

Operating instructions

# Mini Compact Ejector SCPMb

**Note**

The Operating 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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# 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 intended for:

- 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

The displayed figures are only examples. Depending on the particular design, they can differ from the product.

## 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 Operating 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](http://www.schmalz.com/services)

## 1.3 Type Plate

The type plate is permanently attached to the product and must always be clearly legible. It contains product identification data and important technical information.

The QR code enables access to the digital technical documentation for the product.

- ▶ For spare parts orders, warranty claims or other inquiries, have the information on the type plate to hand.

## 1.4 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.

## 2 Fundamental Safety Instructions

### 2.1 Intended Use

The Ejector is designed to generate a vacuum for gripping and transporting objects when used in conjunction with suction cups.

The ejector is operated using discrete control signals.

Neutral gases are approved as evacuation media. Neutral gases include air, nitrogen and inert gases (e.g. argon, xenon and neon).

The product is built in accordance with the latest standards of technology and is delivered in a safe operating condition; however, hazards may arise during use.

The product is intended for industrial use.

Intended use includes observing the technical data and the installation and operating instructions in this manual.

### 2.2 Non-Intended Use

Schmalz assumes no liability for damage caused by non-intended use of the device.

In particular, the following types of use are considered non-intended use:

- Use in potentially explosive atmospheres
- Use in medical applications
- Lifting people or animals
- Evacuation of objects that are in danger of imploding
- Filling pressurized containers, driving cylinders, valves or other pressure-operated functional elements

### 2.3 Personnel Qualifications



Unqualified personnel cannot recognize dangers and are therefore exposed to higher risks!

1. Task only qualified personnel to perform the tasks described in these Operating instructions.
2. The product must be operated only by persons who have undergone appropriate training.

These Operating instructions are intended for fitters who are trained in handling the product and who can operate and install it.

### 2.4 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
 <b>WARNING</b>	Indicates a medium-risk hazard that could result in death or serious injury if not avoided.
 <b>CAUTION</b>	Indicates a low-risk hazard that could result in minor or moderate injury if not avoided.
<b>NOTE</b>	Indicates a danger that leads to property damage.

## 2.5 Residual Risks

The system integrator must carry out a risk assessment of the entire system for all operating modes and define the danger zone precisely. In doing so, country-specific provisions and regulations must be observed.



### **⚠ CAUTION**

#### **Falling product**

Risk of injury

- ▶ Securely attach the product at the site of operation.
- ▶ Wear safety shoes (S1) and safety glasses when handling and mounting/dismounting the product.



### **⚠ CAUTION**

#### **Unexpected movement of the handling system or dropping the lifted payload when the device is active**

Risk of injury (trapping or impact) due to collision or the release of a payload

- ▶ Do not sit or stand in the transport area of the lifted payload.
- ▶ Wear protective work shoes and gloves.



### **⚠ WARNING**

#### **Noise pollution due to the escape of compressed air**

Hearing damage!

- ▶ Wear ear protectors.
- ▶ The ejector must only be operated with a silencer.



### **⚠ WARNING**

#### **Extraction of hazardous media, liquids or bulk material**

Personal injury or damage to property!

- ▶ Do not extract harmful media such as dust, oil mists, vapors, aerosols etc.
- ▶ Do not extract aggressive gases or media such as acids, acid fumes, bases, biocides, disinfectants or detergents.
- ▶ Do not extract liquids or bulk materials, e.g. granulates.



**⚠ WARNING**

**Uncontrolled movements of system components or falling objects caused by incorrect activation and switching of the device while persons are in the plant (safety door opened and actuator circuit switched off)**

Serious injury

- ▶ Ensure that the components are enabled via the actuator voltage by installing a potential separation between the sensor and actuator voltage.
- ▶ Wear the required personal protective equipment (PPE) when working in the danger zone.

**⚠ CAUTION**

**Depending on the purity of the ambient air, the exhaust air can contain particles, which escape from the exhaust air outlet at high speed.**

Eye injuries!

- ▶ Do not look into the exhaust air flow.
- ▶ Wear eye protection.

**⚠ CAUTION**

**Vacuum close to the eye**

Severe eye injury!

- ▶ Wear eye protection.
- ▶ Do not look into vacuum openings such as suction lines and hoses.

## 2.6 Modifications to the Product

Schmalz assumes no liability for consequences of modifications over which it has no control:

1. The product must be operated only in its original condition as delivered.
2. Use only original spare parts from Schmalz.
3. The product must be operated only in perfect condition.

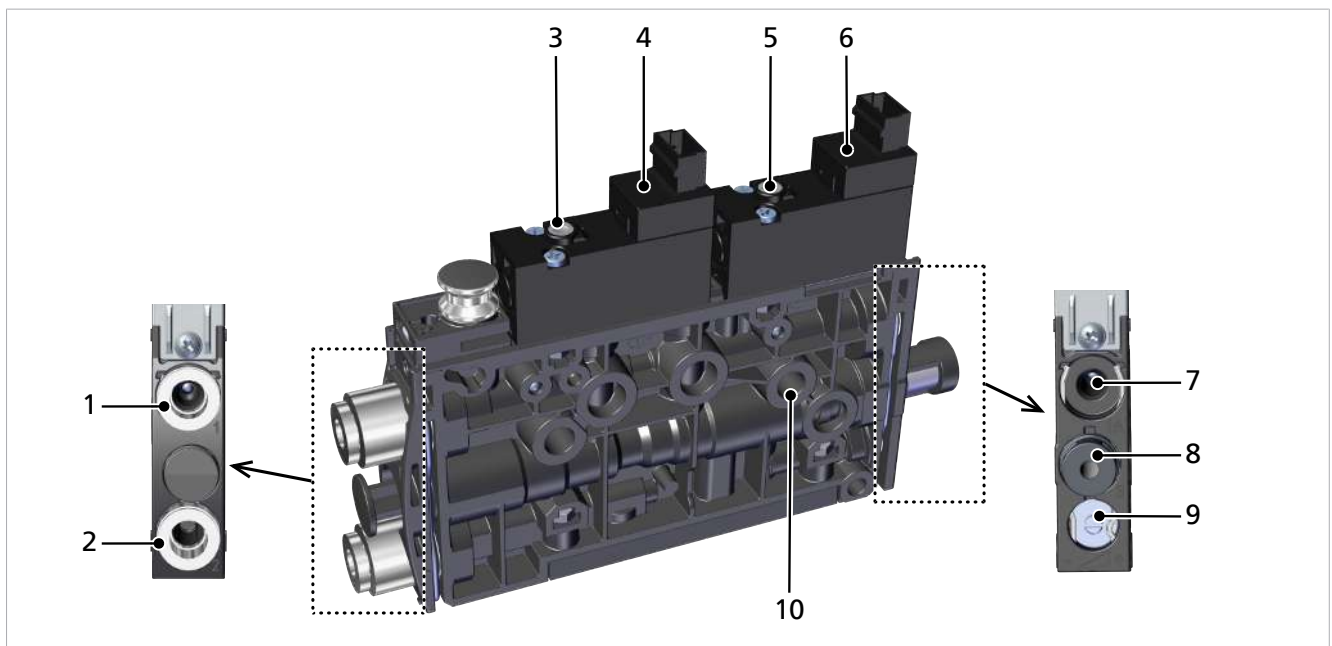
## 3 Product Description

### 3.1 Ejector Designation

The breakdown of the item designation (e.g. SCPMb-07-S01-NO-ABC00001C) is as follows:

Property	Variants	
Type	SCPM	
Version	Basic: b Controlled (with air saving function): c Intelligent (with IO-Link): i	
Nozzle size	0.3, 0.5, 0.7, 1.0 and 1.2 mm EV (for an external vacuum supply)	
Fluid connector	S01 (push-in, 4/2 2x)	G01 (M5 female, 2x)
	S04 (push-in, 6/4 2x)	G06 (M7 female, 2x)
	S07 (push-in, 4/2 3x)	G07 (M5 female, 3x)
	S08 (push-in, 6/4 2x, 4/2)	G08 (M7 female, 2x, M5 female)
	S09 (push-in, 4/2, 6/4 2x)	G09 (M5 female, M7 female, 2x)
	4 (push-in, 4/2)	M5 (M5 female)
	6 (push-in, 6/4)	M7 (M7 female)
Suction valve control	NO (normally open), sucks when no voltage is applied NC (normally closed), does not suck when no voltage is applied	
Individual configuration code	Unique 9-digit code (SCPMb-07-S01-NO-ABC00001C)	

## 3.2 Ejector Structure



1	Compressed air connector (marking 1)	6	"Blow-off" solenoid valve
2	Vacuum connection (marking 2)	7	Optional: Compressed air connector for separate blow-off EB (marking 1A)
3	Button for actuating the "suction" solenoid valve manually	8	Silencer (marking 3)
4	"Suction" solenoid valve	9	Valve screw for blow off flow rate
5	Button for actuating the "blow off" solenoid valve manually	10	Mounting holes 2x

## 3.3 Applying Suction to the Workpiece/Part (Vacuum Generation)

The ejector is designed for handling and holding workpieces by means of a vacuum in combination with suction systems. The vacuum is generated in a nozzle according to the venturi principle, using suction generated by the flow of accelerated compressed air. Compressed air is channeled into the ejector and flows through the nozzle. A vacuum is generated immediately downstream of the motive nozzle; this causes the air to be sucked through the vacuum connection. The air and compressed air that have been removed by the suction exit together via the silencer.

The venturi nozzle on the ejector is activated and deactivated using the suction command:

- In the NO (normally open) version, vacuum generation is deactivated when the suction signal is received.  
(This means that if the power fails or if no control signal is present, vacuum is constantly generated (continuous suction).)
- In the NC (normally closed) version, vacuum generation is activated when the suction signal is received.  
(This means that if there is a power failure or if there is no control signal, no vacuum is generated.)

When objects with airtight surfaces are picked up, the integrated non-return valve prevents the vacuum from dropping.

### **3.4 Depositing the Workpiece/Part (Blowing Off)**

In blow off mode, the vacuum circuit of the ejector is supplied with compressed air. This ensures that the vacuum drops quickly, allowing the workpiece/part to be deposited quickly.

The "Blow-off" solenoid valve is controlled directly. The ejector switches to blow off mode for as long as the signal is present.

The blow off function can be triggered by the ejector in two ways:

- Externally controlled actuation of the blow off valve
- Optional: external blow off

## 4 Technical Data

### 4.1 General parameters

Parameter	Variant	Symbol	Limit value			Comment
			min.	optimal	max.	
Working temperature		$T_{amb}$	0° C	—	50° C	—
Storage temperature		$T_{sto}$	-10° C	—	60° C	—
Humidity		$H_{rel}$	10% r.h.	—	85% r.h.	Free from condensation
Degree of protection		—	—	—	IP40	—
Operating pressure (flow pressure)	03	P	2 bar	4 bar	6 bar	—
	05	P	4 bar	4 bar	6 bar	—
	07	P	4 bar	4 bar	6 bar	—
	10	P	4 bar	4.5 bar	6 bar	—
	12	P	4 bar	4.5 bar	6 bar	—
Operating medium	Air or neutral gas, filtered to 5 $\mu$ m, without oil, class 3-3-3 compressed air quality in acc. with ISO 8573-1					

### 4.2 Electrical Parameters

Supply voltage	24V DC $\pm$ 10% (PELV <sup>1)</sup> )		
Polarity reversal protection	Yes		
Current consumption (at 24 V)	—	Typical current consumption	Max. current consumption
	NC	50 mA	70 mA
	NO	75 mA	115 mA

<sup>1)</sup> The power supply must correspond to the regulations in accordance with EN60204 (protected extra-low voltage).

