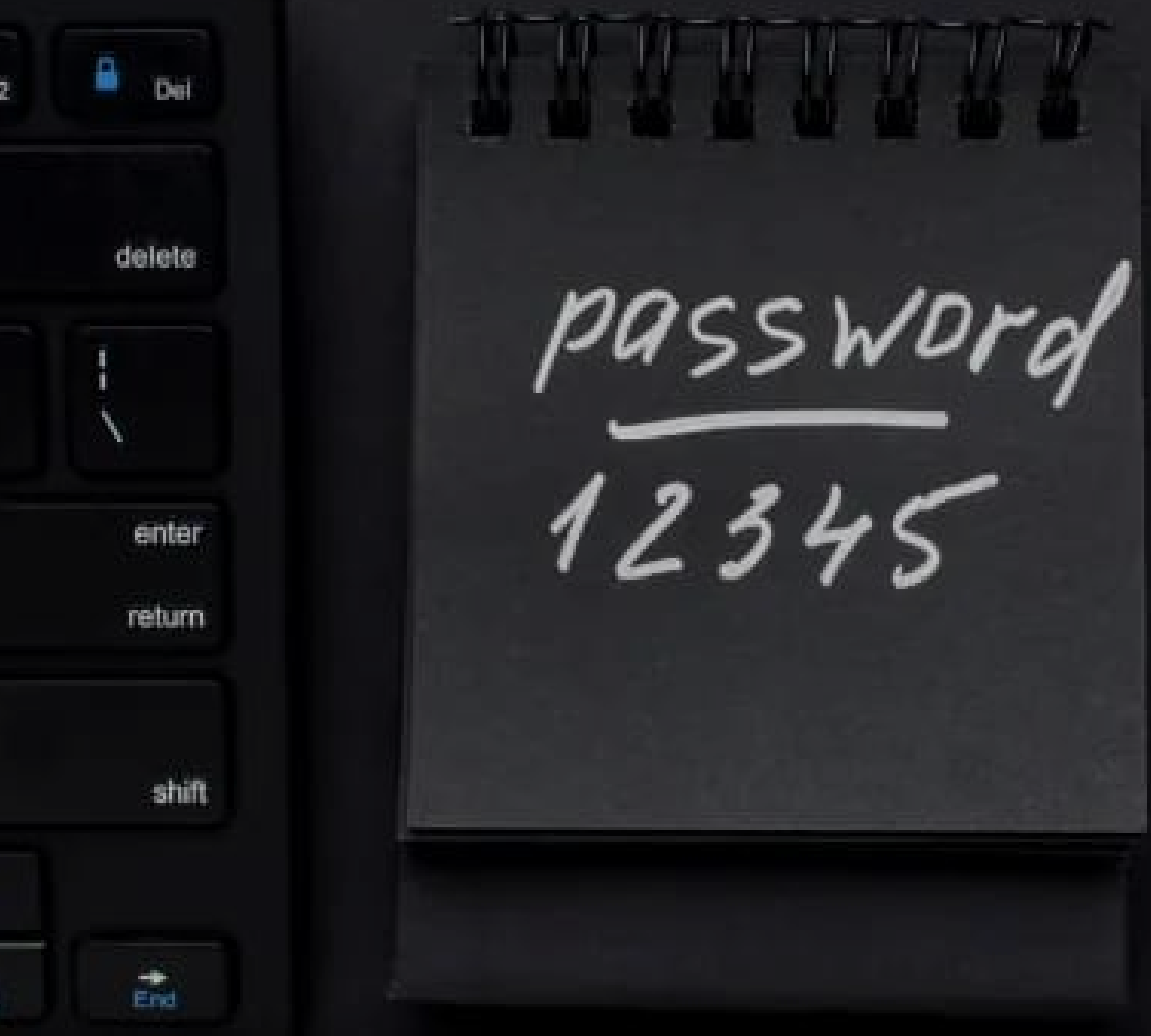




MAINTENANCE AND ENGINEERING | ME-032

Industrial Refrigeration Systems

Contact

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Address

Waarderweg 50, 2031PB Haarlem - Netherlands.

Course content

Why Attend

Industrial refrigeration is essential in food processing, cold storage, chemicals and pharmaceuticals. These systems are energy-intensive and, with ammonia or other refrigerants, carry safety and environmental risks.

This Aractech course covers refrigeration cycles, refrigerants including ammonia and natural refrigerants, compressors, evaporators and condensers, controls, energy efficiency, safety, maintenance and troubleshooting. Participants analyse system performance and plan maintenance.

