

Training - Equipment Basic Maintenance



EBM-EN-P



Face-to-face only



5 days

To provide in-depth knowledge related to the equipment technology and maintenance

Level

Knowledge

Public

Engineers from various disciplines: process, maintenance, operation, mechanical, inspection, HSE and supervisors

Objectives

Attendees will be able to implement the following skills:

- Recognize basics of the technologies of rotating machinery and static equipment installed on plants
- Describe the operating principle of this equipment
- List the basic maintenance practices, and reliability criteria

Pedagogical & technical resources

- Sharing of participants' best practices
- Numerous exercises
- Applications and case studies
- Visit of running plant or workshop if available

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsible

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

BASICS IN STATIC EQUIPMENT

1.5 days

Different types of piping valves and flanges types, valve types, safety valves and rupture discs, standards main failure modes and repairs

Distillation columns: operating principle; technology, fundamentals.

Different types of heat exchangers and vessels: technology, selection criteria.

Furnaces and boilers: operating principle; technology, control and safety features.

Tanks: different types of storage tanks: fixed and floating roof, etc.
Case studies, exercises and applications.

ROTATING EQUIPMENT

2.5 days

Centrifugal and positive displacement pumps: types, technology and selection criteria.
Centrifugal and positive displacement compressors: types, technology and selection criteria; operation.
Steam turbines and gas turbines: types, technology; operation and maintenance.
Basic machinery reliability, maintenance and troubleshooting.
Auxiliaries, lubrication and maintenance of rotating equipment.
Risks and failures dealing with these types of rotating equipment.
Preventive and corrective maintenance.
Vendor recommendations vs. operating constraints.
Case studies, exercises and applications.

MAINTENANCE GENERAL PRACTICES

1 day

Types of maintenance: preventive, corrective, condition-based.
Fundamentals of reliability analysis and improvement methods: FMECA: failure modes, effects and their criticality analysis, failure trees, Reliability Centered Maintenance (RCM).
How to use Key Performance Indicators to measure, evaluate and enhance equipment performances.

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com