



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised re-cycling agent. This will allow the recycling of raw materials and help protect the environment.



sip
SIP INDUSTRIAL

machinery specialists since 1968

HGT4000S SWF **Mig Transformer Welder**



05778

**FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR,
OR SIP DIRECTLY ON:**

TEL: 01509500400

EMAIL: sales@sip-group.com or technical@sip-group.com

www.sip-group.com

***Please read and fully understand the instructions in this manual
before operation. Keep this manual safe for future reference.***

EU - DECLARATION OF CONFORMITY

Declaration of Conformity

We

SIP (Machinery Europe) Ltd
ASM Chartered Accountants
First Floor Block One
Quayside Business Park
Dundalk
County Louth
Republic of Ireland

As the manufacturer's authorised representative within the
EC declare that the

HGT4000S SWF MIG Transformer Welder - SIP Part. No. 05778

Conforms to the requirements of the following directive(s), as indicated.

2014/35/EU	Low Voltage Directive
2014/30/EU	EMC Directive
2011/65/EU & EU/2015/863	RoHS Directive

And the relevant harmonised standard(s), including

BS EN IEC 60974-1:2018+A1:2019
BS EN 60974-10:2014+A1:2015

Signed: 

Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd Date:
14/06/2021.



Declaration of Conformity

We

SIP (Industrial Products) Ltd
 Gelders Hall Road
 Shepshed
 Loughborough
 Leicestershire
 LE12 9NH
 England

As the manufacturer within the UK, England, Scotland & Wales, declare that


HGT4000S SWF MIG Transformer Welder - SIP Part. No. 05778

Conforms to the requirements of the following directive(s), as indicated.

Electromagnetic Compatibility Regulations 2016
 Electrical Equipment (Safety) Regulations 2016
 The Restriction of the Use of Certain Hazardous Substances in Electrical and
 Electronic Equipment Regulations 2012
 Personal Protective Equipment Regulations (Regulation (EU) 2016/425 as
 brought into UK law and amended)

And the relevant harmonized standard(s), including:

BS EN 60974-10:2014+A1:2015
 BS EN IEC 60974-1:2018+A1:2019

Signed: 

Mr P. Ippaso - Director - SIP (Industrial Products) Ltd
 Date: 14/06/2021



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SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



Danger / Caution: Indicates risk of personal injury and/or the possibility of damage.



Warning: Risk of electrical injury or damage!



Note: Supplementary information.

SAFETY INSTRUCTIONS



IMPORTANT: Please read the following instructions carefully, *failure to do so could lead to serious personal injury and / or damage to the mig welder.*

When using your transformer welder, basic safety precautions should always be followed to reduce the risk of personal injury and / or damage to the welder.

Read all of these instructions before operating the welder and save this user manual for future reference.

The welder should **not** be modified or used for any application other than that for which it was designed.

This welder was designed to supply electric current for Mig or Arc welding.

If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

Before each use of the welder always check no parts are broken and that no parts are missing.

Always operate the welder safely and correctly.

KNOW YOUR WELDER: Read and understand the owner's manual and labels affixed to the welder. Learn its applications and limitations, as well as the potential hazards specific to it.

KEEP WORK AREA CLEAN AND WELL LIT: Cluttered work benches and dark areas invite accidents. Floors must not be slippery due to oil, water or sawdust etc.

DO NOT USE THE WELDER IN DANGEROUS ENVIRONMENTS: Do not use the welder in damp or wet locations, or expose it to rain. Provide adequate space surrounding the work area. Do not use in environments with a potentially explosive atmosphere.

KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA: All visitors should be kept at a safe distance from the work area.

PARTS LIST - TORCH

NOZZLES		
A.	SIP CODE	DESCRIPTION
	09120	CONICAL SHROUD
CONTACT TIPS		
	09070	0.6MM CONTACT TIP M6
	09077	0.8MM CONTACT TIP M6
	09078	1.0MM CONTACT TIP M6
B.	02653	1.2MM CONTACT TIP M6
	09088	0.8MM CONTACT TIP M8
	09081	1.0MM CONTACT TIP M8
	09092	1.2MM CONTACT TIP M8
LINERS		
	02973	RED STEEL LINER (4 METRE)
C.	09151	YELLOW STEEL LINER (4 METRE)
	09173	TEFLON LINER (4 METRE)
N/A	05515	TORCH COMPLETE

TORCH COMPONENTS		
	SIP CODE	DESCRIPTION
1.	09106	TIP ADAPTOR M8
	09399	TIP ADAPTOR M6
2.	09115	DIFFUSER
3.	09335	SWAN NECK
4.	09326	HANDLE LOCATOR
5.	09324	HANDLE
6.	09332	TRIGGER
7.	09328	LINER NUT

Other parts may be available on request.

SAFETY INSTRUCTIONS....cont

DO NOT EXPOSE THE WELDER TO RAIN OR USE IT IN WET CONDITIONS: Water entering the welder will greatly increase the risk of electric shock and equipment damage.

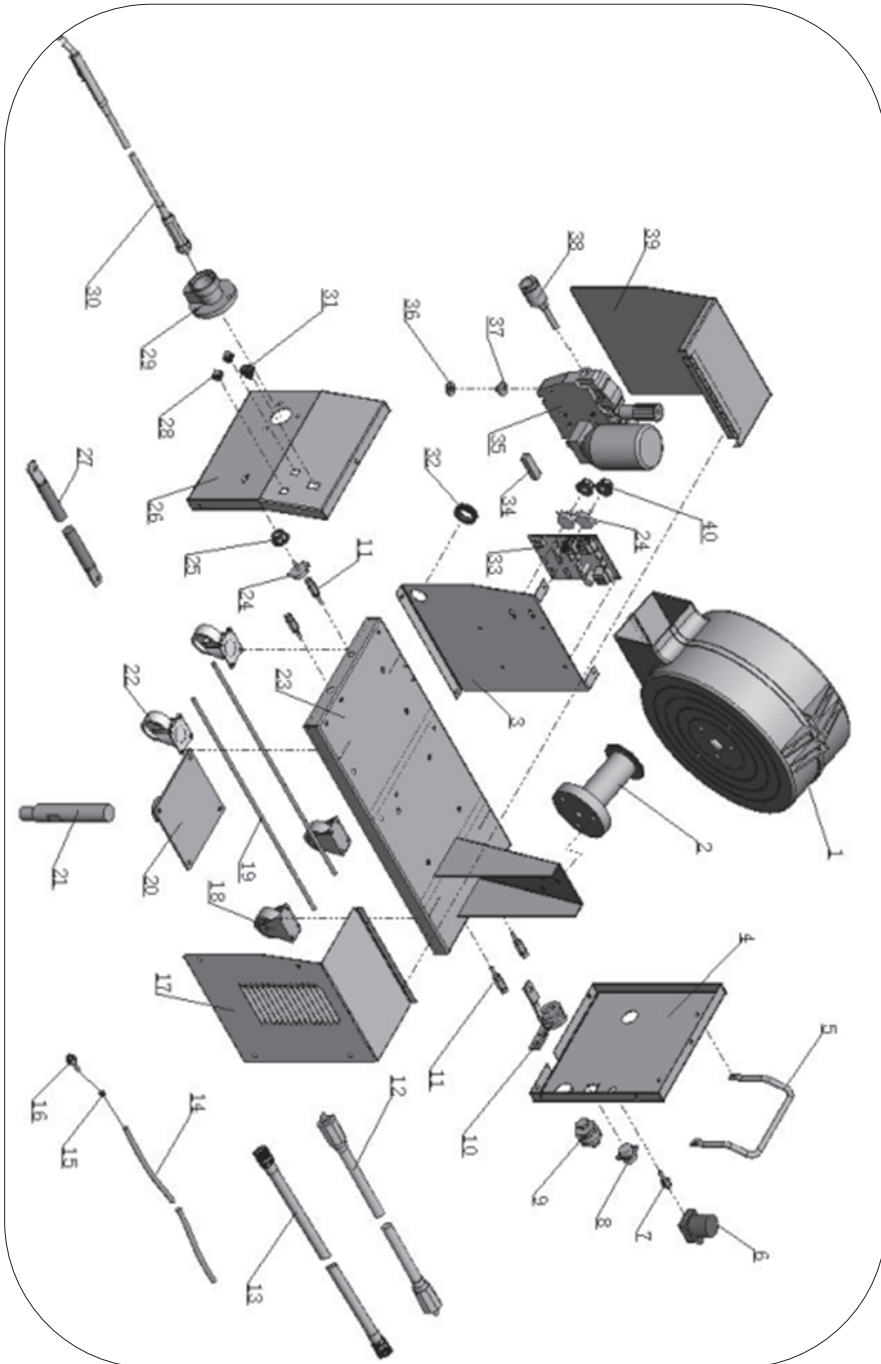
HAVE YOUR WELDER REPAIRED BY A QUALIFIED PERSON: The welder is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

