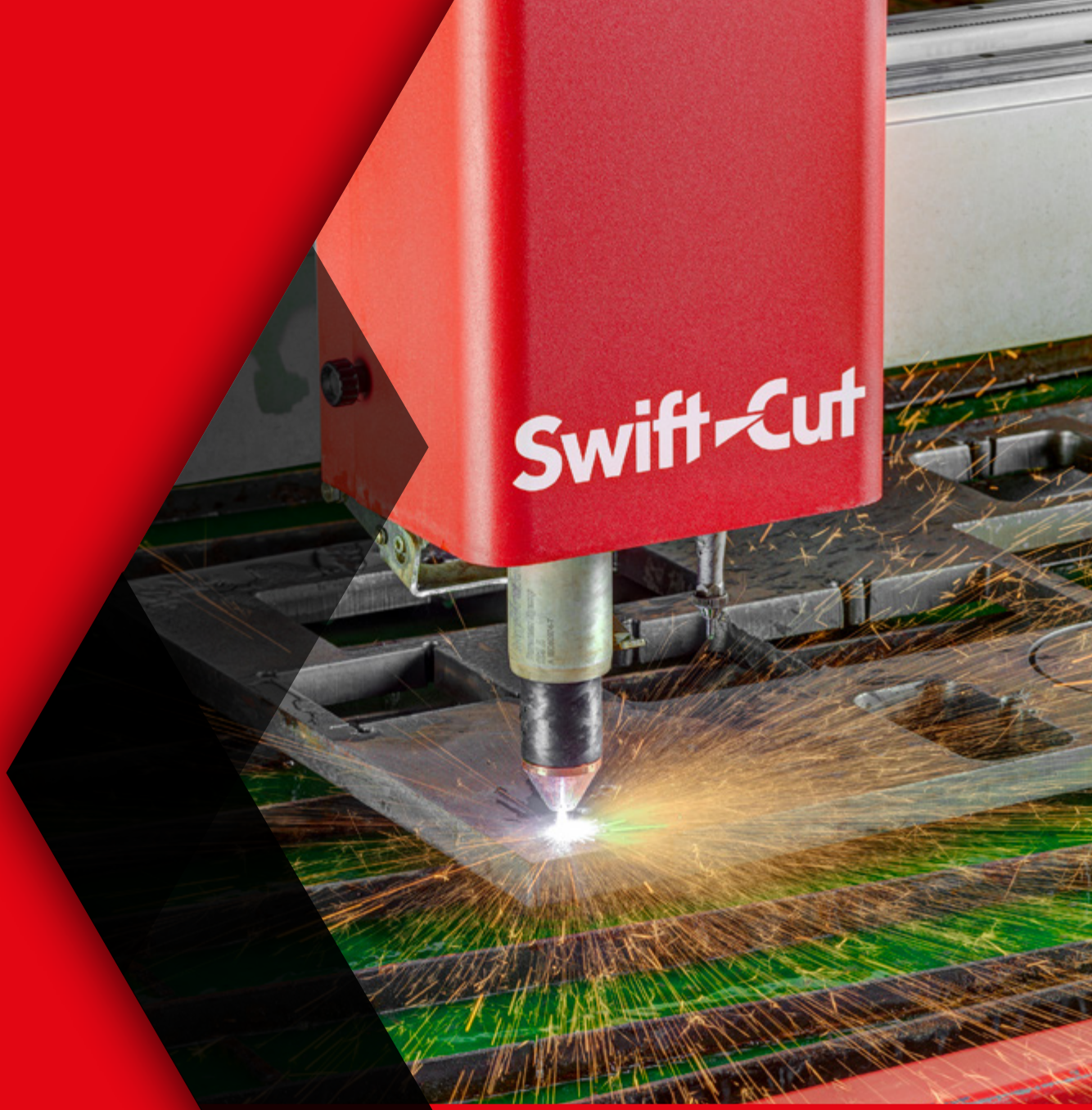
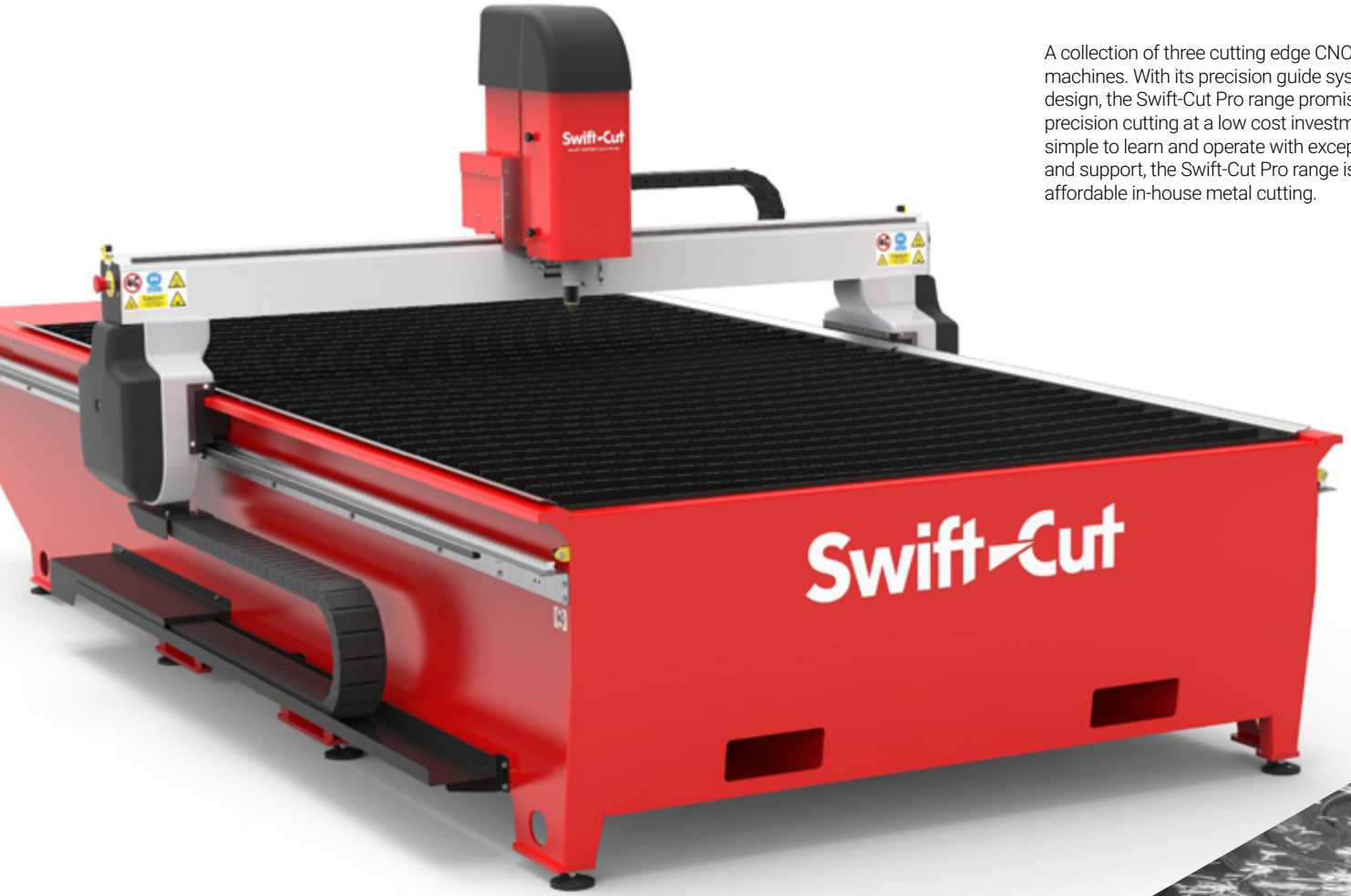
Swift-Cut PRO



