



Product training

Use of tightening systems, software solutions and measuring equipment in production

Our product training

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Use of tightening systems, software solutions and measuring equipment in production

Just scan the QR code to take a look at the dates.

* MWR = Mechanical Wrench

Greater competence for higher quality and productivity

Our customer-specific and application-oriented seminars, training events and workshops help your employees develop greater competence in the field of tightening technique.

We offer a wide range of theoretical and practical training. Our instructors are specialists in their fields and have many years of experience. You can therefore be sure of receiving the best possible quality. You will find an overview of our keynote lectures, seminars and workshops in our brochure "Seminars and Workshops".

Keynote lectures

Our keynote lectures provide a free-of-charge introduction to specific topics. These lectures cover the most important points briefly and concisely and provide assistance with orientation or reorientation in connection with tightening technique. You will find an overview of our keynote lectures in our brochure "Seminars and Workshops".

Seminars

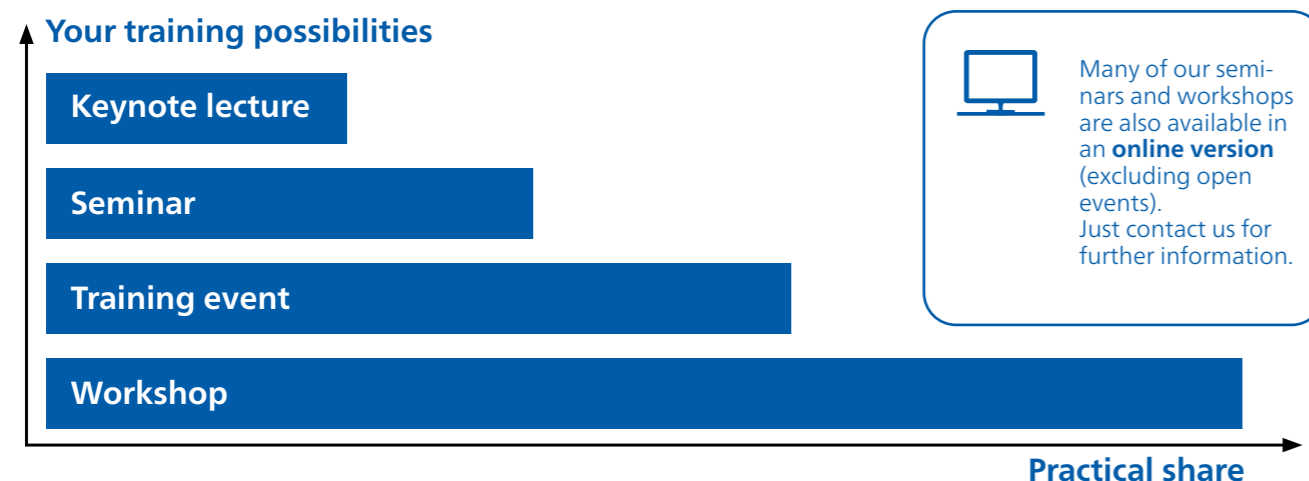
Our seminars focus on specific areas such as tightening technique. Our objective is to bridge the gap between knowledge and skills or between theory and practice. The content is presented in such a way that the knowledge gained can be put to effective and sustainable use in practice. You will find an overview of our seminars in our brochure "Seminars and Workshops".

Training events

Our training events cover the correct use of Atlas Copco products. They include specialist knowledge concerning hardware and software and show participants how to use the systems productively in their everyday work.

Workshops

Our workshops have a large proportion of practical content and consist to a very large extent of group work, active exercises, the processing of content in groups and further development through independent learning and experience. You will find an overview of our workshops in our brochure "Seminars and Workshops".



Electronically controlled tightening systems

Power Focus 4000

Basic principles



Content

- Revision of the basic principles of tightening technique
- Presentation and demonstration of hardware and software
- Programming and parameterization of the tightening system using the Power Focus 4000
- Presentation of optional accessories
- Significance of various error/event codes and elimination of possible causes
- Data backup settings and use

Description

This seminar consists of demonstrations, practical exercises and discussions. The main focus is on basic parameter setting, error codes and problem solving with electronically controlled electric nutrunners. All the participants have an opportunity to practice the operation of a tightening system live.

Objectives

- You are in a position to carry out basic parameter setting using the Power Focus 4000.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of the electronically controlled electric nutrunners controlled by the Power Focus 4000.



Previous knowledge recommended:

Participation in the tightening technique (basic principles) seminar is recommended



Target groups:

Maintenance, production, scheduling and technical test departments



Number of participants:

Max. 6



Duration of seminar:

1 day



Ordering number:

1280 4946 78 (complete event)

1280 4946 89 (open seminar/per person)

Power Focus 4000

Intensive



Content

- Revision of the basic principles of tightening technique
- Presentation and demonstration of hardware and software
- Programming of the tightening system
- Simple and extended parameterization of the tightening system
- Presentation of optional accessories
- Significance of various error/event codes and elimination of possible causes
- Data backup settings and use
- Operation of the Logic Controller

Description

This seminar consists of demonstrations, practical exercises and discussions. The main focus is on basic parameter setting, error codes and problem solving with electronically controlled electric nutrunners. All the participants have an opportunity to practice the operation of a tightening system live.

