



WELDING, CUTTING AND BRAISING

OSHA Welding, Cutting and Braising
Course: Hours Instruction
Hours: Class Room
Hours: Field Instruction

Regulation 29 CFR 1910.252
Prerequisites:
Fee:
CE Credits:

Welding, cutting, and brazing are hazardous activities that pose a unique combination of safety and health risks to more than 500,000 workers in a wide variety of industries. These risks include toxic fumes and gases, explosion, fire, arc radiation, noise, and electrical shock. When combined with several different methods and technologies for performing the operation and crossover with other safety program areas (e.g. compressed gas, confined space, fire prevention), the result may be complex safety and health issues.

The risk from fatal injuries alone is more than four deaths per thousand workers over a working lifetime. For these reasons, OSHA has developed several regulations designed to protect workers from injuries and illnesses related to welding, cutting, and brazing operations, known as "hot work" jobs. Even workers who are not "welders" (i.e., any operator of electric or gas welding and cutting equipment) must be aware of the hazards in handling fuel cylinders and inhaling fumes from welding, cutting, and brazing operations.

Hazard / Risks to Welders and Other Workers Include:

- Fire
- Explosion
- Toxic atmospheres
- Ultraviolet radiation
- Arc radiation
- Electric shock



Who Should Take This Course:

Supervisors, employees, and safety and health professionals.

Fire Prevention and Protection Regulations:

- Storage, handling, and conveyance of acetylene and oxygen
- Safety procedures for arc welding, cutting, and resistance welding equipment
- Protective clothing for welding operators
- Ventilation of the work area
- Respiratory protection in confined spaces
- Inspection and maintenance of systems and equipment by qualified persons
- Employee training
- Fire watchers will watch for fires in all exposed areas and must be trained in the use of fire extinguishing equipment.
- Management must insist that cutters or welders and their supervisors are suitably trained in the safe operation of equipment and safe use of processes.
- All cutters or welders and their supervisors must be suitably trained in the safe operation of their equipment and the safe use of the process.
- All contractors are to be informed about flammable materials or hazardous conditions
- First-aid equipment shall be available at all times and shall be rendered until medical attention can be provided
- All injuries shall be reported as soon as possible for medical attention
- Cutting or welding must be permitted only in areas that are or have been made fire safe by removing combustibles or protecting combustibles from ignition sources.
- A welder or helper working on platforms, scaffolds, or runways must be protected against falling by using railings, safety belts, life-lines, or some other equally effective safeguards.

UNITED SAFETY SOLUTIONS

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Course Objectives:

- Hazard control and safe work practices
- Safe hot work operations
- Prevent and control exposures to extreme heat, compressed gas, electrical hazards, toxic gases and fumes, noise, and radiated energy
- Regulations to cover fire prevention and protection, personnel safe work practices and protection, and design specifications for use of equipment.

United Safety Solutions Course Covers:

- Safety procedures for arc welding, cutting, and resistance welding equipment
- Storage, handling, and conveyance of acetylene and oxygen
- Protective clothing for welding operators
- Ventilation of the work area
- Respiratory protection in confined spaces
- Inspection and maintenance of systems and equipment by qualified persons
- Employee training to work safely with fuel gas in welding and cutting operations
- Ensure workers are aware of the interactive nature of welding hazards
- Proper handling, moving, and storing of fuel cylinders, providing equipment that is compliant with safety rules, and conducting the required testing and inspection of that equipment

Certification:

Successful completion requires 80% on both classroom and practical skills. Upon successful completion, participants receive a wallet card, documentation to satisfy OSHA.