CNC PLASMA CUTTING SYSTEM



Introducing the Swift-Cut Pro

A collection of three cutting edge CNC plasma machines. With its precision guide system and robust design, the Swift-Cut Pro range promises high speed precision cutting at a low cost investment. Easy to use, simple to learn and operate with exceptional aftercare and support, the Swift-Cut Pro range is the answer to affordable in-house metal cutting.

Why choose a Swift-Cut Pro?

The Pro has been continuously developed over the past 10 years. From its inception to now, the range has gone from strength to strength and is now the leading light industrial CNC cutting machine. With intuitive software, industry leading features, and six different base options, the Pro range is designed to deliver fantastic and reliable cutting performance in a package built to last.

Key Features

Our Swift-Cut Pro is Europe's number one selling CNC plasma machine in its class!

The Swift-Cut Pro range comes with advanced industry leading features as standard, combined with easy to use and intuitive software. The Pro range is designed to take metal cutting to another level - its incredible capabilities offer exceptional high-end cutting solutions at amazingly low prices.

> "Swift-Cut tables are ruggedly built, easy to use, have great accuracy and most importantly, give an excellent cut."
>
> *Alan Bradford, Plasmatech*

INTELLIGENT TORCH HEIGHT CONTROL
Never have to set up torch height control yourself. Automatic voltage sampling provides repeatable cut quality and increased consumable life compared to conventional Torch Height Control systems.

INITIAL HEIGHT SENSE
The Soft Sense system enables you to repeatably and accurately sense the top of the thinnest to the thickest of materials without distortion of the plate.

HYBRID SERVO MOTORS
Repeatable positional accuracy, monitored torque delivery and smooth motion.

HEAVY DUTY GANTRY
Heavy duty gantry end castings with machined faces, together with the lightweight but rigid gantry provide a precise and stable platform for the cutting head. It also supports twin x-axis linear rails.

FULLY ENCLOSED CUTTING HEAD
Fully enclosed cutting head offers protection to key components against the harsh cutting environment.

LASER POSITIONING CROSSHAIR
Laser crosshair aids in setting the torch start position.