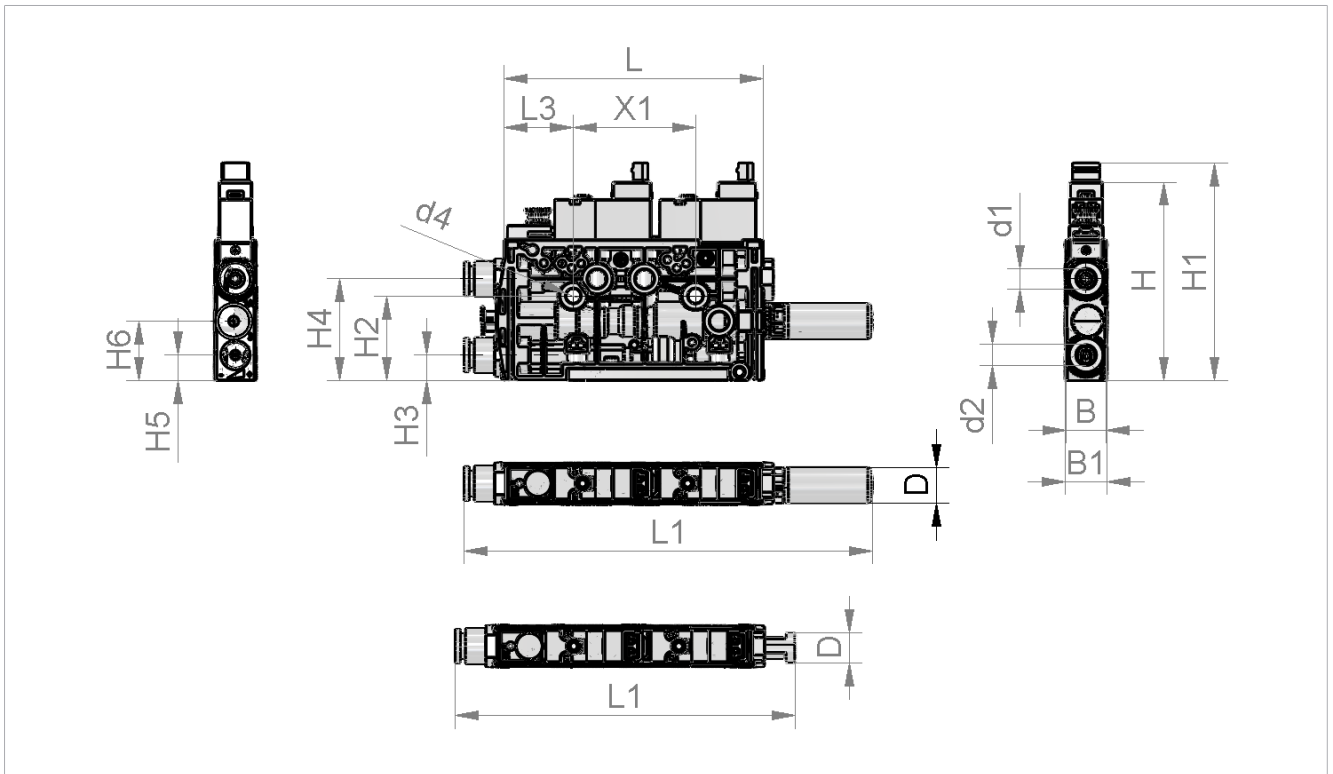
## 4.3 Mechanical Data

### 4.3.1 Performance Data

Type	Nozzle 03	Nozzle 05	Nozzle 07	Nozzle 10	Nozzle 12
Nozzle size [mm]	0.3	0.5	0.7	1.0	1.2
Degree of evacuation [mbar]	870				920
Max. suction rate [l/min] <sup>1)</sup>	2.2	7.5	15	28	30
Air consumption for suction [l/min]	3.5	9	22	45	51
Air consumption for blow off [l/min]	10				
Sound pressure level, unobstructed suction [dB(A)] <sup>1)</sup>	51	66	70	71	76
Sound pressure level, suction [dB(A)]	42	55	70	72	75
Pressure range [bar]	2 to 6	4 to 6			
Rec. internal hose diameter on compressed air side [mm] <sup>2)</sup>	2			4	
Rec. internal hose diameter on vacuum side [mm] <sup>2)</sup>	2			4	
Weight [g]	80				

<sup>1)</sup> At optimum operating pressure (SCPM...03/05/07: 4 bar; SCPM...10/12: 4.5 bar) <sup>2)</sup> For max. length of 2 m

### 4.3.2 Dimensions



<b>L</b>	<b>B</b>	<b>L3</b>	<b>X1</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>
76.5	12	20.5	36	64.2	24.95	7.5	30	7.5
<b>H6</b>	<b>d1</b>	<b>d2</b>	<b>D</b>	<b>L1</b>	<b>H</b>	<b>d4</b>	<b>B1</b>	
17.5	Depends on the particular ejector, see chapter 3.2 "Ejector designation"					4.3	12.5	

All specifications are in mm

### 4.3.3 Maximum Torque

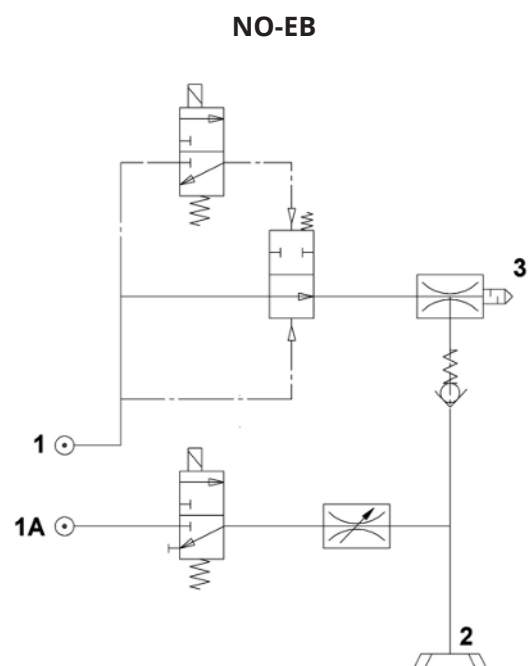
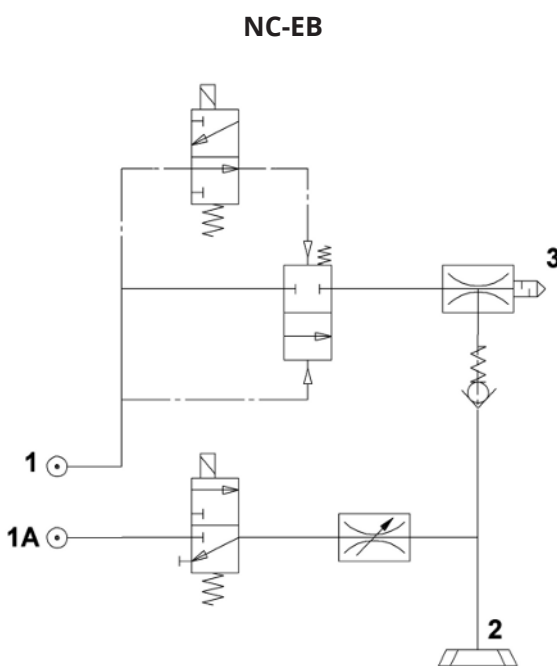
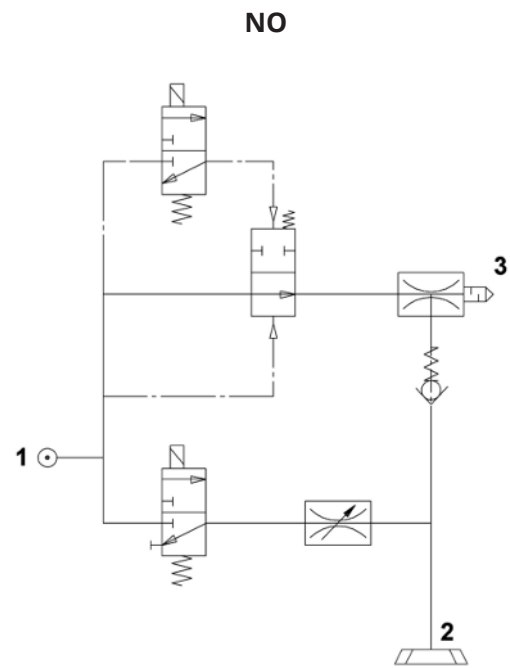
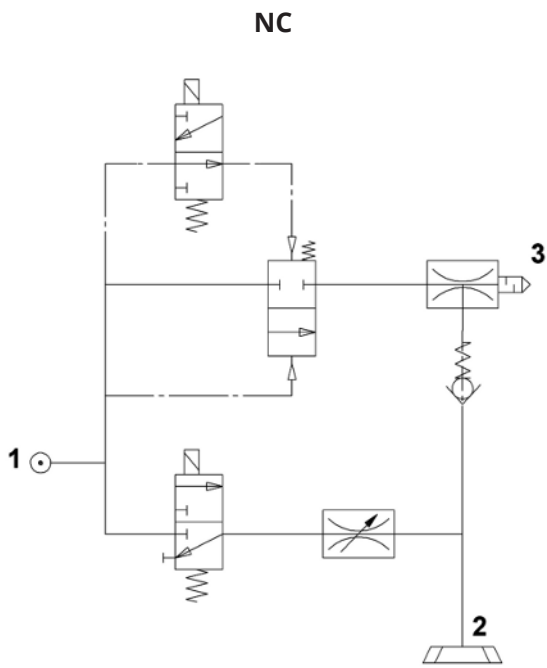
Connector	Max. torque
Mounting hole d4	1 Nm

