



# LF Series

## Yb: Fiber Laser Welders, 100-500 W

The LF range of fiber lasers offers the precise control needed for fine cutting, small component welding and penetration welding of metals. A large touch screen pendant enables clear visibility of process schedule parameters. The intuitive interface enables quick and easy programming.

- Spot sizes down to 10 microns
- Penetration depth beyond 2 mm in metals
- Fine, high quality cutting of metals
- Excellent laser output power stability
- Simple, intuitive user interface
- Touch screen

### KEY FEATURES

LF series fiber lasers enable focused spot sizes down to 10 microns providing the ultimate non contact cutting tool. The high beam quality and high modulation frequency enable high speed precision cutting of a range of metals.

Precise control of pulse width and peak power enables fine micro welding. The laser is available in either single mode or multi mode configuration according to the requirements of the application. Penetrations up to 2 mm in steels, titanium and nickel alloys are possible using keyhole welding in the continuous wave (CW) operation.

For reliable processing, fine applications require high stability of the laser source. The LF series offers excellent power and pulse to pulse stability due to an internal air to water cooling mechanism. This maintains stability irrespective of ambient air temperature.

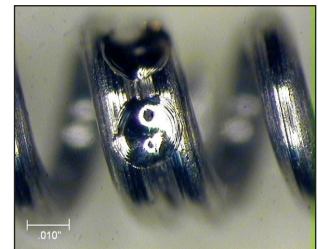
The laser can be programmed quickly, easily and intuitively using a high definition 8 inch touch screen. Laser schedule select and schedule changes can be made via external connections.

The LF series of fiber lasers are supported by a full range of focus heads including inline heads, 90 degree heads with process viewing via a camera, and integrated illumination options through the head. When space is a premium a range of ultra-compact heads are the best choice for your production process.

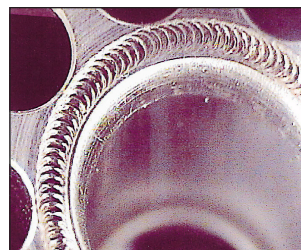
### TYPICAL APPLICATIONS



*Needle cutting*



*Medical spring attachment*



*Medical component assembly*



## TECHNICAL SPECIFICATIONS

Maximum output	100 Watts (LF100A) (M2 = 1.1) 160 Watts (LF160A) (M2 = multimode) 200 Watts (LF200A) (M2 = 1.1 or multimode) 300 Watts (LF300A) (M2= 1.1) 400 Watts (LF400A) (M2 = 1.1) 500 Watts (LF500A) (M2 = 1.1 or multimode)
Beam quality	M2 = 1.1 or multimode
Pulse width	0.02-99 ms
Pulse width resolution	0.001ms
Repetition frequency	1-50.000 Hz, CW
Oscillation wavelength	1070 nm
Positioning guide beam	Built-in visible laser (red)
Output stability over operating temperature range	± 3%
Voltage	240 V +/- 10% VAC 50-60 Hz single phase
Current	25 A RMS
Cooling	Air Cooling
Operating temperature (°C)	5-40
Operating humidity	5-85% RH (non condensing)
External communication (rs232)	Baud Rate: variable 9600-115200 Start bits: 1 Data bits: 8 Parity: Even Stop bits: 1 Flow control: none
Certification	CE Approved

## WEIGHT &amp; DIMENSIONS

Dimensions HxWxD (mm)	939,8 x 520,7 x 825,5
Weight (in kg)	136,3



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