



Atlas Copco

Power Focus 8 Family

Power Focus Offering

Smart Integrated Assembly

Challenges faced by factories

Today's production situations increasingly call for greater versatility to handle a higher product mix and additional variants on the assembly line. Production becomes more complex, and the human element also continues to be important, which is why user-friendly systems are essential.

In addition, with increasingly strict CO2 emission standards and higher demands on energy efficiency, sustainability is in sharp focus. Moreover, every production process has its own problems.

Why a Smart Factory?

Because this is the future. A Smart Factory is a digitized and highly automated manufacturing facility that uses connected devices, machinery, and production systems to continuously collect and share data. Data that is then used to improve processes as well as proactively address any issues that may arise along the production line.

Smart Factories are enabled by a variety of technologies including artificial intelligence, big data analytics, cloud computing and the industrial Internet of Things.

How Atlas Copco can take you one step closer

We call it Smart Integrated Assembly, our concept for industrial manufacturers looking to transform and implement Smart Factories.

Smart Integrated Assembly encompasses our portfolio, structure and ecosystem of hardware, software and service offerings providing unrivalled value in each step of our customers' product manufacturing cycles. It includes smart connected assembly tools for factories and field operations, fully integrated assembly line solutions from design to production, as well as a unique set of data driven services.

Now let us present our latest hardware controller and supporting equipment!



What you need in order to create a smart assembly

To use the Power Focus 8 controller, some additional parts are required: Power Focus IAM, Virtual Station, tool, and additional features.

The Power Focus 8 controller is the hardware interface between the line and the MES system which provides power and communication for tools and accessories. The Power Focus IAM acts as a storage unit with dual partitions with dedicated memory for upgrade, back-up and restore purposes.

With these in place, tools and Virtual Station types can be added. The Virtual Station types control the functionality available and feed our unique tool offering. They can be enhanced by adding features to match specific applications.

The Power Focus S is a stand-alone drive that can be operated as a secondary controller to the Power Focus8, ideal for fixtured and multi-spindle applications. It has a 50% lower energy consumption compared to a controller.



Power Focus 8

A powerful controller for all your battery, cable and fixtured tools. Power Focus 8 is the center of our common tightening platform and has the ability to connect any cable or battery tool from our wide range.

With Power Focus 8 you can connect 20 tools simultaneously. It provides reduced infrastructure costs through access points and increased Wi-Fi range, has a familiar and improved user interface and enables seamless integration with our software ecosystem. Other advantages are reduced inventory costs and easy remote programming.



Power Focus S

The Power Focus S is a robust, standalone drive that can be operated as a secondary controller to Power Focus 8. It is available in a standard (1-phase) or a high-voltage (3-phase) version to support all kinds of cable tools or fixtured, multi-spindle applications.

The Power Focus S has LED indicators for product status and operational feedback for easy service and troubleshooting. The energy consumption of the Power Focus is 50% lower compared to a controller and it has a reduced environmental footprint.



Intelligent Application Module (IAM)

Intelligence in the palm of your hand. Software, tightening data and configuration – all important information in one compact format. Therefore, if an issue arises, you have an easily accessible back-up. Easy to upgrade with a rapid back-up function.

Two software areas allow for smart software management, enabling a much safer upgrade process, and always giving the possibility to switch between two software versions.



ToolsTalk2

Let your tools talk and improve your line management. ToolsTalk2 is the configuration management solution for all controllers along the assembly line. Take control of your tightening controllers, with complete traceability, and absolute visibility.

Hardware Overview

Below you can find a brief overview of the Power Focus 8 family hardware.



