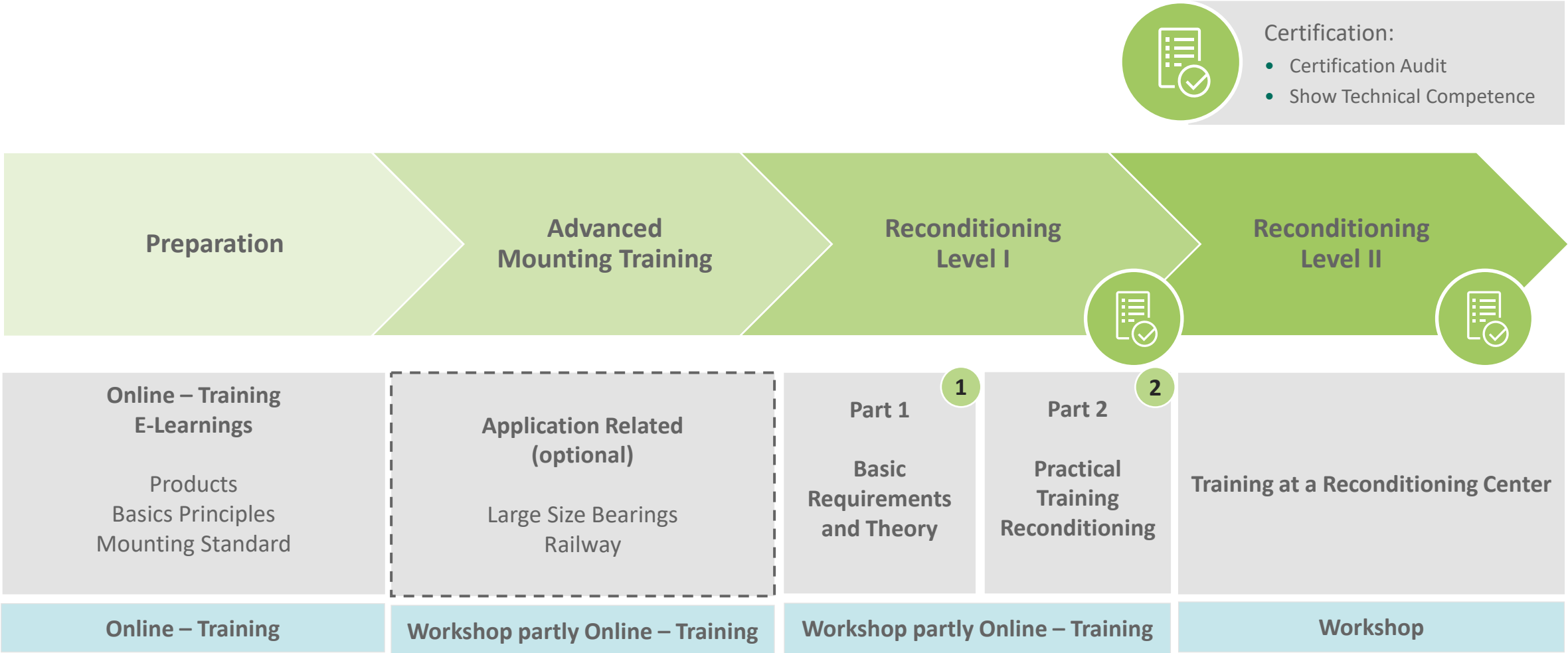


Schaeffler Technology Center

Concept Reconditioning

Training – Reconditioning



Preparation

Preparation	Products	Basics Principles	Mounting
Online Training E-Learnings	<ul style="list-style-type: none"> • Features and Properties • Bearing Designation • Brand Protection (Fake Bearings) • Service Products • Deep Groove Ball Bearings DGBB • Cylindrical Roller Bearings CRB • Spherical Roller Bearings SRB • Tapered Roller Bearings TRB • Bearing Support Solutions • Sealing Concept • Adjacent Design 	<ul style="list-style-type: none"> • Requirements • Operational Bearing Behavior • Determination of Clearance • Raceway Design • Lubrication Basics • Material Engineering • Bearing Production • Coating Technology • Bearing Damages • Load rating / Fatigue Limiting Load • Expiration Date of Bearings? 	<ul style="list-style-type: none"> • Cleanliness at the Workstation • Storage and Handling of Bearings • Mounting/Removal Procedures • Mounting/Removal Mistakes • Tools and Devices • Process of Clearance Adjustment • Documentation • Complaint • Information Source for Mounting/Removal
Duration	about 5 days online training		