ENGRAVING TOOL
The SwiftMARK engraving tool allows you to mark and cut in one operation, meaning no more outsourcing or moving your project from one machine to another (optional extra).

BREAKAWAY HEAD
Prevents damage to the torch should an unexpected collision occur.

MACHINE BED OPTIONS
The water bed option offers efficient fume suppression so that in most cases no external fume extraction is required. Alternatively, the zoned downdraft bed option captures fumes and particulate from beneath the cutting area when connected to an extractor or filtration unit. Both variants are available in all machine sizes.

SOFTWARE
Easy to use SwiftCAM and SwiftCNC software included as standard.

FULLY ENCLOSED DRAG CHAINS
Fully enclosed drag chains protect cables against damage from molten material.

LINEAR RAIL ON ALL AXES
Straight, accurate and repeatable movements, they also deliver a smoother motion compared to other guide systems.

FULLY WELDED BASE
Heavy duty base provides support and rigidity.

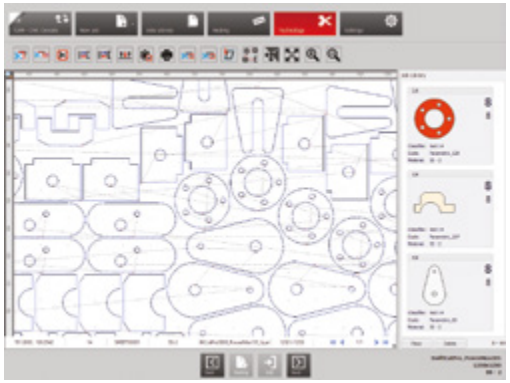
OPERATORS CONSOLE
Ergonomic operators console with touch screen and keyboard/ mouse inputs.

Main Key Features:

- Intelligent Torch Height Control (ITHC) and Soft Sense initial height sense ensure the perfect pierce and cut height no matter what thickness of material
- SwiftCAM and SwiftCNC software included as standard
- 360° breakaway head with auto-reset in the event of a collision
- Down draft and water table cutting bed options available across the entire range
- Designed, engineered, and fully supported by the Swift-Cut team
- Fully welded base and compact footprint ensure the machines take up the minimum amount of space required
- Freestanding operators console can be positioned on either side of the machine
- A choice of five plasma power sources with capacities from 0.5mm to 25mm (0.02" to 1")

Hypertherm
SHAPING POSSIBILITY™

Plasma is one of the world's most popular cutting methods and for good reason: it strikes the perfect balance between cut quality, cut speed, and cost. Hypertherm thermal arc plasma systems are trusted and used by more businesses and people than any other brand. They are considered the best plasma cutting tools available today and are seamlessly integrated with the Swift-Cut Pro range.



SwiftCAM Software

Swift-Cut's easy to use software guarantees that anyone with a basic knowledge of using computers will be capable of operating the CNC plasma cutting system. Minimal training required means the machine will be operational almost immediately, maximising output from the start.

Easy to use and feature packed

Swift-Cut are renowned for making feature rich, yet easy to use cutting machines, and our Swift-Cut Pro is no exception. With our touchscreen HMI, wireless keyboard & mouse, and both standard and advanced screens for operators with varying experience, you will be cutting with confidence in no time. Features like Cut Recovery, Plate Alignment, Sheet Trim and 89 shape parametric library all come as standard.

