

# Roseburg Urban Sanitary Authority VFD Replacement

Nothing lasts forever, and when the Roseburg Urban Sanitary Authority decided to replace the aging drives in its mission-critical lift station, it turned to Whitney Equipment for the latest in electric motor variable speed drive technology.

Located in Southern Oregon's Umpqua Valley, RUSA handles the sanitary sewer needs of the quickly growing Roseburg area. The wastewater conveyance and treatment system it owns covers about 10,000 acres, and includes 160 miles of mainline sewer pipe, 10 lift stations and a wastewater treatment facility with a design capacity of 7.9 million gallons per day.

The Winchester Lift Station facility in Winston, Oregon, had been outfitted in 1991 with 200hp Robicon drives to run the centrifugal pumps that moved wastewater to the treatment facility. Failure was not an option, since one-third of Roseburg and its environs feed into the lift station.

But after nearly 20 years, the Robicon drives were sorely in need of replacement with more efficient, streamlined units. Parts were obsolete and a more modern solution was called for. In addition, RUSA needed to save time and money by fitting the new drives into the existing Robicon enclosures. Maintenance supervisor Kevin Bruton of the Jacobs operations management team, which operates the RUSA facility, turned to longtime partner Whitney Equipment for the solution.

Whitney offers products from a wide variety of manufacturers to meet specific instrumentation and control needs. RUSA's choice was the ABB ACQ580 200hp drive. "I have 35 years of experience with other drives, such as Danfos, Allen Bradley and Siemens, and found that ABB drives are more reliable, have easier installation and more user-friendly troubleshooting, service and programming," Bruton says.

The ABB ACQ Water drive offers high efficiency with an easier-to-use interface, as well as quiet operation.



The drive features low energy consumption and optimal motor control, with a built-in energy control mode, and energy calculators to help the users monitor and fine-tune processes. The ACQ drive also has built-in water application functionalities, including intelligent multi-pump control, sensorless flow calculation, soft pipe fill, pump protection and cleaning functions which are specifically designed for use in water utilities.

“Basically, the new variable frequency drives are using less amps to pump the same amount of water the old drives pumped,” says Dave Bobbett of Whitney Equipment. “They are very easy to program, and run very quietly.”

And they fit the existing enclosures, a big plus for RUSA’s budget. Whitney Equipment tries to save its customers money – as much as 40% – by retrofitting whenever possible. In RUSA’s case, the new drives fit the cabinet footprint, and the airflow, fans and ventilation were all in good shape, allowing for a trouble-free installation.

The first ABB drive was installed in December 2020 and the second in May of 2021. Bruton says he is looking forward to a long service life with no issues. “Whitney is a pleasure to work with and the support I get from them is great,” Bruton says. “I would recommend them to any municipality looking for quality equipment and service.



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