Tough Enough

Seals Solve Nagging Problem

When is comes to seals, Randy Webb has lots of ideas. He works for JNO J. Disch Co., specialists in mechanical packings, gaskets and seals. When he spoke recently to one of his chemical plant customers in northern Ohio, for example, he suggested an idea that he was sure would solve a nagging problem at the facility. Over the past five years, the chemical plant had been seeking an alternative to the double titanium mechanical seals used on a series of ANSI pumps. The mechanical seals had limited durability in the corrosive environment of the plant &#151 the piping system was used to pump brine solution throughout the plant. In most cases, the seals lasted a mere four weeks. Some held out for six weeks.

These titanium seals cost $1,500-$1,800 to replace and required the shutting down of plant equipment during repairs. Since there are 11 pumps in the pump system in the plant production line, the use of double titanium mechanical seals could mean as much as $215,000 or more in repairs for one line during a given year plus lost production time. Webb wanted to try a new concept and replace the mechanical seals with the Hydra-Just Sealing System developed by Garlock Sealing Technologies. He convinced his customer to test the new system, who suggested the new seals be tried in a closed-loop, pressurized-control tank system &#151 one of the more challenging pumps.
When the results were analyzed, the new seals outperformed the double titanium seals in every way. They lasted 12 weeks, nearly three times longer than the double titanium seals. They also were less expensive and cost less to install, which translates to greater service time and uninterrupted production. In fact, if the new seals are used to replace all the mechanical seals on just one 11-pump system in the plant, $150,000 to $175,000 can be saved per year.
"We're excited about the potential," said Webb. "This will enable the plant to take these savings and invest in further efficiencies within the facility."
The new seals, used as a standard replacement part for the plant's 200 pumps, are now a storeroom item at the plant. Not a bad idea.
Information: www.garlock.com

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