FAG Industrial Services

Increased Competence – Greater Plant Availability

Modern Maintenance Training Courses

SCHAEFFLER GROUP INDUSTRIAL INA FAG

Operating Benefits

- Theoretical fundamentals and practical application
- Basic and advanced training courses
- Trainers with extensive field experience
- The latest training equipment and materials
- Extensive training papers
- Customer-specific training courses
- Almost all courses can also be held at your own premises
- Maintenance and bearing solutions from a single source
- Exchange with colleagues and experts

Modern Maintenance Training Courses

Demands on the availability of machines and plants have increased continuously in the past few years. Companies wishing to attain an optimal machine performance and avoid unplanned machine shutdowns need highly qualified personnel, especially in the field of maintenance. So selective and constant advanced professional training is an important element in the optimisation of production and maintenance processes.

We Support You

The service division of Schaeffler Group Industrial (FAG Industrial Services – F'IS) has ample experience in the maintenance of rotating machine elements. We are always happy to share this experience in our training courses.

Our Training Scheme

Practical relevance is of the utmost importance in our training courses. Our trainers have many years of field experience in various areas of modern maintenance. This enables them to teach the course contents very competently. Practical exercises give our participants an opportunity to try out what they have learned to consolidate and enhance it.

Target Groups

Target groups include, but are not limited to fitters, foremen, master craftsmen and engineers. F'IS offers a variety of training modules for all employees who wish to extend their knowledge in the field of maintenance and acquire competence.

Training Center For Rolling Bearing Technology And Mounting

in Schweinfurt (Germany)

Practical Rolling Bearing Technology And Mounting Training Courses

There is no substitute for hands-on experience during a training! Our 500 m2 training center at the FAG plant in Schweinfurt is equipped with the latest training facilities in the fields of rolling bearing technology and rolling bearing mounting. From basic training courses to the mounting of large size rolling bearings – practical relevance is of the utmost importance. At mounting tables and in a training area with industry-specific large size bearing arrangements you can practice the handling of bearings and the use of tools as well as enhance your mounting skills under realistic conditions and professional guidance.

Competence Center Condition Monitoring

in Herzogenrath (Germany)

Qualification in Vibration Analysis

Acquire and extend your knowledge of the analysis of machine vibration! Our experts will teach you the theoretical fundamentals of vibration monitoring as well as the use of our measuring systems and configuration and analysis software. In practical exercises with our measurement systems you will have the opportunity to consolidate and extend your knowledge.

Contact

Rolling Bearing Technology And Mounting Training Courses

Phone: +49 9721 91-3931

Condition Monitoring Training Courses

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You Have Your Own Training Rooms? Courses Can Also be Held at Your Premises!

Thanks to our mobile training equipment, we can also conduct most training courses at your premises. Please contact us for details!

Training Courses – Overview

Rolling Bearing Technology And Mounting

Standard training courses

- Basic training – Rolling bearing technology
- Basic training – Rolling bearing mounting (gearbox)
- Practical training – Rolling bearing mounting (large size bearings)
- Rolling bearing damage: Identify causes – Optimise operation
- Maintenance and repair of spindle bearings in machine tools

Customer specific training courses *)

- Rolling bearing mounting and maintenance for rail vehicle maintenance personnel
- Tools for the mounting and maintenance of rolling bearings
- FAG lubricants and lubricators
- Mounting training courses on your own machines

Condition Monitoring

Standard training courses

- Software F'IS Administrator 4
- FAG ProCheck
- FAG DTECT X1/ X1 s
- FAG Detector III – Introductory course
- FAG Detector III – Basic vibration analysis
- FAG Detector III – Machine diagnosis
- FAG Detector III – Balancing

Customer specific training courses *)

- Practical exercises day on site: Practical application of course contents at your machines
- General vibration analysis courses
- FAG VibroCheck: Installation and application
- Alignment of machines and machine elements with FAG Top-Laser INLINE2, SMARTY2 or TRUMMY2

*) Contens on request

Rolling Bearing Technology And Mounting

Rolling bearings can attain a long service life if a number of prerequisites are met. Knowledge of the different bearing types, their correct handling and expert mounting are of decisive importance. You can acquire the necessary knowledge in our rolling bearing training courses: From the basics of rolling bearing technology to mounting and dismounting, lubrication and damage patterns to possible causes of rolling bearing damage. This also applies to special bearings such as spindle bearings in machine tools or rail vehicle bearings.

