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SMART BUSINESS:

EXAMINING PROFITS COULD BRING NEEDED CHANGES TO CUSTOMERS

A MINA MANAGEMENT

Tom Mullen

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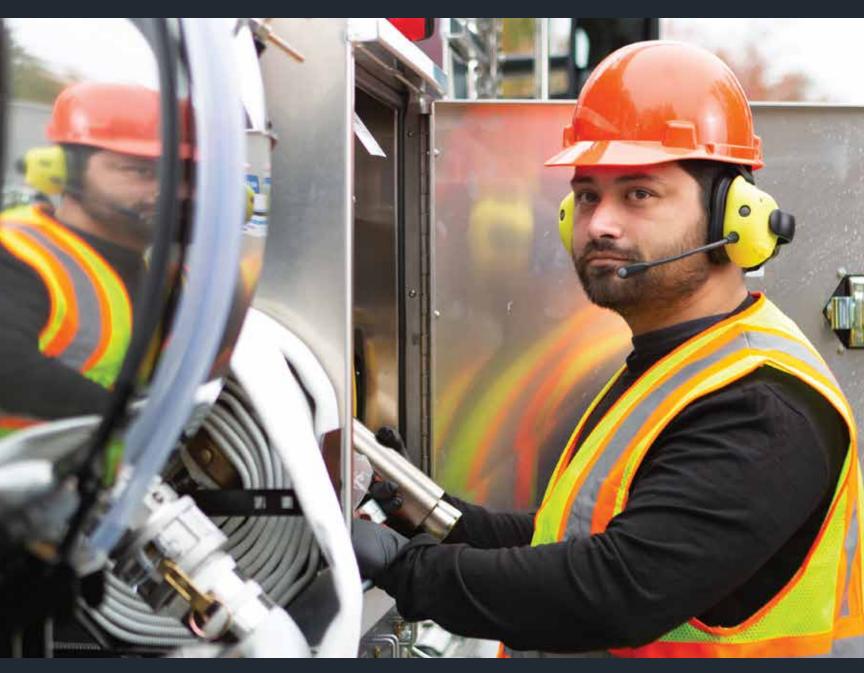
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A sewer cleaning company added new technology and services to become a one-call company ready to solve any pipeline problem.

By Giles Lambertson

ON THE COVER:

North American Pipeline Services owner Tom Mullen stands with one of his company's vacuum excavators at the shop in Freehold, New Jersey. The company offers trenchless pipeline rehabilitation, sewer line installation and replacement, hydroexcavation, and many other services throughout the tri-state area of New Jersey, New York and Pennsylvania. (Photography by Bill Blanchard)

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IT'S EASY TO GET STRESSED OUT DURING THIS TIME OF THE YEAR.

YOUR CREWS ARE STRETCHED THIN AT MULTIPLE JOB SITES; CLIENTS WANT THE JOBS DONE NOW, NOW, NOW; AND THE WEATHER MAY NOT ALWAYS BE THE MOST COOPERATIVE.

Weathering the Storm

TAKING TIME TO WORK OUT A SCHEDULE, COMMUNICATE AND PLAN AHEAD WILL HELP WITH BUSY SUMMER MOMENTS

BY CORY DELLENBACH, EDITOR

forms come and go all the time — spring and summer storms, winter storms — and they all have the potential to hit hard.

So can metaphorical storms like a slow start to the busy season, a jampacked schedule in the middle of summer and, of course, cramming in the last-minute jobs just before the summer ends.

Right now we're in that midsummer, schedule-issuper-busy time period. It's a time when you can barely sit to catch your breath because there is so much going on. Some companies suffered slow starts due to the coronavirus shutting down countries and economies across the globe. Hopefully those companies are bouncing back now and finding busy schedules as well.

Handling these storms when they come up can be just as important as anything else you are doing with your company.

MIDSUMMER RUSH

It's easy to get stressed out during this time of the year. Your crews are stretched thin at multiple job sites; clients want the jobs done now, now, now; and the weather may not always be the most cooperative. Then you have to add in the delays that might come up with utility locates, needed materials or even equipment repairs.

There are ways you can relieve some of that stress. For starters, don't take on more work than you are able to handle. Quality should always come before quantity. If you're stretching out your crews too thin, they might not have enough help on some of those jobs and will cut corners. Know what your staff can handle and don't overextend that.

For the client who wants things done in a hurry, have a copy of your schedule written down and present it to them with deadlines. That way they won't question if you're as far along as you should be. If you do start falling behind, you need to communicate with the client as soon as possible and keep them updated.

Finally, things like utility locates should be done well in advance of the work; don't wait until the day before you start work to call in a locate request. To avoid many equipment breakdowns, keep up with general maintenance year-round; that alone will reduce a lot of stress.

YEAR-END PUSH

It won't be long before you're reaching the end of the year, pushing your crews to finish because the weather is going to start turning.

Hopefully you've created a schedule and are still on task, but we all know things happen. Like we mentioned above, communication is key. Keep the client informed of any changes to your schedule and things shouldn't get ugly.

Remember to give your guys some rest; and then that end-of-the-year push won't be as stressful for them either.

This is going to be the perfect time for you to start putting together invoices for those jobs that are about to wrap up so that when they do, you can hand over the bill immediately and avoid any delays in payment. While you're at it, have your shop manager start preparing a plan for maintenance on equipment that's been used all summer. The more you do now, the easier it'll be for you next summer when things pick up again.

YOUR PLAN

Following these simple tips should help turn your hurricane or tornado of a busy season into more of a rain or little snowstorm.

I would like to hear how you plan for the midsummer rush and the year-end push at your company. Are there ways you help your crews make it through these busy times? Email me at editor@digdifferent.com or call me at 715-350-8436.

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EMBRACING INNOVATION

A SEWER CLEANING COMPANY ADDED NEW TECHNOLOGY AND SERVICES TO BECOME A ONE-CALL COMPANY READY TO SOLVE ANY PIPELINE PROBLEM

STORY: GILES LAMBERTSON PHOTOS: BILL BLANCHARD

Tom 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 the 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 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 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.

NOT AFRAID TO TRY NEW

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 Felts liners and robotic Schwalm USA reinstatement cutters to open laterals emptying into a relined pipe.

North American Pipeline Services Freehold, New Jersey



OWNER: Tom Mullen NUMBER OF EMPLOYEES: 55

- **SERVICES OFFERED:** 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 (New Jersey, New York, Pennsylvania)

WEBSITE: www.napipellc.com





The team from North American Pipeline prepares the pipe liner to be used on a repair job (Applied Felts). Pipe lining and replacement is a growing side of the company's business.

ONE WAY

The Schwalm pipeline instrument is a fairly new addition to the company's technology, but it's 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 truck-mounted 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 of sometimes harmful microorganisms in manholes and sewer lines.

"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 in the past. The chemical makeup of the product is years ahead of what it used to be."

WATER FANK

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Technician Jerzy Pleskowicz opens a hydrant to supply water to the company's vacuum truck (Vactor).

"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 ... EVERYONE CAN STAY BUSY."

Tom Mullen





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 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 mainThe crew from North American Pipeline Services includes, from left, front row, 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, William Jones, Albert Hickson, Donna Roselli, David Alpaugh and Susan Gagliardi.

Trust and transparency

In formulating a guiding principle to direct his work, the owner of NAP 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," he 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." tained 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 do emergency repairs, road collapses, water service repairs and replacements unsuitable for a trenchless solution."

BRIGHT FUTURE

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; small-diameter (4-inch) pipe on up to large-diameter 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 of cross-training because there are

"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."

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." \checkmark



Jerzy Pleskowicz uses the Vactor 2100 sewer cleaning truck to lower the jetter into the sewer drain.



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Knowing Your Soils Brings Added Safety

BESIDES SHORING, TRENCH SAFETY RELIES ON EFFECTIVE SOIL TESTING AND BEST PRACTICES FOR RUNNING YOUR HEAVY EQUIPMENT ON THE JOB SITE

BY JIM ANDERSON AND DAVE GUSTAFSON

n this article, we highlight OSHA soil standards and the need to provide worker protection during excavations by discussing some complicating factors that contractors may encounter and providing a quick reminder of field test methods used to identify the OSHA soil classes.

Among complicating factors to be aware of, soil composition may vary significantly from one area of a project to another. As the soil composition changes during an excavation, the safe slope for trench wall excavation also changes. The slope of the bank may need to be different.

Sliding and other failures can also occur in soils that are not densely compacted. For example, a trench that is made close to a previously dug trench is very unstable. If uncompacted soil is discovered, the normal safe slope for dense soil will not be enough to prevent sliding. Bracing or further sloping may be necessary.

