

e-breathe DFS PRO

Compressed Air Filter Station



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The e-breathe compressed air filter station was developed for the preparation of technical compressed air. The high performance filters installed in the respective stations separate solid particles, aerosols, oil vapours and odours from the compressed air flowing through and remove these. Depending on the application, a 2-stage or 3-stage filter system is used.

The compressed air flowing through the high-pressure network/compressor is converted into breathing air for externally supplied respiratory protection systems. The breathable air is then led via a compressed air regulator valve via a hose to the head piece / suit of the device carrier. The station can only be used if the compressed air from the system poses no risk of harmful concentrations of carbon dioxide (CO₂) and carbon monoxide (CO).

FILTER FUNCTION:

The M* / S* filter elements separate solids by impact and the inertia effect. Oil and water aerosols are removed by the coalescence effect. Due to the gravity effect, filtered liquid particles are collected in the lower filter container and are automatically discharged from there. The filter element CA* adsorbs oil vapours and odours which accumulate in the activated carbon.

*M = Microfilter, S = Submicrofilter & CA = Activated Carbon Filter

E-BREATHE DFS 3 & DFS 3WH (WALL MOUNT)

Consisting of 3 Filter elements (M / S / CA), Pressure Regulator with Pressure Gauge, Differential Pressure Gauge, integrated Wall Mount and one output for one user (Optionally expandable to up to 3 users). In addition, the station has a robust housing to protect the filter elements and ensure a mobile operation. The station can be wall-mounted with a housing. Alternatively, the filter elements can be removed from the housing and mounted on the wall. Thus a WH3 station can be converted into a mobile filter station by installing it into a housing.

E-BREATHE DFS 2 & DFS 2WH (WALL MOUNT)

Consisting of 2 Filter Elements (S / CA), Pressure Regulator with Manometer, integrated Wall Mount and one output for one user (Optionally expandable to up to 3 users). In addition, the station has a robust housing to protect the filter elements and ensure a mobile operation. The station can be wall-mounted with a housing. Alternatively, the filter elements can be removed from the housing and mounted on the wall. Thus a WH2 station can be converted into a mobile filter station by installing it into a housing. In addition, the e-breathe DFS 2 / 2WH can be upgraded to a DFS 3 / 3WH with an additional filter if the operating conditions change.

Technical Specifications DFS PRO V.1:

Approval of filter performance:	ISO 8573-1 Class: 1 EN ISO 12500
Inlet pressure:	max. 16 Bar ü
Outlet pressure:	max. 10 Bar with compressed air regulator according to EN14594 (*observe manufacturer's instructions.)
Maximum air volume / flow rate:	1000 l/min
Inlet thread:	Rp 3/8" internal thread
Outlet thread / connection:	Rp 3/8" internal thread / safety coupling 95KS
Operating temperature:	1,5 - 100 C°
Material:	Filter housing: aluminium / Cover: steel
Weight DFS 3 / WH3:	12,4 kg / 5,0 kg
Weight DFS 2 / WH2:	9,0 kg / 3,7 kg
Dimensions DFS 3 / WH3:	40 x 44 x 20 cm / 30 x 34 x 10 cm
Dimensions DFS 2 / WH2:	40 x 44 x 20 cm / 30 x 25 x 10 cm

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PRODUCT CHARACTERISTICS:

- Transformation into breathable air
- Filtering of aerosols, solid particles, water, oil vapours and odours
- High-quality filter housing made of aluminium
- Quick and easy filter change without tools
- Low differential pressure of the filter elements saves energy costs
- Differential pressure indicator indicates economical filter replacement
- Maximum air output 1000 l/min / Maximum operating pressure 16 bar ü
- For up to 3 users
- Available as a stationary version for wall mounting
- Available as mobile version with housing
- Compatible with all compressed air regulator valves according to EN 14593 / EN 14594

APPROVALS:

- The quality of the processed and filtered compressed air complies with ISO 8573-1: Class 1.
- The compressed air filters are tested according to EN ISO 12500.
- The leak test was 100% fulfilled for every compressed air filter.

FIELDS OF APPLICATION:

- Industrial applications
- Oil, gas, chemical industry
- Pharmaceutical industry
- Chemical industry
- Laboratory applications
- Paint spraying / Paint shops
- Dealing with fibres
- Application of pesticides / fungicides
- Welding applications
- Foundry



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robust material:
Robust, stable and durable aluminium filter housing with a steel housing cover.

The surrounding frame on the housing cover provides protection of all elements in the event of overturning or falling.

Maintenance:
Easy to operate and maintain compressed air filter station. All components are available as spare parts.

Compatible CA Regulator Valves according to EN14594:
The e-breathe DFS can be used for all compressed air assisted breathing systems (according to EN 14593 and EN 14594) if the existing air volume and air/operating pressures are sufficient.



High-precision Pressure Regulators:
Pressure regulator with manometer for precise regulation of the outlet pressure from 0.5 to max. 16 bar.

Compressed Air Connection:
The easy-to-reach plugs and couplings ensure simple and quick assembly and disassembly of the compressed air hoses. Various breathing air safety plugs & safety couplings are available.

