Laser system

AL-IN 120 | AL-IN 150 | AL-IN 200 | AL-IN 300

FLEXIBLE AND ROBUST LASER DEVICE FOR WELDING A WIDE VARIETY OF COMPONENTS

The AL-IN is composed of the Nd:YAG laser source AL combined with the X, Y, Z motion system AL-T basic and is available with 120, 150, 200 or 300 W.

The system is characterized by its great flexibility.

The components can be positioned freely under or next to the motion system, because a wide variety of work tables can be placed in front of the lifting column or you can work directly on the pallet. A fixed table top is available as an option.

The resonator can be pivoted 360° and fixed in any rotated position. Likewise, the resonator, which rests in a slide rail, can be placed far forward or moved down or up by a tilt joint*.

The special feature of the AL-IN is that it is not the workpiece that is moved, but the resonator. The axes are moved via the joystick, the touch display, or the AL-DRIVE* control unit. The angle of the display unit can be adjusted or it can even be removed completely from the holder for free placement close to the welding process. The touch display gives you access to several apps that make welding easier:

- User coordinate system for easy welding of inclined planes
- App for surfaces and rotational parts
- Control for the ALPHA LASER wire feeder AL-DV*

*pictures show optional equipment

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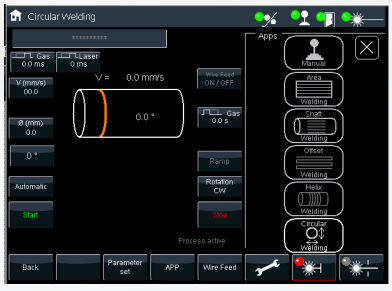
Practical storage trays on the laser housing keep important utensils at hand.

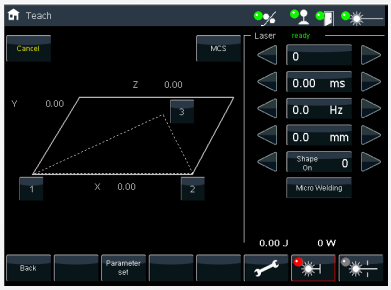
You configure the system according to your needs:

Optional choices include LED lenses, rotary axis, operating unit, connection for a cooling system (not necessary for normal operation), multifunctional foot switch.
The AL-IN meets the requirements for Performance Level d.

In summary: The AL-IN is flexible, movable, stable, versatile, retrofittable and equally suitable for small and large components.

*Option article against surcharge





detachable display

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Technical data

	AL-IN 120	AL-IN 150	AL-IN 200	AL-IN 300
LASER				
Laser type/wave length	Nd:YAG, 1064 nm	Nd:YAG, 1064 nm	Nd:YAG, 1064 nm	Nd:YAG, 1064 nm
Average power	120 W	150 W	200 W	300 W
Peak pulse power	9 kW	9 kW	9 kW	9 kW
Pulse energy	90 J	90 J	90 J	90 J
Pulse duration	0.5-20 ms	0.5-20 ms	0.5-20 ms	0.5-20 ms
Pulse frequency	0-50 Hz	0-100 Hz	0-100 Hz	0-100 Hz
Operating mode	pulsed			
Welding spot Ø	0.2–2.0 mm with micro welding function (optional) 0.05-0.5 mm			
Focusing objective	electable (straight or turn and tilt objective)			
Pulse shaping	Adjustability of the power curve within a laser pulse Adjustment of laser parameters additionally via multifunction switch (optional)			
Display and operation	removable touch display (for laser and motion system)			
OBSERVATION LENS	Leica microscope attachment with eyepieces for glasses wearers 10 ×, optional 16 ×.			
POWER SUPPLY UNIT				
W × D × H (basic component)	450 × 850 × 860 mm			
Weight	135 kg	150 kg		
LASER BEAM SOURCE				
With focusing unit (length × Ø)	990 × 120 mm		1100 × 120 mm	
Weight	28 kg		30 kg	
EXTERNAL CONNECTIONS				
Electrical connection	200-240 V / 50–60 Hz / 16 A	3 × 400 V / 50-60 Hz / 3 × 16 A		
External cooling	optional			
OPTIONS	Turn and tiltable objective multifunctional foot switch Rotary axis module camera system Ergo wedge AL-DV laser wire feed system AL-DRIVE operating unit AL-Hub welding table			

MOVEMENT SYSTEM	
EXTERNAL DIMENSIONS	Movement system
W × D × H	950 × 1250 × 850 mm
Weight	230 kg
WORK AREA	
Machine axes	X, Y, Z, rotary axis optional
Movement speed X, Y, Z	max. 25 mm/s
Movement range X, Y, Z	400 × 210 × 300 mm
OPERATION	Joystick
OPTIONS	Table top with inclined stand separate, vertically adjustable table Rotary axis with chuck

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