

Maintenance instructions

Compact Ejector SCPMb, SCPMc, SCPMi, SCPMt (b, c, i)

Note

The Maintenance instructions were originally written in German. Store in a safe place for future reference. Subject to technical changes without notice. No responsibility is taken for printing or other types of errors.

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Contact

J. Schmalz GmbH
Johannes-Schmalz-Str. 1
72293 Glatten, Germany
T: +49 (0) 7443 2403-0
schmalz@schmalz.de
www.schmalz.com

Contact information for Schmalz companies and trade partners worldwide can be found at:
www.schmalz.com/salesnetwork

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1 Important Information

1.1 Note on Using this Document

J. Schmalz GmbH is generally referred to as Schmalz in this document.

The document contains important notes and information about the different operating phases of the product:

- Transport, storage, start of operations and decommissioning
- Safe operation, required maintenance, rectification of any faults

The document describes the product at the time of delivery by Schmalz and is aimed at:

- Installers who are trained in handling the product and can operate and install it
- Technically trained service personnel performing the maintenance work
- Technically trained persons who work on electrical equipment

1.2 The technical documentation is part of the product

1. For problem-free and safe operation, follow the instructions in the documents.
 2. Keep the technical documentation in close proximity to the product. The documentation must be accessible to personnel at all times.
 3. Pass on the technical documentation to subsequent users.
- ⇒ Failure to follow the instructions in these Maintenance instructions may result in injuries!
- ⇒ Schmalz is not liable for damage or malfunctions that result from failure to heed these instructions.

If you still have questions after reading the technical documentation, contact Schmalz Service at:

www.schmalz.com/services

1.3 Symbols



This symbol indicates useful and important information.


- ✓ This symbol represents a prerequisite that must be met before an action is performed.
- ▶ This symbol represents an action to be performed.
- ⇒ This symbol represents the result of an action.

Actions that consist of more than one step are numbered:

1. First action to be performed.
2. Second action to be performed.

1.4 Warnings in This Document

Warnings warn against hazards that may occur when handling the product. The signal word indicates the level of danger.

| Signal word | Meaning |
|--|---|
|  WARNING | Indicates a medium-risk hazard that could result in death or serious injury if not avoided. |
| NOTE | Indicates a danger that leads to property damage. |

2 Maintenance

2.1 Safety Instructions

Maintenance work may only be carried out by qualified personnel.

- ▶ Create atmospheric pressure in the ejector's compressed air circuit before working on the system!



WARNING

Failure to follow the instructions in these Maintenance instructions may result in injuries!

- ▶ Read the Maintenance instructions carefully and observe the contents.



WARNING

Risk of injury due to incorrect maintenance or troubleshooting

- ▶ Check the proper functioning of the product, especially the safety features, after every maintenance or troubleshooting operation.



NOTE

Incorrect maintenance work

Damage to the ejector!

- ▶ Always switch off the supply voltage before carrying out maintenance work.
- ▶ Secure it so that it cannot be switched back on.
- ▶ The ejector must be operated only with a silencer and press-in screen(s).

2.2 Illustrations



The illustrations shown below may deviate from the customer's version because they serve as examples of different versions of the product.

2.3 Cleaning the Ejector

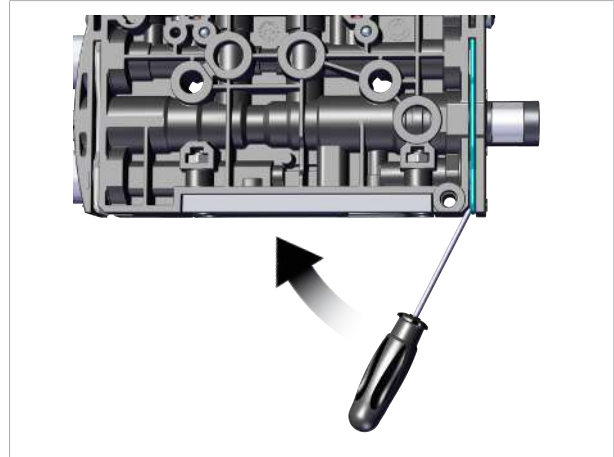
1. For cleaning, do not use aggressive cleaning agents such as industrial alcohol, white spirit or thinners. Only use cleaning agents with pH 7–12.
2. Remove dirt on the exterior of the device with a soft cloth and soap suds at a maximum temperature of 60° C. Make sure that the silencer is not soaked in soapy water.
3. Ensure that no moisture can reach the electrical connection or other electrical components.

