

PRESTIGE INDUSTRIAL PIPEWORK EQUIPMENT LTD.

TUNGSTEN ELECTRODE GRINDERS



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The Company

Prestige Industrial Pipework Equipment (P.I.P.E) Ltd was incorporated in 1989, our aim was to "specialise" in the supply of pipework equipment and tools.


Over the past 25 years we have established ourselves as the worlds leading supplier, due to our consistent high level of quality, both in product and service.

P.I.P.E has established an effective distribution network to industries across the world.

These industries include:

- Petrochemical
- Offshore
- Power Generation
- Boiler Industry
- Ship Building and repair
- Nuclear
- Oil Refinery's
- Heat Exchange Manufacture/Repair
- General Fabrication

This brochure has been designed to give you a brief introduction into the extensive range of P.I.P.E Limiteds products

Why not ask for our free product DVD 

Site Services

P.I.P.E Ltd. offer a comprehensive range of on-site machining services. All of our site engineers are qualified and approved to work in all areas including Offshore and Nuclear industries. Specialist machines can also be designed and manufactured to suit customer requirements.



Hire Division

In 1999 P.I.P.E Hire Division was incorporated and is now a world leading supplier in the hire and rental of pipework fabrication equipment.

Since then, a massive £3 million investment in equipment has been made, enabling P.I.P.E Hire Division to become the leading hirer of:

- PIPE Beveling Machines
- PIPE Cutting and Beveling Machines
- PIPE Cutting Machines
- PIPE Clamps
- PIPE Stands
- Tube Expanding Machines
- Tube Pulling Machines
- Plate Beveling Machines

Our hire fleet is constantly expanding and improving. A new investment in a tailored hire software system has been made to simplify all of your hire needs. Our hire service is offered not only in the UK, but anywhere in the world.

We have an unrivalled range and quantity of equipment available off the shelf; from pipe beveling and cutting to tube pulling and expanding.

Please contact our Hire Division on the numbers below:

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The Art of Tungsten Inert Gas (TIG) Welding

When welding stainless steel, titanium and other corrosion-resistant materials, creating a perfect weld environment is of the utmost importance, because the desired corrosion resistance depends on it. During welding, the heated weld seam is exposed to air and oxidizes if it is not protected. This oxidation must either be prevented or treated later. Successful welding depends in part on a combination of proper purging equipment and techniques.

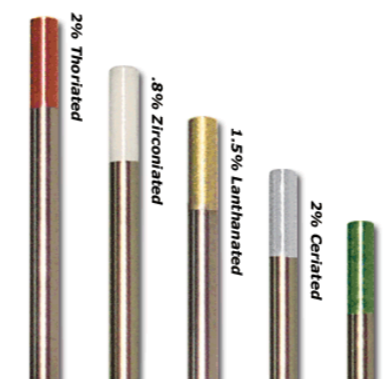
TIG(Tungsten Inert Gas) welding, is an arc welding process that uses a non-consumable tungsten electrode to produce the weld. The weld area is protected from atmospheric contamination by a shielding gas (usually an inert gas such as argon), and a filler metal is normally used, though some welds, known as autogenous welds, do not require it. A constant-current welding power supply produces energy which is conducted across the arc through a column of highly ionized gas and metal vapors known as a plasma.

TIG welding is most commonly used to weld thin sections of stainless steel and non-ferrous metals such as aluminium, magnesium, and copper alloys. The process grants the operator greater control over the weld than competing processes such as shielded metal arc welding and gas metal arc welding, allowing for stronger, higher quality welds.

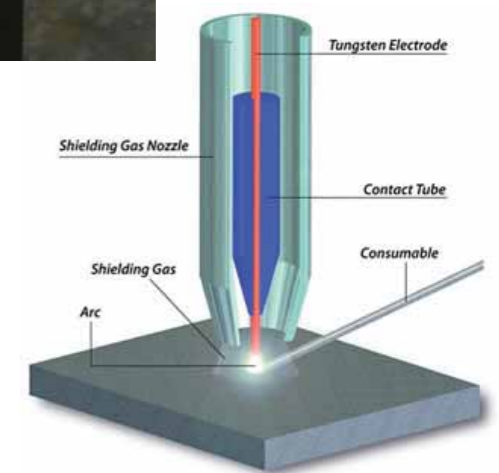
For consistent, high quality welding, the tip of the tungsten electrodes must be ground in the correct way, to allow a stable arc to form to create an even penetration weld root.



