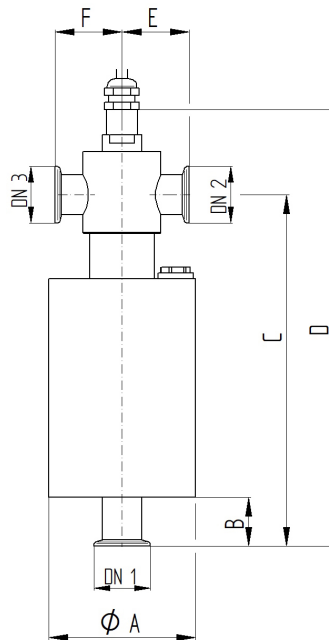


Adsorption traps

Adsorption traps (zeolite traps) stainless steel



Usability

The achievable ultimate pressure of oil-sealed vacuum pumps is strongly influenced by the backflow of water vapor and hydrocarbons from the pump oil. Two-stage rotary vane pumps are no exception, although the quantity of molecules is lower.

The generation of oil-free high and ultra-high vacuums, e.g., with turbomolecular pumps, requires that the backing side is already "clean." To achieve this condition, adsorption traps filled with zeolite are installed in the intake line of two-stage backing pumps. The saturated zeolite filling can be easily regenerated repeatedly by annealing at approximately 300°C to achieve total pressures of 10⁻⁵ mbar with two-stage rotary vane pumps.

Zeolite trap with heating, filled with zeolite

DN	KF 25	KF 40
Øa mm	104	104
b mm	35	35
c mm	250	250
d mm	310	310
e mm	47,5	50
f mm	47,5	45
DN 1	KF 25	KF 40
DN 2	KF 25	KF 40
DN 3	KF 25	KF 25
Art.Nr.:	37050666	37052033

Heating element connection part

Art.Nr.:	37150670
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Zeolite 1 Kg

Art.Nr.:	KT104048
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Fine vacuum adsorption trap (zeolite trap)

Zeolite traps are installed between the backing pumps and the main pumps, or in oil-sealed vacuum pumps, between the pump and the vacuum chamber. They protect the vacuum system from backflowing hydrocarbons, water vapor, etc. from the oil of oil-sealed vacuum pumps, as well as the pumps themselves from process-related contamination, thus significantly reducing maintenance requirements.

The saturated zeolite filling can be baked out and regenerated at approximately 300°C using the built-in heating element.

Typical installation:

- DN 1 connection: connect to the vacuum pump.
- DN 2 connection: connect to the main pump or chamber.
- DN 3 connection: intended for the measuring connection; otherwise, close with a blind flange.

The zeolite trap should be installed as vertically as possible.

Before commissioning:

- Unscrew the filler screw (see drawing).
- Fill the zeolite, packaged in a moisture-proof container, completely into the zeolite trap; shake the trap slightly to ensure the zeolite is evenly distributed inside.
- Screw in the filler screw and tighten with a wrench.

During operation:

- Adsorption occurs automatically. No additional actions are required while the pump is running.
- The heating element must not be heated!

After operation:

- If the zeolite's absorption capacity is not yet exhausted or is still large enough for another process run, regeneration is not necessary.
- If regeneration is required, proceed as follows:

1. Regeneration while installed:

- Close/block the connection to the main pump or vacuum chamber, e.g., with a valve.
- Turn on the backing pump and plug the zeolite trap's heating cartridge into a 230 VAC outlet.



**CAUTION: When heating the zeolite,
the exterior of the housing becomes hot!
RISK OF BURNS!**



Keep flammable materials away!

- Bake-out time: 30 minutes to 4 hours, depending on the saturation level and the medium.
- Turn off the pump and heating element, and allow the zeolite trap to cool.