

# Applied diagnostics workshop

This workshop is a very practical continuation of the Machinery Diagnostics course.

Participants will review different rotating machine types and components commonly encountered in industry—and review the characteristics of design and construction that influence behavior and typical malfunctions associated.

This course helps new machinery diagnosticians gain knowledge and confidence. Experienced diagnosticians gain additional insight needed to efficiently solve complex machinery problems. Participants will besides practicing their diagnostics skills on real machine data from the field also become more proficient in using the System 1\* or ADRE systems.

## Objectives

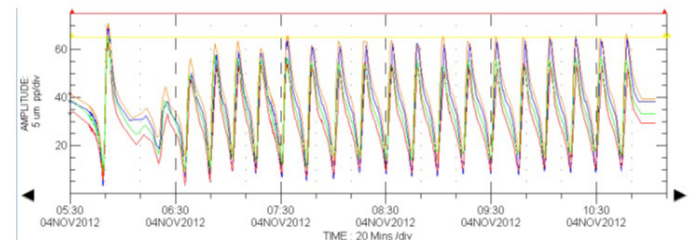
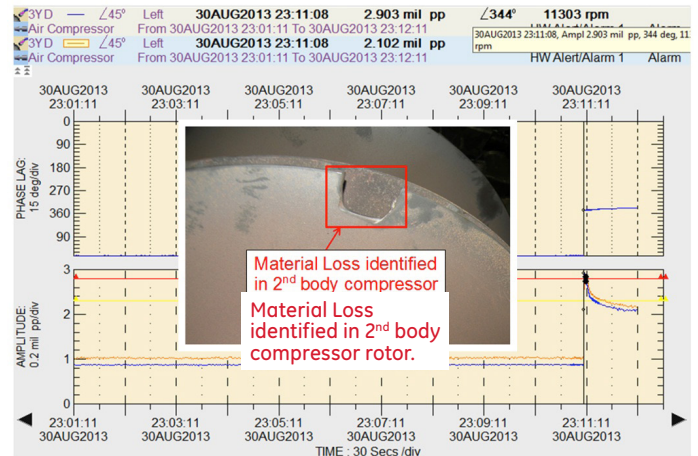
Upon completion of the course, students will be able to:

- Analyze actual machine case histories using System 1 or ADRE databases.
- Organize data in plot formats believed to be indicative of the machinery fault.
- Present their conclusions and make recommendations to resolve the problem.
  - This will be verified by the confirmed case solution.

## Machinery topics and cases include:

- Steam turbines
- Gas turbines
- Motors
- Centrifugal compressors
- Generators
- Exciters
- Gear boxes
- Pumps
- Fans

**The following malfunctions will also be covered:** Unbalance, lose parts, preload and misalignment, instability, shaft crack, rub, thermal unbalance, coupling lockup, ESD and other issues.



**Course length:** 5 Days

**Materials provided:** Training Manual and Lab Stations with all hardware.

**Prerequisite:** Machinery Diagnostics course. We strongly recommend that all participants have taken this Machinery Diagnostics course within the last 5 years. Without this prerequisite participants will not get the expected return on their investment.