

Preventing water contamination of lubricants in oil sump applications

Environmental conditions including humidity, steam, rain, and large temperature changes can all have an effect on the amount of water in equipment lubrication. Water contamination of oil is a major concern and can enter equipment in several ways. It is important to understand proper application of Trico products to help reduce the chances of water infiltration into equipment. Although proper use of Trico products will help reduce water contamination, seals, vents, steam quenching, breathers, and exposure to extreme weather conditions can also allow water to enter the equipment.

Trico manufactures 3 major groups of constant level lubricators. These groups include the Opto-Matic®, Closed System Opto-Matic®, and WATCHDOG® product lines.

Opto-Matic® - These products are adjustable and vented to the surrounding atmosphere. The cushion between the glass bottle and casting in the reservoir assembly has been changed to Viton® to improve its resistance to weather, chemicals, and water infiltration (Fig 1).

Closed System Opto-Matic® - This product is adjustable and non-vented. The unit comes with a level adjustment indicator for quick and accurate level changes and viewing. It requires a vent tube be connected from the lubricator to the equipment to ensure air pressure equalization without venting to the surrounding environment (Fig. 2).

WATCHDOG® - This product is mounted directly on the level to be maintained and is non-adjustable and non-vented. The unit requires no additional tubing or adjustments, but does require a ¾" or 1" NPT port directly on the centerline of the desired oil level (Fig. 3).

Trico recommends the use of non-vented lubricators where environmental conditions make water contamination in equipment lubricant a concern. Additional Trico products such as expansion chambers, oil dryers, viewports, and sump bottles can help prevent water contamination of lubricant.

