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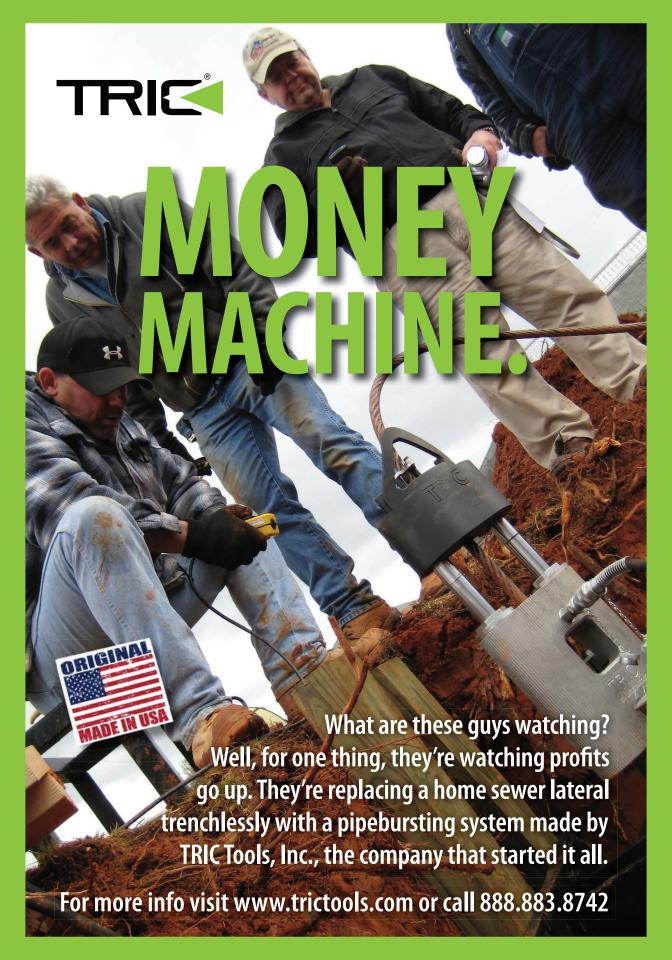


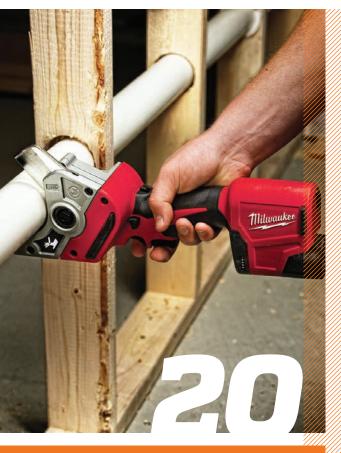
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Cordless plastic-pipe shear from Milwaukee Tool saves time and

- By Ken Wysocky



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Chase Neill, a technician with Treasure Valley Plumbing and Drain Service in Fruitland, Idaho, feeds a sewer cable from Gorlitz Sewer & Drain through a clean-out to clean a sewer lateral. (Photography by Darren Russinger)

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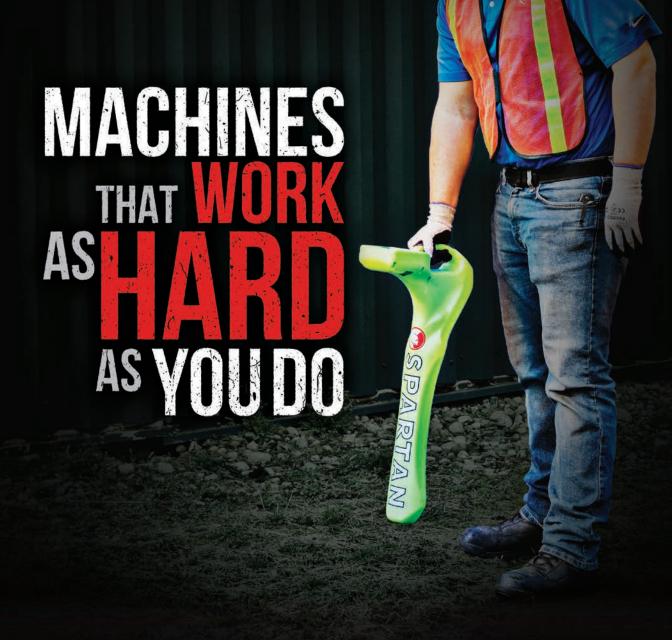
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Product Spotlight: Run a more comfortable, consistent shower

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From About-to-Quit to \$6.6 Million

Chris and Emily Cunningham have been running their business, Service Plus, since 2002. They used to be miserable – they worked endless hours, struggled to hire good people, and weren't making any money. They almost shut down the business.

But in the last 5 years, they've hit their stride, adding plumbing, sewers, and drains, purchasing a \$1M new building, and leading their 40+ employees to a 2019 revenue of \$6.6M with 11% net profit.





How did they do it?



They called on their network.

Chris and Emily's business turnaround isn't based on luck. Their successful, fast-growing company is the result of training, coaching, follow-through, and hard work.

They joined Nexstar Network in 2010 and worked closely with their coaches to begin implementing the processes that would turn their dying business into a healthy, profitable company.

"Nexstar has helped Emily and me become true leaders. We're happy, our people are happy, and our work-life balance has never been better. Nexstar is a network of smart people – help for your business is always just a phone call away."

-Chris Cunningham Service Plus -Member since 2010



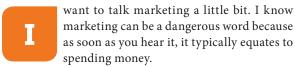
FROM THE EDITOR



Cory Dellenbach

Drawing in Business

Websites, other marketing tools are great ways to pull in potential customers if they are done the right way



However, spending some cash on marketing is necessary for companies, including plumbing. It's the way you attract customers. Those customers will then pay you for the work you are providing and, if you do a great job, will refer you to their friends and family, equating to more money.

Some of that earned money should then be put back into the marketing budget. That, theoretically, should be the way a company does things.

GOOD FOR YOU

There are some companies, though, that don't put anything toward marketing, and from a potential customer standpoint, it can be frustrating if you need to hire a plumber.

Thankfully most of the plumbing companies in the area I live have nice websites, bright and attention-getting advertising on vehicles, billboards and other means to get that information out. There are some out there that I've ran across, though, where all you can find is one reference to them in a Yelp review.

Having the websites, vehicle advertising and so on will help those potential customers find you easier. A simple review page on Yelp, Google or whatever is not going to help very much.

GETTING A START

The first step in getting your marketing efforts started on the right foot is deciding what would work best for your company. Where do most of your customers or potential customers look for contractors? My guess would be most are searching on Google for area plumbers, so a website is likely the very first place you should focus on. Whether you build the site yourself using WordPress or one of those sites that guide you along the way, the first thing you should do is make it your own.

Drop in some eye-catching photos of your crews on job sites, photos of your trucks and your facility. Make sure the correct address and phone numbers are listed on your website, and have a way for customers to reach you through the website, such as chat, a contact form or email address that actually gets checked often.

