

FemtoFiber vario 1030

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High Power Ultrafast Fiber Laser

Specifications (TENTATIVE*)	
Center wavelength	1030 nm
Pulse energy	> 2 μ J (@ 1 MHz)
Pulse duration	< 300 (typ. 250 fs)
Repetition rate	< 10 MHz (< 40 MHz possible)
Polarization	> 95 %, linear, vertical
Beam properties (1/e ²)	Ø 2.3 mm (typ.)
Beam quality	TEM ₀₀ , M ² < 1.2
Output	Free-space
Power stability	< 1% RMS over 12 h interval (<10 Hz)
Pointing stability	< 50 μ rad (1 h)
Pulse-to-pulse stability	< 1% RIN (10 Hz – 1 MHz)
Power supply	24 V DC, < 300 W (optional AC power supply)
Dimensions laser head (H x W x D)	100 x 195 x 380 mm ³
Dimensions control unit	134 x 483 x 600 mm ³ (19" rack, 3units high)
Operating temperature range	16 - 35 °C
Weight laser head	< 10 kg
Weight control unit	< 20 kg
Umbilical cables	> 2 m long, detachable
Interfaces	USB, Ethernet

*) specifications may change without further notice

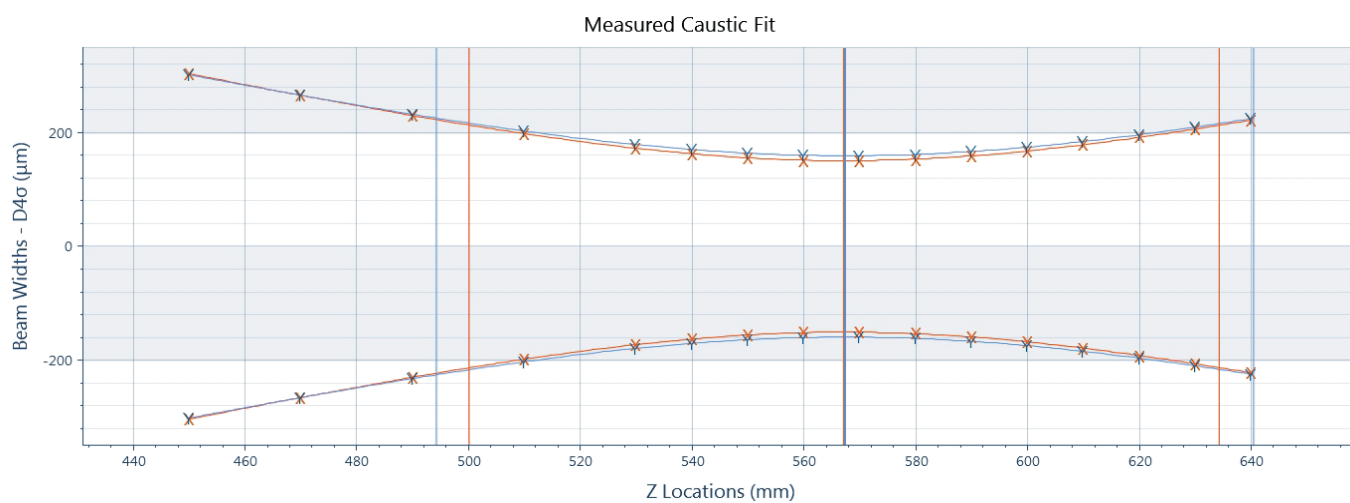


Applications

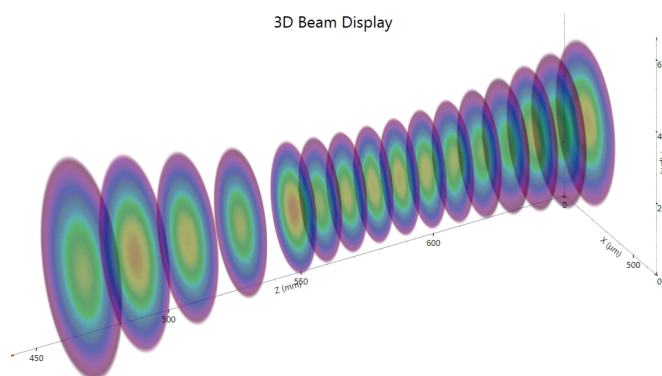
- Life sciences
- Material modification / micro-machining
- Material inspection
- OPO/OPA pumping
- Photopolymerization
- Medical surgery / examination
- Ophthalmology (with our partner ARGES)

Key Features

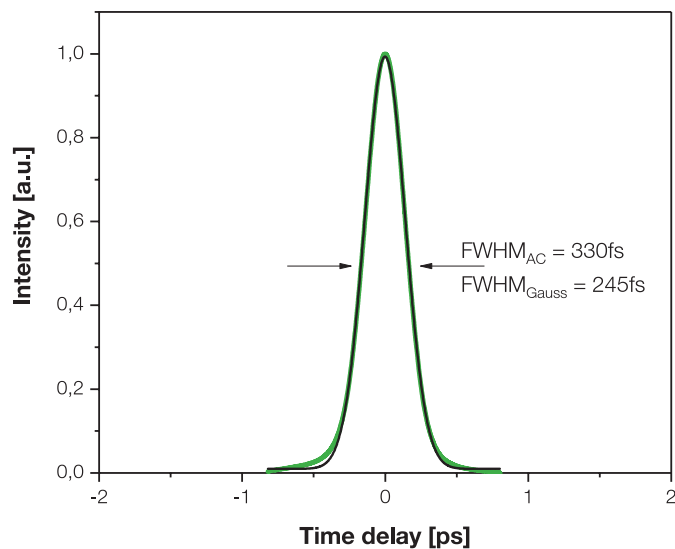
- Versatile micro-Joule fiber laser
- Superior temporal and spatial beam quality
- Adjustable repetition rate
- Pulse on demand
- Continuously adjustable pulse duration
- Industrial grade, compact design
- Passively-cooled, detachable laser head
- Robust and reliable, all-PM fiber setup
- Turnkey system, compact footprint



Measured caustic and fit



Spatial beam profile across the caustic measurement



Autocorrelation signal (black) and Gaussian fit (green curve)