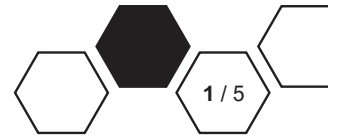


XMP 90 series



Press-in units of the XMP 90 series are designed for press and pull forces from **1 kN up to max. 25 kN**.

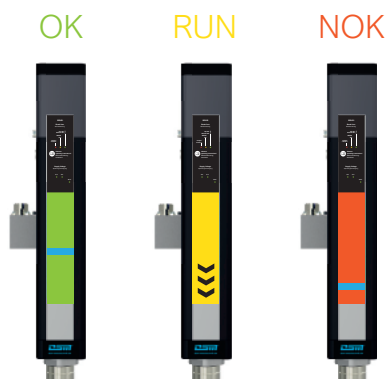


200 mm
or 400 mm
stroke distance

Fact: The press-in unit XMP is powered by a brushless servo motor, which is laterally offset by 180° via a motor offset. Thanks to the modular design, the drive can be individually configured by using standardised assemblies, for example with motor holding brake (MB) for higher tool weight as well as with return stop (RS) or holding brake (HB) to hold a force / position for a defined period of time. The return stop blocks the drive only when retracting, i.e. to be able to retract the plunger of the press-in unit, the brake „RS“ must be switched off. Due to the mechanical design of the return stop (free-wheel, almost backlash-free), the plunger is blocked against „pressing in“ in every position and therefore is able to hold a counteracting force. The permanent holding of the adjusted force is assured by the regulation via stepper motor control. By use of the return stop it is optionally possible to carry out the braking of the movement (lagging of speed down to zero) by the motor holding brake (MB+RS). The holding brake blocks the drive retracting and extending, i.e. to move the plunger of the press-in unit the brake „HB“ must be switched off.

The rotational movement of the servo motor is transferred via a helical gear unit to the recirculating ball screw. The rotational movement is converted there into a linear movement and the plunger is moved.

The high-precision load cell and the absolute displacement measuring system – in combination with the MultiPro 3G – ensure assembly accuracy and complete documentation of the production data.



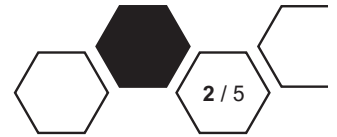
 Dimensions XMP 90

<https://dsmcloud.gmuendcloud.de/url/xmp>

Fields of application of DSM press-in technology

Precision press-in, Press-in to end stop, Clinch, Bending, Embossing / Forming,
Testing / Measuring, Caulking, Clipping, Test switch / snap-in point, Calibration ...

XMP 90 – modular and therefore flexible in use



A press-in unit with huge modularity. The XMP, which is designed from standardised components, is based on a modular principle and provides a flexible solution for your assembly process for simple as well as for complex tasks.

XMP, the electromechanical press-in unit with the „X“ – the crossover of experience and innovation combines the best of the QMP and SMP series with future-oriented press-in technology.

Gear modules for a process optimized movement speed.

Offers many possibilities like e.g. mounting of a customers motor and configuration with motor holding brake, holding brake or backstop.



The space-saving control system with integrated servo controller is used for the evaluation of curves and their documentation as well as for the control of the XMP press-in unit.

Thanks to the variability of our press-in procedures, you have a high-performance system for the use in the quality critical assembly.

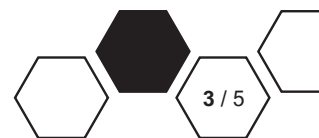


Fast system integration and error-free setup.
The decentralised intelligence of the XMP transmits the characteristic data via Plug-and-Play.

For a visual support during the assembly the large illuminated field shows the process status, the direction of movement and the position of the plunger.

Absolute stroke / length measuring system makes a reference movement unnecessary.