If cracks are observed in rocky types of soil, sliding has already occurred. These cracks should signal the need for a more gradual slope for excavation because the rocky soil is very susceptible to slides and other types of failure.

Excavations that have been stable for long periods are also subject to sliding types of failure. After prolonged exposure to the elements, the moisture content in the soil may increase. This increase in moisture may be due to various causes, such as rainfall or a broken waterline. The extra soil moisture tends to speed up sliding soil failures.

Soil failure can occur for any number of reasons. Factors that increase the chances of soil failure are excessive vibration, surface encumbrances and weather conditions.

WATCH FOR SITE DISRUPTION

Anything that causes extra stress on the soil can result in soil failure. This can include vibration from moving your heavy machinery near the excavation. Other construction traffic can also cause this, which means your work site should be protected from this additional traffic. Sandy soils in general are more susceptible to failures due to vibration. Add water to sands with the vibration and they will flow and slide.

Similarly, having heavy loads next to the excavation can result in failure. This can be the presence of your equipment, or stockpiles of rock and other materials. They can place more stress on the sides of the excavation. The best approach is to keep these materials away from the excavation. Where space is limited and heavy loads must be located near an excavation, the trench walls should be braced or shored.

Weather is an important factor in determining soil conditions. Excess water from rain or melting snow increases pressure on the excavation. If there have been heavy precipitation events and the excavation was left open, additional precautions (shoring or sloping) may be needed before work continues. Treatment trenches should be allowed to dry before working on them again.

Dry conditions can also be dangerous. As moisture content decreases, some dry soils lose their ability to stick together. This lack of cohesion may result in a sliding type of soil failure. With soils high in sand and silt content,

the lack of cohesion between particles, and where soil structure is not welldeveloped, sliding failures may occur.

FIELD METHODS EXPLAINED

Contractors may follow field methods to determine soil type (A, B or C) and requirement for sloping. Field methods are use of a pocket penetrometer, thumb test, dry strength test and wet thread test.

Pocket penetrometers are direct-reading, spring-operated instruments used to determine the unconfined compressive strength of

saturated, cohesive soils. Pushed into the soil, an indicator sleeve displays the reading. They are calibrated by tons per square foot, providing a direct reading to use to determine sloping requirements. The downside is penetrometers have large error rates in the range of plus or minus 20% to 40%.



AS MOISTURE CONTENT DECREASES, **SOME DRY SOILS LOSE THEIR ABILITY TO STICK TOGETHER.** THIS LACK OF COHESION MAY RESULT IN A SLIDING TYPE OF SOIL FAILURE.

> The thumb penetration procedure involves pressing the thumb firmly into the soil in question. If the thumb makes an indentation in the soil only with great difficulty, the soil is probably Type A. If the thumb penetrates no further than the length of the thumbnail, it is probably Type B soil. And if the thumb penetrates the full length, it is Type C soil. The thumb test is probably the least accurate, but absent better information, it can be useful.

> Dry soil that crumbles freely or with moderate pressure into individual grains is granular. Dry soil that falls into clumps that subsequently break into smaller clumps (and the smaller clumps can be broken only with difficulty) is probably clay in combination with gravel, sand or silt. If the soil breaks into clumps that do not break into smaller clumps (and the soil can be broken only with difficulty), the soil is considered Type A unless there is visual indication of cracking.

> The wet thread test is conducted by molding a moist soil sample into a ball and attempting to roll it into a thin thread approximately 1/8 inch (3 millimeters) in diameter (thick) by 2 inches (50 millimeters) in length. This is similar to our field test to see if the soil is dry enough to excavate for sewage treatment trenches. The soil sample is held by one end. If the sample does not break or tear, the soil is considered cohesive.

> In addition to tests to determine cohesiveness, the contractor should conduct a visual evaluation of the site. A visual test is a qualitative evaluation of conditions around the site. In a visual test, the entire excavation site is observed, including the soil adjacent to the site and the soil being excavated. The contractor should note potential problems before excavation begins.

> Hopefully this article has provided useful information about OSHA requirements and will save lives. \checkmark

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Driver Accountability Can Bring Better Profits

DRIVERS WHO ARE HELD TO A CLEAR, UNBIASED STANDARD PERFORM BETTER FOR THE COMPANY — AND THEMSELVES

BY DEL WILLIAMS

or any utility construction company with a fleet of light- or mediumduty vehicles, increasing profitability often comes down to fostering an environment of greater employee accountability.

The concept of accountability is defined as "the obligation of an individual to account for his/her activities, accept responsibility for them and disclose the results in a transparent manner." Implied in this definition is the ability to verify tasks are completed as expected, on time, efficiently and per company policy. For fleet managers, this can only be accomplished through real-time GPS tracking devices on all vehicles.

After all, it is an established fact that drivers who know they are being monitored by such systems are less likely to make unnecessary detours or stops for personal reasons, may avoid spending unnecessary time at job sites and/ or may avoid idling the engine while filling out paperwork in the vehicle.

But accountability is not about discovering what a driver is doing "wrong," it is actually more about what the driver is doing right. Through GPS tracking, drivers can take more ownership for their jobs, have more clarity of tasks and results, can self-correct and improve, and do not have to be micromanaged.

Even well-intentioned drivers may discover that there are areas of improvement and efficiencies that could make them more productive.

There are also indirect benefits as well. When all drivers are monitored, those not pulling their weight are more easily identified so that faster, more productive employees do not have to pick up the slack with extra deliveries or service visits.

"IF OUR DRIVERS ON THE JOB NEED HELP FROM A TECH SPECIALIST, WE CAN IMMEDIATELY FIND ONE IN THEIR AREA AND DISPATCH THEM TO THAT ADDRESS." Shannon Allen

So, with a host of benefits for the employee, fleet managers who have avoided the "leap" to GPS tracking are missing out on a win-win scenario. After all, more accountable drivers lead to greater efficiency overall, which means increased profits. It's an argument that is hard to deny, particularly as GPS tracking continues to improve while the cost of entry plummets.

HOLDING DRIVERS TO A HIGHER STANDARD

Although GPS trackers have been around for some time, advances in the technology allow for more real-time tracking and simplified reporting. Fleet managers, after all, don't want to spend all day on their computers sifting through complex analytical data. Instead, they want simplified, easy-to-read

reports that summarize what they need to know. Fortunately, such systems exist today and at rates less than \$20 per vehicle. Today's advanced units allow real-time and historical track-

ing of each vehicle in a fleet. This allows dispatchers to assign the closest vehicle to a job, which expedites the service work or delivery and saves gas, labor and vehicle wear and tear. It also allows historical routing analysis, which enables even greater routing efficiencies to be determined on an individual or fleetwide basis.

However, the greatest improvements in fleet management occur when

GPS tracking devices are used to hold drivers to a clear, unbiased standard to encourage better performance for the company and themselves.

As an example, when Reilly Construction & Development implemented their first GPS tracking system last year, the Vero Beach, Florida-based residential and commercial construction company benefited from significant productivity gains and operational efficiencies.

The construction company has installed Shadow Tracker Vision III GPS

tracking devices from Advanced Tracking Technologies, a Houston-based designer and manufacturer of GPS tracking products, on two of its construction trucks.

Compared with typical GPS tracking devices that may only update every few minutes, the device provides realtime location updates every 10 seconds, as well as location, speed and idle time alerts if something is amiss. This

data is transmitted via satellite and cellular networks to a smartphone or PC on a 24/7 basis.

"Now we know exactly where our vehicles and drivers are in real time," says Sharon Arnold, office and assistant project manager at Reilly Construction & Development. "We can spot-check our drivers to make sure they are where they are supposed to be and not at unauthorized places, because some people will take advantage. That has saved us a few thousand dollars in salary alone. The system more than pays for itself in enhanced productivity."

On the plus side for employees, the use of such GPS tracking systems helps verify on-time arrival at customer sites. And automated reporting such as that provided by the Advanced Tracking Technologies system can virtually elim-



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inate the reporting burden for employee and employer in regard to driving logs. Automated exception reporting can also flag potential issues that need to be corrected, such as excess vehicle mileage or idling.

Once drivers and the work crew know they are accountable for their actions, it is amazing how much more they will accomplish. Using such an approach with advanced GPS tracking commonly improves productivity 10% to 20%

while reducing fuel costs 10% to 15% as drivers start to pay attention to their driving and work habits throughout the day.

Indiana-based Gordon Plumbing, which offers services ranging from small fixes to remodeling and construction, currently uses Advanced

Tracking Technologies' GPS tracking system on 54 vehicles and has used three different tracking systems over the last decade.

