

INNOVATION NEWS

LATEST DEVELOPMENTS FROM THE LEADING PROVIDER OF WATER DISTRIBUTION PRODUCTS AND SERVICES



SENTRYX SOFTWARE ENABLED SUPER CENTURION HYDRANT

MUELLER EXPANDS CAPABILITIES OF AMERICA'S MOST POPULAR FIRE HYDRANT – THE SENTRYX SOFTWARE ENABLED SUPER CENTURION HYDRANT

The Super Centurion® hydrant can now serve as a communications hub and physical platform for both the Hydro-Guard® pressure monitoring system and EchoShore®-DX leak monitoring system. These proven pressure and leak monitoring solutions are integrated seamlessly into existing water infrastructure and communicate via the cellular network to the cloud based Sentryx™ Water Intelligence Platform.

The scalable, cloud based Sentryx platform records and displays important data communicated from the hydrant, providing utilities with insights to make informed decisions on increasing the life of their infrastructure and lowering future capital cost. Reports, data and notifications gathered from the Sentryx platform can be pushed to workforce management software,

billing software, meter data management or other utility software platforms making it easy to streamline operations. The Sentryx platform can interface with other software platforms and third-party devices to accommodate specific utility needs.

GPS	Nearby Address	PCN Score	Most Recent Recording Date	Date Created	Days recorded above threshold	Hydrant 1 D1	Hydrant 2 D2	Status	Note	PCN ID	
3774007	-122.43365 58 Digby St	0	4/26/19, 5:00 AM	7/24/18, 4:12 PM	21	675	3991	673	3991	Field Investigation Recommended	39
3774156	-122.42952 78 Harper St	0	4/26/19, 5:00 AM	7/24/18, 4:50 PM	41	623	7248	684	2881	Usage	25
3773889	-122.4277 90 Whitney St	0	4/26/19, 5:00 AM	7/26/18, 7:43 AM	43	632	7481	678	2018	Field Investigation Recommended	79

Leak and pressure monitoring options are available for the Sentryx software enabled Super Centurion hydrant as a new hydrant or as a retrofittable kit. Now, new technology can be placed in existing fire hydrants avoiding the need to dig. The retrofit kit supports Mueller 5-1/4" Centurion hydrants, with bury depths of 3'6" to 6' that have been in operation since 1975.

For more information on the Sentryx software enabled Super Centurion hydrant visit smarthydrant.com.



WARRINGTON TOWNSHIP ACHIEVES REMOTE PRESSURE CONTROL WITH SINGER VALVES

Warrington Township in Pennsylvania added two Singer® control valves and retrofitted five existing mechanical control valves with electrical pilot systems in order to manage pressure fluctuations caused by a necessary rerouting of water through the distribution system. By adding electrical pilots to the existing mechanical valves that had been in operation for years, they could now independently control each valve and monitor the pressure and flow. This gives operators the ability to change the parameters to meet the demand without producing fluctuating pressures throughout the system. The SCADA system is programmed to communicate with the Singer controls and has alarms that will notify the operators of any changes defined in the operating parameters.



ECHOSHORE-DX LEAK DETECTION SYSTEM HELPS OMAHA UTILITY DISTRICT REDUCE WATER LOSS & CUSTOMER SERVICE EFFICIENCIES

In 2018, the **Metropolitan Utility District (MUD) in Omaha, Nebraska** experienced almost 500 water main breaks. MUD has made a public commitment to reduce the number of main breaks, minimize water loss and replace aging water infrastructure. MUD has partnered with Echologics® for a pilot program installation of an EchoShore® -DX (ESDX) leak detection system on 50 fire hydrants within the downtown area of Omaha. The objective of the program is to minimize the costs associated with lost water, watermain repairs and customer service disruptions. Approximately 29,000 linear feet of distribution water mains are to be monitored by the 50 ESDX nodes. MUD continues to see positive results.



An Overview Map of ESDX Deployment Area in Omaha, NE (ESDX Nodes Indicated by Green Box)



Hydrant with DX node in Downtown Omaha

MUELLER ACQUIRES PRATT INDUSTRIAL

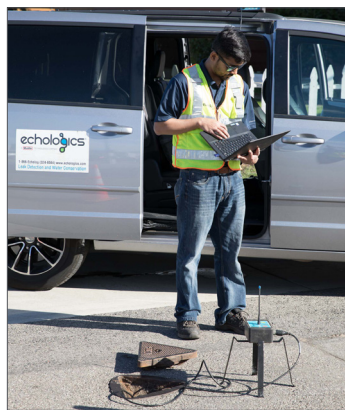
Mueller® recognizes that industrial valves are both a natural adjacency to many of the company's existing products and the market represents a multi-billion-dollar opportunity, serving a variety of end users from power and chemicals to pharmaceuticals and paper.

By leveraging Mueller resources moving forward, Pratt Industrial® will continue the success in providing innovative products and superb customer service to industrial customers.

REGION OF PEEL'S WATERMAIN CONDITION ASSESSMENT USES ACOUSTIC VELOCITY TESTING

Ontario's Regional Municipality of Peel is the third largest water utility in Canada, servicing a population of approximately 1.38 million people. Roughly 510 km of the 4,500 km of watermains are metallic pipes that have approximately 10-15 years of expected service life remaining and the region has been replacing 15-20 km of metallic watermains per year over the last 5 years. The current program plan is to replace all remaining metallic watermains within the next 20 years, so identifying and prioritizing replacement of the pipes in the worst condition is very important in order to minimize leakage and pipe bursts during this time frame.

