

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

Hazardous Area Classification

5 days | Classroom training | English

SMART HORIZON

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Course content

Why attend

Where flammable gases, vapours or dusts may be present, electrical and mechanical equipment can ignite explosive atmospheres. This course covers hazardous area classification, zones and gas groups, temperature classes, protection concepts for equipment, selection, installation, inspection and maintenance of equipment in hazardous areas.

Incorrect equipment in hazardous areas can cause explosions. You will learn how classification and protection work.

Professional Problems This Course Is Designed to Solve

• Difficulty translating subject knowledge into practical workplace decisions.
• Inconsistent approaches to the activities covered in the course outline.
• Lack of a structured plan for applying and reviewing new skills.

Course methodology

Classification exercises, equipment marking interpretation, inspection case studies and standards walkthroughs.

Course objectives

By the end of this course, participants will be able to:
• Explain explosive atmosphere hazards
• Classify hazardous areas into zones
• Understand gas groups and temperature classes
• Select equipment with suitable protection concepts
• Install equipment correctly
• Inspect and maintain hazardous area equipment

Target audience

This course is suitable for:
• Electrical and instrument engineers
• Maintenance technicians
• Process safety engineers
• Inspectors
• Project engineers



Course content

Target competencies

Participants will develop competencies in:

- Area classification
- Equipment selection
- Marking interpretation
- Inspection
- Compliance

Course outline

Day 1: Explosive Atmospheres

09:00–10:08	Fire triangle
10:08–11:00	Sources of release
11:00–11:30	**Coffee break**
11:30–11:45	Sources of release (continued)
11:45–12:53	Regulations
12:53–14:00	Exercise

Day 2: Classification

09:00–10:08	Zones
10:08–11:00	Extent of zones
11:00–11:30	**Coffee break**
11:30–11:45	Extent of zones (continued)
11:45–12:53	Documentation
12:53–14:00	Workshop

Day 3: Equipment Protection

09:00–10:08	Protection concepts
10:08–11:00	Gas groups
11:00–11:30	**Coffee break**



Course content

11:30–11:45	Gas groups (continued)
11:45–12:53	Temperature classes
12:53–14:00	Exercise

Day 4: Installation

09:00–10:08	Selection
10:08–11:00	Installation requirements
11:00–11:30	**Coffee break**
11:30–11:45	Installation requirements (continued)
11:45–12:53	Cable glands
12:53–14:00	Case study

Day 5: Inspection

09:00–10:08	Inspection types
10:08–11:00	Maintenance
11:00–11:30	**Coffee break**
11:30–11:45	Maintenance (continued)
11:45–12:53	Records
12:53–14:00	Action plan

The timings provided are estimates and may vary depending on the number of participants and the discussions taking place during the sessions. They are indicative only and do not constitute a binding commitment.



Course content

Dates, venues and fees

Current published course plans. Fees are per participant in EUR, excluding unconfirmed taxes.

Venue	Start date	End date	Fee (EUR)
Dubai Confirmed dates	9 Nov 2026	13 Nov 2026	**€6,300.-**
Online Confirmed dates	9 Nov 2026	13 Nov 2026	**€1,250.-**
Istanbul Confirmed dates	30 Nov 2026	4 Dec 2026	**€5,300.-**
Online Confirmed dates	30 Nov 2026	4 Dec 2026	**€1,250.-**
Rome Confirmed dates	4 Jan 2027	8 Jan 2027	**€4,900.-**
Online Confirmed dates	4 Jan 2027	8 Jan 2027	**€1,250.-**
Cape Town Confirmed dates	25 Jan 2027	29 Jan 2027	**€3,780.-**
Online Confirmed dates	25 Jan 2027	29 Jan 2027	**€1,250.-**
Barcelona Confirmed dates	15 Feb 2027	19 Feb 2027	**€5,680.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	15 Feb 2027	19 Feb 2027	**€1,250.–**
Frankfurt Confirmed dates	1 Mar 2027	5 Mar 2027	**€5,300.–**
Online Confirmed dates	1 Mar 2027	5 Mar 2027	**€1,250.–**
Barcelona Confirmed dates	22 Mar 2027	26 Mar 2027	**€5,680.–**
Online Confirmed dates	22 Mar 2027	26 Mar 2027	**€1,250.–**
Vienna Confirmed dates	12 Apr 2027	16 Apr 2027	**€5,880.–**
Online Confirmed dates	12 Apr 2027	16 Apr 2027	**€1,250.–**
London Confirmed dates	3 May 2027	7 May 2027	**€4,900.–**
Online Confirmed dates	3 May 2027	7 May 2027	**€1,250.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Dubai Confirmed dates	24 May 2027	28 May 2027	**€6,300.-**
Online Confirmed dates	24 May 2027	28 May 2027	**€1,250.-**
Cape Town Confirmed dates	7 Jun 2027	11 Jun 2027	**€3,780.-**
Online Confirmed dates	7 Jun 2027	11 Jun 2027	**€1,250.-**
Dubai Confirmed dates	28 Jun 2027	2 Jul 2027	**€6,300.-**
Online Confirmed dates	28 Jun 2027	2 Jul 2027	**€1,250.-**
London Confirmed dates	19 Jul 2027	23 Jul 2027	**€4,900.-**
Online Confirmed dates	19 Jul 2027	23 Jul 2027	**€1,250.-**
Rome Confirmed dates	9 Aug 2027	13 Aug 2027	**€4,900.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	9 Aug 2027	13 Aug 2027	**€1,250.-**
Kuala Lumpur Confirmed dates	30 Aug 2027	3 Sept 2027	**€2,900.-**
Online Confirmed dates	30 Aug 2027	3 Sept 2027	**€1,250.-**
Vienna Confirmed dates	13 Sept 2027	17 Sept 2027	**€5,880.-**
Online Confirmed dates	13 Sept 2027	17 Sept 2027	**€1,250.-**
Cape Town Confirmed dates	4 Oct 2027	8 Oct 2027	**€3,780.-**
Online Confirmed dates	4 Oct 2027	8 Oct 2027	**€1,250.-**
Amsterdam Confirmed dates	25 Oct 2027	29 Oct 2027	**€5,080.-**
Online Confirmed dates	25 Oct 2027	29 Oct 2027	**€1,250.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Paris Confirmed dates	15 Nov 2027	19 Nov 2027	**€5,720.-**
Online Confirmed dates	15 Nov 2027	19 Nov 2027	**€1,250.-**
Rome Confirmed dates	6 Dec 2027	10 Dec 2027	**€4,900.-**
Online Confirmed dates	6 Dec 2027	10 Dec 2027	**€1,250.-**

Plan your next step

Dates, availability, exact venue, taxes, inclusions and payment terms require written confirmation. This brochure is not a quotation, registration, booking confirmation or visa invitation. Participants receive a Smart Horizon certificate of attendance; programmes are not externally accredited and do not award a professional qualification or designation. Confirm arrangements before booking travel.

For group or in-house training, contact our learning team to discuss your objectives and delivery arrangements.

Contact Smart Horizon

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