



OPERATING INSTRUCTIONS



Original

ZFO 016

Zeolite Trap



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1. Safety Instructions

- ☞ Read and follow all instructions in this manual.
- ☞ Inform yourself regarding:
 - Hazards which can be caused by the accessory and by the pump;
 - Hazards which can be caused by your system.
- ☞ Observe the safety and accident prevention regulations.
- ☞ Regularly check that all accident prevention measures are being complied with.
- ☞ Do not carry out any unauthorised conversions on or alterations to the unit.
- ☞ When returning units, take note of shipping instructions in the Section “Service”.

Pictogram definitions



Danger of damage to the unit or to the system.



Danger of personal injury.

Modifications reserved.

Please note:

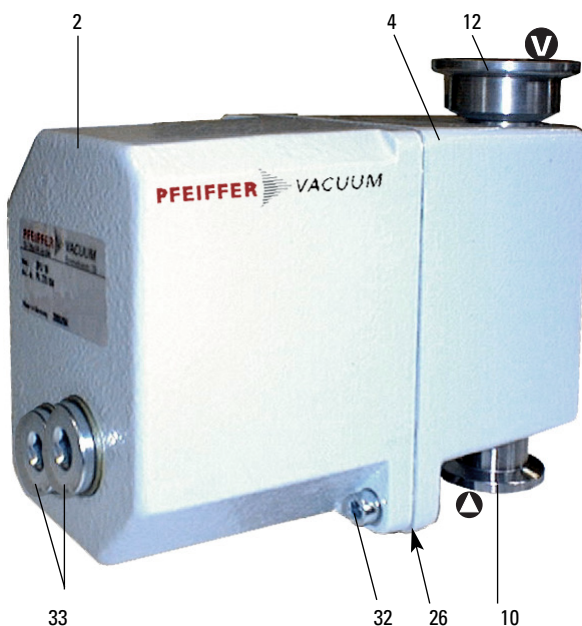
Current operating instructions are also available via www.pfeiffer-vacuum.net.

2. Understanding The Zeolite Trap

2.1 Main Features

Zeolite trap ZFO 16

- 2 Housing
- 4 Cover
- 10 Threaded small flange DN 16 ISO-KF
- 12 Threaded small flange (intake side) DN 16 ISO-KF
- 33 Locking screw
- 26 O-ring
- 32 Cheesehead screw



Through adsorption, zeolite traps prevent hydrocarbon back-streaming from oil sealed two stage vacuum pumps to other high vacuum components in the plant.

The Zeolite Trap ZFO 16 is mounted from above on the intake flange of rotary vane vacuum pumps.

Proper Use:

- Zeolite traps cannot be cooled and cannot therefore be used as condensers.
- As a rule, Zeolite traps are installed in the intake line of a vacuum system or direct to the vacuum flange of a vacuum pump.

2.2. For Your Orientation

Instructions in the text

➔ Operating instructions: Here you have to do something!

Symbols used

The following symbols are used throughout in the illustrations:

ⓧ Vacuum flange

⬆ Pump connection flange

Position numbers

Identical components and accessories parts have the same position numbers in all illustrations.

2.3. Versions

ZFO 16: Standard version with small flange inlet DN 16 ISO-KF for UNO/DUO 2.5, UNO 005 A and DUO 5.

ZFO 16: Option with small flange inlet DN 25 ISO-KF / G 1/4" and adsorption medium Al_2O_3 for UNO/DUO 2.5, UNO 005 A and DUO 5.

Recommended Adsorption medium:

Standard: Zeolith

Option: Al_2O_3

3. Installation

3.1. Fitting The ZFO 16

Before delivery the ZFO 16 has been vented with dry nitrogen in the works and the connections have been provided with protective covers.

Before first time operating, the zeolite trap must be filled with adsorption medium.

3.2. First Time Adsorption medium Filling

- ➔ Unscrew locking screw 33; take care with sealing ring 143.
- ➔ Position the casing vertically with the filler hole up.
- ➔ Fill up with adsorption medium and screw in the locking screw; take care with sealing ring 143.
- ➔ Fit the zeolite trap.

4. Operations

Even at room temperature the zeolite adsorption rate for water vapour and hydrocarbons is so great that cooling is unnecessary.

Precise statements regarding the time from drying to zeolite saturation are not possible because this depends very much on the sequence of operations and the operational conditions.

- ➔ Carry out zeolite filling renewing when a deterioration of the vacuum is noticed.



Zeolite filling should not be allowed to come into contact with mercury vapour because this prevents regeneration.

