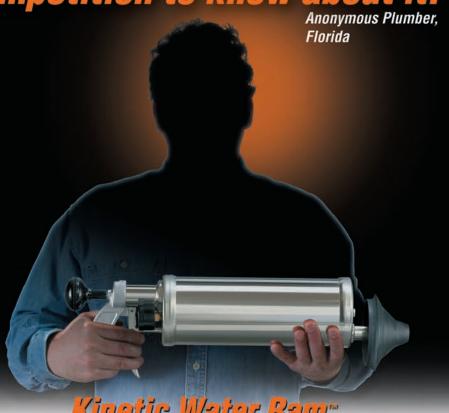


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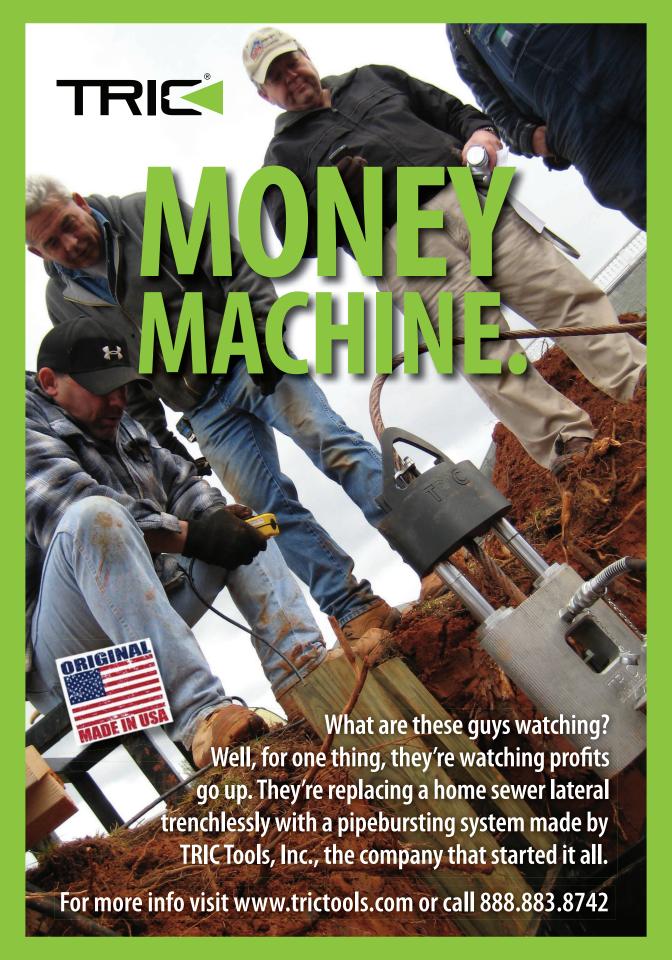


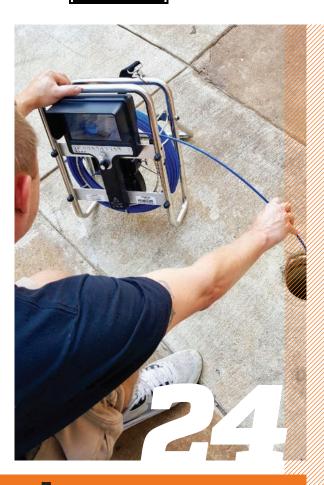
General PIPE CLEANERS

The toughest tools down the line:



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Vision Quest

Less-expensive inspection camera yields big benefits for Texas

- By Ken Wysocky



On the Cover

Stegle Plumbing plumber Josh Schlenker places a waterline in the ground with Jeremy Stegle behind him removing soil with a compact excavator (Kubota) at a job site in Anna, Illinois.

Photography by Andrew Whitaker

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FROM THE EDITOR



Cory Dellenbach

Get SMART

Revamping the way you do goal setting for your company can help it grow in the new year

he end of 2017 is here. How did your business do this year compared to the goals you set at the start of the year?

Right now is the perfect time to take a look back and evaluate.

Setting goals can be tricky. According to a survey by CNBC and SurveyMonkey in August 2017, more than 80 percent of 300 small-business owners say they don't keep track of their goals, and 77 percent had yet to achieve their companies' visions.

Establishing goals involves a fair amount of observation into what makes your business tick and what you want its future to be. Devoting the necessary time to that can be difficult, but your goals will be more achievable and effective if you do.

Establishing goals involves a fair amount of observation into what makes your business tick and what you want its future to be.

If you failed to meet all or some of the goals this year, is it because they were unrealistic? Here are a few S.M.A.R.T. attributes to consider as you set goals and examples of each:

- **Specific** Be clear about what you want to accomplish. *Example: I will gain 10 new customers.*
- Measurable Make sure progress can be quantified so you can recognize whether you've met your goal. Example: I will measure my progress by keeping track of how many new customers I gain while maintaining my current customer base.

- Achievable Check that you have the time, money
 and resources to meet the goal you've set. Example:
 I will gain 10 new clients as I currently have available
 space in my schedule with my new plumbers on staff.
- **Relevant** Ensure your goal is relevant to the direction you want to take your business. For example, increasing profit or employing more staff. *Example:* Adding customers will allow me to grow my business and increase my income.
- **Timely** Set a realistic deadline. *Example: I will have 10 new customers within three months.*

Take these steps, sit down and plan out your goals for the upcoming year. Get your employees involved in goal setting. Find out what they want to see from the company. You never know, they could have great ideas — maybe better than your own.

GOING GREEN

As the new year approaches, customers will be looking at their finances and trying to find ways to save. They'll buy energy-efficient appliances, hybrid cars and anything else that will help them save money in the long run.

Why not give them even more options? In the Product Focus feature in this issue, you'll see many pages of efficient and green plumbing products you can offer.

HOW WAS 2017 FOR YOU?

I would like to know how this past year was for you and your company. Did your business grow, or did you add services? Email me at editor@plumbermag.com, and tell what 2017 was like.

Enjoy this issue!





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THIRD-WORLD PLUMBING

Community Plumbing Challenge Brings Much-Needed Upgrades to Indonesian School

The Community Plumbing Challenge is a program organized by the World Plumbing Council and the International Association of Plumbing and Mechanical Officials that brings together plumbers and engineers from around the world to work on projects in regions that still struggle with basic sanitation and safe drinking water access. In early November, the Community Plumbing Challenge team tackled its third project at a school in a small village in Indonesia. Read more about the program in this online exclusive, then check out the daily blog one of the team's coaches maintained during the week the group spent in Indonesia.

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OVERHEARD ONLINE

"A subtle shake up to business as usual can vield significant results." Even if an improvement only saves you 10 minutes each day, that's close to an hour each week that you can use more effectively."

- Small Daily Improvements Create More Efficient Operations

INDUSTRY PRIDE

Plumber Explains Why He's Proud To Be a Tradesman

An aging workforce without an influx of young people is a chronic problem across the industry. Anthony Pacilla's company, McVehil Plumbing in Washington, Pennsylvania, is one of those many companies that has struggled recruiting the younger generation into the business, partly because of a perception that plumbing is "dirty" work. It inspired Pacilla to write this piece — an essay on what it means to him to be part of a legacy of tradesmen.

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STORM RECOVERY

Puerto Rico Plumbers Deal With Heavy Workload After Hurricane Maria

In late September, Hurricane Maria tore through Puerto Rico, one of the most devastating storms to ever hit the island. Water infrastructure bore a lot of the brunt of that hit, so plumbers were particularly busy in the days and weeks following the storm. Read about the post-hurricane experiences of a few of Puerto Rico's plumbing firms.

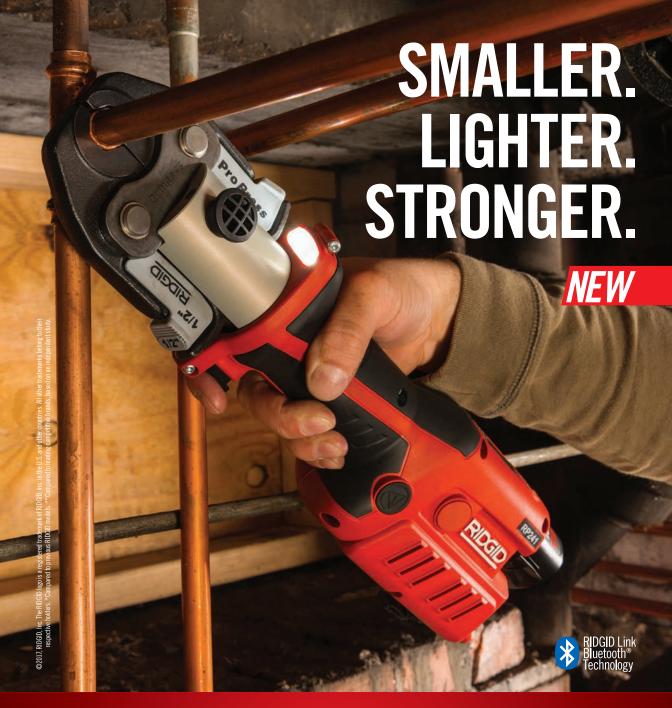
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s Jeremy Stegle gained his experience as a plumbing technician, he knew he wanted more: to become a licensed plumber, have his own company and make it a successful one.

Following advice he received from local plumbing inspectors, the young entrepreneur checked into the union apprentice program with Plumbers & Pipefitters Local 160 in Illinois and decided it was time to start on his goals.

"I had great training and experience with the apprentice program," Stegle says.

By 2011, after five years of study, Stegle had his journeyman license, was ready to set off on his own, and opened Stegle Plumbing, based in Anna, Illinois. His plan was to provide a complete range of services.

The goal was to go after the residential service and repair market, which is essentially the bread and butter of the business now, but he also saw an opportunity to do light commercial work because of the several industrial plants in the area. The company also provides services for the rental home community, area state parks, water districts and similar facilities. Additionally, they have picked up business in remodeling as well as new home and commercial construction.

THE FOUNDATION

The first order of business for Stegle was to find a place to operate out of. He purchased a 7,500-square-foot commercial building that featured a 2,400-square-foot living space, with the balance for shop and storage. After updates, the facility now includes a 500-square-foot office. The building is on 3 acres of a main road with good visibility just outside Anna.

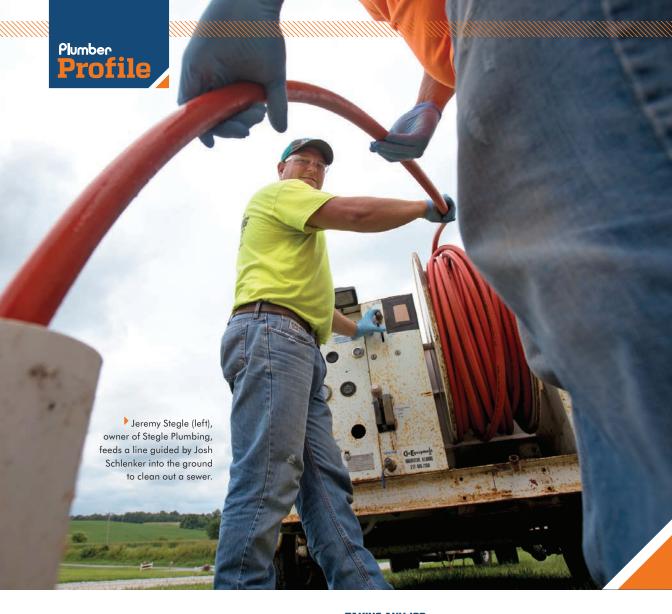
Stegle has elected to run his company as a union shop, saying there are advantages to operating that way, such as more opportunities to bid on major projects and additional help available if he needs it. "When I have a bigger project and I need more manpower, I can get the experienced help I need by going to the union for plumbers," he says.

