Argentina // Brazil // Mexico // Columbia

OZEANIA Australia // New Zealand