- Stop operation immediately if you notice anything abnormal.
- Always disconnect the plug from the mains supply before cleaning or servicing etc.
- Be alert at all times, especially during repetitive, monotonous operations; Don't be lulled into a false sense of security.
- Use of improper accessories may cause damage to the transformer welder and surrounding area as well as increasing the risk of injury.
- **Do not** modify the transformer welder to do tasks other than those intended.
- To avoid injury, the work-piece should never be held with bare hands; The work-piece will become hot during normal welding operations, and stay hot for a period after the weld is complete.
- Appropriate personal protective equipment **must** be worn and **must** be designed to protect against all hazards created. Severe permanent injury can result from using inappropriate or insufficient protective equipment - Eyes in particular are at risk.
- The work should be clamped firmly whilst welding, If its loose it could result in personal injury or damage to the machine or item that is being welded.
- **Do not** attempt any repairs to the welder unless you are a competent electrician or engineer.
- Ensure that the machine is connected to the correct supply voltage and protected by a fuse or circuit breaker of the recommend rating.
- **Never** allow the earth clamp and electrode holder to come into contact with each other.
- Understand the operating environment; Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks associated with the operating environment.
- Electromagnetic fields can interfere with various electrical and electronic devices such as pacemakers; Consult your doctor before using any electric welder or cutting device.
- Keep people with pacemakers away from your welding area when welding.
- Do not wrap cable around your body while welding.
- If the welder is to be used on business premises - ensure that all local and national regulations are followed concerning the use of portable electrical appliances at work.

PARTS LIST - WFU & INTERCONNECTIONS

Ref. No.	Description	Sip Part No.	Ref. No.	Description	Sip Part No.
1.	Spool Cover	WE02-00489	21.	Connecting shaft	WE02-00515
2.	Spool holder	WE02-00496	22.	Front wheel	WE02-00516
3.	Wire feeder middle panel	WE02-00497	23.	Bottom	WE02-00517
4.	Wire feeder rear panel	WE02-00498	24.	Potentiometer	WE02-00518
5.	Handle	WE02-00499	25.	Potentiometer knob-1	WE02-00519
6.	Solenoid valve 42v	WE02-00500	26.	Wire feeder front pan-	WE02-00520
7.	Air Inlet	WE02-00501	27.	Connecting cable	WE02-00521
8.	Air socket-4 Pin male	WE02-00502	28.	Button switch	WE02-00522
9.	Euro Panel Plug (Male	WE02-00503	29.	Insulating flange	WE02-00523
10.	Induction Coil	WE02-00504	30.	SIP36 Torch	05515
11.	Water Socket	WE02-00505	31.	Rocker Switch (Black)	WE02-00525
12.	welding cable	WE02-00506	32.	Insulating Ring	WE02-00526
13.	multi-core cable	WE02-00507	33.	Main PCB	WE02-00527
14.	Gas hose	WE02-00508	34.	Magnetic block	WE02-00528
15.	Hose clamps	WE02-00509	35.	Wire Feed Motor 42v	WE02-00529
16.	Quick -Fit Gas Fitting	WE02-00510	36.	Insulating sleeve	WE02-00530
17.	Fixed side panel	WE02-00511	37.	Insulation pad	WE02-00531
18.	Real wheel	WE02-00512	38.	Euro Connector	WE02-00532
19.	PVC gas hose	WE02-00513	39.	Side panel	WE02-00533
20.	Wire feeder support base	WE02-00514	40.	Potentiometer knob-2	WE02-00535

EXPLODED DRAWING - WFU & INTERCONNECTIONS



SAFETY INSTRUCTIONS...cont

ELECTRIC SHOCK

Electric transformer welders have the potential to cause a shock that could lead to injury or death. Touching electrically 'hot' parts can cause fatal shocks and severe burns; While welding, all metal components connected to the welder are electrically 'hot'.

- Keep your body and clothing dry. Never work in a damp area without adequate insulation against electrical shock, stay on a dry duck board, or rubber mat when dampness or sweat can not be avoided. Sweat, sea water or moisture between the body and an electrically 'hot' part or grounded metal reduces the body surfaces electrical resistance enabling dangerous and possibly lethal currents to flow through the body.
- **Never** allow live metal parts to touch bare skin or any wet clothing, be sure welding gloves are dry.
- Before welding, check for continuity; Be sure the earth clamp is connected to the work-piece as close to the welding areas as possible. Grounds connected to building frame work or other remote locations from the welding area reduce efficiency and increase the potential electric shock hazard. Avoid the possibility of the welding current passing through lifting chains, crane cables or other electric paths.
- Frequently inspect leads for wear, splits, cracks and any other damage. **Immediately** replace those with worn or damaged insulation to avoid a possibly lethal

FIRE

During normal operation, the heat and sparks created during the welding process have the potential to ignite flammable liquids, gases or other combustible material.

- All inflammable materials must be removed from the area.
- Have a suitable fire extinguisher available close by.
- Causes of fire and explosion include; combustibles reached by the arc, flame, flying sparks, hot slag or heated material, misuse of compressed gases and cylinders and short circuits.
- Flying sparks or falling slag can pass through cracks along pipes, through windows or doors and through walls or floor openings and out of sight of the operator; Sparks and slag can fly up-to 10 metres.
- Keep equipment clean and operable; Free of oil, grease and of metallic particles (in electrical parts) that can cause short circuits.
- If combustibles are in the area. **Do not** weld, move the work if practical to an area free of combustibles, avoid paint spray rooms, dip tanks, storage areas and ventilators. If the work can not be moved, then move the combustibles at

SAFETY INSTRUCTIONS....cont

least 10 metres away and out of the reach of sparks and heat or protect against ignition with suitable and snug fitting, fire resistant covers or shields.

