



# GUARDIAN DESICCANT BREATHERS

## Modular Design Allows for Customization

Guardian is a new desiccant type breather and revolutionary by design. Rather than a one-size-fits-all, the Guardian has a modular platform that allows industry to configure the necessary breather for nearly any application and life expectancy. This makes better use of inventory dollars and ensures that every maintenance dollar is used wisely.

It is manufactured from Tritan, a co-polyester from Eastman Chemical Company that provides more impact, temperature and chemical resistance and is also BPA free. Incoming air is directed through the filters and desiccant, but all exhaust air is expelled directly out to atmosphere, thus elongating the life of the desiccant and breather.

The top check valves are on the inlet and the bottom check valves are on the outlet. When the breather is in static conditions (no air movement) the check valves prevent ambient air from coming into contact with the desiccant, thus extending breather life.

Because of the modular design feature, the Guardian has an optional Stack Ring, which allows multiple cartridges to be stacked atop each other for longer breather life and higher moisture removal capabilities. It also means less servicing and maintenance costs. The replaceable cartridge can be a combination of desiccant, HEPA grade .3 micron filter, molecular sieve for low humidity conditions, and activated carbon for fume and odor removal depending on what the application requires.

For applications that have fuel vapors, splashing or misting, it's essential to keep those oils and fumes from coming into contact with the desiccant. If the desiccant becomes coated or saturated with oil or fumes, it will no longer adsorb moisture. To prevent the misting, fume clogging, or splashing from reaching the desiccant in most all desiccant type breathers a complex mounting figuration is required. The Guardian can be ordered with an isolation check valve, which eliminates the need for complex mounting. The isolation check valve is a specially designed silicone check valve mounted on the bottom of the cartridge. This prevents fumes, vapors and misting from backing up into the breather.

## Applications:

- Fuel Tanks
- Gearboxes
- Mobile Service Vehicles
- Wind Turbines
- Hydraulic Systems



## Features:

- Constructed of Tritan (BPA free plastic) for chemical, temperature, and impact resistance.
- Integrated gauge for visual indication of intake and exhaust pressure conditions.
- Includes isolation check valves to protect desiccant from exhaust air, splashing fluids, and harmful vapors.
- Modular design allows for than one cartridge to be used in single installation extending service life, reduce cost and maintenance intervals.

Two-way integrated compound vacuum/pressure gauge (optional item)



Cap provides barrier where frequent washdowns occur.



Desiccant cartridges are available in a variety of sizes.



The optional isolation check valve provides maximum protection of the desiccant from oil mist, heavy vapors, fumes, or splashing fluids.



Manifold kits available to allow up to four breathers on piece of equipment.

## Specifications:

- Check Valves (8): In/Out 0.1 PSI
- Particle Filter: 2 micron absolute (2, cartridge top and bottom )
- Mounting Connection (Female): 1" NPT, 2"NPT, 1"BSP
- Maximum Air Flow: 25 CFM
- Maximum Fluid Flow: 187 GPM
- Desiccant Cartridges: 5", 8", 12"
- Type of Medium: Silica Gel, Molecular Sieve, Activated Carbon or High Efficiency Particle Filtration
- O Ring Seals: Top Cap and Base
- Compound Pressure Gauge: Optional
- Isolation Check Valve: Optional (recommended)
- Construction Material: Tritan®



Extra cartridge for longer change intervals



Molecular sieve for use in low humidity conditions.



Activated carbon for fume and odor removal.



HEPA .3 micron filter for excessively dusty areas.