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ON THE COVER

Scott Haymer has taken the business he owns with his father, Ray, through a dramatic shift. He changed the company's name to better reflect its services, and invested in a trailer-mounted water jetter that has paved the way for a very profitable business niche. (Photography by Amy Voigt)

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Kayla Bisnette Jim Koshuta

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Making Connections



Getting together with others in the industry is always a great experience

ecause of the time it takes to put together each issue of *Cleaner*, my deadline for this column falls months before it's in your hands.

I'm writing this on my first day back in the office after spending a few days at the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show in Indianapolis, and I'm having trouble getting back in the groove. This job entails mostly solitary work writing, editing and planning, so after a couple days of walking through the hall, countless conversations, meeting new people, reconnecting with others, and ending the days with dinner



alongside co-workers I don't get a chance to talk to regularly, it feels like a little bit of a letdown to be sitting back at my desk plugging away at regular work.

Don't get me wrong — this job is great and I enjoy it. But getting out to the WWETT Show is the only time I feel really in the thick of the industry we work so hard to represent. Seeing all the equipment, demonstrations and people coming together from across the country is pretty inspiring.

I've worked on several of *Cleaner's* sister publications, so I have general background and interest in a lot of the other related industries represented at the show. I had one conversation with an attendee who asked if I owned any restroom trailers. I told him I unfortunately did not, but I could try to help him find out what he needed to know. It turns out he is brand-new to the industry. He wanted to make a career change and was at the show to learn more about the portable restroom industry. He had done a little research and thought it seemed like a good opportunity.

He was a little blown away by the show. "Everything is here," he said. "It's the place to really learn about this stuff. And everyone is so nice." My co-worker and I chatted with him a little more about different ways for him to get involved in the industry and find out more (including subscribing to *Portable Restroom Operator* of course).

It was interesting to talk to someone new to the industry and attending the show for the first time. It was my seventh visit, and a lot of people I talk to have been part of the industry for much longer than I have. But most of them are just as excited as that guy was about the industry and the work they are doing.

Exhibitors are excited to show off new equipment that's been designed and perfected to solve a problem for their customers and earn customers more money. Contractors are on the hunt for the best new equipment and looking forward to seeing their friends in the industry and meeting new ones as well.

Even if you don't attend the WWETT Show every year, I hope you have connections in the industry who make you feel that same sort of excitement and camaraderie. Cultivating that network — or just having one other person you can call on for advice, to vent, or to celebrate successes — is so important.

Sometimes it's hard to explain the importance of this work to other people, whether customers, friends or family. Being around others who "get it" is really nice to experience.

I hope you enjoy this month's issue. **c**





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WORKER RELATIONS **Helping Employees** Achieve Work-Life Balance

In this industry, it's hard not to provide customers 24/7 service. When marketing your company, it's an easy way to catch people's attention. Of course that means you and your employees actually have to be available 24/7. But work-life balance is important too. This online exclusive provides some examples of approaches companies take to achieve that. >>cleaner.com/featured



PIPE LINING SAFETY

New Data Released About CIPP Emissions As part of a study commissioned by NASSCO, the Trenchless Technology Center at Louisiana Tech University spent about a year collecting and analyzing data regarding the safety of emissions at CIPP job sites. If you missed the webinar earlier this year unveiling the results, check out this online exclusive as well as the Trenchless Technology Center's detailed report now available at the NASSCO website.

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EQUIPMENT LEASING Reduce Ownership Cost With Right Leasing Structure

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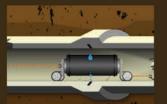
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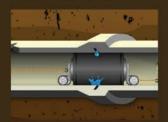
QUICK 5-STEP PROCESS



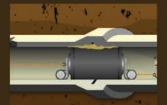
1 CCTV locates defect in pipe



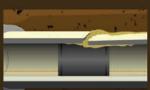
2 Packer and repair sleeve pulled into place



3 Packer inflated and sleeve installed



4 Packer deflated while grout fills void



5 CUES LOCK mechanical sleeve permanently installed

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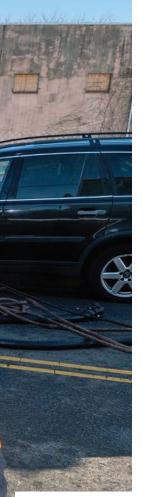


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A sewer cleaning company added new technology and services to become a one-call company ready to solve any pipeline problem

By Giles Lambertson // Photography by Bill Blanchard



North American

OWNER: Tom Mullen

EMPLOYEES: 55

Pipeline Services

LOCATION: Freehold, New Jersey

SERVICES: Sewer line installation,

replacement, repair and cleaning;

trenchless pipeline rehabilitation;

storm drain and culvert cleaning;

excavation and hydroexcavation; manhole rehabilitation; CCTV pipeline

inspection; pipeline testing

SERVICE AREA: Tri-state area

WEBSITE: www.napipellc.com

(New Jersey, New York, Pennsylvania)

om Mullen presides over a company growing so fast that it sometimes gives him pause. But it's not a bad problem to have.

North American Pipeline Services (NAP) has the feel of a big company, Mullen acknowledges. "It's been such a large and fast load period for the company since I acquired it in 2012. Sometimes it can get overwhelming but, for the most part, it's still pretty manageable thanks to committed division managers and the team culture we've developed."

In the years Mullen has owned the business, he has introduced new services and technologies and deemphasized some legacy services. Consequently, the character of the company has significantly changed. Mullen added "services" to the company name to reflect the wider array of work.

FULL-SERVICE SHOP

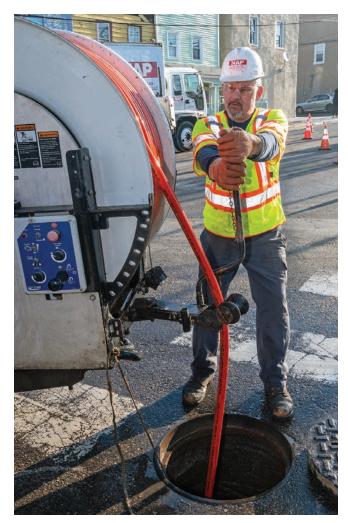
North American Pipeline had been around almost 40 years when Mullen and his two partners, Bob McDaid and Tony Corbisiero, acquired it. Principally a local sewer cleaning and inspection company, on Mullen's watch the Freehold, New Jersey, firm became a full-service

underground utility rehab and repair contractor serving the tri-state area - New Jersey, New York and Pennsylvania.

The number of employees swelled from three to 55, and the variety of tasks they undertake now includes several types of trenchless storm sewer and sanitary inspection and repair work, traditional opencut trench work as well as hydroexcavation, and maintenance of culverts and stormwater infrastructure.

Some of that expansion of services was a result of Mullen's family background in excavation and utilities industries. "It has kind of worked out," he says, understating the success of his comprehensive approach. "Being a one-call company, we can help with almost any pipeline problem." The company website bills itself as "the single source pipeline service leader."

The one-call concept serves NAP several ways, Mullen says. "City departments don't have to rebid part of a contract when they run into something. We self-perform many different types of trenchless repairs, which



Pleskowicz lowers the jetter hose into a manhole to clean the sewer line.

"Being a one-call company, we can help with almost any pipeline problem.

Tom Mullen

keeps pricing down and our reaction time quick. We also try to help out other companies that mainly do excavation work and don't have the means to repair something without trenching."

No one service dominates most workdays, Mullen says. "We honestly don't have a core service. There are so many pipeline situations, and no single arrow in our quiver will take care of every problem."

Even so, the contractor says the pipe lining division is "very busy." That segment of the business is a product of a major transaction in 2017 when NAP acquired the



Trust and transparency

In formulating a guiding principle to direct his work, the owner of North American Pipeline Services didn't lean on Eric Hoffer or Steve Jobs or any one of a dozen other thought gurus. He simply drew from his own experience and opted to operate openly through team discussion.

"Honestly, my philosophy is to be transparent," Tom Mullen says. "I try to be very transparent and ask that everyone in the company be transparent with each other. That creates a company culture of trust, which works the best as we navigate through problems. The only way to make decisions is by knowing everyone in a conversation is being open and honest."

"I believe we've avoided situations that other companies have run into because they weren't open in their discussions and decisions."

He credits the size of the New Jersey company — it currently has 55 employees — with contributing to the open communication model. "We are large enough to undertake and complete most jobs and projects, but small enough to stay a family company. We are still small enough to be close-knit and to enjoy camaraderie."

Weekly manager meetings are designed to get the word out to nonmanagers, including office staff managed by Meghan Wisnieski. That is part of Mullen's strategy to have everyone in NAP realize they are all "on a level playing field. No person is any different than another, whether laborer or CEO. This is the reason I would like for us to stay the size we are."

He can't pinpoint how he developed his operating philosophy, his reliance on transparency as a management tool, but he suspects it came from years of working with an excavation and utility company owned by his father and uncle, Thomas and Richard Mullen. "I've learned a lot of things, including what not to do, and have tried to take those experiences from the past and utilize them every day to make the company better." Technicians James Bey (standing), Slawomir Kadlubowski (left), and Rafal Sasak prepare the Applied Felts liner for insertion into the manhole.

pipe lining division of Allstate Power Vac for the Northeast, mid-Atlantic and Midwest regions of the country. Allstate is an established firm that had lined pipes for two decades. NAP's lining team is managed by Dave Alpaugh.

"That acquisition catapulted our growth exponentially — almost doubled our size," Mullen says. "It opened up so many doors, giving us new clientele." An example of a new client is the city of Philadelphia, which five years ago awarded the company its emergency pipe lining contract. The city is "very proactive" in its rehabilitation of pipelines, says Mullen, keeping the company busy.



EMBRACING INNOVATION

To do the ongoing work, NAP employs a lining system that includes top-of-the-line components such as Clayton Industries boilers to set Applied Felt liners and robotic Schwalm USA reinstatement cutters to open laterals emptying into a relined pipe.

The Schwalm pipeline instrument is a fairly new addition to the company's technology, but not the only recent innovation. It recently became the only certified Quadex Lining System service provider in New Jersey. The Quadex system coats pipes 30 inches in diameter and larger with a geopolymer mortar that is spincast into place from a sled-mounted applicator head, which is dragged through a pipe.

"What is great about the product is that it becomes monolithic, even when more than one coat is applied," Mullen says. "If we have to stop the application for some reason and come back the next day, we can spray right over the first coat and it will bind together, becoming monolithic." Bill Jones manages the system at NAP.

The process is also utilized in rehabbing manholes, with a truckmounted version applying the geopolymer vertically. "We're out every day doing manholes. The manhole-lining crew is kept very busy." Not



only can the crew seal old brick-lined manholes instead of replacing them, but the compound being sprayed has antimicrobial properties, which inhibits the growth in manholes and sewer lines of sometimes harmful microorganisms.

"The geopolymer lining system is starting to grow rapidly," Mullen says. "It's not a new procedure, but the processes are much, much better than they used to be. The chemical makeup of the product is years ahead of what it used to be."

So, pipe lining and replacement work in general is a growth area for the company. This is not a surprise given that the average age of underground infrastructure in New Jersey is more than 50 years, according to Mullen. That clearly bodes well for underground companies with a variety of products to repair failing pipe.

Another tool in the company's toolbox is pipe bursting. Mullen relies on HammerHead Trenchless tools for that work. To inspect and follow up on its underground projects, the company has eight CCTV trucks running Aries Industries cameras through lines and reporting back via ITpipes software.

Its cleaning equipment includes 14 hydrovac combo trucks, a mix of Vac-Con and Vactor rigs. Some of the machines were inherited during acquisitions — as were a variety of inspection camera systems — and the company is in the process of standardizing its fleet and tool systems. Paul Kocher manages the cleaning division. All this machinery is parked and maintained in an equipment yard that's part of an 18-acre facility in Freehold, which features a 22,000-square-foot headquarters building.

Even in this trenchless age, the firm's line of traditional open-trench excavation equipment is regularly called upon. "The excavation division led by Justin Bucchianico is utilized frequently, whenever trenchless won't work." For those projects, the firm can roll out Kubota and Komatsu full-size excavators and mini-excavators, John Deere backhoes, Takeuchi skid-steers and a Komatsu loader to fill its two tandem dump trucks.

