Seal Flush Water Conservation

SOLUTION

Installing Chesterton Split Seal and SpiralTrac Environmental Controls

Our Customer’s Challenge

Great Neck Water Pollution Control District: Excessive water consumption for seal flush on 3 existing pump assemblies. Cost incurred for both purchasing city water and for treatment of effluent. Shaft damage caused by mechanical packing.

CPE’s Solutions

Configuration: pump station consisting of three pumps, primary pump operational 24hrs/365days, secondary pumps running as necessary.
Solution: installed A.W. Chesterton 442 Split Mechanical Seals, SpiralTrac water reducing environmental controls and flow meter to regulate seal flush water.

SpiralTrac for Municipal Applications
SpiralTrac is a revolutionary environmental controller for seal and packing chambers, and has established new standards worldwide for exploiting the maximum performance potential of rotating process equipment in many municipal and waste treatment areas.

What does it do?
A SpiralTrac Enhanced Environment increases the sealing element life, while decreasing flush and product leakage at the same time.

What applications?
Typical municipal industry application areas include water, sludge, re-circ, and other water/wastewater service areas.

“...The decision was made late summer 2009 to convert our packed pumps to split seals and SpiralTracs. The goal was to reduce seal flush water with a mechanical seal and the added benefit of reduced wear of the pumps. The results have far exceeded my expectations. We are saving more than $6,500.00 per year on the water bill. More importantly, we are saving more than 1,230,000 gallons of drinking water per year, compared to our former packing system. I would recommend this type of conversion to any applicable waste water facility because it is both an economically and environmentally responsible upgrade.”

Christopher Murphy - Plant Superintendent, Long Island, NY

Water Savings

CPE Installed the 1st Chesterton Split Seal, SpiralTrac & Flow Meter at the end of 3rd Qtr. 2008

367,268 Gallons consumed reduced to 61,336 Gallons

Yearly average water usage has been reduced by 85%, a savings of 1,230,000* gallons, a $6,500+/yr. annual water bill savings.

* Savings based on results after the 3rd pump was converted – 2nd quarter 2009. Excluding 2nd & 3rd quarters 2010 – storm damage power loss and generator cooling system failure required city water flow for heat exchange – the condition lasted for 9 days and consumed close to 300,000 gallons of water.