

**Shape.
Join.
Look ahead.**

Flexible Laser Solutions

***Modular and flexible
laser welding and
cutting cells***

weil 
technology
A brand of weil engineering gmbh

*Machinery and equipment
for innovative forming,
cutting and joining systems*

Sheet metal has immense design potential.

Our product range:

Room for flexibility - Machinery and equipment for innovative forming, cutting and joining systems

Flexmaster - Economical production of tubes - single station welder for the highest flexibility

Ecostar - Freely programmable machines for the fully automated processing of round and oval tubes

Flexistar - Flexible production unit for the manufacture of thin-walled quality tubes

Tube end processing - Tube end processing with flexible tube manufacturing systems

Coiljoiner - Laser coil joining machine for the production of high-quality coil-to-coil weld joints

Sheet metal, as a working material, provides huge design potential. The potential for saving production costs and resources makes sheet metal an attractive material.

In addition to this lead times and the amount of work involved in project planning and assembly can be drastically reduced when working with sheet metal.

Pre-formed sheet metal parts have already replaced the cast metal parts of the past. Now they can also be cut and welded using a laser beam with minimum distortion.

In order to fully optimize the advantages of laser cutting and welding, it is important to adapt component design to meet the requirements of laser cutting and welding (i.e. ensure the design is suitable for laser applications).