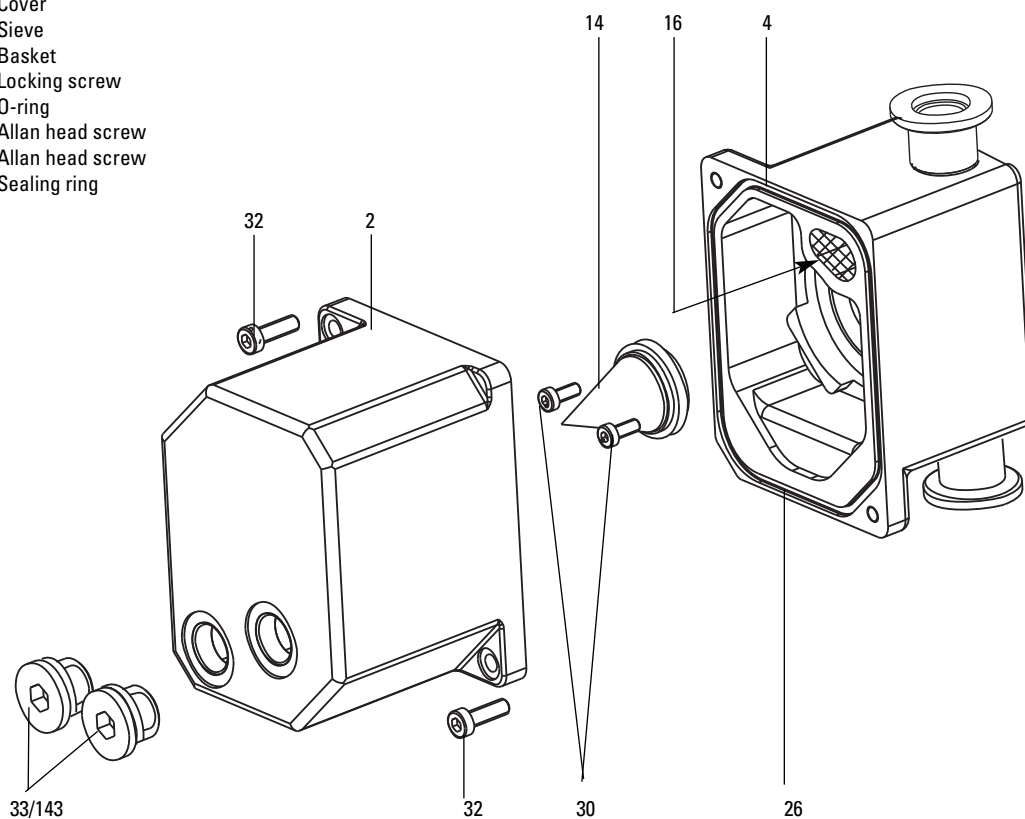
5. Maintenance

5.1. Changing The Adsorption Medium Filling

- ➔ Dismantle the zeolite trap from the system.
- ➔ Completely open casing 2/4 by unscrewing screw 32; take care with o-ring 26.
- ➔ Shake out adsorptions medium complete.
- ➔ If the inside of the case has become moistened with operating fluid, clean with benzine or similar cleaning agent.
- ➔ Close casing 2/4 by screwing in the locking screws 32; take care with o-ring 26.
- ➔ Fill in new adsorption medium as described in Section 3.2.

Changing The Adsorption Medium Filling

- 2 Housing
- 4 Cover
- 14 Sieve
- 16 Basket
- 33 Locking screw
- 26 O-ring
- 30 Allan head screw
- 32 Allan head screw
- 143 Sealing ring



6. Service

Do Make Use Of Our Service Facilities

In the event that repairs are necessary to your pump or pumping station, a number of options are available to you to ensure any system down time is kept to a minimum:

- Have the unit repaired on the spot by our Pfeiffer Vacuum Service Engineers;
- Return the individual components to the manufacturer for repairs;
- Replace individual components with a new value exchange units.

Local Pfeiffer Vacuum representatives can provide full details.

Before Returning:

- ➔ Dismantle all accessories.
- ➔ Empty zeolite trap.
- ➔ Attach a clearly visible notice: "Free of contamination" (to the unit being returned, the delivery note and accompanying paperwork).

Harmful substances" are substances and preparations as defined in current legislation. Pfeiffer Vacuum will carry out the decontamination and invoice this work to you if you have not attached this note. This also applies where the operator does not have the facilities to carry out the decontamination work. Units which are contaminated microbiologically, explosively or radioactively cannot be accepted as a matter of principle.