Don't forget to list what services you offer, and it could be useful to drop in a base price (\$99 per service call, as an example). That way the customer knows what to expect right away.

OTHER MARKETING EFFORTS

After you have the website up and running, it is time to work on the other marketing stuff. Your service trucks should have your company's name and contact information on them, but don't overcrowd your trucks' design. People don't have a lot of time to focus on trucks as they travel.

Hand out business cards, notepads, pens or whatever you can think of at the local home show in your city where hundreds of potential customers are roaming the show floor.

YOUR ADVICE

These are just some quick and easy ways to highlight what you do.

What are ways you have promoted your company? Is there something you are doing that is unique and could benefit others? Email me at editor@plumbermag.com or call 715-350-8436.

Enjoy this issue!

ALLAN J. COLEMAN

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MOLDING LEADERS

How to Develop Effective Managers In-House

When employees quit jobs, they more often leave because of bad managers rather than the company itself. That means developing great managers should be of prime importance to all organizations, but it's not always as simple as promoting your top employees. This online exclusive takes a look at how to best develop good leaders within your company.

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OVERHEARD ONLINE

"A system that can spit out detailed reports with a few clicks will provide you with the chance to manage based on facts instead of feelings."

— The Pros and Cons of Field Service Management Software



EQUIPMENT STRATEGIES

To Rent or Own?

If some of your work entails using heavy equipment, you may rent a machine from time to time. Rental has its upsides, especially when it comes to reducing risk. But there can be advantages to equipment ownership if you are confident in the technology and your work outlook for the machine. Every situation is unique, but this online exclusive covers four signs that rental may not be your best option. ⊿ plumbermag.com/featured

TOOL TALK

Specialty Wrenches a Worthwhile Investment

There are common wrenches that are found in all plumbers' toolboxes, but there are also many others that can be valuable assets depending on the specifics of your work. This online exclusive provides an overview of specialty wrenches on the market today that



can benefit both new and seasoned plumbers. ✓ plumbermag.com/featured



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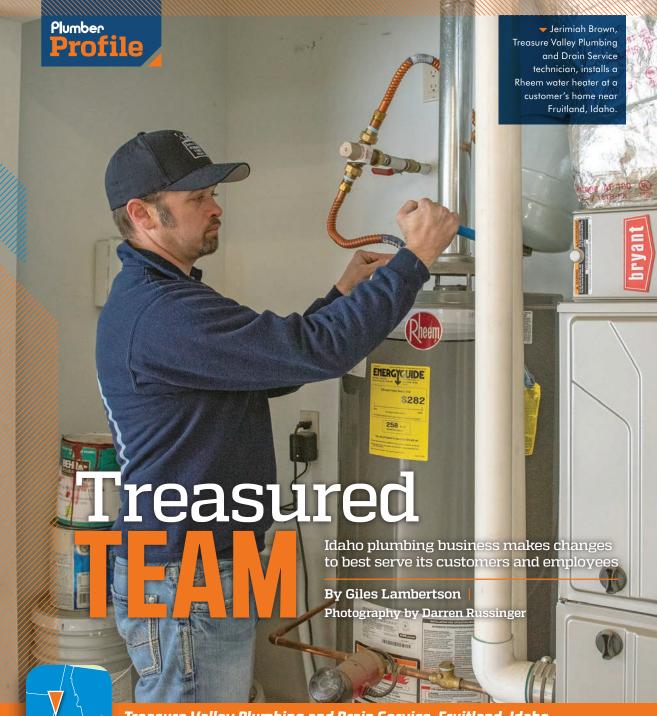
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SERVICE AREA WEBSITE Ontario (Oregon) micropolitan area and Treasure Valley, Idaho www.tvplumbdrain.com

Dave Burt, Maurine Burt, Gerard "Jerry" Robinson



The owners of Treasure Valley Plumbing and Drain Service are, from left, Gerard "Jerry" Robinson, Maurine Burt and Dave Burt.

ot many companies could get away with calling themselves "a humble bunch of plumbers wanting to take care of your plumbing and drain service needs" without sounding inauthentic. Treasure Valley Plumbing and Drain Service is an exception.

The company is located in Fruitland, a bucolic southwestern Idaho community of about 5,000 people, sitting on the eastern bank of the Snake River that separates Idaho from Oregon. Part of the Ontario, Oregon, micropolitan area, Fruitland is also home to apple orchards and a family-oriented, small-town America environment that persuaded Dave and Maurine Burt to settle there and raise their children. The couple opened a drain cleaning business in 1985 that 34 years later is serving customers across Treasure Valley.

Today, the company is well into a transition to second-generation ownership. It began when Gerard "Jerry" Robinson married his childhood sweetheart, who happened to be a Burt daughter. "Her dad had a local drain cleaning business when I came into the picture.

He had a dream to expand his company and asked me to be a part of it," says Robinson, now a co-owner and positioned to take Treasure Valley Plumbing and Drain Service into the future.

It wasn't a huge career leap for Robinson. His father was a licensed electrician, and he had spent post-high school years working construction. "I learned to build new homes and understood the plumbing in them. I worked at it for four or five years."

He is still heavily involved in homebuilding: About half of the company's business is installing plumbing and drain systems in new construction, nearly all of it residential with some light commercial properties sprinkled in. Two company crews are dedicated to running lines in those new houses. Four other crews perform service work. "In some ways, we are very diversified,"

I like our guys to be diversified.

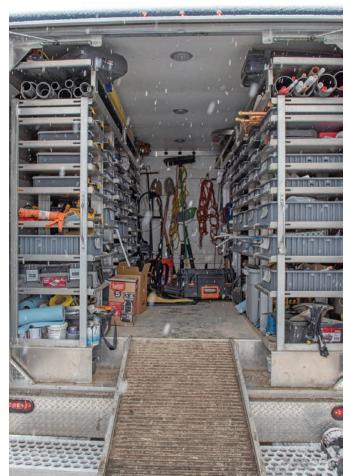
They can do construction work on

Friday and be hydrojetting on Saturday."

Gerard "Jerry" Robinson







- ▲ Jerimiah Brown, left, and Cody Evenden-Griffin use a RIDGID sewer camera down a clean-out to locate and inspect the sewer lateral.
- Treasure Valley Plumbing and Drain Service technicians keep the trucks clean and organized using a shelving system.

Robinson says. "I can borrow one of the service crew members, if I need him, and switch him over to finishing a house. I like our guys to be diversified. They can do construction work on Friday and be hydrojetting on Saturday."

The construction side of the business is robust. It was even stronger in 2005 after Robinson joined and the drain cleaning company began to develop the plumbing side of its business. "It was a pretty good boom for a couple of years," he says, looking back on the run-up to the recession that slammed the construction industry nationwide. Fortunately, the company owners had the foresight to anticipate the slowdown before it struck them. "We began to focus on services instead of construction. We knew it could keep us alive."