"The (Advanced Tracking Technologies) system not only expedites job dispatching, but also enhances accountability and profitability while reducing costs," says Shannon Allen, Gordon Plumbing service coordinator.

Allen points out that being able to access a vehicle's position in real time means "our vehicles can reach customers very quickly when there are emergencies." She adds, "If our drivers on the job need help from a tech specialist, we can immediately find one in their area and dispatch them to that address."

According to Allen, the system provides one link for all the covered vehicles. "The GPS tracking system puts our vehicles on a map, so I can see all of them at once," she says, noting that the view can be narrowed to any department or (geographic) area, as desired. "It is so accurate that it lets me see exactly where a vehicle is parked."

Because the GPS system is automated, reports are delivered without anyone needing to open software. In addition to the real-time views of the activity taking place, next day reports are delivered by email, documenting everything that happened the day before. The reports can be customized, for example, to show how many drivers idled for more than 30 minutes or how many miles were put on a vehicle.

Allen emphasizes that the system can quickly spot driver habits that need correction, such as a driver stopping for five or 10 minutes between jobs several times a day.

"WITH THE GPS SYSTEM, WE ARE ABLE TO NOTICE AND POINT OUT THAT EVEN FIVE TO 10 MINUTES STOPS BETWEEN JOBS EACH DAY ADDS UP TO A LOT OF LOST PRODUCTIVITY." Shannon Allen

"With the GPS system, we are able to notice and point out that even five to 10 minutes stops between jobs each day adds up to a lot of lost productivity," Allen says. She concludes, however, that her drivers are quite used to the system and even appreciate it when it proves they are getting to and doing their jobs as required.

ABOUT THE AUTHOR

Del Williams is a technical writer based in Torrance, California. He writes about health, business, technology and educational issues and has an Master of Arts in English from California State University Dominguez Hills.





Reviewing Revenue From Customers

A CAREFUL EXAMINATION OF YOUR COMPANY'S PROFITS BY INDIVIDUAL CLIENT AND CLIENT SEGMENTS MAY REVEAL YOU'RE WORKING FOR NOTHING IN SOME CASES

BY JILL JOHNSON

ew businesses truly understand the actual profits generated by individual sales. Most metrics for sales effectiveness are monitored by reviewing top-line revenue results. Yet the most critical determinant of ongoing business viability is understanding what revenue actually drops to the bottom line after all the costs have been taken into account.

You must understand what profit is generated by sales to each of your customers. Then consider what the benefits and vulnerabilities of the cumulative impact of these sales mean to your business. Knowing the breakdown of profitability by individual sales can have a significant impact on your ability to achieve business goals.

UNDERSTAND THE IMPACT OF THE PROFIT PER SALE.

Many expenses go into determining a company's profitability. The same is true for determining the profitability of a sale. Each sale has multiple components impacting its final profit. You should consider your total cost of goods sold, including investments in promotion and delivery expenses. Factoring in the costs associated with the staff time required to generate a sale is a must, too. Unfortunately, few companies consider all these expenses when developing their marketing and sales strategies. Whether you are working on growing your business or you are struggling financially, the impact of the true profits generated by each individual sale takes on greater importance.

KNOW YOUR PROFIT PER CUSTOMER.

There are two ways of looking at your sales profitability data. The first is by the individual customers. Frankly, not all customers are worth the effort to generate the sale. Sometimes your growth goals for your business mean you are also growing beyond customers you have historically served. This transition period is a very vulnerable point for any business. It is also very stressful because you might be wrong and wind up losing a customer who could have provided more revenue value if you had not been afraid to maximize your relationship.

Carefully study the costs associated with serving each customer. Perhaps there are long-term clients you like personally, but if you have not taken the time to explore the costs of the sale, their value to your business may have changed dramatically over the years. Before abandoning these customers, try to identify options to trim your expenses without jeopardizing your quality. But it may be time to move on if they are not generating any real profits for you.

REVIEW YOUR CUSTOMER SEGMENTS REVENUE.

The second way of looking at your sales profitability data is by combining clients using some specific target marketing components. Using a target marketing approach to group your customers by similar characteristics provides you with a more detailed understanding of what is working and what is not and also makes it easier to identify trends in the data that you can use to assess the profitability of each of these major segments.



There are many options for grouping your customers into segments. For business-to-business cli-

ents, you could group them by their industry sector, number of employees, location, etc. For business-to-consumer customers, you could group them by where they live, personal attitudes, age, income level, etc.

The key to effective target marketing is to focus your sales activities and expenditures toward those customers who can best be served by your company, who will stay with you over the long term and who will generate solid

ENGAGING IN DISCOUNTED PRICING STRATEGIES OFTEN ATTRACTS CUSTOMERS WHO ARE BUYING FROM YOU BASED **ON PRICE, NOT YOUR** VALUE. IF YOU ARE IN A SERVICE-ORIENTED **BUSINESS, THIS CAN** BE A SLIPPERY SLOPE.

profitability. If client segment A generates solid profits for you but all of your marketing efforts are being devoted to client segment B who are barely breakeven, the choice is obvious. You must retool your marketing and sales activity to attract more prospects from client segment A.

MONITOR INDIVIDUAL 4 CLIENT PROFITABILITY.

A complete review of the mix of your customers and sources of sales will reveal your potential vulnerabilities if market conditions change.

It is not enough in today's complex and competitive marketplace to only look at your total overall sales. If you have one customer that generates more than one-third of your sales, you are in an extremely vulnerable position if you lose that client to a merger or change of staff or if it goes out of business. Controlling and monitoring your client profitability and cost of sales allows you to take corrective action before your business' survival is at risk. This takes on even greater importance if you are overly dependent on key customers for your profitability.

UNDERSTAND THE IMPACT OF PRICING ON PROFITABILITY.

5. A close companion to client profitability is understanding both the impact of various pricing strategies on the perceived value of your goods and services and how they intertwine in attracting customers who will buy from



you. Engaging in discounted pricing strategies often attracts customers who are buying from you based on price, not your value. If you are in a serviceoriented business, this can be a slippery slope. You may get clients who keep you busy, but who do not generate the profits you need to build a sustainable enterprise or build your net worth. It is a delicate balancing act, but it's one you must realistically consider, given your business objectives.

CONSIDER THE IMPACT OF STRATEGY ON PROFITS.

• You must also consider the financial consequences of your business direction and your vulnerability to setbacks. This assessment allows you to make better business decisions and set a more realistic strategic vision for your organization. "Finding a lane" or picking your niche through target marketing must also incorporate a true understanding of the costs of reaching the right customers, as well as their ability to add to your bottom line in a meaningful way.

FINAL THOUGHTS

Reviewing the trend information for each of your major client segments is a highly impactful approach to revaluating the effectiveness of your sales and marketing. It removes your emotions and relationships with your clients to allow you to be more detached in considering their impact on meeting your business objectives. If you are not attracting the kinds of clients generating the profitability to move your enterprise forward, it is time to reconsider your approach.

ABOUT THE AUTHOR

Jill Johnson is a speaker, author and the president and founder of Johnson Consulting Services. Reach her at www.jcs-usa.com. ▼



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BETWEEN INTRODUCING A NEW MACHINE AND MAKING AGREEMENT ANNOUNCEMENTS, VERMEER SHOWS IT'S FULLY INVESTED IN VACUUM EXCAVATION

BY CORY DELLENBACH

t's been a big year for Vermeer, introducing a new vacuum excavator and new partnership agreements, all built to provide customers one-stop shopping for their utility construction needs.

For many years, vacuum excavators were being built through a partnership with McLaughlin and Vac-Tron Equipment. In 2017 and 2018, Vermeer acquired the two organizations and formed the Vermeer MV Solutions brand.

One year later, at the 2019 International Construction and Utility Equipment Exposition, ICUEE, Vermeer unveiled a brand-new concept in vacuum excavation the Vermeer XR2 vacuum excavator. This new unit combines the digging performance of a truck vac with the ability to separate liquids from solids on the job site.

In 2020 at the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show, Vermeer announced a distribution agreement with Vacuum X-Traction Products (VXP) to supply a series of Vermeer-branded, highcapacity, truck-mounted vacuum excavators sold exclusively through Vermeer industrial dealers.

