



LASER SYSTEMS

CO₂ laser engraving, marking and cutting systems for educational and training installations



The Boxford supplied range of CO₂ Laser Engraving and Cutting Systems offer industrial levels of build quality and accuracy in a totally integrated package. The ease of use, compatibility with multiple design software packages, together with the wide variety of material they can process, makes these systems the ideal choice for all educational and training requirements.

ENDLESS ENGRAVING & CUTTING POSSIBILITIES...



The Boxford supplied CO₂ Laser systems are suitable for a wide variety of 2D cutting and engraving applications. Compatible with virtually any design software that incorporates both vectors and bitmaps, they are capable of producing highly accurate cutting and engraving work to produce a variety of finished components.

The unique included software drivers allow 'point and shoot' interaction between the laser and the design software as well as incorporating an auto-nesting function to maximise material use and reduce costs.



These EU manufactured laser systems are certified to CDRH Class2 (EN60825) and are fully CE marked making them extremely safe for educational use.



LS100

Free standing or bench top laser system



- 460 x 305 Work Area
- Available in a variety of laser tube powers from 35 to 60 watts.
- Will pass through a single doorway under normal operation for easy movement between rooms.

LS100Ex

Free standing or bench top laser system



- 610 x 305 Work Area
- Available in a variety of laser tube powers from 35 to 70 watts.
- Our largest capacity system that will pass through a single doorway under normal operation for easy movement between rooms.

LS900

Free standing laser system



- 610 x 610 Work Area
- Available in a variety of laser tube powers from 35 to 70 watts.
- Generous work area.
- Can be installed through a single door way.

STANDARD FEATURES ON ALL LASERS

- Robust industrial-grade construction.
- Unique front-loading design facilitates a large opening allowing complete access to the machine making the loading of objects, jigs and fixtures effortless.
- The rigid motion system (gantry) incorporating high quality sealed linear slide rails and machine electronics allows speeds up to 2500mm per second to be achieved when engraving.
- Auto focus automatically adjusts the focal length depending on the position of the material surface.
- The beam expander allows the same power level and dot size to be maintained across the entire working area.
- The integrated red dot beam pointer and unique 'point and shoot' software feature allows easy positioning prior to running a job.
- Integrated LCD display and control panel.
- Integrated air assist compressor integrated in the machine. No external compressor to consider.
- Internal Extraction / Air filtration unit is integrated neatly into the laser stand. No external filter stack to consider, making the laser easier to move around the classroom.
- Integrated laptop shelf (not shown).

What materials can be laser processed?

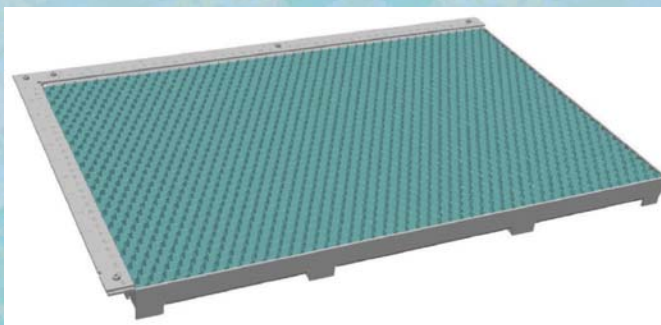
Acrylic	Fabrics	Marble	Polycarbonate
Anodised Aluminium	Foam	MDF	Rubber
Cardboard	Glass	Nylon	Stone
Coated Metals	Laminated Plastics	Paper	Veneer
Cork	Leather	Plastics	Wood

INCLUDED ACCESSORIES	LS100	LS100Ex	LS900
Honeycomb material cut-out table eliminating cut marks on the bottom side of the component by keeping the laser away from the machine table during vector cutting.	✓	✓	✓
Air assist including compressor. This prevents combustion of flammable materials.	✓	✓	✓
Windows Software drivers, including LaserStyle CAD Software	✓	✓	✓
Laptop Shelf	✓	✓	✓
Warranty - 3 years parts and labour (excludes consumable items - lenses, mirrors, honeycomb table and fume extraction filters).	✓	✓	✓



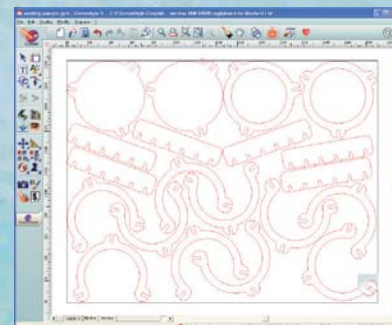
Air Assist

Fully integrated into the machine, the compressor supplies air to the cutting area.



Removable Honeycomb Table

Easily fitted and un/fitted, the stainless steel table is ideal for through cutting of material and includes integrated X and Y axes rulers.



LaserStyle CAD Software

Includes auto-nesting function, to optimise material use, and point and shoot functionality.

