

# Vibration Analysis Training

## Vibration Analysis – Course Description

The following course descriptions provide detail on the learning objectives and content of the workshops conducted by Timken Reliability Consulting. These workshops are based on courses developed by the Mobius Institute in accordance with ISO 18436.2:2002 and in accordance with American Society for Nondestructive Testing (ASNT) “Recommended Training for Level I and Level II Vibration Analysis” per ASNT SNT-TC-1A recommended practice and the applicable Mobius Institute written practice.

Attendees of the Timken Vibration Analysis workshops may choose to simply attend the workshop or for an additional fee they may take their ASNT certification exam following completion of the course.

### Vibration Analysis – Level I (3.5 days)

The Vibration Technician “Entry Level” course is intended for personnel who are new to vibration monitoring and analysis, and for personnel who have limited vibration analysis experience. The course focuses on periodic, single channel data collection and analysis for condition based maintenance programs. A foundation

is established for in-depth understanding of spectrum and waveform relationships.

You will come away from this course with a very good understanding of the fundamentals; you will understand how to take good measurements (and understand the importance of repeatability); and you will be ready to begin analyzing vibration spectra.

### Vibration Analysis – Level II (4.5 days)

The Vibration Analyst “Intermediate” course is intended for personnel who have at least twelve months vibration analysis experience and a thorough understanding of vibration theory and terminology. The course provides an in-depth study of machinery faults and their associated spectrum, time waveform and phase characteristics. Additional topics covered include: signal processing, data collection, and corrective actions.

You will come away with a very good understanding of the fundamentals; you will understand the meaning of all of the measurement options on your data collector; you will understand the difference between the sensors types, and know how and where to mount them; and you will feel comfortable analyzing vibration spectra, time waveforms, envelope data, and phase data.

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