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November/December 2021 ■ Volume 3 ■ Issue 6

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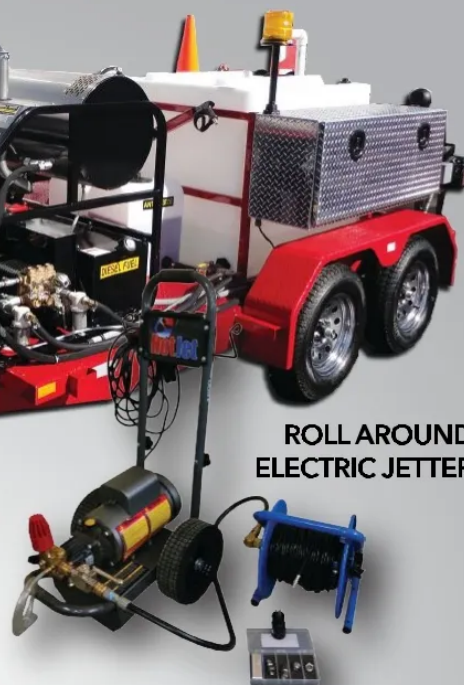
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Editor's Message

A Return to Normalcy as We Head Into 2022

I wanted to start out by saying — on behalf of Dan Sisko, Joan Satow and myself — Happy Holidays and a joyous New Year to you and your families. We are thankful for all our readers and all of those who have worked with us on stories in this year's issues.

It's crazy to think that 2021 is ending, and much of the work we have done here at *Pipe Cleaning PRO* has been done remotely. Since my last column, I've had the opportunity to attend two industry-related trade shows. It's great to get back on the road, shake hands or bump fists, and chat with people face-to-face. I truly hope that this is an indication of a return to normalcy.

We are looking forward to what 2022 brings. One thing is certain, one of our favorite shows is back on for February. That is the WWETT Show. It is undoubtedly the largest show for our industry. The WWETT Show provides a great avenue to check-in with the manufacturers and suppliers serving the sewer cleaning, inspection and rehabilitation industries.

Fingers crossed; we'll see each other then. If you're planning to attend, more information is available at wwettshow.com.

Each of us on the *Pipe Cleaning PRO* team hope that 2022 is a great year for all those involved in the sewer and drain cleaning, inspection and repair industry across North America.

Moving Forward

With all of the above being said, it's bittersweet to be writing this. We launched *Pipe Cleaning PRO* at the end of the 2019 with big plans for 2020. The COVID-19 pandemic put a stop to that. And we looked ahead to 2021. Unfortunately, the pandemic continued to impede our plans. Despite the pandemic, we've produced 13 stellar issues.

Unfortunately, as 2021 comes to a close, we had to make the tough decision to cease publication of *Pipe Cleaning PRO*. This will be our last issue. If you've been featured in the magazine or want to refer back to something you read in the magazine, you'll be able to find all of the *Pipe Cleaning PRO* content at trenchlesstechnology.com.

If you're looking for continued information on the latest products in the sewer inspection and trenchless repair industry, I strongly suggest subscribing to our sister publication *Trenchless Technology*. It's a free subscription and available in print and digital formats. To subscribe, visit trenchlesstechnology.com/subscribe.

Cheers to the New Year!



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14 Front Street Cleaning

A recently completed portion of Memphis, Tennessee's SARP-10 program - the nearly \$4.5 million Front Street Interceptor Cleaning project - highlights the benefits of collaboration and the challenges of cleaning large-diameter pipe.

By Mike Kezdi

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Sometimes the biggest challenge in a mainline inspection and rehabilitation project is not the length of pipe, diameter to pull equipment through or the level of debris to navigate around.

By Jim Kraschinsky

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Since starting in the sewer cleaning industry in his early teens, Malvin "Rusty" Nezat II has always known the importance of proper training and its role in keeping crews safe and the work optimized.

By Mike Kezdi

28 The Best Approach to Dealing with Negativity on Social Media

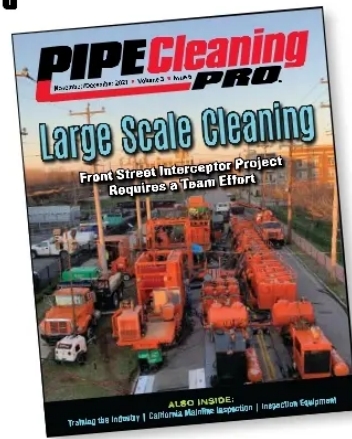
Focus on promoting your offerings instead of disparaging the competition. Taking the high road is always the best way to reach your destination on social media.

By Brian M. Fraley

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The Front Street Interceptor cleaning project required Doetsch Environmental Services to create a custom setup to ensure that debris did not enter the nearby pump station.

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PRO Industry updates



Steve Flounders, Duracable business development manager; Felix Fanti, of Jettters N Drains, winner of the Duracable DM55 machine; and Scott Tuell, Duracable business development manager at the Western Drain Supply grand opening.



Milwaukee Tool representatives Ally Pytel, Matt Sandubrae and Alex Macias stand with Michael Villa of Orange County Pumping.

Western Drain Opens New Store in Anaheim, California

Western Drain Supply has a new location in Anaheim, California. Founded in 1999, Western Drain is the drain cleaning and pipelining professional's source for equipment and supplies.

The new store at 1140 North Kraemer Place in northeast Anaheim features a bright showroom that puts top-selling drain machines and equipment close to eye-level for easy product comparisons. Shoppers can quickly find the brands they prefer in exclusive brand rooms stocked with tools and supplies from Picote, Ridgid, and APS. The store even features a unique try-before-you-buy pipe wall where customers can put equipment to the test before purchasing.

Western Drain's Ridgid-Certified repair center now has abundant space to work on



Western Drain staff with the Ted & Bros Plumbing crew.

camera repairs, and a repair pick-up station is set up so customers can easily test equipment before they leave the store.

A new state-of-the-art training center allows Western Drain to host on-site seminars and demonstrations for new product releases, pipe lining, patching and descaling. Notifications of upcoming events are shared on the company's website, westerndrain.com, and Facebook page @WesternDrain.

The retail store is open from 7 a.m. to 4 p.m. weekdays and online ordering is available for in-store pickup or shipping anywhere in the contiguous United States.

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Waterline Renewal Technologies Acquires Pipe Lining Supply

Waterline Renewal Technologies, a portfolio company of Behrman Capital, completed its acquisition of Pipe Lining Supply, a national, full-service cured-in-place pipe (CIPP) lateral lining and drain, waste and vent sewer pipe rehabilitation supplier.

Aligned with Waterline Renewal Technologies' growth strategy, the acquisition will provide Waterline Renewal Technologies with a solid foundation for the continued development of its business in North America. The terms of the purchase were not disclosed.

Founded in 2004 by Linda Heisler and later joined by her husband John Heisler, Pipe Lining Supply focuses on restoring sewers to a like-new condition without excavating. By offering a diverse range of products and services for any gravity-fed drainage system needing rehabilitation, Pipe Lining Supply has created a one-stop-shop solution for plumbers and drain clean-

ers. Its offerings include Quik-Shot Systems, Quik-Coating Systems, high-speed drain cleaning machines, lateral lining materials and resins, support and training, and a fully customizable MICROSHOP on wheels.

"We are thrilled to welcome and join efforts with the team at Pipe Lining Supply. Both organizations share a common mission to provide innovations our customers need, and we look forward to continuing to serve our installer partners together," said Harley Kaplan, Waterline Renewal Technologies CEO. "The acquisition is consistent with our strategy and will further reinforce our position as a major player in the growing trenchless pipeline rehabilitation market as we revolutionize the way plumbers and drain cleaners work through our product and service offerings."

Pipe Lining Supply's management team will continue to manage the company and assist Waterline Re-



newal Technologies with the successful integration. Pipe Lining Supply will maintain company-owned distribution centers in Anaheim, California, and Springfield, Missouri.

Pipe Lining Supply joins APM, LMK Technologies, Perma-Liner Industries and LightRay in the Waterline Renewal Technologies portfolio of brands. All of which provide engineered products used in trenchless repair and rehabilitation of wastewater and stormwater infrastructure for municipal, commercial, industrial and residential applications.

RIDGID Awards Four PHCC CONNECT Scholarships to Future Trade Professionals

RIDGID awarded scholarships to four plumbing and HVACR apprentices as part of its partnership with the Plumbing-Heating-Cooling Contractors (PHCC) Educational Foundation and its apprentice contest.

