

# vi30 CO<sub>2</sub> Laser

Industry leading laser with more than 30 Watts of average power for marking, engraving, and ablating applications



Next gen high performance CO<sub>2</sub> laser engineered for seamless integration into high-speed industrial equipment

- Gen2 tube design provides excellent thermal management to deliver stable, high power output and crisp beam quality for precise processing
- Fast rise/fall times enable high speed engraving, marking, and coding applications for high-volume manufacturers and processors
- 30W continuous power for faster throughput
- Industry best maximum operating environment temperature ensures reliable operation in a wide range of conditions
- Compact, lightest 30W CO<sub>2</sub> laser available, easily fits into tight spaces and onto weight sensitive systems



## Gen2 Tube Design

The vi30 architecture features the new Gen2 tube design for lower thermal resistance to deliver more power from a compact package. The vi30's stable, accurate beam creates detailed application results, and ensures proper marking depth without external correction optics. Throughput speed has also been improved with fast rise/fall times, especially useful in high-speed, high-volume coding applications.

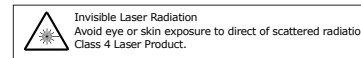
## Specifications

Output Specifications			
Wavelength	9.3 μm	10.2 μm	10.6 μm
Output Power <sup>1</sup>	>20 W	>25 W	>30 W
Power Stability (cold start) <sup>2</sup>	±7%	±5%	
Power Stability (typical, after 3 min.)	±5%	±3%	
Beam Quality (M <sup>2</sup> )	≤1.2		
Beam Diameter <sup>3</sup>	2.5 mm ± 0.5 mm		
Divergence (full angle)	<7.0 mrad		
Ellipticity	<1.2		
Polarization	Linear (Horizontal)		
Rise Time	<100 μs		
Operating Frequency	0 - 100 kHz		
Power Supply			
DC Input Voltage	48 VDC		
Maximum Current	10 A		
Cooling			
Maximum Heat Load	500 W		
Coolant Temperature	45° C		
Minimum Flow Rate	140 CFM, 2 required (air)		
Environmental			
Operating Ambient Temperature	15 - 40° C		
Maximum Humidity	95%, non-condensing		
Physical			
OEM Air Cooled Dimensions (LxWxH) mm (inches)	427 x 89 x 139 (16.8 x 3.5 x 5.5)		
Weight kg (lbs)	6.5 (14.3)		

1 - Power level guaranteed for 1 year from date of shipment, regardless of operation hours, within recommended coolant flow rate and temperature range.

2 - Measured from cold start as  $\pm(P_{max} - P_{min}) / (P_{max} + P_{min})$

3 - Measured 1/e<sup>2</sup> diameter at laser output.



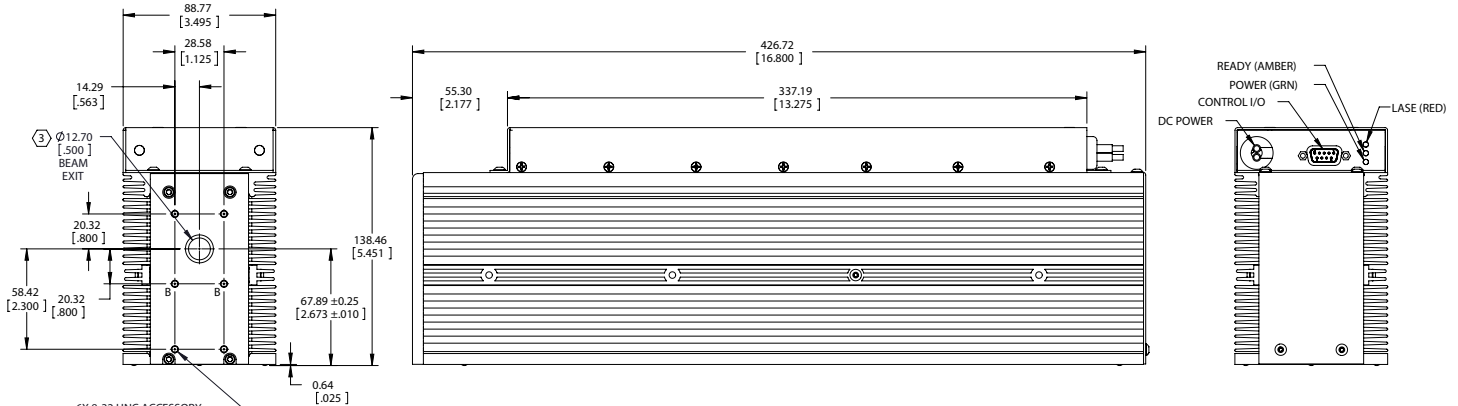
# SYNRAD

A Novanta Company

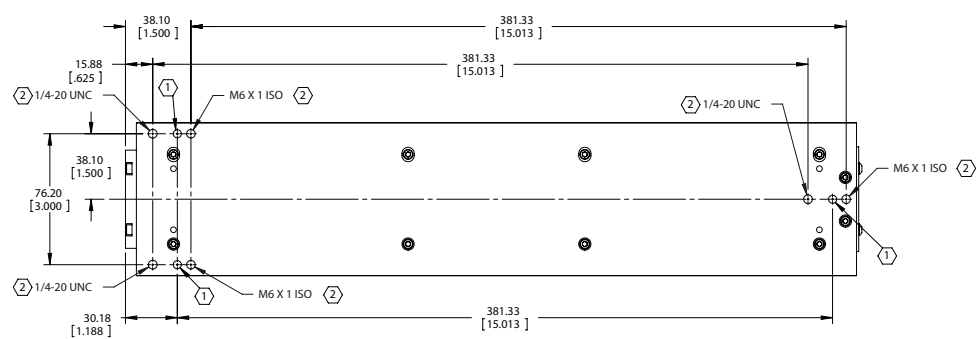
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Technical Illustrations dimensions are in mm (inches)

Outline and mounting drawings for tall, wide, and water-cooled models are available on the Synrad website at: <https://www.synrad.com/products/lasers/vi-series>.

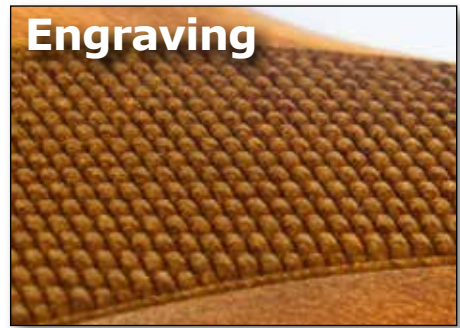


6X 8-32 UNC ACCESSORY MOUNTING HOLES. 4X SCREWS SHOULD NOT EXTEND MORE THAN 4.83[.19] INTO FACE PLATE, 2X 2.54[.10] FOR HOLES MARKED 'B'



- NOTES:
- ① HARDENED BALL MOUNTING POINT, 3X (Ø.1875) BALL BEARING.
  - ② THIS MOUNTING HOLE PATTERN USED FOR BOTTOM ACCESS FASTENING.
  - ③ BEAM PATH MAY NOT BE CENTERED OR PERPENDICULAR TO FACE PLATE APERTURE.

## Recommended Applications



100 kHz pulse frequency for accurate raster image scanning at high speeds.



Powerful, accurate laser output that can be used on a wide variety of materials.



Small footprint, light weight, and high resolution imagery engineered to fit a wide variety of automated manufacturing systems.

## Contact Us

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