

Think outside the bucket

THE FAMILY PATH

Contractor builds on father's successes after career change
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Trevor Igo
Owner
Igo Inc.



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Igo Inc. owner Trevor Igo uses the TeraTrak R1 (Digital Control) to conduct terrain mapping near the Pioneer Event Center in Weatherford, Oklahoma. Igo took over the company, founded 42 years ago, from his dad and has since added services such as horizontal directional drilling. The company also offers hydraulic excavator and hydrovac dirt-moving, laying of water, sewer, power, gas and communication lines, HDPE fusion, and right-of-way clearing. (Photography by David McNeese)

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Don't Be Afraid to Stand Out

WHEN DOING THINGS TO GET NOTICED, MAKE SURE YOU ARE DOING THE RIGHT THINGS — LIKE MARKETING AND A JOB WELL DONE

BY CORY DELLENBACH, EDITOR

It's cold up here in Northern Wisconsin as I write this column for this issue, so I'm naturally thinking of warmer weather. That leads me to the Fourth of July parade our town up here had this past year.

As with any parade a community holds, there were several businesses that were showing off cars, trucks and other equipment. It's the easiest, and one of the cheapest, way to advertise your company.

One local company did a great job too with its marketing efforts. It's one of a very few horizontal directional drilling companies in northern Wisconsin. What I remember the most from this past Fourth of July was that it was hot out and the parade is held midday, so a lot of people were sweating and just feeling miserable with the heat. I was one of them.

Then along came this company — Northwoods Directional Drilling — with some relief from the hot weather. They had their directional drill sitting on top of a flat bed truck and every now and then, they would spin the drill head, which sent water spraying from it onto the crowd.

The kids screamed out of joy, the parents and other adults didn't mind the cool water hitting them either.

Not only was that marketing ploy a welcome relief from the heat, but it was also a great attention getter. A lot of kids were impressed by the drill and I overheard many saying "that is cool," or "I want to drive that thing."

That's the type of reaction you want to get from your marketing efforts. Are you getting that right now with what you are doing with your company?

STANDING OUT

Standing out like how Northern Directional Drilling did in the parade is a great thing for any company to do, but you also want to make sure you are standing out in the jobs you are doing.

Igo Inc., and owner Trevor Igo, take pride in the work they do each day. The Oklahoma-based company isn't afraid to show the work they are doing in Facebook posts. Igo knows he does good work and wants to let his current and any potential new customers know as well.

Igo took over the company from his dad in 2005 and has taken steps along the way to improve upon it — like

adding services. That was his way of standing out and he accomplished his goal of being one of a few contractors in western Oklahoma doing his type of work. The company stays plenty busy as you'll read about in this issue.

DO WHAT YOU'RE SUPPOSED TO

It doesn't take much to stand out, but make sure you're standing out in a good way. It can work just the opposite too if something doesn't go right — examples include cutting a utility line and causing a major power outage, or hitting a gas line and forcing evacuations. You're definitely going to stand out by doing those things, but not in the way you want.

Make sure you and your crews know what they are doing on those jobs and those accidents will be few and far between. We have a little refresher in our Shop Talk feature this issue where we talk about the three keys to a successful vacuum excavation job.



IT DOESN'T TAKE MUCH TO STAND OUT, BUT MAKE SURE YOU'RE STANDING OUT IN A GOOD WAY.



Kids at a Fourth of July parade in Rhinelander, Wisconsin, get sprayed by water from a directional drill. The company, Northwoods Directional Drilling, got attention by doing something fun. It's a great way to get your company noticed by the community.

PHOTO BY CORY DELLENBACH

HOW DO YOU DO IT?

How do you make your company stand out? Is there some community activity you take part in that drives a lot of attention, or have you taken on a job that's gotten you noticed? Let me know by emailing me at editor@digdifferent.com or call me at 715-350-8436.

Enjoy this issue! ▼

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GAINING KNOWLEDGE

Contractors Offer Advice and Insight

Recently, we looked back at some of the profiled contractors of the past year and did a compilation of the industry knowledge they shared in the pages of the magazine. Check it out and see if there is something you can learn from their experiences.

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SMART BUSINESS

Acquiring a Skid Steer

If you need a skid steer on a certain job, is it best to rent, lease or buy? There are a lot of factors to think about first. Consider the questions discussed in this online exclusive before making a decision.

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EASY FIX

Well-Designed Hydrovac Makes Repairs Less Challenging

We featured HydroEx of Puerto Rico recently in the January issue. This online exclusive looks at a top challenge the company faces due to its location — acquiring machine repair parts. Because that isn't always easy, it's important for HydroEx to have a machine that is easy to fix and experiences minimal breakdowns in the first place.

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THE FAMILY PATH

**FINDING PRIDE IN DOING UTILITY CONSTRUCTION WORK
DRIVES OKLAHOMA CONTRACTOR TO STAY IN THE
FAMILY BUSINESS AND HELP IT GROW INTO NEW NICHES**

STORY: GILES LAMBERTSON | PHOTOS: DAVID McNEESE

Trevor Igo mostly digs ditches for a living. For variety, he also bores holes. For this, he gave up a career in law enforcement. Igo Inc. is a success story about a young man following his head and heart into the utility construction industry.

Igo (pronounced eye-go) actually is a second-generation company owner in a family business started by his father Terry Igo in 1979. The senior Igo had a rural property with a small cattle operation in Besse, Oklahoma, some three miles south of Weatherford and about 70 miles west of Oklahoma City. He needed some utility line excavation done for a house being moved onto the property, but he couldn't find anyone to dig the trenches.

"It seemed like a good business to get into when you couldn't find anyone to do the work," Trevor says of the pivotal moment. In response to the dearth of excavator contractors, his father launched his utility construction firm and found plenty of opportunities. "I grew up around the whole process. From sixth grade, I would ride along. Where he went, I went. I worked with Dad all the way through high school."

