

Learn the best of Bently Nevada technology and machinery expertise to protect and manage your rotating machinery and other production equipment. With ARMS training, develop your knowledge and skills on reliability.



## **TECHNICAL & FIELD EXPERTISE**

With 60 years of field experience and 40 years of technical training, Bently Nevada instructors have a deep knowledge on product operation and maintenance, and asset condition monitoring. This combined with proven teaching skills and a commitment to knowledge transfer, ensures a positive learning experience for your



## **HANDS-ON WORKSHOP**

Workshops, with real cases analysis on all rotating equipment covering multiple industries and equipment types, include practice with 'live' monitors and racks to guarantee operational excellence and to ensure trainings combine theory and practice. Class sizes are kept small ensuring you get the most out of training.



## **CUSTOMIZABLE CURRICULUM**

With 24 modules in different languages, you will find the courses adapted to you or your team's role and experience (operators, managers, engineers...). A training curriculum can be developed, including needs and gap analysis, objectives development and skills based training solutions to fit with your needs and enhance your team's performance.

## **Enroll now**

www.bentlytraining.com

- ✓ Improved technical skills to protect and control rotating machinery
- ✓ Reliable diagnostics for decision making & predictive maintenance
- ✓ Availability & reliability of machinery
- ✓ Limited unplanned events and disruption risks and costs
- ✓ Optimized return on investment by leveraging Bently Nevada 60+ years of experience

## Global expertise delivered locally



In-house training to raise skills of your engineers with optimized costs in one of our training center



Onsite training to provide standard & customized trainings to a team in your facility for reduced T&L costs



Remote learning for your team to learn anywhere with engaging session with live instructor, virtual machines and step-by-step self-paced workshops.

# **Enhance your knowledge**

Provide your team with the right skills and knowledge to increase their motivation, performance and productivity.

## **MONITORING**

## Transducers for monitoring -

Get an overview on installation, operation and troubleshooting of vibration transducers, including displacement (proximity), velocity (moving coil & piezoelectric), acceleration (piezoelectric). Duration: 2 days.

#### 3500 operation & maintenance-

Theory and practice on how to install and configure 3500 System. It includes monitor alarms test, channel values check and monitor system troubleshoot. Duration: 3 days.

## Orbit 60 monitoring system -

Theory and practice on how to install and configure Orbit 60 System. It includes monitor alarms test, channel values check and monitor system troubleshoot Duration: 3 days.

## **DIAGNOSTICS**

#### **Machinery Diagnostics**

Understand how the fundamentals of machine design and behavior are reflected in the vibration measurements. Learn how to view machine vibration data into usable plot formats. Learn how to detect causes, affects and indicators of the typical machine malfunctions. Duration: 5 days.

## **Reciprocating Compressor Condition Monitoring-**

Understand the compression process, interpret reciprocating compressor vibration and analyze malfunctions to diagnose and optimize assets. Analyze several failure patterns and actual case histories with the RecipKit. Duration: 3 days.

## **Advanced Machinery Dynamics-**

Get highest level of technical training with Bently Nevada bringing the in depth machinery dynamic knowledge and 60+ years of experience. Leverage real case histories analysis. Recognize, explain and account for the effects of more complex rotor dynamics interaction of rotor mode shapes, bearing design, gears, torsional and structural vibration. Duration: 5 days.

## RELIABILITY ARMS

### Linking Asset Strategy to Asset Health Management-

Leverage powerful solutions to quickly create Criticality Studies, Maintenance Strategies justification and add links to Condition Monitoring approaches and Root Cause Analysis. Duration: 3 days.

### Root Cause Analysis -

Get the knowledge and skills necessary to facilitate an effective problem analysis. Create a common reality and gain buy-in from all stakeholders to effectively solve problems, through identifying all the solutions. Duration: 2 days.

### Improving Plant Availability using RBD -

Engage in Reliability Availability Maintainability modelling to drive plant improvements. Learn how to perform system availability simulation modelling using Reliability Block Diagrams (RBD). Duration: 2 days.

## System I fundamentals -

Discover how to structure the machines in System 1 by building assets, entering their properties, and defining the instrumentation for collecting machine condition data. After configuration, learn how to navigate in the software to view machine information. Duration: 5 days.

## System 1 for Turbomachinery —

Learn how to use the System 1 for Turbo Machinery efficiently to minimize time spent looking at non-significant data, and to focus on the information that is needed to make management decisions. Duration: 5 days.

## **Decision Support fundamentals**

Get an overview of decision support system and benefits, in particular deployment of pre-configured rules, and rule management. Custom rule building will feature how to build timer rules, counter rules and offset rules. Duration: 2 days.

### **Applied Diagnostics Workshops** -

Increase practical knowledge after the Machinery Diagnostics course with over 25 real machine cases and main machine malfunctions diagnosis. Review different rotating machine types and understand how design and construction characteristics influence behavior and typical malfunctions. Duration: 5 days.

## Advanced Field Balancing -

Develop a deep understanding of balancing methods and confidence with hands -on practice on test rotors. Learn how to conduct effective balancing of machine trains in the field: calculation of trials, evaluation of results, decision making ensuring minimum disruption costs and proper data quality. Duration: 4 days.

#### ISO 18436 Vibration certification courses-

Understand the compression process, interpret reciprocating compressor vibration and analyze malfunctions to diagnose and optimize assets. Analyze several failure patterns and actual case histories with the RecipKit. Duration: 3-5 days.



Public sessions scheduled around the globe. Register on <u>bentlytraining.com</u>.



Private sessions can be set according to your needs. For more information, contact us at Bently.Nevada.Services@bakerhughes.com

