DAF cylinders

Type		DAF 450	DAF 850	DAF 1300	DAF 1700
Capacity at 6 bar	kN	4.5	8.5	13	17
Return force at 6 bar	kN	4	4	4	4
Stroke max.*	mm	40/60/80/100/120	40/60/80/100/120	40/60/80/100/120	40/60/80/100/120
A	mm	363	449	535	621
B	mm	112	112	112	112
C	mm	32	32	32	32

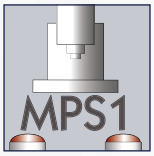
Type		DAF 2100	DAF 2800	DAF 3400
Capacity at 6 bar	kN	21	28	34
Return force at 6 bar	kN	20	27	33
Stroke max.*	mm	40/60/80/100/120	40/60/80/100/120	40/60/80/100/120
A	mm	581	689	797
B	mm	134	134	134
C	mm	38	38	38

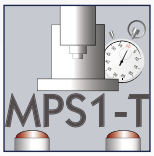
Type		DAF 1100	DAF 2200	DAF 3300	DAF 4500	DAF 5600
Capacity at 6 bar	kN	11	22	33	45	56
Return force at 6 bar	kN	10	10	10	10	10
Stroke max.*	mm	40/60/80/100/120	40/60/80/100/120	40/60/80/100/120	40/60/80/100/120	40/60/80/100/120

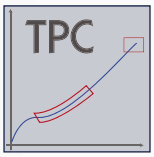
* Specify the stroke length when ordering.

DAF Direct-acting press cylinders

The accessories

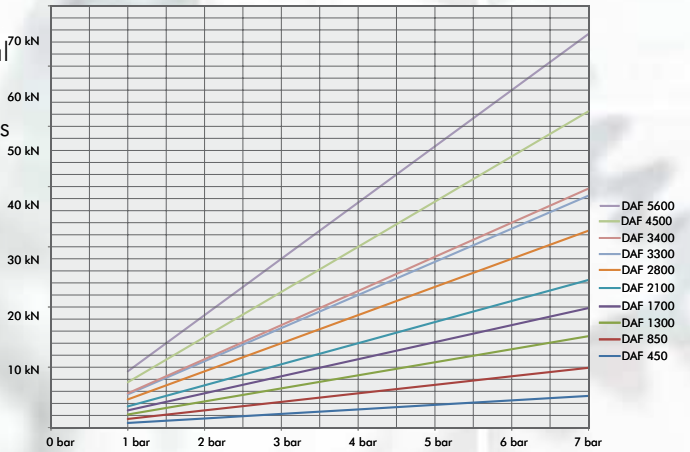






DAF direct-acting press cylinders with flange have been designed for flexible use in special machines. DAF press cylinders come with all the advantages of modern pneumatic presses as standard:

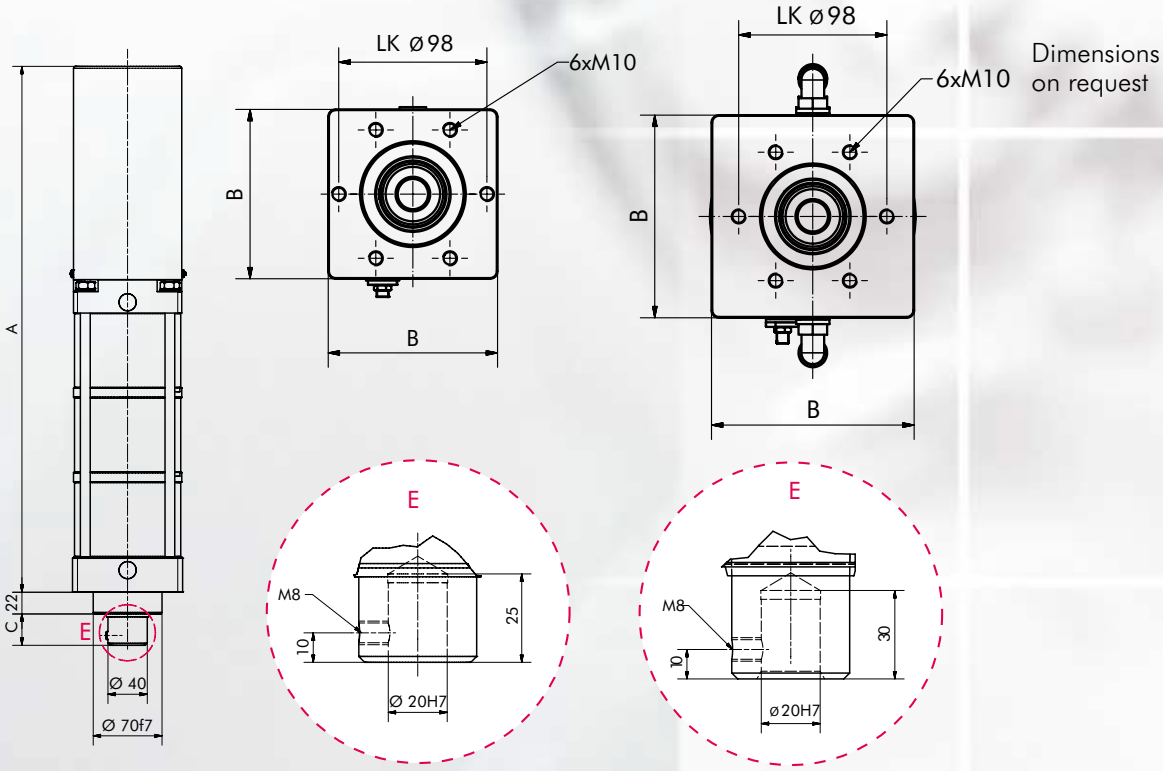
- Stepless adjustment of stroke length
- Adjustable end-position damping
- Tool mounting hole
- Easy to automate