Stegle adds that if he has a large contract and would need long-term help, the plumber sent by the union hall

66 When I have a bigger project and

I need more manpower, I can get the

experienced help I need by going to the union for plumbers." Jeremy Stegle KUBOTA Jeremy Stegle (left) uses a Kubota compact excavator to remove soil for a waterline while plumber Josh Schlenker (center) and plumbing assistant Jackson Boyd place the line in the ground.



would essentially become his employee for the duration of the job. "They would essentially become employees of Stegle Plumbing," Stegle says. "We would pay into the benefits package through the union hall."

Along with Stegle, the company currently has one journeyman plumber and a third-year apprentice. They travel a radius of about 35 to 40 miles for residential service but will go up to 60 miles for a commercial customer or new construction.

Stegle estimates they do about 60 percent residential service and repair, with 40 percent in their other customer base — municipal, remodel and new construction.

The company is well-equipped with their fleet consisting of a 2005 Chevy Express cargo van, a 2006 GMC 3500 service truck, and 2009 Ford cargo van. They also have a 2002 International 4300. Other equipment also includes a Bobcat 331 trackhoe, Ditch Witch trencher and a trailer jetter from Aquatech, a product of Hi-Vac Corp.

TAKING ANY JOB

Stegle says the company will never turn down work, and that is evident is some of the jobs the company has undertaken. A local farmer who wanted hydronic heating installed in his barn approached him with the job. The temperatures in the area can go from 30 degrees F one day to 70 degrees F the next, and for seed storage, the idea of in-floor heating is challenging.

"We went down and looked at his project and the size of the building and how he wanted to zone it," Stegle says. "We had three different zones: one for the office, another for the shop and the third for storage. It was about a 7,000-square-foot building."

Stegle went to his plumbing wholesale supplier — Winnelson Co. — with the job. He says he often goes to them when making business decisions on new tools or equipment. "With the information we had, Winnelson sized it for us," Stegle says. "They did the dimensions accordingly and with the proper pump size and manifold size."

- Stegle Plumbing's Josh Schlenker assembles a hydrant that will be installed at a job site in Anna, Illinois.
- Jeremy Stegle, left, and Josh Schlenker check out the pipes and the flow of water inside the concession stands at the Anna City Park after completing some water work before the Union County Fair.

Crews laid the pipe in on top of the Styrofoam and the mesh and mettle, and then the concrete was poured. "When the building was about completed, we went back and hooked up our pumps and the system, and we had heat," Stegle says.

The farmer recommended Stegle Plumbing to other farms in the area, and the company picked up similar projects. One was a barn of about 4,000-squarefeet, and the other was a 3,000-square-foot barn.

On each of the jobs — including one currently being worked on at a 3,000-square-foot home with an accompanying barn — Stegle uses equipment from Watts Radiant and pipe from a local HVAC contractor.

"It is such a new system for our area," Stegle says. "People are not educated on this, but we are educating local contractors and hoping that they suggest this in some cases as an alternative heating source."

Stegle says that when they are working with a client on a custom home, they will work directly with the homeowner when it comes to selecting faucets and other fixtures. As a subcontractor, those decisions may have already been made. "We have developed a group of contractors we've worked for in the past, and this has resulted in some business that has not involved competitive bidding," Stegle says.

Stegle staff will make recommendations when appropriate as to a manufacturer. "We will typically recommend products by Delta," Stegle says. "In our area, we have the availability of parts for their products."

They also use fixtures from Kohler Co. and American Standard. Stegle keeps a substantial inventory of parts and fixtures in their facility; however, he points out they are fortunate that there is a supply house just five miles away and another one at 30 miles distance, so availability of parts is not a problem. He estimates they may have about \$10,000 in parts on site.

MORE THAN JUST RESIDENTIAL

Stegle Plumbing has taken on more than just the residential work, finishing several recent commercial projects as well.





Upgrading the tools

Jeremy Stegle says that when he started Stegle Plumbing, the smartest thing he did was to make sure he did not overextend himself in the purchase of tools.

"Kristen and I thought a lot about this and knew we would be better off with some secondhand equipment to get started," says Stegle, owner of the plumbing company based in Anna, Illinois.

Over time, Stegle has upgraded tools to serve customers' needs.

One of those tools the company purchased is an Aquatech trailer jetter and a camera built by Pro-Built Tools.

Stegle knew he need drain cleaning tools to be able to help unclog drains. Having the right tools has helped the company gain and keep more customers.

"We have extended into better tools for different jobs," Stegle says. "The newer jetters have done extremely well on major projects for municipalities, where we have longer lines that we can reach with the 500-foot hoses."



interact with people, and I find we get a lot of customers — and new customers who contact us through the social media. This has been a great way for us to interact with the community."

Kristen Steale

A recent commercial plumbing project as a subcontractor was a 3,500-square-foot building for a church. Included in the job was an 800-square-foot commercial kitchen where Stegle's staff installed a triple-compartment sink, a hand sink and commercial dishwasher. They also plumbed the ADA restrooms.

Another major commercial project was the local Chevrolet sales building where they brought existing restrooms up to ADA requirements by making the 6-by-6-foot room into an 8-by-8 and replacing lavatories with wall-hung units and new ADA toilets. Urinals were also added. The new break room required a new sink and coffee bar.

For commercial work, the company bids all fixtures

included because these must typically be ADA-compliant.

Beyond commercial, the company also has a preventive maintenance contract with one of the state parks where they jet out the main sewer line every year. In one instance, they were called in to jet an 8-inch sewer line going into a lagoon, which they had drained. When crews put the camera in, they found the line had collapsed. A new 8-inch PVC line was installed after removing the ductile iron pipe with the hole in it.

HAVING SUPPORT

One big part of Stegle Plumbing's success is the support Stegle has in the office and the advertising the company does.

Stegle married six months after opening the shop, and his wife, Kristen, is now an active partner with her husband in running the business side of the operation. Kristen handles scheduling of the jobs, bookkeeping, preparing of the bids and the promotional efforts of the company.

"We have done the telephone directory, of course, but also ads in the local newspaper. And we are doing some radio advertising as well," Kristen says. "We've had magnets put on the telephone directory, and we sponsor various sports activities like soccer teams and baseball teams for the children in our town."



Social media has also amped things up for the small company.

"This has really grown into a way to interact with people, and I find we get a lot of customers — and new customers — who contact us through the social media," Kristen says. "This has been a great way for us to interact with the community."

Another asset to this operation is the word-of-mouth promotion that has been generated by family and friends who live in town and helped to spread the word about the enterprise. Plus, they have generated trust of their work and work ethic.

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The Never-Ending Cycle

Knowing when to replace your service truck is a tricky equation to figure out, even for experts **By Giles Lambertson**

ome quests are quixotic, such as the never-ending search for a fountain of youth. Others are more realistic but perhaps just as unlikely to be realized. Among these is the desire of fleet managers to know precisely when to replace a truck. Dream on.

"That is the \$64,000 question, isn't it," says Ricky Skeen, owner of Skeen Plumbing & Gas in Ridgeland, Mississippi. The company has been plumbing homes and businesses in the Jackson area of the state for more than a quarter century, beginning with a single truck and now running a fleet of 11. The trucks range from a light delivery van to Chevrolet Kodiak 4500 2-ton rigs pulling enclosed trailers for drainpipe projects.

Skeen is an affable man who makes light of his "system" for culling trucks from his fleet. "I ask myself, 'Do I want to spend any money this year?" he says with a laugh. More

seriously, Skeen says it took years of trial-and-error management of his trucks before he began to arrive at a system. In truth, he is still somewhat less than systematic in evaluating his rolling stock.

"We used to swap out a truck after five years, but we didn't do that the last time around," he says and suggests

that the age of a truck no longer is a factor in the decision. "We do depend on mileage to a degree. When a truck has mileage in the 130,000 to 150,000 range, we look at it pretty carefully." He says he has never kept a truck around for 200,000 miles.

\$\$ We used to swap out a truck after five years, but we didn't do that the last time around.

We do depend on mileage to a degree."

Ricky Skeen



In the end, it comes down to analysis of an individual truck's appearance and mechanical condition. Skeen's rule of thumb is this: When a truck is looking "raggedy" or is beginning to require extra mechanical attention, he scrutinizes it and estimates the cost of making the vehicle whole. "If you have to spend \$3,000 to \$4,000 to get it back to par, that might be OK. But when you reach an estimate of \$5,000 to \$6,000, that's too much."

MILEAGE COUNTS

Owen McCloskey is a tad more systematic in rotating trucks out of The Waterworks fleet. McCloskey is fleet manager for the Columbus, Ohio, firm, which has been providing plumbing, sewer, and drain services in and around the state capital since 1935. Its truck replacement system is wedded to mileage.

"After 130,000 miles, we do a full appraisal," McCloskey says, "including the transmission, rear-end, motor, whatever." If a truck is appraised as a mechanical risk, it is sold outright. If it seems sound, the truck continues in service but a follow-up appraisal is scheduled for 20,000-30,000 miles further down the road. Unless it is an exceptional vehicle, a truck usually is sold at that point. "These trucks are apt to be on the road 24/7, and they rack up the miles. You get much beyond 150,000 miles, it becomes problematic about putting money in a high-mileage truck."

A corollary system at The Waterworks is based on appearance. "The trucks have to look good," the fleet manager says. "They are a rolling advertisement, carrying

44 The trucks have to look good. They are a rolling advertisement, carrying logos the full length of a box and on the back. with Twitter information and everything. So when a truck starts to look had on the outside, we check the mechanical condition and decide whether we should invest in redoing the logo."

Owen McCloskey

logos the full length of a box and on the back, with Twitter information and everything. So when a truck starts to look bad on the outside, we check the mechanical condition and decide whether we should invest in redoing the logo." When the mechanical condition on one of these trucks is only slightly problematic, logos sometimes are refurbished and the truck is kept as a backup unit for when a front-line vehicle goes down. The Waterworks fleet numbers more than 50, most of them gasoline-powered Chevrolet 1-ton vans and 1-ton boxes. The fleet is transitioning to new Ford Transit vehicles, offering better fuel economy and greater operator comfort.

McCloskey says the company's strong relationship with Ford and Chevrolet dealerships in the area helps management in its decision-making on high-mileage trucks. He gives the example of a transmission warranted for 100,000 miles that goes out at 112,000 miles: The dealerships tend to work with the company to adjust the cost of the not-quite-covered repairs, which mitigates some of the sting of having hung on to a truck too long.

GOING SECONDHAND

The truck fleet of Silverado Rooter & Plumbing is operated and maintained under a different set of criteria. That's because the market for the Pima County (Tucson), Arizona, plumbing company is lower than, say, in more affluent Phoenix and Maricopa County. Consequently, Silverado Rooter & Plumbing solely buys used vehicles and operates a full-time mechanical shop to keep them running.

