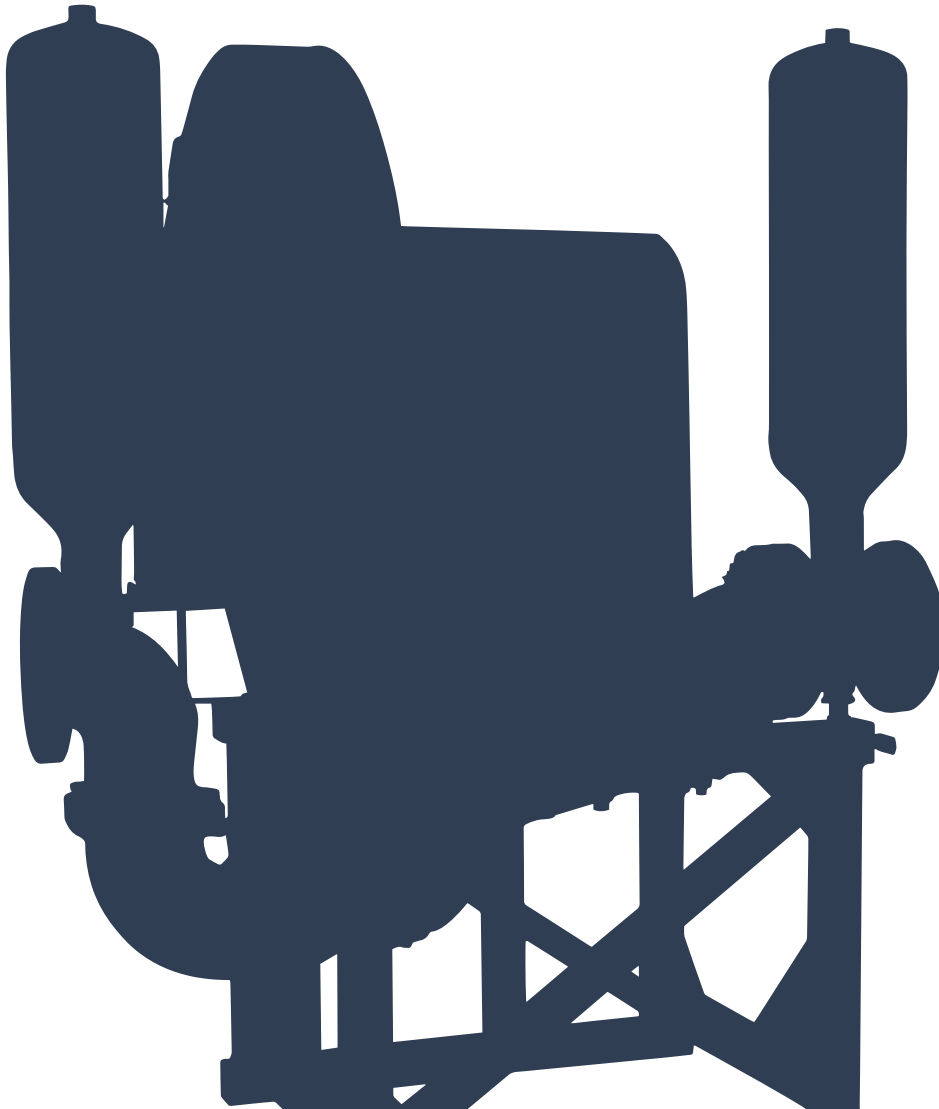


Replacing Pumps are Key to Avoiding Downtime

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A New Lease on Pump Life

Replacing aging sludge pumps with a low-friction, low-maintenance design keeps a Maine sewerage district's clean-water plant reliable and efficient

Wastewater treatment facilities are critical for maintaining the level of sanitation our communities rely on for public health. These plants remove solids and pollutants, break down organic matter and restore the oxygen content to treated water. Without these facilities, untreated wastewater and sewage destroys aquatic ecosystems, and can potentially threaten human life.

Wastewater treatment not only protects humans; it also protects the ecosystem. Keeping the pumps that purify this water up and running is crucial. There is little room for failure. So, what happens when parts break or a pump begins to fail? How do treatment facilities provide clean water to its community? One facility in Maine found themselves in that exact situation and was put to the test.

FIGURE 1

Pictured is the centrifuges used at Sanford Sewerage District

Protecting Public Health and the Environment

Sanford Sewerage District, located in Sanford, Maine, has been protecting public health, water quality and the environment since 1947. The multi-million-dollar facility manages 70 miles of gravity and 16 pumping stations that convey wastewater to the treatment plant for sanitation.