- Walls touching combustibles on opposite sides should not be welded on, walls, ceilings and the floor near the work area should be protected by heat resistant covers or shields.
- Openings (concealed or visible) in floors or walls within 10 metres may expose combustibles to sparks.
- Combustibles adjacent to walls, ceilings, roofs or metal partitions can be ignited by radiant or conducted heat.
- After the work is done, check that the area is free of sparks, glowing embers and flames.
- An empty container that has held combustibles, or that can produce flammable or toxic vapours when heated, must never be welded, unless the container has first been cleaned. Consult HSE INDG214, HSG250 and CS15. HSE document CS15 includes information on cleaning by thorough steam or solvent/caustic cleaning followed by purging and inserting with nitrogen, carbon dioxide or water filling just below working level.
- A container with unknown contents should be treated as if it contained combustibles (see previous paragraph), **Do not** depend on sense of smell or sight to determine if it is safe to weld.
- Hollow items must be vented before welding as they can explode.
- Explosive atmosphere; Never weld when the air may contain flammable dust, gas or liquid vapours (such as petrol).

GLARE AND BURNS

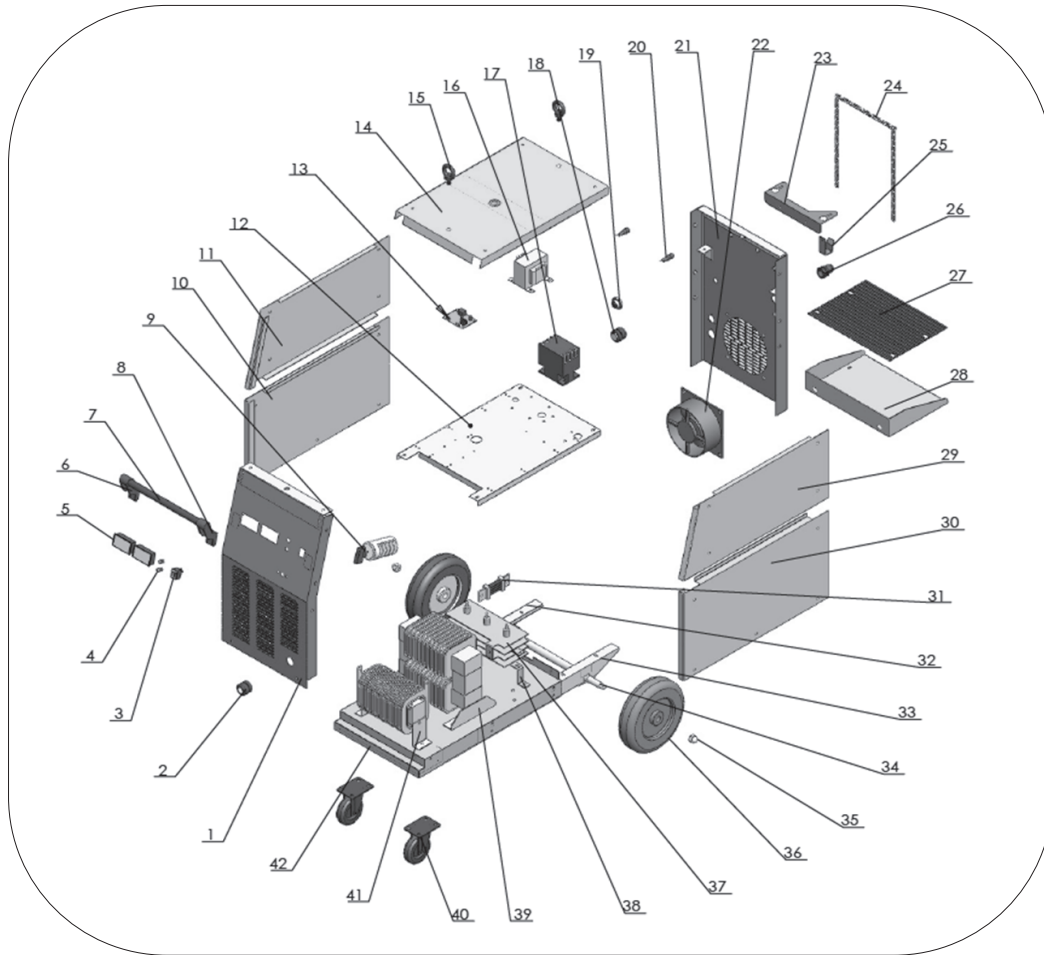
The welding arc produces ultraviolet (UV) and infrared (IR) rays as well as extreme temperatures that can cause injury to your eyes and skin. Do not look at the welding arc without proper eye protection.

- The electric welding arc must not be observed with the naked eye. Always use a welding mask; Ensure the welding mask is fitted with the correct shade of filter lens for the welding current level, and covers the entire face from neck to the top of the head.
- Welding gauntlet gloves should be worn to protect the hands from burns, non-synthetic overalls with buttons at the neck and wrist, or similar clothing should be worn. Greasy overalls should not be worn. Wear suitable protective footwear.
- Always wear correctly rated protective clothing which covers all areas of the body; The operator should not weld with any bare skin showing to reduce the chance of burns etc.
- Avoid oily or greasy clothing, a spark may ignite them.
- Hot metal such as electrode stubs and work-pieces should never be handled

PARTS LIST - MAIN UNIT

Ref. No.	Description	Sip Part No.	Ref. No.	Description	Sip Part No.
1.	Front panel	WE02-00447	22.	Fan Motor Assy	WE02-00467
2.	Dinse Socket	WE02-00448	23.	Gas Cylinder Bracket	WE02-00468
3.	Rocker Switch	WE02-00449	24.	Gas Bottle Chain	WE02-00469
4.	LED holder	WE02-00450	25.	Hook	WE02-00470
5.	Digital meter	WE02-00451	26.	Cable Strain Relief	WE02-00471
6.	Left support	WE02-00452	27.	Bottom Rubber Mat	WE02-00472
7.	Handle	WE02-00453	28.	Gas Cylinder Stand Plate	WE02-00473
8.	Right side	WE02-00454	29.	Upper Left Side Panel	WE02-00474
9.	Universal switch 1-10	WE02-00455	30.	Lower Left Side Panel	WE02-00475
10.	Lower right side panel	WE02-00456	31.	Shunt	WE02-00476
11.	Upper right side panel	WE02-00457	32.	Right Cylinder Plate Support	WE02-00477
12.	Install panel	WE02-00458	33.	Left Cylinder Plate Support	WE02-00478
13.	Main PCB	WE02-00459	34.	Wheel Axle	WE02-00479
14.	Top cover	WE02-00460	35.	Wheel Retaining Nut	WE02-00480
15.	lifting bolt	WE02-00461	36.	Rubber Rear Wheel	WE02-00481
16.	Control Transformer	WE02-00462	37.	Rectifier	WE02-00482
17.	Ac contactor	WE02-00463	38.	Rectifier Support Bracket	WE02-00483
18.	Dinse Connector	WE02-00448	39.	Main Transformer	WE02-00484
19.	Control Cable Socket	WE02-00464	40.	Swivel Front Castor Wheel	WE02-00485
20.	Fuse holder	WE02-00465	41.	Inductor	WE02-00486
21.	Rear Panel	WE02-00466	42.	Bottom Chassis	WE02-00487

EXPLODED DRAWING - MAIN UNIT



SAFETY INSTRUCTIONS...cont

without gloves.