While NAP still does one or two site preparation jobs a year, Mullen says, "That's mainly for old customers that like our work. That's not really where our main focus is; we've steered away from doing those. Our excavation division has been repurposed to doing emergency repairs, road collapses, water service repairs and replacements unsuitable for a trenchless solution."

"We do a lot of cross-training because there are times when some division on a project will cross over into another division's kind of work. Plus, as our project load goes up and down in the course of a year, everyone can stay busy by crossing over."

Гот Mullen



The crew from North American Pipeline Services includes (front, from left) Eric Olsen, Rich Norris, Mike Tozer, Meghan Wisnieski, Courtney Swartzel and Phil Nase: back row: Pedro Ocasio, Andrew Heier, Deirdre Smith, Marty Costa, Paul Marques, Justin Bucchianico, Paul Kocher, Tom Mullen, Bill Jones, Albert Hickson, Donna Roselli, Dave Alpaugh and Susan Gagliardi.



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To summarize the work of this company is difficult except to say that if pipe is involved, NAP is ready to help: water, sewer and stormwater pipes; smalldiameter (4-inch) pipe on up to largediameter pipe measured in feet; public lines, private laterals; trenchless or open excavation jobs; installing, replacing, relining, repairing, cleaning and inspecting sewer infrastructure.

The company also performs UV-cured spot repairs when short segments of a pipe have failed. Looking ahead, Mullen sees an opportunity to utilize the process on lengthier sections of pipe. "We expect to get into UV lining of pipe. That's one of our goals for the year."

He says that although his employees are cross-trained, each division of the business has dedicated crews. "We do a lot



∧NAP technicians tie a restraining rope to the "tail" of the liner for added control during the installation process.



"If opportunities present themselves and they are for the good of the company, for the people in it and good for what we have created together, then I'd be open to considering them."

Tom Mullen

>> Tom Mullen has prioritized investing in new technologies, which has helped NAP grow substantially since he acquired it in 2012.

Source North American Pipeline technicians suit up for a manhole lining job.



of cross-training because there are times when some division on a project will cross over into another division's kind of work. Plus, as our project load goes up and down in the course of a year, everyone can stay busy by crossing over."

Besides tool and technique training, employees are regularly trained in safety practices by John Flanagan, the company's safety manager. This includes OSHA regulations, first aid, CPR instruction, and other health and safety issues.

With the region's aging underground infrastructure needing attention and NAP poised to do all that work, the company's future seems bright and further growth seems almost inevitable.

Still, caution is a byword in the executive suite. A star — emblematic of the North Star — is positioned in one corner of the company's "NAP" logo as a reminder to leadership to not lose their bearings as they push ahead. Mullen certainly seems to have a firm grip on where he wants the company headed. Instead of rushing ahead, he says he is comfortable at this time just concentrating on work in the tri-state area.



"I try to stay within my lane. If opportunities present themselves and they are for the good of the company, for the people in it and good for what we have created together, then I'd be open to considering them. I'm very protective about what we've grown here and I wouldn't want anything to hurt it."

The 48-year-old company owner doesn't have an heir apparent to assume leadership down the road. His three daughters have other career goals. But he isn't daunted by questions about succession. "I'm looking at people in the company who can do that. We have a lot of employees with the potential to take over for me." **c**

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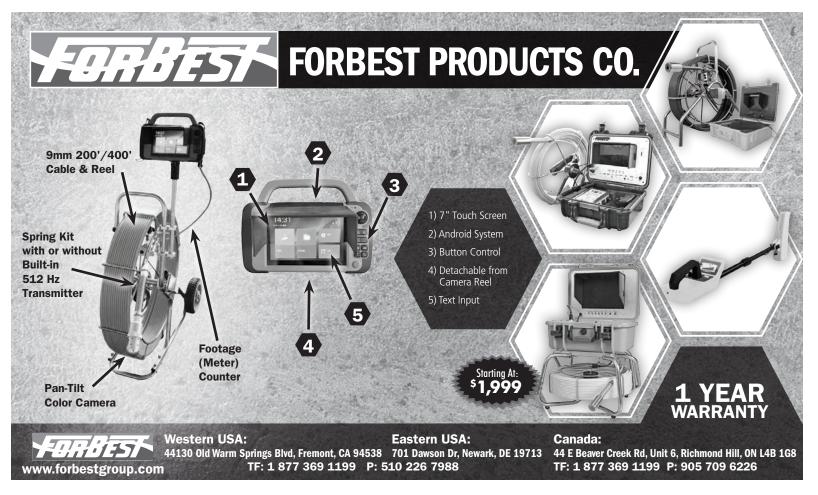


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tech **PERSPECTIVE**

A Clear Picture

Learning basic troubleshooting for common inspection system problems reduces downtime on the job

By Ken Wysocky

nspection cameras are a critical tool on sewer cleaning and pipe rehab projects. So when a camera breaks down on a job, productivity, profitability and customer relations suffer.

But it doesn't have to be that way. Equipped with some basic know-how, savvy contractors can save the day by troubleshooting camera issues.

Of course, inspection cameras are complex machines and many repairs must be performed at service centers. But industry experts say



there are certain problems contractors can troubleshoot themselves — and keep jobs moving ahead on schedule.

To learn more, *Cleaner* spoke with Julie James, customer service manager in the Western office of CUES, and Adam White, a technical specialist at RIDGID.

James and White point out that most manufacturers' camera systems are different, which makes troubleshooting generalizations difficult. Nonetheless, the key to resolving many camera problems lies in determining which of the system's basic components are malfunctioning: the monitor, reel, camera head or cable.

Doing so requires isolating and testing each of these components. And isolating the problem component provides a side benefit operators only need to send in the broken component, as opposed to sending in the entire system, leaving them without a camera, they say.

On CUES camera trucks (most of the company's camera systems are truck-mounted), contractors can use a test cable to evaluate the state of various components; a test cable is included with cameras. For example, an operator can bypass the cable reel by plugging one

> end of the test cable into a test port on the truck and the other end into a camera head; if the camera works, it's not the source of the problem, James explains.

> "If you use the test cable and the camera comes up and running, then you know the issue is in the cable," she says. "If the camera doesn't work, then the cable isn't the problem."

> Here are some other common problems and how to troubleshoot them:

NO IMAGE ON THE MONITOR

With RIDGID cameras, this could indicate a problem with the monitor, reel, camera head or interconnect cable, which is a short cable that connects the reel and the monitor. To make a determination, White says operators should disconnect the reel from the monitor, then use the monitor to watch a prerecorded videotape (if it's an older camera) or a video that's been downloaded onto a thumb drive.

"If you can watch a video, you know the monitor is working properly," he says.

Inspection cameras are complex machines and many repairs must be performed at service centers, but there are certain problems contractors can troubleshoot themselves to avoid downtime. » Operators also need to remember that camera systems are electronic devices that need to be treated with care.

"It's always a good idea to have a spare of anything that can be easily changed out. Some guys don't like to spend the money upfront on spare components, but that can be the difference between uptime and downtime."

Adam White

To eliminate the camera head as a problem, operators using RIDGID equipment can use a spanner wrench (it comes with the camera) to remove the head from the cable. Then plug the camera head directly into the interconnectcable port on the monitor.

"If you get an image on the monitor, then you know the camera is good, too," he explains. "So now you know the problem is not in the monitor or the camera head so it must be in either the reel, the push cable or the interconnect cable."

To test the interconnect cable, attach the camera head to one end and plug the other end into the interconnect port on the monitor. If an image appears, then the interconnect cord also works, he says.

"The good news is you can replace the interconnect cord in the field," White says. "It's always a good idea to have a spare of anything that can be easily changed out. Some guys don't like to spend the money upfront on spare components, but that can be the difference between uptime and downtime."

If you still don't get an image on the monitor, the problem most likely is in the push cable or the reel. "At that point, there's not much you can do in the field," he says. "Further diagnosis would require more in-depth disassembly that isn't feasible to do in the field."

WATER/SEWAGE IN THE LIGHT HEADS

This problem typically is caused by failed O-rings. To fix this problem, remove the light heads, let them dry off for a few hours (or use a hair dryer to save time) and then replace the O-rings, James advises.

"We encourage people to maintain their light heads, too," she adds. "Just remove a few screws and the heads come out. You can replace lenses, reflectors, O-rings and bulbs. It's simple to do, and parts are readily available. And it doesn't hurt to carry extra parts out in the field."

BROKEN CABLE

If a cable breaks, operators sometimes can "reterminate" it in the field. To do this on a CUES camera, cut off the bad part of the cable, then use the metal splice chamber to reconnect to the cable; the splice chamber protects the connection between the cable and the "pigtail,"



which has pins on the end that plug into the mainline equipment, James explains.

"We recommend that if operators are going to go through all that work, they might as well replace the pigtail, too, because they get pretty beat up," she says. "It's a judgement call."

Proper operation can help minimize the chances for broken cables. For instance, it's recommended that operators keep their hands as close as possible to the drain they're cleaning, which reduces pressure on the cable, says Adam Teets, a service manager at RIDGID.

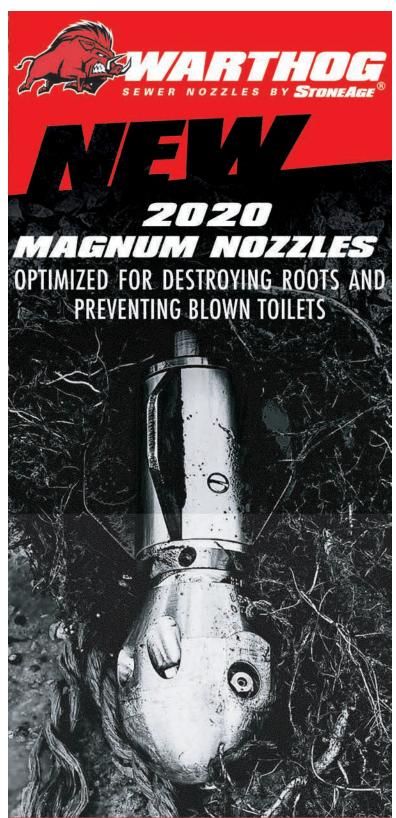
"I'd say that 80% to 90% of camera failures stem from push-cable breakage," he says. "So the best preventive measure is to push the cable down the line without too much pressure."

PREPARE WITH SPARES

Carrying spare parts is critical to minimizing downtime. Even something as seemingly simple as a lifting strap for a transporter can cause profit-killing job stoppages because without it, the camera can't be lowered into or removed from the pipeline, James notes.

"Little things failing will shut you down just as quickly as big things," she says. "If you're ordering a motor cable (which connects a camera transporter and the cable), order two. Sometimes you just don't want to incur the expense, but don't be penny-wise and poundfoolish. ... It's not a lot of money compared to the cost of shutting down a truck."

Proper maintenance is also crucial. Because of the environments in which they work, cameras are constantly confronting water and debris. That means it's important to disconnect electrical connections to let them dry out to avoid corrosion, and remove debris that can slowly degrade seals and other parts, James says.



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tech **PERSPECTIVE**

On pan-and-tilt cameras, for example, minute bits of grit can compromise the pivot mechanism. "And when you're going up a sewer pipe, the wheels will pick up everything from hair to dental floss," she adds. "Hair actually acts like wire and digs into the seals until they fail."

As such, it's important to do things like remove wheels and clean the axles. If a camera lens cracks, replace it right away so moisture doesn't enter, she says.

Operators also need to remember that as electronic devices, camera systems need to be treated with care. "Our field reps often see users treating monitor-control units like anything but a complex electronic device," White says. "They need to be properly stored: Don't let them rattle around your truck every time you make a turn or a hard stop."

Operators in cold climates also need to remember that electronic devices have a harder time working in bitter cold weather and battery life diminishes rapidly. So if temperatures are below zero, it's a good idea to move the monitor into a garage or a utility room overnight, he suggests.

