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Operating Instructions

Schmalz Blower Box

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Note

These operating instructions were originally written in German and have been translated into English. Store in a safe place for future reference.

We reserve the right to make technical changes. No responsibility is taken for printing or other types of errors.

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Schmalz Blower Box

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1 Safety Instructions

1.1 Classification of safety instructions


Danger

This warning informs the user of a risk that will result in death or serious injury if it is not avoided.

 DANGER	
	Type and source of danger Consequence ► Remedial action


Warning

This warning informs the user of a risk that could result in death or serious injury if it is not avoided.

 WARNING	
	Type and source of danger Consequence ► Remedial action

Caution

This warning informs the user of a risk that could result in injury if it is not avoided.

 CAUTION	
	Type and source of danger Consequence ► Remedial action






Caution

This warning informs the user of a risk that could result in damage to property if it is not avoided.

CAUTION	
	Type and source of danger Consequence ► Remedial action






1.2 Warnings

Explanation of the warning symbols used in the operating instructions.




Warning symbol	Description	Warning symbol	Description
	General warning symbol		Explosive atmosphere
	Electrical voltage		Flying debris
	Hot surfaces		

1.3 Mandatory symbols

Explanation of the mandatory symbols used in the operating instructions.

Mandatory symbol	Description	Mandatory symbol	Description
	Wear protective glasses		Wear safety shoes
	Wear protective gloves		Disconnect mains plug
	Adhere to the operating instructions		

1.4 General safety instructions

 WARNING	
 	<p>Ignoring the general safety guidelines Personal injuries / damage to plants / systems</p> <ul style="list-style-type: none"> ▶ The operating instructions contain important information on using the system. Read the operating instructions thoroughly and keep them for later reference. ▶ The operating instructions are tailored to the scope of delivery of Schmalz. They do not take into account any modifications to the system made by the customer, which are strictly prohibited ▶ The system may only be connected and operations started once the operating instructions have been read and understood. ▶ Use only the connections, mounting holes and attachment materials that have been provided. ▶ Carry out mounting or removal only when the device is in an idle, depressurized state. ▶ 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 while performing tasks. The same applies to maintenance! ▶ General safety regulations, European standards and VDE guidelines must be observed and complied with. ▶ Personnel and animals are not permitted to sit or stand in the danger zone area. ▶ You are responsible for third parties in the working area of the system. In view of this, responsibilities for the various tasks to be carried out on the system must be clearly specified and adhered to. ▶ Protect the components from damage of any kind.



All applicable laws and regulations must be adhered to at all times.

When using the system, the statutory regulations, safety regulations, standards and guidelines applicable at the location of use must be adhered to.

Check with the competent authorities for more information.

The other safety instructions in these operating instructions do not replace these laws and regulations, but should be seen as a supplement to them.

1.4 1.5 Intended use

The Schmalz Blower Box SBB is for holding the vacuum pump EVE-TR 80 during the operation. The Schmalz Blower Box SBB reduces the sound pressure level of the vacuum pump to approx. 65 dB(A) (for a EVE-TR 80 with a generated vacuum of 620mbar) and protects the pump from dirt and damage due to external influences.

The Schmalz Blower Box must be screwed firmly to the supporting surface and the cover must be kept closed while the vacuum pump is operating.

The vacuum pump must be disconnected from the circuit prior to working on the Schmalz Blower Box. Since the pump emits heat, a cooling time of 60 minutes must be observed. If necessary, the temperature must be checked with a thermometer (max.40°C).

The components must be installed or stored in a dry state and must be protected from splashing or dripping water.

1.6 Requirements and instructions for installation, maintenance and operating staff




The Schmalz Blower Box SBB should only be installed and maintained by qualified specialist personnel, mechanics, and electricians. Work on electrical equipment must be carried out by qualified electrical specialists only.




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.



The user's company must ensure by means of internal measures that all persons commissioned with the task of setting up, starting up, operating, maintaining and repairing the device at the company of the user must have read and understood the operating instructions. The operating instructions must also be accessible at all times.

Ensure that only authorized personnel use the Schmalz Blower Box SBB. You are responsible for third parties in the working area of the Schmalz Blower Box. In view of this, the responsibilities for the various tasks to be carried out on the Schmalz Blower Box must be clearly specified and adhered to by the operator.



 DANGER	
 	<p>Electric shock resulting from incorrectly connected components</p> <p>This can result in death or serious injury from electric shock and fire.</p> <ul style="list-style-type: none"> ▶ All work on electrical equipment must be carried out by qualified electrical specialists only ▶ Suitable fire extinguishing equipment must be on hand!

