

Micro welding with lasers with up to 7 axes



With its new CNC laser machining centre, Schüssler Laser (a brand of Schüssler Technik GmbH & Co. KG in Pforzheim) is opening up new perspectives in the field of micro laser welding, and with up to 7 axes. Our system's new compact design offers you highly flexible application options.

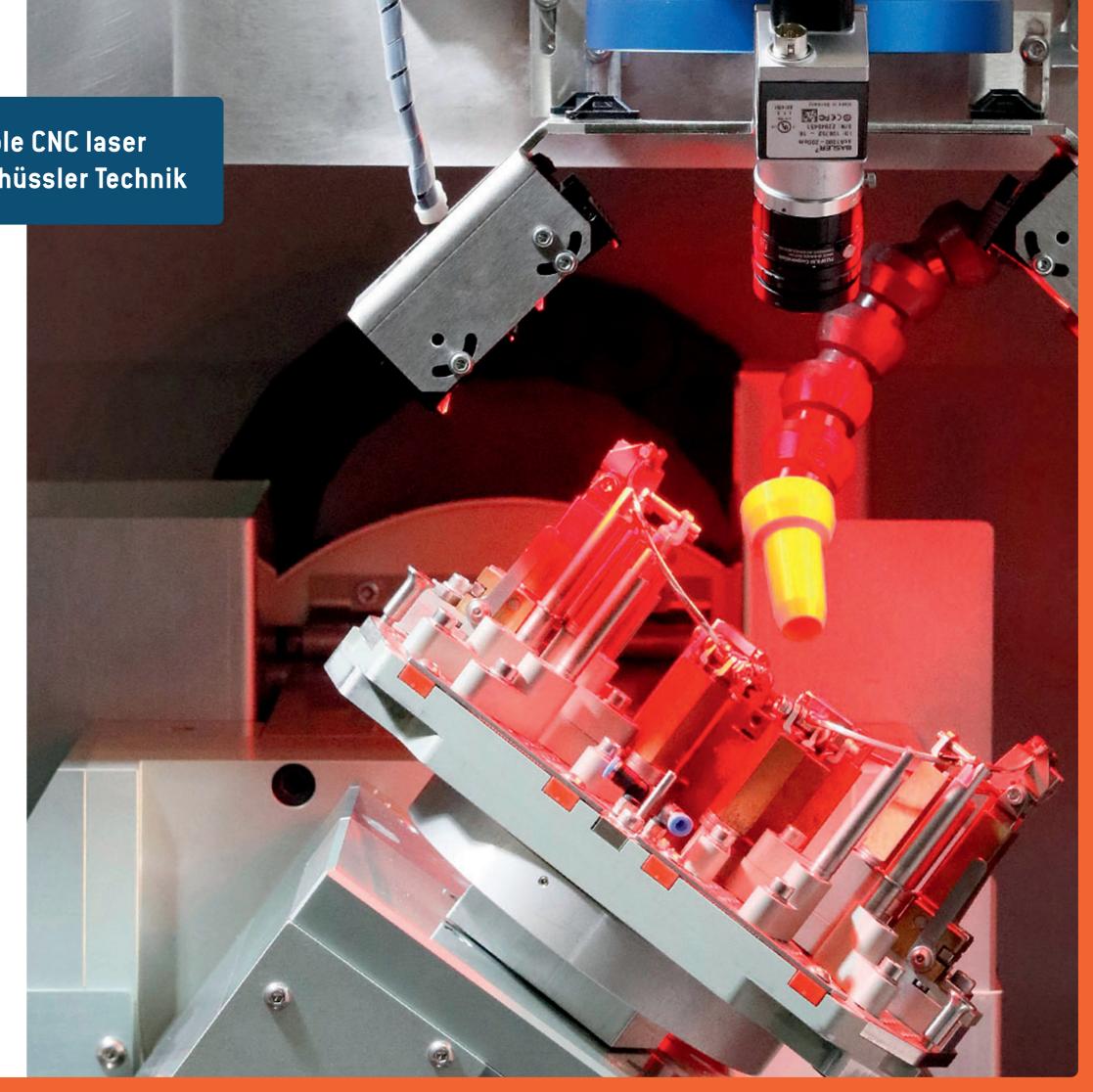
# High precision micro laser welding

Our laser welding system uses QCW fibre lasers with a power output from 150 watts. The perfect interplay of the interior observation camera, the laser's camera-supported tracking, and the direct drives developed by Schüssler Technik, provide you with high-precision micro-laser welding results.

# Industry 4.0

Of course, our CNC laser processing centre has also been prepared with respect to the subject of "Industry 4.0" and can be seamlessly adapted to your production process.





