

ALV

IT'S YOUR CHOICE



ALV

The compact ALV laser welding device with laser-proof working chamber is available with various laser outputs, sources and controls. The ALV is used in micro and deposition welding in tool and mold manufacturing, in sensor production and medical technology. The laser welding device offers a large vertical movement range and doors that open wide, so that even larger workpieces can be processed. In just a few steps, this closed system can be converted to function as an open laser system for processing larger or longer components.

The ALV has three linear movement axes, and the vertical Z axis lifts up to 50 kg. A rotary axis for processing cylindrical parts is also available. The optional WINLaserNC software additionally allows automatic welding. The system is operated through an intuitive touchscreen.

The ALV is available with a wide range of Nd:YAG or fiber laser sources. This provides laser power of 100 to 450 watts.



ALV open

TECHNICAL DATA	ALV 100	ALV 100 WINLaserNC	ALV 150	ALV 150 WINLaserNC	ALV 150 F	ALV 150 F WINLaserNC	ALV 300 F	ALV 300 F WINLaserNC
LASER								
Laser type / wave length	Nd:YAG, 1064 nm	Nd:YAG, 1064 nm	Nd:YAG, 1064 nm	Nd:YAG, 1064 nm	Fiber laser, 1070 nm	Fiber laser, 1070 nm	Fiber laser, 1070 nm	Fiber laser, 1070 nm
Average power	100 W	100 W	150 W	150 W	150 W	150 W	300 W	300 W
CW power					150 W	150 W	300 W	300 W
Peak pulse power	9 kW	9 kW	9 kW	9 kW	1.5 kW	1.5 kW	3 kW	4.5 kW
Pulse energy	75 J	75 J	75 J	75 J	15 J	15 J	30 J	30 J
Pulse duration	0.5 - 20 ms				0.2 - 50 ms or CW			
Pulse frequency	Single pulse - 50 Hz		Single pulse - 100 Hz		Single pulse - 100 Hz			
Operating modes	Pulsed				Pulsed / CW			
Welding spot Ø	0.2 - 2.0 mm With micro welding function (optional) < 100 µm				0.2 - 2.0 mm			
Focusing objective	150 mm, further according to lens data sheet							
Pulse shaping	Adjustability of power curve within a laser pulse (6 pulse types)							
Display and operation	Touchscreen. Laser parameters can also be set using a multifunctional footswitch (optional)							
OBSERVATION LENS	Leica microscope attachment with eyepieces for glasses wearers, 10x; Optional 16x							
WORKING CHAMBER								
WxDxH in mm	580 x 420 x 490							
Mounting plate (WxD) in mm	360 x 355							
workpiece weight	max. 50 kg, central load							
Workpiece movement	Motorized through joystick							
Movement range (X, Y, Z)	100 x 85 x 250 mm							
Movement speed	0 - 25 mm/s							
Extraction	Integrated							
EXTERNAL DIMENSIONS								
WxDxH in mm	650 x 1090 x 1400							
Weight	approx. 260 kg							
EXTERNAL CONNECTIONS								
Electrical connection	200-240 V / 50-60 Hz / 16 A		3 X 400 V / 50-60 Hz / 3 X 16 A		200-240 V / 50-60 Hz / 16 A			
OPTIONS	Rotary axis module with chuck, tiltable, for horizontal to vertical rotation Micro welding function TV system for demonstrating and observing the welding process Ergo wedge Multifunctional footswitch				Rotary axis module with chuck, tiltable, for horizontal to vertical rotation TV system for demonstrating and observing the welding process Ergo wedge Multifunctional footswitch turn and tilt objective			