In contrast to the basic training for Power Focus 4000, this seminar has a duration of two days. The content is dealt with more comprehensively and in greater detail. This event also covers the topic of the "Logic configurator".

Objectives

- You are in a position to set up new nutrunners and accessories independently and properly.
- You are in a position to carry out advanced parameter settings using the software of the Power Focus 4000.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You can make the settings required for your production process using the Logic Configurator.



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles or intensive) is recommended



Target groups:

Maintenance, production, scheduling and technical test departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 4946 75 (complete event)

1280 4946 90 (open seminar/per person)

Power Focus 6000

Basic principles



Description

The Power Focus 6000 is a multi-function controller with integrated WLAN and BT module for the control of up to 6 tools. This seminar consists of the presentation of functions, programming, the connection of radio-controlled tools, the setting up of the virtual stations, error codes, settings and practical exercises for all participants.

Objectives

- You are in a position to carry out basic parameter setting using the Power Focus 6000.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of the electronically controlled electric nutrunners controlled by the Power Focus 6000.

Content

- Revision of the basic principles of tightening technique
- Functions of the tightening system and the connected nutrunners
- System overview and programming in ToolsTalk 2 and in the web browser
- Parameter settings and their effects on tightening (core content)
- Significance of various error/event codes and elimination of possible causes
- Setting-up a virtual station and connection of a cordless tool
- Setting up radio-controlled tools (ad hoc)



Previous knowledge recommended:

Participation in the tightening technique (basic principles) seminar is recommended



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 1207 09 (complete event)

1280 1207 11 (open seminar/per person)

Power Focus 6000

Intensive



Description

The Power Focus 6000 is a multi-function controller with integrated WLAN and BT module for the control of up to 6 tools. This seminar consists of the extended presentation of functions, programming, the connection of radio-controlled tools, the setting up of the virtual stations, error codes, settings and practical exercises for all participants.

Objectives

- You are in a position to set up new nutrunners and accessories independently and properly.
- You are in a position to carry out advanced parameter settings using the software of the Power Focus 6000.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of electronically controlled electric nutrunners controlled using the Power Focus 6000.

Content

- Revision of the basic principles of tightening technique
- Functions of the tightening system and the connected nutrunners
- System overview and programming in ToolsTalk 2 and in the web browser
- Basic and advanced parameter setting using the Power Focus
- Structure and programming of a sequence
- Setting up a virtual station and connection of cordless tools
- Integration of accessories (e.g. selector box and Stacklight) in existing programs
- Structure of a TCP/IP Ethernet network
- The significance of various error/event codes and elimination of possible causes
- Special cases and individual exercises



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles) is recommended



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 1207 10 (complete event)

1280 1207 12 (open seminar/per person)

Power Focus 6000

Flex



Description

The Power Focus 6000 is a multi-function controller with integrated WLAN and BT module for the control of up to 6 tools. This seminar consists of the extended presentation of functions, programming, the connection of radio-controlled tools, the setting up of the virtual stations, error codes, settings and practical exercises for all participants.

Objectives

- You are in a position to set up new nutrunners and accessories independently and properly.
- You are in a position to carry out advanced parameter settings using the software of the Power Focus 6000.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of electronically controlled electric nutrunners controlled using the Power Focus 6000.

Content

- Revision of the basic principles of tightening technique
- Functions of the tightening system and the connected nutrunners
- System overview and programming in ToolsTalk 2 and in the web browser
- Basic and advanced parameter setting using the Power Focus
- Structure and programming of a sequence
- Setting up a virtual station and connection of cordless tools
- Integration of accessories (e.g. selector box and Stacklight) in existing programs
- Structure of a TCP/IP Ethernet network
- The significance of various error/event codes and elimination of possible causes
- Special cases and individual exercises



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles) is recommended



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 8948 33

Power Focus 8

Basic principles



Description

The Power Focus 8 is a multi-function controller with integrated WLAN and Bluetooth module for the control of up to 20 tools. This seminar consists of the presentation of functions, programming, the connection of radio-controlled tools, the setting up of the virtual stations, error codes, settings and practical exercises for all participants.

Objectives

- You are in a position to carry out basic parameter setting using the Power Focus 8.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of the electronically controlled electric nutrunners controlled by the Power Focus 8.

Content

- Revision of the basic principles of tightening technique
- Functions of the tightening system and the connected nutrunners
- System overview and programming in ToolsTalk 2 and in the web browser
- Parameter settings and their effects on tightening (core content)
- Explanation of the significance of various error/event codes and elimination of possible causes
- Setting-up virtual stations and connection of cordless tools
- Setting up radio-controlled tools using the internal access point of the Power Focus



Previous knowledge recommended:

Participation in the tightening technique (basic principles) seminar is recommended



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4948 47 (complete event)

1280 4948 48 (open seminar/per person)

Power Focus 8

Intensive



Content

- Revision of the basic principles of tightening technique
- Functions of the tightening system and the connected nutrunners
- System overview and programming in ToolsTalk 2 and in the web browser
- Basic and advanced parameter setting using the Power Focus
- Structure and programming of a sequence
- Setting up a virtual station and connection of cordless tools
- Integration of accessories (e.g. selector box and Stacklight) in existing programs
- Structure of a TCP/IP Ethernet network
- Significance of various error/event codes and elimination of possible causes
- Special cases and individual exercises

Description

The Power Focus 8 is a multi-function controller with integrated WLAN and Bluetooth module for the control of up to 20 tools.