Ricky Skeen, owner of Skeen Plumbing & Gas in Mississippi, looks at mileage, age and appearance of the trucks to decide if the time is right to replace them. Figuring out when to replace a work truck can be a tough thing to do for many plumbing contractors. (Photograph courtesy of Skeen Plumbing & Gas)



The fleet is comprised of numerous truck brands — pretty much whatever is discovered on a used vehicle lot. "If we find a really good deal on a truck, we buy it," says Kasey O'Connor, manager of Silverado Rooter & Plumbing. The company's 23 trucks include pickups, vans and box trucks.

He says company owner Art Cake did the math and decided to go the secondhand route in building out his fleet. "We're not really a rich city. We don't have the pricing found in more competitive communities."

Silverado Rooter & Plumbing vehicles obviously start out with more mileage than if the fleet were stocked with brand-new vehicles. It follows that mileage is not a major factor in replacing a truck. The company maintains "a really good balance sheet," according to O'Connor, so any truck that suddenly requires an expensive fix is more apt to be replaced. "If we have an \$8,000 truck and a transmission needs to be replaced at a cost of several thousand dollars, we'll just buy another one instead."



FINDING AN EXPERT

Fleet management experts aren't much help in finding a magic formula for squeezing the maximum mileage out of a plumbing truck before disposing of it in the nick of time. There are too many variables — too many moving parts — for such a formula.

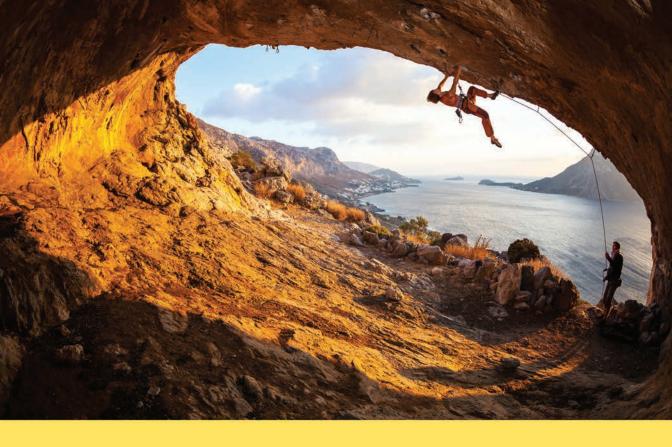
There is a movement among management experts to evaluate a truck by its operating costs rather than by its mechanical condition, which makes sense except when a transmission implodes without warning and then it's all theoretical. Consumer Reports says the average life expectancy of a new vehicle — read: car — is 150,000 miles, but fleet managers have lots of experience with trucks and cars that conk out long before the odometer registers anywhere near that many miles.

USING TELEMATICS

In all of this, a truck's propensity to surprise is the big unknown. However, fleet managers can reduce the element of surprise by keeping closer tabs on their rolling stock. One tool they have to do this is telematics. The software lets a fleet management office monitor engine stresses in real time and diagnose the need for unscheduled maintenance. Yet, it is evident that some plumbing companies rely minimally on telematics in tracking the health of a fleet.

That seems to be part of a wider disregard for the technology among fleet managers. "Most of my clients either do not use the maintenance tool on their telematics or do not reference the tool when they ask us about maintenance," says Eric Warren, owner of Richland, Texasbased Classic Fleet Management. He says his company regularly contacts clients about mileage on their trucks as part of the company's preventive maintenance program, and that might explain their failure to use telematics in looking after their trucks. Even so, ignoring the telematic maintenance tool seems to be an oversight.

Or it might just be that new-fangled diagnostic systems aren't any better than old-fangled ones in predicting when trucks are going to give out. Managing a truck fleet still can be as much art as science. Skeen acknowledges this reality. "You can hang onto something too long and if it breaks down, you are behind. But where exactly the point is to let a truck go, I don't know. I just know when a truck rolls in and something is clanging, then it's time to trade."



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Tips for Marketing Your Plumbing Business

Current trends combine traditional methods and the latest technology to increase clients and profits By Brenda Silva

hen marketing a plumbing business, many owners choose advertising based on their available budget, confident whatever they can afford will ensure a steady flow of new customers. However, current marketing trends among plumbing companies are moving away from banners and brochures to options that often cost less money and offer a much greater return on investment.

At O'Connor Plumbing & Heating, located in Germantown, Maryland, marketing begins and ends with building a great brand and reputation. Kevin Walker, manager of the Drains Division, pointed out the advantage of having a strong brand when marketing your company.

44 A reputation can make or break a company, so we focus on building a strong brand." Kevin Walker

"We don't spend a lot of money on marketing. We prefer traditional word-of-mouth to get our name out there and build relationships with our customers that way," Walker says. "Building a strong brand that customers can rely on is what it's all about with us. And this has worked really well as more people hear about us and use our services.

"A reputation can make or break a company, so we focus on building a strong brand. Then, we get it out there and let it work for us, instead of using flyers to try to convince people we're good at what we do."



▲ Pacific Drain & Plumbing service technician Ryan Colgan preps a new water heater for installation in a client's driveway. The California-based company relies on word-of-mouth when it comes to marketing the business. (Photography by Collin Chappelle)

RELYING ON CUSTOMER REVIEWS

Because many plumbing companies are family-owned, tradition often plays a big role in how things are done, including reliance on word-of-mouth marketing techniques. Just as good customer reviews are said to be priceless, they have actually become real profit for some businesses on the West Coast of the country.

At Pacific Drain & Plumbing, located in Vista, California, marketing efforts rely heavily on posted customer reviews, with the reward for their efforts being increased new business.

44 No matter what site you choose, push to get good reviews posted because they will set you apart in the industry." Rov Gallegos



Roy Gallegos, general manager, says the company relied on word-ofmouth for years as a way to attract new business while building their reputation for great service and quality work. However, this method eventually reached a plateau, becoming less effective over time at bringing in new clients. While researching alternative marketing methods, Gallegos decided to try Yelp, which resulted in a dramatic increase in business.

"In my research, I found people on the West Coast use Yelp reviews for everything, with online reviews dictating a company's reputation versus the other way around. So, every time we have a satisfied customer, we ask them to post a review, which increases our overall value to people. As the result, we've seen an increase in business of over 10 percent since we've been using Yelp, and we probably get 40 to

60 calls a day based from people reading our Yelp reviews. We also have a following on Facebook that helps, too."

Gallegos also found that as popular as Yelp is to people on the West Coast, it's used much less on the East Coast, where the favored choice for looking up reviews online is Angie's List. "No matter what site you choose, push to get good reviews posted because they will set you apart in the industry," Gallegos says.

ALL FORMS OF MEDIA

Also using social media for marketing is Doyle Parsons, owner of Parsons Plumbing, Heating, & Cooling, located in Bell, Louisiana, who increased business by paying attention to area-specific trends.

"Around here, we encourage word-of-mouth among our customers and also ask customers to leave feedback online after we provide service," Parsons says. "Facebook and our reviews have helped us increase business, but Yelp really hasn't taken off around here — nobody really uses it."

Parsons has also been using radio and television to attract new customers. The company has commercials that run on eight AM/FM stations as well as two local television stations. As a way to further enhance his business, one of the television stations allows local businesses to come on a talk show called "Love the Locals" once every quarter.

In addition, Parsons takes advantage of seasonal marketing promotions, including a recent contest that encouraged radio listeners to submit entries for the oldest AC unit with the winner having that unit replaced at no charge. The contest received over 250 entrees, and Parsons said he would consider doing something similar with heaters in the winter for more marketing.

"We also chose to be a sponsor for the renovation of a local Colosseum where there will be a lot of sporting events, which allows our name to be seen on scoreboards, screens, murals, etc., by hundreds of people at any one time," Parsons added.

Another company that has seen the value of radio and digital media reflected in its bottom line is Matt Mertz Plumbing, located in Wexford, Pennsylvania. Owner and President Matt Mertz explained what works best for his marketing needs.

"We tried Angie's List, which works good, and we also tried cable television spots, which didn't work as good," Mertz says. "For us, radio ads work really well, as well as direct mailings to targeted zip codes to bring in new customers."

Matt Mertz Plumbing earmarks a monthly budget for radio advertising, with commercials providing a worthy return on investment. In addition, Mertz targets areas with aging infrastructure — versus new construction areas as a way to market himself with direct mail campaigns to acquire new customers.

"My business is my life, and with 42 people on my staff, I have their futures to consider as well," Mertz says. "This is one of the reasons I'm always looking for new ways to get my name out there — so we can all be successful in the future."

When it comes to marketing for plumbing companies, it seems no two businesses or budgets are exactly alike. However, they all share one common goal: the desire to keep hard-earned profits from going down the drain, which is now a much easier goal to attain thanks to a range of innovative marketing options.



Vision Quest

Less-expensive inspection camera yields big benefits for Texas plumbing outfit By Ken Wysocky

or years, Alex Cavazos and Edward James relied on subcontractors to do camera inspections for their San Antonio-based company, AE Plumbing, which is named after the owners' first name initials.

"It was frustrating because we were losing out on business," says Cavazos, who founded the company with James in 2013. "So we saved money to buy a camera."

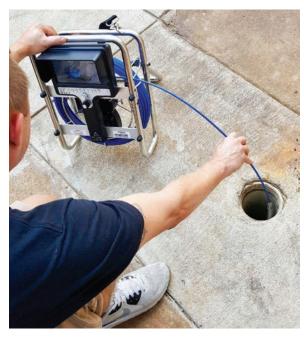
As a two-man outfit managing a relatively young business, making such a significant capital investment was a big step. But while looking at options two years ago, they discovered a machine that gave them a lot of bang for their buck: A C100-512SL pipeline camera inspection system made by Trojan Worldwide.

The main attraction? A low price — \$1,995 — coupled with an array of options normally associated with much more expensive units. "The price really caught our eye," Cavazos says. "Other cameras we looked at cost double, triple or even four times as much. Plus, it seemed like it had everything we needed. It was a great value."

The machine, which is designed to inspect 1 1/2-inchto 5-inch-diameter lines, comes with a 1-inch-diameter, self-leveling, waterproof camera head with adjustable LED lights. Other standard features include a 7-inch LCD monitor with a visor to prevent screen glare, a 512 Hz transmitter, built-in foot counter, 115-foot pushrod cable, built-in battery with seven-hour life, built-in microphone for voice recording during inspections, and SD card recording capability.

In addition, the unit weighs just 16 pounds (22 pounds with its protective case, which is included as a standard item), which makes it easy to transport. It also takes up very little room in service vehicles, and its collapsible back legs allow it to be used standing vertically or horizontally (laid on its back). Moreover, it comes with a one-year warranty.

The unit has been a game changer for AE Plumbing. The first time Cavazos used the machine, it did exactly what he expected: revealed a section of broken sewer lateral that led to a pipe replacement, which generated much more revenue



 Edward James, co-owner of AE Plumbing, uses the C100-512SL pipeline inspection camera system (Trojan Worldwide) to inspect a drain at a customer's home in San Antonio.



COMPANY **AE Plumbing**

LOCATION San Antonio

Alex Cavazos and

Edward James

MACHINE C100--512SL pipeline

> inspection camera system made by Trojan Worldwide

FUNCTION Inspections of residential

sewer laterals

FEATURES Self-leveling, waterproof

camera head with adjustable LED lights; 7-inch LCD monitor; 512 Hz transmitter; built-in foot counter; 115foot pushrod cable; built-in battery with seven-hour life; built-in microphone for voice

recording during inspections; SD card recording capability

About \$1,995



than a simple drain cleaning job.