Power Focus 8



Power Focus 8 LV



Power Focus 8 HV

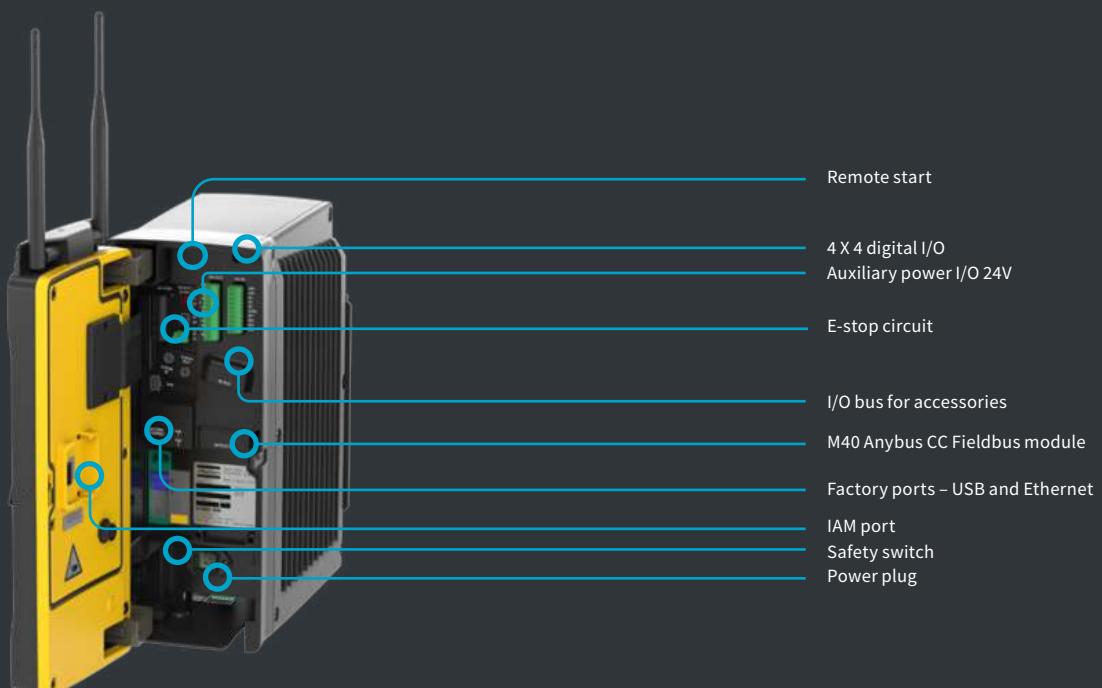
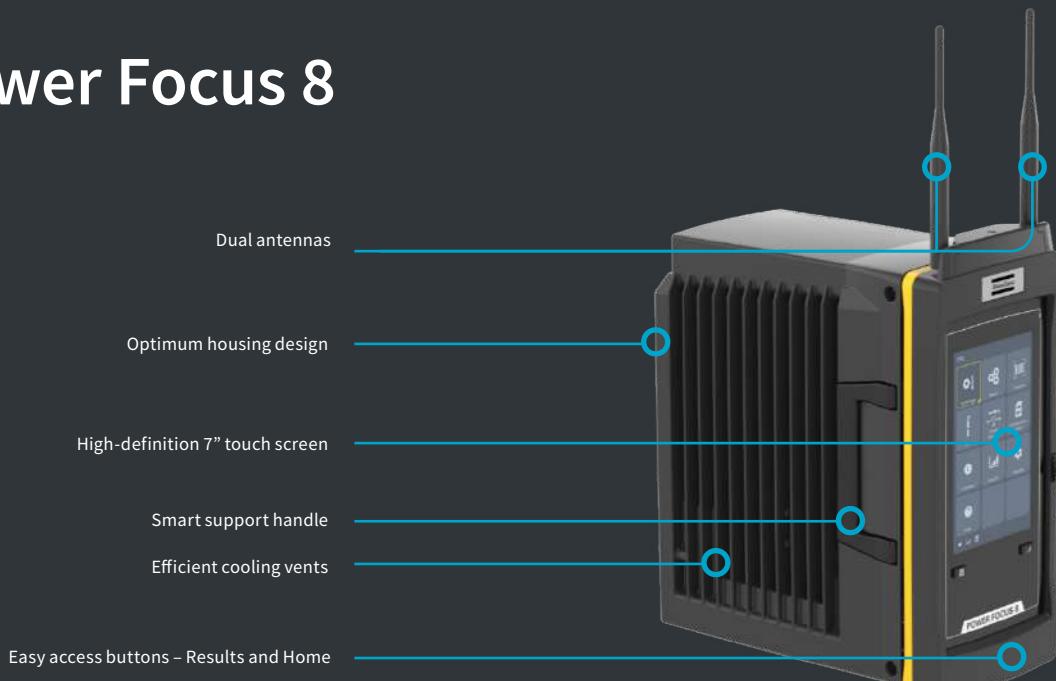