Taking care of your inspection camera will help prevent downtime when problem pop up on a job. $\ensuremath{\mathbf{c}}$



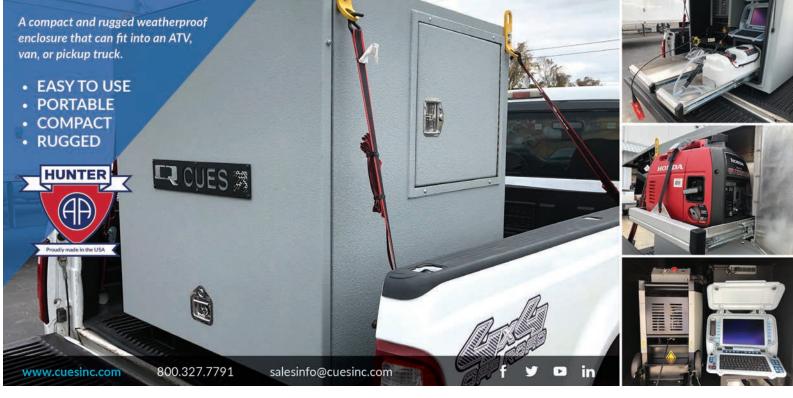






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Save Your Face

Hydroexcavation industry veterans explain the importance of proper protective equipment

By Brenda Silva

s hydroexcavator operator Joe Harp walked up to his co-worker to aid him on a job site, he suddenly felt like he had been shot with a BB gun.

"I turned my face away from the wand and immediately shut the water off," Harp says.

He was running the wireless remote to the unit while his co-worker was running the dig wand. Harp knew he had just been hit by a rock.

"I was thinking that it just went under my shield, but after looking, I noticed a hole that was in my face shield that was in the same area where I was hit on my chin."

Harp wasn't seriously injured — no blood or broken teeth — but he knew that it could've been different if he had not put down his face shield before approaching his co-worker.

"If it wasn't for my face shield slowing that down or possibly changing the trajectory of the flying debris, I would have had a long explanation and even longer paperwork on why I wasn't using my PPE," Harp says.

STANDARDS FOR SAFETY.

Just as important as the heavy equipment on any project is the safety gear for operators using the equipment. To guard against the impact of flying debris, safety glasses and face protection are tested to the ANSI Z87.1-2015 standard, which is designed to make the difference between a day that ends successfully and a day that ends in the hospital.

"Spectacles (glasses) are tested for high impact by using a 6.35 mm steel ball traveling at 150 feet per second, and face shields are also tested for high impact at 300 feet per second," says Michael Myrick, marketing product trainer and analyst at MCR Safety, located in Collierville, Tennessee. "According to the standard, there is no testing method for psi."

He also points out, "Generally, high-impact glasses—in conjunction with a high-impact face shield — would work best for an application like excavation. The face shield would act as secondary protection for the eyes, and the glasses would act as the primary protection. As such,



The importance of safety glasses and face shields can never be overstated, especially in extreme environments that have rigorous project demands.

the coverage of the glasses should completely encapsulate the orbital area around the eye. In the event of hydroexcavation, the use of an indirect vented goggle that is tested to the ANSI Z87.1-2015 standard for water droplets and rated a D3 would work best."

ALREADY WEARING GLASSES?

Sometimes, though, the operator is already wearing prescription glasses.

"If the person wears prescription glasses, it's recommended they use a prescription safety glasses company to either supply them with prescription glasses or goggle inserts," Myrick says. "Also, the use of an over-the-glasses, high-impact-rated safety glass could be used over standard prescription glasses. In either case, they need to use something along with a high-impact-rated face shield." Tony Spearing, vice president at Brass Knuckle Protection in Alpharetta, Georgia, echoes Myrick's comments. He suggests existing options and alternatives for eyeglass wearers.

"Some goggle styles allow prescription glasses or prescription

inserts to go underneath them," Spearing says. "Also, some safety eyewear styles also come with prescription inserts, while others provide diopter options, which are already molded into the lens. Often, full prescription safety glasses are available either through the employee's optician or a vision program offered by the employer in conjunction with a manufacturer."

PROTECTION IS PRUDENT.

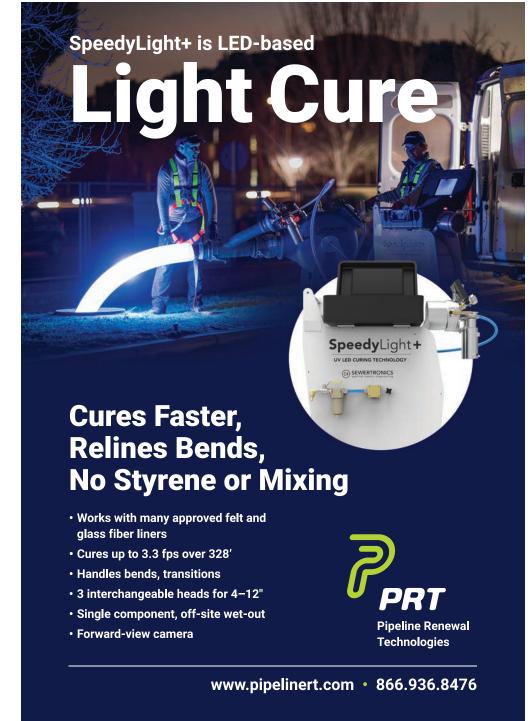
The importance of safety glasses and face shields can never be overstated, especially in extreme environments that have rigorous project demands. At those times, safety gear can become one of the most important factors for project completion and cost-effectiveness.

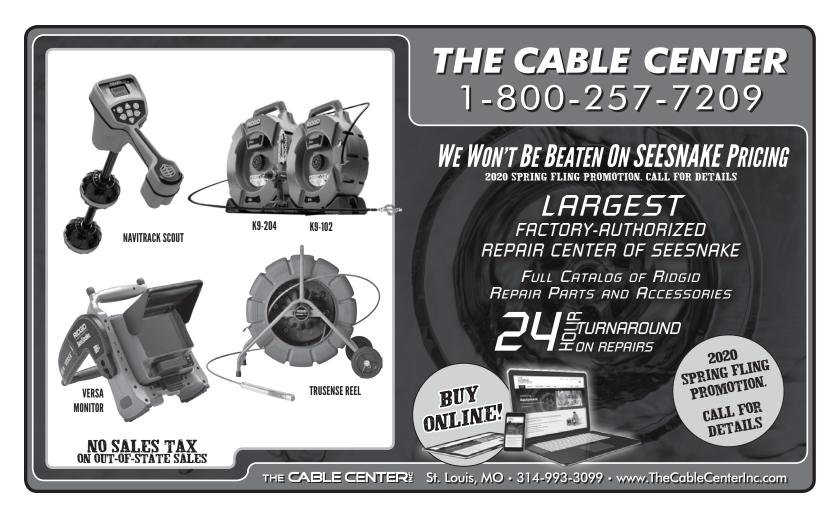
"In extreme environments like vacuum excavation, one would need to use glasses with superior anti-scratch and anti-fog properties," Myrick says. "When selecting the right glasses for the wearer, you should answer the following concerns: comfort, coverage and protection level. Over my 22 years in the industry, I found that if the glasses are not comfortable, the employee simply will not wear them."

Harp encourages his fellow hydroexcavator operators to make sure they are wearing the proper personal protective equipment, and he has even gone on social media to tell the story of his close call.

"To sum everything up, PPE in the world of hydrovacing is an essential part of what we do," Harp says. "Although it can be a nuisance and seem like it's slowing you down, it does do its job — which is to make your job safer. Never become complacent with your PPE and safety plans because it could save your eyes, your teeth and your time." **c** "Although it can be a nuisance and seem like it's slowing you down, it does do its job - which is to make your job safer."

Joe Harp











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A Milestone

Purchasing a trailer jetter and committing to more drain cleaning services dramatically boosts revenue for Ohio plumbing firm

By Ken Wysocky // Photography by Amy Voigt

Campbell Plumbing ¹ & Drain Cleaning Inc.

LOCATION: Eastlake, Ohio OWNERS: Scott and Ray Haymer FOUNDED: 1969 EMPLOYEES: 5

SERVICES: Residential and commercial service and repair, drain cleaning

SERVICE AREA: 20-mile radius around Eastlake WEBSITE:

www.campbellplumbing.net

It may sound implausible that one new piece of equipment could dramatically change the fortunes of a plumbing company. But that's exactly what happened at Campbell Plumbing & Drain Cleaning in Eastlake, Ohio, after the company invested about \$50,000 in a trailer-mounted water jetter.



Certain O'Brien sets up a 2015 Spartan Warrior jetter (above) to clean a later line (below) at a home in Eastlake, Ohio.



In fact, the Warrior jetter from Spartan Tool was such a game changer that father-and-son owners Ray and Scott Haymer changed the name of the company from Campbell Plumbing & Heating to reflect the company's new emphasis on drain cleaning.

"Our company name included heating because we did some boiler work," Scott Haymer explains. "But we never truly were an HVAC company, so we changed the name to better reflect our services.

"We totally rebranded ourselves. Drain cleaning is a very profitable business niche. In fact, the Warrior paid for itself in about 10 months. After it's paid for, all the money you make is profit. Our revenue and our productivity went way up."

In addition, drain cleaning jobs can easily lead to other lucrative services, such as excavation-based pipeline replacements (the company subs out trenchless pipeline rehab services) and clean-out installations.

"That's the beauty of drain cleaning," he says.

Furthermore, when a contractor shows up with a trailer jetter, an inspection camera and other drain cleaning options — like a Maxi Miller drain machine from Picote Solutions, for example — and still can't fix the problem, the customer can see that all options have been exhausted. "That makes the more expensive trenchless pipe rehab or major excavation work an easier pill for them to swallow," he says.

While Haymer says it's difficult to determine exactly how much more revenue the company generates compared to the pre-Warrior days, one fact speaks volumes: The business bought a second Warrior jetter in 2019 and now runs two service trucks instead of just one.



Technician Pat O' Brien (left) and Scott Haymer use a RIDGID SeeSnake camera system to inspect an 80-foot sewer line at a residential property.

 \ge Back in the van, Haymer packs up the SeeSnake system after completing the job.



"Now when people call, we tell them we don't snake drains anymore because it's older technology. A lot of people still don't know what waterjetting is so we put a video on our website that explains it."

Scott Haymer

"Going from one jetter to two and from one truck to two was a pretty big step for a small company like ours," he says.

JETTERS PROMOTE EFFICIENCY

The Haymers' experience is especially notable for plumbers who, for one reason or another, avoid diversifying into drain cleaning. Sure, drain cleaning is dirty work. But the revenue provided by this higher-margin business, coupled with the additional business it generates, makes it worthwhile, Haymer says.

"We subbed out waterjetting for years to avoid the initial upfront investment. But we did the math and found out you don't make a lot of money subbing out that work. ... The profit margins are marginal. You leave a lot of money on the table with each job.

"You're basically paying for an education (about how to water-jet lines) and when we learned enough, we took the plunge and went out on our own. Now when people call, we tell them we don't snake drains anymore because it's older technology. A lot of people still don't know what waterjetting is so we put a video on our website that explains it."

Furthermore, the jetter eliminates the effort required to lug a heavy cable machine up and down basement stairs, not to mention back injuries. It also removed a frustrating element for customers: waiting for a subcontractor to find time to come over and do the job, he says.

The Warrior features a triplex ceramic plunger water pump that generates pressure of 4,000 psi and flow of 18 gpm; a 300-gallon water tank with integrated baffles that allow it to be towed while fully filled; a 180-degree pivoting hose reel; a fiberglass enclosure for protection from the elements; 75 feet of 1/4-inch-diameter hose; remote-control

capability; and automatic shutdown protection for low water, low engine oil pressure and high engine temperature.

Investing in timesaving, productivity-enhancing equipment is more important than ever before, Haymer believes, because of the nationwide labor shortage. "The fact that you can't easily find guys makes finding equipment that can do work more efficiently even more critical. I'm always interested in new technology that makes our company better, stronger and faster."

don't get commissions for upselling customers on various products, and customers appreciate the lower-key approach. "We might point out to a suctomer that a water bester is ald."

"We might point out to a customer that a water heater is old," Haymer explains. "But we won't tell them that we can sell them one today for just \$59 a month, for example. If they're not interested in a new water heater when we're there, we put one of our stickers on the old one and tell customers to call us when they're ready."

