

WE 202 – Bearings in Rotating Machines

Recommended for

Maintenance personnel responsible for machinery repairs; however, all plant personnel can benefit from the information presented in this course. Supervisors & technicians who oversee maintenance activities will gain an understanding of the support and tools required to become truly proactive.

Course objective

The overall course objective is to provide information and training that enables plant personnel to increase productivity by improving the performance and reliability of rotating machinery.

Prerequisites

The course curriculum is centered on various important rotating machines like electrical motors, centrifugal pumps, Industrial fans, gear boxes, and compressors maintenance and includes the theory of function, bearing arrangements, proper mounting procedures, fits & tolerances, lubrication & different types of trouble shooting methods.

Course description

Electrical Motors:

- Electrical motor basic functions & types
- Shaft & housing fits
- Motor assembly & bearing mounting
- Motor bearing lubrication & post motor service procedures

Centrifugal Pumps:

- Industrial pumps, pump parts & types
- Selection of bearing types & sizes
- Pump bearing arrangements
- ANSI, API standards
- Pump bearing loads, thermal mounting
- Pump installation
- Viscosity, oil lubrication methods
- Life expectancy
- Quick tips for success
- Centrifugal pump bearings: problem reference

Industrial Fans:

- Industrial fan basics, Bearing life
- Fan bearing arrangements
- Split bearing housings, Split housing installation, Mounting & Dismounting
- Fan bearings lubrication
- Common fan problems
- Unbalance
- Misalignment
- Resonance

Gearbox Life Extension:

- Bearing selection & preload
- Tapered roller bearings adjustment methods
- Lubricant analysis
- Bearing life determination & bearing life calculation
- Required viscosity for lubricant – calculation

Compressors:

- Types of compressors
- Bearing types & selection
- Bearing lubrication
- Bearing speed ratings
- Bearing temperature
- Bearing mounting & dismounting
- Bearing compatibility with gases

Course length

3 days