 WARNING	
 	<p>Risk of injury due to misuse or non-observance of warning and safety notices</p> <p>Persons could be harmed</p> <p>▶ The equipment must be used by trained personnel only.</p>

1.7 Installation location/workplace requirements

1.7.1 Installation location requirements

The Schmalz Blower Box must not be used in potentially explosive atmospheres.

 DANGER	
	<p>Non explosion proof switching components</p> <p>Risk of fire and explosion</p> <p>▶ Product must not be used in potentially explosive atmospheres.</p>

There must be at least 20 cm of free space between the device and adjacent walls, so that the air flow for cooling is not restricted.

Ensure that the hot air flowing out of the exhaust air outlets can escape freely.

The Schmalz Blower Box SBB may only be installed with the vacuum pump blower in a horizontal position.

Mounting sets for attaching the Schmalz Blower Box horizontally to crane columns are available as accessories.

The Schmalz Blower Box SBB can be operated in rooms with an ambient temperature of between +0°C and +40°C.

Ensure that no small parts can enter the exhaust air or air intake openings.

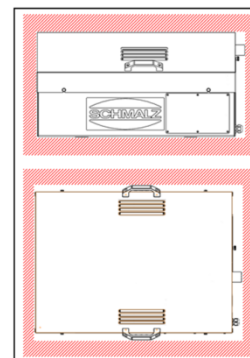
1.7.2 Workplace requirements

The installation location must be selected so that maintenance work on the pump and on the SSB can easily be carried out (accessibility to the securing screws for the hood, and working space above the hood so that this can be removed in order to ensure accessibility to the vacuum pump EVE-TR80).

1.8 Definition of the danger zone

The danger zone is the area in the vicinity of working equipment which poses a hazard to the safety of persons located within it.


The danger zone of the Schmalz Blower Box (see red hatched area) is in the immediate vicinity of the box.




1.9 Emissions

The Schmalz Blower Box emits noise and hot exhaust air.

The vacuum generator will atomize and disperse any media that is sucked in. It is therefore important that no polluted or contaminated ambient air (particle size max. 5 µm) is sucked in. If the ambient air is dusty, a dust filter must be used.

! CAUTION	
	<p>Hot air flows from the outlet side of the blower, heating up the blower and surrounding components</p> <p>This presents a burn hazard</p> <ul style="list-style-type: none"> ▶ Keep your distance from the blower! ▶ Observe a cooling time of 60 minutes before working on the blower ▶ Wear protective gloves

! CAUTION	
	<p>Risk of eye injury</p> <p>All vacuum generators generate an exhaust air flow. Depending on the purity of the ambient air, this exhaust air can contain particles, which escape from the exhaust air outlet at high speed, potentially injuring people in the face and eye area.</p> <ul style="list-style-type: none"> ▶ Do not look into the exhaust air flow. ▶ Wear protective glasses.

1.10 Personal protective equipment

When operating the Schmalz Blower Box always wear suitable protective equipment:

1. Safety shoes (in accordance with EN 20345 safety class S1 or better)
2. Sturdy work gloves (in accordance with EN 388 safety category 2133 or better)
3. Protective glasses (in accordance with EN 166)
4. Other protective equipment as required by the situation or prescribed by national regulations.

2 Product Description

2.1 Schmalz Blower Boxcomponents

The Schmalz Blower Box consists primarily of the following components:



Image for illustration purposes only. Actual product may vary.

Item	Description	Item	Description
1	Main body	2	Cover
3	Inspection flap (carbon vane)	4	Inspection flap (filter)
5	Cable connection	6	Vacuum tube connection (hose connector or optional dust filter)
7	Exhaust air channel		

2.2 Type plate



The device type, device number and year of manufacture are specified on the type plate. This is important information for identifying the device and must always be specified when ordering replacement parts, making warranty claims or other inquiries about the device.

The type plate is firmly attached to the exterior of the Schmalz Blower Box.

The type plate contains the following information:



3 Technical Data

	Schmalz Blower Box
Length [mm]	798
Width [mm]	548
Height [mm]	404
Weight [kg]*	35

* without vacuum generator

Reduced noise emissions:

approx. 8dB(A) at 50Hz, and approx. 9dB(A) at 60Hz!

4 Delivery, Packaging and Transport

4.1 Delivery

Refer to the order confirmation for specific details about the scope of delivery. The weights and dimensions will be listed in the delivery notes.

Using the enclosed delivery documents, check the entire shipment to ensure that it is complete! Following delivery of the shipment, damage caused by defective packaging or in transit must be reported immediately to the carrier and J. Schmalz GmbH.



The operating instructions are an integral part of the Schmalz Blower Box and must accompany the device whenever it moves to a new location.

