



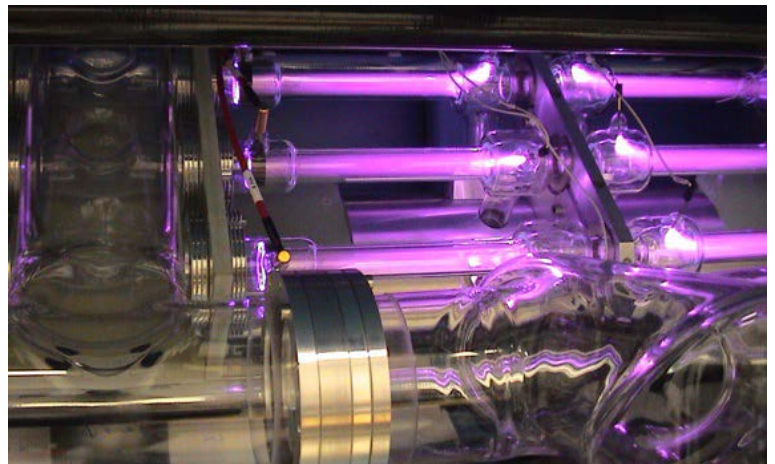
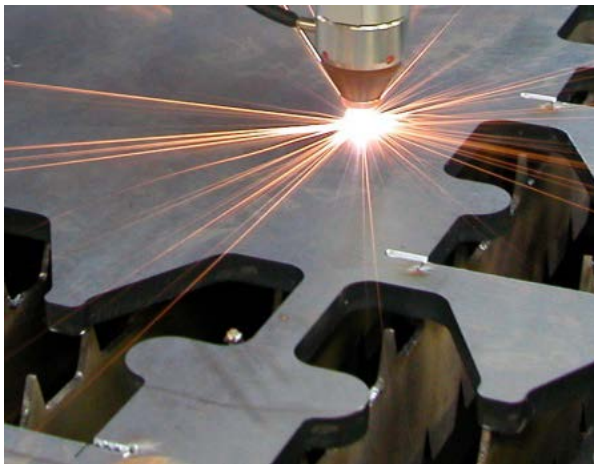
## CV Series CO<sub>2</sub> Lasers

Convergent Photonics has been in business providing laser source since 1960's. Convergent Photonics provides highest performing, highly efficient and very reliable CO<sub>2</sub> lasers for manufacturing.

Convergent Photonics CV Series Lasers, with optimum beam quality for laser processing, excel in cutting and welding broad range of materials and thickness. CV Series Lasers with DC discharge are the most efficiently run industrial CO<sub>2</sub> laser available. With magnetic bearing turbine, the laser requires minimal maintenance, reducing cost of ownership.

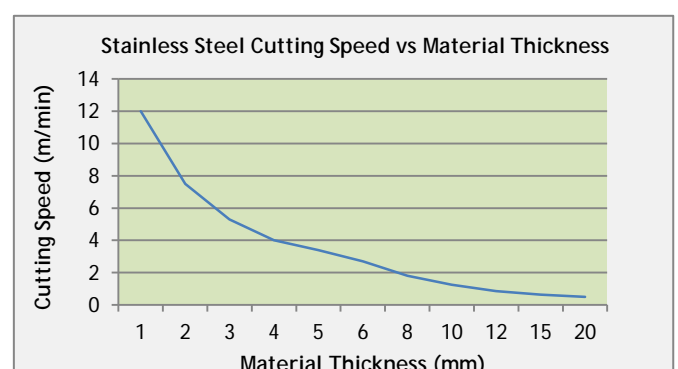
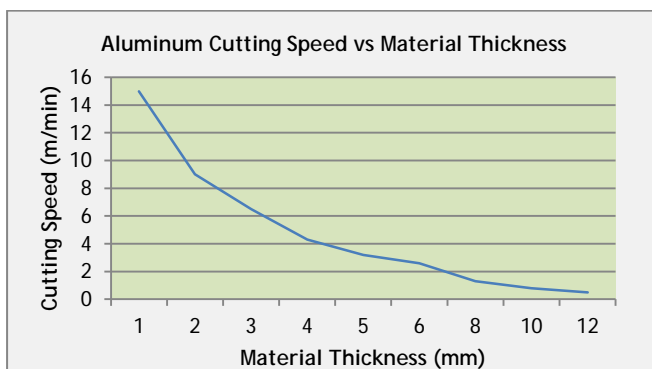
CV Series Lasers features include:

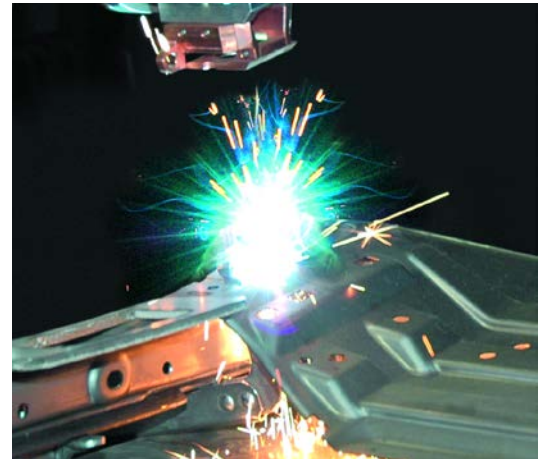
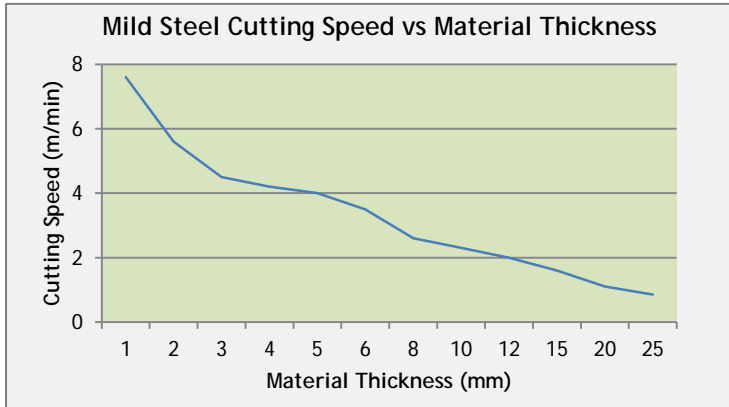
- High Quality Beam Output at High Power
- Maintenance-free Magnetic Turbine
- Oil free transformer Power Supply
- Solid State High Voltage Power Supply



## CV Series performance

Typical cutting capabilities of CV Lasers for Aluminum and Stainless Steel are compared with legacy lasers demonstrating significant increase in speed.





## Specifications

		CV5000
Power Range		200 W - 5000W
Wavelength		10.6 μm
Beam Propagation Factor M <sup>2</sup> typical (Prometec)		2.2 - 2.6
Beam Divergence		1.5 mrad half angle
Beam Diameter at Output		14.5 mm @ 1/e <sup>2</sup> , 19 mm full beam
Pulsing	Pulse Rep. Rate	0-2 kHz
	Pulse Width	>100 μseconds
Pointing Stability		+/-150 μrad
Diode Pointing Laser		Wavelength 635 nm Power <1 mW
Electrical Power Consumption		40 kW
Voltage		400/600 V <sub>ac</sub> 3P
Ambient Temperature (min/max)		10°C / 40°C (50°F / 104°F)
Relative Humidity		<95% non-condensing
Cooling	Req. Capacity	36 kW
	Temperature	18° C / 20° C (64,4° F/68° F)
	Pressure	4 bar - 5 bar
	Flow	133 l/min
	Fluid	Distill water / 35% Glycol
Filter requirement		500 μm
Dimensions W / H / L		849.6 mm / 957 mm / 3119 mm
Gas Consumption - He (68%), N <sub>2</sub> (36%), CO <sub>2</sub> (4%)		20-70LPH
Weight		1,200 kg
Protection Degree (IEC60529)		IP54 (NEMA13 equivalent)