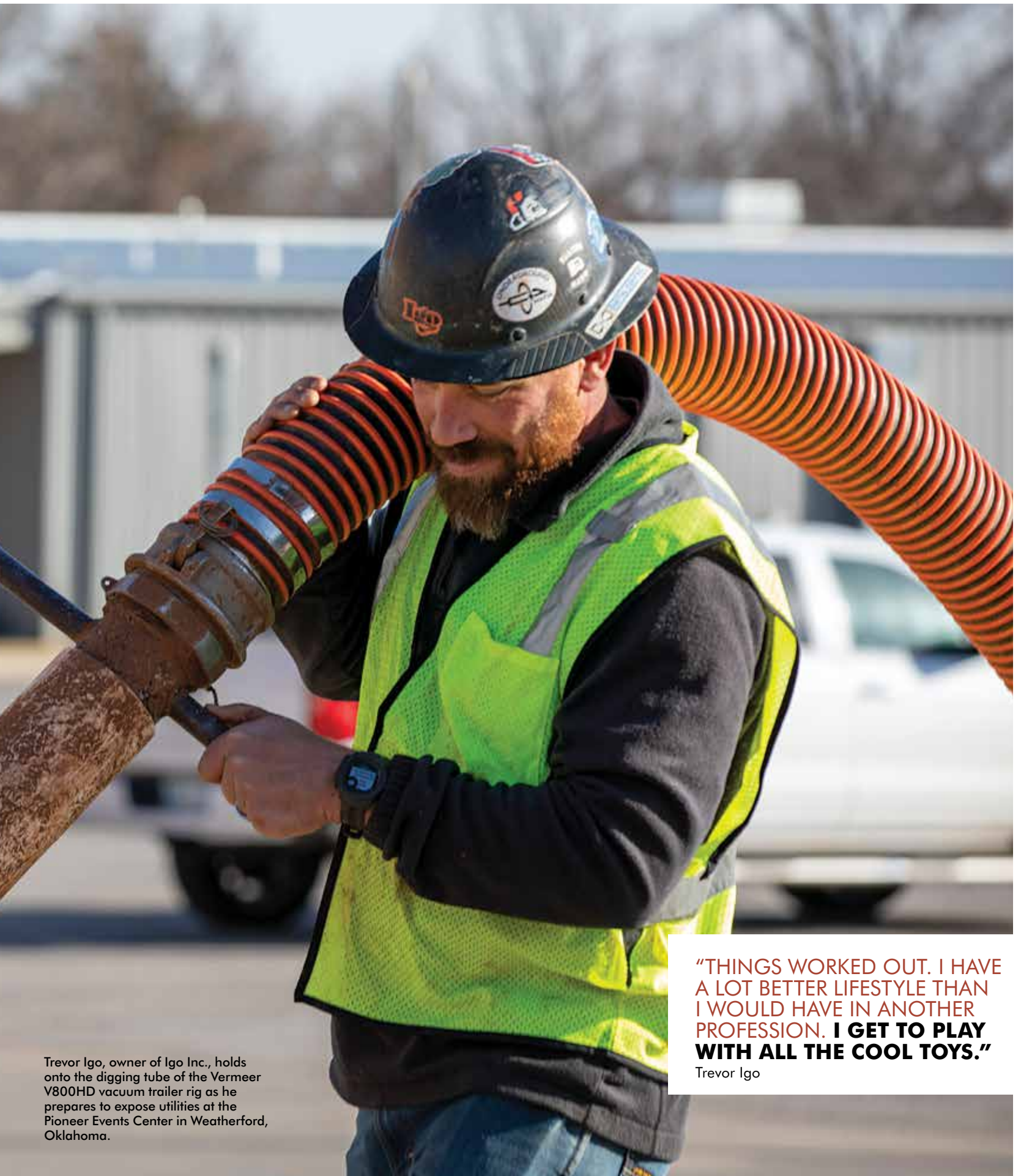
His father had a Ditch Witch unit to open trenches for pipe and for boring pathways for

underground utility lines. The younger Igo eventually operated locating instruments and his father did the operating. Because the pair comprised the entire work crew for most jobs, the son was given ample opportunities to become familiar with the tools of his father's trade.

Yet when he went to college in 2001, the younger Igo had no plan to follow his father into the business. His future seemed to lie in law enforcement. Upon his graduation from Southwestern Oklahoma University in Weatherford with a degree in criminal justice and a minor in Spanish, Trevor appeared headed for a career in uniform.

The Oklahoma City Police Department and the Oklahoma Highway Patrol each offered him a job and he opted for the latter. While he waited for the paperwork to clear the bureaucracy, Trevor returned home to Weatherford and that's when fate intervened in the form of heavy rains that flooded the region. One of his father's customers, a water district, had 13 crossings washed out or damaged. An abundance of work lay ahead for the company.

"I had met my wife about the same time and we sat down and made a decision," he recalls. The



Trevor Igo, owner of Igo Inc., holds onto the digging tube of the Vermeer V800HD vacuum trailer rig as he prepares to expose utilities at the Pioneer Events Center in Weatherford, Oklahoma.

“THINGS WORKED OUT. I HAVE A LOT BETTER LIFESTYLE THAN I WOULD HAVE IN ANOTHER PROFESSION. **I GET TO PLAY WITH ALL THE COOL TOYS.**”

Trevor Igo



The company's Vermeer V800HD vacuum excavator rides on an 18-foot, dual-axle trailer and Trevor Igo says it is present at about every job.

young couple decided to go all into the construction utility business with Trevor's father and forego the higher profile work of a highway patrolman. So, in 2005, the second generation teamed up with the first. "We swapped our roles, though. I operated the boring machine and Dad did the locating."

FINDING A NICHE

The post-flooding work temporarily swamped the young company. Its next big opportunity came when a local developer — and friend of the family — decided to build an 80-acre housing subdivision near Weatherford. Igo was given the contract to excavate basements and put in water and septic tank systems. Before long, a second homebuilder started a development, and the resulting housing boom presented the Igos with so much work they had to temporarily hire additional employees.

More significantly, the horizontal directional drilling side of the business began to heat up. Igo Inc. had subcontracted a large HDD project in 1999, rehabbing a municipal facility in Clinton. Realizing directional drilling was the more profitable segment, the senior Igo sought other bores. By 2005, the company was undertaking what Trevor characterizes as "deep and big stuff, more

"A HYDROVAC IS ONE OF THE BEST INVESTMENTS A CONTRACTOR IN THE UNDERGROUND CONSTRUCTION BUSINESS CAN MAKE. IF YOU DON'T HAVE A VAC, YOU'RE GOING TO HAVE TO PAY SOMEONE TO DO THE WORK FOR YOU."

Trevor Igo

complicated bores where we have to thread the needle. It has become a niche for us around here."

Trevor Igo, owner of Igo Inc., stands in the company yard in Weatherford, Oklahoma. Trevor took over the company from his dad. The company has been in the family for 42 years and offers services throughout Western Oklahoma.



Igo Inc.
Weatherford, Oklahoma



OWNER: Trevor Igo

EMPLOYEES: 2

YEARS IN BUSINESS: 42

SERVICES: Hydraulic excavator and hydrovac dirt-moving, laying of water, sewer, power, gas and communication lines, horizontal directional drilling, HDPE fusion, right-of-way clearing

SERVICE AREA: Western Oklahoma

WEBSITE: www.facebook.com/lgoboring

“WE DO SO MUCH HDD. AT CERTAIN TIMES, PROBABLY HALF OUR WORK IS DIRECTIONAL DRILLING.”

Trevor Igo

To do such exacting work, the company upgraded to a larger Vermeer unit. Today, Igo depends on a Vermeer D24x40 Series 3 drill. The machine delivers 28,000 pounds of thrust and pullback and 4,200 ft-lbs of torque. Powered by a 125 hp John Deere diesel engine, it can bore holes up to 4 inches in diameter.

With the 24X40, the company's longest boring job to date is 1,200 feet for a 4-inch plastic gas pipe. “We do so much HDD,” says Trevor. “At certain times, probably half our work is directional drilling.”

That's saying something because the company offers a host of other services: among them, excavation of basements or foundations, laying of water, sewer, gas, power and telecommunication lines, right-of-way clearing and HDPE fusion.

Equipment for all the foregoing is parked on three acres, with a 100-by-50-foot shop that has four service bays. When the company was jammed with work at the new Weatherford subdivision in 2008, it would park its equipment overnight on the edge of the property. The developer told the father-and-son team that he would build them a facility at that location if the company would lease it from him. So, they did.

In the equipment yard these days besides the Vermeer HDD unit are two trenchers, a Ditch Witch 5110 and Vermeer V120. The smaller Ditch Witch is a four-wheel-drive 50 hp unit. The V120 tractor unit has a 115-hp engine. The larger trencher was used on a memorable laying of 27 miles of waterline on a 17-section ranch.

Waterlines are the usual undertaking for the trenchers, including for several rural water district systems. The trenching and installation process moves quickly once everything is lined up. “I remember we put in a 4-inch waterline, four and a half feet deep, and were moving about 500 feet every 30 minutes,” Trevor recalls.

MORE BIG EQUIPMENT

While the trenchers are efficient pieces of equipment, they are single-function machines. Trevor says they can sit idle for a month or more between trenching jobs. He more regularly cranks up an excavator to create a wider trench or power through a gypsum rock outcropping. For such work, Trevor uses a Liebherr R 920 Compact.



The TeraTrak (Digital Control) creates a continuous topographical reading of the path of a horizontal directional drill project and lets an operator update his trajectory as the work progresses.

