





# TANK AIR DRYER FOR STORAGE TANKS





Moist air leads to condensation on cooling of tanks and thus to a considerable reduction in the quality of the substance contained. For example, biofuels form bacteria, algae and molds, and sulfuric acid causes moisture to destroy the tank.

GIEBEL has developed special tank ventilation dryers for the ventilation of tank plants. Moist air is dried and filtered. The tank can breathe and the dry supply air ensures a constant quality of the storage medium. With the right accessories, there is no overpressure in the tank even without gas recirculation during the filling process. While a well-designed aeration dryer protects the tank contents very efficiently, handling is easy. The color change of the silica gel from orange to green indicates the state of the adsorber.















#### **USE WITHOUT VENTILATION SYSTEM**



**Incoming air:** Flows through the desiccant. Air is dried and filtered.

**Outflowing air:** Flows through the desiccant in the opposite direction. Aerator and ventilator with longer maintenance intervals.

Advantages: Desiccant is partially regenerated by effluent, dry air

**Disadvantages:** High volume flow during tank filling can lead to overpressure.

Gas recirculation or separate bypass valve necessary.

### **USE WITH VENTILATION SYSTEM**





**Incoming air:** Flows through the desiccant. Air is dried.

**Outflowing air:** Air flows through 2 "check valves at 30mbar opening pressure into the environment.

**Advantages:** High volume flows during tank filling escape at 30 mbar. No gas recirculation and no additional bypass valve necessary.

**Disadvantages:** No regeneration of the desiccant due to escaping air.

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## **ADSORBER STORAGE TANKS**







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Adsorber	VARIO PA	VARIO MA		VARIO ME				
Medium	Hydraulic oil Gear oil Organic oil Vegetable oil Transformer oil AdBlue (urea) Diesel fuel Polyols	Petrol Kerosene Isocyanates Acetic acid Polyethylene glycol Isopropyl alcohol Methanol Diethylene glycol	Brake fluid SKYDROL HyJet IV & V Acetone Butyl Ethanol Ethyl acetate	Sulfuric acid Benzenesulfonic Dichloromethane	Caustic soda			
Material	Kunststoff & AL & FKM	AL & FKM	AL & EPDM	SS & FKM	SS & EPDM			
Valve	<b>/</b>	<b>√</b>		<b>✓</b>				
According to ATEX 2014	×	<b>√</b>			/			
Offshore / Marine suitable	×	×		<b>√</b>				
Tank volume (Volume of air drying)								
<b>1 – 5 cbm</b> appr. 45 cbm drying	DV 330-PA 07.0001.36 07.0001.33 <sup>(*)</sup>	DV 330-MA 07.0001.26 07.0000.36 (*)	DV 330-MA 07.0001.45	DV 330-ME 07.0001.41 07.0001.52 <sup>(*)</sup>	DV 330-ME 07.0001.80			
<b>5 – 10 cbm</b> appr. 65 cbm drying	DV 510-PA 08.0002.34 08.0002.35 (*)	DV 510-MA 08.0003.09 08.0003.11 (*)	DV 510-MA 08.0003.15 08.0003.34 (*)	DV 510-ME 08.0003.01 08.0003.19 (*)	DV 510-ME 08.0002.71 08.0003.22 (*)			
<b>10 – 30 cbm</b> appr. 100 cbm drying	DV 530-PA 08.0000.47 08.0000.46 (*)	DV 530-MA 08.0003.35 08.0003.36 (*)	DV 530-MA 08.0003.16 08.0003.14 (*)	DV 530-ME 08.0003.03 08.0003.24 (*)	DV 530-ME 08.0002.50 08.0003.26 (*)			
<b>30 – 60 cbm</b> appr. 125 cbm drying	DV 560-PA 08.0002.36 08.0000.48 (*)	DV 560-MA 08.0004.50 08.0004.59 (*)	DV 560-MA 08.0004.52 08.0004.60 (*)	DV 560-ME 08.0003.20 08.0003.21 (*)	DV 560-ME 08.0003.41 08.0003.25 (*)			
<b>60 – 90 cbm</b> appr. 280 cbm drying		DV 790-MA 09.0000.19 09.0000.30 (*)	DV 790-MA 09.0000.42 09.0000.32 <sup>(*)</sup>					

<sup>&</sup>lt;sup>(x)</sup> In combination with a ventilation system.

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#### **ACCESSORIES**

Accessories							
Ventilation system	EBS_SS 08.0000.69 EBS_SS 08.0000.83	EBS_SS 08.0000.69 EBS_SS 08.0000.83	EBS_SS 08.0000.82 EBS_SS 08.0000.84	EBS_SS 08.0000.69 EBS_SS 08.0000.83	EBS_SS 08.0000.82 EBS_SS 08.0000.84		
Wall mount	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57		
Bypass adapter	BPA-AD 08.0000.71	BPA-AD 08.0000.71		BPA-AD 08.0000.70			
Protection adapter	PRT-AD 08.2104.01	PRT-AD 08.2104.01		PRT-AD 08.2104.03			

## **REFERENCES**



















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#### GIEBEL Adsorber® are used for example:

- Diesel tanks of emergency generators
- Fuel tanks of test benches
- Solvent tanks in the paint industry
- Sulfuric acid tanks for drinking water treatment
- Vegetable oil tanks as alternative fuels
- Fuel tanks of ships
- Methanol tanks of hardening shops
- Isocyanate tanks for plastics production
- Storage tanks for additives, such as AdBlue
- Storage tanks for transformer oils
- and many more!



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