OPTIONAL ACCESSORIES	LS100	LS100Ex	LS900
Automated rotary device for engraving cylindrical objects.	✓	✓	✓
Integrated fume extraction/air filtration system*. The laser system's internal ventilation system is engineered with air exhaust paths that virtually eliminate mirror contamination. For rubber processing, a hose at the point of cutting is included to help remove the smoke at the source.	✓	✓	✓
Set of replacement filters for extraction / air filtration system.	✓	✓	✓
38.1 (1.5"), 63.5 (2.5"), 89 (3.5") and 102mm (4") focal lenses.	✓	✓	✓
* Laser systems can produce noxious fumes of varying levels depending on the material been processed. If exhausting internally, extraction must be to HEPA standards. Users may wish to consider exhausting externally, eliminating the need for continual filter replacement. Please ask for further details.			



Rotary Attachment

Removable device to facilitate the engraving of cylindrical objects. Supplied with a variety of concave and convex cones to grip multiple component shapes and sizes.



Lenses

All lasers are equipped with a 50.8mm (2") focal length lens that provide a 0.18mm focused beam diameter. Three other lenses are available for specific applications. E.g. The 101.6mm (4") lens is ideal for thick material cutting and provides a 0.36mm beam diameter.

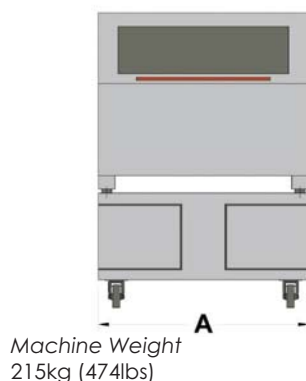
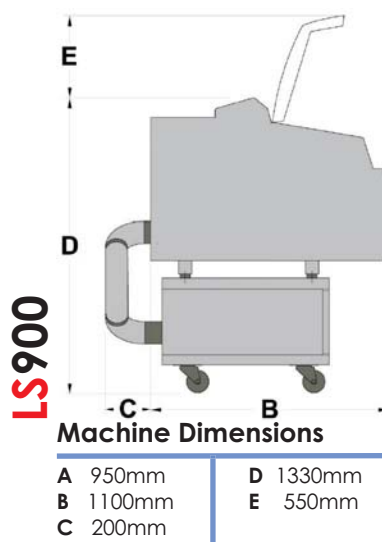
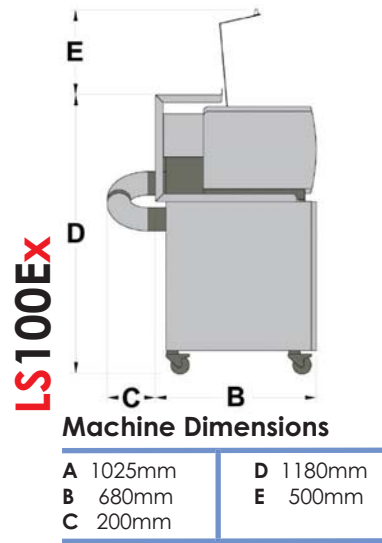
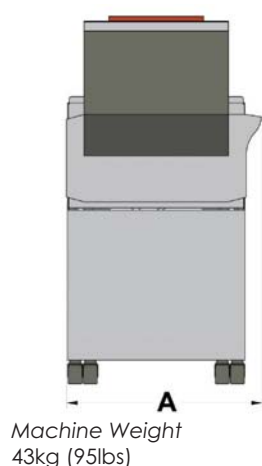
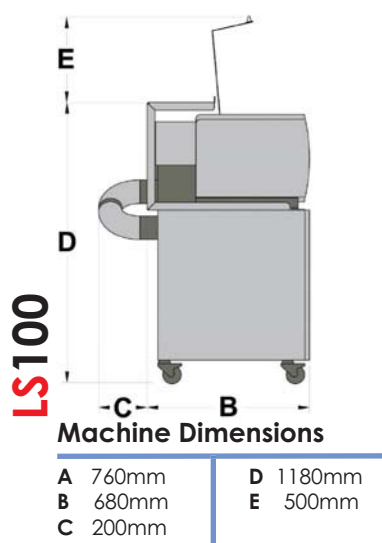


Integrated Extraction/Filtration

Filters debris and fumes from the laser, returning safe clean air to the room. Incorporates large capacity pre filter(s), HEPA filter and 40L activated carbon filter (refillable on LS100 & LS100Ex). Simple to fit replacement/spare filters available.

SPECIFICATIONS	LS100	LS100Ex	LS900
Engraving Area	460 x 305 mm (18 x 12 in)	610 x 305 mm (24 x 12 in)	610 x 610 mm (24 x 24 in)
Z Axis Travel	147 mm	145 mm	250 mm
Max. Part Weight	15 kg	15 kg	25 kg
Laser Source Power	35, 40 or 60 watts air cooled	35, 40, 60, or 70 watts air cooled	35, 40, 60 or 70 watts air cooled
Max. Engraving Speed	2000 mm/sec	2500 mm/sec	2000 mm/sec
Mounting	Bench or Floor	Bench or Floor	Floor
Rotary Attachment	3 mm to 130 mm	3 mm x 130 mm	3 mm x 200 mm
Safety	————— Class 1 closed configuration —————		
Operating Modes	—— Raster mode for engraving, Vector mode for engraving and cutting ——— or Raster/Vector combination mode		
Resolution	————— 50 - 1200 DPI —————		
Optics	————— 50.8 mm (2.0") focal lens as standard —————		

We reserve the right to change specifications at any time.



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