This latest partnership caps off three years of many

noteworthy events for the vacuum excavator market. To learn about what it all means, Adam Bates, Vermeer product manager, and Brian Showley, Vermeer MV Solutions sales director, took the time to answer a few questions on the topic.

dig**DIFFERENT**: Why is Vermeer so invested in vacuum excavation? Bates: Utility construction is a

big part of our business, and vacuum excavators play a critical role in the installation process. Vacuum excavator usage continues to expand in an effort to help reduce utility strikes through potholing and to keep job sites clean during horizontal directional drilling.

As our customers grow their use of vacuum excavators, they provide us with a lot of feedback. A good portion of it was about being able to stay on the job longer between trips to disposal sites. Based on that feedback, we created the XR2 vacuum excavator and expanded our line into larger-sized truck vacs.

Showley: In the last four years alone, the vacuum excavator marketplace has grown by just over 94%. The growth in the marketplace can be attributed to more widespread usage in the utility industry, but also because vacuum



In October, Vermeer unveiled its new Vermeer XR2 vacuum excavator. The unit combines the digging of a vacuum excavator with the ability to separate liquids from solids on the job.



Announced in February, Vermeer entered into a distribution agreement with Vacuum X-Traction Products (VXP) to supply a series of Vermeer-branded, high-capacity, truck-mounted vacuum excavators sold exclusively through Vermeer industrial dealers.

excavators are being used in a much more extensive range of applications. To meet those needs, we needed to be able to deliver a full line of vacs from small trailer units up to large truck vacs. Contractors can now get whatever type of vacuum excavator they are looking for from their local Vermeer dealer.

"IN THE LAST FOUR YEARS ALONE, THE VACUUM EXCAVATOR **MARKETPLACE HAS GROWN BY JUST OVER 94%.**" **Brian Showley**

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digDIFFERENT: What's the advantage of being able to acquire such a wide range of sizes and models through one dealership?

Bates: From small utility drills to large pipeline rigs, our range of horizontal directional drilling equipment is extensive, and that's what contractors expect when they work with a Vermeer dealership. We want to make sure they can get that same range of machines when it comes to vacuum excavation. Also, as a contractors' needs change, they can still get what they need from one place.

Showley: Utility contractors going into a Vermeer dealership are more than likely already familiar with the majority of our vacuum excavator equipment line. Those core products remain the same, but now our distribution arrangement is more aligned to make it easier for our dealers and customers to get the products they need.

The addition of the VXT line and XR2 vacuum excavator gives contractors more purchase options from one place with the ability to get service at locations throughout the country. For crews that are traveling anywhere, knowing dealer support is close by is a big deal and something they can't get with every brand of vac.

digDIFFERENT: Are their certain vacs that fit specific kinds of work?

Bates: There are a lot of factors that weigh into the decision of choosing a vacuum excavator. The first consideration is what type of work they intend to use it for — potholing existing utilities, drilling fluid management support, municipal work, hydrotrenching or something else. Ground conditions and depth should be considered, as well as where they are working.

For example, if a contractor is looking for a vacuum excavator to pothole and support drilling crews in one community, they may want to consider getting a larger truck vac to minimize the number of disposal trips. However, if a contractor has several crews more spread out, one large truck vac may be less efficient than using a few trailer vacs that travel with each crew.

Showley: In the past, many crews may have selected certain models and

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"WE'VE HAD THE XR2 AT SEVERAL TRADE SHOWS NOW AND IN THE FIELD DOING DEMOS. THE FEEDBACK WE'VE RECEIVED FROM CONTRACTORS HAS BEEN **OVERWHELMINGLY POSITIVE."** Adam Bates

sizes of vacuum excavators to pair with their fleet of horizontal directional drills. More recently, though, they are mixing different types and sizes of vacuum excavators so they can optimize overall efficiency. They may have a vac team dedicated to potholing ahead of the drill; each of these crews may be using a different vac setup. I think we'll see more of this as the XR2 makes its way into the market.

digDIFFERENT: What has been the industry's reaction to the new models (XR2 and VXT500)?

Bates: We've had the XR2 at several trade shows now and in the field doing demos. The feedback we've received from contractors has been overwhelmingly positive. They are impressed by the XR2 vacuum excavator's 1,500-gallon (5,678.1-liter) clean-water capacity, and they love the idea of being able to perform localized separation of solid and liquid materials.

Showley: The VXT500 debuted at the WWETT Show, and we also had it in our CONEXPO-CON/AGG booth. At both shows, it was a hit. Our customers have told us they are thrilled to see Vermeer getting into the large truck vac market, and the product itself is first class.

digDIFFERENT: When will these new vacuum excavators be available for contractors?

Bates: The VXT500 is making its way into dealer inventory right now, and the XR2 will be available later this year. \checkmark

MANUFACI	cavation TURERS DIRECTORY 2	MODEL NAME	ТУРЕ	Style	Debris Body Capacity (cu. yards)	Debris Door (dimensions)	Debris Door (dump angle)	Water Tank Capacity (gallons)	Standard Water Pump (gpm & psi)
🔬 Ditch	Ditch Witch 1959 W. Fir Ave.	FXT30 Air	Air	Chassis	2.5 or 4		45 degrees	200 or 400 gal	4.2 gpm, 3,000 psi
See ad back cover	Perry, OK 73077 tf: 800-654-6481	FXT50 Air	Air	Chassis	2.5 or 4		45 degrees	200 or 400 gal	4.2 gpm, 3,000 psi
	f: 580-336-3458 www.ditchwitch.com info@ditchwitch.com	FXT65 Air	Air	Chassis	2.5 or 4		45 degrees	200 or 400 gal	4.2 gpm, 3,000 psi
		FX20	Hydro	Trailer	0.75		45 degrees	80 gal	2.6 gpm, 3,000 psi
		FX25	Hydro	Trailer	2.5		45 degrees	80 or 200 gal	4.0 gpm, 3,000 psi
		FX30	Hydro	Trailer	2.5 or 4		45 degrees	80, 200 gal, or 300 gal	4.2 gpm, 3,000 psi
		FX50	Hydro	Trailer	2.5, 4, or 6		45 degrees	200, 300, or 500 gal	5.1 gpm, 3,000 psi
		FX65	Hydro	Trailer	2.5, 4, or 6		45 degrees	200, 300, or 500 gal	5.5 gpm, 3,000 psi
		MV800	Hydro	Trailer	4		45 degrees	100 gal	4.0 gpm, 3,000 psi
		FXT30	Hydro	Truck	2.5 or 4		45 degrees	200 gal or 400 gal	4.2 gpm, 3,000 psi
		FXT50	Hydro	Truck	2.5 or 4		45 degrees	200 gal or 400 gal	5.1 gpm, 3,000 psi
		FXT65	Hydro	Truck	2.5 or 4		45 degrees	200 or 400 gal	5.6 gpm, 3,000 psi
		HX30	Hydro	Trailer	2.5 or 4	48 "	45 degrees	200 or 400 gal	4.2 gpm, 3,000 psi
		HX50	Hydro	Trailer	4	48 "	45 degrees	200 or 400 gal	5.3 gpm, 3,000 psi
		HX75	Hydro	Trailer	4	48"	45 degrees	200 or 400 gal	5.5 gpm, 3,000 psi
See ad page 23	Fast-Vac 21209 Durand Ave. Union Grove, WI 53182 tf: 800-558-2280 p: 262-878-0756 f: 262-878-4019 www.Fast-Vac.com sales@Fast-Vac.com	Fast Vac	Hydro	Chassis & Trailer	20+ Gross		50 degree	1500	Variable flow 3,000 psi
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	www.gapvax.com Inquiry@gapvax.com	HV55 HydroVax	Hydro	Chassis	12 1/2	Fully Opening	90 degree	400-1,400	5-40 gpm 2,000-5,800 psi
		HV56 HydroVax	Hydro	Chassis	15	Fully Opening	90 degree	400-1,200	5-40 gpm 2,000-5,800 psi

