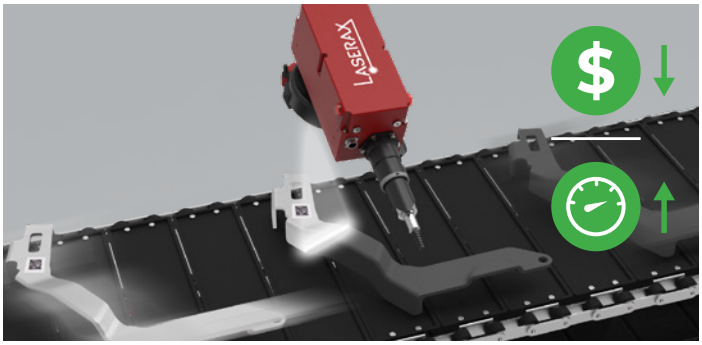
Product Sheet
OEM Systems

LXQ HP SERIES

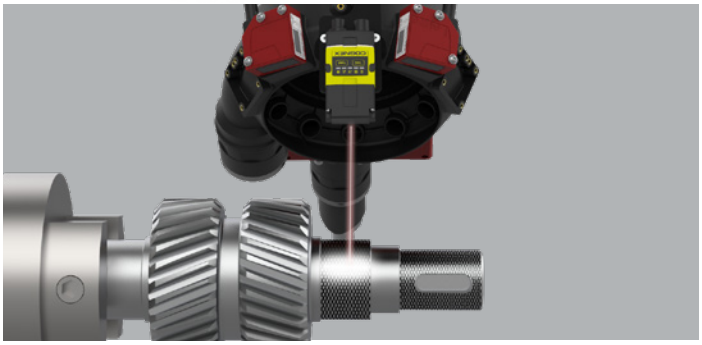
HIGH POWER FIBER LASER MARKING & CLEANING SYSTEM

The LXQ High Power Series is a single-mode fiber laser system designed for system integrators to succeed when facing the most challenging industrial applications. With its maximum power of 500W, it is the go-to product for laser marking, laser cleaning and laser texturing applications requiring a very short cycle time.



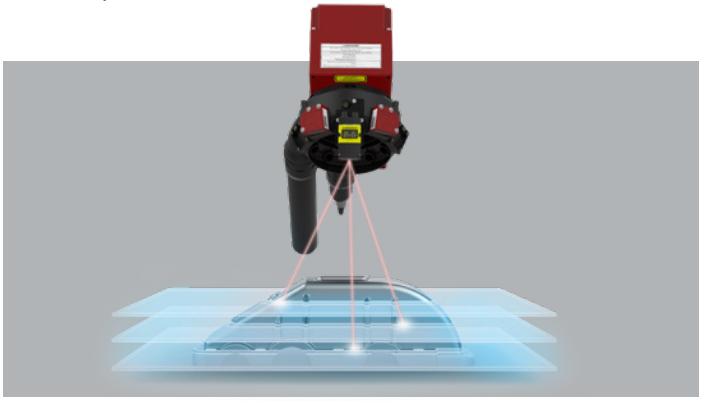
WHEN TIME MEANS MONEY

Perfectly suited for demanding inline laser cleaning and texturing applications, the LXQ HP combines the effectiveness of a pulsed single-mode fiber laser system with the speed offered by its 500W available power.



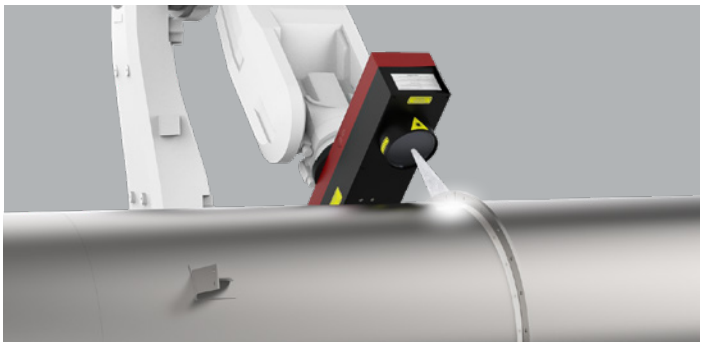
UNMATCHED CLEANING AND TEXTURING PRECISION

Unlike hand-held laser cleaning, automated laser cleaning allows to precisely focus the laser beam on specific area of a part. Laserax offers the most advanced autofocus for unmatched precision and process repeatability that take into account various part geometries and positioning tolerances.



DYNAMICALLY ADJUST TO PART GEOMETRY

With Laserax's patent-pending ***Dynamic Autofocus*** technology, clean moving parts without making any compromise on quality. This on-the-fly autofocusing system can be installed on a conveyor or mounted on a robot or a gantry system to clean parts with various shapes and sizes.



ROBOT COMPATIBLE

The LXQ HP Series is designed to be mounted on a robot to offer maximum flexibility. Its 5m fiber cable and long focal length allows you to position the laser head in any orientation to reach any surface to be marked, cleaned or textured.

LASER SPECIFICATIONS

	LXQ-HP-200	LXQ-HP-300	LXQ-HP-500
Nominal Laser Output Power	200W	300W	500W
Nominal Pulse Repetition Rate	100 to 1000 kHz	150 to 1500 kHz	500 kHz
Power Consumption (max)	4.4 kVA	4.9 kVA	5.8 kVA
Laser Type	Ytterbium-doped fiber		
Supply Voltage	Single Phase 230-240 Vac [50/60Hz]		
Pulse Energy	0.2 to 2 mJ		1 mJ
Pulse Width	20 to 500 ns		100 ns
Wavelength	1064 nm		
Beam Quality	<2		
Laser Safety Class	Class 4 laser product: CSA-E60825-1:15, 21 CFR 1040.10, IEC 60825-1		
Cooling	Air Cooling or Integrated Water Cooling		Integrated Water Cooling
Fiber Cable Length	5m (8m available with Water Cooling)		5 m
Laser Source MTBF	100,000 hours		
Protection (EN 60529)	IP67		
Autofocus Modes (optional)	Dynamic Autofocus Automatic Z offset Automatic Z offset and one-angle correction Automatic Z offset and two-angle correction		
Remote Access Security Protocol	OpenVPN (encrypted channel – OpenSSL)		
HMI Software	Web based, Allen-Bradley, Siemens		
I/O	Terminal Block I/O, M12-5 pins, Encoder Signal		
Communications	Ethernet/IP, PROFINET, RS - 232, OPC/UA, USB		
Dimensions (W x H x D)	Cabinet : 772 x 2000 x 685 mm 2D Head : 619 x 156 (212**) x 166 mm 3D Head : 897 x 207 x 285 mm		
Weight	Cabinet : 300 kg 2D Head : 22 kg 3D Head : 55 kg		
Environmental Conditions	Temperature: 10 °C to 40 °C Humidity: 10% to 90% (without condensation)		
Approvals	c UL us CE		

LENS SPECIFICATIONS

Focal Length	254 mm	420 mm
Max Scanning Speed	30 m/s	50 m/s
Nominal Spot Size	0.075 mm	0.125 mm
Nominal Marking Distance	320 mm (from lens border)	512 mm (from lens border)
Effective Z-Focusing Range (3D heads)	290 to 355 mm (from lens border)	450 mm to 600 mm (from lens border)
Nominal Marking Field Size	170 x 170 mm	280 x 280 mm
Depth of Focus	3 mm	6 mm

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