This seminar covers the use of the Power Focus 8 and programming for advanced participants, integration in networks and the connection of accessories as well as extended tightening strategies. A further main emphasis is the analysis of diagnostic possibilities and results.

Objectives

- You are in a position to carry out advanced parameter setting using the software of the Power Focus 8.
- You can carry out diagnostic and programming work independently and properly.
- You gain confidence in the operation of electronically controlled electric nutrunners and the controller in the production environment.



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles or intensive) is recommended



Target groups:

Maintenance, design, scheduling and technical test departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 4948 49 (complete event)

1280 4948 50 (open seminar/per person)

IxB

Basic principles



Description

The IxB tool has an integrated multi-function controller with WLAN and Bluetooth module. This seminar consists of the presentation of functions, programming, the connection of the tool to radio networks, the setting up of the tool, error codes, settings and practical exercises for all participants.

Objectives

- You are in a position to carry out basic parameter setting on Tensor IxB tools.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of electronically controlled electric nutrunners on the Tensor IxB platform.

Content

- Revision of the basic principles of tightening technique
- Functions of IxB tightening tools
- System overview and programming in ToolsTalk 2 and in the web browser
- Parameter settings and their effects on tightening (core content)
- Explanation of the significance of various error/event codes and elimination of possible causes
- Setting-up appropriate wireless access points in the client mode for the use of IxB tools



Previous knowledge recommended:

Participation in the tightening technique (basic principles) seminar is recommended



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4961 42 (complete event)

IxB

Intensive



Description

The IxB tool has an integrated multi-function controller with WLAN and Bluetooth module. This seminar consists of the extended presentation of functions, programming, the connection of the tool to radio networks, the setting up of the tool, error codes, settings and practical exercises for all participants.

Objectives

- You are in a position to carry out basic parameter setting on Tensor IxB tools.
- You can program appropriate tightening programs independently.
- You can connect accessories independently.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of electronically controlled electric nutrunners on the Tensor IxB platform.

Content

- Revision of the basic principles of tightening technique
- Functions of IxB tightening tools
- System overview and programming in ToolsTalk 2 and in the web browser
- Parameter settings and their effects on tightening (core content)
- Explanation of the significance of various error/event codes and elimination of possible causes
- Setting-up appropriate wireless access points in the client mode for the use of IxB tools
- Connection of Selector 6 flexible bit system
- Connection of I/O accessories
- Detailed programming of multistep programs
- Structure and programming of sequences
- Selection methods for appropriate programs/sequences



Previous knowledge recommended:

Participation in the tightening technique (basic principles) seminar is recommended



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 4961 43 (complete event)

MicroTorque

Training for
low-torque screwdrivers



Description

This seminar provides a theoretical introduction to assembly work using low torque values with an overview of the MicroTorque Focus 6000 product series. The seminar also covers the parameterization and operation of the controller and the screwdriver for very low torque values. The main emphasis is on practical work with the tools and the various different tightening strategies. The theoretical knowledge is supplemented by the solution of tasks in teams. Participants can ask individual questions in an open discussion session at the end of the seminar.

Objectives

- You are in a position to commission your tightening system independently, properly and safely.
- You can configure the hardware and software safely and properly.
- You can use all the functions of the tightening system effectively.
- You are familiar with the most important terms in connection with the use of the system and can interpret them.

Content

- Introduction to low-torque tightening technique
- Use of ToolsTalk MT
- Basic parameter setting using the MicroTorque Focus 6000
 - Selection of tightening strategy
 - Setting of torque, angle and speed
 - Head contact strategy and monitoring of clamping torque
- Recording and evaluation of tightening curves
- Evaluation of tightening results
- Working with barcodes
- Structure and programming of a batch sequence
- Structure of a TCP/IP Ethernet network
- Performance of a software update for the controller
- Significance of various error/event codes and elimination of possible causes
- Special cases and individual exercises



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles or intensive)
Basic knowledge of the tightening systems connected



Target groups:

Maintenance, design, scheduling and production departments



Number of participants:

Max. 8



Duration of seminar:

