

Pi 170 Pro Plasma

55mm clean quality cut, 80mm sever cut

Industrial plasma machines rated for 100% continuous operation at 150A, 170A@80%.



Key features

- ✓ Exceptional high speed cutting performance & quality.
- ✓ Exceptional fast gouging & bevelling with arc stretching performance way beyond the normal range.
- ✓ Metal marking function, ideal for use on cutting table or with hand torch & template.
- ✓ Long life torch consumables to cover all cutting, marking & gouging applications.
- ✓ Non HF pilot arc starting for safe to use on all cutting tables & alongside IT equipment.
- ✓ Built in CNC internal interface circuit, with 14 pin CPC socket fitted.
- ✓ Rapid automatic restart function for easy cutting of mesh, grills etc.
- ✓ Digital display shows set amperage / air pressure with both adjustable on the front panel.
- ✓ Auto compensation for poor mains supply or long extension cables.
- ✓ Generator friendly with built in protection from over & under voltage, over temp, over current, etc.
- ✓ High efficiency design & 20W standby power reduces running costs & helps the environment.
- ✓ Rugged power source case design, with cooling chamber to keep dirty airflow away from electronics.
- ✓ Wheels & castors standard, or can be specified with top handles & skid mount under chassis.



Highest performance air plasma in Europe.



Further information

Pi pro models are high end power sources built to work hard every day & withstand harsh operating conditions. Made using our rugged inverter technology, 2 IGBT power modules & simple electronic controls. Minimum parts = maximum lifespan & easy servicing.

On demand cooling fan operates only as needed for maximum efficiency & quiet idling.

A 20 micron air filter fitted to clean up dirty/damp compressed air.

Pi 170 pro has CNC interface circuit & the industry standard 14 way CPC fitted. Divided arc volts is adjustable 20:1, 30:1, 40:1, 50:1 & anything in-between. This gives compatibility with all known cutting tables, THC systems & other manufacturers power sources. Unplug your old Hypertherm, Esab/Thermal Arc, Lincoln etc & upgrade to our system. (Just check the divided arc volts are set the same).

Plasma operation is simple, a push switch selects function, output power is set on the amps knob / digital display, a second switch allows the air pressure to be shown on the digital readout. The pressure can be adjusted on the front panel regulator control. Three modes of arc operation can be selected, **normal**, **rapid restart (RR)** & **Air**.

Normal mode allows smooth transfer from pilot arc to transferred arc, with automatic shut down of the arc at the end of operation. The air continues for approx. 20 seconds after use to cool the torch. This is used for most cutting & gouging applications both manual & automated.

RR mode (rapid restart) works exactly as normal mode at the arc start & transfer, but in the event of arc dropping out such as when cutting discontinuous metal the arc automatically restarts in less than a second. This mode may be used for applications such as grill & mesh cutting, intermittent gouging, intermittent metal marking etc.

Air mode operates exactly as normal mode, but the air continues to flow continuously after cutting, this mode provides even greater cooling of the torch parts for the most demanding continuous use applications, such as automated cutting & gouging, it can also be used to check, purge & set the air flow prior to use.

Cutting performance

Pi plasma models operate at a higher output voltage than most other plasma systems. For instance, the Pi 170 pro (170A@188V). The higher output voltage results in 40% more output power than a typical 160A plasma operating at 140-145V. This also gives improved cut quality & significantly increases cut capacity & speed. In addition, you get higher gouge removal rates & super long arc stretching.

Manual or mechanised cutting, performance is exceptional guaranteed!

Plug in our P165M machine torch & connect the interface for use on cutting tables, straight line cutters, robot etc. We provide the interface with the same as all other leading brands, start signal, OK to move contact & also fully adjustable divided arc volts. Drag cutting parts are fitted to all hand torches, drag cutting is the easiest & neatest option for hand plasma, this gives better access than other plasma torch designs & allows you to follow straight edges or templates with ease.

Gouging

Gouge faster, cleaner & with higher precision than arc air gouging, better than a 1000A arc air set. From light jobs right up to the heaviest plate & castings. Super smooth control with class leading arc stretch. Remove welds, wear plates, create weld preps, etc. Can also be used for automated gouging & bevelling with robots or Gullco carriages & tractors.

Metal marking

Our metal marking function allows fast clean marking of metals for both automated & manual use. Mark drill points, fold marks, add your logo, date code, ID, etc. Standard cut consumables can be used, so move from cutting to marking in a second!

