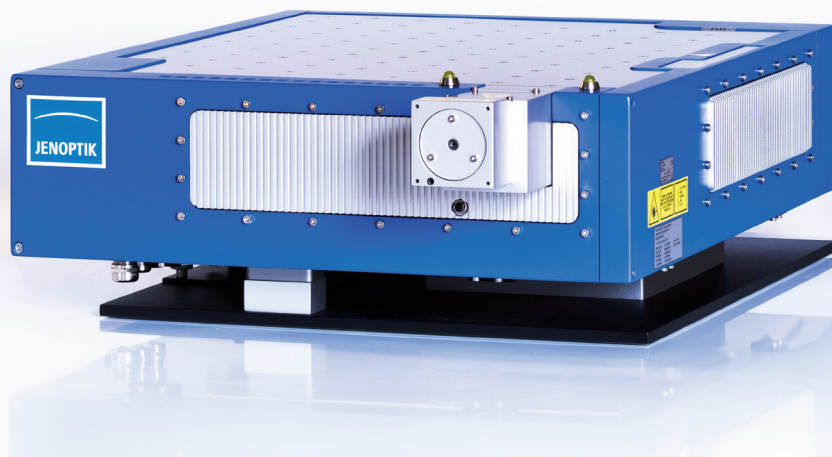




JenLas[®] D2.fs

IR & Green Femtosecond Laser



Advantages:

- Best beam quality
- Industrially proven ultra short-pulse laser based on thin disk technology
- Extremely short pulses <400 fs
- Free adjustable pulse repetition rate
- Optional module: fast beam modulator for pulse-on-demand & power control, SHG for green

Customer Benefits:

- Non-thermal ablation with fs pulses enables new possibilities in manufacturing
- Reduced cost of post-processing
- Constant processing quality independent of linear absorption coefficients
- Easy system integration and low maintenance

Applications:

- Cold* micro processing like cutting, drilling or structuring
- Small structures and dimensions with extreme cleanliness & precision
- Challenging materials, e.g. polymers and other temperature-sensitive materials, hard & brittle or transparent materials
- Material-selective ablation

JenLas® D2.fs

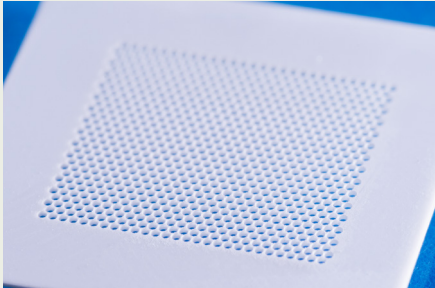
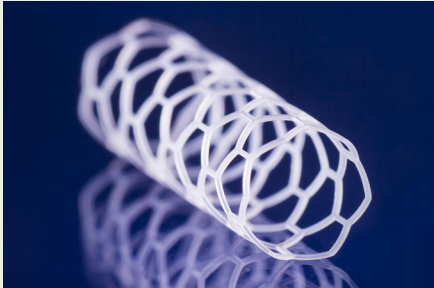

IR & Green Femtosecond Laser

Specifications

Laser Parameters	JenLas® D2.fs	JenLas® D2.fs with AOM & SHG module	
Wavelength	1025 nm	1025 nm	513 nm
Maximum output power	≥ 5.0 W	≥ 4.2 W	≥ 1.75 W
Maximum pulse energy	≥ 40 µJ @ ≤ 125 kHz ≥ 10 µJ @ 500 kHz	≥ 34 µJ @ ≤ 125 kHz ≥ 8.5 µJ @ 500 kHz	≥ 14 µJ @ ≤ 125 kHz ≥ 3.5 µJ @ 500 kHz
Beam diameter	1.4 mm	1.0 mm	0.6 mm
Beam quality M ²	≤ 1.25	≤ 1.4	≤ 1.5
Pulse width (sech ²)	300 – 400 fs	300 – 400 fs	
Pulse repetition rate	100 – 500 kHz*	single shot – 500 kHz*	
Fast beam modulator	-	pulse picking, pulse energy attenuation	
Polarization	linear (horizontal), > 100:1	linear (horizontal), > 100:1	
Operating Conditions			
Ambient temperature	15 – 35 °C	18 – 30 °C	
Ambient relative humidity	10 – 80 % (non-condensing)		
Cooling	Chiller included (air/water and water/water versions available)		
Electrical Properties			
Power requirements	Laser: 100 – 240 V AC (50/60 Hz) < 0.9 kVA Chiller: 100/115/208/230 V AC (50/60 Hz) < 1.4 kVA AOM & SHG module (option): 100 – 240 V AC (50/60 Hz) < 0.2 kVA		
Mechanical Properties			
Dimensions (W x H x L) weight	Laser head: 550 mm x 212mm x 695 mm 65 kg Laser controller: 19" x 6 RU x 600 mm 25 kg Chiller: 19" x 6 RU x 653 mm 42 kg AOM & SHG module (option): 510 mm x 160 mm x 218 mm 7 kg Module controller (option): 19" x 600 mm x 3 RU 8 kg		

* resonant frequencies disabled

Application Examples

		
<p>Drilling of 300 µm diameter holes in Al₂O₃ ceramic with < 15 µm landing width.</p>	<p>Cutting of biodegradable polymer stents (150 µm tube diameter).</p>	<p>Cutting of micro springs for a medical device (Ti foil, 50 µm thick, 3 mm diameter).</p>

It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.



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