LIGHTNING *HD SERIES*

PRECISION HIGH DEFINITION CNC PLASMA CUTTING SYSTEMS

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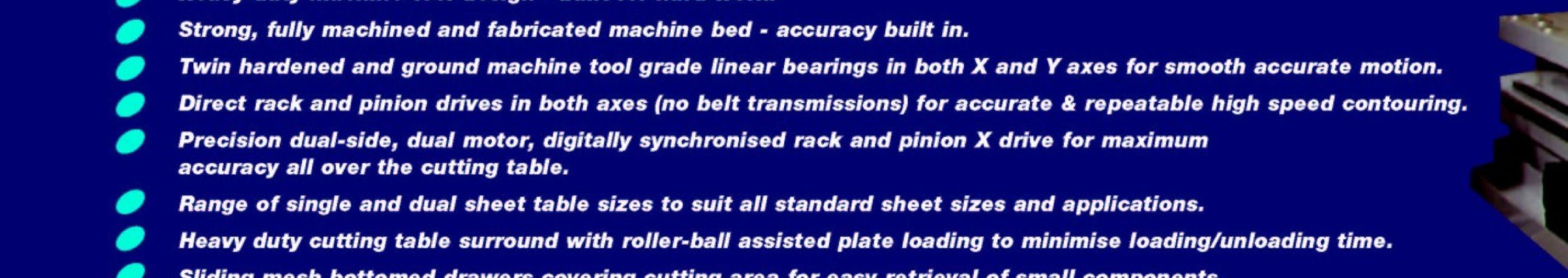
- Heavy-duty machine tool design - built for hard work.
- Strong, fully machined and fabricated machine bed - accuracy built in.
- Twin hardened and ground machine tool grade linear bearings in both X and Y axes for smooth accurate motion.
- Direct rack and pinion drives in both axes (no belt transmissions) for accurate & repeatable high speed contouring.
- Precision dual-side, dual motor, digitally synchronised rack and pinion X drive for maximum accuracy all over the cutting table.
- Range of single and dual sheet table sizes to suit all standard sheet sizes and applications.
- Heavy duty cutting table surround with roller-ball assisted plate loading to minimise loading/unloading time.
- Sliding mesh bottomed drawers covering cutting area for easy retrieval of small components.
- Powerful & easy to use Windows/PC based CNC
- Full colour high resolution graphics display
- Integral pneumatically controlled segmented fume-extraction cutting table for a clean working environment.
- High power servo drive system giving high speed & acceleration for excellent detail-work and holes.
- Range of plate-marking devices for marking centres, fold-lines, text etc.
- Option of twin-head cutting for high production applications.
- Drag-chain cable/hose handling systems in both axes for long cable/hose life.
- Precision ball-screw driven arc-voltage torch height control with collision protection device.
- Rapid initial height sensing & retract to minimise cycle times.
- Choice of CAD/CAM systems to suit all applications



The Lightning HD Series Package

The Esprit Lightning HD Series machines are precision built machine tools designed along the same lines as the latest laser cutting machines. Rather than simply add high-definition plasma to an existing machine line, the company set out to design a high-specification machine to fully exploit the potential of high-definition plasma cutting systems. The machine will produce clean, square, dross-free cuts on a wide range of ferrous and non-ferrous metals. Excellent accuracy and repeatability are achieved as a result of the precision linear bearings and drive/transmission components utilised in the machine design. State-of-the-art PC/Windows based CNC technology and high power servo-drives produce high machine axis speeds and accelerations, which enable the Lightning HD to produce high quality metal components at a very competitive price.

Advanced PC/Windows CNC Technology

The Paragon family of CNC units are specified across the entire range of the company's thermal cutting machines. The benefits of PC/Windows based CNC technology are well known in the machine tool business and Esprit is the first CNC cutting machine manufacturer to specify this exciting technology across the entire range of machines. High resolution colour graphics, the familiar Windows interface, fast processor speeds and virtually infinite memory storage are just some of the reasons that Windows based CNC's are the preferred choice. Fast DNC communications speed and instantaneous kerf compensation calculation reduce delays in machine set-up.

Esprit Automation

Esprit Automation is a leading world manufacturer of CNC plasma cutting machinery. Based in Nottingham, England the

Any shape, any metal, fast!

company manufactures a wide range of machines covering the entire breadth of CNC flat-bed plasma and oxy-fuel cutting applications. Working with our partners throughout the world, Esprit offers a full range of solutions. The plasma cutting process is increasingly the selected choice for efficient metal cutting. Customers choose Esprit because Esprit machines offer exceptional productivity and value.

