



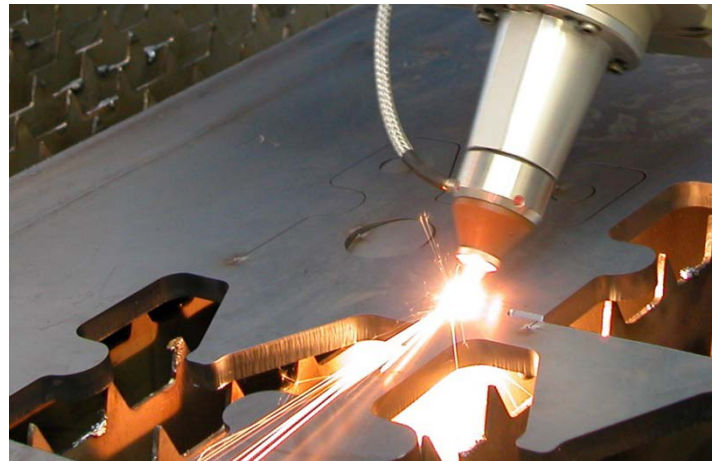
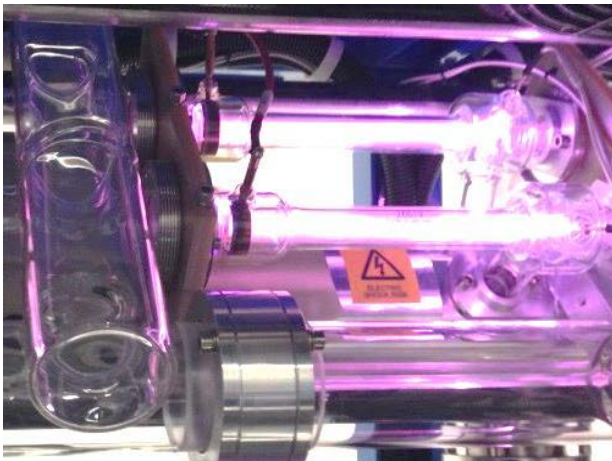
CM Series CO₂ Lasers

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.

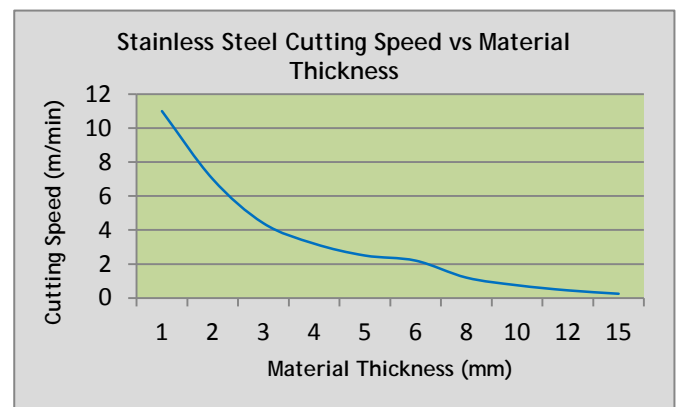
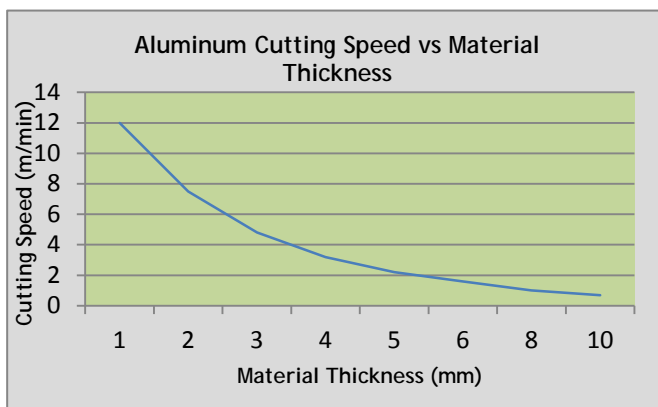
New CM Series features include:

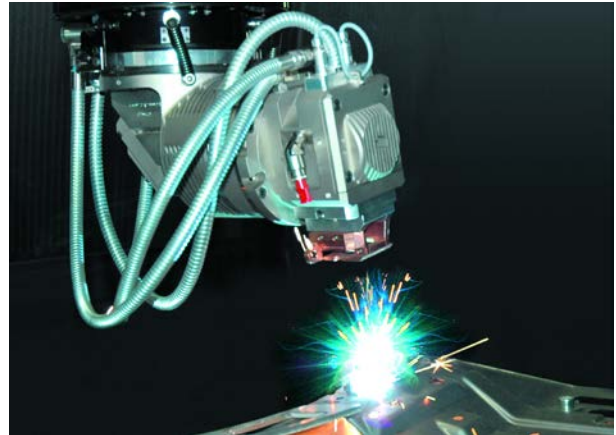
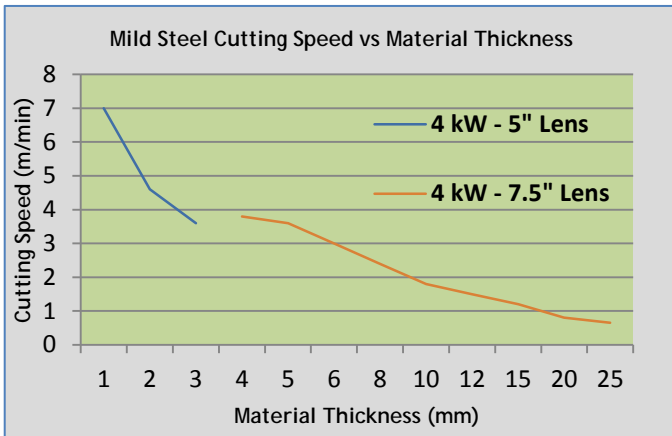
- Low Gas Consumption - Total gas consumption 5-15 L/H
- Energy Conservation Mode
- New Solid State high voltage power supply with hi-tech resin, Oil Free Transformer (no more oil submerged components)
- Magnetic Bearing Turbine
- Oil Free Transformer Power Supply



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	CM4500
Average Power	200 - 4000 W	200 - 4500 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	
Diode Pointing Laser	Wavelength 635 nm Power <1 mW	
Electrical Power Consumption	34 kW	36 kW
Voltage	400/600V _{ac} 3P	
Operating Environment (min/max)	10°C / 40°C (50°F / 104°F)	
Relative Humidity	<95% non-condensing	
Cooling		
<i>Required capacity</i>	30 kW	33kW
<i>Inlet temperature</i>	18° -20° C	
<i>Pressure</i>	3 bar - 7 bar	
<i>Flow</i>	133 l/min	
<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 l/hour	
Dimensions (mm) W x H x L	884 x 960 x 3156	
Weight	1,200 Kg	
Protection Degree(IEC60529)	IP54 (NEMA 13 equivalent)	