Standard Blower (hg & cfm)	Filtration Type	Boom Size (ft.)	Degree of Rotation	Offloading Type	Controls Location	Wireless Y/N	Vacuum (cfm/psi)	Power Source	Compressed Air Flow	Compressed Air Pressure	Accessories Available	Other
500 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes			300 cfm or 200 cfm	250 psi/100 psi or 200 psi/100 psi		
 1,020 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes			301 cfm or 200 cfm	251 psi/100 psi or 200 psi/100 psi		
1,215 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes			302 cfm or 200 cfm	252 psi/100 psi or 200 psi/100 psi		
543 cfm	washable polyester	N/A		tank mounted at angle for gravity dump	Curbside	No						
543 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
500 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
1,027 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
1,215 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
543 cfm	washable polyester	N/A		full open rear door and tank lift	Curbside	Yes						
500 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
1,020 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
1,215 cfm	washable polyester	14 feet	270	full open rear door and tank lift	Curbside	Yes						
15″ hg 512 cfm	washable polyester	12.5 feet	330	full open rear door and tank lift	Curbside	Yes		Kubota D1105			Lighting Tool Boxes	Water Heaters
16″ hg 1,005 cfm	washable polyester	12.5 feet	330	full open rear door and tank lift	Curbside	Yes		Kubota D1803			Lighting Tool Boxes	Water Heater
16″ hg 1,315 cfm	washable polyester	12.5 feet	330	full open rear door and tank lift	Curbside	Yes		Kubota V3307			Lighting Tool Boxes	
28″ hg 6,600 cfm	80 dry and 8 wet bags	15+ ft.	330	gravity with optional auger	In cab and outside enclosure and 40 ft. pendant	Yes					winterization lighting tool boxes racks cabinets	
27″ hg 4,000 cfm	wet/dry single mode	14-18 ft. reach 18 ft. 10" up 4 ft. 6" down	270	Decant and fully opening tailgate. Auger and sludge pump options available	Curbside	Yes					winterization lighting	On-board scales with digi- tal readout stops loading when set target is reached (optional); 26 Filter bags; inverted tailgate to reduce length; 200 cfm air pump; 4,500 cfm, 18" hg blower
28″ hg 5,250 cfm	wet/dry single mode	17-25 ft. reach from center of truck	270		Driver's side curbside controls vary	Yes					tool boxes racks cabinets	34 Filter bags, 5 cyclones for superior filtration; safe working area on top of truck; various options available
28″ hg 5,250 cfm	wet/dry single mode	17-25 ft. reach from center of truck	270	pump options available	depending on options	Yes						200 cfm air pump, 6,600 cfm, 28″ blower optional

Vacuum Ex	vavation 0	$\gamma \gamma \gamma$								
		MODEL NAME	J TYPE	Style	Debris Body Capacity (cu. yards)	Debris Door (dimensions)	Debris Door (dump angle)	Water Tank Capacity (gallons)	Standard Water Pump (gpm & psi)	
	Presvac Systems 4131 Morris Drive Burlington, ON L7L 5L5 tf: 800-387-7763 p: 905-637-2353 f: 905-681-0411	Presvac HydroX Mini	Hydro	Chassis	7	Full Diameter Full Opening		800	18 gpm 3,500 psi Adjustable Flow and Pressure	
	www.presvac.com sales@presvac.com	Presvac HydroX	Hydro	Chassis	15	78″ Full Opening	90 degree	1,000	18 gpm 3,500 psi Adjustable Flow and Pressure	
PRAMVAC	Ramvac Vacuum Excavators by Sewer Equipment 1590 Dutch Rd. Dixon, IL 61021	AX Air Excavator	Air	Chassis	2, 3 and 4	3/4 full opening	50 degree	50-300	10 gpm @ 60 psi, 10 gpm @2500 psi	
See ad page 7	tf: 888-477-7638 www.sewerequipment.com sales@ram-vac.com	Ramvac 2000 & 3000	Hydro	Trailer	6	Full Opening	50 degree	150	5 gpm @ 2500 psi	
		HX Hydro Excavator	Hydro	Chassis	3 to 15	3/4 full opening	50 degree	325-1,300	10 gpm @ 2,500 psi, 18 gpm @ 2,500 psi	
B RIVAL HYDROVAC See ad page 9	Rival Hydrovac Inc. Box 5 Major, SK SOL 2H0 ff: 844-467-4825 p: 403-550-7997	Rival T7	Hydro	Chassis	8	54″ Full Opening Rear Door, Two Stage Hoist	70 degree	800	10 gpm 3,000 psi	
	www.rivalhydrovac.com tdell@rivalhydrovac.com	Rival T10	Hydro	Chassis	10	54″ Full Opening Rear Door, Two Stage Hoist	70 degree	1200	10 gpm 3,000 psi	
Super Products*	Mukwonago, WI 53149 tf: 800-837-9711	Mud Dog 1600	Hydro & Air	Chassis	16	full opening rear		2,000	18 gpm 3,000 psi	
	p: 262-784-7100 www.superproductsllc.com info@superproductsllc.com	Mud Dog 1200	Hydro & Air	Chassis	12	full opening rear		1,500	18 gpm 3,000 psi	
TELLUS VIENNA REALES THE COMMENT	Tellus Underground Technology 200 Hester St., PO Box 157 Portland, PA 18351 tf: 866-579-9911	TUT-5500	Air	Chassis	1.5	25″ Diameter	55 degree	70	3.5 gpm 1,500 psi	
See ad page 11	r: 800-579-9911 p: 570-234-0325 f: 570-245-0026 www.tellusunderground.com frusso@tellusunderground.com	TUT-6500	Air	Chassis	2	25″ Diameter	55 degree	70	3.5 gpm 1,500 psi	
		TUT-2001	Air	Trailer	1			70	3.5 gpm 1,500 psi	

Standard Blower (hg & cfm)	Filtration Type	Boom Size (ft.)	Degree of Rotation	Offloading Type	Controls Location	Wireless Y/N	Vacuum (cfm/psi)	Power Source	Compressed Air Flow	Compressed Air Pressure	Accessories Available	Other
28″ hg 2,650 cfm	Cyclone and Inlet Filter	6" x 20 ft.	340	45 Degree Dump and optional pressure off-load	passenger	Yes					winterization lighting tool boxes racks cabinets	Can be built to DOT/TC Code
28″ hg 4,000-6,400 cfm	Two large Cyclones and Inlet Filter	8" x 25 ft.	340	45 Degree Dump and optional pressure off-load	passenger	Yes					winterization lighting tool boxes racks cabinets	Can be built to DOT/TC Code
16-28″ hg 1,400- 3,000 cfm	cyclone separator media filter	6-9 ft.	180		curbside	Yes	16-28″ hg 1,400- 3,000 cfm	РТО	185-300 CFM	150-250 PSI	winterization lighting tool boxes racks cabinets	
18″ hg 2,400- 3,000 cfm	cyclone separator media filter	12-18 ft.	260		curbside	Yes	18″ hg 2,400- 3,000 cfm	Auxiliary engine			lighting tool boxes racks	
18-28″ hg 3,000- 5,400 cfm	cyclone separator media filter	16-26 ft.	330	decant pump/ pressure offload 5 psi (pressure offload)	curbside	Yes	18-28″ hg 3,000- 5,400 cfm	REPTO	185 CFM	150 PSI	winterization lighting tool boxes racks	
27″ hg 2,650 cfm	cyclone and cartridge	6″ x 20 ft.	342	Tilt and Pressure off	curbside	Yes	2,650 cfm	PTO/ Hydraulics			winterization lighting tool boxes racks cabinets	All accessories are included. Weights displayed on Wireless Remote.
27″ hg 3,850 cfm	cyclone and cartridge	8" x 25 ft.	342	Tilt and Pressure off	curbside	Yes	3,850 cfm	PTO/ Hydraulics			winterization lighting tool boxes racks cabinets	All accessories are included. Weights displayed on Wireless Remote.
28" hg 5,800 cfm		8 ft. telescoping with 19-27 ft. reach	335	Ejector	passenger side Inside heater cabinet	Yes			185 CFM	175 PSI	winterization lighting tool boxes cabinets	
28" hg 5,800 cfm		8 ft. telescoping with 19-27 ft. reach	335	Ejector	passenger side Inside heater cabinet	Yes			185 CFM	175 PSI	winterization lighting tool boxes	
15″ hg 1,100 cfm	Self Cleaning 1.0 Micron	4″	270		Rear of Truck	No	1,100 cfm @ 7.5 psi	Diesel Engine	185 CFM	150 PSI	winterization lighting tool boxes racks cabinets	Operates both dry and wet, 200 psi compressed air available
15″ hg 1,100 cfm	Self Cleaning 1.0 Micron	4″	270		Rear of Truck	No	1,100 cfm @ 7.5 psi	Diesel Engine	185 CFM	150 PSI	winterization lighting tool boxes racks cabinets	Operates both dry and wet, 200 psi compressed air available
15″ hg 1,100 cfm	Self Cleaning 1.0 Micron	4″			Rear of Truck	No	1,100 cfm @ 7.5 psi	Diesel Engine	185 CFM	150 PSI	winterization lighting tool boxes racks cabinets	Operates both dry and wet, 200 psi compressed air available

(continued)

