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KENTUCKY CONTRACTOR DIVES INTO THE DRAIN CLEANING
INDUSTRY AND DISCOVERS A PASSION FOR SOLVING PROBLEMS

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BUYER'S GUIDE

MONEY MACHINES

Hot-water jetter gives contractor an edge

TECH PERSPECTIVE

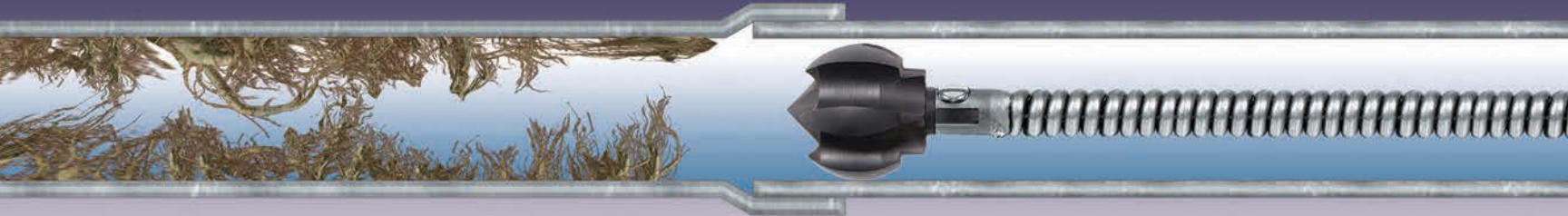
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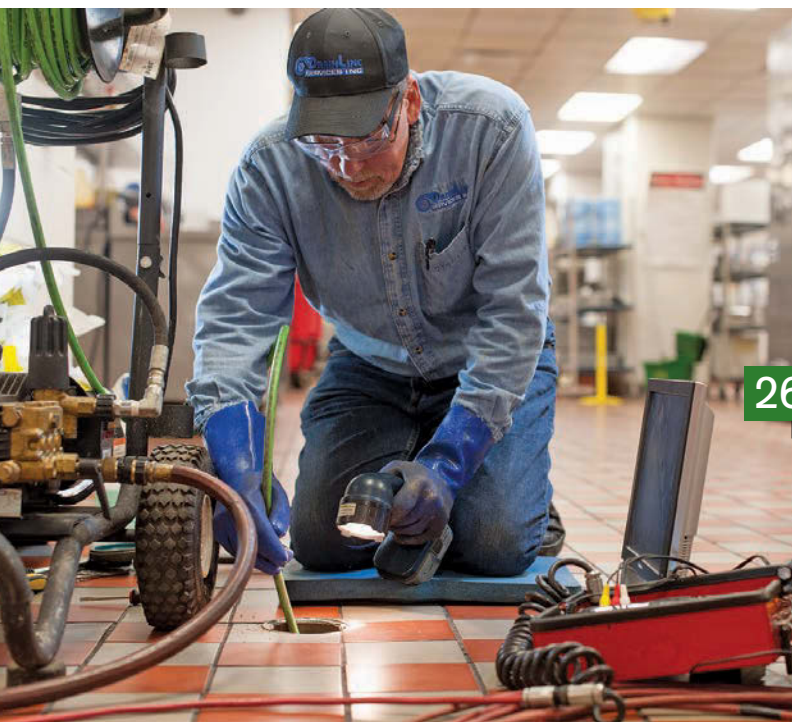
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ON THE COVER:

Drain Line Services Owner Steve Dabney jumped into the drain cleaning industry in 2006 with no field experience, but dedicated himself to learning everything he could. He bought his company two years later and has found a valuable niche serving large commercial facilities in his service area around Louisville, Ky. (Photography by Shaun Ring)



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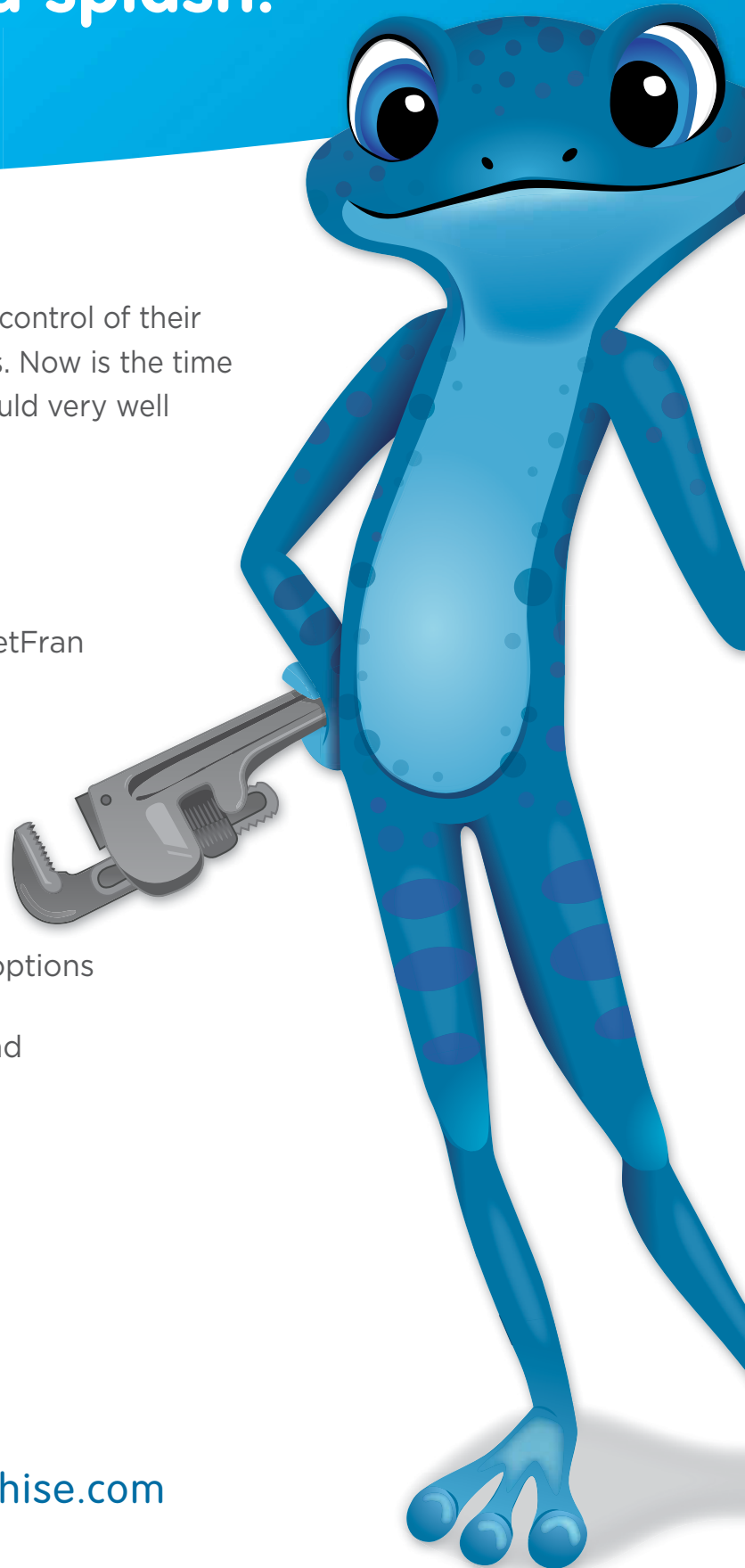
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Luke Laggis
editor@cleaner.com

Targeting Success

Be ready when the next great opportunity to breathe new life into your business comes knocking

By Luke Laggis

Oppportunity is everywhere for people in the cleaning industry. The two contractors featured in this month's issue of *Cleaner* are great examples.

Vi McCoy was no stranger to the industry when she and her business partner formed C-More Pipe Services in 1998. Her pipeline sales and management background meshed well with his experience in the

field, so together they set out to provide inspection services. They targeted the municipal market, where demand for these services was growing as older infrastructure deteriorated.

It wasn't long before they started expanding, adding personnel and new services to better serve their growing customer base. A solid reputation and plenty of referrals brought in more business, so there was no need to put any focus on marketing activities. Their work spoke for itself.

In 2013, a new opportunity arose, and the company added a new division dedicated to repair and rehabilitation of manholes. They had always done inspections, but they didn't handle any of the repair and rehab work until that point. After just a year, the manhole division already accounts for 30 percent of the company's overall business, and it continues to grow.

Steve Dabney, owner of Drain Line Services, wasn't even working in the industry when he found his opportunity in the classified section of his local newspaper. He had a wealth of business experience but he wasn't happy with his career track, so the opportunity to take over an established drain cleaning business was appealing.

Dabney went to work for the small operation — it was just him and the owner — working in the field learning all he could while deciding if this was the direction he wanted to take his career. It didn't take long to realize it was a good fit, and he reached a deal with the owner to take over the business in 2008. In the six years since, he's added three staff members and new services, including CCTV inspection, expanded jetting capabilities and bioremediation for customers with large kitchen facilities.

The latter is of special importance, because it was another opportunity that played a big role in his business strategy. He'd been serving smaller commercial accounts, but bioremediation, along with the expanded jetting services, helped him go after larger accounts like hospitals and retail and industrial facilities with big kitchens. These types of accounts are now a significant part of Dabney's business.

Opportunities to build, expand and improve your business are out there; you just have to be open to them. In this month's Money Manager column, Erik Gunn discusses how and when to reinvest in your business. He provides some good tips for getting the most from your money.

Sometimes a new piece of equipment that allows you to take on different jobs presents the biggest opportunity. This month's Money Machines feature describes how a trailer-mounted hot-water jetter has played a huge role in a Colorado contractor's success.

So keep your eyes open for the next great opportunity. It might be a jetter that expands your service capabilities, or an industrial cleaning job that positions you to serve a whole new clientele, but you'll never know if you don't keep your eyes open.

Enjoy this month's issue. **c**

Opportunities to build, expand and improve your business are out there; you just have to be open to them.

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Pay Now or Pay Later

Proposed fuel efficiency standards will likely raise sticker prices, but truck buyers could still come out ahead

By Briana Jones

Earlier this year at a grocery distribution warehouse in Maryland, President Obama announced that his administration seeks to extend fuel efficiency regulations for medium- and heavy-duty trucks for models beyond 2018. The second phase of the fuel efficiency standards will again target trucks to reduce air pollution.

The 2011 fuel standards applied only to truck models for the years 2014 through 2018, calling for a 20 percent reduction in heavy-vehicle emissions by 2018. According to an article on LATimes.com, experts estimated manufacturers would need to boost fuel efficiency for trucks to an average of 8 mpg to meet the new standards.

While developing and implementing this new technology will undoubtedly add to the sticker prices on new trucks, increased fuel efficiency may end up saving you money in the long run.

Take a look at this example to put it into dollars and cents. Your current truck, we'll call this truck A, gets 8 mpg and costs \$100,000. If you drive 100,000 miles, you use 12,500 gallons of fuel. Let's say diesel fuel costs \$4 per gallon, which means you pay \$50,000 in fuel costs per year. If you run the truck for 10 years, the total cost for fuel is \$500,000.

A new truck, truck B, gets 16 mpg under the fuel efficiency standards, and costs \$125,000, assuming a 25 percent price increase. If you drive 100,000 miles, you use 6,250 gallons of fuel. At \$4 per gallon for diesel fuel, you pay \$25,000 in fuel costs per year. If you run the truck for 10 years, the total fuel cost is \$250,000.

The total cost to run truck A for 10 years is \$600,000, and the total cost to run truck B for the same time is \$375,000. So, paying \$25,000 more up front for a new truck saves \$225,000 over a 10-year life of the truck.

The administration's belief is that tightening restrictions on carbon emissions from trucks will cut back on overall pollution, reduce the nation's dependence on foreign oil and save consumers money.

Heavy-duty trucks are the second-largest source of transportation greenhouse gas emissions, according to the U.S. Environmental Protection Agency. Extending the program beyond model year 2018 will essentially further reduce fuel consumption with more advanced technologies.

The president requested that a first draft of the regulations for medium- and heavy-duty trucks be completed by March 2015, and ordered the EPA and U.S. Department of Transportation to finalize the rules a year later.

While developing and implementing this new technology will undoubtedly add to the sticker prices on new trucks, increased fuel efficiency may end up saving you money in the long run.

In a White House press release, President Obama said new tax credits would be offered "both for companies that manufacture heavy-duty alternative-fuel vehicles and those that build fuel infrastructure so that trucks running on biodiesel or natural gas or hybrid electric technology, will have more places to fill up."

Updated medium- and heavy-duty trucks with advanced — greener — technology could translate to higher sticker prices for consumers, but price has, and always will, factor into your truck-buying decisions. Or when you buy anything for that matter. Now you might just have to consider the costs of upgrading to cleaner vehicles, but remember, you will also be helping to decrease greenhouse gas emissions.

Required increases in fuel efficiencies benefit everyone, especially those business owners who want to increase profitability. And who doesn't want to make more money? Based on the above example, your fuel-efficient fleet will make you more profitable, and at the same time perhaps attract potential customers looking for an environmentally friendly contractor. **C**

