INNOVATIVE, MARKET LEADING PRODUCTS WITH EXCEPTIONAL CUSTOMER SERVICE
Esprit Automation designs and manufactures state of the art CNC machines for plasma and flame cutting of steel and other metals. We produce a full range of machines optimised for different applications and offer turnkey solutions for our customers including CAD/CAM, filtration, installation and training – all backed up by our unrivalled service and support. Esprit machines are known for performance, reliability and productivity which enable our customers to be successful and profitable in their own diverse businesses.

History & Development

Founded in 1986 by two engineering graduates from the University of Nottingham, Esprit has developed and grown to become one of the leading manufacturers of CNC plate cutting machinery with sales in over thirty countries on five continents. Having manufactured in Nottingham, England from the beginning, Esprit Automation continues to be directed by the two founders supported by a strong management team and a highly skilled and motivated workforce. Our ongoing investment in R&D through our teams of innovative engineers and software developers ensures that our machines and solutions remain at the forefront of technological advancement. Our long term partnership (1990 onwards) and close working relationship with Hypertherm enables us to develop tightly integrated solutions which deliver huge benefits for our customers.

First Class After Sales Support

After sales service is of key importance to our customers and our in-house team of more than ten experienced engineers and technical support staff backed up by large stocks of spare parts and cutting consumables gives our customers the assurance that issues can be dealt with quickly and professionally.

Wide Range of Customers

We work closely with customers of all descriptions and sizes. From small enterprises to large global players, our customers cover a wide range of metal processing industries including general and precision sheet metal, fabrication, steel service-centres, HVAC ductwork and a wide variety of product manufacturers. Automotive, agricultural and construction machinery, materials handling, food machinery and display equipment are all represented in our wide customer portfolio.
A visit to our Nottingham facility offers a unique opportunity to discuss your sheet and plate cutting application. Our engineers and experts will work with you to look at your specific application taking into account a wide range of factors including cut quality requirements, thickness, size and material types, production capacity needs etc. in order to identify the best alternatives. Our demonstration facility has the full range of Esprit machines and Hypertherm plasma cutting systems all ready to go and assist in determining the best solution for your application. In addition we usually have a range of fully remanufactured and warranted Esprit machines available for sale.

We look forward to discussing your application!

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**Plasma Cutting**

The full range of Hypertherm plasma cutting systems can be specified with Esprit plasma cutting machines from units designed for high speed sheet metal cutting through to high precision systems capable of piercing and cutting 50 mm steel and beyond. Systems range in power from 30 A up to 800 A cutting current; the largest system in the range can cut stainless steel and aluminium up to 160 mm thick.

**Flame Cutting**

Oxy-fuel flame cutting can cut carbon steels up to 300 mm and beyond with a good, clean square cut. Cutting speeds are slower than plasma but additional cutting torches can be added at relatively low cost so multiple torch cutting can boost productivity. Advanced control systems automate the process and greatly simplify the use of this effective cutting technology.

**Marking**

Plate marking options for part numbers, bending lines or marking out for assembly are available on many of the machines. These additional processes can eliminate many manual marking out tasks and save hours of production time.
E sprit Lightning HD machines are precision compact bed machine tools for high precision plasma cutting and are available in a wide range of sizes from 3 m x 1.5 m upwards. Designed on laser cutting machine principles, the Lightning HD fully exploits the latest Hypertherm HPRXD plasma cutting processes and produces clean, square, dross-free cuts on a wide range of ferrous and non-ferrous metals. Our customers report that components cut on the Lightning HD machine with HyPerformance HPRXD plasma and True Hole technology are comparable with laser cut parts in many cases.

Our machine design engineers have specified heavy duty precision fabricated and machined structures combined with twin hardened and ground linear bearings in all axes, powerful digital drives and precision transmissions to deliver high accuracy and repeatability and produce smooth motion with high speed and acceleration for the highest possible cut quality.