Seeing What's Underground

Trevor Igo looks at new technology as something more than just technical advancement. The owner of Igo Inc., an Oklahoma utility construction contracting firm, says embracing technology is good for him as well as for his customers.

So, when Digital Control Inc., or DCI, introduced a new terrain mapping tool in December 2020, Igo snapped up the very first one sold by the Washington state company. The TeraTrak R1 creates a continuous topographical reading of the path of a horizontal directional drilling project and lets an HDD operator update his trajectory as the work progresses. The two-wheeled inline device with a handle for the person walking it can give readings plus or minus two inches over 500 feet.

“You don't need the tool on every simple bore, but the TeraTrak is a great asset on more complex ones, which a lot of ours are,” Trevor says. “For such jobs in the past, we've gone out with a laser and pulled string. Now we walk the path and come back and are ready to go.”

Trevor says the tool gives him a better profile of what's underground and where his drill is going to

be in relationship to obstacles. “It's a very economical way to gather a lot of data up front. It gives you a better profile of where you're going to be. If your path eventually crosses the interstate, for example, you need to know where your drill needs to be before you get there.”

Trevor's embrace of technology is a wholly practical matter. By learning what equipment advancements are out there, he knows what level of performance is possible with a piece of equipment. He then decides if he needs that level of performance. This mindset kept him moving through brands of excavators until he settled on a Liebherr model capable of the precision work he wanted.

The bottom line is that his western Oklahoma customers benefit from his acceptance of change. “It's a competitive advantage to keep abreast of technology. It has to prove itself though. I'm not going to embrace an unproven technology, but if something is more efficient and beneficial for a customer and gives him a lower cost, I want to take advantage of it. Working smarter, not harder — that's totally what I want to do.”

“It has technology I appreciate,” Trevor says of the 23-ton excavator powered by a 150 hp Cummins diesel. He particularly is impressed by what Liebherr calls “ergonomic proportional joysticks,” which produce sensitive but smooth operation of boom and bucket. “I like the precision of the joysticks, and it was the largest excavator I could find with a blade and rubberized tracks.”

When Trevor joined his father in the company, most of their open cut excavation work was done with a CASE backhoe. But for several reasons, they soon transitioned to a small excavator, Trevor says. “For about the same money, you could buy a larger excavator with about the same fuel rating. The excavator worked circles around the backhoe and gave me the precision cuts I wanted.”

Trevor is constantly using a Vermeer V800HD vacuum excavator. It rides on an 18-foot, dual-axle trailer and is present at about every job. “It pretty much



“IT’S A COMPETITIVE ADVANTAGE TO KEEP ABREAST OF TECHNOLOGY.

... IF SOMETHING IS MORE EFFICIENT AND BENEFICIAL FOR A CUSTOMER AND GIVES HIM A LOWER COST, I WANT TO TAKE ADVANTAGE OF IT.”

Trevor Igo

One of Trevor Igo’s go-to pieces of equipment for trenching and clearing jobs is the company’s Liebherr R 920 Compact excavator.

“Our reputation is that we don’t accidentally cut anything. The biggest risk of doing so is on the boring side.”

Other equipment in the company yard includes a Deere 333G skid-steer. It’s called upon for numerous tasks including stringing out pipe and conditioning soil, compacting filled-in open cuts and sweeping debris from adjacent pavement. “We try to clean up our ditch lines and make them look as good as they can and the skid-steer really helps with that. We have so many attachments for that thing.”

TAKING PRIDE IN THE WORK

How satisfied is Trevor in his decision to become a utility contractor instead of a highway patrolman? So satisfied that he’s hoping a son will follow him into the family business. “I’m hoping there’s a third generation, if that’s what a child chooses to do. It’s a pretty good deal once you get in and do it.”

He adds, with low-key Oklahoma casualness, “Things worked out. I have a lot better lifestyle than I would have in another profession. I get to play with all the cool toys. I like sitting on a drill for a couple of hours and then climbing in the Liebherr to lay some pipe.”

More than pleasure drives him, though. “I think it comes down to pride,” he says. “There’s nothing like doing a bore that someone else can’t do. It’s so rewarding to accomplish something that you had to kind of make up as you went along to get it done. I suppose that’s true no matter what kind of work you’re in. There are other professions, but this one is a skilled trade and there is a lot of pride in the industry.” ▼



Trevor Igo is satisfied with his decision to work in the family business and would be pleased if his company could boast a third generation of owners down the road.

goes with us daily and always accompanies the HDD. The vac practically lives behind a one-ton truck.” He says he tried out several brands before settling on Vermeer as the best unit for the cost. “A hydrovac is one of the best investments a contractor in the underground construction business can make. If you don’t have a vac, you’re going to have to pay someone to do the work for you.”

Trevor wants eyes on any utility line that intersects either an open cut or an HDD bore. He uses a Vermeer McLaughlin G3 Verifier to locate and determine the depth of a buried line and, if necessary, vacuums a hole to expose it.

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Developing a Safety Team

YOU MAY NOT HAVE THE RESOURCES TO EMPLOY A SAFETY SUPERVISOR, BUT NO COMPANY CAN AFFORD TO IGNORE SAFETY TRAINING

BY TIM DOBBINS

There is no picture-perfect template for managing a safety program. Everything that makes your company unique provides a reason to develop a safety strategy to fit your team. There is one thing that's true of every company: Someone needs to take charge.

Having a dedicated safety supervisor or manager is an option, but it's not the only one. The responsibility of keeping up to date on safety protocols, training and monitoring safety practices can fall on multiple people already in place.

Jason Lohoff opened Master Rooter in 2019 and for the last two-plus years, has been safely serving the Mesa, Arizona, area. Master Rooter currently employs around 45 people and, in Lohoff's opinion, doesn't require a full-time position handling the safety side of the business. He says that comes down to a couple people on his team.

"We sort of take a two-pronged approach to safety without having a designated person in a safety manager position," Lohoff says. "We split the safety management position between two roles, really."

For Master Rooter, the general manager handles a lot of the broad oversight and beyond that position they have a field supervisor. Between the two, they put together a safety plan and then disseminate the information to the crews as needed.

RIGHT FOR THE JOB

There are specific traits to look for within your staff when choosing the right people to oversee job site safety. Knowledge of OSHA requirements and general safety laws are an obvious must, but also seek people who are comfortable and get along with your staff — but not afraid to call out co-workers for wrongdoing.

Lohoff says he also looks for people that have a knack for paying attention to the details. "I am looking for people who are extremely detail oriented. I want them to inspect every little thing. To go along with someone detail-oriented, I want someone that is process driven because it should be part of their daily process when doing a job, big or small."

REGULAR REMINDERS

Expecting your crew to know how to handle every situation and operate equipment safely without training is unrealistic. Have those in charge of safety schedule routine meetings and provide recurring training protocols.

"We have regularly scheduled technician meetings typically once a week and we handle different safety topics as part of that meeting," Lohoff says. Topics can be chosen by focusing on jobs that are lined up for that week. Go through the job, what it's going to entail and discuss the safety implications for that situation.

Lack of or improper training on new or existing equipment is almost asking for an accident. Lohoff also relies on the aptitude of his employees and management team to ensure everyone operating equipment and machinery has been appropriately taught.

"We certify them to our standards in-house before they are able to operate that machinery on their own. When we get a new piece of equipment, we

have someone who is a designated expert on that equipment. They have either received manufacturer training or have previous experience," Lohoff says. "From there, that individual will certify others in the company to make sure that they are operating the machinery in a proper manner."

Safety meeting topics aren't limited to equipment operation, but should include anything and everything that workers may encounter on the job site. Don't forget the easy topics that may be unique to your company, depending on location or regional traits. "We've got different challenges than maybe some other companies because of the region we serve," Lohoff says. "For us it can be as simple as saying, 'Hey everyone, make sure you're bringing water to the job because energy drinks and Coke isn't going to cut it when it's 125 degrees in the sun.'"

