



ARC WELDING – ELECTRIC

In appropriate circumstances, the safe use of the equipment under discussion should be demonstrated.

1. Check whether a permit-to-work procedure is in operation. If so, follow the procedure.
2. Make sure that your shield, helmet or goggles contain the correct filter lenses. The incorrect lenses may cause arc eye, a painful condition which can result in permanent damage to the eye.
3. Wear appropriate protective clothing, i.e., heavy cotton, no polyester.
4. Wear clear, high impact goggles or face screen for chipping.
5. Wear suitable insulated gloves, as parts and equipment can become very hot
6. Where necessary, use screens to protect neighbouring workers and passers-by from the arc.
7. Ensure that cables and connections are in good condition and firmly attached.
8. Make certain that welding equipment, bench and workplace is properly earthed.
9. Check that the electrode is fully insulated and always place it on an earthed surface when not in use.
10. When the ground is damp, stand on an insulated mat.



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11. Arrange good ventilation in the welding area, ensuring that fumes are mechanically extracted.
 12. Avoid welding near combustible or flammable materials.
 13. Use fire blankets to cover flammable materials, floors, etc., where necessary.
 14. If the piece being welded is fixed in place, and wood is nearby which is likely to become hot, use a trigger spray to wet the wood, to reduce the risk of it catching fire.
 15. Always ensure that you have at least one dry powder fire, and one CO₂ extinguisher to hand, and that you know how to use them.
 16. Never weld enclosed vessels, drums or tanks, which have contained flammable materials unless they have been purged by steaming or boiling, or filled with inert gas, and tested and certified as safe to work on. If in doubt consult your supervisor.
 17. Keep trailing welding cables clear of roads and walkways – secure overhead whenever possible.
 18. Do not weld material degreased with solvents unless it is absolutely dry.
 19. Do not weld galvanised or coated material without taking proper precautions against fumes. A portable air supply mask may be required.
 20. If you have to weld in a trench, make sure that the sides are properly supported before you go in.
 21. Check for possible sources of fire before leaving the area.



22. Report any defect in the equipment or the system of work without delay, and do not use.