2.4 Replacing the Silencer Insert

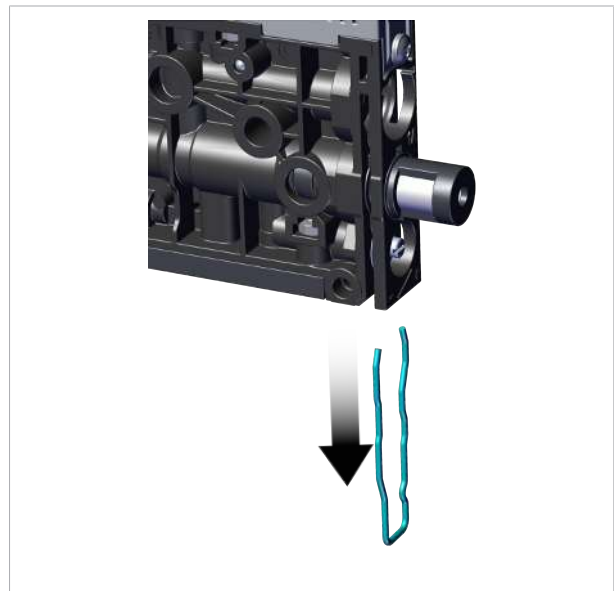
Heavy infiltration of dust, oil, and so on, may contaminate the silencer insert and reduce the suction capacity. Cleaning the silencer insert is not recommended due to the capillary effect of the porous material. If the suction capacity decreases, replace the silencer insert:

- ✓ Deactivate the ejector and depressurize the pneumatic systems.

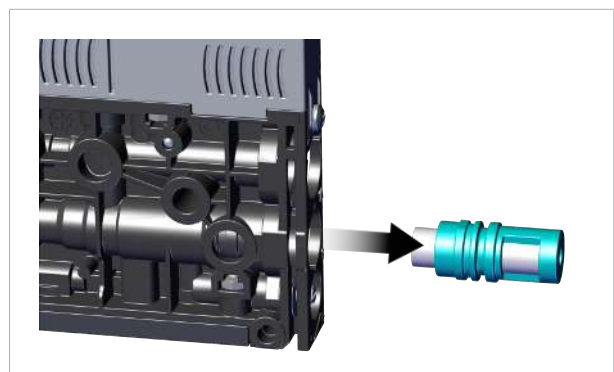
1. Place a small flat screwdriver on the ejector as shown and loosen the clamp.



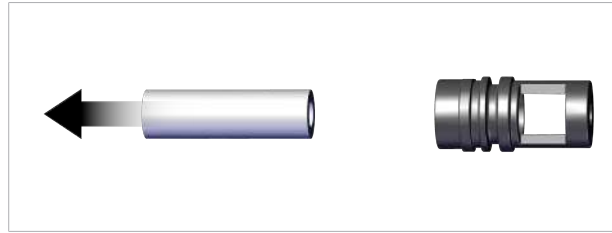
2. Remove the clamp.



