

Respiratory Protection

- Dust mask must be compliant with the requirements of ISO 16900.
- A dust mask must be readily available to be worn either on person, in crib bag or cabin of vehicle.
- A dust mask shall be worn when working within visible dust.
- Respiratory protective equipment may be required to be worn in some areas or during certain tasks as identified in a risk assessment.

Air purifying respirators include:

- Disposable (commonly referred to as dust masks), half and full face non disposable respirators; and
- Powered air purifying respirators.
- Supplied air respirators include:
 - Air hose respirators
 - Airline respirators; and
 - Self-contained breathing apparatus (SCBA).
 - Only trained and competent personnel are able to operate, and don Supplied Air Respirators.

Facial hair – where facial hair interferes with the seal of a respirator, alternative controls should be investigated.

Document Reference - MAC-STE-STD-014

8.10 Personal protective equipment

As a minimum all PPE must meet the requirements of MAC-STE-STD-014 Standard for personal protection equipment and Table 2 below. All necessary personal protective equipment must be in place before turning on the welding power source. Trade assistants, spotters or others working in close proximity to the person performing the hot work should wear the same level of PPE.

Selection of filters for helmets, hand shields, goggles or face masks (shield) shall be in accordance with Appendix 2. It is good practice to wear safety glasses underneath welding masks (PAPR) when welding, where possible.

All PPE must be maintained in good condition, fully functional and with no damage (or wear) which could impede the functionality of the equipment or the personnel's ability to safely perform the task.

The task specific risk assessment or JHA will identify specific PPE required for the job.

Activity	Hazard	Minimum Personal Protection Required
Gas cutting and welding	Radiation Burns Toxic Fumes Impact	<ul style="list-style-type: none"> • Welding mask (PAPR only) with appropriate filters. • Adequate clothing, welding gloves gauntlets and footwear. • Suitable head wear for overhead cutting. • Impact protection. • Ventilation: Fume Extraction (LEV) fans, powered dilution fans or natural ventilation. • Rubber soled safety boots.
Arc welding (manual)	Burns Radiation Electric Shock Toxic Fumes	<ul style="list-style-type: none"> • Welding mask (PAPR only) with appropriate filters. • Adequate dry clothes, welding gloves, gauntlets and footwear. • Ventilation: Fume Extraction (LEV) fans, powered dilution fans or natural ventilation. • Rubber soled safety boots.
Grinding and chipping	Hard Particles Electric Shock Burns Hot Material Impact	<ul style="list-style-type: none"> • Full face protection. High impact face shields and safety glasses. • Adequate clothing. • Hearing protection. • Suitable respirators (P2 minimum). <p>NOTE – Welding Helmets (PAPR only) shall not be used for grinding and cutting applications unless the lens and face</p>

	Dust & Fumes	protection material is rated for High Impact protection (Lens will be marked with the Letter 'V')
Plasma cutting	Toxic Fumes Radiation Electric Shock	<ul style="list-style-type: none"> • Welding mask (PAPR only) with appropriate filters. • Adequate clothing, gauntlets and footwear. • Suitable head wear for overhead cutting. • Ventilation: Fume Extraction (LEV) fans, powered dilution fans or natural ventilation.
Cutting and welding (zinc or cadmium coated plate, fasteners etc.)	Toxic Fumes	<ul style="list-style-type: none"> • Welding mask (PAPR only) with appropriate filters. • Ventilation: Fume Extraction (LEV) fans, powered dilution fans or natural ventilation. <p>(In addition to other minimum applicable PPE)</p>
Oxy (thermal) lancing Air-arc gouging	Radiation Burns Toxic Fumes Impact Noise Molten Metal Rapid uncontrolled release of steam	<ul style="list-style-type: none"> • Welding mask (PAPR only) with appropriate filters. • Welding jacket • Welding gloves • Spats • Double hearing protection • Adequate clothing gauntlets, fire resistant hood and footwear. • Ventilation: Fume Extraction (LEV) fans, powered dilution fans or natural ventilation.

Document Reference - MAC-STE-STD-139