

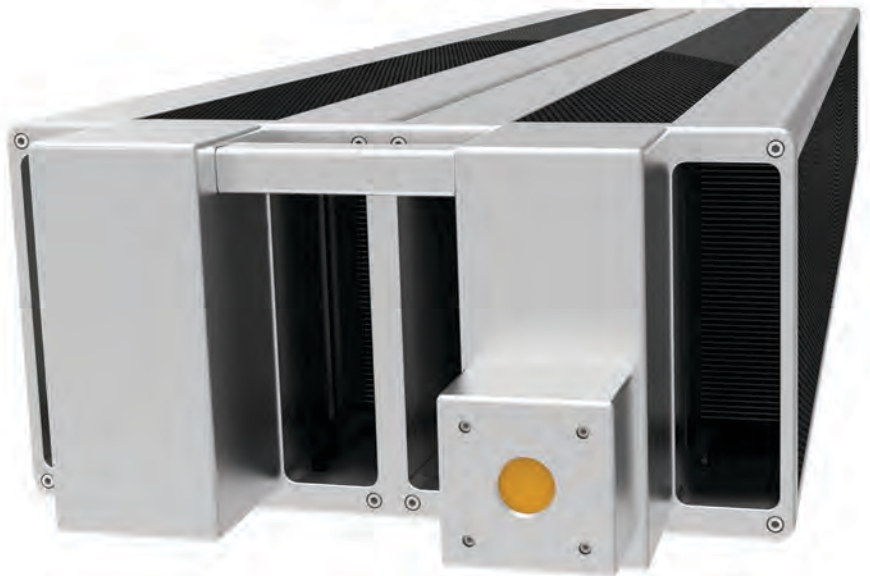
BENEFITS

- Long operating life
- Stable and reliable under the most demanding conditions
- Maintenance-free
- Excellent beam quality in both near and far fields
- Easy integration into all types of OEM system configurations
- Compact resonator with integrated RF for size and convenience

FEATURES

- **Advanced Technology** – RF-excited laser with an internal tickle, and RS-485 communications queries laser status during operation. Laser also can be pulse-width modulated up to CW.
- **Safety** – TTL temperature warning output guards against overheating. Fault indicator LED and interlock circuit built in.
- **Simplified Integration** – Low-profile mounting plate with quick release electrical connectors can be mounted in any orientation.
- **Options** – A variety of options are available, including visible red pointer coaxial with the main beam, reinforced front mounting plate, and water-cooling.
- **Customer Service** – The most responsive, customer-oriented technical support in the industry.
- **Superior Construction** – Metal construction, precision machining, and the highest quality components is fundamental to the design of the laser.

500 watt Air-cooled CO₂ Laser Source



The patented slab resonator design is the foundation of our most powerful laser sources creating its compact footprint and easy integration into any OEM configuration. Our lasers produce excellent beam quality in both near and far fields. The stability of high peak power yields faster processing, increased throughput, with the capability to cut thicker materials, produce cleaner cuts and deeper marks.

A robust internal RF power supply operates on 48 volts DC and includes a communication port for monitoring laser status. Integrated temperature-controlled fans facilitate quiet operation at lower laser operational duty cycles. The laser comes optionally with a pointer.

Universal Laser Systems is a leader in laser technology, delivering innovative CO₂ OEM laser solutions and worldwide support to meet challenging business requirements and the most advanced needs of our customers.

ULCR-500

Parameter **500 watts**

Rated Power	500 W
Wavelength	10.6 μ m
Power Stability	\pm 5% after 15 minutes of CW operation
M²	1.2 \pm 0.1
Beam Size (Near Field)	8 \pm 1 mm
Beam Divergence (Full Angle)	4 \pm 1 mrad
Polarization	Cross-polarized
Pointing Stability	\pm 200 μ R
Rise Time	140 \pm 40 μ s
Duty Cycle	0-100%
Modulation Signal Type	5 volt logic
Cooling	Air (built in)
Weight (w/Integrated Cooling)	90.7 kg
Overall Dimensions (LxWxH)	1323 mm x 398.8 mm x 198 mm

Environmental

Ambient Temperature	10–35 °C
Relative Humidity	< 90% (non-condensing)

Power Requirements

DC Input Voltage	48 V DC
Current (CW, including fan)	160 A Max
Inrush Current	300 A

For specific OEM laser information, call 1-800-859-7033 or visit www.CO2laser.com.

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Universal's ongoing commitment to technological innovation has resulted in U.S. patent numbers 5,661,746; 5,754,575; 5,867,517; 5,881,087; 5,894,493; 5,901,167; 5,982,803; 6,181,719; 6,313,433; 6,342,687; 6,423,925; 6,424,670; 6,983,001; 7,060,934; 7,415,051; 7,469,000; 7,715,454; 7,723,638; 7,947,919; 8,101,883; 8,599,898; 8,603,217; D517,474. Other U.S. and international patents pending.

Output power is guaranteed to exceed the specified level for a period of 15 months from the date of purchase, regardless of use. At temperatures below 50 °F [10 °C] operation of the laser may be intermittent and there is a potential for damage to the power supply and optics.