

FA-ST Des-Case Desiccant Breather Collection

How Clean is your Oil?





FA-ST Des-Case Desiccant Breathers

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Standard Series Desiccant Breathers

Des-Case Standard breathers provide simple, yet dependable protection from moisture and particulate contamination in lubricants and equipment across multiple industries and applications. These versatile breathers are five times more effective than the leading non-desiccant breathers, providing optimal defence against humidity for your applications.

How It Works:

This breather unit replaces the standard dust, cap or OEM breather cap on equipment. As air is drawn into equipment through the breather, the layered filter elements remove particulate while the desiccant beads strip harmful moisture.

While in service or during shutdown, the desiccant beads attract moisture from inside the equipment reservoir, actively drying the equipment.

Standard Breathers Used in a Wide Range of Industries:

- Power Generation
- Mining
- Aviation
- Storage
- Manufacturing
- Petrochemical



Model	Unit Height (mm)	Unit Diameter (mm)	Connection Size	Absorption Capacity (ml)	For use with		Buy Now
					Gearbox / storage tank	Hydraulic Reservoir	
DC-BB	98	64	3/8" Multi-Fit (NPT, BSPP, BSPT)	23	57 Litres	8 Litres	DC-BB
DBDC-1	136	64	3/8" Multi-Fit (NPT, BSPP, BSPT)	50	132 Litres	19 Litres	DBDC-1
DBDC-2	152	104	1" Multi-Fit (NPT, BSPP, BSPT)	146	757 Litres	227 Litres	DBDC-2
DBDC-3	203	104	1" Multi-Fit (NPT, BSPP, BSPT)	257	1325 Litres	379 Litres	DBDC-3
DBDC-4	254	104	1" Multi-Fit (NPT, BSPP, BSPT)	365	1893 Litres	757 Litres	DBDC-4

Main Features

By the Numbers:

1. Domed Cap

A domed cap allows for better washdown runoff.

2. Integrated Nylon Standpipe

The integrated standpipe provides excellent vibration resistance and dissipates impact throughout the unit, eliminating weak points. It also allows even airflow distribution throughout the unit, eliminating inaccurate readings of desiccant saturation.

3. External Ribs

External ribs on shell to create greater durability and grip when installing or replacing breather.

4. Integrated Drip Ring

An integrated drip ring keeps shedding water from entering the vent holes.

5. Threaded Mounting

Easily replaces standard filler/breather cap with multi-fit connection or one of several adapters.

6. Air Vents

Individual air intakes are opened based on flow requirements of the system. Plugs protect unit during shipping and storage.

7. Foam Pad

Foam filter captures any oil mist and disperses incoming air evenly over filtration and drying areas.

8. Filter Element

Polyester filter element removes airborne contamination to 3-micron absolute. Unique loops allow particles to release during system exhalation, helping to increase breather life.

9. Enhanced Seal

An enhanced seal eliminates potential for airflow bypass.



Need an Adaptor?

For any of the standard series breathers with a 1" fitting (DBDC2, DBDC3 & DBDC4) then the DC-12-TG Flange Adaptor with Gasket could be just what is required in order to fit your breather

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Standard Series Desiccant Breather Specifications

Basic protection from moisture and particulate contamination in lubricant and equipment.



MATERIALS & COMPONENTS:

- **Housing:** Polycarbonate, Nylon 6/6 30% Glass Filled, Polypropylene
- **Seals (Miniature):** Buna-N, EPDM, PVC
- **Seals (Standard):** Buna-N, PVC
- **Filter Media:** Polyurethane, Polyester
- **Hydrophilic Media:** Silica Gel

CHEMICAL COMPATIBILITY:

Compatible with all mineral oils, most synthetic oils and diesel fuels (Contact Des-Case technical support for chemical compatibility inquiries) C

PERFORMANCE SPECIFICATION:

Product Code	DC-BB	DC-1	DC-2	DC-3	DC-4
Temperature Range	-20°F to 200°F (-29°C to 93°C)				
Filter Efficiency	3 µm absolute				
Amount of Desiccant	.1 lbs (59 g)	.3 lbs (127 g)	.8 lbs (365 g)	1.4 lbs (643 g)	2.0 lbs (913 g)
Water Adsorption Capacity (Maximum Water Retention)	.8 fl oz (23 ml)	1.7 fl oz (50 ml)	5 fl oz (142 ml)	9 fl oz (251 ml)	12 fl oz (356 ml)
Color Indication	Blue to Pink				
²Application Sizing Recommendations					
Max. Airflow at ΔP 1 psi [.07 bar]	5 cfm (141 l/min)	4 cfm (113 l/min)	16 cfm (453 l/min)	16 cfm (453 l/min)	16 cfm (453 l/min)
Max Reservoir Fluid Flow or Displacement at ΔP 1 psi [.07 bar]	34 gpm (129 l/min)	31 gpm (118 l/min)	120 gpm (453 l/min)	120 gpm (453 l/min)	120 gpm (453 l/min)
Gearbox, Pump & Storage Tank	15 gal (57 L)	35 gal (132 L)	200 gal (757 L)	350 gal (1325 L)	500 gal (1893 L)
Hydraulic & Central Lube Reservoir	2 gal (8 L)	5 gal (19 L)	60 gal (227 L)	100 gal (379 L)	200 gal (757 L)