"The inspection showed tree roots coming through the pipe," he recalls. "It worked great. Before, we could try to clear it with a cable. And without a camera, you'd have to dig down to see the problem. So this definitely cuts down on time (required for diagnosing problems)."

Moreover, by charging an extra fee for camera inspections, the company developed a new revenue stream that quickly paid off the initial cost of the camera. In addition, the camera gives the duo greater control over workflow because they're not forced to wait for a subcontractor to come and do an inspection for them, Cavazos says.

"We were a little surprised that a camera at that price has so many features," Cavazos notes. "The self-leveling head, for instance, is great. No matter which way the camera moves and bends, the picture on the monitor always is level. And the clarity of the picture is good, too.

"We've also had no problems with cable breakage," he adds. "We've put this camera out a good 75 feet and it still pushes the camera head out just fine. Some cables start to bend and aren't sturdy enough to keep pushing the camera head out, but not this one."

Cavazos says the SD-card feature improves customer service by giving them the capability of providing photos and/or videos to customers, either by downloading the images/video and emailing them or giving them the flash

The camera has definitely brought us more business — helped us get jobs we couldn't get before — and generates more revenue." Alex Cavazos

memory card to plug into their computers. "Customer really appreciate that," he says.

The camera also provides a less-tangible but very important benefit: It portrays AE Plumbing as a modern, professional plumbing outfit. That's important because most of the company's business comes from word-ofmouth referrals, and looking and acting professional and providing efficient service drives those referrals, he says.

"The camera has definitely brought us more business — helped us get jobs we couldn't get before — and generates more revenue," Cavazos says, noting the company also owns a Trojan Worldwide drain cleaning machine. "For customers, seeing is believing, and with video and photos, they can see what the problem is and what it takes to fix it.

"It's definitely a plus for customers," he continues. "It was a very significant investment for our company, but it has definitely paid off."



An Experience to Remember

An excellent customer service plan is behind everything South Carolina's Love Plumbing Air & Electrical focuses on By Irwin Rapoport

ammy Ferris began her career with Love Plumbing Air & Electrical in 1987, six years after Gene and Kathy Love founded the company. Over the past 30 years, Ferris has worked her way up from her starting dispatcher role all the way to owning the company.

The company, based in Columbia, South Carolina, has become a major plumbing-contracting firm in the residential market, doing \$4.5 million in sales annually and growing to 28 employees.

A licensed journeyman plumber herself, Ferris has made it a point to understand all aspects of the business — from delivering quality service to having all the elements in place to deliver those services, promoting the growth of the company, and bringing together a strong

team that sees the big picture, which is needed to provide the best service possible to retain customer loyalty and create goodwill.

Being innovative and state-ofthe-art are important to Ferris, and this includes introducing new products and services to the market, such as 24/7 emergency services and fixed, upfront pricing.

O. How does being a local company and a proud one make a difference in winning customers and public trust?

FERRIS: We have always focused on our customer first. When we first started in 1981, we were truly one of the only plumbing companies that would actually come to your house in the middle of the night. We believed that we should be there when you needed us. Then, we looked at our trucks and decided that we needed to have fully stocked vans so we had what we needed and didn't have to leave your job for parts. Back then, most companies just drove pickup trucks.

We continue that thinking today — what can we do to make ourselves a trusted partner to our customers? We leverage technology as much as we can so that we can respond quickly and safely to their needs. We are always looking at how to make a difference in every customer's day. We want our customers to love what we do for them.

That is one of the reasons we are in all three trades now: so that our clients have one company to rely on for the three main home services — plumbing, electrical, heating and air. Continued N



One of the trucks in use by Love Plumbing Air & Electrical in Columbia, South Carolina. (Photos courtesy of Love Plumbing Air & Electrical)

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Tammy Ferris is the owner of Love Plumbing
Air & Electrical after starting as a dispatcher for
the South Carolina company in 1987.

Our biggest investment overall is in people, We invest heavily in great benefits and training for our employees."



Q. The Columbia residential plumbing sector is a tight one — what do you do to stand out, retain existing customers, and attract new clients?

FERRIS: Our image is a bit different than a lot of other companies. We don't focus on licensing, though we hold all of the required licenses and insurance, and we don't focus on tools in our imagery. We focus on making the home comfortable and secure. We really stand out after we get the customer to call us. We show up, we are friendly, we do a thorough evaluation of the home, we listen, and then we give the customer options so that they can decide what is best for their lifestyle and budget. We work hard to make sure the customer is satisfied afterward and that our work is of high quality.

Q. How is the focus on your sectors working out, what kind of growth are you experiencing, and what do you anticipate for future growth?

FERRIS: Our biggest area of growth currently is in our HVAC division. In the first half of this year, we have seen about an 8 percent increase in growth and we are just into our season. I am expecting upward of 12 percent this year and 12-15 percent in 2018 in that department, which is our current focus.

In plumbing, our growth has come slower over recent years because we are already very well established as a plumbing company in our community. To capitalize on that strong customer base, we have added additional service offerings like sewer and drain clearing and replacement.

Q. How would you describe your management style, and how does it help with your company's success?

FERRIS: I believe in transparent management. My staff is updated quarterly on the financial temperature of the company. My door is open to any employee. We spend a good majority of our time here, so I want it to be a place of open doors — a place where we respect, care about and help each other, and a place where we encourage growth and development. Our core values are that we love people, love

to win, love to do the right thing, love consistency and detail, and love to grow.

We hire around the core values. We also have a faith-friendly environment at the company. My faith is important to me, and I want to create an environment where what you believe in matters and it is okay to bring that to work with you. We have a grateful board and a prayer board. We start each meeting with the Pledge of Allegiance and prayer. These are things that matter to me.

Q. What kind of investments do you put into the business, and how does that pay off?

FERRIS: Our biggest investment overall is in people. We invest heavily in great benefits and training for our employees. They are the front line, and we need to be sure they have the skills and the tools they need to succeed when they face the customer, whether that is an inside call center rep or a service technician. We also invest a great deal in marketing. The game has changed so much over the past 10 years. It's not like it used to be when you just put a bigger ad in the Yellow Pages and the phone rang. We are always exploring the latest marketing strategies. We employ a marketing director who I work closely with to create effective longrange and short-term strategies and tactics to reach our existing and potential customers.

Q. How do you maintain a solid and effective workforce?

FERRIS: We have a full-time employee who looks for and attains talent for us. It's not easy — the skill gap is real, so we have to be a workplace where people want to be. Having core values to focus on when hiring is important. We have learned to hire slowly. Attitude is important, not just skill, so we invest in training — lots of it.

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love and respect for each other. We have fun when we can — we laugh and joke — but we put the needs of the customer first. We serve people. That's what we do here.

Q. What type of investments do you make in employee satisfaction, employee training and skills updates?

FERRIS: We are members of the Nexstar Network and, through that association, are fortunate to get top-notch training. Everyone gets training in technical and soft skills. I believe in continually learning, continually growing, and I never view training as an expense, even when I train people who leave — which does happen!

Q. What type of investments do you make in terms of vehicles, tools and other essentials?

FERRIS: We work with Enterprise leasing to keep our fleet as current as is financially prudent. Our trucks are wellstocked, and we make sure employees have the proper tools to do their jobs. We supply them with the latest technology around and software as well — iPads, ServiceTitan, etc. so that they are efficient in the field and the customer gets the best experience.

eason's Greetings with all good wishes for the New Year. YOUR FRIENDS AT COLE PUBLISHING

O. What lessons have you learned, and how have you applied them? How important is it for you to be innovative and, at the same time, retain the values and principles that contributed to your success?

FERRIS: Lessons learned — that's an entire book! But I would say that the biggest lesson is the huge importance of having the right people in the right seats of the bus. We haven't always done that, and when the mix is wrong, business is harder than it should be. Investing in and trusting the right people is key.

Principles and ethics are extremely important to me. Ethical profits are how I want to run my business. I would never ask any of my people to get close to an unethical line. It's just not worth it. We love to do the right thing — always — even if it costs us on the bottom line.

O. Do vou occasionally participate in on service calls?

FERRIS: Not currently, though I have in the past. I am a licensed plumber and started out as a helper on a truck before I was hired in the office 30 years ago.



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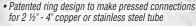
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By the Book

Contractor provides a CIPP solution for an Illinois high school's sewer odor problems By Scottie Dayton

trong sewer odors permeating Franklin (Illinois) High School triggered complaints to Darrin Seymour, maintenance superintendent. He knew the problem stemmed from cracks in a 6-inch ductile iron main. The 205-foot-long pipe hung in a utility corridor beneath the main hallway, but most of the line was under 4 feet of backfill. Searching for rehabilitation options on the internet led Seymour to SLB Pipe Solutions in Bedford, Indiana.

"The situation was bad," says SLB Pipe Solutions co-owner Eric Spreen. "We pushed our RIDGID SeeSnake upstream through the 6-inch clean-out in the boiler room but couldn't see much. The line was so occluded that forward progress stopped at 100 feet, and we had to guess at the rest."

Working after hours, Spreen's team used CIPP from Perma-Liner Industries to successfully rehabilitate the oldest main in the original section of the school.

The situation was bad. We pushed our RIDGID SeeSnake upstream through the 6-inch clean-out in the boiler room but couldn't see much. The line was so occluded that forward progress stopped at 100 feet, and we had to guess at the rest." Eric Spreen



- ▲ John Thomas from SLB Pipe Solutions prepares to pour the hot resin mixture into the 6-inch liner while SLB Pipe Solutions co-owner Joel Langebartels steadies the receptacle. (Photographs courtesy of SLB Pipe Solutions)
- Clint Spreen (left) and Eric Spreen from SLB Pipe Solutions roll out 103 feet of 6-inch liner in the main hallway.





Clint Spreen of SLB Pipe Solutions rolls the wetted liner into the Perma-Liner inversion tube.

PROJECT Eliminate sewer odors CUSTOMER Franklin (Illinois) High School SLB Pipe Solutions, CONTRACTOR Bedford, Indiana 6-inch liner. **EQUIPMENT** Perma-Liner Industries LLC, 866/336-2568. www.perma-liner.com RESULTS Odors gone, flow restored

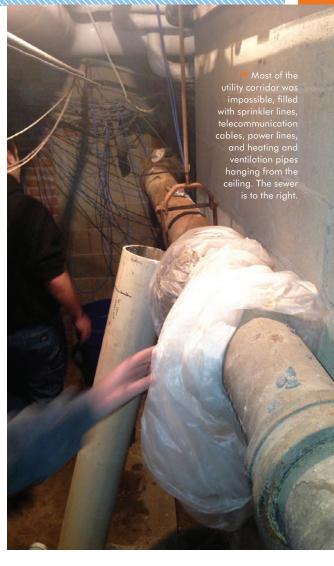
CLASSIC CURRICULUM

Seymour hired Rooter-Man/Sani Systems in Modesto to clean the line. Technician Dave Buhl used a trailermounted O'Brien 3515 sewer jetter with 400 feet of 3/4-inch hose, a 15 gpm/3,500 psi pump and two AquaNOZ nozzles from Arthur Products Co.

Beginning at the manhole in the parking lot, Buhl jetted upstream at 2,500 psi using one nozzle with forward and rear orifices and another with just rear jets. At 50 feet, Buhl hit a straight tee leading to the boiler room clean-out. After moving the jetter to the service door, Seymour and the SLB Pipe Solutions crew helped pull the hose inside and guide it around corners to the clean-out.

