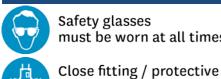
## **SAFE WORK INSTRUCTION**

## **OXY-FUEL GAS WELDING**

Oil free leather gloves and

spats must be worn.

## PERSONAL PROTECTIVE EQUIPMENT



Safety glasses must be worn at all times.

clothing must be worn.



Safety footwear must be worn.



Long or loose hair must be contained.

**Rings and jewellery** must not be worn.

| POTENTIAL RISKS   | DON'Ts  |
|---|---|
| <ol> <li>Burns.</li> <li>Non-ionising radiation damage to eyes.</li> <li>Flying sparks.</li> <li>Combustible materials.</li> <li>Fumes.</li> <li>Explosion by gas leakage.</li> <li>Flashbacks.</li> <li>Oil and grease.</li> </ol> PRE-OPERATIONAL SAFETY CHECKS ✓ Locate and ensure you are familiar with all machine   | <ul> <li>Do not use faulty equipment. Immediately report suspect equipment to your supervisor</li> <li>Do not light the blowpipe with matches or lighters.</li> <li>Do not use oil, grease or other hydrocarbons.</li> <li>Do not use oxygen as a substitute for compressed air.</li> </ul> PRESSURE SETTING CONTINUED Purge and check for constant acetylene gas flow:   |
| <ul> <li>Locate and ensure you are familiar with an machine operations and controls.</li> <li>Check workspaces and walkways to ensure you have not created slip/trip hazards.</li> <li>Keep area clean and free of grease, oil and any flammable materials.</li> <li>Ensure gas hoses are in good condition and do not create a tripping hazard.</li> <li>Before lighting up, check all equipment for damage.</li> <li>Check that the area is well ventilated. Start the fume extraction unit before beginning to weld.</li> <li>Ensure the unit is fitted with working flashback arresters.</li> <li>Ensure work return earth cables make firm contact to provide a good electrical connection.</li> <li>PRESSURE SETTING</li> <li>Check that the oxygen and acetylene regulator adjusting knobs are loose.</li> <li>Check that both blowpipe valves are closed.</li> <li>Slowly open the cylinder valves on each cylinder for half a turn only.</li> <li>Screw in the regulator adjusting knobs slowly until the delivery pressure gauges register 70kPa.</li> <li>Purge and check for constant oxygen gas flow: <ul> <li>Open the oxygen blowpipe valve for 2 seconds and check the delivery gauge.</li> <li>If necessary re-adjust the oxygen regulator to achieve a 70kPa pressure.</li> <li>Close the oxygen blowpipe valve.</li> </ul> </li> </ul> | <ul> <li>Putge and theor for constant acetylene gas now.</li> <li>Open the acetylene blowpipe valve for 2 seconds and check the delivery gauge.</li> <li>If necessary re-adjust the acetylene regulator to achieve a 70kPa pressure.</li> <li>Close the acetylene blowpipe valve.</li> </ul> LIGHTING UP <ul> <li>Open the acetylene blowpipe valve slightly and light the blowpipe with a flint lighter.</li> <li>Continue to slowly open the acetylene valve until the flame no longer produces soot.</li> <li>Slowly open the oxygen blowpipe valve until a neutral flame is produced.</li> </ul> SHUTTING OFF BLOWPIPE <ul> <li>Close the acetylene blowpipe valve first.</li> <li>Then close the oxygen blowpipe valve.</li> </ul> ENDING OPERATIONS AND CLEANING UP <ul> <li>Close down both cylinder valves.</li> <li>Open oxygen blowpipe valve to allow the gas to drain out.</li> <li>When oxygen gauges read zero, unscrew regulator-adjusting knob.</li> <li>Close oxygen blowpipe valve and release gas.</li> <li>When acetylene blowpipe valve.</li> <li>Men acetylene blowpipe valve.</li> <li>Hang up welding blowpipe valve.</li> <li>Hang up welding blowpipe valve.</li> </ul> |
|   | Leave the work area in a safe, clean and tidy state.  |

This Safe Work Instruction does not necessarily cover all possible hazards associated with this equipment and should be used in conjunction with other references. It is designed as a guide to be used to compliment training and as a reminder to users prior to equipment use.

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Approved by: Document Owner Content Manager

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