



MetaBEAM

Advanced Laser Machining Center



Features

- High power and low operating cost sealed CO₂ laser
- Capacitive Auto-Focus to maintain precise nozzle gap when cutting metal
- Auto-Focus for all non-metallic materials
- Part collection drawer. Metal cutting points and choice of cutting substrates
- High flow/pressure adjustable coaxial assist gas jet
- Gull wing, dual access doors with removable pallet, front and rear pass through

Options

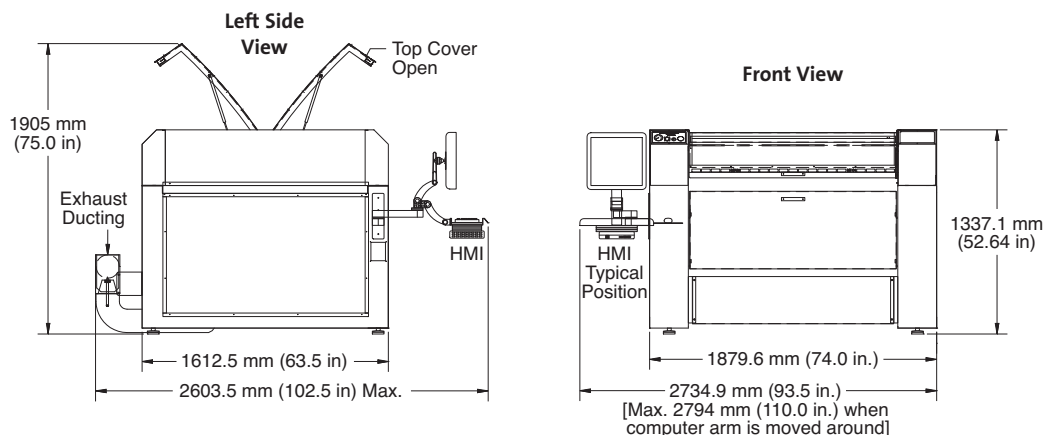
- Machine vision
- Auto-pallet loading
- Bar Code job load

Metal Cutting without Compromise

The MetaBEAM is the compact and powerful answer for prototype to high volume manufacturing applications.

The MetaBEAM is optimized for sheet metal cutting up to 3 mm thickness while maintaining stunning performance on non-metal cutting and engraving applications. Simple user interface and job loading software simplifies work set up and increases productivity.

Mechanical Specifications



Superior Reliability & Performance

MetaBEAM™

Advanced Laser Machining Center

System Specifications

	MetaBEAM 400
Laser Power/Peak Power (W)	400/1000 ¹
Dimensions (L x W x H)	1630 x 1990 x 1320 mm (64.2 x 78.4 x 52.0 in.)
Weight	725 kg (1600 lbs.)
Cutting Height	1020 mm (40.0 in.)
Working Range	x = 1220 mm (48.0 in.) y = 1220 mm (48.0 in.) z = 300 mm (12.0 in.)
Maximum Speed	50,800 mm (2000 in.)/min. cutting 91,500 mm (3600 in.)/min. rapid positioning 91,500 mm (3600 in.)/min. raster engraving
Positioning	Linear encoders with 2 micron resolution in closed loop with brushless servo motors
Accuracy	25 µm (0.001 in.) positioning accuracy ² 5 µm (0.0002 in.) repeatability
Contouring	Full look-ahead contouring capability
Materials	Metal, Plastics, Wood, Paper, Composites, Fabric, Rubber
Software Interface	LaserLink program including: Windows 7 support G-code support AI, DXF, HPGL, DWG, Gerber, JPG, BMP, TIF file import Full geometry editing Editable database of laser parameters Job estimator software Job management software
Cutting Pallets	Removable pallet system with front and rear pass-through Metal cutting points and honeycomb work support
Laser Power Control	Digital laser power control Power proportional to velocity
Focusing	Auto-Focus on non-metals. Active Capacitive following on metal cuts.
Exhaust/Vacuum Bed	Vacuum material hold-down plenum and part collection drawer External high pressure exhaust blower required
Cooling	External chiller required
PC/File Server	Requires Windows/Ethernet
Power (VAC)	208 to 240, 47 to 63 Hz, three-phase, 50A
Safety	Safety interlocks on all covers and enclosures Class I system (Complies with 21 CFR Chapter 1, Subchapter J)
User Controls	Touch Screen Control panel Jog, Bed height controls Home, Park, Load buttons Exhaust, gas assist controls Editing of laser settings Networked HMI workstation

¹ These specifications are applicable as of September 2009 and are subject to change without notice.

² Accuracy quoted is under controlled conditions. Accuracy may vary depending on conditions in customer's facility.

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 MetaBEAM laser machining centers. 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.



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