Vacuum Ex	cavation 🔿	$\gamma \gamma c$								
		MODEL NAME	TYPE	Style	Debris Body Capacity (cu. yards)	Debris Door (dimensions)	Debris Door (dump angle)	Water Tank Capacity (gallons)	Standard Water Pump (gpm & psi)	
VACMASTERS	Vacmasters 5879 W 58th Ave. Arvada, CO 80002 tf: 800-466-7825 p: 303-467-3801	Vacmasters SpoilVac	Hydro	Chassis & Trailer	1, 2.5, 4, 5, 6	25" Posi-Seal	45 degrees	200 Additional Water Available	4 gpm 3,000 psi	
See ad page 17	f: 303-420-3971 www.vacmasters.com cbell@vacmasters.com	Vacmasters System 1000	Hydro & Air	Chassis & Trailer	1.5 or 2.5	25" Posi-Seal	45 degrees	85 Additional Water Available	4 gpm 3,000 psi	
		Vacmasters System 3000	Hydro & Air	Chassis	1.5	25" Posi-Seal	45 degrees	110 Additional Water Available	4 gpm 3,000 psi	
		Vacmasters System 4000	Hydro & Air	Chassis	2.25	25" Posi-Seal	55 degrees	85 Additional Water Available	4 gpm 3,000 psi	
		Vacmasters System 5000	Hydro & Air	Chassis	2.75 or 3.5	48" Full Opening Hydraulic	45 degrees	85 Additional Water Available	4 gpm 3,000 psi	
		Vacmasters System 6000	Hydro & Air	Chassis	4.75	60" Full Opening Hydraulic	30 degrees	85 Additional Water Available	4 gpm 3,000 psi	
Vermeen MV Solutions* See ad page 19	Vermeer MV Solutions 27137 South Hwy 33 Okahumpka, FL 34762 p: 352-728-2222 www.vermeermvs.com csellars@vermeer.com	Vac-Tron Series Mini-Combo unit	Hydro	Trailer	2.5, 4 or 6	Hydraulic rear door		300/400	15 gpm 1,500 psi	
	csentrs@vermeer.com	McLaughlin Series VX75	Hydro and Air	Chassis or Trailer	2.5, 4 or 6	Cam-over hydraulic		250/410	8/12/18 gpm 3,000 psi	
		Mc Laughlin Series VXT8 Mega Vac	Hydro	Chassis	8	Cam-over hydraulic		800	10 gpm 3,000 psi	

"We have to give customers the **Confidence** that our trucks will be productive while on the job. A lot of times, our trucks are support pieces that work in conjunction with other companies, so if our machine goes down, it stops the entire production. We don't want to be 'that' contractor." Guy Rimoldi, I

Guy Rimoldi, President Southern Hydro Vac Powder Springs, Ga.

Standard Blower (hg & cfm)	Filtration Type	Boom Size (ft.)	Degree of Rotation	Offloading Type	Controls Location	Wireless Y/N	Vacuum (cfm/psi)	Power Source	Compressed Air Flow	Compressed Air Pressure	Accessories Available	Other
15" hg 860 cfm	Cyclonic/ Cartridge	Hose Assist Arm	360	Hydraulic Dump	curbside	No	860 cfm	49 hp Kubota T-4 Final	N/A	N/A	winterization lighting tool boxes racks	
15" hg 860 cfm	Cyclonic/ Cartridge	Hose Assist Arm	360	Hydraulic Dump	curbside	No	860 cfm	74 hp John Deere	100 cfm	150 psi	winterization lighting tool boxes racks	
15" hg 1,220 cfm	Automatic Purge/ Cyclonic/ Cartridge			Hydraulic Dump	curbside	No	1,220 cfm	99 hp John Deere	165 cfm	185 psi	winterization lighting tool boxes racks	For All Models: Wheelbarrow Mount Barrel Top Interceptor Core Drill/Generator
15" hg 1,220 cfm	Automatic Purge/ Cyclonic/ Cartridge	Hose Assist Arm	180	Hydraulic Dump	curbside	No	1,220 cfm	155 hp John Deere	300 cfm	220 psi	winterization lighting tool boxes racks	Pneumatic Jack Hammer Pneumatic Tamper Sand Blaster
15" hg 1,700 cfm	Automatic Purge/ Cyclonic/ Cartridge	Hose Assist Arm	180	Hydraulic Dump	curbside	Yes	1,700 cfm	173 hp John Deere	300 cfm	220 psi	winterization lighting tool boxes racks	
16" hg 2,200 cfm	Automatic Purge/ Cyclonic/ Cartridge	5" Hose Extends 22 ft.	270	Hydraulic Dump	curbside	Yes	2,200 cfm	250 hp John Deere	350 cfm	250 psi	winterization lighting tool boxes racks	
15" hg 1,000 cfm	.5 micron cartridge filter	15 ft., 6-way hydraulic boom option	330	reverse pressure	curbside	Yes	1,000 cfm and 1,500 psi	74 hp Kohler diesel tier 4 final			winterization lighting tool boxes	
15" hg 1,200 cfm	2 micron washable filter	14 ft. hydraulic boom option, 5" Hose	270	reverse flow	curbside	Yes	1,200 cfm and 3,000 psi	74 hp Deutz	185 cfm option	100 psi option	winterization lighting tool boxes	Can be both chassis or trailer style
18" hg 3,500 cfm	2 micron washable poly filter	6" hydraulic boom	270		curbside	Yes	3,500 cfm	350 hp PACCAR PX 9	176 cfm	110 psi	winterization lighting tool boxes	

Read what **matters** to contractors in every issue of Dig Different.

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Hose and Hose Accessory

Kuriyama of America T704HA Series THE BOOMER

The corrugated T704HA Series THE BOOMER industrial sewer vacuum hose from Kuriyama of America is made



with a 1/4-inch-thick red gum rubber tube designed for wet or dry applications where severe abrasion is a factor. The corrugated black conductive SBR/NR blend cover provides abrasion- and ozone-resistance. The rugged hose is suitable for dry or wet abrasive materials and can be grounded. All sizes are rated to full vacuum and a pounds-per-square-inch safety factor of 3-1 for 2 to 8 inch and 2.5-1 for 10 inch. The hose remains flexible in temperatures from 40 degrees below zero to 212 degrees F. It is available with soft-cuffed ends for easy installation and clamping.

847-755-0360; www.kuriyama.com

Hot-Water Boilers

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

Easy-Kleen Pressure Systems Wildcat Heaters

Wildcat Heaters high-pressure, oil-fired hotwater/steam heaters and hydraulic pump systems from Easy-Kleen Pressure Systems are designed for reliability and efficiency and are installationready for vacuum trucks and hydroexcavators. A full range of heater options includes dry steam, redundancy packages, Schedule 80 and 160 stainless steel or A53 boiler pipe, fine-tuned temperature and flow-control systems. All coils are manufactured in-house, with CRN boiler-approved



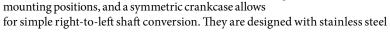
coils now available. Heaters can be designed for mounting in a cabinet or supplied as a completed cabinet unit. They are CSA and ETL approved. Hydraulic pumping systems are available.

800-315-5533; www.easykleen.com

Hydroexcavation Equipment

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



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 or a PTO connection or set up with an input pulley and clutch.

800-864-1649; www.cometpump.com

Fruitland RCF870

The RCF870 vacuum pump from Fruitland is available in clockwise and counterclockwise rotation with top- and side-mount, four-way valve locations. The pump is available with hydraulic, angle (gearbox) and belt-drive options. It can be mounted on all Eliminator-style packages. It is a true 4-inch pump with 4-inch pipe connections producing 512 cfm and



weighing 575 pounds. It is fan-forced air-cooled with an available air injection cooling system for continuous duty at higher vacuum. It includes an integral oil reservoir with low-consumption oil pump, an integral final filter and vane-wear test ports.

800-663-9003; www.fruitlandmanufacturing.com

Moro USA WATER Series PM80W

The WATER Series PM80W liquid-cooled vacuum pump from Moro USA is suitable for a wide variety of applications, including septic, industrial, and oil and gas. It has oiled bearings that don't require additional maintenance, a sealed positive displacement direct-feed oiling system, Kevlar vanes, an integrated check valve and a changeover valve. A jacketed casing provides liquid cooling, allowing a deeper continuous-duty vacuum.



A coolant pump is available for self-contained packages. It includes industrial-duty Viton oil seals for superior pump life and is available in clockwise and counterclockwise rotations.

866-383-6304; www.morousa.com

National Vacuum Equipment Challenger 1600

The Challenger 1600 high-vacuum blower from National Vacuum Equipment is a 1,600 cfm tri-lobe blower designed for continuous duty at maximum vacuum. It is available in ready-to-install hydraulic or belt-drive packages using corrosion-resistant stainless steel internal components. Available packages include silencers, check valves, moisture trap, cyclone, fourway vacuum/pressure changeover valve and a powdercoated skid.