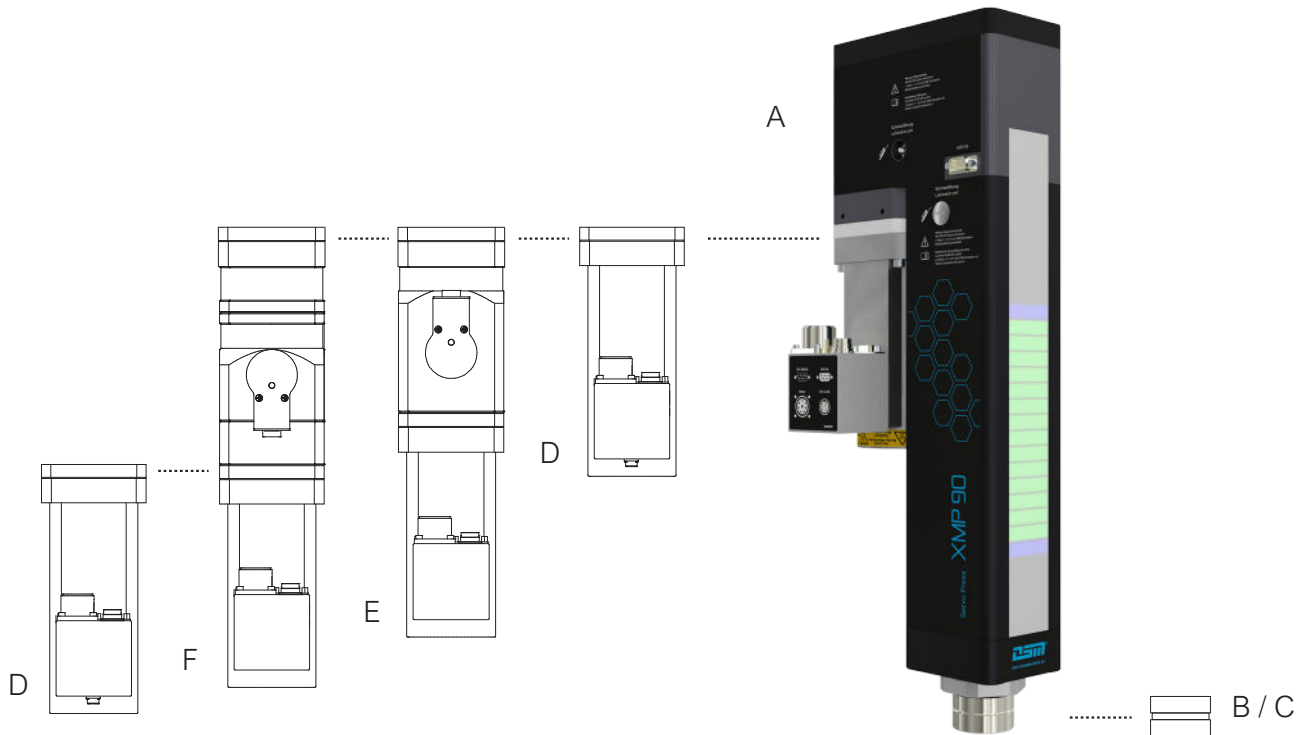
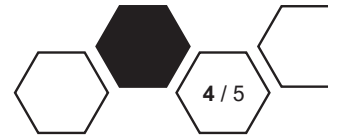
Different variants of the load cell. It is also available as redundant version.



Max. force, nominal load	5 / 12,5 / 25 kN
Drive motor	Electronically controlled, maintenance-free servo motor
Motor mounting	180° turned with offset gear
Options motor	Motor holding brake (e.g. hold tool) Execution customer motor
Stroke	200 mm / 400 mm
Nominal speed	Gear 4Z 200 mm/s (max. 25,0 kN) Gear 2Z 400 mm/s (max. 12,5 kN) Gear 1Z 900 mm/s (max. 5 kN)
Holding time	max. 2,5 s with backstop any time with holding brake max. 999 s
Executions load cells	KU: Bottom, in the plunger RU: Bottom, in the plunger (redundant)
Measurement direction	DR: Press DZ: Press and pull
Measuring principle	Digital DMS technology, drift-free force measurement
Accuracy force measurement	0,5 % of the final value
Execution stroke/length measurement	Absolute stroke/length measuring system, enables absolute and relative stroke measurement
Stroke/length repeat accuracy	< 0,01 mm (by about 20 mm/s)
Resolution	0,003 mm
Plunger	Recirculating ball screw; non-rotating plunger
Max. weight of additional tool	10 kg / 50 kg with motor holding brake
Assembly	Face side, screws and centring via fitting collar; Installation position vertical / horizontal
Service	Maintenance-friendly: lubrication interval 600.000 cycles; Repair-friendly: Certain components can be replaced by the user without adjustment.

