PST
Press Solutions
Powerful, durable and accurate
Full commonality

Built on the industry proven QST fixtured spindle, the PST is the toughest and most versatile electric servo press available on the market. Together with all Atlas Copco smart connected products and software solutions, PST supports you to reduce costs, increase productivity and quality.

Thanks to the compact design of the PST press spindle it can be used as a manual press station. This can easily be built using Atlas Copco's standardized express mechanics components and handles.
**Features**

A. Planetary Roller Screw. Lean, compact, durable and optimized to handle high speeds, accelerations and decelerations.

B. Load cell on outgoing shaft giving accurate and precise load readings.

C. Thanks to a mechanical gear unit a high level of durability will be achieved. Installations are easier due to the compact design.

D. PSTs can be ordered with a brake as an option.

E. Press motor chip. Unique tool parameters, serial numbers and amount of cycles are stored in the PST motor chip.

F. Common standard QST motor with the smart cable connector which can be turned in 2 directions enabling flexibility.

G. Stand alone designed controller which is covering the complete force range with high safety level STO Cat 3 PLe.

H. Reset E-stop button.

I. Push buttons. Toggles between displayed information.

J. Text display. TC node address, IP-address, event code, software version, cycle data.

K. Indicator lights. ALL OK, OK, NOK ALARM, E-stop.

L. Ethernet switch, internal redundant, E-stop relays, digital in/output, opto isolated, 24V for external use, anybus slot, double ethernet.
Productivity cut costs

Smart and reliable controller
PST is the new electric servo press and family member to the already proven and well known PowerMACS 4000 system.

The PST which is running on the PowerMACS 4000 controller is using the same tool cable and motor as the tightening and gauging spindle QST. The software, ToolsTalk Press, looks identical to ToolsTalk Tightening and ToolsTalk Gauging and is loaded with smart pressing strategies and functions to give you full control of your pressing process.

The PST has a remarkable compact design in relation to what press forces it can deliver. This is mainly explained by it’s powerful motor (QST), slim mechanical gearbox and its high efficient planetary roller screw which has the function to transform the rotational motion from the gearbox to a powerful and accurate linear motion.

Fast and accurate
PST is using the same powerful motor as the QST tightening spindle as well as the same servo in the PowerMACS 4000 controller.

With very accurate load cell readings and advanced monitoring and control parameters in the software, the PST press system can achieve controlled and very fast rundown speed. As well as very accurate pressing results.

Pressing applications are frequently used in the automotive and in the general industries. The PST press system will make your process run accurate, productive and clean.
One platform
Tightening, gauging and pressing

Easy to order and integrate. Single controller, single cable, one of a kind press unit and you are ready to produce. No extra hardware, cables or cabinets, lowering your total cost of ownership.

Full commonality – One high end solution
Our high-end solution for gauging, tightening and pressing is one of a kind. It’s completely unique. Through commonality we reduce programming and verification costs, reduce cost of spare parts and service and offer one common platform for your operators. Thus also reducing time and cost for training.

Stand alone controller
The PowerMACS 4000 has a stand alone and compact design, this means there is no need to mount the PowerMACS 4000 into an electric cabinet. This will save you floor space as well as the need for external cooling e.g. air conditioner is no longer needed. Further on PowerMACS 4000 has a wealth of tested pressing strategies, meaning every pressing joint can be pressed in the best possible way in terms of cycle time and quality.
ToolsTalk Press provides you with all you will ever need.

**SoftPLC – No need for external PLC**
It couldn’t be more convenient! The advanced PowerMACS 4000 has an integrated SoftPLC. This provides PLC functionality as an integrated part of the controller. This means easier integration and no need for additional hardware.

**ToolsTalk PowerMACS**
The ToolsTalk software for PowerMACS 4000 has been developed with user friendliness and customer adaptation in mind. This Windows-based program can be installed on a station PC, a laptop or a back office PC. ToolsTalk supports off-line programming; to edit or upload programs, simply connect the PC to the PowerMACS 4000 controller using an Ethernet cable.

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**Two technologies – One simple choice**

Hydraulic and servo presses are two rather common technologies when it comes to pressing technique. Between them there are several differences. It does not only come down to pressing performance, there is also economic and environmental issues. Below comparison displays the obvious differences, and why one technique always comes out on top.

**Function**

<table>
<thead>
<tr>
<th>Function</th>
<th>Hydraulic press</th>
<th>PST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force Management</td>
<td>✗ External sensors are needed</td>
<td>✔ Integrated load cell</td>
</tr>
<tr>
<td>Position Management</td>
<td>✗ External sensors are needed</td>
<td>✔ Integrated position sensor</td>
</tr>
<tr>
<td>Speed Control</td>
<td>A controlled speed change during movement is difficult to perform.</td>
<td>✔ Full control of the speed.</td>
</tr>
<tr>
<td>Acceleration Control</td>
<td>✗ Not Possible</td>
<td>✔ Full control of acceleration and deceleration.</td>
</tr>
<tr>
<td>Hold the Force</td>
<td>✗ Difficult due to pressure leakage</td>
<td>✔ DYNA Force</td>
</tr>
<tr>
<td>Stop Control</td>
<td>It is difficult to stop promptly</td>
<td>✔ Process can be stopped at any position during the movement</td>
</tr>
<tr>
<td>Data Collection</td>
<td>✗</td>
<td>✔ ToolsNet</td>
</tr>
<tr>
<td>Drive Equipment</td>
<td>A pump and a controller unit are needed</td>
<td>PowerMACS 4000</td>
</tr>
<tr>
<td>Maintenance Cost</td>
<td>Frequent maintenance of the drive equipment is needed. Pumps and other accessories also need service.</td>
<td>LOW.</td>
</tr>
<tr>
<td>Running Cost</td>
<td>The power consumption of the pump is high.</td>
<td>LOW.</td>
</tr>
<tr>
<td>Floor Space Occupation</td>
<td>HIGH.</td>
<td>LOW.</td>
</tr>
</tbody>
</table>
ToolsNet 8 dashboard is modular giving you a direct overview of the production in the plant. Extracting and visualizing the information you find most interesting and important to monitor – any time. Every user can configure the dashboard in a way that best suits their needs.