4.2 Packaging

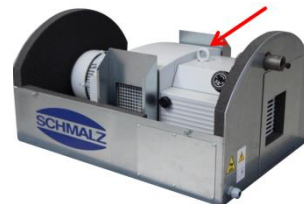
Depending on the scope of the shipment, the Schmalz Blower Box is transported either in a cardboard box or wooden crate, or on a pallet.



The packaging material must be disposed of in accordance with country-specific laws and guidelines. Labeled transport aids and safety mechanisms must be removed.


4.3 Transport with mounted vacuum generator

Transport by means of the vacuum pump ring.
Remove the cover, item 2, of the SBB for this purpose



! WARNING	
	<p>Risk of injury due to improper transportation and unloading</p> <p>This can result in personal injury or material damage.</p> <ul style="list-style-type: none"> ▶ Unloading and transport must only be carried out by trained forklift truck drivers who have also completed all the necessary safety training ▶ Hoists and slings must have the necessary specifications for the particular load. ▶ Transport materials must be secured in accordance with country-specific regulations (BAG guidelines in Germany). ▶ Personal protective equipment
CAUTION	
	<p>Load is suspended outside the center of gravity</p> <p>May cause damage to the screw union between pump and metal tray.</p> <ul style="list-style-type: none"> ▶ Sudden and incorrect lifting should be avoided.



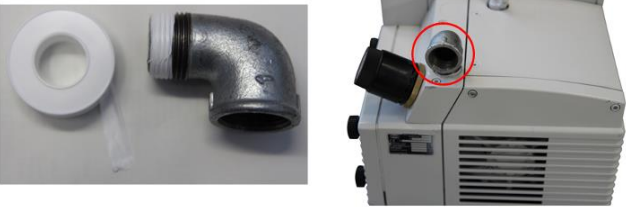
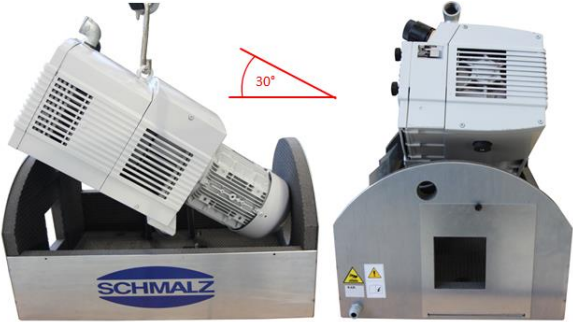
5 Installation

 Please read section 1.6 (Requirements & instructions for installation, maintenance and operating staff) before starting installation


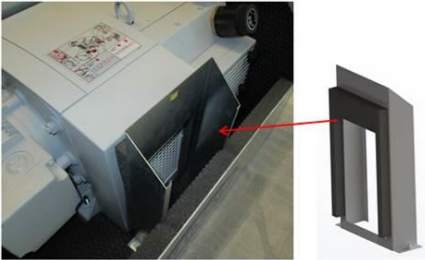


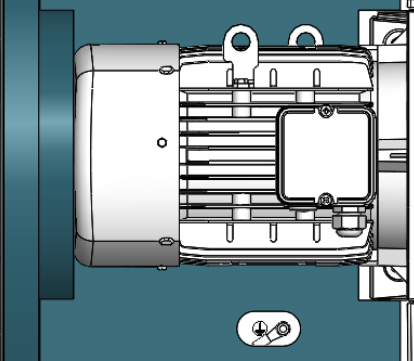

5.1 Connecting the Schmalz Blower Box SBB



Tools required:

- Socket wrench set
- Size SW 46 wrench, alternatively pipe wrench
- Teflon tape not included in scope of delivery


	Image	Work step description
1		<p>Remove Schmalz Blower Box cover. Loosen 4 screws to do this.</p>
2		<p>Detach suction support on the vacuum pump.</p>
3		<p>Add Teflon tape to the pipe elbow and then screw into the vacuum pump and align as shown.</p>
4		<p>Lift and position the vacuum pump into the Blower Box using a lifting aid (angle approx. 30°). After this, secure using the small parts included (2x counternuts and washers).</p>

INSTALLATION

5		<p>Tighten counternut until it contacts the washer (excessive tightening impairs the vibration dampers).</p>
6		<p>Attach both exhaust channels for the air removal using the counternuts included.</p>
		<p>Use an additional spacer ring in combination with pump design IE3-Type1.</p>
7		<p>Add Teflon tape to the sleeve and double nipple and then screw the double nipple into the pipe elbow.</p>
		<p>Insert the grounding wire into the connection box of the motor and connect it to the motor terminal board with a ring terminal.</p>
8		<p>Carry out electrical connection in accordance with the vacuum generator operating instructions. Route the cable through the cable screw union at the front.</p>

