

PST PRESS SPINDLE

Power, Speed and Accuracy



Atlas Copco

FULL COMMONALITY – COMPACT DESIGN.

Built on the industry proven QST solution, our pressspindle system delivers both high productivity and full commonality. It is easy to use and to maintain. The compactness and operating speed will have your pressing operations run smooth, fast, safe and accurate.





Thanks to the compact design of the PST press spindle it can be used as a manual press station. This can easily be realized by Atlas Copco's standardized Express Components.

PST PRESS SPINDLE SYSTEM





Features

- A** Planetary Roller Screw. Lean and compact it can 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 gears compact design.
- D** PSTs can be ordered in a brake version. The brake can be used as a parking or as a holding brake.
- E** Spindle Chip. Unique tool parameters, serial numbers and amount of cycles are stored in the Spindle Chip.
- F** Standard QST motor with the smart cable connector which can be turned in 2 directions of freedom.
- G** Stand alone designed controller which is covering the complete force range.
- H** Reset E-stop button*.
- I** Push buttons. Toggles between displayed information.
- J** Text display. TC node address, IP-address, Error messages, Software version, Cycle data.
- K** Indicator lamps. 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 ports* , TC communication LAN.

* TC-4000-P only)

PRODUCTIVITY CUT COSTS

POWER MACS 4000
PRIMARY CONTROLLER

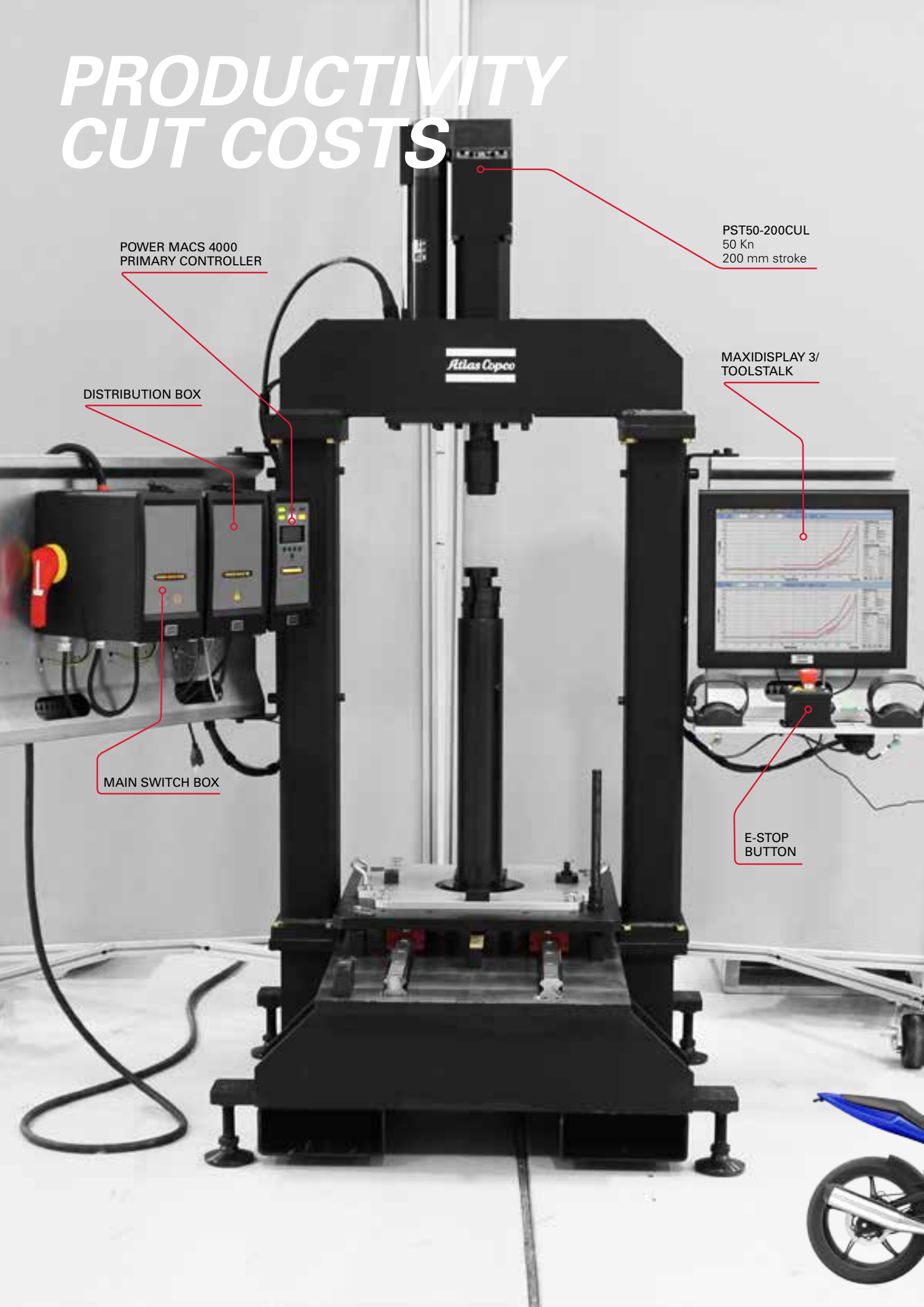
PST50-200CUL
50 Kn
200 mm stroke

DISTRIBUTION BOX

MAXIDISPLAY 3/
TOOLSTALK

MAIN SWITCH BOX

E-STOP
BUTTON



Smart and reliable controller

PST is the new electrical servo press and family member to the already proven and well known Power MACS 4000 system.

The PST which is running on the Power MACS 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 its' 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

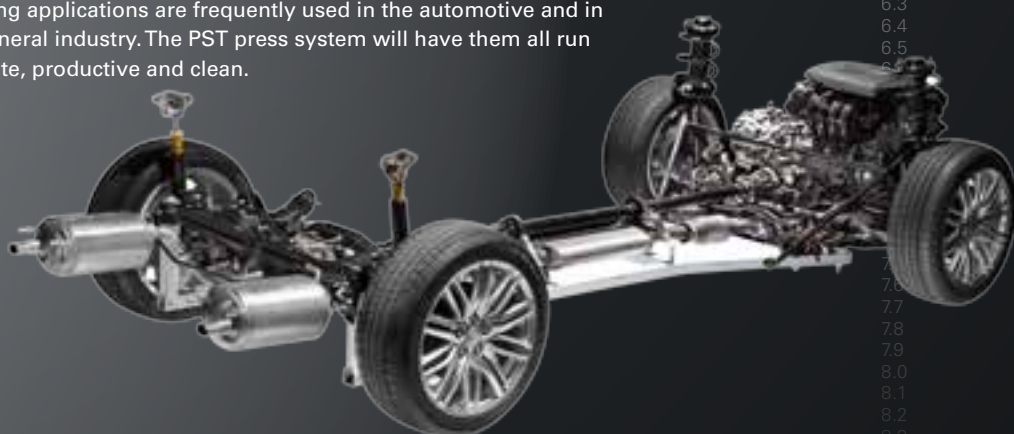
PST is using the same powerful motor as the QST tightening spindle as well as the same servo in the Power MACS 4000 controller. With very accurate load cell readings and advanced monitoring and control parameters in the software, the PST press system can achieve controlled and very fast rundown speed. As well as very accurate pressing results.

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Pressing applications are frequently used in the automotive and in the general industry. The PST press system will have them all run accurate, productive and clean.



POWER MACS 4000 – ONE SOLUTION



Advanced
process control and
monitoring functions
make it easy to view
and collect data.



