Chesterton Connect[™] Sensor Helps to Determine the Cause of Costly Seal Failures

Wastewater Treatment - Power Industry Chesterton Connect Sensor or System Equipment Monitoring Case Study

Challenge

Background

An OEM installed several large (14.250") seals on vertical wastewater pumps. The pumps continuously failed over several months resulting in warranty service calls and downtime costs. The OEM needed a method that would help them identify the causes of pump failures to help them improve pump uptime.

Solution

Product

The end user was sure they had adequate Plan 32 flush flow and pressure to the seal. The dial pressure gauge on the Plan 32 support pump indicated 42 psi. However, the support pump providing the seal water flush was very far from the main pump where the OEM's seal was failing.

After a seal failure analysis was performed, we recommended the **Chesterton Connect™ Sensor** to be installed directly at the seal's flush line inlet to determine what the problem was.

Results

Improved Productivity

Data from the **Chesterton Connect Sensor** was recorded 24/7 and confirmed that there was low flush pressure at the seal chamber (despite a manual gauge showing adequate pressure). A previously undetected strainer was found clogged in the Plan 32 flush line between the support pump and the main pump.

The Chesterton Connect System helped solve the problem, saving the customer approximately \$150,000 and helping prevent future failures on all of the other pumps commissioned off the same main flush line.

\$ = US Dollar



Vertical wastewater pumps.



Plan 32 support pump dial pressure gauge.



Chesterton Connect System data showed low flush pressure.