

OPERATING INSTRUCTIONS

EN

Original

KAS 16/25/25 L

Condensate separator

PFEIFFER  **VACUUM**

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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 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".

1.1. 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
- Ⓛ Exhaust flange

Position numbers

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

1.2. Pictogram definitions



Danger of damage to the unit or to the system.



Danger of burns from touching hot parts.

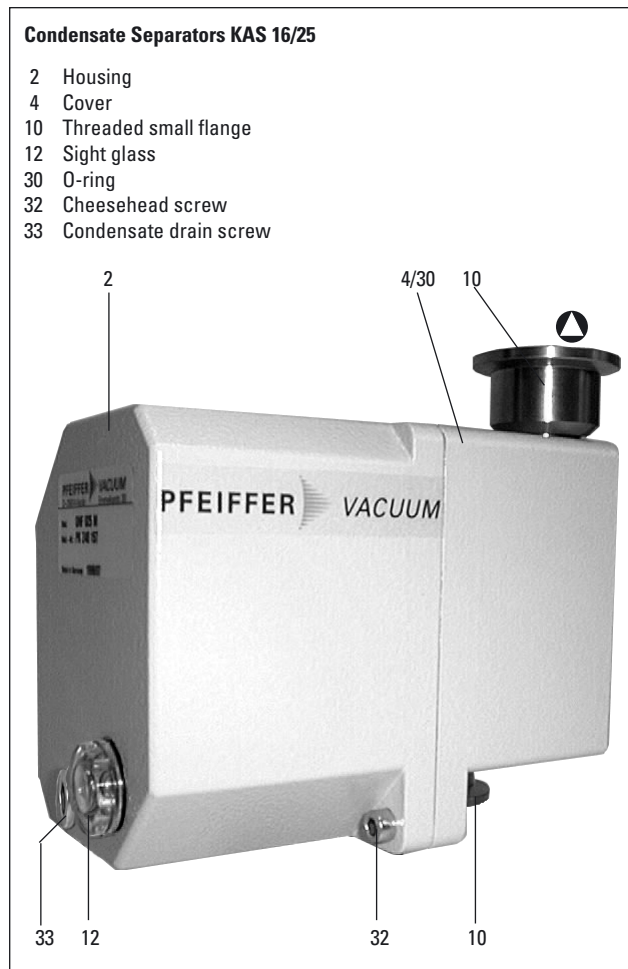


Danger of personal injury.

Modifications reserved.

2. Understanding The Condensate Separator

2.1 Main Features



To protect the pump against the damaging effects of condensates, the fitting of a condensate separator in the intake line of a vacuum pump is recommended.

This keeps the lubricating efficiency of the operating fluid and ensure the attainable final pressure.

The KAS is provided with a sight glass to show the condensate level.

Proper Use:

- Condensate separators cannot be cooled and cannot therefore be used as condensers.
- As a rule, condensate separators are installed in the intake line of a vacuum system or a vacuum pump.
- Where certain applications are involved it is also recommended to fit a condensate separator in the exhaust line.

2.3 Versions

Condensate Separators KAS 16/25/25 L are manufactured in corrosion proof aluminium.

Condensate Separators are available in the following versions:

KAS 16: Standard version for the UNO/DUO 2.5, UNO 5, DUO 5

KAS 25: Standard version for the DUO 10.

KAS 25 L: Standard version for the DUO 20.

3. Installation

3.1. Fitting The Condensate Separator

DN 16 ISO-KF or DN 25 ISO-KF small flanges are provided on the input and output sides of the KAS for connecting the KAS to the vacuum flange of rotary vane pumps.

This permits the use of pre-fabricated standard components in the installation; please see PFEIFFER catalog.

- ➔ Position the KAS on the small flange on the vacuum side of the rotary vane pump with the sight glass facing down and fit using the tension ring (accessory); take care with the centering ring on the rotary vane pump.



If gases are being pumped which should not be allowed to escape into the atmosphere an exhaust line must be fitted.

The exhaust line should be laid so that no excess pressure can build up in it.

4. Maintenance

4.1. Draining Off Condensate

Condensate must be drained when the level has risen to the middle of the sight glass 12; this represents the maximum level.



