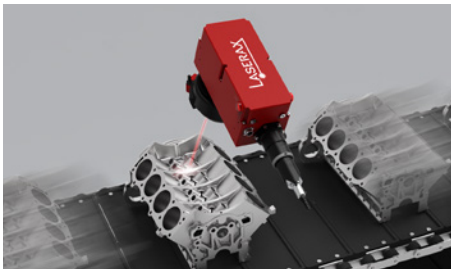
LASERAX

FIBER LASER MARKING SYSTEM

THE LXQ SERIES

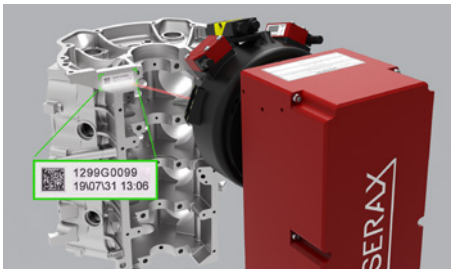
POWER, SPEED AND PRECISION

Laserax's LXQ Series is a complete range of high-performance lasers equipped with features that are ideal for quick integration in production lines. With unmatched marking speed and code readability rate, the LXQ Series is ideal for metal marking applications and traceability programs requiring high throughput and permanent marks.



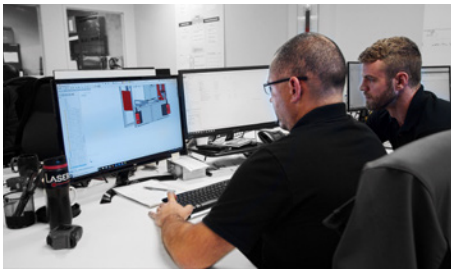
FASTEST LASER IN THE INDUSTRY

The LXQ series offer the fastest fiber lasers on the market and the optimal configuration to mark metal parts. With up to 100W of laser power, instantaneous 3D autofocus, bar code validation and 45° marking angle ability eliminating unnecessary laser head motion is built to keep up with the most challenging cycle time requirements.



UNMATCHED READABILITY RATE

The LXQ Series is designed with feature like the highest part-positioning tolerance generate perfect markings, eliminating scraps due to non-compliant quality. Laserax's exclusive Post-Process Treatments Resistant Markings allows permanent marking even for parts going through shot blasting, e-coating, chrome plating and heat treatment.



LEADING EDGE LASER EXPERTISE

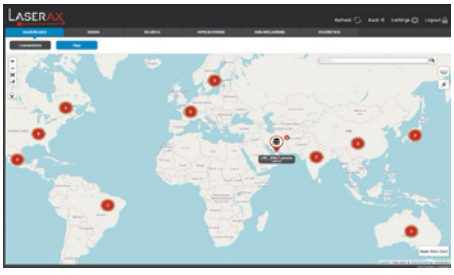
Get a world of applications within one laser system engineered by true experts. The LXQ Series boost the widest range of laser applications on the market. We adapt and optimize our laser processes for industrial needs. Fast and reliable laser marking, eco-friendly laser cleaning, laser texturing to alter the surface roughness or laser hardening for hardening component that are subject to high wear, the LXQ Series can do it all.

MAXIMUM UPTIME IN PRODUCTION LINES

The LXQ Series is built to thrive in industrial environments with minimal maintenance and downtime of your operations. Featured components include sealed laser head structure that withstand dust and liquid, protective glass against direct shock, engineered air knife to prevent obstruction of the lens and no less than 100 000 hours of continuous optimal operation time.

ULTIMATE INTEGRATION LASER

The Industry 4.0 connected LXQ Series is engineered for seamless integration into industrial production. Each laser system is delivered preconfigured, pre-calibrated and pre-tested with the optimal configuration for your needs. Controlled using PROFINET and Ethernet/IP, the LXQ Series includes plug & play functions, quick start programs for Allen-Bradley and Siemens PLCs, and a web-based HMI.



REAL-TIME REMOTE SUPPORT

Wherever you are, our laser experts are there to support you on-site or through a secure cloud VPN. Offering remote installation support, training, class 1 certification and after-sales support, we take great pride in assisting our customers at every step of the journey.

EVERY GREAT PART DESERVES A GREAT MARK.

LASER SPECIFICATIONS

	LXQ-20	LXQ-30	LXQ-50	LXQ-100
Nominal Laser Output Power	20 W	30 W	50 W	100 W
Nominal Pulse Repetition Rate	20 kHz	30 kHz	50 kHz	100 kHz
Power Consumption	250 W	300 W	400 W	550 W
Laser Type	Ytterbium-doped fiber			
Supply Voltage	24 VDC			
Pulse Energy	Up to 1 mJ			
Pulse Width	100 ns for 3 m fiber cable 125 ns for 5 m fiber cable			
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			
Fiber Cable Length	3 m 5 m			
Laser Source MTBF	100,000 hours			
Protection (EN 60529)	IP67			
Autofocus Modes (optional)	Automatic Z offset Automatic Z offset and one-angle correction Automatic Z offset and two-angle correction			
Barcode Validation (optional)	Cognex DataMan 260 Series Cognex DataMan 370 Series			
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)	Source: 4U rackmount 483 mm x 177 mm x 500 mm Control: 3U rackmount 483 mm x 133 mm x 500 mm 2D Head: 340 x 150 x 138 mm 3D Head: 489 x 162 x 170 mm			
Weight	Laser: 17 kg Control: 9 kg 2D Head: 9 kg 3D Head: 14 kg			
Environmental Conditions	Temperature: 10 °C to 35 °C Humidity: 10% to 90% (without condensation)			
Approvals	c UL us CE			

LENS SPECIFICATIONS

Focal Length	254 mm	420 mm
Max Scanning Speed	18 m/s	30 m/s
Nominal Spot Size	0.075 mm	0.125 mm
Nominal Marking Distance	315 mm	527 mm
Effective Z-Focusing Range (3D heads)	290–355 mm	465–615 mm
Nominal Marking Field Size	175 x 175 mm	300 x 300 mm
Depth of Focus	3 mm	6 mm

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