

BASIC TECHNIQUES

The speed and thickness of a cut is controlled by the current dial. The higher the setting the quicker and/or deeper the cut.

Equipment settings are no more than guides, in practice, changing them slightly may give better results.

It is recommended that test cuts are made before commencing to cut the actual work.

If you are cutting from an edge you should hold the torch at 90° to the work.

When piercing (cutting from the centre of the work), start the cut by holding the torch at 45° and gradually bringing it up to 90°.

If cutting below 25A a drag nozzle should be used and may make contact with the work. If cutting above 25A a stand off nozzle should be used and must be held away from the work by approximately 3mm.

With the AC lamp illuminated, the selector switch set in the RUN position and the torch in the correct position to the work-piece, depress the switch and begin cutting.

You can set the selector switch to the latch position if you wish, in this position the torch switch need only be pressed once to run and once again to stop.

Take care during and at the end of a cut as molten metal may be blown away from the work-piece.

Note, at the end of a cut, an unsupported waste-piece may fall and cause injury!

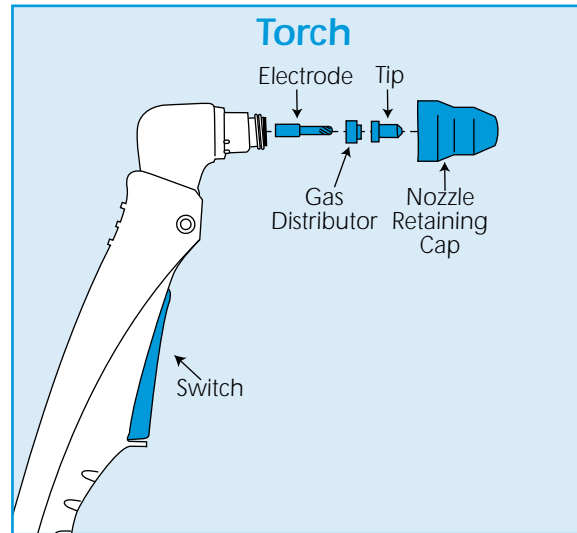
EQUIPMENT CARE

Never push the equipment beyond its design limits. If it will not do what you want with reasonable ease, assume you have the wrong type of equipment for the job. Ask at your local HSS Hireweld Depot for advice.

When the nozzle and electrode become worn they must be changed (see diagram).

To change the nozzle and electrode unscrew the nozzle retaining cap, taking care not to lose the electrode, gas distributor or nozzle which will become loose.

Position the new electrode in the torch head, slide the gas distributor over the electrode making sure it is the correct way round, then place the new nozzle onto the gas distributor. Holding them in place, screw on the nozzle retaining cap.



Keep the equipment clean. You will find this less of a chore if you clean up regularly rather than wait until the end of the hire period.

When not in use, **store the equipment somewhere clean, dry and safe** from thieves.

FINISHING OFF

With the plasma cutter and compressor switched OFF and isolated from the power supply, remove the earth clamp from the material.

Drain down the water separator. On longer hire periods this should be done once a day.

Coil any leads/cables neatly ready for return, to your local HSS Hireweld Depot.



...any comments?

If you have any suggestions to enable us to improve the information within this guide please fax your comments or write to the Product Manager at the address below

Fax: 020 8687 5001

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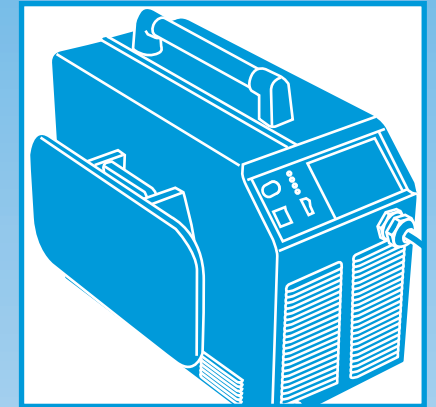
Group Office: 25 Willow Lane, Mitcham, Surrey CR4 4TS

Web Site: <http://www.hireweld.com>

Operating & Safety Guide HW015/01

HW015/01

HSS Hire-Weld



12mm Plasma Cutter

A plasma cutting system for cutting material up to 12mm thick. Requires 240V or 415V-3 phase power supply and minimum 10cfm compressed air supply.



