

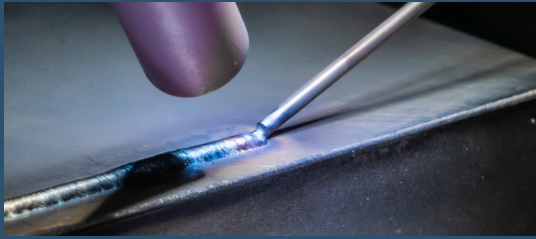
# AL-IN 500 F NEO



THE NEW GENERATION OF LASER WELDING TECHNOLOGY

## KEY BENEFITS OF THE NEW TECHNOLOGY

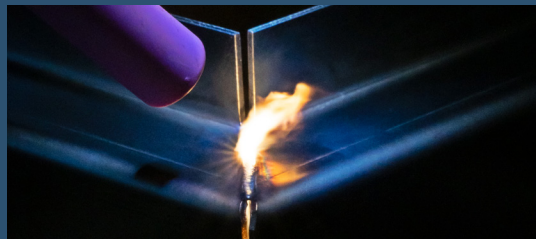
### WIDE SEAM WIDTH RANGE



**Seam width range from 0.1 to 5.0 mm, enabling a wide range of applications and wire diameters up to 1.6 mm for cladding.**

**RESULT:** Faster cladding or identical performance in a shorter time. Flexible use for a wide variety of applications.

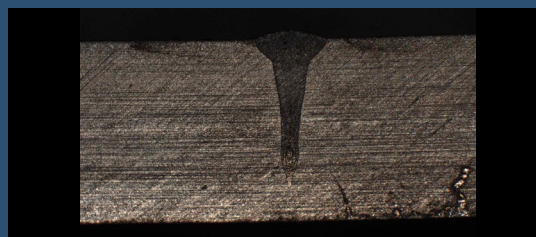
### GAP BRIDGING



**Gaps of up to 0.6 mm can be reliably bridged.**

**RESULT:** Less pre- and post-processing, greater manufacturing tolerances.

### WELD DEPTH UP TO 3 MM



**Weld depth up to 3 mm.**

**RESULT:** More stable weld seams, expanded application possibilities.

## AN EVOLUTIONARY STEP

With the **AL-IN 500 F NEO**, almost all areas have been revised and expanded. Existing strengths have been retained, while practical weaknesses have been consistently eliminated.

The new generation of laser welding technology opens up possibilities that were previously unattainable. Productivity, precision and cost-effectiveness are raised to a new level – and this is exactly where the **AL-IN 500 F NEO** sets new standards.



## TECHNICAL DATA

### FIBER LASER POWER (WATTS)

**500**



The system meets the high safety requirements of Performance Level d.



### AL-IN 500 F NEO

#### LASER

Laser type / wavelength	Fiber laser, 1080 ± 10 nm
Average power	500 W
CW power	500 W
Peak pulse power	1450 W
Pulse energy	72,5 J
Pulse duration	0.2–50 ms / CW
Pulse frequency	Single pulse – 100 Hz
Operating mode	pulsed / CW
Seam width	0.1–5 mm
Focusing optics	150 mm, others according to optics datasheet
Display and operation	Adjustment of laser parameters via touchscreen or multifunction foot switch. Control AL-T Basic C via laser touchscreen.

#### OBSERVATION OPTICS

Leica binocular optics with eyepieces for eyeglass wearers 10×, optional 16×

#### EXTERNAL CONNECTIONS

Electrical connection	3 x 400 V / 50-60 Hz / 3 x 16 A
System cooling	Air-cooled, optics water cooling

#### OPTIONS

Tilt-and-swivel optics | Multifunction foot switch | Rotary axis module | Camera system | Ergonomic wedge | AL-DV wire feeder | AL-Hub welding table

#### AL-IN movement system

#### EXTERNAL DIMENSIONS

W × D × H	950 × 1250 × 850 mm
Weight	230 kg
<b>WORKING AREA</b>	
Machine axes	X, Y, Z, rotary axis optional
Traverse speed (X, Y, Z)	0-25 mm/s
Travel range (X, Y, Z)	400 × 210 × 300 mm
Operation	Joystick

#### OPTIONS

Table top with inclined column | external height-adjustable table | Rotary axis with chuck, tilt joint

[www.alphalaser.eu](http://www.alphalaser.eu)