CONTINUED >>

HUMBLE BEGINNINGS

Ray Haymer started the company with a friend in 1969. They decided to call the business Campbell Plumbing in honor of his grandmother, whose last name was Campbell. Scott Haymer started working for his father on and off during high school and full time for around five years after graduation. Then he left in 2001 to take a sales job.

In 2013, Haymer came back to work with his father again. That spurred a stronger emphasis on drain cleaning, primarily because Haymer really enjoyed the work.

"Sure, drain cleaning is dirty and smelly it can be gross," Haymer says. "But it's also very rewarding work. You go to a home and there's a bunch of sewer water in the basement, and when you're done, the water goes down the drain and you look like a hero.

"Overcoming the challenges that pop up is also rewarding. There are few things better than seeing that water vortex as the water finally starts moving down the drain."

Along with a stronger emphasis on drain cleaning, the company's success stems from serving just customers within a small radius around Eastlake, which is about 15 miles northeast of Cleveland, along Lake Erie. That makes for better productivity through reduced windshield time. As Haymer puts it, "It's hard to make money while you're driving."

This approach also frees up technicians to spend as much time with customers as needed — focus more sharply on providing great customer service. That fits in well with another Campbell Plumbing business philosophy: attracting and retaining lifetime customers, not one-time customers.

Haymer also credits some of the company's growth to its soft-sell approach. Technicians





Providing inspections helps show homeowners the condition of their lines along with any problems that may be present, which is helpful when discussing repair or rehabilitation options.

EQUIPMENT MATTERS

Providing good customer service requires a well-rounded fleet of equipment and vehicles. Campbell Plumbing runs two service trucks: 2017 and 2019 Chevrolet Express 4500 cutaway-cube vans outfitted with 17-foot Aerocell box bodies made by Unicell Body.

For drain cleaning equipment, each truck carries the following RIDGID products: a K-40 sink machine, a K-3800 drum machine and K9-102 and K9-204 FlexShaft machines. Haymer's truck also carries two drain machines from Picote Solutions: a Maxi Miller and a Super Midi Miller. One truck carries mostly Milwaukee Tool power tools, and the other truck carries primarily RIDGID tools, Haymer says.

The company also owns a Spartan 2001 drain machine, a RIDGID SeekTech SR-20 pipeline locator and six RIDGID SeeSnake pipeline inspection cameras: two standard SeeSnakes, two nanoReels, a Mini and a MAX rM200.

Technicians also depend on concrete saws made by Stihl; two Honda inverter generators used to power drain cleaning equipment when no electricity is available; and a Laserplane 220 laser transit level manufactured by Spectra-Physics. The company also invested in a Caterpillar 305 mini-excavator, primarily used to install clean-outs.

The company also owns a 4-by-7-foot trench box made by Allen Trench Safety and a StairCat motorized stair-climbing hand truck made by Escalera, which saves time and helps minimize on-the-job injuries that can be incurred while muscling heavy items like water heaters up and down stairs, Haymer says.

CONTINUED >>

Friendly competition

It's not unusual for a handful of plumbing contractors in and around Eastlake, Ohio, to refer their customers to each other when they're away for extended periods of time or don't have the capability to provide the required service.

"We've had guys go on vacation and put our name on their answering-machine messages," says Scott Haymer, who co-owns Campbell Plumbing & Drain Cleaning with his father, Ray Haymer.

Is that surprising? "Hell yeah," he says.

"But at the end of the day, that customer who calls that company needs help, and there's already a degree of trust already there (with their contractor). It's really no different than getting a referral for a doctor from your own doctor. People don't want to wait for service, so it's better to refer them to someone you trust."

The informal referral network developed within the last 10 years or so. It wasn't always that way; Haymer says he used to rarely talk to competitors. But as the years went by and he saw other contractors repeatedly at supply houses, as well as at children's school and sporting events, they went from competitors to acquaintances to friends. "You learn what they do, and they learn what you do," Haymer says. "When they get calls for drain cleaning, they call me. And when I get calls for remodeling or maybe getting a hotel plumbed, I refer people to them. In the end, we all know our customers will be taken care of in a timely fashion. And customers respect and appreciate that because they know we all have their best interests at heart."

It helps that there's typically more work in the area than everyone can handle, so no one feels threatened by competitors, Haymer says. In addition, the contractors don't poach customers from each other, a practice that helps sustain the unusual dynamic.

The informal network also can minimize the need to make significant investments in equipment to enter new markets, such as pipe lining. "I've subbed out pipe lining and pipe bursting jobs to another contractor, Tom Carlisle (the owner of Underground Connections in Wooster), for seven years," he says. "He has 20 years' experience and I'll never surpass that. I'd rather pay him for his experience."

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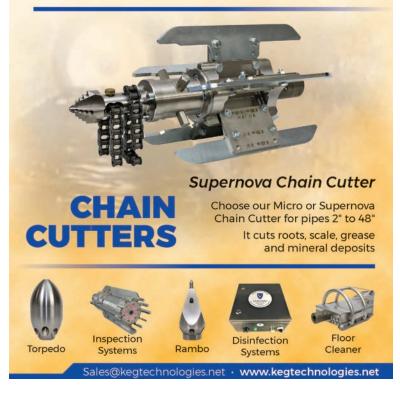


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"Overcoming the challenges that pop up is also rewarding. There are few things better than seeing that water vortex as the water finally starts moving down the drain."

Scott Haymer

For invoice creation, tracking and other cloud-based services, the company relies on the Invoice2go app. "We have internet hot spots set up in all of our trucks, along with printers. Technicians can look up jobs on the cloud while they're sitting in someone's driveway."

LOOK LIKE A PRO

Professionalism also is critical to the company's success. That includes wearing company-logoed T-shirts, sweatshirts and hats. In

addition, service vehicles feature hand-painted lettering, done by RL Signs in an eye-catching red, white and blue color scheme. Business cards and other company materials all feature the same lettering and colors to boost brand recognition.

To maintain good customer relations, technicians are trained to be polite, courteous and clean. "At the end of the day, customers are hiring plumbers, not lawyers and doctors," Haymer says. "We can be a little rough around the edges, but we're always nice. ... We introduce ourselves, take off our shoes and clean up our messes.

"We're there to do our jobs in a way that impacts customers the least. If it looks like we weren't there when we're finished, then I know we've done our job."

Haymer also believes that using newer machines and equipment and advanced technology — such as inspection cameras and water jetters — contribute to the company's professional image. It also helps customers understand why some repairs cost so much.

"After they see all the equipment you're bringing in and the technology you have, price objections



Haymer references the camera monitor while using a RIDGID SeekTech SR-20 locator to trace the path of a lateral line.

sometimes go away," he explains. "If they ask why a job will cost so much, you can point out the cost of things like cameras, jetters and locators. Once you do that, they have a better understanding of where the costs come from."

Looking ahead, Haymer says he expects further growth for Campbell Plumbing. He's a bit surprised at what the company has accomplished in the last five years, but he says it's a testament to good employees — Vince Lamitie, Jack Laing and Pat O'Brien — and advanced, reliable equipment.

"The running joke in our shop is we thought we really made it to the big time when we bought our first cordless Sawzall and our first laser transit," he says. "Then when we bought our first water jetter, we said, 'This is almost as good as our first cordless Sawzall.'

"That jetter was a milestone investment, for sure. So was the mini-excavator. And we're aiming for the next big milestone, whatever it may be." **c**

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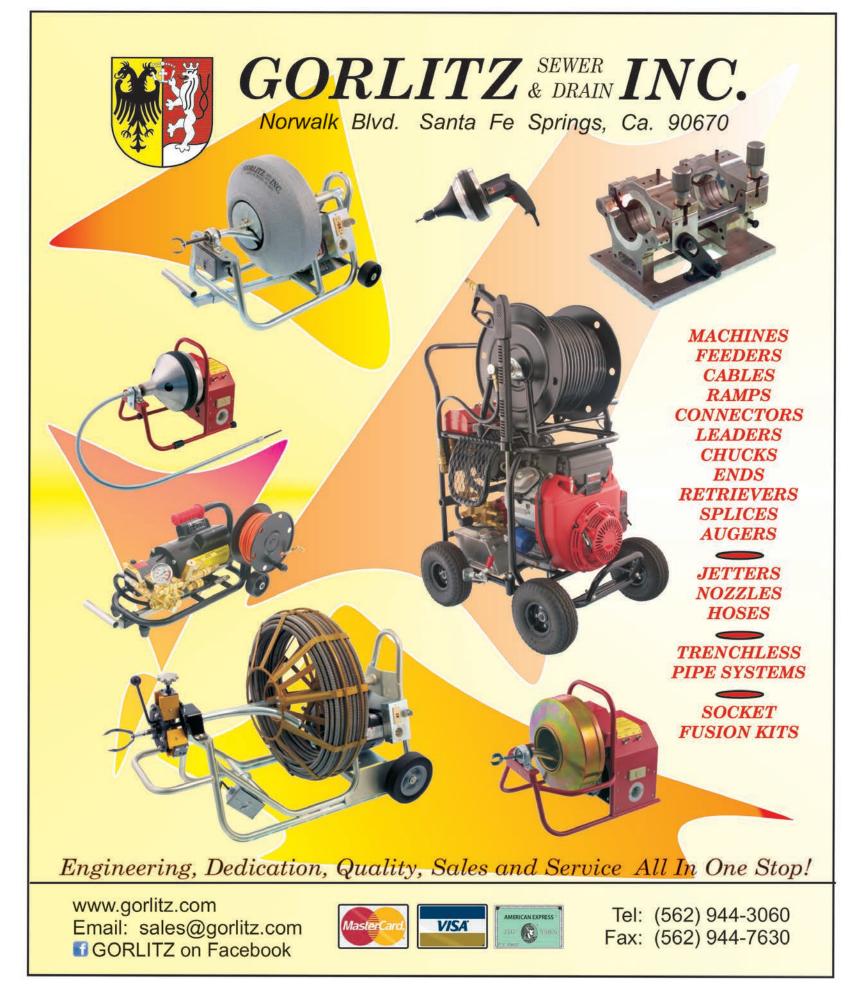
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A Closer Look

The Tax Cuts and Jobs Act changes might require you to analyze how you're financing equipment purchases

By Chris Fowler

mone

quipment is one of the most important factors in smooth operation of a drain cleaning business, and the question of how to pay for new equipment is equally important. With uncertainty of how 2017 tax reform will impact equipment acquisition, these business strategies warrant a closer look.

Financing capital equipment can enable drain cleaners to conserve their cash and lines of credit while providing maximum flexibility. The need to grow, stay competitive and meet the latest safety standards all factor into decisions when acquiring heavy equipment.

With all of this in mind, now is a good time to determine the best way to pay for capital equipment and maximize the benefits of tax reform legislation for qualifying purchases. This is general information only and is not comprehensive nor is it legal, accounting or tax advice. Consult with your own tax experts for advice on how to handle your individual situation.

ENTER TAX REFORM

The Tax Cuts and Jobs Act, or TCJA, of 2017 positioned some businesses for growth and profitability.

While manufacturers have historically identified successful go-to strategies to optimize equipment-related tax legislation, the playing field has changed. From 100% expensing to the elimination of corporate alternative minimum tax, recent changes require a fresh analysis. Here are four important considerations:

1. Equipment financing remains an effective acquisition tool.

The TCJA didn't change the tried-and-true benefits of leasing that have always supported business growth. Equipment financing continues to provide:

- Enhanced cash flow, allowing businesses to avoid large outof-pocket costs and effectively manage cash from operations.
- Flexibility and asset-management features, including options to keep equipment in place for the long haul or upgrade to the latest technology.



• **Preservation of credit lines** to support day-to-day business operations rather than long-term capital needs.

2. Continued tax savings.

Most equipment offers depreciation benefits. Historically, the most common equipment financing options — loans, nontax leases and tax leases — allowed the equipment owner to deduct equipment depreciation expenses from taxable income, which significantly lowered their tax liability. Fortunately, the TCJA didn't eliminate this benefit.

Determining the tax deductions and credits that benefit your business the most is time well spent.

