Atlas Copco

Training catalogue

Seminars, Trainings and Workshops

Our trainings

Whether you are looking for trainings to expand your technical knowledge or wish to consolidate your knowledge on the correct use of our tools in product trainings – we offer a variety of concepts in a large range of areas. You can of course request a completely individual training with us.

With our customer-specific and application-oriented trainings, we are fully equipped to support the sustainable development of your employees' skills in the area of tightening technique.

We offer a comprehensive training curriculum containing theory and practical application. Our trainers are specialists in their areas and have many years of experience. You can rest assured that you will receive top quality.

Content

Tightening systems training

PF4000, PF6000, MTF 6000, Flex, Focus61 + MWR, IxB tool family, other tools on request

Training description:

This training consists of presentations, practical exercises and discussions. The training includes an introduction to the functions, programming and connection methods. The focus includes parameter settings, error codes and problem analysis for controlled electrical tightening tools. All participants can practice operating a tightening system in person.

Training content:

- ▶ Tightening system and tightening tool functions
- ▶ System overview and programming
- ▶ Parameter settings and their effects on the tightening joint
- ▶ Error codes
- ▶ Creating a virtual station and embedding a wireless tool (where applicable)
- ▶ Setting up wireless tools (where applicable)
- ▶ Diagnostics
- ▶ Updating firmware
- ▶ Individual exercises

  * Controllers training include ToolsTalk 2 software training

Participants:	6
Duration:	2 days *(it can change upon agreement)*
Ordering number:	8990 2019 00

Measurements methods for tightening systems

ISO5393, ISO6789, VDI/VDE 2645-2

Training description:

Improve your employee' competence and perfect your testing processes in screw assembly. Standards and guidelines recommend regular testing of the tightening tools used in production to determine their machine capability and thus verify the stability and reproducibility of the tightening tool, as well as to rule out machine-related process errors.

Training content:

▶ Measurement methods – definition
▶ Dynamic torque measurement
▶ Static torque measurement
▶ Norms and joint types – ISO5393, ISO6789
▶ Measuring equipment overview
▶ Measurement methods of clamping force
▶ Basics of statistics in measurement (Cm/Cmk, Pp/Ppk, Cp/Cpk)

Participants:	6
Duration:	1 day
Ordering number:	8990 2019 03

PowerMacs product training - Basic

Training description:

This training offers presentations, practical exercises and discussions. The focus includes parameter settings, error codes and problem analysis for controlled electrical tightening tools. All participants will be given the opportunity to operate the tightening system in person.

Training content:

▶ Presentation of PowerMACS and accessories
▶ Tightening technique basics refreshment
▶ Operator interface ToolsTalk
▶ Introduction to basic programming:
   • *System configuration*
   • *Tightening program basics*
   • *Data documentation*
▶ Setting up network connection
▶ Diagnostics / error messages
▶ Repetition of individual topics
▶ Individual exercises

Participants:	6
Duration:	3 days
Ordering number:	1280 4976 92

PowerMacs product training - Advanced

Required PowerMACS product training basic

Training description:

The training is an extension of the basic version. Advanced tightening strategies and monitoring features will be discussed. Practical exercises how to protect process with these functionalities.

Training content:

▶ Embedding Atlas Copco accessories
▶ Exercises with advances tightening strategies
▶ Updating controller with new firmware
▶ Tightening program advance

Prerequisites:
PowerMacs product training basic and tightening technique knowledge.

Participants:	6
Duration:	3 days
Ordering number:	1280 4976 93

Use of software PLC in tightening controller

PowerMACS, PF6000, Flex

Training description:

Use of embedded PLC functionality in tightening controllers. Installation and getting online with Multiprog software. Review of available variables and creating own ones. Review of available functions and function blocks. Practical examples of usage.