Code 55874

GENERAL SAFETY

For advice on the safety and suitability of this equipment contact your local HSS Hire Weld Depot.

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.


The hirer has a responsibility to ensure that all necessary risk assessments have been completed prior to the use of this equipment.

This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability, should seek expert advice before using it.

Keep children, animals and bystanders away from the work area. Cordon off a NO GO area using cones and either barriers or tape, available for hire from your local HSS Hire Weld Depot.


Welding screens are also available for hire from your local HSS Hire Weld Depot.


 Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.


Warning


If you are wearing an electronic life support device (a heart Pacemaker) you must consult your doctor before going near or working with this equipment. Magnetic fields associated with high currents may affect these devices.


When switched ON the cutting torch emits a cutting stream, which can burn flesh, even if the earth clamp is not connected.

 This equipment generates potentially harmful noise levels. To comply with health and safety at work regulations, ear defenders must be worn by everyone in the vicinity.

 Fumes produced by the cutting process, if inhaled, can be harmful to health. A suitable mask must be worn when using this equipment. Respiratory protective equipment is available for hire, contact your local HSS Hire Weld Depot for details.

 Skin must be covered – wear practical, protective clothing, gloves and footwear.

 This equipment is heavy (33kg), never attempt to lift it on your own, always get help.

 A head shield with a 5GW shade **MUST** be worn by anyone in the work area – goggles are not suitable. Avoid loose garments and jewellery that could interfere with the work.

If the headshield or lens becomes damaged, return it to your local HSS Hire Weld Depot.

Never use this equipment near computers or any sensitive electronic equipment.

Let It Cool

Handle cutting equipment and work with care – it will be hot. Leave equipment to cool before changing position, moving earth clamps, and so on.

Always transport, store and operate the machine in an upright position.

Keep the power units air vents clear of all obstructions.

Always switch equipment OFF before making any adjustments to it. Never leave it switched ON and unattended.

Ensure the work area is well lit and ventilated, a fume extractor or smoke eliminator should be used. If in doubt, ask about lighting and ventilation equipment at your local HSS Hire Weld Depot.

Do not work near flammable gases or liquids, petrol or paint thinner fumes for example. Keep combustible materials at a safe distance - at least 5m.

Make sure you know how to switch this machine OFF before you switch it ON in case you get into difficulty.

Check the condition of the equipment before use. If it shows signs of damage or excessive wear, return it to your local HSS Hire Weld Depot.

ELECTRICAL SAFETY


The HSS 12mm Plasma Cutter is powered from either a 240V 32A or 415V 3 Phase (no Neutral) mains supply, and all mains connections may only be made by a qualified electrician.

Extension leads used with the 415V model **MUST** be protected by armoured cable.

Keep power supply cables and leads out of harm's way. Never run them through water, over sharp edges, or where they could trip someone.

If the equipment fails, or if its power supply cable or plug (if fitted) gets damaged, return it. Never try to repair it yourself.

Do not use electrical equipment in very damp or wet conditions, it can be dangerous.

 To reduce the risk of electric shock, always use a suitable RCD (Residual Current-Operated Device) available from your local HSS Hireweld Depot, or power the equipment from a mains circuit with a built-in RCD.

If the AC light does not illuminate with the power switched ON, contact your local HSS Hireweld Depot.

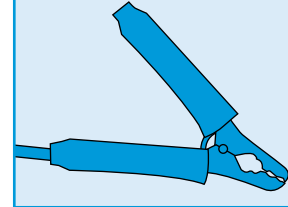
GETTING STARTED

Ensure any material that you are cutting is clean, dry and free from rust, paint, grease and any combustible material.

Make sure that it is securely held during the cutting operation.

Place the plasma cutter close to its power supply and the work-piece.

