



GIEBEL

FilTec GmbH

**DESIGNED AND
PRODUCED
IN GERMANY**



Your contact for original GIEBEL Adsorber®



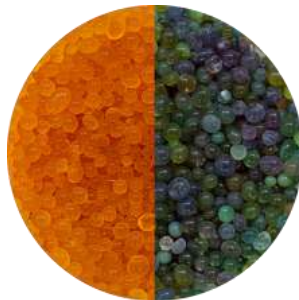
BREATHER DRYER FOR HYDRAULIC POWER PACKS



When hydraulic units are used, humid air is sucked in by pressure equalization with the environment, which condenses when the dew point is undershot.

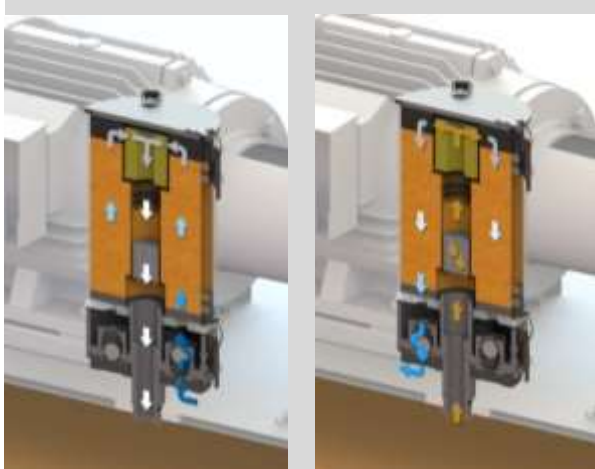
Use at high humidities and temperature fluctuations promotes condensation damage. Rapid aging of hydraulic oil, degradation of additives and promotion of corrosion are just a few possible damages.

In order to prevent the occurrence of damage due to condensation water, the use of a ventilation dryer is an effective measure. The inflowing incoming air is dried and thus a strong reduction of the water content and the dew point is achieved.





USE OF A BREATHER DRYER



Targets: Drying of the 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

Solution: Dry and filtered air in the hydraulic tank, dew point of up to $-30\text{ }^{\circ}\text{C}$ and residual moisture at approx. 2-20% rh, no damage due to condensation

USE OF AN OIL MIST SEPARATOR



Targets: Protecting the environment from contamination with oil mist, Secondary protection against atmospheric moisture from the ambient air

Function: Binding of larger oil particles, which drops back into the tank due to condensation, adsorption of small particles of oil through activated carbon, drying of the incoming air

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



ADSORBER HYDRAULIC POWER PACKS










Adsorber	VENT PA-D	VENT PA-R	VARIO PA-D	VARIO PA-R	VARIO MA-D	VARIO MA-R	VARIO ME-D	VARIO ME-R	VARIO MA-R	VARIO VG PA-D	VARIO VG PA-R
Usage	Breather Dryer									Oil Mist Separator	
Operating Material	All usual hydraulic oils Mineral oils Biodegradable oils Insulating oils				All usual hydraulic oils Mineral oils Biodegradable oils Light and flame retardant fluids (fuels, solvents, etc.)				Skydrol HyJet IV/V Brake fluids	All usual hydraulic oils Mineral oils Biodegradable oils Insulating oils	
Valves	✗	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗
Rechargeable	✗	✓	✗	✓	✗	✓	✗	✓	✓	✗	✓
According ATEX 2014	✗	✗	✗	✗	✓	✓	✓	✓	✓	✗	✗
Offshore suitable	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗

Tank volume / Air pendulum volume

0 – 50 l up to 10l/min, max.30l/min.	vV 140-PA 05.0010.42	vV 150-PA 05.0010.28	vV 140-PA 05.0010.44	vV 150-PA 05.0010.17							
50 – 100 l up to 20l/min, max.100l/min.	vV 220-PA 05.0020.32	vV 230-PA 05.0020.78	vV 220-PA 05.0020.25	vV 230-PA 05.0020.33	vV 220-MA 05.0030.97	vV 230-MA 05.0030.90			vV 230-MA 05.0030.48		
100 – 400 l up to 40l/min, max.260l/min.	vV 300-PA 05.0030.50	vV 310-PA 05.0030.53	DV 300-PA 07.0001.19	DV 310-PA 07.0000.24	DV 300-MA 07.0001.58	DV 310-MA 07.0000.53	DV 300-ME 07.0001.27	DV 310-ME 07.0001.09	DV 310-MA 07.0001.54	DV VG 320-PA 07.0001.56	DV VG 330-PA 07.0001.57
400 – 800 l up to 80l/min, max.490l/min.	vV 320-PA 05.0030.93	vV 330-PA 05.0030.19	DV 320-PA 07.0001.02	DV 330-PA 07.0001.20	DV 320-MA 07.0001.53	DV 330-MA 07.0001.26	DV 320-ME 07.0001.46	DV 330-ME 07.0001.41	DV 330-MA 07.0001.45	DV VG 520-PA 08.0002.02	DV VG 530-PA 08.0002.05
800 – 1800 l up to 110l/min, max.610l/min.	vV 500-PA 05.0060.16	vV 510-PA 05.0060.10	DV 500-PA 08.0000.50	DV 510-PA 08.0000.51	DV 500-MA 08.0003.31	DV 510-MA 08.0003.09	DV 500-ME 08.0003.00	DV 510-ME 08.0003.01	DV 510-MA 08.0003.15	DV VG 550-PA 08.0002.08	DV VG 560-PA 08.0002.15
1800 – 3600 l up to 160l/min, max. 930l/min.	vV 520-PA 05.0060.19	vV 530-PA 05.0060.33	DV 520-PA 08.0000.52	DV 530-PA 08.0000.53	DV 520-MA 08.0003.39	DV 530-MA 08.0003.35	DV 520-ME 08.0003.28	DV 530-ME 08.0003.03	DV 530-MA 08.0003.16		
3600 – 5400 l up to 210l/min, max.1250l/min.						DV 560-MA 08.0004.50		DV 560-ME 08.0003.20	DV 560-MA 08.0004.52		
5400 – 7200 l up to 530l/min, max.2000l/min.						DV 790-MA 09.0000.19					