- First aid facilities and a qualified first aid person should be available for each shift unless medical facilities are close by for immediate treatment of flash burns to the eyes and skin.
- Flammable hair products should not be used by persons intending to weld.
- Warn bystanders not to watch the arc and not to expose themselves to the welding arc rays or to hot metal.
- Keep children away whilst welding, they may not be aware that looking at an arc can cause serious eye damage.
- Protect other nearby personnel from arc rays and hot sparks with a suitable non-flammable partition.

VENTILATION

- Ventilation must be adequate to remove the smoke and fumes during welding (see the relevant safety standard for acceptable levels).
- Toxic gases may be given off when welding, especially if zinc or cadmium coated materials are involved, welding should be carried out in a well ventilated area and the operator should always be alert to fume build-up.
- Areas with little or no ventilation should always use a fume extractor.
- Vapours of chlorinated solvents can form the toxic gas phosgene when exposed to U.V radiation from an electric arc. All solvents, degreasers and potential sources of these vapours must be removed from the arc area.
- Severe discomfort, illness or death can result from fumes, vapours, heat, oxygen enrichment or depletion that welding (or cutting) may produce. This will be prevented by adequate ventilation or using a fume extractor. **NEVER** ventilate with oxygen.
- Lead, cadmium, zinc, mercury, beryllium bearing and similar materials when welded may produce harmful concentrations of toxic fumes. Adequate ventilation must be provided for every person in the area. The operator should also wear an air supplied respirator, for beryllium both must be used.
- Metals coated with or containing materials that emit toxic fumes should not be heated unless coating is removed from the work surface. The area should be well ventilated or the operator should wear an air supplied respirator.
- Work in a confined space only while it is being ventilated and if necessary whilst wearing an air supplied respirator.
- Gas leaks in a confined space should be avoided, leaking gas in large quantities can change oxygen concentration dangerously. **DO NOT** bring gas cylinders into a confined space.
- Leaving a confined space you must shut off the gas supply at the source to prevent possible accumulation of gases in the space if down stream valves are left open. Check to be sure that the space is safe before re-entering it.

SAFETY INSTRUCTIONS....cont

- Vapours from chlorinated solvents can be decomposed by the heat of the arc (or flame) to form phosgene a highly toxic gas and other lung and eye-irritating products. The ultra violet (radiant) energy of the arc can also decompose trichloroethylene and perchlorethylene vapours to form phosgene. **DO NOT WELD** or cut where solvent vapours can be drawn into the welding atmosphere, or where the radiant energy can penetrate to atmospheres containing even minute amounts of trichloroethylene or perchlorethylene.



When using the welder always ensure the operator as well as those in the area use a welding mask with the correct shade filter lens.



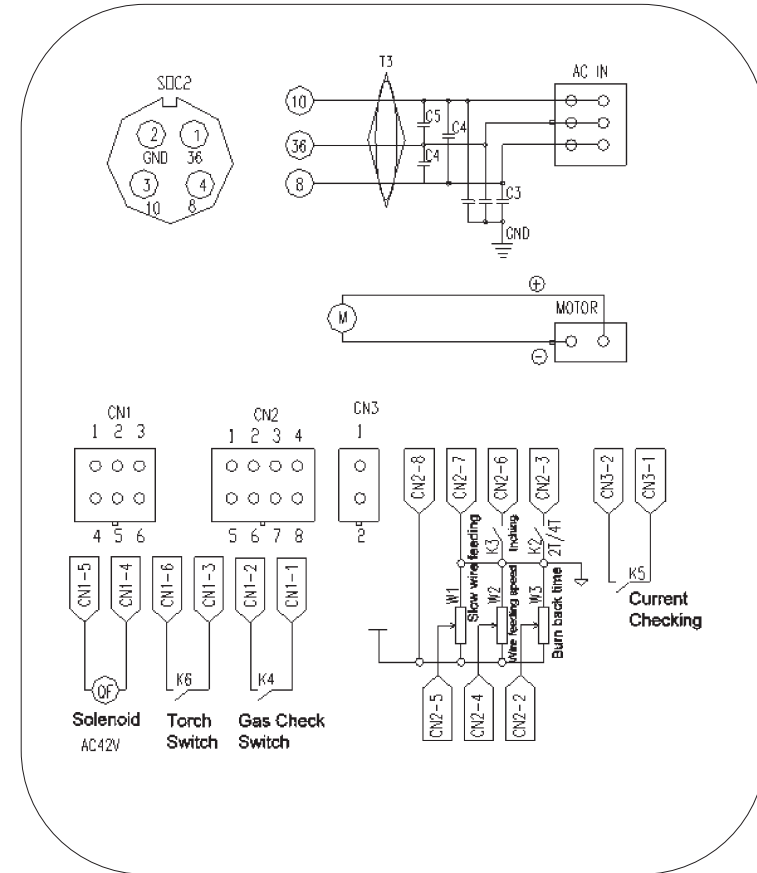
Some metals and metal composites have the potential to be highly toxic; always wear a face mask .



CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

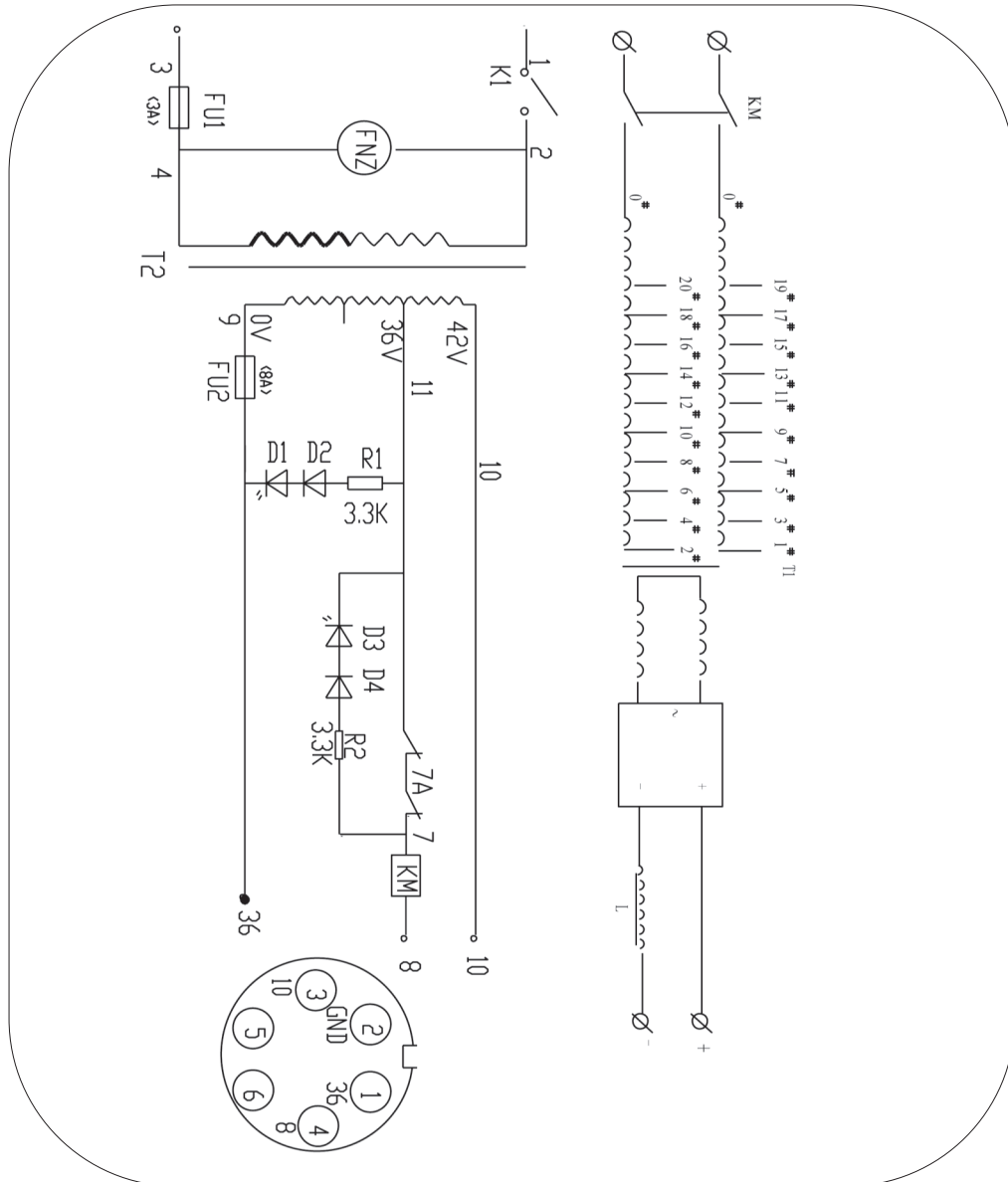
WIRING DIAGRAM

WIRE FEED UNIT



WIRING DIAGRAM

MAIN UNIT



ELECTRICAL CONNECTION

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

Connecting to the power supply:

The HGT4000S welder is supplied without a plug fitted, it must not be connected to a standard 13A supply; Consult the technical specification table (page13) for the required rating, if in doubt contact a qualified electrician. Before using the welder, inspect all the leads and plugs to ensure that non are damaged. If any damage is visible have the welder inspected / repaired by a suitably qualified person.

The wires for the plug are coloured in the following way:

Yellow / green	Earth
Blue	Neutral
Brown	Live

As the colours of the wires may not correspond with the markings in your plug, proceed as follows:

The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red (or brown).

The wire which is coloured blue, must be connected to the terminal marked with N or coloured black (or blue).

The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked with this symbol \perp .

Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.

ELECTRICAL CONNECTION...cont



Warning: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.



Note: Always make sure the mains supply is of the correct voltage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.



Note: If an extension lead is required in order to reach the mains supply; ensure that this too is rated for the correct voltage and fuse rating.

GUARANTEE

This SIP mig welder is covered by a 24 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the mig welder outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges including, but not limited to parts, labour and carriage costs.

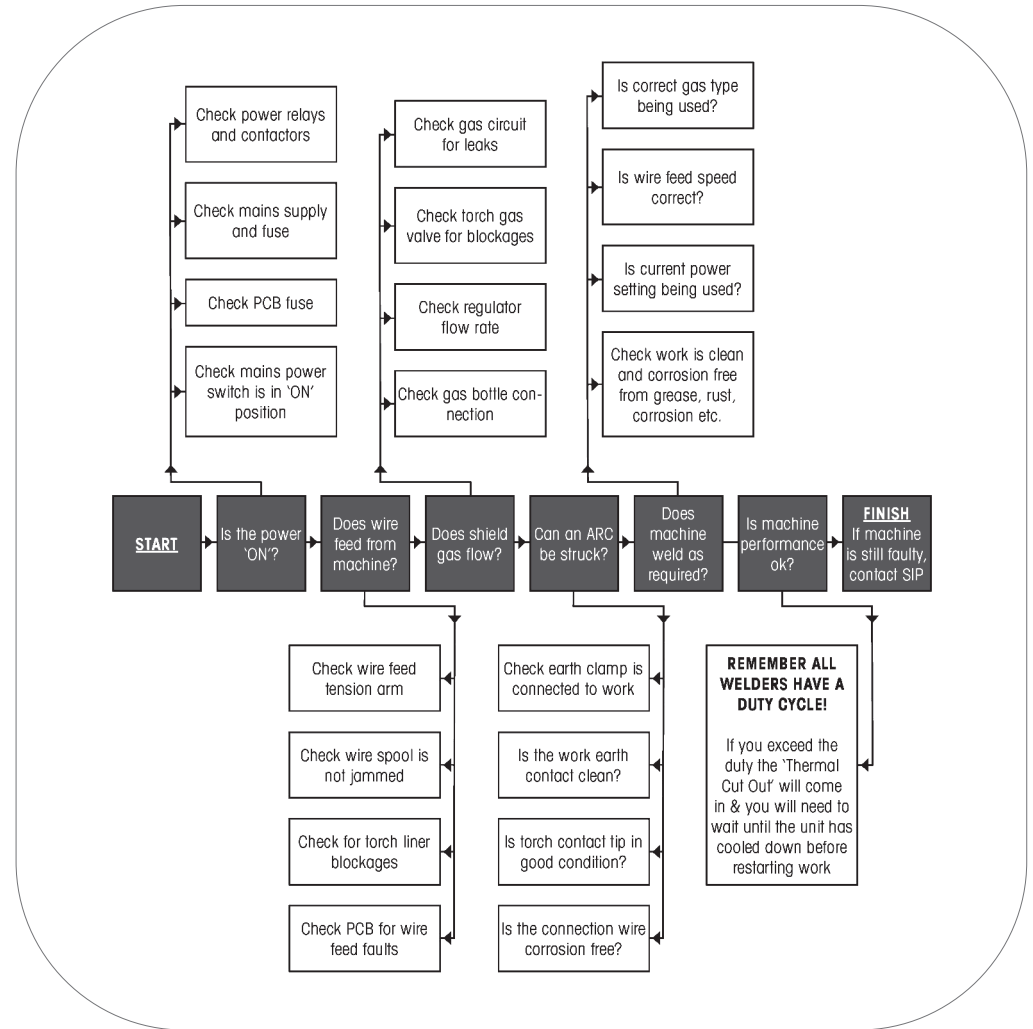
Failure to regularly clean your mig welder will shorten its working life and reduce performance.

The warranty does not cover consumable items such as tips, shrouds, clamps, etc.



Note: Proof of purchase will be required before any warranty can be honoured.

TROUBLESHOOTING



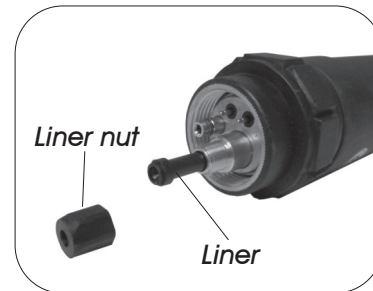
Note: If none of the above solutions work then contact your local distributor for repair, or contact SIP technical for more advise.