Designation, size press-in unit	Force [kN]	Stroke [mm]	Gear	Measuring direction	Option	Force measuring	Option to combine	Plunger	
XMP 90 /	5 -	200 -	4Z -	DR -	00 -	KU -	00 -	00	4Z = 200 mm/s (max. 25 kN)
<i>Example</i>	5	200	1Z	DR	MB	KU	MB	99	2Z = 400 mm/s (max. 12,5 kN)
	12,5	400	2Z	DZ	HB	RU	HB		1Z = 900 mm/s (max. 5 kN)
	25		4Z		RS		RS		DR = Press
					KM		SL		DZ = Press and pull
					SL		LE		00 = Standard
					LE		OZ		MB = Motor holding brake
					OZ				HB = Holding brake
									RS = Return stop
									KM = Customer motor
									SL = Sealing air connection
									LE = Fan unit
									OZ = Special gear unit
									KU = Force bottom (in the plunger)
									RU = Force bottom redundant
									99 = Special

XMP 90 series



Product code

XMP 90 / 25 200 4Z DR 00 KU 00 00

Series designation	Load cell	Stroke	Gear module	Measuring direction	Accessories	Force measuring	Accessories (to combine)	Plunger
A	B C	A	A	B C	D E F	B C	D E F	A

A XMP 90 Press-in unit

Type	Stroke	Max. speed	Article number
XMP 90 / XX 200 4Z XX 00 XX 00 00	200 mm	200 mm/s (max. 25 kN)	XMP-0903002
XMP 90 / XX 400 4Z XX 00 XX 00 00	400 mm	200 mm/s (max. 25 kN)	XMP-0903004
XMP 90 / XX 200 2Z XX 00 XX 00 00	200 mm	400 mm/s (max. 12,5 kN)	XMP-0903102
XMP 90 / XX 400 2Z XX 00 XX 00 00	400 mm	400 mm/s (max. 12,5 kN)	XMP-0903104
XMP 90 / XX 200 1Z XX 00 XX 00 00	200 mm	900 mm/s (max. 5 kN)	XMP-0903202
XMP 90 / XX 400 1Z XX 00 XX 00 00	400 mm	900 mm/s (max. 5 kN)	XMP-0903204

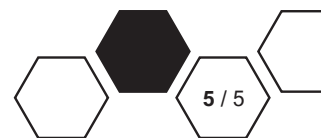
Resolution stroke measurement system 0,003 mm, stroke repeat accuracy under force 0,01 mm by about 20 mm/s

B Load cell, execution DR

Type	Max. force	Application area	Article number
Load cell 5 kN for XMP 90 KU / OU	5 kN	1 - 5 kN	XMP-0900005
Load cell 12,5 kN for XMP 90 KU / OU	12,5 kN	2,5 - 12,5 kN	XMP-0900012
Load cell 25 kN for XMP 90 KU / OU	25 kN	5 - 25 kN	XMP-0900025

DR: Force measurement in direction press; Force accuracy 0,5 % of the final value; Load cell installed in the plunger (bottom)

XMP 90 series



C Load cell redundant, execution DR

Type	Max. force	Application area	Article number
Load cell redundant 5 kN for XMP 90	5 kN	1 - 5 kN	XMP-0901005
Load cell redundant 12,5 kN for XMP 90	12,5 kN	2,5 - 12,5 kN	XMP-0901012
Load cell redundant 25 kN for XMP 90	25 kN	5 - 25 kN	XMP-0901025

DR: Force measurement in direction press; Force accuracy 0,5 % of the final value; Load cell in redundant design and installed in the plunger

Execution force measurement DZ

Load cell calibration for execution DZ (press and pull)	XMP-0901000
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D Motor holding brake

Type	Article number
Motor holding brake MB	QMP-0803112

E Holding brake

Type	Article number
Holding brake HB	QMP-0803110

F Return stop

Type	Article number
Return stop RS	QMP-0803117

Accessories

Ventilator unit (for cooling the motor)

Type	Article number
Ventilator unit for XMP 90	DSM-305906

Sealing air connection

Type	Article number
Sealing air connection (avoids the ingress of dirt particles into the press-in unit)	QMP-3000100

Service package – Lubrication set

Type	Article number
Lubrication set (grease gun, armoured hose, grease cartridge and lubrication tube set)	DSM-281990

Frames for XMP 90 (acc. to customers specification)

Type	Article number
Portal frame for XMP 90	XMP-0908000
C-frame for XMP 90	XMP-0908500

... or as a complete solution, installed in a workstation, for customer-specific joining applications.

The protected area – in which the XMP press-in unit mounted on a frame is located – is closed on 3 sides with a protective enclosure and is monitored by a lifting door or a safety light curtain in conjunction with a safety PLC. The joining process is controlled with the MultiPro 3G and the force and simultaneously the stroke are measured, regulated and controlled.