- Heavy Duty Fabricated & Machined Construction = Accuracy
- Dual Plasma Torch Option = Twice the Productivity
- Range of Sizes to Suit Many Applications = Flexible
- Twin Linear Bearings in Both X & Y Axes = Smooth Motion
- Independent Heavy Duty Segmented Cutting Table = Clean Working Environment
- Compact Machine Frame Design = Small Footprint
- Unique Perimeter Safety System
- Laser Pen Pointer for Plate Positioning & Alignment = Easy Set Up
- Powerful Digital AC Brushless Drives = High Dynamic Performance
- Direct Drive Rack & Pinion Transmissions = Accuracy & Repeatability
- Ball Screw Digital Torch Height Control = Best Cut Quality
- Magnetic Torch Collision Protection = Longer Torch Life
- Powerful Hypertherm Windows Based CNC = Ease of Use
- 15” Colour Touch Screen Display & Wizards = Ease of Use
- Hypertherm True Hole Capable = The Best Plasma Cut Holes
- Hypertherm Rapid Part Technology Enabled = Automatic Productivity Increases
- Hypertherm Consumable Optimisation = Up to 3x Longer Consumable Life
- Remote Diagnostic Capability = Rapid Fault Identification
Esprit Viper machines are large CNC portal cutting machines for up to eight plasma or oxy-fuel flame cutting stations. Designed and manufactured as precision machine tools, Viper machines feature heavy duty floor mounted rails, hardened and ground linear bearings, powerful digital AC drive systems, precision gearboxes and direct rack and pinion drives for excellent machine performance. Cutting width can be specified between 1.5 m and 6.5 m; cutting length is effectively unlimited. Viper machines can be specified with Hypertherm HPRXD or conventional plasma cutting systems up to 800 A, or oxy-fuel flame cutting torches for the thicker material ranges.

These machines are suitable for precision cutting in the most demanding of applications.

• Heavy Duty Fabricated & Machined Design = Tough Workhorse
• Multiple Plasma/Flame Cutting Torches = Maximum Productivity
• Sizes Available to Suit Any Application = Flexible
• Low Profile Floor Mounted Rails = High Stability & Accessibility
• Overhead Cable Chain Handling = Ease of Access
• Unique Perimeter Safety System = Safe Working Area
• Laser Pen Pointer for Plate Positioning & Alignment = Easy Set Up
• Powerful AC Brushless Drives = High Dynamic Performance
• Direct Drive Rack & Pinion Transmissions = Accuracy & Repeatability
• Ball Screw Digital Torch Height Control = Best Cut Quality
• Magnetic Torch Collision Protection = Longer Torch Life
• Powerful Hypertherm Windows Based CNC = Ease of Use
• 15” Colour Touch Screen Display & Wizards = Ease of Use
• Hypertherm True Hole Capable = The Best Plasma Cut Holes
• Hypertherm Rapid Part Technology Enabled = Automatic Productivity Increases
• Hypertherm Consumable Optimisation = Up to 3x Longer Consumable Life
• Remote Diagnostic Capability = Rapid Fault Identification
**MULTIBEVEL**

Flexible plasma bevelling

The Esprit Multibevel machine will cut components with a range of bevel details suitable for straight and radius edge weld preps, countersinks and a range of other component specifications. The Multibevel has an Esprit engineered precision bevel head and fully integrated True Bevel technology from Hypertherm for quicker set-up and more accurate bevel cutting. The machine will handle plates up to 50 mm thick and covers V, A, and Top-Y style cuts with $\pm 45^\circ$ limits. Secondary machining operations can be significantly reduced or eliminated offering huge secondary operation savings.

The Multibevel is a heavy duty CNC machine tool optimised for plasma bevel cutting applications and integrates with Hypertherm HPR260XD or HPR400XD HyPerformance plasma cutting systems.

