

# **Two Major Sources of Lubricant Contamination**

## **Dirt**

If the atmosphere is contaminated, oil will become dirtier and lubricant quality becomes compromised. Particulate contamination, once inside an operating system, will accelerate the generation of new contaminants. These contaminants damage critical components and act as a catalyst for oxidation, further degrading the condition of lubricants.

## **Water**

If the atmosphere is particularly humid or has frequent temperature fluctuations, the oil is probably moisture-laden and lubricant quality is compromised. Often times, plant wash down activities are responsible for inducing conditions that lead to moisture ingress and corrosion.

## **What Should I Do To Help Keep Contamination Under Control?**

The good news is that these factors, which work together to threaten equipment reliability, can be effectively controlled with some cost-effective preventative maintenance techniques. The best and easiest way to exclude contaminants is to avoid practices that risk exposing lubes to contaminants. A multi-faceted program that includes some simple proactive steps can help conquer contamination.

## **Detection**

The first step is often the most difficult. Fluid sampling and testing is designed to help you critically evaluate an array of equipment information: the application, the industry, the environment the unit is in, the particular fluid used, the condition of the lubricant, and a variety of other factors. Fluid sampling results can help you quickly identify the next steps you need to take, help your team learn the basics about contamination control, and perform cost-benefit analysis to help you in your implementation of best practices.

## **Prevention**

As nearly all gearboxes, reservoirs and storage tanks are designed to breath, allowing only clean, dry air to enter the system is at the top of the list of steps to take. Replacing standard breather/filler caps with a desiccant breather immediately prevents moisture and moves particle filtration from 40 micron to 3 micron. Desiccant breathers combine a drying media with a combination of filters to prohibit the entry of water and microscopic particulates from entering the system. With a large variety of sizes, desiccants, and options, we have a breather to fit your need...or we'll help you make one that does.

## **Removal**

Filtration devices should be used to remove particles and moisture, further preserving the working life of the oil. They are not just a tool for emergency remedial measures when dealing with contaminated lubricants and hydraulic fluids. They should be used in regular, scheduled filtering intervals to help remove contaminants that have entered the system or were generated within the equipment. We provide a wide array of customizable, quality filtration units that are quickly delivered to you for use in your program.

## **The Bottom Line**

Fluid degradation can be greatly reduced through proper lubrication maintenance which effectively starts with condition evaluation, breather protection and off-line filtration. We can help you evaluate where you are, give you guidance on where to go, and provide the products to get you there. Now, implementing best practice contamination control techniques, maintaining clean, dry lubricants—and gaining the profitability that goes along with it—is easier than ever.