Evaluating and selecting the option that optimizes your unique business tax strategy is essential. Traditional thinking went something like this: Full corporate tax payers benefited most by retaining equipment tax ownership to take depreciation directly. Loans and nontax leases worked best for these businesses. Businesses that weren't full corporate tax payers commonly found more benefit from shifting the equipment's tax ownership to a third-party financing source in return for a lower financing rate. In this scenario, tax leases often were appropriate for the business strategy.

3. Historic changes with major impact.

The centerpiece of the TCJA — a reduction in the maximum corporate tax rate from 35% to 21% — dramatically reduced tax liability for many manufacturers. Additionally, the range and size of available corporate tax deductions expanded. The combination of these two changes begs an important question for most businesses: How many deductions can realistically be absorbed going forward?

Determining the tax deductions and credits that benefit your business the most is time well spent. Together, your financial adviser and equipment finance provider can help you determine the right equipment acquisition strategy for your business this year and beyond.

4. How much is too much?

Understanding your company's ability to absorb large deductions (e.g., modified accelerated cost recovery system depreciation, 100% expensing and other tax benefits) is important. Here are some areas to consider:

100% Expensing

For the better part of the last decade, bonus depreciation has reigned supreme, offering an additional 30% to 50% cost recovery in addition to standard MACRS depreciation — on new equipment in the year it was placed in service. For equipment placed in service after Sept. 27, 2017, and before Jan. 1, 2023, however, the tax reform bill has eliminated the bonus depreciation feature. Instead, those who invest in qualified equipment during that time can simply expense 100% of the equipment cost in the first year of ownership.

Interest Expense Deduction

The TCJA now places limits on deductions related to interest accruals and payments made on debt in a given tax year. Unfortunately, this can negatively affect heavy borrowers and those investing in business growth and expansion activities. Equipment leasing might help to offset the pain, however, because rental payments arising from a lease are not included in this calculation.

Alternative Minimum Tax

The repeal of the corporate AMT was cause for celebration for many organizations. In the past, those paying AMT seemed to automatically benefit from a tax lease equipment acquisition strategy, as capital asset depreciation was an AMT preference item. This meant that equipment depreciation benefits were effectively neutralized and had little value for AMT payers.

Net Operating Loss Carryforward

Net operating loss carryforward generated in 2018 or later can no longer be carried back (with certain natural disaster exceptions) but can now be carried forward indefinitely. However, NOL will only reduce taxable income by up to 80% a year.

Section 179

Traditionally, Section 179 allowed businesses with limited capital acquisitions to expense 100% of the cost of new and pre-owned equipment in the first year of ownership. Owners could expense up to \$500,000 in cost, so long as the business' total equipment investment for the year did not exceed \$2 million. For investments totaling more than \$2 million, the deduction declined on a dollar-for-dollar basis.

The TCJA permanently increased the deduction to \$1 million beginning in 2018, on an equipment investment limit of \$2.5 million. Section 179 has always applied to new and pre-owned equipment purchases — previously a significant distinction from bonus depreciation. However, the new tax reform changes to Section 179 are both permanent and now applicable to a broader set of assets.

WEIGHING THE BENEFITS

Equipment financing can be used as a strategic tool. It allows drain cleaning businesses to not only acquire and employ assets immediately, but also develop a plan to achieve long-term goals. Whether the objective of your business is to enhance cash flow or optimize tax savings — or both — an in-depth analysis of your equipment acquisition strategy is necessary. Assessing your business' current and future asset needs in the form of a lease versus buy analysis can help determine whether a lease or loan is the best alternative for your company. **c**

ABOUT THE AUTHOR

Chris Fowler is vice president – industrial equipment and specialty vehicles for Key Equipment Finance, which provides financing for a wide range of heavy equipment, backed with decades of industry experience. He can be reached at chris.fowler@key.com or 937-285-5361.



better BUSINESS

Inspire Excellence

Company culture starts at the top, so honing your leadership skills helps ensure future success

By Brigham Dickinson

e hear and read a lot about big company cultural excellence driven by globally recognized visionaries. But service business owners can project the same kind of "big leader" energy to create a culture of excellence in their companies. By my own experience, I know what it's like for a business to fail. I also know firsthand how to grow a business and lead a team to success. Through my experience, I have learned a lot about what being a leader really means. Many of these lessons were learned the hard way. So, from one leader to another, here are some ways to build a culture of excellence in your workplace.

1. CHECK YOUR ATTITUDE.

Do you consider your emotional state before you walk in the front door of your building? Think about that question to understand what it means. Being positive isn't just being happy: As a leader, it means you can never have another bad day. Your attitude will have an effect on your team as long as you're leading them.



Think about how your employees might feel if you went to work in a horrible mood, and everyone knew it. The second you walk in with that dark cloud of negativity hanging over you, you can single-handedly ruin your company's productivity.

As a leader, you need to

be the rock that your company organizes itself around. And that means you can't have a bad day, because everything you do impacts your team for good and bad. So, before you walk through that door, make sure your attitude is positive and upbeat.

2. LEARN TO ACTIVELY LISTEN.

When a team member tells you something, do you really pay attention? If you don't, you're losing significant opportunities that



not only cost money, but can damage your team's morale. Everyone has an emotional need to be understood. Your team is on the front line, working with your customers. The more you listen and become aligned with your team, the more successful in your marketplace you will be. Learn to be engaged in pivotal moments and listen to those people who follow you. Great leaders are great listeners. To attain cultural excellence, learn to truly pay attention to your team.

3. DOES YOUR TEAM LOOK UP TO YOU OR PUT UP WITH YOU?

Great leaders attract people with similar interests. They project the image of their brand and live up to it. Bad leaders, on the other hand, forget that to be truly successful, they need to focus on embodying the values they claim to promote. If there is a break in employee trust because of your behavior, it can cause some serious problems in your office culture. Compensation is not enough for your team anymore. They need inspiration and great leadership. Live by the values you teach so that your team will look up to you instead of tolerating you.

4. FEELING WELCOME IN YOUR OWN OFFICE IS KEY TO CULTURAL EXCELLENCE.

When you talk to your team, how do you feel? Do they treat you like a friend? An enemy? A meddler, who's come to ruin their projects or micromanage them? If you don't feel welcome, it may be time for some self-reflection. If you're not doing enough as a leader to make people want to gather around you, you're not leading. To build a culture of excellence, you need to be excellent yourself. If you're truly doing that, you'll feel it and you'll always feel welcome in your own office.

5. BEFORE YOU FIRE SOMEONE, CONSIDER THE PERSON WHO HIRED THEM.

Many bosses probably have a list of bad employees on their mind. Really bad hires happen to all of us. Even the best leaders have a really bad hire here and there, but if you're running into a bunch of little mistakes or chronic bad performance from several employees all the time, there's a good chance you're doing something wrong as a leader, too.

In my training company, we put thousands of our clients' call handlers through a buyer experience certification program. When you put your team through training and hold them accountable, you are showing you believe in their ability and care about their success.



You likely hired each member on your team because you believed they could do the job. Showing empathy toward your team means you have walked a mile in their shoes or can at least imagine what they are going through and support them with ongoing training and accountability. If you do not have the infrastructure in-house, outsource it, and you'll be amazed at how that will positively affect your culture and company growth. Before you fire people, ask yourself if you've given them a fighting chance with training and accountability.

6. DO YOU SKIP THE PLEASANTRIES?

How often do you just jump to the point when you need information from your team on a project? Really, this is the difference between treating people like humans and treating them like machines. You hired thinking, feeling individuals, not drones, and the way you interact with your employees shows how you value their individual worth. This can affect how they perceive you, and that affects their morale. The surest way to a bad corporate culture is to adopt a no-nonsense, business-focused attitude that doesn't consider the human aspect. Just remember that you are working with people, and when you focus on your people, cultural excellence and profit will come.

7. DO YOU KEEP YOUR COOL UNDER PRESSURE?

When something goes wrong, what is your response? Do you find yourself ever lashing out at your employees, berating them

for something they've done? Or are you taking a calm, measured approach that focuses on solutions rather than problems?

Your team is your biggest strength, and you need to know you can count on them. More important, they need to know they can count on you. And if you're constantly putting the blame for your business' problems on them, they won't be there when you need them to be.

Take blame as often as you can. If it is your fault, own it. And when credit is due, give it away to your team as often as possible. Your employees will respect you for it, and they'll want to follow the example you have set.

To build a culture of excellence, you need to be a great leader, and if you're constantly working to become a better one, your business will grow exponentially. **c**

Brigham Dickinson is president and founder of Power Selling Pros, a coaching and training firm dedicated to teaching businesses to wow more customers. Dickinson is also a founding faculty member of EGIA Contractor University and the author of *Patterned After Excellence: Pursuing Truth in Work and Life,* a leadership and development book.

Less Is More

money MACHINES

Blasting equipment that collects and separates debris and cleaning media offers competitive advantages like requiring less manpower

By Ken Wysocky

oss Forbes loves how Rapid Prep VB 1200 blast and recovery systems help his company, R.J. Forbes Painting, clean tanks, pipelines and industrial machinery to rigid specifications in preparation for painting. He also loves what they *don't* do: Require as many employees on the job. Or as much equipment.

As the name implies, the machine first scours surfaces, typically using garnet granules or steel grit, then recovers

the media for reuse. Crews at the Massachusetts-based company can get the job done with just four men instead of six, Forbes says, and they do the work with one machine instead of several.

"We used to need those two extra guys to do more manual jobs, like shoveling and sweeping up debris," he explains. "But the VB 1200 blasts the abrasives, then vacuums up both the spent media and any debris.

"This helps us allocate our manpower more efficiently and reduces labor and media-buying expenses, both of which help us compete better on price. Sometimes we can clean 25% to 50% faster than if we used other systems. It's just a very efficient machine."

The unit, which weighs about 3,000 pounds and is skidmounted on a trailer, is 8 1/2

R. J. FORBES PAINTING INC. Attlebord. Massachusetts

OWNER: Ross Forbes TOOL: VB 1200 blasting and recovery

machine from Rapid Prep

FUNCTION: Media-blast cleaning and debris recovery

FEATURES: 16-cubic-foot-capacity blast pot with two blasting outlets: 16-cubic-foot storage hopper: dual-jet vacuum system (1,400 cfm); weighs about 3,000 pounds; measures 8 1/2 feet long, 4 feet wide and just more than 10 feet high

COST: \$72,000

WEBSITE: www.rjforbespainting.com

» R.J. Forbes Painting technician Weston Forbes uses the Rapid Prep VB 1200 blast and recovery system to clean a tank at a chemical manufacturing facility. feet long, 4 feet wide and just more than 10 feet high. It features a 16-cubic-foot-capacity blast pot with two blasting outlets, a 16-cubic-foot storage hopper and a dual-jet vacuum system (1,400 cfm).

The media gets vacuumed into the blast pot and is sprayed through 1.5-inch-diameter blast hoses. At the same time, a vacuum system uses filters to separate the collected media into one tank for reuse and the debris into another tank for disposal. The media can be reused an average of three times, Forbes explains.

TACKLING TOUGH JOBS

Established in 1981, the company — which employs 75 people and is based in Attleboro — does commercial and industrial painting throughout New England. The company cleans and paints things like water-filtration clarifiers, pipelines and tanks



in the water and wastewater industries, plus storage tanks and pipelines in the petroleum and chemical industries.

Cleaning clarifiers (essentially large concrete tanks that house metal agitating devices) ranks among the toughest jobs. "They're cleaned about every 15 years, so they're usually extremely deteriorated by the time we get there," Forbes says. "We're removing heavy rust scale, usually about a 1/4 inch thick. ... It can take about a month to clean and paint one."

"This helps us allocate our manpower more efficiently and reduces labor and media-buying expenses, **both of which help us compete better on price.**"

Ross Forbes

On the other end of the spectrum, the company recently spent about three weeks cleaning and repainting a massive, 18-ton pressstamping machine that was covered with about 50 years' worth of oil and grease buildup.

"There was about an inch of oil and grease caked on the surface and mixed with dust, which created a claylike substance," Forbes says. "That was a tough job."

In many cases, cleaning jobs are subject to prepainting inspections by independent third parties. This ensures that whatever is being painted is clean enough to meet stringent standards and specifications. "Good prep work is everything."