MAINTENANCE

- Clear dust from the machine at regular intervals, if used in a dirty environment the machine should be cleaned once a month.
- Check all connections are clean and tight, if there is any oxidization clean the connection with a mild abrasive or wire brush.
- Check all cable for damaged or degradation to the insulation, replace if any found.
- Check earth clamp condition ensure they clamp tightly, replace if damaged or loose.
- If the machine is not to be used for a long time, store it in the original packing a dry place.
- Mig tip and shroud must be cleaned frequently to removes spatter.
- Replace the torch Mig tip regularly good electrical contact between the tip and wire is essential.
- The torch liner should be blown through with dry compressed air from time to time, if the wire does not pass freely through the liner it should be replaced.

REPLACING THE LINER

- Remove the liner nut from the torch.
- Pull the old liner completely out.
- Hold the torch as straight as possible.
- Push the new liner back through the torch.
- Re-fit the liner nut.



TECHNICAL SPECIFICATION

<i>Model</i>	SIP HGT4000S SWF
<i>Part Number</i>	05778
<i>Input Voltage</i>	230V ~ 50/60Hz
<i>Input Current</i>	38A
<i>Maximum OCV</i>	41V (DC)
<i>Output Current</i>	60A - 300A
<i>Welding Output Voltage</i>	17V - 29V
<i>Wire Diameter</i>	0.8mm - 1.2mm
<i>Wire Spool Size</i>	5Kg - 15Kg
<i>Wire Type</i>	Solid
<i>Wire Feed Speed</i>	1.0 - 24 m/min
<i>Weld Material</i>	Mild Steel, Stainless Steel, Aluminium
<i>Duty Cycle @ 40°C</i>	300 amps @ 35%
	230 amps @ 60%
	177 amps @ 100%
<i>Insulation Class</i>	H
<i>Protection</i>	IP21S

CONTENTS AND ACCESSORIES

- HGT4000S SWF Mig Welder.
- HGT4000S Wire Feed Unit (separate box).
- Instruction Manual.
- 4M MB36 Mig Torch.
- 5M Interconnecting Cable.
- Earth Return lead with Clamp.
- Spare Mig Tips (0.8mm x1 & 1.0mm x 1).
- Mig Torch Spanner.
- Pair of Wire Feed Rollers (0.8/1.0mm).
- 3A Fuse.
- 8A Fuse.
- Gas Bottle Support Chain.
- Wire Spool Cover.
- Wire-feed support disc.
- Wire-feed support column.



Note: If any of the above are missing or damaged, contact your distributor immediately.

OPERATING INSTRUCTIONS

PREPARATION FOR WELDING



Note: In order to use gas you will need to purchase gas, gas hose fitting and a gas regulator suitable for the type of welding required.

- Clean the area to be welded, and the earthing point of all rust, paint and contaminants etc.
- Place the earth clamp on to a cleaned area of the workpiece.
- Connect the welder to the electrical supply.

WELDING

- Use the main On/Off switch to turn the welder on.
- Set the welding output, Wire Speed, burn back, creep start and 2T/4T function as required adjusting the appropriate controls.
- Press the torch trigger and feed the wire out a little.
- Cut the wire about 3mm from the MIG contact tip.
- Turn the gas on.
- Place a welding mask/shield over your face (not supplied).
- Position the torch so the Mig tip is around 6mm from the point where the welding is to commence.
- Press the torch trigger (depending on 2T/4T setting) and move the torch slowly in the chosen direction.
- Once the weld is complete, release the torch trigger (depending on the 2T/4T setting).



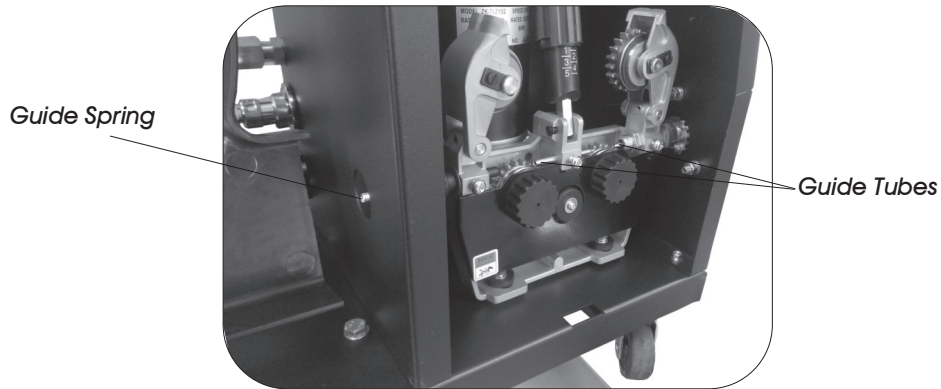
Note: If the welder has a humming sound and a blob forms on the tip end, then you have insufficient wire feed speed and it should be increased. If the welder has an erratic sound and the torch feels that the wire is hitting against the work, then you have the wire feed speed to high and it should be reduced, when the wire feed speed is correct you should get a steady crackling sound.



Note: For future reference make a note of the voltage and wire speed setting for the material that has been welded.

ASSEMBLY INSTRUCTIONS...cont

- Pull the pressure adjustment knob forwards so it takes the pressure from the tension arms.
- Remove the free end of the Mig wire from the side of the wire spool, trim off the distorted end of the wire with a pair of wire cutters; **Hold the wire carefully as it will try to unwind from the spool.**
- Feed the wire through the inlet guide spring, over the wire feed rollers and through the guide tubes (you may need to straighten the first 50mm or so of wire if it doesn't fit in to the guide tube easily).



- Lower the tension arm and ensure the wire sits in the groove of the wire feed rollers.
- Push the pressure adjustment knob back over the tension arms.
- Screw the pressure adjustment knob down, but not too tight as it will crush the wire.
- Plug the welder in to the mains supply and turn it on.
- Lay the mig torch out as straight as possible.
- Press and hold the "inching" button until the wire comes out from the end of the torch.
- Release the "inching" button.
- Re-fit the mig tip and shroud.



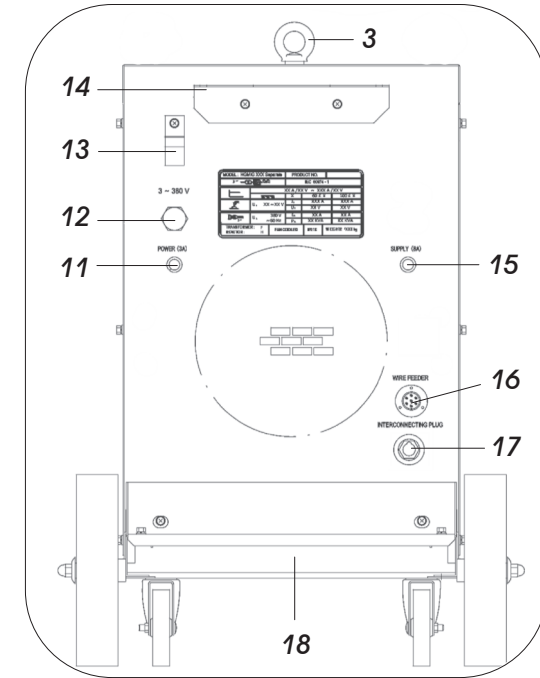
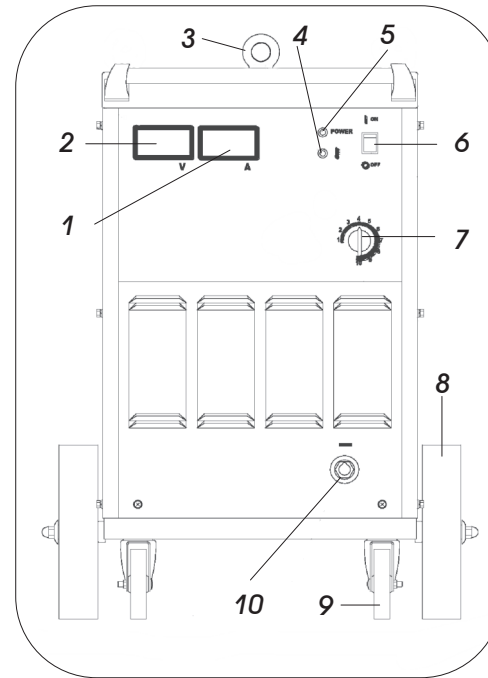
Caution: Ensure that no body parts are in line with the torch when the wire comes out as the wire could be sharp.