1 day

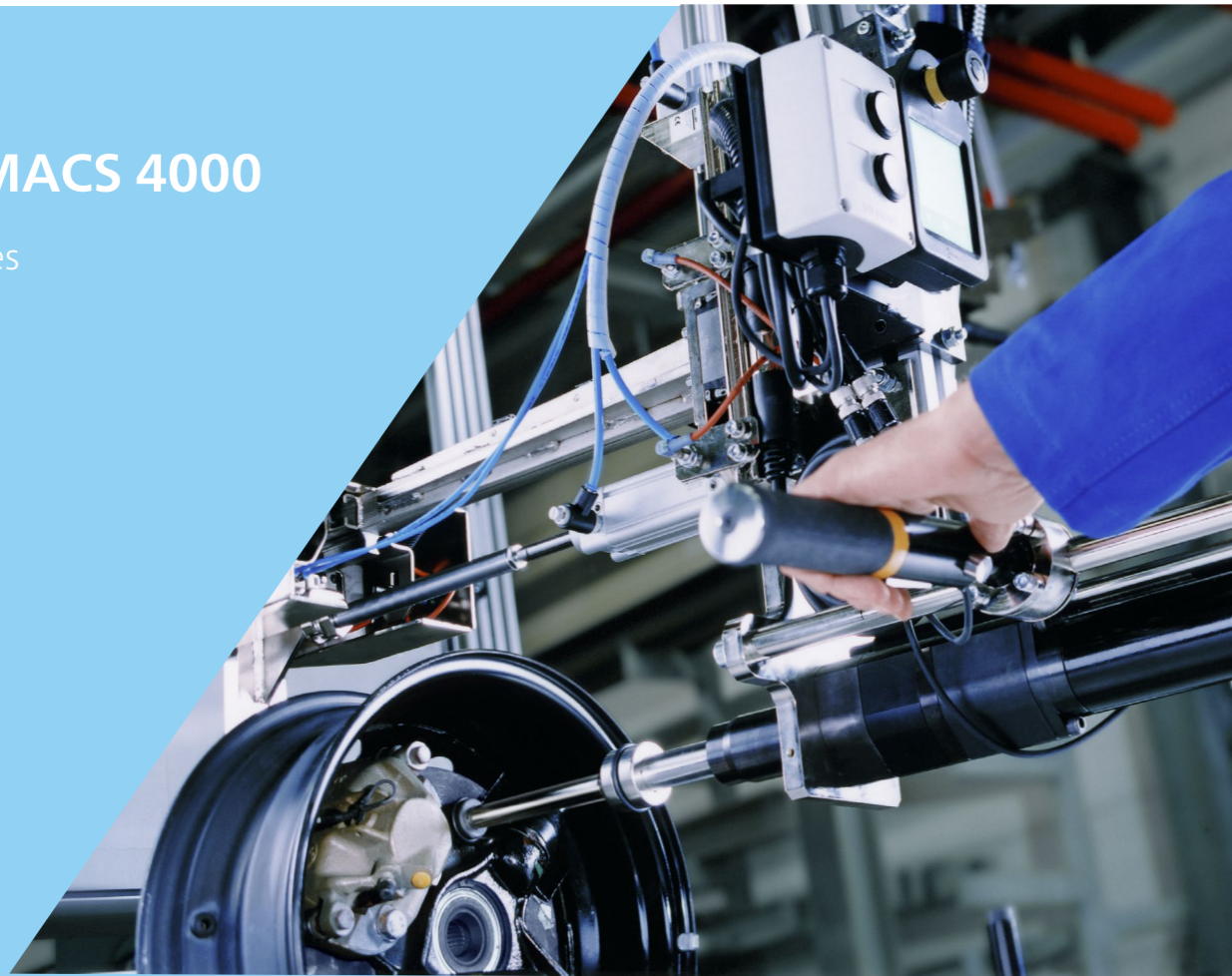


Ordering number:

1280 4946 92 (complete event)

PowerMACS 4000

QST spindles



Description

This seminar includes demonstrations, practical exercises and discussions. The main emphasis is on basic parameter setting, error codes and problem solving in connection with electronically controlled electric nutrunners (PowerMACS 4000).

The seminar gives an overview of PLC Multiprog software (variable declaration, debug mode, error analysis) and the modification and extension of the PLC Multiprog software. All the participants have an opportunity to practice operation live using a tightening system.

Objectives

- You are in a position to carry out basic parameter setting.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.
- You gain confidence in the operation of electronically controlled QST spindles.
- You are familiar with the use of PLC Multiprog.

Content

- Revision of the basic principles of tightening technique
- Presentation of the PowerMACS system including accessories
- Demonstration of the ToolsTalk 2 user interface
- Introduction to the PLC Multiprog software
- Introduction to basic programming (practical exercise)
 - System configuration
 - Basic principles for the selection, setting and use of tightening programs
 - Data documentation
- Connection of Atlas Copco accessories
- Structure of a TCP/IP Ethernet network
- Significance of various error/event codes and elimination of possible causes
- Performance of a software update for the controller
- Repetition of certain topics
- Individual exercises



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles or intensive)



Target groups:

Maintenance, design and scheduling departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 4946 76 (complete event)



Mechatronic systems

Focus 61 and MWR* torque wrenches

Training for mechatronic systems



Description

This seminar covers the correct handling of the mechatronic system and parameter setting for use in a production environment. At the end of the seminar, active tightening work is carried out on a test component and the results are visualized using the web-based software. Participants are placed in a position to commission and use the system in their own production environment.

Objectives

- You are in a position to carry out basic parameter setting using the parameterization software.
- You are familiar with the basic conditions for the use of hand-held click wrenches and are aware of their limitations.
- You gain confidence in the use of Focus 61 controllers and MWR torque wrenches.
- You can interpret event codes/error codes correctly.
- You know what action is required to remedy possible causes of event codes/error codes.