It did. The company has expanded to include installing radiant floor heat systems and backflow prevention devices. The radiant floor work is not a big part of the company's business yet, but



Robinson anticipates growth. As for backflow, he and one other employee are licensed to install and annually inspect the devices, which adds to their workload in summer months.

PAIRING IIP

Robinson can perform any of the company's service or new construction tasks and is cross-training all of his employees to do the same. To reinforce this principle, he nearly always dispatches two technicians to every service call, regardless of the nature of the service, from a plugged drain

66 With the second man on hand, we seem to be able to cover more work and to get jobs done quicker — and safer — almost every time." Gerard "Jerry" Robinson

or water heater problem to a leaking pipe or clogged sewer lines in need of inspection.

"We have done that for years," he says. "I think that came from when I started here. We had only one truck, and another guy and I worked service calls together. We decided to keep doing it that way because it seemed to serve our customers the best. It doesn't seem to be an industry standard."

Besides having an extra brain and pair of hands at a site to diagnose and resolve a service issue, two-man crews address two company needs: the systematic training of apprentice plumbers and multiplying the number of service calls each day. Among the company's current employees are six journeyman plumbers (including Robinson), each of whom earned certification after four years of apprenticeship. They work closely with a third-year apprentice, two apprentices in their second year of training and a first-year apprentice. Working and learning go hand in hand at the company.







▲ Jerimiah Brown, Treasure Valley Plumbing and Drain Service technician, installs a Rheem water heater at a customer's home near Fruitland, Idaho.

As for doing a maximum number of daily service calls, it seems counterintuitive to pair up repairmen at one location instead of sending them out individually to two jobs. Yet, Robinson says that, in practice, the company is able to complete six or seven calls a day with two-person crews compared to four or five when the technicians work individually. "With the second man on hand, we seem to be able to cover more work and to get jobs done quicker and safer — almost every time."

66 Our trucks are equipped with the technology to handle just about anything." Gerard "Jerry" Robinson

Some days, all four of the company's service trucks are on the road. Most are dually Chevrolet 1-ton chassis (with the exception of the fleet's oldest truck, which is an Isuzu). Each truck has a custom Hackney service body and is loaded with the equipment a service technician is liable to need to resolve a problem.

"That's another thing that sets us apart in our area," Robinson says. "Our trucks are equipped with the technology to handle just about anything." That means investing in drain cleaning machines and inspection cameras. Each service truck carries several models of cable machines from Gorlitz Sewer & Drain ranging in size from 3/4 hp motors wed to 11/16 cable suitable for clearing sewer lines down to 1/4 hp units for unplugging sink drains.

The company relies on RIDGID SeeSnake cameras with 200-foot lines for inspection of water pipes, sewer pipes and drainpipes. Besides natural obstructions, the camera work has located kids' toys, dead rodents and, on two occasions, wedding rings. One service call recov-

ered a diamond band dropped down a toilet by a woman about to be married. The company performed the service for free as a wedding gift.

But Robinson says a more frequent job is locating leaks in new homes after a homeowner or contractor has unknowingly punctured a PVC pipe when mounting a picture or TV on the wall. "We use a camera to find those leaks. It saves a lot of time spent tearing out Sheetrock when you know where the leak actually is." Continued >



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(4)









A coaching change

In 1985, Dave and Maurine Burt started a drain cleaning business in Fruitland, Idaho. Dave Burt did the service work, drawing upon his building contractor experience, and made calls with a service van he'd put together and a septic tank pumper. Meanwhile, Maurine Burt, who has an accounting degree from Boise State University, kept the books. She shifted into the role of office manager after the staff and customer base grew enough to warrant an office.

For the next 20 years, the family business kept busy. In 2005, son-in-law Gerard "Jerry" Robinson completed his four-year journeyman plumber course and the company added "Plumbing" to its name. With that, the business got busier.

"The work has changed a lot since 2005," Robinson says. "They didn't have any mobile phones, for example, so they'd find a phone and check in as a workday went along." Today, cellphones, smaller inspection camera units and more sophisticated jetting equipment speed the work. Furthermore, the internet has transformed marketing into a mostly online activity, supplanting traditional advertising on billboards and in telephone books, and the company has exploited the web.

In 2011, something else transformative occurred: business coaching. The Burts and Robinson were a member of a local business networking group that met weekly. There, they eventually became acquainted with Ed Renna, a business coach from Boise. "In plumbing school, they don't teach you how to run a business," Robinson says. "That's a whole other education."

The three began to meet regularly with Renna, weekly at first and then twice a month. The focus of a meeting is whatever is on the owners' collective mind. "It might be different business strategies we want to try or some problems we may be having," Robinson says. "He also helps us manage our team — how to teach them good customer service skills or speaking skills." Renna talks regularly with other coaches about plumbing and drain cleaning and shares what he learns with the Treasure Valley Plumbing and Drain Service team.

The coaching has changed the way they do business. "Some things we were doing right. Other things we weren't doing at all. We learned about closely tracking our marketing dollars. We learned about what's good business and not good business. One thing that really stuck with us is goal setting. We began to set 90-day goals; annual goals; three-, five- and 10-year goals. The goals keep us on track."

Becoming a fuller-service company in 2005 with the addition of plumbing services was a watershed for the company, but so was the decision to engage a coach, Robinson says. "Without a doubt, taking up coaching was a pivotal point in our business. It already has taken us above and beyond where I ever thought we would be."

- ◀ The team at Treasure Valley Plumbing and Drain Service in Fruitland, Idaho, standing outside of the company shop.
- Cody Evenden-Griffin, right, views the camera feed as he and Jerimiah Brown use a RIDGID sewer camera down a clean-out to locate and inspect the sewer lateral.

IN THE FIELD

The firm's oldest service truck is outfitted with a US Jetting system to clean out plugged sewer lines and drainlines. It includes two 100-gallon water tanks, a diesel engine yoked to a 3,000 psi pump and 300 feet of hose. The rig can blast through blockages in pipes up to 10 inches in diameter.

On occasion, the company's jetting calls are to fields or orchards. Most of the agricultural land in the valley is irrigated, and irrigation lines sometimes become plugged because farmers typically pull water straight from the Snake River, which can introduce mud and rocks into a line. Or a root intrudes on a buried line to stanch the water's flow. Whatever the cause of blockage, the jetter blasts it loose.

More often the crews are jetting home drains, light commercial (restaurant, apartment complex, car wash) sewer lines, municipal mains and parking lot drains in places like Ontario, Fruitland and Payette, Idaho.

Most service calls originate within a 20-mile radius of the company office, yet it is not uncommon for one of the trucks to respond to a call from a customer in Jordan Valley, Oregon, an hour and a half south of Fruitland or from a ski resort in McCall, Idaho, 2 1/2 hours north. Occasionally, a call will arrive from Boise some 50 miles east. "We've gotten calls from California," Robinson says, attributing such errant encounters to confusion about town names. "We tell them a service call for them might be too expensive."

