



PERSONAL PROTECTIVE EQUIPMENT - METALWORK

TOOLBOX TALK SERIES – PERSONAL PROTECTIVE EQUIPMENT

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Why PPE is Important

In metalworking, PPE is essential to protect workers from hazards such as sharp metal edges, flying debris, intense heat, noise, and harmful substances. Proper use of PPE helps prevent injuries and ensures a safer work environment.

Types of Personal Protective Equipment

1. Eye Protection

- **Safety Glasses:** Protect against flying debris and metal particles. Ensure they meet ANSI Z87.1 standards.
- **Goggles:** Provide a tighter seal around the eyes for added protection against dust and liquid splashes.
- **Face Shields:** Use in conjunction with safety glasses or goggles to protect the face from sparks, heat, and splashes.



Key Tips:

- Always wear eye protection when cutting, grinding, or welding metal.
- Replace scratched or damaged eyewear immediately.

2. Hearing Protection

- **Earplugs:** Insert into the ear canal to reduce noise exposure. Ensure a proper fit for maximum protection.
- **Earmuffs:** Cover the ears to block out loud noises. Ideal for environments with extremely high noise levels.

Key Tips:

- Wear hearing protection when operating noisy machinery or working in high-decibel environments.
- Ensure a good seal to achieve the desired noise reduction.

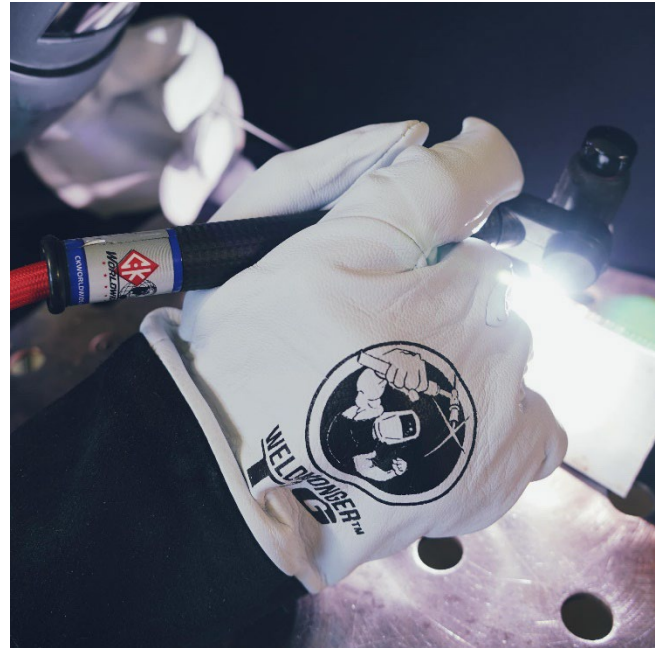


3. Hand Protection

- **Work Gloves:** Choose gloves that are cut-resistant for handling sharp metal edges and heat-resistant for tasks involving high temperatures. Types include leather, Kevlar, and heat-resistant gloves.
- **Welding Gloves:** Provide extra protection against heat and sparks. Ensure they fit snugly but comfortably.

Key Tips:

- Inspect gloves regularly for damage and replace as needed.
- Use the appropriate glove type for specific tasks to avoid accidents and injuries.



4. Respiratory Protection

- **Dust Masks:** Use for protection against metal dust and particles. Ensure a proper fit to prevent inhalation.
- **Respirators:** Required for protection against hazardous fumes and gases. Choose the right type (e.g., N95, P100) based on the specific hazards present.

Key Tips:

- Replace filters and cartridges according to manufacturer recommendations.
- Ensure proper fit and seal when using respirators.

5. Body Protection

- **Protective Clothing:** Wear long sleeves and pants made of flame-resistant materials to protect against heat, sparks, and metal splashes.
- **Welding Aprons:** Provide additional coverage and protection against intense heat and sparks.

Key Tips:

- Avoid wearing loose clothing that could get caught in machinery.
- Keep protective clothing clean and in good condition.

6. Foot Protection

- **Safety Boots:** Choose boots with steel or composite toe caps and slip-resistant soles to protect against heavy objects and slips.
- **Metatarsal Guards:** Provide extra protection for the upper part of the foot.

Key Tips:

- Ensure boots are comfortable and provide adequate support.
- Replace worn or damaged boots immediately.



General PPE Guidelines

- **Inspection:** Regularly inspect all PPE for damage or wear. Replace defective or worn-out equipment promptly.
- **Maintenance:** Keep PPE clean and properly stored when not in use. Follow manufacturer instructions for cleaning and maintenance.
- **Training:** Ensure all workers are trained on the proper use, care, and limitations of PPE.

Emergency Procedures

1. **Injury:** Report any injuries immediately to a supervisor and seek medical attention if necessary.
2. **PPE Failure:** If PPE fails or is damaged, stop work and replace the equipment before resuming tasks.

