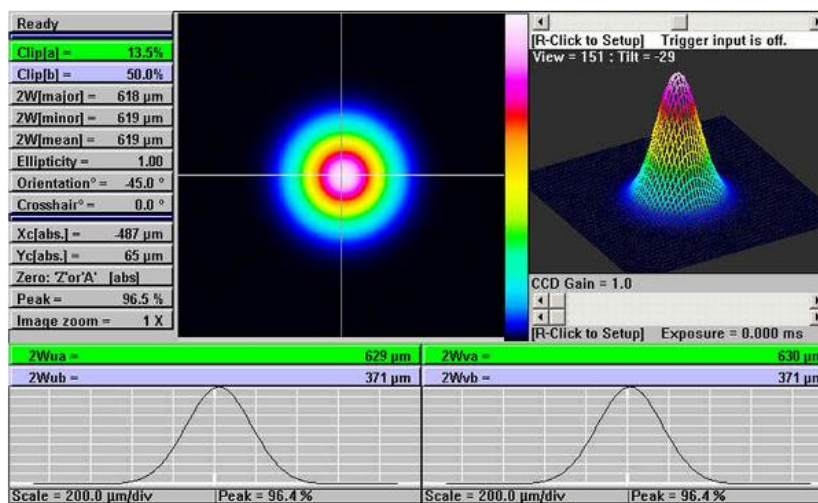


CS450/CS250 - Mid Power Industrial Fiber Laser

Convergent Photonics new CS Series fiber laser are designed to deliver the best beam quality and the highest performance in material processing to better suit the customer needs.



The highly efficient and compact CS Series medium power fiber lasers with output power up to 450W, guarantees low maintenance operation, high reliability and superior processing performances. Capable for many different applications such as Precision Cutting and Additive Manufacturing, which require that the fiber laser can output high beam quality with smallest beam spot size and proper power intensity.



Typical CS450 laser output beam profile

Main advantages in installing fiber lasers include:

- High Beam quality diffraction limited $M^2 < 1.1$
- Flexible laser beam delivery, 5m delivery fiber length (longer cable upon request)
- High electro-optical efficiency, up to 30% wall-plug efficiency
- Simple, compact, maintenance free and robust design
- Laser Fiber delivery RQB, not water cooled - QBH optionally available
- Fast modulation
- Long term power stability, no beam wondering
- Optimized beam profile and Laser Spectrum for Scientific research



Technical specifications

	CS250	CS450
Nominal Output Power	250W	450W
Power Range	25W - 270W	270W - 490W
Power Stability	Typ. $\pm 1\%$	
Pulsing Frequency	0 - 5kHz	
Wavelength	1070nm	
Polarization	Random	
Beam Parameter Product (1/e ²)	0.37 mm*mrad - 0.39 mm*mrad	
Electronic Shutter On/Off Time	1.2s	
Feeding fiber core diameter	12 μ m	
Feeding fiber length	5 m to 30 m	
Minimum bend radius	160 mm	
Output connector	RQB/QBH Fiber Optic Cable	
Safety	PLd	
Diode Pointing Laser	Wavelength 520 nm Power <1 mW	
Electrical Power Consumption	0.35 - 0.8 kW EOL	0.7 - 1.6 kW EOL
Voltage	100 - 240 VAC, single-phase	
Operating Environment (min/max)	5° C / 50° C	
Relative Humidity	< 95% non-condensing	
Laser Cooling 35% Glycol Mix	Cooling Cap.	0.8 kW
	Pressure	6 Bar
	Flow	4 l/Min
	Temp	20° C ± 2
Dimensions W / H / L	440/125/540 mm	
Weight	20 Kg	22 Kg
Connections	Coolant	1/2 inch hose barb or 10mm OD quick disconnect fittings (x2)
Ingress Protection Rating (IEC60529)	IP44*	

***Note:** It is recommended that the laser is mounted in a IP54 cabinet.

