

Equipment Protection Meets Problem Detection

Des-Case® Standard Disposable Desiccant Breathers



Des-Case desiccant breathers are designed to filter out two of the most harmful contaminants to today's equipment – dirt and water. Multi-tiered filtration takes care of the particles, and silica gel absorbs water from incoming and outgoing air.

Des-Case breathers are unique in their design, allowing for bi-directional, controlled airflow through their integrated standpipe, high durability polycarbonate and nylon body, and multiple air vents.

In addition to preventing particle and water ingress, they can also be an indicator of abnormally functioning equipment.

Breather Basics

Des-Case 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
- Be an early indicator of equipment issues



Things to Know

- The silica gel in a Des-Case breather 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.
- The gel should normally turn from blue to pink from the bottom of the filter to the top.
- If the desiccant indicates the presence of oil, the change should not reach more than 30% of the volume of the breather.
- The average duration of a Des-Case breather is six months to one year (varies by application).
- Consider total cost of ownership when selecting a breather. The right design for the right application will prove to be most cost-effective in the long run.

DES-CASE
CORPORATION

Keeping contamination under control.®

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Problem Detection

There are four main alerts visible with a Des-Case desiccant breather. In almost every circumstance, they point either to issues with reservoir/machine or with breather selection. As always, Des-Case is standing by with technical and customer support to help you design or troubleshoot your particular situation.

				
Problem	Short Duration	Changing Top to Bottom or (Both Directions)	Changing Blue to Brown (or dark blue, yellow, or orange)	Long Duration
Things to Check	<p><i>Reservoir Water Content</i></p> <p>If the breather changes quickly when first installed, the breather is likely working to remove water already in the system. It may take two to three breathers to dry the headspace before the breather begins operating normally.</p> <p><i>Intake Holes</i></p> <p>Frequently, all intake holes are unnecessarily opened at installation, reducing breather life. Instructions indicate how many holes are needed for various air flow requirements.</p>	<p><i>Late Replacement Cycles</i></p> <p>If breathers are not replaced when completely pink, the breather becomes a just particle filter, allowing humidity to enter the system until it is replaced. The new breather then must work to remove water in the headspace.</p> <p><i>Oil Storage Procedures</i></p> <p>During incorrect oil storage procedures condensation can occur, resulting in water entering "new" oil, and then the system. The breather must then work to remove water from inside the reservoir.</p>	<p><i>Reservoir/Equip. Issues</i></p> <p>This could indicate the oil reservoir is filled with more oil than the recommended maximum. It could also indicate a mismatch of lubricant with the working temperature or efficiency losses, resulting in fumes from high temperature conditions.</p>	<p><i>Breather Size</i></p> <p>The breather may be larger than what is required for the system. Check the recommended system sizing. The breather should be changed at one year, regardless of visible condition, to renew particle filtration.</p> <p><i>Intake Holes</i></p> <p>Check that the proper number of plugs have been removed. Instructions indicate how many holes are needed for various air flow requirements.</p>