

SAFE WORK INSTRUCTION

BURNERS AND TORCHES

PERSONAL PROTECTIVE EQUIPMENT



Safety glasses must be worn at all times.



Safety footwear must be worn.



Long or loose hair must be contained.



Close fitting / protective clothing must be worn.

POTENTIAL RISKS

- ❗ Burns from hot glass or the flame itself
- ❗ Setting fire to objects accidentally.
- ❗ Build-up of explosive gas mixtures
- ❗ Naked flame connected to flammable fuel gas.
- ❗ Eye damage from radiating light
- ❗ Skin damage from excessive heat radiation.
- ❗ Cuts from broken glass

DON'Ts

- ❌ Do not use faulty equipment. Immediately report any suspect machinery to your supervisor.
- ❌ Do not use burners and torches unless all gas reticulation systems are functioning correctly, and all safety equipment is available.
- ❌ Never leave naked flames unattended.
- ❌ Do not use oxy/acetylene mixtures in these burners.

PRE-OPERATIONAL SAFETY CHECKS

- ✓ Torches and burners must only be used in an open and well ventilated area.
- ✓ Appropriate safety and First-Aid equipment must be available at all times
- ✓ An approved gas reticulation system must be used that incorporates non-return valves, flash-back arrestors and conforming regulators.
- ✓ Locate and ensure you are familiar with burner operations and controls.
- ✓ Ensure workspaces are uncluttered and free of flammable materials and vapours.
- ✓ Visually inspect gas supply lines, valves and connections to burners and torches regularly.
- ✓ Ensure burners and torch holders are mounted securely so that operators or bystanders would not be harmed accidentally by flame direction.
- ✓ Do not use the large equipment or machinery outside of normal working hours.

OPERATIONAL SAFETY CHECKS and IGNITION PROCEDURE

- ✓ Ventilation and extraction systems must be operational.
- ✓ Protect your eyes at all times with approved didymium glasses or welding shade 5 glasses.
- ✓ Ensure burners are pointing in a safe direction before ignition, and exercise caution when operating this equipment.
- ✓ **To ignite:** Open gas valve and ignite gas.
- ✓ Introduce oxygen slowly and adjust flame as required.
- ✓ **To extinguish:** Turn off oxygen flow by closing valve.
- ✓ Close fuel gas valve.
- ✓ **Do not leave a naked flame unattended.**

ENDING OPERATIONS AND CLEANING UP

- ✓ Extinguish flame and close burner valves after use.
- ✓ Shut down bench valves and workshop gas master valves at the end of each day.
- ✓ **Ensure all hot work and equipment has cooled before leaving the workshop.**

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

