



Quinplex® White Gear Oil (4090) Esco Oil Sight Glasses Des-Case® Desiccant Breathers

Beaufort Jasper Water & Sewer Authority – S.C. Water Treatment Plant

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Customer Profile

Beaufort Jasper Water and Sewer Authority provides the main source of water to area Coastal communities. Their service area extends over 1,500 square miles across two counties in South Carolina.

The rapid growth of the coastal area demands that they continue to invest and maintain their equipment at peak performance. Today the water plants can process over 39 million gallons per day.

Application

Beaufort Jasper has twelve mixer gear units on the flocculate basin at one of their water plants.

Challenge

An area of concern was the twelve mixer gear units on the flocculate basins. The units were converted from H2 oil to H1 Food Grade, since the mixers operate above the water. Lubrication Engineers Quinplex® White Gear Lubricant (4090) was selected. It is NSF and USDA H1 for food processing equipment. It has excellent load-carrying, wear-reducing and non-foaming properties. Quinplex 4090 contains LE's proprietary additive, Quinplex®, that enhances lubricant performance.

A routine oil sample showed above normal water levels. The maintenance department, decided a proactive preventive program was needed. With the help of Helmut von Schweinitz, LE lubrication consultant, the following procedures were implemented.

LE Solution

- Esco Oil Sight Glasses were installed on drains to detect and drain off accumulated water.



- Des-Case® Desiccant Bladder Breathers were installed on the gearboxes to seal the gearbox from outside humidity and contamination.





- Depth Filtration was used to remove moisture and clean particulate contamination from the oil.
(Note: sample of oil before and after filtration)



Results

The results in this application have encouraged the technical maintenance department to look at other equipment applications that can benefit from the Oil Sight Glasses and Desiccant Breathers. In this application, they have saved untold costs in downtime and oil changes by using these preventive maintenance steps. They are moving from traditional change the oil every six months to condition based monitoring. The maintenance department notes "It is easier to use these tools that detect and prevent contamination in equipment than the costs to clean up or rebuild a contaminated gear box."



Thank you to Al Legare, maintenance director, the maintenance staff, and to Helmut von Schweinitz, LE lubrication consultant (pictured), for providing the information used in this report.



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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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