Typical Applications:

- Totes / Drums
- Storage Tanks
- Wind Turbine
- Transformers

Typical Industries:

- Manufacturing
- Automotive
- Power Generation & Distribution
- Wind

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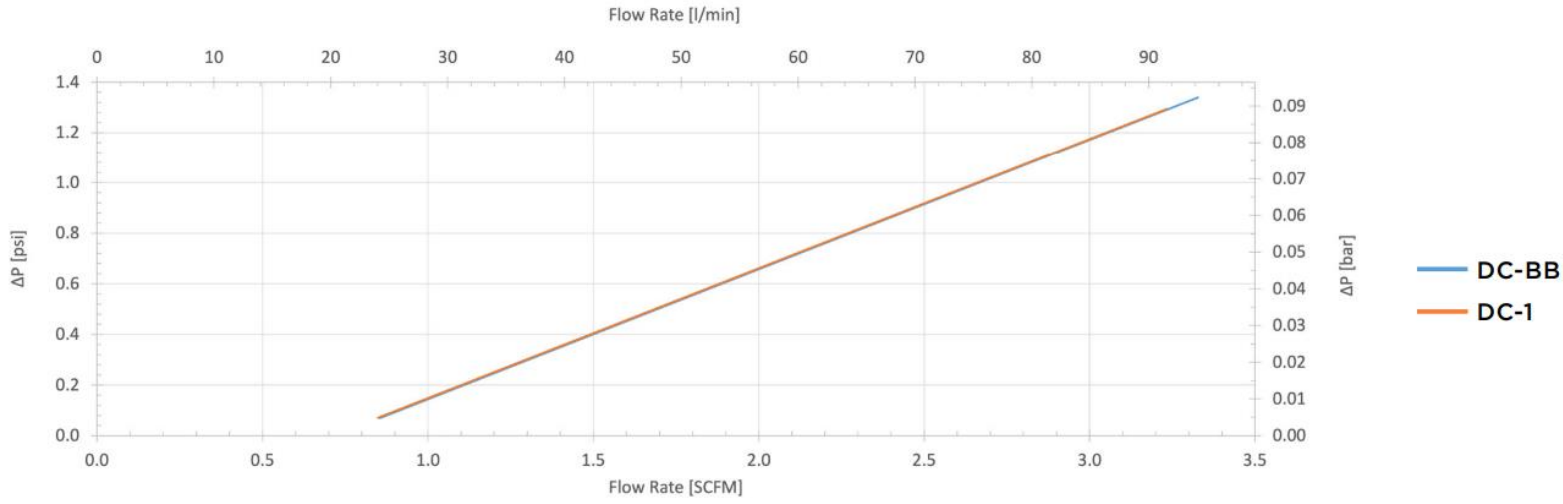
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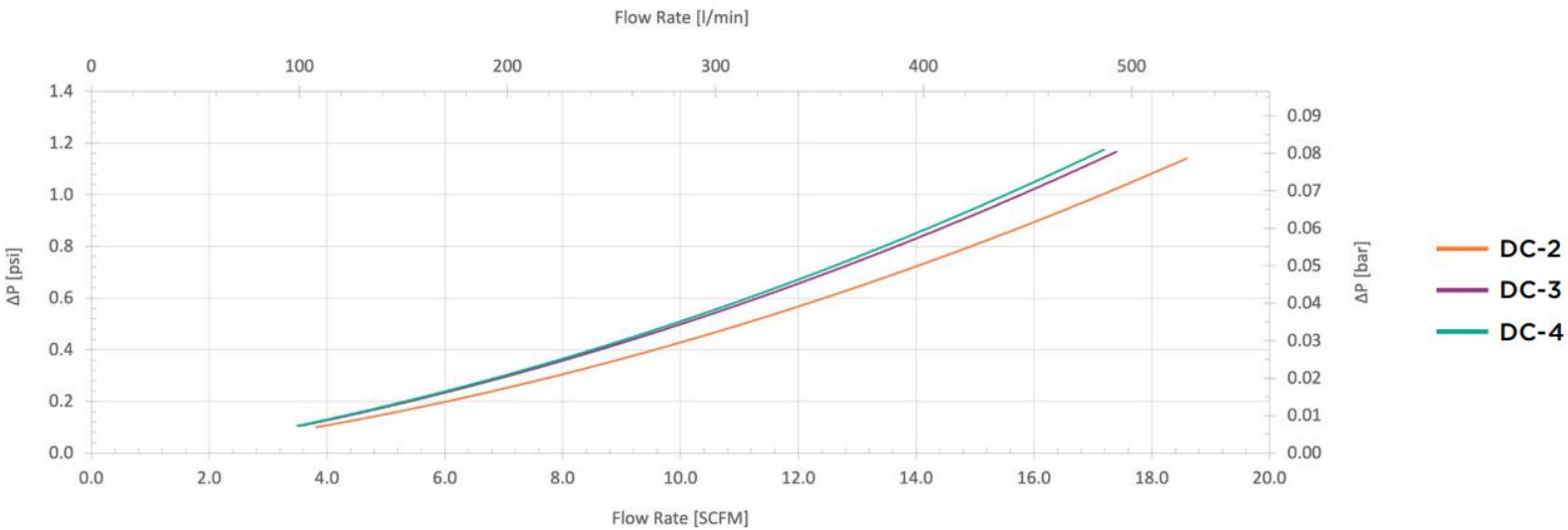
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AIRFLOW:

MINIATURE

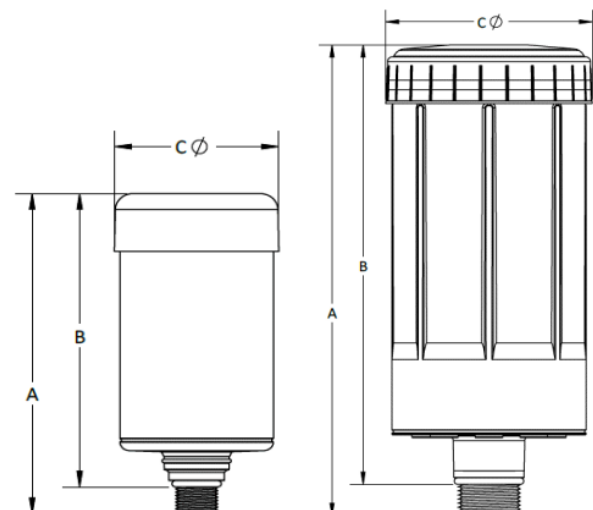


STANDARD



DIMENSIONS:

	Style	A	B	C
Part Code	Miniature or Standard	Inch / mm	Inch / mm	Inch / mm
DC-BB	Miniature	3.9 / 98	3.4 / 87	2.5 / 64
DC-1	Miniature	5.4 / 136	4.9 / 125	2.5 / 64
DC-2	Standard	6.0 / 152	5.3 / 135	4.1 / 104
DC-3	Standard	8.0 / 203	7.3 / 186	4.1 / 104
DC-4	Standard	10.0 / 254	9.3 / 237	4.1 / 104
Thread Size				
MINIATURE	3/8" Multi-Fit Male Thread with O-Ring Seal, Compatible with: 3/8" NPT; 3/8" BSPT; 3/8" BSPP			
STANDARD	1" Multi-Fit Male Thread with O-Ring Seal, Compatible with: 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP			



VentGuard Series Desiccant Breathers

Des-Case VentGuard™ breathers have check-valve technology that isolates the system and only ‘breathes’ when necessary, making them an ideal solution to protect low-flow applications with intermittent operations. Check valves provide slight system pressurization that allows for

controlled breathing without excessive pressure build-up. The system breathes only when pressured to do so, and then the air is cleaned and dried before it is introduced into the system, ensuring a clean, dry headspace. This control mechanism also prevents premature saturation of the silica gel and extends breather life, a problem not as easily tackled by standard desiccant breathers exposed to extreme moisture.

How It Works:

This breather unit replaces the standard dust cap or OEM breather cap on equipment. Check valves on the bottom of the unit isolate the system until equipment needs to breathe. As air is drawn into equipment through the breather, the layered filter elements remove particulates while the desiccant beads strip harmful moisture. While in service or during shutdown, the desiccant beads attract moisture from inside the equipment reservoir, actively drying the equipment.

