Plasma models with 100% duty cycle - Pi *pro* range

Industrial plasma machines rated for non-stop continuous duty operation.
Built to work hard all day long in tough conditions.

Made in Britain

Key features

- ✓ **Exceptional high speed cutting performance & quality with non stop 100% continuous operation.**
- ✓ **Exceptional fast gouging & bevelling with arc stretching performance way beyond the normal range.**
- ✓ **Thermal heating function allows heating of small metal parts, plastics etc.**
- ✓ **Metal marking function, ideal for use on cutting table or with hand torch & template.**
- ✓ **Massive range of long life torch consumables to cover all applications.**
- ✓ **Non HF pilot arc starting for safe to use on all cutting tables & alongside IT equipment.**
- ✓ **Built in CNC internal interface circuit, simple to connect up or fit the optional 14 pin CPC socket kit.**
- ✓ **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 & 12-20W standy power reduces running costs & helps the environment.**
- ✓ **Rugged power source case design, with cooling chamber to keep dirty airflow away from electronics.**

230V 1~ phase models	**Pi 501 pro** c/w P75 torch	**Pi 701 pro** c/w P75 torch	**Pi 101 pro** c/w P130 torch
	33mm sever cut 22mm clean cut	42mm sever cut 30mm clean cut	52mm sever cut 38mm clean cut

400V 3~ phase models	**Pi 503 pro** c/w P75 torch	**Pi 703 pro** c/w P75 torch	**Pi 103 pro** c/w P130 torch
	33mm sever cut 22mm clean cut	42mm sever cut 30mm clean cut	52mm sever cut 38mm clean cut

P75 & P130 hand torch	P75M & P130M machine torch
	

ECO DESIGN compliant
Low energy design
Compliance to BS IEC60974-1 2021, EU 2019/1784

UK CA CE

Technical specifications

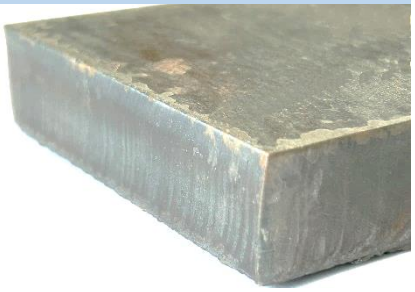
230V 1 phase models	Pi 501 *pro*	Pi 701 *pro*	Pi 101 *pro*
Input fuse – slow – D type	32A*	45A* (32A OK for most applications)	63A/80A*
Maximum severance cut	33mm mild steel	42mm mild steel	52mm mild steel
Max recommended clean cutting	22mm	30mm	38mm
Maximum pierce	14mm	18mm	22mm
Output range	14A-50A	14A-70A	18A-100A
Maximum output power	50A@148V (7.4KW)	70A@150V (10.5KW)	100A@152V (15.2kw)
100% duty cycle (continuous)	50A output	70A output	100A output
Min generator size for max output*	10KVA	13KVA	20KVA
OCV – no load voltage	330V	350V	360V
Thermal heating output power	2KW	2KW	3.5KW
Thermal heating duty cycle	50%	50%	50%
Maximum cutting speed 6mm steel	2.4M/min	3.8M/min	5.6M/min
Maximum cutting speed 10mm steel	1.3M/min	1.9M/min	3.5M/min
Maximum cutting speed 15mm steel	0.55M/min	0.9M/min	1.5M/min
Maximum cutting speed 20mm steel	0.35M/min	0.6M/min	1.1M/min
Maximum cutting speed 25mm steel	0.17M/min	0.4M/min	0.75M/min
Maximum cutting speed 30mm steel	0.12M/min	0.24M/min	0.48M/min
Air requirements	5 Bar@170L/min (4 bar gouging)	5.5 Bar@190L/min (4.5 bar gouge	5 Bar@240L/min(4 bar gouging)
Standard torch supplied	P75 – 4M manual c/w quick con	P75 – 4M manual c/w quick con	P130 – 6M manual c/w quick c
Weight approx. with torch	19kg	23kg	31kg

400V 3 phase models	Pi 503 *pro*	Pi 703 *pro*	Pi 103 *pro*
Input fuse – slow – D type	16A*	16/20A*	32A*
Maximum severance cut	33mm mild steel	42mm mild steel	52mm mild steel
Max recommended clean cutting	22mm	30mm	38mm
Maximum pierce	14mm	18mm	22mm
Output range	14A-50A	14A-70A	18A-100A
Maximum output power	50A@148V (7.4KW)	70A@150V (10.5KW)	100A@152V (15.2kw)
100% duty cycle (continuous)	50A output	70A output	100A
Min generator size for max output*	9KVA	12KVA	19KVA
OCV – no load voltage	350V	360V	370V
Thermal heating output power	2KW	2KW	3.5KW
Thermal heating duty cycle	50%	50%	50%
Maximum cutting speed 6mm steel	2.4M/min	3.8M/min	5.6M/min
Maximum cutting speed 10mm steel	1.3M/min	1.9M/min	3.5M/min
Maximum cutting speed 15mm steel	0.55M/min	0.9M/min	1.5M/min
Maximum cutting speed 20mm steel	0.35M/min	0.6M/min	1.1M/min
Maximum cutting speed 25mm steel	0.17M/min	0.4M/min	0.75M/min
Maximum cutting speed 30mm steel	0.12M/min	0.24M/min	0.48M/min
Air requirements	5 Bar@170L/min (4 bar gouging)	5.5 Bar@190L/min (4.5 bar gouge	5 Bar@240L/min(4 bar gouging)
Standard torch supplied	P75 – 4M manual c/w quick con	P75 – 4M manual c/w quick con	P130 – 6M manual c/w quick c
Weight approx. with torch	18kg	22kg	27kg

*All models will run on a reduced input fuse at lower output power.
*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.
Cutting performance on aluminium & stainless varies a little from steel figures, aluminium is faster & stainless steel & hardox around 15% lower cutting speed. Best quality cut speed is typically 10-25% lower than maximum values quoted.
We can provide a full cutting chart to assist set up on CNC cutting tables.
Size – all models 240Wx470Hx560L (including carry handle & feet)
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.