Each winner received a \$1,000 educational scholarship, plus \$1,500 worth of tools from RIDGID and a special recognition at PHCC CONNECT 2021, which took place Oct. 20-22, in Kansas City, Missouri. Scholarship winners are selected by the PHCC Educational Foundation Scholarship Committee's contractor members.

"RIDGID has had a long-standing commitment of supporting trade education and has been a proud sponsor of the PHCC Apprentice Contest for over a decade," said Denis Hanna, director of sales and vocational training programs, RIDGID for Emerson. "The contest is a great opportunity for apprentices to showcase their skills and learn from others. We're excited to see the impact each of this year's RIDGID scholarship winners has on the industry in the coming years."

2021 scholarship recipients include:

- Tyler Earle, of Forestdale, Massachusetts, is studying



plumbing installation, service and repair at Upper Cape Tech Adult & Continuing Education.

- Martin Gorman, of Belmont, Massachusetts, is studying plumbing installation, service and repair at New England Institute of Technology.
- Paul Kwiecinski, of Chicago, is studying HVACR installation, service and repair at HVAC Technical Institute Chicago.
- Christopher Friendly, of Anchorage, Alaska, is studying plumbing installation, service and repair at Alaska Vocational Technical Center.

HammerHead Trenchless Leading Toro's Newly Created Division

Since 1989, the trenchless contracting industry has known HammerHead Trenchless as a leading no-dig industry educator and provider of the market's widest array of minimally invasive pipe solutions.

Over the past few years, challenges facing its water, wastewater and gas market customers have required an ever-increasing focus on improving pipe rehabilitation and replacement (R&R) techniques.

With that in mind, HammerHead Trenchless announced Sept. 28 that it now leads the newly formed R&R division within Toro, its parent company.

"Rehabilitation and replacement of underground utility infrastructure is one of the most important focuses in the life cycle of the pipe," managing director of the new R&R division Jeff Gabrielse said.

Allowing HammerHead to operate within the R&R division, he explained, increases manufacturing efficiencies that enable HammerHead to continually improve design and manufacture of no-dig solutions for the ever-growing market, as well as to provide industry-leading education for the market's contractors, project design teams and project owners.



In conjunction with the announcement, HammerHead conducted live demonstrations at the 2021 Utility Expo in Louisville, Kentucky. Expo attendees were among the first to see three newly launched machines; the HB100X-TR for pipe bursting operations, the HG550 for pipe slitting and the SLX1300 for pipe extraction.

In addition, several sewer and water R&R solutions will also be showcased, such as the compact, manually portable PB30G2 lateral pipe bursting system and the Bluelight CIPP lining system.

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PRO Industry updates



Largest Utility Expo Unveils Latest Equipment, Innovations

Utility professionals were in the operator's seat Sept. 28-30, in Louisville as The Utility Expo brought the industry back together.

Organizations from across the country, including Duke Energy, CenterPoint Energy, Michels Corp., Intren and Henkels & McCoy Inc., sent representatives ranging from CFO, COO, executive vice president, fleet and asset and equipment purchasing, to view specialized exhibits and product unveilings, participate in hands-on test drives and demonstrations, learn about the latest innovations in the industry, and make purchasing decisions.

Commencing Sept. 28-30, the 2021 installment of the Utility Expo was the largest in the show's history with more than 950 companies spread across more than 1.4 million net square feet (32-plus acres) of the Kentucky Exhibition Center.

"Given the extraordinary circumstances around in-person events, we were excited to be able to produce The Utility Expo and bring a diverse lineup of thousands of products to over 16,500 attendees," said John Rozum, show director for The Utility Expo.

Dave Hughes, vice president of global sales for McElroy Manufacturing Inc., and 2021 show chair, echoed Rozum's comments.

"It was significant to be able to safely and successfully operate The Utility Expo this year," said Hughes. "The new and expanded show layout, fabulous weather, innovative products and technologies and engaged crowds, all contributed to a very successful event."

"The networking opportunities at The Utility Expo are invaluable for attendees and fellow exhibitors," continued Hughes. "As an organization we can provide customized solutions for our customers' challenges. But if those customers need something we cannot provide, we can refer them to an organization who can help them, and those connections can only come at events like The Utility Expo."

Jamie Gardner, brand manager for trade shows and events at Milwaukee Tool said they weren't sure what to expect, but the show did not disappoint.

"We are thrilled with the number of decision makers who are at the show and the engaging conversations we were able to have," said Gardner. "The number of leads we were able to acquire exceeded our expectations and we are looking forward to 2023."

The Utility Expo will return to Louisville and the Kentucky Exposition Center Sept. 26-28, 2023.

Keep up to date on the show at theutilityexpo.com.



Virginia's Anthony Bertolino Named PHCC's Plumbing Instructor of the Year

Recognized for his outstanding leadership and dedication to his students at Norfolk Technical Center in Virginia, Anthony Bertolino was named the Plumbing-Heating-Cooling Contractors-National Association's (PHCC's) 2021 Plumbing Instructor of the Year. The award — sponsored by PHCC Corporate Partner Milwaukee Tool — was presented this during PHCCCONNECT2021.

In addition to running Bertolino Plumbing & Heating in Virginia Beach, Virginia, with this brother, he teaches all four years of plumbing apprenticeship at Norfolk Technical Center. He has dramatically improved both the retention rate for each class and the number of students, and his program is one of the largest in Virginia.

Ironically, Bertolino did not originally plan to become a plumber but rather study business in college and become a floor trader in New York City. After his father, a licensed plumbing contractor, explained the expenses involved with that plan, however, Bertolino considered plumbing. He en-

rolled in an apprenticeship program, earned his journeyman's license, and — less than two years later — received his masters' licenses.

This is one of the first stories Bertolino shares with his students. "I tell them that I have no student debt; I own my own business; and I really enjoy what I do," he said. "I also tell them how much I have learned and that this is the career I chose."

As an instructor, Bertolino's effectiveness is more than charisma and straight talk, however. He incorporates the Montessori method of education that is based on self-directed activity, hands-on learning, and collaborative play. He engages students by sharing examples of his own on-the-job challenges and encourages them to discuss their work experiences to help advance the entire class.

Bertolino's connection with his students doesn't end when their apprenticeships are completed; he stays in touch with many of them for years and keeps a collection of stories about the good things they have done in the trade.

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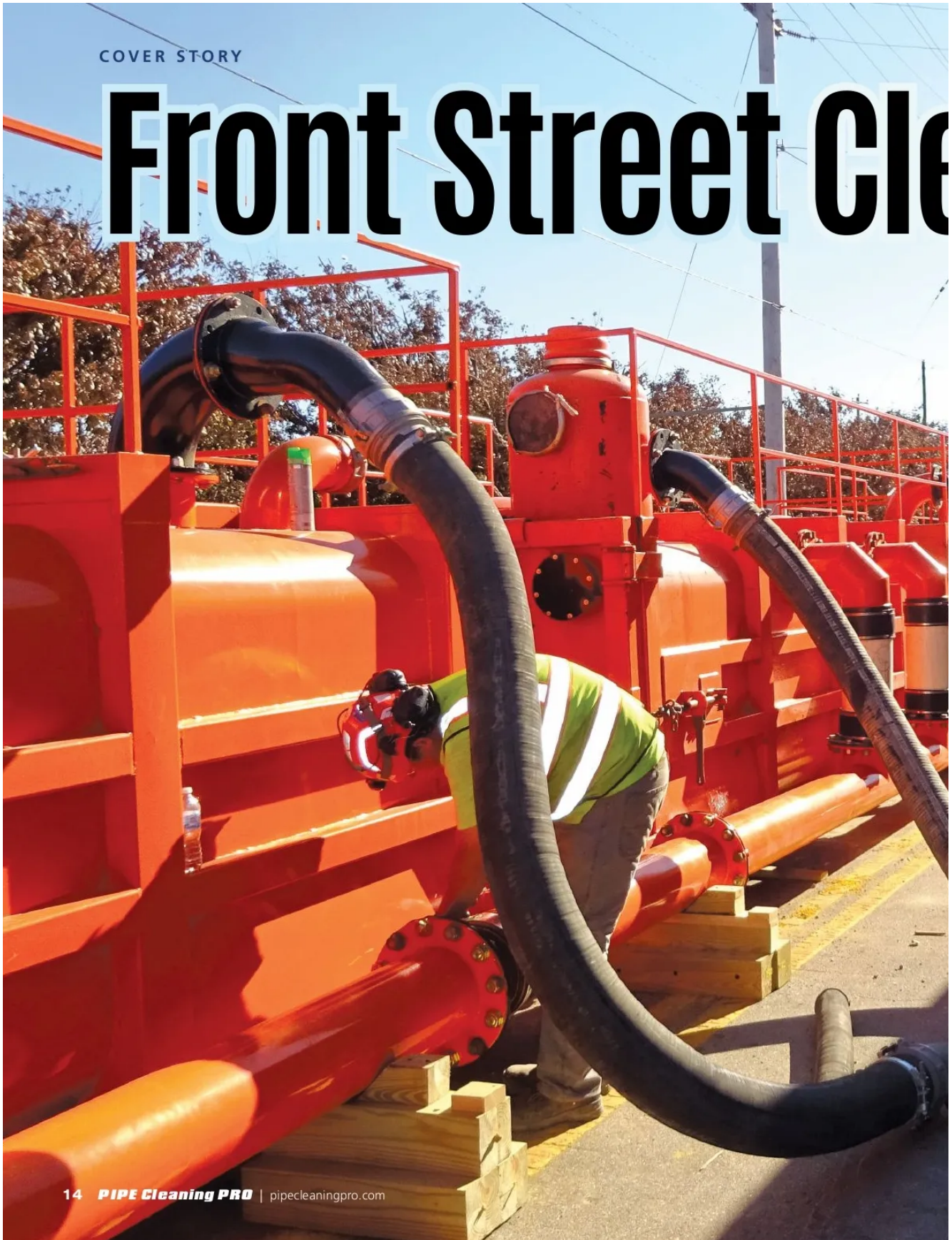
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COVER STORY

