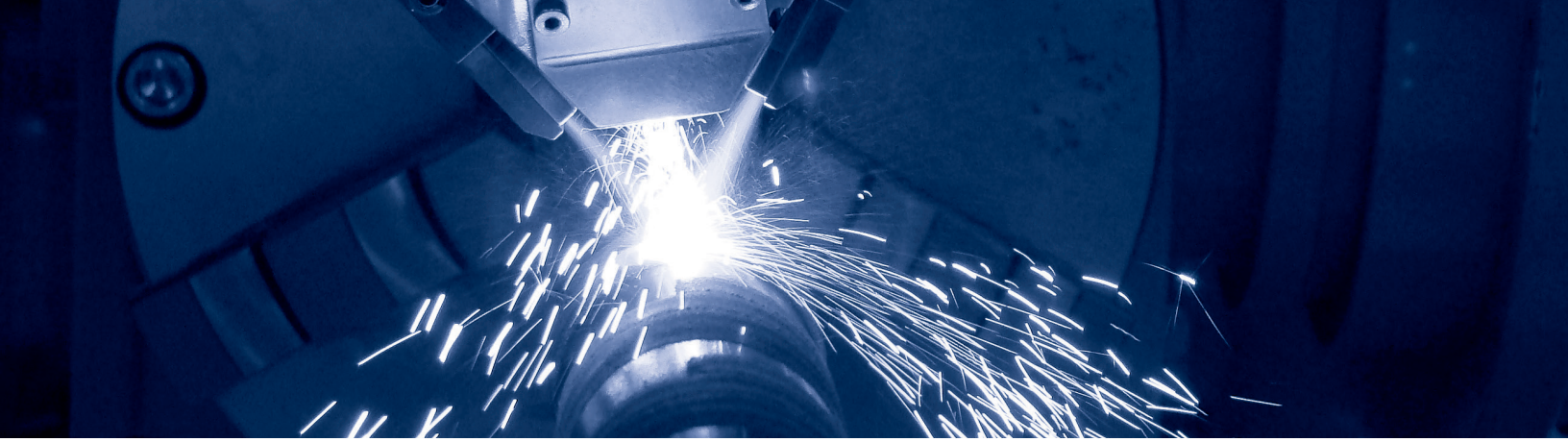

HighLight DL HPS Series

All-In-One, Industrial Diode Laser

The Coherent HighLight™ DL HPS lasers are high power, fiber delivered industrial diode laser systems with integrated water/air chiller that offers unmatched convenience and economy for metal processing applications such as cladding, heat treating, brazing and welding. Also, the HighLight™ DL HPS series uses conduction-cooled diodes which do not require deionized cooling water. Finally, its very high wall plug efficiency minimizes energy consumption and cost of ownership.

The HighLight™ DL HPS series is available with an extensive range of options which provide the flexibility for integration into a wide variety of laser-based manufacturing systems.

FEATURES & BENEFITS

- Output power: 1,000 to 4,000 Watts
- All-In-One Laser System
- Integrated water/air chiller
- Fiber coupled
- Highly cost and energy efficient