Fill out the service request and the declaration on contamination

- ➔ Download the forms "Service Request" and "Declaration on Contamination".¹⁾
- ➔ Fill out the "Service Request" form and send it by fax or e-mail to your Pfeiffer Vacuum service address.
- ➔ Include the confirmation on the service request from Pfeiffer Vacuum with your shipment.
- ➔ Fill out the contamination declaration and enclose it in the shipment (required!).

Please get in touch with your local Pfeiffer Vacuum representatives if there are any questions regarding contamination.



Decontaminate units before returning or possible disposal. Do not return any units which are microbiologically, explosively or radioactively contaminated.

Returning Contaminated Units

If contaminated units have to be returned for maintenance/repair, the following instructions concerning shipping must be followed without fail:

- ➔ Neutralise the unit by flushing with nitrogen or dry air.
- ➔ Seal all openings to the air.
- ➔ Seal unit in suitable protective foil.
- ➔ Ship units only in appropriate transport containers.



Repair orders are carried out according to our general conditions of sale and supply.

- ➔ If repairs are necessary, please send the unit together with a short damage description to your nearest Pfeiffer Vacuum Service Center.

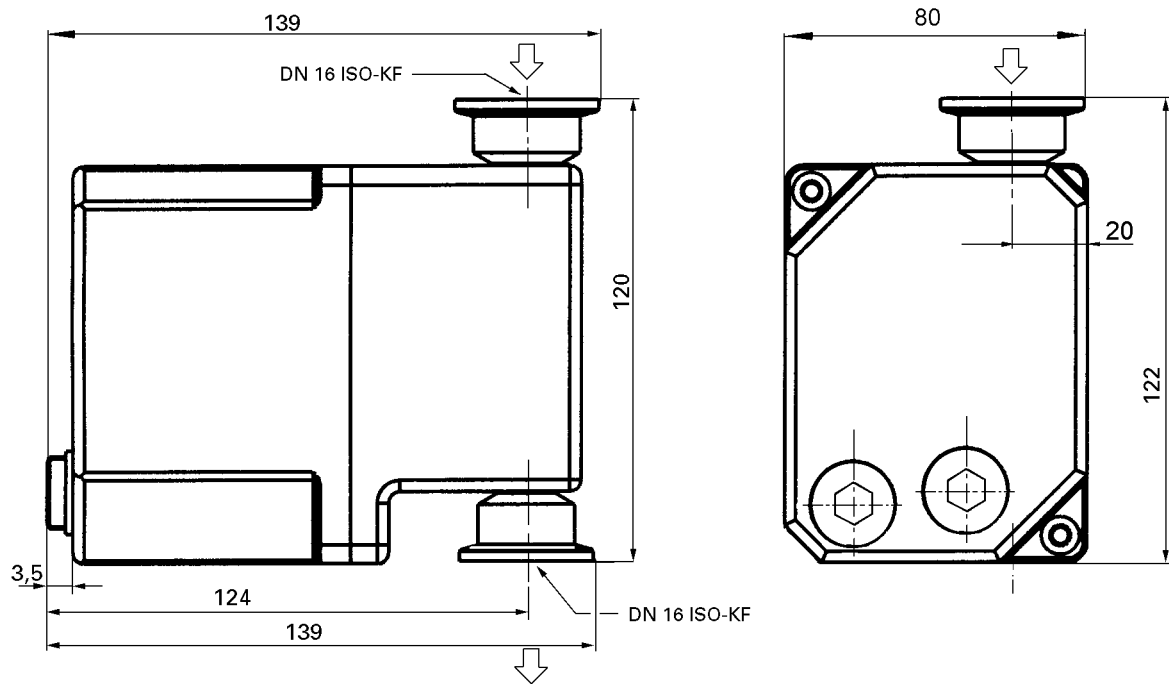
¹⁾ Forms under www.pfeiffer-vacuum.net

7. Technical Data

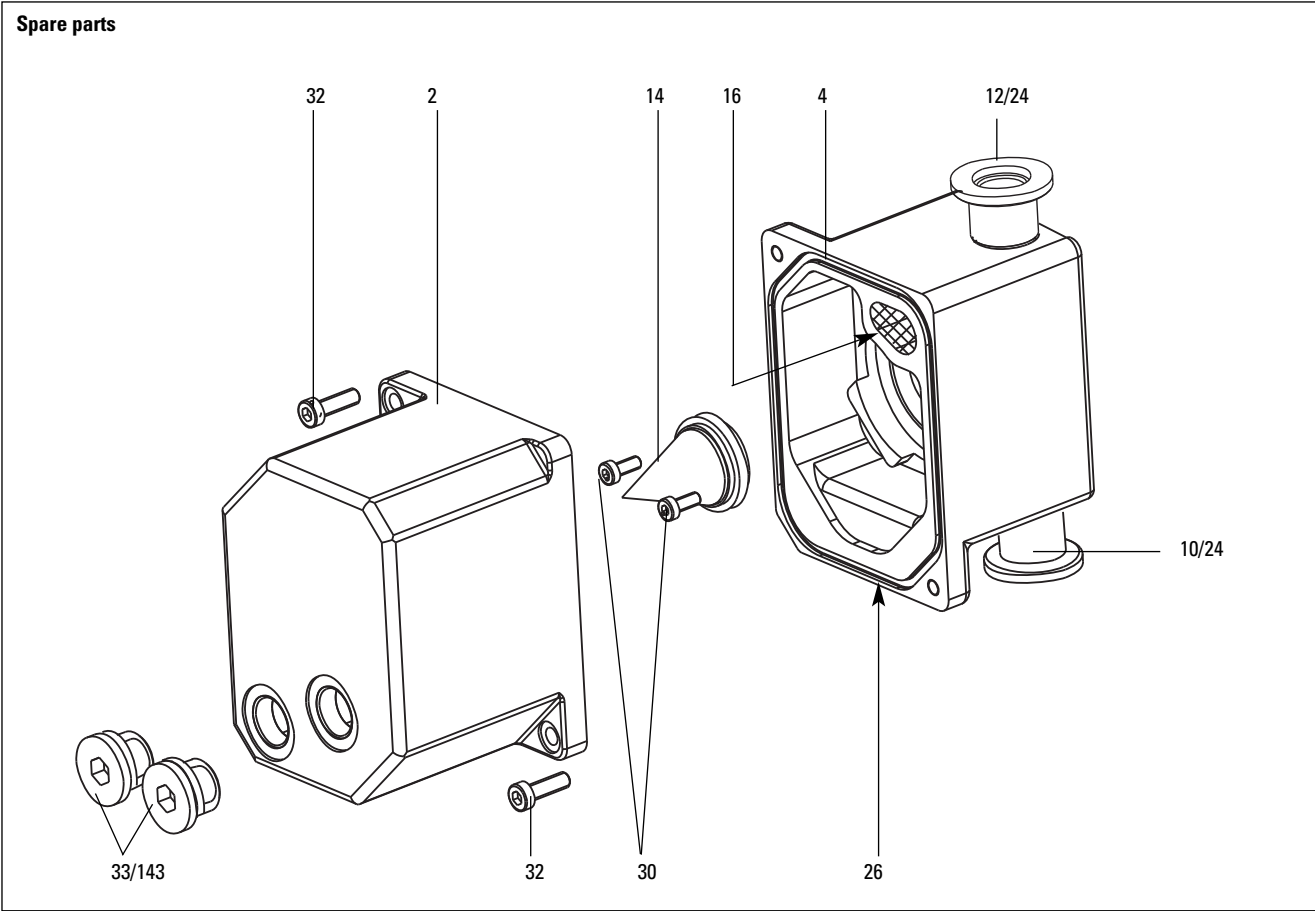
Technical Data		ZF0 16
Nominal Diameter		
Intake side (standard)	DN	16 ISO-KF
Outlet	DN	16 ISO-KF
Installation attitude for normal operations		horizontal
Filling capacity	l	0.5
Filling capacity	kg	0.35/0.39
Permissible working pressure	bar	1.5 abs.
Weight	kg, approx.	1.35

7.1. Dimensions

ZF0 16



8. Spare Parts



8.1. Spare Parts Packages

Spare Parts Package	No.	Kind Of Work	Intendet For Version
Overhaul kit	PK E27 013 -T	Cleaning and general overhaul	ZFO 16 (consists of pos. 14, 16, 24, 33 incl. sealing ring 143)

9. Accessories

Description	Quantity	Weight, approx.	Order No.
Zeolith	1 l	0.71 kg	PK 001 248 -T
	5 l	3.53 kg	PK 001 187 -T
	20 l	14.10 kg	PK 001 188 -T
	50 l	35.25 kg	PK 001 189 -T

Description	Quantity	Weight, approx.	Order No.
Al ₂ O ₃	1 l	0.77 kg	PK 004 696 -T
	5 l	3.85 kg	PK 004 701 -T
	20 l	15.40 kg	PK 004 702 -T
	50 l	38.50 kg	PK 004 703 -T

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