"It was the middle of December, so I was very happy to come in out of the cold," Buhl says. "The pipe had so much debris that it took seven hours to clean 152 feet upstream from the clean-out. The effort plumb wore me out."

Meanwhile, Spreen's crew brought in the lining components and covered the main corridor's floor with plastic. The four of them made a dry run carrying the inversion unit down two flights of stairs and rolling it 100 feet into the boiler room.



"That familiarized us with how we had to negotiate the stairs and not lose control of the unit, which weighed 200 pounds less without the liner," Spreen says. "Once we began mixing resins, we had 45 minutes working time."

When Buhl finished at 11 p.m., the team laid out the 102-foot liner and impregnated it with hot resin using 100pound laminate floor rollers. The labor-intensive trip to the boiler room went smoothly. "We shot the liner in three minutes at 10 to 12 psi," Spreen says. "Then, we shot the calibration tube through the liner — monitored the gauges for 90 minutes to make sure pressure held at 13 psi — and went to the hotel."

ADDITIONAL HOMEWORK

Saturday morning, the crew returned to remove the calibration tube and inspect the liner.

Once Seymour saw how well it had rehabilitated the sewer, he added the remaining 103 feet to the contract. Spreen didn't have enough material for the second shot and had to return a few days later.

- Resin oozes through lined, 12-inch cracks in the sewer.
- ▼ To access the junction of the old sewer main with the new, Darrin Seymour, maintenance superintendent, sawed a 2-by-2-foot hole in the concrete floor.



That Sunday, Buhl set up in the boiler room and cleaned 25 feet before hitting an obstruction. "We fought the situation for a while, but the pipe was too encrusted for the hose to pass through it," he says.

Spreen suggested sending down the camera head to pull back the jetter. To access the junction of the old sewer main with the new, Seymour sawed a 2-by-2-foot hole in

66 At least a quarter of the invert was full — enough material to plug the sewer from the clean-out to the manhole. I have never pulled that much material out of a pipe before." Dave Buhl

the concrete floor. "We hand-dug 4 feet down through backfill to the joint, then opened the pipe downstream of it," Spreen says.

The camera revealed a run of 25 feet and then a sweeping 90-degree turn to the right followed by a 53-foot straight stretch and a sweeping 90-degree turn to the left. "We just managed to wiggle through the turn, so that had to be our trouble spot," Spreen says.

The pipe ran straight for 25 feet before entering the lined section. When the camera head emerged from the clean-out, Buhl attached his hose with zip ties and duct tape, and then Spreen pulled it back and untied the hose.

"I started jetting and pulling back debris," Buhl says.



"A rat carcass was in there and multiple cafeteria items. At least a quarter of the invert was full — enough material to plug the sewer from the clean-out to the manhole. I have never pulled that much material out of a pipe before." The work took five hours.

PASS WITH FLYING COLORS

With Buhl cleaning upstream from the manhole again, Spreen's crew wetted out the liner and lubricated it with vegetable oil to facilitate its trip through the bends. They dropped the inversion hose through the access hole into the sewer and increased pressure to 15 pounds as the liner entered the bends. When inverted, the liner overlapped the first liner by three feet.

Leaving the liner to cure overnight, the team returned the next morning to reinstate two 3-inch floor drains and

> three 4-inch laterals. Seymour guided them to the proper locations in the 4-foot-wide utility corridor. A short length of the downstream main was exposed, enabling workers to see resin oozing from lined, 12-inch-long cracks.

Most of the corridor was impassable, filled with sprinkler lines, telecommunication cables, power lines,

and heating and ventilation pipes hanging from the ceiling. "All we could do was army crawl over the backfill," Spreen says. "We had about 3 feet of headroom."

The only tool that fit into the reinstatement spaces was a flexible shaft powered by an electric Dremel 4000 rotary hand piece (Robert Bosch Tool Corp.). "Hobbyists use them," Spreen says. "Consequently, we wore out a lot of cut-off wheels. It was miserable work because we were in cramped positions and hot, sweaty, and dirty."

Reinstating the connections took two hours. Then, the crew joined them to the main with PVC pipe and Fernco rubber couplings. When teachers and students returned from Christmas break, the school was free of sewer odors.



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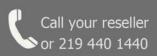


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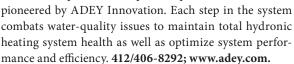


Efficient and Green Plumbing Products

By Craig Mandli

ADEY Innovation MagnaClean Professional2XP

Iron oxide represents a serious problem for hydronic heating systems. Buildup of this damaging sludge can reduce heat transfer to the home by as much as 15 percent and reduce boiler efficiency by up to 6 percent in only three weeks. The MagnaClean Professional2XP from ADEY Innovation virtually eliminates the problem. Vital to system maintenance, it is part of a best practice process





The NextGen Selectronic faucet line from American Standard has a simple, integrated design and SmarTherm technology that incorporates an



gnaClear

ASSE 1070-certified, thermostatic hot-water temperature limiter into the faucet. The SmarTherm safety shut-off is ASSE 1070-certified to automatically protect the user from scalding due to a spike in hot-water temperature or an interruption to the cold-water flow. The faucet models are available without mixing, with above-deck mixing, and with above-deck mixing plus SmarTherm. The integrated design incorporates the electronics in the spout, eliminating the need for a control box below the deck and shortening installation time. Faucets are offered in a choice of three water-saving flow rates — 1.5, 0.5 and 0.35 gpm — which saves 84 percent more water than a standard faucet. 800/442-1902; www.americanstandard-us.com.

Arcan Enterprises Septic-Scrub

Septic-Scrub chemical additive from Arcan Enterprises helps remove the sludge that builds up and sticks to the stone in a drainfield, pit or sand mound, helping rejuvenate the drainfield. According to the maker, it works in the first 24 hours after application. It can serve as part of a maintenance



program. It works with all types of systems, is safe to handle and is environmentally friendly. 888/352-7226; www.arcan.com.

Armstrong Fluid Technology COMPASS H

COMPASS H high-efficiency wet rotor circulators from Armstrong Fluid Technology have advanced Design Envelope variable-speed technology. Their Quadratic Sensorless flow control algorithm intelligently responds to system demand to consistently provide only the necessary flow,



a feature that can help the homeowner save up to 70 percent in energy compared to traditional circulators. They offer a broad operating range of up to 20 feet of head and up to 20 gpm flow. They accept 0-10 volt DC external control and communicate with most modern boilers for improved boiler efficiency. They include nine different modes of operation, including auto. The performance range covers a wide range of fixed-speed circulators. They include a large wiring chamber and front-mounted terminal block. They comply with EEI<0.22. 800/356-9845; www.armstrongfluidtechnology.com.

Bio-Microbics Recover

The Recover residential water recycling system from Bio-Microbics captures the graywater from the shower drains, applies filtration and adds a small amount of chlorine for disinfection. It holds 40



gallons of the treated water for flushing activities. The unit's smart controller automates the CleanScreen technology, detects toilet leaks, manages the storage/purge process and alerts for toilet leakage to further assist in saving money and water. 800/753-3278; www.biomicrobics.com.



Bradlev Corp. OmniDeck with WashBar

The all-in-one **OmniDeck** with WashBar from Bradley Corp. blends touchless, clean+rinse+dry hand-washing functionality with sustainable design. It is comprised of a single

piece of chrome-plated stainless steel that houses soap, water and dryer in one touch-free fixture. Its built-in smart technology features water-, energy- and paper-saving features, such as a 0.5 gpm or ultrahigh efficient faucet option. Its adjustablespeed hand dryer dries hands in 12 to 15 seconds with a comfortable heated air stream, and its dryer is 96 percent less expensive to use than paper towels and eliminates paper towel waste. The hand-washing element incorporates individual bowls, providing personal space. They are GREENGUARDcertified and are made of durable and sustainable Terreon and Terreon RE recycled solid-surface materials, which are completely molded and nonporous so they will not support the growth of mold, mildew or bacteria. 262/251-6000; www.bradleycorp.com.

BRIGHT DYES - Division of Kingscote Chemicals inspection dyes

Concentrated leak inspection dyes from BRIGHT DYES - Division of Kingscote Chemicals dissolve rapidly in water and provide a vivid fluorescent



color detectable in murky water, sewage or effluent. They can validate sanitary and septic hookups; identify leaks, infiltration and exfiltration in plumbing connections; and perform septic inspections to identify leachfield issues as well as sources of contamination in wells. They are safe, nontoxic, biodegradable, and certified by NSF International to NSF/ANSI Standard 60 for use in and around drinking water. They are available in fluorescent yellow/green, red and orange, and nonfluorescent blue. They come in tablet, liquid or powder form. 800/394-0678; www.brightdyes.com.

Caleffi North America 116 Series THERMOSETTER

The 116 Series THERMOSET-TER from Caleffi North America is an adjustable thermal-balancing valve used for automatic balancing of recirculation loops in domestic hot water systems to speed hot water delivery, reduce water waste, and save pumping energy. The internal thermostatic-



balancing cartridge automatically modulates flow to ensure a constant temperature in the recirculation piping system. It is adjustable from 95 to 140 degrees F with a locking adjustment knob. An integral dry well holds a slide-in temperature gauge for local indication or a sensor for remote temperature sensing. An optional check valve protects against circuit thermo-syphoning. For applications that require thermal disinfection and protection against Legionella, a self-contained or remote control bypass cartridge is available. 414/238-2360; www.caleffi.com.



Century Chemical Corp. Bio-Tab

Bio-Tab from Century Chemical Corp. is a tablet that sinks to the bottom of a septic tank where buildup problems

begin. Its time-release technology is designed to gradually dissolve to create a growing area of activity at the bottom of the tank. There, self-reproducing bacteria and enzymes quickly grow as they digest and liquefy the organic waste. The tablet establishes itself by working from the inside out. Regular usage — combined with routine pumping — can help maintain a septic system in good working condition while helping to keep the proper level of bacterial action established and reducing odors and gases, according to the maker. 800/348-3505; www.bio-tab.com.



CUES MPlus+ XL

The CUES MPlus+ XL push system enables easy operation with its all-in-one setup, and flexibility by quick removal of the control unit to be



used separately. It includes a coiler configuration and panand-tilt camera designed for mainline and larger pipeline applications up to 500 feet. It integrates video observation coding, observation coding interface and digital recording into an easy-to-use package. This lightweight system includes large and durable wheels for portability and a balanced footprint for stability. It is manufactured to handle rigorous field use. 800/327-7791; www.cuesinc.com.



Delta Faucet Co. **H2Okinetic Technology**

Whether for a simple standalone or a full custom shower. Delta Faucet Co. offers an expanded selection of showerheads and showering components

featuring its H2Okinetic Technology. Each showerhead and hand shower contains an internal system that sculpts the water into a unique wave pattern, creating a consumer-proven feeling of more water, all without using more water. The technology is available in hand showers, body jets and sprays, as well as a variety of showerheads. Three-function H2Okinetic raincan showerheads provide users the option to pause the flow of water and switch between an H2Okinetic and full spray. 800/345-3358; www.deltafaucet.com.

