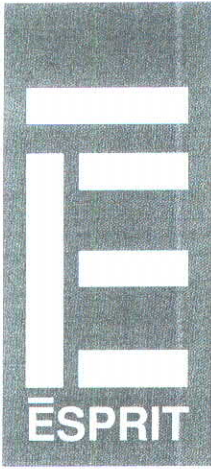


Lightning HD Series

High Definition CNC Plasma Cutting Systems



Lightning HD

Esprit Automation is proud to present the latest in the line of high performance Lightning plasma cutting systems. The Lightning HD Series machine is a precision machine tool which has been specifically designed to fully exploit the latest developments in high-definition plasma cutting technology. The Lightning HD machine with the Hypertherm HyDefinition plasma cutting system

will produce clean, square & dross free cuts on a wide range of metals. Narrow kerf width and high machine accuracy enable the Lightning HD machine to produce the most intricate components. Advanced nesting systems, high machine cutting speeds and simplicity of operation combine with the competitive capital outlay to make the Lightning HD machine a most cost-effective method of producing precision metal components both in small and large batches. The Lightning HD precision plasma cutting system is manufactured by Esprit Automation in Nottingham, England. Alongside the rest of the Esprit product line it is sold and serviced worldwide.

Smooth, clean, low dross vertical cuts

Low heat input giving low distortion

Narrow heat affected zones

Accurate contours on small radii & sharp corners

Narrow cutting kerfs (width of cut)

Advanced Machine Design

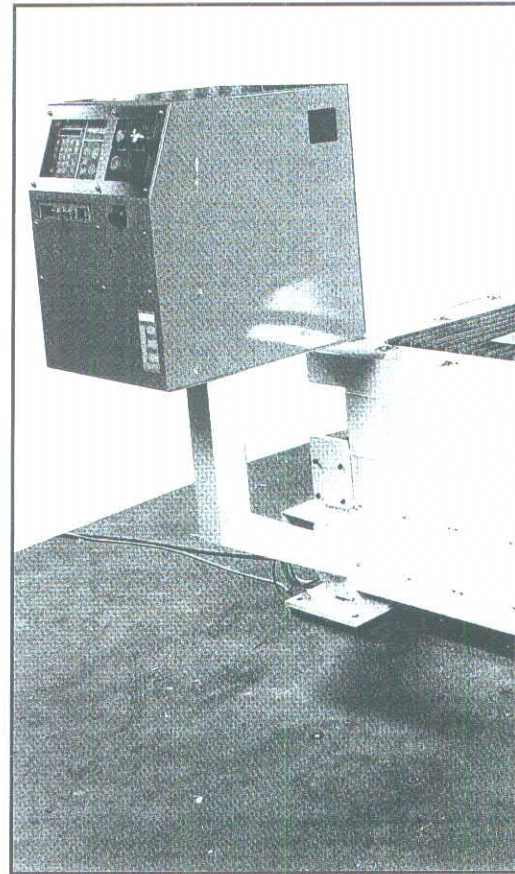
The Lightning HD machine is manufactured in a range of standard sizes in both single and dual table configurations. The machine is fabricated and machined as a single structure which gives the table great strength and allows for quick and accurate installation. Twin, precision hardened and ground linear slideways are used on both the X and Y axes of the machine. The Lightning HD machine has an exceptionally strong main beam which ensures high positional accuracy and repeatability.

Precision Drive Systems

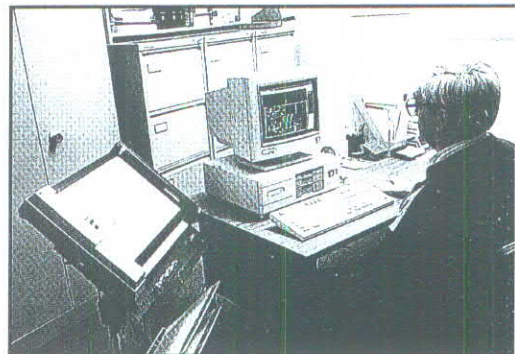
High quality servo motors and precision transmission systems are utilised on the Lightning HD machines. Such high quality components combined with powerful servo amplifiers ensure the highest possible cutting performance. Dual synchronised drives on the X axis are fitted as standard. Fast reponse times and wide speed range enable the machine to perform at it's optimum for all applications. High resolution encoders and resolvers ensure the highest levels of accuracy and repeatability.

Integral Cutting Table

A segmented down-draught fume extraction cutting table is integrated into each Lightning HD machine in order to keep smoke and sparks under control. The cutter bars on the table are positioned close together in order to give maximum support to the workpiece whilst cutting. Small components may fall through onto a mesh level below the cutting bars from where they may be retrieved via the clean-out doors situated along each side of the machine.



