



GeoLasHD

Superior Solid Sampling at 193 nm

Young Zircons, Fluid Inclusions and More

GeoLasHD is the next generation laser ablation system for all-encompassing LA-ICP-MS elemental and isotopic analysis. Powered by the mighty COMPex laser, it uniquely combines sturdy high-resolution optical design, expert polarizer microscope and the latest HD camera technology. The new and intuitive EAGLE control software features real-time HD monitoring of micron-size features and seamless sample mapping with optional external image overlay.

FEATURES & BENEFITS

- Ultrashort 193 nm wavelength for clean ablation in every material
- Schwarzschild ablation objective enabling widest fluence range at superior crater bottom flatness
- HD camera and EAGLE software package for wide area sample inspection with micron resolution
- Multi-format sample cell with fast washout time to deliver stable and assignable ICP-MS signals
- Sub-micron precision x-y-z stage and bidirectional control of mass spectrometer to provide the highest process control

APPLICATIONS

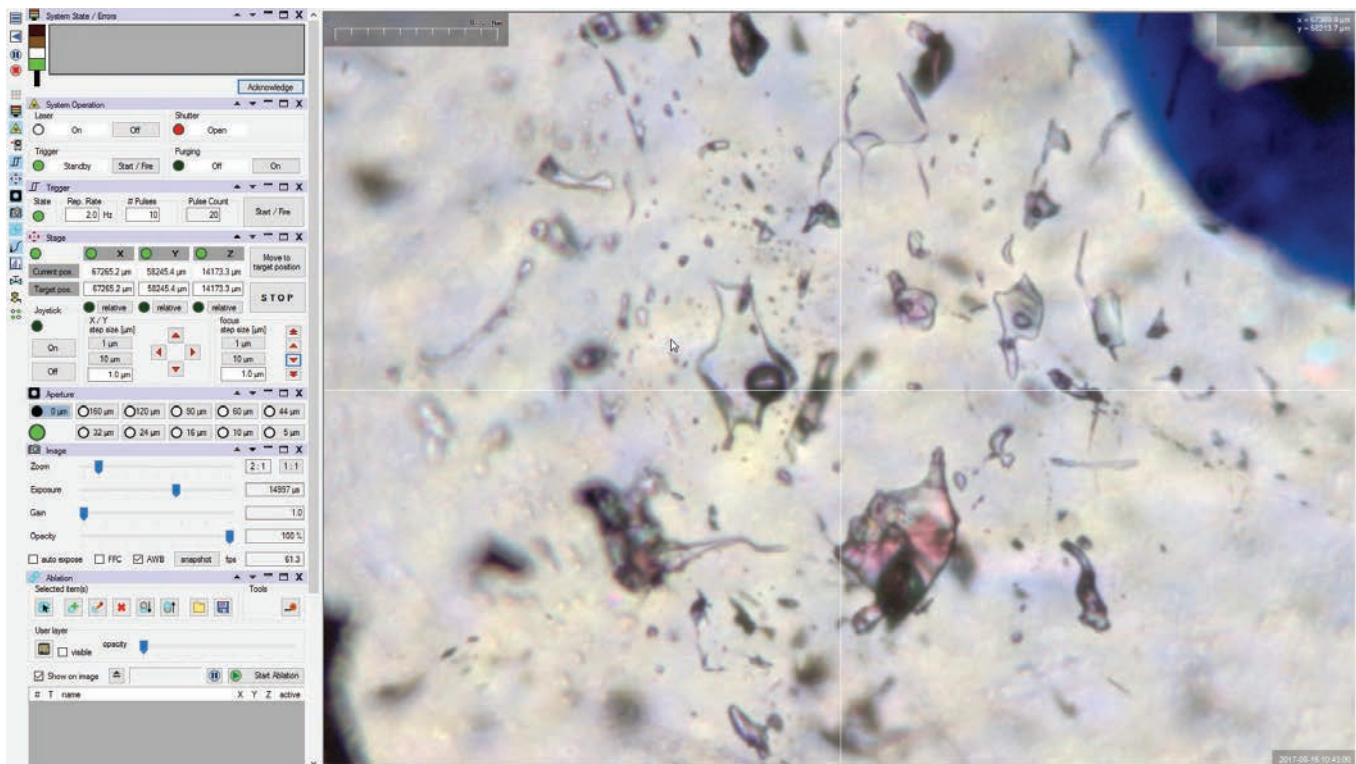
- Isotope Ratio Determination
- Fluid Inclusion Research
- U/Pb-Age Dating in Zircons
- Marine Sediment Analysis
- 193 nm Multicollector ICP-MS
- Gemstone Fingerprinting