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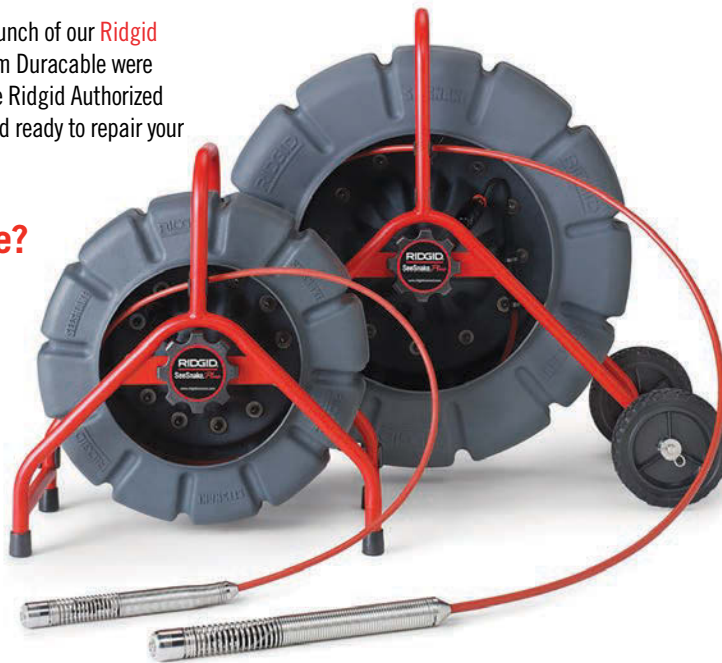
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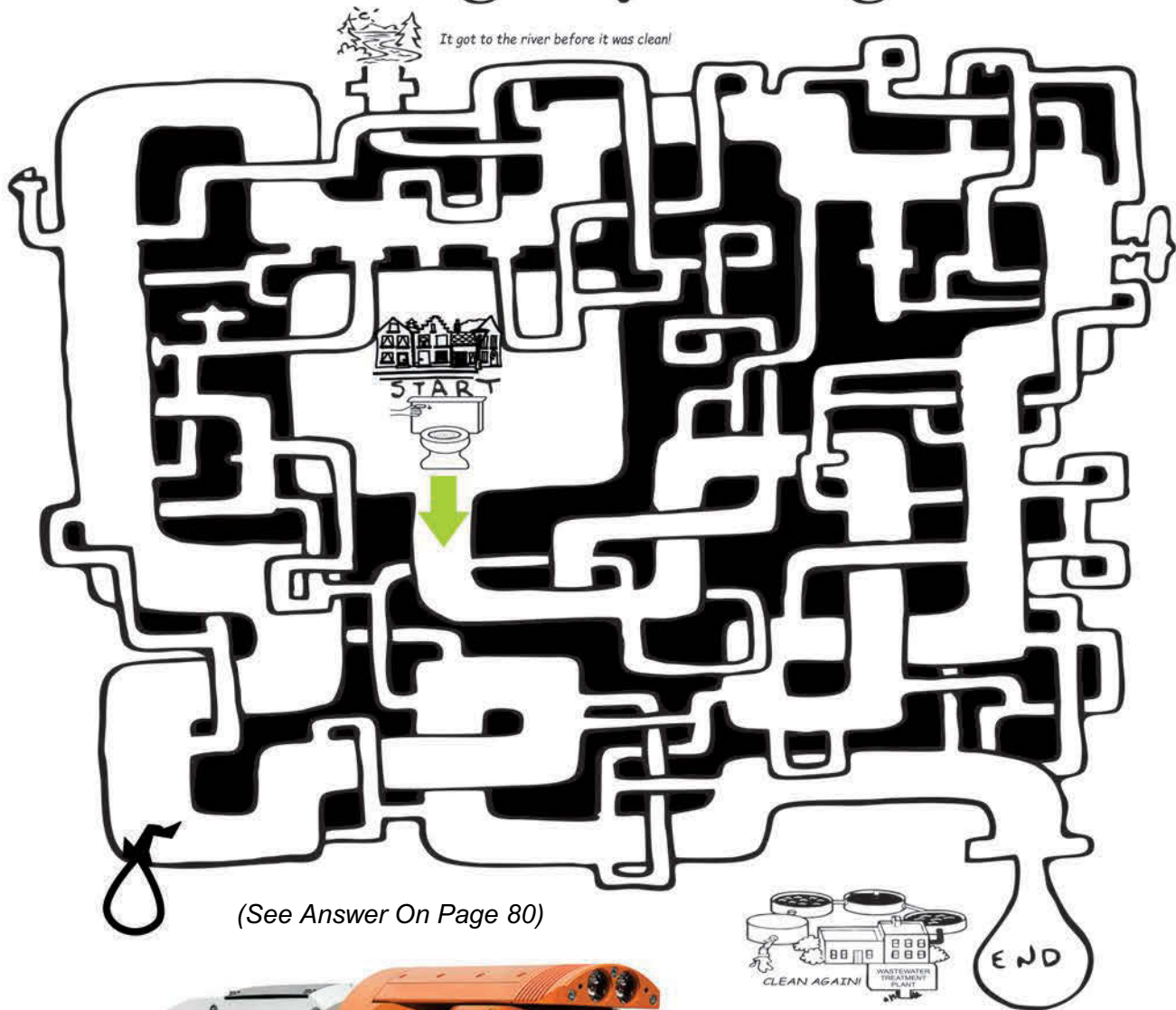
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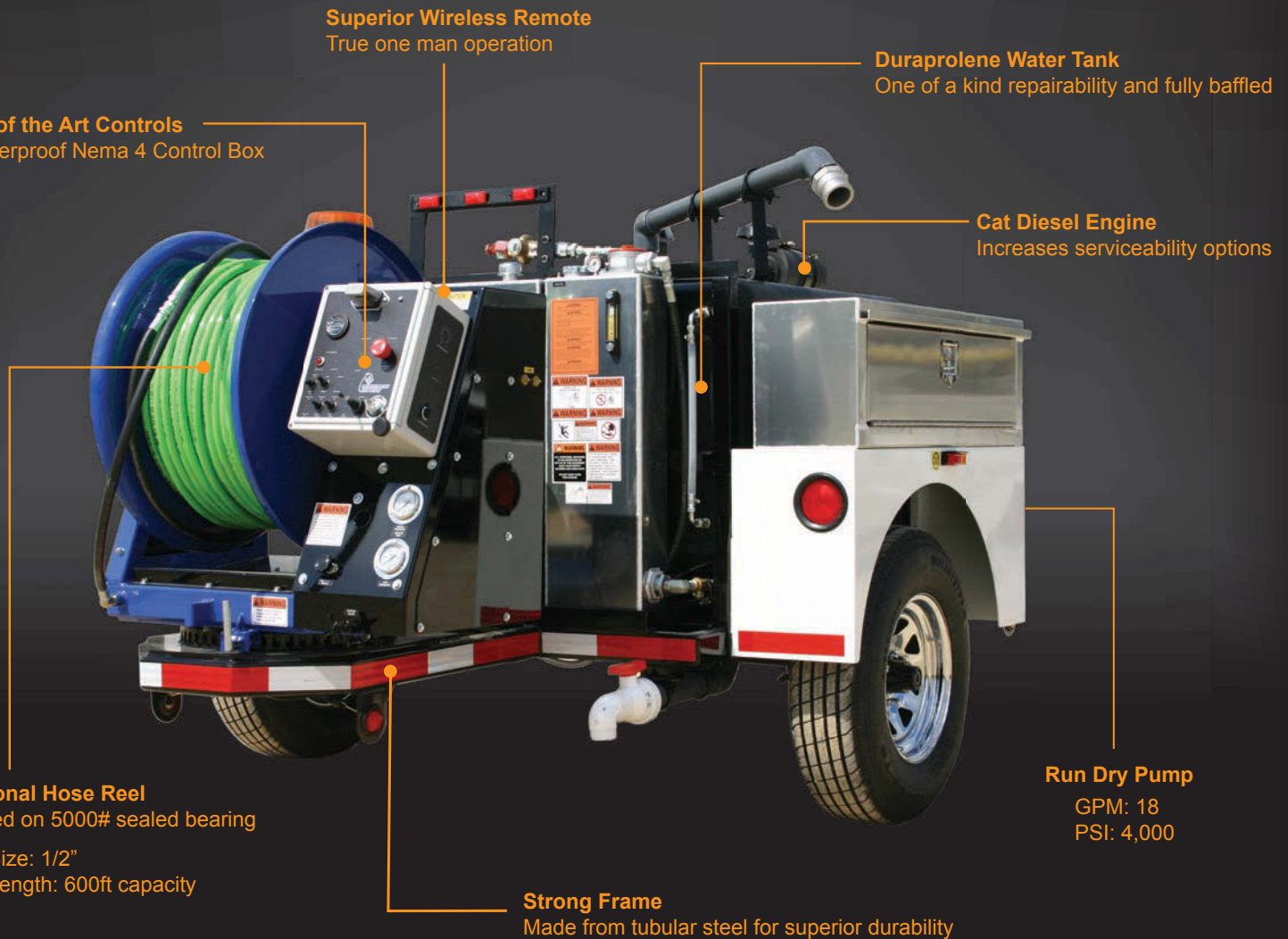
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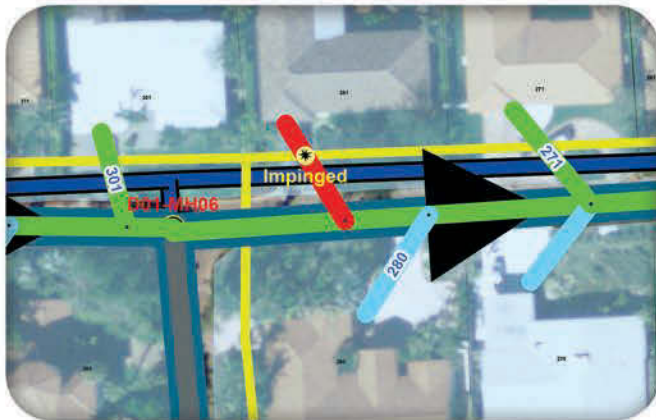
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TODAY'S TECHNOLOGIES FOR LOCATING BURIED UTILITIES



Ronnie Cox (left) and Jim Bindyke use an auxiliary hose reel connected to a JETTERS NORTHWEST Bruiser Plus cart jetter to clean a hospital kitchen drain in Louisville, Ky.

BY MARIAN BOND

Hunting for SOLUTIONS

KENTUCKY CONTRACTOR DIVES INTO THE DRAIN CLEANING INDUSTRY AND DISCOVERS A PASSION FOR SOLVING PROBLEMS

PHOTOGRAPHY BY SHAUN RING

Steve Dabney was searching for a better way to use his experiences in marketing, food service equipment and insurance, none of which he particularly enjoyed, when his mother noticed an ad in the local newspaper.

“She has been a very successful businesswoman and an important influence in my life, so I paid attention,” Dabney says. “The ad was about a drain cleaning company. The owner was interested in retiring and looking for someone to take over the company.”

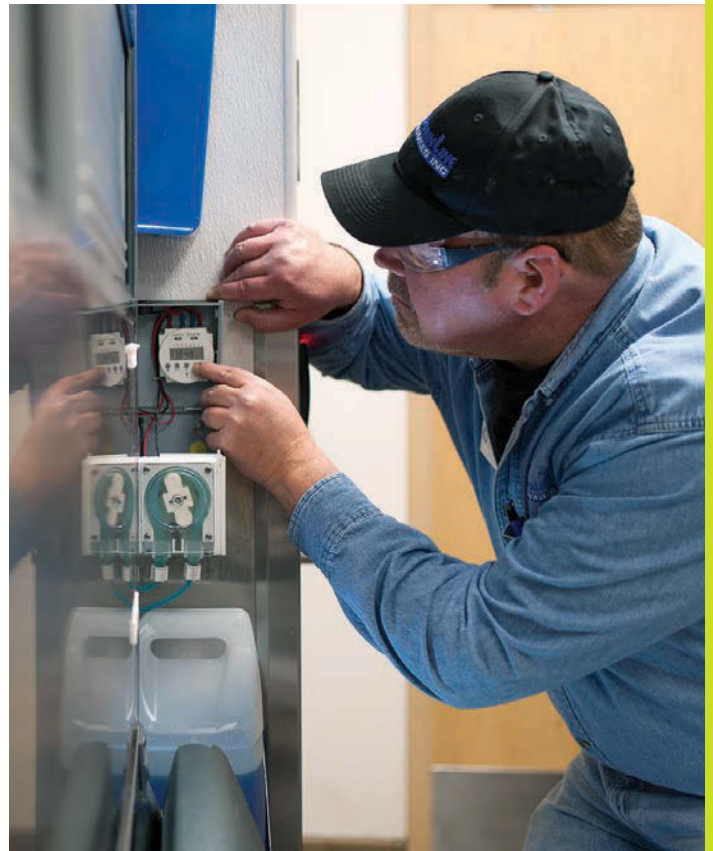
“I was hungry for education. The more I knew the better I understood the opportunity I had, and I formed a business model.”

Steve Dabney

Drain Line Services Inc. was initially formed in 1998 in Louisville, Ky. Dabney joined the small company as a technician in 2006. He was the lone technician in the field, learning on the fly while the owner handled management duties. Dabney had no experience in the drain cleaning industry, but he was intrigued by the prospects. He was given the opportunity to work for the company and take his time before eventually making a final deal to buy it. He did that in 2008 after an intensive hands-on, in-the-field education.

“I saw this as a chance for me to get out there and see how things worked, to learn if this was something I would want to get into,” he says.

Dabney’s brother-in-law, Jim Bindyke, laughed at the prospect of owning and operating a drain cleaning business. “You will never make it. You will have to get your hands dirty. You won’t be wearing a shirt and tie,” he warned.



Steve Dabney, owner of Drain Line Services, programs a BioOne auto-dispensing system at a commercial kitchen in Louisville, Ky. Bioremediation plays a key role in the company’s preventive service programs.



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<< Jim Bindyke, Steve Dabney and Ronnie Cox (from left) use a Cam Spray trailer jetter to clean a sewer line at a hospital in Louisville, Ky.

profile

**DRAIN LINE SERVICES INC.,
SERVING LOUISVILLE, KENTUCKY
AND A RADIUS OF 50 MILES**



OWNER: Steve Dabney
SERVICES: CCTV and drain cleaning, bioremediation, grease control
CUSTOMERS: Commercial, industrial
STAFF: 3, plus part-time help

In an interesting turnaround, Dabney ended up hiring Bindyke as service manager in 2009 due to his exceptional mechanical skills and a background in industrial fluids and tooling with an understanding of tensile strength of different pipe materials. The latter is a particular advantage regarding the amount of pressure that can be used in a particular pipeline without risking a break.

“When you are jetting a pipeline you have to be careful, especially with the old cast-iron pipes,” Dabney says. “Having Jim as my second man on the team has been extremely beneficial.”

The time Dabney spent in the field prior to purchasing the company was also a big help.

“I was doing everything,” he says. “I ran the drain machine, learned how to jet, went to the Pumper & Cleaner Expo and talked to anybody who would take time to discuss things. I was a sponge. There are so many great resources out there. And I did research on my own. I learned the hard way, but I learned. I also worked with other plumbers when they needed extra

help. I was hungry for education. The more I knew the better I understood the opportunity I had, and I formed a business model.”

ON THE HUNT

Dabney now has three technicians in the field and has expanded services to include CCTV and greater jetting capability. He introduced bioremediation to customers with large kitchen facilities and broadened the customer base beyond smaller commercial clients such as restaurants to include hospitals and big box stores, particularly those offering food service.

“In my business model, which included the restaurant accounts, I felt there were other markets I wanted to get into, and hospitals, although they have maintenance staff and can handle smaller things, they have a lot of need

**“You have to be prepared.
When you go in the first time, if you can’t
handle a problem, that is a problem.”**

Steve Dabney

for drain cleaning and jetting,” he says. “There is a lot of stuff going down those drains with large kitchens fixing three meals a day. And then opportunity with the big box stores that have included fast food restaurants. We also looked at industrial plants that offer food service, and food production plants.

“As we went from one market to another, we would learn something new that we could apply to the business.”

The Drain Line team is still small, but effective coordination with clients has helped the company develop a reputation for understanding individual



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DESTINY ON THE LINE

During the economic woes of 2008, right when he bought Drain Line Services, Steve Dabney says he held on by the skin of his teeth.

"I was in something fairly new to me as the economy was crashing," he says. "I was looking at potential markets and how they would be affected. With health care I knew that people would be going to the hospital, and nursing homes would have residents who would need to be cared for. This became an essential component of my business plan."

Dabney's experiences over the past several years have taught him to be somewhat cautious when it comes to jumping into new services or expanding the customer base. He is always willing to help out plumbing contractors when they request his services for residential work, but he isn't eager to pursue that market on his own at this time. He also isn't eager to jump into new technologies like lining or pipe bursting because he believes it might be more of a diversion, taking away from their current customer base.

"I have grown slowly, and done so by design," he says. "It is kind of a cliché, I know, but we really want quality over quantity — quality of service over quantity of services we offer. We have found a place we find very comfortable. We are well-known. What we do we do very well and we'll not venture out too far at this time."