Power Focus S

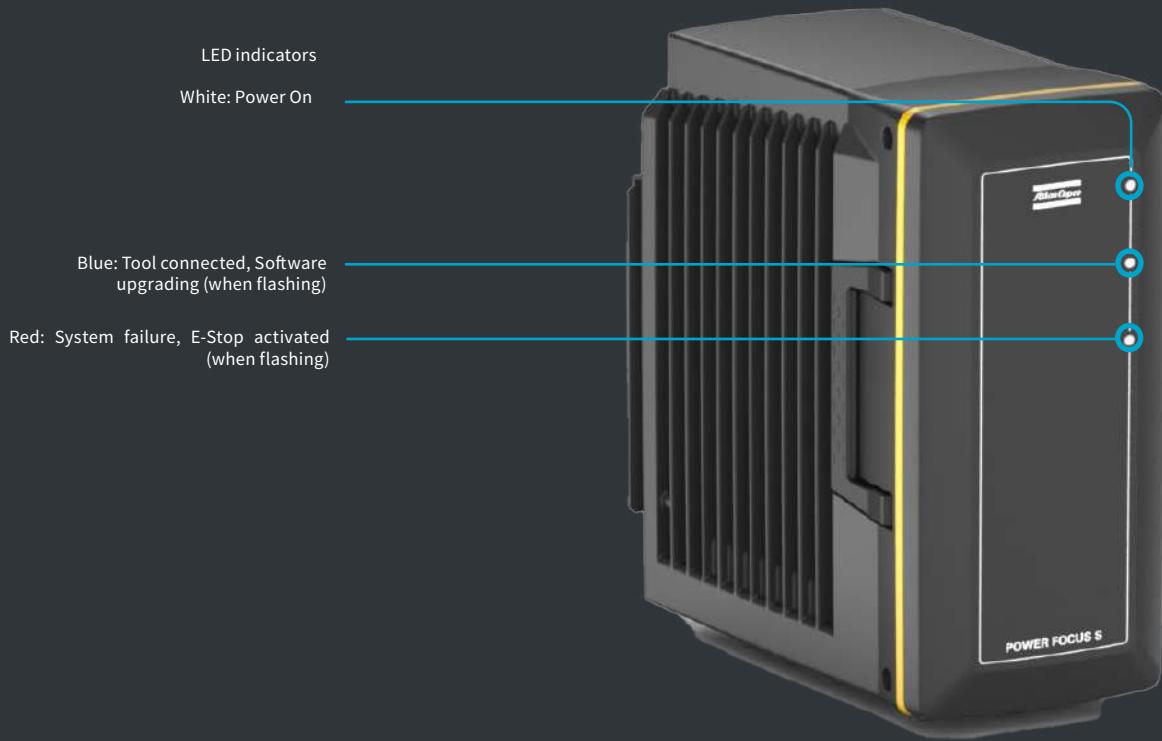


Power Focus S HV

Power Focus 8



Power Focus S



Virtual Stations

A Virtual Station is a digital version of a controller. It is a key component of our tightening platform. The Virtual Station determines the tool type and functionality supported, protocol support, type of data that is reported and more.

The Virtual Stations' different levels enable the control and connection of 15 different tool families.

Batch Control: Customer critical



Creates possibility to connect shut-off tools (BCV/P- Re) and click wrenches (MWR-S) to Power Focus 8. License enables addition of OK/NOK traceability for tightening operations.

Main values

- Batch counting ensures correct number of tightenings performed

Supported functionalities

- 1 program
- 1 sequence
- 4 identifier
- Only clutch step

Joint Control: Quality critical



For tightening applications with a limited number of variants, but where a torque controlled tool is required. Chosen where an air tool is being replaced and better control of the tightening process is needed.

- Torque controlled and angle monitored tightenings, programing options for joints not suitable for air tools
- Supports electric battery pulse tools (TBP-S)

- 1 program
- 1 sequence
- 4 identifier
- Torque control
- Angle monitoring

Station Control: Quality critical



Designed for stations offering more variants. Perfect for customers looking to replace multiple air tools with one electric tool, and where torque controlled tightenings are required.

