

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

Lubrication Management and Oil Analysis

5 days | Classroom training | English

SMART HORIZON

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Course content

Why attend

Poor lubrication is one of the most common causes of premature failure in rotating and mechanical equipment. This course provides a practical understanding of lubrication fundamentals, lubricant selection, storage and handling, contamination control, lubrication task planning and oil analysis. Participants learn to interpret oil analysis reports, use results to detect developing faults and build a lubrication programme that improves reliability and reduces maintenance cost.

Lubrication is often treated as a low-skill routine task, yet it has a major effect on equipment life. This course helps you build a world-class lubrication and oil analysis programme that extends asset life, reduces breakdowns and lowers lubricant consumption.

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

The course uses technical presentations, lubricant selection exercises, contamination control demonstrations, oil analysis report interpretation workshops and programme design activities.

Course objectives

By the end of this course, participants will be able to:
• Explain lubrication principles and lubricant properties
• Select appropriate lubricants for equipment and operating conditions
• Apply best practice in lubricant storage, handling and application
• Control contamination by particles, water and air
• Interpret oil analysis results and identify developing problems
• Design and implement a lubrication management programme

Target audience

This course is suitable for:
• Maintenance engineers and technicians
• Reliability engineers
• Lubrication technicians
• Maintenance planners and supervisors
• Plant and production engineers



Course content

Target competencies

Participants will develop competencies in:
- Lubrication fundamentals
- Lubricant selection
- Contamination control
- Oil sampling
- Oil analysis interpretation
- Lubrication programme management

Course outline

Day 1: Lubrication Fundamentals

09:00–09:54	Friction, wear and lubrication regimes
09:54–10:48	Lubricant types: oils and greases
10:48–11:00	Viscosity and other key properties
11:00–11:30	**Coffee break**
11:30–12:12	Viscosity and other key properties (continued)
12:12–13:06	Additives and their functions
13:06–14:00	Exercise: Identifying lubrication-related failures

Day 2: Lubricant Selection and Application

09:00–09:54	Selecting lubricants for bearings, gears and hydraulics
09:54–10:48	Consolidating lubricants
10:48–11:00	Application methods and quantities
11:00–11:30	**Coffee break**
11:30–12:12	Application methods and quantities (continued)
12:12–13:06	Lubrication schedules and routes
13:06–14:00	Workshop: Lubricant selection for plant equipment



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Day 3: Storage, Handling and Contamination Control

09:00–09:54	Lubricant storage and dispensing
09:54–10:48	Particle, water and air contamination
10:48–11:00	Filtration and breathers
11:00–11:30	**Coffee break**
11:30–12:12	Filtration and breathers (continued)
12:12–13:06	Cleanliness targets
13:06–14:00	Demonstration: Contamination control equipment

Day 4: Oil Sampling and Analysis

09:00–09:54	Sampling points and procedures
09:54–10:48	Oil analysis tests and what they show
10:48–11:00	Wear debris analysis
11:00–11:30	**Coffee break**
11:30–12:12	Wear debris analysis (continued)
12:12–13:06	Setting alarm limits
13:06–14:00	Workshop: Interpreting oil analysis reports

Day 5: Building a Lubrication Programme

09:00–09:54	Programme assessment and benchmarking
09:54–10:48	Roles, skills and training
10:48–11:00	Integration with the CMMS and condition monitoring
11:00–11:30	**Coffee break**
11:30–12:12	Integration with the CMMS and condition monitoring (continued)
12:12–13:06	Measuring benefits
13:06–14:00	Capstone: Lubrication improvement plan

The timings provided are estimates and may vary depending on the number of participants and the discussions taking place during the



Course content

sessions. They are indicative only and do not constitute a binding commitment.

Dates, venues and fees

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

Venue	Start date	End date	Fee (EUR)
Singapore Confirmed dates	16 Nov 2026	20 Nov 2026	**€5,640.–**
Online Confirmed dates	16 Nov 2026	20 Nov 2026	**€1,250.–**
London Confirmed dates	7 Dec 2026	11 Dec 2026	**€4,900.–**
Online Confirmed dates	7 Dec 2026	11 Dec 2026	**€1,250.–**
Dubai Confirmed dates	14 Dec 2026	18 Dec 2026	**€6,300.–**
Online Confirmed dates	14 Dec 2026	18 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.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Kuala Lumpur Confirmed dates	18 Jan 2027	22 Jan 2027	**€2,900.–**
Online Confirmed dates	18 Jan 2027	22 Jan 2027	**€1,250.–**
Rome Confirmed dates	25 Jan 2027	29 Jan 2027	**€4,900.–**
Online Confirmed dates	25 Jan 2027	29 Jan 2027	**€1,250.–**
Paris Confirmed dates	1 Feb 2027	5 Feb 2027	**€5,720.–**
Online Confirmed dates	1 Feb 2027	5 Feb 2027	**€1,250.–**
Istanbul Confirmed dates	15 Feb 2027	19 Feb 2027	**€5,300.–**
Online Confirmed dates	15 Feb 2027	19 Feb 2027	**€1,250.–**
Amsterdam Confirmed dates	1 Mar 2027	5 Mar 2027	**€5,080.–**