NO TIME TO WASTE

In addition, many industrial painting jobs are performed during plant shutdowns. As such, deadlines are tight, leaving little margin for machine breakdowns. That's where the VB 1200 offers another benefit: A simple, well-engineered design that helps to minimize breakdowns, Forbes says.

"Less moving parts means there's less to maintain and fewer things that can go wrong. Downtime on jobs is a real killer, especially on the municipal side where the state dictates the hourly wage we have to pay (under a prevailing-wage law). So every minute counts.

"And on the manufacturing side, we're often working during plant shutdowns. So if we miss a deadline, customers can't get back online, which can ruin your reputation with that customer."

The machine is easy to use; Forbes says an operator can become fairly proficient after a couple days.

The company uses other Rapid Prep equipment — including a dust collector, a 600-pound portable abrasive blast system and

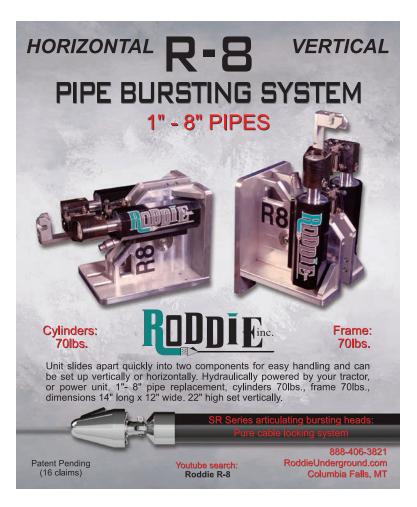
a couple of 755 vacuum systems — and a 6- and 8-ton-capacity Schmidt bulk abrasive blast system.

"Using Rapid Prep's technology to get jobs done instead of older technology speeds up our processes and helps us build a reputation as a good contractor to work with," Forbes says. "That leads to word-of-mouth referrals, which are the best kind of advertising.

"These machines are critical to our operations. We wouldn't be in business without them." ${\bf c}$

SHOW US THE MONEY (MACHINE)

Money Machines, a feature in *Cleaner*, reports on innovative work vehicles that help contractors operate more efficiently, satisfy customers and earn more profit. We'd like to know about your Money Machine – be it a service van, camera truck, jetting rig, vacuum unit or any vehicle that really helps drive your business. To nominate your vehicle for a feature in this column, send an email to **editor@cleaner.com**. Tell us briefly but specifically what features make it a great producer. And send a picture – because appearance counts. We look forward to seeing your Money Machine.





Pipe Bursting Methods and Projects

By Craig Mandli



HORIZONTAL DIRECTIONAL DRILLING

1 / DITCH WITCH JT24

The JT24 directional drill from Ditch Witch is equipped with a 101 gross hp, Tier 4- and European Stage 5-compliant Cummins diesel engine. The unit offers 24,000 pounds of thrust and pullback while maintaining a small footprint on a wide range of urban and residential gas, fiber and other utility installations. A new hydraulic platform maximizes drilling efficiency and conserves horsepower downhole. It holds up to 400 feet of drill pipe on board, allowing for longer bores. 800-654-6481; www.ditchwitch.com.

2 / INFINITY TOOL PDC PRODUCT PULLER

The PDC Product Puller from Infinity Tool is designed to integrate with a PDC bit, allowing the product to be pulled without removing the bit at the end of the pilot bore. The puller enables massive time savings, as there is no need to remove the PDC bit at the end of the pilot bore, which means no large exit pit or heavy hand tools. **618-439-4042**; www.infinitytoolmfg.com.

3 / MELFRED BORZALL EAGLE CLAW SD

The Eagle Claw SD bit from Melfred Borzall has integrated dome carbide blocks in the body to give greater wear protection and cutting power. Added conical carbides on the upper cutting face add more aggression to the bit's cutting power. The dome carbide blocks on the opposite side of the body also help transfer more power to the cutting surface as they push against the wall pack during rotation down the hole. The balanced cutting design ensures there is no vibration up the rod and to the rig so that wear protection extends to the rest of the rig. **800-558-7500**; www.melfredborzall.com.

HYDROEXCAVATION

4 / COMET INDUSTRIAL PUMPS EF AND EFR 75/88

EF and EFR 75/88 high-pressure plunger pumps from Comet Industrial Pumps (A Division of Valley Industries) easily handle up to 23 gpm, 4,060 psi and 43 hp. Flexible setup allows for multiple gearbox mounting positions, and a symmetric crankcase allows for simple right-to-left shaft conversion. They are designed with stainless steel and aluminum alloy to provide increased durability. They come standard with heavy-duty seals that have low-pressure lubrication and a circulation chamber. They include oversized tapered roller bearings, solid ceramic plungers, stainless steel piston guides and connecting rods with thin-shell bearings. They come standard with a flange for a direct-drive mount, but they can be adapted for a hydraulic motor, a PTO connection or set up with an input pulley and clutch. 800-864-1649; www.cometpump.com.

5 / DYNABLAST HV420F-12VRED

The **Dynablast HV420F-12VRED** hydrovac water heater produces 420,000 Btu with an output temperature of 175 degrees F at 5 gpm, making it suitable for colder climates and improved digging in clay-filled areas. All models come with ETL certification for safety, which also includes certification on the coil for higher efficiency and heat transfer, a stainless steel target plate for increased coil life and a



design with serviceability in mind with momentary override control. A 19-by-19-inch footprint makes it suitable for compact installations. 905-867-4642; www.dynablast.ca.

6 / ENZ USA HYDROX NOZZLE

The HydroX nozzle from Enz USA is available in 3/8-inch NPT or 1/2-inch connecting threads, and it can function at up to 5,000 psi with flow as low as 8 gpm. It combines a powerful, oscillating water jet with the high removal rate of debris. A tungsten carbide front jet ensures a longer life than ceramic jets can offer. For quick and easy maintenance, a repair kit is available. Due to the nozzle's simplicity, repairs can be made quickly and efficiently in the field with little downtime. For the operator's safety, a plastic cover provides protection against harsh and sensitive environments. **888-369-8721**; www.enz.com.

7 / GAPVAX HV33

Designed to safely transport water and debris in urban areas, the GapVax HV33 is shorter, smaller and more compact than its predecessor. It is 30 feet long overall on a medium-duty chassis and includes a 600-gallon water tank, 6-cubic-yard debris body, 6- or 8-inch top-mounted telescoping boom with a 14- to 17.5-foot reach, 4,000 cfm power and an inverted, full-opening tailgate. 888-442-7829; www.gapvax.com.

8 / HI-VAC AQUATECH GUARDIAN

The Aquatech Guardian from Hi-Vac has a large vacuum system offering 5,800 cfm and 27 inches Hg, allowing operators to keep up with heavy-flow, large-diameter sewers. The large-capacity vacuum system allows for fast, efficient loading in any application. A noise-deadening, climate-controlled enclosure prevents freezing, reduces noise and secures tools. Its rear hose reel design protects the operator from noisy and hot chassis engines with an operating noise level typically less than 81 dBA. The top-loading, 360-degree boom

offers efficiency and unlimited work zones for fast and easy setups. A rear-mounted hose reel with 180-degree hydraulic articulation can extend the reel reach beyond the truck's width. 800-752-2400; www.aquatechinc.com.

9 / HOTJET USA VAC 'N JET SERIES

The HotJet USA Vac 'n Jet Series of vacuum trailer jetters are rugged and compact; are engineered to haul equipment and spoils loads; can clean valve boxes and storm drains; and can hydroexcavate and/or clean drainlines and sewer lines. They offer hot- and/or coldwater operation with a choice of engine options ranging from 13 to 66 hp and gas or diesel operation. They are equipped with premium triplex pumps, a 500-gallon spoils tank, 200-gallon water tank, Gardner Denver vac/blowers, 4-ton hydraulic dump and centri-clean filter system. They can also be custom-engineered and designed to meet specifications. 800-624-8186; www.hotjetusa.com.

10 / HYDRA-FLEX REAPER ROTATING JETTING NOZZLE

The **Reaper** rotating jetting nozzle from Hydra-Flex has a rotating front jet that provides a 0-degree, straight water stream that blasts at up to 4,000 psi while rotating. Optimized stream quality results in greater impingement, allowing the technician to use one tool for various applications, including cutting, cleaning and removal. Its four rear jets create a 20-degree angle for maximum thrusting and pulling power. This heavy-duty, high-impact nozzle is constructed with a stainless steel housing and tungsten carbide wear surfaces to withstand harsh environments and provide long life. **952-808-3640**; **www.hydraflexinc.com**.



11 / KAISER PREMIER CV SERIES

CV Series hydrovacs from Kaiser Premier are purpose-built to handle tough applications in harsh climates. At the center of the unit is a Robuschi DV145 27-inch Hg, 6,600 cfm positive displacement blower that allows operators the power to pull long distances, reach great depths and handle heavy sludges. Optional air excavation capabilities let operators use air or water excavation depending on the demands or requirements of a specific job. They come ready to dig with a top gun boom that allows 342-degree rotation and 26 feet of reach. The boom is also capable of digging 20 feet down without clamping on extension pipes, saving valuable time in the setup, teardown and cleaning processes. 970-542-1975; www.kaiserpremier.com.

12 / NOZZTEQ MONRO-JET

The MONRO-JET hydroexcavation nozzle from NozzTeq combines the power of a solid-stream pencil jet with the large coverage of a fan jet. An orbital design increases performance at a lower gallons-per-minute rate and pressures as high as 36,250 psi, allowing the operator to move faster when hydroexcavating and cleaning surfaces or sewer lines. It can be used for other types of surface cleaning such as concrete, steel, castings and large surface areas including line removal from runways. It can be modified for internal cleaning of sewers and pipes of all types. 866-620-5915; www.nozzteq.com.

13 / RAMVAC VACUUM EXCAVATORS BY SEWER EQUIPMENT HX-12

The HX-12 hydroexcavator from RAMVAC Vacuum Excavators by Sewer Equipment has a 12-yard debris box and a standard 4,400 cfm blower designed to match the performance of larger blower machines while delivering fuel economy. Its directional discharge system allows the off-loading of debris back into the excavation site without the mess of dumping the tank and lets operators easily blow obstructions out of the dig tube without having to shut down vacuum operations. It is a true all-weather vacuum excavator, as all major water components, including plumbing, water tanks and water pump, are housed within a temperature-controlled environmental chamber to avoid water system freezing when working in subzero temperatures. It includes a long-range wireless remote, NEMA 4 electrical system, a 900,000 Btu water boiler and a three-stage cyclonic filtration system. 877-735-4640; www.ram-vac.com.

14 / RIVAL HYDROVAC T7 TANDEM

The T7 Tandem hydrovac from Rival Hydrovac was designed primarily to be loaded with debris and driven within legislated road limits with most types of debris on board. The unit comes standard with a scale that reads real-time weights both in the cab and on the wireless remote to confirm weights prior to travel. It is operatorfriendly, and the operating system is engaged through one PTO switch. The remainder of the operation occurs from the rear panel or the wireless remote. The components are high performance, and the unit will dig at levels competitive to large units, according to the maker. 403-550-7997; www.rivalhydrovac.com.

15 / SOIL SURGEON HYDROEXCAVATING TOOL

The **Soil Surgeon** hydroexcavating tool fits any sewer combination truck equipped with a telescoping 6- or 8-inch boom. The tool has a 1-inch water connection. The operator controls water pressure and power through truck controls. It has a 6-foot Tuff Tube with handles to guide the unit down for potholing or side to side for trenching. Six jets boring inward cut the soil, while six boring outward bring the tube down. **949-363-1401; www.soilsurgeoninc.com**.

CONTINUED >>

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— Over 115 YEARS OLD —















16 / SUPER PRODUCTS MUD DOG

The Mud Dog hydroexcavator from Super Products is designed for operator convenience and consistent performance in the harshest environments, according to the maker. It offers an air excavation option, allowing the operator to choose water or air. It is available with 12- or 16-yard debris capacity. It comes standard with safe tilt ejection unloading and is equipped with a rear-mounted boom that can reach 27 feet with a 335-degree rotation and can move in a 45-degree-upward and 25-degree-downward pivot. This allows for versatility within dig areas so units do not need to be constantly readjusted into position. 800-837-9711; www.superproductsllc.com.

