

TRAINING TITLE

INSTRUMENT AND UTILITY AIR COMPRESSOR OPERATION AND MAINTENANCE

Training Duration

5 day

Training Venue and Dates

Ref. No. ME193	Instrument and utility Air Compressor operation and Maintenance	5	04-08 Aug. 2025	\$5,500	DUBAI, UAE
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

- **\$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch**

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION

This course is designed to introduce the participants to the various compressor terminologies frequently used, the various types of compressors used, the various parts and to some basic design.

The overall objective is to give the participants a functional knowledge of basic compressor theory.

TRAINING OBJECTIVES

This training program is designed to provide an understanding of engineering related problems related to industry globally and a clear sense of what is required to effectively structure, establish measurements and solve problems. Participants will learn the goals and deliverables behind the solutions. Methodology as well as the most commonly used tools within each phase will be discussed. Participants will also learn how to support a problem solving initiative within their organization.

WHO SHOULD ATTEND?

Manufacturing, process, executives, managers, maintenance personnel, operation managers etc.

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TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

COURSE PROGRAM:

Module 1 : Will the Stand-By Air Compressors Start-Up?

- Initial Investigation
- Detailed Investigation
- Problem Identification
- Solutions
- Lessons Learnt

Module 2 : Sequencing Control

- Why is measuring flow important to measure demand?
- What is wrong with using pressure to calculate flow?
- Does the SC work with any type of air compressor?
- The SC interface to each air compressor
- SC's software
- Remote monitoring capabilities

Module 3 : Compressed Air Controls for Industry – Problem and Solutions

- Controls and System Performance
- Individual Compressor Control Strategies
- Multiple Compressor Control
- Multiple Compressor Control with VSD

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Module 4 : Compressor Sequencer: Problems and Solutions for Industrial Applications

- Introduction to Sequencers
- Cascade Sequencers
- Target Sequencer
- Custom Sequencers
- Common Sequencer Problems
- Problems Unique to “Vendor Sequencers
- Problems Unique to “Third-party Sequencers”
- How to Select, Install, Operate & Maintain a Sequencer Correctly

Module 5: Automating & Monitoring Your Compressed Air System: Problems and Solution for Industrial Applications

- Managing Multiple Compressors for Maximum Energy Efficiency
- Monitoring your compressed air system made easy
- Maintaining efficiency and energy cost savings

Module 6 : Environmentally Considerate Compressor Fluids

- Why do compressors need fluids?
- Base stocks commonly used in compressor fluids
- Study of Biodegradability

Module 7 : Evaluating Central Compressed Air Management Systems

- Cascade Control Settings
- Case Study
- Operating Sequence
- Results of Continuous Monitoring
- Design Faults
- Recommendations

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Module 8 : Easy-to-Implement Master Control and Monitoring Systems

- Compressor Controls
- The Key Performance Indicator (KPI): kW/100 cfm
- Factories Should Use kW/100 cfm as a Key Performance Indicator
- Accumulated Intelligence makes it Easy to Save
- Control Strategies
- Data Collection

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- Communicating the Data

Module 9: Partially-Loaded Air Compressors in Industry

- Step #1: Measure energy costs of air compressors
- Step #2: Manage Compressed Air Demand Events
- Step #3: Identify Inappropriate Uses of Compressed Air

NOTE:

Pre-& Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will be carried out.



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