Options available at time of order.
Longer cables, CPC/CNC connector fitted on front, alternative torch supplied, remote control of output amps, different input voltage, 460V, 480V, 550V, split phase etc.

20mm steel cut with Pi 701 pro 70A - 520mm/min



30mm steel cut with Pi 101 pro 100A - 430mm/min

Further information

Pi pro models are high end power sources built to work hard every day & withstand harsh operating conditions. All are made using our rugged inverter technology which uses only 2 IGBT modules & simple electronic controls. Minimum parts = maximum lifespan & easy servicing.
All internals are housed in a traditional tough metal case. Carrying these from job to job is made easy with the soft touch handle & quick disconnect torch.
The cooling fan operates 'on demand' so only runs when needed for maximum efficiency & quiet idling.
Operation is simple with a push switch to select 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 instead of amps. The pressure can be adjusted on the front panel regulator control. A built in 20 micron air filter is fitted to clean up dirty/damp compressed air.
All models have CNC interface circuits built in & ready to use with two connection options. Simply connect to the terminal blocks inside or add the industry standard 14 pin CPC connector. The 14 pin CPC connector wiring is standard to all other leading US & European brands. Use with automation, cutting tables, robot, etc.
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, it can also be used to check, purge & set the air flow prior to use.

Cutting performance
Exceptional manual cutting performance guaranteed! Clean fast cutting of all metals with minimum dross means minimal clean up. Compared to using oxy-fuel (gas bottles) cutting speed can be more than 5 times as fast & operating costs coming out at around 90% reduced.
Drag cutting parts are fitted to all hand torches, drag cutting is the easiest & neatest option for hand plasma, it gives better access than other plasma torch designs & allows you to follow straight edges or templates with ease. In addition, a range of extended consumables are available for getting into those tight tricky jobs. For cutting below 50A it's also possible to carry out tip contact cutting, dragging the cutting tip directly on the job gives even more precision & access to the cutting point.
Mechanised cutting performance is also exceptional, just plug in our P75M or P130M machine torch & connect the interface. 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. This can be set to give 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. You can then unplug your old Hypertherm, Esab/Thermal Arc, Lincoln etc & upgrade to our system. (Just check the divided arc volts are set the same).
Gouging
These models give great gouging performance from small light jobs right up to the heaviest plate. 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. Simply replace the tip & shield for gouge parts & reduce air pressure to around 3.5-4 bar.
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!
Thermal heating
A fast source of direct heat for manual use, mainly to assist with the removal of seized nuts, bearings, & light preheating jobs. This function provides 2kw / 3.5kw output of intense instant heat. This is a direct & controllable heat so heats only the item you need heating, the torch cooling air keeps everything else at a low temperature. For instance when removing seized nuts propane torches tend to heat the nut & bolt, Our system can heat the nut & leave the bolt relatively cool, allowing the nut to be removed quicker.
In addition, thermal heating function can be used to bend plastic parts or for plastic welding.
Thermal heating can be done with cutting consumables fitted for a tight heat focus or gouging parts fitted for a softer wider arc.

P75 & P130 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.

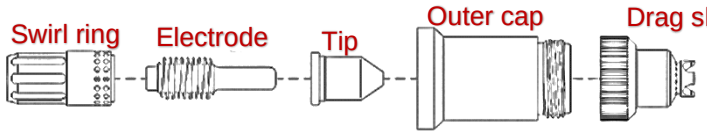
P75-4	**4M manual hand torch – standard supply with Pi501/503/701/703**
P75-8	**8M manual hand torch**
P75M-8	**8M machine torch (Auto) straight torch**

P130-6	**6M manual hand torch – standard supply with Pi101/103**
P130-12	**12M manual hand torch**
P130M-6	**6M machine torch (Auto) straight torch**
P130M-12	**12M machine torch (Auto) straight torch**

Note; On request we can set up the 50A & 70A models to run with the P130 torch.

P75 & P130 torch consumables

Standard consumable torch parts are shown below, we also stock a full range of extended parts for increased access, gouging & heating parts, CNC machine cutting parts & fine cutting parts.
Consumable parts are all readily available & designed for long life.

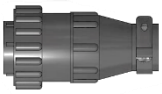


Accessories – available at any time

CNC/CPC connector. 14W panel socket for fitting on front panel. Comes with wiring & compatible with American made plasma machines.
Everything ready for automated cutting on a table or robot or with our remote control REMOX001. Fit to your machine in minutes. Comes with fitting instructions.
Part No. CON14PSCNC

CNC/CPC cable plug to suit panel socket.
Supplied with back shell & clamp & 6 pins.
For wiring to your CNC cutting table etc.

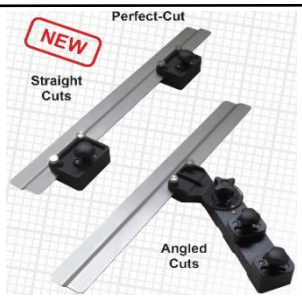
Part No. CON14CP



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.
For both P75 & P130 torches
Part No. P13033

Ultimate manual cutting kit.
Bevel tool for & bevelling, + straight line carriage + circle cutting kit all in one package.
For both P75 & P130 torches.
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**

Hand remote for on/off control, for use with machine torches with CNC/CPC connector fitted.
c/w 3M lead
Part No. REMPLAS01

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