



# Clamping Spring Plunger

FST-C  
10.01.20.01500  
10.01.20.01501

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## EN Technical data sheet

### Note

Subject to technical changes without notice. No responsibility is taken for printing or other types of errors.

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## 1. General safety instructions

 <b>DANGER</b>	
	<p><b>Moving the blade</b> Crushing</p> <ul style="list-style-type: none"> <li>▶ Do not reach into the clamping unit</li> </ul>
 <b>CAUTION</b>	
 	<p><b>Noise pollution</b> Hearing impairments may occur in the long term</p> <ul style="list-style-type: none"> <li>▶ Wear ear protectors.</li> <li>▶ Install valves with silencers.</li> </ul>
 <b>WARNING</b>	
	<p><b>Failure to follow the safety instructions</b> Injury to persons and damage to the system</p> <ul style="list-style-type: none"> <li>▶ The operating instructions contain important information on using the system. Read the operating instructions thoroughly and keep them for later reference!</li> <li>▶ The system must only be operated by trained personnel who have read and understood the operating instructions.</li> <li>▶ These operating instructions are specific to the items included in delivery from Schmalz. These operating instructions do not take into account any modifications to the system made by the customer.</li> <li>▶ The system may only be connected and operations started once the operating instructions have been read and understood.</li> <li>▶ Use only the connections, mounting holes and attachment materials that have been provided.</li> <li>▶ Carry out mounting or removal only when the device is in an idle, depressurized state.</li> <li>▶ Only qualified specialist personnel, mechanics and electricians may perform the installation. Qualified specialist personnel are persons who have received technical training and have the knowledge and experience – including knowledge of corresponding regulations – necessary to enable him or her to recognize possible dangers and implement the appropriate safety measures</li> <li>▶ General safety regulations, European standards and VDE guidelines must be observed and complied with.</li> <li>▶ The spring plunger is to be used in combination with an automated handling system (gantry/robot). For this reason, you must also follow the safety regulations of the corresponding system.</li> <li>▶ Carefully remove the components from the packaging.</li> <li>▶ Protect the components from damage of any kind.</li> <li>▶ No person may sit or stand in the danger zone while the machine or plant is in automatic mode.</li> </ul>

 <b>WARNING</b>	
	<p><b>Failure to follow the safety instructions</b> Injury to persons and damage to the system</p> <ul style="list-style-type: none"> <li>▶ It is not permitted to make changes to system components.</li> <li>▶ Pneumatic line connections must be permanently connected and secured to</li> <li>▶ Do not operate outside of the specified capacity. Doing so may cause the</li> <li>▶ Make sure that the workplace and surroundings are kept clean.</li> <li>▶ Protect the components from damage of any kind.</li> </ul>
 <b>DANGER</b>	
	<p><b>Falling lift blade</b> Personal injury and/or damage to property</p> <ul style="list-style-type: none"> <li>▶ Do not stand under the suspended lift blade.</li> <li>▶ Do not place any body parts under the suspended lift blade.</li> </ul>

## 1.1. Intended Use

The spring plunger is designed to compensate for any tilting or twisting in the product layer. The workpieces are defined in the order confirmation.

The system is connected to a lifting device by the customer and must only be operated by specialist personnel who have read and understood the operating instructions.

## 1.2. Requirements for the user

All personnel working with the product must be familiar with basic mechanical and pneumatic principles as well as the appropriate technical terminology.

To ensure safe operation, this work may only be performed by qualified personnel or trained persons working under the supervision of qualified personnel.

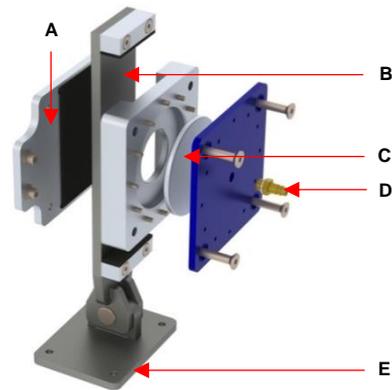
A qualified employee is defined as an employee who has received technical training and has the knowledge and experience – including knowledge of corresponding regulations – necessary to enable him or her to recognize possible dangers and implement the appropriate safety measures while performing tasks. Qualified personnel must observe the pertinent industry-specific rules and regulations.

## 2. Technical Data

Part no.	<b>10.01.20.01500 / 10.01.20.01501</b>
Stroke [mm]	100
Working temperature [° C]	0-80
Maximum vertical load [N]	2000
Maximum horizontal load [N]	1350
Maximum permitted swivel angle [°]	60
Weight [kg]	9
Required surface pressure [bar]	6

### 3. Device Setup

Item	Description
A	Backplate for attachment to existing beam
B	Clamping board
C	Brake shoe
D	Compressed air connection
E	Flange plate for attachment to SBX gripper