APPLICATIONS

- Cladding
- Heat treatment
- Brazing
- Welding

COHERENT®
Superior Reliability & Performance

SPECIFICATIONS	HighLight DL1000HPS	HighLight DL2000HPS	HighLight DL3000HPS	HighLight DL4000HPS
Nominal Power, cw (W)	1000	2000	3000	4000
Power Range (%)	10-100			
Laser Beam Quality (BPP) (mm*mrad)	<100			
Power Stability Over 24-hour; Cooling Water ΔT = ± 1 K (%)	± 2			
Pulse Frequency Range LaserOn-Signal (Hz)	1000			
Analog Modulation (Hz)	600			
Wavelength (nm)	980 & 1020		940; 980 & 1020	
Wavelength Tolerance (nm)	± 10			
ELECTRICAL RATINGS				
Operating Voltage	3x AC 230/400 V ± 10 %; 50/60 Hz; PE or 3x AC 277/480 V ± 10 %; 50/60 Hz; PE			
Connected Load (kVA)	approx. 8	approx. 10	approx. 12	approx. 15.5
Effective Power at Nominal Power (kW)	approx. 7.6	approx. 9.4	approx. 11.4	approx. 14
Max. Current Consumption at 400 V (A)	< 11	< 14	< 17	< 25
Fuses Type NH (A)	16	16	32	32
COOLING INTEGRATED				
Cooling Water Quality	destilled water			
Cooling Water Tank Capacity (l)	32			
(refer to original manufacturer manual of cooling machine)				
FIBER DELIVERY SYSTEM				
Interface **	QBH, QD			
Diameter (µm)	1000			
Numerical Aperture (NA)	0.22			
Length (m)	≤ 35			
Accessories (options)	Collimators, Focusing optics			
DIMENSIONS & WEIGHTS				
Laser Dimension; w/o connectors (L x W x H) (mm)	~670 x ~1050 x ~1760			
Laser Weight; w/o cooling water and CCU**** (kg)	380			
ENVIRONMENTAL CONDITIONS				
Ambient Temperature (°C)	+10 to +40			
Humidity	Non-condensing environment			
Dew Point Temperature (°C)	≤19 w/o CCU **** / ≤32 with CCU****			
Storage (°C)	5 to 50			
CUSTOMER INTERFACE				
Analogue Power Control (V DC)	0 to 10 (600 Hz max. modulation frequency)			
Digital Power Control (V DC)	24			
Interface for Control via PC	Ethernet			
OPTIONS LASER				
	Bus Interface (CAN, EtherCAT)***			

* The recommended cooling capacity covers maximum power dissipation due to diode degradation and 100% laser power absorbed at an internal or external beam dump.
** Others on demand.
*** Other options are available upon request.
**** Climate Control Unit