FAMILY TIES

Weekend calls are accommodated by service technicians working a rotating schedule. "We try our best to give our employees the time they need at home and with their families, but you have to take care of customers, too," he says. The company website mirrors Robinson's comment, declaring the company's commitment to faith, family and the business. "We try to keep family and faith tightly knit together in our everyday lives."

Robinson believes the company is also distinguished from rival firms by its family of dispatchers. Maurine Burt's tenure in the front office has honed the support team into a professional unit that relies on ServiceTitan software to keep track of trucks and appointments and licensing. "We



are unique in that we answer the phone professionally and with expertise unmatched in Treasure Valley."

So far, the formula has worked for Treasure Valley Plumbing and Drain Service. It has grown from a homebased, three-employee firm to one with an equipment yard and a 100-by-40-foot warehouse and office. The owners recently acquired an adjacent property with a building on it that may become a second company building.

"In the next three or four years, the Burts will retire or semiretire," says Robinson, whose vision goes well beyond those years. "I have looked into expanding to another area with possibly a second shop. And I'd like to venture into some other services, such as trenchless pipe-laying work. We've had a little trenchless work done for us from a company out of Boise. I think that will be a good opportunity for us."

Featured Equipment

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Cleaner, Faster, Straighter

Cordless plastic-pipe shear from Milwaukee Tool saves time and keeps customers happy Bv Ken Wvsockv

t Bill the Plumber, a residential-service plumbing company in Sarasota, Florida, Tim Donohue, service manager, constantly stresses efficiency, safety and professionalism. That explains why the cordless M12 plasticpipe shear from Milwaukee Tool is a popular tool among the company's four technicians.

Powered by a 12-volt lithiumion battery, the tool is designed to quickly cut through up to 2-inch-diameter plastic pipe in just three seconds. But the tool also earns its keep by making straight, burr-free cuts, Donohue says.

That may sound like a minor thing, given that it doesn't take that long to deburr a pipe. But in the long haul, minutes add up to

hours. Furthermore, when technicians constantly have to make more than one cut with, say, a Sawzall or a hacksaw, they go through blades faster and waste more pipe, he notes.

"Sure we're talking about seconds here and there," Donohue says. "But the less steps you have while cutting, cleaning and prepping pipe, the more efficient you are at putting things together.

"With the M12 shear, you'd have to try pretty hard to get a crooked cut," he adds. "Cutting quicker and straighter saves us money compared to always recutting pipe. You add up all those little 1/2-inch pieces you miscut with a hacksaw or a Sawzall and at the end of a year, you've maybe wasted 20 feet of pipe."



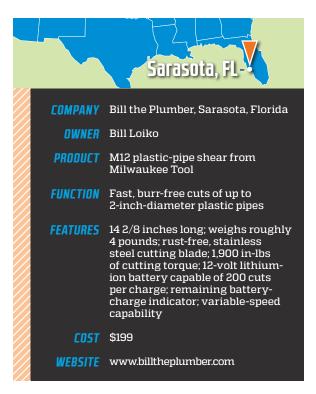
▲ The M12 plastic-pipe shear from Milwaukee Tool can do fast, burr-free cuts of up to 2 inches in diameter on plastic pipes. The tool, which is 14.2/8 inches longer, weighs roughly 4 pounds and has a rust-free, stainless steel cutting blade. (Photo courtesy Milwaukee Tool)

Sure we're talking about seconds here and there. But the less steps you have while cutting, cleaning and preoping pipe, the more efficient you are at putting things together."

Tan Usnabue

CLEAN AND SAFE

Another benefit: No debarring means no PVC shavings littering a job site. So job sites stay cleaner with less effort. That's important at Bill the Plumber, where clean



job sites are a top priority in terms of customer satisfaction, Donohue says.

A reputation for cleanliness is a differentiating factor in the marketplace that can lead to word-of-mouth referrals for the company, which was established in 1980 and has eight employees, Donohue says.

The company, which serves customers within about a 50-mile radius around Sarasota, strongly emphasizes safety for technicians. The M12 pipe shear comes into play here because it doesn't use a moving blade to cut pipe, Donohue notes.

Instead, a rust-resistant, stainless steel blade cuts the pipe while it's held in an aluminum jaw; the blade applies 1,900 in-lbs of torque. The blade is activated by squeezing a trigger. Furthermore, the tool grips pipe while it cuts, which allows technicians to keep their hands away from the blade and minimizes the odds of getting cut, he notes.

"That's huge because someone could miss several days of work if they cut a finger," Donohue says. "And the blade pops back up when you finish the cut, so it's easy to get right to the next cut."

Designed for one-handed operation, the low-profile cutting jaw is designed to work in tight quarters, such as pipes that run next to a wall or near a stud. And the battery can power up to 200 cuts per charge. The tool also offers a variable-speed feature for more controlled cuts, as well as a battery-power indicator that displays remaining runtime.

"It's really simple to operate," Donohue says. "Just measure and mark the pipe, open up the blade, stick the pipe in there, press the trigger and get a smooth cut."

GOOD IMPRESSION

The pipe-shear tool also provides a less-tangible, but equally important, benefit: A professional image created by using timesaving, advanced technology. "A nice tool that works quickly and efficiently and protects peoples' homes from getting messy tells customers that you're a professional," he says.

"When we pull out professional tools instead of an old bucket stuffed with rusty tools, they see a big difference compared to other plumbers," he continues. "We want to be better at on-the-job cleanliness and presentation, so having tools that make jobs easier and allow us to work cleaner are very beneficial to us."

> **44** We want to be better at on-the-job cleanliness and presentation, so having tools that make jobs easier and allow us to work cleaner are very beneficial to us."

> > Tim Donohue

The company's professional image is also enhanced by its four Chevrolet 3500 Express cutaway vans outfitted with Knapheide bodies. The trucks carry drain cleaning equipment from RIDGID and inspection cameras made by EasyCAM.

Would Donohue recommend the M12 pipe shear to other plumbers? "Absolutely," he says. "You're talking to a guy who used to use a Sawzall all the time to cut pipe. But as soon as I saw this tool, I said to myself, 'I'm buying one.' Any tool that helps me do my job better and helps me make money is a tool I want to have."





Your Employee Just Asked for a Raise. What's Next?

It takes guts to approach the boss and ask for more money. Treat the request with respect, and follow these important steps before you blurt out a yes or no. Bv Jeff Haden

ears ago, I got fired over problems that arose regarding an employee's raise. So I may care a little more about what you should say, and do, when an employee asks for a salary increase.

But you should care just as much because how you handle the raise request will immediately impact your employee's motivation, performance and, ultimately, the success of your entire team. Let's make sure the outcome is positive — even if you have to say "no."

We'll break down the process into three stages:

What to know before your employee asks for a raise

Let's start with some basics. What a particular employee may need is certainly important, but it should not be part of the discussion. Some employees have families. Some have lots of bills. Some have major expenses to pay off. While it may sound harsh, no matter how pressing an employee's need, their pay should always be based on their value to your business. Not their needs.

