



Air Sentry® Guardian Breathers

Extending fluid life saves money and downtime



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Guardian Desiccant Breathers

The GUARDIAN takes check valve technology and cost-saving replacement measures to the next level.

Air Sentry also introduces four exclusive advancements that will again raise the bar in contamination control:

Tritan™ Construction - This patented material is the most chemical, temperature, and impact-resistant breather on the market.

Isolation Check Valve – The isolation check valve isolates the desiccant from exhaust air to lengthen service life of the desiccant while also protecting it from volatile and splashing fluids.

Integrated Compound Vacuum / Pressure Gauge - This proprietary feature is a true-life accurate indicator of filter conditions.

Stackable - Stack cartridges to extend the life of breathers even further using the Modular Stack Ring™.

- Tritan™ construction
- Isolation check valve
- Integrated compound vacuum/pressure gauge
- Stackable



The benefits of Air Sentry Guardian Desiccant Breathers:

- Provides more impact, temperature and chemical resistance and is also BPA free.
- Incoming air is directed through top of breather, filters and desiccant, but all exhaust air is expelled directly out to atmosphere, elongating life of desiccant and breather 60 to 70%
- When breather is in static conditions (no air movement), check valves prevent ambient air from coming into contact with desiccant, further extending breather life
- Machined and anodized aluminum insert molded directly into bottom cap provides strong base for mounting and aluminum insert allows for use of thread sealant for strong and watertight seal between reservoir and breather
- Desiccant changes from gold to dark green to indicator when it cannot adsorb any additional moisture and needs to be replaced

Silica gel desiccant removes up to 95% of moisture from incoming air.



Silica gel adsorbs 40% of its weight in moisture

Desiccant breathers are the simplest and most cost effective contamination control protection available.



Blocks solid particles down to 2 micron

The benefits of Air Sentry Guardian Desiccant Breathers:

- Features replaceable center cartridge to help reduce replacement costs and environmental waste.
- Replaceable cartridge can be desiccant, molecular sieve, activated aluminum or activated carbon, depending on application needs .
- Optional Stack Ring allows multiple cartridges to be stacked atop each other for longer breather life and higher moisture removal capabilities.
- To prevent desiccant from becoming coated or saturated with oil, a stand pipe can be used to extend breather away from the reservoir or remote mount the breather.
- Isolation Check Valve available to eliminate complex mounting as well as prevent fumes, vapors and misting from backing up into breather.

Exhausting air flowing from a fluid reservoir can bring oil mist, heavy vapors or moisture to contaminate the silica gel.



The Isolation Check Valve is a barrier to oil mist, heavy vapors, splashing oil and moisture.

The benefits of Air Sentry Guardian Desiccant Breathers:

- Isolation Check Valve available to eliminate complex mounting as well as prevent fumes, vapors and misting from backing up into breather.
- Color coded compound indicator is incorporated directly into breather and works on both intake and exhaust conditions.
- Provides 25 cfm of inlet air to reservoir and over 150 cfm of exhaust air flow, as air is directed out to atmosphere and not back through breather.
- Features modular platform for use in nearly any application.

Four check valves in the top cap, open at 0.1 PSI, providing redundant air flow into the reservoir



Four check valves in the base, open at 0.1 PSI, allowing exhausting air to by-pass a reverse path through the silica gel



Air Sentry Guardian desiccant breathers – small series



Size	Model	Isolation Check Valve	Compound Indicating Gauge	Connection	Description	Uses replacement cartridge
SMALL	G5S1N			1" NPT	Air Sentry Desiccant Breather (silica gel) 0,68 kg (1,5 lbs) of silica gel Maximum adsorption capacity is 272,1 ml (9,2 fluid ounces) Height x Depth is 22,86 cm x 13,0475 cm (9" x 5,125") Maximum air flow is 707.9 l/m (25 cfm) Maxiumum reservoir fluid flow is 11,798 l/s (187 gpm)	GRC5S
	G5S1NC	x				GRC5SC
	G5S1NG		x			GRC5S
	G5S1NGC	x	x			GRC5SC
	G5S2N			2" NPT		GRC5S
	G5S2NC	x				GRC5SC
	G5S2NG		x			GRC5S
	G5S2NGC	x	x			GRC5SC
	G5S1B			1" BSP		GRC5S
	G5S1BC	x				GRC5SC
	G5S1BG		x			GRC5S
	G5S1BGC	x	x			GRC5SC