When the timing is right, it doesn't hurt to remind employees how much an accident can hurt the company as a whole. "Sometimes we will break it down into the cost analysis side and we'll explain that it costs so much more for someone to have an injury than when they're being productive," Lohoff says. "You need to balance when to share the business side of safety with your team and when to share just your complete empathetic side and express that you just really don't want any of them hurt."

"YOU NEED TO BALANCE WHEN TO SHARE THE BUSINESS SIDE OF SAFETY WITH YOUR TEAM AND WHEN TO SHARE JUST YOUR COMPLETE EMPATHETIC SIDE AND EXPRESS THAT YOU JUST REALLY DON'T WANT ANY OF THEM HURT."

Jason Lohoff

The key is making safety something employees don't have to consciously think about. It should be routine and engrained in their everyday thoughts as tasks are being completed.

DAILY IMPLEMENTATION

Talking about safety is one thing, but consistent execution is another. Whether you have a safety coordinator, multiple team members in charge of safety, or it falls to you, it's critical to ensure what's taught in trainings is utilized.

"Our field supervisor checks on every big project, every day, and we are able to field-verify that the strategies we have in place are truly being practiced and not just preached," Lohoff says.

And though it's not pleasant to think about, having a plan for if an incident occurs is crucial. "Handling situations is always a case-by-case basis," Lohoff says. "It could as be simple as a retrain, or it could be as grave as a termination."

Whatever the case may be, use it as a training opportunity to show employees what went wrong and how it could have been avoided. "Make safety part of your daily culture," Lohoff says. "Don't make it overcomplicated and don't make it a big scary monster. Sometimes it's just a reminder to use common sense." ▼

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Poseidon Hydro Excavation GLENDALE, WISCONSIN

When coming up with the company name, owner Bill Lietzke, a longtime hydroexcavating operator and fleet manager, wanted the name and branding to stand out and be bold. After going through several different name options, Lietzke came up with Poseidon, the god of water. He liked the name because he wanted his company to be known as the ones that can't be out-dug, the powerful and the fearless. Lietzke didn't stop with just a strong name, he took that message of strength into an overall branding campaign, developing a memorable logo and color palette that is incorporated on truck wraps, uniforms and marketing collateral. The company's hydrovac units are all **Westech**, a Canadian manufacturer affiliated with **Federal Signal**, and include two Western Star 4900s and three Western Star 4700s. Lietzke says the trucks are built for the sometimes harsh Wisconsin winters as the company is based in the southeastern corner of the state in Glendale, Wisconsin. The company's fleet also includes support trailers for extra hose and smaller pickup trucks. The company has a dedicated staff member to wash and wax the fleet daily to keep the hydrovacs clean and polished. For more information on Poseidon Hydro Excavation, go to www.poseidon-hydrovac.com.



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Rethinking the Spreadsheet

WHEN YOU LOG REAL-TIME REVENUE AND EXPENSES, IT'S EASIER TO KNOW WHEN TO HOLD THE LINE ON SPENDING OR MAKE TIMELY INVESTMENTS IN YOUR COMPANY'S GROWTH

BY JEFF HADEN

Imagine you could run a 200-employee business with millions of dollars of revenue with one simple spreadsheet. If you're like many small business owners in the wastewater industry, that probably sounds great.

While booking sales and revenue can be fun, logging expenses, calculating depreciation, creating reports, preparing for tax season, that all seems tedious at best. And, if you're like me, it's easy to put off those tasks until another day. In part, that's because bookkeeping and accounting functions tend to focus on the past. Profit-and-loss reports, balance sheets and so on record what has already happened.

While understanding the past is undoubtedly important, when you're running a business, you need tools that allow you to make smart decisions about the future.

That's why Pini Yakuel and Shachar Cohen used one spreadsheet to launch — and for six years, manage — their startup Optimove, an artificial intelligence-driven relationship management platform. Their business now has over 200 employees.

FOUR NUMBERS

Early on, Yakuel and Cohen kept their day jobs while taking consulting gigs on the side and investing revenue back into the business. “We had a plan in place for making money,” Yakuel says, “[but] our business was growing and changing rapidly. Creating an annual forecast or measuring estimated versus actual spending wouldn't have told us much about our business.”

Instead, they set up a spreadsheet to track four key numbers:

- Costs by month: Rent, supplies, salaries — every cost
- Revenue by month: Services, products sold, subscriptions, etc.
- Revenue gap: The difference, positive or negative, between costs and revenues
- Cash buffer: Money in the bank

While that might sound like basic accounting, the next point is vital: The company logged expenses and revenue not just after they occurred, but before.

If a contract were signed that would start generating revenue next month, that figure gets logged into the spreadsheet. If a freelancer was hired to work on a project next month, that figure was logged into the spreadsheet.

Unlike cash basis accounting, where expenses are only logged when a bill is actually paid, and accrual accounting, which recognizes costs when billed, the spreadsheet resulted in a hybrid method of financial planning.

By always knowing — in real time — the amount of cash on hand and what would be spent and earned in the coming months, Optimove could use that snapshot to make smart decisions about where to invest the company's money. Yakuel explains:

SPEND WHERE NEEDED

“For instance, we would add a new hire's salary to our calculation of monthly costs, even if their start date wasn't for another 90 days. Similarly, we added new client revenue as soon as the contract was signed.

“We could always see the amount we had available to invest back into the business. When this gap became substantial enough — for instance, after signing a new client — we would invest in the most immediate bottleneck, whether it was engineering talent, a bigger marketing budget or customer support resources.”

That approach allowed the co-founders to bootstrap their business, using the revenue to fuel growth. Instead of borrowing money or taking on investors to fund initiatives, they waited until their cash buffer allowed them to expand service and product offerings, to hire employees, to build out infrastructure and more.

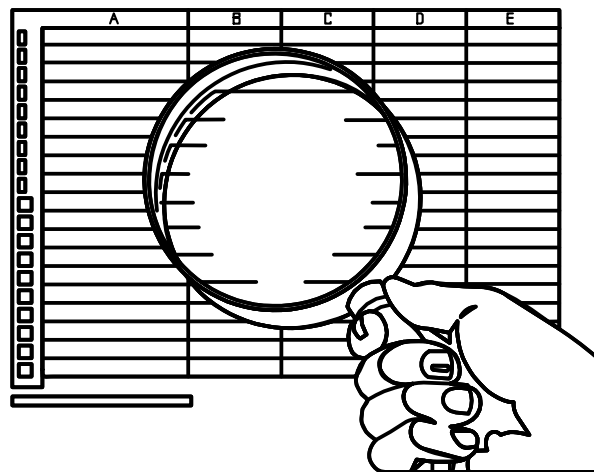
It worked so well that six years later, Optimove took a \$20 million investment that valued the company at approximately \$100 million. The spreadsheet also worked so well that the co-founders didn't need to spend time evaluating estimated sales versus actual sales. They didn't create sales forecasts. They didn't develop sales projections.

Yakuel and Cohen focused solely on the snapshot of the “present.”

In time, when their software had undergone six iterations and Optimove served hundreds of clients, the company's finances had expanded dramati-



Jeff Haden



WHILE UNDERSTANDING THE PAST IS UNDOUBTEDLY IMPORTANT, WHEN YOU'RE RUNNING A BUSINESS, YOU NEED TOOLS THAT ALLOW YOU TO MAKE SMART DECISIONS ABOUT THE FUTURE.

cally. Revenues and expenses were up considerably. And so was the company's cash buffer. When the founders eventually decided to take a \$20 million growth investment, their cash buffer stood at \$3 million.