*MWR = mechanical torque wrench

Content

- Basic principles of the operation of mechatronic systems
- Handling of hand-held tightening systems and influencing factors
- Limitations of hand-held tightening systems
- Parameterization of controllers and tools
- Tightening and analysis of results
- Connection of peripherals and IT interfaces
- Error identification and radio coverage
- Update procedures



Previous knowledge recommended:

Participation in the tightening technique seminar (basic principles or intensive)
Experience with the use of hand-held tightening systems (torque wrenches)



Target groups:

Quality assurance, maintenance, production planning and production departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4947 07 (complete event)



Location systems

Industrial Location Arms (ILA)

Training for location systems



Content

- General system overview
- Presentation of hardware and setting up
 - Setting up the sensors
 - Connection to the controller
- Introduction to the use of the ILG software
 - Setting up the system
 - Setting up the tool
 - Setting up the process

Description

This seminar covers the ILA location solution and includes a mixture of theoretical and practical training. A demonstration system is installed in the training room to illustrate negative influences and configuration examples. No equipment is required for participation. The training documents are distributed to the participants following the event.

Objectives

- You are familiar with the topic of joint location.
- You are in a position to configure the system yourself.
- You are familiar with the handling of the system.



Previous knowledge recommended:

Basic knowledge of the assembly process and the connected tightening systems



Target groups:

Maintenance, production, production planning prototype production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4946 25 (complete event)

Note: Training courses with a practical component are only possible at the **Atlas Copco site in Glesien**, or on customer systems that have been put into operation.

Industrial Location Spotpoint (ILS)

Training for location systems



Description

This seminar covers the ILS 2.0 location solution and includes a mixture of theoretical and practical training. A demonstration system is installed in the training room to illustrate negative influences and configuration examples. No equipment is required for participation. The training documents are distributed to the participants following the event.

Objectives

- You are familiar with the topic of joint location.
- You are in a position to configure the system yourself.
- You are familiar with the handling of the system.

Content

- General system overview
- Presentation of hardware and setting up
 - Setting up the sensors
 - Connection to the controller
- Introduction to the use of the ILS software
 - Setting up the system
 - Setting up the tools and tags
 - Setting up the process



Previous knowledge recommended:

Basic knowledge of the assembly process and the connected tightening systems



Target groups:

Maintenance, production, production planning prototype production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4946 24 (complete event)

Note: Training courses with a practical component are only possible at the *Atlas Copco site in Glesien*, or on customer systems that have been put into operation.

Industrial Location Mapping (ILM)

Training for location systems



Description

This seminar covers the ILM location solution and includes a mixture of theoretical and practical training. A demonstration system is installed in the training room to illustrate negative influences and configuration examples. No equipment is required for participation. The training documents are distributed to the participants following the event.

Objectives

- You are familiar with the ILM system
- You are in a position to configure the system yourself.
- You are familiar with the handling of the system.

Content

- General system overview
- Presentation of hardware and setting up
 - Setting up the sensors
 - Connection to the controller
- Introduction to the use of the ILS software
 - Setting up the system
 - Setting up the tools and tags
 - Setting up the process



Previous knowledge recommended:

Basic knowledge of the assembly process and the connected tightening systems



Target groups:

Maintenance, production, production planning prototype production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

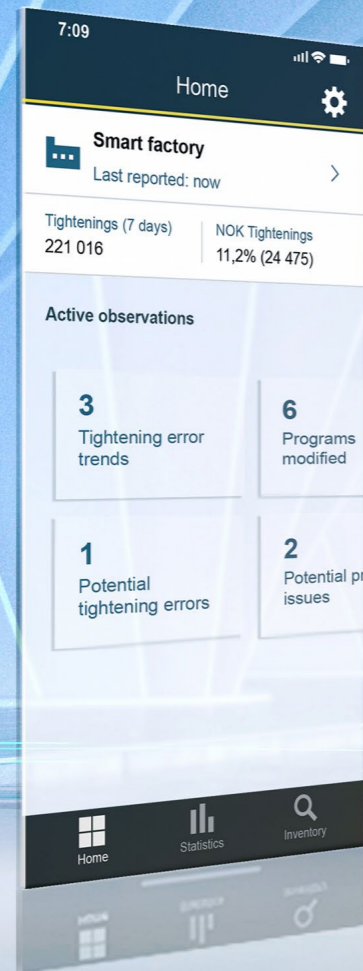
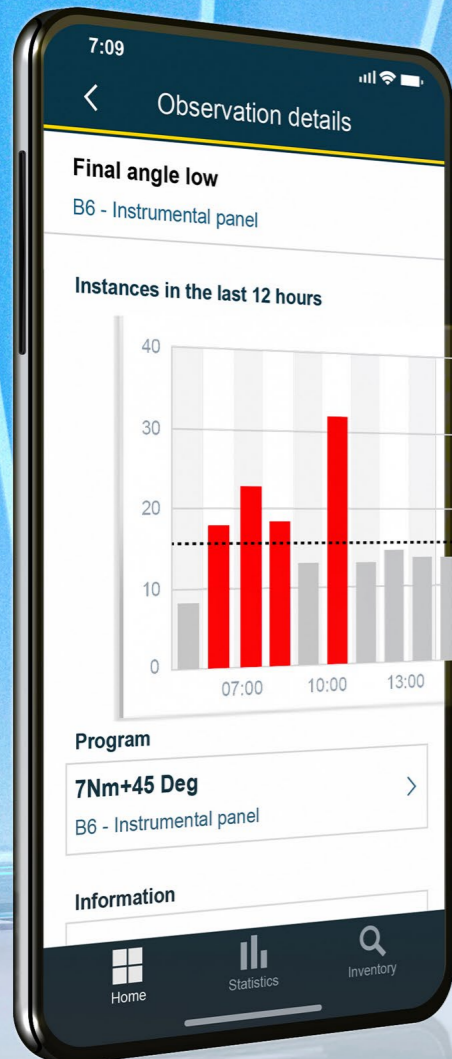
1 day



Ordering number:

1280 4946 24 (complete event)

Note: Training courses with a practical component are only possible at the **Atlas Copco site in Glesien**, or on customer systems that have been put into operation.



