

# ALFlak 500

## FOR MOBILE AND FLEXIBLE LASER WELDING

Finally, united – this is how you can summarize the great customer value of the new ALFlak 500 in short words. By integrating the 500 W laser into the ALFlak housing, mobility has been significantly increased and the system with caterpillar tracks can be loaded by just one person.

The laser source with 500 W average power always has enough reserves for demanding welding tasks. The high laser power delivers 15 kW peak power and effortlessly melts large welding wire diameters. The welding speed is significantly higher, so that you can do a large amount of welding in a short time and with the best connection to the base material.

The laser and the motion system are comfortably operated via the intuitive 10" touch screen (15" as option). In addition, the laser parameters can be set or adjusted during welding by using the patented multifunction footswitch. This allows full concentration on the welding task without having to take your hands off the workpiece. Programming the WINLaserNC software is also done directly on the touch screen.

This system uses a new power supply technology. The power supply is water-cooled and current-controlled, thus preserves the laser lamp.

For cooling, an external 18 kW cooler is needed. However, smaller welding tasks can also be performed without a cooler.

A 230 V power outlet is integrated in the laser system, so you can connect e.g. the external extraction directly to the device.

In addition, the laser device meets the high safety requirements for performance level d.



ALFlak 500

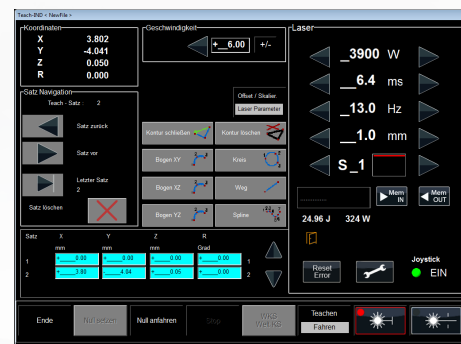
The ALFlak 500 is available in two variants: with self-propelled caterpillar tracks or as a manually movable model.

## Technical data

ALFlak 500	
<b>LASER</b>	
Laser type/wave length	Nd:YAG, 1064 nm
Average power	500 W
Peak pulse power	15 kW
Pulse energy	100 J
Pulse duration	0,5 - 20 ms
Pulse frequency	Single pulse - 100 Hz
Operating mode	Pulsed
Welding spot Ø	0,2 - 2 / 0,5 - 2,5 / 1 - 3 mm
Focusing objective	150 mm, further according to lens data sheet
Pulse shaping	Adjustability of power curve within a laser pulse
Display and operation	Display with touch function. Laser parameters can also be set using a multifunctional footswitch, WINLaserNC software through integrated PC
<b>OBSERVATION LENS</b>	Leica microscope attachment with eyepieces for glasses wearers, 10×. Optional 16×.
<b>WORK AREA</b>	
Movement speed (X, Y, Z)	0 - 25 mm/s
Movement range (X, Y, Z)	340 × 330 × 370 mm
Lowest working point in mm	200
Highest working point in mm	1500
Arm deflection in mm	1500
<b>POWER SUPPLY FEATURES</b>	
Power adapter	current-controlled
Cooling	water-cooled
<b>SAFETY</b>	
Performance level	D
<b>EXTERNAL DIMENSIONS</b>	
W × D × H in mm (Base part including chassis)	1200 × 1200 × 1100
Weight	with caterpillar track approx. 850 kg, without caterpillar track approx. 550kg
<b>EXTERNAL CONNECTIONS</b>	
Electrical connection	3 × 400 V / 50 - 60 Hz / 3 × 32 A
Extreme cooling	required
<b>OPTIONS</b>	
Turn and tilt objective	
Rotary axis module with chuck, tiltable, for horizontal to vertical rotation	
TV system for demonstrating and observing the welding process	
Ergo wedge	
LAfet® programmable laser wire feed system	



semi-automatic operation



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