VentGuard Breathers Used in a Wide Range of Industries:

- Power Generation
- Mining
- Aviation
- Storage
- Manufacturing
- Petrochemical



Model	Unit Height (mm)	Unit Diameter (mm)	Connection Size	Absorption Capacity (ml)	For use with		Buy Now
					Gearbox / storage tank	Hydraulic Reservoir	
DC-VG-BB	98	64	3/8" Multi-Fit (NPT, BSPP, BSPT)	23	57 Litres	8 Litres	DC-VG-BB
DC-VG-1	136	64	3/8" Multi-Fit (NPT, BSPP, BSPT)	50	132 Litres	19 Litres	DC-VG-1
DC-VG-2	152	104	1" Multi-Fit (NPT, BSPP, BSPT)	146	757 Litres	227 Litres	DC-VG-2
DC-VG-3	203	104	1" Multi-Fit (NPT, BSPP, BSPT)	257	1325 Litres	379 Litres	DC-VG-3
DC-VG-4	254	104	1" Multi-Fit (NPT, BSPP, BSPT)	365	1893 Litres	757 Litres	DC-VG-4

Main Features

By the Numbers:

1–Domed Cap

A domed cap allows for better washdown runoff.

2–Integrated Nylon Standpipe

The integrated standpipe provides excellent vibration resistance and dissipates impact throughout the unit, eliminating weak points. It also allows even airflow distribution throughout the unit, eliminating inaccurate

3–External Ribs

External ribs on shell to create greater durability and grip when installing or replacing breather.

4–Integrated Drip Ring

An integrated drip ring keeps shedding water from entering the vent holes.

5–Threaded Mounting

Easily replaces standard filler/breather cap with multi-fit connection or one of several adapters.

6–Larger, High-Capacity Check Valves

High-capacity check valves allow for increased airflow at low cracking pressure.

7–Filter Element

Polyester filter element removes airborne contamination to 3-micron absolute. Unique loops allow particles to release during system exhalation, helping to increase breather life.

8–Enhanced Seal

An enhanced seal eliminates potential for airflow bypass.



Need an Adaptor?

For any of the standard series breathers with a 1" fitting (DC-VG-2, DC-VG-3 & DC-VG-4) then the DC-12-TG Flange Adaptor with Gasket could be just what is required in order to fit your breather

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VentGuard Breather Specifications

Check-valve technology that isolates the system and only 'breathes' when necessary, making them an ideal solution to protect low-medium flow applications with intermittent operations.



MATERIALS & COMPONENTS:

- **Housing:** Polycarbonate, Nylon 6/6 30% Glass Filled, Polypropylene
- **Seals & Valves (Miniature):** Buna-N, EPDM, PVC, Silicone
- **Seals & Valves (Standard):** Buna-N, PVC, Silicone
- **Filter Media:** Polyurethane, Polyester
- **Hydrophilic Media:** Silica Gel

CHEMICAL COMPATIBILITY:

Compatible with all mineral oils, most synthetic oils and diesel fuels (Contact Des-Case technical support for chemical compatibility inquiries)

PERFORMANCE SPECIFICATIONS:

Product Code	DC-VG-BB	DC-VG-1	DC-VG-2	DC-VG-3	DC-VG-4
Temperature Range	-20°F to 200°F (-29°C to 93°C)				
Filter Efficiency	3 µm absolute				
Check Valve Cracking Pressure	.1 psi (.007 bar)				
Amount of Desiccant	.1 lbs (59 g)	.3 lbs (127 g)	.8 lbs (365 g)	1.4 lbs (643 g)	2.0 lbs (913 g)
Water Adsorption Capacity (Maximum Water Retention)	.8 fl oz (23 ml)	1.7 fl oz (50 ml)	5 fl oz (142 ml)	9 fl oz (251 ml)	12 fl oz (356 ml)
Color Indication	Blue to Pink				
²Application Sizing Recommendations					
Max. Airflow at ΔP 1 psi [.07 bar]	1 cfm (141 l/min)	1 cfm (113 l/min)	12 cfm (453 l/min)	11 cfm (453 l/min)	11 cfm (453 l/min)
Max Reservoir Fluid Flow or Displacement at ΔP 1 psi [.07 bar]	11 gpm (41 l/min)	11 gpm (41 l/min)	90 gpm (340 l/min)	82 gpm (311 l/min)	75 gpm (283 l/min)
Gearbox, Pump & Storage Tank	15 gal (57 L)	35 gal (132 L)	200 gal (757 L)	350 gal (1325 L)	500 gal (1893 L)
Hydraulic & Central Lube Reservoir	2 gal (8 L)	5 gal (19 L)	60 gal (227 L)	100 gal (379 L)	200 gal (757 L)

Typical Applications:

- Gearbox
- Pump
- Hydraulics

Typical Industries:

- Pulp & Paper
- Forestry & Building Products
- Food & Beverage
- Steel & Aluminum

