

# Training Programmes: Where Theory Meets Practice



Engineering Dynamics provides comprehensive, practical training programmes focused on enhancing your expertise and understanding of Vibration Analysis, Field Balancing and Shaft Alignment. More than half of all rotating equipment failures stem from preventable issues like misalignment and imbalance. Our expert-led training, delivered using industry-standard equipment and techniques, will greatly enhance your skills, empowering you to minimise downtime and maximise efficiency for your company or clients.

## Contact Us

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[www.edprevent.com](http://www.edprevent.com)

## Why Choose Our Training

- **Practical Focus:** Our training emphasises hands-on experience using state-of-the-art equipment supplied and supported by Engineering Dynamics. This ensures you develop the practical skills needed to apply your learning in real-world scenarios immediately.
- **Expert Instruction:** Our instructors are seasoned industry professionals, guaranteeing you receive top-quality instruction and insights from experts.
- **Industry Standards:** All training is conducted according to OEM standards and guidelines, ensuring you gain knowledge that directly translates to industry best practices.
- **Certification:** Upon completing assessments (minimum 80% pass rate), you'll receive a Competency Certificate, demonstrating your proficiency in your chosen discipline. Those who attend but do not complete assessments will receive an Attendance Certificate.
- **Small groups:** Each participant receives personalised attention, with courses limited to 10 people.
- **Flexibility:** We offer training in Pretoria, South Africa, and on-site across Africa to accommodate groups' needs.
- **Comprehensive Options:** Our selection of training courses includes Laser Shaft Alignment, Vibration Analysis, and Field Balancing, enabling you to choose the specialised knowledge that best supports your career or company need.

## Perfect for:

- Technicians, Fitters, Engineers, and Supervisors
- Design Engineers
- Rotating Equipment Specialists
- Condition Monitoring Technicians
- Those upgrading from old technology



# Laser Shaft Alignment TRAINING

» "Precision Alignment, Means a Prolonged Equipment Lifespan"

This 4-day course combines precision theory with extensive hands-on practice using the Easy-Laser range of instruments led by our Easy-Laser certified instructor.

## Course Topics

- Alignment workflow
- Pre-Alignment checks
- Run-out checks
- Rough alignment
- Soft foot
- Tolerances
- Measurement and corrections
- Shim calculation
- Belt Alignment
- Vibration Acceptance testing
- Practical exercises on pump sets and simulators

# Vibration Analysis TRAINING

» "Detecting Issues Before They Escalate"

Our comprehensive 3-day Basic Vibration Analysis Course, combining traditional Levels 1 & 2, provides a solid foundation in vibration analysis. Our course follows the ISO topic requirements and is designed to equip Condition Monitoring technicians with the skills and knowledge needed to contribute to any vibration analysis programme.

## Course Topics

- Principles of vibration
- Data acquisition and analysis
- Basic vibration analysis and fault diagnosis
- Equipment testing and diagnosis
- Corrective actions

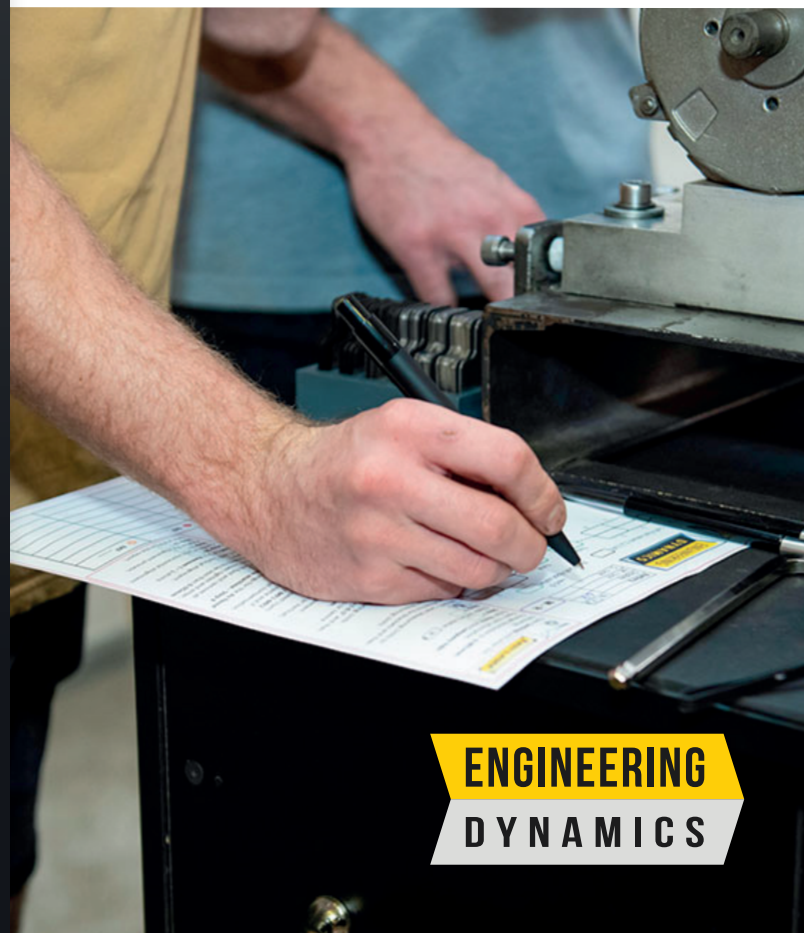
# Field Balancing TRAINING

» "Achieve Optimal Equipment Balance and Reliability"

Our 3-day Field Balancing Course covers single and 2-plane methods, combining theory with hands-on practice on state-of-the-art balancing simulators. Learn the fundamentals of balancing rotating equipment to minimise vibration levels and damage to equipment.

## Course Topics

- **Understanding Unbalance:** Causes, vibration spectra, and balancing units. Understanding vibration and phase
- **Balancing Methods:** Polar plot, and instrument balancing.
- **Calculations:** Trial weight mass and position calculations, balancing sensitivity.
- **Hardware Installation:** Sensor installation, radius/angle determination, weight splitting.
- **Practical Application:** Single-plane balancing first using polar plots and then both single and two-plane balancing using instruments.
- **Field balancing instruments used:** Viber X5, Viber X4, XBalancer+



ENGINEERING  
DYNAMICS