Same ToolsTalk

Same ToolsNet

Same PLC

Same QIFs

Same Everything

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

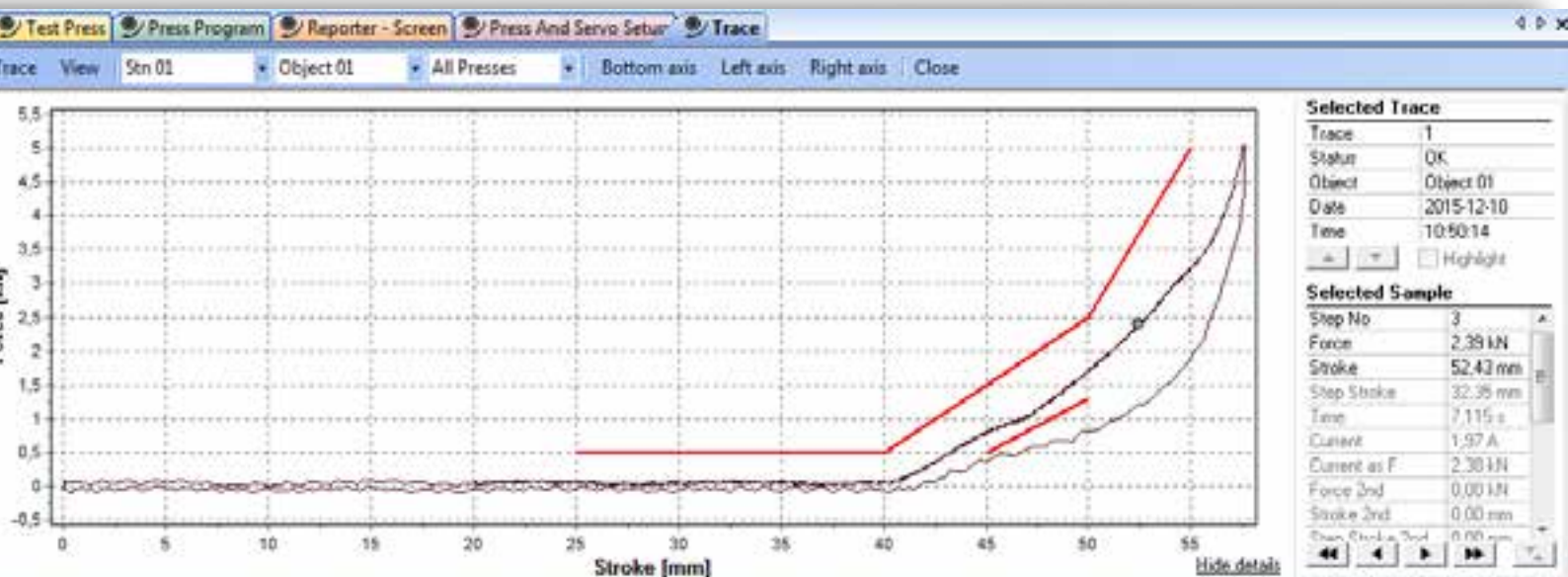
The Power MACS 4000 has a stand-alone design thanks to its' thermal design. This means there is no need to mount the Power MACS 4000 into an electrical cabinet. This will save you floor space as well as the need for external cooling e.g. air conditioner is no longer needed. Further on Power MACS 4000 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.

Soft PLC – No need for external PLC

It couldn't be more convenient! The advanced Power MACS 4000 has an integrated soft PLC. This provides PLC functionality as an integrated part of the controller. This means easier integration and no need for additional hardware.

ToolsTalk Power MACS

The ToolsTalk software for Power MACS 4000 has been developed with user friendliness and customer adaptation in mind. This Window-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 Power MACS 4000 controller using an Ethernet cable.





