Global Horizon
TRAINING CENTER

Training Course:
Advanced Bearing Maintenance and Service: Maximizing Performance and Reliability

21 - 25 December 2026
London (UK)

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Advanced Bearing Maintenance and Service: Maximizing Performance and Reliability

Training Course code: SC1995 From: 21 - 25 December 2026 Venue: London (UK) - Training Course Fees: 6300 Euro

Introduction

Welcome to the Advanced Bearing Maintenance and Service training program. Bearings play a critical role in various industrial applications, ensuring smooth operation and minimizing downtime. This comprehensive program is designed to equip maintenance technicians, engineers, and professionals with the advanced knowledge and practical skills required to effectively maintain, and service bearings. Through a combination of theoretical learning and hands-on exercises, participants will gain a deeper understanding of bearing principles, advanced maintenance techniques, troubleshooting strategies, and performance analysis.

Objectives

Upon completion of this training program, participants will be able to:

- Understand the principles of bearing operation and different types of bearings.
- Demonstrate proficiency in bearing installation and removal techniques.
- Identify common bearing failures and implement effective troubleshooting strategies.
- Apply advanced maintenance practices to maximize bearing lifespan.
- Develop and implement a comprehensive preventive maintenance plan for bearings.
- Utilize advanced condition monitoring techniques to assess bearing health.
- Analyze bearing performance data and make informed decisions based on analysis.
- Implement best practices for bearing alignment, lubrication, and protection.
- Understand the challenges associated with large-sized bearings and develop appropriate maintenance strategies.

Target Audience

This program is designed for:

- Maintenance Technicians: Technicians involved in inspection, servicing, and repair of bearing systems.
- Mechanical & Maintenance Engineers: Engineers seeking to enhance advanced knowledge and practical skills in bearing maintenance.
- Reliability & Asset Management Professionals: Professionals focused on improving equipment reliability, performance, and operational efficiency.
- Maintenance Practitioners: Personnel engaged in preventive, predictive, and corrective maintenance

activities in industrial environments.
- Industrial Sector Professionals: Individuals working in manufacturing, power generation, automotive, aerospace, oil & gas, and heavy machinery industries.
- Entry-Level to Intermediate Practitioners: Individuals with foundational knowledge in bearing maintenance aiming to advance their technical expertise and specialization.

Outlines

Day 1: Bearing Fundamentals and Installation Techniques

- Introduction to bearings: types, design, and construction.
- Bearing terminology and nomenclature.
- Principles of bearing operation and load distribution.
- Bearing selection criteria for different applications.
- Advanced bearing installation methods: induction heating, hydraulic methods.
- Bearing removal techniques: mechanical and hydraulic methods.
- Hands-on exercises: advanced bearing installation and removal techniques.

Day 2: Bearing Failure Analysis and Troubleshooting Strategies

- Common bearing failures and their root causes.
- Bearing failure modes: fatigue, wear, misalignment, contamination, etc.
- Visual inspection techniques for bearing failure analysis.
- Advanced diagnostic tools for bearing health assessment.
- Vibration analysis and its role in bearing maintenance.
- Implementing advanced troubleshooting strategies.
- Hands-on exercises: analyzing failed bearings and developing troubleshooting plans.

Day 3: Advanced Maintenance Practices and Lubrication Techniques

- Lubrication principles and advanced lubrication techniques.
- Lubricant selection and compatibility considerations.
- Lubrication methods: manual, automatic, centralized systems.
- Lubrication intervals and quantity determination.

- Bearing sealing and protection methods: labyrinth seals, magnetic seals, etc.
- Hands-on exercises: advanced lubrication techniques and sealing methods.

Day 4: Condition Monitoring and Performance Analysis

- Introduction to condition monitoring techniques.
- Vibration analysis: data collection, analysis, and interpretation.
- Thermography and infrared analysis for bearing assessment.
- Oil analysis and its role in detecting bearing abnormalities.
- Advanced techniques for bearing performance analysis.
- Developing a comprehensive condition monitoring program.
- Case studies: utilizing condition monitoring tools for bearing health assessment.

Day 5: Advanced Maintenance Strategies and Large-Sized Bearings

- Advanced maintenance practices: alignment, balancing, and precision installation.
- Challenges associated with large-sized bearings.
- Bearing mounting and dismounting techniques for large-sized bearings.
- Advanced maintenance strategies for large-sized bearings.
- Analyzing performance data for large-sized bearings.
- Developing specialized maintenance plans for large-sized bearings.
- Final assessment and certification.

Registration form on the Training Course: Advanced Bearing Maintenance and Service: Maximizing Performance and Reliability

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
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Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....
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Payment Method

☐ Please find enclosed a cheque made payable to Global Horizon

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