

# Compact TEA CO<sub>2</sub> Laser

The Most Reliable TEA CO<sub>2</sub> Laser

## Overview

Packaged into a single ergonomical enclosure with a corona pre-ionizer and a solid state switch pulsar, delivering in excess of 8 billion pulses ensuring minimal down time.

### Reliability

The new design is virtually maintenance free demonstrating 8 billion consistent pulses.

### Solid State Switch

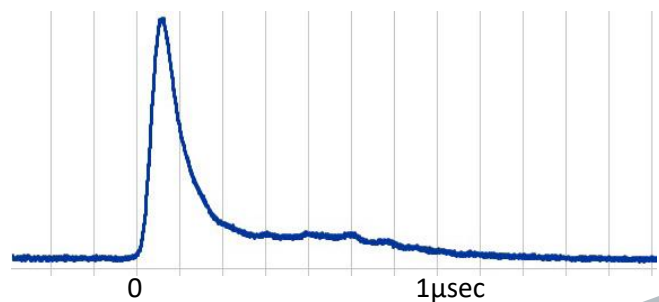
The all solid state switched pulse forming network provides extreme reliability and service life

### Maintainability

Simple maintenance and service by virtue of easily removable enclosure panels.

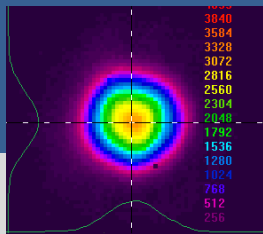
### Corona Pre-Ionizer

Improved stability and pulse jitter by implementation of the corona pre-ionization



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Model	10/70	20/80	30/75	60/90	100/100	500/100	100/20
Wavelength (µm)	9.3 or 10.6						
Repetition rate (Hz)	10	20	30	60	100	500	100
Pulse energy (J)	7	4	2.5	1.5	1	0.2	0.2
Average output Power (W)	70	80	75	90	100	100	20
Beam size (W x H)(mm)	30 x 30	25 x 25	20 x 20	20 x 20	15 x 15	10 x 10	8 x 8
Pulse Width - FWHM (ns)	50 -100						
Output stability (1 sigma)	< 4%						
Pulse timing jitter (1 sigma)	< 10ns						
Electrical Voltage	110V, 208V, 230V (50/60Hz) single phase						
Pulse circuit	Solid State switch						
Pre ionization	Corona Pre-Ionized						
Cooling requirements: Closed loop chiller water supply with temperature at 18°C, with a heat removal capacity	3kW						0.5kW
Dimensions (L x W x H)(mm)	1150 x 650 x 600						500 x 600 x 600
Weight (kg)	~300						~100
<b>Optional:</b> Wavelength tuner (um)	9.2 to 10.8						
<b>Optional:</b> Internal gas regeneration catalysts	Increases gas lifetimes to more than 200 000 000 pulses						

## Applications

- ✓ Non-Destructive Testing (NDT)
- ✓ Material Ablation
- ✓ Light Detection and Ranging (LIDAR)
- ✓ Extreme Ultraviolet (EUV) Generation



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