~FABRICATION~

OPERATING INSTRUCTIONS

METALWORK METALWORK

INTRODUCING

the

MIG WELDER

Mig Welder Machine – Murex and Pulse
Access Level 2 – (see Metal Workshop Induction Guide on Access Levels)
Hand held arc-welding tool that allows you to weld mild steel sections together

PPE Basic

- Suitable cotton-only work coat (provided) ☐
- Leather gloves, rated to EN12477 & 407 (provided) ☐
- Arc-Welding Grade Helmet, rated to BS/EN379 (provided) ☐
- Additional Spectacles or Goggles, rated to BS/EN166 (provided) ☐
- Stout footwear ☐

What to do before use

- ENSURE you have received an INDUCTION into the area BEFORE working ☐
- Persons who have PACEMAKERS or who are PREGNANT should not do this process or use this equipment ☐
- INFORM a member of staff that you are PLANNING to use this piece of equipment ☐
- IF STUDENT, report any faults to any member of workshop technical staff ☐
- IF STAFF, E-mail technical team to report if machine requires maintenance or servicing and whether the machine needs to be taken out of operation and for how long ☐
- VISUAL check of the machine for signs of damage to machine ☐
- ESNURE that there are no flammable, inflammable or combustible materials in the area BEFORE starting your work – if UNSURE, seek advice from any member of the technical team ☐
- PREPARE the metal surfaces you are welding by using a grinding disk or abrading flap wheel ☐

- ENSURE all surfaces to be welded are CLEAN and BRIGHT and there is NO RUST on the SURFACE of the material that will be DIRECTLY welded ☐
- ENSURE the welding area is CLEAN and free from OBSTRUCTIONS preventing you from getting out of the area in the EVENT OF A FIRE ☐

How to Use This MIG Welding Equipment

- Refer to any OPERATING INSTRUCTIONS given during training or timetabled workshops ☐
- ENSURE ALL skin is covered, hair is tied back, ferrous jewellery is removed, NO flammable liquids such as lighters is stored on your person ☐
- SHUT the welding-grade curtains to the area, isolating the welding light from OTHERS sharing the space ☐
- SECURELY attach the EARTH CLIP, sometimes called a RETURN LINE, to the metal bench ☐
- If you are NOT working on the bench, SECURELY attach the earth clip to your work DIRECTLY ☐
- CLAMP your work DOWN to the bench if required ☐
- Turn ON the Argoshield or Argoshield Light cylinder regulator valve. Open the valve ALL THE WAY until it stops, then rewind the valve control back ONE-HALF-TURN ☐

If you are using the 'Murex' welder follow OPTION 1
If you are using the 'Pulse' welder follow OPTION 2

Option 1

- ENSURE the unit is securely plugged into the IP-44 (round), three pin socket ☐
- CUT OFF old welding wire up to 15mm from the welding TORCH TIP – do this AWAY from the welding bench or immediate welding area ☐
- Turn ON at the switch on the FRONT of the welding machine but keep your finger WELL AWAY from the trigger section. Hold the torch like a GUN – keeping your finger on the body ABOVE the trigger BEFORE attempting to weld ☐
- Turn ON at the machine switch isolator ☐
- Use the dial BELOW the ON switch to set the required power ☐
- ADJUST these POWER LEVELS, depending on the thickness of material you are welding; the THICKER the gauge of material, the MORE power will be required to successfully perform a good weld ☐
- CHECK the 'feed speed' using the appropriate dial – this is the rate at which WELDING WIRE is fed into the welding pool ☐

- CLOSE your welding helmet down, ENSURING the auto-dimming setting is ACTIVE and set to an appropriate setting; 9-11 or 12 for MIG welding, 13 for ALL arc-welding involving STICK welding (known as MMA welding) ☐
- Taking hold of the welding gun in the manner instructed by the technical staff, press the RED trigger to begin welding ☐

Option 2

- ENSURE the unit is securely plugged into the IP-44 (round), three pin socket ☐
- CUT OFF old welding wire up to 15mm from the welding TORCH TIP ☐
- Turn ON at the switch on the BACK of the welding machine but keep your finger WELL AWAY from the trigger section. Hold the torch like a GUN – keeping your finger on the body ABOVE the trigger BEFORE attempting to weld ☐
- Using the dial labelled AMP, set the required power ☐
- ADJUST these POWER LEVELS, depending on the thickness of material you are welding; the THICKER the gauge of material, the MORE power will be required to successfully perform a good weld ☐
- CHECK the 'feed speed' using the appropriate dial – this is the rate at which WELDING WIRE is fed into the welding pool ☐
- CLOSE your welding helmet down, ENSURING the auto-dimming setting is ACTIVE and set to an appropriate setting; 9-11 or 12 for MIG welding, 13 for ALL arc-welding involving STICK welding (known as MMA welding) ☐
- Taking hold of the welding gun in the manner instructed by the technical staff, press the RED trigger to begin welding ☐

For BOTH Machines

- Use a TEST section to practice and CHECK your settings, ADJUST power and feed speed as necessary. This will ALSO identify any problems with the machine which will need reporting ☐
- When finished, turn OFF the machine at the machine ☐
- Turn OFF the machine at the wall isolator ☐
- Turn OFF the Argoshield gas bottle by turning the valve back until in the FULLY CLOSED position ☐
- Turn OFF the extraction ☐
- If you have welded ONTO the bench grind away excess BEFORE leaving the area ☐
- CLEAR away any work/debris ☐

I verify that I have read and understood the information detailed within this document

Date

Name

Signature