- Advanced Bevel Head Design = Precision Bevel & Conventional Cutting
- Hypertherm True Bevel Technology = Ease of Setup
- Reinforced Heavy Duty Fabricated & Machined Design = Durable for Heavy Plate Work
- Sizes Available To Suit Any Application = Flexible
- Low Profile Floor Mounted Rails = High Stability & Accessibility
- Overhead Cable Chain Handling = Ease of Access
- Unique Perimeter Safety System = Safe Working Area
- Laser Pen Pointer For Plate Positioning & Alignment = Easy Set Up
- Powerful AC Brushless Drives = High Dynamic Performance
- Direct Drive Rack & Pinion Transmissions = Accuracy & Repeatability
- Ball Screw Digital Torch Height Control = Best Cut Quality
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- Powerful Hypertherm Windows Based CNC = Ease of Use
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- Hypertherm Consumable Optimisation = Up to 3x Longer Consumable Life
- Remote Diagnostic Capability = Rapid Fault Identification
The Esprit Lightning S machines have an innovative linked rail design which delivers high machine stability. Extensive engineering development has produced a machine which delivers high quality and productivity not normally associated with rail based machines. The heavy duty machined fabrications combine with precision linear guidance, direct rack and pinion transmissions and digital brushless drives to give smooth, precise motion for the best cut quality.

The Lightning S is optimised for precision plasma cutting up to 400 A and can be fitted with up to six oxy-fuel flame cutting torches and a range of marking options. Cutting sizes can be specified from 3 m x 1.5 m up to 20 m x 3 m wide. Integrated safety features such as the sliding safety system and spark screens ensure operator safety.

- Precision Fabricated & Machined Design = Robust Machine
- Multiple Plasma/Flame Cutting Torches = Maximum Productivity
- Range of Sizes to Suit Many Applications = Flexible
- Linked Rail System = High Machine Rigidity
- Machine Shipped on Base Rail Set = Quick Installation
- Low Level Precision Rails = High Stability & Accessibility
- Integrated Cable Chain Handling = Reduced Tripping Hazards
- Unique Perimeter Safety System = Safe Working Area
- Laser Pen Pointer For Plate Positioning & Alignment = Easy Set Up
- Powerful AC Brushless Drives = High Dynamic Performance
- Direct Drive Rack & Pinion Transmissions = Accuracy & Repeatability
- Ball Screw Digital Torch Height Control = Best Cut Quality
- Magnetic Torch Collision Protection = Longer Torch Life
- Powerful Hypertherm Windows Based CNC = Ease of Use
- 15” Colour Touch Screen Display & Wizards = Ease of Use
- Hypertherm True Hole Capable = The Best Plasma Cut Holes
- Hypertherm Rapid Part Technology Enabled = Automatic Productivity Increases
- Hypertherm Consumable Optimisation = Up to 3x Longer Consumable Life
- Remote Diagnostic Capability = Rapid Fault Identification
The Esprit Cobra is a modern rail based machine and can be specified with between 1.5 m and 3 m cutting width and up to 12 m cutting length. The Cobra can have up to two plasma cutting heads and up to six oxy-fuel flame cutting heads. Cobra machines are dual side direct rack and pinion drive in the X axis and feature linear bearings and direct rack and pinion drive in the Y axis.

Hypertherm HyPerformance HPRXD plasma up to 400 A can be specified with the Cobra along with LongLife and air plasma cutting alternatives. EDGE Pro CNC and digital brushless AC drives complete the machine specification, giving the Cobra machines smooth precision motion and high reliability.

- Cost Effective Precision Cutting = Ideal for the General Fabricator
- Multiple Plasma/Flame Cutting Torches = Maximum Productivity
- Range of Standard Sizes up to 12 m x 3 m = Flexible
- Laser Pen Pointer for Plate Positioning & Alignment = Easy Set Up
- Powerful AC Brushless Drives = High Dynamic Performance
- Direct Drive Rack & Pinion Transmissions = Accuracy & Repeatability
- Ball Screw Digital Torch Height Control = Best Cut Quality
- Magnetic Torch Collision Protection = Longer Torch Life
- Powerful Hypertherm Windows Based CNC = Ease of Use
- 15” Colour Touch Screen Display & Wizards = Ease of Use
- Hypertherm True Hole Capable = The Best Plasma Cut Holes
- Hypertherm Rapid Part Technology Enabled = Automatic Productivity Increases
- Hypertherm Consumable Optimisation = Up to 3x Longer Consumable Life
- Remote Diagnostic Capability = Rapid Fault Identification
Esprit Lightning D machines cover a wide range of applications and produce high quality accurate components in virtually all metals. Manufactured as a single fabricated structure with machined mounting and alignment faces, the Lightning D has an integral segmented fume extraction cutting table. Lightning D machines can be specified with a range of Hypertherm plasma cutting systems including HyPerformance HPR130XD, HSD130, MAXPRO200 and the full range of Powermax plasma cutting systems.