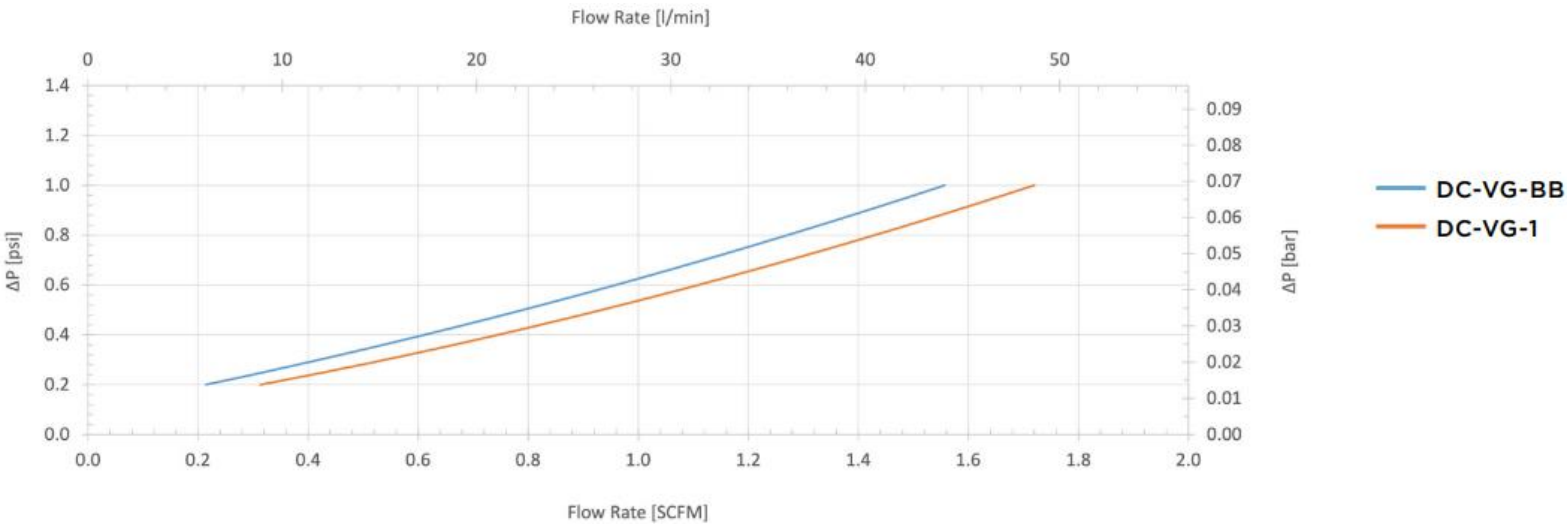
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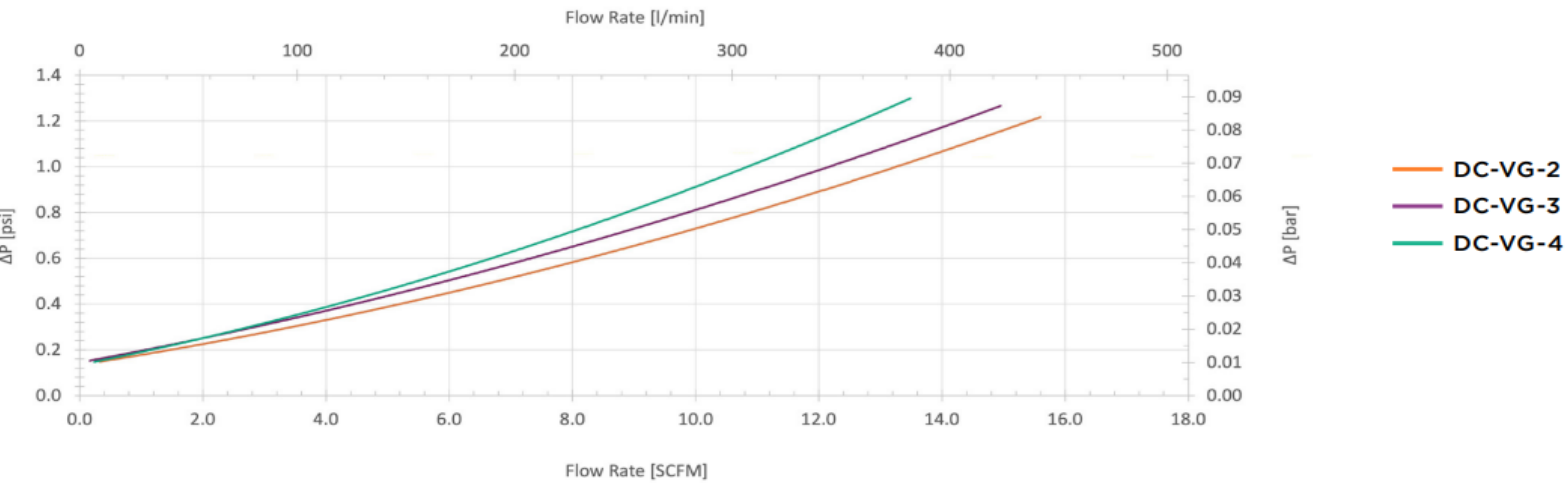
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Airflow:

