

LS1690 PRO

The LS1690 has a large capacity work area, capable of meeting high workload demands. It has a powerful 80W tube as standard with 130W and 150W upgrades available.

The class 1 laser enclosure ensures that the laser beam is safely contained during normal operation. With separately keyed on/off switch, unauthorised access and operation can be prevented. The machine is provided with a 12 month onsite warranty with option to extend up to 3 years.



Machine Features:

- › Class 1 laser system
- › 80W tube as standard with 130W and 150W power upgrade options available
- › Machine can be split to fit through a standard single doorway (minimum doorway width 690mm)
- › Red dot pointer system for easily and quickly lining up your work
- › Slatted non-reflective aluminium bar bed for supporting a wide range of materials and weights (honeycomb bed available upon request)
- › High quality optics provide high accuracy, reliability and long life
- › Pass-through panels front and rear allow larger items to be cut and engraved
- › Air assist to control heat and disperse smoke and debris around cutting nozzle
- › Water flow switch to provide protection against failure of cooling system.
- › Available options include water chiller, fume filter and rotary attachment for engraving cylindrical items
- › Louvred cabinet ventilation slots ensure maximum enclosure safety
- › CE marked Allen Bradley safety switches prevent operation of machine with lid or laser tube door open

Cut and Engrave:

- › Paper, card and print media
- › Plastic laminates
- › Fabric
- › Latex and rubber
- › Leather
- › Plywood and MDF
- › Acrylic, nylon and other non-PVC plastics
- › Wood and wood veneers

Engrave Only:

- › Glass, granite, slate and marble
- › Anodised and coated metals
- › Uncoated metals* *ceramic marking compound required



LS1690 PRO specification:

Laser power: LS1690-80: 80W (100W max),
LS1690-130: 130W (150W max),
LS1690-150: 150W (165W max)

Max cutting thickness: 20mm Acrylic

Recommended maximum cutting thickness: LS1690-80: 12mm acrylic,
LS1690-130: 15mm acrylic,
LS1690-150: 15mm acrylic

Engraving speed: 400-800mm/sec*
(400mm/sec recommended for best quality)

Mounting: Free standing floor mounted on castors

Laser source: Water cooled CO2 gas filled glass tube

Cutting area: 1600mm x 900mm (slightly reduced for engraving)

Z axis (table height) adjustment: 230mm motorised

Drive system: Stepper motor

Location precision: <0.01mm

Cooling method: Closed circuit water cooling with flow protection switch

Cooling system: Separate IP68 submersible pump and 35 litre water tank (supplied)** optional water chiller available

Fume extraction: Separate air extraction unit (supplied) optional fume filter available

Extraction hose: 150mm flexible hose – 2 pieces 1500mm long each (supplied)

Air assist compressor: Free standing oil-free diaphragm compressor (supplied)

Connectivity: USB

Software: RD Works (PC only), Lightburn (PC or Mac)

Typical design software: Adobe Illustrator, AutoCAD, Corel Draw, 2D design

Preferred file types: .dxf, .plt

Operating system support: Windows XP, 7, 8, 10

Minimum character size: 1.5mm x 1.5mm

Power supply: 220V (or 110V) +/- 10% 50Hz (or 60Hz)

*higher speeds are achievable but engraving quality may be reduced

**Water tank not supplied if water chiller option is purchased

Dimensions:

- **Machine:** 2200 long x 155 wide x 1100 high
- **Machine weight:** 400kg
- **Machine interfaces:** 1 x USB for PC (USB cable supplied), 1 x mains power socket (3-pin UK kettle type cable supplied), 1 x air extract connection to suit 150mm hose, 1 x water inlet and 1 x water outlet port (to suit supplied 6mm I.D. silicon hose), 1 x air inlet port (to suit supplied 6mm I.D. silicon hose), 5 x UK/USA/EU electrical sockets for power connection of auxiliary devices
- **Cabinet safety:** Louvred cabinet doors, CE safety switches for lid, laser tube door and debris drawer, separately keyed main power switch for one-key operation
- **Cabinet pass through:** Front 1290mm x 2 stage 148mm / 345mm, rear 1290mm x 75mm (Machine becomes a class 4 laser device if operated with pass through panels removed)

Warranty:

- 12 months on site excluding consumables (laser tube and optics)

Optional Extras:

- 130W and 150W laser tube upgrades
- Laser fume filtration system for enclosed spaces
- CW4000 water chiller unit
- Sheet materials including acrylic, plywood, MDF veneers, engraving laminate
- Laser machine compatible antifreeze



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