

Hydro Servo Motor Seal Upgrade Significantly Lowers Leakage

Hydropower Industry
11K Rod Seal, 9K AER
Polymer Seals Case Study

Challenge

Background

Servo motor actuators at a 60 year-old hydropower plant were continually leaking. The leakage caused unplanned downtime. Further oil leakage if found in water could result in environmental fines.

Solution

Product

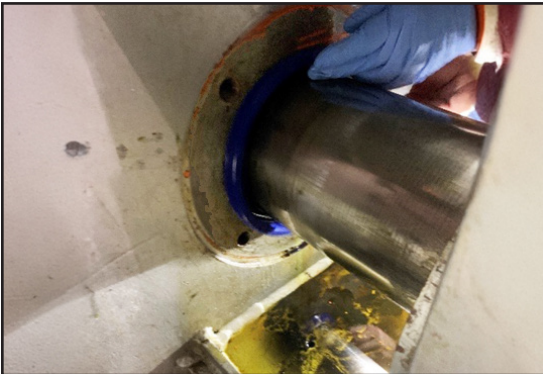
Chesterton's EPS Engineering recommended an upgrade to a **Chesterton® 11K Rod Seal** with a **9K Backup AER** to help.

The **11K set** is made from **AWC825** primary and **AWC800** backup seal rings. Either of these thermoset polyurethanes are resistant to hydrolysis. Further, the dual material approach conforms to surface irregularities to create a positive seal.

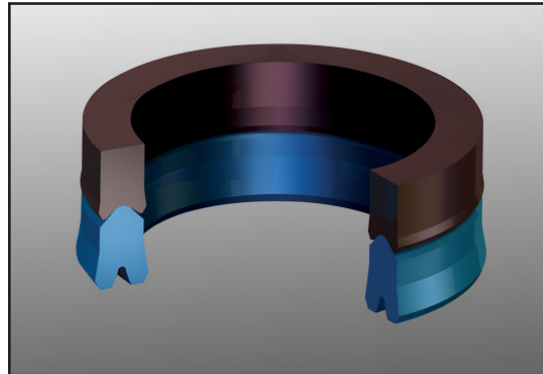
Results

Significantly Lowered Leakage

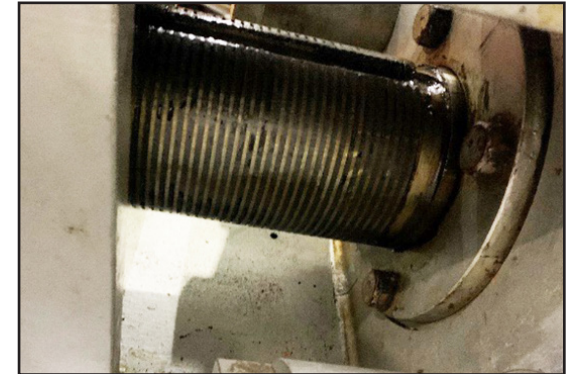
Installation took less than one (1) day to complete on four (4) servo motor actuators, with minimal equipment disassembly necessary because of the split design. Environmental concerns were averted due to the drastically reduced leakage versus the OEM seals.



Observed leakage from existing seals.



Chesterton 11K Rod Seal.



No leakage observed after install and subsequent startup.