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TORCHOLOGY
CUSTOMIZED TORCH SOLUTIONS

Plasma Cutting Torch Operating Manual

WG-SC120-60-CC1-1.0 120A@60% 2022.5.11

Serial number and product warranty code

Contents of this box

- Your plasma cutting torch
- Simple to follow instructions, user tips
- A spares listing
- A maintenance spanner

Product supplied by

DEALER STAMP

Basic product data and conformity information

Basic product data To IEC/EN60974-7

Process, this is a plasma cutting torch
Guidance, this is a manually guided product
Voltage rating, 500V
Rating, please refer to the specification sheet for your model.
Gas, you can use compressed air, or compressed air plus Nitrogen, please refer to the specification sheet for your model for air type, gas flow rates and input pressures.
Torch length, is either 4 meters or 6 meters.
Plasma tip, nozzle and electrode, has been supplied in accordance with your order and the torch part number.
Type of cooling, this is a Gas (air) cooled torch
Rating of electrical controls incorporated in the torch. The switch is rated at 32V at 100 mA
Requirements for connection of the torch, these are covered above.

Conformity information

A sample of this product has been tested and found to be in conformity with the following standards

- IEC/ EN 60974-7 Arc welding equipment Part 7 Torches
- *Low voltage amendment to LVD 2014/35/EU*
- *Supporting documentation in accordance with EN ISO/IEC 17050-2:2004*
- *RoHS2 compliance to 2011/65/EU, amend 2015/863/EU*
- *REACH compliance to 1907/2006/EC*
- *Manufacturing systems to ISO 9001: 2015*

ISO 9001 BUREAU VERITAS Certification
UKAS MANAGEMENT SYSTEMS
WEEE Waste Electrical and Electronic Equipment

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Maintenance, Fault Finding, and Your Uniarc Guarantee.

Maintenance.

Used correctly, you can expect a long service life from a Uniarc plasma cutting torch.
There are a few common sense precautions you should take note of when using and servicing your torch in order to prolong its life.

Plasma consumables are rugged items, but they are made to very close tolerances, so if you do not use the correct tools to replace parts they are going to get damaged. We have provided a maintenance spanner within this instruction and guarantee pack, and this should be sufficient for most needs. The spanner length is such, that by using hand tightening methods, you will not over tighten the parts.

If you are going to change parts, always turn off the power supply, it only takes a few seconds, and it guarantees your safety.

When the handle screws are re-fitted during maintenance, the torque shoud be less than 0.8Nm.

Fault finding.

Cutting problems are normally caused by

- Worn electrodes, if the Hafnium insert is recessed by more than 2mm it needs changing.
- Worn cutting tip, if the hole is enlarged, and or, a distorted shape, then it needs changing.
- Dirty air, plasma torches do not like wet or oily air. It causes unreliable cut quality and we always recommend good quality air filters are fitted to your compressed air system.

Plasma Guarantee.

Every Uniarc Plasma cutting torch is manufactured to the highest standards and is guaranteed for 3 months from the date of sale to the end user. The guarantee covers and is limited to a fault developing as a result of faulty workmanship or faulty materials.

What is covered?
Defective materials used in the manufacture of the product.
Faulty workmanship in the manufacture of the product.

What is not covered?
Incorrect use or damage.
Normal wear and tear to either the product or the consumables supplied with the product.
Faults arising from using non-Uniarc spare parts.
Direct or indirect costs of any form arising as a result of a suspected, or actual, defective product.

How to make a claim.
This guarantee is limited to the original purchaser of the product. If a fault is suspected the dealer, or ourselves, must be contacted and informed of the fault before the product is returned.

You can contact us by

Mail: uniarc@uniarc.com.cn

Phone: 0086 531 88239823

Fax: 0086 531 88239398

How will we handle any claim?
Uniarc's sales office may ask you to return the product with a copy of your proof of purchase, (If you are the end user) or a copy of proof of sale (If you are a distributor).

Please note all returned torches should be complete with the consumables being used when the fault was detected, failure to do so the will invalidate the warranty.

Depending on the nature of the claim, we may ask one of our technical staff to discuss the problem with you to get a quick resolution to your concern.

Once the cause of the problem is established, and at our discretion, we will either repair or replace the defective product free of charge.

If we believe the product failure is as a result of any reason other than defective materials or manufacture, we will issue a written report to you detailing our findings.

Important Safety Instructions

Read all instructions before using this product.

Plasma torches are safe products to use but like all modern tools they can be dangerous in untrained hands; therefore we have assumed that you know how to use these products and appreciate the dangers of miss-use.

These Plasma torches have the ability to inflict serious injuries if used by untrained personnel.

We strongly recommend that you are completely conversant with Plasma products and cutting techniques before you use this product. If you do not know, or are unsure, then you must contact your dealer or a trained person for advice.

Never point these products at anyone and operate the trigger.

