

Welding and Cutting Safety

Welding and cutting are extremely dangerous activities which require special training and much attention to safety. It's very important for you to know and understand the hazards and how to protect yourself and others from injury. Fires, toxic fumes and facial burns are the most common welding and cutting hazards.

FIRES

- Work far away from anything that can burn.
- Take plenty of time to clean up and prepare the area before you begin work.
- Clear away combustible materials within 30 feet of your welding or cutting job.
- Sweep the floor clean of dust and debris.
- Protect open doorways and windows with a fireproof curtain or screen.
- Cover wooden beams, partitions, floors and scaffolds with sheet metal.
- Before welding tanks or drums that may have held flammable liquids or gas, test them to make sure there aren't any dangerous fumes left inside.
- Wet down combustible floors, but remember, this can create a shock hazard if you're using electric welding equipment.
- Put containers of water or sand below dripping slag or where pieces of hot metal might fall.
- Keep water, sand or a fire extinguisher on hand to put out fires caused by sparks.
- In extremely hazardous situations, have someone stand by with a fire extinguisher while you work.
- Never weld where flammables have been used recently or where there's dust in the air.
- Use a combustible-gas indicator to check for flammable fumes or vapors.



FUMES

- Use a respirator.
- Never weld in a tank or small enclosed area without making sure you've got enough ventilation.
- Remove all paint and solvents before welding or torch cutting as required by OSHA, and make sure all residues are removed.
- Use the safest welding method for the job. Stick welding produces fewer fumes than flux core welding.
- Use welding rods that produce low fumes.
- In a confined space, follow all OSHA confined-space rules such as air monitoring, avoiding storing the torch in the space and providing adequate ventilation.
- Use local-exhaust ventilation to remove fumes and gases at their source in still air. Keep the exhaust hood 4 to 6 inches from the source of the fumes.
- Use air blowers to blow fumes away from you when you're outdoors and it's windy.
- Keep your face far from the welding flame.

FACIAL BURNS AND OTHER INJURIES

- OSHA requires gas welders to wear impact- and heat-resistant goggles.
- Arc welders must wear helmets and goggles that resist heat, fire, impact and electricity.
- Be sure to wear full-body protection such as heat-resistant gloves, sleeves, aprons and footwear.
- Always protect your face and eyes from sparks, slag and molten metal and from flash burns caused by radiation from welding equipment.
- Put screens around your work area to protect other workers in the area from potential flash burns to their eyes.