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H2O Transformer Breathers

A Breath of Moisture Free Air

Traditional silica gel transformer breathers have been thought of as the standard for moisture protection when connected to oil filled transformers used by power generation and industrial companies across North America. A sizeable amount of silica-gel is required, but another challenge comes during maintenance cycles, when changing out the silica-gel which is time consuming, costly and potentially hazardous ends up requiring more change-outs than anticipated. Power generation companies interest in the H2O Transformer Breather Kit has swelled over the past few years due to the H2O Breather's ability to extend the lifespan of silica gel in traditional transformer breathers by two to five times, reducing silica-gel change-out cycles significantly. Many companies have discontinued using Silica Gel Canisters altogether as H2O Breathers work as stand alone breather systems without the necessity of Silica Gel.

Our spin-on filters are the key because our unique filters have been designed to remove water from an air stream as it passes through the filter. When used as a conservator breather system it will not only remove particulate from air, but will also remove any water vapor. This cutting edge technology positions negative valence chemistry within the filter in such a manner as to cause a covalent bond to form with any positive valence H₂O molecules that may be passing through with the air and trapping any water vapor within the filter. These water-removing air filters perform in a superior manner, as silica-gel breather's efficiencies are limited to approximately 40% relative humidity environments due to silica-gel being a rigid structure incapable of expansion. Silica-gel only holds water as a permeating vapor that enters under the principal of vapor pressure differentials that may exist between the granule and its proximate atmosphere. Whereas our spin-on air filter's superior performance is due to its unique water-absorbing structures that are able to expand as they accommodate and hold incoming water under hydrogen bonding principals.

Once installed in front of a silica-gel breather, the ease of just spinning off the old filter and spinning on the new replacement filter takes only minutes, it's no wonder power companies are starting to see the maintenance advantages and cost savings.