

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

Steam Turbines Operation and Maintenance

5 days | Classroom training | English

SMART HORIZON

info@smart-horizon.eu
Amsterdam
The Netherlands

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Course content

Why attend

Steam turbines drive generators, compressors and pumps in power plants and industry. This course covers steam turbine principles and types, auxiliary systems, start-up and shutdown, monitoring and protection, vibration and performance issues, inspection and overhaul and maintenance planning.

Steam turbine failures are costly and dangerous. You will learn to operate and maintain them reliably.

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

Technical presentations, operating procedure reviews, failure case studies and maintenance planning workshops.

Course objectives

By the end of this course, participants will be able to:
- Explain steam turbine principles and types
- Understand auxiliary systems
- Apply safe start-up and shutdown procedures
- Monitor performance and protection systems
- Diagnose vibration and performance problems
- Plan inspections and overhauls

Target audience

This course is suitable for:
- Power plant engineers and operators
- Rotating equipment engineers
- Maintenance engineers
- Utility engineers
- Reliability engineers



Course content

Target competencies

Participants will develop competencies in:

- Turbine operation
- Monitoring
- Fault diagnosis
- Maintenance planning
- Safety

Course outline

Day 1: Steam Turbine Principles

09:00–10:08	Thermodynamics basics
10:08–11:00	Turbine types
11:00–11:30	**Coffee break**
11:30–11:45	Turbine types (continued)
11:45–12:53	Components
12:53–14:00	Exercise

Day 2: Auxiliary Systems

09:00–10:08	Lube oil
10:08–11:00	Gland sealing
11:00–11:30	**Coffee break**
11:30–11:45	Gland sealing (continued)
11:45–12:53	Governing systems
12:53–14:00	Workshop

Day 3: Operation

09:00–10:08	Start-up and shutdown
10:08–11:00	Protection and trips
11:00–11:30	**Coffee break**



Course content

11:30–11:45	Protection and trips (continued)
11:45–12:53	Operating limits
12:53–14:00	Exercise

Day 4: Problems

09:00–10:08	Vibration
10:08–11:00	Performance loss
11:00–11:30	**Coffee break**
11:30–11:45	Performance loss (continued)
11:45–12:53	Water induction
12:53–14:00	Case study

Day 5: Maintenance

09:00–10:08	Inspections
10:08–11:00	Overhauls
11:00–11:30	**Coffee break**
11:30–11:45	Overhauls (continued)
11:45–12:53	Planning
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)
London Confirmed dates	9 Nov 2026	13 Nov 2026	**€4,900.-**
Online Confirmed dates	9 Nov 2026	13 Nov 2026	**€1,250.-**
Dubai Confirmed dates	30 Nov 2026	4 Dec 2026	**€6,300.-**
Online Confirmed dates	30 Nov 2026	4 Dec 2026	**€1,250.-**
Frankfurt Confirmed dates	4 Jan 2027	8 Jan 2027	**€5,300.-**
Online Confirmed dates	4 Jan 2027	8 Jan 2027	**€1,250.-**
Dubai Confirmed dates	25 Jan 2027	29 Jan 2027	**€6,300.-**
Online Confirmed dates	25 Jan 2027	29 Jan 2027	**€1,250.-**
Cape Town Confirmed dates	15 Feb 2027	19 Feb 2027	**€3,780.-**



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.–**
Vienna Confirmed dates	1 Mar 2027	5 Mar 2027	**€5,880.–**
Online Confirmed dates	1 Mar 2027	5 Mar 2027	**€1,250.–**
Rome Confirmed dates	22 Mar 2027	26 Mar 2027	**€4,900.–**
Online Confirmed dates	22 Mar 2027	26 Mar 2027	**€1,250.–**
Amsterdam Confirmed dates	12 Apr 2027	16 Apr 2027	**€5,080.–**
Online Confirmed dates	12 Apr 2027	16 Apr 2027	**€1,250.–**
Barcelona Confirmed dates	3 May 2027	7 May 2027	**€5,680.–**
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)
Cape Town Confirmed dates	24 May 2027	28 May 2027	**€3,780.-**
Online Confirmed dates	24 May 2027	28 May 2027	**€1,250.-**
Barcelona Confirmed dates	7 Jun 2027	11 Jun 2027	**€5,680.-**
Online Confirmed dates	7 Jun 2027	11 Jun 2027	**€1,250.-**
Paris Confirmed dates	28 Jun 2027	2 Jul 2027	**€5,720.-**
Online Confirmed dates	28 Jun 2027	2 Jul 2027	**€1,250.-**
Dubai Confirmed dates	19 Jul 2027	23 Jul 2027	**€6,300.-**
Online Confirmed dates	19 Jul 2027	23 Jul 2027	**€1,250.-**
Cape Town Confirmed dates	9 Aug 2027	13 Aug 2027	**€3,780.-**



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.-**
London Confirmed dates	13 Sept 2027	17 Sept 2027	**€4,900.-**
Online Confirmed dates	13 Sept 2027	17 Sept 2027	**€1,250.-**
Rome Confirmed dates	4 Oct 2027	8 Oct 2027	**€4,900.-**
Online Confirmed dates	4 Oct 2027	8 Oct 2027	**€1,250.-**
Vienna Confirmed dates	25 Oct 2027	29 Oct 2027	**€5,880.-**
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)
Rome Confirmed dates	15 Nov 2027	19 Nov 2027	**€4,900.-**
Online Confirmed dates	15 Nov 2027	19 Nov 2027	**€1,250.-**
Istanbul Confirmed dates	6 Dec 2027	10 Dec 2027	**€5,300.-**
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

info@smart-horizon.eu
Amsterdam
The Netherlands

View the latest course details online