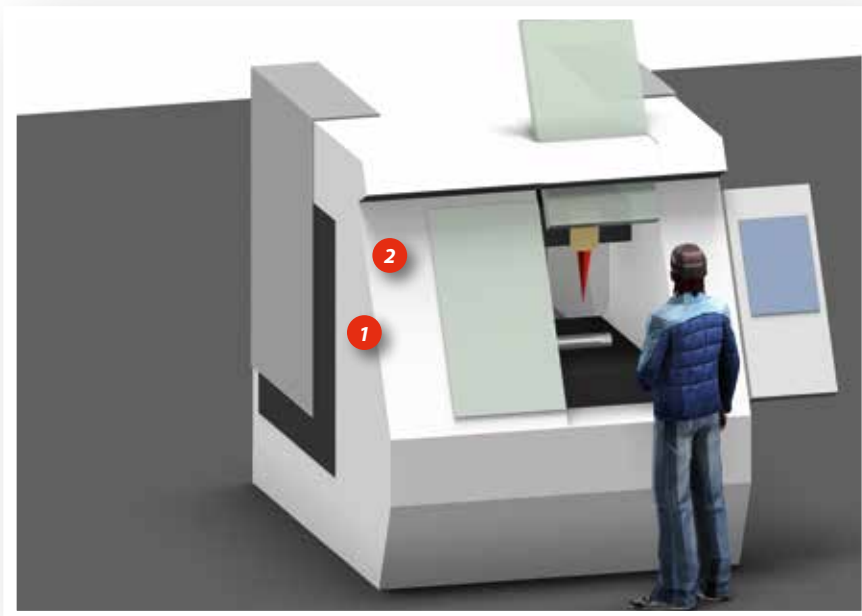


We offer

Laser modules for production processes using sheet metal

LWC

Laser Welding Cell

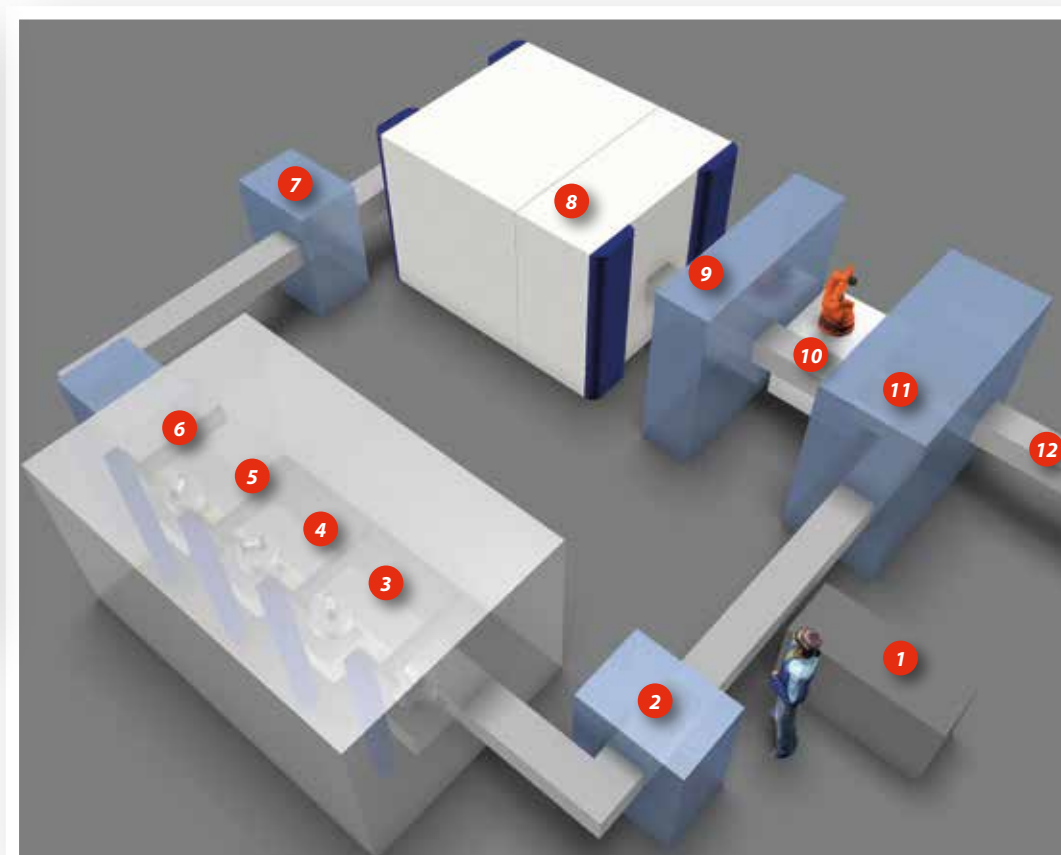


LWC (Sample configuration)

1. Working space with clamping device
2. Work piece

LWM

Laser Welding Module



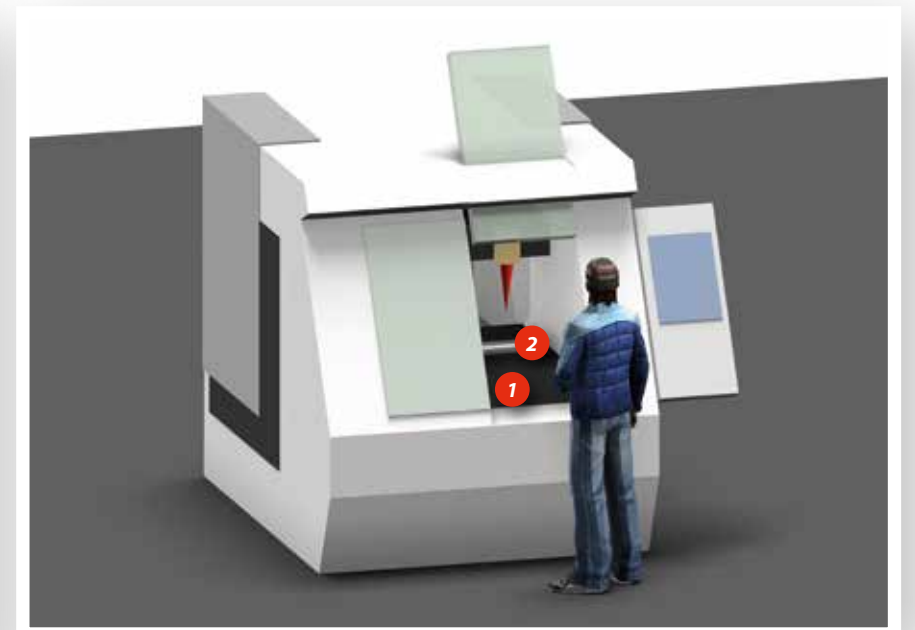
LWM (Sample configuration)

