2 µm Thulium Fiber Laser

Up to 250 W

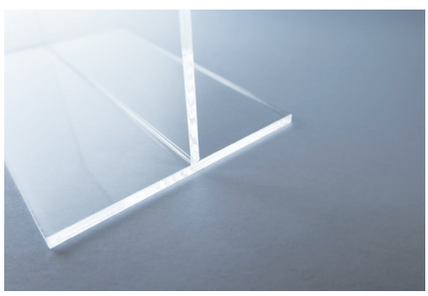
The new Industrial Fiber Laser product line by Futonics is based on Thulium single-mode 2 µm fiber laser oscillators with wavelength stabilization by Fiber Bragg Gratings (FBG). Due to high power, high beam quality and compact design, these products are highly suitable for a broad range of industrial and scientific applications.

Features

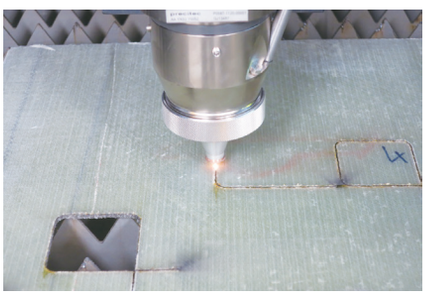
- Single mode output power up to 250 W
- High beam quality in full power range
- Custom wavelengths (FBG)
- Robust to back reflections
- 6 RU housing
- Low noise

Applications

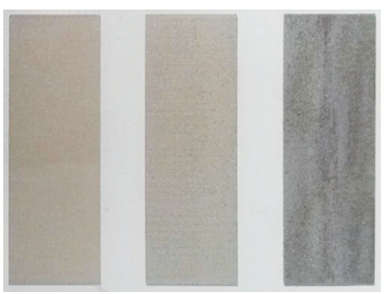
- Cutting and marking of plastics
- Cutting of fiber-reinforced plastics
- Welding of transparent plastics
- Cutting of laminated glass
- Mid-IR laser pumping
- Marking of metals



Welding of transparent plastics



Cutting of fiber-reinforced plastics



Marking of stainless steel

Futonics Laser GmbH • Maschmühlenweg 36 • 37081 Göttingen • Germany info@futonics.de • www.futonics.de

2 µm Thulium Fiber Laser

Technical Specifications

Optical specifications

Output power:	200 W (IFL200), 250 W (IFL250)
Standard wavelengths:	2000 nm or 2050 nm
FWHM:	< 1 nm
Beam quality:	$M^2 < 1.2$, single-mode
Operating mode:	CW, modulated up to 1 kHz
Laser class:	4
Fiber connector, NA, length:	QBH-connector, 0.10, 3 meters
Collimator:	Optional

General specifications

Dimensions (width x height x depth):	483 mm x 266 mm x 705 mm (19″, 6 RU excluding power supply)
Logic Power Supply:	24 V, 4 A (100 W)
Futonics Main Power Supply:	AC 1 or 3 phase, 180 - 528 VAC, 48 - 62 Hz
Futonics Power Supply Dimensions:	483 mm x 88.1 mm x 455 mm (19″, 2 RU)
Power consumption:	≤ 1.2 kW
Standard interface:	D-SUB 25, D-SUB 9
Display:	Capacitive 3.5″ touch-screen & control wheel
Cooling:	Water

Options

Additional fiber length:	1 meter steps up to 10 meters total
Optional fibers:	Multi-mode
Fiber connector:	Futonics standard
Fiber applicator II:	Enhanced collimator with power detection for closed-loop control
Power stabilization:	Closed-loop control up to 10 kHz
Fixed custom wavelengths:	Selection between 1930 nm and 2050 nm
Enhanced interface:	Industrial Ethernet available upon request

Futonics Laser GmbH • Maschmühlenweg 36 • 37081 Göttingen • Germany info@futonics.de • www.futonics.de