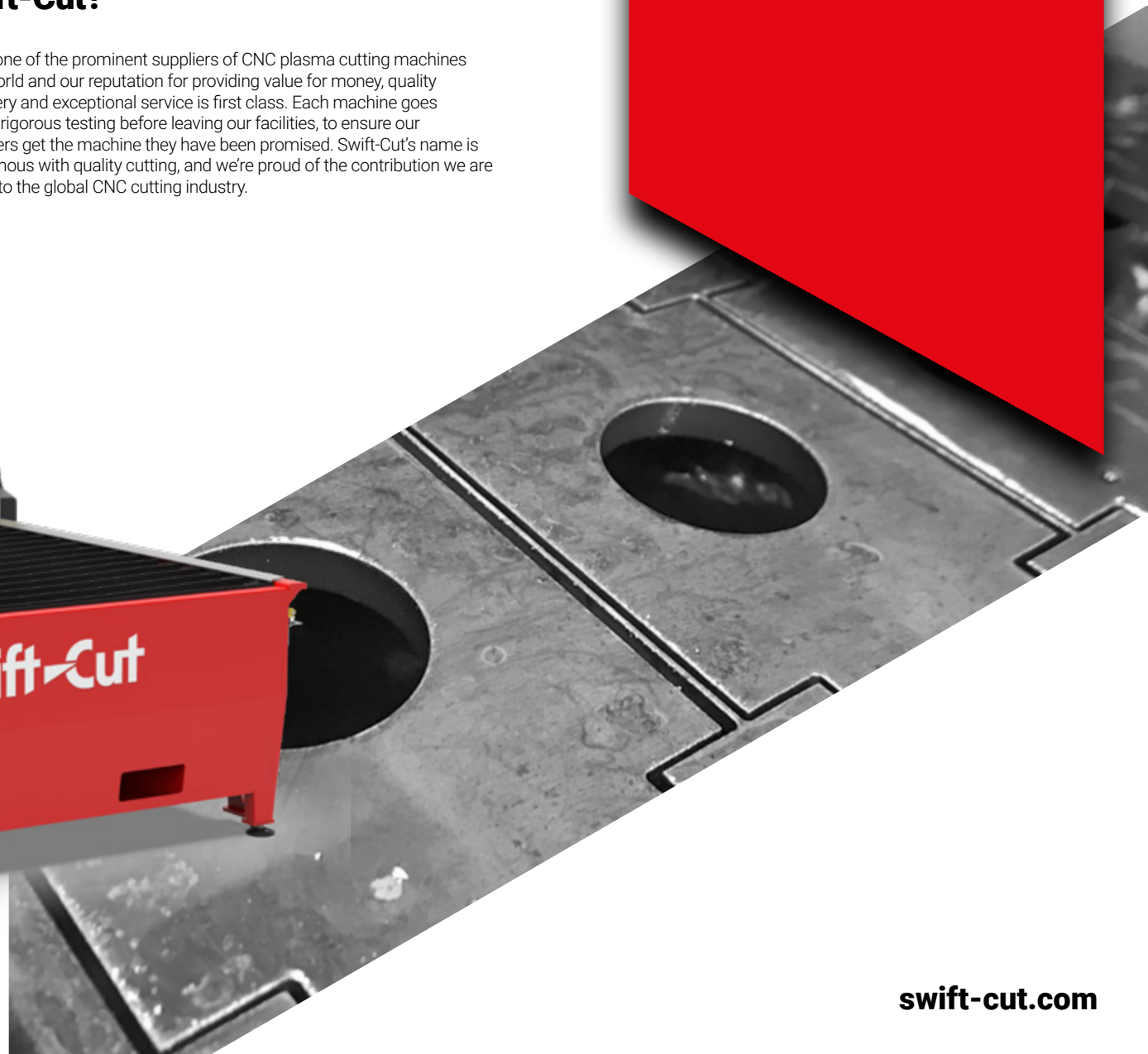
How have we built a plasma cutting machine that is so affordable?

From the design and manufacture of the very first Swift-Cut CNC plasma machine to now, the evolution of our Swift-Cut Pro, we have always maintained our ethos that CNC metal-cutting should provide ultimate value for money. We believe that all businesses should be afforded