

€ TRAINING

Machine Lubricant Analysis II





Machine Lubricant Analysis II

Introduction:

This training program provides participants with advanced knowledge and practical skills essential for analyzing machine lubricants. It empowers them to enhance equipment reliability, extend machinery life, and improve maintenance strategies.

Program Objectives:

At the end of this program, participants will be able to:

- Understand advanced principles of machine lubricant analysis.
- Develop skills in conducting detailed lubricant tests and analyses.
- Learn techniques for interpreting lubricant analysis results.
- Gain insights into industry standards and best practices for lubricant management.
- Enhance capabilities in optimizing machinery performance through effective lubrication practices.

Targeted Audience:

- Maintenance Engineers.
- Reliability Engineers.
- Lubrication Technicians.
- Condition Monitoring Specialists.
- Mechanical Engineers.
- Plant Managers.

Program Outline:

Unit 1:

Advanced Principles of Lubricant Analysis:

- Overview of machine lubricant analysis and its importance.
- Key concepts and terminologies in advanced lubricant analysis.

- Roles and responsibilities of professionals conducting lubricant analysis.
- Advanced properties and characteristics of lubricants.
- Case studies on the impact of lubricant analysis on machinery performance.

Unit 2:

Conducting Detailed Lubricant Tests and Analyses:

- Techniques for sampling and testing lubricants.
- Advanced methods for analyzing lubricant viscosity, contamination, and wear particles.
- Using spectroscopic and chromatographic techniques for lubricant analysis.
- Evaluating lubricant degradation and oxidation.
- Exercises on conducting detailed lubricant tests.

Unit 3:

Interpreting Lubricant Analysis Results:

- Techniques for interpreting results from lubricant tests.
- Identifying and diagnosing common lubricant-related issues.
- Correlating lubricant analysis results with machine conditions.
- Predictive maintenance using lubricant analysis data.
- Case studies on interpreting lubricant analysis results for decision-making.

Unit 4:

Industry Standards and Best Practices:

- Overview of relevant industry standards ASTM, ISO.
- Understanding regulatory requirements for lubricant analysis.
- Implementing best practices for effective lubricant management.
- Documenting and reporting lubricant analysis findings.

Unit 5:



Optimizing Machinery Performance Through Lubrication:

- Best practices for selecting and managing lubricants.
- Developing and implementing lubrication schedules and programs.
- Techniques for improving equipment reliability through effective lubrication.
- Monitoring and adjusting lubrication practices based on analysis results.
- Real-world examples of optimizing machinery performance through lubrication.