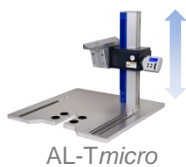


Laser System AL-Tmicro

The laser welding system for finest welding seams

Whenever it comes to very fine welds, the device combination AL-Tmicro + ALmicro is ideal.



AL-Tmicro

The height-adjustable AL-Tmicro positioning system is used to position the laser beam with millimeter precision above the work piece.



ALmicro

The ALmicro laser with its outstanding beam quality is available with a laser power of 50 or 100 W. The micro welding function allows reducing the welding spot diameter to 0.05 mm. The 55x magnification makes it possible to weld structures with dimensions < 50 µm.



Components of the laser system


Positioning system AL-Tmicro

- Height-adjustable Z-column
- Display to control the height

Laser ALmicro

- Available with 50 or 100 W laser power
- Supply unit with supply hoses
- Laser beam source with Leica-observation objective, Coaxial illumination, UV ray shield
- Laser control with large display (available with external display on request)
- Foot switch
- Shielding gas supply

Options

- Micromanipulator to position filigree work pieces 
- Ergo wedge to adjust the microscope attachment perfectly to your own particular viewing height, for an ergonomic working position
- Camera system to display the welding process on an external monitor
- Cross-hair generator to display a cross hair on the external monitor
- Cross-hair synchro adapter to weld with 55x magnification
- Regulated coolant supply
- Connections for external cooling

Technical Data

External dimensions	Base plate AL-T <i>micro</i>	600 x 600 mm	
	Supply unit AL <i>micro</i> (L x W x H)	820 x 400 x 910 mm	
	Laser beam source AL <i>micro</i> (L x Ø)	AL 50 <i>micro</i> : 725 x 120 mm AL 100 <i>micro</i> : 825 x 120 mm	
Weight	AL-T <i>micro</i>	Approx. 30 kg	
	Supply unit AL <i>micro</i>	Approx. 100 kg	
	Laser beam source AL <i>micro</i>	Approx. 14 kg	
Electrical connection	1-phase	200- 240 V, 50-60 Hz, 16 A, N/GND	
Laser	Laser crystal	Nd:YAG, pumped by flash lamp	
	Wavelength	1064 nm (invisible, near infrared)	
	Laser protection class	4 - <i>Safety measures required!</i>	
	Average power	AL 50 <i>micro</i> : 50 W AL 100 <i>micro</i> : 100 W	
	Pulse energy	AL 50 <i>micro</i> : 50 J AL 100 <i>micro</i> : 70 J	
	Peak pulse power	AL 50 <i>micro</i> : 5 kW AL 100 <i>micro</i> : 7 kW	
	Pulse duration	0.5 ms – 20 ms	
	Pulse frequency	Singe pulse - 50 Hz	
	Pulse shapes	pre-defined pulse shapes + 3 configurable pulse shapes	
	Welding	Welding spot Ø	0.2 – 2.0 mm, with micro welding function: 0.05 – 0,2 mm
		Observation objective	Leica Stereo microscope attach- ment with eyepieces for eyeglass wearers Standard: 10x ocular Optional: 25x ocular Visual field Ø 16 mm
		Focal distance	Standard: 120 mm, Optional: 90 mm
		Shielding gas supply	Included