the opportunity to see just how beneficial automating their processes could be. We have stuck to that founding principle; choosing to charge fairly for the machine as opposed to what the industry dictates, and as a result the Swift-Cut Pro range offers fantastic value for money and a superb return on investment.

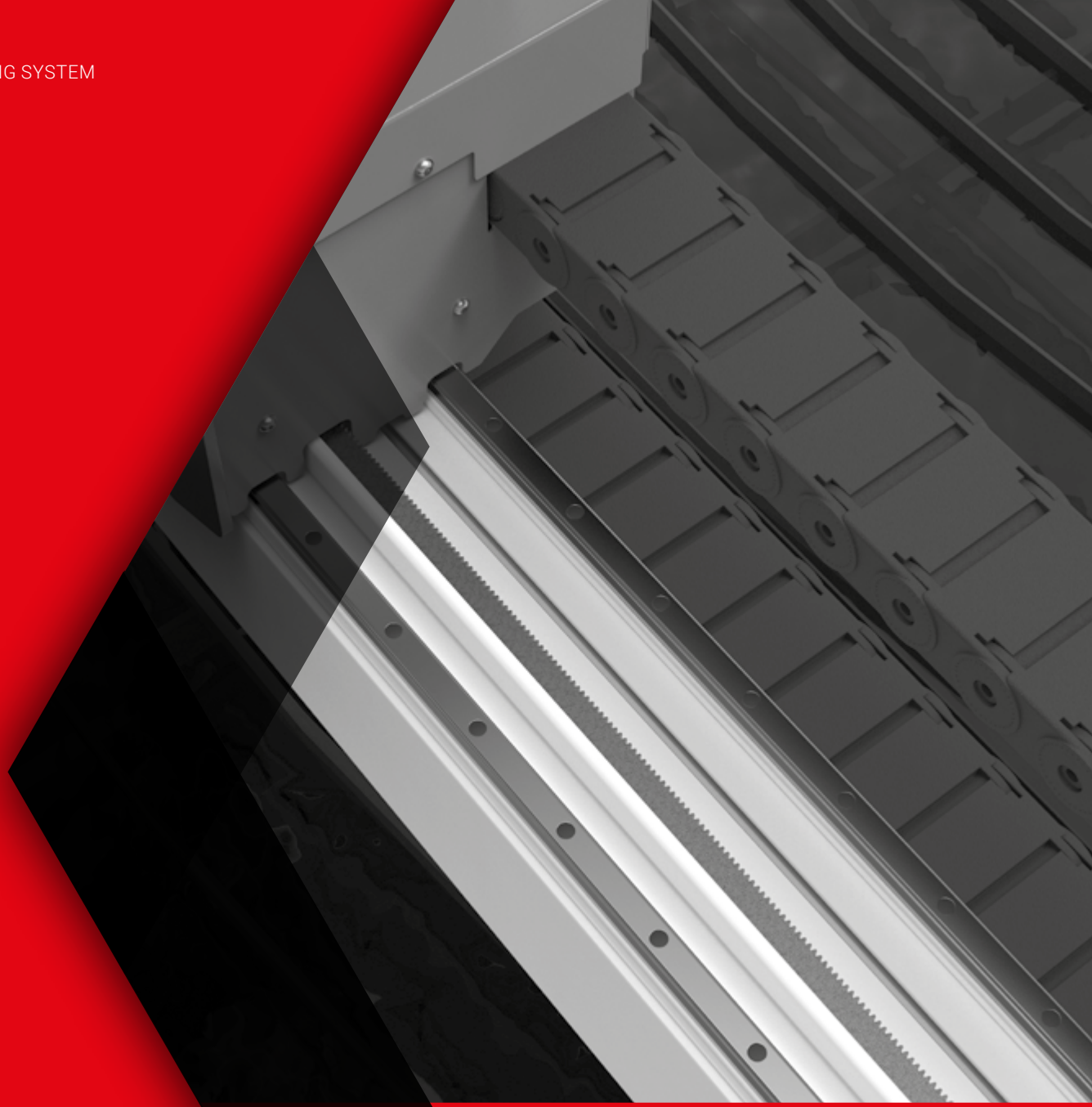
Why choose Swift-Cut?