Miniature

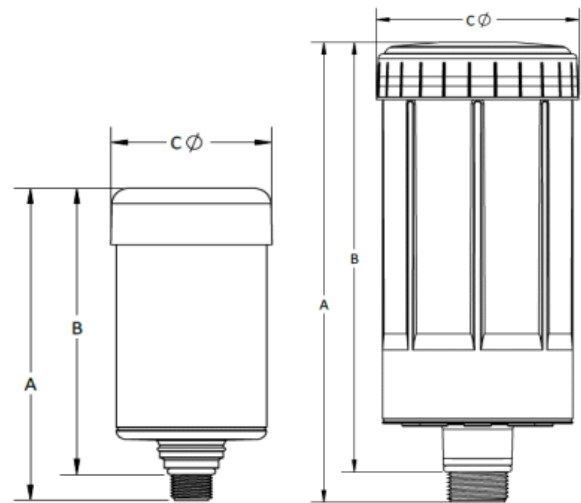


STANDARD



DIMENSIONS:

	Style	A	B	C
Part Code	Miniature or Standard	Inch / mm	Inch / mm	Inch / mm
DC-VG-BB	Miniature	3.9 / 98	3.4 / 87	2.5 / 64
DC-VG-1	Miniature	5.4 / 136	4.9 / 125	2.5 / 64
DC-VG-2	Standard	6.0 / 152	5.3 / 135	4.1 / 104
DC-VG-3	Standard	8.0 / 203	7.3 / 186	4.1 / 104
DC-VG-4	Standard	10.0 / 254	9.3 / 237	4.1 / 104
Thread Size				
MINIATURE	3/8" Multi-Fit Male Thread with O-Ring Seal, Compatible with: 3/8" NPT; 3/8" BSPT; 3/8" BSPP			
STANDARD	1" Multi-Fit Male Thread with O-Ring Seal, Compatible with: 1" NPT; 1" NPSM; 1" BSPT; 1" BSPP			



Extended Series Desiccant Breathers

Des-Case Extended Series® desiccant breathers combine the trusted materials and design of our Standard breathers with the check-valves of our VentGuard™ and HydroGuard® breathers, plus a new oil mist reducing feature, higher air flows and more than double the desiccant! These high airflow, long-lasting desiccant breathers are ideal for tank farms and large or remote applications.

How It Works:

As wet, contaminated air is drawn through the unit, multiple 3-micron polyester filter elements remove solid particulate, and the colour-indicating silica gel extracts moisture. When air is expelled from the container, the top foam pad prevents oil mist from contacting silica gel or entering the atmosphere. Additionally, the breather is outfitted with a resilient nylon standpipe and polypropylene oil mist reducer to allow oil mist to coalesce and drain back into the reservoir, rather than compromising the desiccant. Six high-quality umbrella check-valves are located underneath the unit to isolate equipment from ambient conditions, prolonging breather life and protecting system integrity.

Extended Breathers Used in a Wide Range of Industries:

- Wind Energy
- Storage
- Pulp & Paper
- Mining
- Aviation
- Manufacturing
- Petrochemical



Model	Unit Height (mm)	Unit Diameter (mm)	Connection Size	Absorption Capacity (ml)	For use with		Buy Now
					Gearbox / storage tank	Hydraulic Reservoir	
DC-EX-1	119	144	1" Female (FNPT)	228	1514 Litres	379 Litres	DC-EX-1
DC-EX-2	163	144	1" Female (FNPT)	417	2271 Litres	757 Litres	DC-EX-2
DC-EX-3	208	144	1" Female (FNPT)	606	3028 Litres	1136 Litres	DC-EX-3
DC-EX-4	254	144	1" Female (FNPT)	798	3785 Litres	1514 Litres	DC-EX-4

Main Features

1–Six Check-Valves

High-quality umbrella check-valves that won't clog or stick are located underneath the unit for added protection from washdown environments. Check-valves isolate equipment from ambient conditions prolonging breather life and protecting system integrity.

2–Integrated Nylon Standpipe

The integrated standpipe provides excellent vibration resistance and dissipates impact throughout the unit, eliminating weak points. It also allows even airflow distribution throughout the unit, preventing inaccurate readings of desiccant saturation.

3–Honeycomb Technology Oil Mist Reducer

The oil mist reducer is situated inside the standpipe, made from polypropylene for maximum chemical compatibility. Mimicking nature's intricate honeycomb design, this feature allows oil mist to coalesce and drain back into the reservoir, rather than compromising the desiccant.

4–Resilient Polycarbonate Body

Shock-absorbing, clear casing provides reliable service, easy visual maintenance, and UV resistance.