Toxic gases and vapours can escape from the condensate which may also become enriched with substances harmful to health (radioactive, chemical etc.) during the pumping of certain media.

Condensate which has been enriched with toxic or aggressive substances must be treated carefully. Compliance with all relevant handling regulations for such media is essential.

4.1.1 Intake Side Condensate Draining

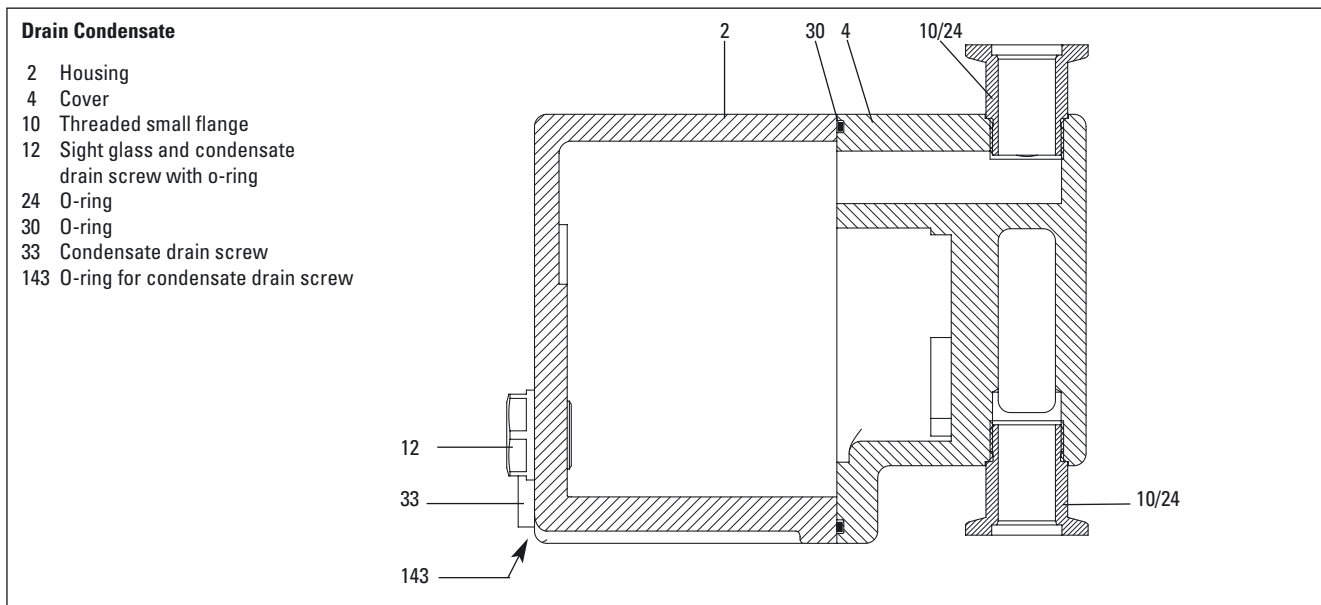
- ➔ Close valve between separator and recipient and switch off vacuum pump.
- ➔ Unscrew condensate drain screw 33 and drain off any condensate; take care with the o-ring 143.

For Emptying the KAS completely proceed as follows:

- ➔ Dismantle the KAS from the vacuum pump and dispose of the condensate.
- ➔ Screw in condensate drain screw 33; auf O-Ring achten.
- ➔ Fit KAS back to the vacuum flange.
- ➔ Switch vacuum pump back on (if necessary, allow sufficient time for the pressure in the condensate separator to match the pressure in the recipient).
- ➔ Open valve between separator and recipient.

4.1.2 Exhaust Side Condensate Draining

Emptying a condensate separator fitted on the exhaust side can proceed without switching off the vacuum pump. Draining the condensate is executed as described in section 4.1.1.



5. Service

Do Make Use Of Our Service Facilities

In the event that repairs are necessary to your unit, 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:

- ➔ When returning the pump please use original factory packing.
- ➔ Dismantle all accessories.
- ➔ Drain lubricant.
- ➔ If the pump is free of harmful substances, please 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 Contamination Declaration

- ➔ In every case the "Contamination Declaration" must be completed diligently and truthfully.
- ➔ A copy of the completed declaration must accompany the unit; any additional copies must be sent to your local Pfeiffer Vacuum Service Center.