Software

ToolsNet 8

Report

▶ Online



Description

This seminar covers the user-related mode of operation of ToolsNet 8 Report. Participants are familiarized with the functions and applications of the software and the operation of the software user interfaces. Participants are enabled to use the software effectively and productively. The main focus is on the optimization of production processes with respect to improved quality and efficiency. Participants have an opportunity to ask and discuss questions arising from their everyday work with the software.

Objectives

- You can handle the software confidently.
- You are familiar with the various modes of operation and settings.

Content

- Overview of available dashboards and reports
- Use of product-related search and filter functions
- Generation of user-related groups of controllers
- Server overview



Previous knowledge recommended:

Basic knowledge of the tightening systems connected



Target groups:

Maintenance, production, quality assurance, development and prototype production departments



Number of participants:

Max. 8



Duration of seminar:

0.5 days (online)



Ordering number:

1 280 4968 60 (complete event)

ToolsNet 8

Analyser

▶ Online



Description

This seminar covers the user-related mode of operation of ToolsNet 8 Analyser. Participants are familiarized with the functions and applications of the software and the operation of the software user interfaces. Participants are enabled to use the software effectively and productively. The main focus is on the optimization of production processes with respect to improved quality and efficiency. Participants have an opportunity to ask and discuss questions arising from their everyday work with the software.

Objectives

- You can handle the software confidently.
- You are familiar with the various modes of operation and settings.
- You gain in-depth specialist knowledge concerning tightening curve analysis.

Content

- Overview of available dashboards and reports
- Introduction to the tool center
- Use of product-related search and filter functions
- Generation of user-related groups of controllers
- Server overview
- Setting of messages
- Evaluation and interpretation of statistics including normal distribution
- Tightening curve analysis (also retrospective)



Previous knowledge recommended:

Basic knowledge of the tightening systems connected



Target groups:

Maintenance, production, quality assurance, development and prototype production departments



Number of participants:

Max. 8



Duration of seminar:

2 days / 4 hrs each (online)



Ordering number:

1280 4946 84 (complete event)

SQS

Worker guidance



Description

During this seminar, participants gain a basic understanding of Atlas Copco's SQS worker guidance system. They learn how to operate the system, how to apply emergency strategies and how regular product processing is managed. They also learn how to make any settings required with respect to production processes themselves via the software. Various case studies are considered in teams and processed in a realistic way. Participants also have an opportunity to ask their individual questions.

Objectives

- You are familiar with the proper installation of the software.
- You are familiar with the various applications of worker guidance systems.
- You can generate production processes yourself.
- You can connect tools yourself and integrate them in the production process.

Content

- Installation of the software
- Working with the demonstration project
- Generation of a new project
- Configuration of open protocol tools
- The first tightening application
- Inspection of parts and documentation
- Working with product variants
- Extended product identification
- Digital input/output units

**Previous knowledge recommended:**

Basic knowledge of the assembly process

**Target groups:**

Maintenance, production, development, prototype production, scheduling and technical test departments

**Number of participants:**

Max. 8

**Duration of seminar:**

1 day

**Ordering number:**

1280 4947 05 (complete event)

Avantguard

Worker guidance



Description

During this seminar, participants gain a basic understanding of Atlas Copco's Avantguard worker guidance system. They learn how to operate the system, how to apply emergency strategies and how regular product processing is managed. They also learn how to make any settings required with respect to production processes themselves via the software. Various case studies are considered in teams and processed in a realistic way. Participants also have an opportunity to ask their individual questions.

Objectives

- You are familiar with the proper installation of the software.
- You are familiar with the various applications of worker guidance systems.
- You can generate production processes yourself.
- You can connect tools yourself and integrate them in the production process.

Content

- Installation
- Working with the demonstration project
- Generation of a new project
- Configuration of open protocol tools
- The first tightening application
- Working with product variants
- Extended product identification



Previous knowledge recommended:

Basic knowledge of the assembly process



Target groups:

Maintenance, production, development, prototype production, scheduling and technical test departments



Number of participants:

Max. 8



Duration of seminar:

2 days



Ordering number:

1280 4964 66 (complete event)

QA Software

User training



Description

This seminar covers the QA Supervisor software including connected systems (measuring data acquisition equipment/ST-Pad). The topics covered start with the basic structure of the software, the parameter settings required for measuring equipment and measuring cycles and evaluations. Torque-based and attributive tests are covered, as well as other measurements. Participants put this training into practice and verify it in practical exercises. Participants are placed in a position to commission and operate the software and measuring systems in their own production environment.