SPECIFICATIONS	GeoLasHD
Operating Wavelength (nm)	193
Spot Sizes (µm)	2 to 160
Optical Resolution (µm)	1
Beam Homogeneity (%) (1 sigma)	1
Maximum Fluence (J/cm ²)	50
Pulse Stability (% rms)	1
Repetition Rate (Hz)	1 to 20 (option: 1 to 100)
X,Y-Drive Min. Step Size (µm)	0.1
Z-Focus Min. Step Size (µm)	0.1
Dimensions (L x W x H)	2470 x 1142 x 1440 mm (97.24 x 44.96 x 56.69 in.)
Weight	395 kg (870.83 lbs.)
Mains Supply	110/230 VAC, 1 PN, 25/16A

GeoLasHD Performance

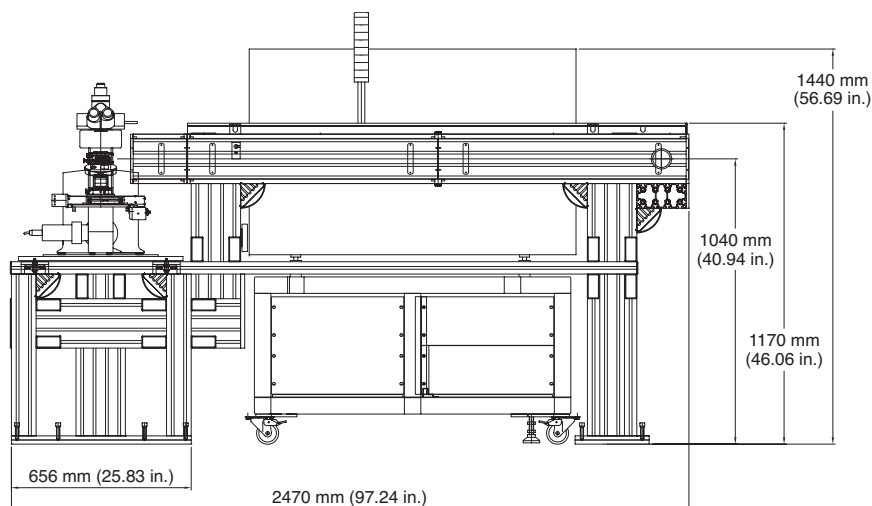
Drag and drop – copy and paste definition of ablation areas (single spot, matrix, polygon, cascade, lines, step and repeat mode)



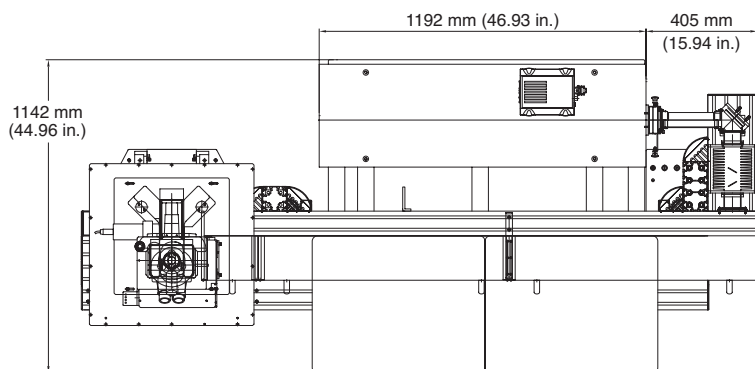
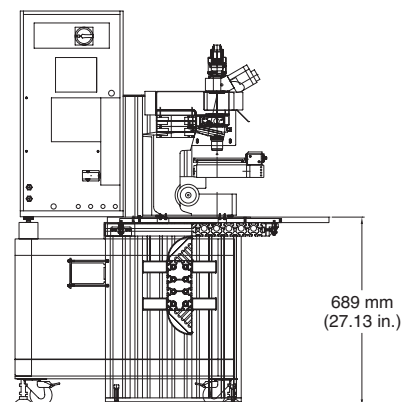
MECHANICAL SPECIFICATIONS

GeoLasHD

Front View



Side View



Top 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 GeoLasHD Lasers. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative. MC-008-16-0M0120Rev.C Copyright ©2020 Coherent, Inc.

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VISIBLE AND INVISIBLE LASER RADIATION.
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION.
 CLASS IV LASER RADIATION PRODUCT
 PER EN/IEC 60825-1 (2014)

MAX. AVERAGE POWER: 40 W
 MAX. OUTPUT ENERGY: 0.8 mJ/pulse
 PULSE DURATION: 10 to 50 ns
 WAVELENGTH: 193 to 351 nm