### 4.3.4 Pneumatic circuit plans

The pneumatic circuit diagrams are shown in simplified form. No sieve is installed in variants with a push-in connection.

**Key:**

NC	Normally closed
NO	Normally open
1	Compressed air connection
2	Vacuum connection
3	Exhaust outlet
1A	"Separate blow off" compressed air connection





## 5 Blow off modes

### 5.1 Externally Controlled Blow-Off

The "blow off" valve is controlled directly by the "blow off" command. The ejector switches to blow off mode for as long as the "blow off" signal is present.

The "blow off" signal is given priority over the "suction" signal.

### 5.2 Blow Off Using External Compressed Air

The ejector is also available with an additional compressed air connector to supply the blow off pulse separately (external blow off function = "EB").

While the vacuum is interrupted, small workpieces are carefully deposited using a blow off pulse. Through fine adjustment of the vacuum, the blow off of small workpieces is prevented.

The air supply opening for blow off is controlled separately. Therefore, it is easy to fine-tune the blow off air using either the conventional flow rate setting or an external regulator.

The release pressure can be adapted to the workpiece.

## 6 Checking the Delivery

The scope of delivery can be found in the order confirmation. The weights and dimensions are listed in the delivery notes.

1. Compare the entire delivery with the supplied delivery notes to make sure nothing is missing.
2. Damage caused by defective packaging or occurring in transit must be reported immediately to the carrier and J. Schmalz GmbH.

## 7 Installation

### 7.1 Installation Instructions



#### CAUTION

##### Improper installation or maintenance

Injury to persons or damage to property

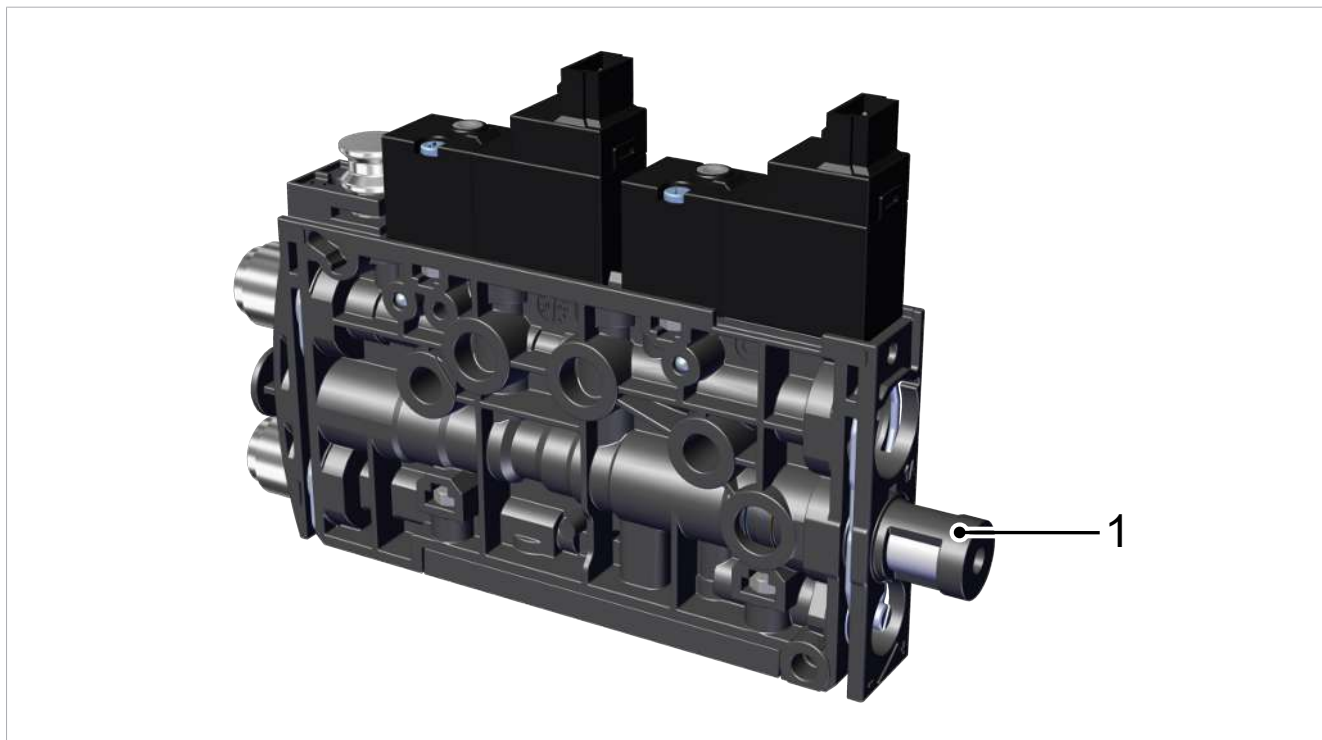
- ▶ During installation and maintenance, make sure that the product is disconnected and depressurized and that it cannot be switched on again without authorization.

To ensure safe installation, the following instructions must be observed:

- Use only the connectors, mounting holes and attachment materials that have been provided.
- Mounting and removal must be performed only when the device is unpressurized and disconnected from the mains.
- Pneumatic and electrical line connections must be securely connected and attached to the product.

### 7.2 Installation

The ejector can be installed in any position.

