



Winter Welding Protections

Municipal highway and DPW operations include welding throughout the year, particularly in winter with snowplowing and the need for plow frames, bracing, and brackets to be safely and securely in place. Take note of the hazards associated with welding in the winter, including the use of adequate personal protective equipment (PPE) and proper ventilation.

According to the Occupational Safety and Health Administration (OSHA), exposure to the heat and fumes created by welding puts workers at risk for various health effects, including eye injuries and irritation of the nose and throat mucus membranes. More serious complications may include burns, chronic illness, and some types of cancer. The best protections for employees to reduce these exposures, says OSHA, include situational awareness of proper work practices, proper ventilation, and wearing personal protective equipment (PPE).

Injuries to the skin, eyes, and face from welding can be divided into four general categories:

- Burns from hot metal slag
- Injuries caused by flying particles, including sparks
- Damage to the eyes or skin from UV and infrared radiation
- Mucus membrane irritation caused by welding smoke, gases, or chemicals

Welding helmets provide the appropriate eye protection and reduce exposure to the hazards mentioned. These helmets have the best filter lens shade number and enhance visual clarity with additional technology and features. New helmet features include auto-darkening shades, optical clarity, and ANSI manufacturer-certified magnifying and cover lenses.

There is also a risk of respiratory illness during welding operations. The control for this is maintaining proper ventilation throughout the welding operation, including post-welding. This may be more difficult during the plow season due to the cold temperatures outside, but sufficient ventilation should be maintained.



According to OSHA, some of the factors that may impact a worker's exposure to welding fumes include the

- type of welding;
- base metal and filler metal;
- welding rod composition;
- location, meaning inside, outside, or in an enclosed space, and
- air movement with ventilation standards.

Breathing welding fumes without proper PPE can result in various safety and health issues such as eye, nose, and throat irritation, dizziness, and nausea. More serious health risks may arise from prolonged exposure to welding fumes, especially when welding in enclosed or confined spaces. Be mindful of how long employees weld in the winter when ventilation may be compromised.

A review of your garage welding operations, consistently utilizing appropriate welding PPE, improved housekeeping, and proper ventilation can all help prevent exposure to certain hazards and enhance worker safety. Keep employees safe this winter while welding by reviewing these risks and their solutions.