5–Filter Element

Polyester filter element removes airborne contamination to 3-micron absolute. Unique loops allow particles to release during system exhalation, helping to increase breather life.

6–Foam Pad

Foam filter captures any oil mist and disperses incoming air evenly over filtration and drying areas.

7–Water Vapor Adsorbent

Silica gel adsorbs water from incoming air and can hold up to 40% of its weight. Condition is indicated by change of colour from blue to light pink.

8– Secondary Filter Element

Second polyester filter element protects against migration of desiccant dust, providing maximum efficiency.

9–Threaded Mounting

Internal threads provide durability and stability and can be used with one of several adapters.



Extended Breather Specifications



Extended Breathers High airflow desiccants and long life, fitted with a non-return valve, ideal for tank farms and large applications.

MATERIALS AND COMPONENTS:

- **Casing:** Nylon 6/6 30% filled with fiberglass, polycarbonate, polypropylene, silicone
- **Seals:** Buna-N, EPDM, PVC
- **Filtering material:** polyester, polyurethane
- **Hydrophilic materials:** silica gel

CHEMICAL COMPATIBILITY:

Compatible with all mineral oils, most synthetic oils and diesel fuels (contact Des-Case Technical Service for any question on chemical compatibility).

Product Code	DC-EX-1	DC-EX-2	DC-EX-3	DC-EX-4
Temperature Range	-20°F to 200°F (-29°C to 93°C)			
Filter Efficiency	3 µm absolute			
Opening pressure of the check valve	0.1psi (0.007 bar)			
Amount of Desiccant	544 g (1,2 lb)	998 g (2,2 lb)	1452 g (3,2 lb)	1905 g (4,2 lb)
Water Absorption Capacity (Maximum Water Retention)	228ml (7,7 fl oz)	417ml (14,1 fl oz)	606ml (20,5 fl oz)	798ml (27,0 fl oz)
Colour Indication	Blue to Pink			
Application Sizing Recommendations				
Max. Airflow at ΔP 1 psi [.07 bar]	27 cfm (765 l/min)	26 cfm (736 l/min)	25 cfm (708 l/min)	24 cfm (680 l/min)
Max Reservoir Fluid Flow or Displacement at ΔP 1 psi [.07 bar]	765 l/min (202 gpm)	736 l/min (195 gpm)	708 l/min (187 gpm)	680 l/min (180 gpm)
Gearbox, Pump & Storage Tank	1514L (400 gal)	2271L (600 gal)	3028L (800 gal)	3785L (1000 gal)
Hydraulic & Central Lube Reservoir	379L (100 gal)	757L (200 gal)	1136L (300 gal)	1514L (400 gal)

Typical Applications:

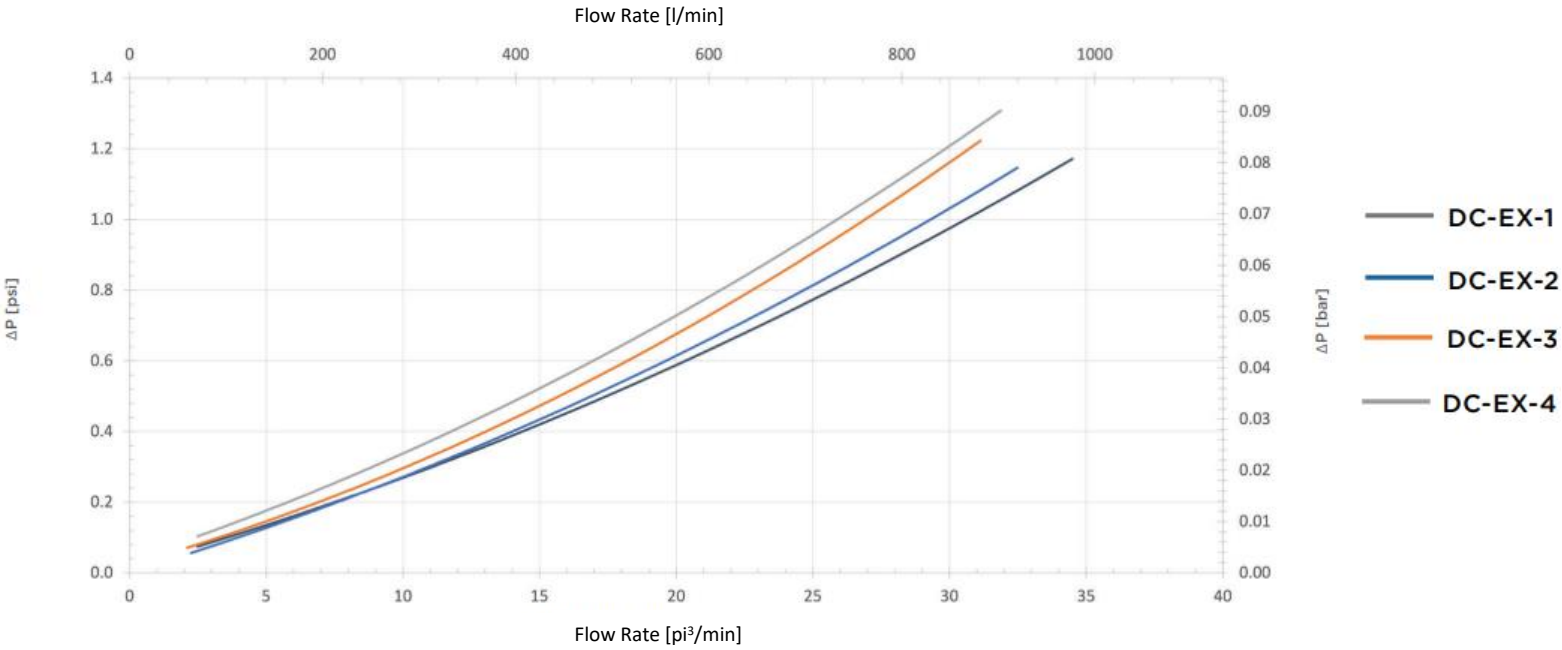
- Storage Tanks
- Large reducers
- Wind Turbines
- Remote Apps