- Possible to replace multiple air tools with one electric tool
- Supports torque controlled tightenings, improving accuracy compared to an air tool

- 16 programs
- 16 sequences
- 4 identifiers
- Torque control
- Angle monitoring

Critical Control: Safety critical



Designed for tightening applications requiring full traceability and process control. All tightening results stored in the controller and reported to external systems with tightening results and traces. A highly flexible setup for most tightening applications.

- Supports angle controlled tightening strategies
- Supports up to four VIN numbers connected to a result

- 250 programs
- 250 sequences
- 4 identifiers
- Torque control
- Angle control

Process Control: Safety critical



The highest level of Virtual Station type, built for extremely demanding tightening applications. Supports advanced tightening strategies required for safety critical tightenings with full traceability of the tightening.

- Supports advanced tightening strategies for safety critical tightenings
- Supports up to four VIN numbers connected to a result
- TrueAngle and Low Reaction Strategies included for the start

- 250 programs
- 250 sequences
- 4 identifiers
- Torque control / angle control
- Advanced tightening strategies

Sync Critical Control: Safety Critical



Designed for synchronized tightening in multi-spindle applications requiring full traceability and process control. All tightening results stored in the controller and reported to external systems with tightening results and traces. A highly flexible setup for most synchronized tightening applications.

- Supports angle controlled synchronized tightening strategies in multi-spindle applications

- 250 programs
- Up to 50 tools in one station
- Synchronized tightening in multi-spindle applications
- Torque control / angle control

Sync Process Control: Safety Critical



The highest level of functionality, built for extremely demanding synchronized tightening in multi-spindle applications. Supports advanced synchronized tightening strategies, including reject management, required for safety critical tightening with full traceability of the tightening.

- Supports advanced synchronized tightening strategies for safety critical multi-spindle applications
- Reject management

- 250 programs
- Up to 50 tools in one station
- Synchronized tightening in multi-spindle applications
- Advanced synchronized tightening strategies
- Reject management

Matching tools with Virtual Stations

Atlas Copco provides a full range of tightening tools, enabling you to pick the right tool for the application, with superior performance and ergonomics. Power Focus 8 has the possibility to connect tools from 15 families from our offer.

They range from clutch tools, Mechatronic wrenches and low reaction tools to advanced transducerized tools.

Batch



MWR-S



XCB
(Connected mode available in 2025)

Joint



Tensor ES



TBP-S



Tensor SB



XTB
(Connected mode available in 2025)

Station



MWR-TA



Tensor STR



Tensor ST



TBP



SRB

Critical



Tensor SL



Tensor ST Revo



Tensor ITB-A



STR Wrench



QST

Process



Tensor SR



SRB-HA

Power up your tightening stations

Give more functionality to a selected tool by adding features for specific applications. Additional features can be added to a Virtual Station that already has a type assigned, while a controller-wide feature impacts the whole IAM.

Virtual Station features

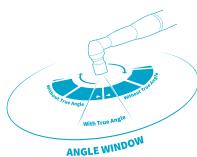


Low Reaction Strategies

TurboTight for STR tools and TensorPulse and TurboTight for SRB tools help minimize reaction force in tightening operations.

Values

- Improves ergonomics by eliminating reaction force; increased productivity due to faster tightening time
- Improves flexibility by eliminating reaction devices
- Reduces costs related to operator fatigue and injuries



TrueAngle

Compatible with STR tools only. Eliminates operator influence on the tightening angle during the full tightening phase. Can be added to a Critical or a Process Virtual Station.

Values

- Improves angle control, increasing tightening quality and accuracy
- Reduces need for reaction devices, savings on equipment and installation
- Detects common assembly problems



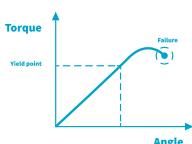
Open Protocol Extension

A Virtual Station feature that enables additional functionality while interacting with Open Protocol systems.

The feature has two functionalities. One is traces over Open Protocol, giving the possibility to transmit and analyze trace curve data in your interface of choice. The other allows the storing, modifying, and uploading of tightening programs in the Power Focus 8 controller.