Advanced Mounting Training (Customizable upon Request)

Advanced Training	General	Practical Training	
Application Related (optional) (max.5 days)	<ul style="list-style-type: none"> • Service Products • Usage of Measurement Tools • Usage of Mounting Tools • Become Acquainted with Schematic Work Sequence and Utilization • Documentation • Handling of Bearings • Dismantling/Mounting Specific Bearing Types • Measuring of the Clearance • Clearance Adjustment • Get to know different Mounting / Dismounting methods 	Large Size Bearing <ul style="list-style-type: none"> • Bearing Arrangement • Adjacent Design • Gearbox Training • Deep Groove Ball Bearings DGBB • Spherical Roller Bearings SRB • Cylindrical Roller Bearings CRB • Tapered Roller Bearings TRB • Housing One-Piece or Split • Become Acquainted with medias/Mounting Manager and its Utilization 	Railway <ul style="list-style-type: none"> • Nondestructive Dismantling of Tarol and Cylindrical Roller Bearings from a Wheelset • Become Acquainted with Special Tools for Railroad Bearing and the correct Utilization • Dismantling Tarol Bearings and Measuring of the Axial Clearance
Duration	Either large bearing training 4 days and/or railway bearing training 1 day		

Reconditioning Level I

Level I	Theory 1	Assessment 1	Mounting 1	Reconditioning Level I 2
Basic Requirements and Theory 1	<ul style="list-style-type: none"> Product Knowledge Function and Properties, (Railway Bearings, DGBB, CRB, SRB and TRB) Bearing-Basics (Operating Behavior, Bearing Clearance, Raceway Design, Materials Engineering, Lubrication, ...) and Bearing Damages (Realize, Cause, Prevention) CM / Industry 4.0 (Monitoring Systems and Analysis) 	<ul style="list-style-type: none"> Failure Detection (What Failures, Level and Possible Causes) Temporary Measures Process Sequence Auxiliary Materials (Tools, Hard- and Software, Source of Information / Contact Person) Field Inspection Zero (Endoscopy, Grease Sample, visual Appraisal, Measuring of the Bearings Clearance etc. as far as existing, preliminary Analysis) 	<ul style="list-style-type: none"> Mounting Preparation Correct Handling of Bearings Mounting/Dismantling Methods Conical/Cylindrical Bore Mounting/Dismantling Tools Source of Information (medias/Mounting Manager) Adjusting Procedures (Axial-Radial Clearance) Documentation Dismantling/Mounting of Bearings 	<ul style="list-style-type: none"> Basics and Introduction to Reconditioning Appraisal (Level I) Working with the Necessary Documents / Equipment Surrounding Conditions Working Place/Contamination Correct Handling of Bearings Measuring of the Components Visual Appraisal Dismantling / Mounting of the Bearings Adjusting Method of Clearance Documentation Signification of the Bearings Mothballing of Bearings and Greasing according to Schaeffler Standard Transportation and Storage
Practical Training Reconditioning 2				
Duration	Part 1: Classroom training 3 days / Online training 6 days			Part 2: Classroom training 2 days / Online training 4 days

Reconditioning Level II

Practical Training	General	Practical Training
Training at a Reconditioning Center	<ul style="list-style-type: none">• Requirements: Reconditioning Level I Training• Learning in Real Terms at a Schaeffler Reconditioning – Center• Acquisition of the Reconditioning-Processes (Level I and II)• Collaboration for Reconditioning Level II• Customer Specific Reconditioning – Center (Railway - or Large Size Bearing)	<ul style="list-style-type: none">• Practical Training• Customized to Customers Bearing Types• Tools and Equipment for Reconditioning Level II• Process Flow of Reconditioning Level II
Duration	5 days	

Thank you!