TIG Welding stainless steel elbow.



Various Tungsten Electrodes



Cross section of TIG Welding Process

HANDY POINT PLUS TUNGSTEN GRINDER

The elite portable grinding machine for tungsten electrodes

The Handy Point Plus is a portable Tungsten grinder, that is both environmentally friendly and has the ability to grind repeatable quality points on Tungsten electrodes for TIG and plasma welding.

The Handy Point Plus is equipped with an integrated, replaceable dust filter, protecting the operator and the environment against the potentially harmful dust produced during electrode grinding.

Thanks to its unique electrode holder, the Handy Point Plus is able to grind electrodes as short as 15mm with a standard electrode clamp. Using the special electrode clamp, tungsten electrodes as short as 8mm can be ground. The use of the electrode holder also ensures a precise, centred and repeatable tip. The Handy Point Plus is equipped with an inspection cover enabling the operator to see the grinding operation.

How it works

The Handy Point Plus is easy to operate, set the required grinding angle, secure the electrode into the holder using the locking device. The electrode is now set so as to minimise the amount of grinding required (0.3mm removal).

The Handy Point Plus is equipped with an eccentric plate, which makes it possible to adjust the grinding position on the face of the wheel, tripling the life of the diamond wheel.

The Handy Point Plus is supplied in a case ready to go, electrode clamps for 1.6, 2.4 and 3.2 diameter tungstens are included (other sizes are available). The Handy Point Plus is CE marked and is manufactured to meet all EU directives.

- Integrated exhaustion with a replaceable dust filter
- Triple use of the diamond wheel
- Easy to use, combined electrode positioning and locking device
- Grinding electrode as short as 8mm
- Durable storage case and lightweight make the Handy Point Plus ideal for working on site.

Specification

HANDY POINT PLUS TUNGSTEN GRINDER

Power Supply	HPPTG-1: 110v HPPTG-2: 230v
Motor	850W
RPM	28000
Weight	2.8kg



Eccentric plate triples the use of the diamond wheel



Adjustable grinding angel from 15-180°



Stand to fix to a bench



Precise adjustment of the stick-out

PRO POINT TUNGSTEN GRINDER

The dedicated workshop tool

Precise and accurate grinding of tungsten electrodes with repeatable points everytime PIPE Ltd's Pro Point Tungsten Electrode Grinder allows you to grind your tungsten electrodes in precisely the correct technical manner to provide stable arc performance.

Features and advantages

- Consistent points every time.
- Angle Selection Bracket
- Consistent and repeatable arc performance.
- Longitudinal grinding for technically correct technique.
- Dramatically reduced arc flicker or wander.
- Multi Holed Tungsten guide for grinding tungsten electrodes from 1/16 to 5/32" (1.6 to 4.0 mm).
- High power motor that will not stall or burn out.
- Collet system for grinding short electrodes for orbital welding heads.
- High quality, technically superior diamond grinding wheel.
- British Manufactured.
- Quiet in Operation.
- CE Conformity Certified with CE Mark.
- Available as 110 or 220 volt versions 50/60 Hz.

The Dust Extraction System

Pipe Ltd have designed a new vacuum dust extraction unit for this unit.

The vacuum extraction version collects the carcinogenic dust from the grinding of red tipped thoriated tungsten electrodes.

The motor is so powerful that we offer a lifetime guarantee. The vacuum pump extraction is powered from either a 110 volt or 220 volt motor that is also used to turn the grinding wheel. Hazardous dust is easily collected to allow safe disposal.

The unit uses a self contained 5 to 7 micron filter that can be easily maintained and changed by the operator at the end of its shelf life(roughly 150 hrs). The vacuum unit is expected to remove 100% of the dust exhausted from the grinding wheel area.