17 / TORNADO GLOBAL HYDROVACS F4 ECOLITE

The F4 ECOLITE from Tornado Global Hydrovacs has a 12-cubic-yard mud tank and holds 1,550 gallons of freshwater. The unit is more than 7,000 pounds lighter than the company's older models and offers more than double the payload. The boom has a 342-degree rotation and a 26-foot reach. The smaller F3 ECOLITE is a 10-cubic-yard, 1,250-gallon tandem-axle unit that more than doubles older payload capacities. It features an 8-inch boom and 3,800 cfm blower. 877-340-8141; www.tornadotrucks.com.

18 / TRUVAC BY VACTOR PARADIGM

Designed for utility, municipal and contractor customers involved in the installation, maintenance and repair of underground water, sewer, gas, electric and telecommunications lines, the **Paradigm** subcompact vacuum excavator from **TRUVAC** by Vactor can dig holes with water or air; vacuum, contain and dispose of drill mud; power pneumatic, hydraulic or electrical tools; and provide transport and storage of replacement parts, equipment and tools. The truck's Park-n-Dig design minimizes time between job site arrival and excavation, including the ability to dig up to 6 feet without additional pipe and hose. The air compressor powers utility tools such as jackhammers and tampers. The truck offers tool storage space, including a long-handle toolbox. The truck can tow up to 20,000 pounds. 800-627-3171; www.truvac.com.

19 / VAC-CON X-CAVATOR

The X-Cavator from Vac-Con is designed to be powerful, durable, efficient and easy to operate. It features a hydrostatic drive using the chassis engine for vacuum, eliminating the need for PTO, clutch and gearbox operation. It is available with water systems up to 4,000 psi and a mobile, wireless remote-control system for chassis engine revolutions per minute, boom, automatic vacuum breaker, dump controls and hydraulic door locks from up to a half-mile away. The boom rotates 270 degrees. 904-284-4200; www.vac-con.com.

PIPE BURSTING TOOLS

20 / HAMMERHEAD TRENCHLESS HG2200

The 22-ton, radio remote-controlled HydroGuide HG2200 cable winch from HammerHead Trenchless is designed for maximum efficiency and ease-of-use in pipe bursting, sliplining and pipe slitting applications. Radio remote control provides operators maximum visibility when positioning the winch by freeing them from a position at the controls on the back of the unit. Operators simply launch the unit's 23-foot hydraulic boom with the touch of a button and can fine-tune its depth to 20 feet. The boom is adjustable along all three axes for exact positioning. Line speed and pressure for the unit's 2,500 feet of cable are both infinitely adjustable within their parameters. It is available in wheeled or tracked configurations and comes standard with hydraulic leveling jacks. 800-331-6653; www.hammerheadtrenchless.com.

CONTINUED >>

YOUR FLEET

DOMINATOR SERIES 708

The Huber Dominator Series 70B offers a price competitive unit used for many applications within the Liquid Vac market. Its simple design offers ease of use to any operator while maintaining Huber's legendary quality and dependability. Scan the QR code or go to keithhuber.com to build your Huber unit today.



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21 / POW-R MOLE TRENCHLESS SOLUTIONS PD-33M

The PD-33M pipe bursting machine from Pow-R Mole Trenchless Solutions is designed to replace existing underground pipes 2 to 6 inches in diameter. Its nonslip, cylinder-activated jaws prevent cable damage while providing 60,000 pounds of pulling force. It offers a cost-effective alternative to opencut excavation, reducing customer disruption and increasing company profits. The process replaces the existing pipe with a fused HDPE pipe, which eliminates all joints, and allows the operator to pull through bends such as 45-degree fittings. This system is modular and can be easily disassembled and reassembled for manhole and basement applications. With a compact design and very small footprint of only 20 by 20 inches, this unit can be used in tight locations. 800-344-6653; www.powrmole.com.

22 / SPARTAN TOOL UNDERTAKER

With 30 tons of lateral pulling force, the UnderTaker pipe bursting system from Spartan Tool employs a hydraulically powered cylinder that pulls a bursting head through the existing line while simultaneously replacing it with seamless, high-flow, code-approved HDPE pipe. With a small hole at each end of the run, the user can pull pipe from the building to the main, accommodate bends in the pipe, increase diameter and lay new line at a rate of up to 5 feet per minute. The system allows replacement of 2- to 6-inch pipe with up to three 45-degree bends in the pipe. It can also upsize from 4- to 6-inch pipes. When assembled, the unit weighs 210 pounds, but it disassembles into four separate components for easy transport, with no part weighing more than 70 pounds. 800-435-3866; www.spartantool.com. c



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SPOTLIGHT

By Tim Dobbins

Added visibility makes reel a safer choice



The nature of the drain cleaning industry often puts professionals in situations that are difficult, dirty and hazardous. Employee safety is always a concern. Every step a company takes to create a safer environment for workers helps increase morale and job efficiency.

Through the development of high-visibility safety hose reels and hi-vis hoses, COXREELS is aiming to increase job site safety while still providing the necessary tools for drain cleaners.

"The high-visibility safety hose reels power up the safety level of your reels and with the addition of hi-vis hose, awareness and visibility," says Annette Volcan, COXREELS' marketing supervisor. "Adding EZ-Coil controlled retraction and hi-vis hose to your COXREELS reel will create the maximum safety environment for your workplace."

The EZ-Coil rewind system controls the reel's spring motor, reducing the speed of hose recoil by up to 80%. This results in slow and steady retrieves, making the high-visibility hose reel even safer yet for operators and nearby employees.

COXREELS hi-vis hoses are designed to reduce tripping accidents in the field: A bright yellow coloring with a glossy white stripe makes them easy for workers to see. When not in use, hoses and cables are safely retracted in the reel for safe storage.

Working in conjunction with another U.S. hose manufacturer, COXREELS developed the hi-vis hose to increase hose flexibility while maintaining strength. "It was optimized for maximum visibility and performance with respect to a balance of flexibility and durability," Volcan says. Utilizing a hybrid PVC/rubber material, hose flexibility is increased even at low temperatures. Hi-vis hoses are available in 3/8- and 1/2-inch sizes and can be used effectively with both air and water, with a working pressure up to 300 psi. Due to its increased flexibility, the exclusive material is kink resistant with reduced coil memory, decreasing hazard potential by consistently lying flat on the ground.

Customers have spoken highly of the new products, Volcan says. "They love the concept and realize that the high visibility will make for a much safer work environment."

The products are designed to effectively decrease the chance of injury from tripping hazards in a variety of industries and can be used to replace outdated hoses. "Every industry can benefit from improved safety and visibility," Volcan says. "It is a perfect replacement for any application that currently uses PVC or lowpressure rubber hose." **800-269-7335; www.coxreels.com**.





VACALL ALLEXCAVATE HYDROEXCAVATOR

The Vacall AllExcavate hydroexcavator is ideal for excavating soil, rocks and clay around utility lines and foundations. It uses high-pressure jetting action up to 24.5 gpm with up to 3,000 psi to loosen material. A 27-inch Hg and 5,800 cfm vacuum suctions the material and water slurry into the debris tank. The multistage vacuum filtration system has a simplified design to reduce maintenance, extend performance and increase working life. As material is deposited into the debris body, air continues to move through a dual cyclone separator where more material particles and moisture are removed. The filtered air then passes through the blower, silencer and exhaust. All of the AllExcavate models are available with three different vacuum boom tube and hose designs to accommodate customer preference. 800-382-8302; www.vacall.com.

MILWAUKEE TOOL PACKOUT COMPACT TOOLBOX

Milwaukee Tool has added the PACKOUT compact toolbox to its PACKOUT modular storage system. Featuring a 75-pound weight capacity and quick-adjust dividers, the toolbox allows for internal adjustments to the layout in order to accommodate various job site materials. Constructed with impact-resistant polymers and an IP65rated weather seal, the compact toolbox is built to withstand harsh job site environments. 800-729-3878; www.milwaukeetool.com.

2 SEWER EQUIPMENT TEMPEST INDUSTRIAL AIR MOVER

✓ The RAMVAC Tempest industrial air mover from Sewer Equipment has an 18-cubic-yard debris box and a 28-inch Hg cfm positive displacement blower through an 8-inch system. The self-discharging filter system provides automatic interval cleaning of the filter house during operation, reducing downtime. The articulating, extendable



knuckleboom provides 4.5 feet of extension, with a total working length of 16 feet and 270-degree range of motion. Standard with a fully opening rear door, the Tempest requires only one dump to eliminate all debris within the box. Also standard is a 50-degree dump angle and 50-inch clearance from splash plate to the ground, allowing for easy off-loading of material into roll-off containers. 800-323-1604; www.sewerequipment.com.

RIDGID STRUTSLAYR SHEAR HEAD

The RIDGID StrutSlayr strut shear head creates clean, square strut cuts free from chips and burrs with a single pull of the trigger, in five seconds or less. It easily attaches to the RIDGID RP 340 press tool. It has a built-in measuring guide and 13/16-inch, 1 5/8-inch or combo quick-change dies. It's also TRISTAND mountable. 800-769-7743; www.ridgid.com.

MI-T-M HOT-WATER MINI TRAILER

The 4,000 psi hot-water mini trailer from Mi-T-M has a compact design that is perfect for remote cleaning jobs and is easy to store when the job is done. The industrial belt-drive pressure washer utilizes a 12-volt Beckett burner to heat water to 210 degrees F. The package comes complete with an insulated dual-lance and trigger gun, including four quick-connect nozzles, and a 50-foot industrial steel wire braided hose. A 10-gallon diesel fuel tank allows for up to eight hours of cleaning. The trailer has a durable, powder-coated steel frame and rear locking storage area. An optional adjustable trailer hitch swings out of the way for ease of storage. 800-553-9053; www.mitm.com. **c**

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Wasteguip names Bryant chairman of the board

Wastequip has appointed Marty Bryant as chairman of its board of directors. Bryant has served as the company's CEO since 2012 and has been a member of its board of directors since that time. His career spans all facets of industrial and automotive manufacturing, from design and development to executive



Marty Bryant

management and successful distressed business turnarounds. Prior to joining Wastequip, he held positions as senior adviser at Centerbridge Partners, president of light-vehicle products at Dana, vice president of operations at Webasto Roof Systems and engineering manager at Toyota.

Halbardier joins Vacuum Truck Rentals

Vacuum Truck Rentals announced Mitch Halbardier as the newest member of its sales team. He will serve the Deer Park, Texas, region and brings more than 18 years' experience in the vacuum truck and heavy-equipment industry. Halbardier holds certifications in several Vactor training programs, as well



Mitch Halbardier

as Vactor 2100 mechanics training and Vactor HXX products/ mechanics training. He also holds training certifications with IBAK camera systems and PipeLogix, and he has worked with many other manufacturers and equipment including Keith Huber, Galbreath, Presvac Systems, Global Vacuum Systems and GapVax.

O.J. Watson Equipment joins Vac-Con distribution network

Vac-Con announced that O.J. Watson Equipment joined its distribution network providing coverage in Colorado and specific counties in Wyoming. Family-owned and -operated since 1988, O.J. Watson traces its roots back more than 100 years, building custom trucks from pickups to large workhorses since 1912. Headquartered in Denver, the company also operates a full-service facility in Greeley, Colorado.

Fink named president of Plastics Pipe Institute

The Plastics Pipe Institute named David M. Fink as its new president and executive director. Fink, a veteran of the plastics pipe industry, previously served as the chairman of the PPI board of directors from 2017 to 2019 and has held a number of other leadership positions within the organization. Fink earned



David M. Fink

his Bachelor of Science degree in chemical engineering from the University of Pittsburgh and his Bachelor of Science degree in chemistry from Gannon University in Erie, Pennsylvania.

Vermeer enters distribution agreement with MultiOne

Vermeer announced it has entered into a distribution agreement with MultiOne, a manufacturer of compact articulated loaders. Through the agreement, MultiOne will supply Vermeer-branded loader models to be sold, serviced and supported exclusively through Vermeer dealers across North America and the Caribbean.