"I never saw myself doing this. If someone had said I would be doing this I would have laughed. It can be a very dirty and trying business — no question — but it is also very satisfying. I love being able to help solve a problem."

"I don't go on all service calls, but whoever goes, when we walk in we are greeted with 'Here are the drain guys.' We become a part of the team."



ABOVE: Steve Dabney (left) and Ronnie Cox clean the influent (inlet) line on a hospital grease trap with a JETTERS NORTHWEST Bruiser Plus cart jetter.

RIGHT: Cox feeds the jetter hose into the grease trap's influent line.



systems and specific issues that need to be addressed on a regular basis. Customers appreciate that Dabney does not ask them to sign preventive maintenance agreements, but will still set up a program for regular attention without a signed contract.

"One thing I have learned is that not every restaurant, hospital or other client is the same in each category," Dabney says. "I learned a valuable lesson, and that is to treat each customer on an individual basis. That is particularly important with bioremediation."

For their regular customers who choose to be on a program, they advise on best management practices and provide a manual and binder where the staff can make notes on any problems that might need to be addressed at the next service call. Every service call and activity is also noted in this logbook. Dabney says it's beneficial for both parties.

"I believe in being proactive with what we are offering our customers," he says.

SOLVING THE MYSTERIES

Very often the hospitals tend to be older with plumbing that is susceptible to the buildup of fats, oils and grease.

"The goal is to maintain those lines for as long as possible without having to replace them," Dabney says. "Hospitals and some other clients tend to change their kitchens around and reroute lines when remodeling occurs, and there can be a lot of zigging and zagging. Our goals are to keep lines clean and free flowing. We see a lot of different sizes requiring a lot of different jettets and types of nozzles. We also use our cart and electric jettets for smaller lines."

"When we go in and jet the hospital lines, or other large facilities, it's a big job because of all the drains,"

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The Drain Line Services team includes (from left) Jim Bindyke, Owner Steve Dabney and Ronnie Cox.

he says. “But two of us along with a part-time helper can get it done quickly.”

Dabney says that in many hospitals it is amazing how often kitchens are built over important departments such as radiology or surgery, so there are food service lines running above these facilities with lines that have to be serviced properly and carefully.

Any job in facilities this large can be complex, especially when plumbing plans have been lost. Often they have to map out the drain system before they attack the problem.

“In the larger box stores there are long runs of lines, sometimes up to 500 feet of 8-inch pipeline,” Dabney says. “This is why we needed the trailer jetter, which gives us that capability. We can clean it, televise it and get it done

needed to properly do these things in the most effective and efficient way. I learned this way, and I still learn and continue to change. I don’t want to be set in my ways. I think that when you feel comfortable in where you are, you will be behind the curve. I want to stay ahead of the curve.”

GUMSHOE DISCOVERIES

Dabney’s efforts to solve certain issues, especially in restaurant lines, brought him to bioremediation, which has grown to a substantial part of their maintenance service program. Simply stated, bioremediation is a waste management technique that involves the use of organisms to remove or neutralize pollutants from a contaminated site.

“I can’t tell you how much I learned about nozzles in the seminars at the Pumper & Cleaner Expo years ago, and then going into the field and working by trial and error. It’s much more than just ‘put the jetter hose in and then pull it out safely.’ You need different nozzles for different jobs.”

Steve Dabney

quickly. You have to be prepared. When you go in the first time, if you can’t handle a problem, that is a problem.”

In highlighting the important role of the trailer jetter, Dabney stresses the lessons he learned in the field regarding different nozzles and their specific duties.

“When I first got into this I learned about the Tier 1, Tier 2 and Tier 3 nozzles and their cleaning capabilities,” he says. “With the jetter you want the proper nozzle. I can’t tell you how much I learned about nozzles in the seminars at the Pumper & Cleaner Expo years ago, and then going into the field and working by trial and error. It’s much more than just ‘put the jetter hose in and then pull it out safely.’ You need different nozzles for different jobs. You don’t want to polish with the same nozzle you use to open a clog. I had no idea when I got into this that there was such scientific knowledge

“Initially I was skeptical, but once we started using products from One Biotechnology I became a believer,” he says.

One job in Louisville involved a fast food restaurant that was located directly over a hospital X-ray department, and when their lines got full of grease and backed up, they would have material dripping down the walls of the X-ray department below. Drain Line Services went in and got the lines opened, and started a bioremediation program, which has been successful.

As much as 45 percent of their income comes from the bioremediation program, particularly in these large kitchen facilities.

Dabney likes to say he has billions of little employees who get paid with grease.

“I like that we are able to take care of these problems using noncaustic substances,” he says.

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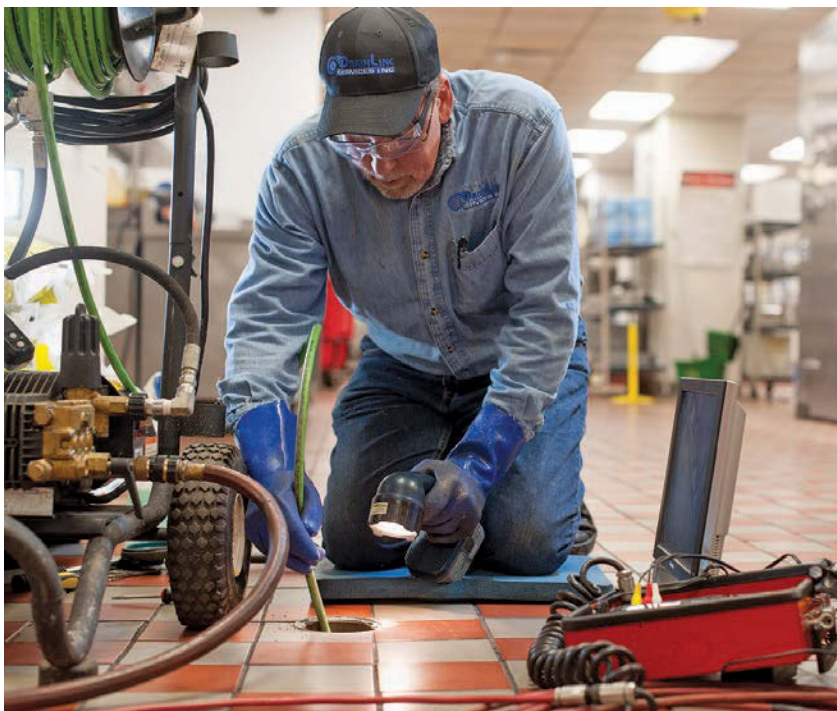
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Jim Bindyke shines a light down a kitchen drainline he's cleaning with a Cam Spray electric jetter.

Dabney describes the area he serves as "Kentuckyana," right on the border of Kentucky and Indiana. He operates out of rented warehouse space with around 1,200 square feet for a small office and parking for all their vehicles and equipment. The advantage of the arrangement is that as his business grows he is able to acquire more space within the building.

He says that his brother-in-law was absolutely right when he initially told him to expect to get his hands dirty.

"I have been up to my knees in grease, and worked in the nastiest kinds of jobs," he says. "We go into a situation after the facility or kitchen is closed down. We will have our plan, and I often end up with sludge and slime on my face, but as long as I win in the end and find a solution, and take care of some grease, I love it – most of the time. But I'm gratified as well to solve a mystery. We use our investigative skills. I really like the hunt." **C**

THE CULPRIT REVEALED

The extensive equipment list includes 2005 and 2008 Ford E-250 cargo vans. They also have a Cam Spray trailer jetter (STB2511) and cart jettors from JETTERS NORTHWEST (Bruiser Plus) and O'Brien (411JE). They have a Spartan Mini-Cam pipe inspection system.

more info

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C-MORE PIPE SERVICES BUILDS A REPUTATION FOR EXCELLENCE AMONG MUNICIPAL CLIENTS AND CONTINUES TO GROW THROUGH REFERRALS

BY MARIAN BOND

PHOTOS SUBMITTED BY C-MORE PIPE SERVICES

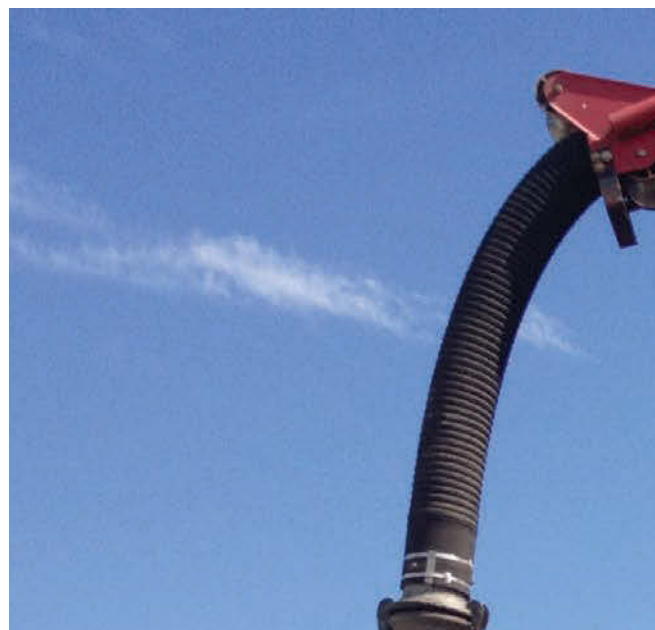
When municipalities began to more seriously address the condition of their pipeline systems in the 1990s, opportunities grew for companies like C-More Pipe Services to provide inspection and a variety of other services.

In 1998, Vi McCoy and her partner formed C-More in Rickreall, Oregon. Both had industry experience. She was versed in pipeline sales and management, as well as accounting, and he in field services including chemical grouting. McCoy says they had a built-in customer base because of their many contacts in Oregon and Washington, and they found the telephone ringing regularly from the start. She takes particular pride in the fact that C-More has never had to spend much money on advertising, yet they have continued to grow through their 16 years in business.

Two years into the operation, McCoy realized they were spending a lot of money on subcontractors to assist with jobs that went beyond the scope of their own services.

"I'm an accountant, and it dawned on me as we considered expanding that we needed to be doing our own cleaning," she says. "I said, 'This is kind of crazy,' so we bought our first Aquatech combination truck and began using part-time help and calling on family and friends to assist us with the business. Eventually we went on to hire permanent employees."

Today the company runs a fleet of three combination jet/vac trucks, three CCTV inspection vans, including two that are equipped to provide chemical grouting, and a manhole

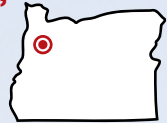




profile

**C-MORE PIPE SERVICES CO.,
RICKREALL, OREGON**

SERVING OREGON AND WASHINGTON



OWNER: Vi McCoy

ESTABLISHED: 1998

SERVICES: CCTV, chemical grouting, mainline pressure testing, manhole vacuum testing, hydro jet/vac cleaning, hydroexcavation, manhole rehabilitation

CUSTOMER BASE: Municipalities, industrial, sewer and water districts

EMPLOYEES: 6

CERTIFIED: NASSCO, PACP MACP, LACP

Scott Fast (left) and Juan Lorenzано of C-More Pipe Services use an Aquatech jet/vac combo unit to clean a pipeline outside an old paper mill in Independence, Ore.



Juan Lorenzano, left, prepares a CIPP point repair blanket for installation for the City of Gladstone, Ore.

Pipe Services team. Her daughter, Brenda McCoy-Manfredo, came on board in 2012 and oversees the Manhole Rehabilitation crew. Michael's son, Daniel, has made the company a three-generation enterprise.

FOCUS SHARPENS

Michael McCoy is a veteran, having served in the United States Army as a 2nd Lieutenant. His degree is in business, but he has extensive experience in the high technology arena, including software development. He is also skilled in troubleshooting mechanical problems and developing systems to benefit the company. He serves as technical mechanic for both divisions, repairing cameras, trucks and small equipment.

“Processing all this water is very expensive. We are offering our clients another set of eyes on the problem by looking into the lateral lines.”

Vi McCoy

The company began offering CIPP services in 2008. “This was important for us to include so we could properly serve our clients’ needs and avoid having to subcontract this work out,” says Michael McCoy. “Initially we offered QuickLock [Rausch Electronics USA], a stainless steel sleeve that will protect about a 20-inch section of pipe. We still use this product, but we also developed our own CIPP point repair system.”

McCoy's background also includes experience in engineering and chemistry, and he researched and found sources for silicate-based resin with an ambient cure, along with a fiberglass supplier.

“With our CIPP system we can do repairs from 2 to 5 feet in length,” he says. “But we can do longer distances with individual repairs that overlap each other. We had one situation where we had two different pipe sizes. This went from a 12-inch pipe to a 15-inch pipe in a 4-foot repair. Using our CIPP process we created a smooth transition, sealing the leak and reinforcing the pipe so it would not leak in the future.”

Michael McCoy praises their dedicated and qualified technicians, who are all cross-trained, and points out that they are a particular source of pride for the company.

FUTURE VISAGE

When her partner left the company in 2010, McCoy began to think about semi-retirement. Michael, with his extensive background in the high tech industry, had settled into the operational side of the business and contributed significantly to their continued growth. He was ready to step into management.

rehabilitation truck. They have a selection of cameras and other equipment, and are always searching for other tools and technologies that would benefit the operation. McCoy says watching the bottom line is critical when making those decisions.

The company focuses primarily on mainline work, but will occasionally inspect laterals with a push camera.

“Clients are finding measureable amounts of water going into the treatment plants, and are convinced this comes from service laterals to homes and businesses,” McCoy says. “We are adding a lateral launch camera to our equipment so we can differentiate if water is coming from a washing machine, or if groundwater is coming into the line. If we find a certain percentage of laterals defective, this would require the homeowner or business owner to repair in order to reduce the I&I going into the treatment plant. Processing all this water is very expensive. We are offering our clients another set of eyes on the problem by looking into the lateral lines.”

The company's six field technicians work in two divisions. McCoy's son, Michael McCoy, joined the firm in 2007 and oversees the four-person

McCoy also looked to her daughter, Brenda. As the wife of a tenured professor at Colorado State University in Fort Collins, she didn't appear to be a candidate to step in, but Vi asked her all the same. She was already commuting three hours per day for her job in Denver, so the idea of commuting each week to Oregon seemed a fair trade-off. Instead of driving 15 hours each week, she now flies about that same amount of time, but on the airplane she can do paperwork and work on her laptop. This is her third year with the company.

In addition to the Manhole Division, McCoy-Manfredo, who is vice president, has duties that include traffic control, permitting on all jobs, safety oversight and daily operational duties for the entire company. She has an extensive business background that includes construction, management and finance, but Vi McCoy continues to handle some of the finance work.

"The Manhole Division was brought online in 2013, and our primary function is to repair and rehabilitate the manholes using spray-on cementitious grout/mortar to create a new interior wall line," McCoy-Manfredo says. "This basically improves the structural integrity of the manhole and extends the life up to 25-plus years. We are expanding to include epoxy coatings as well."

Other related services of the Manhole Division include removal and replacement of manhole steps, and controlling I&I in underground concrete

structures such as vaults, reservoirs, storage tanks, water treatment plants, cisterns and basins, as well as grease interceptors.

