

# BOXFORD BFL1390 FIBRE METAL CUTTING LASER



## INCLUDED ACCESSORIES

- Wireless operator keyboard.
- Wireless keyboard and mouse.
- Chiller based laser source cooling system.
- Full day on-site UK mainland training.
- Warranty - 2 years (excluding consumable items such as: cutting tips, lens protective glass, support slats and extraction filters).

## OPTIONAL ACCESSORIES

- Bespoke downdraught fume extraction/air filtration system.
- Stand alone compressor for facilitating low pressure non-gas cutting and extraction.
- High pressure compressor for non-gas cutting of thick materials.
- Additional cutting head consumables (cutting tips, lens protective glass, etc.)
- Set of replacement filters for extraction/air filtration system.

## DESCRIPTION

The Boxford BFL1390 Fibre Metal Cutting Laser is a range of metal cutting fibre laser systems built to Boxford specifications.

The high precision metal cutting fibre lasers are ideally suited to all kinds of training, prototyping and low to medium volume manufacturing applications.

## MATERIALS WHICH CAN BE FIBRE LASER PROCESSED

- Mild Steel
- Stainless Steel
- Aluminium
- Anodised Aluminium
- Zintec
- Galvanised Steel
- Brass
- Shim Steel

## SUPPLIED WITH

- Fully enclosed system for optimal fume and debris management.
- Rigid construction and motion system incorporating high quality Taiwanese linear guide rails and racks, together with Japanese servo drives, allowing speeds of up to 40 metres per minute to be achieved.
- Integrated PC control system.
- Automatic capacitive height control system for optimal cutting.
- Integrated red dot beam pointer for plate location/orientation and program dry run.
- Superior fibre laser with up to 100,000 hours life span.
- Integrated cutting table with removable slats and material recovery tray.
- Optional Boxford supplied with extraction system, which is IFA certified and meets the highest testing level (W3), facilitating the extraction of fumes from high alloy steels with over 30% chromium and nickel content.

## BOXFORD EXTRACTOR



AES OFFER INSTALLATION AND SERVICE SUPPORT FOR ALL EQUIPMENT

## BOXFORD BFL1390 FIBRE METAL CUTTING LASER

### TECHNICAL SPECIFICATION

|  | <b>BFL1390 1 kW</b>   | <b>BFL1390 1.5 kW</b>   | <b>BFL1390 2 kW</b>   |
|--|---|---|---|
| Cutting Area                               | 1300 x 900 mm   | 1300 x 900 mm   | 1300 x 900 mm   |
| Z Axis Travel                              | 100 mm  | 100 mm  | 100 mm  |
| Laser Power Source                         | 1 kW  | 1.5 kW  | 2 kW  |
| Laser Type                                 | Fibre 1070 nm WL  | Fibre 1070 nm WL  | Fibre 1070 nm WL  |
| Integrated Laser Cooling System            | Water Chiller   | Water Chiller   | Water Chiller   |
| Focus System                               | Manual  | Auto Focus  | Auto Focus  |
| Cutting Thickness                          | 10 mm mild steel (with oxygen gas)<br>4 mm stainless (with nitrogen gas)<br>3 mm mild steel (with 6 bar compressed air)<br>1.5 mm stainless (with 6 bar compressed air)<br>3 mm aluminium (with nitrogen gas) | 12 mm mild steel (with oxygen gas)<br>5 mm stainless (with nitrogen gas)<br>3 mm mild steel (with 6 bar compressed air)<br>2 mm stainless (with 6 bar compressed air)<br>3 mm aluminium (with nitrogen gas) | 15 mm mild steel (with oxygen gas)<br>6 mm stainless (with nitrogen gas)<br>4 mm mild steel (with 6 bar compressed air)<br>3 mm stainless (with 6 bar compressed air)<br>4 mm aluminium (with nitrogen gas) |
| Max Cutting Speed                          | 40 m/min  | 40 m/min  | 40 m/min  |
| Max Acceleration                           | 0.5G  | 0.5G  | 0.5G  |
| Location Precision                         | <0.01 mm  | <0.01 mm  | <0.01 mm  |
| Optics                                     | <0.373 mrad beam  | <0.373 mrad beam  | <0.373 mrad beam  |
| Machine Weight                             | 1300 kg   | 1325 kg   | 1500 kg   |
| Dimensions (L x W x H)                     | 2300 x 2250 x 1850 mm   | 2300 x 2250 x 1850 mm   | 2100 x 3400 x 1850 mm   |
| Mounting Safety                            | Floor Class 2 closed  | Floor Class 2 closed  | Floor Class 2 closed  |
| Operating Modes                            | Configuration Cutting   | Configuration Cutting   | Configuration Cutting   |
| Compressed Air Requirements                | Surface etching<br>Extractor only - 6.0 bar @ 420 l/min<br>Low pressure compressed air cutting and extractor - 6.9 bar @ 650 l/min  |   |   |
| Overall Footprint (with extract & ducting) | High pressure compressed air cutting and extractor - 18 bar @ 1100 l/min<br>Extractor at side - 3200 x 2250 mm<br>Extractor at rear - 2300 x 3150 mm  |   |   |
| Power Requirements                         | 380V 3 ph. @ 15A  | 380V 3 ph. @ 32A  | 380V 3 ph. @ 32A  |

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