GPS Insight acquires ServiceBridge

GPS Insight announced the acquisition of Chicago-based ServiceBridge, a leading field service management software company for small businesses and franchises with tools that empower field service teams. Founded in 2010, ServiceBridge offers software solutions that enable field service teams to dispatch technicians, manage customer data, streamline workflow management and franchise operations, and analyze results.

Kaiser Premier announces management appointments

Dan Weber, president and CEO of Kaiser Premier, announced the promotion of several key employees to its executive management team. The promotions include Kofi Barkoh, executive vice president, general manager, Gulf Coast region. He joined the company in 2019 and was instrumental in launching the new Gulf Coast service center in Pasadena, Texas. Lindsey





Lindsey Escalante





Escalante, vice president, supply chain and quality operating systems, has been with the company since 2005. In addition to her experience in administrative and financial roles, Escalante has 12 years' experience in supply chain management. Brandon Buchleiter, now the vice president of operations, started with the company in 2000. He has served as operations manager for the company since 2017. And Marcus Thomas, vice president of engineering, joined the company in 2006. He has held various positions in maintenance, product support and production management.

Vacuworx promotes Raines to regional service manager

Vacuworx announced an increased presence in the Gulf Coast area with the promotion of Paul Raines to regional service manager. Factory trained and certified to inspect, service and repair all makes and models of Vacuworx lifting



Paul Raines

equipment, he has been deployed north of San Antonio, as Vacuworx anticipates current and future needs tied to growth potential in South and West Texas and throughout the Gulf Coast region. c

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DRAIN/SEWER CLEANING EQUIPMENT



NEW 2020 MC1510 GapVax sewer cleaner: JD Brule Equipment, Located in Greely, Ontario, Canada, is selling a GapVax sewer cleaner on a 2020 Western Star 4700 chassis and is available immediately. The unit has 10-cubic-vard debris tank, holds 1,500 US gallons of water, standard 4,500cfm 18" Hg blower (8.6 hours) and Giant water pump. Please contact Adam Russell if you are interested.

> 613-293-1965, Ontario C04



2003 Aquatec B-10, Caterpillar, Eaton-Fuller 8-speed, Roots G-24, MSS55 80gpm @ 2,000psi, 7,997 hrs. New clutch, tires, snorkel, water pump packings. Used daily. Training can be discussed.\$73,000 OBO

> Office 814-362-9515, PA Kerry@pipeeyesewer.com c04

HYDROEXCAVATORS



2001 Vactor 2112HXY hydro truck, dual fan system vacuum, 10gpm at 2,500 psi, 12-yard debris box, 1,000-gallon water tank, 8-speed manual transmission, 3126 CAT engine. 8" extendable boom. 86,000 miles (new engine in 2018), 10,774 hours.\$50,000 C05

920-734-4707. WI

JET VACS



1.500-gallon water tank system. 600foot hose reel capacity. \$85,000 406-447-5050, MT C04

2007 Volvo with a Vactor 2115 combination unit. (Stock# 5903C). (888) VAC-UNIT (822-8648); www.vsirentalsllc.com (CBM)



2004 Vactor combination sewer vacuum and high-pressure jet having positive displacement blower and 9-cubicyard debris hopper capacity, mounted on a Sterling chassis. 80gpm/2,500psi, 1,000-gallon water tank system. 600-ft. hose real capacity. \$40,000 C04

Steve 909-721-0143, CA



um and high-pressure iet having positive displacement blower and 9-cubicvard debris hopper capacity, mounted on a Sterling chassis. 80gpm/2,500psi, 1,000-gallon water tank system. 600 ft. hose real capacity. \$45,000

Steve 909-721-0143, CA CO4

2001 Vac-Con VPD42HA/1300 sewer-cleaning unit mounted on a Sterling LT9501 with 131395 miles. 380hp Cat C12 in-frame rebuild at 101115 miles. Fuller 10-speed manual transmission, 120gpm FMC Quintuplex water pump, recent reman 165hp Cummins 8.3 auxiliary engine, recent reman Roots/ Dresser 827 blower, cold-weather recirculation ,16-cubic vard-debris tank, 1,300-gallon water tank, 30' x 8" aluminum telescoping boom tube (great for catch basins). 500' x 1-1/4" hose on articulating reel. \$40,000. Call Mark 708-475-7116. IL (CBM)

2011 Vac-Con V390LHA combination cleaning truck. Low miles, great condition. 1998 Vactor 2110-36PD ex-city owned, low miles. See details of these units and CCTV inspection trucks at www.empireequip.com. Contact Craig at 714-639-8352. (CBM)

2014 Freightliner 114SD with a VacAll AJV1215; 12-yard debris body, 1,500-gallon water. combination vacuum/ietting unit. (Stock# 052R). www.VacuumSalesinc.com (888) VAC-UNIT (822-8648) (CBM)

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The HotJetli® is a best-selling hot- and cold-water drainline cleaner featuring a 35hp Vanguard engine by Toyota and delivering 10gpm @ 4,000psi that cleans drains up to 300' and 12" in diameter. Priced at \$32,995 including freight to the lower 48 states, the HotJet II® is American made using nonpropriety parts for affordability and ease in serviceability making its return on investment truly impressive. Financing available.

> 800-624-8186 sales@hotjetusa.com www.hotjetusa.com

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JETTERS - TRUCK



2013 Isuzu NPR, 170k miles. 2007 sewer 184 jet, 2,400 hrs, 18gpm @ 4000psi, 650-gallon. Cat diesel, 600' 1/2" hose, antifreeze system/self-heating for winter work. Can work all winter - \$45,000. 2002 Pipe Hunter 7841V trailer jet, 25gpm @ 4,000psi, 700-gallon, 500cfm vac, JD404045 pre-emission diesel, Giant pump, 600' 1/2" hose, city owned. 500 hours on trailer - \$30,000.

> Mike 515-707-9002, IA or mczipar@gmail.com

PIPELINE REHABILITATION



IST Elastotec Sewer Spray Coating System purchased new January 2018. Equipment was used to line approximately 1.500' of a large condominium project. Everything is in good working condition. Contact Jason for more info and pricing:

801-608-9198 C04 jasons@myfriendlyplumber.com

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GapVax. Inc., a nationally recognized manufacturing business, is seeking a talented, highly motivated individual to fill a full-time Sales Position in the Midwest (lowa based preferred) region. GapVax is the leading manufacturer of industrial and municipal vacuum units and hydroexcavation units in the United States. We provide the most reliable, comprehensive, and efficient mobile vacuum units in the industrial and municipal markets. Specifications of the position are listed on our website, www.gapvax.com, click on the Now Hiring link in the left hand column. Send resumes to or betty@gapvax.com or 575 Central Avenue, Johnstown, PA 15902. (CBM)

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TRAILERS



JD Brule Equipment located in Greely, Ontario, Canada, is selling a 70-tonne winch trailer. 2010 Artis Trailer S/N RC9121J. Torsion flex 4,500kg axles, pintle hitch with hydraulic surge brakes. Powered by a Deutz air-cooled engine S/N 8494592. Freshly rebuilt, 2 hours on engine. Bonfiglioli-type gearcase with chain-driven winch reel, 500' 3/4" cable. Trailer has been given full maintenance, painted and ready to roll. Asking \$20,000 USD OBO + applicable taxes. Please contact Adam Russell if you are interested.

613-293-1965, Ontario

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TV INSPECTION



2016 CUES CCTV Inspection System Trailer, 7' x 12' trailer. One steerable mainline P&T zoom camera & transporter for 6" to 72" pipe with all size wheels. Electric lift for camera. One P&T mainline camera with P&T lateral camera for 6" to 30" pipe. 1,000' cable assembly with reel. Extra 150' lateral cable. Two office monitors & one rear monitor. Heated and air conditioned office. Washdown system. Lots of storage compartments. 5500 watt Onan Generator with 477 hours. Wired & wireless controllers. New laptop including Gnet & CUES software. Printer. Pedestal Crane. Retrieval poles & lots of extras. Equipment is in EXCEL-LENT Condition. Asking \$225,000

Todd Mace 570-274-1755, PA c04



CUES camera/cutter truck. 2011 Ford F550 diesel chassis, 19,500 GVW. Comes with 1 camera, 1 transporter, and 1 kangaroo cutter. \$98,500 C04

406-447-5050. MT

2002 CUES CCTV inspection truck. Ford F550 SuperDuty, 7.3 diesel engine with 71k miles, 16' box. Onan 7.5 HDK diesel generator with 3k hours. CUES reel with approximately 1,000' of cable, CUES 1208 PCU. Call Mark for more information. \$45,000 OBO. 708-475-7116, Chicago area (CBM)

2006 Envirosight Outpost ROVER 125, color pan and tilt (camera rebuilt 2019), crawler system (crawler rebuilt 2018), smart reel 450 feet of cable. System is operational. Can be used as-is for work or used for parts. Rack-mounted PCU. Color monitor. All tires and camera stack. Many extras. Ready to inspect 6-inch to 36-inch pipe. In outpost box. Also have Toughbook PC with vs. 6 PACP software (optional, not included in asking price.) Asking \$20,000 OBO. Call Steve at 231-519-0138. (C04)

Aries lateral-launch camera with PipeTech software, complete system. This unit is ready to work. Company downsizing, also have CUES camera trucks and Aries camera trucks and portable systems. Flushing units also for sale. Call for inventory and pricing. 717-554-1715 (C04)

1996 Aries Mainline Video Camera Trailer. 700' of cable. Pan & tilt camera. Crawler. DVD & computer-generated reports. Crawler just rebuilt by Aries. Newer 7,500-watt generator. Many extra parts, camera heads etc. \$10,500. Call 973-278-1948 or email advancedplmbg@aol.com (C04)

USED Envirosight ROVVER Sewer Inspection Crawler: Overhauled with new parts and ready to run. Includes automatic cable reel, pan/tilt/zoom camera, steerable 6-wheeldrive tractor with various wheel sets, controls, and accessories. Call for pricing 973-252-6700. (CBM)

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Aries CCTV Inspection Truck: 2002 Ford E350, 5.4 Triton V8, 59,484 miles. Aries PCU, Dell operating system. New Onan commercial 7,000-watt generator. Pipe Tech pipeline inspection software, camera and transporter negotiable. Call for more information and more pictures. \$15,500. Mark 708-475-7116, IL (CBM)

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CUES CCTV Inspection Truck: 2000 Freightliner MT45 walk-in, Cummins 5.9, 71,086 miles. CUES PCU, Dell operating system, truck-mounted CUES grouting system. Onan 10.0 GenSet diesel generator. Software, camera and transporter negotiable. Call for more information and more pictures. \$19,500. Mark 708-475-7116, IL (CBM)

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C04

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20,000 - 55,000 psi Sapphire Nozzles, OS4, OS6, OS7 replacements, UHP hoses & replacement parts. Excellent quality & prices. 772-286-1218, info@alljetting.com, www. alljetting.com. (CBM)

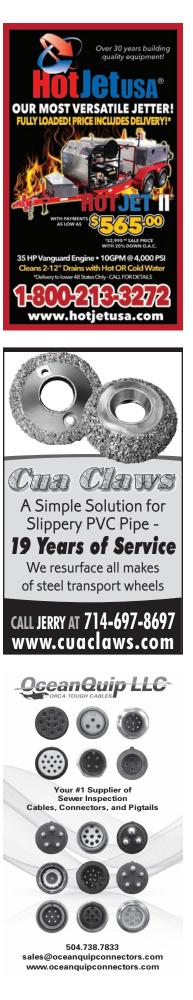
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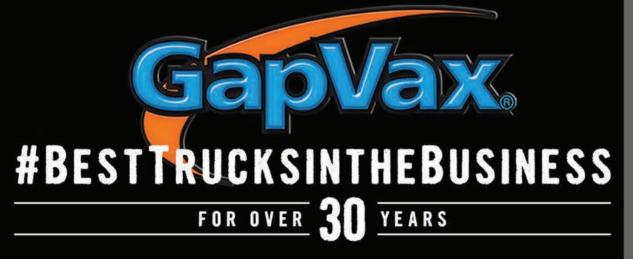
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