f201 CO_2 Laser

The only true 200 Watt continuous wave laser available, delivers smooth cut edges, and industry best cost per delivered watt.

The f201 sets the standards for cost effective industrial cutting, perforating, and drilling applications

- Excellent power stability for kiss-cutting multi-layer material, scoring and perforating flexible packaging material, and thin film welding
- Internal beam conditioning delivers near perfect output in both near and far fields, delivering more focused processing power than lasers with higher raw output power
- Fully integrated laser/RF design minimizes size and weight; perfect for mounting on robotic arm, high speed marking systems, or full integration onto flatbed cutting systems
- Simple interfaces to water-cooling and control signals, with three point Metric/English mounting system minimizes integration time for OEMs and system integrators
- Standard gas purge to maintain internal optic integrity and water cooling for higher electronic component efficiency and longer lifetime

High Speed Label Kiss-Cutting

The 10.2 µm wavelength configuration expands the range of target materials to include polypropylene based films, commonly used for adhesive labels. The f201 has excellent power and divergence stability that limits the Heat Affected Zone (HAZ) to deliver cuts and perforations with minimal melt and discoloration. The f201 now offers a wider range of laser processing capabilities for OEMs and integrators building high-speed labeling and packaging systems.

Specifications

Output Specifications		
Wavelength, µm	10.2 - 10.3	10.55 - 10.68[1]
Power Output, continuous[2]	200 W	200 W
Rise Time	150µs	
Power Stability at Cold Start[3]	± 7%	
Power Stability After 3 Minutes (typical)	± 5%	
Mode Quality (M^2)	≤1.2 ± 0.1	
Beam Waist Diameter, mm (at $1/e^2$)	4.5 ± 1.0 mm	
Beam Divergence (full angle in mrad $1/e^2$)	4.0 mrad ± 0.2mrad	
Ellipticity	<1.2	
Polarization	Linear (Horizontal)	
Input Specifications		
Power Supply Voltage/Current	96 VDC ± 2.0 VDC	
Maximum Current	36 A	
Cooling Specifications		
Heat Load (max)	4 kW	
Operating Temperature	15° C to 45° C	
Coolant Temperature	18 - 22° C	
Minimum Flow-Rate (water)	2.0 GPM, < 60 psi	
Environmental Specifications		
Operating Ambient Temperature Range	15° C - 45° C	
Humidity	0 - 95%, non-condensing	
Physical Specifications		
Length inches (mm)	48.3 (1227)	
Width inches, not including mounting feet (mm)	8.6 (218)	
Height inches, including mounting feet (mm)	6.23 (158)	
Weight lbs. (kg)	96 lbs. (43.5 kg)	

1 - Typical. Actual wavelength may vary from 10.2 - 10.8

2 - Power level guaranteed for 24 months from date of shipment, regardless of operation hours within recommended coolant flow rate and temperature range

3 - Tested at 95% duty cycle

Note: Published specifications guaranteed at a temperature of 22° C. Some performance degradation may occur in ambient temperatures above 22° C.

Specifications are subject to change without notice.

Invisible Laser Radiation
Avoid eye or skin exposure to direct of scattered radiation
Class 4 Laser Product.

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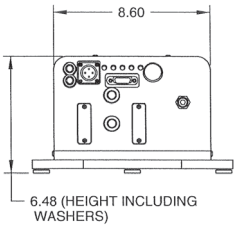
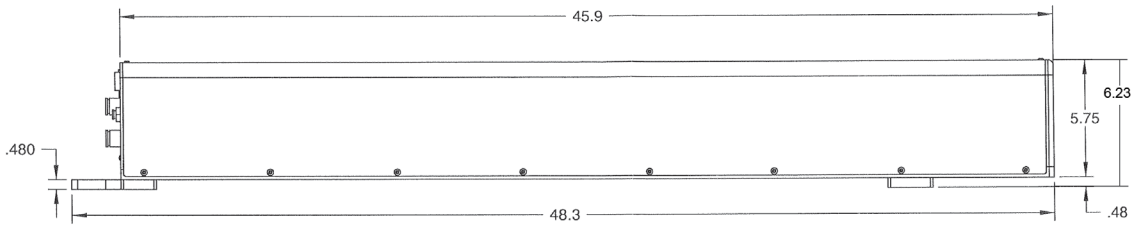
f201 CO_2 Laser

