

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.

Part of Ceramicore® - Sealed in purity. Designed for life.

With our patented Ceramicore® technology, you get pure ceramic CO₂ lasers engineered for unmatched stability, long life, and continuous-wave productivity.

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.

Advantages

Longevity and high-power

Profit from the following advantages of our Destiny series:

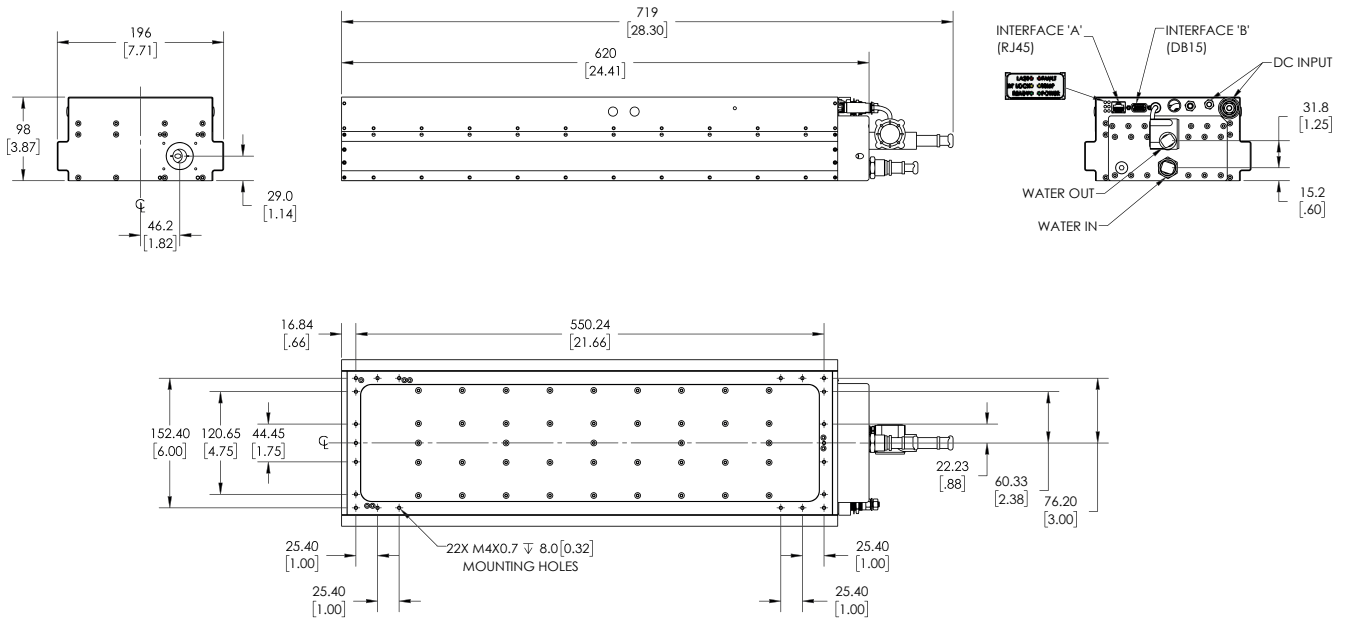
- Compact package for robotic and gantry laser mounting
- Retrofit replacement for your old conventional CO₂ laser
- Patented Ceramicore® design ensures longevity
- Inert Ceramicore® prevents laser gas contamination, power loss
- Low thermal expansion Ceramicore® for high stability
- Extended power stability 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

Laser		
Model	D200	D250
Central wavelength	10.6 µm, 10.2 µm	10.6 µm, 10.2 µm
Laser performance		
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
Fall time	< 75 µs	< 75 µs
Power stability*, water	< ± 4 %	< ± 4 %
Laser beam propagation		
Beam diameter, 1/ e2 @ 0 m	2.5 ± 0.5 mm	2.5 ± 0.5 mm
Beam divergence (full angle)	6 ± 1 mrad	6 ± 1 mrad
Polarization	linear (parallel to mounting plate)	linear (parallel to mounting plate)
Operating specifications		
Input voltage, current	45 V / 55 A	48 V / 55 A
Frequency range	0.1 – 140 kHz	0.1 – 140 kHz
Cooling and ambient		
Cooling	water	water
Input power/heat load	2340 W	2640 W
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
Dimensions and weights		
Dimensions laser head (L × W × H)	684 × 196 mm × 99 mm	684 × 196 mm × 99 mm
Weight laser head	24.6 kg / 52 lbs.	24.6 kg / 52 lbs.

Technical drawings



> Industrial lasers
that last