"Our business with this division is roughly 30 percent, and growing," McCoy-Manfredo says. "We are pre-booked up to three months ahead."

In the past, the company inspected manholes to identify I&I issues but they didn't handle any of the repair and rehab work.

"If our client needed or wanted manhole repair, we referred them to a local company," she says. "These were friends and we did not want to take their business. When the owner passed away, the company was available for purchase. We bought their equipment, which we upgraded, and we hired their employee, who had 15 years experience in confined-space entry, and then hired another tech. That is how the division came about. We also turned to AV-100 [Avanti International] to help control I&I issues.

CONTINUED >>



Daniel McCoy, CCTV technician, lifts the Aries camera system, outfitted with big wheels for inspecting large diameter pipe, out of the manhole following an inspection.



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“Offering manhole rehabilitation is important for our clients because 40 to 60 percent of I&I can occur through manholes. For our regular clients, we can help them substantially reduce the cost of treatment if we rehabilitate and repair the leaks in the manholes. They also will have a newer and stronger structure.”

All employees are certified for confined-space entry. McCoy-Manfredo has developed a safety program based on OSHA guidelines, and they have regular training sessions on these procedures.

“Offering manhole rehabilitation is important for our clients because 40 to 60 percent of I&I can occur through manholes. For our regular clients, we can help them substantially reduce the cost of treatment if we rehabilitate and repair the leaks in the manholes.”

Brenda McCoy-Manfredo

EYE SPY ON THE MAINLINE

Vi McCoy describes their business plan from the beginning.

“Over the years, we have developed a reputation with our customers, primarily municipalities and sewer and water districts, that maintenance programs and inspections will over time find problems and solutions and let them stay within their budgets and have funds to spend on aging systems. It can sometimes take up to five years to get through an entire system and make repairs. Big cities like Portland and Salem will have their own people and equipment. Smaller jurisdictions turn to contractors like us who offer these services.”

“Spills in the waterways were raising the consciousness level. They needed to do something about this. They needed to look and see what was going on. In our area, we have 40, 50, 60 inches of rain a year, so it is a high water table.”

Local systems typically are comprised of clay tile and concrete pipe as well as PVC, ABS and iron. Pipes are most often in the 8- to 15-inch-diameter range, but they are occasionally larger. Some of this goes back to the 1930s and '40s.

They find pipe that is crushed or cracked, pipe that has not healed properly, and of course, roots. Concrete pipe often has holes in it or joints that are offset.

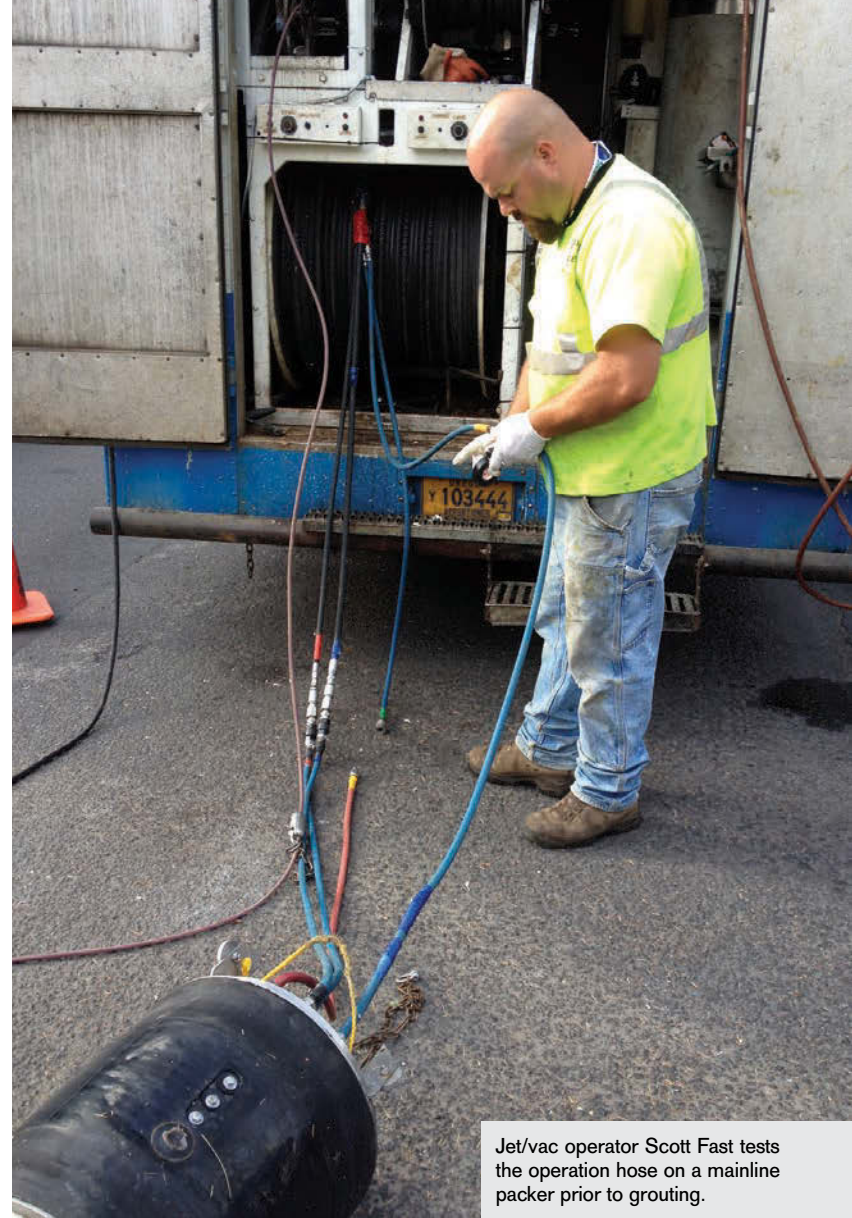
“In the beginning, we had the advantage by offering grouting, and all in the one truck,” Vi McCoy says. “We would go into the city or sewer or water district and find out what was wrong with the pipe. If it was roots, we would remove them. If it was leaks, we would profile what was going on for our client and offer solutions.”

While the company utilizes their own system for patching short lengths of pipe, even up to 16 feet, for longer lines they will hire or recommend contractors who specialize in these procedures.

“This has not been our focus, and that is my choice,” Vi McCoy says. “There are plenty of people out there doing this work, and we don’t believe this is where we will make the most money for the investment. When we see the long lines that need to be replaced, those 500- to 1,000-foot lines, we recommend relining to our customers.”

TOOLBOX TALLY

Rolling stock includes a 2013 Dodge 5500 diesel with Aries inspection equipment, including a new Aries LETS system, as well as grouting equipment.



Jet/vac operator Scott Fast tests the operation hose on a mainline packer prior to grouting.

EARNING CLIENTS' APPROVAL

For Vi McCoy, the ultimate reward is the recognition from peers and clients for the quality of C-More Pipe Services' work. With only one ad in the Yellow Pages, and no other direct advertising, the telephone continues to ring and the business keeps expanding.

Over the years, McCoy has seen the importance of certifications within the industry as a further assurance and indication of their standing.

“We work for some clients who do not ask for these certifications, but as time goes on these requirements are more frequently being written into bidding specs,” she says. “I think more and more of these organizations are lobbying for their specs to be included. We want to be included in that process and we find it an advantage to have the proper certifications.”

“We stay busy every day and have work on the books. Brenda and Michael, both graduates of Oregon State University in Corvallis, appreciate the importance of our reputation in the industry.

“Whenever we have a new client call, we will ask how they heard about C-More, and the answer it seems is that someone made a recommendation. That is my ultimate reward.”

CONTINUED >>

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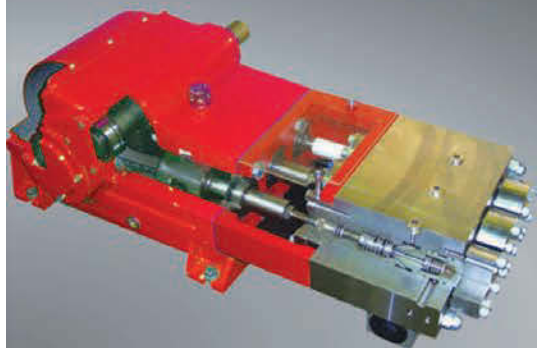
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Manhole rehab technician Michael Champagne (left) and crew lead Terry Burrows chip away old joint sealing material before chemically sealing the manhole for the City of Halsey, Ore.

Cleaning is handled with two Aquatech (Hi-Vac Corp.) combination jet/vac trucks. There is a 2007 Ford E-450-SD diesel with an Aries Industries TV Inspection system, and a 2000 Isuzu manhole rehabilitation truck and Strong Seal trailer (The Strong Company).

The company just added the new Aries LETS system for lateral inspections, a benefit to their customers during mainline inspections. They also use Aries pan-and-tilt cameras as well as Logiball mainline and lateral grouting packers.

“Over the years, we have developed a reputation with our customers, primarily municipalities and sewer and water districts, that maintenance programs and inspections will over time find problems and solutions and let them stay within their budgets and have funds to spend on aging systems.”

Vi McCoy

With new equipment, they put a high value on strong, reliable support from the manufacturer, particularly when it comes to solving grouting problems such as set times, calculating the required quantity of product, or suggestions on what products would be useful for a particular issue.

“With equipment we look for functionality, ease of use, efficiency and simplicity for our field crews,” McCoy-Manfredo says. “We want equipment that will hold up, because we work our equipment hard, and we want compatibility with our existing equipment.”

C-More Pipe Services operates out of a 17-acre site with a 1,900-square-foot office in the basement of Vi McCoy’s home. There are three large shops with a total of 14 bays and 8,480 square feet of space.

Vi McCoy recalls the first job the company completed, a \$200,000 inspection job in Battle Ground, Wash., where they televised sections of pipe and grouted joints. It was a big job for a startup operation, but one that set a high standard in the neighborhood and provided some important credentials for the young company.

“The old theory that if you don’t see it, it does not exist just doesn’t hold water anymore,” notes Vi McCoy. “We will be using all our tools to investigate, report, and take care of these issues for our clients.”

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Option 2: upgrade to 130FT Cable & Reel w/Meter Counter (New)



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NEW



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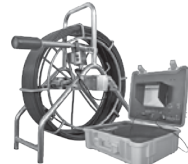
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 - Heavy Duty Waterproof Case
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Option 2: upgrade to 130FT Cable & Reel w/Meter Counter (New)



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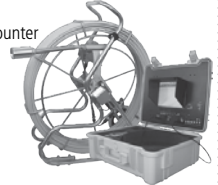
- Specs:
- 130FT Cable & Reel w/ or w/o Meter Counter
 - Color Camera Head w/Built in 512HZ Sonde Transmitter
 - 10" LCD Monitor w/DVR & MIC
 - Recording with USB Flash Drive & SD Card
 - Heavy Duty Waterproof Case



Long Range Pipe Inspection Camera

FB-PIC3288T/3488T

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- Self Leveling Camera Head w/ Built in 512HZ Sonde Transmitter
- 10" LCD Monitor w/DVR & MIC
- Recording with USB Flash Drive or SD Card
- Heavy Duty Waterproof Case



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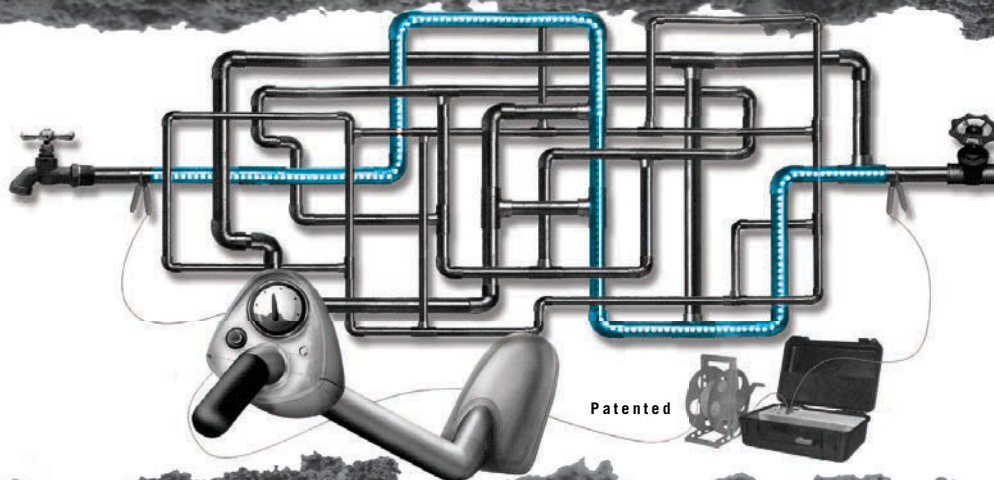
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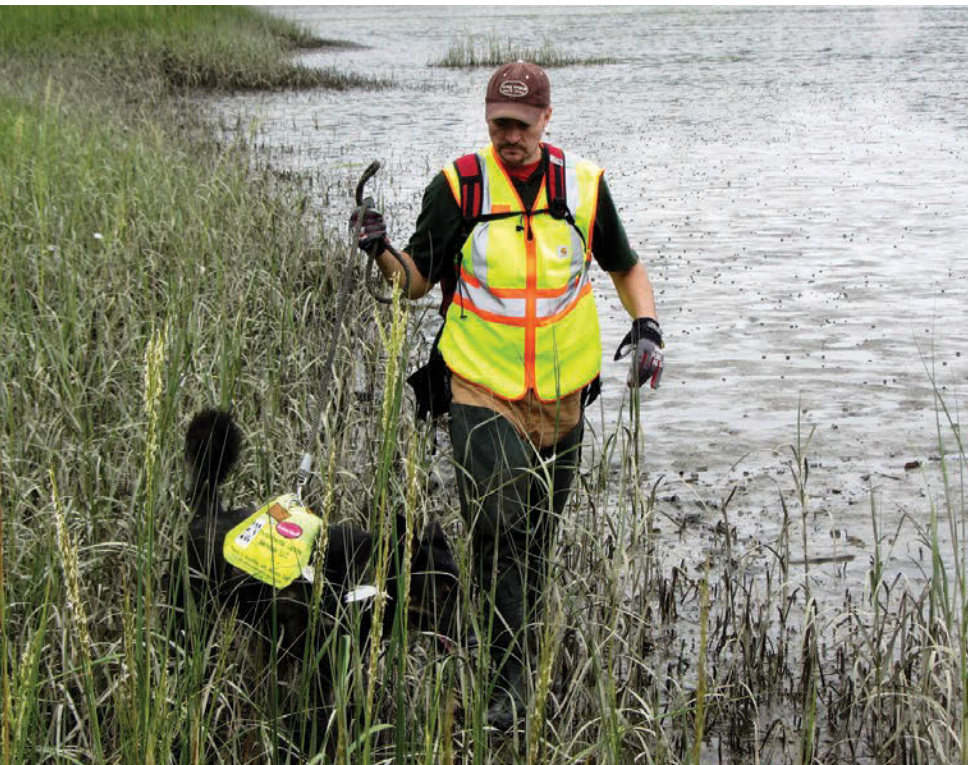
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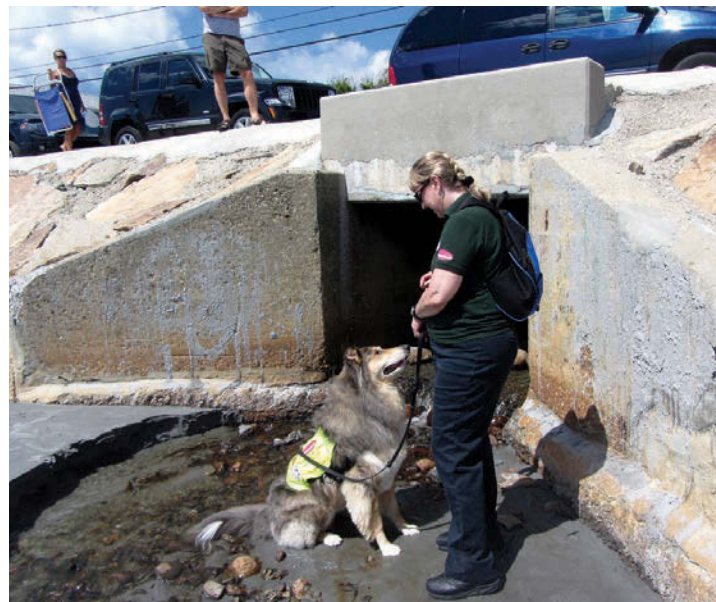
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LEFT: Scott Reynolds and Sable of Environmental Canine Services check stormwater outfalls along North Mill Pond in Portsmouth, N.H. **BELOW:** Karen Reynolds of Environmental Canine Services stands with Logan beside an outflow at White Sands Beach on the shore of the Atlantic in York, Maine. Notice the interest of passersby. Curiosity about the dogs and their work provides a great opportunity for public education.