PPTG



PPTG-E

Example of tungsten electrode ground by hand



Example of tungsten electrode ground by dedicated machine



	PPTG	PPTG-E
Pro Point Tungsten Grinder (without Extraction Unit)		Pro Point Tungsten Grinder (with Extraction Unit)
Dimensions:	410 x 300 x 225 mm	Dimensions: 470 x 430 x 300 mm
Nett weight:	8.2 kg	Nett weight: 13.2 kg
Gross weight:	10.2 kg	Gross weight: 16 kg
Volumetric weight:	4.62 kg	Volumetric weight: 12.5 kg

PRO POINT PLUS TUNGSTEN GRINDER

The ultimate in electrode grinding for optimal TIG-welding

The Pro Point Plus is a unique wet Tungsten electrode grinding machine, and offers the most precise and environmentally friendly way of preparing Tungsten electrodes for TIG welding

The Pro Point Plus is constructed with a unique disposable container which automatically collects all toxic dust particles, eliminating the need for any separate extraction systems. The container can then be safely disposed of in accordance with regulations.

Dry grinding of Tungsten electrodes produces heat, which can blue the electrode, giving an unsatisfactory and inconsistent point for welding. Cold wet grinding combined with the Pro Point Plus's high speed diamond grinding wheel ensures that the tungsten electrode always has a polished and even surface.

A precise angle is paramount to producing the high quality of the weld seams and also increases the number of reignitions between grinding, thus improving productivity and prolonging the life of the electrode. Using the Pro Point Plus, it is simple to produce the exact angle required. A unique digital angle display and special locking device allows the operator to position the electrode precisely, and the grinding is carried out in the correct longitudinal direction along the electrode.

After the grinding has taken place you can, if needed, flatten the tip by placing the electrode clamp in the 90° position.

The Pro Point Plus is CE marked and meets all current EU regulations.

Key Features

- Longitudinal Grinding of electrodes for the best results
- 3 grinding positions on the grinding wheel, effectively tripling the grinding life of the wheel
- Cold wet grinding combined with the diamond wheels' high grinding speed ensure that the tungsten electrode always has a polished and even surface
- Easy, safe disposal of hazardous grinding dust in the replaceable cartridge
- Digital angle setting for quick reference and repeatable accuracy
- Tungsten as short as 10mm can be ground ensuring minimal wastage and making the Pro Point Plus perfect for orbital welding applications
- No tools are needed for the easy removal of the waste container for its safe disposal.
- Set up the grinder and re-produce the same electrode over and over.



Digital angle readout

Technical Specification	
Power Supply	230 V/110V 50 - 60 Hz
Electrodes:	1,0 mm to 4,0 mm*
RPM	10000
Grinding speed	60 m/sec
Diamond Wheel	100mm diameter
Min. Grinding Length	10mm
Angles	7.5° - 90° (15-180° Tip)
Weight	12.8kg

* Larger sizes available on request

PRO POINT PLUS CUT TUNGSTEN GRINDER

The safest and most precise way of grinding and cutting your tungsten for the best TIG welding results.

As with the Pro Point Plus, the Pro Point Plus Cut grinds your tungsten electrodes, but also enables you to cut the electrodes in the precise length needed. The grinding and cutting take place in the closed chamber of the machine, using liquid to cool the diamond discs and the electrode. The toxic grinding dust and off cuts are collected safely in the waste container for safe disposal.

The high grinding speed combined with liquid cooling of the diamond disc and the electrode ensures an even and polished surface and prevents overheating and blueing of the electrode. Using the unique electrode holder and stick-out adjuster to centre the tungsten electrode perfectly and ensure minimum waste of the tungsten electrodes during grinding.