Filter Change:
The filter housings can be unscrewed from the station without tools and thus allow a simple exchange of the filter elements. The housing does not have to be dismantled.

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Wall Mounting:
The 2WH and 3WH stations have a side wall bracket for stationary mounting.

The DFS 2/3 and its housing can also be mounted and fastened to the wall thanks to the integrated wall bracket on the back.

Differential Pressure Indicator / Filter Saturation:
The first filter element is fitted with a differential pressure indicator. It provides information on the most economical and best timing for the filter replacement. (Can only be optionally extended with DFS 3/3WH PRO).

User:
By default, the station has an air safety coupling at the air outlet, which is designed for one user. The station can be expanded to 2 or maximum 3 users using the separately available e-breathe DFS Y-connector.

Modularity:
The e-breathe DFS 2 / DFS 2WH stations can be retrofitted to a 3 station.

The DFS 2WH & 3WH stations can be upgraded to retrofit into mobile stations.





Condensate Discharge Filter M/S:
The condensate discharge of the filter element S/M takes place automatically via a hose into a separation tank (not included in the scope of delivery).

Condensate Discharge Filter CA:
The condensate discharge of the activated carbon element CA is carried out manually via a manual drain.

Performance: Filter Element S / M / CA PRO									
Typ	Particle filtration	Residual oil content	Operating Temperature [°C]		Differential Pressure [mbar]			ISO Class CA quality according to ISO 8573-1	
	[Micron]	[mg/m3]	maximum	recommended	new	wetted	Change	Particle	Oil
DFS Activated Carbon Filter CA PRO	-	0,003	50	25	100	-	semi-annually	-	1
DFS Particle Filter M PRO	1	0,5	120	50	55	85	annually	2	3
DFS Particle Filter S PRO	0,01	0,01	120	50	75	110	annually	1	1

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Order Information




Compressed Air Filter (DFS): e-breathe e-Line Compressed Air Filter PRO		
Article Name	Part No.	Image
e-breathe CA Filter Station 2 PRO V.1	322008201	
e-breathe CA Filter Station 2 WH PRO V.1 (with wall mount)	322008200	
e-breathe CA Filter Station 3 PRO V.1	322008301	
e-breathe CA Filter Station 3 WH PRO V.1 (with wall mount)	322008300	

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Compressed Air Hose

The compressed air hoses are designed for breathing air and are approved accordingly for respiratory protective devices. They are oil and chemical resistant and tested and certified according to EN 14594 / EN 14593. They are suitable for use with a compressed air regulator valve and compressed air filter station.

All hoses are equipped with a breathing air safety coupling and a breathing air safety plug and can be used at temperatures ranging from -10C° to +60C° and a maximum operating pressure of 10 bar. Please note: Do not connect or extend the available hose types and lengths. The maximum length is therefore 30m.

Compressed Air Hose			
Article Name:	Art.-No.	Material / Version	Image
e-breathe DFS CA Hose Black - 5m - 10m - 20m - 30m	3020611xx 05 10 20 30	EPDM / fixed length	
e-breathe DFS CA Hose Blue - 5m - 15m - 20m - 30m	3020612xx 10 15 20 30	PU + PVC / fixed length	
e-breathe DFS CA Hose Spiral - 2m to 8m	Coming Soon	PU / flexible	

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Spare Parts & Accessories: e-breathe Compressed Air Filter Station		
Article Name	Part No.	Image
e-breathe DFS Particle filter cartridge S (compatible with e-breathe compressed air filter station) e-breathe DFS Particle filter cartridge S PRO [a] (compatible with e-breathe compressed air filter station PRO)	132093701 322093701	 
e-breathe DFS Particle filter cartridge M (compatible with e-breathe compressed air filter station) e-breathe DFS Particle filter cartridge M PRO [b] (compatible with e-breathe compressed air filter station PRO)	132093711 322093711	 
e-breathe DFS activated carbon filter cartridge CA (compatible with e-breathe compressed air filter station) e-breathe DFS activated carbon filter cartridge CA PRO [c] (compatible with e-breathe compressed air filter station PRO)	132093700 322093700	 
e-breathe DFS Manometer	148001220	
e-breathe DFS Pressure Regulator with Manometer	148001210	
e-breathe DFS Differential Pressure Indicator (Compatible only with e-breathe DFS particle filters S/M) e-breathe DFS Differential Pressure Indicator PRO (Compatible only with e-breathe DFS particle filters S/M PRO)	132005008 132005016	
e-breathe DFS Filter Station Housing V.1	322008400	
e-breathe DFS Foots (PU4)	322008404	
e-breathe DFS Y-Connector 2 (d) e-breathe DFS Y-Connector 3 (e)	322008004 322008002	 
e-breathe DFS Breathing Air Safety Coupling (1/4 AG)	115001005	
e-breathe DFS Breathing Air Safety Plug (3/8 AG)	on request	
e-breathe DFS Blind Plug (3/8 AG / for air inlet and air outlet)	114802304	

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