Four-Legged Leak Detection

Canine crews scent human waste to help trace failing wastewater systems quickly and inexpensively

By David Steinkraus

For thousands of years they have tracked game for humans. Now the humans have something new. Dogs still track with those incredible noses, but they're tracking threats to human health.

Several years ago Scott Reynolds realized he could use dogs to detect wastewater, and his thought has blossomed into a tool for the quick detection of wastewater system problems. Now, after a few years of training and field experience, his Environmental Canine Services of Vermontville, Mich., is forming a partnership with FB Environmental Associates of Portland, Maine, and Portsmouth, N.H. The companies will benefit, but so will anyone who needs a simple, effective tool to track the source of water contamination.

SAME NOSE, DIFFERENT SCENT

The idea came to Reynolds from his experience as a law enforcement officer where he trained with dogs used to find narcotics and search buildings. He left that career, earned a degree in environmental science, and was hired by a large engineering firm to look for illicit discharges. "On one job we realized that we were spending an enormous amount of time taking samples that were ultimately coming back clean," he says.

He began thinking about employing dogs, and in early 2007 he and his wife Karen adopted their first dog, Sable, a male German shepherd mix,

from an animal shelter. They began offering their service in 2009, and when it became clear the idea would work, they added a second dog.

"In the case of beaches or tributary streams, we can say with confidence whether there is human input. Clients can focus on the animal problem or the human waste problem. In other words, using the dogs allows our clients to target their resources efficiently."

Scott Reynolds

Forrest Bell, principal scientist at FB Environmental Associates, learned about Reynolds from a client. At the time his company was working on impairment of surface waters by bacteria. He saw potential, talked it over with his staff, and then arranged to have Reynolds and a couple dogs come to New England. "I wanted to learn whether this was a viable tracking tool, and the

more I learned the more I thought it was. We have a lot of issues in New England, and we really wanted to see these dogs in action,” Bell says.

Many of Bell’s clients are municipalities trying to discover what is contaminating beaches and where sewage overflows originate. One of the company’s projects was to test beaches in Kennebunkport, the small Maine town that for generations has been a retreat of the wealthy, such as the presidential Bush family. It’s a beautiful coast where a rental house is \$4,000 or \$5,000 a week, Bell says, but there were regular warnings or complete closures of the beach because of bacterial contamination. Suspected sources included septic systems, a sheep farm and wild geese.

“We set up a project and did a lot of testing, but at the end of the work we couldn’t say what percentage of the problem came from human waste and what percentage came from the geese living in a nearby marsh,” he says. At \$350 or more per sample, testing DNA to distinguish goose waste from human waste was prohibitively expensive. Had he known about Reynolds’ service at the time, it would have made the Kennebunkport project much easier because dogs can test a sample in seconds, Bell says.

BRING IN THE DOGS

Training a dog to recognize waste requires eight months to a year, a bit less for animals that have had scent training, such as for competitions. Reynolds and his staff look for sporting or working breeds, the types of animals that have drive and will work for a reward. Dogs that hunt by sight, such as greyhounds, are out, as are dogs with flat faces such as bulldogs. They tend to have poorer scenting ability and have difficulty breathing in hot weather. Age isn’t a great factor, Reynolds says. A dog’s body, sight and hearing deteriorate before the sense of smell. Sable is 8 and still doing well.

Handlers are trained as well, although it is not as rigorous a course as police officers go through simply because police face so many intense situations, Reynolds says. The process teaches dogs not just to recognize waste, but to distinguish human waste from other types. “We collect all sorts of scat to use in our training process, and not only pet waste. For example, we also use raccoon scat because raccoons are infamous for living in storm drains,” he says.

“That’s an important point, that the dogs scent only human waste,” Bell says. It relates to that beach in Kennebunkport where it was very difficult for the usual tests to determine what type of waste was causing contamination. Dogs can immediately recognize traces of human waste and won’t be distracted by goose waste.

FAST WORK BUT HARD WORK

“In the case of beaches or tributary streams, we can say with confidence whether there is human input. Clients can focus on the animal problem or the



Scott Reynolds of Environmental Canine Services and his dog, Sable, investigate outfalls in Beckey, W.V.

human waste problem. In other words, using the dogs allows our clients to target their resources efficiently,” Reynolds says.

And the dogs are fast. In just a few seconds they decide whether a sample or a location is or is not contaminated with human waste, Reynolds says. That ability makes them very cost-effective. This does not mean field technicians don’t take samples, Bell says. They do because the samples can provide other information such as how much bacterial contamination there is or what sort of animal it came from. By distinguishing types of waste and the location of contamination, the use of dogs can cut the cost of testing from thousands of dollars to hundreds.

“The slowest part of the process is the humans. It takes us longer to write down data and talk than it does for them to take a scent,” Reynolds says. And this is hard work, he adds. One summer in Maine the temperature was in the 90s. Dogs and handlers work in mud, in the rain, on hot pavement. They tramp across fields, through streams and brush. In one case, a dog testing a beach in Kittery, Maine, was signaling the presence of human sewage everywhere. It was groundwater seepage, and the dog and his handler tracked that seepage through a wetland and to a grassy area where there was an outhouse used for outdoor weddings.

“You come back bloody and bruised,” Reynolds says.

“I second that,” adds Bell.

An extra benefit of bringing in dogs has been the opportunity for public education. Despite being around for several years, this service remains a novelty. People are curious about the dogs, what they do and how they do it, and this provides openings for conversations about wastewater. In Maine they did many public events using an alternate method of testing: People collected water samples and brought them to one place for the dog to examine. If news reporters show up, the message is spread widely.

Logan, one of the dogs from Environmental Canine Services, checks the Little River outlet where it flows into the Atlantic Ocean at North Hampton State Beach in New Hampshire.



MEDICAL NOSES

There are more threats to human health than untreated or partially treated sewage. If you've been watching the news in the last few years, you have probably seen stories about dogs being used to detect the early stages of cancer in people. A few experiments have found dogs can sense the presence of various kinds of cancer, but no one is using dogs systematically for this.

"We collect all sorts of scat to use in our training process, and not only pet waste. For example, we also use raccoon scat because raccoons are infamous for living in storm drains."

Scott Reynolds

One group of researchers in England found dogs can sense the presence of *Clostridium difficile*, a particularly nasty bacteria that causes some hospital infections. Dogs are best at this in a patient's room, where the scientists think they can smell the odor soaked into bed sheets. There is a risk from bringing an animal into a hospital, but the use of dogs suggests an entire ward could be screened for disease in a matter of minutes.

Yet dogs remain a mystery. Many scientists are trying to develop electronic noses, sensors that can smell what dogs smell with perhaps more sensitivity, but the work isn't progressing quickly because although expensive equipment can find out what is in the air, no one knows exactly what the dogs are smelling.

The company has two dogs field certified for the Northeast and two more in training. Two dogs are in training for the Midwest, and in California the company has employees who own four dogs. The partnership with Bell

and his staff allows the two companies to provide a wide range of services to customers, Reynolds says.

Although the company began in the Great Lakes region serving the needs of communities worried about beach contamination, it is being called in to other jobs where leaking sewers or any sort of contamination needs to be traced, Reynolds says. There are now three regional teams limited only by car travel. (The dogs face too much risk in the cargo bays of commercial aircraft.) Regions such as Chesapeake Bay, the Great Lakes, or Florida's Indian River Lagoon could easily support the constant use of dogs.

HITTING THE BEACH

Beaches form a common thread in his work, Reynolds says. When he started offering canine services in Michigan, municipalities were interested in finding sewer line breaks or overflows from combined sewers. For those municipalities, the issue was pure economics, as it is for other communities. When prosperity depends on tourism, the last thing a community needs is a wonderful beach that no one can use.

It's easy to see a business opportunity in this. If dogs cannot be replaced in the near future, it is possible for people to offer this service as either a primary or ancillary business. With the U.S. Environmental Protection Agency and state environmental agencies paying more attention to water quality along beaches, and with constraints on government funding, the market for using cost-effective dogs looks good.

But this is not an easy business to enter. Many times people call his company and ask how they can train dogs to track waste. While Reynolds is always open to conversations, it's not a simple process, he says.

"They don't consider the depth of training. The difficult part is taking the dog from a controlled environment in your garage, or wherever, and moving out into the real world." Also, you need to have a dog with the right temperament, and you need the right sort of person to handle the dog. **■**

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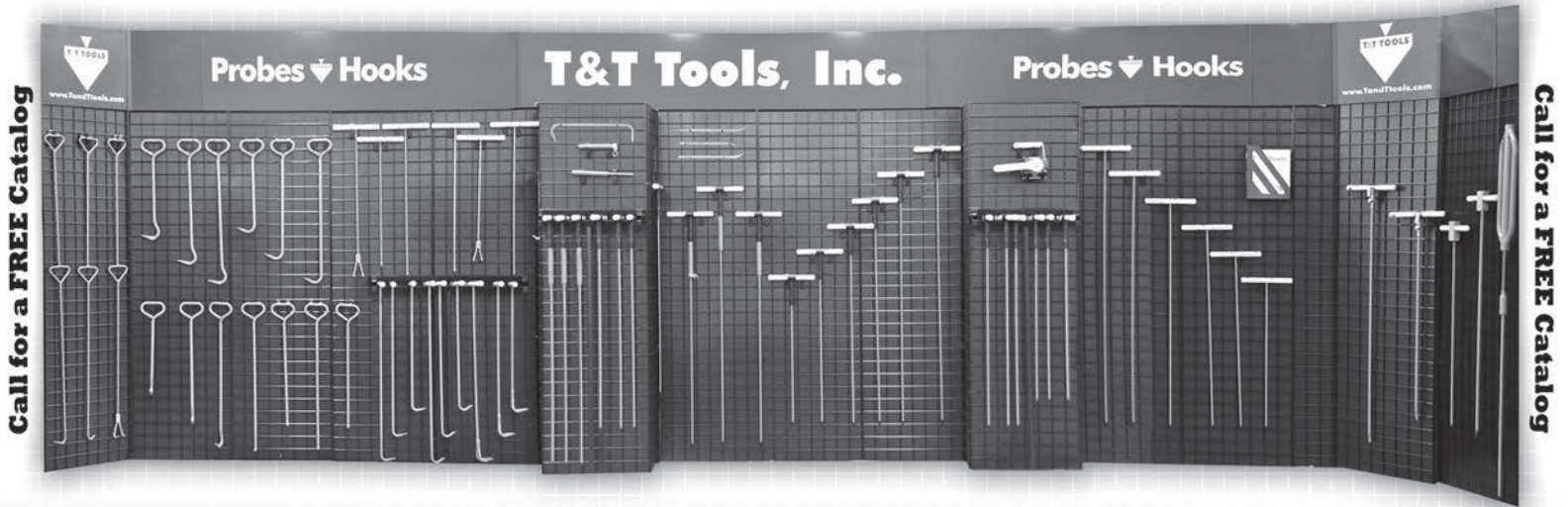
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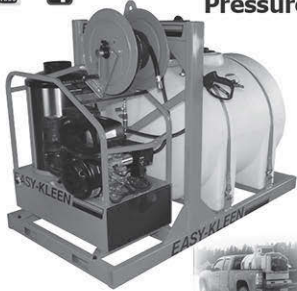


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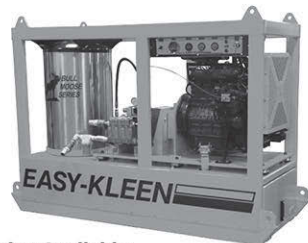
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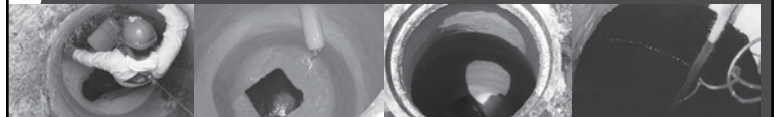
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Bringing the Heat

Hot-water jetter gives Colorado contractor an edge when it comes to clearing tough grease clogs

By Ken Wysocky

Marcus Rodriguez often finds himself in hot water with customers — and he wouldn't have it any other way. That's because his trailer-mounted Hot Jet USA water jetter, made by Power Line Industries and outfitted with optional hot-water capability, makes short work of tough drain cleaning problems.

"Most times, it does a job about twice as fast as using cold water," says Rodriguez, the owner of Umbrella Plumbing & Drain Cleaning LLC in Aurora, Colo. "It's especially good for cleaning out grease-trap lines.

"The hot water, which gets heated to a temperature of 180 degrees, liquefies the grease," he explains. "I've used both cold and hot water and there's a big-time difference. With cold water you can spend a lot of time working in one small area and it can create clogs in the rest of line ... chunks of grease hook up together farther down the line and form another clog.

"But by using hot water, that doesn't happen because it's liquefied," he says. "So by doing jobs twice as fast, we gain time, and time is more valuable than money. Even if we get in just one more job a week because of that, we're making \$1,400 to \$1,600 more revenue per week."

Rodriguez bought the Hot Jet unit in 2009. The unit features 300 feet of 3/8-inch diameter hose, a 350-gallon water tank, a pump that generates 3,500 psi at 12 gpm, and a tandem-axle trailer, which enables him to tow the jetter with a full water tank.

"That saves me about an hour a day because I don't have to fill the tank at a job site," says Rodriguez.