Make sure you're prepared to discuss hard numbers, not just opinions. Before you meet:

- Check your payroll system to see what the employee's current salary or wage is and how that compares to others in similar roles and of similar performance.
- Read through previous performance reviews and action plans.
- · Check other tools you use that collect data, like your CRM software or POS system, to see employees' sales figures and progress against targets, if it applies to the employee's job.

Higher pay should result from greater value provided - so make sure you know just how valuable your employee is.

How an employee performs compared to their peers is important, but it shouldn't be a part of the discussion.

While it may sound harsh, no matter how pressing an employee's need, their pay should always be based on their value to your business. Not their needs.

Maybe Jim does outperform Jessica. Maybe Melody does outperform Mark. However, engaging in that discussion opens a can of worms you can never close.

(Besides, great bosses never discuss another employee's performance.)

The only thing that matters is your employee asking for the raise. What they've done (and how they did it), what they've achieved, and what value they create. Be prepared to shift the focus back to your employee and their accomplishments.

Your company's financial position is certainly important, but it should only be a small part of the discussion. Your employees should already know if cash flow is extremely tight. So don't automatically respond with some version of "You know I can't afford to pay you more" and end the conversation.

If money is tight, feel free to say so. But be prepared to quickly move on to discuss your employee's performance, and if your answer will be "no," what the employee can do to someday earn that pay increase.

How to respond when your employee asks for a raise

An employee comes to your office, closes the door and says, "I want to talk to you about getting a raise." While the thought might make you uncomfortable,



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put yourself in your employee's shoes. It's hard to ask for a raise. (Have you ever done it? Nope. Me neither.) They're nervous. They're uncomfortable. They're putting their professional relationship with you on the line.

Don't blow the moment by deflecting or demurring. Embrace the moment for what it is: an opportunity to have a meaningful conversation with a valued employee. Nod your head and say, "Great. Let's talk about it. Tell me why you feel you deserve a raise."

And then listen. Don't argue. Validate your employee's feelings by giving them the opportunity to talk. And if you do ask questions, make sure they're clarifying questions. In short, seek to understand. Then respond.

If you're a great boss, chances are your employee is already paid fairly. But if you decide your employee does deserve a raise, don't just say "yes." Explain why. Make sure the employee doesn't just feel you "gave" a raise. (Or somehow gave in.) Make sure they understand they earned it. In short, if your employee's accomplishments persuade you that they're underpaid, rectify the situation.

But if that's not the case, you'll have to say no. But don't stop there. Offer hope, and more important, offer a path by explaining exactly what your employee will need to do in order to earn a raise.

Here are some ideas you can give them:

- Create a side project. Excelling at an assigned project is expected. Excelling at a side project makes people stand out. The key is for your employee to take a risk while making sure your company or customers don't share that risk.
- Raise less issues, solve more problems. Plenty of people take verbal stands. Fewer put effort behind their opinions and back them up with research and work product. Instead of showing everyone how smart they are by pointing out a problem, the best employees fix the problem. Encourage your employee to do the same.
- Be the person who drives *important* results. No matter the business, one or two things truly drive results. Maybe it's quality. Maybe it's service. Maybe it's being the low-cost provider. Other aspects are important, but for every business, one or two are absolutely make-orbreak. The best employees focus most of their efforts on those areas because that will help the business succeed.
- **Do the next job.** Most people wait to get a raise before they consider working harder. The smart approach is to work harder now so employees can prove they're capable for the next more advanced, higher-paying job.

Great employees say, "I want to earn more ... so I will do everything possible to prove I should make more money."

Hard work always comes before the reward.

And one last point. If you suggest ways an employee can earn a raise and they're unwilling, that's OK too. Ultimately, all you can do is lay out the path. Your employee will decide whether they wish to walk that path.

What to do after you've had the raise request conversation

As a boss, the worst thing you can do after an employee asks for a raise is pretend the conversation never happened. You may be tempted to forget it, especially if things didn't go particularly well. But your employee definitely won't forget. Use that fact to your advantage.

Follow up. Ask how a project is going. Ask how a development plan is progressing. Ask about problems solved, informal leadership roles assumed or unusually positive outcomes. In short, follow up because it shows you care, you take their initiative seriously and you want to motivate them for the future. Follow up because it shows you want them to get that raise.

Jeff Haden is a contributing editor for Inc.com and a LinkedIn Influencer. He is the author of The Motivation Myth: How High Achievers Really Set Themselves Up to Win.

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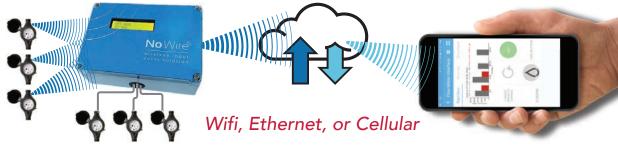


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A Focus on Improvement

Narrowing your focus and learning to delegate are key to building a successful business Bv Brigham Dickinson

ife as a business owner can be tough and lonely. It's easy to lose track of your goals and squander potential, whether you've been in business for two

Running a business requires a constant, singular commitment to your vision, your employees and your best self. If you aren't prepared, you might miss opportunities to enhance your relationships and accomplishments.

Since starting my company, I've noticed three human tendencies that can get in the way of any business, no matter what size. They can lead to business owners getting stuck and complacent, failing to move forward and eventually falling behind. But there are ways to avoid getting trapped in them. Business owners need to know what to look out for and need a plan to cognitively deal with human tendencies before they manifest in your behavior.

To be successful, it is so important to not only know your limits and boundaries, but also where you're strongest. Nobody can do everything, but some people can do a few things well enough to turn them into value for others. What we should strive to do is identify our key strengths — those things we do better than anyone else — and push out all the rest. For business owners, this means focusing on just one part of the business and delegating the rest to your employees. If you're an owner and your strengths lie in being in the field, then it might be a better option to appoint someone who's really good at leadership to run your company than to do it yourself.

Compensation based on performance is not just for salesmen or athletes anymore, it's for everyone. Your performance in the role you play is more important than the role itself. You might feel like being the owner or the leader is the most important job. However, what's a leader without people willing to follow them? Your job does not matter as much as how good you are at doing your job. Whatever work you decide to do, work hard to be the best and you'll find that you'll get paid the most.

LEARN TO DELEGATE

As business owners, we need to know our own strengths and the strengths of those people with whom we surround ourselves. If you're assigning tasks to people who just aren't very good at those tasks, they won't get done as well as they should and you are wasting time and resources. But if you delegate according to your employees' strengths, you can start to deliver real value to your customers and stakeholders and really start growing your company as a result.

You need something that drives you and your team on a fundamental level, that keeps you all on track.