Available in a range of sizes from 3 m x 1.5 m up to 6.5 m x 2 m, the flexible Lightning D offers precision cutting and high productivity. The Lightning D machines have hardened and ground linear bearings in both axes and are available with either pneumatic plate-rider or precision arc-voltage torch height controls dependent upon the application. All have Hypertherm EDGE Pro CNC and digital AC brushless drive systems for smooth accurate cutting from gauge to 25 mm.

- One Piece Machined & Fabricated Frame = Stable & Accurate
- Compact Design = Small Footprint
- Range of Standard Sizes up to 8 m x 2 m = Flexible
- Machine Tool Grade Linear Bearings in All Axes = Smooth Motion
- Integral Segmented Cutting Table = Clean Working Environment
- Integral Cable Chain Handling System = Long Term Reliability
- Laser Pen Pointer for Plate Positioning & Alignment = Easy Set Up
- Powerful AC Brushless Drives = High Dynamic Performance
- Direct Drive Rack & Pinion Transmissions = Accuracy & Repeatability
- Ball Screw Digital or Plate Rider Torch Height Control = Best Cut Quality
- Magnetic Torch Collision Protection = Longer Torch Life
- Powerful Hypertherm Windows Based CNC = Ease of Use
- 15° Colour Touch Screen Display & Wizards = Ease of Use
- Hypertherm True Hole Capable = The Best Plasma Cut Holes
- Hypertherm Rapid Part Technology Enabled = Automatic Productivity Increases
- Hypertherm Consumable Optimisation = Up to 3x Longer Consumable Life
- Remote Diagnostic Capability = Rapid Fault Identification
ARROW

High speed plasma cutting for HVAC and sheet metal

The Esprit Arrow plasma cutting machine combines the latest in machine and plasma cutting technology in a compact package and offers the best price/performance ratio in its class. The Arrow machine is designed and engineered to the same high standard as all other Esprit machines. Linear bearings in all axes, digital machine network, AC brushless servo drives and the EDGE Pro CNC give the Arrow the ability to perform at the highest level. The latest Inverter controlled Hypertherm Powermax plasma cutting systems give superb cutting performance along with low running costs. The Arrow’s small footprint and competitive pricing gives even the smallest workshops access to the latest CNC plasma cutting technology. The Arrow is the clear choice for HVAC ductwork, general sheet metalwork and light fabrication applications.

- Heavy Duty Fully Welded Construction = Accuracy & Durability
- Compact Design = Small Footprint
- 3 m x 1.5 m Cutting Area = Handles All Standard Sheet Sizes
- Integral Dust & Fume Collector = Clean Working Environment
- Compatible with a Decoiler = High Productivity
- Standard Pen Marker = Simple Part Identification
- Dual Side Drive in X Axis = Consistency Over Full Bed Area
- Linear Bearings in All Axes = Smooth Motion
- Integral Cable Chain Handling = Long Term Reliability
- AC Digital Brushless Drives = High Dynamic Performance
- Direct Rack & Pinion Drive on Y Axis = Accuracy & Repeatability
- High Speed Plate Rider Height Control = Optimum Cut Quality
- Powerful Hypertherm Windows Based CNC = Ease of Use
- 15” Colour Touch Screen Display & Wizards = Ease of Use
- Remote Diagnostic Capability = Rapid Fault Identification

CAMduct is the total production solution that incorporates all the necessary features to efficiently control the manufacturing of duct work components. Combined with an Esprit plasma cutting machine, the software is the perfect choice for use in HVAC, dust extraction, insulation and industrial ventilation sectors. From the extensive database of fittings through to automatic nesting and management information, CAMduct & Esprit provide the tools to meet manufacturing deadlines and improve productivity. CAMduct can be tailored to meet your particular manufacturing needs and is suited to both small companies and large multiple site organisations. The software can drive production from the office environment; CAMduct is the undisputed world leader for the manufacture of HVAC duct work.
Plasma and flame cutting produces fume and dust which is drawn away from the working environment via a down-draught extraction cutting table and ductwork to a filtration system. The contaminated air then passes through cartridge filters where the contaminants are removed and clean air then passes out of the top of the filtration system.