3. Then remove the silencer and silencer insert from the ejector.

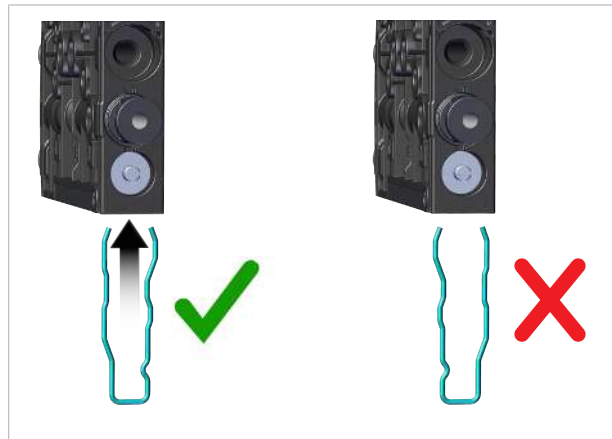


4. Pull the silencer insert out of the housing and dispose of it.

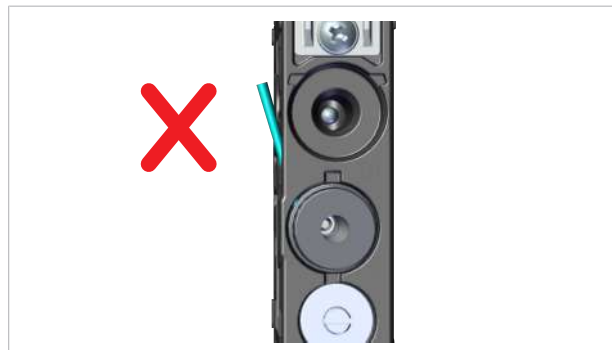


5. Insert the new silencer insert into the housing and reinstall the silencer.

6. Mount the clamp in the correct position.



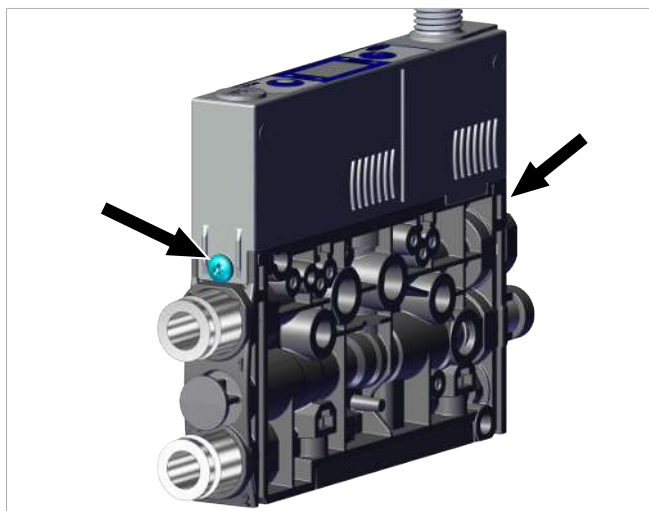
⇒ The clamp is mounted flush with the underside of the ejector and the clamp legs both lie in the grooves. It does not protrude from the ejector.



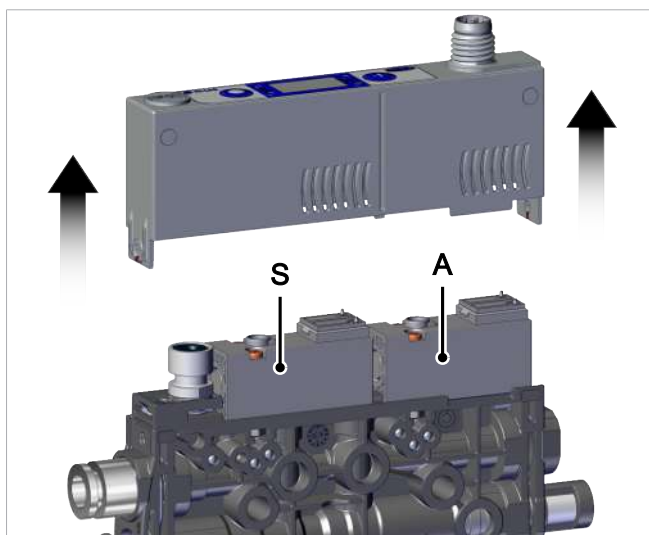
7. Check that the silencer is held tightly by pulling on the housing (hand-tight).