Objectives

- You learn how to use the QA Supervisor software and to carry out parameterization using the software.
- You can create master data in your system.
- You are in a position to use the joint management and tool management functions independently.
- You gain confidence in the use of test standards and codes (e.g. VDI/VDE 2645 – 2).
- You are familiar with test definitions for attributive and other measurements (if required).
- You can manage and control your test tasks along time axes.
- You are thoroughly conversant with work using the equipment connected (STpad, STa6000, STwrench, IRC-Connect)

Content

- Installation and first steps with the system
- Creation of joints and tools in the system
- Test and route management (creation and implementation)
- Performance of practical measurements (tool and/or process measurements)
- Set-up of complete measurement system with measuring equipment or test task
- Operation of the measuring equipment connected
- Use of the "DASHBOARD" function
- Evaluation of results, generation and export of reports
- User and license management
- System procedures, first-level problem analysis of measuring errors



Previous knowledge recommended:

Basic knowledge of software and tightening technique as well as knowledge concerning measurement and test tasks (CM/CM KE)*



Target groups:

Quality assurance, maintenance, production planning and production departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4947 02 (complete event)

**For seminars to be held at your facilities, you should be familiar with the structure of your internal master data (tools, joints, test points, test cycles, etc).*

QA Software

User and structure workshop



Content of user training

The content of this workshop includes the content of the user training seminar for QA software (ordering number 1280494702). You will find a description of that seminar on pages 54 and 55.

Additional content of the structure workshop

- Joint structure workshop for recording and implementing your structure
- Selection of the appropriate measuring procedure for tools and joints
- Structure of a process capability test (PCT)
- Structure of a machine capability test (MCT)
- User and license management
- System procedures, first-level problem analysis of measuring errors
- Use of QA Supervisor from development through to production

Description

This workshop covers the QA Supervisor software including connected systems (measuring data acquisition equipment/ST-Pad). The topics covered start with the basic structure of the software, the parameter settings required for measuring equipment and measuring cycles and evaluations. The workshop also deals with the generation of master data structures and measuring procedures. In a workshop phase, examples of efficient master data structures and measuring strategies are developed and included in training. Torque-based and attributive tests are covered, as well as other measurements. Participants put this training into practice and verify it in practical exercises. Participants are placed in a position to commission and operate the software and measuring systems in their own production environment.

Objectives

- You learn how to use the QA Supervisor software and to carry out parameterization using the software.
- You can create master data in your system.
- You are in a position to use the joint management and tool management functions independently.
- You gain confidence in the use of test standards and codes (e.g. VDI/VDE 2645 – 2).
- You are familiar with test definitions for attributive and other measurements (if required).
- You are thoroughly conversant with work using the equipment connected (STpad, STa6000, STwrench, IRC-Connect).
- You are in a position to implement test management independently.
- Targeted recording and implementation of your master data structure within the framework of the structure workshop.



Previous knowledge recommended:

Basic knowledge of software and tightening technique as well as knowledge concerning measurement and test tasks (Cm/mk).
Knowledge of the structure of your internal master data (tools, joints, test points, test cycles, etc)



Target groups:

Quality assurance, maintenance, production planning and production departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4947 03 (complete event)

**For seminars to be held at your facilities, you should be familiar with the structure of your internal master data (tools, joints, test points, test cycles, etc).*



Measuring systems

Measuring systems and transducers



Description

This seminar covers the use of the measuring system (measuring unit) with connected transducer, parameterization of the measuring equipment and the practical use of measuring procedures, basic functions and problem solving. The course also includes ToolsTalk BLM software and connection to the QA Supervisor software (if available).

Objectives

- You can carry out basic parameter settings yourself.
- You are trained in the use of quality applications (e.g. QA Supervisor).
- You know the difference between machine capability and process capability tests (MCT/PCT).
- You gain confidence in the use of STa-6000, IRC-Connect and transducers.

Content

- Presentation of basic types and measuring accessories including IRC-Connect
- installation of transducers
- Parameter setting via ToolsTalk BLM and directly on the STa 6000
- Performance of practical measurements (tool and/or process measurements)
- Connection to the QA Supervisor software (if available)
- Performance of a machine capability and/or process capability test (MCT/PCT)
- Evaluation of results, generation and export of reports
- Problem analysis and elimination of measuring errors
- Update procedures for firmware
- Calibrations and cycles



Previous knowledge recommended:

Participants should have taken part in the tightening technique seminar (basic principles or intensive) and have a basic knowledge of calibration with regard to tightening technique.



Target groups:

Maintenance, production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4946 91 (complete event)

Tightening tool and wrench test benches and operator panels



Description

The seminar covers the use of the test bench with connected braking systems and measurement transducers including the operation of the panel (STpad or I-PC). The basic principle of the system is explained and its special features are presented. In the practical part of the seminar, various tools are parameterized and random sample tests and machine capability tests (MCT) are carried out.

Objectives

- You are familiar with the basic parameterization of tools.
- You are in a position to use the software properly and to carry out measurement and test tasks using the operator panel (STpad or I-PC).
- You can integrate the test bench including the operator panel in the appropriate quality application (e.g. QA Supervisor).

Content

- Mode of operation of the test bench
- Preparation, parameter setting and performance of a machine capability test (MCT) in accordance with the appropriate requirements (e.g. Cm/Cmk, VDI/VDE 2645-2)
- Integration in QA Supervisor (if available)
- Results, curve presentation and analysis
- Problem analysis and elimination of measuring errors
- Update procedures for firmware
- Calibrations and cycles



Previous knowledge recommended:

Participants should have taken part in the tightening technique seminar (basic principles or intensive) and have a basic knowledge of calibration regarding tightening technique.