"The fact that this financial model served us through years of growth attests to how well it embodied our [operating principle]: Iterate quickly and invest every dollar back into the business," Yakuel says.

MAKE IT WORK FOR YOU

For a business like my media company, the one spreadsheet tool is simple to use. Unlike, say, a retail business, I have relatively few customers. Day-to-day fluctuations in sales and revenue don't really exist.

But what if you run a flower shop? Sure, history can give you a sense of future sales, but you never really know how a day will go until the end of that day. In that case, spend a few minutes every day updating your spreadsheet in real time. Log daily revenue. Log any daily expenses that are outside expectations or "business as usual."

Keeping the spreadsheet up to date will allow you to keep making smart decisions about the future. If sales double expectations today, great. That larger revenue gap and additional cash buffer might enable you to pull the trigger on a new project.

If sales are significantly down today, that's not so great. But knowing your business's financial health in real time can help you decide where and when to cut spending proactively.

For example, say you're a niche company in the wastewater industry. You want to hire a new employee to expand your service territory, but you hesitate to do so until you have a six-month salary buffer to bridge the revenue gap while you attract new customers. Your spreadsheet will cut through the accounting clutter and tell you when to pull the hiring trigger.

ANOTHER TOOL

While you won't be able to predict the future, you will know exactly where you stand — and what you can afford to prioritize so you can keep your business moving forward.

The key is to see your spreadsheet as an additional tool, not a replacement for traditional bookkeeping and accounting. You'll still need to track inventory, manage payables and receivables, track sales and costs, manage payroll — all the financial nuts and bolts of operating a business.

So in that sense, yes, keeping a simple spreadsheet is extra work. But that's OK because your spreadsheet will be a dashboard that lets you see, in real time, exactly where you stand in terms of revenue gap. You'll know ahead of time whether you need to cut costs, or if you can afford to invest in efforts that will help you grow your business.

But you'll have to stay disciplined. If you agree to a service contract that won't start for 60 days, still log it now. If you sign a contract to service a new client on a monthly basis, but you won't start receiving revenue

for 60 days, still log it now. That way, you can make decisions in real time, not after the fact.

After all, the best decisions are proactive. And when you're building a business, that's precisely what you need to be.

ABOUT THE AUTHOR

Jeff Haden is a contributing editor for Inc.com and a LinkedIn Influencer.



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MANUFACTURERS ARE **DESIGNING THEIR VACUUM EXCAVATORS TO ELIMINATE DAILY MAINTENANCE AND GREASE POINTS**, ALLOWING OPERATORS TO FOCUS ON THEIR JOB SITE TASKS.

Vacuum excavators — both hydroexcavators and air excavators — are versatile machines that can improve a contractor's efficiency when used correctly. The best way for contractors to set themselves up for success is to understand and follow best practices.

Simple Keys to Vacuum Excavation Success

PREPARATION, OPERATION AND MAINTENANCE COME TOGETHER TO LEAD CONTRACTORS TO BETTER JOB SITE PERFORMANCE

BY CHRIS THOMPSON

Regardless of the application or job site, vacuum excavation operators know they have the versatile tool needed to get the job done. What was once originally popularized by their role in providing support on directional drilling jobs, vacuum excavators are now being used for irrigation installation, landscaping and a variety of green-industry tasks. In short, the popularity of vacuum excavators continues to grow in the underground construction industry.

One reason for this growth is that vacuum excavators are designed to mitigate damage on the job with their versatility, ease-of-use and soft excavation traits. This makes them the ideal machine for the damage-conscious contractor, especially with today's job sites being more compact and congested. But even though vacuum excavators are designed for simple, safe excavation, contractors can't realize the full benefits if they don't understand how to properly use and maintain their machines.

And with a machine designed to boost operator efficiency, it is no surprise that vacuum excavation best practices are just as simple. In fact, they can be broken down into only three parts: preparation, operation and maintenance.

PREP WORK

As with any underground construction job, preparation is the key to success. And preparation for vacuum excavation begins with identifying the ground conditions of the job site. Some will have soft, loamy topsoil, some will have clay and others may have limestone or rock. Each of these conditions will require a different strategy, so it's important for operators to understand their ground conditions before beginning work. Determining ground conditions can be a challenge when working in new regions, but local dealerships are great resources for understanding soil conditions around the area.

The next step is to decide between air and hydro excavation, or both. Soil type comes into play here too because air excavation works best in softer soil types, making hydroexcavation the best solution for rock and clay conditions.

Hydroexcavation is typically the traditional choice and is generally the more efficient solution but using air-excitation eliminates the need for liquid spoils disposal. For contractors that are working far away from a spoils disposal site, avoiding disposal requirements can boost productivity. Determining which excavation solution is the best fit for the job will set a contractor up for the most efficient and safe operation.

OPERATING FOR EFFICIENCY

Once you have chosen your machine and have it on the job site, you need to keep it running efficiently and protect it from any unnecessary damage.

Operational best practices begin with the vacuum excavator's wand. Operators should constantly move the nozzle around within the excavation area and keep the spray nozzle 8 inches from the ground or utility that is being exposed. Holding the nozzle closer than 8 inches or directly applying the excavator to a certain area could cause damage to an existing utility.

It's also important to never use the nozzle as a shovel or pry bar. Putting the nozzle into the dirt can cause damage to the wand and result in costly downtime. If an operator is struggling to excavate through hard soil or heavy clay, they should use a hot water heater rather than moving the nozzle closer.

Hot water heater packages can help break down soil without applying additional water pressure. However, water temperature should stay below 150 degrees F.

Operators should also be mindful of their water or air pressure. When using a hydroexcavator, operators should always keep water pressure below 3000 psi, whereas an air-excavator should stay below 300 psi. That said, it's also best practice for operators to consult the utility owner if they are using a vacuum excavator to expose utilities, as they may have their own requirements for using hydro or air excavation. For example, some gas line owners recommend using a maximum of 2,200 psi when exposing their utilities with a hydro-excavator to prevent any damage.

MAINTAINING SUCCESS

One of the biggest selling points of vacuum excavators is that they have minimal maintenance requirements — and the ones they do have are simple. Manufacturers are designing their vacuum excavators to eliminate daily maintenance and grease points, allowing operators to focus on their job site tasks.

The most important daily maintenance task for operators is to always dump and clean the debris tank and empty the fresh water tank at the end of every day. This prevents complications that could limit vacuum excavator productivity.

Another maintenance best practice is to routinely check cyclonic, debris and water filters, as obstructions can reduce the suction power and water pressure of the machine.

WORK CONFIDENTLY

Vacuum excavators are versatile machines that can improve a contractor's efficiency when used correctly. And the best way for contractors to set themselves up for success is to understand and follow best practices. This will not only keep operators moving quickly but also reduce the likelihood of causing damage to existing utilities or job sites.

ABOUT THE AUTHOR

Chris Thompson is the vacuum excavator product marketing manager for Ditch Witch. ▼

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The Shark PDC Reamer from Infinity Tool offers the durability to cut through that rock, with replaceable cutters available to keep the unit on the job. The reamer enables a rapid change of cutters on site, minimizing downtime. This means there is no more sending reamers in for repair or buying a new unit. The tech simply needs to fit a new segment to be back up and running in minutes. It is designed to produce a symmetrical hole with reduced chatter. Every segment has the same design no matter which position on the reamer blade, and no matter what size of reamer. Replaceable cutter segments are supplied in kit form with everything needed to replace a segment in the field with hand tools. They are available in sizes from 14 to 48 inches.



