

DESTINY | CO₂ LASERS

Most Compact High Power Design



Easy to Integrate

Powerful and compact for easy integration: robot arm-mount cell, gantry-mount tables, automated web systems and more.



Unmatched Longevity

No laser gas degradation for exceptional power stability.



The CeramiCore® Edge

Realize the benefits of Improved CO₂ Laser Performance and Reliability.

Optimized CERAMICORE® Performance

Unparalleled Efficiency

The Destiny Series' unique CERAMICORE® technology can process most applications with **greater efficiency and performance** than conventional glass and metal laser tubes. How we do it: The electrodes are mounted externally to the inert ceramic chamber that hermetically seals the laser gas. This eliminates potential metal contamination and power loss associated with conventional sealed CO₂ lasers.

You achieve **maximum performance and uptime**. The low thermal expansion coefficient of the ceramic material is a major advantage. It promotes consistent optical alignment, long-term power stability, and superior beam characteristics that results in **higher productivity and profitability!**

Applications

High Performance Destiny Sealed CO₂ Laser

The Destiny Series provides more efficient production for the following applications:

- Cutting/perforating
- Engraving/etching
- Ablation
- Glass processing
- Textile processing
- Acrylic processing

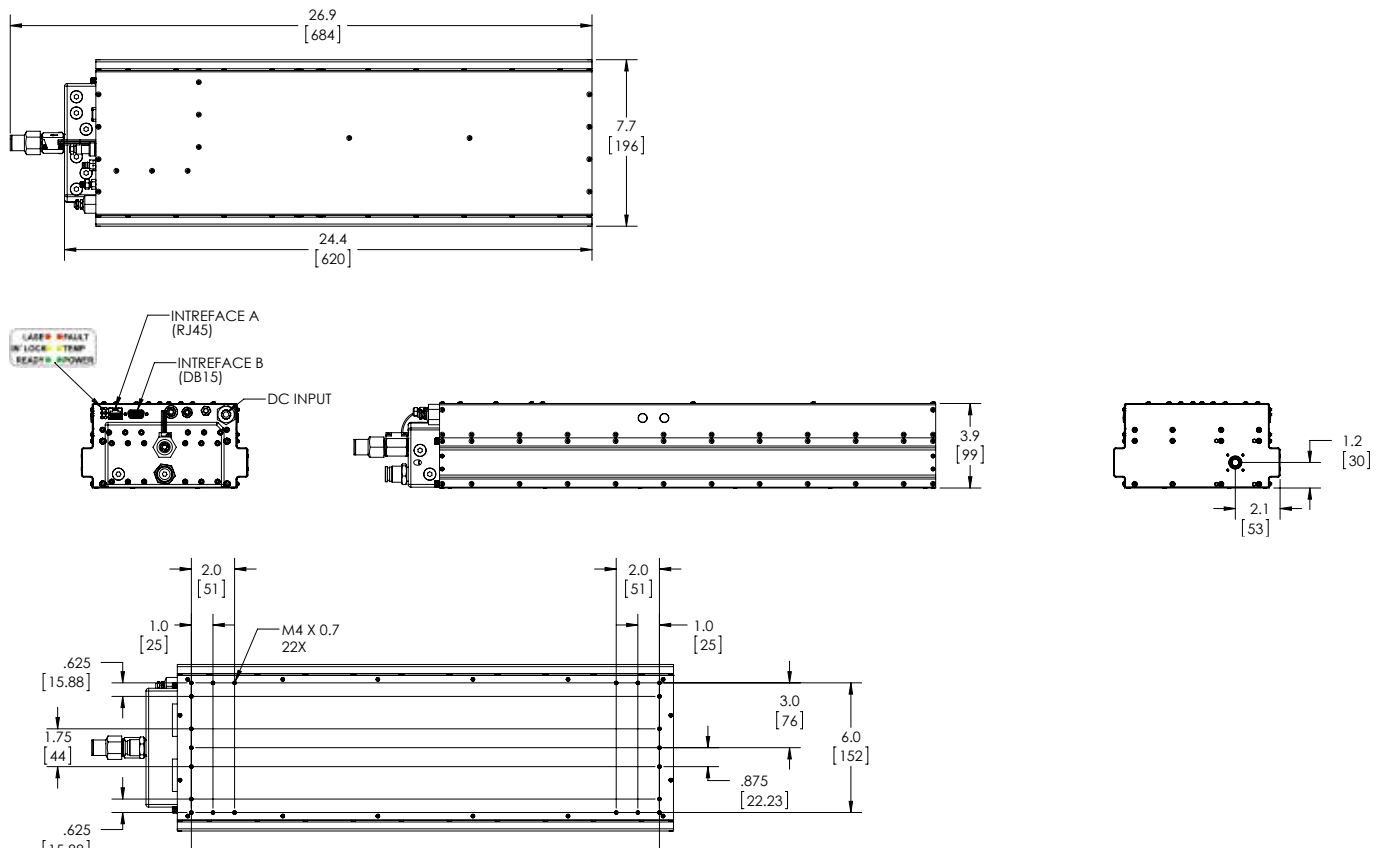
Benefits

Unlock More Efficient Solutions for Your Applications

The Destiny Series is widely known for its outstanding performance in the 200 to 300 W sealed CO₂ laser market. It is the **most compact laser in its class!** You benefit from:

- Space-saving CERAMICORE® design and construction.
- Simple and concise optics for superior laser beam quality.
- Efficient RF power supply electronics to generate maximum laser power.
- The most compact dimensions, lowest weight, and highest operating efficiency.
- Superior performance in power, stability, pulsing, beam quality, and lifetime.

Technical Drawings



Customizations & Options

Destiny Options for Your Lasers

Customize the Destiny sealed CO₂ lasers for your applications:

- Power levels: 200 W and 250 W
- Wavelengths options: 10.6 μm, 10.2 μm
- Pulsing options: standard
- Cooling options: water-cooled
- Beam expansion/collimation: 6x, 5x, 4x, 3x, 2.5x
- Laser controls
- Customized final testing
- Operation and training programs
- Rapid response service program
- Laser gas degradation insurance

Advantages

Longevity and High-Power

Profit from the following advantages of our Destiny Series:

- Compact package for robotic and gantry laser mounting
- Retrofit replacement for your old conventional CO₂ laser
- Patented CERAMICORE® design ensures longevity
- Inert CERAMICORE® prevents laser gas contamination, power loss
- Low thermal expansion CERAMICORE® for high stability
- Extended power stability from 2% to maximum power
- Short rise and fall times; good pulsing characteristics
- Advanced RF driver electronics: reliable, efficient and state-of-the-art
- 30% fewer laser components; highest reliability

Specifications

Destiny		
Model	D200	D250
Nominal Power	200 W	250 W
Beam Quality	$M^2 \leq 1.2$	$M^2 \leq 1.2$
Beam Ellipticity	< 1.2:1	< 1.2:1
Beam Diameter, $1/e^2$ @ 0 m	2.5 ± 0.5 mm	2.5 ± 0.5 mm
Beam Divergence (full angle)	6 ± 1 mrad	6 ± 1 mrad
Wavelength	10.6 μm, 10.2 μm	10.6 μm, 10.2 μm
Rise Time	< 75 μs	< 75 μs
Power Stability*, Water	< ± 4%	< ± 4%
Polarization	Vertical to mounting plate	Vertical to mounting plate
Cooling	Water	Water
Input power / Heat Load	2340 W	2640 W
Input Voltage, Current	45 V / 52 A	48 V / 55 A
Frequency Range	0.1 - 140 kHz	0.1 - 140 kHz
Operating Temperature	5 °C - 40 °C / 40 °F - 104 °F	5 °C - 40 °C / 40 °F - 104 °F
Operating Humidity	Non-Condensing	Non-Condensing
Shipping Temperature	-10 °C - 60 °C / 14 °F - 140 °F	-10 °C - 60 °C / 14 °F - 140 °F
Weight	24.6 kg / 52 lbs.	24.6 kg / 52 lbs.
Dimensions L x W x H	684 x 196 mm x 99 mm	684 x 196 mm x 99 mm

*Power Stability is measured after 5 minutes warmup.
Iradion follows a policy of continuous product improvement. All specifications are subject to change without notice.

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ENDURING EXCELLENCE, PULSE BY PULSE.