Outline and Mounting Illustrations dimensions are in inches

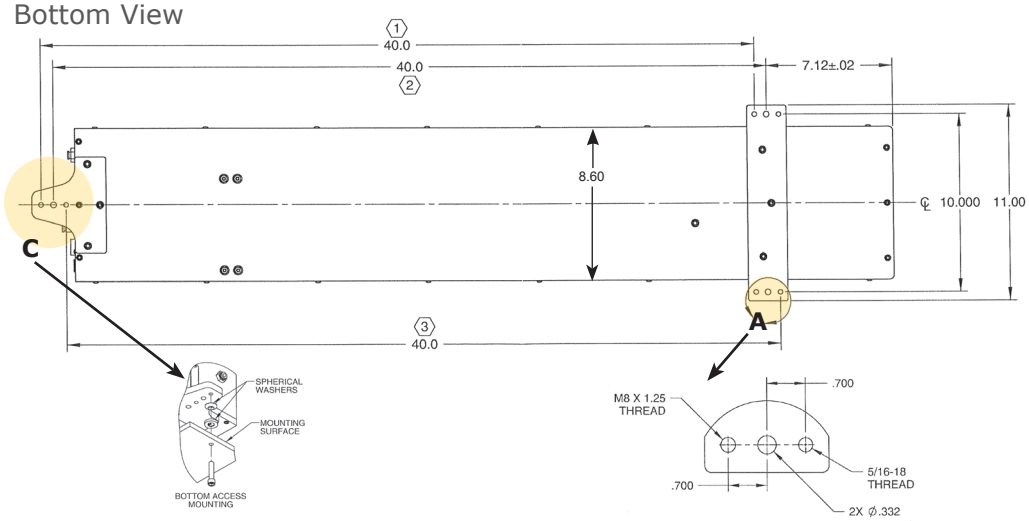
Rear View



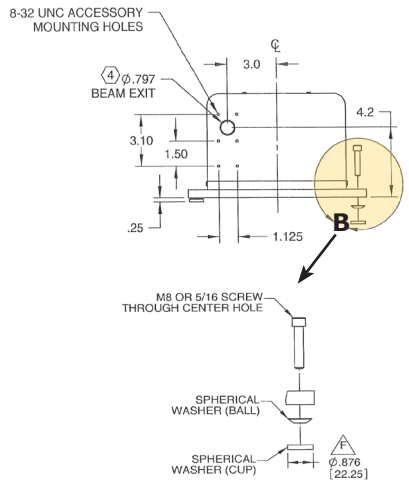
Side View



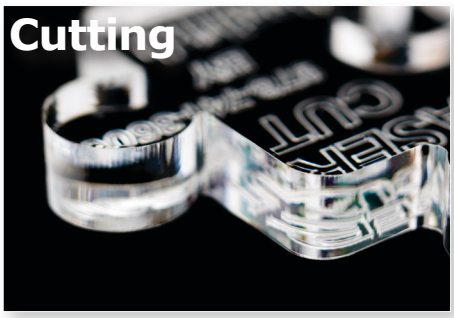
Bottom View



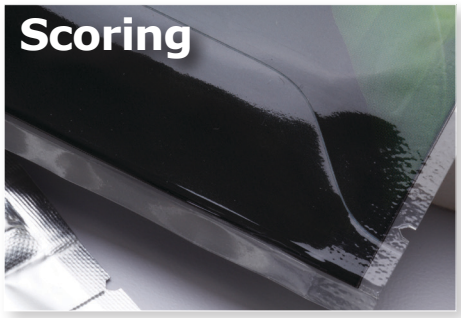
Front View



Recommended Applications



The f201 excels at acrylic cutting, delivering smooth, polished edges in a single pass. Digital control, exceptional beam quality and power stability enable detailed cuts, with change-on-the-fly capability.



200 W continuous wave laser power delivers precise scoring at high speed, perfect for flexible packaging production lines. Digital control enables on-the-fly changes reducing production downtimes associated with traditional scoring die pattern change-overs.

Cut and seal edges of the newest high tech fabrics with the f201. Add strategically placed surface treatments for breathe-ability, ventilation, or heat retention all with the same system.

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