618-439-4042; www.infinitytoolmfg.com

Underground Tools 2K and 5K Series Horizontal Directional Drilling Swivels

The 2K and 5K Series Horizontal Directional Drilling Swivels have all component parts (body, bearing axle bolt and clevis pins) machined from heat-treated chrome-moly steel with an average tensile strength of 133,000 psi for superior strength and abrasion resistance. Additionally, all swivel bearing packs are made up of multiple, stacked angular contact bearings, which are designed to handle the high radial, axial and composite loads for the demanding HDD application, while double lip seals resist contamination and protect the bearings. Full-diameter shouldered pins, recessed into the outer casing creates a tremendously strong connection and allow for snag free pullbacks. Grease fittings are also recessed to protect from breakage. All of these features ensure maximum strength, service life and value.



866-488-3478; www.undergroundtools.com

Vermeer D23x30DR S3 Navigator

The Vermeer D23x30DR S3 Navigator horizontal directional drill integrates dual rod technology into a compact machine



design to efficiently maneuver through rock in congested cities, busy neighborhoods or tight job sites. Featuring a narrow footprint and a weight of 16,500 pounds, it is well-suited for fiber, electrical, gas and water installation in hard rock, as well as many other challenging ground conditions. The Vermeer Firestick drill rod dual rod system gives operators a 7% downhole steerability. The unit's threaded outer rod has a rotational torque of 3,000 foot-pounds, while its hex inner rod delivers up to 800 foot-pounds. It is powered by a Deutz TCD 3.6 L4 diesel engine and a thrust/pullback of 24,000 pounds.

800-837-6337; www.vermeer.com

Hydroexcavation Equipment

Ditch Witch HXT Line

Contractors looking for the efficiency and payload capacity of a truck-mounted vacuum excavator can turn to Ditch Witch's HXT Line of vacuum excavators. The HXT50 and HXT75 are powered by Kubota engines with 50 and 75 hp, respectively, for optimal suction power. The HXT50 has a 1,005 cfm blower and 3,000 psi water pressure. Both units are available with 500-, 800- and 1,200-gallon spoils tank configurations, allowing contractors the freedom to stay on a job site longer and avoid repeated spoils disposal and water refilling. The 500-gallon configuration is designed to be under CDL requirements, allowing contractors to transport the machine without a CDL driver on staff. The HXT75 offers 1,315 cfm and up to 5.5 gpm water pump flow. They are designed with a spoils tank-door that can be controlled curbside or remotely to keep operators clean during spoils disposal. Both come with a multi-function remote control option for the boom, allowing operators to more easily control the vacuum hose.



580-336-4402; www.ditchwitch.com

Dynablast HV420

Custom Dynablast HV420 hydrovac water heaters produce 420,000 Btu with an output temperature of 175 degrees F at 5 gpm, making them 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 momentary override control. They include an Interpump Group T 2040 water pump package providing 10.5 gpm at 2,900 psi and 1,750 rpm, as well as a hydraulic package with a Sunfab 34 cc motor. All components are custom-mounted in a 24-by-24-inch cabinet.



905-867-4642; www.dynablast.ca

Easy-Kleen Pressure Systems Wildcat Heaters

Wildcat Heaters high-pressure, oil-fired hot-water/steam heaters and hydraulic pump systems from Easy-Kleen Pressure Systems are designed for reliability and efficiency, and are installation-ready 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

Enz USA Hydro X

The Hydro X 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 a high debris removal rate. 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



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 designed to be rugged and compact, engineered to haul equipment and spoils loads, can clean valve boxes and storm drains and hydroexcavate and/or clean drainlines and sewer lines. They offer hot- and/or cold-water operation with a choice of engines ranging from 13 to 66 hp and gas or diesel. 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 CentriClean filter system. They can also be designed to meet specifications.

800-624-8186; www.hotjetusa.com



Presvac Systems Hydrovac

The Presvac Systems Hydrovac is designed for versatility and cold-weather operation with optional full compliance with U.S. Department of Transportation specifications for collections or transportation of hazardous materials. The high-vacuum blower allows extraction of all types of soils, gravel, rock, clay, water and silt material, with knockout features in the debris tank to minimize carryover. Modular filtration configured to blower size provides blower protection and minimal maintenance, according to the maker. It comes with a heavy-duty, 8-inch boom that extends up to 25 feet with six-way hydraulic power and wireless controls for all boom functions, a soft-start water pump, vacuum breaker and truck engine speed.

800-387-7763; www.presvac.com



RAMVAC by Sewer Equipment HX-12

The HX-12 hydroexcavator from RAMVAC by Sewer Equipment has a 12-yard debris tank and a heated, secured equipment locker that contains the entire water system, including water tanks, for cold-weather application and tool security. This machine touts a directional discharge system with the ability to off-load debris back into the excavation site when done, without the mess of dumping the tank. This system also allows operators to blow any obstructions out of the dig hose and get back to work. It includes a long-range wireless remote, NEMA 4



electrical system, an 800,000 Btu water heater and a three-stage cyclonic filtration system. The standard 4,400 cfm blower will match the performance of larger blower machines while delivering fuel economy with the ability to go up to 5,400 cfm. The series offers debris capacities from 3 to 15 cubic yards while maintaining a short overall footprint.

888-477-7638; www.ram-vac.com

Rival Hydrovac T7 Tandem and T10

The T7 Tandem from Rival Hydrovac was designed primarily to be a unit that could be loaded with debris and drive 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. The T10 is built with the same features and operating system, but with larger capacities and components. It is popular with clients who do both utility and industrial work. It is available in three chassis layouts to meet weight restrictions in a given area. An air compressor option allows for excavating with air when required, while a truck-mounted coring system allows for removal of hard surfaces prior to non-destructive excavating.

403-550-7997; www.rivalhydrovac.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



Super Products Mud Dog 700

Mud Dog 700 vacuum excavators from Super Products are designed for operator convenience and consistent performance to meet the challenges of applications from compact, urban projects to large-scale excavation. Units come standard as hydroexcavators with an optional air excavation package. They maximize legal payload, allowing operators to carry and accomplish more while still excavating safely in small work areas. The compact, versatile vacuum excavator features a 7-yard debris body and 600-gallon water tank. The unit comes standard as a dump body with an electric vibrator offering a 50-degree dump angle with the capability of dumping into a 48-inch container. Additionally, it is equipped with a rear-mounted, extendable, 8-inch-diameter boom that reaches 18 feet, has 270-degree rotation and pivots 10 degrees downward, which minimizes job site restoration and eliminates traffic congestion near roads.

800-837-9711; www.superproducts.com



Tornado Global Hydrovacs F4 ECO-LITE

The F4 ECO-LITE 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 26-foot reach. The smaller F3 ECO-LITE 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



(continued)

TRUVAC FLXX

The TRUVAC FLXX is a vacuum excavator built to perform for utilities and contractors installing, replacing and repairing underground infrastructure, utilizing both air and hydroexcavation options for all conditions. This safe digging machine offers more power and maneuverability ideal in tight urban settings where street excavation jobs can include supporting, repairing and installing a city's water, sewer, power and telecommunications infrastructure. Designed to maximize productivity on the job, it boasts the highest legal payload capacity in a midsize truck with a 10 cubic yard debris body. In addition, it offers Park-n-Dig, an always-connected water source; safe and precise digging with the DigRight one-touch flow control technology; a water heater to dig in all types of weather/material conditions; a 22-foot boom reach with 340-degree rotation; and a DigFast option to maintain peak vacuuming performance and a clear airstream in the vacuum tube.



800-627-3171; www.truvac.com

Vac-Con X-Cavator

The X-Cavator hydrovac from Vac-Con includes a cold-weather enclosure for the water systems and control panel as well as an interior area for operator seating and workspace. Unit filtration is based on the Titan combination machine, with a single-cyclone design and final cartridge-style filter. The redesigned boom is lightweight and flexible, rotating 310 degrees around the unit and moving plus 45 degrees and minus 22 degrees vertically. The durable rubber hose material can withstand harsh environments, according to the maker, and has a reach of 26 feet.