DAF 450
DAF 850
DAF 1300
DAF 1700

DAF 2100
DAF 2800
DAF 3400

DAF 1100
DAF 2200
DAF 3300
DAF 4500
DAF 5600



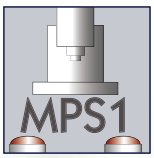
Dimensions on request

For details of fine stroke adjustment see page 31

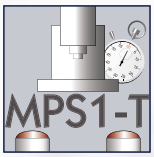
Request CAD at www.maederpressen.de or directly from Tel. +49 (0)7467-9467-0

Type MPS-1 controllers are type-tested and approved in accordance with the EC Machinery Directive 2006/42/EC to work with presses in workstations with manual loading and open tools. Here, safety is provided by the controller, which is designed to be both electrically and pneumatically redundant.

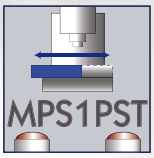
Type MPS-1 controllers comprise an electrical safety module with two-hand buttons and an electronic 5-digit parts counter. It is possible to switch from two-hand mode to an external start signal for the press, e.g. a foot switch, by means of a key-operated switch if a safe tool is used. The foot switch or equivalent is not included with the Type MPS-1 controller.



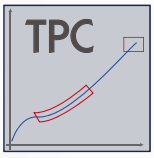
MPS-1
Basic version for two-hand operation.



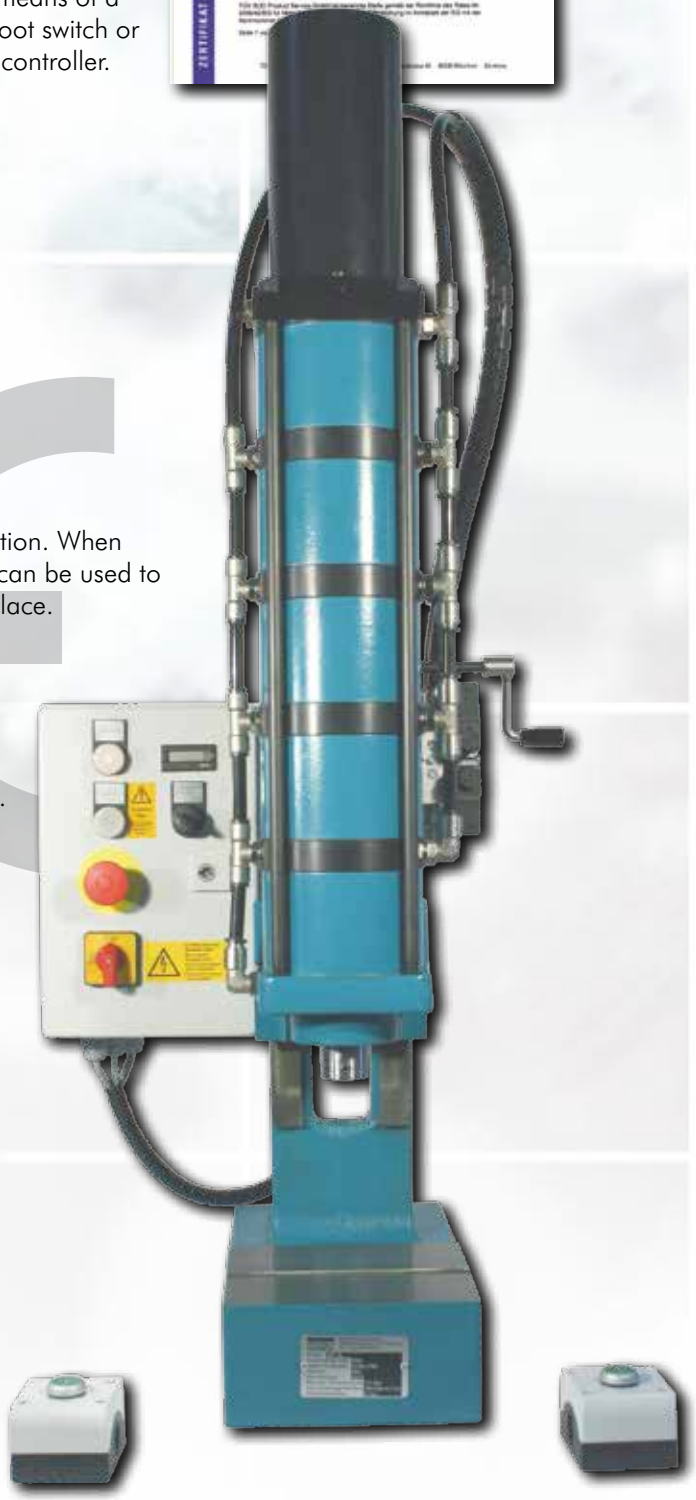
MPS-1 T
MPS-1 controller with additional stop time function. When the press has reached its end position, a timer can be used to determine when the return stroke should take place.