Duracable Mfg. Co. ProClean Concentrated Drain Cleaner

ProClean Concentrated Drain Cleaner from Duracable Mfg. Co. is a safe, economical and environmentally friendly solution designed to help keep drains free flowing and prevent buildups from grease, fats and soaps. Nontoxic, beneficial bacteria absorb the grease and organic buildup in your



pipes and convert them into harmless carbon dioxide and water through natural biological activity. A biofilm coats the inside of the pipes and continues to consume the organic wastes until they are gone. It contains no solvents, acids or caustic ingredients. It is approved for use by municipalities and water treatment facilities across the country. It will not harm drains regardless of how often it is used. It is also NSF-approved. It is available in quart or gallon sizes. 877/244-0826; www.duracable.com.

Easy Kleen Pressure Systems Ltd. Groundhog Jetter

The Groundhog Jetter from Easy Kleen Pressure Systems Ltd. is designed to blast through clogged pipes with ease. It is an effective, environmentally safe way to clear sewer pipes and lines using 12 gpm



at 3,000 psi. It is compact and easily transported in a pickup truck or van with trailer options available. It includes a fully welded, powder-coated, 2-inch steel tube frame that's drilled and tapped, which houses the 200-gallon water tank constructed of 1/2-inch poly complete with level sights and a 16-inch cover. It comes with a 27 hp Kohler gasoline-driven engine with accessible breather and 10-gallon fuel tank, General Pump with gearbox drive, 12-volt hose reel with 300 feet of 3/8-inch jetter hose, hose guides, swivel and foot pedal control, emergency shut-off valve, and an hour meter. Optional remote features include hose reel in, motor off/ speed control and pressure on/off. 800/315-5533; www.easykleen.com.

Ecological Laboratories PRO-PUMP/TST PLUS

PRO-PUMP/TST PLUS (Total System Treatment) from Ecological **Laboratories** is designed to provide inside and outside benefits in a bioformulation that cleans and deodorizes drainlines in a single monthly application. When used as directed, it can improve line flow,



eliminate drain odor, and protect onsite wastewater systems by restoring the necessary biological action in septic tanks and absorption fields. It is a highly active, safe microbial formulation designed specifically to maintain drainlines throughout the home. 800/326-7867; www.propump.com.

Electric Eel Mfg. Model CT

The Electric Eel Mfg. Model CT countertop drain cleaning machine has variable-speed motor control that gives the operator maximum cable



control and cleaning power from 75 to 350 rpm with constant torque. It is designed to clean 3/4 to 2 1/2-inch diameter drainlines up to 50 feet. Cable guide hose eliminates cable whipping and helps keep work areas clean, requiring less cleanup and water consumption. Its 1/5 hp, 90-volt DC motor provides quiet, powerful and dependable operation. It has a hand-tighten Jacobs Chuck and is available with a two-way auto cable feed that keeps hands off rotating cable as it advances and retrieves cable with the push of a lever. A heavy-duty housing protects the motor and internal wiring. Its stainless steel cable drum will not rust and resists denting. It can run 1/4-, 5/16- and 3/8-inch cable. 800/833-1212; www.electriceel.com.

FloLogic System

The FloLogic System provides intelligent leak control and automatically finds and stops leaks anywhere in a plumbing supply — from pipes to fixtures and



appliances - preventing waste and virtually eliminating the risk of property damage. Its flow sensor and software can accurately catch leaks as small as one drop per second (or 0.5 ounces per minute). It can help plumbing pros boost their business immediately through sales and installation revenue, and long-term as all supply leaks are caught in real time to be fixed before waste and destruction can occur. The system is available in 1- and 1.5-inch valves with optional Wi-Fi app-based control. The system has regulatory-approval in all 50 states. 877/356-5644; www.flologic.com.

Franke Kitchen Systems StillPure

The **StillPure** under-sink filtration system from Franke Kitchen **Systems** is equipped with Bluetooth technology to monitor water usage from a smartphone. It improves the taste, odor and color of water by removing harmful bacteria, parasites, cysts, chlorine, and lead, allowing users to enjoy naturally fresh water directly from the kitchen faucet. The app works with the FM100 module, a Bluetooth monitor that easily attaches to the filtration system and tracks how many filtered gallons of water a household consumes, which translates into fewer plastic bottles in landfills and household money saved. It also sends alerts based on actual water usage when it is time to change the filter. 800/626-5771; www.franke.us.

General Pipe Cleaners Kinetic Water Ram

The Kinetic Water Ram from General Pipe Cleaners uses compressed air to generate a shock wave that instantly pulverizes stoppages in blocked drains. The shock wave bypasses vents and goes around bends to reach the stoppage with only 2 percent loss



of power. The built-in pump and pressure gauge let the operator select the right amount of force for each job. It uses no electrical power or CO2 gas. An optional toilet attachment screws onto the front to turn it into a powerful plunger. The specially designed attachment enables the operator to position the cone in the bowl to get a tighter seal. This allows the blockage to be struck with greater impact and no splashback. The tool has an attractive, plated body and comes in a sturdy carrying case with molded compartments for the unit and accessories needed to handle 1 1/4- to 4-inch lines. 800/245-6200; www.drainbrain.com.



GROHE New Tempesta

The **GROHE New Tempesta** shower system complements any bathroom ambiance and faucet style. Representing stateof-the-art shower engineering, it is built to withstand the rigors of daily use, making it ideal for families with small children. The system includes an exposed thermostat with SafeStop to help prevent scalding, an Aquadimmer volume-control diverter for easy switching between overhead and hand shower, and an adjustable-height holder to suit all size users. Models are

available with EcoJoy technology, which allows users to save water on a daily basis without compromising their shower experience. 800/444-7643; www.groheamerica.com.



Helix Laboratories DrainScrub

DrainScrub from Helix Laboratories contains natural bacteria and enzymes that will digest organic matter to clear clogs and fight odors in plumbing. Ideal for regular drain and disposal maintenance, applications include septic tanks, sinks, showers,



tubs, toilets, disposals, outhouses, marine holding tanks, RV holding tanks and sump pumps. It biodegrades organic waste that accumulates in a plumbing system, offering plumbers an opportunity to help their customers with everyday problems while enhancing their business. It is a green product solution for homeowners and commercial customers, using natural biotechnology and no chemicals. Once mixed with water, it goes to work as the enzymes immediately start breaking down waste on contact. It contains billions of bacteria, and as they eat, they double in number every 30 minutes. 877/444-3549; www.helixlabs.com.

Hermann Sewerin GmbH Stethophon 04

The **Stethophon 04** from Hermann Sewerin GmbH is a listening device for detecting and amplifying structure-born noise of all types. It provides undistorted sound reproduction, even for very low noise. In addition to a version with



cable headphones, a version with wireless headphones is available. It offers sound transmission of the same quality as with a cable connection. Eliminating the cable increases working comfort significantly. The headphones and device are automatically connected by a bidirectional radio when switched on. The filter function enables users to listen to the sound at the frequency that best suits their hearing and the particular noise being listened to. The hearing protection feature automatically ensures that the headphones are muted when loud noises suddenly arise to protect the operator. To help with the leak detection, it not only indicates the noise levels acoustically, but also displays them digitally. 888/592-9916; www.sewerin.com.

Infiltrator Water Technologies IM-Series Tanks

IM-Series Tanks for septic, pump and potable water applica-



tions from Infiltrator Water Technologies are lightweight, durable, watertight and strong. The two-piece design is available in a variety of sizes including the IM-540 pump tank, the large-capacity IM-1530 septic tank, and the IM-1760C potable water tank. A wide-range of installation options are available, including shallow, multiple and serial tank configurations. The tanks feature integral, heavy-duty lids that interconnect with watertight click-and-lock EZ Snap Risers or the TW Riser System. They have structurally reinforced access ports, reinforced structural ribbing and fiberglass support posts to provide additional strength. Inboard lifting lugs make delivery and handling easy. No special installation, backfill or water-filling procedures are required, and tanks can be pumped dry during pumpouts. The two-piece tank design nests easily for efficient shipping, reducing freight costs. 800/221-4436; www.infiltratorwater.com.

LAARS Heating Systems Co. Mascot FT

The Mascot FT boiler from LAARS **Heating Systems Co.** offers an ENERGY STAR Most Efficient qualified rating of 95 percent AFUE. The system has a fire tube heat exchanger and is fully modulating to save fuel. The natural gasor LP-fired unit is offered in many sizes



and configurations: 120, 140, and 199 mbh combination, or as an 80, 100, 120, 140, and 199 mbh heating-only boiler. Combination models include an integrated mini-indirect tank resulting in ideal DHW performance by minimizing temperature fluctuations and providing hot water quickly. It can be ordered as a floor-standing or wall-hung unit and includes an easy-to-use advanced control system, coated control board to protect it from moisture, gas leak detection system that will shut down the boiler for added safety if a gas leak is detected, outdoor reset, domestic hot-water priority, primeless condensate trap, zero clearance installation, and venting up to 100 feet. 800/900-9276; www.laars.com.

Lenzyme Trap-Cleer High Count

High Count from Lenzyme Trap-Cleer is designed to attack grease. Its formulation follows the process by which complex organic compounds (grease and waste) — in the presence of water, bacteria, and enzymes - are broken down or transformed into simpler compounds. The process adds back the grease-eating enzymes to speed up the union of water



with a grease substance. This increases the efficiency of the bacteria. Then, the bacteria can take over and eat the grease fragments. Bacteria enzyme action is specifically targeted. The formulation has the complete grease-eating bacteria and enzymes within it for complete digestion of grease waste. Private labeling is available free of charge for the contractor to market a brand name. 800/223-3083; www.lenzyme.com.



Mainline Backflow Products Pro-Flash Building Envelope Seals

Pro-Flash Building Envelope Seals from Mainline Backflow Products simplify sealing around any exterior sidewall pipe penetration. To install, simply slide the seal over the pipe for a weathertight elastomeric seal. Water-

resistive barriers can then be tied in to complete the installation. Breathable and nonbreathable options are available, making for simple integration into any building envelope system. They are fully flexible, allowing them to easily form around any building contour or fitting that is tight to the exterior wall. Each unit comes with multiple score lines to accommodate different pipe sizes. 877/734-8691; www.pro-flash.com.

MEDIT STORMER 53000

The STORMER \$3000 pipe crawler from MEDIT is a compact, industrial-grade unit suited for heavy, rough daily use. The crawler is made of solid CZ121 brass, with a



303 stainless steel camera head, sapphire lens, Kevlar-reinforced cable, and a weight between 35 and 77 pounds based on the configuration. This crawler is sold as a complete set, allowing users to tackle any pipe from 6 to 40 inches. It includes a highly sensitive, 3-inch, pan-and-tilt camera head with manual focus; a riser system; additional wheel sets; color monitor with DVR; keyboard; hard drive; drive control settings; and auto-stop and variable-speed drivetrain with four-wheel drive. The crawler is waterproof up to 184 feet, WinCan-compatible to properly generate reports, and designed to easily run off a truck or van using an inverter or generator — never having to worry about batteries. 800/239-9934; www.fiberscope.net.

Milwaukee Electric Tool Corp. M18

The M18 short throw press tool with PEX crimp jaws from



Milwaukee Electric Tool Corp. is the industry's first press tool optimized for residential installations. The lightweight, in-line design of the tool enables the installer to press with just one hand. With a three-second cycle time and the ability to press 400 1-inch connections on a single charge, this tool allows residential installers to do their job faster and easier without paying for more force than is needed. 800/729-3878; www.milwaukeetool.com.



