

Adsorber VG-D

Section 1: Information on the manufacturer

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Section 2: Product overview



Sizes

Sizes	
Size 1	VG-D 1L
Size 2	VG-D 2L
Size 3	VG-D 3L
Size 5	VG-D 5L / VG-D 5XL

Materials used:

Acrylic glass, polyamide (PA), polyvinyl chloride (PVC), FKM, activated carbon, silica gel colorless

REACH Note:

No ingredients requiring disclosure under Regulation (EC) No 1907/2006.

Section 3: Construction and materials

Use	One-way
Housing material	Acrylic glass, PA, PVC
Adsorbents	Activated carbon
Particulate filter	Glass fibre filter element with 3 µm separation efficiency
Seal material	FKM
Operating temperature	-30°C - +70°C
Connection	BSP / NPT / Metric / Slipfit

Section 4: Technical data



	VG-D 1L	VG-D 2L	VG-D 3L	VG-D 5L	VG-D 5XL
Total weight [kg]	0,2	0,8	1,8	3,6	4,6
Weight activated carbon [kg]	0,1	0,3	0,9	2,2	3,0
Height [mm]	141	210	326	364	464
Housing diameter [mm]	60	90	110	150	150
Screw-in diameter [mm]	63	94	114	154	154
Connection	BSP, NPT, Metric	BSP, NPT, Metric, Slipfit	BSP, NPT, Metric, Slipfit	BSP, NPT, Metric, Slipfit	BSP, NPT, Metric, Slipfit
Valves [IN-OUT]	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

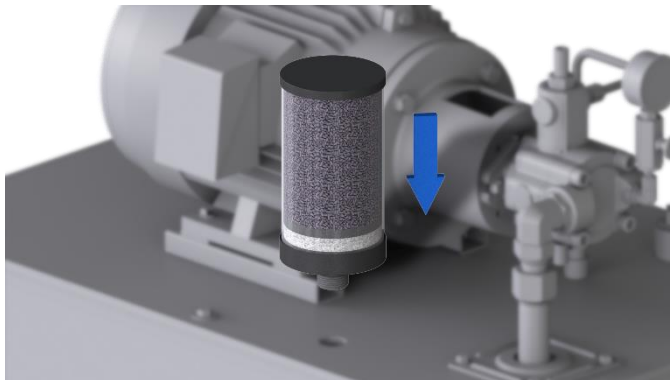
Section 5: Assembly and commissioning

1. Remove the protective plug on the bottom of the adsorber.



2. Screw the adsorber onto the system.

The torque should be 5Nm and not exceed 10Nm. "hand-tight"



Section 6: Maintenance

Adsorbers of the VG-D series are not serviced, but completely replaced.



0% → 100%

If the color of the indicator bottom has changed completely, the adsorber must be replaced.

1. Unscrew the adsorber from the system and dispose of it.
2. Screw on a new adsorber.

Section 7: Spare parts and storage

If the disposable adsorber is completely saturated, it must be replaced by a new adsorber.



Adsorber

- Activated carbon
- Filter element
- Seal

Pre-assembled in the housing and packed airtight.

Order of spare parts

For a constant operational readiness of the adsorber and thus of the plant, make sure that a replacement adsorber is always in stock.

The time until the activated carbon is fully loaded and the color change from colorless to brown and thus the service life of the adsorber depends on various factors:

- Number and duration of flow and loading intervals.
- Quantity of oil particles and mists emitted.

Storage of adsorbers

This product can be stored for up to **two years** in dark and dry environments. The temperatures for storage should be between -10° and 30°C.

Section 8: Disposal

At the end of its useful life, the device must be disposed of in accordance with the relevant legal regulations.

The loaded activated carbon must be disposed of according to the absorbed substance (e.g. hydraulic or gear oil).

Activated carbon and silica gel are not classified as hazardous substances under European Union legislation (Regulation EC No 1272/2008). It is not subject to compulsory labelling according to EC Directive (67/548/EEC or 1999/45/EC). Activated carbon and silica gel are not classified as substances hazardous to health or the environment.

Section 9: Risk and hazard analysis

1. Oil flows out of the plant

Porous seals

Air containing oil can flow from the adsorber into the environment at the porous points. This means that no protection against oil mist in the air is possible.

Saturated activated carbon

When the activated carbon is saturated, it can no longer absorb oil. As a result, oil particles from the system are released into the air.

Air flow rate too high

If the air flow is too high, the contact time between oil particles and activated carbon is too short. This allows oil to flow out of the system.

2. Positive or negative pressure builds up in the system

Air flow rate too high

Too high an air flow rate can cause over- or underpressure in the system.

Contaminated filter element

The filter unit can be clogged by dirt particles and can therefore build up pressure in the system.

Activated carbon saturated

Once the activated carbon is completely saturated, oil can deposit and clog the adsorber.

3. Adsorber is damaged

Material resistance

When selecting the adsorber, the ambient and operating conditions should be considered. An aggressive environment or liquid in the container can damage the adsorber.

Temperature range

The ambient and operating temperatures should not exceed or fall below the specified range, otherwise the adsorber may be damaged.

Improper handling

Incorrect or improper handling can damage the adsorber. The recommended installation must be observed.

Strong vibrations

Strong vibrations of the plant can damage the adsorber.

Pressure range of the system

The adsorber should not be exposed to a positive or negative pressure above 0.5 bar, otherwise the housing may be damaged.

Cleaning of the adsorber

For external cleaning of the adsorber, the use of a mild soap in combination with water is recommended. The use of brake cleaner will damage the adsorber and is no reason for complaint.

Section 10: Maintenance plan

1. Check seals for wear

Check The O-ring installed on the adsorber must be checked for perfect condition. For this purpose, the seal at the connection should be checked for brittleness.

Cycle Half-yearly

Measures In case of existing damage, a new O-ring or a new adsorber should be used.

2. Visual inspection of the activated carbon

Check The loading condition of the activated carbon must be determined by visual inspection of the adsorber. The color white indicates that the activated carbon can still adsorb oil and that air is cleaned. If the activated carbon is completely saturated, the color changes from white to brown.

Cycle Half-yearly

Measures With loaded activated carbon, a new adsorber with fresh activated carbon should be used.

3. Visual inspection of the adsorber

Check The adsorber, including the connection, must be visually checked for damage. Damage can occur due to various environmental or operating conditions.

Cycle Yearly

Measures If the adsorber is damaged, it must be replaced completely to ensure full functionality.