NARROW YOUR FOCUS

The thing you might want to ask is, "How can I, as a business owner, only focus on my strengths? Won't things get missed or left out?" And the answer is: trust. Trust in yourself and those you have delegated to. Develop a personal mission statement, and keep it front and center in your mind at all times. You need something that drives you and your team on a fundamental level, that keeps you all on track. Ultimately, you need to put your whole self into your business, into those strengths, relentlessly until you become the best at whatever it is that you're doing. In order to do that, you need employees who can and will do the same with their responsibilities, so you can delegate effectively.

Every morning, when I get up, I make a point to recite a personal mission statement. I even have it written on my mirror. After that, I take some time to read and reflect on the things I'm grateful for, and that helps me stay focused on what my goals are and how to get there throughout the day.

If you're unsure of what to focus on, figure out what your one, singular purpose is. Find a problem in your life, and work to solve it as quickly as possible. Home in on that one thing you want to achieve, chase after it, push aside distraction and do whatever it takes to reach that goal. You'll gain confidence in yourself, and future goals will be that much easier to achieve.

AVAID DISTRACTION

There's so much that can distract us. Every day, we wake up and we're just bombarded by distraction: the news, politics, even the weather. When I was working for a previous employer, one of my distractions was a competitor of ours who kept copying my ads. Every week, I would look at their ads and they were exactly the same as mine except for one really good ad that featured the charred husk of a building. Our competitor's building had burnt down, and he was trying to sell the equipment he had bought just before the busy season to continue running his business.

It was a really good ad, and I got so focused on it that I let it distract me. I went to my boss' office, told him we needed to burn our building down, and he looked at me like I was crazy. He leaned over his desk and told me something important: He didn't care what our competitors were doing. He wanted me to focus on what I was doing, what our company was doing, because my job was to generate leads. He helped me to stay focused on what I could control — my own advertising, not trying to copy our competition — and we ended up putting together some of the best ads we ever ran.

TAKE IT TO THE NEXT LEVEL

The lesson in this is to focus on what you can control. Don't let other things distract you. Focus on your singular purpose, and help your employees do the same. Take some time every morning to really home in on what you want out of life and author your own destiny. Take some time away from social media, shove those distractions out of your mind and workplace, and focus on the task at hand.

In order to take your business to the next level, start with your focus. Your focus determines how you think, and how you think is what drives your emotions and actions. In order to have the right actions, which will build a stronger and more effective business, the first thing you need to do is change your focus by ignoring distractions. Keep what's most important front and center in your mind, and you'll find there's nowhere to go but up.

After incorporating these principles into his own life, Power Selling Pros president Brigham Dickinson wrote Patterned After Excellence to share his experiences and lessons with other business owners.







Adopt a Toilet

Everyone can come together to help get more working restrooms in areas of the world that are lacking them Bv Randv Lorge

ccording to an article I read online, as of Jan. 30, 2018, there were 262 public restrooms available for use at Walt Disney World Resort in Orlando, Florida. With another click of the mouse, I was also able to determine that the average number of people who visit the resort per day is about 53,000.

Pull the calculator up for some quick math and that equates to approximately a 202:1 ratio of people using each toilet every day. Incredible right?

Now, of course, these visitors also have the luxury of using their own restroom in their hotels or places of residence while on vacation. So if we take another glance at this statistic, we could derive that based on the average family size of 2.6 people in the U.S., almost 20,385 families visit the resort every day.

If each family has just one restroom in their hotel, or place of residence, that turns out to 20,385 additional restrooms. Now we're talking some serious numbers folks. Think of the plumbing labor hours it took to install those restrooms and the staggering amount of plumbing service calls that creates. Amazing!

Here's another incredible statistic for you, for every 129 people, there is one toilet. Again, that's the ratio of people using one toilet every day. It's a little lower than Disney's, but it's still a pretty significant number of people using one toilet. Now what if I told you this statistic isn't from a theme park or some sports stadium. A total of 39 households share one toilet. The average family size in South Africa is 3.3 people. Let that sink in for a second. These families do not have indoor plumbing.

Diepsloot is one of South Africa's most densely populated townships, stretching over 5 square miles. The township was established in 1994 as a transit zone for migrant workers from southern Africa, while also providing a relocation area for marginalized populations moved from shack-land settlements within the city of Johannesburg.

Most of township's inhabitants live in 9-by-9-foot shacks made of scrap metal, wood and plastic. The official census number for Diepsloot in 2011 was 138,329. However, over the past 20 years the population has mushroomed to over 400,000, while unofficial reports estimate the population to be closer to 500,000.

In 2016, a colleague and I had a unique opportunity to take a team of young plumbers and engineers from the U.S. to Diepshoot where we joined with three other global tearns to work on these public toilets as part of a Community Plumbing Challenge (www.iwsh.org).

A total of 39 households share one toiler. The average femily size in South Africa is 33 regree, Let that sink in for a second. These families de not have indeer plumbing.

To give you a better understanding of these toilets, imagine two concrete-type portable restrooms located side by side along the street in the village. Mounted on the outside of each toiler is a concrete basin for handwashing and a place for the residents to wash their clothes. Fach toilet is connected to a public water supply and the public sewer system.

Our primary goal was to work collectively to determine best practices and designs for these public toilets. We developed designs that would help with basic maintenance issues. We presented ways to upgrade the sinks and taps for the restrooms while training a small group of locals who work under the label of WASSUP (Water Amenities

Sanitation Services Upgrading Program), which is supported by a nonprofit organization called Sticky Situations, on the basics of plumbing and maintenance.

We also addressed a very serious problem that many of us here in the U.S. never even consider: installing secure doors on the toilets. This simple feature afforded the families a safe place to go.

The teams did some great work, but we were only there for a week and worked on about 10 toilet upgrades. If we played with the numbers I gave you earlier, at 3.3 people per household and 39 households per toilet, that would mean based on the official population in 2011 of 138,329, you would have 41,918 households. Divide the number of total households by 39 households per toilet and you would have 1,075 toilets. I can say that there are not 1,075 working toilets in Diepsloot.

That project took place almost four years ago. WASSUP is still going strong in Diepsloot. Their work is endless, but they get up every day and get after it. This past December, on Giving Tuesday, our www.iwsh.org team created a fundraiser for them. We were able to send them over \$2,000. WASSUP also created a fundraiser called #AdoptAToilet.

For \$100 the supporter gets:

- · Your logo chosen image/text painted by local signwriters on your adopted toilet-house
- Direct communication with the WASSUP team
- One year of updates on your toilet's activities:
 - Before and after pictures
 - What challenges your adopted toilet faces
 - Regular photo updates on how your toilet is doing
 - Your logo or image at the Google Map pin
 - Videos from your toilet with comments from people who use the facility

In December 2019, the Lorge family became the foster parents of our very own toilet in Diepsloot. Check it out at https://youtu.be/Dsk-HvN5OzE.

Please consider adopting a toilet of your own by visiting www.stickysituations.org/wassup.diepsloot.html, and let's continue to protect the health of the nation!