Course Methodology

- Technical lectures
- Cycle calculations
- Case studies
- Troubleshooting exercises
- Group discussions

Course Objectives

- Explain refrigeration cycles and thermodynamics
- Understand refrigerants and regulations
- Describe compressors, evaporators and condensers
- Operate controls efficiently
- Improve energy efficiency
- Maintain and troubleshoot systems safely

Target Audience

- Refrigeration technicians
- Facilities and utility engineers

Course content

- Maintenance managers
- Cold storage managers

Course outline

Detailed course outline

Day-by-day outline for Industrial Refrigeration Systems.

Day 1 - Refrigeration Fundamentals

- 09:00-09:45 | Refrigeration cycle
- 09:45-10:30 | Thermodynamics
- 10:30-11:00 | Pressure-enthalpy diagrams
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Pressure-enthalpy diagrams (continued)
- 11:45-12:30 | Applications
- 12:30-14:00 | Lab: Cycle analysis

Day 2 - Refrigerants

- 09:00-09:54 | Refrigerant types
- 09:54-10:48 | Ammonia
- 10:48-11:00 | Natural refrigerants
- 11:00-11:30 | Coffee break
- 11:30-12:12 | Natural refrigerants (continued)
- 12:12-13:06 | Regulations
- 13:06-14:00 | Safety

Course outline

Detailed course outline

Day-by-day outline for Industrial Refrigeration Systems.

Day 3 - Components

- 09:00-09:54 | Compressors
- 09:54-10:48 | Evaporators
- 10:48-11:00 | Condensers
- 11:00-11:30 | Coffee break
- 11:30-12:12 | Condensers (continued)
- 12:12-13:06 | Expansion devices
- 13:06-14:00 | Controls

Day 4 - Efficiency

- 09:00-09:45 | Energy use
- 09:45-10:30 | Optimisation
- 10:30-11:00 | Heat recovery
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Heat recovery (continued)
- 11:45-12:30 | Monitoring
- 12:30-14:00 | Case study: Efficiency improvement

Course outline

Detailed course outline

Day-by-day outline for Industrial Refrigeration Systems.

Day 5 - Maintenance and Safety

- 09:00-09:54 | Maintenance tasks
- 09:54-10:48 | Leak detection
- 10:48-11:00 | Troubleshooting
- 11:00-11:30 | Coffee break
- 11:30-12:12 | Troubleshooting (continued)
- 12:12-13:06 | Emergency procedures
- 13:06-14:00 | Capstone: Maintenance and safety plan

Seminar dates

Available seminar dates

Live dates and pricing for Industrial Refrigeration Systems generated from the course details page.

Date	Location	Format	Fee
9 - 13 November 2026	London	Classroom	€2,315
14 - 18 December 2026	Munich	Classroom	€3,225
18 - 22 January 2027	Barcelona	Classroom	€2,815
15 - 19 February 2027	Frankfurt	Classroom	€1,875
15 - 19 March 2027	Rome	Classroom	€3,460
19 - 23 April 2027	Kuala Lumpur	Classroom	€1,925
17 - 21 May 2027	Barcelona	Classroom	€2,815
21 - 25 June 2027	London	Classroom	€2,315
19 - 23 July 2027	Geneva	Classroom	€4,315
16 - 20 August 2027	Barcelona	Classroom	€2,815

Seminar dates

Available seminar dates

Live dates and pricing for Industrial Refrigeration Systems generated from the course details page.

Date	Location	Format	Fee
20 - 24 September 2027	Frankfurt	Classroom	€1,875
18 - 22 October 2027	Rome	Classroom	€3,460
15 - 19 November 2027	Kuala lumpur	Classroom	€1,925
20 - 24 December 2027	Barcelona	Classroom	€2,815
9 - 13 November 2026	Online / Live	Online / Live	€1,815
14 - 18 December 2026	Online / Live	Online / Live	€1,815
18 - 22 January 2027	Online / Live	Online / Live	€1,815
15 - 19 February 2027	Online / Live	Online / Live	€1,815
15 - 19 March 2027	Online / Live	Online / Live	€1,815
19 - 23 April 2027	Online / Live	Online / Live	€1,815

Seminar dates

Available seminar dates

Live dates and pricing for Industrial Refrigeration Systems generated from the course details page.

Date	Location	Format	Fee
17 - 21 May 2027	Online / Live	Online / Live	€1,815
21 - 25 June 2027	Online / Live	Online / Live	€1,815
19 - 23 July 2027	Online / Live	Online / Live	€1,815
16 - 20 August 2027	Online / Live	Online / Live	€1,815
20 - 24 September 2027	Online / Live	Online / Live	€1,815
18 - 22 October 2027	Online / Live	Online / Live	€1,815
15 - 19 November 2027	Online / Live	Online / Live	€1,815
20 - 24 December 2027	Online / Live	Online / Live	€1,815