

Desiccant Breathers

Equipment Protection and Problem Detection

Des-Case Europe desiccant breathers attack the cause of contamination, protecting lubrication reservoirs from external contamination. They also are an effective tool to help alert you of problems with your equipment before a catastrophic failure.

Overview

Des-Case Europe desiccant breathers are designed to:

- Protect lubricated reservoirs against external contamination (dust as well as humidity)
- Prevent oil misting from lubricant reservoirs into ambient air
- Indicate water adsorption with color-changing silica gel desiccant.



Things to Know

- The silica gel in a Des-Case breather should turn from blue to pink, from the bottom of the filter to the top.
- Silica gel cannot generate or create water by itself.
- Silica gel is naturally transparent with or without the presence of water.
- We use the best colour additive to effectively show the presence of water. The additive turns from blue to pink in the presence of water molecules and turns from blue to brown (or dark blue, yellow, or orange) in the presence of oil molecules or mist.
- If the breather desiccant indicates the presence of oil, the change should not represent more than 30% of the unit.
- The average duration of a Des-Case Europe breather is about one year (based on 15 years of feedback and over 100,000 units in the field).

End users need to be aware of how to correctly use desiccant breathers, what they can tell you when they are working properly as well as functioning abnormally, how to handle and store lubricants, and how to refill lubrication reservoirs.

Des-Case can help you with training and with additional product lines designed to help customers to improve their lubrication procedures and generate profits. Please give us a call or refer to our fluid handling product information for more details.

DES-CASE
CORPORATION

Keeping contamination under control.®

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Abnormal Functioning

Abnormal duration or functioning is almost always (more than 99.0% of the time) an alert to the customer, showing that something is wrong in the lubricated system. This alert normally appears before a final failure or shutdown of the machine.

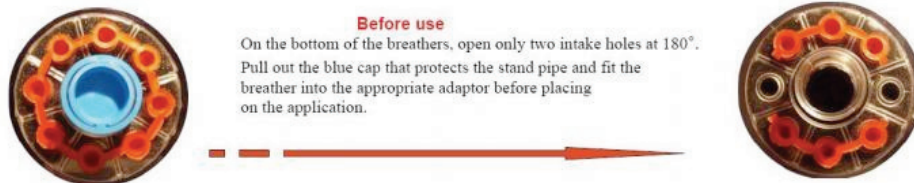
Different Alerts

- *Shorter duration:* If the breather only lasts between one week and two months, the breather may be incorrectly sized or have other issues like those listed below.
- *Blue to pink from the top (or in both directions):* This change indicates that the water molecules are coming from the inside of the system rather than from the ambient air.
- *Blue to brown (or dark blue, yellow, or orange):* This colour change indicates oil misting. Oil mist must not reach more than 30% of the volume of the breather.



Things to Check During Abnormal Functioning

1. *Intake holes:* Frequently, customers open all of the intake air holes at the bottom of the filter. For gearbox applications, please open only two air holes at 180° from each other (see installation instructions). Opening too many holes may impact the life of the unit by a factor of two to four.



2. *Oil storage:* The presence of water in the lubricated reservoir can be due to incorrect oil storage procedures. During storage periods, condensation can occur. When lubricant reservoirs are filled with this “new” oil, water is introduced to the system. In less than two weeks, the breather will change colour (blue to pink), from the top to the bottom. This can reduce breather life, resulting in usage of two weeks to two months. Customers may need to use two or three new breathers before drying their lubricant reservoir, allowing for a normal duration for a Des-Case breather.
3. *Late replacement:* Occasionally, customers do not replace the Des-Case breather when it is completely pink. This means the breather will only function as a dust filter, allowing humidity and moisture into the system until the breather is replaced. This can result in a similar situation to the one discussed immediately above.
4. *Reservoir issues:* A breather saturated with oil may mean the reservoir is filled with more oil than the maximum normal level advised by the manufacturer, the working temperature and the lubricant are not matched correctly, or there are efficiency losses in the system, creating higher than normal temperatures that create oil fumes.