



**GIEBEL**  
FiTec GmbH



**VENTILATION DRYER  
FOR  
HYDRAULIC POWER PACKS**

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When using hydraulic units, humid air is sucked in by pressure equalization with the environment, which condensate when the temperature drops below the dew point.

The use in high humidity and temperature fluctuations can lead to condensation damage. Rapid aging of the hydraulic oil, the degradation of additives and the promotion of corrosion are only a few possible damages.

To prevent damage caused by condensation, the use of a ventilation dryer is a very good measure. The incoming supply air is dried and thus a strong reduction in the water content and the dew point is achieved.

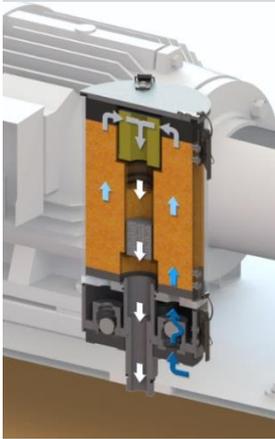


While a well designed ventilation dryer protects the hydraulic unit very efficiently, handling is very easy. The color change of the silica gel from orange to green indicates the status of the adsorber.





## Use Of A Ventilation Dryer



**Objective:** Drying of sucked, incoming air, avoiding condensation damage

**Function:** Drying by a desiccant, cleaning of the air by a filter element, protection of the desiccant by frost-proof valves, use of self-regeneration to extend the maintenance intervals

**Result:** No leakage of oil particles from the hydraulic tank, cleaning of surfaces not necessary, protection of hydraulic oil from humidity

## Use Of A Oil Seperator



**Objective:** Protecting the environment from contamination with oil mist

Secondary protection against humidity from the ambient air

**Function:** Protecting the environment from contamination with oil mist

Secondary protection against humidity from the ambient air

**Result:** No leakage of oil particles from the hydraulic tank, cleaning of surfaces not necessary, protection of hydraulic oil from humidity



# GIEBEL FilTec GmbH

GIEBEL Adsorber® setting standards in aeration drying!



Adsorber	VENT PA-D	VENT PA-R	VARIO PA-D	VARIO PA-R	VARIO MA	VARIO ME	VARIO VG PA-D	VARIO VG PA-R
<b>Applications</b>	<b>Ventilation Dryer</b>						<b>Oil Mist Seperator</b>	
<b>Valves</b>	✗	✗	✓	✓	✓	✓	✗	✗
<b>Refillable</b>	✗	✓	✗	✓	✓	✓	✗	✓
<b>To ATEX 2014</b>	✗	✗	✗	✗	✓	✓	✗	✗
<b>Offshore suitable</b>	✗	✗	✗	✗	✗	✓	✗	✗
<b>Tank volume / Air-exchange volume</b>								
<b>0 – 50 l</b> to 10l/min, max.30l/min.	vV 140-PA	vV 150-PA						
<b>50 – 100 l</b> to 20l/min, max.100l/min.	vV 220-PA	vV 230-PA						
<b>100 – 600 l</b> to 40l/min, max.260l/min.	vV 300-PA	vV 310-PA	DV 300-PA	DV 310-PA	DV 310-MA	DV 310-ME	DV VG 320-PA	DV VG 330-PA
<b>100 – 600 l</b> to 80l/min, max.490l/min.	vV 320-PA	vV 330-PA	DV 320-PA	DV 330-PA	DV 330-MA	DV 330-ME		
<b>600 – 1800 l</b> to 110l/min, max.610l/min.	vV 500-PA	vV 510-PA	DV 500-PA	DV 510-PA	DV 510-MA	DV 510-ME	DV VG 520-PA	DV VG 530-PA
<b>600 – 1800 l</b> to 160l/min, max. 30l/min.	vV 520-PA	vV 530-PA	DV 520-PA	DV 530-PA	DV 530-MA	DV 530-ME		
<b>1800 – 3600 l</b> to 210l/min, max.1250l/min.			DV 550-PA	DV 560-PA	DV 560-MA	DV 560-ME	DV VG 550-PA	DV VG 560-PA
<b>3600 – 7200 l</b> to 260l/min, max. 1450l/min.					DV 730-MA			
<b>3600 – 7200 l</b> to 410l/min, max.2000l/min.					DV 760-MA			
<b>3600 – 7200 l</b> to 530l/min, max.2000l/min.					DV 790-MA			

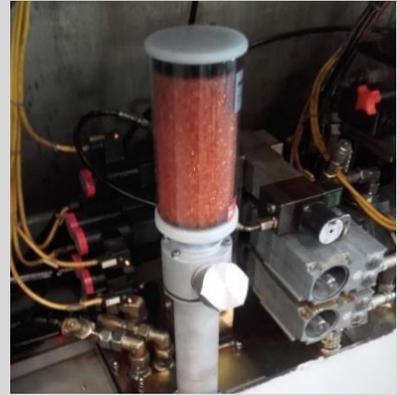


## ADSORBER



### VENT PA-D

The GIEBEL adsorbers of the VENT PA-D series are cost-effective solutions with and without valves. From small versions with 0,15kg desiccant up to 3,0kg different hydraulic tanks can be ventilated.



