

# Compact Mini Series

## Industrial High Power Diode Laser

The Compact Mini lasers are fiber-coupled diode lasers offering up to 50 W output power. These lasers have been set-up for easy integration, flexibility and reliability in industrial applications such as selective soldering and plastic welding. Their user friendly graphic interface via USB port allows also simple operation as stand-alone unit.

Compact Mini lasers are available with various accessories and provide flexibility for the integration into a wide range of laser-based manufacturing systems and scientific applications.

### FEATURES & BENEFITS

- Output power: up to 50 W
- Fiber-Coupled
- Air-Cooled
- Long life diode modules

### APPLICATIONS

- Plastics Welding
- Selective Soldering
- Heat Treatment
- Scientific Applications







SPECIFICATIONS	Compact Mini				
Nominal Power (W)	30	40	50	37	40
Power Range (%)	10 to 100				
Laser Beam Quality (BPP) (mm * mrad)	11	22	44	22	44
Power Stability Over 24-hour; Cooling Water $\Delta T = \pm 1$ K (%)	$\pm 2$				
Pulse Frequency Range	100				
Laser On-Signal (Hz)	100				
Analog Modulation (Hz)	750				
Wavelength (nm)	980	980	980	808	808
ELECTRICAL RATINGS					
Voltage	100 to 240 (1P/N/PE)				
Connected Load (kVA)	~0.35				
Effective Power at Nominal Power (kW)	$\leq 0.31$				
Max. Current Consumption at 400 V (A)	$\leq 3.7$				
Fuses Type NH (A)	16				
FIBER DELIVERY SYSTEM					
Interface	SMA*	SMA			
Diameter ( $\mu\text{m}$ )	100	200	400	200	800
Numerical Aperture	0.22				
Length** (m)	$\leq 20$				
Accessories (options)	Fixed Optics				
DIMENSIONS & WEIGHTS					
Laser Dimension (L x W x H) (mm)	336 x 144 x 169				
Laser Weight (kg)	5 kg				
ENVIRONMENTAL CONDITIONS					
Ambient Temperature in Operation ( $^{\circ}\text{C}$ )	18 to 35 $^{\circ}\text{C}$ (64 to 95 $^{\circ}\text{F}$ )				
Storage Temperature ( $^{\circ}\text{C}$ )	5 to 50 $^{\circ}\text{C}$ (41 to 122 $^{\circ}\text{F}$ )				
CUSTOMER INTERFACE					
Analog Power (V DC)	0 to 10				
Digital Signals (V DC)	24				

\* Non-detachable fiber

\*\* Fiber is not included

AVAILABLE ACCESSORIES

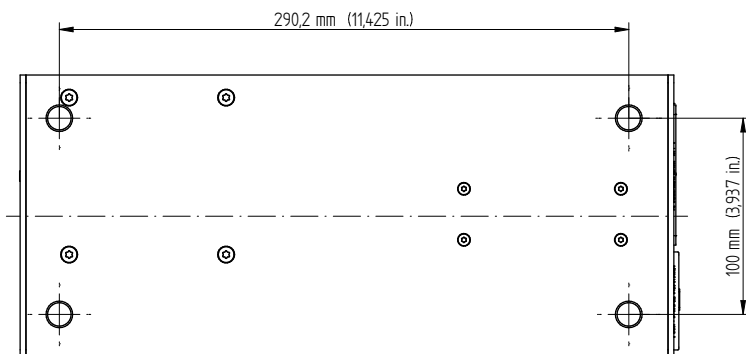
COLLIMATORS	FIXED OPTICS	OPTICS FOR RADIAL WELDING	LINE OPTICS
			
<p>Collimators are available in different focal lengths for SMA and QBH fiber connectors.</p>	<p>The processing head with an integrated pyrometer is used for non-contact measuring of the workpiece temperature and enables closed-loop temperature control.</p>	<p>The processing head enables simultaneous welding of a symmetrical radial component without rotating the part or optics. The envelope and optical performance can be optimized to the specific welding geometry.</p>	<p>Used for applications requiring a rectangular or square spot. Customized optical layouts allow a wide variation of different focus.</p>

All processing heads are available with SMA or QBH fiber connector.

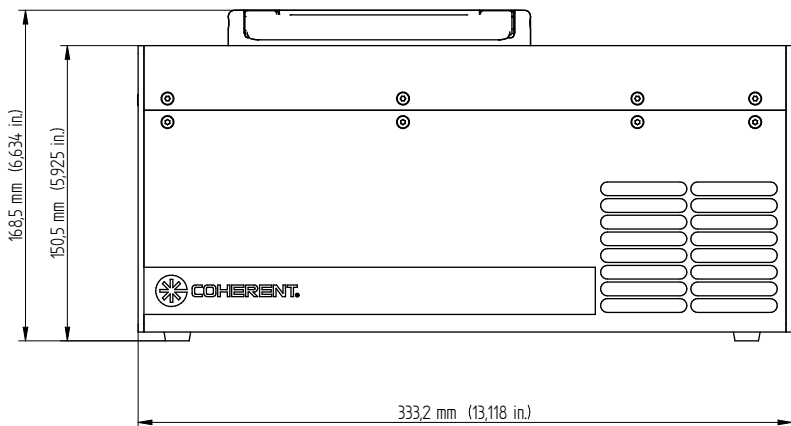
## MECHANICAL SPECIFICATIONS

### Compact Mini Series

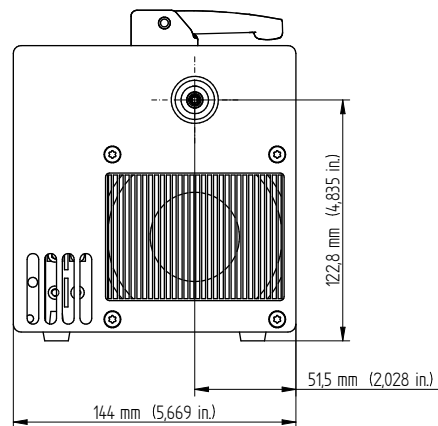
Top View



Side View



Front View



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Diode Laser Systems. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. MC-025-19-0M0619 Copyright ©2019 Coherent, Inc.

