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Technical training courses - personal and practical

The wheel of innovation turns extremely quickly, especially in our industry. And this makes it all the more important for automotive mechanics to keep up to date with all the latest know-how. This can be done very efficiently and effectively with the help of our technical training courses. This brochure outlines our current program of training courses, which are offered both as online webinars and in our ever-popular face-to-face format.

Participants are also able to customize training courses by adapting them to their existing level of knowledge and requesting specific content. This allows automotive mechanics to build up knowledge in a targeted way, so they can meet the challenges faced in the modern workshop safely and efficiently.

Product and sales training

This course will acquaint you with our products in detail, putting you in a position to give customers better advice. We will also present our various sales aids that can be used to demonstrate technical details clearly. As a result, you will be able to impress customers with your expert knowledge and negotiate sales far more efficiently.

Target group:

Customer service personnel and sales representatives at distributors Garage manager, receptionist, service advisor

Course content:

Continental

> Group, facts & figures

Products

- > V-belts, multi V-belts and kits
- > Timing belts and kits
- > Water pumps
- > Torsional vibration dampers
- > Overrunning alternator pulleys
- > Fitting kits

Timing belts

- > Material and design
- > Handling and fitting

Multi V-belts

- > EPDM material
- Elastic belts
- > Tough Grip fabric coating

Measuring and fitting tools

- > Tool Boxes
- Measuring gauge
- > Belt wear tester

Sales aids

> Belt drive display, brochures

Technical Service/online

- Technical hotline
- Homepage
- > PIC Product Information Center
- > ContiDrive app

Warranty

> Five-year product guarantee





Accessory belt drive systems

The focus of this training course: All aspects of V and multi-V belt drive systems, including all associated components. The trainer will explain each system component, how it works, common wear patterns and how to troubleshoot faults. The course also covers common fitting errors as well as external causes of system failure.



Target group:

Master mechanics, mechanics, trainees

Course content:

Belts for the accessory drive

- > Function, characteristics and features, correct measurement
- Function and correct installation of Elast belts
- Correct fitting of double-sided multi V-belt with PK profile

Symptoms of belt failure in accessory drives

> Detecting causes of failure

Tensioning pulleys in the accessory drive

- > Function of the tensioning elements
- > Detecting wear correctly

Torsional vibration dampers

- > Function
- > Detecting wear and causes of faults

Overrunning alternator pulleys

- Function
- Testing the overrunning pulley
- Damage caused by pulley failure

Common problems

- > Misalignment
- > Fitting errors

Timing belts

The focus of this training course: All aspects of timing belts, including all associated components. The trainer will explain each system component, how it works, common wear patterns and how to troubleshoot faults. Common fitting errors as well as external causes of system failure will also be discussed.



Target group:

Master mechanics, mechanics, trainees

Course content:

Belts for the timing belt drive

- Function
- > Design/materials
- > Profile shapes/handling

Maintenance and replacement

- > Explanation of the belt designation
- > Tools
- > Fitting instructions

Symptoms of belt failure in

- timing belt drives
- Detecting and preventing causes of failure

Tensioning pulleys

- Design and function of the tensioning elements
- > Correct adjustment
- > Detecting wear correctly

New technologies

- > Belts in oil
- > Oval sprocket technology



Belts in oil (BIO)

The focus of this training course: All aspects of belts in oil (BIO), including the associated components. The system components, how they work, wear patterns and troubleshooting faults will be explained, along with common fitting errors and external causes of system failure. One of the following engines can be chosen for the course: PSA 1.2 PureTech, Ford 1.0 EcoBoost or Ford 2.0 EcoBlue.



Target group:

Master mechanics, mechanics, trainees

Course content:

General principles of belt drive systems

- Handling timing belts
- > Safety instructions

Special features of belts in oil and their differences

- Advantages of timing belts compared to chains
- > Requirements of the timing belt
- > Different materials and structures

Characteristics of belts in oil

- Design and operation of the tensioning device
- Belts without tensioning device
- > Belt routing
- > Maintenance and oil changes

Symptoms of belt in oil failure

- > Practical illustration and explanation of the causes of timing belt damage
- Cause and rectification of timing belt damage
- > Installation problems/fitting errors



Water pump and cooling system

The focus of this training course: Thermal management, including all associated components. The trainer will explain each system component, how it works, common wear patterns and how to troubleshoot faults. Common installation errors as well as external causes of system failure will also be discussed.