904-284-4200; www.vac-con.com

Vacall AllExcavate

High-pressure water and air jetting and standard intelligent controls, plus easy startup and operation, set Vacall AllExcavate machines apart. Water pumps generate 24.5 to 120 gpm and pressures to 3,000 psi with optional air excavation at 185 cfm and dual psi of 110 and 150. The water system, wand, control panel, tools and worker apparel are protected in a heated compartment. Standard AllSmartFlow CAN bus intelligent control systems have a programmable LCD display that monitors engine, water and airflow and vacuum performance, allowing for precise boom and reel adjustments. Aluminum water tanks carry 1,000 to 1,300 gallons. Galvanized debris tanks have a supreme finish. Units use one engine to power the chassis and excavation functions, reducing serviced and operation costs.



800-382-8302; www.vacall.com

Vector 2100i Water Recycler

The Vector 2100i Water Recycler saves thousands of gallons of freshwater in every shift. By eliminating the need to refill a water tank, you drive up productivity, saving time, effort and expense as you protect the infrastructure and people of your community. It can help increase productivity up to 100% as you clean more lines in less time with fewer interruptions. It reuses water already in the sewer, eliminating the need for freshwater. It is simple to operate and self-cleaning with no moving parts in the



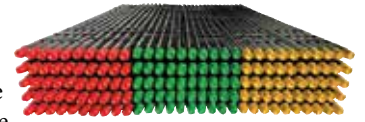
body or tanks. Its five-step water filtration process combines settling, centrifugal separation and absolute filtration to 100 microns. It has stainless steel construction for years of reliable service.

815-672-3171; www.vactor.com

Pipe

TuffRod One-Piece Forged HDD Drill Pipe

One-piece forged HDD drill pipe from TuffRod is produced solely from one piece of material that contains the same chemical makeup for the threaded connections and the mid-body. The company specs out the entire metallurgical composition of their raw material used for their green tube. This ensures the pipe meets the highest specified grade of S-135 after heat treating. Every joint produced is subject to rigorous quality assurance procedures beginning at the point of material selection and continuing through final inspection. Processes such as upsetting, machining, heat-treating and several others are inspected and documented by certified operators and reviewed by the company's quality control department. These high-grade materials and comprehensive procedures equate to superior strength, durability and performance in the field. Forged pipe is available for Vermeer, Ditch Witch and other manufacturer's drills.



844-586-9354; www.tuffrod.com

Pipe Bursting

HammerHead Trenchless PortaBurst PB30G2

For tough lateral pipe bursting jobs, techs need two things from their bursting system — the power to get the job done quickly and the durability to be up and running burst after burst. The HammerHead Trenchless PortaBurst PB30G2 replaces 2- to 6-inch lateral pipes with up to 30 tons of pulling force. Its compact footprint requires minimal excavation, and the system is built to help cut down on wasted time, maximizing productivity. Its user-friendly, modular design makes it easy to operate, set up and transport. Plus, Quick Grip burst heads make it easy to securely connect new pipe without any hand tools.



800-331-6653; www.hammerheadtrenchless.com

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 open-cut 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 man-hole 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

RODDIE R8

The R8 pipe bursting system from RODDIE is easy to use, lightweight, can be set up vertically or horizontally, and can also be adjusted to use three dif-

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ferent size cables. This unit can replace 1-, 2-, 3-, 4-, 6- and 8-inch pipes with ease and speed. Inexpensive cable grabbing inserts last 70 to 120 jobs, which reduces costs. High-quality tool steels on articulating bursting heads promote rare resistance for long lasting service. The pulling rate is 8 feet per minute and is hydraulically powered from your tractor, providing a pulling force of 30 tons. The wireless remote system is reliable and has a signal strength that moves through any cellar wall. Maintaining the system is simple, as the user only needs to rinse off and regrease six Zerk fittings.

888-406-3821; www.rodddieunderground.com



Source One Environmental SilverBack XL

The SilverBack XL extended flexible coupling from Source One Environmental is specifically designed for pipe bursting and ramming connections. It connects clay to plastic and plastic to plastic applications, while accommodating 4- to 12-inch pipes. Advantages include fixing pipe alignment problems, protecting against thermal expansion and contraction, securing pipe from unstable ground and structures and resisting heavy earth loads and tensile stress. Its shear ring contains a heavy-duty shield with high-torque clamps. Its gasket is manufactured to the requirements of ASTM D5926 and C1173. It can be custom ordered to fit any common sewer pipe size.

877-450-3701; www.s1eonline.com



TRIC Tools X30

The redesigned X30 puller from TRIC Tools includes a new top bridge (the piece with the upper grippers and the handle) that is reshaped to maximize strength and minimize weight, thereby reducing production cost. The end result is a pulling unit that is lighter by at least 10 pounds (75 versus 85 pounds), stronger where it needs to be, and less expensive overall.

888-883-8742; www.trictools.com



Pipe Fusion

McElroy TracStar iSeries

McElroy's TracStar iSeries fusion machines have improved mechanical, hydraulic, electrical and control systems. They are powered by the FusionGuide Control System that offers three levels of control, from operator-controlled to completely automatic, machine-controlled operations. The DataLogger 7 is completely integrated with the iSeries, ensuring that each fusion joint is recorded and complies with the fusion standard. The TracStar 630i, 900i and 1200i cover three size ranges from 8-inch iron pipe size to 48-inch outside diameter. All are equipped with a new and quieter Perkins (Caterpillar) engine that meets U.S. Tier 4 environmental regulations while providing greater torque. The system pressure was raised to more than 3,000 psi for more powerful ground drive, pipe lifts and other functions that use higher levels of pressure.

918-836-8611; www.mcelroy.com ▼



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THE LATEST:

Products



Cat Pumps Hydroexcavating Pump

Over 50 years' high-pressure pump manufacturing experience has earned Cat Pumps a reputation for producing the highest-quality, longest-lasting pumps in every marketplace it serves. Engineers at Cat Pumps designed models 2560 (16 gpm at 3,000 psi) and 2565 (20 gpm at 2,500 psi) to meet the hydro-excavating market needs. Constructed for continuous-duty applications, the 2560 and 2565 pumps are dependable, high-quality products backed by world-class customer service, training and support. BH versions have a machined-bearing cover to mate with Cat Pump's 76SAEC.25FR hydraulic bell housing, allowing the 2560BH and 2565BH to be directly driven by an SAE C hydraulic motor. The compact direct drive allows for a space-saving footprint, and it's simple to install and maintain. 763-780-5440; www.catpumps.com ▼

This Issue's Feature:

Ride-on trencher designed to maximize operator experience

BY CRAIG MANDLI

It is important that work crews are productive and efficient on any utility installation job site. That means having the right tools at their disposal. To enhance the utility contractor's experience, while tackling tough jobs on tight schedules, **Ditch Witch** has introduced the **RT70 ride-on trencher**. The newly designed trencher is equipped with features that increase operator comfort and visibility, helping to boost efficiency and overall profitability on the job site.

"At Ditch Witch, we understand the challenges that utility contractors face daily," says Steve Seabolt, product manager, ride-on tractors, Ditch Witch. "The RT70 is compact and maneuverable, yet powerful. This new unit, with its unique features, will allow the operator to tackle tough jobs in tight conditions."

The ergonomically designed operator station features an open layout with a 90-degree swivel seat, ample legroom and intuitive controls. This enhanced visibility gives operators a full view of the machine — from front tire to back tire and the attachment — helping operators of any experience level increase productivity. It also includes a cooling fan to reduce temperature levels in the operator station by moving hot, uncomfortable exhaust out of the side of the machine rather than toward the operator. This helps keep workers safer and more comfortable during long days.