We are one of the prominent suppliers of CNC plasma cutting machines in the world and our reputation for providing value for money, quality machinery and exceptional service is first class. Each machine goes through rigorous testing before leaving our facilities, to ensure our customers get the machine they have been promised. Swift-Cut's name is synonymous with quality cutting, and we're proud of the contribution we are making to the global CNC cutting industry.

> "Very few companies are who they say they are, but Swift-Cut promised a quality product and then backed it up"
>
> *Full Metal Solutions*



Swift-Cut



Technical Specifications

The Swift-Cut Pro has been designed by our skilled team of engineers to provide an all-encompassing plasma cutting solution with industry leading features as standard and is available in 3 sizes.

Pro 1250 (Pro 44)

1250mm x 1250mm cutting area (4’ x 4’)

Pro 2500 (Pro 48)

2500mm x 1250mm cutting area (8’ x 4’)

Pro 3000 (Pro 510)

3000mm x 1500mm cutting area (10’ x 5’)

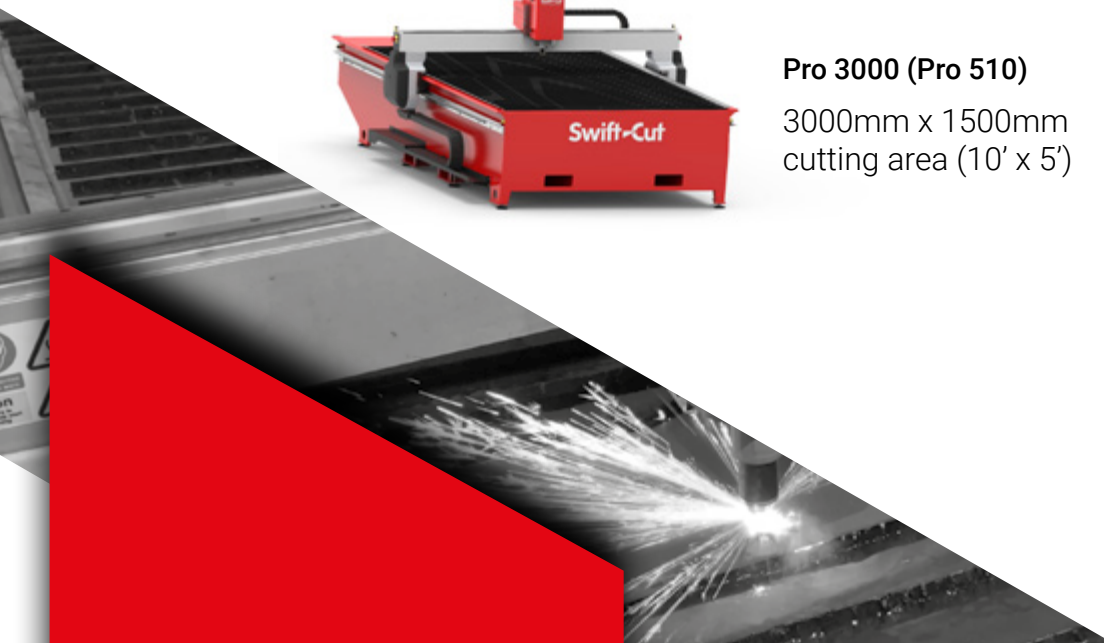


Table Specifications

	Pro 1250 (Pro 44)	Pro 2500 (Pro 48)	Pro 3000 (Pro 510)
Footprint	1980mm x 1840mm (6.5' x 6')	3226mm x 1840mm (10.5' x 6')	3780mm x 2115mm (12.5' x 7')
Table weight	800kg (1763lbs)	1000kg (2204lbs)	1100kg (2425lbs)
Height	1500mm (60”)		
Cutting envelope	1250mm x 1250mm (4' x 4')	2500mm x 1250mm (8' x 4')	3000mm x 1500mm (10' x 5')
Z-Axis travel	110mm (4.3”)		
Maximum supported material load	306kg (674lbs)	615kg (1355lbs)	885kg (1951lbs)
Input voltage	110-230v (6A-4A)		
Speed	20m/min (787ipm)		
Linear positional accuracy	0.2mm/m (0.002”/ft)		
Repeatability	0.4mm/m (0.005”/ft)		
Ballbar circularity	0.3mm/m (0.003”/ft)		
Drive description	Double sealed linear bearings on X and Y axis - Fully enclosed Z axis - Dual drive Y Axis incorporating hybrid servo motors - Linear rail on all axes		
Gantry height	150mm (6”)		
Maximum material thickness	25mm (1”)		
Maximum cut capacity of box section	100mm (4”)		
Input air pressure	7 - 7.5 BAR (100 - 110 PSI)		
Flow rate	300 LPM (10 CFM)		

SwiftCAM Software (features)

Standard

JPEG/DXF/DWG import capable
Import .dxf or .dwg files or convert .jpg images for cutting

Automatic Lead in/out
Software automatically applies lead in/out for quicker programming

Automatic nesting*
Automatically nests parts for economical sheet usage

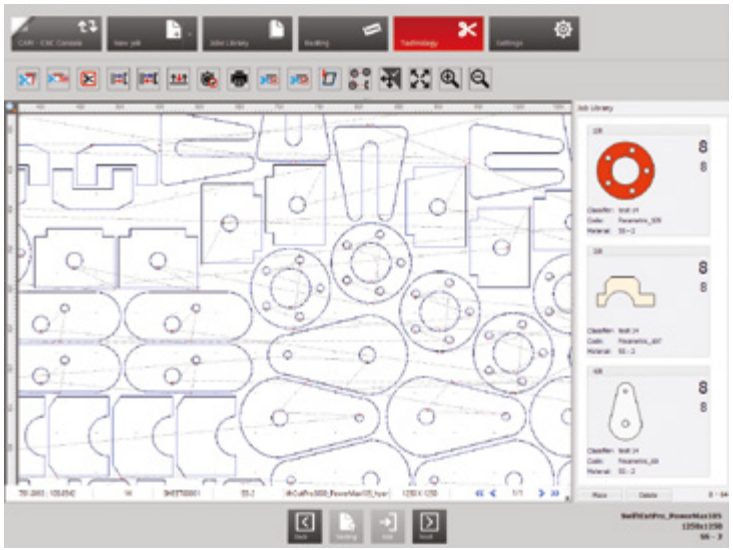
Part in part nesting
Nest parts in scrap areas to fully utilise sheet**

Advanced Drawing Importer
Built in system to clean, scale or delete items within problematic drawings

Parametric shape library
89 configurable shapes

* Advanced SwiftCAM only

** Can be done manually in standard software or automatically in SwiftCAM Advanced



> “Ease of use was a major deciding factor. The software is very user friendly and requires little prior computer skills.”
>
> *Delmer Yomer, Wellspring Components, USA*

Operator console spec

- Touchscreen HMI with wireless keyboard and mouse control
- Footprint – 550mm x 600mm (21” x 23”)
- Height – 1595mm (62”)
- Weight – 40kg (88lbs)
- Operating system – Windows 10, 64 bit
- Software included – SwiftCAM, SwiftCNC
- Remote support application installed as standard

SwiftCNC Software (features)

G-Code Browser
Allows the user to start cutting from any individual profile within the G-code

Cut recovery
This function allows the user to start from any position along the cut path whilst maintaining cut accuracy and reducing material waste

Direct Cut Control
Remote control of settings for Hypertherm Powermax plasma systems

- Automatic control of cutting amps
- Automatic control of air pressure
- Automatic control of cut mode
- Read fault codes from the operator's console
- Continuous arc mode - A simple unique solution allowing operators to cut wire mesh and perforated materials with the Hypertherm Powermax plasma systems

Basic and advanced displays
Basic view for beginners and advanced view for more experienced operators

Sheet alignment
Simply use the plasma shield to reference the two bottom corners of the sheet and the software will automatically adjust your part(s) or nest to the new angle. This will ensure the plasma arc will not 'run off' the material as it travels up the cutting bed

Sheet trim
Easily trim off scrap material. Options to go between 2 or 3 points on the material

