

ALV

IT'S YOUR CHOICE

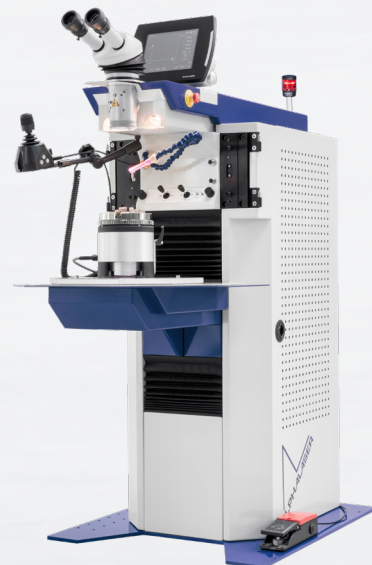
The compact ALV laser welding device with laser-proof working chamber is available with various laser outputs, sources and controls. The ALV is used in micro and deposition welding in tool and mold manufacturing, in sensor production and medical technology. The laser welding device offers a large vertical 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



ALV open

Technical Data

	ALV 100	ALV 100 <i>WINLaserNC</i>	ALV 150	ALV 150 <i>WINLaserNC</i>	ALV 150 F	ALV 300 F
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
Average power	100 W	100 W	150 W	150 W	150 W	300 W
CW power					150 W	300 W
Peak pulse power	9 kW	9 kW	9 kW	9 kW	1,5 kW	3 kW
Pulse energy	75 J	75 J	75 J	75 J	15 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, 10×; Optional 16×					
WORKING CHAMBER						
W × D × H in mm	580 × 420 × 490					
Mounting plate (W × D) in mm	360 × 355					
workpiece weight	max. 50 kg, central load					
Workpiece movement	Motorized through joystick					
Movement range (X, Y, Z)	100 × 85 × 250 mm					
Movement speed	0 - 25 mm/s					
Extraction	Integrated					
EXTERNAL DIMENSIONS						
W × D × H in mm	650 × 1090 × 1400					
Weight	approx. 260 kg					
EXTERNAL CONNECTIONS						
Electrical connection	200-240 V / 50-60 Hz / 16 A		3 × 400 V / 50-60 Hz / 3 × 16 A		200-240 V / 50-60 Hz / 16 A	
OPTIONS	Rotary axis module with chuck, tiltable, for horizontal to vertical rotation				Rotary axis module with chuck, tiltable, for horizontal to vertical rotation	
	Micro welding function				TV system for demonstrating and observing the welding process	
	TV system for demonstrating and observing the welding process				Ergo wedge	
	Ergo wedge				Multifunctional footswitch	
	Multifunctional footswitch				turn and tilt objective	