



*Training Course:
Welding in Occupational Hygiene*

*22 - 26 September 2025
Madrid (Spain)
Pestana CR7 Gran Vía*

Training Course: Welding in Occupational Hygiene

Training Course code: HE235883 From: 22 - 26 September 2025 Venue: Madrid (Spain) - Pestana CR7 Gran Vía Training Course Fees: 6000 € Euro

Introduction

Welding processes, while essential across industries, can pose significant occupational health risks due to the release of hazardous fumes, gases, radiation, and noise. Effective occupational hygiene practices are critical to ensure the safety and health of workers exposed to welding operations. The "Welding in Occupational Hygiene" training program, developed by Global Horizon Training Center, is designed to provide participants with the technical knowledge and practical skills to assess, monitor, and control occupational hazards associated with welding. This course integrates hygiene principles with real-world applications to improve workplace safety and regulatory compliance.

Objectives

By the end of this training program, participants will be able to:

- Understand the occupational health risks associated with various welding processes.
- Identify hazardous agents fumes, gases, radiation, noise generated during welding.
- Conduct exposure assessments and environmental monitoring in welding operations.
- Implement control measures in line with occupational hygiene principles.
- Apply relevant international standards and regulatory requirements.
- Develop safe work procedures and hygiene strategies for welding environments.
- Collaborate with safety and engineering teams to reduce exposure risks.

Organizational Impact

Organizations that implement this program can expect:

- Enhanced workplace safety and reduced health-related incidents.
- Improved compliance with international and national occupational health regulations.
- Strengthened capability in risk identification and exposure control.
- Reduced downtime and liability associated with welding-related illnesses.
- Increased confidence among employees working in welding environments.

- Development of a safety culture rooted in preventive hygiene practices.

Target Audience

This course is intended for:

- Occupational hygienists
- Health, Safety & Environment HSE professionals
- Welding supervisors and foremen
- Maintenance and fabrication managers
- Industrial safety engineers
- Safety officers and technicians
- Quality assurance personnel in fabrication industries
- Regulatory compliance officers

Outlines

Day 1: Fundamentals of Welding and Occupational Hazards

- Overview of welding processes MIG, TIG, arc, gas, etc.
- Key occupational hygiene principles
- Hazardous emissions from welding: fumes, gases, particulates
- Heat, light, and noise hazards

Day 2: Welding Fumes and Gases - Health Effects and Exposure

- Composition of welding fumes and gases
- Short- and long-term health effects: respiratory, neurological, and systemic impacts
- Specific hazardous substances e.g., manganese, hexavalent chromium, ozone
- Routes of exposure and dose-response concepts
- Exposure standards: OSHA, ACGIH, NIOSH, EU directives

Day 3: Monitoring Welding Environments

- Airborne contaminant sampling and monitoring strategies
- Real-time detection instruments and lab-based analysis
- Personal vs. area monitoring
- Noise and UV/IR radiation monitoring
- Documentation, recordkeeping, and interpretation of data

Day 4: Control Measures and Engineering Solutions

- Hierarchy of controls: elimination to PPE
- Engineering controls: local exhaust ventilation LEV, general ventilation
- Administrative controls and safe work practices
- Selection and use of respiratory protection and PPE
- Case study: Implementing controls in a manufacturing facility

Day 5: Program Implementation and Regulatory Compliance

- Developing and implementing welding hygiene programs
- Training and awareness for welding personnel
- Auditing and evaluating welding hygiene practices
- Regulatory frameworks: OSHA, ISO, EN, ILO
- Final workshop: Developing a welding hygiene control plan for a facility

Registration form on the Training Course: Welding in Occupational Hygiene

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Full Name (Mr / Ms / Dr / Eng):
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Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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