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Memphis Project Requires Specialized Cleaning Approach

By Mike Kezdi

The City of Memphis, Tennessee, is working through its SARP10 program, a 10-year initiative to improve its entire sewer system.

The SARP10 — Sewer Assessment and Rehabilitation Program — is a series of condition assessment and construction rehabilitation projects and is expected to spend approximately \$250,000,000 over the program's life. A recently completed portion, the nearly \$4.5 million Front Street Interceptor Cleaning project, highlights the benefits of collaboration and the challenges of cleaning large-diameter pipe.

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The Front Street Interceptor cleaning project required Doetsch Environmental Services to create a custom setup to ensure that debris did not enter the nearby pump station.

operation was used and one set-up to alleviate traffic disruptions in downtown Memphis throughout the project's life.

Challenges Faced

Making things more of a challenge for the cleaning was that, at some point in the mid-1900s, the pipe's flow direction was reversed, and a pump station was built to move the effluent. This meant that the project team had to work uphill, and at the same time ensure that none of the debris got through to the pump station.

"We were cleaning the pipe with flow, but the grade was uphill. That presented its own challenge because we didn't have gravity on our side with this," says Schotthoefer. "Because of the way that was setup hydraulically, it allowed for a lot of this garbage, ragging and junk to settle out, as well as sewer debris. What would be typically left behind is sand, gravel and particles that don't convey to the waste treatment plant. In this case, we had that plus large amounts of sanitary trash."

To make the cleaning a success, Doetsch pulled from all its experiences and combined that knowledge and equipment to create a complex cleaning setup that looked more like a microtunneling construction project than a sewer cleaning site. The planning began in Michigan where the team mocked up the project site - down to where hoses would run - in its parking lot. Setup in Memphis began in the fall of 2019, and the work went through the end of August of 2020.

Specialized Equipment

"This project used equipment that is specifically designed for this task. What we had and why you see what is there, is because of our proximity to the pump station. We were approximately 200 ft away from it," says Schotthoefer. "The equipment is filtration and settling equipment so that we would not loosen up debris and send it on to the pump station. These multiple stages of filtration was certainly a first. This al-

Project Focus

The objective for this project was to clean three surcharged segments of the 105-year-old Front Street Interceptor, which were heavily impacted by sewer debris. The project was a collaborative effort between Baton Rouge, Louisiana-based Compliance Environmental Systems (CES) and Warren, Michigan-based Doetsch Environmental Services. Also working on the contracting side was Cambridge Construction Management Inc. CES handled project management and condition assessment and Doetsch handled the specialized large-diameter cleaning.

"With effective team approach, we were able to focus on the cleaning and

CES handled the project management, safety oversight and the final and interim sonar inspections," says Joe Schotthoefer, Doetsch Environmental Services. "We've been working with CES in Memphis since 2015. This is the largest project thus far."

Schotthoefer, first connected with the CES leadership at a NASSCO event and the two companies completed their first team project in 2011.

The team's goal in Memphis was to remove solids and sludge from approximately 4,000 ft of the 94-by-84-in. arch pipe interceptor at depths of 60 to 90 ft. and do so with minimal disruptions to traffic and surrounding areas. A 6,000 ft-long reach reel with a double hose high-pressure cleaning



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lowed us to work on recycled water as well. We were pulling the water out of the sewer, separating the debris, settling the debris, taking the water, filtering that and reusing that as our injection water.”

The depth, narrowness, and constant surcharge conditions made manned entry into the manholes a safety concern; however, the CES Doetsch team could clean remotely due to its long-reach capabilities, eliminating the need for manned entries or multiple equipment setups. The CES Doetsch team used a cleaning system capable of three to four times that of a conventional sewer cleaner for the project.

The high-pressure vacuum and hydraulic power unit generated enough head to remove densely compacted debris and large items of sanitary sewer trash.

With a classic combination jetting/vacuum machine, the water propels the cleaning nozzle up the line. If the nozzle is too small, the material is thrown behind and goes to each side or makes a small pile behind the nozzle and then spills over.

Like when shoveling snow or working in a garden, a shovel has a capacity. When the ability of the shovel is reached, the material will fall off. To increase the shovel capacity, the team used a larger shovel, or in this case, a larger ‘aqueous shovel.’

The custom large-diameter cleaning equipment and the process is designed to remove debris in a pipe of this size and under surcharge conditions.

The CES Doetsch team customized the cleaning process for this project based on data from divers and experience with large diameter sewers. The changing or unknown water flow velocities of the sewer system required frequent modifications that depended on the conveyance of the water to remove the material.

The increased water flow and pressure allowed a 200-lb nozzle to propel through the sewer generating a giant ‘aqueous shovel’ that effectively moved more debris in the large diameter Front Street Interceptor.

A purpose-built apparatus launched the cleaning head nozzle under the water flow upstream — the device road on a rail fastened to the fabricat-

ed extraction tube. The crew utilized a relay system to shorten the travel distance of the nozzle.

The CES Doetsch team used step cleaning to monitor the amount of debris pulled back on each step to maximize the carrying capacity of the nozzle. It allowed for a more thorough removal of loose debris in the pipe, leaving no residual remains behind. The process for extracting the debris was also unique as it took place at the bottom of a vertical manhole. The primary process was effective in removing large debris. The secondary process consisted of controlled extraction to remove finer material.

All told, the project team was able to remove approximately 400 tons of debris in 300 calendar days.

Editor’s Note: The Front Street Interceptor project was recently named the runner-up for the 2021 *Trenchless Technology* Project of the Year for Rehabilitation. *Trenchless Technology* is a sister publication of *Pipe Cleaning PRO*.

Mike Kezdi is managing editor of *Pipe Cleaning PRO*.

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Overcoming **ACCESS ISSUES** in Sacramento

The Right Equipment Helps H&R Plumbing and Drain Cleaning Complete Mainline Project

By Jim Kraschinsky

Sometimes the biggest challenge in a mainline inspection and rehabilitation project is not the length of pipe, diameter to pull equipment through or the level of debris to navigate around. Often, the first hurdle to overcome is access. Such was the case for H&R Plumbing and Drain Cleaning when they were tasked with the multi-layered job of cleaning, inspecting and rehabbing over 14,000 ft of 6- to 8-in. mainline pipe in Sacramento, California.

Sacramento is home to the second largest collection system in the state. What makes its system unique is that manholes are located in the residents' backyards. The Sacramento Area Sewer District selected H&R Plumbing and Drain Cleaning to locate and address issues of infiltration, as well as roots separating many of the mainline joints.

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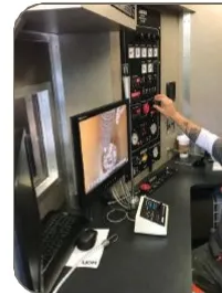
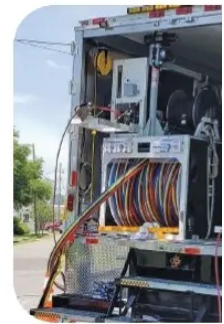
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H&R Plumbing and Drain Cleaning, based in El Sobrante, California has been in the underground infrastructure industry since 2009. Originally founded as a plumbing company, owner Horacio Franco pivoted to underground work in response to the recession. Now, nearly 90 percent of its business is focused on underground infrastructure projects.