Umbrella crews use the hot-water feature to clean residential lateral lines, too, when needed. Sometimes cable drain cleaners aren't powerful enough to



Umbrella Plumbing & Drain Cleaning Owner Marcus Rodriguez sets up to jet out a utility sink drainline.

money machines

- OWNER:** Umbrella Plumbing & Drain Cleaning LLC, Aurora, Colo.
- EQUIPMENT:** Trailer-mounted Hot Jet USA water jetter, made by Power Line Industries
- FUNCTION:** Drainline cleaning
- FEATURES:** 3,500 psi at 12 gpm, 350-gallon water tank, tandem-axle trailer, hot-water capability
- COST:** About \$25,000



From left Umbrella Plumbing & Drain Cleaning technician Phillip Smith, Owner Marcus Rodriguez and technician Albert Gutierrez in front of the trailer-mounted Hot Jet USA water jetter.

do the job, especially if it's a sludge buildup. But the hot water usually does the trick.

Rodriguez makes the Hot Jet unit more versatile by using a third-party detachable reel that carries 100 feet of 1/4-inch-diameter hose. A quick-connect adapter connects the 1/4-inch hose to the unit's 3/8-inch hose, and Rodriguez or another technician can then carry the reel into, say, the basement of a home. The reel combines the brute power of the Hot Jet jetter with the portability and maneuverability of a cable drain cleaning machine.

"It saves us a lot of setup and breakdown time, too," Rodriguez notes. "If we need to bring a couple hundred feet of hose from the trailer jetter into a house, we need to take time to coil it up nicely so it doesn't get tangled as we feed it into a clean-out. Then when we're finished, that hose is covered with whatever you were just in.

"With the detachable reel, we just wind up the hose and put the reel in a garbage bag and clean the hose later, which saves us about an hour of cleanup time. It's almost a must-have piece of equipment."

Umbrella also owns three Spartan 2001 heavy-duty cable drain cleaning machines, made by Spartan Tool LLC; three Spartan 100 cable drain cleaners for smaller lines; three Spartan 81 drain machines for bathtubs, toilets and sinks; RIDGID SeeSnake and RIDGID SeeSnake microDrain pipeline inspection cameras; and three custom-built mini-jetters (2,000 psi at three gpm). The company also owns three GMC 2500 trucks outfitted with 14-foot Morgan box bodies, and a Ford 550 cab-over service truck.

The hot-water jetting capability is a big selling point with restaurants because minimizing downtime at such establishments is critical. As Rodriguez notes, the last thing a restaurant owner wants is several hours of downtime at a peak business time. If business owners are ambivalent about using hot or cold water, Rodriguez shows them a brochure he developed that shows lines cleaned with a cable machine, a cold-water jetter and a hot-water jetter.

“Most times, it does a job about twice as fast as using cold water. It’s especially good for cleaning out grease-trap lines.”

Marcus Rodriguez

“It’s a pretty obvious choice when they see the difference,” he says. “And I don’t charge any more for hot-water jetting — just one flat rate no matter if it’s hot or cold water.”

Rodriguez is so confident in the Hot Jet unit’s ability to clean thoroughly that he provides customers with a six-month guarantee against another clog. “We’ll do it for free as long as there’s no evidence of abuse,” he says. “The Hot Jet jetter gives us a great degree of confidence.”

Another benefit: Rodriguez is expanding into excavating and sewer-lateral repairs, and the Hot Jet unit provides customers with a feeling that Rodriguez has done everything possible to clean a line before he suggests digging up a yard and replacing a lateral.

“They see that if a big trailer jetter and 3,500 pounds of pressure can’t open up a line, then nothing will,” he says. “It’s just like with car repairs — you don’t want a mechanic to look at your car for five minutes and then tell you it needs a new engine. He may be right, but as a customer, you want to see that he’s done everything he can before resorting to putting in a new engine.” **c**

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Time to Reinvest?

Choosing how much to put back into your business isn't a one-size-fits-all decision

By Erik Gunn

If you've been in business a while and are beginning to see a steady profit, it may be tempting to think you can sit back and coast for a while. Don't fall for that.

Your real work has just begun. In a world where markets and business conditions are constantly changing, you always have to be prepared for the unexpected. And one important way to do so is to reinvest in your business – don't just pull all the profit out.

But how much should you be putting back in?

Some people think it's as simple as picking a flat number – 6 percent, 10 percent, maybe even 20 percent of your business income – and rolling it back into the company. But to small-business consultant Richard Weinberger, “that's kind of shooting from the hip.”

“A small business must develop a strategic plan for growth with realistic, achievable goals. Many small businesses fail, or don't prosper, because they really don't have a plan as to where they're going.”

Richard Weinberger

Weinberger, based in Austin, Texas, is chief executive officer for the Association of Accredited Small Business Consultants. His consulting work grew out of nearly two decades of practice as a certified public accountant as well as years of teaching at the college level. He's also the author of *AAMP Approach: Accelerated Action to Maximize Profit*, a book published last year by the association. Weinberger describes the book as a roadmap to small-business success.

On the subject of reinvesting, there's no one-size-fits-all answer.

“Without a certain amount of analysis that is really important, it is not possible to say how much money or what percent of profits one should reinvest in one's business,” he says. “There are too many variables that affect that decision.”

FACTORS TO CONSIDER

The No. 1 variable is where your business stands in its life cycle: Is it a startup? On a growth streak? Maturing and stable? Or perhaps in decline and in need of a turnaround? Each stage requires its own careful consideration when it comes to reinvestment.

Another variable is your competition. Are you really the only game in town for the services you deliver? Or do you have to scrap for every account you land and sale you make?

Then there's the size of your business. “A larger, more profitable company can afford to invest more dollars – which equates to a lower percentage,” Weinberger points out. Think about it. If you've decided you need to plow \$500 a week back into the business and you're making \$1,000 a week in profits, that's 50 percent; if you're making \$10,000 a week, it's only 5 percent.

Even the first question – what stage your business is in – has more layers to it. You're growing, but what does that mean in detail? Are you planning to add new products or services? Have you decided you need a capital expansion – more equipment, a bigger shop, or both?

THE FIRST STEPS

Weinberger says deciding how much to reinvest doesn't come until after some serious analysis.

“A small business must develop a strategic plan for growth with realistic, achievable goals,” he says. Strategic planning isn't just for big business – although it might sound that way. “Many small businesses fail, or don't prosper, because they really don't have a plan as to where they're going.”

Consider what niche you think you can best fill in the marketplace. Is it your intention to be the low-cost provider? Or perhaps a premium-price provider with a sterling reputation for the highest quality services and products available? Is there a narrow market niche you want to focus on?

“SWOT” AND CASH FLOW

Two important tools as you formulate your plan are a SWOT analysis and a cash-flow forecast.

SWOT is an acronym for “Strengths, Weaknesses, Opportunities and Threats.” What is your operation good at? What must you do better – or get out of entirely? What is coming up that represents a new source of business? What's lurking that could throw you off your particular trajectory?

Suppose you own a cleaning business and the local wastewater utility is considering selling off its jet/vac trucks and contracting out all its cleaning work. That offers a potential new market opportunity. Or suppose the opposite is true – your largest municipal customer is embarking on a major initiative to replace its old lines with new pipe. Might that be a threat to your customer base?

The cash flow budget, meanwhile, looks not just at how much money you're taking in, but how much is going out – and how fast.

“A profitable company can have serious cash-flow problems,” Weinberger points out – making money on paper, but falling deeper into debt because receipts aren't coming in on a timely basis.

Comparing patterns of income and expenses over the previous few years, the cash-flow budget projects month-to-month ups and downs in your income in the year – or even years – to come, showing how much cash you have when the bills come in.

DRAWING THE PICTURE

Those tools can help you discover trends that help you improve the business. What service or product has the highest profit margins? How much of your time and income actually comes from that segment? Perhaps you could expand in that particular service or product and boost your profits.

By identifying strengths and opportunities to build on as well as weaknesses and threats you need to counter, goals and objectives begin to take shape. Once you have a clearly defined target to aim for, “then the business has to say, ‘OK, what is necessary to achieve those goals and objectives?’” Weinberger says. “What is it going to take them to get from Point A to Point B?”

What sort of marketing campaign do they point to? What sort of skilled labor is needed? Will you need to expand the physical plant? Will your employees need special training to enter a particular new market segment?

Only then, says Weinberger, can you come back to the question of how much to reinvest.

For two different businesses, he explains, “If their goals or plans for the future are different, then the amount they reinvest is going to be different, also. The profit to be reinvested is really all based on what is needed to achieve the strategic plan.”

THREE MORE THINGS

If your profits are large enough to make that monthly reinvestment amount affordable, great. But if they aren't, you'll need to do at least one, and probably all, of the following: rethink your strategy, look for ways to boost profits and cut costs.

Weinberger says his book focuses on how to expand by generating internal business growth so that you don't have to reinvest profits. But whether you are able to simply generate internal growth immediately, or you must continue to reinvest for the time being, a sound analysis beats simply picking a flat percentage of your profits, he believes.

That may be a lot more complicated and take a bit more time. But when the future of your business is at stake, it will be time well spent.

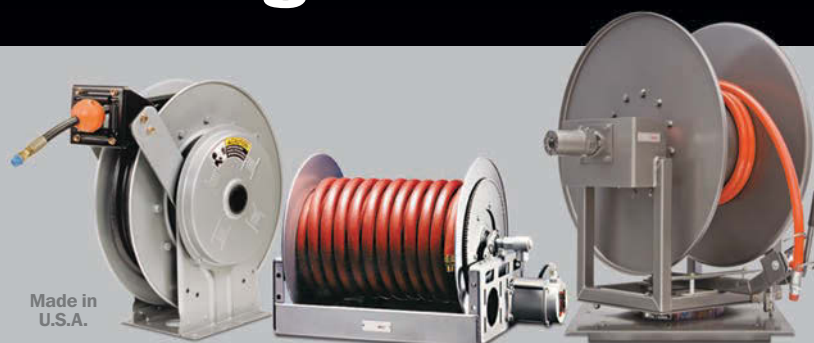
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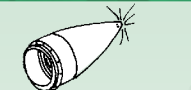
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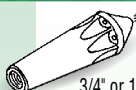


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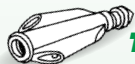
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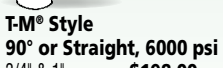
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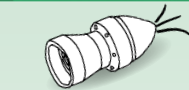
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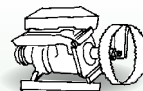
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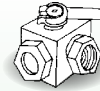
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Improved Access

The Amthor Claw makes opening and closing rear vacuum tank doors safer and easier

By Craig Mandli

Opening the rear door on vacuum trucks often puts operators in a precarious position, balancing on a small and often slippery pedestal to unlock several clasps around the diameter of the tank. Not with the Claw.

The Claw, unveiled by Amthor International at the 2014 Pumper and Cleaner Environmental Expo International, is a patent-pending series of hydraulic arms to open and close the rear door on vacuum trucks, eliminating the use of wing nuts along the top and

“The Expo is the perfect place to roll out a product like this. Where else are you going to be able to get it in front of thousands of customers?”

Butch Amthor

sides. Designed for safety and efficiency, the mechanism is Amthor’s response to customers asking, simply, is there a better way?

“No longer does the driver have to climb 13 feet on top of the tank to tighten down the rear door,” says Butch Amthor, the company’s executive vice president. “All he has to do is pull a lever and the arms extend and reach out to release or pull the door tight.”

Amthor’s Claw design can be used on any code or non-code vacuum tank. It increases driver safety and saves money on unnecessary tank repairs due to incorrect operation. “It can be retrofitted on all our tanks already out on the market,” says Amthor. “We designed it to be installed on any rear-opening vacuum tank.”

The hydraulic lever on the back of the vacuum truck is easy to latch and unlatch, and achieves a strong, tight seal on the tank. “It’s a much tighter seal than any human can provide manually,” says Amthor. “The Claw locks past center and even if pressure is lost or the cylinder fails to operate, the latch will not be loosened.”

The idea was launched about six months before the Expo, in response to customer recommendations. Amthor heard so many stories of operators losing their balance and falling off trucks while unlocking or locking their vacuum tanks. He decided it was time to come up with a solution to combat the problem. In addition to the safety and efficiency benefits, the Claw is constructed in accordance with ASME DOT 407/412 code for highway travel.

“These workers operate in some very slick conditions when they’re on the job site, and they take a risk every time they climb up and down the rig,” says Amthor. “The Claw eliminates a lot of that risk, because the operator can




Butch Amthor, executive vice president of Amthor International, presented the company’s newest innovation, the Claw, at the 2014 Pumper and Cleaner Environmental Expo International. (Photo by Cory Dellenbach)

stand on the ground and operate the system with one lever. He doesn’t have to climb anywhere.”

The company decided to unveil the new product at the 2014 Expo in large part because of the huge target demographic walking the show floor. Amthor says he was able to talk to hundreds of potential customers that were impressed with the company’s products and focus on worker safety.

“The Expo is the perfect place to roll out a product like this,” he says. “Where else are you going to be able to get it in front of thousands of customers? We have marketing ready to send out to our existing customer base saying that the Claw is available on all new vacuum tanks and can be retrofitted to the tanks they already have. I’m very optimistic that this will be accepted by the industry.”

As for future shows, Amthor says he’s already working on some new products and innovations to bring back to Indy in 2015, when the Pumper and Cleaner Environmental Expo International becomes the Water & Wastewater Equipment, Treatment & Transport (WWETT) show.

“This year the Claw was something we came up with that was completely different for the industry,” Amthor says. “My mind is thinking about this 24/7. There are already some ideas kicking around.” 800/328-6633; www.amthorinternational.com. 



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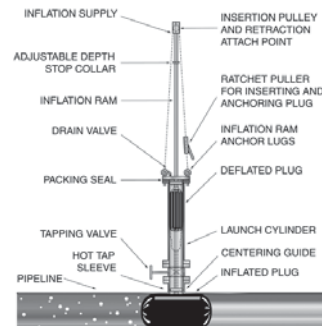
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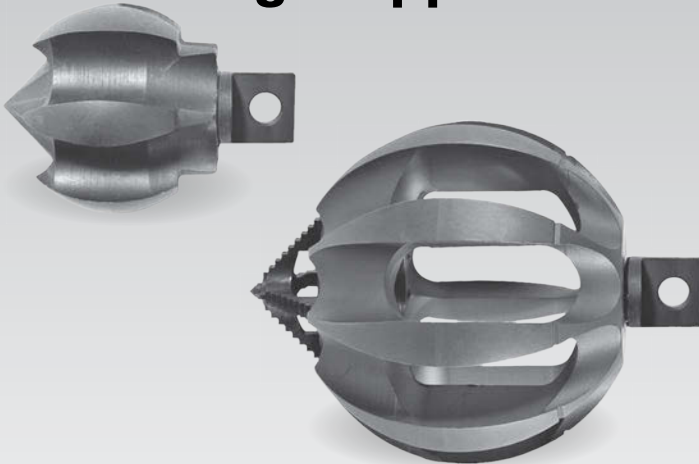
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Can You Bear the Market?

Adopt a marketer's approach and set your prices based on value, not what your competitors are charging

By Ellen Rohr

Have you ever called up one of your competitors, assumed a fake voice and asked, "How much do you charge?" Go ahead. Admit it. We all do that kind of nonsense.

