

# 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	
<b>LASER</b>	
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
<b>WORKING CHAMBER</b>	
W × D × H	560 × 346 × 214 mm
Workpiece height	max. 104 mm
Exhaust	integrated
<b>EXTERNAL DIMENSION</b>	
W × D × H	600 × 954 × 1300 mm
Weight	approx. 145 kg
<b>EXTERNAL CONNECTIONS</b>	
Electric connection	200-240 V / 50-60 Hz / 16 A
Cooling connection	
Rotating axis manual	
Rotating axis pneumatic	
Rotating axis RD micro	
Micromanipulator	
<b>OPTIONS</b>	



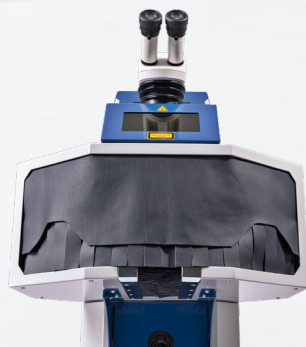
Rotating axis  
manual collet chucks,  
optional pneumatic



Rotating axis-RD micro  
with swivel table



Micromanipulator



Working chamber ALO 120 micro  
with slot

V2.1