2.5 Replacing the Valve

1. Remove the two screws on the side.

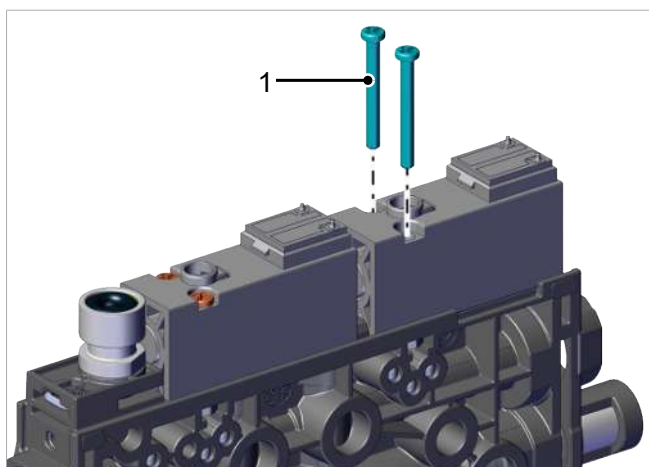


2. Remove the upper part from the housing.

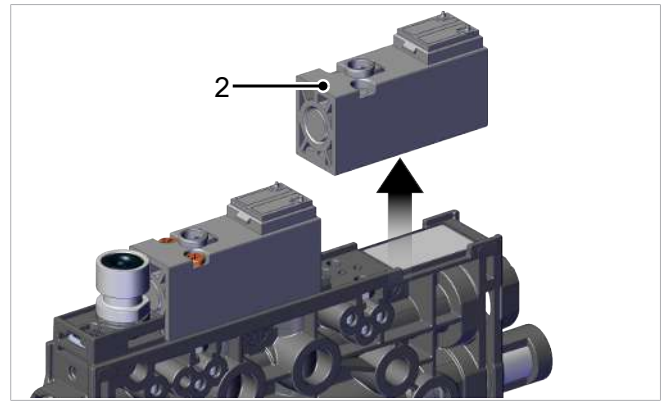


- ⇒ (S) suction valve
- ⇒ (A) blow off valve

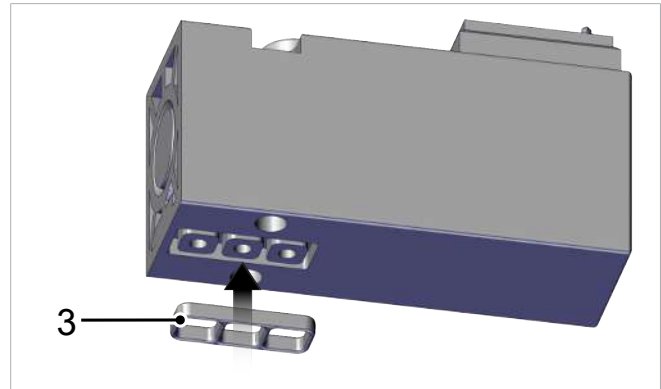
3. Release and remove the two screws (1) on the faulty valve.



4. Remove the valve (2) from the housing.



5. Ensure that the sealing frame (3) is correctly mounted/fitted on the new valve.



6. Install the new valve in the reverse order.

2.6 Changing the Piston



⚠ CAUTION

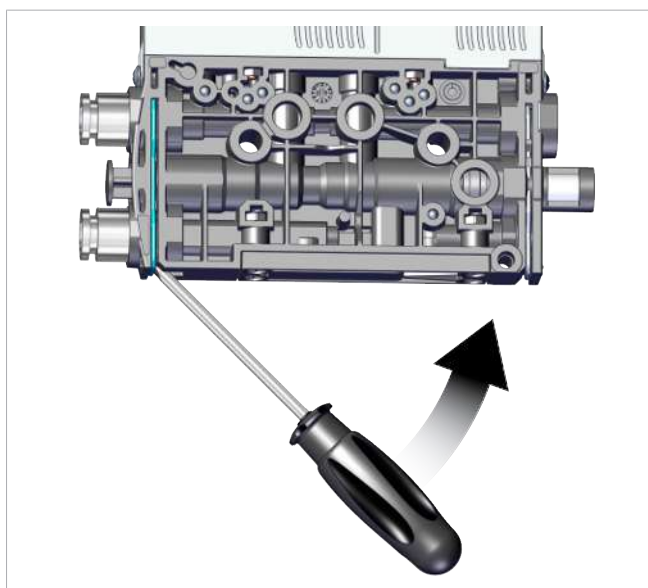
The valve piston flies out of the housing borehole at high speed due to a strong compressed air pulse.