But here's the really silly part. Have you ever adjusted your selling price to match or beat his price?

If you took Economics 101 in high school or college, you learned that selling prices for goods and services are determined by "what the market will bear." That means that consumers – the market – decide what a product is worth, and will give so much money, but no more, for that product.

After doing a fake-voice phone survey of a few companies, and setting your prices somewhere in their range, you might say you are charging "what the market will bear." This beats going through the trouble of figuring out what

follow the economic rule of 'what the market will bear' pretty nicely. It will be directly affected by the law of supply and demand.

Economics 101 works well when you are talking about commodities. But it doesn't count for much as far as *your* products and services go.

Here's the real rule, the "street" rule, the rule they don't teach you in Economics 101: The market doesn't set the selling price. The marketers do.

- Why does Coca Cola sell for three times the price of Best Choice cola?
- How come Rolex sells watches for \$50,000 when you can get a very nice watch for \$100?
- Why would anyone pay \$1,500 to fly first class across the country when an economy seat on the same plane arriving at the same time is only \$600?

The marketers in this world differentiate their products, and make them something more than a commodity. Marketers create and communicate features that benefit consumers. Benefits add value to the product. Coke is the *real* thing. A Rolex is a symbol of wealth and power. And flying first class is much more comfortable.

Higher value commands a higher price. If value equals price, then there is no sale.

Cash will only be exchanged for something that has a higher perceived value. So if a product is worth exactly what you are charging for it, no one will buy it. What usually happens is that you will drop your price until the value of your product becomes bigger than the price.

However, the marketer increases the value until the price looks insignificant.

You see, there is a huge problem with basing your prices on what your competition is charging, on what the market will bear. Your competition may not even know their break-even point, and may have set their prices by calling other companies, companies that are now out of business. Don't assume your competition has discovered the perfect price point.

Lots of folks get confused when they set their selling prices. They look at what everyone else is charging, then they hope and pray that they can make money at those prices. So don't beat yourself up.

Just do it the right way. Decide how much money you want to make. Offer a terrific product. Figure out all your costs of doing business. Come up with a selling price that makes your dreams come true. Adopt a marketer's mindset. Create so much value for your product that your customers beg to buy it.

And forget what the market will bear. **c**

"Economics 101 works well when you are talking about commodities. But it doesn't count for much as far as your products and services go."

Ellen Rohr

your company's break-even point is. "We can't charge more than 'what the market will bear!'" is delivered as a logical reason for maintaining below-cost selling prices.

But here's the rub. The "what the market will bear" rule applies to commodities. Commodities are products that don't differ much from vendor to vendor. Gold, for instance, is a commodity. Gold is gold is gold. Gold will



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ABOUT THE AUTHOR

Ellen Rohr is president of Zoom Drain and Sewer LLC, and is a columnist for Huffington Post, PHC News and a contributor to many business journals and trade magazines.

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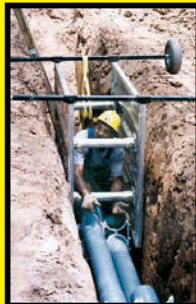
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Underground Protection

Website provides database of utility damage prevention technologies and practices

By Doug Day

With a couple clicks, excavation companies can access information about the latest technologies available to help them prevent damaging underground utilities. The online database, called VAULT, was developed by the Common Ground Alliance and is available at www.cga-vault.com.

Users can search the database to find what types of technologies are available along with product specifications, capabilities and contact information. Product search categories include such things as barriers, encroachment

“We are continually working to connect damage prevention stakeholders with all available resources for reducing the number of damages to underground facilities. The VAULT database puts valuable information right at the fingertips of anyone hoping to better protect buried utility lines.”

Bob Kipp

monitoring, locating and marking, mapping, etc. You can also search by best practices (i.e. compliance, excavation), root causes, and by various stakeholder groups such as gas distribution, public works and road builders.

“We are continually working to connect damage prevention stakeholders with all available resources for reducing the number of damages to underground facilities,” says CGA President Bob Kipp. “The VAULT database puts valuable information right at the fingertips of anyone hoping to better protect buried utility lines.”

CGA’s annual DIRT (Damage Information Reporting Tool) report for 2012 shows that using a “call before you dig” locating service is the best strategy, avoiding damage 99 percent of the time. There were 232,717 events submitted to DIRT in 2012, up nearly 25,000 from 2011. Insufficient excavation practices were listed as the root cause for 45 percent of the incidents. Failure to make a notification accounted for 25 percent, the lowest in six years, with two-thirds of those involving residents and farmers rather than professional excavators. Insufficient locating practices were the root cause in 17 percent of the incidents with “other” making up the remaining 13 percent.

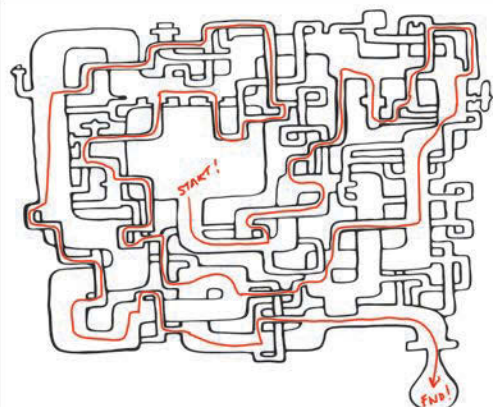
The Common Ground Alliance was formed in 2000 in response to a Department of Transportation study to identify best practices that prevent damage to underground facilities. Since then, it has published a Best Practices Field Manual that contains best practices in nine categories:

- Planning & Design
- One Call Center
- Location & Marking
- Excavation
- Mapping
- Compliance
- Public Education
- Reporting & Evaluation
- Miscellaneous


There are also 4 appendices:

- Glossary of Terms and Definitions
- Uniform Color Code and Marking Guide
- Sample Forms, Reports, Releases
- Additional References

Version 11 of the Best Practices Field Manual was released in March 2013 and is available for viewing and download from CGA’s website at www.commongroundalliance.com. The online version also has a search function to help you find specific topics. The manual can be ordered in hardcopy at a cost of \$1 for CGA members and \$3 for nonmembers. **c**



SOLUTION TO MAZE on page 19



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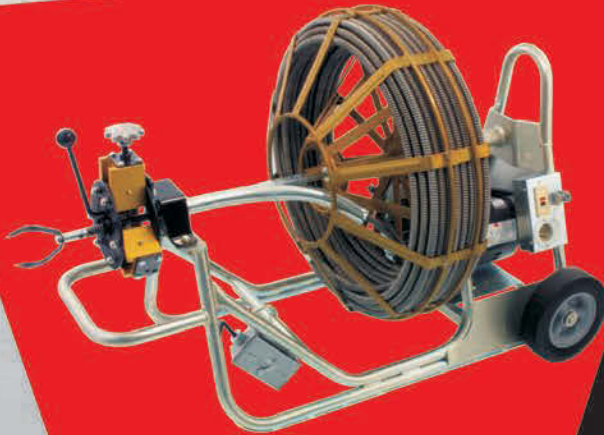
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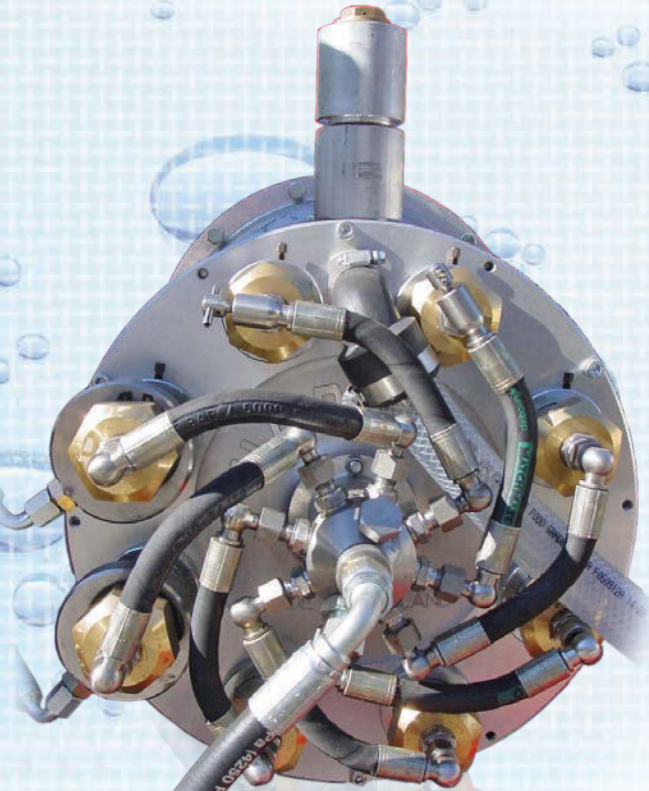
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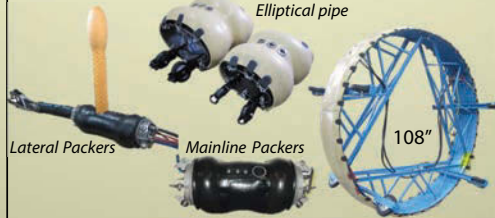
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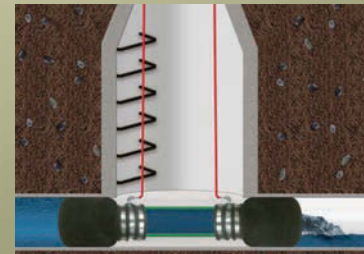
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PRODUCT SPOTLIGHT

Hydro-demolition unit safely removes, resurfaces concrete

By Ed Wodalski

The BlackHawk BHK-100 hydro-demolition and scarification system from StoneAge can be universally mounted to a skid-steer, telehandler or other hydraulic equipment for horizontal or vertical work. Unlike mechanical methods for removing concrete, such as jackhammers, the BHK-100 cleans and decontaminates embedded metal elements and rebar in concrete without damaging adjoining infrastructure, leaving adjacent concrete sections intact and providing greater adhesion for bonding new concrete.

Weighing 1,200 pounds, the unit has a removal rate of 8.4 cubic feet per hour at 100 hp and can cut a path up to 48 inches wide. It has a flow rate up to 50 gpm and delivers up to 22,000 psi.

Designed for updating infrastructure, such as roads, bridges, spillways and parking garages, the unit also can be used for surface preparation and coating removal.

“The nice thing about the BlackHawk is by using high-pressure water you can perform concrete demolition in a precise and controlled manner,” says Randy Parker, marketing manager for StoneAge.

Unlike jackhammers, the attachment does not produce fracturing vibration or negatively affect the surrounding concrete. It also contains dust and debris associated with jackhammers and is simpler to use than more expensive hydro-demolition robotic machinery, he says.

“Not only is it useful for the hydro-demolition of concrete but you also can use it for the scarification of concrete and removal of coatings,” Parker says. “It’s not unlike doing surface prep with a shotgunning tool. You can adjust the pressure, flow and rate the unit travels across the

concrete to best suit a range of applications.”

Operated through the use of an implement’s auxiliary hydraulic system, nozzle rotation and traverse speeds can be monitored via wireless display viewable from the driver’s seat. Operating height can be adjusted, along with rotation and traverse, to vary the amount of material removed.

“The operator can sit safely in the cab of the skid-steer and operate the unit using the auxiliary hydraulic controls, rather than out in the blast area,” Parker says.

“Once you have a setup, it’s easy for a second shift operator to continue the demolition process. He can dial in the same exact readings [rotation, traverse, height] and get the same constant result.”

The unit is equipped with a single-port nozzle for demolition; an optional scarification head is available. 866/795-1586; www.stoneagetools.com.



1

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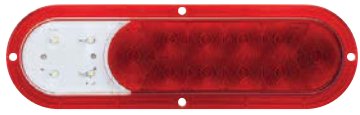
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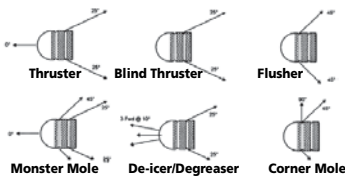


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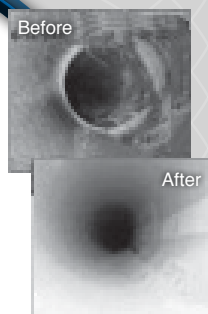
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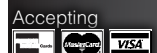
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Hino Trucks names vice president

Hino Trucks named George Daniels senior vice president of sales and customer service. He had served as Hino Trucks' vice president of service operations.



George Daniels

Optronics releases vehicle lighting catalog

Optronics International released its 2014 lighting product catalog. Available for download from the company's website, www.optronicsinc.com, the catalog includes 523 new products.

United Rentals completes National Pump acquisition

United Rentals completed the acquisition of National Pump, including 37 branch facilities in the United States and Canada. The \$780 million purchase price included \$765 million in cash and approximately \$15 million in stock.

AEM, Ditch Witch produce vacuum excavator safety video

Ditch Witch, a member of the Association of Equipment Manufacturers' Underground Equipment Manufacturers Council, collaborated on the production of a vacuum excavator safety video. Available through the AEM Store, the video promotes best practices in the operation of vacuum excavation equipment, as well as how to protect underground utilities from damage.

HammerHead names pipe ramming, product specialist

HammerHead Trenchless Equipment named Bob Harr pipe ramming and product specialist. The founder of Harr Technologies and Silver Fox Construction, Harr will assist project engineers with trenchless pipe installation techniques and the drafting of pipe ramming specifications.



Bob Harr

NexTraq named TAG Top 40 Innovative Technology Company

NexTraq, a GPS fleet and asset tracking company, was named by the Technology Association of Georgia (TAG) as one of its Top 40 Innovative Technology Companies. The award recognizes Georgia-based technology companies for their innovation, financial impact and efforts at spreading awareness of the state's technology initiatives.

Chevin Fleet Solutions names account manager

Chevin Fleet Solutions named Bradley Furie national account manager for sales development across the Western United States.



Bradley Furie

SubSurface joins Sprayroq network

SubSurface of Moorhead, Minn., joined the Sprayroq Certified Partner Network and will provide spray-applied polyurethane for infrastructure rehabilitation in Minnesota and the Dakotas.

HOBAS recertified to ISO 9001, 14001

HOBAS Pipe USA was recertified in accordance with ISO 9001 and 14001. The certificates verify the establishment and application of quality (9001) and environmental (14001) management systems for development, production, sales and customer service of centrifugally cast fiberglass-reinforced polymer mortar (CCFRPM) pipes.