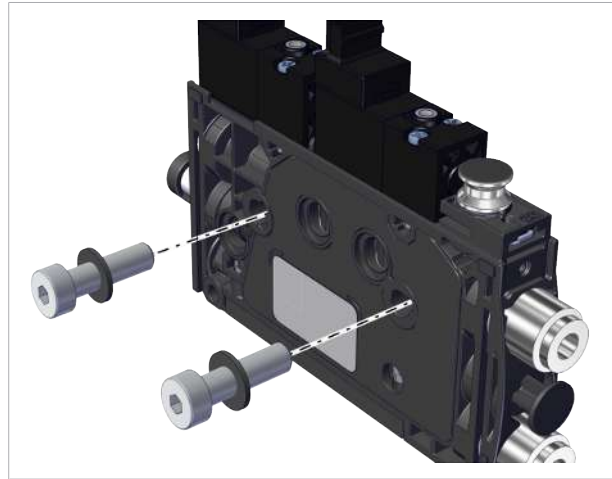


When installing the ejector, make sure that the area around the silencer (1) remains free to ensure the unimpeded discharge of the escaping air.

The ejector is mounted using the holes on the side.

Alternatively, it can be mounted using a DIN rail or a mounting bracket.

- ▶ There are two 4.3 mm through-holes for mounting the ejector. Use screws at least 20 mm in length. Use washers if you are using fastening screws M4 for the mounting process. The ejector must be attached using at least 2 screws; the maximum tightening torque is 1 Nm.



For start of operations, the ejector must be connected to the controller via the connection plug with a connection cable. The compressed air must be supplied by the higher-level machine.

The installation process is described and explained in detail below.

#### See also

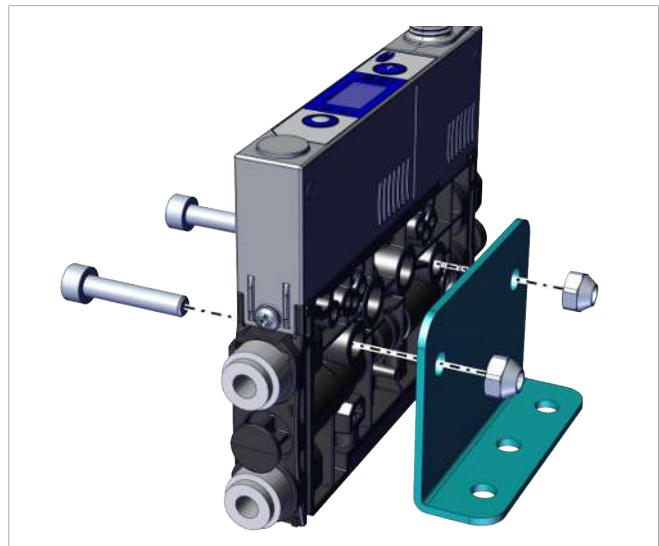
 Accessories [[▶ 34](#)]

### 7.3 Mounting on a DIN Rail (Optional)

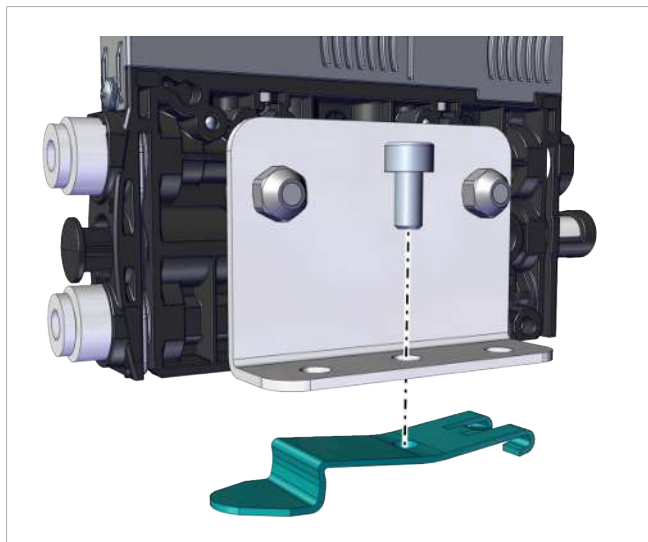
The product can also be mounted on a TS 35-type DIN rail using the mounting kit.

- ✓ The mounting kit is on-hand.

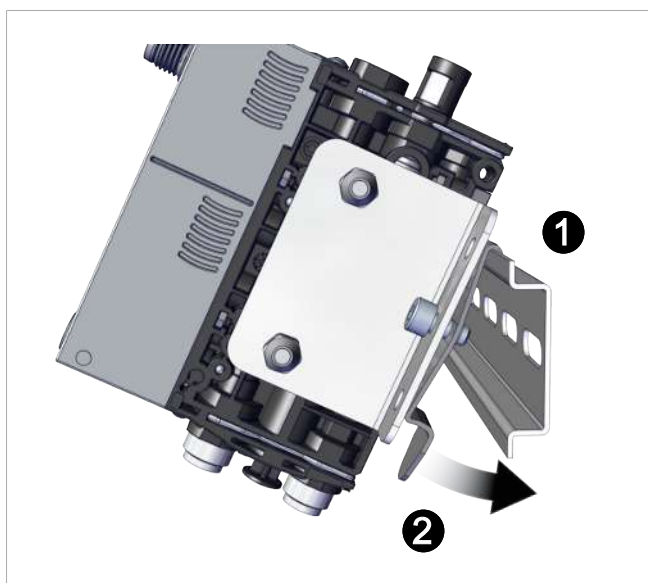
1. Attach the bracket in the correct position on the mini compact ejector with a tightening torque of 1 Nm.



2. Loosely screw the clamps onto the bracket in the correct position.



3. Attach the assembly with the bracket onto the DIN rail **1** and press it onto it **2**.



4. Tighten the screw to tighten the clamp so that the assembly is fastened to the DIN rail.



The figures shown for the mini compact ejector may deviate from the customer's version, because they are used here as examples of different versions of the mini compact ejectors.

## 7.4 Pneumatic Connection



### **⚠ CAUTION**

#### **Compressed air or vacuum in direct contact with the eye**

Severe eye injury

- ▶ Wear eye protection
  - ▶ Do not look into compressed air openings
  - ▶ Do not look into the silencer air stream
  - ▶ Do not look into vacuum openings such as suction cups, suction lines and hoses.
- 



### **⚠ CAUTION**

#### **Noise pollution due to incorrect installation of the pressure and vacuum connections**

Hearing damage!