Target groups:

Maintenance, production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4946 82 (complete event)

Analysis wrenches for process tests



Description

This seminar covers the basic operation and proper use of the STRwrench Advanced / STRwrench Compact as an analysis wrench for process tests.

In the practical part of the seminar, process tests are carried out and the results are visualized or read out using the ToolsTalk BLM software. Optionally, the seminar may cover the visualization of tightening curves using the STpad or other hand-held units (if available).

Objectives

- You are in a position to carry out basic parameterization using the ToolsTalk BLM software or directly on the unit.
- You gain confidence with the operation of the measuring system.
- You learn how to carry out process capability tests (PCT) correctly.
- Integration in quality applications (e.g. QA Supervisor).

Content

- Functions of the STwrench and replacement of accessories
- User interface and settings
- Preparation, parameter setting and performance of a process capability test (PCT)
- Analysis of results and curve presentation in ToolsTalk BLM
- Integration in QA Supervisor (if available)
- Visualization of curves using STpad/hand-held units (if available)
- Problem analysis and elimination of measuring errors
- Update procedures for firmware
- Calibrations and cycles



Previous knowledge recommended:

Participants should have taken part in the tightening technique seminar (basic principles or intensive) and have a basic knowledge of calibration regarding tightening technique.



Target groups:

Maintenance, production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4946 81 (complete event)

Production wrenches for assembly processes

STRwrench Compact



Content

- Basic principles of torque wrenches
- Technical background
- Torque ranges
- Tightening strategies
- Correction factors
- Parameterization of tightening programs
- Learning and using the functions of the software
- Troubleshooting and problem solving

Description

This seminar covers the basic operation and parameterization of the STRwrench Compact as a production wrench. During the seminar, the mode of operation of the torque wrench is explained. The participants develop their own tightening programs and then carry out tightening operations using this program on a variety of components.

Objectives

- You are in a position to carry out basic parameterization using the ToolsTalk BLM software or directly on the unit.
- You can generate tightening programs independently.
- You gain confidence with the operation of the production wrench.
- You are familiar with basic troubleshooting and problem solving.



Previous knowledge recommended:

Participants should have taken part in the tightening technique seminar (basic principles or intensive) and have a basic knowledge of calibration regarding tightening technique.



Target groups:

Maintenance, production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

1280 4946 85 (complete event)

Quality wrenches for tensile torque tests

STRwrench Advanced



Description

This seminar covers the basic operation and correct use of the STRwrench Advanced. In the practical part, process tests are carried out and the results are visualized or read out in the web interface or EHMI. Optionally, the visualization of the tightening curves via QA Supervisor (if available) will be discussed.

Objectives

- Demonstrating and learning how to work with the web interface and the EHMI
- Creating test definitions and reading out results including curve display both as Classroom training as well as on original parts if required
- Practical exercises for carrying out a PFU to increase confidence in handling the torque wrench
- Integration into the QA 4.0 platform (QA Supervisor)

Content

- Overview of the hardware
- Condition and configuration via Web GUI and directly on the device via EHMI
- Parameterization and execution of process tests
- Analysis of generated measurement data and curves
- General service activities such as firmware updates and troubleshooting



Previous knowledge recommended:

Participants should have taken part in the tightening technique seminar (basic principles or intensive) and have a basic knowledge of calibration regarding tightening technique.



Target groups:

Maintenance, production and quality assurance departments



Number of participants:

Max. 8



Duration of seminar:

1 day



Ordering number:

8990 2521 52 (complete event)



**Further
information**

Our training locations

We can provide training wherever you are. In addition to our Essen headquarters, we can also hold seminars at your plant or near to your facilities. Before the event, we discuss the action needed to ensure successful completion of the training with you.



Our instructors have first-class training

Selected Atlas Copco employees take part in our internal certification program for training. In addition, our instructors are specialists in their fields and have many years of experience. You can therefore be sure of receiving training of the highest quality.

Registration



Atlas Copco Tools Central Europe GmbH
 Service Coordination
 Langemarckstraße 35
 45141 Essen

contact.training@atlascopco.com

Ordering number: _____ **Seminar/workshop:** _____

Personal data

Name, forename: _____

Function: _____

Company/
 department: _____

Address: _____

Postcode/place: _____

Phone: _____

Fax: _____

Email: _____

Invoicing address

Company: _____

Contact: _____

Address: _____

Postcode/place: _____

Phone: _____

Place/date: _____

Signature: _____

Company stamp:

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 The agreed participation fees shall be paid to the account stated in the invoice upon the receipt of the invoice. The customer shall be entitled to cancel seminars, workshops and other training events free of charge up to 4 weeks prior to the commencement thereof. In the case of cancellations received less than four weeks but up to 14 days prior to the commencement of the event, the customer shall pay 50% of the agreed fees. In the event of cancellations within 14 days of the commencement of any seminar, workshop or other training event, the customer shall pay the full fees for such event. Cancellations shall only be valid if made in text form. By reserving a seminar, workshop or other training event, the customer shall be deemed to have agreed to our data protection conditions with reference to training. These conditions are available online at www.atlascopco.de/tools-agb.



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