A photo showing the sidewall of a toilet located in Diepsloot, South Africa, that was sponsored by Randy Lorge and his family.

Randy Lorge is a third-generation plumber and the director of workforce training and development for the International Association of Plumbing and Mechanical Officials (IAPMO). Lorge is also a member of the planning team for the International Water, Sanitation and Hygiene Foundation (IWSH). This 501(c) (3) foundation has completed water and sanitation projects for those less fortunate in India, South Africa, Indonesia and, more recently, the United States. He enjoys time with his family and spending as much time as possible in his deer stand. To contact Lorge, email editor@plumbermag.com.

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"Whether the problem's concealed beneath concrete or in a wall, I poke one hole rather than 10, and I'm right on the money," says one contractor.

The Gen-Eye X-POD from General Pipe Cleaners features a powerful command module with a USB port to record video inspections on flash drives.

The lightweight, all-in-one X-POD combines camera, reel and monitor into one compact package. Standard features include a 7-inch LCD color monitor, USB recording drive, one-touch recording, 4x digital zoom, voice-over recording, date and time stamp, and flash drive-capacity indicator.

"We fix problems faster and get more jobs done in less time," another professional confirms.

The full-size X-POD sports a self-leveling color camera and 200 feet of Gel-Rod for inspecting 3- to 10-inch drainlines. The compact Mini-Reel carries 100 or 200 feet of Gel-Rod with a mini, color self-leveling camera to troubleshoot 2and 3-inch lines. Both include a drag brake and reel lock.

Inspecting small lines? The Gen-Eye Micro-Scope2 sports a powerful command module with generous monitor and USB port to record video inspections on flash drives. The compact, hand-held tool offers the versatility and convenience to inspect smaller 1 1/2- to 3-inch drainlines, toilet traps and other hard-to-access locations — like ducts, furnaces and crawl spaces — with a standard 3-foot probe rod. It's ideal for use with flex shaft machines. The command module attaches to the reel with an adjustable mount for optimal viewing angles. The reel carries up to 100 feet of micro pushrod with a color camera.

General Pipe Cleaners' simplified, economical Gen-Ear LE water leak locator offers strong sound amplification. The compact amplifier fits in your hand. And you don't have to guess settings. It provides noise-free amplification with built-in preset audio filters. High-performance, noisecanceling headphones block interference from ambient



noise. It effectively pinpoints leaks in residential and commercial waterlines — even under concrete slabs, in walls, swimming pools and hot tubs.

General Pipe Cleaners' Hot-Spot digital pipe locator offers accuracy, reliability and profitability.

"I use the Hot-Spot 10 times a week," one expert says. "And it's dead-on-the-money, 100% of the time."

The Hot-Spot eliminates guesswork when inspecting and tracing sewer lines, drainlines and septic tanks — even active power lines and buried utilities. It's easy to use, too. On-screen icons make the Hot-Spot simple to operate. Readouts eliminate the need to decipher numbers and bar graphs. After simply watching the Hot-Spot instructional video, one professional "used it right from the get-go!"

Common workplace abuse can't compromise General Pipe Cleaners' tough tool, either. Rated at IP65, Hot-Spot is dustproof and dirt- and water-resistant. It aced the 1-meter drop trial. And its screen passed the 18-inch steel ball drop test.

General Pipe Cleaners' inspection systems enhance profitability, productivity and professional image.



General Pipe Cleaners, a division of General Wire Spring Co., is a leading manufacturer of high-quality, American-made drain cleaning equipment. In business since 1930, the third-

generation, family-owned company is celebrating 90 years' service to drain cleaning professionals and plumbing contractors, as well as facilities managers, the rental industry and the hardware/home center market.

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Pipe Rehab Specialist Helps Nullify Root Intrusion Issues for Pizza Restaurant

cott Hooper of NTX Plumbing in North Dallas, Texas, got a call from a local pizza restaurant with a problem. They had a 40-foot cast iron pipe that was experiencing continued backups, forcing the restaurant to shut down operations until the clog was cleared and the pipe was draining again. The owner had tried three different drain cleaning contractors who said they'd solve the problem by cleaning the pipe. For for a few months the sewer drained, but then the roots grew back, plugging the line again. The three cleaning contractors offered no solution other than to jet the line.



After inserting his Pipe Lining Supply inspection camera in the line, Hooper realized he needed to educate the building owner about the root problems along with the scale building up on the pipe walls that the jetter didn't remove. Showing the owner the problem in real time and offering a permanent solution gave the owner the confidence to hire NTX Plumbing to fix it.

Hooper explained that NTX would remove the scale and roots with a Renssi high-speed cable machine with a Pipe Lining Supply camera attached to see what they were doing as they opened and descaled the pipe. Upon descaling, they found the bottom of the pipe was missing about 1 inch, which let the roots grow in unobstructed. The Renssi high-speed cable machine made quick work of the cleaning process.

Hooper asked for help from a Pipe Lining Supply technical rep to decide which rehabilitation method would be best. The line had multiple tie-ins and went from cast iron to PVC pipe. The Quik-Coating process appeared to be the best choice, as the pipe bottom would need rebuilding and the PVC-pipe branch lines that tie-in the men's and women's bathrooms needed to be sealed to prevent root penetration. The crack was filled with the Quik-Coating resin system and then brush-coated to form a monolithic coating inside the pipe, giving it another 50-plus years of service. The resin is applied in coats building to a 3 mm thickness.

Analyzing, cleaning, descaling and coating was accomplished overnight with no closure or disruption to the restaurant. The owner was so pleased with the outcome that they asked NTX Plumbing to clean and coat the rest of the drain, waste and vent lines in the restaurant.



Pipe Lining Supply's 15-plus years' experience in the cured-in-place pipe industry makes them a proven leader with state-of-the-art pipe rehabilitation equipment and top-notch technical trainers. They offer not only pipe rehabilitation products from the kitchen sink to the main sewer, but also all pipe repair materials and training.

888-354-6464 info@pipeliningsupply.com www.pipeliningsupply.com

Spartan Locator Hits the Depth Mark

partan Tool's locator meets the rigors of the job and allows you to locate virtually any pipe material. Besides drainlines, the Spartan locator enables you to map existing lines from other services to ensure your safety when digging. On-screen arrows and aural tones guide the operator to the line. Lines can be located using an inductive clamp, beacon (sonde) or passive (utility) lines. Combine the line location with the depth estimator function and you know just how much you will have to dig. See how the Spartan locator helped a company in Kentucky gain a customer for life.



Problem

A manufacturing plant in Kentucky was having a drainage issue. The plant was bought from a previous owner, so the current occupants didn't have drawings of the sewer lines for the building. They did know that the system consisted of old cast iron pipes buried in dirt under 8 inches of concrete. The dirt was heavily compacted from years of heavy equipment being driven across the floor.

The company owner called Logan Higginson of A1 Septic Inc. and Plumbing Services. Higginson used his Spartan locator and Spartan camera system to survey the pipes. He discovered that the entire plumbing structure ran underneath the 7-acre building. He was also able to use the locator to pinpoint the location of the problem.