Honda Engine names sales manager

American Honda Power Equipment, a division of American Honda Motor Company, named Dan Wahn national sales manager for Honda Engines in the United States, including distributors and original equipment manufacturers. **C**

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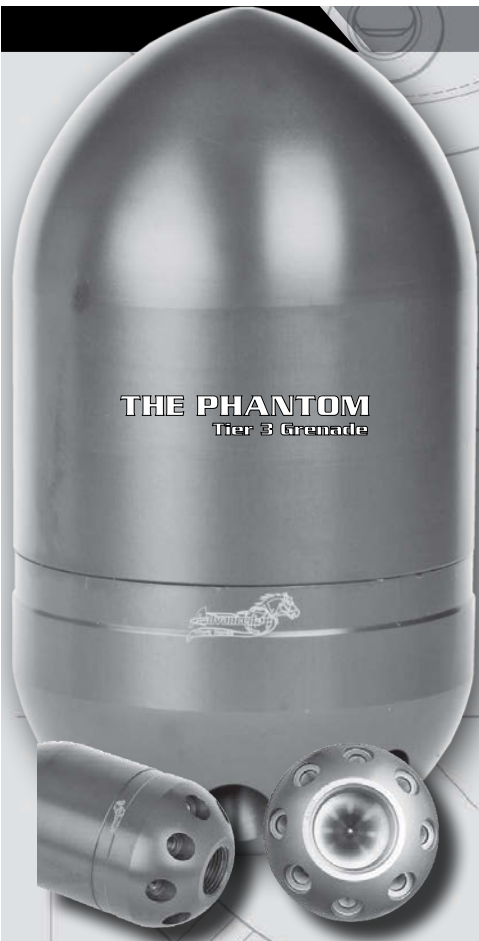
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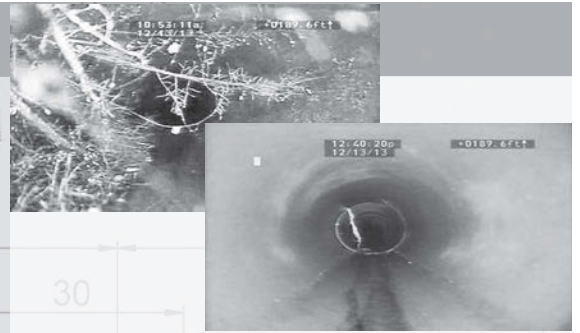
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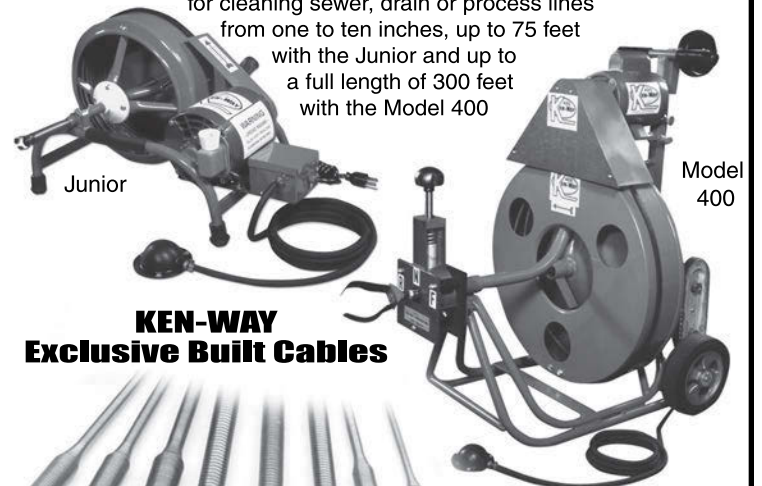
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DAY 1 & 2 - ELLEN ROHR

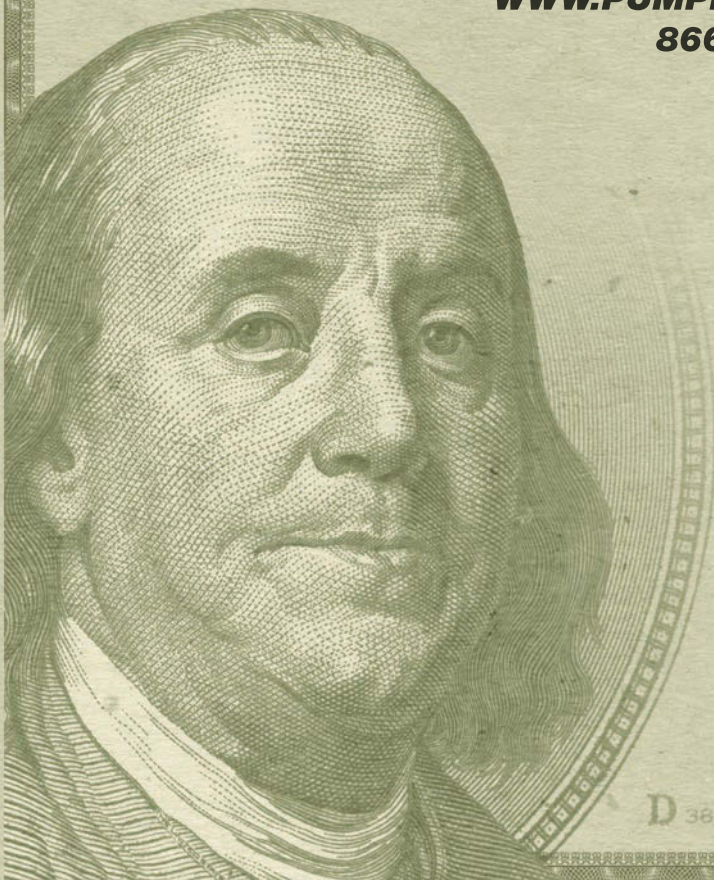
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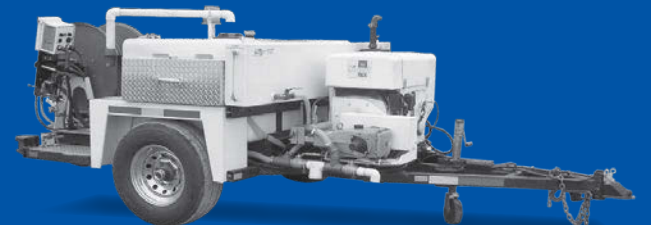


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Ottawa, IL based company seeking CUES Inspection Operator Wanted with minimum two years experience. Must have knowledge of sewer systems, ability to read project prints as well as a strong understanding of computers. Class A CDL, PACP credentials a plus, Granite Software a plus, Traveling a must. Please forward resume to: nodig@ppi-liner.com. Only qualified candidates will be contacted. No phone calls please. Great earning potential with benefits. (C07)

Hydro Excavator Rental Sales Representative: Hydro Excavation Truck Sales & Rental company is seeking experienced, motivated sales representatives to expand existing client base. Sales experience in rental to hydroexcavation contractors, oil & gas industry, heavy commercial trucks and/or equipment required. Excellent commission program. Send resume or contact info to JobPostingAE2014@gmail.com (C07)

East Coast Sales and Product Consultant: CCTV pipe inspection equipment manufacturer accepting applications for experienced underground infrastructure rehabilitation sales and product consultant. The position entails direct technical selling of sewer, water and well rehabilitation products to municipal water and waste water utilities, industrial clients, consulting engineers and contractors. Maximum 30% out of office travel is required. Skills/Experience required is 5 years technical sales experience in related field or 2 years experience and college degree. Public speaking in the form of product presentations and field demonstrations. Candidate will represent product at trade shows and conferences. Must be able to lift 70 lbs. Valid, insurable drivers license and passport required for occasional international travel. Base salary plus commission. Criminal background check required. Drug free, equal opportunity employer. Submit resume and references to reusa@rauschusa.com (C07)

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

Wanted! Global pump manufacturing company seeking a District Sales Manager for central United States. Based in Houston, TX. Send resume to scox@waterblast.com. (C08)

PUMPS

Buy & Sell all makes and models, **new & used** vacuum pumps & high pressure water pumps, and good used replacement parts. Call for an inventory sheet and save. **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (CBM)

Honda model WP40X, 8 hp, 4" with hoses. Honda 4 hp, 2" pump with hoses. The Cable Center: 800-257-7209. (CBM)

New, never used Myers D65-20 water pump. List price: \$17,992. Sell for \$9,750. New Rockford power take-off part number 4-11182 - \$700. 714-381-4141. (CBM)

RENTAL EQUIPMENT

LATERAL REINSTATEMENT CUTTER - RENTAL, 2" to 18" diameter. Reasonable rates, weekly/monthly. Training available. Contact: Sean Lipscomb, 443-866-8612, SLipscomb@PipelineRT.com (C09)

Liquid vacs, wet/dry industrial vacs, combination jetter/vacs, vacuum street sweeper & catch basin cleaner, truck & trailer mounted jetters. All available for daily, weekly, monthly, and yearly rentals. **VSI Rentals, LLC, (888)VAC-UNIT (822-8648) www.vsirentalilc.com.** (CBM)

SERVICE/REPAIR

Dynamic Repairs - Inspection Camera Repairs: 48 hour turn-around time. General Wire, Ratech, RIDGID, Electric Eel Mfg, Gator Cams, Insight Vision, Vision Intruders. Quality service on all brands. **Rental equipment available.** For more info call Jack at 973-478-0893. Lodi, New Jersey. (CBM)

www.servicewithasmile.com **Sewer Cam Reel and Camera Repair: Authorized for General Wire, Ratech, Vision & Ridgid. Quality service on all brands. Need more info? Just call Terry or Stan. Electronic Repair Co., Birmingham, AL 35206. 205-836-0454; email: repair@servicewithasmile.com.** (CBM)

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T&T Tools: Probes, hooks. Probes feature steel shafts with threaded and hardened tips. The insulated **Mighty Probe™** tested to 50,000 volts. **Top Poppers™** open man-hole covers easily. Free catalog. **www.TandTtools.com.** Phone **800-521-6893.** (CBM)

Ritchie Yellow Jacket Recovery System & BULLET 7 cfm pump. The Cable Center: 800-257-7209. (CBM)

Bosch Brute hammer drill with cart irons. The Cable Center: 800-257-7209. (CBM)

RIDGID model #300 with stand, RIDGID tri-stand vises, RP 330 ProPress kit. The Cable Center: 800-257-7209. (CBM)

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2005 CUES Ford E450 Main Line CCTV Truck: Low hours! Only 27k miles. Lateral launcher systems, 2 cameras. Unit super clean! Ex-municipal truck, work ready!..... \$37,900

Call 800-627-0778 C07



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Call 906-786-0460, MI
gkloet@upconcretepipe.net C07



2003 Ford E-450, RST equipment, Omni 3 System. Fully functional, Ready for work. Stock# 03-21. \$40,000
www.letsrollautoandequipment.net
719-494-4927, CO C07



Used RST & CUES Sewer Cameras: RST OE3 camera model 10-1650 with 8" crawler/transporter. Model 32-5021 CUES 022 camera with ultra shorty transporter. Also: Brand new ultra shorty transporter not pictured. CUES camera reel. All together for\$25,000

For individual items please contact
Stuart: screwystuy@yahoo.com
or call 510-692-2242, CA C07



2006 CUES Pipe Ranger complete inspection system. Includes crawler, 2 camera heads, cable reel, riser, Granite XP software, PRODATA 2000 control unit, rack-mounted computer, 4 sets extra wheels. Good condition with 1,121 hours. Call for pricing and availability.

651-645-5726, MN C07

New, never-been-used Aries TR3300 Pathfinder pan & tilt camera system. 6" steerable self-propelled tractor, 20" down-rigger assembly, Saturn III HV color case unit video/keyboard/control module/DVD/VCR. Matches pipe contour, power forward/reverse, steer-left/right, superior maneuverability. Continuous-duty drive motors, 6" re-lined to 24" sewer lines. 512Hz detachable locating beacon. Rear-viewing camera quick retrieval - up to 200'/min. \$35,000 OBO. 925-784-0330 (CBM)

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2011 IBAK Panorama System including Panorama 150 digital inspection camera for 6" to 12" pipelines, 1,640 feet of F/O cable, cable reel, BS7 control unit, and Panorama PC mounted in a 14' box Chevy gas truck. Used system, former demo with minimal miles and hours. Box includes a/c, heat, operator's station, like-new cabinetry, sink, etc. \$199,000. Call Todd @ 800-231-6929. (C08)

1998 Envirosight Rovver 125 inspection crawler, extra wheels, aux. lights, riser. Build out in 1990 Chevrolet van includes office and rear work areas. Air conditioning, tool boxes. V8 engine, 22,000 miles. St. Paul, MN. 651-645-5726. (C07)

AVALON SERVICES - We buy, sell & service most brands of pipe inspection equipment. Used Pearpoint EXPLOSION PROOF - tractor & pushrod systems in stock. We are certified for EX repair. Contact lou@avalonus.com or call Lou Brents at 713-849-3900 (C09)

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CUES inspection truck. 1997 Chevy 3500, CUES Pro-Data DVD software, OZIL camera - pan and tilt, optical zoom. Ultra shorty transporter. \$29,000. 319-759-7774 (C07)

MAINLINER Buying & Selling Used Equipment. CANADA & USA PEARPOINT MAINLINE EQUIPMENT ONLY. Will buy complete Pearpoint trucks. Will buy your old system. Do you need used parts? 399, 599 Reels; 420, 448 Tractors; 494 Digital and Zoom 420 light heads. Call: 1-800-265-4298 or mainliner2075@hotmail.com (C08)

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VACUUM LOADERS

2010 Vacall ATR1213, 12-yard debris body, 1,300 U.S. gallon water, Hydroexcavation machine mounted on a 2009 Sterling LT-9513 with a Higon SIAV 8702 tri-lobe blower - 5,300 cfm. (Stock #2151V) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (CBM)

1998 Volvo Guzzler: Wet/dry industrial air mover, 27" Roots blower, 18-yard debris body. Refurbished by FS Solutions in 2011. khtrucks.com 972-938-1905 (C07)

1998 Mack Keith Huber King Vac Liquid Ring wet/dry vacuum truck, 2,800-gallon tank, full-open rear door/dumping tank, 92,000 miles. khtrucks.com 972-938-1905 (C07)

1999 Freightliner Clean Earth Safe Vac: 27" Roots blower, stainless steel tank, 18-yard debris body. khtrucks.com 972-938-1905 (C07)

WANTED

Wanted to Buy: Vactor 2100's and late model Guzzlers. Cash. 800-336-4369. (CBM)

WATERBLASTING

Gardner Denver T-375M: Bare Shaft pump. Gardner Denver T450M Bare Shaft pump. Gardner Denver TF-375M 21 gpm @ 10,000 psi. Gardner Denver TX-450HB 21gpm @ 20,000 PSI. Gardner Denver TF-450MB 52gpm @ 10,000 psi. NLB 10-200. 34 gpm @ 10,000 psi. HT-150S 25 gpm max 10,000 psi max, Shell Side Machine, Wheatley 165: 30 gpm @ 10,000 psi. Wheatley 125 with aluminum bronze fluid end. Boatman Ind. 713-641-6006. View @ www.boatmanind.com. (CBM)

WATER JETTING EQUIPMENT: We sell, repair and retrofit water blasters. Visit us at: www.waterjettingequipment.com or phone 714-259-7700. (CBM)

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Well, I got a call from a job site the other day. Jim had his 81 cable machine and was facing a classic back-to-back toilet situation, where a neighboring apartment had a bathroom up against the one he was working on. He wanted to make sure that he didn't run his cable too far into the line and end up causing a whole other mess. I told him we make a drop head for that sorta thing, which I knew he had. So he was able to make money on the job, instead of flushing it down the tube.

Tough Customer Preferred Product: Model 81 Cable Machine

This compact, lightweight machine operates vertically or horizontally to clear bathtubs, showers, toilets and sinks.

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