Note: Be sure the wire feeds from the bottom of the spool and not from the top.

GETTING TO KNOW YOUR WELDER

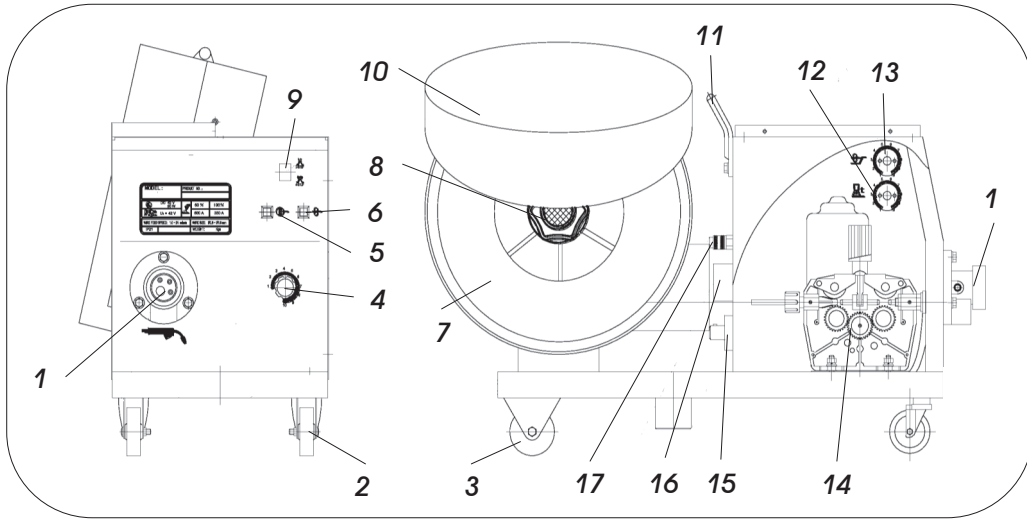
MAIN UNIT



Ref. No.	Description	Ref. No.	Description
1.	Output Current Display	10.	Earth Lead Connection
2.	Output Voltage Display	11.	Fuse
3.	Hoist Ring	12.	Mains Input
4.	Thermal Overload Indicator	13.	Cable Hook
5.	Power Indicator	14.	Gas Bottle Bracket
6.	Main On/Off Power Switch	15.	Fuse
7.	Welding Voltage	16.	Wire Feed Control
8.	Wheel	17.	Welding Cable Connector
9.	Castor	18.	Gas Bottle Rack

GETTING TO KNOW YOUR WELDERcont

WIRE FEED UNIT



Ref. No.	Description	Ref. No.	Description
1.	Euro Torch Connector	10.	Wire Spool Cover (Outer)
2.	Front Wheel	11.	Handle
3.	Rear Wheel	12.	Burn back Timer Control
4.	Wire Speed Control	13.	Creep Start Control
5.	Gas Test Button	14.	Wire Feed Assembly
6.	Wire Inching Button	15.	Welding Cable Connector
7.	Wire Spool Cover (Inner)	16.	Wire Feed Control
8.	Wire Spool Holder	17.	Gas Connector
9.	2T / 4T Switch		

ASSEMBLY INSTRUCTIONS....cont

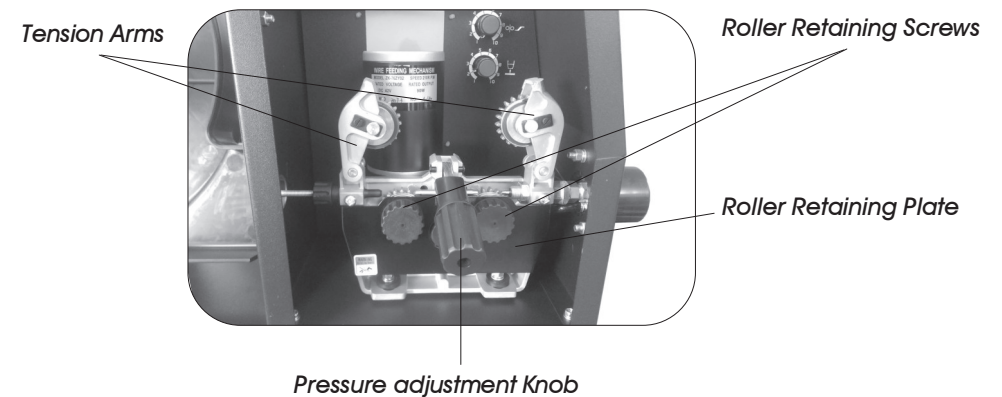
For 15Kg Wire:

- Fit the welding wire over the spool holder so that the wire will feed from the bottom of the roll.
- Refit the retaining nut, and secure in place by tightening it.

FEEDING THE WIRE

Before feeding the wire, you should ensure that the correct wire feed rollers are fitted. To check / change the roller:

- Pull the pressure adjustment knob on the wire feed motor forwards so it takes the pressure from the tension arms.
- Loosen and remove the roller retaining screws.
- Remove the roller retaining plate.
- The size of the roller should be clearly marked on the side.
- Change as required by simply pulling the roller from the roller shaft.
- To refit the rollers ensure that the cut-out on the roller lines up with the key on the roller shaft.
- Refit the roller retaining plate.
- Refit and tighten the retaining screw to secure the roller in place.



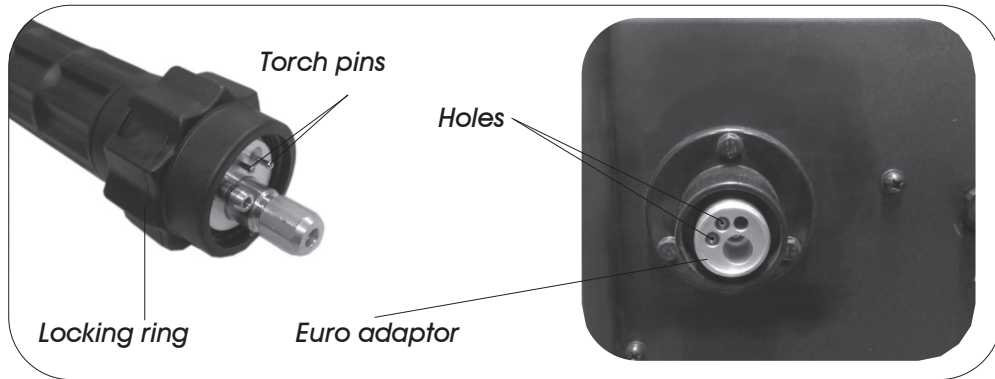
The wire can now be fed through the torch:

- Remove the shroud from the torch by rotating the shroud clockwise and pulling at the same time.
- Unscrew and remove the Mig contact tip.