G-code Favourites
Save up to 5 G-code files for quick loading

G-Code queue
Queue up to 5 G-Code files for quick loading

Datum store
Don't lose a datum point again, this system stores your last datum point so even if you lose power, you will not lose your position

Configurable datum points
Set up to 5 datum points anywhere on the cutting bed. This can be used to reduce setup times when using jig fixtures or to set custom parking positions

Dry-run mode
View the plasma torch movement, cutting order and speed in real time before you switch on the pump, so any problems are found and corrected without wasting material unnecessarily

Touchscreen display
Seamlessly switch between the wireless keyboard and mouse or the touchscreen display

Graphical toolpath display
Visual representation of where you are on the toolpath

"The Swift-Cut machines are capable of so much, the only limitation is your imagination"

ASE Engineering

Cutting Power Options

Plasma Source: Hypertherm

Max pierce capacity	Mild steel	Stainless steel	Aluminium	Duty cycle	100% duty cycle
Powermax 45 XP*	12mm (1/2")	12mm (3/8")	10mm (3/8")	50%	32Amps
Powermax 65 SYNC™	16mm (5/8")	12mm (1/2")	12mm (1/2")	50%	46 Amps
Powermax 85 SYNC™	19mm (3/4")	16mm (5/8")	16mm (5/8")	60%	66 Amps
Powermax 105 SYNC™	22mm (7/8")	20mm (3/4") low use	20mm (3/4")	80%	94 Amps
Powermax 125	25mm (1")	20mm (7/8")	25mm (7/8")	100%	125 Amps

* Single phase option available

Air Spec

- Clean, dry air supply that should meet ISO8573-1 class 1.2.2.
- Input air pressure – 7- 7.5 BAR (100-110 PSI)
- Flow rate – 300 LPM (10 CFM)

Options

- SwiftMARK engraving tool
- Zoned Downdraft (DD) or Water Table (WT)
- Powermax consumable kits
- SwiftCAM Advanced software
- Compressor options available
- Air dryer options available
- 3 stage compressed air filtration
- Filtered extraction or extractor fan options for Downdraft machines
- Anti-rust solution
- Anti-fungal tablets
- Wireless or hardwired internet connections

> Swift-Cut has enabled us to diversify from our primary business into an area we would never have ventured into.
>
> *Leightec*

Swift-Cut aftercare is second to none

We take as much pride in helping our customers after the sale as we do when we are making the sale, and every aspect of the user being able to get the absolute best from their Swift-Cut Pro has been thought about. Whether you need remote assistance, advice, or an engineer's visit, we will always make sure that you are getting the very best in aftercare.

There are a number of options to choose from when you come to decide how you wish to maintain your machine, and with over forty years combined experience in plasma and waterjet cutting, we have great knowledge when it comes to cutting on many different grades and types of material.

To enable us to support and train our global customers and sales partners, Swift-Cut has invested heavily in technology that allows us to provide remote services by using Smartphone, Tablet and Wearable Technology via collaborative software tools to train, assist and diagnose the problem with precision and in less time. The My Swift-Cut app allows us to provide real-time video support which minimises time spent on the job and keeps machine downtime to a minimum.

We offer interactive online service kits which are designed to keep your cutting table running at its best, with the minimal amount of downtime. As part of the package, our support team will dial in remotely and talk you through the service procedure, step-by-step.

In addition to the standard warranties that come with all our cutting tables, if you feel you need more, you can purchase extended warranties which can cover all aspects of support, parts or both, giving you even more peace of mind. Contact a member of our team for further details.

Swift-Cutter CNC family

Here at Swift-Cut we build long-standing relationships with our customers, with many buying multiple machines from us over time.

Once you buy a Swift-Cut table, you become part of our family, we'll share what you do and let you know what other Swift-Cutters are up to.

Our social media pages are an interactive platform where we hope our customers feel at home, or check out our Swift-Cutters Case Studies page on our website for more idea of what your fellow Swift-Cutters are up to and how they get the very best from their machines.

If you require any further help or information please visit swift-cut.com

Swift-Cut

SWIFT-CUT PRO | CNC PLASMA CUTTING SYSTEM

Frequently Asked Questions

How much does it cost to run?

There are many variables which can affect running costs, including type and thickness of material being cut, so its difficult to put an exact hourly cost down. It is widely recognised though if you take into consideration power, compressed air, consumables and routine maintenance, CNC plasma operating costs are lower than laser cutting and much lower than waterjet.

What power is required?

The table (inc. console) requires a single phase 110-230v (6A-4A) supply. The Hypertherm Powermax 45XP requires either a 230v or 415v (32A) supply. The Hypertherm Powermax 65, 85 and 105 requires a 415v (32A) supply. The Hypertherm Powermax 125 requires a 415v (64A) supply.

Do I need a compressor?