The cartridge filters are cleaned automatically by compressed air with the resultant dust collected in a storage bin located in the bottom of the unit where it can be disposed of easily and safely. It is essential to specify the correct unit and our experts can assist in the selection of a suitable filtration system for your application; this depends upon the size of the machine, amperage of the plasma cutting system(s) and a number of other factors.

- Purpose designed for plasma & flame cutting
- Range of units for indoor or outdoor location
- Expert selection of the correct system
- Provide clean working environment
- Automatic cleaning cycle
- On/Off Controlled by CNC link
- Models available with quiet operation
- Easily replaceable filter cartridges
- Full service available by Esprit engineers
- Quick installation
- High reliability
Esprit is Hypertherm’s principal OEM partner and largest official distributor in the UK.

**HyPerformance Plasma**

HyPerformance Plasma delivers the best precision plasma cutting available. Closely integrated with an Esprit machine, the HPRXD systems offer exceptional productivity and ease of use with the highest cut quality and lowest running costs in the industry.

**LongLife Air & Oxygen Plasma**

The HySpeed and MAXPRO systems offer heavy duty high productivity capability with oxygen cut quality. These flexible systems have patented LongLife consumable technology which gives dramatically longer consumable life than competitors and much lower operating costs.

**Air Plasma**

The Powermax systems cover a wide range of cost effective cutting applications and the advanced inverter based design is available in a range of sizes. Whilst the smaller units deliver superb high speed sheet metal cutting performance, the largest unit in the range can pierce and cut up to 25 mm carbon steel.

**EDGE Pro CNC**

All machines in the Esprit range are specified with Hypertherm’s advanced EDGE Pro CNC. The EDGE Pro is a dedicated plasma and flame cutting controller and has Hypertherm & Esprit’s extensive cutting knowledge and experience embedded inside. The intuitive 15” colour touch screen HMI with built in wizards is easy to use and delivers outstanding machine performance.
In 1990, Esprit Automation selected Hypertherm as its exclusive partner for plasma cutting systems; years on, the relationship is as strong as ever and the two companies work closely together to develop more tightly integrated solutions to achieve higher levels of precision, better cut quality, improved reliability and lower running costs. Today, Esprit is Hypertherm’s principal OEM partner in the UK and is the largest official UK distributor. The full range of Hypertherm plasma cutting systems is offered on Esprit CNC machines and huge stocks of consumables and spare parts are available for immediate dispatch from the Nottingham facility. Esprit design engineers work closely with counterparts within Hypertherm to ensure that the Esprit range of CNC plasma cutting machines is always at the forefront of technology.

**True Hole Technology**
Patented True Hole technology for mild steel produces significantly better hole quality than previously possible using plasma and narrows the gap with laser hole quality, making the plasma process suitable for many jobs previously cut with laser. Bolt hole quality with virtually no taper is delivered automatically without operator intervention.

**Rapid Parts Technology**
Rapid Part technology can increase production capability by up to 100% by reducing cut-to-cut cycle time (the time the arc is off), including the time from the last cut or pierce to the next pierce. Intelligent CAD/CAM & CNC technology ensure torch retract and initial height sensing is eliminated or minimised based on material and part program context, and gas pre-flow occurs simultaneously.

**Consumable Optimisation**
This advanced technology optimises consumable life without requiring operator adjustment. The torch height control automatically and continuously samples and adjusts arc voltage to correct for consumable wear. This results in the correct torch height for optimal cut quality over the life of the consumables without requiring operator adjustment.
Esprit hold the largest stocks of genuine Hypertherm plasma consumables and spare parts in the UK. Available ex-stock from our Nottingham facility we offer competitive pricing and superb service. We support current and discontinued machines and Hypertherm plasma cutting systems and offer same day dispatch via a range of delivery services for orders received before 2.30pm.
After sales service is of vital importance to our customers and our in-house team of more than ten experienced engineers and technical support staff backed up by large stocks of spare parts and cutting consumables gives our customers the assurance that issues can be dealt with quickly and professionally. In particularly difficult cases, the technical service team can call on further assistance from our electrical, mechanical and software design staff in the adjoining office. Our team of technical service engineers are experienced CNC plasma machine specialists and spend 100% of their time servicing, installing, training and attending to breakdowns on the range of Esprit & Hypertherm systems. Our factory based service management team have over 30 years of experience with the company and are able to talk through issues with customers, utilising remote diagnostic tools where possible and logging all communications within our advanced CRM system.