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

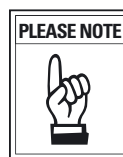


Decontaminate units before returning or possible disposal. Do not return any units which are microbiologically, explosively or radioactively contaminated.

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 pump or unit in suitable protective foil.
- ➔ Ship units only in appropriate transport containers.



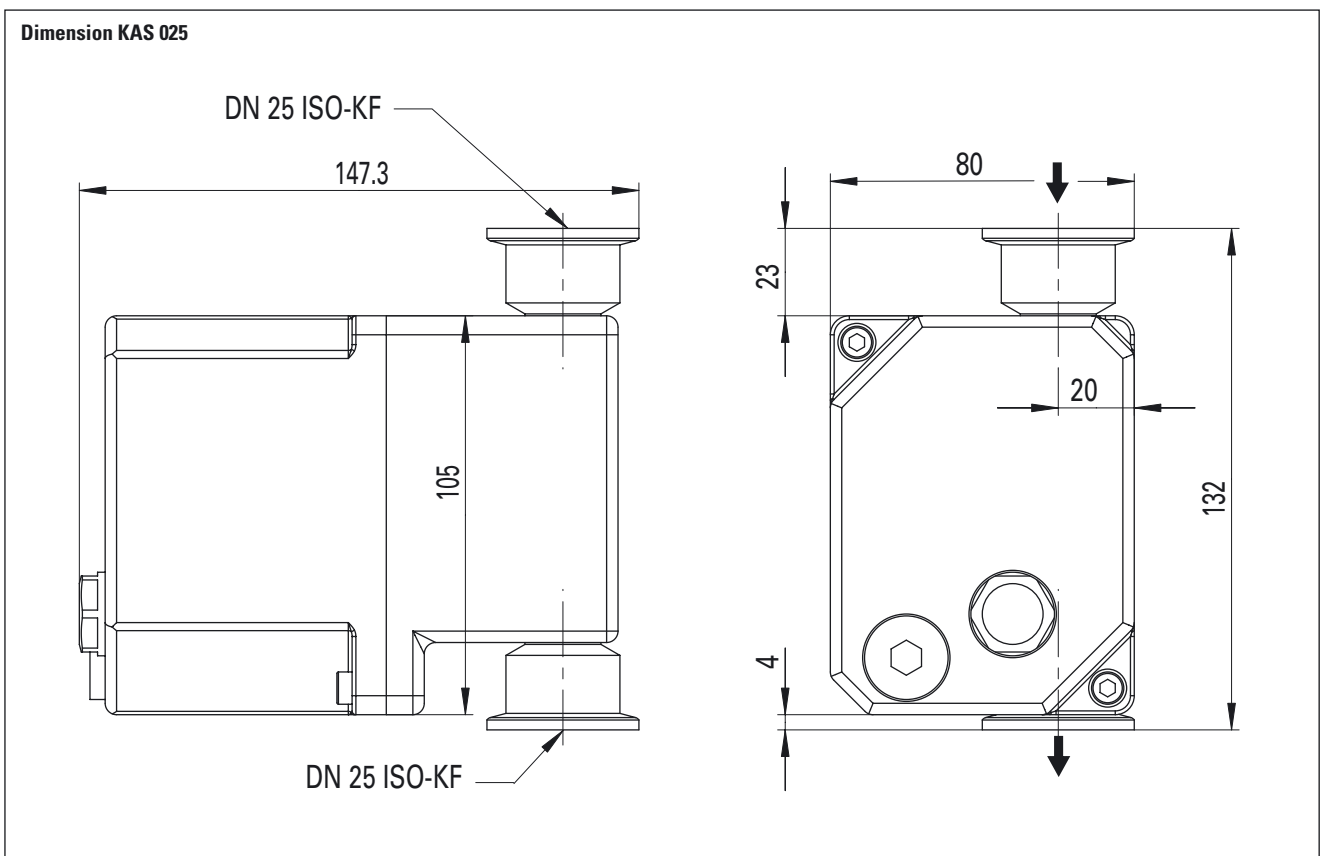
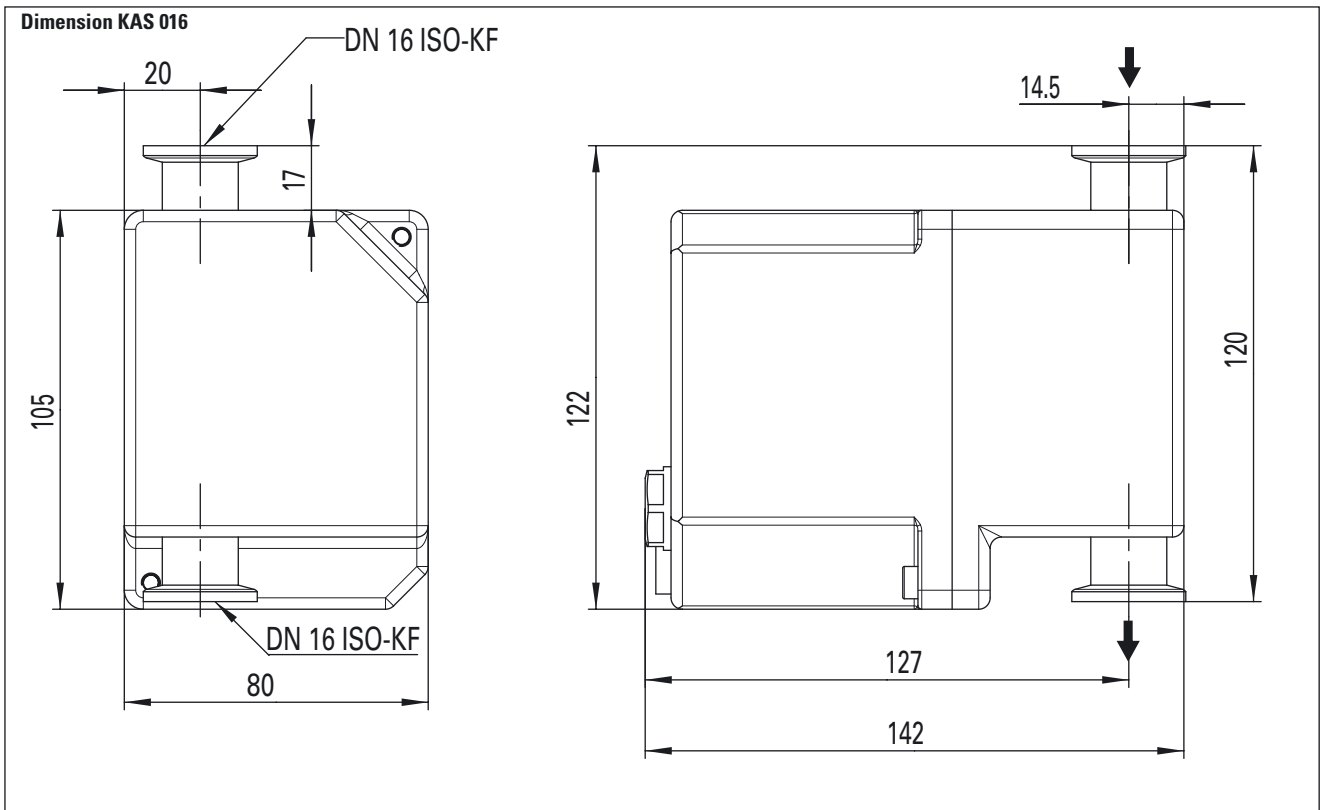
Repair orders are carried out according to our general conditions of sale and supply.

