



LF Series

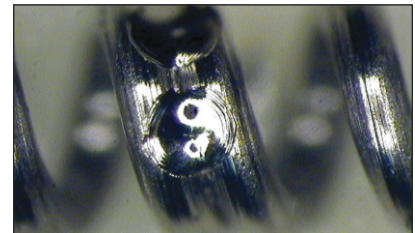
Yb: Fiber Lasers

- Spot sizes down to 10 microns
- Penetration depth beyond 0.06 in (1.5 mm) in metals
- Fine, high quality cutting of metals
- Excellent power stability
- Simple, intuitive user interface
- Touchscreen

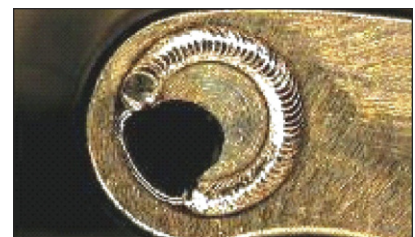
The LF Series fiber lasers offer the precise control needed for small component welding and fine precision cutting of metals. A large touchscreen pendant enables clear visibility of process schedule parameters, and an intuitive interface enables quick and easy programming.

- **Micro welding** – The laser is available in either single or multi-mode configuration. Precise control of the laser's pulse width and peak power enables fine micro welding processes. Penetrations up to 0.06 in (1.5 mm) in steels, titanium and nickel alloys are possible using continuous mode operation.
- **Precision cutting** – LF Series fiber lasers can achieve focused spot sizes down to 10 microns providing the ultimate non contact cutting tool. High beam quality and high frequency enable high speed precision cutting of a range of metals.
- **Spot and seam welding** – 10 segment pulse shaping enables best quality spot welding results. Ramp up and ramp down feature controls welding results at overlap.
- **Excellent power stability** – Fine applications require high stability of the laser source for reliable processing. The LF Series offers excellent power and pulse to pulse stability with an internal air-to-water cooling mechanism which maintains stability irrespective of ambient air temperature.
- **Touchscreen pendant** – High definition 8 inch touchscreen pendant facilitates fast and intuitive laser programming.
- **Accessories** – Full range of focus heads including inline, 90 degree with process viewing via a camera, and through the lens illumination options. Ultra compact heads are also available if space is a premium.

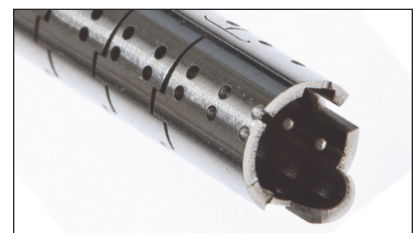
TYPICAL APPLICATIONS



Medical spring attachment



Medical component assembly



Hypo tube cutting

TECHNICAL SPECIFICATIONS

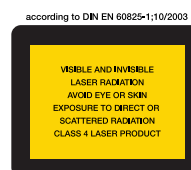
Optical Parameters	
Parameter	Laser Specification
Wavelength	IR (1065 +/- 5 nm)
Operation mode	CW or modulated
Maximum output power	Up to 500 W
Dynamic range	10%-100% of full power
Beam quality	Single mode and Multi-mode (50 µm core*)
Positioning guide beam	On axis, built in visible laser (Class 3R)
Pulse modulation	Square pulse Up slope, down slope 10 segment pulse shaping

*Larger core diameters available upon request

Integration Parameters	
Parameter	Laser Specification
BDO (beam delivery optic)	QBH compatible (divergent beam) - collimated beam also available for <500 W power
External communication	RS232 / external I/O
Electrical	200-240 V +/-10% single phase
Cooling	No external cooling up to 500 W
Operating temperature range	5-40°C (41-104° F)
Operating humidity range	5%-85% (non-condensing)
Safety	Dual channel IEC13849-1 compliant
Fiber length	6 m (standard) - other lengths upon request
Certifications	CE, CDRH

WEIGHT & DIMENSIONS

Size L x W x H	36.7 in x 20.1 in x 41.4 in (933 mm x 511 mm x 1051 mm)
Weight	350 lbs (159 kg)



1820 S. Myrtle Ave. • Monrovia, CA 91016 US
 T: (626) 303-5676 • F: (626) 358-8048
 info@amadamiyachi.com • www.amadamiyachi.com
 ISO 9001 Certified Company • 24/7 Repair Service: 1-866-751-7378



AMERICAS
Amada Miyachi America Midwest
 Wixom, MI 48393
 T: (248) 313-3078
 midwestsales@amadamiyachi.com

Amada Miyachi do Brasil Ltda.
 Sao Paulo, Brasil
 T: +55-11-4193-3607
 antonio.ruiz@amadamiyachi.com

EUROPE
Amada Miyachi Europe GmbH
 Puchheim, Germany
 T: +49 (0) 89 83 94 030
 infode@amadamiyachi.eu

ASIA
Amada Miyachi Co., Ltd.
 Noda, 278-0016 Japan
 T: +81-4-7125-6177
 sales@miyachi.com

Amada Miyachi Shanghai, Co., Ltd.
 Shanghai, China
 T: +86-21-6448-6000
 zqzhang@msc.miyachi.com

Amada Miyachi Korea Co., Ltd.
 Gyeonggi-do, Korea
 T: +82-31-8015-6810
 dykim@mkc.miyachi.com

Amada Miyachi Taiwan Co., Ltd.
 Taipei, Taiwan R.O.C.
 T: 886-2-2397-4778
 keigaku@miyachi.com

Amada Miyachi (Thailand) Co., Ltd.
 Samutprakarn, Thailand
 T: +66-2751-9337-8
 info@mtl.miyachi.com

Amada Miyachi Vietnam Co., Ltd.
 Ho Chi Minh City, Vietnam
 T: +84-8-3771-7972

Amada Miyachi India Pvt., Ltd.
 Bangalore, Karnataka
 T: 080-4092-1749 & 3549
 info@miyachiindia.com

Amada Miyachi America Mexico
 El Paso, TX 79925
 T: (915) 881-8765
 mxsales@amadamiyachi.com

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