To do this, the municipality used Echologics ePulse® acoustic velocity testing to identify sections of pipeline with reduced structural stiffness and estimate the average remaining structural strength or wall thickness. Non-invasive and non-intrusive, this technology enables rapid inspection of large areas of a water distribution network without removing the pipelines from service, avoiding service interruptions, or costly excavations.



KRAUSZ® USA LAUNCHES INDUSTRY'S FIRST WEB-BASED APP FOR FINDING PIPE REPAIR PRODUCTS

The new **HYMAX® Digital Application Selection Guide (HYMAX DASG)** is a unique web-based app that enables users to find the right HYMAX product for any water or wastewater pipe repair. The first of its kind among pipe repair product suppliers, the App allows users to search for HYMAX pipe repair solution according to the:

- field situation of the repair, such as a crack or hole in the pipe
- application, e.g. if a pipe needs to be connected or restrained
- HYMAX product name



With smartphones and other mobile devices used everywhere, the HYMAX DASG is an effective tool for providing information and solutions to almost any field situation at the click of a button.

The App is an ideal reference tool for everyone involved in water and wastewater pipe repair, including:

- **Installers in the field** so they can access detailed specifications and recommend repair solutions for any kind of field situation, as well as access installation instructions on site.
- **Operations directors and superintendents** so they can easily compare different solutions and choose products for any installation.
- **Purchasing directors and warehouse managers** who need to maintain pipe repair inventory.
- **Engineers** who need to reference product for project planning and compiling tenders.



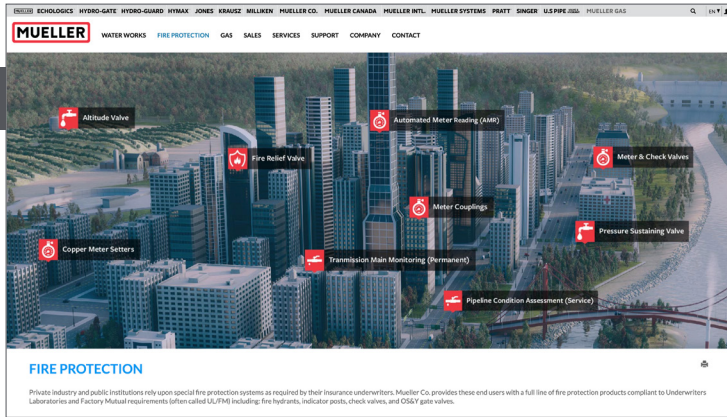
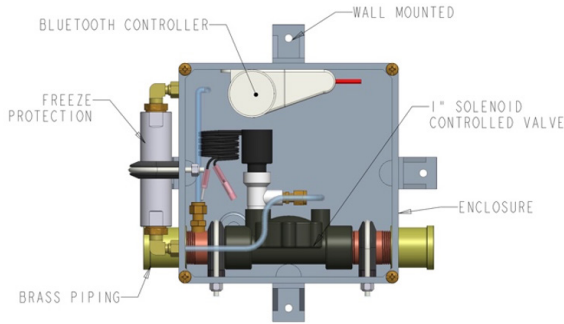
HYDRO-GUARD INDUSTRIAL FLUSHING SYSTEM KEEPS WATER CLEAN DURING THE PANDEMIC

The Hydro-Guard® Industrial Flushing System is ideal for keeping water clean, particularly in facilities that are experiencing reduced and interrupted water usage during the pandemic. The system is designed for small-sized water lines where water quality conditions, water age or excessive temperatures require water to be turned over frequently. Protecting water quality, and keeping water moving to prevent stagnation that can give rise to an increase in biofilm or lead leaching, is critical.

The Hydro-Guard Industrial Flushing System allows schools, commercial buildings, hospitals and manufacturing facilities to reduce operational expenses. By using less water to flush the lines and less staff-hours to maintain equipment, while bringing consistency to the flushing effort, these devices have the ability to give a return on investment within one year.

The flush schedule is managed by a Bluetooth controller that is powered by a single 9-volt battery, so annual maintenance costs are less than \$10 USD. For more advanced system monitoring and management, the system can be upgraded to include SMART water quality monitoring, an upgrade that triggers flush events when preset levels of chlorine, temperature, pH, turbidity, flow and/or pressure is detected.

For more information on the Hydro-Guard visit muellercompany.com/water-works/hydro-guard/



MUELLER LAUNCHES NEW INTERNATIONAL WEB SITE

For our valued global customers, mueller-international.com is officially live!

The website showcases a broad product and service portfolio with a friendly user experience, designed to meet the needs of the global market. Specifics include newly developed data sheets as well as detailed regional information about a wide range of solutions, including engineered valves, fire hydrants, metering products and systems, leak detection and pipe condition assessment. Sales teams contact information can be easily located using an interactive map to identify local Mueller® sales personnel or channel partners. We look forward to your feedback.

MUELLER® | ECHOLOGICS® | HYDROGATE® | HYDRO-GUARD® | HYMAX® | JONES® | KRAUSZ® | MI.NET® | MILLIKEN® | PRATT® | PRATT INDUSTRIAL® | SINGER® | U.S. PIPE VALVE & HYDRANT

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