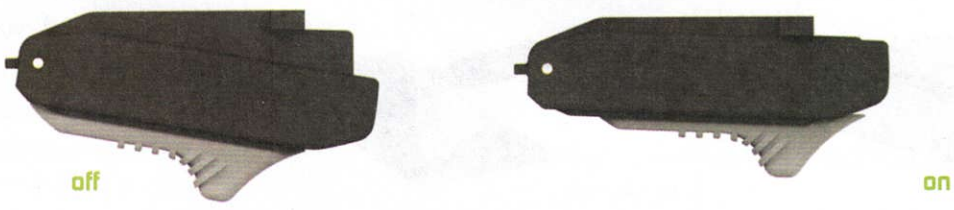
Note: Cardiac pacemaker wearer's must consult their doctor before using plasma equipment or walking close to a plasma cutting area.

Before Connecting the Torch

Safety Triggers

The torch you have purchased has a new design of safety trigger; we suggest you give it a try before you connect the product, just so you know what it feels like to activate the torch.

Just pull back on the trigger whilst increasing your grip and you will feel the trigger move to the on position. When you release the pressure the trigger will return to the safe position.



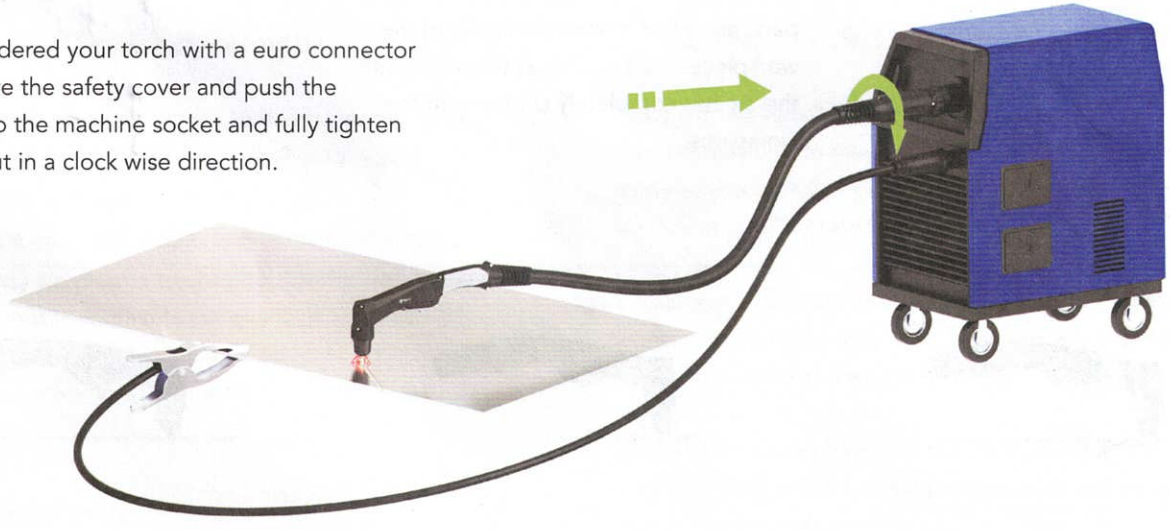
Slide to Operate

Connecting the Torch

Remember to turn off all power before connecting the torch.
Depending on your order your torch will come with either direct to machine connections, or a euro connector.

If you have ordered direct to machine connections you will need to open the machine connection panels and wire the torch to your power source instructions.

If you have ordered your torch with a euro connector simply remove the safety cover and push the connector into the machine socket and fully tighten the locking nut in a clock wise direction.



Attach the work clamp securely to the workpiece. Remove rust, paint or other coatings to ensure good electical contact. Attach the work clamp as close as possible to the area being cut to reduce exposure to electromagnetic fields (EMF).

Do not attach the work clamp to the portion that will fall away!!

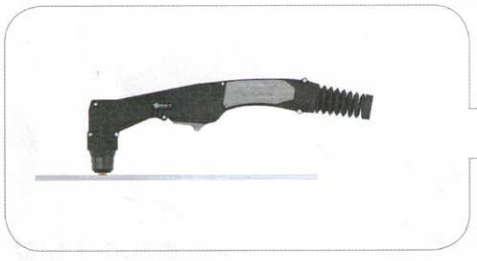
Operation and Start Up

Some tips and advice to help you get going

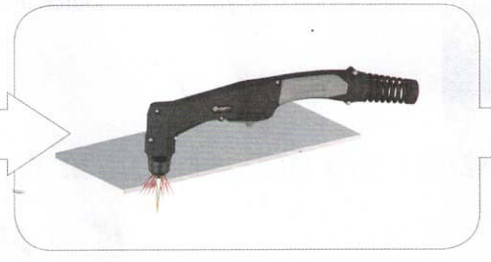
Tips

- It is easier to pull the torch through the cut than to push it.
- To cut thin material, reduce the amps until you get the best quality cut.
- For straight-line cuts, use a straight edge or a cutting buggy as a guide. To cut circles, use a template or a circle cutting attachment .
- Dependant upon the cutting method required, different torches have different front end set ups to help improve ease of use. Please refer to the wear parts configurator section in the wear parts manual for options, or go to our web site www.uniarc.com.cn.
- After the torch trigger switch is released, the gas will continue to flow for at least 60 seconds to cool the torch and consumables. This helps to cool the torch and prolong the life of the consumables.