To get started back in 2009, the company purchased pipeline inspection equipment from Aries Industries. Two years ago, it upgraded its Aries equipment in order to fully outfit a dedicated inspection vehicle. H&R relies on a Vactor hydrojet truck to clean mainlines and has an Aries Industries grout truck, with Avanti International grout and Logiball packers to grout mainlines joints and lateral connections. They put all these vehicles to work to successfully complete cleaning, inspecting and grouting mainlines for the Sacramento project.

Working with Homeowners

H&R owner, Horacio Franco and his crew faced more than one logistical challenge on this project. First, they had to contact and give notice to each resident where they would need to access a backyard manhole. Connecting with a resident sometimes proved an obstacle that called for near constant scheduling adjustments. The bigger hurdle was getting equipment to the manhole access points. Getting the cleaning and inspection (and grout, where needed) equipment from the vehicle parked on the street to the backyard manhole called for extra team members to guide cables around a resident's property, without causing any damage both to the property and the cables.

"The Pathfinder System has 1,000 ft of cable which was helpful in bringing the camera and tractor from the street, over or under fences to wherever the access point was in the resident's backyard and still having enough to complete the mainline inspection itself," according to Franco.

Each yard presented a unique challenge, whether involving making their way around dogs, planters, pools and gardens. Given the extra time needed just to gain access, efficiency in the cleaning, inspecting and grouting tasks was critical.

"It was good to have the upgraded Pathfinder System because the camera lens can be cleaned in the pipe. Sometimes you get a spiderweb or debris that blocks the lens from recording. We don't need to pull the tractor out to clean it off and keep recording. The newer Aries equipment also saves a lot of time because I we can adjust the electric lift remotely to what we find in the pipe. It allows us to lower or lift the camera inside the pipe, which is huge advantage to keep it out of any water," commented Franco.

The Right Tempo

The project took approximately one and half months to complete. The crew developed a cadence of cleaning the pipe with the hydrojetter, followed by inspecting and recording the findings with the CCTV system, and lastly grouting joints and lateral connections. If the inspection showed debris or roots, the hydrojetter would be brought back to clear the mainline. The video captured by Aries CCTV system was used to report pipe conditions to the Sacramento Area Sewer District on a daily basis.



The H&R Plumbing and Drain Cleaning team review some of their work inside their grout truck. The Aries Industries grout truck is equipped with everything H&R needs to complete grouting projects, including their own compressors, generators, and tools.



A main part of this project was to grout any mainline joints or lateral connections that were causing ground-water infiltration. By the conclusion of the project, out of the over 14,000 ft of mainline pipe, Franco's team grouted over 4,400 joints and over 200 lateral connections. For this part of the project, H&R Plumbing and Drain Cleaning relied on its Aries Industries grout truck, which was acquired five years ago.

The truck holds Logiball packers, pumps, large capacity tanks, grout and mixers, and 800 ft of 5-part Penta hose. The length of hose for this project was critical to provide for multiple run setups from the hard-to-reach entry points, reducing the number of setups/breakdowns. This was especially useful given the challenges of reaching manholes located in individual homes' backyards. To repair the joints and lateral connections, Avanti International grout was pumped to the Logiball injection packers.

The grout truck is also equipped with an additional inspection camera system to give the H&R crew eyes in the pipe as they grout. They also use the inspection equipment to evaluate the rehabbed joints once the grouting process has been completed.

With organization and the right equipment, H&R Plumbing and Drain Cleaning was able to navigate the hurdles of accessing manholes along with whatever they encountered in the mainlines of Sacramento. The efficient use of their cleaning, inspection, and grouting equipment increased their uptime in the field and helped them gain back some of the time lost in overcoming the logistic challenges this particular project entailed.

Jim Kraschinsky, is vice president of sales at Aries.

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SEWER CLEANING 101

**Rusty Nezat's
Goal Is to Keep
'Dung Beetles'
Safe**



By Mike Kezdi

Since starting in the sewer cleaning industry in his early teens, Malvin "Rusty" Nezat II has always known the importance of proper training and its role in keeping crews safe and the work optimized.

The Louisiana native began working at the age of 13 for his dad in the family's sewer cleaning business. Nezat remembers complaining about the bad odor coming from the sewers to which his dad replied, "Son if it don't smell, you ain't going to make any money. Just hold your nose."

The Start of a Training Career

He worked for his dad for several years before leaving the family business to work for Insituform in Texas. There, he worked doing sewer cleaning and that is where he first realized there was a science to sewer cleaning. The company sent him to a continuous improvement process training class and Nezat was intrigued by what he learned. Intrigued to the point that he requested time off work to build a sewer pipe that he could add sediment to, put nozzles in, and video it to see what was actually happening in the pipe.

"I took what I learned [from my model] and we built our own program to teach our sewer guys, who ran about 12 trucks cleaning for the City of Houston. After the training, our production doubled within two weeks because we got it down to a science. We took a lot of the guesswork out of it," he recalls.

After leaving Insituform he started Nezat and Associates in 1991 and in 1999 changed to Nezat Training and Consulting Inc. to take this knowledge and offer it to contractors and municipalities involved in sewer cleaning, inspection and rehabilitation across the United States.

Those early years were marked by working out of the small bathroom in his house. And it's grown to include a dedicated production facility called Dung Beetle Studios to produce training videos for the industry at-large.

"My office was in my bathroom, I had to sit on my toilet and had a little desk and that's where I did all of my business...no pun intended. I made all of my phone calls from in there," he says. "We just kept growing and growing and developing programs and the technology came along and we digitized everything and now we offer an on-demand LMS and Zoom-based sewer training, as well."

It's clear when talking to Nezat that he takes great pride and personal responsibility in getting out and training the sewer cleaners, who he light-heartedly refers to as dung beetles, across the country. He does so not only to help them do their jobs better but more importantly with a focus on safety. It's the latter that takes the often-jovial Nezat to strike a serious tone.

"The safety aspect...I've been doing this for so long now...as I travel the country, I have seen needless deaths in our industry because there was no training...none," he says. "I've trained thousands of people now and I always ask them if they have received any documented or accredited training about what can happen to them with a sewer nozzle, a plug, or any other equipment. And many never have."

That, he says drove him along more over the years to evolve his training offerings and focus squarely on the sewer cleaning process. His online training programs are now accredited in 25 states — with a goal of getting to all 50 states — for 7 hours of continuing education hours. It is also accredited by the Center for Underground Infrastructure Research and Education (CUIRE) at the University of Texas at Arlington.



While Nezat is a member of many associations and organizations involved with the sewer cleaning and maintenance industries, he notes that most of his training is direct with contractors or system owners. He has presented at events like the Tri-State Seminar and the precursor to the WWETT Show.



Safety in Sewer Cleaning

"As I traveled the country, I came in contact with these — I call them dung beetles, because they keep the poop moving — I heard horror stories of people with horrible injuries because no one ever taught them about the dangers involved in the sewer cleaning process," he says.

One area he highlights in our discussion is the safety aspects surrounding pneumatic plugs. People, he says, for instance, don't realize that a 30-in. pneumatic plug that's rated at 25 psi, when fully inflated, contains 500,000 lbs of force. They don't realize the damage that can be done if a plug ruptures. Or on the nozzle side, Nezat once spoke to a sewer cleaner who had the nozzle come out of a surcharged sewer pipe and cause bodily harm.

"These stories can go on and on," Nezat says. "If these people had the proper training, they would have known how to proceed in those situations in the safest way possible. The in-depth training is not [readily] available."

Nezat's goal with his company is to take the knowledge he has about the science of sewer cleaning and his field experiences and create an educational and entertaining train-

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ing program that gets into the details of sewer cleaning. "I trained [to be an entertainer] because if you can't make it fun and you can't pull them in, you'll lose them," he says.

Keeping it Entertaining

Unlike other training, which might be a handbook and a presentation with a few PowerPoint slides, Nezat prides himself on creating visual materials that show the student what is taking place in the field. Nezat's goal is to make the classes accessible for everyone no matter their educational level.

"There was one time, early on, where I was doing a training [session] without a lot of visual aids and I realized that there was something horribly wrong," Nezat recalls, once again striking a serious tone. "I walked to the back of the room and asked the class to take some notes and that's when I realized that 90 percent of the people couldn't read or write. I was horrified. After that, everything I taught was in a visual form. Everything is a picture or video."

He is also a lifelong learner, getting new information and insight out of every class he teaches. He notes that there are times that he'll have a chat with someone who is taking his class — before the class has begun — who questions what they could possibly learn from Nezat that they have not already encountered in the field.