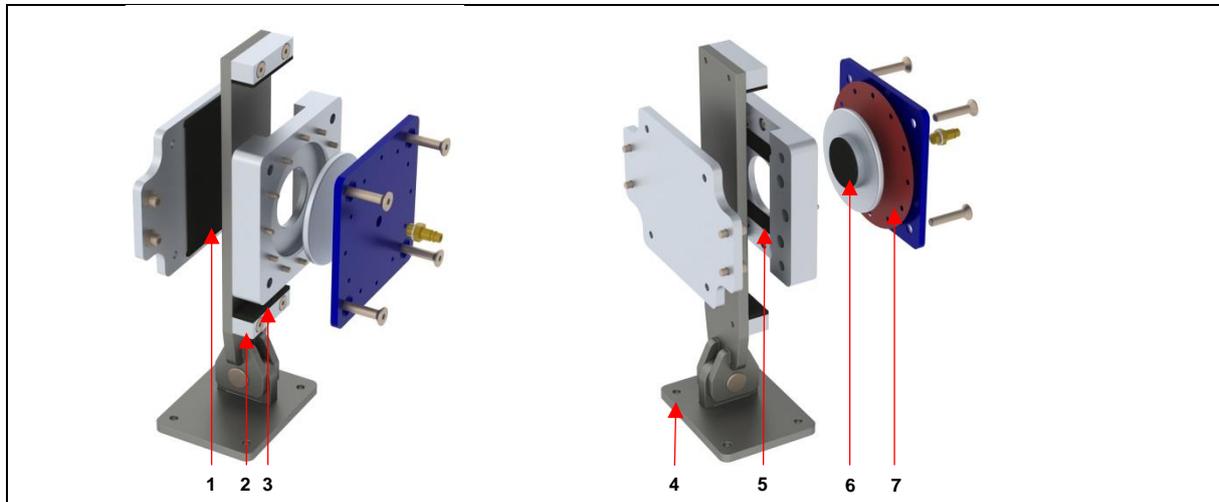
### 4. Maintenance

Functional Module	Description of maintenance task	Maintenance interval d = daily w = weekly m = monthly a = annually	Aux. Materials/ Tools	Additional documents/ instructions
General	Check that screws are securely fastened, tighten if necessary.	6 m	-	-
General Information	Remove dirt on the outside of the spring plunger by cleaning it with a dry cloth	3 m	-	-
General Information	Check that hose connections are securely fastened	3 m	-	-
General Information	Check spring plunger for leaks	3 m	-	-
General Information	Check mobility of clamping board	m	-	-

 <b>WARNING</b>	
	<p><b>System maintenance by untrained personnel</b></p> <p>Serious personal injury</p> <ul style="list-style-type: none"> <li>▶ The system may only be maintained by trained personnel who have read and understood the operating instructions.</li> <li>▶ The system must be depressurized and disconnected from the power supply for repair and maintenance work.</li> </ul>

## 5. Spare and Wearing Parts

We guarantee this device pursuant to our General Terms and Conditions of Sale and Delivery. The same applies to spare parts, provided that these are original parts supplied by us. We are not liable for any damage resulting from the use of non-original spare parts or accessories. Wearing parts are not covered by the warranty.



Item	Quantity	Description	Part no.	Legend
1	1	Large slide surface	10.01.20.01356	W
2	1	Stop	10.01.20.01251	W
3	1	Rubber buffer	10.10.20.01353	W
4	2	Flange plate	10.01.20.01274 10.01.20.01275	S
4	2	Small slide surface	10.01.20.01354	W
5	1	Friction washer	10.01.20.01248	W
6	1	Membrane disk	10.01.20.01258	S

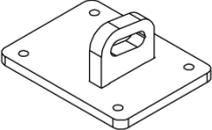
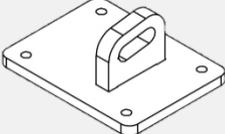
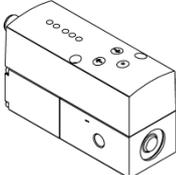
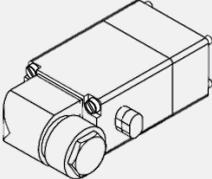
**S=** Spare parts, **W=** Wearing parts, **WA=** Wearing part Assembly, contains wearing parts, \*= not shown

After replacement or after final decommissioning, the system, as well as the components and assemblies that were replaced, must be disposed of in accordance with the applicable national guidelines.

<b>ATTENTION</b>	
	<p style="text-align: center;"><b>Incorrect disposal of the system or individual components</b></p> <p style="text-align: center;">Environmental damage</p> <p>▶ Disposal according to national guidelines.</p>



## 7. Accessory parts, options

Description	Part no.	View
<p><b>Left-hand flange plate</b> Left-hand configuration for attaching the FST-C to the SBX gripper</p>	10.01.20.01275	
<p><b>Right-hand flange plate</b> Right-hand configuration for attaching the FST-C to the SBX gripper</p>	10.01.20.01274	
<p><b>Proportional valve</b> For controllable releasing times and clamping times. Allows the load to be deposited slowly, accurately and gently</p>	10.05.05.00104	
<p><b>Solenoid valve</b> 3-way or 2-way valve for controlling the clamping process (opening/closing)</p>	10.05.01.00068	
<p><b>Plug-in screw union</b> An alternative to the control coupling For external hose diameter Ø 6 mm</p>	10.08.02.00205	