Risk of injury to persons, and eye injuries in particular!

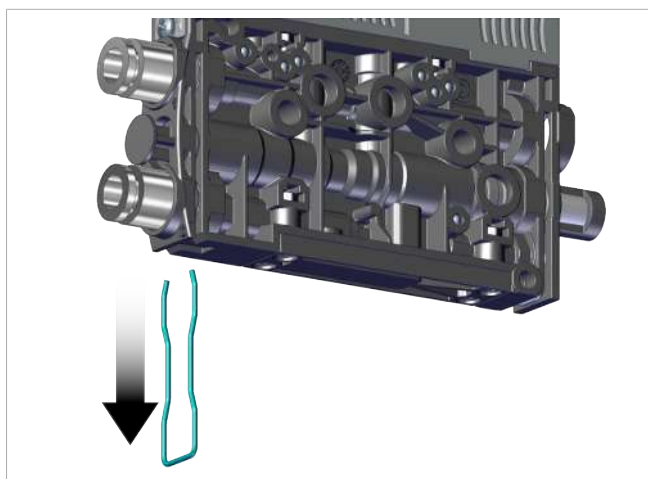
- ▶ Wear eye protection.
- ▶ Do not look into the housing borehole for the valve piston at the moment that compressed air is introduced into the compressed air connection.
- ▶ When disassembling the valve piston, start with a small amount of compressed air and slowly increase the pressure until the valve piston comes loose and moves out of the housing borehole.

- ✓ Deactivate the ejector and depressurize the pneumatic systems.

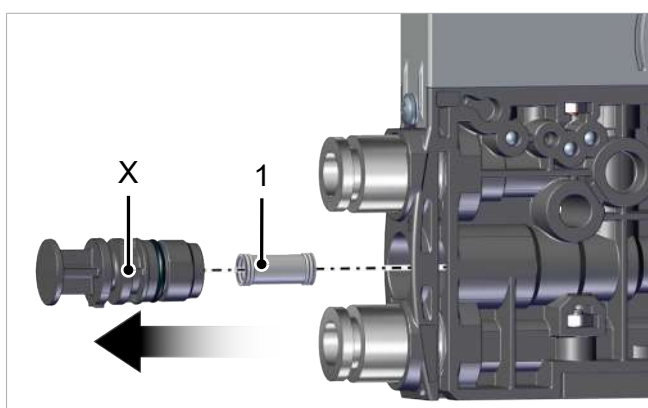
1. Place a small flat screwdriver on the ejector as shown and loosen the clamp.