It is one of the largest facilities in the state and treats the septage from surrounding towns as well. So, when its two progressive cavity pumps, which feed sludge to its centrifuges, needed to be replaced because seals, rotors and stators were wearing out, something needed to be done.

"It became very apparent that we needed to do something with our pumps. Not only did it start to become costly with repairs and parts needing to be replaced constantly; our pumps also began to experience downtime because the parts needed to make repairs had long lead times," said Scot Lausier, chief operator, Sanford Sewerage District. "This is not something you want happening when





you are the wastewater facility protecting the waterways in your area and the areas that surround you. Our customers are counting on us. They trust us. We can't have our pumps failing. We can't let our community down."

Searching for a Reliable Solution

At the heart of it, having reliable pumps is key. Failure is not an option. Sanford Sewerage District needed to find a pump with technology that could handle grit with less wear and tear issues. "We couldn't risk any more setbacks or failure," said Lausier. "We needed to look at our issue in a different way, because replacing the pumps we were currently using with ones just like them wasn't going to solve the problem in the long run," he continued.

Sanford Sewerage District looked at several different pumps, including ones that used rotary lobe technology and progressive cavity technology. They even looked at a diaphragm pump. But during the research phase, each was crossed off the list because it was clear that they wouldn't be able to withstand the harsh environment that they would be exposed to, day after day.

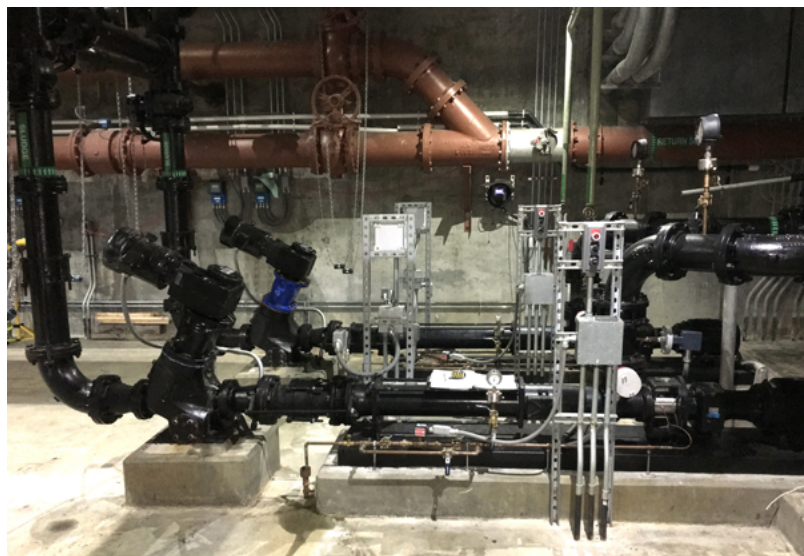


FIGURE 2

Original pumps used at Sanford Sewerage District

The Answer Was Right in Front of Them

At the facility, a variety of liquid processes are pumped and transferred to different locations for treatment. The district had been using a septage transfer pump from PVP in its facility for quite some time. The pump had the ability to transfer millions of gallons of septage with no issues whatsoever. Knowing this, Lausier decided to get in contact with PVP and see what they had that could replace the district's two progressive cavity pumps.

It was suggested that Sanford Sewerage District use Double Disc Pumps. These pumps have

an extremely low wear rate due to their low friction design and can last thousands of hours between rebuilds. At first, engineers were concerned that there could be possible sludge feed pulsation from this type of pump, but after installation their concerns were nullified.

"The Double Disc Pump was a perfect option for us. Not only was there a local representative from the company that could answer any question or concerns we had; there was also



replacement parts at the ready if we ever needed them. These pumps are also easy to maintain because of their 'Maintain in Place' hinged housing design that allows for quick and straight forward disassembly and reassembly. The pump only has five elastomeric components and a gasket set. This makes getting the pump back into service quick and easy if it ever goes down," explained Lausier.



Sanford Sewerage District has been using the pumps for over two years with no issues. "We have had zero maintenance issues. Pump #1 has 4,500 hours of run time and Pump #2 has 3,500 hours of run time. We could not be happier."

By replacing its pumps, Sanford Sewerage District continues to speed up the natural process of purifying water and protect its community from harmful and toxic elements found in wastewater. They will never have to worry about missing a beat.

FIGURE 3

PVP Double Disc Pump
being used at Sanford
Sewerage District