Values

- Reduces defects by controlling the tightening program from an external system
- Reports tightening traces to an external system

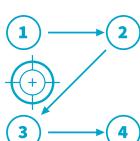


Yield Control

Yield Control enables a controlled strategy in the plastic zone by controlling the decrease in torque build-up when entering the plastic zone.

Values

- Ensures consistent and high clamp force
- Gives the possibility to use smaller screws in an assembly process



Industrial Location Guidance

An integrated, stand-alone error proofing system offering high-level process security for simple to complex applications. Industrial Location Guidance tracks the exact location of the tool relative to the fastening position, ensuring the correct fasteners are tightened to specification, in the proper sequence.

Values

- Improves quality through reduction in scrapped parts and implementation of forced order operation
- Increases productivity due to improved operator efficiency
- Reduces job setup and programming time, resulting in reduced costs

Controller-wide features

Automation Rules



A powerful controller feature designed to enhance the functionality of your Atlas Copco controller. It allows seamless combination and configuration of signals from your controller to one or several external devices, making it easier to integrate common devices such as stacklights and torque arms.

Values

- Streamlines device integrations
- Improves overall efficiency
- Provides flexibility and control for optimizing operations

Zero Position



The Zero position is a specific position stored with either a "Set Zero Position" step or the signal "Set Zero position". The position is repeated once every 360 degrees. The signal is ignored if it is sent during ongoing tightening. The position is reset at boot of the controller and the current position of the tool is then used. Same if a switch of tool is done, a new Zero position will be saved during start up with the new tool.

When the new tightening strategy is selected, the tool will rotate to this set zero position at trigger press. In the new Multistep steps, there is a possibility to select direction when returning to zero position.

The Zero position will be included in the "Process control" license. Zero Position will be an add on feature to the "Critical Control" license.

Values

- To set a fixed position before performing a tightening
- To ensure the tightening starts from same position every time and are done in the same way every time



Power Focus Multi-Spindle Application

The Power Focus 8 Family offers a competitive, top-of-the-line fixtured tightening system. It is suitable for both single spindle torque arm applications and larger fully automated fixtured applications, such as wheel assembly and engine assembly. The Power Focus 8 family portfolio offers two different variants for multi-spindle application, the standard 1-phase Power Focus 8 and Power Focus S, as well as the fixtured optimized 3-phase Power Focus 8 HV and Power Focus S HV.



The Power Focus 8 HV and Power Focus S HV, are fully supporting our transition from the legacy fixtured controller PowerMacs 4000. These 3-phase units are compatible with our entire range of QST tools, from the smallest QST34 to the largest QST210, enabling competitive fixtured applications.

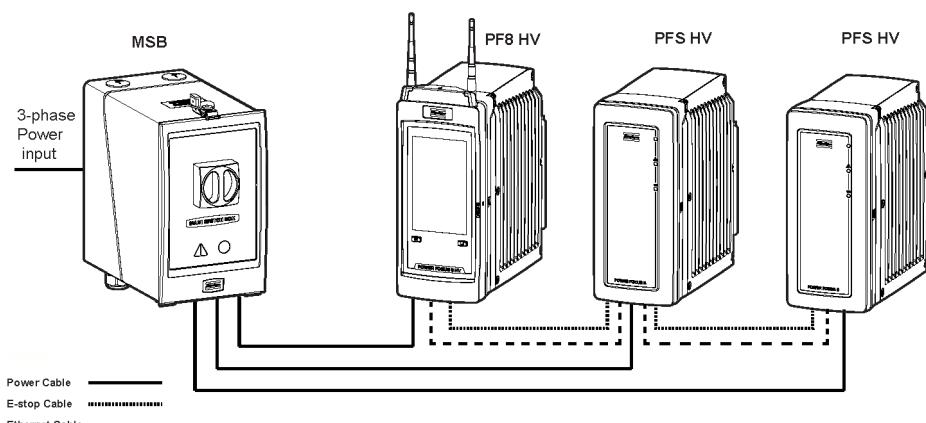
The Power Focus 8 HV and Power Focus S HV are seamlessly integrated into the production line and can be expanded with additional daisy-chained units as needed. Powered through the Main Switch Box (MSB), the controller and drives utilize the same electrical framework as the PowerMACS 4000.

