



European Filter Solutions

Filter solutions for Industry



Desiccant Breathers

DATASHEET

Desiccant Breathers

Desiccant breathers protect diesel fuel storage reservoirs, gearboxes, pumps and other industrial equipment from moisture and particulate.

Gearboxes, reservoirs and pumps all “breathe” in use. As air contracts or expands, or as entering fluid displaces air in a system, outside air is drawn in from the atmosphere. Unfortunately, this breathed-in air has water and particulate that will accumulate to contaminate your system.

A desiccant breather is a straightforward solution to the problem, blocking moisture and particles from entering. Testing of leading competitors has shown that EFS Desiccant Breathers average almost 20% greater moisture-retention capacity versus leading brands.

Our unique design features a longer body, which permits 10% greater volume of silica gel desiccant beads when compared to leading competitors.

Advanced silica gel

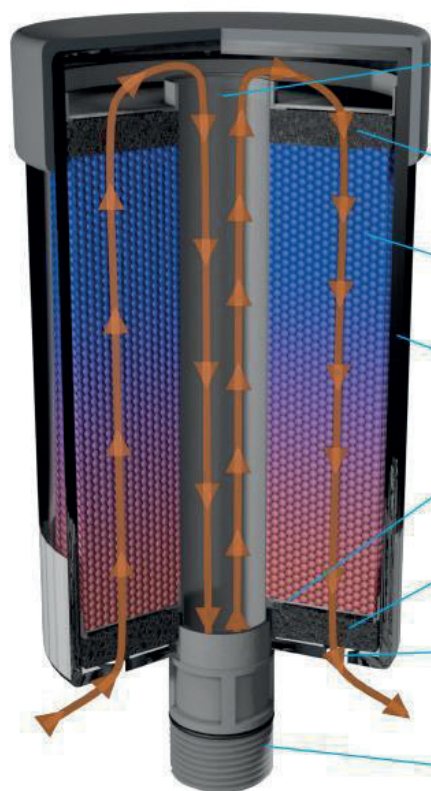


Desiccant removes water from air prior to it entering your system, tank or equipment.

Built-in status indication



Desiccant gel changes colour from blue to pink to indicate that it is removing moisture, as well as when to replace the breather.



Centre tube

The centre tube is constructed from rugged nylon material providing rigidity to the element and allowing for even airflow through the silica gel.

Secondary filter media

Second filter step prevents any possible migration of silica dust providing added system protection.

Moisture absorbent

Silica gel provides moisture removal and holds up to 40% of its weight.

ABS outer shell

Clear outer shell provides a visual indicator of silica gel condition allowing for optimum change out intervals.

Filter media

3-micron absolute particulate filtration is provided by a polyester filter media.

Oil mist collector

Polyurethane foam collects oil mist and distributes air evenly over filter media and moisture absorbing silica gel.

Air intakes

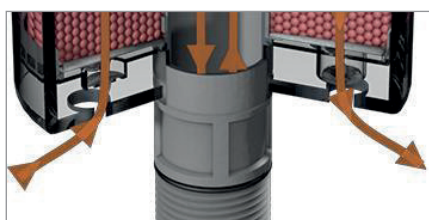
Air intakes are opened based on flow requirements and provide moisture protection for breather while being shipped/stored.

Sure-fit connection

Uses multi-fit connection instead of filler/breather cap. Adapters also available.

Step up to superior protection

This breather unit is a marked improvement over the customary dust caps or OEM breathers on equipment. When contaminated, air enters the top of the breather. It passes through layered filter media, preventing solid particles from entering the breather and causing undue wear to your equipment surfaces. Filtered air passes through a bed of EFS silica gel, which removes harmful moisture from the air. The silica beads also work to attract moisture from inside the equipment reservoir during service or shut-down, keeping the equipment dry. The addition of check-valves in our CV breather is ideal for low-flow and intermittent operations in high humidity conditions.



Optional check valves

Our CV models have check valves to isolate equipment from high humidity ambient conditions, prolonging breather life.

