



Welding Safety

Welding and cutting activities can occur on shop floors, in construction of high-rises, in confined spaces, or just about anywhere that metals need to be cut or joined. Welding creates a variety of hazards that can cause serious and even deadly injuries. Some of these hazards include excessive noise; electric shock; fire and explosion hazards; burns from flying sparks and hot metal; UV and IR radiation; exposure to toxic fumes, gases, and dusts; and working in awkward positions. You can make welding operations safe by taking some precautionary measures.

Protect yourself by wearing all the necessary personal protective equipment. Never look at an electric arc with the naked eye since it gives off harmful ultraviolet rays that can damage unprotected eyes. Protect your eyesight by wearing the proper shaded lens in your welding helmet. Set up some portable welding shields around your work area to protect other workers from getting flash burns. Prevent burns to your skin by wearing leathers to protect your arms and upper body from any hot slag that may fall on you. Wear hearing protection to protect against excessive noise. Use a respirator when necessary.

Inspect your work area before you begin welding. Spend a few minutes inspecting your work area to make sure that it is free from tripping hazards, debris, and materials that could be flammable or combustible. Be sure you have an ABC fire extinguisher readily available in case a fire does start. When you set up, keep welding leads out of paths of travel. While you work, take the time to keep your work area tidy so debris (like welding rod ends) doesn't end up creating fire hazards or slip, trip, and fall hazards.

Make sure your environment is safe. Before you begin, make sure that you will be welding in a well-ventilated area. If the ventilation in your work area is questionable, use mechanical ventilation to improve the air quality. If mechanical ventilation doesn't help enough, you need to use a respirator to protect yourself from breathing toxic fumes that can be produced during welding and cutting operations.

Work safely around compressed gas and gas cylinders. Keep cylinders in a storage rack or a portable cart. Chain them up to prevent them from being knocked over. Never use matches to light a torch. Always use spark lighters or some other suitable source of ignition. Check hoses for any holes or damaged connections. When cutting, position yourself so that sparks and hot metal will not fall on your body, on supply hoses, or on the gas cylinders.

At the end of your shift, shut down welding operations safely. Turn off your welding machine, pick up the welding leads, shut off the gas cylinders, remove pressure



gauges, and replace safety caps. Look over your work area to check for anything that is burning or smoldering. Keep a fire watch in the area for at least 30 minutes after you're finished.

SAFETY REMINDER

When welding, avoid holding awkward postures and positions that could develop into MSDs.