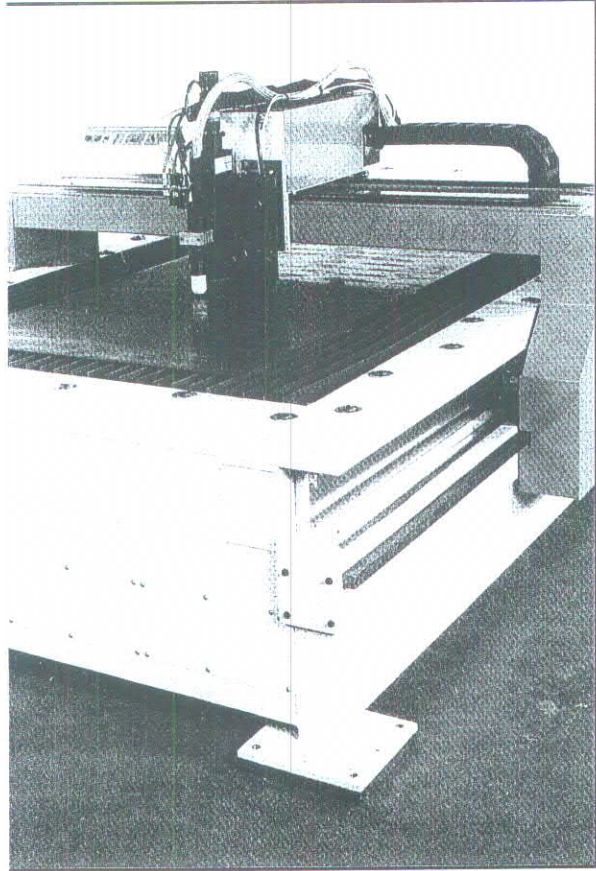
The Economic



CAD/CAM Software

The CAD/CAM system is an important part of any Lightning plasma cutting installation. The system generates part programs and fully nested plate layouts which are downloaded via the DNC link to the machine for cutting. The PRO-CUT system offers the power, flexibility and ease of use required by most general applications. It can be linked with the majority of other CAD systems enabling existing drawings to be loaded directly into the system without laborious re-entry.

Series *High Definition CNC Plasma Cutting Systems*



Advanced CNC Systems

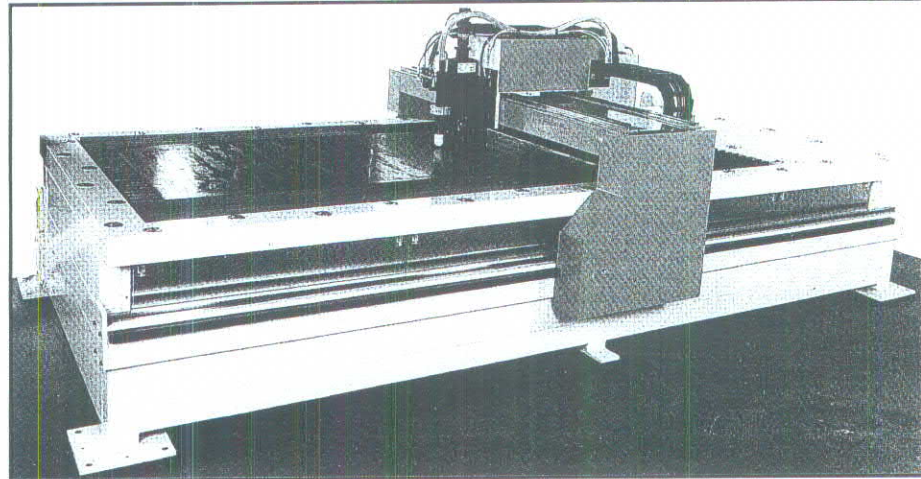
The Lightning HD series machines are available with the full range of Burny CNC systems from CMC. The systems are powerful yet easy to use and have been specifically designed for thermal cutting. Options including full cutter-path graphics (mono or colour), multi-tasking facilities and on-screen nesting are available. Other control systems are available upon request.

State-of-the-art Plasma Technology

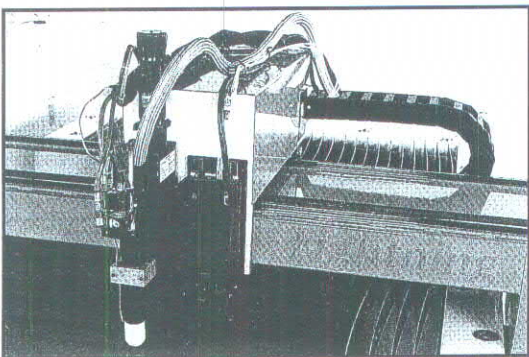
Hypertherm HyDefinition plasma cutting systems provide the latest in precision plasma cutting technology which is a vital part of all Lightning HD machines. The patented HyDefinition system produces the finest quality cuts on a wide range of materials and is comparable in most instances to laser cutting for a fraction of the investment. Longlife™ consumable technology ensures running costs are kept low.

Precision torch height control system

A patented servo-controlled torch suspension accurately maintains torch height whilst cutting. Such fine control is necessary to achieve quality cutting performance throughout the job. Rapid initial height sensing and end-of-cut retract minimise non-cutting time.



