

Vibration Analysis



Description

This course is designed to introduce the skilled tradesmen to the field of vibration analysis, helping them to understand practical solutions to machinery and maintenance vibration problems. The course begins at an entry level and progresses through troubleshooting and understanding of the world of vibration. This class is an excellent entry level course for the skilled tradesmen and is recommended for all trades. A must for apprentices and journeymen.

Outline

- Basic Understanding of the Vibration Signal
- Determining the Phase of a Vibration
- Understanding Resonance
- Natural Frequency Exp: 1st Critical
- Bump Tests
- Dynamic Absorbers
- Basic Understanding of Various Dynamic Unbalanced Forces
- Unbalance in Couplings
- Vibration Frequencies
- Harmonics
- Machinery Alignment
- Machinery Soft Foot
- Misalignment Vibration
- Evaluating Harmonics
- Vibration in Bearings
- Fluid Flow/Vibrations
- Gear Mesh/Vibrations
- Most Usual Reasons for Vibration

Prerequisites

There are no prerequisites required for this course other than an interest in vibration analysis and a willingness to participate in an instructor led hands-on classroom environment.

Course Length

36 hours/ Up to 12 participants.

Performance Objectives

At the completion of this course the participant will be able to:

- Demonstrate a thorough knowledge of vibration analysis.
- Successfully troubleshoot a machinery vibration.
- Understand the cause of a vibration.
- Properly correct the source of the vibration.
- Practice predictive and preventative maintenance.