



AL

The compact and powerful one

The AL series provides the right laser power for every welding job. It is the ideal partner for the ALT laser work table, but it can also be easily integrated into existing machine installations. The movable laser head can be positioned to suit the welding task. The innovative turn-and-tilt optics further reduces laser set-up time on the tool or mould.



Technical Data	AL 75	AL 120	AL 150	AL 200	AL 300
Laser					
Wavelength	1064 nm	1064 nm	1064 nm	1064 nm	1064 nm
Average power	75 W	120 W	150 W	200 W	300 W
Peak pulse power	5 kW	9 kW	10 kW	9 kW	10 kW
Pulse energy	50 mJ – 50 J	100 mJ – 75 J	100 mJ – 100 J	150 mJ – 80 J	80 J
Pulse duration	0.5–20 ms	0.5–20 ms	0.5–20 ms	0.5–20 ms	0.1–20 ms
Pulse frequency	single pulse - 20/30 Hz		single pulse - 20/30 Hz		100 Hz
Welding spot Ø	0.3 – 2.2 mm	0.3 – 2.2 mm	0.3 – 2.2 mm	0.3 – 2.2 mm	0.3 – 2.2 mm
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	150 mm	150 mm	150 mm
Viewing optics	Leica binocular with eyepieces for spectacle wearers				
Power supply					
Dimensions (L x W x H)	820 x 400 x 910 mm	820 x 400 x 910 mm	820 x 400 x 910 mm	820 x 400 x 910 mm	1026 x 700 x 938 mm
Weight	approx. 98 kg	approx. 98 kg	approx. 98 kg	approx. 98 kg	approx. 130 kg
Laser beam source					
with focussing unit (length x dia.)	900 x 120 mm	900 x 120 mm	900 x 120 mm	1100 x 120 mm	1100 x 120 mm
Weight	approx. 18 kg	approx. 18 kg	approx. 18 kg	approx. 20 kg	approx. 20 kg
Electrical supply	200–240 V / 50–60 Hz / 16 A		3 x 400V / 3 x 16A / 50–60 Hz / N, PE		
Cooling	air cooled with internal cooling water circuit, no additional external cooling necessary				air cooled with internal cooling water circuit, additional cooling if needed
Options	<ul style="list-style-type: none">> Micro-welding> Turn-and-tilt optics> Rotary welding optics: special device for circular weld seams> TV system for demonstrating and observing the welding process> Tilttable turntable with chuck for horizontal to vertical rotation> Focussing lenses with various focal lengths				

1 Automated bond welding of a 5-cornered knob

2 Bond welding of a stainless steel profile, material thickness 0.8 mm

3 Bond welding of a tube to an expansion joint, stainless-steel components with material thickness 0.1 mm