Typical Industries:

- Wind Power
- Aviation
- Storage
- Manufacturing
- Pulp and paper
- Petrochemicals
- Mining

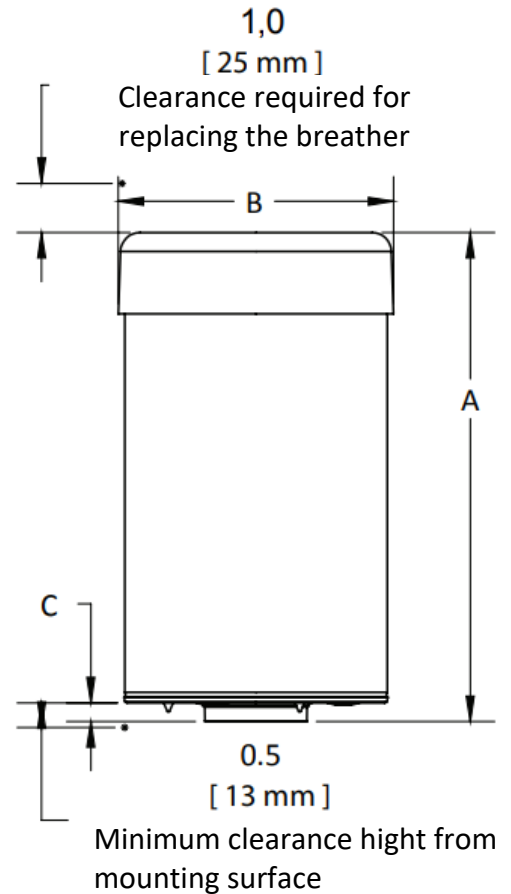
FA-ST Des-Case Desiccant Breathers

AIR FLOW:



DIMENSIONS:

	A	B	C
Product Code	mm/inch	mm/inch	mm/inch
DC-EX-1	119/4.7	143/5.7	10/0.4
DC-EX-2	163/6.4		
DC-EX-3	208/8.2		
DC-EX-4	254/10.0		
Thread Size			
Female 25mm (FNPT)			



Oil & Fuel Sampling

With our wide range of sample bottles and containers our customers can take a wide range of samples including oils, diesel fuel, coolants, glycols and a selection of chemicals and other fluids. Supplying our customers with:

Vacuum Sampling Pumps
Sample Bottles
Sample Tubing
Complete Oil & Fuel Sampling Kits

Oil Analysis

FA-ST provide a comprehensive range of oil testing allowing you to determine the cleanliness, contamination, chemistry and identify wear particles in lubrication oils, diesel fuel, coolants, and greases etc. at our independent oil analysis laboratory.

With the support of the FA-ST oil analysis program you can consistently monitor the quality of the fluids used on your machinery & equipment, detect potential component failure, reduce maintenance costs and help decide the correct oil change intervals.

Oil Filtration

FA-ST have an extensive range of oil filtration equipment especially designed to remove particulate, water and magnetic particles from oils, diesel fuel, coolants & glycols. Working with some of the industries leading businesses we aim to bring you the finest filtration equipment on the market including:

Oil, Diesel & Glycol Filtration Systems
Filter Cartridges for a wide range of fluids
Magnetic Pre-Filters
Bypass Filter Systems



How Clean is your Oil?

For all your oil sampling, filtration & Analysis needs contact FA-ST:

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Email: sales@fa-st.co.uk
Visit: www.oilsampling.co.uk

