

### Challenge

In large metropolitan areas, daily flows of wastewater can add up to hundreds of millions of gallons. Multiple high volume pumps are required to move the wastewater entering the wastewater treatment plant. Due to the large shaft sizes, influent pumps are typically sealed with compression packing. Solids from wastewater accelerate the normal sleeve wear, causing excessive wastewater leakage and equipment damage. This issue leads to significant downtime to replace bearings, shaft sleeves, and disassemble and transport these large pumps.



Large influent pump station.

### Solution

The wastewater treatment plant installed ten 15¼ inch (387 mm) **Chesterton Large Split Seals** in the influent pumps.

**Chesterton SpiralTrac™ F/S** environmental controllers were installed in each pump to ensure that wastewater solids and other contaminants will not enter the stuffing box, enhancing both seal life and system reliability.

**Chesterton Split Seals** were installed without having to dismantle or move the pumps, significantly reducing the complexity and downtime required to repair and operate.

#### Why Use Chesterton Split Seals?

- Eliminate equipment tear down and the associated downtime
- Easy installation
- Leak-free technology
- No packing or break-in requirements
- Reduces or eliminates flush water usage
- Proven technology for reliable operation
- Reduce maintenance and operating costs
- Field repairable

### Results

The Chesterton sealing solution eliminated all operational leakage.

This success in turn, eliminated all the clean up requirements and the safety issues that plant personnel had to tackle previously.

#### Enhanced Reliability

The large split seals increased the average MTBF to 9+ years of maintenance free operation. Plant personnel can breathe easier knowing that their pumping systems are available for excessive demand requirements at significantly reduced maintenance and operating costs.



Chesterton large split seal installed.

SpiralTrac™ is a trademark of EnviroSeal Engineering Products Limited.

Technical data reflects results of laboratory tests and is intended to indicate general characteristics only.

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