Earth Clamp



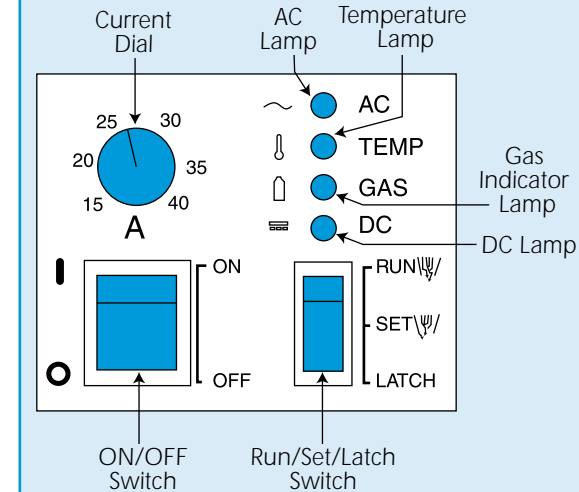
Connect the earth lead clamp to the work.

Connect a 10cfm air compressor to the airflow regulator at the rear of the power unit, switch the compressor on and set its regulator between 70psi and 100psi.

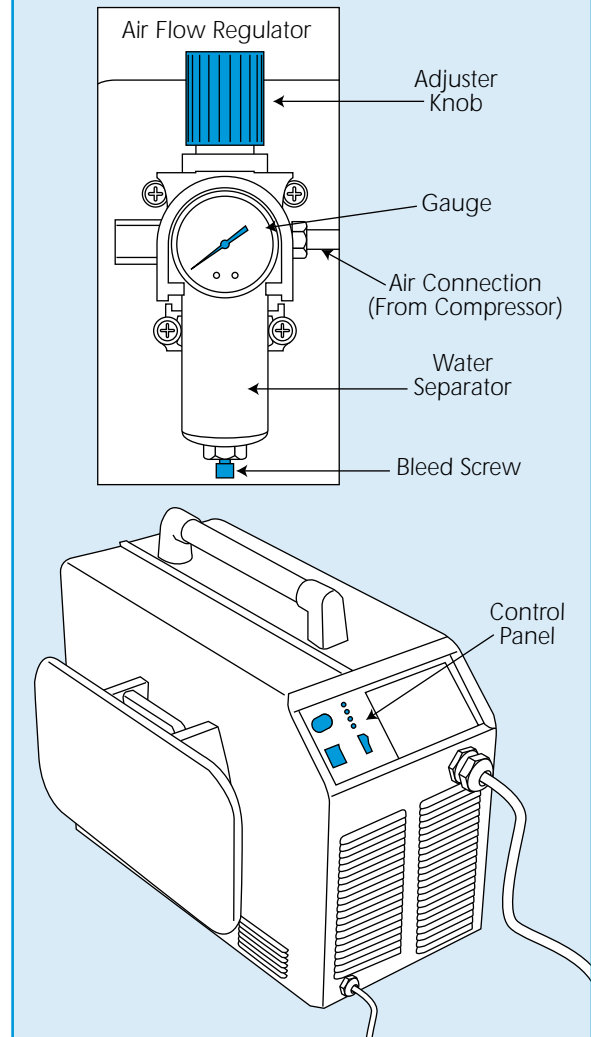
Switch the plasma cutter ON, the AC lamp will flash for approximately eight seconds and the internal fan will begin to run.

Turn the RUN/SET/LATCH switch to the SET position. This allows a flow of air from the compressor.

Control Panel



12mm Plasma Cutter



On the airflow regulators gauge set the air to 70psi (4.8bar) by pulling up the adjuster knob and turning it clockwise to increase pressure, anti-clockwise to reduce it.

The GAS indicator lamp will illuminate to confirm that the gas pressure is above 35psi (2.4bar), if the pressure drops below 35psi, the lamp will go out.

The RUN/SET switch can now be moved to the RUN position. The airflow will stop and the GAS indicator lamp will go out.

Adjust the current control to the desired amperage output.