

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 120 | ALV 180 |
|-------------------------------|---|-----------------------------------|
| Laser type | Nd: YAG | Nd: YAG |
| Wave length | 1064 nm | 1064 nm |
| Average power | 120 W | 180 W |
| Peak pulse power | 9 kW | 9 kW |
| Pulse energy | 75 J | 90 J |
| Pulse duration | 0,5 – 20 ms | 0,5 – 20 ms |
| Pulse frequency | Single pulse -50 Hz | Single pulse -100 Hz |
| Welding spot Ø | 0,2 – 2,0 mm | 0,2 – 2,0 mm |
| Pulse shaping | Adjustability of power curve within a laser pulse | |
| Display and operation | Touchscreen. Laser parameters can also be set using a multifunctional footswitch | |
| Observation lens | Leica microscope attachment with eyepieces for glasses wearers, 10 ×, optional 16 ×. | |
| Working chamber B x T x H | 580 × 420 × 530 mm | |
| Mounting plate (B × T) | 455 × 315 mm; table feed-through at the bottom of the working chamber (Ø 46 × 40 mm) | |
| Workpiece weight | max. 50 kg, central load | |
| Workpiece movement | Motorized through joystick (manual, semi-automatic or automatic) | |
| Movement range (X, Y, Z) | 110 × 90 × 280 mm | |
| Movement speed | 0-25 mm/s | |
| External dimensions B x T x H | 650 × 1160 × 1590 mm | |
| Weight | approx. 260 kg | |
| Electrical connection | 200 - 240 V / 50 - 60 Hz / 16 A | 3 × 400 V / 50 - 60 Hz / 3 × 16 A |
| Options | Various rotary axis modules with chuck Vertical rotation Micro welding device Camera system for demonstrating and observing the welding process Ergo wedge Multifunctional footswitch Turn-and-tilt objective Objective extension for f = 120 mm Laminar nozzle | |