

ALO 100 | ALO 120

LASER WELDING SYSTEM FOR MANUAL WELDING

If you want to weld long or bulky parts quickly, manually and flexibly, if you are looking for a simple load and want to work in the shielded laser safety area, the ALO is the ideal device for you.

The working chamber can be loaded via various, laser-safe openings: Through lateral slots you can position longer components in the processing room and then weld them in a laser-safe manner. Another passage at the bottom of the working chamber also allows loading from below. At the front, a large opening ensures easy access to the spacious welding chamber. The laser-proof leather curtain offers laser protection so that the ALO can be placed in any work environment.

The armrest is extremely comfortable - thus ensuring relaxed work. Again, we have paid much attention to a good ergonomics.

With the ALO 100 we offer 100 W output power and 25 Hz pulse frequency available and with the ALO 120 even 120 W and 50 Hz, so you can use this model additionally for laser polishing.

The possibility to connect an external cooling system allows high frequency operation over a long period of time.



ALO 100/120

For whom did we develop the laser system?

For manufacturers of sensors and micro components, for goldsmiths and dental laboratories and for anyone who wants to weld and polish small components manually quickly and easily.

Options

- Cooling connection
- Micro welding
- Rotary axis

Technical data

	ALO 100	ALO 120
LASER		
Laser type	Nd:YAG	Nd:YAG
Average power	100 W	120 W
Wave length	1064 nm	1064 nm
Peak pulse power	7 kW	10 kW
Pulse energy	60 J	95 J
Pulse frequency	Single pulse - 25 Hz	Single pulse - 50 Hz
Pulse duration	0.5–20 ms	0.5–20 ms
Welding spot Ø	0.2–2.0 mm	0.2–2.0 mm
Focusing objective	120 mm	120 mm
Focus setting	Integrated, motorized	
Optical viewing system	Leica microscope attachment with eyepieces for glasses wearers, 10 ×. Optional 16 ×	
Pulse shaping	3 ready to use pulse shapes	
Programming memory	39 parameter sets	
Cooling air nozzle	Integrated	
Protection gas supply	double, one fixed and one flexible nozzle. Can be locked and adjusted individually	
Extraction	Integrated H 14	

ALO 120 micro

LASER WELDING SYSTEM FOR MANUAL WELDING

The ALO 120 micro was specially developed for fine welding applications. A micro welding function, which can be switched on and off, reduces the spot diameter to less than 0.1 mm. A good visibility during micro welding is ensured by the LED deflection tower. The optional lens with focus adjustment makes work even easier because it enables convenient and fast setup of the correct focus position.

For circular welding you can get special rotary axes with Z adjustment (pneumatic or with chuck) as well as with an XY swivel table. Further helpful accessories are e.g. a micromanipulator or a funnel for easy threading of tubes.

Loading is uncomplicated, because the working chamber can be loaded through various laser-safe openings: through side slots you insert and position long components. Another opening at the bottom of the work chamber also allows loading from below. A large opening at the front provides easy access to the spacious welding chamber. Laser protection is provided by the laser safe leather curtain, so that the ALO micro can be placed in any work environment. A welding fume extraction system is integrated.

The armrest is extremely comfortable - this ensures relaxed working. Again we have paid a great deal of attention on good ergonomics.

The control system offers an administrator level so that operators cannot change any settings if this is not desired.



This system is ideal for manufacturers of sensors and microcomponents and for anyone who wants to weld small components manually in a quick and uncomplicated way.

Technical data

ALO 120 micro	
LASER	
Laser crystal	Nd:YAG
Wave length	1064 nm
Average power	120 W
Peak pulse power	9 kW
Pulse energy	75 J
Pulse frequency	Single pulse - 50 Hz
Pulse duration	0.5-20 ms
Welding spot Ø	0.2-2.0 mm
Focusing objective	120 mm
Focus setting	integrated motoric
Optical viewing system	Leica microscope attachment with eyepieces for glasses wearers, 10 × optional 16 ×
Pulse shaping	10 fixed/10 programmable
Programming memory	> 50 parameter sets saveable
Cooling air nozzle	integrated
Protection gas supply	One fixed and one flexible protection gas nozzle, can be locked and adjusted individually
Exhaustion	integrated H 14
Display & control	SPS programmable via touch screen
WORKING CHAMBER	
W × D × H	560 × 346 × 214 mm
Workpiece height	max. 104 mm
Exhaust	integrated
EXTERNAL DIMENSION	
W × D × H	600 × 954 × 1300 mm
Weight	approx. 145 kg
EXTERNAL CONNECTIONS	
Electric connection	200-240 V / 50-60 Hz / 16 A
OPTIONS	
Cooling connection	
Rotating axis manual	
Rotating axis pneumatic	
Rotating axis RD micro	
Micromanipulator	



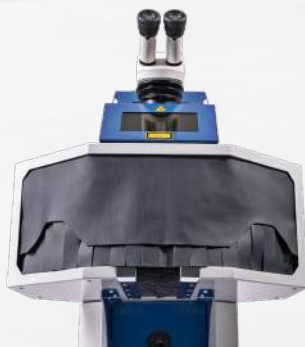
Rotating axis
manual collet chucks,
optional pneumatic



Rotating axis-RD micro
with swivel table



Micromanipulator



Working chamber ALO 120 micro
with slot

V2.1