Maybe you want a complete overview of the assembly line to analyze productivity. Or you need to monitor a certain station to improve on quality.

**ToolsNet 8 will:**
- Boost your productivity with reduced rework and less bottlenecks
- Improve your quality by avoiding recalls tracking changes and finding the problems before they occur
- Reduce service costs with preventive maintenance for your tools, reduced downtime and faster reaction time with alert notices

**New license or upgrade?**
If you currently are working with ToolsNet 4000 you can install an upgrade to ToolsNet 8. Users of previous versions and first time users need to do a full installation of ToolsNet 8.

Get in touch with your Atlas Copco contact today.
Learn more on www.atlascopco.com

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**Latest traces**
Overlay and compare multiple traces for easy diagnostics

**Top NOK applications**
Highlight the application with the highest failure rate

**Latest results**
See an overview of the latest results with advanced filtering functionalities

**Running SPC**
Shows the real-time X-bar and range chart for a specific application

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<table>
<thead>
<tr>
<th>AC Node 21.5 Basic</th>
<th>8434 2301 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>ToolsNet 8 Analysis L1</td>
<td>8092 1910 01</td>
</tr>
</tbody>
</table>
Global projects

As a global partner, we efficiently manage projects providing proven, innovative solutions to meet global and local customer needs.
### PST Press

#### Maximum Pushing Load in kN

<table>
<thead>
<tr>
<th>Model</th>
<th>Max push force kN</th>
<th>Min push force LBS</th>
<th>Max pull stroke mm</th>
<th>Min pull stroke</th>
<th>Stroke mm</th>
<th>Speed mm/s</th>
<th>Weight kg</th>
<th>Load mm</th>
<th>mm</th>
<th>Ordering No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PST10-400CUL-S</td>
<td>10</td>
<td>220</td>
<td>200</td>
<td>165</td>
<td>66</td>
<td>145</td>
<td>150</td>
<td>1245</td>
<td>150</td>
<td>105</td>
</tr>
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<td>1245</td>
<td>150</td>
<td>105</td>
</tr>
</tbody>
</table>

#### Maximum Stroke length in mm

<table>
<thead>
<tr>
<th>Model</th>
<th>Stroke length mm</th>
<th>Ordering No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PST10-200 C B U L</td>
<td>200</td>
<td>4232 0125 90</td>
</tr>
<tr>
<td>PST10-200 C B U L-S</td>
<td>200</td>
<td>4232 0125 93</td>
</tr>
<tr>
<td>PST10-200 C B U L</td>
<td>200</td>
<td>4232 0125 92</td>
</tr>
<tr>
<td>PST10-200 C B U L-S</td>
<td>200</td>
<td>4232 0125 91</td>
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#### ToolTalk PowerMACS 4000 Pressing

<table>
<thead>
<tr>
<th>Model</th>
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<tbody>
<tr>
<td>Force Transducer</td>
<td></td>
</tr>
<tr>
<td>Brake</td>
<td></td>
</tr>
<tr>
<td>Commutation Sensor</td>
<td></td>
</tr>
<tr>
<td>Load Cell</td>
<td></td>
</tr>
</tbody>
</table>

#### Brake control module

<table>
<thead>
<tr>
<th>Model</th>
<th>Ordering No.</th>
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<tr>
<td>PST Tool Adapter</td>
<td></td>
</tr>
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</table>

#### Tool adapters

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<th>Ordering No.</th>
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<tbody>
<tr>
<td>PST Tool Adapter</td>
<td></td>
</tr>
</tbody>
</table>

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### PST 10-200 CBUL

- **10** Maximum Pushing Load in kN
- **B** Brake
- **200** Maximum Stroke length in mm
- **U** U-shaped gear set
- **C** Commutation Sensor
- **L** Load Cell

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### PST Special

- **Ø 80g7**
- **Ø 100**
- **Ø 40g7**
- **Ø 85**
- **Travel 200**
- **3:20**
- **Ø 12H7 (D IN810)**
- **M16x2**
- **Ø 9 (6x)**
- **Total cable length 6m**
- **CG**
- **1:1**
- **M8↓12 (8x)**
- **M8 (4x)**
- **28**
- **70**
- **13.5**
- **4232 6394 90**
- **Press Tool Adapter PST35**
- **Press Tool Adapter PSTS 5 and 50-S**
- **Press Tool Adapter PSTS 10 and 20 all version**
- **Press Tool Adapter IPTS3**
- **Press Tool Adapter IPTS 5 and 50-S**
- **Press Tool Adapter IPTS 10 and 20 all version**
- **Press Tool Adapter IPTS3**