2. Remove the clamp.

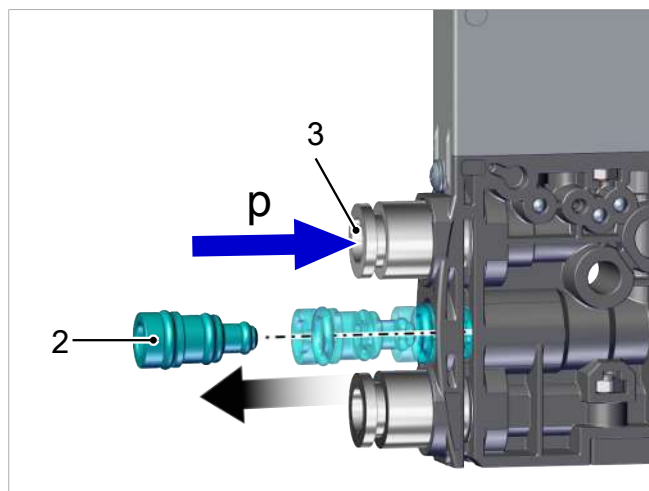


3. Remove the component (X) and spring (1) from the housing borehole.



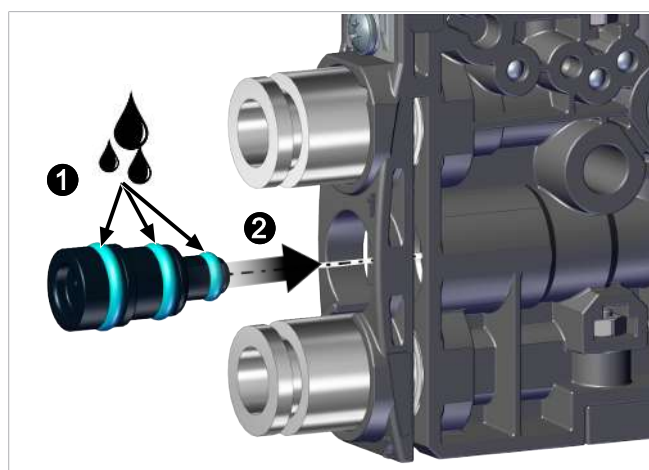
4. To trap the valve piston, align the ejector so that the valve piston housing borehole is facing down or into a container.

5. Move the valve piston (2) out of the housing borehole by introducing compressed air (p) into the compressed air connection (3). Start with a small amount of compressed air and slowly increase the pressure until the valve piston (2) comes loose and moves out of the housing borehole.



6. Clean the housing borehole with a lint-free cloth.

7. Grease the piston seals of the new valve piston (2) and the housing borehole lightly with pneumatic grease (1). Insert the new valve piston (2) into the housing bore in the correct position (2).

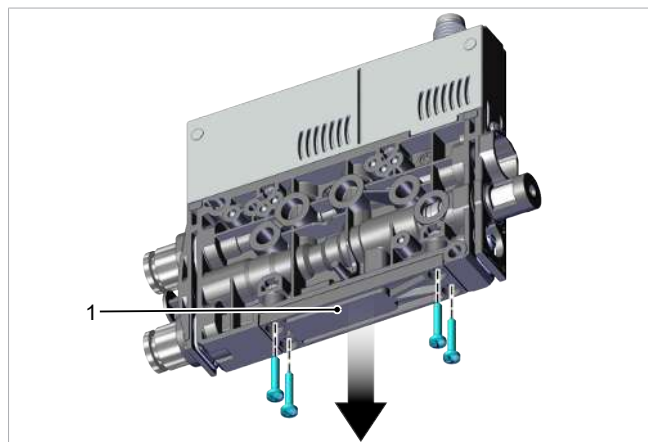


8. Install the spring and component (X).
9. Mount the clamp.
 - ⇒ The clamp is mounted flush with the underside of the ejector and the clamp legs both lie in the grooves. It does not protrude from the ejector.
10. Check that the component (X) and pneumatic connections are secure by pulling them (by hand).

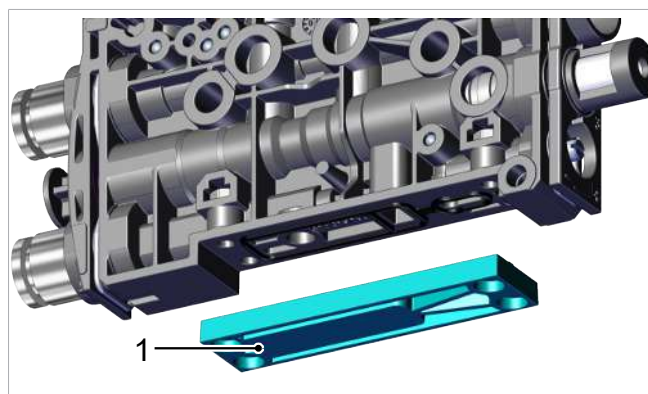
2.7 Replacing the Non-return Valve

- ✓ Deactivate the device and depressurize the pneumatic systems.

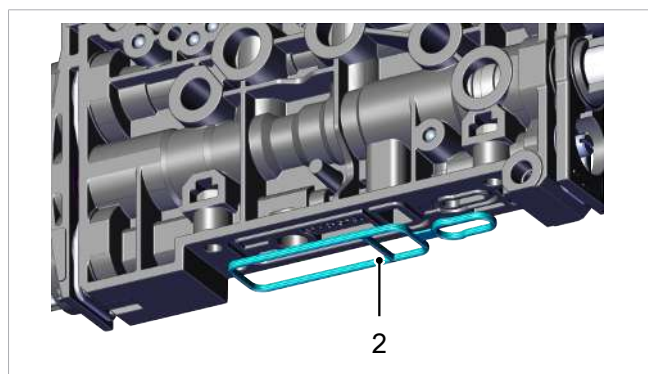
1. Loosen the four fastening screws of the housing plate (1).



