

LWS 080-RT - Flexible manufacturing with standard production cell

**Autonomous production cell
with rotary table**

**Custom specific axis
modules in portal or
flatbed design. Up to 5 NC
axes with step motors and
ball screws**

**Alu profile
construction
Laser safety
housing**

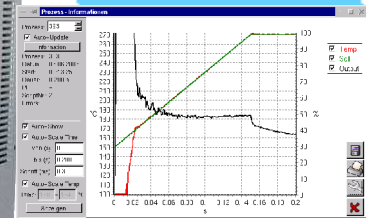
**Rotary indexing
unit with two
segments, optional
with additional
drives for tool
handling**

**Ethernet connection
and remote access
via internet**

**Laser soldering with proess times down to 1s
Laser plastic welding**

**Powerful software tools for quality
assurance during production:**

- LASCON ® Quality control for the laser process
- Video monitoring with LASCON ® Camera Manager
- Flexible CNC Programming Soft-PLC



LWS080-RT

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Specifications LWS100:

- Structure is free-standing
- Access from the front
- Construction with alumina profiles
- Turn table in combination with lifting door
- Forced shutdown of laser system when opening lifting door by safety switch
- Stable base frame as option
- Internal cabinet is illuminated
- Working height of mounting plate about 76cm
- ESD sensitive parts with potential compensation
- Integrated Safety PLC for secure process management
- Diode laser up to 350 watt light output
- Laser heads with integrated camera and pyrometer
- Unique laser process controller
- With integrated LASCON® Quality control
- Video surveillance of the laser process
- Flexible CNC Programming with Soft-PLC
- Weight approx 250kg
- Foot print only 1,4 m x 0,9 m
- Power supply: 230VAC, 50/60Hz, fuse with 16A



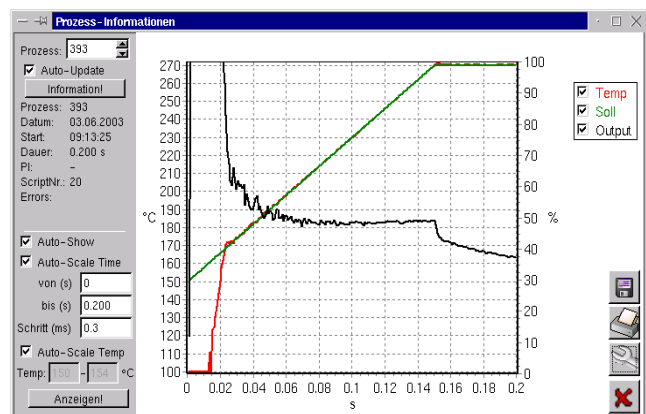
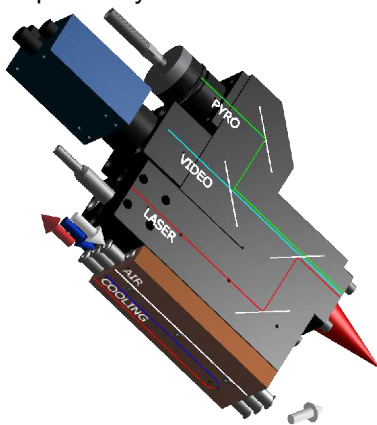
Diode lasers:

For laser soldering and laser welding plastic we offer fiber-coupled diode lasers with up to 350W light output. The typical lifetime of the laser diode is 20.000 hours.



Laser heads and laser control unit:

At the end of the optical fiber is a laser head. There a pyrometer and a video camera are projected into the beam path of the laser. The pyrometer measures 10,000 times per second the temperature in the laser focus. The unique LASCON controller steers the diode laser within milliseconds to the desired temperature. It stores up to 500,000 laser processes and monitors all processes in real time based on pre-defined parameters. The parameters can be stored with a simple programming language in a process script. The LASCON controller can store up to 255 scripts and activate within milliseconds. Differs the laser process from desired parameters, the LASCON controller generates an error control signal that can be interpreted by a PLC.



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Examples of gantry systems:

Laser Plastic Welding
Circular welding seam on a
cartridge



Laser soldering
Various soldering jigs are placed
for different products in the flatbed
Laser soldering for cable assembly
Selective laser soldering of metal
blanks
Approximately 40 000 units are
soldered per month



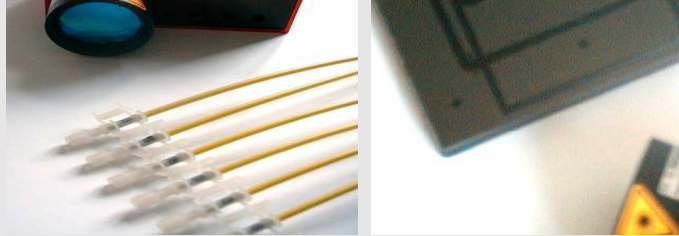
Laser soldering of microelectronic
parts
Tool carrier with 15 parts is placed
on rotary table
A pre-heater heats the carrier to
130 ° C
The soldering station executes 60
joints within two minutes
A cooling station brings the carrier
temperature down again.



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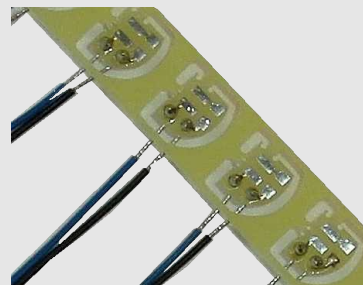
Applications :

Laser plastic welding



Laser soldering

PCB, electronic parts



Laser soldering
Flex foil