Laser Alternative



Reliability and Service

Premium quality components are used in the manufacture of all Lightning profile cutting systems. Quality components combined with superior system design by our mechanical, electrical and software engineers ensure reliable service and long life. Diagnostic facilities are integrated into the control systems used on the Lightning HD machines. In the event of a problem occurring, our dedicated service personnel and representatives will be on hand to speedily return the system to full operation.

Machine features at a glance

Precision hardened & ground linear guides

Synchronised twin rack & pinion X Drive

Precision rack & pinion Y drive

High power 3 axis servo-drives

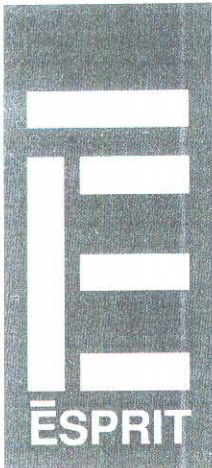
Accurate torch height control system

Heavy duty machine tool design

HyDefinition plasma cutting system

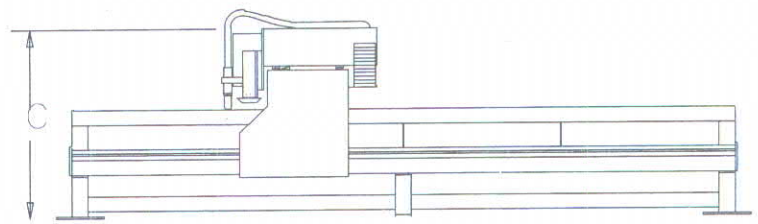
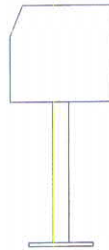
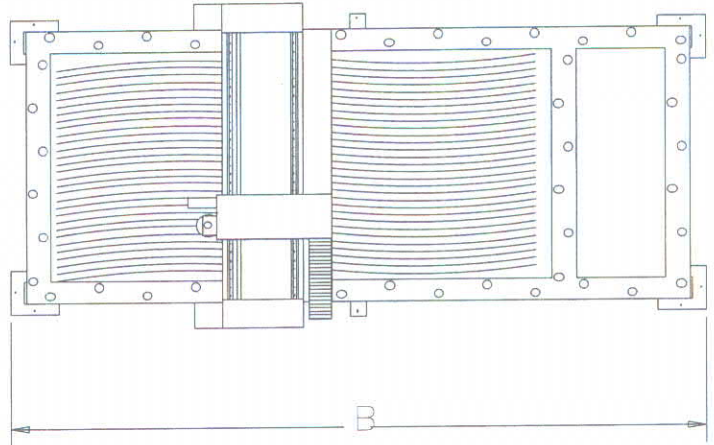
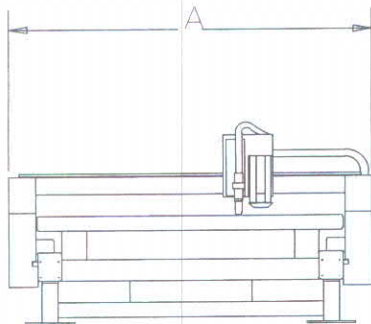
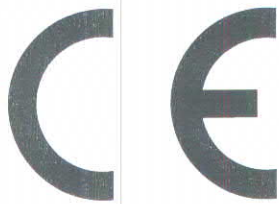
Powerful industry-standard CNC units.

Effective down-draught extraction system



Lightning HD Series

Technical Information



Item	Units	HD1000	HD1250	HD1500	HD2000	HD1000/2	HD1250/2	HD1500/2	HD2000/2
Cutting Length	mm	2000	2500	3000	4000	4750	5750	6750	8750
Cutting Width	mm	1000	1250	1500	2000	1000	1250	1500	2000
Overall Length (B)	mm	3300	3800	4300	5300	6400	7400	8400	10400
Overall Width (A)	mm	1730	1980	2230	2730	1730	1980	2230	2730
Overall Height (C)	mm	1310	1310	1310	1310	1310	1310	1310	1310
Cutting Speed	mm/min	50-20,000	50-20,000	50-20,000	50-20,000	50-20,000	50-20,000	50-20,000	50-20,000
Traverse Speed	mm/min	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Input Voltage *	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Input Power	VA	~3000	~3000	~3000	~3000	~3000	~3000	~3000	~3000

* Other voltages etc. available upon request.

Esprit Automation Ltd

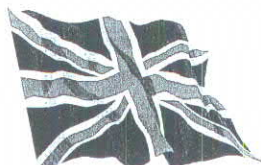
Automation House
 Concordia Industrial Estate
 Wilsthorpe Road
 Long Eaton
 Nottingham NG10 3JX
 England

Tel (0115) 946 3766

Fax (0115) 946 3767

Tel (Int)+44 115 946 3766

Tel (Int)+44 115 946 3767



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