Target group:

Master mechanics, mechanics, trainees

Course content:

Design and function

- Thermal management systems
- > Development of water pumps
- > Different types of water pumps
- > Design and operation
- Coolant types

Installation

- Draining and flushing cooling systems
- Installing the water pump
- > Refilling cooling systems
- Bleeding cooling systems

Common problems

- > Causes of faults
- Installation problems

Special models

- > Switchable water pumps
- > Electric water pumps





48V mild-hybrid belt drives

The focus of this training course: The latest innovation in the field of drive belt systems – the 48V mild-hybrid belt drive. In this course, the trainer will give an introduction to this type of drive system, explaining how it works, which components are used and how the belts differ from conventional multi V-belts.



Target group:

Master mechanics, mechanics, trainees

Course content:

Why 48V?

- > Reasons for its introduction
- Advantages of a 48V system
- Hybrid and electric types of system

MHEV information

- > How the system works
- > Operating modes
- > Benefits for the customer

Components and operation

- > System components
- Different system configurations and drive types
- Integration into traditional vehicle layouts

Hybrid belt drives

- > Types of tensioner
- > Models of belt
- > Operation of belt and tensioner
- Continental EXTRA belts



Avoiding installation errors – typical questions and answers

The focus of this training course: Every day, our technical team answers questions from customers regarding the fitting and maintenance of belt drive systems and the associated components. In this course, our trainer will discuss the most common issues and frequently asked questions, explain how to detect typical damage patterns and also provide tips and solutions for avoiding common errors and keeping the belt drive running smoothly.



Target group:

Master mechanics, mechanics, trainees

Course content:

- > Frequently asked questions
- Typical fitting errors and how to avoid them
- > Where to find technical information
- > Fitting tips for belts and components
- > Detecting common damage patterns

VAG diesel engines

The focus of this seminar: The drive belt systems fitted in different VAG diesel engines, from pump-injector to distributor injection pump to common-rail. During the seminar, the trainer will present the various drive systems, explaining which components are used and how they are fitted. The trainer will demonstrate the errors that are frequently made during fitting, the tools required and the differences between/modifications to the various generations of engine.



Target group:

Master mechanics, mechanics, trainees

You are able to select one training engine for the course from the following five:

- > EA188 pump-injector engines (1998 2021)
- 2.5-liter V6 TDI with distributor injection pump (1997 - 2008)
- > EA189 common-rail engines (2007 2015)
- EA288 common-rail engines (2010 onwards)
- EA288 evo common-rail engines (2020 onwards)

Course content:

- > Fitting tools required for each model
- Installation hints and tips
- > Common Installation mistakes
- > Detecting common damage patterns> Difference/modifications
- EA189/EA288/EA288 evo

*NOTE:

If the option of a faceto-face training event with engines is booked, appropriate assistance for unloading and loading the engines (including a forklift truck where necessary) and a suitable room must be provided. The engines are delivered on rolling stands. Weight approx. 100 kg.



Practical Training Belt Drive Systems

This one-day training course looks at the basics of belt drive systems. The participants become familiar with using technical information, such as fitting instructions, technical tips and change intervals, and perform timing belt and multi V-belt changes as part of practical exercises. The trainer will explain common fitting errors and their consequences. This training course takes place in a face-to-face format at the customer's premises.

0	On site
\bigcirc	1 day
සී	12 to 18 people

Timing belt changes are performed on various engines as chosen by the customer. Six training engines can be selected for the course from a total of 35 gasoline and diesel engines or one of our pre-selected packs can be chosen

For example:

- VAG diesel engines
- > VAG gasoline engines
- > Belts in oil (BIO)
- Timing belt changes on diesel engines from VW, Ford, Volvo, Opel, PSA (2009 - 2019) e.g. VW EA288 2.0I CR TDI - CT1168
 VW EA288 evo 2.0I CR TDI - CT1229
 VW EA189 2.0I CR TDI - CT1134/CT1139
 Ford 2.0I EcoBlue - CT1233
 Volvo D2 2.0I TDI - CT1216
 Peugeot 2.0I HDI - CT1140

Target group:

- > Master mechanics, mechanics, trainees
- Automotive assessors (independent assessors, testing organizations such as TÜV, DEKRA, insurance companies)
- > Vocational training centers, vocational colleges,



Special training courses

Expert training

The content of the training courses for automotive experts can be agreed individually. They can take place at the Continental plant or at the customer's premises (depending on the content).

Target group:

- Automotive assessors (independent assessors, testing organizations such as TÜV, DEKRA, insurance companies)
- Technical trainers
- > Vocational training centers, vocational colleges
- > Professional organisations

0	On site
\bigcirc	by agreement
සී	10 - 30 people

Training courses for schools

These training courses can take place on site at the school or educational establishment. The training content can be agreed individually and can range from three hours of theory to whole-day courses with engines.

Target group:

 Vocational training centers, vocational colleges, Mechanical or technical schools.





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