Air Sentry Guardian desiccant breathers – medium series



GUARDIAN™



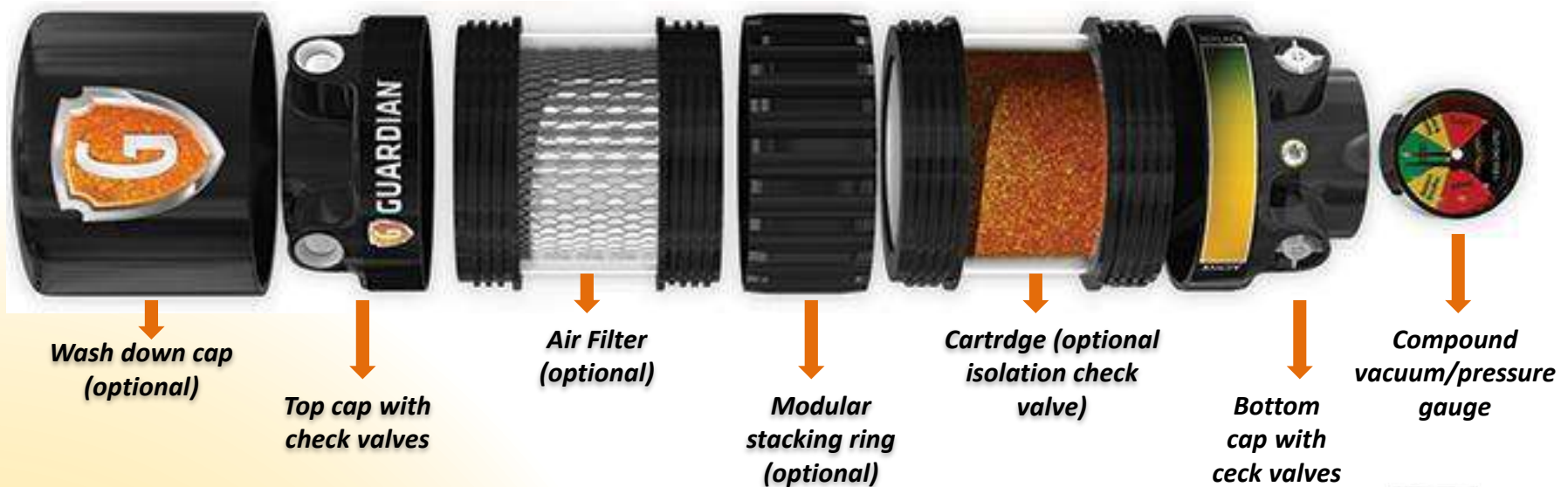
Size	Model	Isolation Check Valve	Compound Indicating Gauge	Connection	Description	Uses replacement cartridge
MEDIUM	G8S1N			1" NPT	Air Sentry Desiccant Breather (silica gel) 1,27 kg (2,8 lbs) of silica gel Maximum adsorption capacity is 508,7 ml (17,2 fluid Height x Depth is 30,48 cm x 13,02 cm (12" x 5,125") Maximum air flow is 707.9 l/m (25 cfm) Maxiumum reservoir fluid flow is 11,798 l/s (187 gpm)	GRC8S
	G8S1NC	x				GRC8SC
	G8S1NG		x			GRC8S
	G8S1NGC	x	x			GRC8SC
	G8S2N			2" NPT		GRC8S
	G8S2NC	x				GRC8SC
	G8S2NG		x			GRC8S
	G8S2NGC	x	x			GRC8SC
	G8S1B			1" BSP		GRC8S
	G8S1BC	x				GRC8SC
	G8S1BG		x			GRC8S
	G8S1BGC	x	x			GRC8SC

Air Sentry Guardian desiccant breathers – large series



Size	Model	Isolation Check Valve	Compound Indicating Gauge	Connection	Description	Uses replacement cartridge
LARGE	G12S1N			1" NPT	Air Sentry Desiccant Breather (silica gel) 2,04 kg (4,5 lbs) of silica gel Maximum adsorption capacity is 816,2 ml (27,6 fluid Height x Depth is 40,64 cm x 13,02 cm (16" x 5,125") Maximum air flow is 707.9 l/m (25 cfm) Maxiumum reservoir fluid flow is 11,798 l/s (187 gpm)	GRC12S
	G12S1NC	x				GRC12SC
	G12S1NG		x			GRC12S
	12S1NGC	x	x			GRC12SC
	G12S2N			2" NPT		GRC12S
	G12S2NC	x				GRC12SC
	G12S2NG		x			GRC12S
	12S2NGC	x	x			GRC12SC
	G12S1B			1" BSP		GRC12S
	G12S1BC	x				GRC12SC
	12S1BG		x			GRC12S
	12S1BGC	x	x			GRC12SC

Air Sentry Guardian accessories:



Model	Accessories - Guardian
GSWDC	Guardian shield wash down cap
GMSR	Guardian modular stack ring
GHCAF	Guardian High Capacity 0.3 micron HEPA air filter
A655	Integrated compound vacuum / pressure gauge



Accessories to customize your Guardian

Shield wash down cap

The Guardian™ Shield prevents wind, rain or highpressure spray (wash-down) from opening check valves in the top cap. It also works well on mobile equipment, in extremely dirty or dusty environments. It's easy to install on the Guardian™, X Series or XR Series.



Manifold Kits

They come with a 1" MNPT and allow mounting of up to four breathers on one piece of equipment. Mounting multiple units produces greater airflow resulting in less frequent breather replacements. Made of heavyduty anodized aluminum for years of service in harsh environments.

Modular Stack Ring™

Customize your breather with a Modular Stack Ring. The additional cartridge may contain silica gel, activated carbon or molecular sieve. These secondary agents protect equipment from caustic fumes, extend the performance range or increase the life of a desiccant breather. Connecting two cartridges of similar size reduces air flow 50%.



How to build a Guardian Model Number:

Guardian Model G5S1NGC

Cartridge length:

G5 = 5" Cartridge

G8 = 8" Cartridge

G12 = 12" Cartridge

Medium:

S = Silica gel

M = Molecular sieve

AC = Activated carbon

Mounting:

1N = 1" NPT

2N = 2" NPT

1B = 1" BSP

Options:

G = Compound gauge

C = Isolation check valve

Selecting the Right Model :

1. Determine CFM requirement:

Select a model that exceeds a reservoir's air flow requirement (CFM). Include a margin of safety.

1. Choose the Right Series:

Consider the environment; select a model that best fits the challenges of the application.

Environment examples - vibration, mobile equipment, high humidity and extreme dust.

2. Determine Connection Size:

Identify the breather mounting location; the best location is often the exiting vent. Select a model with a similar mounting connection. If necessary, it's ok to use an adaptor / reducer. Be careful not to restrict airflow.

3. Evaluate Mounting Area:

Evaluate the available space for the breather. If space is limited or other issues apply (heat, oil mist, vibration, etc.), remote mount the breather. Remote mount using an extension pipes, hoses, adapters etc.



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**** Managing Machine Reliability ****