Standard model: EFS-005 Check valve model: EFS-005-CV
Connection: 3/8" Sure-Fit (NPT, BSPP, BSPT)
Height: 4.30" (10.92 cm)
Width: 2.52" (6.40 cm)
Diameter: 2.35" (6.00 cm)
Stem height: 0.5" (1.27 cm)
Silica gel: 80 g
Max moisture retention: 1.0 fl. oz. (28 ml)
Max airflow at 1-PSID Standard model: 7 cfm (1981 pm) Check valve model: 5 cfm (1421 pm)
Particulate retention: 3µ[c] >1000

Standard model: EFS-010 Check valve model: EFS-010-CV
Connection: 3/8" Sure-Fit (NPT, BSPP, BSPT)
Height: 5.80" (14.73 cm)
Width: 2.52" (6.40 cm)
Diameter: 2.35" (6.00 cm)
Stem height: 0.5" (1.27 cm)
Silica gel: 150 g
Max moisture retention: 2.0 fl. oz. (60 ml)
Max airflow at 1-PSID Standard model: 7 cfm (1981 pm) Check valve model: 5 cfm (1421 pm)
Particulate retention: 3µ[c] >1000

Standard model: EFS-020 Check valve model: EFS-020-CV
Connection: 1" Sure-Fit (NPT, BSPP, NPSM)
Height: 5.80" (14.73 cm)
Width: 4.10" (10.41 cm)
Diameter: 3.84" (9.75 cm)
Stem height: 1.25" (3.175 cm)
Silica gel: 360 g
Max moisture retention: 4.8 fl. oz. (142 ml)
Max airflow at 1-PSID Standard model: 18 cfm (5101 pm) Check valve model: 10 cfm (2831 pm)
Particulate retention: 3µ[c] >1000

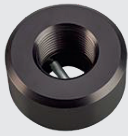





Standard model: EFS-030 Check valve model: EFS-030-CV
Connection: 1" Sure-Fit (NPT, BSPP, BSPT)
Height: 8.44" (21.27 cm)
Width: 4.10" (10.41 cm)
Diameter: 3.84" (9.75 cm)
Stem height: 1.25" (3.175 cm)
Silica gel: 640 g
Max moisture retention: 8.9 fl. oz. (264 ml)
Max airflow at 1-PSID Standard model: 18 cfm (5101 pm) Check valve model: 10 cfm (2832 pm)
Particulate retention: 3µ[c] >1000

Standard model: EFS-040 Check valve model: EFS-040-CV
Connection: 1" Sure-Fit (NPT, BSPP, BSPT)
Height: 10.54" (26.78 cm)
Width: 4.10" (10.41 cm)
Diameter: 3.84" (9.75 cm)
Stem height: 1.25" (3.175 cm)
Silica gel: 980 g
Max moisture retention: 14.3 fl. oz. (424 ml)
Max airflow at 1-PSID Standard model: 18 cfm (5101 pm) Check valve model: 10 cfm (2832 pm)
Particulate retention: 3µ[c] >1000

	Gearbox or fluid storage tank	Hydraulic reservoir
EFS-005 EFS-005-CV	18 gal / 68 L	2.5 gal / 9 L
EFS-010 EFS-010-CV	42 gal / 160 L	6 gal / 23 L
EFS-020 EFS-020-CV	240 gal / 900 L	72 gal / 270 L
EFS-030 EFS-030-CV	420 gal / 1600 L	120 gal / 450 L
EFS-040 EFS-040-CV	600 gal / 2300 L	240 gal / 900 L

The data shown on the left provides a starting point to select a breather model for your application. Factors impacting the service life of a given unit include: flow rate, breathing volume & frequency, environmental humidity, temperature, among others.

Reservoir adapters

	Element connection	Reservoir connection	
	EFSBA-1000	1" NPT	Bayonet
	EFSBA-1100	1" NPT	Flange 6 ANSI mounting holes
	EFSBA-1200	1" Slip Fit	1"-12 UNF
	EFSBA-1300	1" FNPT	1" FNPT
	EFSBA-1400	1" FNPT	2" FNPT
	EFSBA-1500	1" FNPT	3/4" MNPT

Materials

Body	Moisture absorbing media	Filter media	Operating temperatures
ABS, nylon polypropylene, buna	Silica gel	Polyester Polyurethane	- 20°F to 200°F - 29°C to 93°C



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