800-253-5500; www.natvac.com

Presvac Systems PV750

The Presvac Systems PV750 rotary vane pump is designed for continuous full-vacuum operation in extreme conditions. It offers 400 cfm at free air, 350 cfm at 15 inches Hg, a maximum vacuum of 27 inches Hg and maximum pressure of 35 psi. Dual fans and twin ballast ports efficiently cool the pump. The solid hous-



ing with deep cooling ribs allows for greater heat transfer from the vacuum chamber. Aluminum fans and shrouding work like a heat exchanger to aid in heat reduction. Multiple manifold and drive options are available for truck, trailer or stationary applications.

800-387-7763; www.presvac.com

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

Hydroexcavation Trucks and Trailers

Ditch Witch HX30G

The HX30G vacuum excavator from Ditch Witch boasts high-profile power in a low-profile design that eases navigation in congested and heightrestricted areas. It is powered by a 31 hp Vanguard gas engine for optimal



suction power and water pressure. To boost efficiency on any job, it comes with a powerful 542 cfm blower, 3,000 psi water pressure and 4.2 gpm water flow. It is offered with the choice of a 500- or 800-gallon tank for a variety of job requirements. The machine is available in multiple trailer configurations, including the VT9 trailer that, when equipped with the 500-gallon tank, does not require a CDL to transport.

800-654-6481; www.ditchwitch.com

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**

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 cold-water 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

Imperial Industries Hydro 3600 Hybrid Excavator

The Hydro 3600 Hybrid Excavator from Imperial Industries offers compact power and versatility, with capabilities that include digging trenches to locating fiber optic cables and clearing debris. It provides direct applications for septic hauling, utilities maintenance and emergency response situations. It can be oper-



ated by one person. Units are available in code and noncode. 800-558-2945; www.imperiolind.com

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 sludge. 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

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 offloading 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 temperaturecontrolled 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

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 operator-friendly, 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**

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-degreedownward 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

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

Transway Systems Terra-Vex HV38

The Transway Systems Terra-Vex HV38 has a 12-yard debris tank with onboard scales for efficient hauling and offload-



ing, complete with a 26-foot-by-8-inch telescopic boom. It has a one-touch-operated hydraulic half-door with a 3,800 cfm at 27-inches Hg hydraulically driven blower. Water pressure is achieved with a hydraulically driven triplex pump, delivering 10

gpm at 3,600 psi from a 1,000-gallon HDPE baffled water tank. The water is heated with a 420,000 Btu diesel-fired burner for cold-weather operation. **800-263-4508; www.transwaysystems.com**

TRUVAC by Westech Coyote

The TRUVAC by Westech Coyote midsize vacuum excavator delivers easier maneuverability in urban environments and boasts a rugged design for harsh environments. With a max-



imized payload configuration and classic style controls, the truck features a 6-inch vacuum system and high airflow capabilities to maximize performance, a 6-inch hose that reduces hose clogging frequently found on smaller vacuum systems, and a powerful vacuum system capable of up to 3,200 cfm and 16 inches Hg. The 9-cubic-yard, 45-degree-tilting debris body is positioned on the optimal spot of the chassis to ensure the payload is proportionately distributed across all axles simultaneously. It can be upgraded to a 20 gpm at 3,000 psi water pump.

800-627-3171; www.truvac.com

Vac-Con X-Cavator

The X-Cavator hydrovac from Vac-Con offers an operator enclosure that measures 87 by 101 by 114 inches, with climate controls for both hot and cold weather and



operator jump seat. Unit controls and water system are located inside the passenger side enclosure and have locking rollup doors. One simple location hosts all of the unit controls, including air compressor gauges and switch packs to operate the truck. The wireless belly pack can be removed from its docking station and operate every feature of the unit remotely. Its cyclone filtration system is derived from the Titan. A 26-inch-diameter pleated cartridge acts as a final filter. The boom is constructed from a high-durability rubber material, with a structure that boasts a significant weight reduction, resulting in a lighter, more flexible boom. Boom specifications are 310-degree rotation, plus 45-degree and minus 22-degree vertical movement, and 26-foot reach. **904-284-4200; www.vgc-con.com**

Vermeer VXT500

The VXT500 vacuum excavator from Vermeer is an 8-inch vac with an 8-yard spoil tank capacity. It is ideal for utility applications



where a higher-capacity machine with a smaller footprint is desired. The VXT500 joins a family of Vacuum X-Traction Products vacs featuring vacuum blowers that deliver 5,000 to 6,400 cfm and spoil tank capacities ranging up to 16 yards. **800-837-6337; www.vermeer.com**

Westech Vac Systems Wolf

The Wolf noncode hydrovac truck from Westech Vac Systems is suitable for work in extreme conditions. The debris body is positioned on the optimal chassis location to ensure the payload is proportionately distributed



across all axles, maximizing legal payload for customers and improving operational efficiency. The side-mounted water tanks reduce the weight by more than 40%, lowering the overall cost of the truck. The 1,500-gallon capacity ensures ample water for large or remote jobs. A top-mounted, no-touch water fill system is easily accessible from the passenger side of the vehicle. The debris body is lifted using a telescoping, dual-acting hydraulic cylinder capable of 36,000 pounds of force. When fully extended, the debris body exceeds a 45-degree dump angle for fast and efficient offloading. To help the offloading process, a heavy-duty, hydraulically powered tank vibrator is mounted to the belly of the debris body. **780-955-3030: www.westechvgc.com**

Nozzles

Enz USA HydroX

The HydroX nozzle from Enz USA is available in 3/8inch 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 a 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

Hydra-Flex Machete

The Machete hydroexcavating nozzle from Hydra-Flex channels water in an oscillating motion, creating a smaller spray angle. This in turn provides a direct stream with a more forceful impact. This premium penetration will allow faster digging and more



precise trenching capabilities. Its durable, replaceable cover allows for instant changeability while increasing the overall nozzle's life span. It is available in three sizes, with operating pressure ranges from 1,000 to 3,200 psi with a heat rating of 180 degrees F. Generating more power, it will last in excess of 500 hours, improving digging times and replacement costs.

952-808-3640; www.hydraflexinc.com

NozzTeq BL Swiper

The BL Swiper sewer nozzle from NozzTeq is available in 1/2-, 3/4- and 1-inch sizes and is made of stainless steel inside with a poly body outside that makes it safe to use in lined, imperfect and sensitive pipes. Its stainless steel

tubes loop the water around a system along air channels that increase airflow and jet stream length in the pipe. The design reduces revolutions per minute and pressure at the truck and thus at the nozzle to reduce the amount of blown toilets. It can be used on 4- to 12-inch lines with all pull-behind jetting units. **866-620-5915; www.nozzteg.com**

Happenings

CALENDAR

Aug. 19-20

Water Finance Conference, Washington Court Hotel, Washington, D.C. Visit www.waterfinanceconference.com.

Sept. 14-16

Breakthroughs in Tunneling Short Course, Fritz Knoebel School of Hospitality Management, University of Denver, Denver. Visit www.tunnelingshortcourse.com.

Oct. 3-7

Water Environment Federation Technical Exhibition and Conference (WEFTEC), New Orleans Morial Convention Center, New Orleans. Visit www.weftec.org.

Nov. 10-11

WJTA - IMCA Conference & Expo, Ernest N. Morial Convention Center, New Orleans. Visit www.wjta.org.

Nov. 18-19

Pipeline Leadership Conference, The Woodlands Resort, Houston. Visit www.plconference.com.

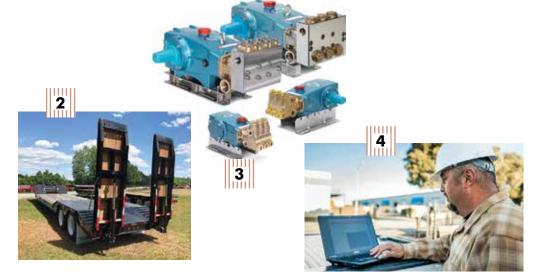
To recognize members of your team, please send notices of new hires, promotions, service milestones, certifications or achievements. We also invite your national, state or local associations and organizations to post notices, news items and learning opportunities. Send contributions to editor@digdifferent.com.