"I've had people tell me they have done this work for 35 years and that there isn't a damn thing I could teach them," Nezat says. "I'll say, 'I am so sorry you have to sit through my class, but I've been doing it a long time too and I don't know everything. I intend to learn something from you, so I hope you interact with me while I am teaching. If I am saying something wrong, go ahead and correct me.'"

Taking it Online

Prior to the COVID-19 pandemic, much of Nezat's work was in-person classroom and field training. In the last year and a half, because of the pandemic, Nezat has not been able to get out to many municipalities because onsite training was stopped to help slow the spread of the virus. Like many companies, Nezat pivoted to adding Zoom-based training.

"In the last year or so we've gone to our online learning management system (LMS). You watch a module with a video and answer test questions [at the end of the module]. Then cities started asking for Zoom training and we reconfigured our studio so that we can do that," Nezat says.

The online courses — like his in-person classes — are broken into segments that progress through the sewer cleaning process. The videos, each about 10-15 minutes long, are followed by a test. Successfully completing a module allows the person to move on to the next module. He knocks out the safety components first and then gets into the operations training.

"Plugs are the No. 1 incidence of people being hurt followed by high-pressure hose [incidents] so I want to get that out of the way before I start into the building blocks," he says. "Then we go into nozzles, how to clean the sewers, high-pressure pumps, and so on. My goal is to add another 10 hours of programs."

He is also looking at adding training that focuses on operating easement reels, wet well cleaning, large-diameter cleaning, equipment optimization and manhole opening. Also, on the horizon is working with colleges and trade schools to get this training out there to people who are making career decisions, so when they leave school, they are fully prepared to enter the industry and get to work.

"I love doing this. This is what I want to spend the rest of my life doing. So my goal, before I kick-off is to get everything that is in my head, out of my head, and on video so I can leave it for this generation and the next generation," he says.

While Nezat would love the opportunity to train everyone in the United States, he knows that's not possible. He urges contractors and cities to think about the liability involved with not training their people properly. With that in mind, he says that it's imperative that cities and contractors engage in some form of hands-on sewer cleaning training before sending people into the field.

Mike Kezdi is managing editor of *Pipe Cleaning PRO*.



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No Comment

The Best Approach to Dealing with Negativity on Social Media

By Brian M. Fraley

There have been some glaring examples of negativity by some construction professionals on social media recently that we can all learn from. It's hard to determine whether this activity is increasing without data, but it does seem more frequent than usual.

In one case, an equipment dealer was celebrating a major purchase by a certain contractor and an individual was compelled to slander that contractor in the comments with an expletive. In another, several people on Facebook took turns insulting a piece of equipment with various nasty comments. And in yet another instance on Instagram, someone trashed a competitor's product as outdated technology.

Unlike the jobsite where an argument can usually be resolved with an apology, the damage is harder to undo and can even follow you indefinitely on social media. The attorneys have a process called eDiscovery. That basically means that virtually any and all

digital activity can be dug up as part of litigation process. They can retrieve virtually anything you've ever posted as it was explained to me.

It's important to think about possible long-term repercussions before you make a negative comment. The construction industry is a small industry where many of us are continuously recycled among different companies. All it takes is one memorable post or a vindictive person with a good memory to cost you a sale, a project, or a job. Is the temporary satisfaction of posting that nasty comment worth it?

Most people don't like negativity and pessimism. Have you ever noticed how committees respond to the lone pessimist? It seems like we're especially sensitive to this as the dark clouds move out and people are starving for positivity. Avoiding negativity on social media right now is more important than ever.

The construction industry has straight talkers, hot heads and even roughnecks, but we're also known as

a group that respects traditional values. And, of course, this is an industry starving for new talent. Setting a tone of professionalism and decency is far more likely to attract good people.

One of the best remedies is silence. There was a generation back around the 1940s that believed many things were best left unsaid. That approach is invaluable on social media.

Most of us know at least the basics of social media, but let's revisit some ground rules:

Is it Strictly Business, Personal or Both?

Who are you representing on social media? If it's professional and your employer wants you to publicly represent the company, it's okay to mention them. If it's personal, don't mention your company name.

Respect Your Employer's Reputation

If you're on social media as an individual and you choose to engage in debates and controversial topics, that's



THE DO'S AND DON'TS OF SOCIAL MEDIA



DO'S

- Get permission to publish content from owners, especially on sensitive projects.
- Foster mutual promotion among suppliers, subcontractors, and other partners that are active on social media.
- Explain how your work is done and the benefits it brings to communities and the economy as a whole.
- Promote and show the personality of members of your team.
- Create guidelines that govern social media behavior for the company and employees.



DON'TS

- Talk politics or engage in debates.
- Show photos with potential safety or environmental violations.
- Post negative comments or posts about competitors.
- Reveal specific project locations that might encourage protestors and other negative attention.
- Engage with trolls and others that post negative comments.

a personal decision. With that said, it's best to distance yourself from your employer to protect them from any liability. That means leaving the name of your company off your social media profiles, and possibly adding such language as "opinions are my own."

Know the Platform

Some social media channels are geared toward business and others are personal. LinkedIn, for example, is for business, so don't post funny memes. Make sure you understand acceptable behavior before you start posting.

Determine Your Objective

What are you hoping to accomplish on social media? Most people are trying to promote themselves or their companies, learn, or network. Whatever your reason, it's doubtful that making negative comments will help you to make progress.

How to Handle the Competition

Trashing the competition in the comments does more harm than good. When you take a potshot at a competitor or its offerings, it reflects poorly on you because your insecurity is on full display. Have you ever noticed that no one responds to your comment?

The construction industry is a small community and the pipeline construction market is even smaller. It's easy to forget how accountable you will be held in the long run. Will it come back to bite you on a future job, sale, or partnership? You might never know. Is it worth taking the chance to blow off steam?

Be professional, positive, and keep it clean. Focus on promoting your offerings instead of disparaging the competition. Taking the high road is always the best way to reach your destination on social media.

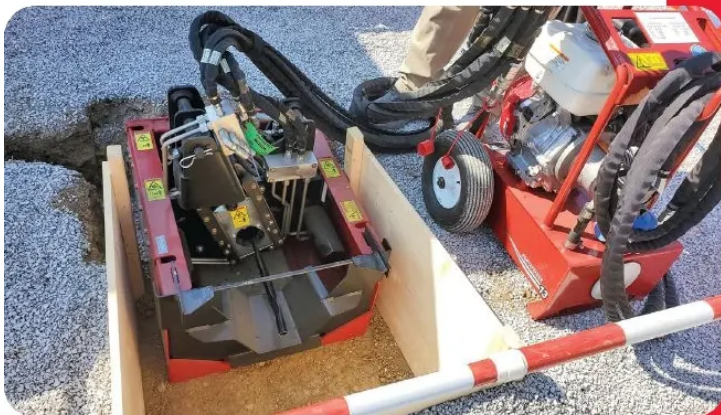
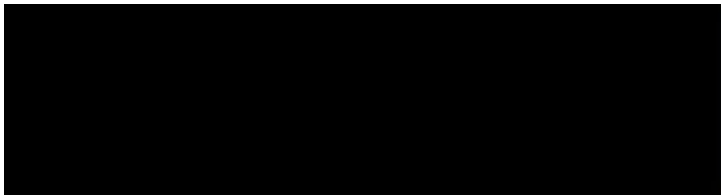
Brian M. Fraley is the owner and chief strategist for Fraley Construction Marketing, a marketing communications consultancy with a unique 100 percent focus and deep understanding of the construction industry.

PROs on the **Road**



Not all jobs for a pipe cleaning pro take place on terra firma. Such is the case for the technicians at Perfect Plumbing of Linthicum, Maryland, which serves the Annapolis and Linthicum areas. Here, Miguel, one of the company's technicians is installing a supply line for hose connections and showers on a private dock in Annapolis. As the weather gets cooler, the technicians also handle winterization of the systems.





Though the show is more focused on the underground infrastructure installation marketplace, the *Pipe Cleaning PRO* team did find some interesting things to see at the 2021 Utility Expo in Louisville, Kentucky. Super Products officially unveiled its Mud Dog 700 vacuum excavator (left and top left). The compact, versatile vacuum excavator is ideal for urban environments, featuring a 7-yd debris body and 600-gal water tank, allowing operators to maximize the legal payload.