MPS-1 PST
This type of MPS-1 controller is used to control a pneumatic slide table in addition to the press. The scope of supply also includes the stop time function (see MPS-1 T)



MPS-1 TPC
MPS-1 controller with an additional module TPC-MIDI for force/displacement monitoring.



TPC-MIDI Process monitoring

Applications:

Joining and assembly processes using presses must today be carried out safely and if possible without retrospective checking. Specified parameters which define the press process must be maintained during production. Only in this way can the quality and safety of the manufactured product be guaranteed. For this reason, TPC-MIDI is used wherever consistent joining processes are required, the progress of which has to be checked and if applicable documented by means of software.

TPC-MIDI monitors the press operation, compares the actual progress with the requirements and subsequently evaluates it. In this way, reject parts can be reliably detected and separated out.
TPC-MIDI can be used both with hand-operated presses and with pneumatic presses. In the case of pneumatic presses, the **MPS-1 TPC** controller is supplied together with a PLC onto which the type-tested two-hand MPS-1 safety controller is superimposed.
However, the TPC-MIDI is also available as a pure system component if a PLC environment already exists, e.g. in an automation system.

The advantages:

- TPC-MIDI can be programmed via the membrane keyboard or conveniently using the PC software.
- TPC-MIDI stores 8 different measuring programs
- 3 windows possible per program
- Modern curve evaluation via freely parameterisable windows
- 4 window types: insertion, pass-through and block windows as well as an envelope curve.
- Force measurement directly in the force characteristic with DMS sensor developed especially for presses.
- Software for programming and saving measuring programs
- Documentation of each press operation

Clear OK / NOK message

With OK parts, the indicator light is green and the press is ready for the next working stroke.

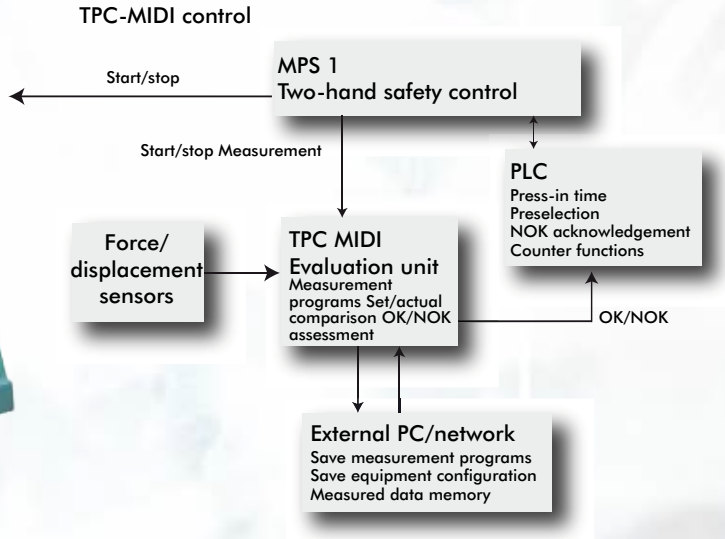
NOK parts are reliably reported by the TPC-MIDI as an audible signal and by a red indicator light.
The next press stroke cannot be initiated until the error has been acknowledged.

Laptop not included

DA 850-40-100 with MPS-1 TPC

Request CAD at www.maederpressen.de or directly from Tel.+49 (0)7467-9467-0

System structure



Load cell force sensors for TPC-MIDI

The load cell force sensor is fixed inside the ram bore. The tool holder can be fixed in the hole at the other end of the sensor. The force sensor is therefore always directly in the force flow between the press ram and the tool.

Measurement range	Measured value divergence	Tool holder
0 – 500 N	≤ ± 0.5% of EV	10H7 x 24 mm
0 – 1 kN	≤ ± 0.5% of EV	10H7 x 24 mm
0 – 2 kN	≤ ± 0.5% of EV	10H7 x 24 mm
0 – 5 kN	≤ ± 2.0% of EV	10H7 x 24 mm
0 – 10 kN	≤ ± 2.0% of EV	10H7 x 24 mm
0 – 20 kN	≤ ± 1.0% of EV	10H7 x 24 mm
0 – 50 kN	≤ ± 1.0% of EV	20H7 x 24 mm
0 – 100 kN	≤ ± 1.0% of EV	20H7 x 24 mm

Unless expressly required to the contrary, the load cell force sensor is selected to match the maximum capacity of the press used

Potentiometric travel meter

Travel is measured potentiometrically. The service life of the sensors is 10^8 movements

Press stroke	Resolution	Linearity error
40 mm	0.025 mm	0.42%
60/80 mm	0.038 mm	0.41%
100 mm	0.050 mm	0.40%
120 mm	0.075 mm	0.40%