Occupational health and safety

Welding: Safety and Quality (Partner)

Two days so that welders and their supervisors reduce both the risks of welding and the defects in welds. On one side, fumes, radiation, electricity, gases and fire; on the other, preparation, parameters, typical defects and visual inspection. The course is run with a partner trainer who specialises in welding, in the workshop, on the processes and materials of your site.

Duration : 2 days

Objectives

1. Identify the risks of welding and cutting: fumes, radiation, electricity, gases, noise, fire
2. Apply prevention measures: fume extraction, screens, PPE, safety of cylinders and welding sets
3. Explain the influence of preparation and welding parameters on the quality of the joint
4. Recognise common defects and their causes: porosity, cracks, lack of fusion or penetration, undercut
5. Carry out a visual inspection and explain the role of procedures and welder qualification

Programme

Day 1 — morning

• Welding and cutting processes used on your site: coated electrode, MIG/MAG, TIG, oxyacetylene

• Welding fumes: composition depending on metals and coatings, health effects, extraction at source

• Radiation, spatter, noise: protecting the eyes, skin and people nearby

• Electrical risk at the welding station: cables, clamps, return current, wet or cramped environments

Day 1 — afternoon

• Gases: cylinders, regulators, flashback arrestors, storage and handling, flashbacks

• Fire prevention: hot work permit, preparing the area, fire watch after welding

• Welder’s personal protective equipment and organisation of the station

• Exercise: inspecting welding stations in your workshop

Day 2 — morning

• Preparing parts: cleaning, bevels, fit-up, tacking

• Parameters and their effects: current, voltage, speed, shielding gas, preheating depending on the materials

• Weld defects: description, causes, prevention

• Quality documents: welding procedure specification, qualification of procedures and welders

Day 2 — afternoon (workshop)

• Workshop: making and examining beads on the processes of your site

• Visual inspection of welds and acceptance criteria applicable to your products

• Welding tracking sheet and traceability

• Knowledge test and presentation

Teaching methods

• Course run with a partner trainer who specialises in welding, listed and rated on Inspirra

• Workshop exercises on your stations, materials and processes

• Visual examination of the welds made during the session and of defective samples

• Inspection of welding stations with a safety checklist

• Theoretical test and practical assessment

Assessment and documents

Theoretical test and practical assessment in the workshop, plus a day+1 learner feedback survey. Numbered training certificate, verifiable online, for each participant; training report given to the company with the station inspection findings.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

This course does not amount to welder qualification: that requires a test according to the standard applicable to your products. Welding outside the workshop, in production areas, also falls under “Hot Work and Flammable Liquids”.

Practical information

Duration	2 days
Audience	Welders, boilermaking and maintenance workshop supervisors, quality inspectors, HSE managers
Prerequisites	Welding practice for welders; no prerequisites for supervisors
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Does the course qualify welders?

No. Welder qualification is done by a test according to the standard applicable to your products, in front of an examiner or a competent body. The course helps welders and supervisors understand these requirements and reduce defects.

Why combine safety and quality?

Both depend on the same working conditions: a poorly lit, poorly ventilated or cluttered station produces both more exposure and more defects. Dealing with both together gives welders and their workshop supervisor a single improvement plan.

Which processes are covered?

Those you actually use. We ask you before the session for your processes, your materials and a few examples of parts or defects to prepare the workshop.

Who runs the course?

A partner trainer who specialises in welding, listed and rated on Inspirra. Afflatus prepares the session with you and handles the knowledge test, the day+1 learner feedback survey and the training report.