1. Material feed
2. Assembly component 1+2
3. LWM + Welding component 1+2
4. LWM + Welding component 1+2+3
5. LWM + Welding component 1+2+3+4
6. LWM + Welding component 1+2+3+4+5

7. Cooling track
8. LWM + Welding component 1+2+3+4+5+6
9. Verification station 1
10. Assembly component 7
11. Labeling
12. Conveyor belt

FLC

Flexible Laser Cell



FLC (Sample configuration)

1. Working space with clamping device
2. Work piece

- **Multi-Axis Laser Welding Systems**
- **Rotary Table Laser Welding Systems**

- **Portal laser cell**
 - in a 1-Station-
 - 2-Station configuration
- **Material feed from the**
 - Coil
 - Sheet

LWC Multi-Axis Laser Welding Cells

with intelligent tool concepts for improved productivity, process safety and precision

The combination of the four processing optics axes with one or more work piece axes makes 3D production possible. As a result, this machine can perform many highly precise welding and cutting operations.

Component design and clamping concepts will be discussed in close cooperation with the client to ensure that the component design is suitable for laser applications.

Technical Data

	LWC 500	LWC 500 Duo
Construction material	Steel	
Working space 2D	500 x 500 mm	(2x) 500 x 500 mm
Working space 3D	150 x 150 x 150 mm	150 x 150 x 150 mm
Number of operators	1	1-2
Number of welding stations	1	1-2
Automated loading and unloading	Upon request	Upon request
Integration of further processes	Upon request	Upon request
Drives x / y Axes z Axis	Spindle and rack and pinion drive with Siemens servo motors	

Subject to technical modifications



LWC Rotary Table Laser Welding Cells

Work efficiently with a multi-station rotary table machine

We develop multi-station rotary table laser welding cells dependent on the complexity of the component to be manufactured and tailored to customer requirements.

Tool design and development is one of the core competencies of weil technology along with forming, cutting and joining techniques.

We provide our customers with profitable process solutions by combining our LWC with suitable clamping tools and automated loading and unloading systems.

Technical Data

	LWC 300 with 1x loading/unloading station + 1x welding station	LWC 500 with 1x loading and 1x unloading station + 2x welding stations
Construction material	Steel	
Working space 2D	300 x 300 mm	500 x 150 mm
Working space 3D	100 x 100 x 100 mm	150 x 50 x 100 mm
Number of operators	1	1-2
Number of welding stations	1	1-2
Automated loading and unloading	-	yes
Integration of further processes	-	yes
Drives x / y Axes z Axis	Spindle and rack and pinion drive with Siemens servo motors	

Subject to technical modifications



LWM Modular Laser Cells

Modular production lines for assembly, welding and verification processes

Dividing the production process into individual steps allows for the use of standardised modules for work piece infeed and laser processing. Interlinking different modules using a work piece transport system allows parallel production in multiple modules to take place.

The production of complex subassemblies is possible because every module can be used and configured "individually".

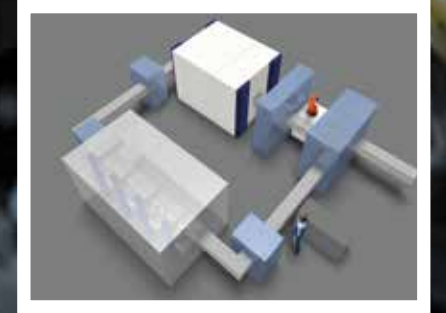
The clamping tools are light and can be quickly interchanged, which enables the flexible production of parts.

The module system not only makes provision for using more than one optics per module, but also allows for picking up parts from automated processing stations. Leak testing stations, laser labeling stations and pallet systems can be easily integrated into the modules using the work piece transport system.

