

## **Arc Welding and Electrical Hazards**

Arc welding is safe if the unit is properly installed and used. You can receive a shock, however, from the primary (input) voltage if you touch a lead or other electrically "hot" component inside the welder while any part of your body brushes the welder case or other grounded metal.

## Here is an Example

Marc was using an arc welder to install metal sub-flooring on a balcony at a construction site. He contacted the exposed wires on the welding cables and was electrocuted. The welding cables were frayed and improper repairs had been made within 10 feet of the electrode end holder.

- 1. Why did this accident happen?
- 2. Have you known or heard of anyone who was injured or killed while welding?
- 3. If so, what happened?

## **Preventing Injuries from Arc Welding**

- Inspect the arc welder before starting any operation.
- Look for frayed welding leads and any damage to the welder.
- Read all warning labels and instruction manuals for the welder.
- Ground the welder case so that if a problem develops inside the welder a fuse will blow, disconnecting the power and letting you know that repair is required.
- Insulate your body from the metal you are welding.
- Do not rest your body, arms, or legs on the work piece (the metal being welded), especially if your clothing is wet or bare skin is exposed.
- Use mats of plywood, rubber or some other dry insulation to stand or lie upon.
- Wear dry gloves in good condition when welding.
- Do not touch the electrode or metal parts of the electrode holder with skin or wet clothing.
- Don't strike an arc without proper eye protection is nearby.

What Are We Going to Do Today?  What will we do here at the worksite today to prevent injuries while arc welding?
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OSHA REGULATION: 1926.351 and 1926.352





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