# Freeform machining with up to 7 axes

# The highlights of our CNC laser machining centre

- ¬ Freeform machining via 5-axis kinematics
- ¬ Axis of rotation with hollow shaft
- Maintenance-free direct drives
- High precision due to proven technology
- ¬ Use of lasers of varying outputs
- ¬ Automatic position detection of the workpieces via a camera in the beam path
- ¬ Automated loading opening for quick loading and unloading

- ¬ CAD/CAM system
- ¬ Optionally with proven galvo scanner
- ¬ Media supply prepared on workpiece carrier (compressed air, vacuum, process gas)
- ¬ Uncomplicated application support from our application technicians on site or via
- ¬ Made in Germany on site in Pforzheim



# Integrated camera

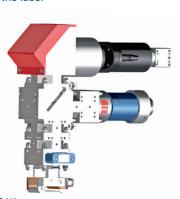
An integrated camera in the beam path enables automatic weld seam position detection. This results in correction of the workpiece position during the laser welding process.



# Laser system:

- ¬ QCW laser, 150/1500 W
- ¬ Outstanding service life of the pump diodes
- ¬ Maintenance-free air-cooled structure
- ¬ Wavelength: 1055 1070 nm
- ¬ Pulse frequency: 0 − 5 kHz (CW) ¬ Lens focus: 160 mm

- ¬ Position detection of the machining workpieces, automatic position (XY) and angular deviation
- ¬ Image processing computer with camera, b/w
- ¬ Light controller for intensity control of the lighting from the image processing software
- ¬ Image processing software package including communication with the laser

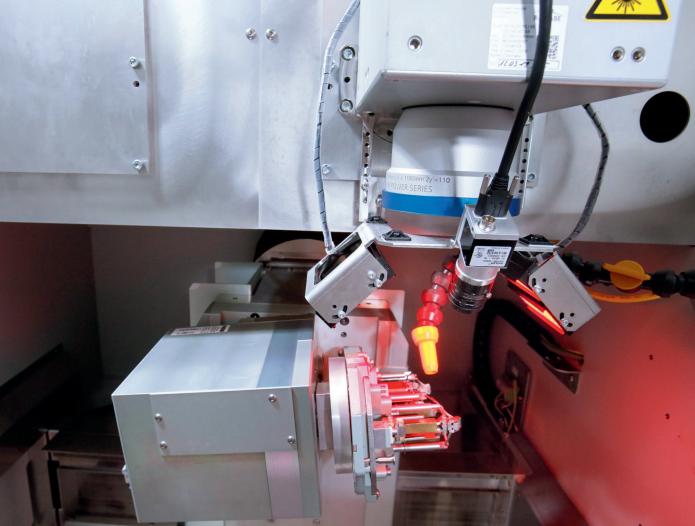


# Fixed optics

#### Laser system:

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#### **Options**

#### Hardware:

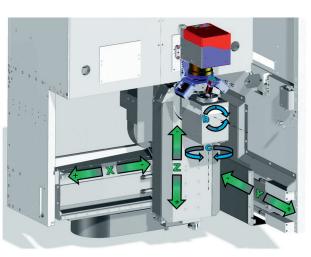
- ¬ Workpiece carrier with media supply
- (gas, compressed air, vacuum)
- ¬ Rotary axis with hollow shaft without clamping cylinder
- ¬ Axis of rotation with hollow shaft and clamping cylinder
- ¬ Axis of rotation with clamping cylinder
- ¬ Vacuum generator
- ¬ Interior observation camera
- ¬ Workpiece holder on request
- ¬ Manual chuck adapter
- ¬ Laser systems up to 6 kW and with various
- wavelengths on request

#### Software:

- ¬ OPC UA interface
- ¬ 3D freeform laser welding using a CAD/CAM software solution from SolidCAM

#### Service:

- ¬ User training
- ¬ Software training
- ¬ Commissioning and instruction on site



#### Technical data

Laser type:

Laser output:

Dimensions (W x D x H): approx. 1600 x 1300 x 2305 mm approx. 1500 kg Net weight: approx. 9 m<sup>2</sup> Space requirement: 500/300/200 mm X-/Y-/ Z-axis: +/- 0.01 mm Repeatability: approx. 15 kg Max. workpiece weight: 400 V 3 Ph. 50/60 Hz (32 A) Electrical connection: 6 – 7 bar, 200 l/min Compressed air:

Yb fibre laser

up to 6000 W possible

For fast and precise joining via pinpoint micro-laser ¬ Medical technology welding in the smallest of spaces, our machining ¬ Dental technology centre is used in the following industries:

High-tech for many industries

- ¬ Sensor manufacturing
- ¬ Electronics manufacturing
- ¬ Contact scanning
- ¬ E-mobility
- ¬ Battery technology
- ¬ Jewellery machining
- Precision engineering







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# Our sales partner:

# Your competent partner for a secure connection



#### Schüssler Technik GmbH & Co. KG

Im Altgefäll 10 · D-75181 Pforzheim T +49 7231 96160 · F +49 7231 961616 vertrieb@schuessler-technik.de www.schuessler-technik.de www.schuessler-laser.de