We also stopped by the HammerHead Trenchless booth, which included a demonstration of its new SLX1300 trenchless pipe extraction system (bottom left) for small diameter steel natural gas services. The SLX1300 is a new method of replacing coated and bare steel gas service lines 0.5 to 1.25 in. in diameter, up to 100 ft in length. The hydraulically powered SLX1300 unit produces up to 13.3 tons of pulling force to extract the pipe from the ground while simultaneously pulling new HDPE or MDPE pipe into the same location as the existing pipe, reducing risk to surrounding utilities. While at HammerHead's booth we also took a gander at the redesigned Bluelight LED cured-in-place pipe (CIPP) lining system (above). New features include, an intuitive touch screen interface, interchangeable reels available in 131- and 164-ft lengths, three light head sizes including a new 3-in. light head and a lightweight, ergonomic frame for easier maneuverability and portability.

PROTIPS & PRODUCTS

SEWER & DRAIN INSPECTION EQUIPMENT

For this issue's product focus, we look at sewer and drain inspection equipment. This is a category filled with big and small cameras, as well as additional ancillary equipment necessary to complete the job. Featured on these pages are the latest and greatest pieces of equipment in this category. We reached out to the

manufacturers to provide us with this info, as well as a PRO Tip focused on this category of equipment. As always, this is only a small look at this segment. For more information on these products or other equipment in the manufacturers' lineups, visit the websites listed with each product.

ARIES INDUSTRIES



The Mobile Pathfinder System is a lightweight, portable system for accurately inspecting mainlines 6 in. or larger. It includes a powerful transporter, innovative camera, and lightweight reel, operated by an all-in-one remote control. The transporter comes in a variety of wheel sizes and is equipped with a rear-viewing camera and an adjustable electric lift to keep the camera centered in a range of pipe sizes. It features an Aries' WiperCam Pan & Tilt camera with an in-the-pipe cleaning system and field replaceable wipers. The camera has a 300-degree viewing angle and LED lighting system to capture pipe details and ensure accurate assessments. The lightweight reel has 1,000 ft of low-friction, multi-conductor cable, making the system fully portable. The transporter, camera, and reel are controlled by a single, all-in-one remote control with a rechargeable wireless keyboard.

PRO TIP

Preventative maintenance tips for your mainline and lateral inspection equipment. **Pressurization** — Aries' cameras are pressurized to prevent the entry of water into the internal electronics. Check camera pressure daily before equipment contacts water. Use only dry nitrogen to pressurize your equipment. **O-Rings/Seals Inspection** — Inspect O-Rings whenever you take the equipment apart and never reuse an O-Ring. **Cable Inspection** — Inspect cable for kinks and gouges, excessive wear to casings and termination and previous improper repairs. **Reel Inspection** — Look for worn wheels and guides, verify manual counter operation and make sure trolley carriage moves freely by greasing the guide and bearings and removing any debris. **Cleanliness** — Use mild cleaner and low water pressure to wash equipment after retrieval to improve sanitary conditions on your truck, reduce downtime and extend the lifespan and reliability of your equipment.

For more information, visit ariesindustries.com.

ELECTRIC EEL

The Electric Eel eCAM Ace 2 SL Pipeline Inspection Camera System has added a new standard feature, a built-in battery cradle accepts a Milwaukee M18 battery (battery not included). This new standard feature adds convenience for the operator and allows easy access to power for remote field work or where electricity is not available. Battery life is 6-7 hours. Features include a Self-Leveling color camera, One-Touch USB recording, on-screen footage counter, wheels for easy transport and maneuverability. Rugged stainless steel housed 1.68-in. diameter self-leveling color camera for inspecting 3-in. to 10-in. lines. Sapphire lens with 20 LED light ring and high-resolution CCD element. Flexible camera spring designed to navigate 3 P-traps. Auto iris adjusts lighting automatically. Industry standard 512HZ sonde. 5.4-in. LCD monitor with AR film. 120v AC Supply or built-in battery cradle (battery not included). Protective acrylic, anti-glare monitor shield. Standard with 200 ft of braided fiberglass premium 0.5-in. diameter push rod.

For more information, visit electriceel.com.



ENVIROSIGHT

The Verisight Pro+ Push Camera combines greater pushing power with superior recording and annotation capability. Cities and contractors depend on Envirosight's Verisight Pro+ to complete critical drain pipe and lateral inspections quickly and accurately. Verisight Pro's stainless self-leveling camera captures up to 90 hours of color footage from pipes 2 in. in diameter and larger, regardless of material. It snakes through multiple bends for maximum range, and an integral tri-band sonde (33 kHz, 512 Hz, 640 Hz) works with most any locator. The rugged welded-steel coiler comes with 130, 200 or 330 ft of push rod. The entire system runs for 6 hours off internal rechargeable Lithium-ion batteries, or off mains or vehicle power. Verisight Pro's controller displays real-time footage on an 8-in. LCD and can operate all camera functions, generate custom text overlays with a full QWERTY keyboard, and easily off-load inspection footage by SD card or USB drive. tional H-30 cart makes for easy job site transport.

For more information, visit envirosight.com

GENERAL PIPE CLEANERS

The new Gen-Eye X-POD Plus sewer camera system from General Pipe Cleaners now includes the Gen-Pack battery adapter, Wi-Fi transmitter and an on-screen distance counter as standard equipment to boost productivity and profitability. Depending on battery type and settings, the built-in Gen-Pack battery adapter lets you operate the camera system for up to 12 hours in remote locations with limited access to power. Fuse-protected to safeguard your equipment investment, the Gen-Pack battery adapter is also available separately. Battery and charger are not included. X-POD Plus makes sharing inspections easy. The built-in Wi-Fi transmitter lets you view and record work on a cell phone or tablet. And using the system's USB port, you



can also archive activity on handy flash drives. The new on-screen distance counter also shows how far the camera has travelled down a line in feet or meters. And for optimum accuracy, settings can be adjusted for full size or mini-reel configurations.

For more information, visit drainbrain.com.

MILWAUKEE TOOL

Milwaukee Tool set a new standard in sewer Inspection with the introduction of their M18 Pipeline Inspection System, allowing technicians to see more in drain lines than ever before. This system is built around their M18 500 GB Control Hub. The Control Hub powers both the 120-ft and 20-ft Pipeline Inspection Reels and can easily be swapped between them. Both reels feature a 1080p HD self-leveling camera head and a push cable built to withstand the harsh conditions when navigating through cast iron, clay, and PVC pipes. Technicians can digitally zoom and pan up to 4X, making it easier to focus on the point of interest. View, record, edit and share videos from the M18 Wireless Monitor or the Milwaukee Pipeline Inspection app on a mobile device. The integrated ONE-KEY technology provides the ability to track the tool's location, manage it in inventory, and lock out the tool if it is ever lost or stolen.



PRO TIP

Drain cleaning professionals need the ability to build, organize and share reports quickly and easily, and the Milwaukee Modular Pipeline Inspection System provides the easiest way to do so. The M18 500 GB Control Hub allows you to save and organize HD images and video recordings on board. An internal battery in the Control Hub allows M18 batteries to be swapped out during live videos, meaning a recording is never lost. Trim videos to shareable sizes, add labels or audio to points of in-

terest, or automatically generate a highlight reel while on the job from the M18 Wireless monitor or using the Milwaukee Pipeline Inspection App on your mobile device. Provide instant feedback to customers by replaying saved videos using the monitor or a mobile device with up to 200 ft of range. Download large files to USB or send saved recordings directly from the mobile device.

For more information, visit milwaukeetool.com.

SEWER & DRAIN INSPECTION EQUIPMENT

MYTANA



MyTana's MS11-NG2 is a mid-size inspection system adapts to inspect smaller lines. The MS11-NG2 sewer and drain inspection system from MyTana is a versatile push camera that takes up little room on your truck, and weighs just 45 lbs. A self-leveling mid-size camera head is suitable for 3-in. to 6-in. lines, while our optional MS11+ Combo Kit gives you an interchangeable, fixed-position mini camera head to inspect 1.5-in. to 3-in. lines. Each head has a 512Hz transmitter built-in and delivers high-clarity footage to the 6.4-in. daylight-readable monitor which is integrated on the reel frame. All-digital recording saves that footage to internal or removable drives, or you can stream video wirelessly to multiple devices. The reel deploys 150 ft or 200 ft of durable, push-rod and camera guides help with navigation in various pipe sizes. Every MyTana camera is backed by our factory-direct support and service team.

For more information, visit mytana.com.



PEARPOINT

The new and advanced Pearpoint flexiprobe P540c system stands out by integrating all of the most sought-after features including survey reporting, video titling, digital recording and portability into an easy-to-use and intuitive package. The controller features a high definition 10.1 in. TFT display with the on-board Wi-Fi allowing you to share your reports via email or Dropbox. The 128Gb internal memory allows for more than 2 months' video recording in typical usage. The ruggedized, IP55 rated, controller with built-in rechargeable battery provides reliability in the most challenging environments. The Pearpoint flexiprobe P540c series push systems consists of P541 plumber reels, P541 mini reel, P542 reel, and the P543 reel system with two different cameras to choose from, rated for withstanding water pressure of approximately 160 psi or over 300 feet under water. The systems cover most of the inspection needs from 1.5-in. pipe to 16-in. pipe.