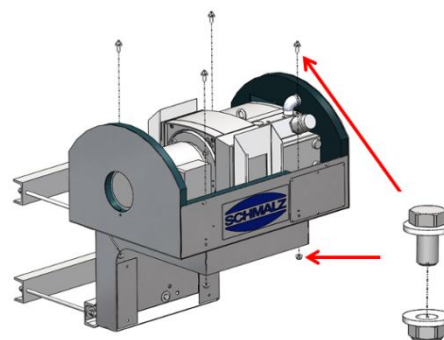
9		<p>Carefully place the cover hood from above on the base plate. Secure it to the base plate using 4 screws.</p> <p>Mount optional hose nozzle or double nipple for dust filter to the sleeve.</p>
10		<p>Check whether a cool air flow can be felt at both ends when vacuum pump is switched on.</p> <p>The vacuum pump in the Schmalz Blower Box is ready for operation!</p>

CAUTION	
	<p>Incorrectly connected operating voltage Material damage to the blower</p> <p>▶ Only operate the pump with the operating voltages specified in the operating instructions supplied (for the pump).</p>

	<p>Before the start of operations, it must be checked that the rotational direction of the pump corresponds with that stated in the pump's separate operating instructions.</p>
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5.2 Installing the Schmalz Blower Box on a blower console

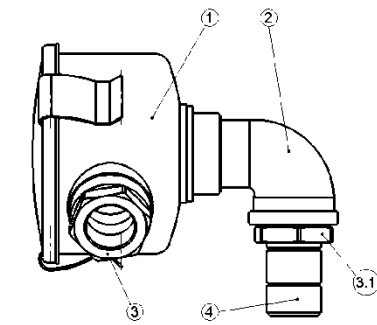
Installation on the blower console (accessories) using 4 hex bolts and counter-nuts.



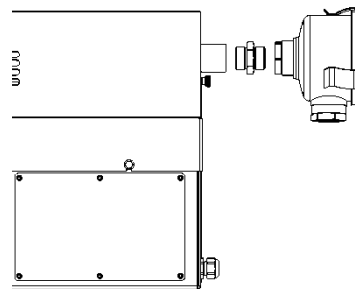
5.3 Installing the dust filter on the Schmalz Blower Box SBB

Dust filter accessories 11.01.40.00190

Remove items 2 and 4 from the dust filter.
 Add Teflon tape to the reducing fitting,
 item 3.1, and fit directly into the dust filter.





Add Teflon tape to both sides of the
 double nipple and screw into the SSB
 sleeve. Following this, install the dust filter.



6 Operation

6.1 General safety instructions regarding operation

 WARNING	
	<p>Non-observance of the general safety instructions for normal operation</p> <p>This can result in personal injury or material damage.</p> <ul style="list-style-type: none">▶ The system must only be operated by trained personnel who have read and understood the Schmalz Blower Box and pump operating instructions

6.2 Description of operation

The Schmalz Blower Box allows the noise emissions caused by the vacuum generator to be reduced to a minimum.

Please refer to both the vacuum generator and tube lifter documentation regarding operation.

7 Maintenance

7.1 General Notes

The Schmalz Blower Box SBB is maintenance free and only requires regular cleaning, please observe point 7.3!

7.2 Maintenance of the vacuum pump EVE TR 80



Inspection flap for maintenance of the pump valves.

Open the flap and carry out the scheduled maintenance based on the vacuum pump documentation.

Inspection flap for cleaning internal pump filter cartridges.

Loosen the screws from the flap and cover. Remove flap and cover. Carry out scheduled maintenance based on the vacuum pump documentation.

Following the scheduled maintenance on the vacuum pump, remove internal dirt residues from the Schmalz Blower Box SBB using a vacuum cleaner.

7.3 Cleaning

In order to prevent overheating, clean the dust from the hood surface. Commercial water soluble cleaning agent should be used for this purpose. Under no circumstances should solvents such as trichloroethylene, carbon tetrachloride, hydrocarbons or vinegar-based cleaning products be used for cleaning.

8 Decommissioning and Disposal

8.1 Decommissioning

The Schmalz Blower Box may only be decommissioned by qualified specialist personnel.

Procedure:

1. Switch off the vacuum generator and disconnect from the electrical voltage.
2. Remove the vacuum supply hose.

8.2 Disposal

Only qualified specialist personal may prepare the Schmalz Blower Box for disposal.

Procedure:

1. Decommission the Schmalz Blower Box.
2. Detach the vacuum generator.
3. Dispose of the vacuum generator in accordance with the operating instructions supplied separately.
4. Dispose of the Schmalz Blower Box components in a manner appropriate for the materials concerned.

For proper disposal, please contact a company specializing in the disposal of technical goods and instruct the company to observe the prevailing disposal and environmental regulations. The manufacturer of the device will be happy to assist you in finding a suitable company.

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