



# CO<sub>2</sub> laser



## InfraLight-100/200

### Applications:

- marking
- engraving of non-metallic surface
- holing in circuit boards
- lidars
- IR spectroscopy
- surface cleaning

### Features:

- high repetition rate
- single unit
- computer control

## InfraLight-SP

### Applications:

- isotope separation
- non-destructive testing
- lidars
- surface cleaning
- marking
- holing in circuit boards
- IR spectroscopy

### Features:

- short pulse
- high amplification
- wavelength tuning
- wide range of working pressure
- computer control
- built-in gas regeneration system (option)

## InfraLight-L

### Applications:

- CO<sub>2</sub> laser for IR lidars

### Features:

- 2-beams laser  
(2 discharge volume in one head)
- high speed wavelength tuning
- high repetition rate
- single unit
- computer control

# CO<sub>2</sub> laser

InfraLight – 100 / 200 TEA CO <sub>2</sub> Lasers – quasi-sealed operation mode		
	InfraLight 100	InfraLight 200
Wavelength	10.6 μm	
Pulse energy (multimode)	50 mJ	1, 2, 3 J
Max repetition rate	300 Hz	50 Hz
Max average power (multimode)	15 W	30 W
Pulse duration	3 μs	
Beam size	10 mm	15 x 15, 15 x 30 mm
Divergence	< 3 mrad	
Control	RS 232 or RS 422	
Power	220 or 110 V, 3 phases	
Dimensions (LxWxH), weight	780 x 330 x 583 mm, 80 kg	1360 x 382 x 720 mm, 170 kg
InfraLight-SP TEA CO <sub>2</sub> Lasers – wide range of working pressure (from 200 to 1000 mbar)		
	InfraLight – SP 10	InfraLight – SP 100
Pulse repetition rate	10 Hz	100 Hz
Wavelength tuning	9.2 – 10.8 μm	
Pulse energy (line P(20))	700 mJ	
Average output power	7 W	60 W
Average power stability	0.8% per hour	
Pulse-to-pulse energy fluctuations (standard deviation)	2%	
Pulse duration (FWHM)	50 – 100 ns	
Divergence	M <sup>2</sup> = 5.6; E = 700 mJ M <sup>2</sup> = 2.5; E ≤ 350 mJ	
Beam size	11x11 mm	
Power	220 or 110 V	
Control	RS 232 or RS 422	
Dimensions (LxWxH), weight	1360 x 382 x 720 mm, 180 kg	
InfraLight-L TEA CO <sub>2</sub> Lasers – 2-beams laser (2 discharge volume in one head)		
	Beam 1	Beam 2
Wavelength	9.2 – 10.8 μm	9.2 – 10.8 μm
Max pulse energy (P20)	20 mJ	20 mJ
Max repetition rate	500 Hz	500 Hz
Max average power (multimode)	8 W	8 W
Pulse duration	2 μs	2 μs
Beam size	8x5 mm	8x5 mm
Divergence	< 3 mrad	< 3 mrad
Pulse stability (90% pulses)	± 4	± 4
Tuning time from R(20) to P(20)	< 5 ms	< 5 ms
Control	RS 232 or RS 422	
Power	220 or 110, 3 phases	
Dimensions (LxWxH), weight	500 x 500 x 650 mm, 45 kg	