



*Training Course:
Pump Shaft Alignment – Techniques, Tools, and
Troubleshooting*

*3 - 7 August 2025
In-House*

Training Course: Pump Shaft Alignment – Techniques, Tools, and Troubleshooting

Training Course code: EN235981 From: 3 - 7 August 2025 Venue: In-House - Training Course Fees: € Euro

Introduction

Pump shaft misalignment is one of the leading causes of premature equipment failure, excessive vibration, energy loss, and unplanned downtime in industrial facilities. Proper alignment of rotating machinery—particularly pumps and their drivers—is critical to achieving reliable and efficient operation. Despite its importance, shaft alignment remains one of the most commonly overlooked maintenance tasks in many industries.

This comprehensive training program, designed by [Global Horizon Training Center](#), provides participants with in-depth theoretical knowledge and practical hands-on experience in shaft alignment techniques. Whether using traditional dial indicators or modern laser alignment systems, this course equips mechanical and maintenance professionals with the skills and confidence to perform accurate alignment in real-world industrial environments.

Throughout the 5-day program, participants will gain a solid understanding of alignment principles, measurement techniques, and corrective actions for both horizontal and vertical machines. Realistic troubleshooting scenarios and interactive workshops will help reinforce learning and build competency in diagnosing and correcting alignment issues.

This training is ideal for maintenance teams aiming to extend equipment lifespan, reduce operational costs, and enhance plant reliability through precision maintenance practices.

Objectives:

By the end of this program, participants will be able to:

- Understand the fundamentals of shaft alignment and its importance
- Identify types of misalignment and their consequences
- Use precision tools dial indicators, laser alignment systems
- Perform alignment calculations and corrections
- Troubleshoot common alignment issues in rotating machinery

Target Audience:

- Maintenance Technicians
- Mechanical Engineers
- Reliability Engineers

- Pump Operators and Supervisors
- Technical Staff involved in rotating equipment maintenance

Outlines:

Day 1:

Fundamentals of Shaft Alignment

- Introduction to rotating equipment and shaft alignment
- Importance of alignment in pump systems
- Types of misalignments: angular, parallel, combination
- Effects of misalignment on bearings, seals, and couplings
- Basic terms and definitions: soft foot, thermal growth, runout

Day 2:

Alignment Tools and Measurement Techniques

- Overview of alignment tools:
 - Straightedge and feeler gauge
 - Dial indicators
 - Laser alignment systems
- Understanding alignment tolerances and specifications
- Measurement procedures using dial indicators rim and face, reverse dial
- Recording and interpreting alignment readings

Day 3:

Laser Alignment Techniques

- Working principles of laser alignment systems
- Setup, calibration, and measurement procedures
- Horizontal and vertical alignment methods
- Live Move feature and thermal growth compensation

- Hands-on practice with laser alignment equipment

Day 4:

Alignment Procedures and Field Applications

- Pre-alignment checks and preparation base, piping strain, soft foot
- Step-by-step alignment procedure
- Correcting horizontal and vertical misalignment
- Special cases: spacer couplings, vertical machines, multi-coupling systems
- Documentation and reporting best practices

Day 5:

Troubleshooting and Practical Workshop

- Diagnosing and resolving alignment issues
- Analyzing alignment data from failed cases
- Practical alignment scenarios mock-up systems
- Final practical test: full alignment process
- Review, Q&A, and course wrap-up

Registration form on the Training Course: Pump Shaft Alignment □ Techniques, Tools, and Troubleshooting

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

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