



Case Study

Reducing Maintenance Costs: Sheraton hotel replaces wastewater pumps for lower maintenance and improved uptime

Overview

The Sheraton hotel in downtown Denver, Colorado, utilizes three wastewater collection pits. Each pit has two vertical column pumps operating as a dual system so that when the primary pump fails, the secondary pump engages. The Sheraton's maintenance team was finding increasing challenges with this particular pump system, costing the hotel extensive operating expenses.

The 15ft vertical columns, housed in very narrow spaces, were difficult to remove and install. Increased use of flushable wipes and other hygienic materials by hotel guests created build-ups of fibrous materials in the hotel's wastewater collection pits. The old vertical column pumps frequently clogged, and over time corroded away.

"The vertical column pumps had been removed many times over the years. They were rusting out badly, and they were so old that they weren't worth maintaining anymore," explains Dawit Anteneh, Sheraton's Central Plant Stationary Engineers Supervisor. Frequent replacement of the pumps motivated the Sheraton team to look for alternative pump options.

PROBLEM

- Frequent clogging due to flushed fibrous materials Corrosion and rusting over time
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- Challenging maintenance environment issues due to clogged and corroded pump systems increased operating costs



Solution

The Sheraton's Central Plant Engineering team identified the Industrial Flow Solutions™ compact BJM™ SK Series corrosion-resistant, solids handling, non-clog pumps as the best solution. This shredder pump features a wear-resistant Tungsten carbide-tipped cutting impeller designed to tear, break and rip solids. SK Series pumps can handle up to 3.5" solids at 845 GPM with a maximum head of 94 ft. These pumps easily handle flushable wipes and other fibrous materials that had been clogging the hotel wastewater system.

The SK Pumps are made of cast iron and 304 stainless steel to protect them in a corrosive environment. Their winding protection and (NEMA) Class F motor insulation make them superior to Class A or B insulation. It allows the motor temperature to reach 230°F before the automatic switch turns the pump motor off. The pumps can therefore operate safely with a near non-stop pumping cycle required to process wastewater for a high occupancy hotel.

The maintenance crew appreciated that the SK Series shredder pumps are only two feet tall, with the motor and wet end combined in one compact unit. This made installation, removal and future maintenance in the narrow vertical columns much easier and more cost effective. The SK Series pumps have been performing at a much more reliable and cost-effective rate.

“We have less maintenance and saved so much in preventive maintenance costs.” Dawit Anteneh, Sheraton Plant Supervisor



FEATURES

- Compact with pump, motor and wet end in single unit
- Engineered to shred solids from 1.6"- 3.5"
- 3-Seal motor protection
- Corrosion-resistant, solids-handling non-clog

APPLICATIONS

- Commercial Buildings
- Municipal Water & Wastewater
- Food & Beverage
- Mineral & Mining
- Pharmaceutical & Medical

RESULTS

- Corrosion resistant for longer lifespan
- Efficient handling of fibrous materials reduced clogs
- Faster and efficient removal for bench servicing
- Reduced overall cost of ownership



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