ACCESSORIES

Accessories												
Flange adapter 	FLA-LK41 07.2140.00 FLA-LK73 07.2134.01	FLA-LK41 07.2140.00 FLA-LK73 07.2134.01	FLA-LK41 07.2140.00 FLA-LK73 08.2122.00	FLA-LK41 07.2140.00 FLA-LK73 08.2122.00	FLA-LK73 08.2131.00	FLA-LK73 08.2131.00	FLA-LK73 08.2123.00	FLA-LK73 08.2123.00	FLA-LK73 08.2134.00	FLA-LK73 08.2122.00	FLA-LK73 08.2122.00	
Filling adapter 	FILL-LK41 08.2112.16 FILL-LK73 08.2112.01	FILL-LK41 08.2112.16 FILL-LK73 08.2112.01	FILL-LK41 08.2112.16 FILL-LK73 08.2112.01	FILL-LK41 08.2112.16 FILL-LK73 08.2112.01	FILL-LK73 08.2112.23	FILL-LK73 08.2112.23	FILL-LK73 08.2112.04	FILL-LK73 08.2112.04	FILL-LK73 08.2112.06	FILL-LK73 08.2112.01	FILL-LK73 08.2112.01	
Oil mist separator 	OSD-130 03.2135.07 OSD-180 03.2132.00	OSD-130 03.2135.07 OSD-180 03.2132.00	OSD-130 03.2135.07 OSD-180 03.2132.00	OSD-130 03.2135.07 OSD-180 03.2132.00	OSD-180 03.2132.00	OSD-180 03.2132.00	OSD-180 03.2135.05	OSD-180 03.2135.05		OSD-180 03.2132.00	OSD-180 03.2132.00	
Wall mounts 	WH-oSL-HK 03.0000.89 WH-oSL-5 03.0000.90 BG_SC2 03.0000.92	WH-oSL-HK 03.0000.89 WH-oSL-5 03.0000.90 BG_SC2 03.0000.92	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57 BG_SC2 03.0000.92	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57 BG_SC2 03.0000.92	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	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57 BG_SC2 03.0000.92	WH-oSL-5 03.0000.90 WH-SL-3 03.0000.56 WH-SL-5 03.0000.57 BG_SC2 03.0000.92	
Oil bypass adapter 	ONA-LK41 08.2100.10 ONA-LK73 08.2100.07	ONA-LK41 08.2100.10 ONA-LK73 08.2100.07	ONA-LK41 08.2100.10 ONA-LK73 08.2100.07	ONA-LK41 08.2100.10 ONA-LK73 08.2100.07	ONA-LK41 08.2100.10 ONA-LK73 08.2100.07	ONA-LK41 08.2100.10 ONA-LK73 08.2100.07						
Assembly tube 	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.75	AT-I250 03.0000.75		AT-I250 03.0000.71 AT-LK250 03.0000.82	AT-I250 03.0000.71 AT-LK250 03.0000.82
Protection adapter 	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.02 PRT-AD 08.2104.03	PRT-LK73 08.2104.02 PRT-AD 08.2104.03		PRT-LK73 08.2104.05 PRT-AD 08.2104.01	PRT-LK73 08.2104.05 PRT-AD 08.2104.01	

REFERENCES





APPLICATIONS

GIEBEL Adsorber® are used for example:

- Locks in steel hydraulic engineering
- Conveying systems in mining
- Pulp and paper production machines
- Flight and driving simulators
- Work tools on rail vehicles
- Offshore and Ship Technology
- Drilling rigs
- Injection molding machines
- Presses and rolling mills
- and many more !

