



SYSTEM AVAILABILITY

Desiccant Breather Saves Valuable Resources at Class 1 Railroad

Technical Application Bulletin

PROJECT BACKGROUND

DISCOVER



DIAGNOSE

- A Class 1 Railroad repair facility noticed their current desiccant breathers lasted only two (2) weeks on the hydraulic reservoir.
- It was discovered that the current breather was ineffectively inhaling and exhaling through the desiccant.
- It was also revealed that the set-up required a valve to release tank pressure, and a vacuum breaker check to hold the 4 psi head pressure in the tank.

- It was diagnosed that the amount of turn-over for the desiccant breather was not common, and that a better solution could and should be substituted instead.
- Schroeder expressed our capabilities in providing a lower-cost, higher-efficiency, in-tank breather solution, the DBE | Desiccant Air Breather.

INDUSTRIES



DESIGN

The design of a Schroeder DBE | Desiccant Air Breather was this customer's solution for problems with their shortened desiccant breather life.

- The DBE only uses the desiccant while inhaling.
- The DBE consists of the required check valves on the base of the breather (4.35 psi check valve) to maintain the tank head pressure.
- Both features also allowed the removal of the vacuum breather and fittings.



DELIVER

- A sample unit was sent to the customer's facility in South USA.
 - This location was notorious for limiting the life of the breathers.
- The initial testing proved that Schroeder's product lasted approx. 10x longer than the previous desiccant breather.
 - Because of these results, the DBE reduced overall usage of replacement desiccant breathers for this customer.

Hydraulic Reservoir	Without DBE	With DBE
Cost Savings / yr.	-\$40,000.00	+\$40,000.00
# of Changeouts	26 times/yr.	3 times/yr.
# of Replacements	Every 2 wks.	Every 18 wks.



CUSTOMER BENEFITS

- Decreased breather changeout charges and labor costs
- Reduced consumption of valves, fittings, and replacement desiccant cartridges
- Cost reduction of \$40,000 per year

FURTHER APPLICATION AREAS

- Hydraulic Tanks/Reservoirs
- Gear Boxes
- Wind Turbines
- New and Retrofit Applications

ROI

Reduced desiccant breather changeouts



- 23 times

Cost saving per year for changeout and labor



\$40K

Underlying values:

Reduced desiccant breather changeouts: 26 times/year (w/o DBE) - 3 times/year (w/ DBE).
 26 - 3 = 23 less changeouts.
 Cost savings per year for changeout and labor: \$40,000

PRODUCT SPECS

DBE | Desiccant Air Breather

Contamination Retention: 26g
Micron Rating: 2 μm
Operating Temp. Range: -20°F to 210°F
Storage Temp.: from -40°F
Element Material:
 Pleated Air Filter
Connection Piece Material:
 Robust Zinc Die-Casting