Integrated Condition Monitoring: Vibration Analysis Level I

Introduction

Partnered with Rockwell Automation, This course presents the fundamental information necessary to implement and operate a successful predictive maintenance program. Vibration basics and the relationship between vibration and machinery condition are reviewed. Proven techniques for specifying meaningful overall and spectrum band alarm limits for a wide variety of machinery are presented. Case histories are used extensively throughout the course to emphasize the practical application of the material.

Prerequisite

Integrated Condition Monitoring: Vibration Analysis Fundamentals

Duration

3 Days

Program Designed For

Mechanics, technicians, engineers or analysts involved in the maintenance or operation of plant machinery should attend this course. This course also covers the prerequisite knowledge needed to attend and be successful in the Vibration Analysis: Level II course (Course No. EKICM261)

Student Materials

- Provided Student Manual – key concepts, definitions and examples of the course including;
  - Spectral Alarm Settings
  - Illustrated Vibration Diagnostic Chart
  - Real-World Case Histories

Minimum Pax

6 Pax

Course Content

Day 1

- Characteristics of Vibration
- Relating Time Waveform and Vibration Frequency
- Review of Severity Charts
- Digital vs. Analog Overall
- Vibration Measurement

Day 2

- Vibration Transducer Overview and Selection Criteria
- Role of Spike Energy, HFD and Shock Pulse and Alarm Levels
- Vibration Signature Analysis to Diagnose Machine Problems

Day 3

- How to Track Rolling Element Bearing Health
- Proven Methods for Specifying Spectral Alarm Band Levels and Frequencies
- Common Pitfalls in Everyday Vibration Measurements