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Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	1 Mar 2027	5 Mar 2027	**€1,250.–**
Singapore Confirmed dates	15 Mar 2027	19 Mar 2027	**€5,640.–**
Online Confirmed dates	15 Mar 2027	19 Mar 2027	**€1,250.–**
Rome Confirmed dates	29 Mar 2027	2 Apr 2027	**€4,900.–**
Online Confirmed dates	29 Mar 2027	2 Apr 2027	**€1,250.–**
London Confirmed dates	5 Apr 2027	9 Apr 2027	**€4,900.–**
Online Confirmed dates	5 Apr 2027	9 Apr 2027	**€1,250.–**
Dubai Confirmed dates	19 Apr 2027	23 Apr 2027	**€6,300.–**
Online Confirmed dates	19 Apr 2027	23 Apr 2027	**€1,250.–**



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Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Frankfurt Confirmed dates	3 May 2027	7 May 2027	**€5,300.–**
Online Confirmed dates	3 May 2027	7 May 2027	**€1,250.–**
Kuala Lumpur Confirmed dates	17 May 2027	21 May 2027	**€2,900.–**
Online Confirmed dates	17 May 2027	21 May 2027	**€1,250.–**
Cape Town Confirmed dates	31 May 2027	4 Jun 2027	**€3,780.–**
Online Confirmed dates	31 May 2027	4 Jun 2027	**€1,250.–**
Paris Confirmed dates	7 Jun 2027	11 Jun 2027	**€5,720.–**
Online Confirmed dates	7 Jun 2027	11 Jun 2027	**€1,250.–**
Istanbul Confirmed dates	21 Jun 2027	25 Jun 2027	**€5,300.–**



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Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	21 Jun 2027	25 Jun 2027	**€1,250.-**
Amsterdam Confirmed dates	5 Jul 2027	9 Jul 2027	**€5,080.-**
Online Confirmed dates	5 Jul 2027	9 Jul 2027	**€1,250.-**
Singapore Confirmed dates	19 Jul 2027	23 Jul 2027	**€5,640.-**
Online Confirmed dates	19 Jul 2027	23 Jul 2027	**€1,250.-**
Cape Town Confirmed dates	26 Jul 2027	30 Jul 2027	**€3,780.-**
Online Confirmed dates	26 Jul 2027	30 Jul 2027	**€1,250.-**
London Confirmed dates	2 Aug 2027	6 Aug 2027	**€4,900.-**
Online Confirmed dates	2 Aug 2027	6 Aug 2027	**€1,250.-**



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Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Dubai Confirmed dates	16 Aug 2027	20 Aug 2027	**€6,300.-**
Online Confirmed dates	16 Aug 2027	20 Aug 2027	**€1,250.-**
Frankfurt Confirmed dates	6 Sept 2027	10 Sept 2027	**€5,300.-**
Online Confirmed dates	6 Sept 2027	10 Sept 2027	**€1,250.-**
Kuala Lumpur Confirmed dates	20 Sept 2027	24 Sept 2027	**€2,900.-**
Online Confirmed dates	20 Sept 2027	24 Sept 2027	**€1,250.-**
Barcelona Confirmed dates	27 Sept 2027	1 Oct 2027	**€5,680.-**
Online Confirmed dates	27 Sept 2027	1 Oct 2027	**€1,250.-**
Paris Confirmed dates	4 Oct 2027	8 Oct 2027	**€5,720.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	4 Oct 2027	8 Oct 2027	**€1,250.–**
Istanbul Confirmed dates	18 Oct 2027	22 Oct 2027	**€5,300.–**
Online Confirmed dates	18 Oct 2027	22 Oct 2027	**€1,250.–**
Amsterdam Confirmed dates	1 Nov 2027	5 Nov 2027	**€5,080.–**
Online Confirmed dates	1 Nov 2027	5 Nov 2027	**€1,250.–**
Singapore Confirmed dates	15 Nov 2027	19 Nov 2027	**€5,640.–**
Online Confirmed dates	15 Nov 2027	19 Nov 2027	**€1,250.–**
Vienna Confirmed dates	29 Nov 2027	3 Dec 2027	**€5,880.–**
Online Confirmed dates	29 Nov 2027	3 Dec 2027	**€1,250.–**



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Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
London Confirmed dates	6 Dec 2027	10 Dec 2027	**€4,900.-**
Online Confirmed dates	6 Dec 2027	10 Dec 2027	**€1,250.-**
Dubai Confirmed dates	13 Dec 2027	17 Dec 2027	**€6,300.-**
Online Confirmed dates	13 Dec 2027	17 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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View the latest course details online