Powered by a 72 hp Yanmar Tier 4 Stage V Compliant diesel engine and built with a narrow footprint of 73-inches wide, the RT70 rubber-tire trencher can handle heavy-duty jobs and still easily maneuver around tight job sites, corners and cul-de-sacs with ease. According to Seabolt, it is the only ride-on trencher available with crab and coordinated steering modes, which allows operators to turn the machine with a steering wheel instead of using two separate levers. "This makes it easier to use and frees them up to focus on other parts of the job," he says.

Got a RIG that you really DIG?

Show it off to *Dig Different* readers!

Do you have a really cool-looking rig, directional drill, excavator or work truck with all the bells and whistles? We'd like to feature it!

Your **Dig My Rig** submission must include a professional photo of your rig lettered with your company name, along with your name, company name, mailing address and phone number. Include information such as the manufacturer of your rig, cab/chassis and pump/blower; tank capacity; and water pump mfr./gpm/psi; and any other details you consider important. In particular, tell us what features of the truck help make your work life more efficient and more profitable.

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FOR EXAMPLES.



RT70 from Ditch Witch

The unit's modular design features a single base with the option to move from tires to tracks. Multiple attachments and a variety of optional add-ons allow operators to reconfigure the machine throughout its life-cycle to customize it for specific job site needs. It is built to increase operator productivity with daily maintenance points in one easy-to-access location and a single-piece, easy-open hood. "Fast and simple maintenance means that operators can spend their valuable time where it matters most — on the job site," says Seabolt.

580-336-4402; www.ditchwitch.com

Success Stories:

BY CRAIG MANDLI

Horizontal Directional Drilling, Bursting, Piercing and Tunneling



Trenchless HDPE pipe minimizes impact of a new 7.5-mile sewer main

PROBLEM

In 2020, the City Commission of Fort Lauderdale, Florida, approved a \$65 million fund for the design and construction of a 7.5-mile-long pipe that will serve as a redundant wastewater transmission line. One challenge with the project was that sections of the pipe extension runs near or along streets and roadways as well as residential zones and neighborhoods. To help minimize the impact in these areas, engineers needed a pipe that could support underground horizontal directional drilling.

SOLUTION

To overcome installation constraints, engineers chose to use **high-density polyethylene (HDPE) sewer pipes** from **AGRU America**. In addition to being flexible and durable enough to support HDD, HDPE pipes are more resistant to corrosion and have fewer mechanical joints, which together help reduce long-term maintenance requirements. The robust piping system will also improve the infrastructure's resilience to rising sea level and ground-water table.

RESULT

The new force main was completed without issue and set a record for one of the longest and largest HDD pressurized sewer pipe installations in the world, measuring 3,100 feet at an outside diameter of 54 inches. The installation required fusing about 23 sections of pipe as it was being pulled underground. 800-373-2478; www.agruamerica.com ▼

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THE LATEST: News

Vermeer opens new facility in South Carolina

Vermeer MV Solutions celebrated the grand opening of its new 130,000-square-foot manufacturing facility in Piedmont, South Carolina, with a ribbon-cutting event. In Nov. 2018, Vermeer announced its purchase of Vac-Tron Equipment, and its plans to bring the Florida-based company together with McLaughlin Group, which was purchased by Vermeer in 2017, to start Vermeer MV Solutions.

Aries names Wes Brown as new Canadian sales manager

Aries Industries hired Wes Brown as Canada sales manager. Brown, based in Innisfil, Ontario, oversees the entire Aries Industries dealer network in Canada. He will focus on building strong customer relationships throughout the country, where Aries Industries has added three new dealers in the past 15 months. Brown holds undergraduate degrees from Western University and Georgian College, and is studying for an MBA at the University of Fredericton.



Wes Brown

Barbco promotes Schmidt to VP, business development

Barbco promoted Thomas Schmidt into the newly created position of vice president, business development. Schmidt has many years of leadership in numerous local plants including Harrison Paint, Heinemann Saw and Georgia Pacific.



Thomas Schmidt

Superior Environmental Solutions acquires Mid Valley Industrial Services

Superior Environmental Solutions announce that it acquired Mid Valley Industrial Services. With offices in central Wisconsin and Waterloo, Iowa, Mid Valley expands the company's service area to the north and west, with the ability to service customers in Wisconsin, Iowa and Minnesota.

John Deere to acquire majority ownership of Kreisel Electric

Deere and Co. signed a definitive agreement to acquire majority ownership in Kreisel Electric, a battery technology provider based in Rain-

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bach im Mühlkreis, Austria. Kreisel develops high-density, high-durability electric battery modules and packs. Additionally, Kreisel has developed a charging infrastructure platform, CHIMERO, that utilizes a patented battery technology.

PPI publishes technical document for insulating plastic pipes

The Plastics Pipe Institute has published a new technical cote related to the protection of plastic pressure piping materials against freezing. The new PPI Technical Note TN-65 *Insulation Recommendations for Plastic Pressure Piping Materials in Residential Applications* focuses on insulating plastic pressure piping materials against freezing. It applies to hot- and cold-water piping materials CPVC, PEX, PE-RT, PEX-AL-PEX, PP-R and PP-RCT, and is directed to applications such as plumbing distribution, fire protection and hydronics.

Mattracks ships out 100,000th track system

Headquartered in Karlstad, Minnesota, Mattracks announced it

shipped its 100,000th track system in December. The milestone comes 27 years after the company's founding in 1994. Over the last three decades, Mattracks has gone worldwide, selling its track systems engineered to accommodate virtually any multi-axle vehicle on all 7 continents and over 100 countries.

Felling Trailers' Knudsen retires after 42 years

Gary Knudsen, Felling Trailers' regional sales manager and 42-year-veteran of the heavy equipment and transport industry, retired at the end of 2021. Almost 17 of those years have been spent selling trailers: four years with Towmaster, and the last 13 years with Felling Trailers. He joined the Felling Trailers in June 2008 as the North American outside sales representative. Knudsen provided dealer support for ten states spanning from Alaska to the Dakotas, and to Arkansas, Texas and the Canadian region. ▼



Gary Knudsen

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Happenings

CALENDAR

- March 1-3**
Global Excavation Safety Conference, Phoenix Convention Center, Phoenix, Arizona. Visit globalexavationsafetyconference.com
- March 2-5**
National Utility Contractors Association Annual Convention & Exhibit, Naples Hyatt Regency Hill Country Resort & Spa, San Antonio. Visit www.nuca.com/convention
- March 24-26**
Mid-America Trucking Show, Kentucky Expo Center, Louisville, Kentucky. Visit www.truckingshow.com
- March 31- April 1**
National Heavy Equipment Show, International Centre, Mississauga, Ontario. Visit www.nhes.ca
- April 4-8**
Common Ground Alliance Conference & Expo, Anaheim Marriott, Anaheim, California. Visit www.cgaconference.com
- April 10-14**
NASTT's No-Dig Show, Minneapolis Convention Center; Minneapolis. Visit www.nodigshow.com
- April 22-28**
World Tunnel Congress 2022, Bella Center, Copenhagen, Denmark. Visit wtc2022.dk
- May 10-11**
National Utility Contractors Association of Iowa Contractor Conference & Convention, Downtown Des Moines Marriott, Des Moines, Iowa. Visit www.nucaofiowa.com
- June 5-8**
Electric Utility Fleet Managers Conference, Williamsburg Lodge and Conference Center, Williamsburg, Virginia. Visit www.eufmc.com
- June 19-22**
North American Tunneling Conference, Pennsylvania Convention Center, Philadelphia. Visit natconference.com
- June 27-29**
Safety 2022 Professional Development Conference & Exposition, McCormick Place, Chicago. Visit safety.assp.org

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Dig Different welcomes news about a tough excavation, pipe bursting, trenching, boring or tunneling job you just completed for the Down & Dirty column.

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