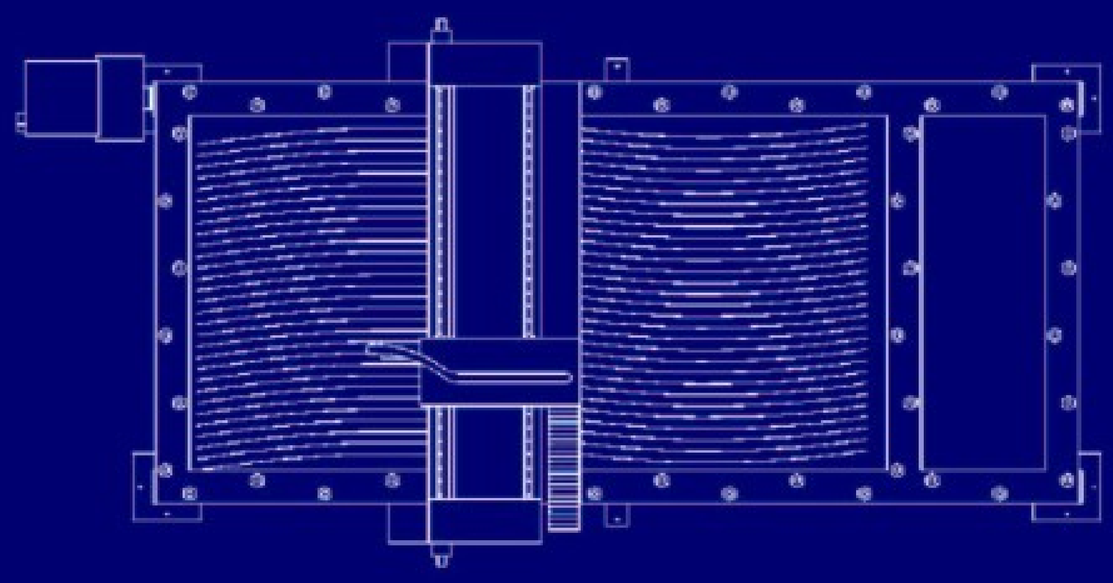
Advanced CAD/CAM Solutions

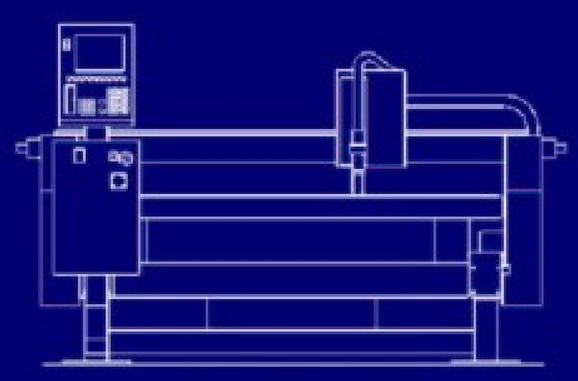
Esprit offers a number of advanced thermal cutting CAD/CAM systems for use with the machines. The Procut system has been a leading product for well over a decade and the latest Windows versions incorporate state-of-the-art True-shape automatic nesting, a powerful drawing system, high speed DNC communications and the benefit of Esprit's extensive thermal cutting knowledge and experience. The latest specialist software for the development of 3-D ductwork shapes is also available.

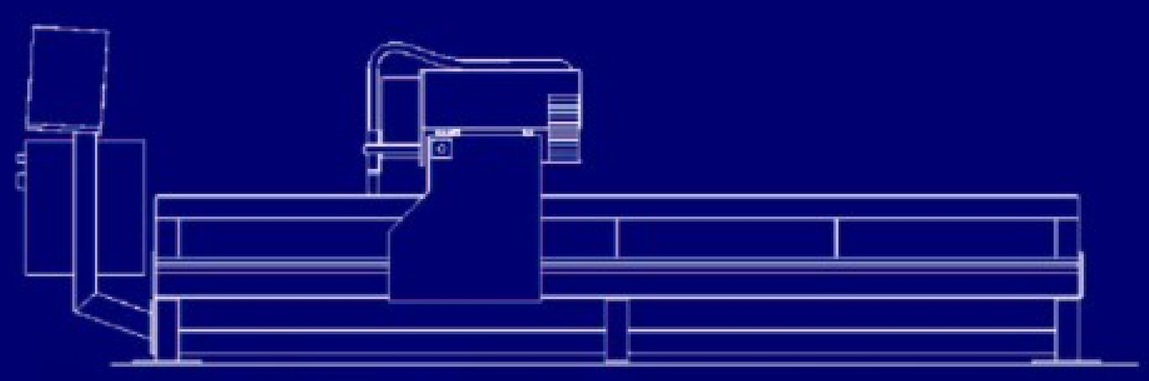
High Definition Plasma

- ***Cuts virtually all metals - mild steels, stainless steels, aluminium alloys etc.***
- ***Precision cutting at a fraction of the cost of lasers.***
- ***Longlife consumables for cost-effective Oxygen cutting.***
- ***Smooth, clean vertical cut - virtually eliminating secondary finishing operations***
- ***Low maintenance costs - Unlike laser there are no mirrors, flash-lamps or other major system components to replace.***
- ***Low heat input giving low distortion & narrow heat affected zone***
- ***Narrow kerf width (cut width) for intricate shapes.***

Technical Specification







	HD1500	HD1800	HD2000	HD1500/2	HD1800/2	HD2000/2
Cutting Length	3,000mm 10'	4,000mm 13'	4,000mm 13'	6,750mm 22'2"	6,750mm 22'2"	6,750mm 22'2"
Cutting Width	1,500mm 5'	1,800mm 6'	2,000mm 6'6"	1,500mm 5'	1,800mm 6'	2,000mm 6'6"
Overall Length	4,800mm 15'9"	5,800mm 19'	5,800mm 19'	8,800mm 28'11"	8,800mm 28'11"	8,800mm 28'11"
Overall Width	2,400mm 7'6"	2,700mm 8'10"	2,900mm 9'6"	2,400mm 7'6"	2,700mm 8'10"	2,900mm 9'6"
Overall Height	1500mm 5'					
Maximum Axis Speed (X & Y)	25m/min 1,000ipm					
Input Voltage - Machine (1phase, 50/60Hz)*	110/230V					
Input Voltage - Plasma (3 phase, 50/60Hz)*	380/415V or 240/480 V					

*Other voltages etc. are available - please enquire. All values are approximate and are subject to change without notice.
The Company reserves the right to make technical modifications and improvements without notice.

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