Technical specifications

400V 3 phase models	Pi 170 pro
Input fuse – slow – D type	32A/45A (32A normally OK up to 140/150A)
Maximum severance cut	80mm mild steel
Max recommended clean cutting	55mm mild steel
Maximum pierce	30mm
Output range	25A-170A
Maximum output power	170A@188V = 32KW
100% duty cycle (continuous)	150A@177V @ 40°C
Minimum generator size for max output*	35KVA
OCV – no load voltage	370V
Maximum cutting speed 6mm steel	8.8M/min
Maximum cutting speed 10mm steel	4.5M/min
Maximum cutting speed 15mm steel	2.7M/min
Maximum cutting speed 20mm steel	1.6M/min
Maximum cutting speed 25mm steel	1.2M/min
Maximum cutting speed 30mm steel	0.7M/min
Maximum cutting speed 40mm steel	0.5M/min
Maximum cutting speed 50mm steel	0.35M/min
Maximum cutting speed 60mm steel	0.2M/min
Cutting air requirements	5.5 Bar@280L/min up to 130A, 6.2 Bar@ 350L/min for above 130A
Gouging air requirements	4-4.5 Bar @ 250L/min
Standard torch supplied	P165 – 6M manual c/w quick connector
Weight approx. with torch	54kg
Case size in mm (excluding wheels)	340W x 530H x 690L (wheels increase height by 115mm, with extra 70mm at rear W)

*Suggested generator is the rating needed to get maximum output, smaller generators may be used if output power is reduced. For applications requiring the longest arc stretching such as cutting heavy materials or high power gouging the generator size may need increasing.

Protection class is to IP23S, these can be used indoors or outdoors with protection from bad weather.

Compliance with BS IEC60974-1, WEE/HD0071UZ, EU2019/1784.

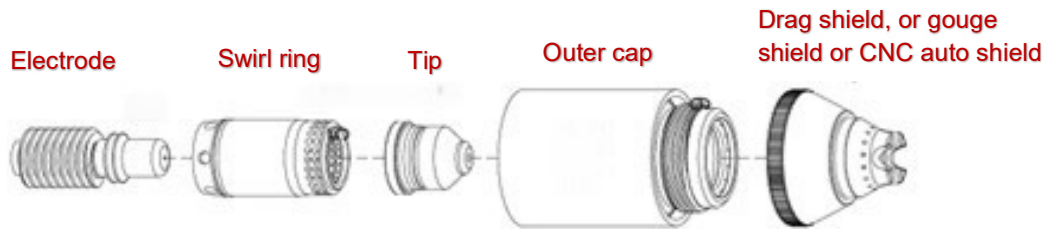
P165 hand & machine torches

Designed & manufactured in Italy. Superb quality torches made from burn resistant materials & covered by a 1 year warranty. Hand torches have an ergonomic handle & are a joy to use. Machine torches are straight & can be mounted at almost any angle. Consumable parts have a long lifespan & are low cost, all available from stock.

P165-6	6M manual hand torch – standard supply
P165-12	12M manual hand torch
P165-6M	6M machine torch (Auto) straight torch
P165-12M	12M machine torch (Auto) straight torch

P165 torch consumables

Standard consumable torch parts are shown below



Circle cutting kit for cutting radius up to 400mm, comes with two centre pivot devices magnetic & hole pointer, also a multifunction device, two arms & a torch nozzle holder device.

Part No. P13033



Ultimate manual cutting kit.

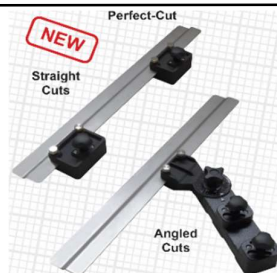
Bevel tool for & bevelling, + straight line carriage + circle cutting kit all in one package.

Part No. P13034



Perfect cut
Magnetic tool kit to cut perfect angles & straight edges

Part No. P13035



Clean dry air is very important for plasma. Our air filter works down to 0.01 microns, it extends torch consumable life & improves cut quality. Low cost internal cartridge can be changed in seconds. Comes with fittings included.

Part No. AF1001

Spare cartridge **AFCA1001**



Our long term warranty & back up – 2 year warranty + 5 years on main transformer & all coils.
100% spares availability & service support for a minimum of 20 years from purchase.
'Invest in the best' quality made British welding equipment