

Breathers

In the last thirty years there is an incontrovertible raft of evidence which supports the view that the cleaner the oil can be kept in a lubrication system then, all other things being equal, the components lubricated by that oil will last longer.

The damage done to moving parts is largely by particles that the human eye cannot pick up and they can be airborne. Unfortunately, it is also a fact that the particles which are likely to do the greatest amount of damage cannot be picked up by conventional oil analysis.

Precise Lubrication runs a retro-fit breather service and can provide retro-fit kits to take your breathers from this:



This breather looks OK from the outside.



This is not OK.

The gaps around the foam filter will allow large particles to enter the oil reservoir and contaminate the oil. In addition, the foam filter itself is too coarse to keep damaging contaminants out.

Precise Lubrication will assist you to replace those and other types of coarse filters with Trico Watchdog Filters.

Desiccant Filters

Trico Watchdog desiccant filters contain desiccant material which dries the air, keeping moisture out, prolonging the life of the oil and minimising rust formation on the inside of the reservoir. Reservoirs with rust are bad because the rust can dislodge from the component and fall into the oil.

The desiccant is sandwiched between two layers of 2 µm absolute filter media providing extremely high levels of protection against airborne contaminants.



DESCRIPTION:

The Watchdog Desiccant Breathers are a unique particle filtration and water removal system. They prevent destructive contaminants from entering industrial equipment as air is breathed in and out due to thermal expansion or fluid level changes. They feature visual indication of the silica for replacement, which turns from gold to dark green.

By allowing only clean, dry air into industrial equipment, the Watchdog Desiccant Breathers prolong fluid life, reduce abrasive wear, downtime, and repair costs.

FEATURES:

Water Vapour Adsorbent - the silica gel used adsorbs up to 40% of its own weight.

Colour Indicator - When maximum adsorption is reached the silica gel turns from gold to dark green, indicating replacement is needed. The silica gel used is chemically inert, non-corrosive, and does not contain cobalt chloride, a heavy metal. The colour changing dye used is environmentally safe and meets all health and safety requirements.

Dual Filtration System - A two micron filter (99% efficiency) is located at the top and bottom of the silica gel bed. The top filter removes particle contamination from atmospheric air and the bottom helps with dust created by the silica gel beads contacting each other.

Activated Carbon - As air is expelled, it passes through activated carbon which removes oil vapours, fumes, and odours (except for part numbers 39131, 39132, 39133, and 39134).

Bi-directional air flow - A 360° air flow allows air to be breathed in and out as fluid level changes or differential pressures occur. Expelled air "backflushes" the particulate filter to prolong the life of the breather.

Durable construction - Watchdog desiccant breathers are manufactured from rugged ABS plastic and impact modified acrylic

Expansion Chambers

In severely contaminated atmospheres fitting an Expansion Chamber might be necessary.

In this instance, as the component breathes (which it does when it cools and heats during stop/ start operation) it literally breathes its own air. The atmosphere inside the component is separated from the atmosphere outside.



Equalizer Expansion Chambers are designed to prevent pressure increase in closed systems. A rolling diaphragm provides a variable volume, that when properly sized, maintains oil housing pressure at or near zero PSI. The reduced pressure will extend seal life and help prevent leakage. Expansion chambers also protect the integrity of closed systems by preventing the exchange of air from the chamber to the surrounding atmosphere. A choice of thread sizes and capacities offers flexibility to the user.

FEATURES:

- Made from corrosion resistant stainless steel.
- Controlled housing pressure extends seal life.
- Prevents contamination ingress to help lubricants stay cleaner for longer life and improved performance.
- Full 25 cubic inch air expansion capability
- Maintenance free operation