

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.



ALPHA LASER GmbH

Junkersstraße 16

D-82178 Puchheim

Tel +49 (0)89 890237-0



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

Laser type Nd:YAG Nd:YAG Average power 100 W 120 W Wave length 1064 nm 1064nm 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 ms - 20 ms 0,5 ms - 20 ms Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glass		ALO 100	ALO 120	
Average power 100 W 120 W Wave length 1064 nm 1064nm 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 ms - 20 ms 0,5 ms - 20 ms Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glass	LASER			
Wave length 1064 nm 1064nm 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 ms - 20 ms 0,5 ms - 20 ms Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glas	Laser type	Nd:YAG	Nd:YAG	
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 ms - 20 ms 0,5 ms - 20 ms Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glas	Average power	100 W	120 W	
Pulse energy 60 J 95 J Pulse frequency Single pulse - 25 Hz Single pulse - 50 Hz Pulse duration 0,5 ms - 20 ms 0,5 ms - 20 ms Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glas	Wave length	1064 nm	1064nm	
Pulse frequency Single pulse - 25 Hz Single pulse - 50 Hz Pulse duration 0,5 ms - 20 ms 0,5 ms - 20 ms Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glas	Peak pulse power	7 kW	10 kW	
Pulse duration $0.5 \text{ ms} - 20 \text{ ms}$ $0.5 \text{ ms} - 20 \text{ ms}$ Welding spot Ø $0.2 \text{ mm} - 2.0 \text{ mm}$ $0.2 \text{ mm} - 2.0 \text{ mm}$ Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glass	Pulse energy	60 J	95 J	
Welding spot Ø 0,2 mm - 2,0 mm 0,2 mm - 2,0 mm Focus setting Integrated, motorized Leica microscope attachment with eyepieces for glas	Pulse frequency	Single pulse - 25 Hz	Single pulse - 50 Hz	
Focus setting Integrated, motorized Ontical viewing system Leica microscope attachment with eyepieces for glas	Pulse duration	0,5 ms - 20 ms	0,5 ms - 20 ms	
Ontical viewing system Leica microscope attachment with eyepieces for glas	Welding spot Ø	0,2 mm - 2,0 mm	0,2 mm - 2,0 mm	
	Focus setting	Integrated, motorized		
wedlers, 10^, Optional 10^	Optical viewing system		Leica microscope attachment with eyepieces for glasses wearers, 10×; Optional 16× $$	
Pulse shaping 3 ready to use pulse shapes	Pulse shaping	3 ready to use pulse sha	3 ready to use pulse shapes	
Programming memory 39 parameter sets	Programming memory	39 parameter sets	39 parameter sets	
Cooling air nozzle Integrated	Cooling air nozzle	Integrated	Integrated	
Protection gas supply double, one fixed and one flexible nozzle. Can be local and adjusted individually	Protection gas supply	, ,	double, one fixed and one flexible nozzle. Can be locked and adjusted individually	
Extraction Integrated H 14	Extraction	Integrated H 14	Integrated H 14	

ALPHA LASER GmbH Junkersstraße 16 D-82178 Puchheim Tel +49 (0)89 890237-0 info@alphalaser.de www.alphalaser.de