



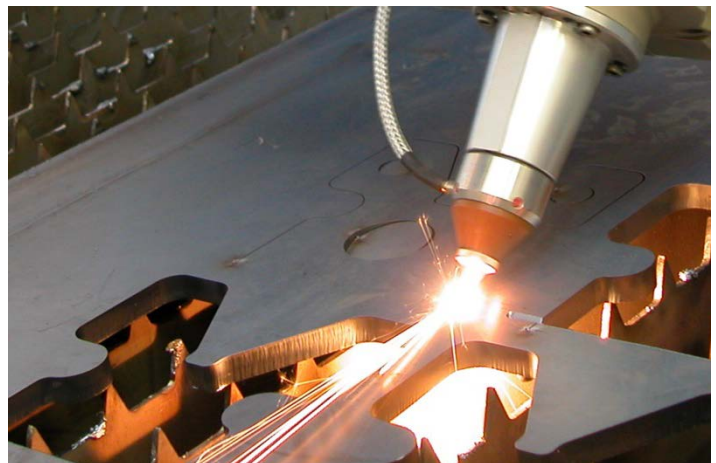
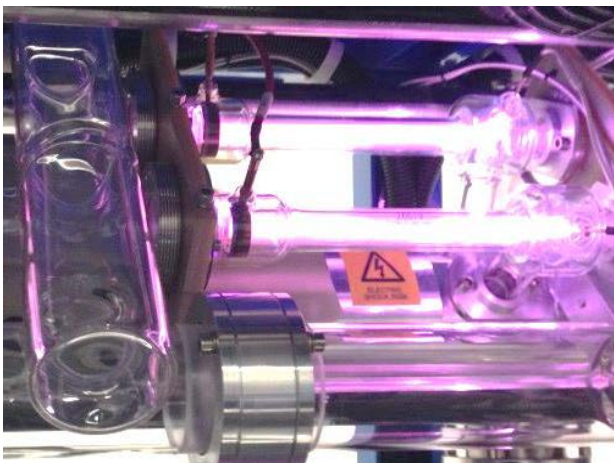
CM Series CO₂ Lasers - New Laser Generation

CONVERGENT PHOTONICS has been providing laser source since 1960's., offering highest performing, highly efficient and reliable industrial CO₂ Lasers for manufacturing.

CONVERGENT PHOOTNICS CM Series Lasers, with optimum beam quality for laser processing, excel in cutting and welding a broad range of materials and thicknesses. CM Series Lasers with DC discharge are the most efficiently run industrial CO₂ lasers available. Equipped with magnetic bearing turbine, the laser requires minimal maintenance, reducing cost of ownership.

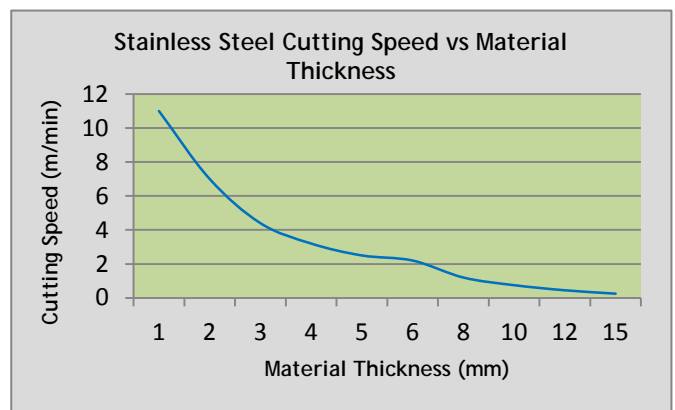
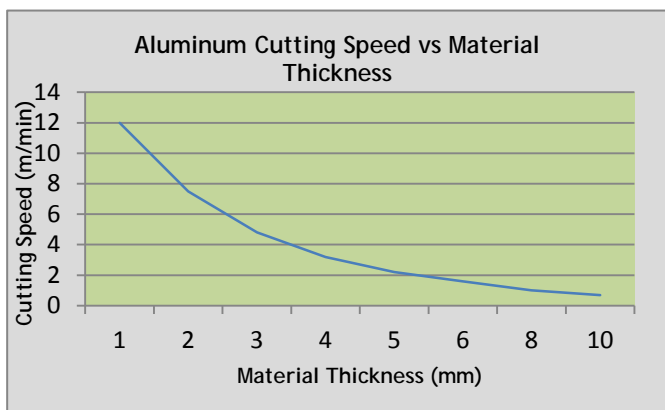
New CM Series features include:

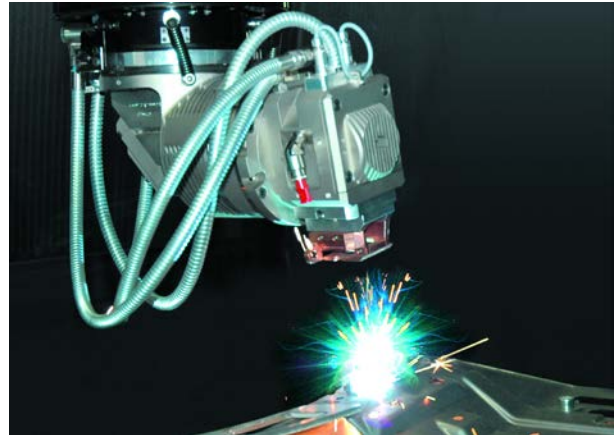
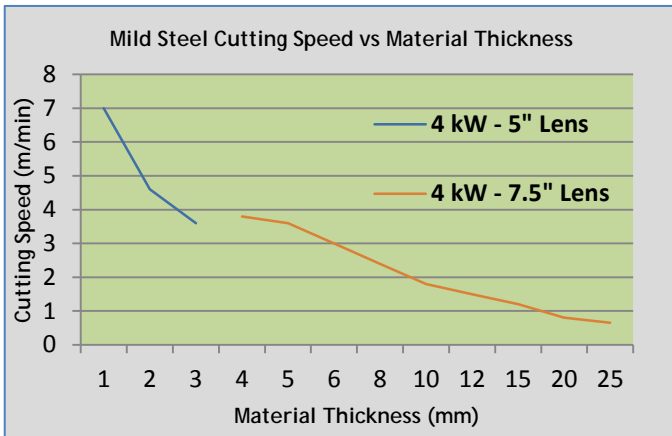
- Low Gas Consumption - Total gas consumption 5-15 L/H
- Energy Conservation Mode
- Solid State High Voltage Power Supply (4kW only)
- Magnetic Bearing Turbine
- Oil Free Transformer Power Supply



CM Series Performance

Typical cutting capabilities of CM Lasers for Aluminum, Stainless Steel, and Mild Steel are shown in graphs below.





CM series beam quality enables significant improvement in welding applications.

Specifications

CM4000	
Average Power	200 - 4000 W
Wavelength	10.6 μm
Beam Propagation Factor M ² typical (Prometec)	2.0 - 2.4
Beam Divergence	1.5 mrad half angle
Beam Diameter at Output	14.5 mm @ 1/e ² , 19 mm full beam
Pulsing	
<i>Pulse Rep. Rate</i>	0-2 kHz
<i>Pulse Width</i>	>100 μseconds
Pointing Stability	+/-150 μrad
Ambient Temperature (min/max)	10°C / 40°C (50°F / 104°F)
Relative Humidity	<95% non-condensing
Diode Pointing Laser	Wavelength 635 nm Power <1 mW
Electrical Power Consumption	34 kW
Voltage	460 ± 10% VAC, 3-phase
Cooling	
<i>Required capacity</i>	30 kW
<i>Inlet temperature</i>	18°-20° C
<i>Nominal inlet pressure</i>	4 Bar
<i>Max inlet pressure</i>	5 Bar
<i>Minimum flow rate</i>	133 Lpm
<i>Fluid</i>	Distill Water / 35% Glycol
<i>Filter requirement</i>	500 μm
Gas Consumption - He (68%), N ₂ (36%), CO ₂ (4%)	5 - 15 LPH
Dimensions (mm) W x H x L	884 x 960 x 3156
Weight	1,200 Kg
Ingress Protection Rating (IEC60529)	IP54 (NEMA 13 equivalent)