Cable tool and Power Focus 8 Compatibility Matrix

	Power Focus 8 LV	Power Focus 8 / S	Power Focus 8 / S HV
Line Voltage	1-phase, 100-120/200-240 V	1-phase, 100-120/200-240 V	3-phase, 380-480 V
Tensor SL	✓		
Tensor ES, ST, STR, SR		✓	
QST < 350 Nm		✓*	✓
QST > 350 Nm			✓

*QST tools require at least 200 V

Sketch of a 3-channel System



Ordering numbers

Power Focus 8

Item	Order nr.
Hardware	
Power Focus 8	8436 2800 02
Power Focus 8 LV	8436 2810 02
Power Focus 8 HV	8436 2820 02



Power Focus S

Item	Order nr.
Hardware	
Power Focus S	8436 2800 03
Power Focus S HV	8436 2820 03



IAM

Item	Order nr.
Hardware	
IAM Power Focus 32GB	8436 0910 01
IAM PF 32GB Critical 1VS	8436 0950 09
IAM PF 32GB Process 1VS	8436 0950 08



Configuration and license management

Item	Order nr.
Hardware	
TT2 Line Manager	8092 1714 06
TT2 Line Configurator	8092 1714 02
TT2 Station Setup	8092 1714 00
FMS Portable	8436 1910 99



Workstation Solutions – Total process control

In the Smart Connected Ecosystem, Atlas Copco provides comprehensive Total Workstation Solutions, incorporating reaction supports such as arms, visualization equipment, positioning solutions, and error-proofing accessories. To further enhance productivity and quality assurance, Atlas Copco offers an advanced assembly software suite that enables the collection and analysis of tightening data, as well as efficient management of quality control.

Additionally, Atlas Copco offers station control and work guidance solutions through their Smart AMS and SQS solutions. These solutions provide effective support in optimizing operations and streamlining workflow processes.

For detailed information regarding these solutions and their corresponding order numbers, we recommend reaching out to your dedicated Atlas Copco sales representative. They will be able to assist you with any inquiries and guide you through the selection process.



Fieldbus modules

Item	Order nr.
Hardware	
Anybus CC - Profibus	8436 0941 05
Anybus CC - DeviceNet	8436 0941 10
Anybus CC - EtherNet	8436 0941 15
Anybus CC - Profinet	8436 0941 20
Anybus CC - CC Link	8436 0941 25
Anybus CC - CC Link IE	8436 0941 30

Selected TWS accessories

Item	Order nr.
Hardware	
Operator Panel	8433 0565 00
CAN Converter	8433 0567 10
Stacklight ESL-04 STANDARD	8433 0570 13
Selector 6 M8	8433 0613 08
Industrial Location SpotPoint (ILS)	More info from Atlas Copco sales rep
Industrial Location Guidance (ILG)	More info from Atlas Copco sales rep

Above items represent a minor selection of Atlas Copco workstation solutions. We offer an even wider selection of workstation solutions designed to deliver comprehensive process control. Our dedicated Atlas Copco representatives are ready to assist you in identifying the optimal solution that will empower your assembly process with total control.

Read more about the Power Focus Family by scanning the QR Code



Software: Virtual Stations

Virtual stations can be delivered electronically within 24 hours or physically, following standard delivery times.

Electronic delivery

Item	Order nr.
Batch Control	
Batch Control Virtual Station 1 pcs	8436 1960 10
Joint Control	
Joint Control Virtual Station 1 pcs	8436 1960 20
Station Control	
Station Control Virtual Station 1 pcs	8436 1960 30
Critical Control	
Critical Control Virtual Station 1 pcs	8436 1960 40
Process Control	
Process Control Virtual Station 1 pcs	8436 1960 50