### VENT PA-R

The refillable desiccant filters VENT PA-R can also be equipped with or without plastic valves. By the possibility to exchange the desiccant and wear parts, these adsorbers have low operating costs.



### VARIO PA-D

The GIEBEL series VARIO PA-D has a sturdy aluminum valve part and a disposable exchange cartridge. The handling is very simple, it will only open the latches and the entire cartridge can be changed.





## VARIO PA-R

The GIEBEL adsorbers of the VARIO PA-R series are high-quality ventilation dryers with an aluminum valve part and a refillable cartridge. The desiccant and all wearing parts can be exchanged very easily.



## VARIO MA

The VARIO MA adsorbers consist of an aluminum housing with valve part and are used for aeration of aggressive substances or for use in harsh environments. These adsorbers are filled with up to 10 kg of desiccant and can also be used for aeration of SKYDROL, brake fluids DOT4.



## VARIO ME

The premium adsorbers VARIO ME are made entirely of A4 stainless steel. The use according to the ATEX product guideline 2014/34 / EU in the zone II 2 G / D IIC T4 is possible as well as after the corrosiveness category C5-M.





## VARIO VG PA-D

The GIEBEL disposable adsorbers of the VARIO VG PA-D series are oil mist separators and are used both for the adsorption of oil mist and for air drying. Through the combination of impeller, oil dewater a high amount of activated carbon, the outflowing air is cleaned from hydraulic tanks.



## VARIO VG-PA-R

The GIEBEL reusable adsorbers of the VARIO VG PA-R series are oil mist separators and are used for the adsorption of oil mist. The function is the same as for the identical series VARIO VG PA-D, but the wearing parts can be changed individually.



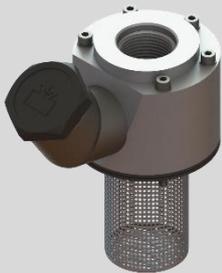


## ACCESSORIES



### Flange Adapter

Suitable flange adapters are available for mounting a GIEBEL adsorber on a hydraulic tank. In the versions 3x M5 with bolt circle 41.3 mm or 6x M5 with bolt circle 73 mm according to DIN 42557 and as DN25 flange version, GIEBEL adsorbers can be easily mounted on all existing hydraulic systems.



### Filling Adapter

The use of a filling adapter makes it easy to refill oil into a hydraulic unit. The 40 mm-sized filler neck makes it very easy to fill in the oil without having to remove the adsorber.



### Protection Adapter

By using a protective adapter to monitor a GIEBEL adsorber, an optical or electronic signal is transmitted if the negative pressure is too high. This makes it possible to see whether a filter needs to be replaced.





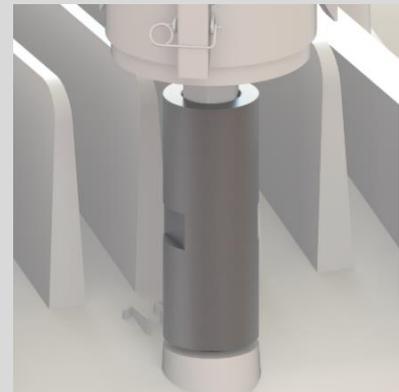
## Oil Bypass Adapter

The bypass adapter allows the use of a bypass filter system without conversion measures on an existing hydraulic tank. At the same time, the use of a GIEBEL adsorber ensures ventilation and prevents further contamination of the hydraulic oil.



## Oil Mist Separator

By using an oil mist separator, a GIEBEL adsorber is protected from contamination by larger oil particles. Used on systems with a high oil mist outlet, the proportion of evaporating oil particles is reduced with the oil separator and the air is cooled down.



## Wall mount

The wall bracket is suitable for the flexible installation of GIEBEL adsorbers with limited space available on the system. As a screw-on version for concrete walls, with clamping claws for steel girders or as a suspension version for grids or fences, no conversion measures are necessary on the system to use an adsorber.





## Mounting tube

The mounting pipes facilitate the use of a GIEBEL adsorber if the adsorber can not be mounted due to its diameter.



## REFERENCE

**Rexroth**  
Bosch Group

**e-on** | Wasserkraft

**HANSA FLEX**

**ben TEC**



## APPLICATIONS

GIEBEL Adsorber® are used for example:

- Locks & channels in hydraulic steel construction
- Conveyor systems in mining and surface mining
- Machines for pulp and paper production
- Flight and driving simulators
- Work tools on rail vehicles
- Offshore and marine engineering
- Horizontal tunnel boring machines
- Injection molding machines
- Presses and rolling mills
- and many more !



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