**CNC Plasma & Flame Cutting Specialists**

Our technical service team are based from our central facility just off junction 25 of the M1. We have large stocks of spare parts for both current and older Esprit machines and all Hypertherm plasma cutting systems. Our factory based service personnel will initially work with your machine operator or maintenance engineer to learn as much as possible about the nature of the fault. Our mobile engineers can then arrive with appropriate spare parts with a view to completing the repair on the first visit. Newer machines have the option of an internet connection. With your approval, our service team can log-in to the Esprit machine control and review diagnostic data. This can sometimes result in the machine being repaired without an engineer visit! Even if this is not possible our engineers will have a much better idea of the problem before their arrival.

**Hypertherm Plasma Service**

Since 1990, we have exclusively integrated Hypertherm plasma cutting systems with Esprit machines and this has given our technical service staff unparalleled knowledge and experience supporting and servicing the full range of Hypertherm equipment. We hold large stocks of Hypertherm spare parts and can offer on-site or return to base service for breakdowns and preventative maintenance requirements. We also provide full operator and maintenance training to ensure Hypertherm systems are performing well.

**Preventative Maintenance Service**

We offer a range of preventative maintenance service contracts to suit each machine type and its duty cycle. Typically two or four visits a year are undertaken during each of which the machine will undergo a detailed inspection. This will identify any issues which prevent the machine performing at its best and these will be addressed during the engineer’s visit where possible or on a follow-up visit as required. During the initial visit all serviceable components will be adjusted, lubricated or replaced as necessary and a full report will be presented prior to the engineer’s departure. Preventative maintenance contracts are designed to identify problems before they become critical and cause a breakdown at an inconvenient time.
Procut CAD/CAM software has been in use for over a quarter of a century in steel service centres and manufacturers in the UK and around the world. The software division of the business has used the extensive knowledge and experience gained from designing, manufacturing and supporting the company’s range of CNC machines to produce informed software applications. Our software is used in large and small companies across a huge range of industries and allows them to achieve the very best results from their machine investments.

Procut has been designed specifically for flat bed cutting applications and in addition to plasma and flame cutting it supports selected laser and waterjet machines. Procut CAD/CAM software has comprehensive drawing facilities, flexible CAD import capabilities and powerful automatic and interactive nesting systems. Remnant plate management, 3D shape development and many other options can be specified to tailor the Procut system for any flat bed cutting application.

Procut is powerful yet incredibly easy to use. Our expert knowledge is embedded into the software so the benefits can be realised even by inexperienced users. Our UK based training and support services are second to none with regular training courses held at our Nottingham facility for beginners and more experienced users.
Integrated business solutions from enquiry to invoice

ProManager gives you control over all aspects of your cutting operations. From enquiry & quotation right through to delivery, transport planning and invoicing, ProManager keeps control of what’s going on along with all the associated costs. Information is gathered at each stage of the process and used to streamline later parts of the process. Multiple orders from multiple customers can be nested together producing ultimate flexibility.

The ProManager system is the result of detailed customer research and market analysis. Standard ERP systems are accomplished at managing many types of businesses but cannot take care of many of the specific processes required including dealing with remnant plate stocks, material allocation and the combination of jobs from multiple customers to achieve high material utilisation. Working with selected customers and applying our detailed knowledge and experience has resulted in the ProManager system which can take care of the cutting business and all its idiosyncrasies from enquiry to invoice. Configurable to suit large and small operations, ProManager will identify profits and losses by individual order line and facilitate improved control and visibility of the operation. ProManager is a modular application and can integrate with other business systems as required.