Physical delivery

Item	Order nr.
Batch Control	
Batch Control Virtual Stations 1 pcs	8436 1960 11
Batch Control Virtual Stations 2 pcs	8436 1960 12
Batch Control Virtual Stations 5 pcs	8436 1960 15
Batch Control Virtual Stations 10 pcs	8436 1960 16
Joint Control	
Joint Control Virtual Station 1 pcs	8436 1960 21
Joint Control Virtual Station 2 pcs	8436 1960 22
Joint Control Virtual Station 5 pcs	8436 1960 25
Joint Control Virtual Station 10 pcs	8436 1960 26
Station Control	
Station Control Virtual Station 1 pcs	8436 1960 31
Station Control Virtual Station 2 pcs	8436 1960 32
Station Control Virtual Station 5 pcs	8436 1960 35
Station Control Virtual Station 10 pcs	8436 1960 36
Critical Control	
Critical Control Virtual Station 1 pcs	8436 1960 41
Critical Control Virtual Station 2 pcs	8436 1960 42
Critical Control Virtual Station 5 pcs	8436 1960 45
Critical Control Virtual Station 10 pcs	8436 1960 46
Process Control	
Process Control Virtual Station 1 pcs	8436 1960 51
Process Control Virtual Station 2 pcs	8436 1960 52
Process Control Virtual Station 5 pcs	8436 1960 54
Process Control Virtual Station 10 pcs	8436 1960 55

Manual tightening

For applications requiring only a Mechatronic wrench

Item	Order nr.
Electronic Delivery	
Manual Tightening Control 1 pcs	8436 1970 20
Physical Delivery	
Manual Tightening Control 1 pcs	8436 1970 21
Manual Tightening Control 2 pcs	8436 1970 22
Manual Tightening Control 5 pcs	8436 1970 25
Manual Tightening Control 10 pcs	8436 1970 26

Software: Features

Features can be delivered electronically within 24 hours or physically, following standard delivery times.

Electronic delivery

Item	Order nr.
Low Reaction Strategies	
Low Reaction Strategies 1 pcs	8436 1910 80
TrueAngle	
TrueAngle 1 pcs	8436 1910 03
SoftPLC	
SoftPLC 1 pcs	8436 1910 04
Yield Control	
Yield Control 1 pcs	8436 1910 06
Open Protocol Extension	
Open Protocol Extension 1 pcs	8436 1950 20
Industrial Location Guidance	
Industrial Location Guidance 1 pcs	8436 1950 10
Zero Position	
Zero Position	8436 1950 30
TrueAngle	
TrueAngle 1 pcs	8436 1910 03

Physical delivery

Item	Order nr.
Low Reaction Strategies	
Low Reaction Strategies 1 pcs	8436 1910 81
Low Reaction Strategies 2 pcs	8436 1910 82
Low Reaction Strategies 5 pcs	8436 1910 85
Low Reaction Strategies 10 pcs	8436 1910 86
TrueAngle	
TrueAngle 1 pcs	8436 1910 31
TrueAngle 2 pcs	8436 1910 32
TrueAngle 5 pcs	8436 1910 35
TrueAngle 10 pcs	8436 1910 36
SoftPLC	
SoftPLC 1 pcs	8436 1910 41
SoftPLC 2 pcs	8436 1910 42
SoftPLC 5 pcs	8436 1910 45
SoftPLC 10 pcs	8436 1910 46
Yield Control	
Yield 1 pcs	8436 1910 61
Yield 2 pcs	8436 1910 62
Yield 5 pcs	8436 1910 65
Yield 10 pcs	8436 1910 66
Open Protocol Extension	
OP Extension 1 pcs	8436 1950 21
OP Extension 2 pcs	8436 1950 22
OP Extension 5 pcs	8436 1950 25
OP Extension 10 pcs	8436 1950 26
Industrial Location Guidance	
Industrial Location Guidance 1 pcs	8436 1950 11
Zero Position	
Zero Pos License 1 pcs	8436 1950 31
Zero Pos License 2 pcs	8436 1950 32
Zero Pos License 5 pcs	8436 1950 35
Zero Pos License 10 pcs	8436 1950 36

Ordering Numbers Multi-Spindle Applications

Part numbers Power Supplies

Item	Order nr.
Hardware	
Main Switch Box	8435 5660 00
Distribution Box	8435 6560 50



Part numbers E-stop Cables

Item	Order nr.
Hardware	
PF8 E-stop cable 1m Std	4220 8800 01
PF8 E-stop cable 3m Std	4220 8800 03
PF8 E-stop cable 5m Std	4220 8800 05