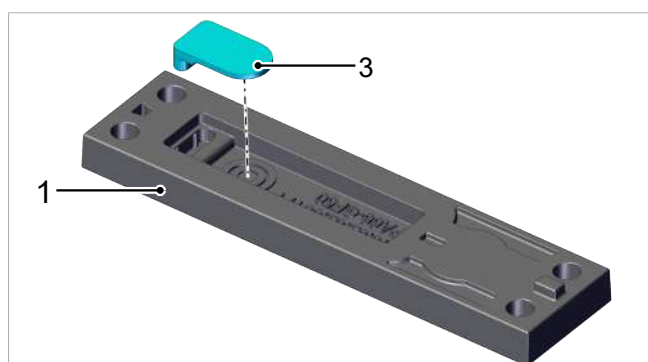
2. Remove the housing plate (1).



3. Remove the sealing frame (2).



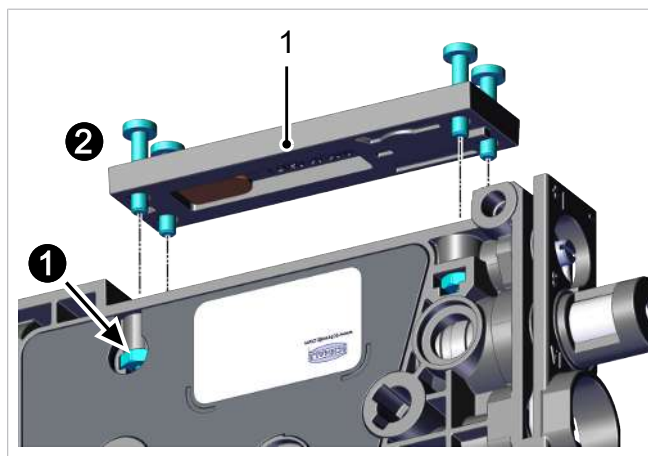
4. Replace the valve flap (3) mounted in the housing plate (1).



5. Insert the new sealing frame (2) into the ejector housing in the correct position.



6. Check that all nuts (4 pieces) are fitted ❶. Attach the housing plate (1) to the ejector housing in the correct position and tighten the four fastening screws with a tightening torque of 0.25 Nm ❷.



3 Spare and Wearing Parts

Maintenance work may only be carried out by qualified personnel.



⚠ WARNING

Risk of injury due to incorrect maintenance or troubleshooting

- ▶ Check the proper functioning of the product, especially the safety features, after every maintenance or troubleshooting operation.

The following list contains the most important spare and wearing parts.

| Designation | Part no. | Type |
|--|-----------------|--------------|
| Silencer insert | 10.02.02.05403 | Wearing part |
| NO ejector suction valve for nozzle size 03 | 10.05.01.00394 | Spare part |
| NO ejector suction valve for nozzle size 05/07/10/12 | 10.05.01.00382 | Spare part |
| NC ejector suction valve for nozzle size 03 | 10.05.01.00382 | Spare part |
| NC ejector suction valve for nozzle size 05/07/10/12 | 10.05.01.00394 | Spare part |
| Blow off valve (NC valve) | 10.05.01.00382 | Spare part |
| Ejector wearing part, VST SCPMi/c/b | 10.02.02.06536 | Wearing part |
| Ejector wearing part, VST SCPMi/c/b-EV | 10.02.02.06537 | Wearing part |

When tightening the fastening screws on the valves, observe the maximum tightening torque of 0.1 Nm.

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J. Schmalz GmbH
Johannes-Schmalz-Str. 1
72293 Glatten, Germany
T: +49 (0) 7443 2403-0
schmalz@schmalz.de
WWW.SCHMALZ.COM