Basic Training Courses

Basic Training – Rolling Bearing Technology

- Rolling bearing types and properties
- Lubrication fundamentals
- Mounting and dismounting fundamentals
- Practical mounting demonstration
- Fundamentals of rolling bearing damages

Basic Training – Rolling Bearing Mounting

Mounting fundamentals shown on a gearbox:

- Preparations for mounting
- Mounting and dismounting tools
- Measurement and inspection
- Practical mounting exercises

Advanced Training Courses

Rolling Bearing Damage: Identify Causes – Optimise Operation

- Rolling bearing technology: bearing life theory, rolling bearing kinematics, speeds and loads
- Life-reducing influences during operation and from the bearing environment
- Damage patterns and normal running marks
- Identification of different types of damage

Practical Training – Rolling Bearing Mounting

Mounting/dismounting of large size rolling bearings:

- Mounting preparation
- Measuring of shafts, bearings and housings
- Expert use of measuring, mounting and dismounting tools
- Mounting of different types of bearings

Special: Bearings For Machine Tools

Maintenance And Repair of Spindle Bearings in Machine Tools

- Types and properties
- Lubrication of spindle bearings
- Typical damages in spindle bearings
- Mounting and dismounting

Condition Monitoring

Condition monitoring is a reliable method for detecting machine problems and emerging damage at an early stage. With a little experience, users can read the machine vibration data and identify signals typical of imbalance and alignment errors as well as rolling bearing damage and gearing defects. That helps to avoid unplanned machine shutdowns and costly consequential damage. F'IS offers a wide range of monitoring systems and vibration measuring devices. During the corresponding training courses technical personnel is taught how to configure and use the devices. Also, knowledge in the fields of vibration analysis and machine diagnosis is conveyed.

Online Condition Monitoring

Software F'IS Administrator 4

- Fundamentals of vibration analysis
- F'IS Administrator 4 software modules
- Fundamentals of communication technologies
- How to use the analysis tool "F'IS Viewer"
- Practical exercises using the software

Monitoring System FAG ProCheck

- Configuration and use
- Measurements – preparations, performance and analysis of results
- Practical exercises

Monitoring System FAG DTECT X1/X1 s

- Configuration and use
- Measurements – preparations, performance and analysis of results
- Practical exercises

Offline Condition Monitoring (Mobile Measuring Device FAG Detector III)

FAG Detector III – Introductory Course

- Correct use of the device and introduction to the F'IS Trendline software
- Configuration and performance of trend measurements
- Evaluation of trend measurements, alarms
- Practical exercises

FAG Detector III – Introductory Course: Practical Exercises Day at The Customer's Site

Practical application on a selected machine

- Installation of the software
- Selection and configuration of measuring points
- Measurements and alarm treshold adjustment
- Exporting and sending measured data

FAG Detector III – Basic Vibration Analysis

- Functions, uses and configuration of FAG Detector III
- How to use the analysis tool "F'IS Viewer"
- Condition monitoring and vibration analysis
- Practical exercises

FAG Detector III – Machine Diagnosis

- Advanced vibration analysis
- Machine diagnosis on the basis of typical vibration patterns
- Practical exercises

FAG Detector III – Balancing

- Fundamentals of balancing
- Balancing with FAG Detector III
- Practical exercises

FAG Industrial Services GmbH

FAG Industrial Services GmbH (F'IS), the service division of Schaeffler Group Industrial, headquartered in Herzogenrath near Aachen, is an independent company that takes responsibility for the worldwide service business of Schaeffler Group Industrial covering the brands INA and FAG, F'IS has set itself the goal of helping customers to reduce maintenance costs, optimise plant availability and prevent unforeseen machine downtime. The services are provided irrespective of the brand of the machine components used. F'IS is therefore the specialist contact for the maintenance of rotating components.

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