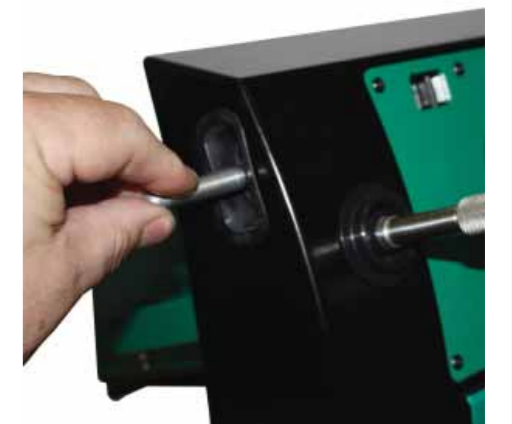
The cutting device has multiple adjustment options to ensure the precise length of the electrode tip. You can grind and cut the electrode without removing the electrode from the holder, making handling as easy as possible.

These features allow the welder to produce the exact angle and length of the tungsten electrode needed for any specific welding work, incl. robotic and orbital welding.

The Pro Point Plus is CE marked and meets all current EU regulations.

Key Features

- Longitudinal Grinding of electrodes for the best results
- 3 grinding positions on the grinding wheel, effectively tripling the grinding life of the wheel
- Cold wet grinding combined with the diamond wheels' high grinding speed ensure that the tungsten electrode always has a polished and even surface
- Easy, safe disposal of hazardous grinding dust in the replaceable cartridge
- Digital angle setting for quick reference and repeatable accuracy
- Tungsten as short as 10mm can be ground ensuring minimal wastage and making the Pro Point Plus perfect for orbital welding applications
- No tools are needed for the easy removal of the waste container for its safe disposal.
- Set up the grinder and cutter once, and re-produce the same electrode over and over.



Close-up of the cutting function



Three position grinding triples life of the wheel

Technical Specification	
Power Supply	230 V/110V 50 - 60 Hz
Electrodes:	1,0 mm to 4,0 mm*
RPM	10000
Grinding speed	60 m/sec
Diamond Wheel	100mm diameter
Min. Grinding Length	10mm
Angles	7.5° - 90° (15-180° Tip)
Cutting Length	10 - 175mm
Weight	12.8kg

* Larger sizes available on request

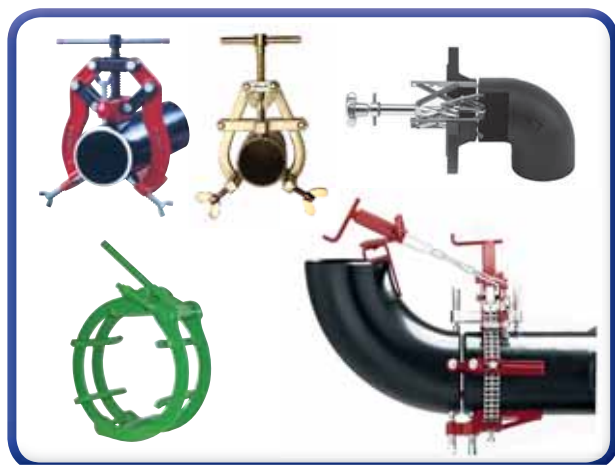
OTHER PRODUCTS



PIPE BEVELLING MACHINES



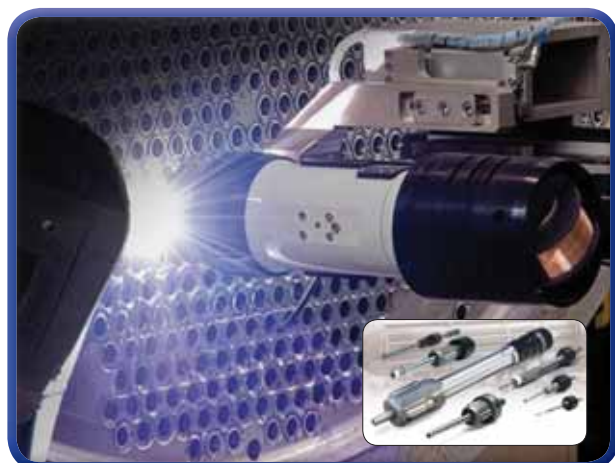
PIPE CUTTING MACHINES



PIPE ALIGNMENT CLAMPS



PIPE STANDS



HEAT EXCHANGER MANUFACTURE AND MAINTENANCE EQUIPMENT



PLATE BEVELLERS



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Our company policy is one of continuous improvement. Products may change or vary from those illustrated.

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