Training content:

▶ Software presentation
▶ Getting online
▶ Variable definition, types, usage
▶ Programming system
▶ Most common functions
▶ System diagnostic
▶ Individual exercises

Participants: 6
Duration: 2 days *(it can change upon agreement)*
Ordering number: 9900 4203 59

Quality Assurance product training

STa6000, STPad, STwrench, STRwrench, STBench

Training description:

The use of Atlas Copco measuring systems and equipment. Configuration of measuring equipment and practical application of the measurement procedure, as well as functions and problem solutions are part of the training including the configuration software Tools Talk BLM or the integration into QA Supervisor (if relevant).

Training content:

▶ Measurement methods – definitions
▶ Dynamic torque
▶ Static torque
▶ Residual torque
▶ Standards and joint types – ISO5393, ISO6789
▶ Basics of statistics in measurement (Cm/Cmk, Pp/Ppk, Cp/Cpk)
▶ Hardware presentation
▶ Software presentation
▶ Configuration
▶ Individual exercise

Participants:	6
Duration:	2 days
Ordering number:	8990 2019 01

Tightening Technique - Basic

Training description:

This basic training is the ideal introduction to tightening technique. All the essential knowledge, theoretical and practical, required for daily work in industrial screw assembly will be taught.

Training content:

▶ Tightening theory - threaded fasteners characteristics
▶ Clamping force in joint, torque and friction coefficient
▶ Measurements methods of clamping force
▶ Phenomena occurring during tightening process
▶ Joint relaxation
▶ Joint self-loosening
▶ Screaming joints
▶ Protection against self-loosening joints

Participants:	8
Duration:	1 day
Ordering number:	8990 2019 05

Tightening Technique - Advance

Training description:

In this training, you will be equipped with the advance competence for the topic of industrial screw assembly: from theory to practical use. Whether it's about analyzing torque or the phenomena associated with it or respond to errors that affect assembly quality: after this seminar, you will be excellently equipped for current and future tasks!

Training content:

- ▶ Tightening technique basics refreshment
- ▶ Clamping force in joint, torque and friction coefficient according ISO 16047
- ▶ Practical measurements of clamping force (torque preload transducer and ultrasonic analyzer)
- ▶ Joint analysis
- ▶ Advanced tightening strategies
- ▶ Other bolting methods – tensioning and heat tightening

Participants:	6-8
Duration:	2 days
Ordering number:	8990 2019 06

Tightening Optimization Principles

Training description:

Our Tightening Optimization workshop on quality and process control offers you the opportunity to expand your knowledge in the field of tightening technique and quality management. We have made sure that we always follow a practical approach. The practical knowledge will help to generate optimizations in your production. The workshop and its curriculum are geared towards achieving this objective and build on the quality assurance topics.

Training content:

▶ Tightening technique basics refreshment
▶ Tightening program analysis
▶ Results and trace analysis
▶ Statistics
▶ Individual exercises

Participants:	6
Duration:	2 days
Ordering number:	8990 2019 09

Compressed air infrastructure audit and how to operate air tools

Training description:

How to perform audit of your air installation, what equipment to use? What the main requirements are for good airline installation? How pneumatic tools work and what influences pressure and air flow have on their performance? These are only a few of the questions that we answer during our training. The air tools operations part provides to participants knowledge how to handle it in safe and proper way.

Training content:

▶ Correct installation of components
▶ Detect and prevent unnecessary compressed air consumption
▶ Proper air-line accessories
▶ Test performance of selected tools
▶ Air tools operations

Participants:	6
Duration:	1 day
Ordering number:	8990 2019 04

Operator training

Training description:

Operator training is the perfect course to increase knowledge about our products, learn safe operating techniques, and discover how to use tools to minimize wear and tear. The result is a more effective operation with reduced costs and more uptime. Training enables operators to continually refine their skills and operating practices, helping to lower the risk of incidents or accident. With a good understanding of the many intelligent features and functions of our tightening tools, operators can use the tool to its full potential.

