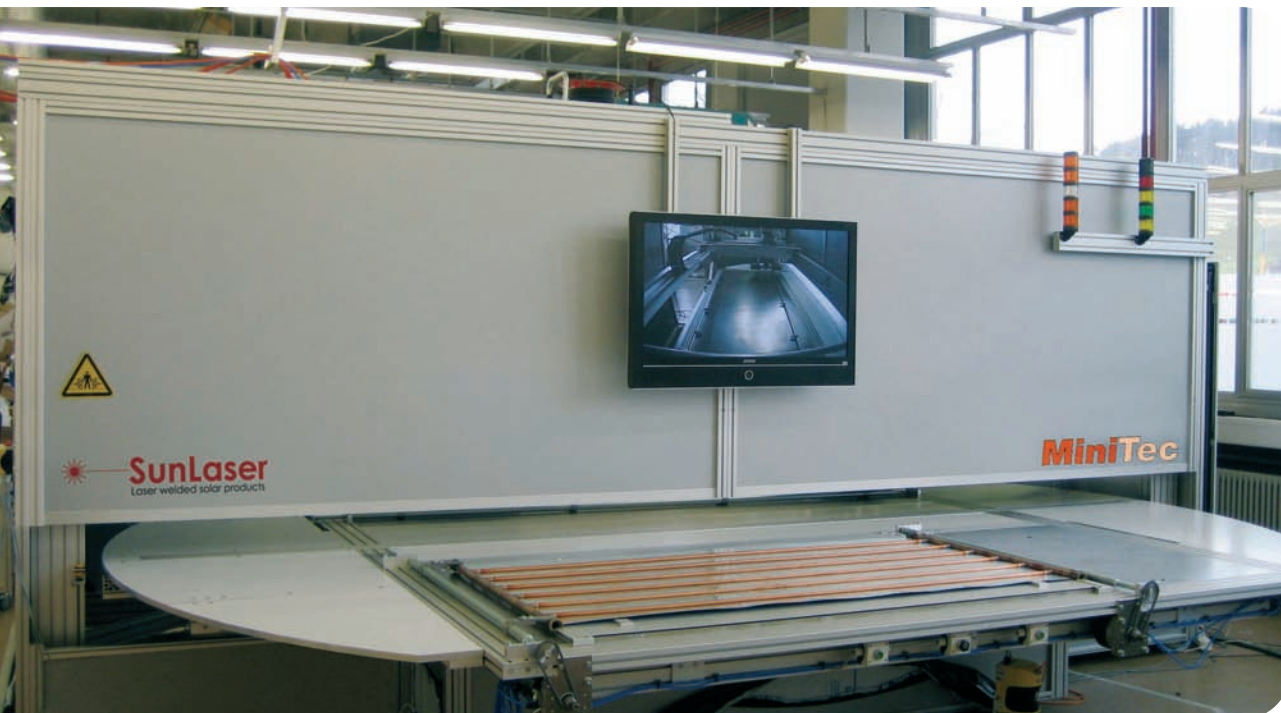


*The new SunLaser[®] laser welding system
from MiniTec (Schweiz) AG fabricates in minute intervals!*

fast - flexible - reliable



*Decide on the laser welding from solar thermal absorbers,
profit from our comprehensive experience....*

Laser welding technology in solar technology is the most economical and future-oriented technology for industrial mass production of solar thermal absorbers. The laser welding system (LSA) of the newest generation of SunLaser and MiniTec always finds extensive application in the production of full area absorbers for thermal flat collectors.

Through our worldwide leadership in laser welding technology, our customers are in the position to make high-quality and long lasting joints with the best heat transfer. Along with very high process reliability, our LSA also exhibits enormous flexibility, which allows a wide variety of customer-specific products with pipe diameters between 8 and 22 mm to be set up and welded within a short period of time and without a lot of expense. Through the welding of aluminium/copper absorbers, the LSA provides our customers with efficient, reliable and economical absorber production even in multiple shift operation.

The LSA from SunLaser and MiniTec is a fully automatic, installed system according to the newest state of the art with modern CNC control. This also allows custom configuration. After a short training, your qualified personnel are able to programme the controls themselves and configure them to your own specifications. This reduces unnecessary costs and time. MiniTec offers the customer turnkey projects with application guarantee, as well as first-class service, including remote service and online support

Technical data of the LSA::

Maximum absorber size	1250 x 2500 mm
Pipe size (outside diameter)	from 8 mm to 22 mm
Welding speed	up to 25 m/min
Cycle time	of 60s to 120s for 2 qm absorber
Production reliability of Materials	highest precision (< 2‰ scrap in continuous production operation) Cu/Cu; Cu/Al, Al/Al; Steel/Steel
Working environment	Laser class 1
Absorber materials	in all commercially available products (Cu and AL) can be processed
Absorber type	full surface / fins
Canework	harps, meander and meander with collecting tube
Operation	on graphical user interface with pre-programmed masks

More options:

- Test equipment for testing welding seam strength
- Automatic change to welding of 2 different pipe diameters.
- Optical image acquisition for failure analysis
- Customer specific options

Laser welding - low material stress:

A pulsing laser melts and alloys small areas of pipe and sheet. The precise laser beam heats the absorber very regulated only on the weld spot; this keeps the heat influenced zone very small. The absorber layer remains intact.

Laser welding - Advantages over other welding processes:

- High process reliability, increased production speed and efficiency
- No emissions and very small wear during production
- Higher joining strength of the welding seam as with conventional methods
- No damage to the selective layer of the absorber
- Simple integration in automated production possible

Reference:

We are one of the leading developers and manufacturers of laser welding systems for the production of thermal solar absorbers. Our satisfied customers are found globally and are witness to our quality and our service. A total of twelve systems have been installed globally, which produce absorbers around the clock.

**Vertrieb**

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Herstellung und Schulung

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