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

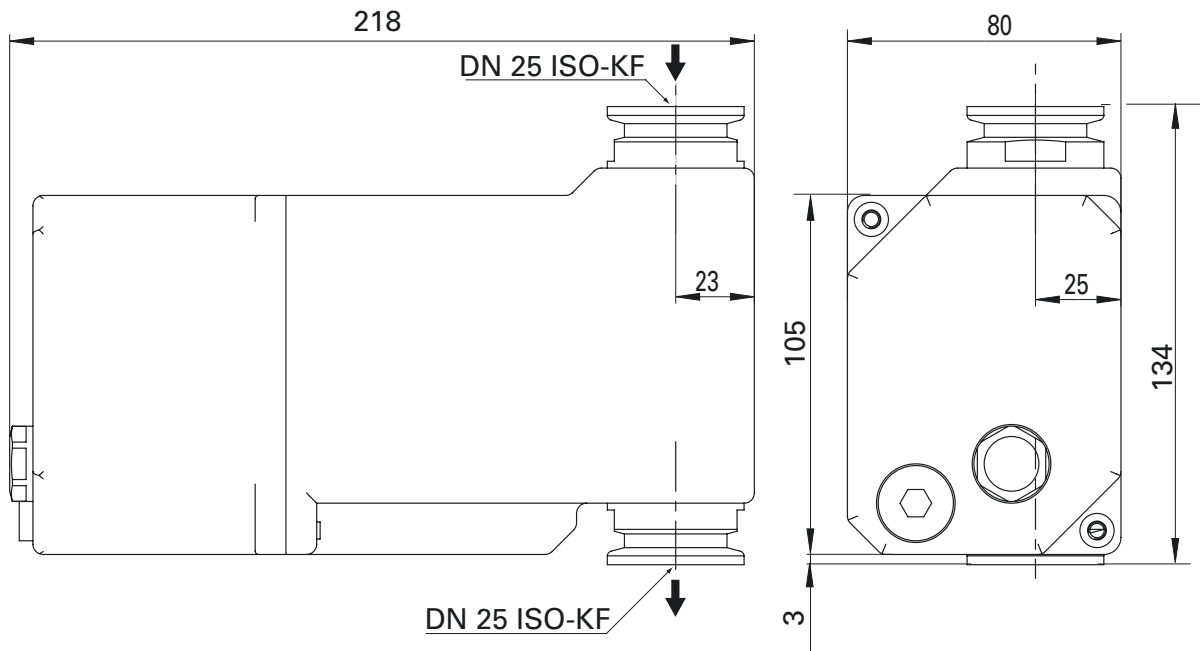
6. Technical Data

Technical Data		KAS 16	KAS 25	KAS 25 L
Capacity for condensate	l	0,2	0,2	0,3
Leak rate of the housing	mbar l/s	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$
Conductance value at $1 \cdot 10^{-2}$ mbar	l/s	2	2	2
bei 1 mbar	l/s	15	15	15
bei 100 mbar	l/s	30	30	30
Permissible working pressure	bar	1,5 abs.	1,5 abs.	1,5 abs.
Weight	kg	1,35	1,4	1,5

6.1. Dimensions

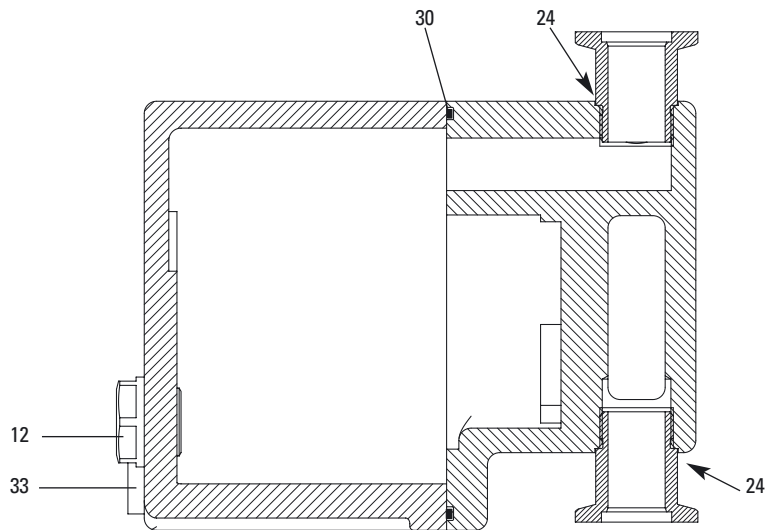


Dimension KAS 025 L



7. Spare Parts

Spare parts



7.1. Spare Parts Packages

Spare Parts Package	No.	Kind Of Work	Intendet For Version
Overhaul kit	PK E37 005 -T	Cleaning and general overhaul	KAS 16/25/25L (consists of pos. 12, 24 (2x), 30, 33 incl. sealing)

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