

Challenge

Background

A customer was experiencing premature mechanical seal and bearing failures upon start up on a centrifugal hydrate pump due to excessive vibration. The pump operates intermittently and has a high concentration of suspended solids (NAOH/hydrated pulp) that settle at the bottom of the volute when not operating.

Upon restarting the pump after 2 – 3 days, there is excessive vibration in the pump caused by solidified deposits.

Solution

Product

The Specialist recommended installing a **Chesterton Connect™ sensor** to monitor the equipment and help troubleshoot the issue.

The **Chesterton Connect™ sensor** was able to diagnose that excessive vibration occurs only during startup. This was not previously detected by traditional vibration analyses because the pump had never been tested at startup.

To alleviate the issue, operations opened the suction strainer and volute to clean prior to restarting the pump.

Results

Increased Reliability, Reduced Downtime

The customer was very satisfied with the ease of use and ability of the **Chesterton Connect™ sensor** to diagnose, troubleshoot, and help resolve the issue.

As a result, maintenance will continue to use this tool throughout the plant.



Centrifugal Hydrate Pump



Chesterton Connect™ sensor



Chesterton Connect™ sensor installed and operating.