

Mechanical Seals Maintenance

Course Description

The course will offer participants an in-depth discussion of the functionality, design, operation, maintenance, and repair as well as troubleshooting of mechanical seals. The course will look at various competing concepts in order to enable participants to select mechanical seals with an impartial point of view.

Objectives

Upon completion of this course, participants will have a thorough understanding of the function, design, selection, operation, maintenance, and repair of mechanical seals.

Course Outline

- ◆ **Basic Principles of Mechanical Seals**
 - Principles of Operation
 - Thermal Considerations
 - Maintaining the Fluid Film
- ◆ **Design and Types**
 - Design - Overview
 - Types - Overview
 - Seal Classification
 - Seal Designs
- ◆ **Metal Bellows and Pusher Seals**
 - Three Views of the Bellows Seal
 - Convolutions
 - Comparison of Bellows with Pusher Seals
 - Welded Bellows Materials
 - High Temperature Sealing
 - Cartridge Seals
- ◆ **Seal Environment**
 - Sealing Abrasives
 - Sealing Crystallizing Fluid
 - Sealing Hot Water
- ◆ **Mechanical Seal Selection**
 - Materials of Construction
 - MS Specifications
 - Seal Arrangement Selection
 - Secondary Sealing Devices
- ◆ **Seal Design Audit.**
- ◆ **Seal Installation**
 - Measuring Seal Faces
 - Secondary/Auxiliary Sealing Devices

- ◆ Gas Seals Technology
 - Selection
 - Auxiliary Systems
- ◆ Mechanical Seal Failure Analysis
- ◆ Mechanical Seal Standardization/Consolidation
 - Principles
 - Examples
- ◆ Controlling Fugitive Emissions From MS
- ◆ Seal Calculations
 - Leakage Potential Calculations
 - Analyzing Flashing Between Seal Faces
 - Calculating Heat Generation
 - Balance Calculations
 - Changing Balance Ratios
- ◆ Mechanical Seal Execution Examples
 - Ethylene Product Pump Seals
 - Hot Tar Pump Tandem Seal
 - Gear Pump Double Seal
 - Sundyne Compressor Seal
- ◆ API 610, 9th Edition (Centrifugal Pumps) Seal Specifications
- ◆ ANSI/API 682 Seal Specifications.
- ◆ Alternatives to Mechanical Seal.

Who Should Attend

The course primarily indented for engineers and senior technician who are exposed to turbo machinery field. Experienced specialists involved in the operation and maintenance of turbo machinery components will definitely profit from attending this course.

For any further information please contact us at:

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