

# BLADE



## SEMISEALED® SERIES



Mid power CO<sub>2</sub> LASER  
Power from 200W to 1500W

- Modular power supplies
- Semisealed® operation
- High power stability
- Low operative costs: minimum electrical consumption
- No moving parts allowing high reliability
- Highest beam quality:  $M^2 < 1.1$  (pure TEM00)

# BLADE

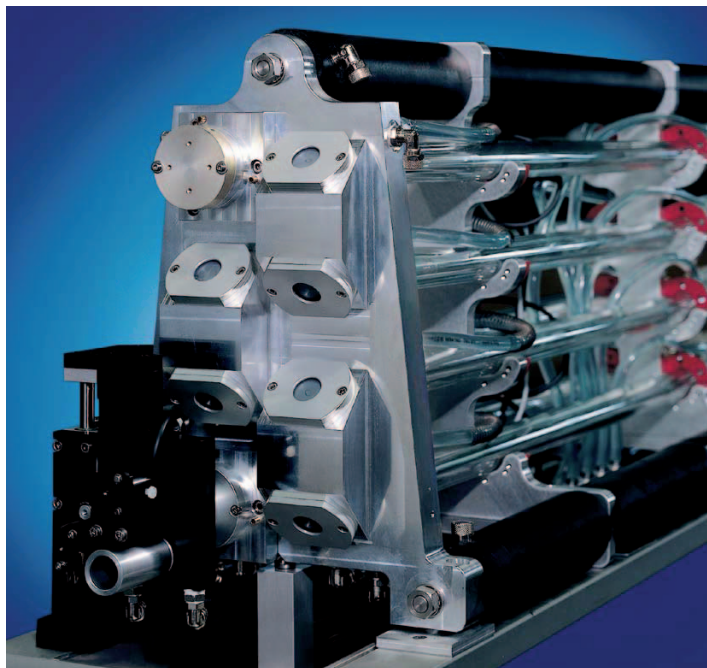
## SEMISEALED® SERIES

In the power range from 200 W to 1500 W El.En. has a two decades experience with more than 2000 industrial installations. The exceptional characteristics of the laser sources of the Blade Semisealed® series allow to obtain excellent performances in applications of marking and cutting of non metal materials, cutting and welding of thin metals.

The operative costs, (lowest in this power range), the high beam quality, the high electrical efficiency, the excellent power stability and the great reliability make this laser one of the most appreciated from the industrial laser users all over the world.

### MAIN APPLICATIONS

- Plastic, wood and leather cutting
- Die-boards cutting



### Systems Specifications

Model	Blade 500S	Blade 1000S	Blade 1500
Rated power (W)	500	1000	1500
Dynamic power range (W)	600	1200	1700
Power stability		3%	
Wavelength (μm)		10.6	
Polarization		Linear vertical	
Beam quality	< 1,1	<1,1	<1,2
Beam diameter (full beam at the exit) (mm)	≤ 14	≤ 16	< 18
Maximum pulsing frequency (Hz)		1000	
Minimum pulse duration (minimum modulation T <sub>ON</sub> ) (μs)		150	
Standard gas mix composition		CO <sub>2</sub> N <sub>2</sub> - He/ 4.5:13.5:82	
Standard gas mix accuracy		±5% or less for each component	
Minimum gas purity		> 99.99%	
Standard gas mix consumption (cat on) (NI/h)	35 ± 3,5	50 ± 5	60 ± 6
Environmental temperature range		5°C - 35°C	
Maximum humidity @ 28°C		75%	
Mains line supply		400 V±5% 3 phases 50-60 Hz (no neutral)	
Absorption	Max current 8.5 A Max power 5.5 kVA	Max current 15.7 A Max power 10 kVA	Max current 20.2 A Max power 13.3 kVA
Coolant temperature (°C)		25°C ± 1°C	
Coolant flow	1.5 m <sup>3</sup> /h@1.5 bar	2x1.5 m <sup>3</sup> /h@1.5 bar	2x1.5 m <sup>3</sup> /h@1.5 bar

NOTE: Aiming to product improvement El.En. SpA reserves the right to change specifications without notice. Purchaser acknowledges that his/her products must comply with applicable regulations before they can be sold to a customer. El.En. lasers are produced under a quality assurance system certified according to ISO 9001.



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