- ▶ Correct installation.
  - ▶ Wear ear protectors.
- 



### **NOTE**

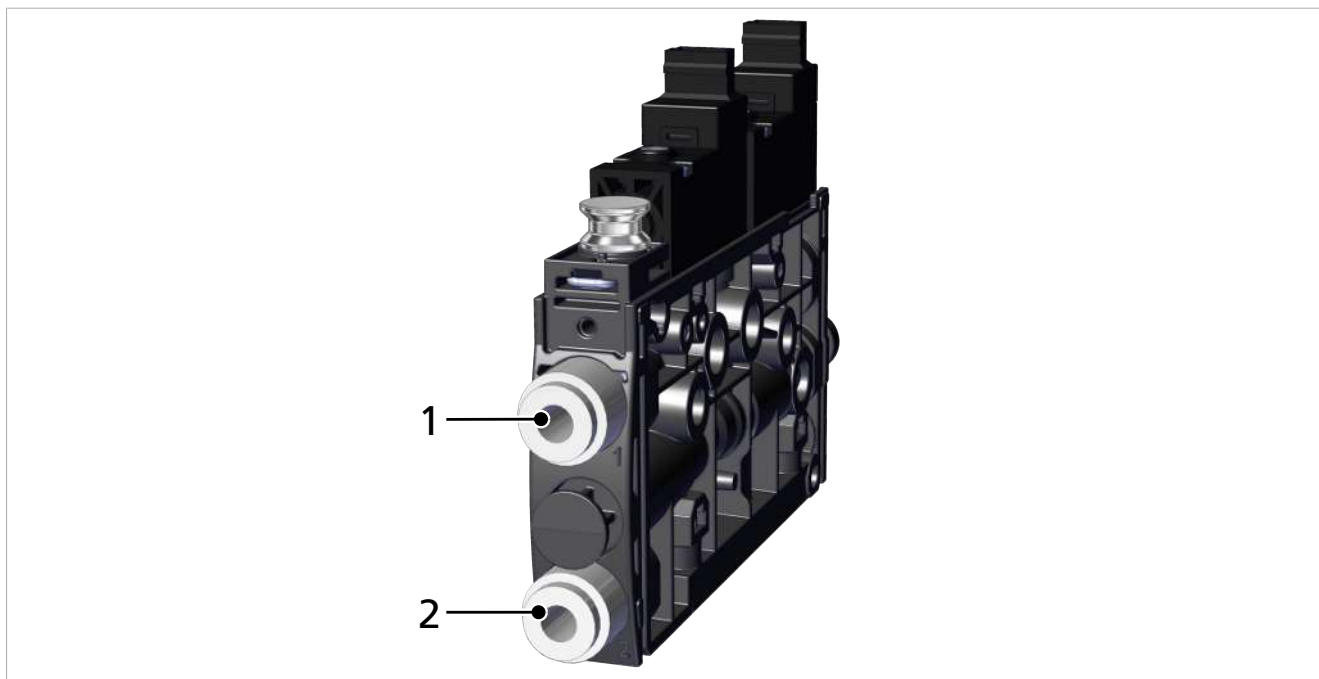
#### **Operating pressure above the recommended maximum pressure**

Product damage

- ▶ Use the product only within the nominal pressure range.
-

## 7.4.1 Connecting the Compressed Air and Vacuum

### Description of the pneumatic connector



1 Compressed air connector (marking 1)

2 Vacuum connector (marking 2)

The threaded or push-in compressed air connector is marked with the number 1 on the ejector.

- ▶ Connect compressed air hose. For threaded connectors, the maximum tightening torque is 1 Nm.

The threaded or push-in vacuum connector is marked with the number 2 on the ejector.

- ▶ Connect the vacuum hose. For threaded connectors, the maximum tightening torque is 1 Nm.

### 7.4.2 Instructions for the Pneumatic Connection

To ensure problem-free operation and a long service life for the mini compact ejector, always use adequately maintained compressed air and take the following requirements into account:

- Use air or neutral gas in accordance with EN 983, filtered to 5 µm, unoiled
- Dirt particles or foreign bodies in the connections, hoses or pipelines may lead to partial or complete loss of function in the mini compact ejector
- Keep the hoses and pipelines as short as possible
- Keep the hose lines free of bends and crimps
- Use only pipes or hoses with the recommended inner diameter to connect the mini compact ejector:

#### Use hoses with sufficient internal diameter.

	<b>Internal Ø for nozzle size 0.3 / 0.5 / and 0.7 mm</b>	<b>Internal Ø for nozzle size 1 and 1.2 mm</b>
Compressed air side, to ensure that the mini compact ejector achieves its performance data.	2 mm	4 mm
Vacuum side, to avoid high flow resistance. If the selected internal diameter is too small, the flow restrictor and the evacuation times increase and the blow off times are extended.	2 mm	4 mm

Internal diameters are based on a maximum hose length of 2 m.



### 7.4.3 Separate Blow-Off Supply Connection (EB) (Option)

The mini compact ejector is also available with an additional compressed air connector for the blow off function.

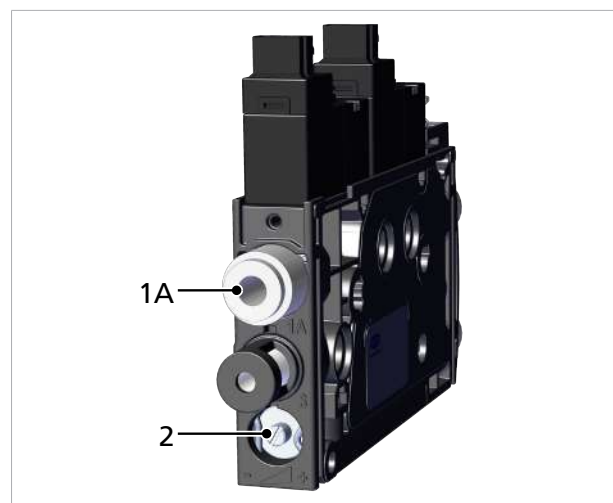
With this function, the blow off pulse is controlled separately and independently of the compressed air supply for vacuum generation, allowing you to use a different medium (e.g. nitrogen) for the blow off function.

The blow off flow rate can also be set between 0% and 100% directly on the mini compact ejector. This can be used, for example, to set down small and lightweight workpieces with high positioning precision ([> See ch. 8.2 Changing the Blow-Off Flow Rate on the Ejector, p. 27](#)).

The hose size and the thread on the connector depend on the particular mini compact ejector and can have the following dimensions:

- Push-in: 4/2
- M5-IG

- ▶ Connect the compressed air hose for separate blow off (connector marked with 1A) and adjust the blow off flow rate using the adjusting screw (2).



