

Welding SWMS Cheatsheet

All 20 hazards & controls for structural and fabrication welding, cutting and grinding.

1. Arc eye (flash burn) and UV radiation exposure to eyes and skin

- Welding helmet with correct filter shade worn for the process and current
- Welding screens set up to shield bystanders and other trades
- Long sleeves and gloves worn to cover exposed skin

2. Exposure to welding fume (manganese, metal oxides, chromium)

- Local exhaust ventilation or fume extraction used at the point of welding
- P2/P3 respirator worn where extraction is not sufficient
- Welding scheduled in well-ventilated areas where practical

3. Fire from sparks, spatter or hot work igniting nearby combustibles

- Hot work permit obtained before welding or cutting near combustible materials
- Combustible materials removed or shielded within the spark radius
- Fire extinguisher and fire watch maintained during and after hot work

4. Electric shock from welding equipment or damaged leads

- Welding leads and equipment inspected before each use
- Damaged leads or connectors taken out of service immediately
- Equipment earthed and tested per manufacturer requirements
- Welding not carried out in wet conditions without additional isolation

5. Burns from hot metal, slag, spatter or the welding torch

- Leather gloves and flame-resistant clothing worn during welding and cutting
- Hot workpieces marked or segregated until cooled
- Slag chipped away from the body, not toward other workers

7. Confined space welding fume build-up and oxygen depletion

- Atmosphere tested before and during welding in confined spaces
- Forced ventilation used for all confined space welding
- Standby person and rescue plan in place for confined space entry

9. Metal fume fever from welding zinc-coated (galvanised) or painted metal

- Coatings removed or ground back before welding where practical
- Local exhaust ventilation used for coated or painted metal
- Symptoms reported and work stopped if metal fume fever is suspected

6. Explosion or fire from oxy-acetylene or LPG gas cylinders

- Cylinders stored upright, secured and separated by class
- Flashback arrestors fitted to hoses and regulators
- Hoses and fittings inspected for leaks before use
- Cylinders shut off and hoses depressurised at the end of each shift

8. Contact with energised electrical installations during welding or cutting repairs

- Services located and isolated before welding or cutting near switchboards or cabling
- Isolation confirmed and tested before work begins
- Licensed electrician engaged for any service relocation

10. Manual handling of steel sections, plate and fabricated assemblies

- Mechanical lifting aids used for heavy or long steel sections
- Team lifts used for awkward assemblies
- Materials staged close to the welding position

11. Falls from height during elevated welding or fabrication work

- Edge protection or guardrails installed before elevated welding begins
- Harness and anchor point used for work above 2 metres
- EWP or scaffold used for elevated work, not ladders

13. Eye and hand injuries from grinding, cutting discs and wire brushing

- Guards fitted and checked on grinders and cutting equipment
- Safety glasses or face shield worn for grinding and wire brushing
- Cut-resistant gloves worn during grinding and edge preparation

15. Silica or metal dust exposure from grinding and surface preparation

- On-tool dust extraction used for grinding and surface preparation
- P2 respirator worn for extended grinding tasks
- Work area ventilated during and after grinding

12. Noise exposure from grinding, air arc gouging and fabrication tools

- Hearing protection worn for all high-noise tools
- Task rotation used to limit individual exposure duration
- Low-noise tool selection used where available

14. Struck by mobile plant or vehicles on active fabrication or construction sites

- High-visibility clothing worn at all times on site
- Spotter used when working near reversing plant
- Site traffic management plan followed

16. Bystander exposure to arc flash, UV radiation or spatter

- Welding screens or curtains erected around the work area
- Exclusion zone maintained for non-welding personnel
- Warning signage displayed during active welding

17. Fire re-ignition from smouldering material after hot work is complete

- Fire watch maintained for at least 30 minutes after hot work finishes
- Work area rechecked before leaving it unattended
- Fire extinguisher kept accessible throughout the fire watch period

19. Heat stress from welding in enclosed or hot working environments

- Hydration breaks scheduled during hot conditions
- Ventilation or cooling used in enclosed welding areas
- Work rescheduled to cooler parts of the day where practical

18. Hand-arm vibration from extended use of grinders and power tools

- Tool use time limited and rotated between crew members
- Low-vibration tools selected where available
- Any tingling or numbness reported and reviewed

20. Trip and struck-by hazards from welding leads, hoses and cables across walkways

- Leads and hoses routed away from walkways and elevated where practical
- Work area kept clear of offcuts and packaging
- Cords and hoses inspected for damage before use

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