Training content:

▶ General information about product
▶ Safety rules
▶ Proper handling of the tool
▶ Best practices for operation

Participants:	6
Duration:	Duration up to 4h
Ordering number:	9900 4204 13

Manual tightening

Training description:

The overall purpose of the course is to provide practical training in proper use of manual torque wrenches. Through the use of different types of exercises performed individually or in small groups the ability to safely and competently perform tightening.

Training content:

- ▶ Tightening theory - threaded fasteners characteristics
- ▶ Clamping force in joint, torque and friction coefficient
- ▶ Influence of friction on tightened joints (lubrication, painting, rust, etc.)
- ▶ Phenomena occurring during tightening process
- ▶ Protection against self-loosening joints
- ▶ Tightening sequence
- ▶ Tools selection and appropriate tightening practices with hand tools

Participants:	8
Duration:	1 day
Ordering number:	1280 4976 94

ToolsNet 8 - Data collection and analysis

Training description:

This training deals with the user-related functionality of ToolsNet 8. The participants are made familiar with the functions and possible applications of the software and how to use the software interfaces. The participants are then able to use the software effectively and productively. The optimization of the production process with respect to increasing quality and efficiency are the main focus. The participants have the opportunity to ask and discuss individual questions based on their daily work with the software.

Training content:

▶ Dashboard
▶ Reports
▶ Server overview
▶ Notifications
▶ Statistics, incl. Gaussian distribution
▶ Graph analysis (also retrospective)
▶ Tool center

Prerequisites:
Tightening technique knowledge, own data in software - at least 2 weeks of live data, computer with ToolsNet web page access for each participant.

Participants:	8
Duration:	1 day
Ordering number:	1280 4976 95

Error Proofing Systems – Creating visualizations of processes

SQS, Avanguard, SVS

Training description:

Training will prepare participants to independent configuration of process visualization based on real cases. The participants will learn the principles of versioning the configuration and safe uploading it to the assembly station. In the practical part, the participants will independently prepare a fully functional configuration for a selected station and product variant.

Training content:

▶ System overview
▶ Software configuration
▶ Concept of assemblies and practical usage
▶ Heritage of objects: PR code and family configuration
▶ Part documentation and verification
▶ Configuration of visualization - one product variant on one station (max 5 assembly steps)
▶ Configuration of the product by participants
▶ Assigning of tightening tools to assembly process

Prerequisites:
One computer with installed software per two participants.

Participants:	6
Duration:	1 day
Ordering number:	1280 4976 96

Training on request

Need something else? Request a completely individual training with us.

Training content:

The contents of the training will be prepared based on your specific needs. Our experienced trainers will personally discuss the content with you so that all of the requirements, objectives and expectations of the workshop are fulfilled.
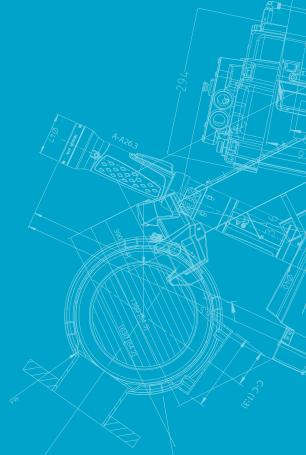
Participants:	on request
Duration:	on request
Ordering number:	9900 4205 37

Our training locations

Map showing training locations across Central and Eastern Europe including Poland, Czech Republic, Slovakia (Bratislava – Atlas Copco Innovation Center Bratislava), Hungary, Slovenia, Croatia, Bosnia & Herzegovina, Serbia, Montenegro, Kosovo, Macedonia, Albania, Romania, Bulgaria and Ukraine.

We are everywhere you are. Outside our training center in Bratislava, we're happy to perform our trainings at or close to your location. Any preparation required will be discussed in advance to ensure a trouble-free training session.

For more information please contact your local Service Sales Engineer or visit our webpage www.atlascopco.com