ASSEMBLY INSTRUCTIONS....cont

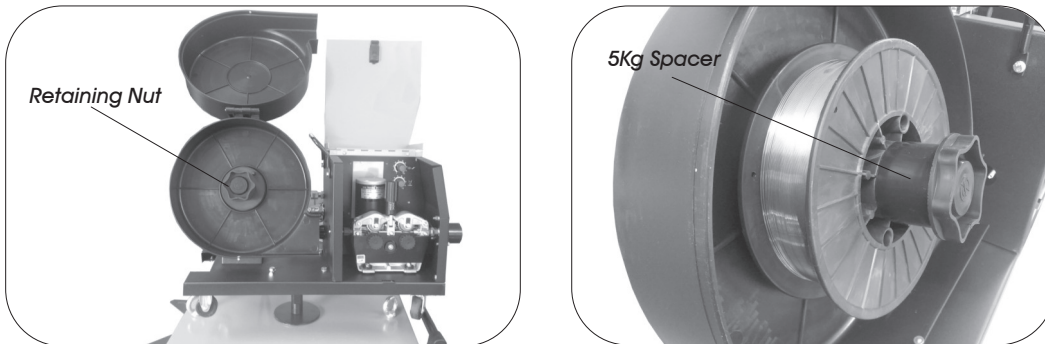
CONNECTING THE TORCH

- Align the 2 torch pins on the welding torch with the 2 connector holes on the euro adaptor.
- Push the welding torch in to the euro adaptor.
- Screw the torch locking ring on to the euro adaptor and tighten to secure.



LOADING THE WIRE

- Open the door of the Wire Feed Unit and lift up the wire spool cover.
- Turn the wire retaining nut anticlockwise to loosen and remove it.

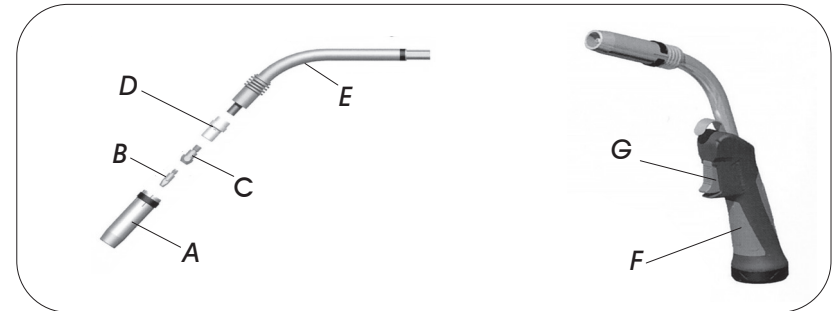


For 5Kg Wire:

- Fit the welding wire over the spool holder so that the wire will feed from the bottom of the roll.
- Fit the 5Kg wire spacer (above, right).
- Refit the retaining nut, and secure in place by tightening it.

GETTING TO KNOW YOUR WELDER....cont

MIG TORCH



Ref.	Description	Ref.	Description
A.	Shroud	E.	Swan Neck
B.	Contact Tip	F.	Torch Handle
C.	Tip Adaptor	G.	Trigger Switch
D.	Gas Diffuser		

ASSEMBLY INSTRUCTIONS

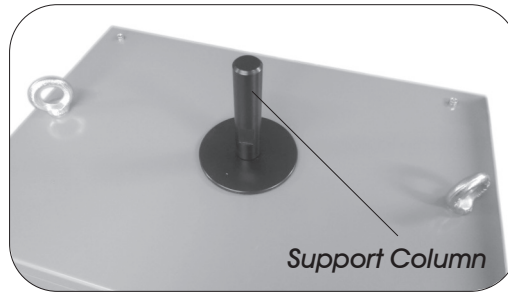
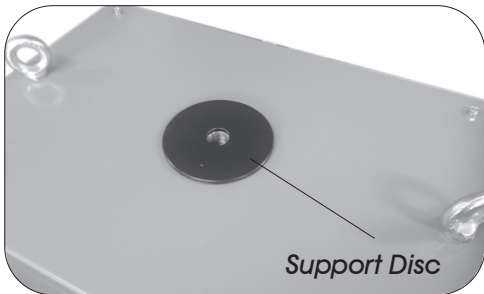
FITTING & CONNECTING THE WIRE-FEED UNIT

- Remove the wire-feed unit from its box.
- Remove the packaging from the main unit.

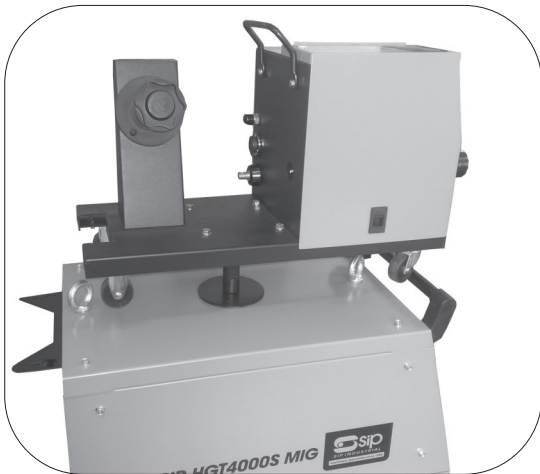


Caution: The welder and wire-feed unit are heavy; Use the correct lifting equipment to remove the welder / wire-feed unit from its packaging.

- Check that the contents of the accessory box match those on page 14.

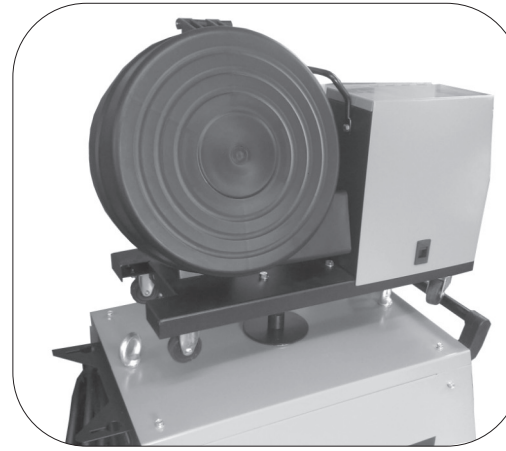


- Place the support disc on the top of the main unit (above, left).
- Fit and fully tighten the wire-feed support column (above, right).



- Carefully place the wire-feed unit onto the support column.

ASSEMBLY INSTRUCTIONS...cont



- Fit the wire spool cover to the wire-feed unit (above, left).



Note: If the spool shaft is fitted, the 3 nuts and 1 bolt used to secure the cover in place will have to be removed and refitted with the cover (above, right).

- Connect both parts of the interconnecting cable to the rear of the welder (below, left).
- Connect both parts of the interconnecting and the gas pipe cable to the rear of the wire-feed unit (below, right).



Danger: Ensure that the gas pipe is secure and leak free before operation.