Two technologies – One simple choice

Hydraulic and servo presses are two rather common technologies when it comes to pressing technique. Between them 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	HYDRAULIC PRESS	PST
Force Management	NO. External sensors are needed	YES. Integrated Load Cell
Position Management	NO. External sensors are needed	YES. Integrated position sensor
Speed Control	A controlled speed change during movement is difficult to perform.	YES. Full control of the speed.
Acceleration Control	NO. Not Possible	YES. Full Control of Accelleration and Decelleration.
Hold the Force	NO. Difficult due to pressure leakage	YES. DYNA Force
Stop Control	It is difficult to stop promptly	YES. Process can be stopped at any position during the movement
Data Collection	NO.	YES. ToolsNet
Drive Equipment	A pump and a controller unit are needed	Power MACS 4000
Maintenance Cost	Frequent maintenance of the drive equipment is needed. Pumps and other accessories also need service.	LOW.
Running Cost	The power consumption of the pump is high.	LOW.
Floor Space Occupation	LARGE.	LOW.

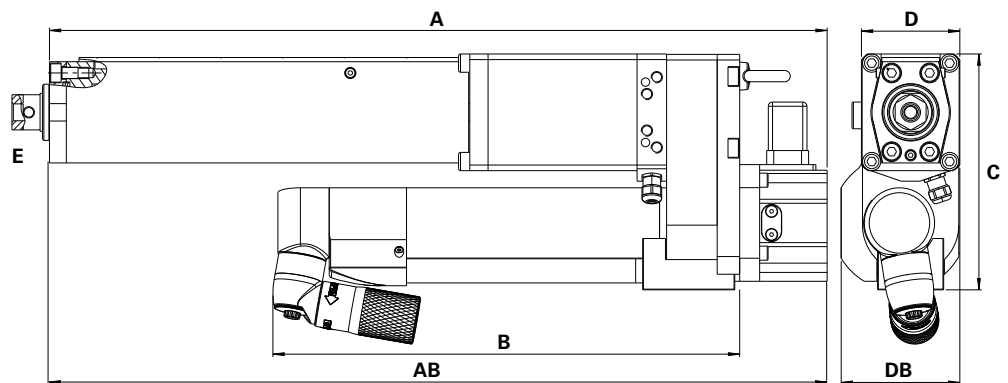
PST Press Spindles

Model	Max push force kN	Max pull force kN	Stroke mm	Speed mm/s	Weight kg	Min C-C distance mm	A mm	B mm	AB mm	C mm	D mm	DB mm	E mm	Ordering No
PST10-50CUL	10	2	50	500	12	71	341	329	–	168	70	–	27	9831 4069 82
PST10-100CUL	10	2	100	500	13	71	391	329	–	168	70	–	27	9831 4069 81
PST10-200CUL	10	2	200	500	14.5	71	491	329	–	168	70	–	27	9831 4069 62
PST10-200CBUL	10	2	200	500	15.5	86	491	329	553	168	70	85	27	9831 4069 78
PST10-300-CUL	10	2	300	500	16.5	71	591	329	–	168	70	–	27	9831 4069 64
PST10-300CBUL	10	2	300	500	17.5	86	591	329	653	168	70	85	27	9831 4069 67
PST20-200CUL	20	4	200	250	21	77	508	390	–	198	76	–	28.5	9831 4069 60
PST20-200CBUL	20	4	200	250	23	88	508	390	570	198	76	87	28.5	9831 4069 77
PST20-400CUL	20	4	400	250	25	77	708	390	–	198	76	–	28.5	9831 4069 63
PST20-400CBUL	20	4	400	250	27	88	708	390	770	198	76	87	28.5	9831 4069 66
PST35-200CUL	35	7	200	255	44	91	612.5	498	–	244	90	–	56	9831 4069 47
PST35-400CUL	35	7	400	255	48	91	812.5	498	–	244	90	–	56	9831 4069 46
PST50-200CUL	50	10	200	170	50	106	643	498	–	245	105	–	56	9831 4069 84
PST50-400CUL	50	10	400	170	57	106	843	498	–	245	105	–	56	9831 4069 44

Naming convention:

PST 10-200CBUL

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



Tool Talk Power MACS 4000 Pressing

License	Designation	Ordering No
1 User	English	8092 1310 01
5 Users	English	8092 1310 05
10 Users	English	8092 1310 10
Plant License	English	8092 1310 97

COMMITTED TO SUSTAINABLE PRODUCTIVITY

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