MvTana Mfg. MS11-NG2

The MS11-NG2 midsize inspection system from MyTana Mfg. has USB for recording and storage. The system is suitable for inspecting 3- to 6-inch lines with the choice of a 150- or 200-foot pushrod. The unit has a 64 GB internal drive as well as two

onboard USB ports and a 32 GB removable USB drive. The one-piece design is lightweight with a carrying handle. The color camera head is self-leveling with a built-in 512 Hz transmitter for locating trouble spots, even in cast-iron pipes. 800/328-8170; www.mytana.com.



Navien NPE-S series tankless water heater

Navien's NPE-S series condensing tankless water heaters supply maximum inputs from 150,000 to 199,900 Btu per hour and efficient outputs from 148,500 to 197,900 Btu per hour. Maximum flow rates are from 8.4 to 11.1 gpm. Other features



include: 1/2-inch gas pipe capability up to 24 feet, 2-inch PVC venting up to 60 feet, dual stainless steel heat exchangers, field gas convertibility and the ability to cascade up to 16 units without an external control box. 949/420-0420; www.tanklessmadesimple.com.

Nexus eWater Recycle Ready Assembly

The Recycle Ready Assem**bly** from **Nexus eWater** is a modular graywater collections system that was designed with contractors in mind. It comes to the job site palletized and fully preconfigured for easy installation. Simply trench the hole, make



the five simple connections, pour some slurry, backfill, and it's done. The five connections include a graywater inlet from the home, a sewer outlet for overflow, a vent, a treated water reuse application outlet (e.g., irrigation controller), and a power supply (110-volt, 60 Hz, 15-amp circuit). 877/486-9797; www.nexusewater.com.

Noritz America Corp. **EZ Series**

The EZ Series of highefficiency, condensing tankless water heaters from Noritz America Corp. are designed to cut



installation time and cost when replacing larger, storage tank-type units. The ENERGY STAR-rated EZ98-DV and EZ111-DV join the previously released EZTR40 to provide professional installers and their homeowner customers with a wider range of tankless options, covering the majority of residential, tank-replacement opportunities. Both models include top-mount water connections, maximum venting flexibility, and the possibility of reusing the existing tank unit's half-inch gas line. 714/433-2905; www.noritz.com.

Norweco Singulair Green

The Singulair Green system from Norweco is an aerobic treatment unit designed to biologically treat domestic wastewater and



produce a clear, odorless liquid that can be safely returned to the environment. The tank is manufactured in a zero-waste manner. Every riser seat and transfer opening that is cut out of each chamber is recycled and used in the manufacturing of the pretreatment tees as well as sludge returns. In addition, all of the nonstructural elements are made with recycled resin. Zero-waste concepts are taken even further by the company not only recycling plastic, but also cardboard, aluminum and steel. 800/667-9326; www.norweco.com.

Picote Solutions dual color epoxy brush Coating System

The dual color epoxy brush Coating System from Picote Solutions is simple, cost-effective and environ-



mentally friendly. It is used to rehabilitate decayed and damaged concrete, PVC, fiberglass, clay, cast-iron and ductile pipelines. The brush coating resin forms a pipe inside the original pipe that is a tested, safe and environmentally friendly product. The new pipe is damp-proof as well as corrosion- and wear-resistant. It is ASTM- and NSF-certified (meets the requirements of NSF/ANSI 61-5) and is a 100 percent solids epoxy. The dual-color method allows for clear visual verification during the application process. Eliminating the need to destroy existing walls, gardens, or sidewalks, the no-dig solution reduces waste produced at job sites. Interruptions to traffic are also minimized. All materials used are nontoxic. No harmful VOCs are released during mixing or after hardening. 219/440-1404; www.picotesolutions.com.



Quik Lining Systems Quik-Coating System

The Quik-Coating System from Quik Lining Systems offers a green resin system for coating drain, waste and vent pipe using a method of coating the aging piping system. The resin contains no VOCs, is safe for use within 5 minutes of applying, and can be installed by a qualified installer with minimal disruption. The modified polyurea material application process is safe for use indoors, requiring no special hazmat gear or displacing building

occupants. The resin is supplied in recyclable containers. Training is available for qualified installers. 605/695-6778; www.quiklining.com.



Reelcraft Industries Series CTJ

Series CTJ hose reels from Reelcraft Industries are designed for medium-duty applications for 200 feet of 3/8-inch I.D. or 150 feet of 1/2-inch I.D. high-pressure hose up to 5,000 psi. Utilizing a hand crank with a balanced brass swivel and brass

inlet, the reel is the product of lighter-weight components and forward-thinking design. Reels in this family have a corrosion-resistant powder coat finish. All reels have a drag brake to prevent despooling when the reel is not in use. 800/444-3134; www.reelcraft.com.

REHAU, Building Solutions Division. EVERLOC+

The EVERLOC+ compression-sleeve fitting system from REHAU, Building Solutions Division, is made of PEX, providing longev-



ity and efficiency. Compared to copper, PEX piping can cut carbon dioxide emissions significantly over the life cycle of a building. PEX pipe also requires less energy for both production and installation. Compared to other PEX systems, EVERLOC+ is up to three times faster, four times more secure, and it offers 360-degree connection control. 800/247-9445; www.everlocplus.com.

RootX chemical root control

Chemical root control from RootX is a long-term solution to pipeline root intrusion. It stunts new root growth without damaging the pipe, clearing pipeline roots



that can cause blockages and sanitary sewer overflows. The chemical won't harm water treatment systems and is registered with the EPA for both sanitary and storm use (EPA Reg. No. 68464). Simplicity of application enables crews to perform root control on demand or as scheduled preventive maintenance. 800/844-4974; www.rootx.com.

Saniflo - part of SFA **Group Sanineutral**





porates neutralizing granules to increase the pH of acidic condensate water produced in residential or commercial applications before it reaches the sewer line. Condensate produced by boilers, water heaters, air conditioners and other appliances moves through the compact unit, which neutralizes it to prevent the corroding of drains and sewer systems. Neutralization is especially necessary for modern, high-efficiency appliances that produce higher-than-normal acidic condensate. Left unneutralized, this condensate can not only corrode piping systems, but also contaminate groundwater and even degrade the local water infrastructure. The damage could quickly negate the energy savings yielded by these high-efficiency products. 800/571-8191; www.saniflo.com.

Schonstedt Instrument Co. Rex

The Rex pipe and cable locator from Schonstedt Instrument Co. a multi-



frequency locator with a price tag comparable to singlefrequency locators. The sleek design of the transmitter is less than 2 inches thick and weighs less than 3 pounds. The receiver also retracts for easier carrying and storage. At slightly over 7 pounds, the entire system fits easily into a custom shoulder bag. It is also available as a multipurpose combo kit (MPC-Rex) that includes a GA-92XTd Magnetic Locator and a Rex Multi-Frequency Pipe & Cable Locator. Projects calling for both pipe and valve locating can now move faster with less time lost. 800/999-8280; www.schonstedt.com.





See Water Hvdra **Transducer Panels**

Hydra Transducer Panels from **See Water** are a complete line of simplex, duplex and triplex control panels that have a versatile HMI touch-screen controller ideal for sewage, wastewater and dewater-

ing applications. The transducer pump control panels come standard with a stainless steel enclosure and a programmable monitoring controller that displays the tank level and pump status. 888/733-9283; www.seewaterinc.com.

Shark Bite EvoPEX

The Shark Bite EvoPEX system is a push-to-connect, rough-in plumbing



solution for new construction. Designed as a PEX pipe system, it extends beyond traditional pipe-and-fitting solutions to include fittings, PEX pipe, outlet boxes, valves and other accessories needed to install a complete plumbing system from meter to fixture. Installers can plumb an entire home without the use of special tools or the need for soldering, crimping, or glue, which optimizes install time and increases efficiency while on the job site. A green-colored visual indicator ensures that the pipe seal has been permanently engaged and the connection is sound, resulting in cleaner installations, fewer potential leak points and less chance of customer callbacks. In addition, it saves water by protecting against leaks that can result in significant waste and costly damage. 877/700-4242; www.sharkbite.com.

SJE-Rhombus EZconnex

The EZconnex Float Switch Connection System from SJE-Rhombus is a new way to install and maintain float switches in a wet well for level control applications. Simply install the wiring manifold, plug in the quick-release (pinchand-pull) float switches, and wire the single manifold cable to the control panel. The manifold cable contains colored wire pairs that



match a color identification system on the manifold housing for easy field wiring. A protective rubber boot provides a dual-seal design for an extra layer of protection to keep the connection clean and dry. This system can be used with one to four float switches; sealing plugs are available for unused ports. It is rated for short-term submersion in water. Threeand four-port models are available. It is CSA-certified. 888/342-5753; www.sjerhombus.com.



Sloan ECOS Flushometer

Designed to reduce water volume by up to 30 percent, Sloan's ECOS Flushometer provides a dual- or single-flush, high-efficiency option. Its hands-free sensor operation promotes hygiene, as the flushometer automatically activates by means of an infrared sensor with multifocused, lobular-sensing

fields. The dual-flush flushometer automatically initiates a 1.1 gpf or 1.6 gpf flush based on how long the user remains in the sensor range. The single-flush unit delivers a highefficiency volume of 1.28 gpf. A manual flushing option is also available with buttons on top of the flushometer to provide a standard or reduced flush at the user's discretion while a fixed metering bypass and no external volume adjustment ensures additional water conservation. 800/982-5839; www.sloan.com.

Stiebel Eltron Mini-E

Mini-E thermostatic tankless water heaters from Stiebel **Eltron** are an electronically controlled version of mechanical Mini water heaters. The electronic control board and automatic flow control allow the units to deliver water at a factory preset temperature of



100 degrees F. Custom preset output temps are also available. They'll maintain temperature, even with pressure fluctuations in the water supply, which is ideal for installations where output temperatures are limited by code. Unlike mechanical units that only service a single sink, the unit can be plumbed to supply warm water to multiple sinks in warm climates. 800/582-8423; www.stiebel-eltron-USA.com.

StoneAge WGR Switcher

The WGR Switcher sewer nozzle from StoneAge can run in pulling or cleaning mode without being removed from the pipe,



saving water and time. By doing the job of two different nozzles, it uses less water and time compared to making multiple runs with different nozzles. When the pump is idled down and brought back to pressure, it will switch the water flow between two different patterns of jets. One jet pattern pulls/flushes debris down the pipe, and the other is a cleaning/descaling pattern for cleaning deposits and cutting roots. It navigates pipes 8 to 36 inches in diameter and handles pressures up to 5,000 psi at up to 100 gpm, running more jobs with one tank of water. 970/259-2869; www.stoneagetools.com.



Uponor Climate Control Zoning System II

The Climate Control Zoning System II

from **Uponor** is a wireless control for residential hydronic radiant floor heating systems. It features Autobalancing that boasts 25 percent faster reaction times and up to 20 percent greater energy savings for radiant floor heating systems. The technology calculates the actual energy need of single rooms and adapts the heat output of each loop by controlling the actuator's on and off cycle. For example, a short loop might get 20 percent "on" time, while a long loop receives 60 percent on time. This technology allows the system to react to temperature changes faster and offers greater energy savings in the process. 800/321-4739; www.uponor-usa.com.



Utility Mfg. Co. TRAP SEAL

TRAP SEAL from Utility Mfg. Co. is a liquid that seals drain traps to prevent odors and preserve a sanitary septic seal. By ensuring that traps remain filled with liquid, it prevents sewer gases, odors, insects, and bugs from entering through the trap and endangering the health of the inhabitants. It can be used wherever odors are a problem or whenever drain traps dry out, are not in use or are in remote areas. It doesn't restrict the flow of water or reduce the diameter of the drain. It allows water to pass through and doesn't evaporate, freeze or go rancid. 516/997-6300; www.utilitychemicals.com.