Starting a cut



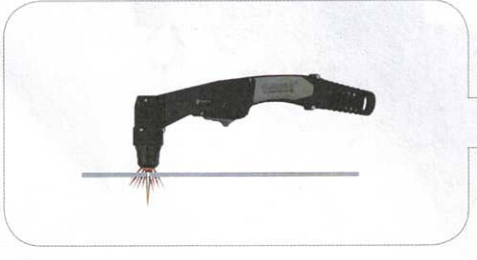
Hold the torch vertical at the edge of the workpiece.



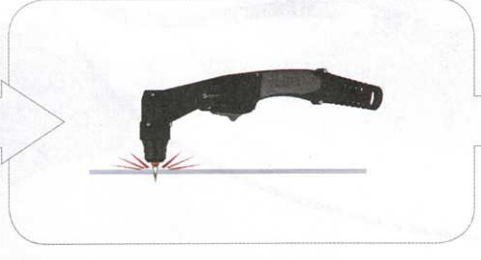
Pull the trigger to start the pilot arc. The cutting arc will initiate when the torch parts are in the correct proximity to the workpiece. Start cutting at the edge until the arc has completely cut through the workpiece.

Then, proceed with the cut.

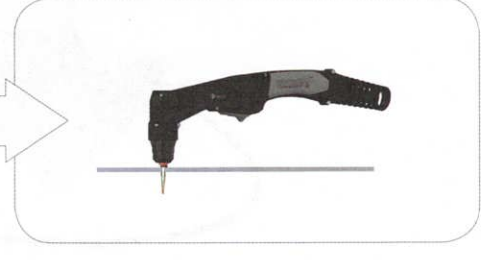
Hand torch cutting technique



When cutting, make sure that sparks are exiting from the bottom of the workpiece.

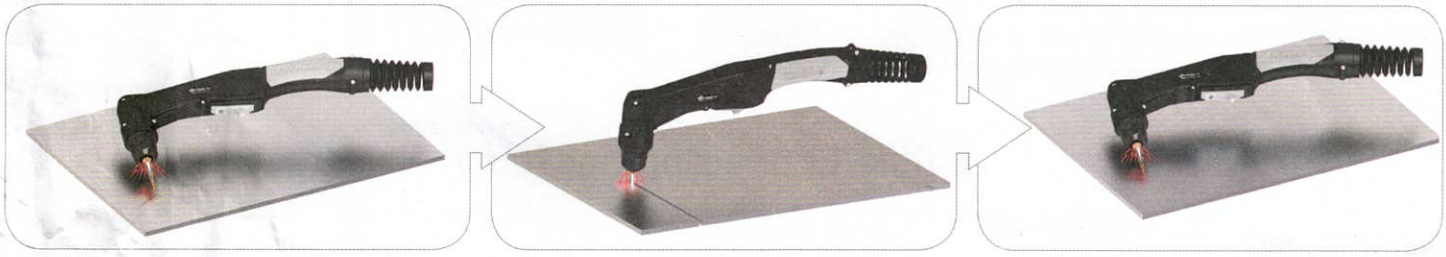


If sparks are spraying up from the workpiece, you are moving the torch too fast, or without sufficient power.



Hold the torch vertically and watch the arc as it cuts along the line.

Piercing



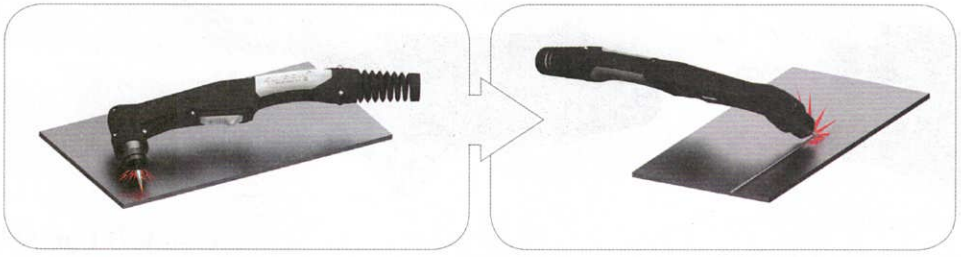
Fire the torch at an angle to the workpiece, then slowly rotate it to an upright position.

When sparks are exiting from the bottom of the workpiece, the arc has pierced through the materal.

When the pierce is complete, proceed with the cut.

Gouging

Note: Most torches have specialized front end set ups for the process.
Hold the torch so that the nozzle is within 1/16 in (1.5 mm) from the workpiece before firing the torch.



Hold the torch at a 45° angle to the workpiece. Pull the trigger to obtain a pilot arc. Transfer the arc to the work piece.

Maintain an approximate 45° angle to the workpiece.
Feed into the gouge.