Part numbers Power Cables

Power cables between Power Focus 8/S HV and Main Switch Box or Distribution box

Item	Order nr.
Hardware	
Power Cable 1350mm	4222 1369 13
Power Cable 1650mm	4222 1369 16
Power Cable 1950mm	4222 1369 19
Power Cable 3m	4222 1369 30
Power Cable 5m	4222 1369 50
Power Cable 10m	4222 1369 10
Power Cable 15m	4222 1369 15
Power Cable 20m	4222 1369 20



Part numbers Physical Licenses

Item	Order nr.	Channels
Software		
Sync Critical Control 1 pcs	8436 1990 41	1
Sync Critical Control 2 pcs	8436 1990 42	2
Sync Critical Control 5 pcs	8436 1990 45	5
Sync Critical Control 10 pcs	8436 1990 46	10
Sync Process Control 1 pcs	8436 1990 51	1
Sync Process Control 2 pcs	8436 1990 52	2
Sync Process Control 5 pcs	8436 1990 55	5
Sync Process Control 10 pcs	8436 1990 56	10

Part numbers Electronic Licenses

Item	Order nr.	Channels
Software		
El. Del. Sync Critical Control	8436 1990 40	1
El. Del. Sync Process Control	8436 1990 50	1

Part numbers pre-packed IAMs

Item	Order nr.	Channels
Software		
IAM PF Sync Critical 1 CH	8436 0963 01	1
IAM PF Sync Critical 2 CH	8436 0963 02	2
IAM PF Sync Critical 3 CH	8436 0963 03	3
IAM PF Sync Critical 4 CH	8436 0963 04	4
IAM PF Sync Critical 5 CH	8436 0963 05	5
IAM PF Sync Critical 6 CH	8436 0963 06	6
IAM PF Sync Critical 7 CH	8436 0963 07	7
IAM PF Sync Critical 8 CH	8436 0963 08	8
IAM PF Sync Critical 9 CH	8436 0963 09	9
IAM PF Sync Critical 10 CH	8436 0963 10	10
IAM PF Sync Critical 15 CH	8436 0963 15	15
IAM PF Sync Critical 25 CH	8436 0963 25	25
IAM PF Sync Critical 50 CH	8436 0963 50	50

Item	Order nr.	Channels
Software		
IAM PF Sync Process 1 CH	8436 0964 01	1
IAM PF Sync Process 2 CH	8436 0964 02	2
IAM PF Sync Process 3 CH	8436 0964 03	3
IAM PF Sync Process 4 CH	8436 0964 04	4
IAM PF Sync Process 5 CH	8436 0964 05	5
IAM PF Sync Process 6 CH	8436 0964 06	6
IAM PF Sync Process 7 CH	8436 0964 07	7
IAM PF Sync Process 8 CH	8436 0964 08	8
IAM PF Sync Process 9 CH	8436 0964 09	9
IAM PF Sync Process 10 CH	8436 0964 10	10
IAM PF Sync Process 15 CH	8436 0964 15	15
IAM PF Sync Process 25 CH	8436 0964 25	25
IAM PF Sync Process 50 CH	8436 0964 50	50

Service Solutions from Atlas Copco

At Atlas Copco service, we create the best value from your investments

Every production line and industrial site is unique and has its own challenges. With that in mind, our service solutions are designed to help you get the most out of your industrial equipment. We combine analysis of production data with know-how and expertise to enhance your productivity and quality, while maximizing the cost efficiency of your maintenance.



For Power Focus 8, tools and software, we can provide a wide range of services

- Startup, calibration and programming of the tightening system.
- Optimized maintenance solutions for cost savings and higher uptime.
- Operator training on systems and products.
- Tightening Services – a consultancy service for optimized tightening results.

Atlas Copco offers worldwide service

- We have a global presence and can support you at every step of the assembly production process.
- Standard service products and tailor-made solutions are available.



Contact Us

As your dedicated assembly partner, we have the technology you need to handle the production challenges of today and in the future. Our Smart Integrated Assembly ecosystem will meet your needs and keep your operation ahead of the game.

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