Vivax-Metrotech Corp. vCamMX

The vCamMX from Vivax-Metrotech Corp. is a portable, all-in-one camera to inspect pipes between 1 and 4 inches. The control module's 8-inch daylight-viewable LCD screen shows

the distance of pushrod deployed as well as the current time and date. Recordings are made in AVI video and photos are saved in JPG format directly to a USB flash drive and then instantly backed up to an SD card. An internal microphone allows audio commentary over recorded video. The pushrod is traceable with the use of an external locator transmitter and is available in 100 or 150 feet. The dual-frequency 512 Hz/33 kHz sonde is standard equipment. Two interchangeable camera heads can be switched out by the user in the field. The smaller D18-MX camera is fixed-position and 0.7 inch in diameter, and the D26-MX is self-leveling and 1 inch in diameter. 800/446-3392; www.vivax-metrotech.com.

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Retirement community adds efficiency with new boilers



Problem: Dominic Fausto Jr., owner of Absolute HVAC, was recently contacted by a long-term customer to retrofit the boiler system on a 410-bed retirement home in Queens, New York. Two huge, Scotch marine boilers have served the building since it was built in 1997. The boilers were still operational, but the owner wanted to update. Fausto recommended a high-efficiency system.

Solution: Over the course of a few weeks, Fausto worked with the northeast regional director at U.S. Boiler Co. -Burnham Brand Boilers, Chris Massey, and professionals at Venco Sales to design a condensing boiler system for the building. The plan was to install six 800 mBh Burnham Alpine condensing boilers, piped in series. "Six years ago, we made the Alpine boiler our primary condensing unit," Fausto says. "It's extremely dependable, very easy to install and service, and comes in such a broad size range that it can be installed in a salt box home or, as you see here, a massive commercial application."

Result: "I think that a 40 percent energy savings this winter is a conservative estimate," Fausto says. "Last year, we saw a 42 percent reduction in fuel use after a similar retrofit nearby." 717/397-4701; www.usboiler.net.



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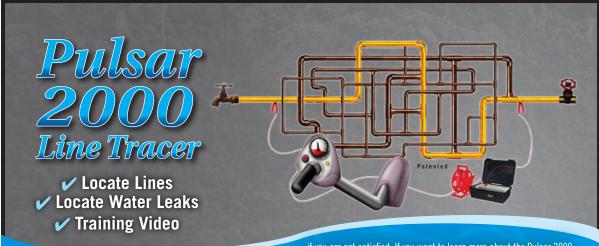




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The Pulsar 2000 line tracer is designed primarily to locate metallic pipes. The Pulsar 2000 is a directional line tracer. Connect the Pulsar's powerful and unique transmitter to your target pipe and locate only that pipe. Locating can be accomplished under floors, in walls and in ceilings. The Pulsar 2000 does not require grounding.

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if you are not satisfied. If you want to learn more about the Pulsar 2000 and our leak locating equipment, please call 1-888-752-5463 or e-mail jsmll@aol.com for a free demonstration video or CD and references of satisfied customers.

We have been using the Pulsar 2000 along with the XL2 fluid detector and Geophones since January 1989 in our leak locating business. Our leak locates are accurate 95% of the time, but I can honestly say, the line we trace is always there. Our equipment is user-friendly and requires very little training, as you will see on the video. Purchase the Pulsar 2000 line tracer, XL2 fluid detector and Geophones, and start locating leaks immediately.

It's a jumble out there. www.Pulsar2000.com





Product Spatlight

verloading a septic system often results in costly sewage backups or a swamp in the backyard. The cost to rehabilitate a severely failed drainfield can be many times higher than detecting and fixing problems early. That's why a product like the Septic Sitter from Dynamic Monitors can provide a lot of value.

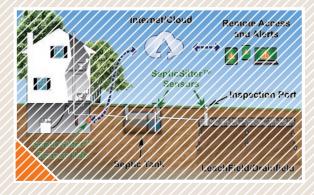
The internet-connected remote monitoring system is designed to watch over septic tanks, pump tanks and drainfields at all times, providing peace of mind for homeowners and installers. If a user-preset high level is exceeded. SepticSitter will send an email alert, so corrective action can be taken before system failure occurs.

"The system provides real-time monitoring, which is key for making fixes before big problems happen," says Kelly Galloway, president of Dynamic Monitors. "That extra safeguard can make all the difference."

The electronic sensors install easily in any standard inspection port and provides peace of mind by confirming the drainfield is working properly. The system provides early detection of effluent filter plugging, drainfield hydraulic and organic overloading, leaking plumbing fixtures, and excessive clogging of the infiltrative surface

Detailed liquid level graphs and reports generated by the SepticSitter can be provided to potential buyers and septic system or home inspectors to demonstrate that the septic system has been working properly under typical loading conditions and occupancy levels. According to Galloway, this information can help maximize the home value.

"It's like a CARFAX report for your septic system," she



says. "A prospective boyer can actually look years back into the alert history to see if there have been any issues and if they were resolved."

Time-stamped liquid level data is sent to and stored in the cloud, where detailed logs of liquid level data can be accessed using any computer or smartphone with web access. Available data includes instantaneous liquid levels, historical trends and can provide proof of drainfield recovery. The data can also be used to help plan if and when a system will need to be expanded, or to identify drainfield lines or zones with excess capacity. It can also help manage alternating. dosing, and resting systems as well as uneven zone distribution. It is easy to install or retrofit as it fits industry-standard inspection ports, can be completely buried if desired, is simple to set up and only requires low-voltage power.

"We see it as a way for plumbers and installers to provide better service and peace of mind for their customers," Galloway says. 388/747-7645; www.septicsitter.com.

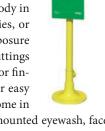


Webstone, a brand of MIBCO, water heater tempering valve

The water heater tempering valve from Webstone, a brand of NIBCO, mixes cold water from the supply with the hot output from the heater for more effective hot-water storage. Hot water can be stored to 140 degrees F, mitigating the risk of Legionella bacteria in the tank. Adjustable temperature control limits output to 120 degrees F and prevents the risk of scalding. Installation kits include the lead-free valve, temperature gauge, and two ProPush flexible connectors for integration with the rest of the system. 800/255-9529; www.webstonevalves.com.

Chicago Faucets Co. emergency shower and evewash fittings

Emergency shower and eyewash fittings from Chicago Faucets Co. provide fast, reliable flushing for the eyes or entire body in laboratories, manufacturing facilities, or wherever personnel are at risk of exposure to hazardous chemicals. The safety fittings feature a highly visible yellow exterior finish and photoluminscent signage for easy identification. The 15 new fittings come in



a variety of deck-, floor- and wall-mounted eyewash, facewash, and drench-shower configurations. All products are tested and certified to meet ANSI 358.1. 847/803-5000; www.chicagofaucets.com.

Omni Brass bidet diverter valve BV100

The bidet diverter valve BV100 from Omni Brass is a self-lubricating valve that features an integral atmospheric vacuum breaker with two-mode operation, including rim wash and vertical spray. It has a compact design that can be used with specially designed Omni Brass stainless steel hoses and fittings. The BREDA-VALVE is easily serviceable from above the rim with a design using a single, removable cartridge, so no special tools are required for servicing or installing. The valve also features a minimum continuous douche spray flow



when set on rim mode as well as a minimum continuous flow around the rim when set in spray mode. The BV100 valve is code-compliant with all North America standards and can be paired with all types of bidet bowls and faucets. 905/760-9909; www.omnibrass.com.

RectorSeal Dura G-O-N polymer roof drain downspout

The Dura G-O-N roof drain downspout with glue-on nozzle from RectorSeal joins the company's product line of decorative downspouts for



commercial building roof drains. It is a high-impact polymer version of the original nickel-plated bronze and offers the same easy installation features, including a theft-resistant glue-on design that can be installed after the wall or building is completed. The downspout is available in a 4-inch diameter and installs quickly by fastening the three-screw escutcheon plate to the wall and then solvent cement-welding the nozzle's PVC insert to the outside diameter of the building's PVC drainpipe. 713/263-8001; www.rectorseal.com.

RIDGID Cable Cutters

RIDGID's new line of lightweight, ergonomically designed cable cutters includes three ratcheting and two manual cutters for copper and aluminum cutting needs.



Ratcheting cutters range in weight from 1.5 to 6.4 pounds, have maximum copper capacity ranging from 600 to 1,000 mcm and maximum aluminum capacity ranging from 750 to 1,000 mcm. An enclosed spring is protected from debris and loss during use. Manual cutters range in weight from 1.5 to 3.3 pounds and have maximum capacity for both aluminum and copper ranging from 500 to 1,000 mcm. Each features a sickle-shaped, rounded blade for precise cutting. 800/769-7743; www.ridgid.com.

Water Cannon Inc. – **MWBE** skid-style pressure washer

The V-belt drive skid-style hot-water pressure washer from Water Cannon Inc. -



MWBE is powered by a Kohler diesel engine and has customizable psi ratings from 3,200 to 4,000 and power from 4 to 8 gpm. It is self-contained with dual 15-gallon poly diesel fuel tanks, a 12-volt battery start, and a 45-amp charging system, so no external power is required. It has a stainless steel coil wrap, burner hood, Beckett burners, a control panel, an adjustable thermostat and safety pressure release valve controls. Accessories include a gun/wand assembly, 50-foot high-pressure hose, Maxi-Flo 20 percent chemical injector, four color-coded spray nozzles and a color-coded chemical nozzle. An optional wheel kit is offered for portability. 800/333-9274; www.watercannon.com. **□**

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Kvle Warren joins Spravrog

Sprayrog announced the addition of Kyle Warren to its corporate team as operations assistant. He will be responsible for the technical and customer service side of the operations team. Warren has his master's and bachelor's degrees from the University of Alabama, and he is in the process of completing his welding certification.



Electric Eel Mfg. announces improved website

Electric Eel Mfg. announced they launched a new and improved website to better support customers across its markets. The new website consists of two main categories: professional (which includes products for plumbers and drain cleaners as well as school, hospital, municipality, property management, government, and maintenance professionals) and rental (which addresses the needs of the tool rental market).

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J.C. Whitlam Mfg. Co. service award announced `



 Mark Whitlam (center), senior vice president sales of J.C. Whitlam Mfg. Co., is shown presenting Charlie Rudd (left), CEO of Woodruff Sales, and Scott Hadley (right), president of Woodruff Sales, with a plaque honoring their 20 years' successful representation.

J.C. Whitlam Mfg. Co. recognized Woodruff Sales of Salt Lake City for 20 years' service as its manufacturers representative. Woodruff Sales has been representing the company's Whitlam Specialty Chemicals and Plumb-Pro Tool Divisions in the wholesale distribution markets for plumbing, HVAC, irrigation and industrial markets since 1997.

GPS Insight registered and certified with the Federal Motor Carrier Safety Administration as vendor

GPS Insight announced that it is officially registered and certified with the Federal Motor Carrier Safety Administration as an approved electronic logging device vendor. Although it has a simple interface for both drivers and office personnel, GPS Insight is offering its customers unlimited hands-on training, augmented by on-demand training videos, to make the transition from paper logs to e-logs as seamless as possible.

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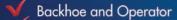
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