For more information, visit pearpoint.com.

SEWER & DRAIN INSPECTION EQUIPMENT



RIDGID

The RIDGID SeeSnake CSx Via is a flexible, bring-your-own-screen inspection solution that provides a convenient means to stream, capture and share inspection images using an iOS, Android or Windows device. It enables reels with an interconnect port to be Wi-Fi enabled and utilizes the free RIDGID HQx Live app to remotely control the camera functions and features. Simply dock in the CSx Via Wi-Fi control device to unlock a world of flexibility, convenience and camera operations with just your mobile screen. Remotely control all functions and features of your camera reel, including TruSense, distance counter, sonde and more. Multi-reel compatibility provides maximum flexibility. Purpose-built for jobsite durability and protection, CSx Via can be paired with the RIDGID HQx Dock to hold and protect personal devices. Use as a free-standing unit or mount onto any RIDGID SeeSnake Compact Series reels for fast, easy setup. Comes with the RIDGID full lifetime warranty.

PRO TIP

"The CSx Via is a game changer! I love the convenience of streaming on my own device and being able to send to my customers in seconds. And being able to control all the camera functions and do anything needed right from the HQ app is incredible," says Robert Broccolo Jr., owner, Professional Drain Services of SNE. "Truly love the CSx Via because my iPhone and iPad are my most used devices and being able to stream and send on my own devices is just awesome. The convenience and time saved makes it all worth it. Being able to also connect to any one of my RIDGID devices it's simply a game changer for me. Highly recommend anyone using RIDGID SeeSnake to add to the arsenal."

For more information, visit ridgid.com.

SPARTAN TOOL

The Spartan Sentinel is a lightweight, open-reel camera system for general inspection and locating jobs in 2 in. to 4 in. pipe sizes. It features a waterproof, stainless steel camera head and 100-ft fiberglass push rod. This system is ideal for use alongside the Revolution line of high-speed flex shaft machines. With its compact footprint, attractive pricing, and easily interchangeable parts, the Sentinel is the perfect camera for business owners who need to put a unit on every truck. It's field repairable for no costly downtime and repairs. The 7-in. monitor and 6-hour battery life means the Sentinel won't let you down on the job. over most of the inspection needs from 1.5-in. pipe to 16-in. pipe.

For more information, visit spartantool.com.



SUBSITE



Designed to boost utility inspection productivity, the Subsite Armored SinCon Cable offers significant cost and performance advantages over multi-conductor technology. The Armored SinCon Cable is a single conductor cable with multi-conductor functionality to help inspectors ensure an efficient and reliable inspection. It can perform multiple functions at a time, including drive, pan, tilt and lift. Allowing inspection crews to complete each function needed with one system. Built for durability, it features the industry's strongest CCTV cable break strength at 5,400-lbs. The 0.25-in. outside diameter is wrapped with two layers of steel armor, for increased protection against tears or scrapes. To minimize downtime, the Armored SinCon Cable can be easily reterminated in the field, without the need for specialized tools, soldering or epoxy. Helping inspectors focus on the job at hand by getting back into operation quickly.

PRO TIP

"Sewer and utility inspection technology has certainly evolved over the years. One change that shouldn't be viewed as an advancement has been a shift in preference toward multi-conductor systems rather than single conductor systems," said Patrick Lyons, Utility Inspection product manager, Subsite Electronics. "While many municipalities are considering this alternative in inspection technology, the truth is that today's single conductor systems are just as advanced and can offer the same benefits as multiconductor technology. A single conductor system's durability, multi-function capabilities, ease of repair and quick set up and breakdown can help decrease downtime, and in turn, increase profits. Inspection teams looking to boost productivity on their future sewer or drain inspections should strongly consider the benefits that single conductor cables provide."

For more information, visit subsite.com.



VIVAX-METROTECH

The vCamMX-2 is an ultra-portable all-in-one camera to inspect pipes between 1.5 and 4 in. The control module's 8-in. daylight-viewable LCD screen shows the distance of pushrod deployed, as well as the current time and date. Recordings are made in mp4 video and pictures in JPEG format directly to a USB thumb drive, then instantly backed up to an

SD card. The internal microphone allows audio commenting over re-ordered video. The pushrod is traceable with the use of an external locator transmitter and is available in 100 or 150-feet. The 512Hz frequency sonde is standard equipment. Two interchangeable camera heads. The smaller D18-MX camera is a fixed position and 0.70 in. in diameter, and the D26-MX is self-leveling and 1 in. in diameter.

PRO TIP

Protecting the pushrod on your camera system. Use as many resources as possible to protect the pushrod at the entry point of the inspection. At the entry point, a lot of stress can be applied to the jacketing of the pushrod. Downhole tubes – Make a downhole tube with a straight PVC pipe with a 90-degree elbow attached. Shave off part of the elbow so it is the same width as the tube. Tiger Tail – Use a tiger tail when working in manhole entries. The tiger tail will prevent the pushrod from rubbing at the pipe entry, just as it protects jetter hoses. Pool Hose – is available in different diameters and can be cut to your desired length. Use pool hose to help the entry through toilet bowls, Tee's and sweeps in cleanouts.

For more information, visit vxmt.com.

SEWER & DRAIN INSPECTION EQUIPMENT



CHERNE INDUSTRIES

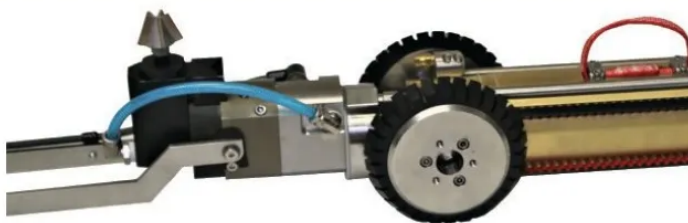
The newly redesigned Cherne I-Series Test-Ball Plugs from Cherne Industries, are the most innovative pneumatic plugs available for the underground waterworks market. Lightweight, short and flexible, Cherne I-Series plugs deliver state-of-the-art solutions for a variety of applications: blocking and bypassing flow; installing new pipes and junction boxes or repairing old ones; and installing or repairing utility holes. Available in eight expansion ranges, from 6 to 24 in., Cherne I-Series Test-Ball Plugs meet U.S. and international industrial and municipal needs for engineers and contractors. The plugs offer industry-leading quality and durability, featuring robotic, mechanical bonding of aluminum end plates to the plugs' premium natural rubber to eliminate chemical bonding failures. Cherne I-Series Test-Ball Plugs provide improved performance and safety through optimized design and superior back pressure (maximum: 15 psi; inflation pressure: 45 psi).

PRO TIP

Put safety first when using pipe plugs. When a pipe plug is in use, a danger zone exists that expands outwardly in a cone shape from the manhole opening. The most important safety measure is never to enter the danger zone in such a situation. Remember that the total force exerted on a pipeline plug is directly proportional to both the pressure and the pipeline area. The amount of force behind a plug can be overwhelming and extremely dangerous.

For more information, visit oatey.com.

CUES



The CUES small and large Currahee cutters are specifically designed to reinstate wastewater service laterals, remove protruding taps, and brush finish existing cuts. The cutters function in a range of 5.25-in. through 36-in. pipe, are equally effective in CIPP or fold and form liners, and can be installed on any CCTV manufacturer's truck-mounted system. CUES also developed a new 1.9 hp air motor for the small Currahee cutter line to

provide more power, increased productivity, and a smoother cut when operating in 6-in. to 12-in. relined pipe. Kits are available to retrofit existing cutters for use with Kangaroo air-motors and service kits can be purchased for regular maintenance intervals on existing motors. Contact CUES for a discussion and demonstration.

For more information, visit cuesinc.com.



edu.benjaminmedia.com



What's New at **WJTA**[®]

WATERJET TECHNOLOGY
ASSOCIATION

Waterjet Technology Basics & Beyond Virtual Short Course

Plans are under way for a virtual presentation of WJTA's popular daylong Basics & Beyond Short Course. The course offers an applied introduction to waterjet technology and in-depth treatment of key areas, suitable for anyone with an interest in high pressure applications. The course was scheduled to be presented live, onsite in conjunction with the now cancelled 2021 WJTA Conference & Expo.

