

The compact and versatile one

The compact ALV laser unit with its closed working chamber is used for precision welding and deposit welding. It demonstrates its advantages in applications such as tool and mould manufacture, sensor production and medical technology. The ALV can be individually equipped for manual welding of one-off parts, semi-automatic welding for batch production and fully automatic welding for volume production. The four-axis motion system enables controlled movement of workpieces up to 50 kg in the working chamber using either the joystick or automatic control. In addition, the worktable's large vertical travel enables processing of larger tools and moulds.

From competent advice in the selection of the appropriate laser system, for your business, to quick response times by our fully trained technical support team.

Our team of application engineers will elaborate process parameters and complete solutions for the individual problems of our customers.



Technical Data	ALV 100	ALV 150
Laser		
Laser crystal	Nd: YAG	Nd: YAG
Wavelength	1064 nm	1064 nm
Average power	100 W	150 W
Peak pulse power	9 kW	9 kW
Pulse energy	75 J	75 J
Pulse duration	0,5 – 20 ms	0,5 – 20 ms
Pulse frequency	single pulse - 20/30 Hz	single pulse - 20/30 Hz
Welding spot Ø	0,2 – 2,0 mm, continuously variable	0,2 – 2,0 mm, continuously variable
Pulse shaping	Adjustable power- shaping within a laser pulse	
Control	User- specific operation with up to 128 parameter sets	
Focussing lens	150 mm	150 mm
Viewing optics		
	Leica binocular with eyepieces for spectacle wearers	
Working compartment		
Working compartment (WxLxH)	590 x 450 x 550 mm	590 x 450 x 550 mm
Working plate (WxL)	360 x 335 mm	360 x 335 mm
Workpiece weight	50 kg max., central	50 kg max., central
Workpiece motion	motorised, via joystick	motorised, via joystick
Positioning path	z: 250 mm x, y: 100 x 100 mm	z: 250 mm x, y: 100 x 100 mm
Mechanical dimensions		
L x W x H	1010 mm x 650 mm x 1350 mm	1010 mm x 650 mm x 1350 mm
Weight	approx. 200 kg	approx. 200 kg
Electrical supply		
	200 – 240 V / 50-60 Hz / 16 A	3 x 400 V, 50 – 60 Hz, 3 x 16 A
Cooling		
Options	Air cooled with internal cooling water circuit	
	<ul style="list-style-type: none"> - digitale version for fully automatic CNC welding operation via programming, , teaching in or CAD data input - Micro- welding - Multi-function foot- switch for setting laser parameters - Tilttable turntable with chuck for horizontal to vertical rotation - Coaxial lighting for optimal illumination of cavities in the workpiece - Magnetic workpiece clamping for free positioning of workpieces - TV system for demonstrating and observing the welding process. 	