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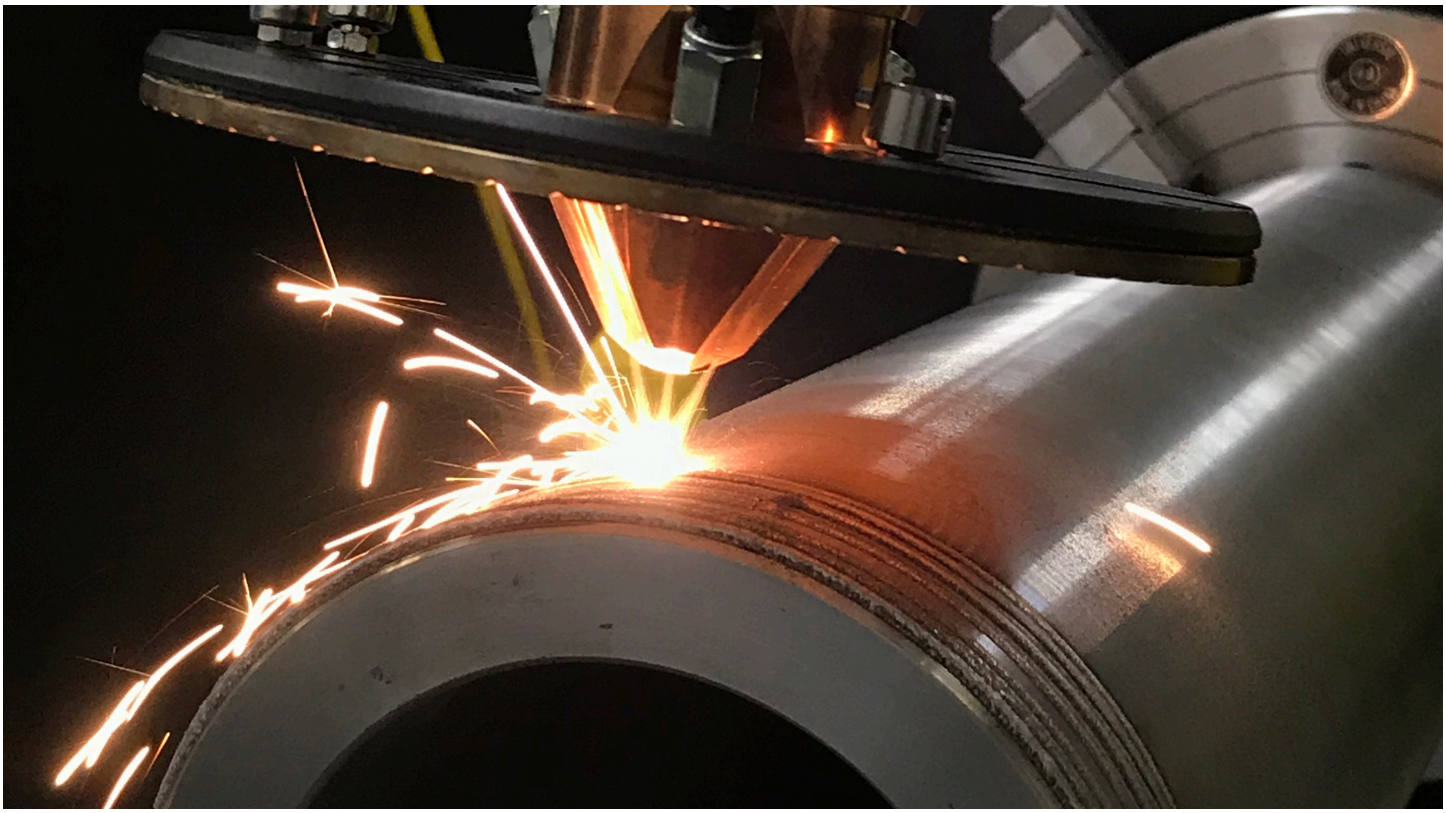
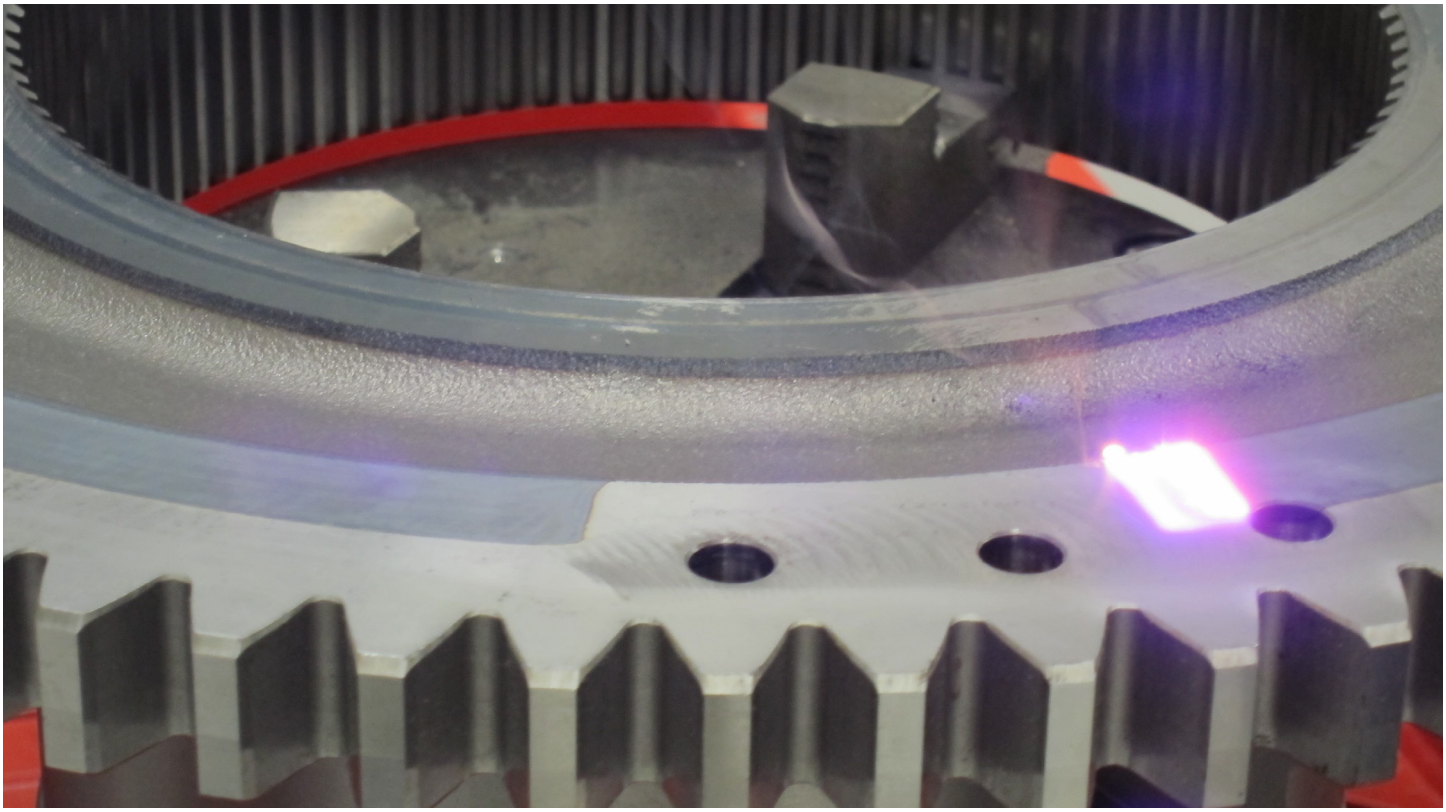
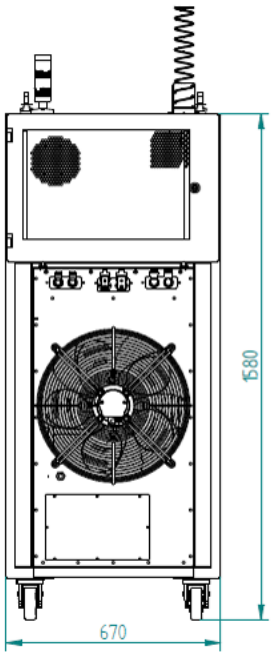
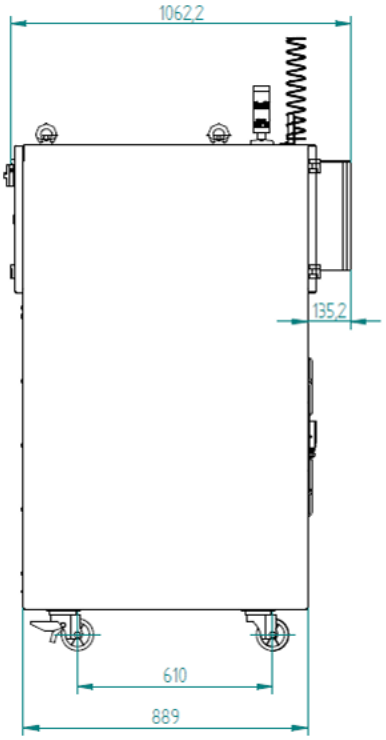


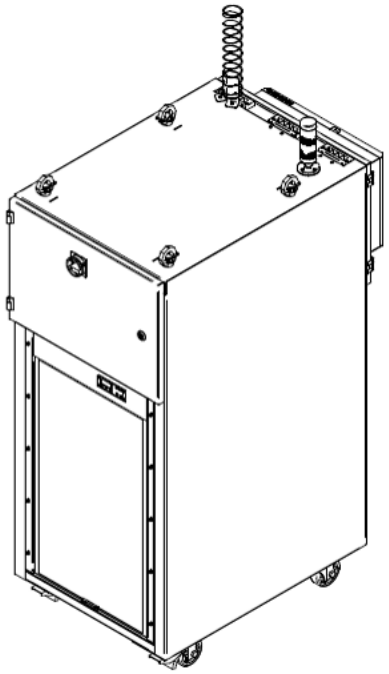


MECHANICAL SPECIFICATIONS

HighLight DL HPS Series







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Coherent-Dilas industrial lasers are designed in strict accordance with the respective safety regulations. We certify that each laser manufactured by our company complies with FDA Radiation Performance Standards, 21 CFR Subchapter J and with IEC 60825. Warning labels as shown in the figure appear on each Coherent-Rofin laser to indicate the respective classification.