

bubble tight on return flow/back pressure.

Check out Proco Products' newest inline valve, the 790 Series Valve, with the industry's lowest head pressure to open that still ensures a virtually full port design. The valve can even be offered to fit elliptical- and oval-shaped pipes.

Visit Booth M21



Smith & Loveless Inc.

Smith and Loveless engineers and builds packaged pumps and lift stations, grit removal systems for municipal headworks and industrial process streams, and a complete range of wastewater treatment systems. The company's factory-built concepts pave the way for thousands of municipalities and industrial end-users to reap the benefits of complete, single-source solutions designed to facilitate the ease of operation and maintenance while offering long service life. Seventy years of experience include tens of thou-

sands of installations in more than 70 nations on all seven continents.

Smith and Loveless' above-grade, packaged pumping systems provide a strong, worker-safe alternative to submersible pumps in a sump or pit, eliminating confined space hazards with all mechanical equipment and pumps at grade level.

In headworks, the company provides SCHLOSS™ Screens and the PISTA® Grit Removal Systems. The highest grit removal efficiencies originate from the PISTA Grit Chamber's unparalleled hydraulic design, including its flat chamber floor, patented and lowenergy axial-flow propeller. The combination creates a vortex that separates grit from organics and the waste stream.

For wastewater treatment, the space-efficient TITAN MBR<sup>TM</sup> Membrane BioReactor system and biological treatment plants are tailored to specific effluent requirements, enabling facilities to meet compliance and water recycling goals. Smith and Loveless is based in Lenexa, Kansas, United States.

Visit Booth M24



## Tube failure detection built into FLEXFLO® Polymer Pump

Blue-White's new TFD+ (Tube Failure Detection) is built-in to every FLEXFLO® Polymer Pump at no additional cost. This breakthrough technology is designed to detect the presence of oil and water-based polymers in the pump head; which would indicate tube failure. When the TFD+ senses tube failure the pump automatically shuts off and will energize a relay; permitting communications with eternal equipment, such as a backup pump, an alarm or a SCADA system. There is no false triggering caused by condensation or washdown procedures.

The pump will not resume operation until the problem is resolved. The exclusive TFD + system is designed to eliminate costly polymer spills and downtime required for cleanup.

## New Caprari pumps for demanding industrial use

A new range of high-pressure multistage surface horizontal pumps, series PMXT Endurance, can achieve performance values up to 100-bar pressure with top-level efficiency, according to the Italian pump manufacturer Caprari Group. The Milan-based company manufactures centrifugal and electric pumps for clients worldwide.

The pumps are manufactured of AISI 316 stainless steel precision castings suitable for harsh operating conditions. Also available are full duplex and full super-duplex versions, which are suitable for extreme industrial applications such as reverse osmosis, seawater fire prevention, seawater injection, and others. The balanced mechanical seals have been selected specifically for industrial applications.

The Caprari axial thrust compensation system is present on all pumps in the new series, minimizing the loads that persist on the bearings of the machine to give the product a long life.

The wear rings are replaceable, self-lubricated, and made in duplex with anti-seizing properties. This solution also makes it possible to minimize the gap between the impeller and the wear ring, improving hydraulic efficiency and avoiding seizure problems.

Optional PT100 probes are useful for monitoring bearing temperatures. Together with the vibration probes, which are also optional, it is easy to monitor the wear level of the bearings, thus preventing costly downtime.

## AdEdge and Rotec sign FR-RO licensing contract

In February 2018, AdEdge Water Technologies announced that it signed an exclusive licensing agreement with the Israeli company Rotec LTD to commercialize and distribute Rotec's Flow-Reversal Reverse Osmosis technology w(FR-RO) in North America.

The FR-RO uses standard nonproprietary equipment and can be implemented in newly built municipal and industrial RO systems and can be retrofitted to existing RO systems. FR-RO technology achieves recovery rates that are 10 to 20 percent higher than standard RO systems.

The technology is based on two principles: the reversal of water flow in the pressure vessels and block rotation. This technology, which result in higher recovery rates, addresses a recurring operational challenge of scaling and biofouling.

AdEdge President and CEO Rich Cavagnaro says, "Adding FR-RO to our portfolio is in line with our ongoing effort to focus on high recovery, low-waste, and environmentally friendly solutions and join the global industry initiative to adopt circular water management practices and technologies: reduce, reuse, and recycle."

