



ELGETI
ENGINEERING

Online Bearing Seminars

Spring 2025

- ❖ Basics of Bearing Technology
- ❖ Application Engineering
- ❖ Supplier Development
- ❖ Failure Analysis

Special Package Deals

Designer Package

For those who design and develop machinery:

You will explore advanced bearing design and acquire the expertise needed to assist purchasing teams in sourcing suitable bearings for specific applications.

Included Sessions:

Basics of Bearing Technology complete

Application Engineering Session 1 Advanced bearing design

Supplier Development Sessions 1+2 Introduction and quality specifications

Trader Package

For those who buy and sell bearings:

You will deepen your understanding of the product, customer needs, and common failures faced by bearing vendors.

Included Sessions:

Basics of Bearing Technology complete

Supplier Development Sessions 1+2 Introduction and quality specifications

Bearing Failure Analysis Sessions 1+2 Introduction, lubrication and faulty bearings

Complete Package

For those who want expertise:

Attend our complete seminar program to build a broad and solid knowledge base. This package comes in with a special price for all the sessions!

Included Sessions:

Basics of Bearing Technology complete

Supplier Development complete

Application Engineering complete

Bearing Failure Analysis complete

Basics of Bearing Technology



Session I (free)
April 08th, 2025

Session II
April 15th, 2025

Session III
April 22nd, 2025

Session IV
April 29th, 2025

Session V
May 06th, 2025

Introduction

- Bearing types
- Cages
- Bearing arrangements
- Interfaces (design requirements)

Properties I

- Tolerances (clearance, precision, etc.)
- Lubrication (grease and oil)
- Materials

Properties II

- Internal geometry (profiling, osculation)
- Life calculation acc. to ISO 281
- Sample inspection (including quick testing)

Bearing Installation and Sealing

- Best installation practices
- General sealing methods
- Sealing properties and requirements

Preventive Maintenance

- Oil sample analysis
- Regular inspection and endoscopy
- Condition monitoring by vibration measurement



Sessions last 90 minutes and are offered at two different times:

- 09:00 Central European Time / 15:00 China Standard Time
- 17:00 Central European Time / 11:00 EST-EDT

Session I (free)

April 16th, 2025

Session II

April 23rd, 2025

Session III

April 30th, 2025

Session IV

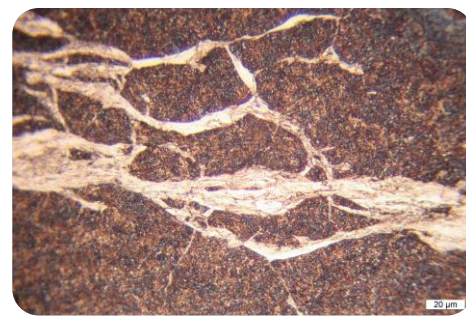
May 07th, 2025

Introduction

- Methods for inspection
- Examples of failures related to poor lubrication
- Premature failure due to contamination

Faulty Bearings

- Typical failure patterns of faulty bearings related to:
 - Crowning
 - Cracks
 - Poor material
 - Undercuts



Electricity

- Electric erosion
- White etching cracks

Additional Causes for Failure

- Premature failure due to faulty installation
- Improper fits
- Shape errors of surrounding parts
- Cage fracture



Sessions last 90 minutes and are offered at two different times:

- 09:00 Central European Time / 15:00 China Standard Time
- 17:00 Central European Time / 11:00 EST-EDT

Supplier Development

Session I (free)

April 24th, 2025

Session II

April 28th, 2025

Session III

May 08th, 2025

Session IV

May 15th, 2025

Introduction

- Motivation
- Definition of quality levels

Quality Specifications

- Quality characteristics
- Technical description

Production

- Approach during factory visits and audits
- Requirements for the documentation of production

Quality Control

- Methods for sample inspection and incoming control
- Approach for initial approval
- Concepts for quality control



Sessions last 90 minutes and are offered at two different times:

- 09:00 Central European Time / 15:00 China Standard Time
- 17:00 Central European Time / 11:00 EST-EDT

Session I
May 13th, 2025

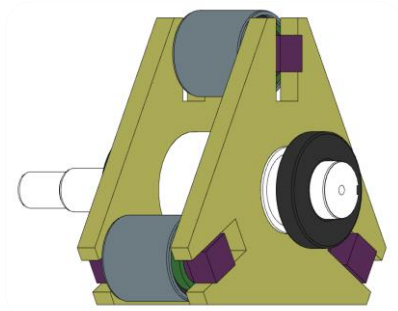
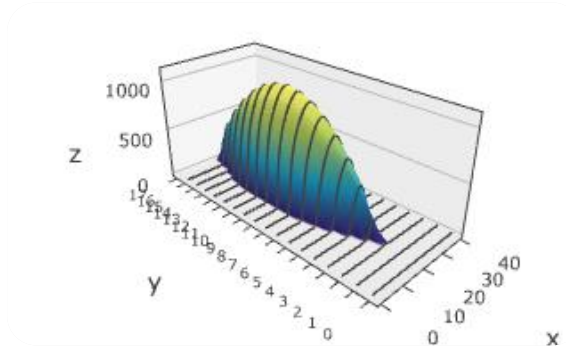
Advanced Bearing Calculation

- General design recommendations
- Grease lubrication
- Example: electric motor with belt drive
- Example: helical gearbox considering local stresses

Session II
May 14th, 2025

Acceleration on Bearings

- Planetary gearboxes, eccentric rotors
- Cages exposed to vibrations
- Failure modes, design and testing methods



Sessions last 90 minutes and are offered at two different times:

- 09:00 Central European Time / 15:00 China Standard Time
- 17:00 Central European Time / 11:00 EST-EDT