## 7.5 Electrical Connection



### NOTE

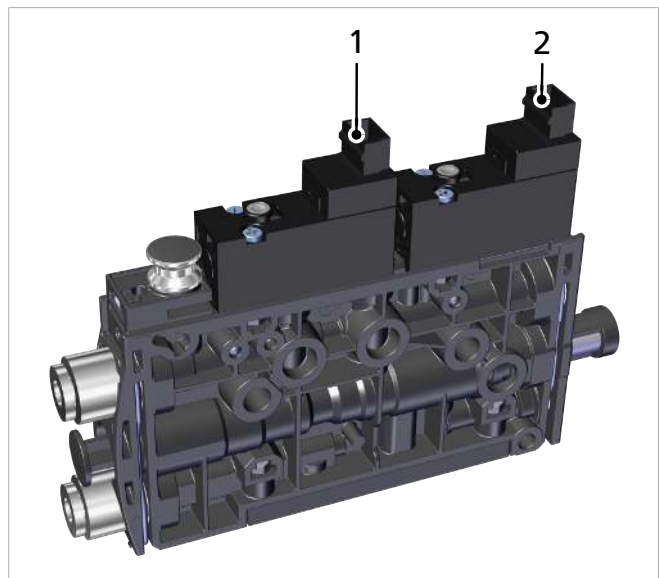
#### Incorrect power supply

Destruction of the integrated electronics

- ▶ Operate the product using a power supply unit with protected extra-low voltage (PELV).
- ▶ The system must incorporate safe electrical cut-off of the power supply in compliance with EN60204.
- ▶ Do not connect or disconnect the connector under tension and/or when voltage is applied.

The electrical connection is established directly via the connection plugs of the valves. The connection of the valves is independent of the polarity.

- ✓ Provide connection cable (for example, 2x item no.: 21.04.06.00086)



- ▶ Insert the connection cables into the electrical connections (1 and 2) until they click into place.

## 8 Operation

### 8.1 General Preparations



#### **WARNING**

#### **Extraction of hazardous media, liquids or bulk material**

Personal injury or damage to property!

- ▶ Do not extract harmful media such as dust, oil mists, vapors, aerosols etc.
- ▶ Do not extract aggressive gases or media such as acids, acid fumes, bases, biocides, disinfectants or detergents.
- ▶ Do not extract liquids or bulk materials, e.g. granulates.

Always carry out the following tasks before activating the system:

1. Before each start of operations, check that the safety features are in perfect condition.
2. Check the product for visible damage and deal with any problems immediately (or notify the supervisor).
3. Ensure that only authorized personnel are present in the working area of the machine or system and that no other personnel are put in danger by switching on the machine.

During automatic operation, there must be no people in the system danger area.

### 8.2 Changing the Blow-Off Flow Rate on the Ejector



Do not overwind past the stop on the valve screw. The blow off flow rate can be adjusted within the range between 0% and 100%.

The figure shows the position of the valve screw (1) for adjusting the blow off volume flow. The valve screw is equipped with a stop on both sides.

- Turn the valve screw (1) clockwise to reduce the flow rate.
- Turn the valve screw (1) counterclockwise to increase the flow rate.



## 9 Help with Malfunctions

<b>Fault</b>	<b>Possible cause</b>	<b>Solution</b>
Power supply disrupted	Electrical connection	▶ Make sure device is properly connected to power
Ejector does not respond	No power supply	▶ Check electrical connection
	No compressed air supply	▶ Check the compressed air supply
Vacuum level is not reached or vacuum is built up too slowly	Silencer is dirty	▶ Replace the silencer
	Leakage in hose line	▶ Check hose connections
	Leakage at suction cup	▶ Check suction cup
	Operating pressure too low	▶ Increase operating pressure. Note the maximum limits!
Load cannot be held	Internal diameter of hose line too small	▶ Observe recommendations for hose diameter
	Suction cup too small	▶ Select a larger suction cup
	Vacuum level too low	▶ Increase operating pressure (observe max. permissible limits)

## 10 Maintenance

### 10.1 Safety

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.



#### **NOTE**

##### **Incorrect maintenance work**

Damage to the ejector!

- ▶ Always switch off supply voltage before carrying out any maintenance work.
- ▶ Secure before switching back on.
- ▶ The ejector must only be operated with a silencer.

- ▶ Before carrying out work on the system, establish the atmospheric pressure in the compressed air circuit of the product.

### 10.2 Cleaning the Product

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.

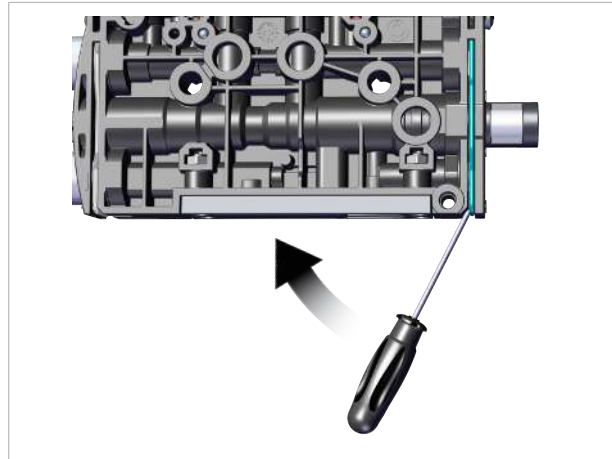
### 10.3 Replacing the Silencer Insert

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.

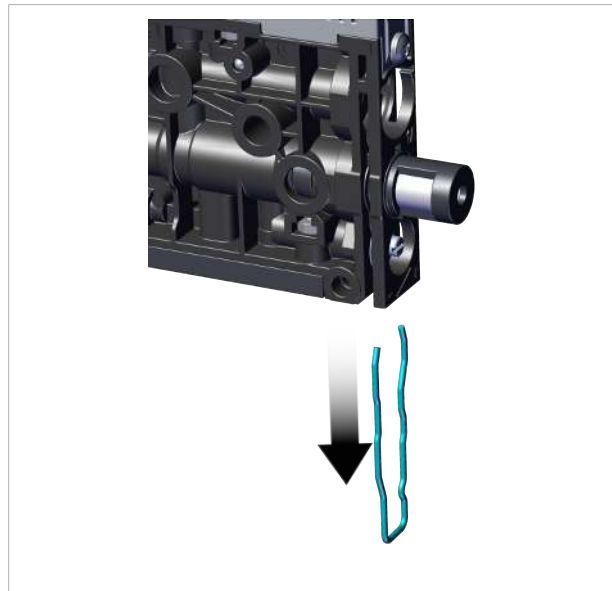
If the suction capacity decreases, replace the silencer insert:

- ✓ Deactivate the ejector and depressurize the pneumatic systems.