THE LATEST: Products





1. Vactor Ramjet truck-mounted water jetter

The new version of Vactor's Ramjet features IntuiTouch technology that delivers improved operating ease, quick accessibility to key information and greater control on jobs. IntuiTouch in-cab controls provide PTO activation at the touch of a button. Outside, operators can use the IntuiTouch ergonomic control station that features a simple, up/down adjusting control panel for all cleaning system functions. It also offers improved water plumbing, allowing for greater storage options. Other features, including a Jet Rodder water pump and Park-N-Clean technology, come standard. The Ramjet also includes a cold-weather package that separates wet and dry items and a rear hose reel with optional integral aluminum shroud for optimal performance in cooler environments. **800-627-3171; www.vactor.com**

2. Talbert 35FG-BVTL fixed-neck trailer

Talbert's 35FG-BVTL is a fixed-neck, drop-deck trailer for small to midsize equipment machinery movers operating in oil fields, agriculture, and construction and demolition. The 35-ton trailer is rated at 70,000 pounds concentrated in 20 feet and features hydraulic ramps for safe, efficient loading and unloading in confined spaces. The overall length of the 35FG-BVTL is 48 feet, which includes a 22-foot-long, 8-foot-6-inch-wide deck and an 8-foot-6-inch rear bridge section. The trailer's fixed neck provides an economic alternative compared to removable gooseneck designs if a front unload option is not required. The gooseneck features two-speed landing gear with standard sand shoes. **888-489-1731; www.talbertmfg.com**

3. Cat Pumps hydroexcavating pumps

More than 50 years of high-pressure pump manufacturing experience has earned Cat Pumps a reputation of producing high-quality, long-lasting pumps. With its dedication to zero-defect manufacturing, ease of service and availability of stock, Cat Pumps designs and builds highpressure pumps and systems to suit the demanding environments of the hydroexcavation industry. Popular models include Model 56 with 5.5 gpm at 3,500 psi; Model 56HS with 8 gpm at 3,000 psi; Model 660 with 10 gpm at 3,000 psi; Model 3560 with 20 gpm at 4,000 psi, or 25 gpm at 3,000 psi; and Model 3570 with 30 gpm at 3,000 psi.

763-780-5440; www.catpumps.com

4. Ditch Witch Orange Intel fleet management system

The Ditch Witch Orange Intel fleet management tool centralizes fleet and machine information, maintenance indicators and other data on Ditch Witch equipment, keeping contractors up to date on machine performance, location and security. It tracks individual machine indicators, including working and idle hours, and the technical data provided in each machine can illuminate potential problems before they occur, such as keeping an eye on fuel and diesel exhaust fluid levels, battery performance and other vital systems. With the ability to insert GPS-based geofencing options, equipment can be tracked, and it can help locate a lost or stolen machine. Notifications are sent directly to contractors' desktops or mobile devices to keep them updated on fleet and crew status during all hours and in various locations.

800-654-6481; www.ditchwitch.com **v**





This Issue's Feature:

Steel hydrovac boom elbows designed for the long haul

BY CRAIG MANDLI

Just like how a pitcher's elbow takes a lot of stress, the boom elbow on a hydrovac unit typically is one of the machine's most stressed components. Sometimes elbows even need to be changed out several times a year on highly used units. So when Glenn Gevik, president of **EMCO**, unveiled his take on the **hydrovac elbow and flanges** — an extra-thick, carbide-infused component — at the 2020 Water & Wastewater Equipment, Treatment & Transport (WWETT) Show, it turned plenty of heads.

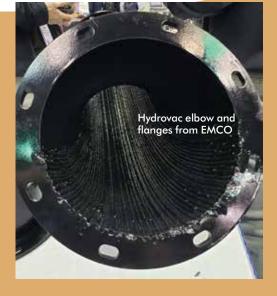
From a distance, the replacement elbow resembles any typical hydrovac elbow. However, upon further examination, the inside of the elbow has welded carbide strips on the top half. According to Gevik, the carbide makes the elbows substantially more durable.

"Through our testing of these units, we found that the carbide helps them last four to five times longer than a typical elbow," Gevik says. "Typically you'd make an elbow more durable by wrapping an extra layer of steel on the back. Adding the carbide to the inside of the elbow itself protects the steel in that curve, making this a more durable design."

According to Gevik, it's all about abrasion resistance. A hydrovac working at full power vacuums up abrasive material, sending it through the boom and into the holding tank at a very high speed. With that material constantly rubbing on the tube, that steel can wear quickly, especially at the elbow and flange where the material takes a turn.

"I've spoken with hydrovac operators who have gone through dozens of elbows and hundreds of flanges on their trucks in a year's time," Gevik says. "Not only is that a huge expense, it's also valuable time spent changing out those parts. I thought if I could produce parts that last longer, that's money in their pockets."

According to Gevik, the elbows and flanges



are equally adept on wet or dry excavation jobs. He designs them as OEM products, which can be fabricated at different sizes and bolt patterns to fit on any manufacturers' hydrovac units.

"The elbows are designed to last four times as long as typical elbows, while the flanges last 10 times as long," Gevik says. "The response has been overwhelming. Obviously this is something these guys are looking for."

218-428-6927; www.emcohydrovacparts.com

THE LATEST: Jews

Komatsu rebrands company-owned distributors

To better support customers and leverage the power of its wholly owned network, Komatsu has created a new structure in North America to strengthen the growth of companyowned distributor branches. A new corporate unit within Komatsu has been created, effective immediately; all company-owned distributor locations will be branded Komatsu to reflect their inclusion in the company's global footprint. With the alignment of these larger groups of premiere distributors, customers will have access to additional equipment and parts inventory, as well as greater service and support resources. Trade territory for the renamed branches remains the same, as do all equipment lines sold and services provided.

Talbert names top dealer for 2019

Talbert named Hale Trailer Brake & Wheel, headquartered in Voorhees, New Jersey, as its top dealer for 2019. This award recognizes outstanding performance in trailer sales, service and parts on behalf of Talbert. This is the 12th year in a row Hale has outperformed other Talbert dealers to take the top spot. The dealership was also recognized as the top parts seller for the year.

Felling Trailers announces beneficiary of 2020 Trailer for a Cause

Felling Trailers will host its eighth annual Trailer for a Cause online auction of an FT-3 utility trailer to benefit a nonprofit organization. The company has selected the Lymphoma Research Foundation as the 2020 Trailer for a Cause auction beneficiary. Felling Trailers' goal is to bring awareness to various nonprofits that are making a difference by donating 100% of the winning bid from the auction to a different nonprofit each year. The previous Trailer for a Cause auctions have raised more than \$21,000 for nonprofit organizations such as Bright Pink (breast cancer), ACT on Alzheimer's, Special Olympics Minnesota (SOMN) and Children's Cancer Research.

Vacuum Truck Rentals welcomes Rose and Calhoun

Vacuum Truck Rentals made a couple personnel announcements. Ty Rose will be manager of its Northeast operations



including New Jer- Donald Calhoun sey, Massachusetts,

Maryland and the surrounding region. He brings 21 years' experience in the vacuum truck and heavyequipment industries, having served in senior leadership positions, sales and technician roles. Rose began his career in the sawmill industry before becoming a vacuum truck operator and service technician. He then oversaw vacuum truck rental operations for 10 branches before taking a general manager position and served as a vice president of fleet and vacuum operations.

The company also announced Donald Calhoun as the newest member of its sales team. He will serve the Deer Park, Texas, region and brings more than 32 years of experience in the vacuum truck and heavy-equipment industry. Calhoun began his career as a mechanic's assistant and expanded his industry skills as a sales representative for parts and used equipment before transitioning into a role to train others on the operation of vacuum trucks.

Radiodetection announces collaboration with Sensors & Software

Radiodetection announced the expansion of its utility-locating offering to include Sensors & Software's LMX range of ground-penetrating radar systems in a new collaboration that utilizes the strengths of both companies. The LMX range of groundpenetrating radar will be available exclusively through Radiodetection in the U.S.

VMAC named one of Canada's Best Managed Companies

VMAC announced it has been named one of Canada's Best Managed Companies for the second year in a row. The 2020 Canada's Best Managed Companies program recognizes the country's leading private businesses demonstrating strong strategy and capability to foster long-term success and sustainable global growth.

TRUVAC by Vactor partners with Ditch Witch in Colorado and Oklahoma

TRUVAC by Vactor announced the addition of two Ditch Witch dealers to its network. Ditch Witch of the Rockies, which is located in Colorado, and Ditch Witch of Oklahoma will now be offering the full line of TRUVAC vacuum excavators. The addition of the two dealers brings the total number of locations providing TRUVAC vacuum excavators and support to more than 87 across the U.S. and Canada. 🔻

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