Technical Data

	LWM
Construction material	Steel
Working space	Part dependent 150 x 150 x 150 mm
Number of welding stations	Part dependent
Automated loading and unloading	yes
Integration of further processes	yes

Subject to technical modifications



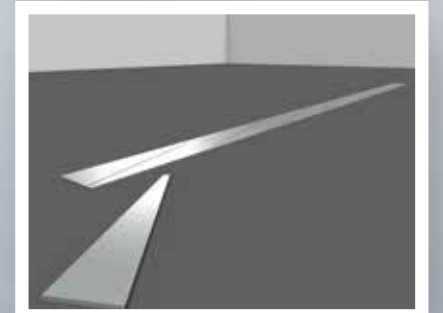
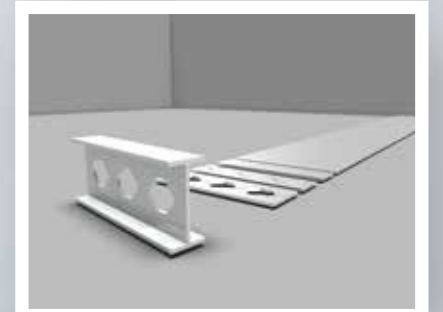
FLC

Flexible Laser Cells

A perfect foundation for cutting and welding

The FLC series of laser cells forms the foundation for laser cutting and welding applications tailored for the processing of piece goods and very small subassemblies and from a continuous feed from sheet metal coils.

A granite block is used in the machine, because granite is not affected by temperature and vibration fluctuations. This guarantees the highest level of precision possible.



Technical Data

	FLC 505	FLC 1080
Construction material	Portal (granite bed)	Portal (granite bed)
Working space	500 x 500 x 150 mm (x, y, z)	1000 x 1000 x 150 mm (x, y, z)
Drives x / y Axes z Axis	Synchronous linear motor Spindle drive with servo motors	
Traverse speed	120 m / min	120 m / min
Positioning accuracy	± 0,01 mm	± 0,01 mm
Beam source	Customer specific	Customer specific
Control system	Siemens 840 D	Siemens 840 D

Subject to technical modifications.

weil technology is a weil engineering gmbh brand and incorporates different enterprises, which are market and technology leaders in the field of sheet metal processing. Machines and systems for innovative forming, cutting and joining techniques have been designed and manufactured for the global market within the group since 1987.

Our turn-key and fully automated production lines are primarily found in the automotive sector and in the HVAC, housing and container construction and electrical industries. Each company within *weil technology* focuses on its core competency and together we are able to offer our clients a large pallet of customized system solutions. Our focus is on flexible, rational and efficient production while making use of innovative roll-forming, stamping, laser welding and laser cutting technologies.

weil technology clients value the fact that our system concepts are efficient, reliable and consistently reproduce high quality parts:
Shape. Join. Look ahead.

Service

Machines do not take notice of deadlines or production schedules and we realize that production downtimes are frustrating and unprofitable. Our service technicians understand the consequences of production downtimes and are on-call to assist you when and where necessary.

Not only are our machines custom made; our service support is also tailored to our clients needs. Clients choose from various service modules, which are then packaged together into individual service support packages.

Hotline

Our clients have the opportunity to make use of our extended telephone hotline, which is available outside our office hours (Monday to Friday from 7:00 to 16:30). The hotline is available weekdays until 22:00 CET, excluding public holidays.

Teleservice

Our remote access capability allows our technicians to react quickly to our client's needs by logging into their system to diagnose problems and implement solutions. Based on our many years of experience, this not only significantly reduces the need for on-site service visits, but also ensures that production downtimes are kept to a minimum. This enables our clients to save time, resources and money.

Training

We offer a comprehensive training programme, which can be customised for your individual needs and to suit any budget.

Preventative Maintenance

Preventative maintenance has proven itself an important component of our service offering over the years, because it reduces the cost of repairs on site drastically, while increasing the productivity of machines.

Product Development Support

Our competent specialists are available to assist you with any product development or quality problems or questions.

Spare Parts

Your spare parts will be delivered as quickly and cost effectively as possible.

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Muellheim
Plant 2*



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