An air compressor is an essential component of the CNC plasma cutting system. Air plays a crucial part in ensuring the best quality cut and the reliability of the machine and plasma power source. It needs to be dry and free of any contaminants like oil. The amount of cutting you intend to do will determine what compressor is best for your needs. As a minimum we would always recommend you install a 3 stage air filtration unit close to the cutting table to filter the air before it enters the plasma power source and table hardware. We can both advise and supply the best compressed air setup for your business.

Do I need a downdraft table (DD) or water table (WT) to capture the fume?

It all depends on your particular application. Downdraft tables are slightly more expensive to purchase than water tables and require connection to either a filtration unit or extraction fan. The additional equipment adds extra noise, but they are easier to clean and your only option if cutting aluminium or stainless steel most of the time. Water tables are less expensive and quieter, but more difficult to clean and are not recommended for certain materials.

What materials will it cut?

CNC plasma cutting can only be used for materials that are conductive. The three most popular materials are mild steel, stainless steel and aluminium however other metals and alloys such as copper, brass, titanium, hardox, inconel and cast iron can all be cut, albeit you may experince reduced edge quality due to the melting temperature of some of those metals.

How accurate is it?

Our Pro plasma tables are accurate to within +/- 0.4mm (0.005"/ft)

Can I have a demonstration?

Yes, of course! We have dedicated experince centres in many locations around the world. We can also carry out personalised remote demonstrations over Zoom, TeamViewer, Microsoft Teams and WhatsApp platforms. You can bring parts or drawings with you to cut out, or we can create something for you which best represent your particular application.

Is training included?

Training is always included as standard with all our Swift-Cut machines. This is on a one-to-one basis and our support engineers will ensure you are comfortable with operating your new Swift-Cut before the session ends. This can be done either remotely, which is free of charge, or on-site*

I'm new to CNC and not that confident on a computer, is it easy to use?

We have designed our software to be extremely user friendly. It is a simple step-by-step process to layout (nest) your drawing or parametric shape, and create your g-code ready for cutting. Our SwiftCNC software has both basic and advanced screen layouts which the user can switch between as their confidence grows.

*Additional charges may apply.

How do I get drawings on the table?

You can bring your DXF/DWG drawings into the SwiftCAM software either from files saved locally or on USB memory drive. Open the folder location where the file is saved and select the filename you want to import. Alternatively you can bring in JPEG images via the same method and then use the advanced image importer function to clean, scale or delete elements of the drawing. Once imported, simply follow the step-by-step process to nest your parts onto your sheet.

Can I use my own plasma power source?

Swift-Cut plasma machines seamlessly integrate with Hypertherm plasma power sources and torches. If you already have a Hypertherm plasma, depending on age, we can advise the necessary parts required (if any) to connect it to one of our machines.

Can it cut box section?

No problem at all. We have lots of customers cutting box section on our Pro plasma machines. The maximum height box section permitted on the machine is 100mm (4")

What's the difference between pierce capacity and edge start capacity?

When we talk about CNC plasma power source capacity, we quote pierce capacities. This is the maximum thickness of material the plasma can pierce if it was to start within the sheet.

Pierce Start

The pierce needs to happen quickly to reduce the chance of the molten metal blocking the consumables in the end of the plasma torch and stopping the cut.

Edge Start

It is possible however (although more difficult to setup) to start from the edge of the sheet. Because the risk of blocking the consumables is reduced, the material thickness can increase. Edge starting can also give longer consumable life.

How often do consumables generally last?

Many factors can affect consumable longevity including air quality, material type, and the amount of pierces. If the machine is setup correctly and you're using clean material, consumables should typically last 1-3 hours.

Are the consumables easy to buy?

All consumables are readily available direct from Swift-Cut or one of our approved distributors.

How fast will the machine cut?

The Swift-Cut Pro can reach cutting speeds as high as 12m/min (472 ipm) on thin gauge materials.

Are there any rules when it comes to cutting holes?

This one's as much of guide as it is a hard and fast rule! When cutting holes using standard definition plasma, it's good to follow the 2D rule. This is where, in order to maintain good hole quality and tolerance, you should ensure the smallest hole you want to cut has an approximate diameter twice that of the material thickness. i.e. if you have 5mm plate, you should aim for a hole diameter of around 6mm. All our machines have software which automatically calculates the optimum lead-in, cut height and feed rate to ensure your cut holes look as good as possible

Can I use a hand torch with my Hypertherm plasma power source?

You certainly can. If you wish to use a hand torch with your plasma, simply unplug the machine torch and CNC connections, and plug in the hand torch. You will need to place your material on the cutting bed of the Swift-Cut machine to make use of the earth connection. Alternatively you can plug in a separate earth lead if you want to work away from the Swift-Cut. When you've finished hand cutting, just reverse the proceedure.

Can I use my own CAD program such as AutoCAD™?

You are more than welcome to use any CAD package you feel comfortable with. As long as you can save the files in a DXF/DWG format, you can open them in the SwiftCAM software without any problems.

If you require any further help or information please visit swift-cut.com

Swift-Cut PRO

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For more information contact

swift-cut.com