



Training program on Pumps, Air Compressors and Industrial Plant Machinery Operation, Maintenance and Condition monitoring

Training Program Objective and Description:

The objective of this program is to provide the participants with latest operation & maintenance strategy for Pump, Compressor & Plant machinery. Maintenance time can be reduced by adopting new techniques and methods including some Predictive maintenance techniques and condition monitoring tools. Knowing in and out will do help in understanding and predicting faults. It will also help in planning O&M activities.

Learning Outcomes:

Identification of the condition of the Pump, Compressor & Plant machinery (plant equipment), Reduction of breakdown time, predictive maintenance implementation, extending the life of the equipment's, improving the whole plant efficiency.

Who Should Attend?

Practicing engineers of all levels, GETs & DETs with Electrical, Electronics, Instrumentation, Mechanical, Production background.

Program Contents:

Module 1:

Pumps - Operation and Maintenance:

- ❖ Pumps - Principles And Characteristics
- ❖ Pump Details and Materials
- ❖ Selection of Pumps
- ❖ Routine Maintenance of centrifugal Pumps
- ❖ Pumps - Operation , Maintenance and Trouble Shooting
- ❖ Energy Saving in Centrifugal Pumps
- ❖ Pump shaft Couplings – Types and Method of Alignment

Module 2:

- ❖ Type of Lubricants & Selection of Lubricant
- ❖ Handling, Storage and Application of lubricants
- ❖ Bearing Lubrication & Method of Applying Lubricants.

Module 3: Bearings-

Types, Selection & its fitting and Failure Analysis
Antifriction Bearings- Types



Centre For Industrial Solutions and Advanced Training

AN ISO 9001:2015 CERTIFIED

(Technical- Electrical/Mechanical/Automation/Chemical, Behavioral & Soft Skill, Safety, Business Excellence, Safety & Energy Audit)

“A complete Training Solution Under One roof”

Care in Bearings fitting and dismounting
Bearing Failure Analysis

Module 4: Gears & Gear Boxes

- ❖ Type of Gears
- ❖ Gear Teeth Construction Details
- ❖ Gears Failure

Module 5: Air compressors & Blowers –Operation and Maintenance

- ❖ Selection and Application of Air Compressors
Reciprocating Air Compressor
Screw Compressors
- ❖ Centrifugal Air Compressor; Overview of API 610 and API 674

Module 6: Air Compressors

- ❖ Maintenance of Air Compressors
- ❖ Compressed Air System and Compressor Efficiency
Air Dryers
Energy Conservation and How to save energy?
- ❖ Review and Feed back
- ❖ Final Quiz, Assessment, Feedback,

Prerequisite:

Basic knowledge of Mechanical Engineering and experience in maintenance will be helpful.

Delivery Methodology:

- Introduction and Objective Setting
- Pre and Post Test,
- Knowledge Presentations,
- Assignments & Exercise,
- Case Study & Learning through Animations.
- Feedback and Assessment
- Discussion and Interaction.
- Delivery 9:30 AM to 17:00 PM including lunch/Tea breaks.

About CISAT: Centre for Industrial Solutions and Advanced Training is an ISO 9001:2015 certified Training Provider Company managed by professionals with rich Industry and training experience. Company involves in professional trainings and been providing training on various topics of Industry interest through various experts associated. More details are available on www.cisat.co.in. or can call to Vikas on 7709012815.

Trainer: Trainers have Industrial work experience of more than 30 Years.

Web: www.cisat.co.in; Email: cisat.nagpur@gmail.com; vikas@cisat.co.in; Contact: +91- 7709012815.

(Your partner for Industrial solution & Empowerment of Human Capital)