

COURSE CONTENT OVERVIEW

Welding Safety



Welding and cutting operations are used in a variety of manufacturing and engineering workplaces but they can be very dangerous if not performed safely.

This Welding Health and Safety training course helps you to understand the risks to health and safety created by gas and electric arc welding, and explains how to carry out an appropriate risk assessment. The course also explains a variety of control measures that can be used in the workplace to reduce the risks and ensure that welding operations are carried out with care.

Module 1: Introduction to Welding Health and Safety

This module introduces the topic of welding, outlining your responsibilities under the related health and safety legislation and detailing the information outlined in the HSE Safety Alert February 2019.

- Definitions
- Gas welding and cutting
- Gas types
- Electric arc welding
- Health and safety hazards
- Legal enforcement
- HSE Safety Alert February 2019
- Health and safety legislation for welding and cutting operations
- The Management of Health and Safety at Work Regulations 1999 (MHSWR)
- The Electricity at Work Regulations 1989
- The Control of Substances Hazardous to Health Regulations 2002 (COSHH)
- The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)
- The Regulatory Reform (Fire Safety) Order 2005
- The Control of Artificial Optical Radiation at Work Regulations 2010
- Employee duties

Module 2: Risk Assessment

This module details the five key steps of a risk assessment and helps you to understand the basic requirements of a good risk assessment for welding and cutting activities.

- What is a risk assessment?
- Who should carry out a risk assessment?
- Identify the hazards
- Decide who might be harmed and how
- Evaluate the risks
- Evaluate existing controls
- The hierarchy of control
- HSE guidance
- Record your findings and implement them
- Review and update

Module 3: Health Risks and Controls During Welding and Cutting

This module explains the main requirements for controlling serious risks to health from welding gases and fumes. It also examines further health risks and controls associated with welding activities.

- Controlling welding fume exposure
- HSE Safety Alert
- Engineering controls and RPE
- Local exhaust ventilation (LEV)
- Design and use of LEV systems
- User manuals and logbooks
- Safety data sheets (SDSs)
- Hazard labelling and packaging
- Selection and use of RPE
- Personal protective equipment (PPE)
- Checking and maintaining LEV and RPE
- Noise exposure
- Vibration exposure
- Manual handling
- Health surveillance

Module 4: Safety Risks and Controls During Welding and Cutting

This module will detail further safety hazards associated with welding and hot work activities, as well as the best working practices to control them.

- Fire and smoke risks
- Hot work on tanks and drums
- Permit-to-work
- Compressed gasses
- Storage of compressed gas
- Welding in confined spaces
- Electrical hazards
- Duties on manufacturers, importers or distributors
- Stray welding currents
- Environmental hazards
- Safe use and maintenance of welding equipment
- Welding checks
- Eye protection
- Slips, trips and falls
- Training, communication and housekeeping
- Emergency procedures

Aims of the training

By the end of this course, learners will:

- Be aware of the health and safety hazards and controls for the most common types of welding and cutting.
- Understand the legal requirements for health and safety.
- Know what is required for a welding or cutting risk assessment.
- Understand how the risks to health and safety from welding and cutting are controlled and their role in this.