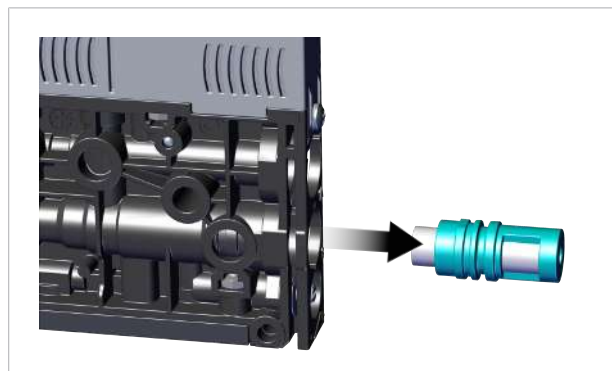
1. Place a small flat screwdriver on the ejector as shown and loosen the clamp.



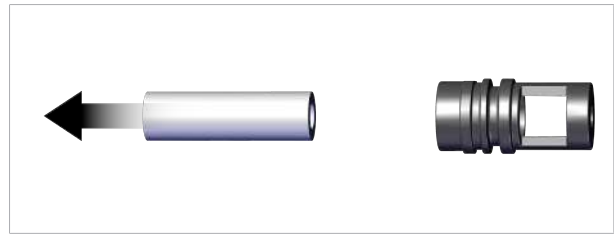
2. Remove the clamp.



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

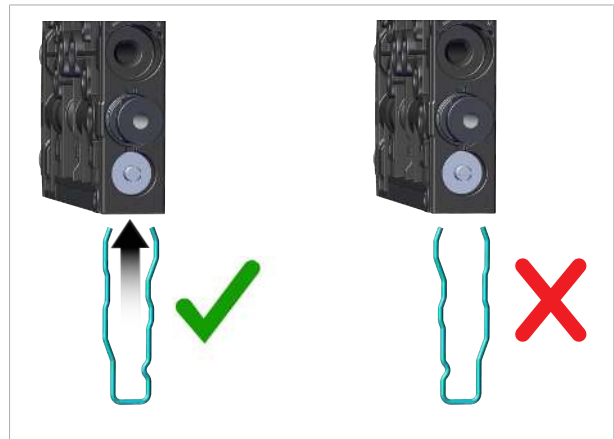


4. Pull the silencer insert out of the housing and dispose of it.

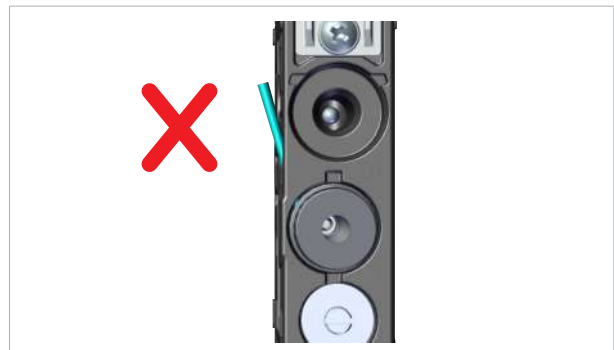


5. Insert the new silencer insert into the housing and reinstall the silencer.

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).

## **11 Warranty**

This system is guaranteed in accordance with our general terms of trade 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.

The exclusive use of original spare parts is a prerequisite for the proper functioning of the ejector and for the validity of the warranty.

Wearing parts are not covered by the warranty.



## 12 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.

<b>Designation</b>	<b>Part no.</b>	<b>Type</b>
Silencer insert	10.02.02.05403	Wearing part
NO ejector suction valve for nozzle size 03	10.05.01.00396	Spare part
NO ejector suction valve for nozzle size 05/07/10/12	10.05.01.00395	Spare part
NC ejector suction valve for nozzle size 03	10.05.01.00395	Spare part
NC ejector suction valve for nozzle size 05/07/10/12	10.05.01.00396	Spare part
Blow off valve (NC valve)	10.05.01.00395	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.

## 13 Accessories

Designation	Part no.	Note
Connection cable, ASK B-MIC10 3000 K-2P	21.04.06.00086	Connector 1: Vent Micro10 mm connector; Cable length: 3000 mm; Connector 2: Cable, 2-pin; Material: PUR cable
Exhaust air set ABL-SET SCPMi/c/b	10.02.02.06080	Plug-in screw union and thread adapter
Silencer for vacuum generator	10.02.02.05807	—
M5 plug-in screw union	10.08.02.00468	—
M7 plug-in screw union	10.08.02.00469	—
DIN rail mounting kit SET SCPM MOUNT1	10.02.02.05805	For TS 35-type DIN rail
Mounting bracket BEF-WIN 15x50x36.1 1.5 SCPM	10.02.02.05824	—
Thread adapter (assembled) ADP-G M5-IG 10.8x6 SCPMi/c/b	10.02.02.05778	—
Thread adapter (assembled) ADP-G M7-IG 10.8x7.9 SCPMi/c/b	10.02.02.05522	—

## 14 Decommissioning and Disposal

### 14.1 Disposing of the Product

The components may only be prepared for disposal by qualified specialists.

1. Dispose of the product properly after replacement or decommissioning.
2. Observe the country-specific guidelines and legal obligations for waste prevention and disposal.

### 14.2 Materials Used

<b>Component</b>	<b>Material</b>
Housing	PA6-GF
Inner components	Aluminum alloy, anodized aluminum alloy, stainless steel, POM
Silencer insert	Porous PE
Screws	Galvanized steel
Sealing	Nitrile rubber (NBR)
Lubrication	Silicone-free

## 15 Declarations of Conformity

### 15.1 EU Declaration of Conformity

The manufacturer Schmalz confirms that the product Ejector described in these operating instructions fulfills the following applicable EU directives:

2006/42/EC	Machinery Directive
2014/30/EU	Electromagnetic Compatibility
2011/65/EU	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment

The following harmonized standards were applied:

EN ISO 12100	Safety of machinery — General principles for design — Risk assessment and risk reduction
EN 61000-6-2+AC	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
EN 61000-6-3+A1+AC	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
EN 50581	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances



The EU Declaration of Conformity valid at the time of product delivery is delivered with product or made available online. The standards and directives cited here reflect the status at the time of publication of the operating and assembly instructions.

### 15.2 UKCA Conformity

The manufacturer Schmalz confirms that the product described in these operating instructions fulfills the following applicable UK regulations:

2008	Supply of Machinery (Safety) Regulations
2016	Electromagnetic Compatibility Regulations
2012	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations

The following designated standards were applied:

EN ISO 12100	Safety of machinery — General principles for design — Risk assessment and risk reduction
EN 61000-6-2+AC	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
EN 61000-6-3+A1+AC	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
EN 50581	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances



The Declaration of Conformity (UKCA) valid at the time of product delivery is delivered with the product or made available online. The standards and directives cited here reflect the status at the time of publication of the operating and assembly instructions.



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