Chaired by Hugh B. Miller, Ph.D., associate professor, Colorado School of Mines, the Basics & Beyond Virtual Short Course will be delivered by expert faculty from industry and academia. The course will be presented in a series of two-hour sessions from 10 a.m. to noon Central Time, on Jan. 11, 18, 25 and Feb. 1, with recordings and supplemental materials available to registrants.

The preliminary schedule for the Waterjet Technology Basics & Beyond Virtual Short Course is as follows:

Jan. 11

- History
- Applications
- Equipment Considerations

Jan. 18

- Safety
- Cleaning Applications

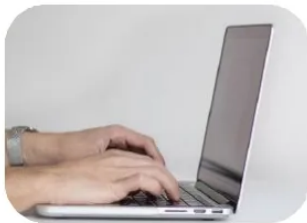
Jan. 25

- Field Cutting Applications
- UHP & Abrasive Cutting Applications

Feb. 1

- Surface Preparation
- Sewer Cleaning
- Hydrodemolition

To register or learn more, visit the WJTA website.



A new remote proctoring option for WJTA's computer based Hydroblaster Foundational Training (FT) is available now. This new delivery option increases the ease of access to the course within the United States, creating an alternative to delivery through a safety council or proctored tablet streaming.

Remote Proctoring Option for WJTA Computer-based Training

The remote proctoring option developed by the Health and Safety Council (HASC) allows trainees to complete the FT course from any computer with a camera while being remotely monitored to ensure program integrity. The new option eliminates the need to have a proctor onsite monitoring the training throughout the 3-hour course.

WJTA's FT module, which was recently updated with content revisions, provides trainees with an

overview of hydroblasting safety best practices, which are then reinforced in the instructor-led, hands-on Field Verification (FV) training.

WJTA's partnership with HASC enables state-of-the-art instruction and delivery methods for the association's hydroblaster training and certification program.

For more information on WJTA training and certification, contact Peter Wright at wrightp@wjta.org.

"What's New at WJTA" is a bi-monthly newsletter from the WaterJet Technology Association (WJTA) focused on news pertaining to the sewer and drain cleaning industries. Information is provided by WJTA. To keep up with the latest news, visit wjta.org.

WJTA Board of Directors Takes Office



Gaff



Noto



Savanick

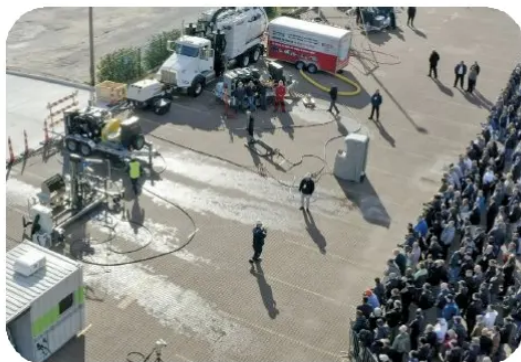
On Nov. 9, the newly elected WJTA Board of Directors took office. New board members are David Becum, Augusta Industrial Services; Jerry Carter, SPIR STAR; Bradley Coble, Covestro; Dee Green, USA De-Busk; and Bill Shaw, Evergreen North America. Bill Krupowicz, Jetstream of Houston LP; Jimmy Peck, MPW Industrial Services; and Bill McClister, Consultant, were also re-elected to the Board of Directors.

Board members who continue to serve current terms on the Board of Directors are Jim Ashmead, DuPont Specialty Products; Luis Garcia, Northern Safety and Industrial; Kerry Siggins, StoneAge Inc.; and Drew Waltenbaugh, NLB Corp.

Retiring from the WJTA Board of Directors are Bill Gaff, Gary Noto and George Savanick, Ph.D., all of

whom served multiple terms of office on the board and held executive office. Gaff served several terms as chairman and was instrumental in the establishment of the WJTA Expo and in encouraging the active participation of industrial vacuum service providers and manufacturers. Noto led the establishment of WJTA's Hydroblaster Training and Certification program, facilitating the partnership with the Health and Safety Council (HASC) and gathering the support of leading industrial contractors and asset owners. Finally, Savanick represents the last founding member of WJTA to serve on the Board of Directors and has held executive offices throughout his tenure, including President and Treasurer. Savanick has also served as editor of the WJTA's Jet News since the early 1980s.

Preparations Underway for WJTA 2022



Following the cancellation of the 2021 WJTA Conference & Expo, preparations are under way for the 2022 WJTA Conference & Expo, which will be held Nov. 2-3 in New Orleans, Louisiana. Exhibit space is available, and many exhibitors have elected to rollover their deposits to next year's event.

Awards and conference whitepapers scheduled to be presented in 2021 have also been postponed to the 2022 Conference & Expo, and additional awards nominations and conference abstract submissions are being solicited.

For details on the 2022 WJTA Conference & Expo, visit WJTAAExpo.com.

Industry Happenings

*All events are continuing as scheduled as of Nov. 4, 2021. Please check the event websites for individual event updates.

2022

FEBRUARY

21-24 WWETT 2022

Indianapolis, Indiana
Web: wwetshow.com

23-25 QSC Power Meeting

Sarasota, Florida
PHCC's Quality Service Contractors (QSC) Group
Web: qsc-phcc.org/events/power-meeting-2022

21-24 WEF/AWWA Utility Management Conference 2022

Orlando, Florida
Water Environment Federation (WEF), American Water Works Association (AWWA)
Web: wef.org/events/conferences

MARCH

2-4 ACCO/PHCC Ohio Convention & Expo

Cincinnati, Ohio
Ohio ACCO and PHCC Chapters
Web: ohioconvention-phccacco.org

APRIL

10-14 NASTT No-Dig Show 2022

Minneapolis, Minnesota
NASTT
Web: nodigshow.com

19-22 Collection Systems Conference 2022

Detroit, Michigan
WEF
Web: wef.org/events/conferences

MAY

30-June 3 IFAT 2022

München, Germany
Web: ifat.de

AUGUST

8-11 Tri-State Seminar

Las Vegas, Nevada
AZ Water Association, CWEA and NWEA
Web: tristateseminar.com

24-25 The Water Expo 2022

Miami, Florida
Web: thewaterexpo.com

SEPTEMBER

16-21 2022 ASPE Convention & Expo

Indianapolis, Indiana
American Society of Plumbing Engineers
Web: expo.aspe.org

OCTOBER

5-7 PHCC CONNECT 2022

Charlotte, North Carolina
Plumbing-Heating-Cooling Contractors Association (PHCC)
Web: phccweb.org/connect

8-12 WEFTEC 2022

New Orleans, Louisiana
WEF
Web: weftec.org

17-19 2022 No-Dig North

Toronto, Ontario
NASTT Canadian Chapters
Web: nodignorth.ca

24-30 Bauma 2022

München, Germany
Web: bauma.de

NOVEMBER

2-3 2022 WJTA Conference & Expo

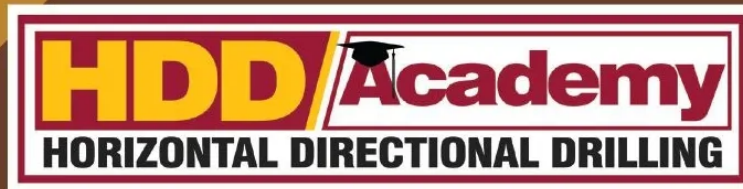
New Orleans, Louisiana
WJTA
Web: wjtaexpo.com

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UNDER-GROUNDING

Utility Infrastructure



Feb. 3-4 | Arizona State University SkySong Center | Scottsdale, AZ

REGISTER TODAY AT [HDDacademy.com](https://www.hddacademy.com)



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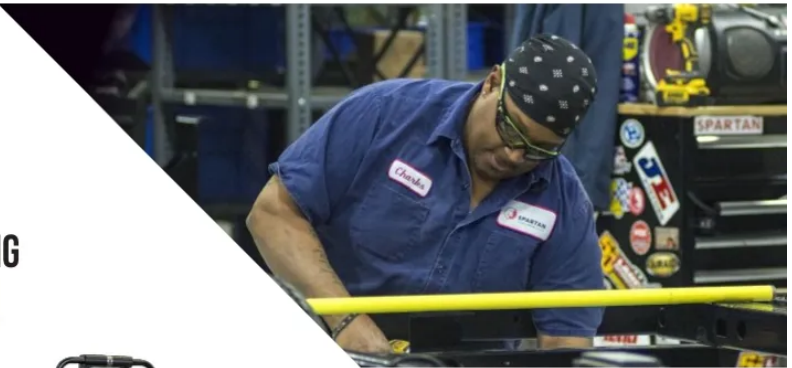
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Questions? Contact Hannah Stakolich at hstakolich@benjaminmedia.com or 440-465-9434.

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