Solution

Scale buildup was causing debris to get caught in a pipe 7 feet underground. They needed to dig through the concrete and compacted dirt to get to to and replace the pipe. The job required trench boxes for safety due to pipe depth.

The owner was skeptical that A1 could tell him with such accuracy where the problem was. He agreed to have the work done, with the stipulation that he would pay for it the first time, but if A1 missed its mark, it would be responsible for additional expenses.

Result

With the CEO and maintenance crew watching, digging started and A1 led them directly to the problem, including the accurate depth. "Having [them] looking over your shoulder and then hitting your mark is awesome," says Higginson. "I wish we would have gotten into this a long time ago."



Spartan Tool knows your time is valuable. Time spent buying equipment, repairing equipment and training your employees is time you could be with a customer making money. That's why Spartan is your one-stop shop for sewer and drain cleaning equipment. Our 30-plus territory managers cover the continental U.S. in trucks fully stocked with inventory, ready to deliver on site. Whether you need a new drain cleaning machine or have questions about troubleshooting, your territory manager is ready to help. Our durable equipment is built to handle the toughest jobs, and we want to make sure you are getting everything you can out of your Spartan machines.

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Draincables Direct EagleEye Cameras and Inspection Line

raincables Direct has expanded its product offering with EagleEye camera reels and monitors, as well as Rycom locators.

The EagleEye product line features American-manufactured camera reels and monitors. EagleEye camera reels offer options for inspecting lines from 1 1/2 to 12 inches. The reels are equipped with a color camera head for detailed views of obstructions. The camera reels are compatible with any EagleEye, CustomEyes, or RIDGID SeeSnake monitors. and come with optional selfleveling and Wi-Fi.

The EagleEye monitor selection features Wi-Fi enabled monitors that allow you to view and record

your camera inspections. The EaglePack monitor features built-in recording and a still-shot feature in a water-resistant case with a 5-inch LED screen with light adjustment up and down. The EagleTrek monitor features one-touch USB recording and a 19-inch LED screen in a water-resistant case. All EagleEye monitors are compatible with EagleEye cameras, CustomEyes cameras or RIDGID SeeSnake inspection reels.

Draincables Direct recently introduced Rycom Instruments' locators and detectors as its new product line. The Rycom SnapTRACK is designed for the professional and features adaptable frequencies and operational modes. PathLink technology creates a link between the transmitter and receiver. The transmitter's output can be controlled from the hand-held receiver.

The Rycom line also features the Magnastick MSL that seeks to find ferromagnetic objects by sensing their magnetic fields. The sensor is highly sensitive to magnetic lines that are present in iron materials, but it's not affected by nonferrous materials like brass, aluminum or copper.



The tool is controlled with large, easy-to-use buttons on the water-resistant handle, and the sensor tube is waterproof to aid in locating ferrous objects underwater.



Draincables Direct, distinctly American and powered by passion, is a leading manufacturer of American-made sewer cables for the professional plumber and drain cleaner. With more than 30 years' experience. Draincables Direct uses the finest-quality music wire to manufacture replacement cables for nearly every brand of cable machine. Designed as a one-stop shop, Draincables Direct distributes most of today's top plumbing repair tools and drain cleaning brands.

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Listen for Leaks on Any Surface With MyTana's LD40 Leak Detector

yTana's LD40 leak detector can identify leaks through any surface. Its responsive sensor detects hissing, trickling or seeping sounds while aptly filtering out background noises. Using technology originally developed for the nuclear power industry, the LD40 is specially designed to pick up acoustic signals and frequencies commonly encountered in plumbing, water and sewer applications like toilets, drains, industrial pipes, steam pipes and other pipes transporting liquids.

Leak detection presents unique challenges for even the most experienced

professionals. The acoustic signal characteristics of leaks vary considerably from one leak to another, even when they have similar water pressure and water leak rates. In some cases, you may know for certain that a segment of pipe contains one or more leaks, but there will be no visible indication of the specific location or size. In other cases, a leak may go unnoticed for a long period of time and thus lead to more long-term complications and resources lost.

Several factors such as the leak-hole shape or cavity presence outside the leak hole can cause a leak's sound to vary noticeably. Leaks located in pipes under greater pressure may sound different than those under lower pressure, and the contents in those pipes can also affect the leak's frequencies. Sometimes leaking water can travel a long way under concrete slabs or pavement before becoming visible. At-home leaks may emit less acoustic energy than others and are thus more difficult to hear.

MyTana's experts created the LD40 to provide plumbers and drain professionals with the best tool to meet these challenges and to ensure no leak goes unidentified. It works on all materials, so it's excellent at detecting slab leaks, such as those caused by corroded pipes in a foundation or pipe bursts. Four sensor tips are provided for different surfaces, including points that detect through carpet — which means you can avoid pulling up flooring when on the job.

The digital display reflects what the sensor is capturing, which makes it easy to both watch and listen for leaks in



real time. And the display and digital response meter offers five frequency bands and a gain-control mute switch.

Other notable features include a probe unit with sensor probe extensions for detecting leaks in overhead pipes, behind walls or in tight spaces; lithium-ion battery power, easily charged with a USB port; a belt hook to support the unit when mapping out large areas or walking around on the job; and a custom carrying case to protect and transport equipment (dimensions are 13.5 inches wide by 15 inches in length by 6 inches high)

MyTana's LD40 leak detector helps plumbers and drain professionals efficiently locate leaks in order to provide a fast remedy, saving themselves and the customer both time and money.



MyTana Mfg. is a St. Paul, Minnesota-based, full-service manufacturer of drain cleaning and inspection equipment including cable machines, drain jetters and plumbing

cameras. The company also offers cables, blades, nozzles and other accessories for plumbers and drain cleaners. By selling directly, MyTana is able to maintain competitive pricing while offering a high level of personalized service and support. MyTana equipment is factory direct and American made.

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Single-Conductor Technology: **Proven Performance for Utility Inspections**

oday, there are two main technologies available in camera inspection systems. One is called multiconductor technology. The other is the same proven technology that delivers 450-plus channels of TV, highspeed internet and telephone service to your home. Yes, the choice of today's cutting-edge communications companies is also available in your next camera inspection system. It's called single-conductor technology, and it's the foundation of all Subsite Electronics mainline inspection systems.

Single-conductor technology delivers significant cost and performance advantages over the alternative through interchangeability of components, backward and forward compatibility, and reduced downtime. A key component of this technology's superior performance is the single-conductor, or SinCon, cable used to connect the inspection camera and transporter to the control system. This cable supplies power to the camera, tractor and lights, and it controls equipment functions like pan-and-tilt, tractor speed selection, stop, freewheel and others, all while transmitting multiple video signals to the control unit.

The central core of SinCon cable is constructed by wrapping copper strands around a single-stranded insulated wire. A plastic jacket is then extruded over this coaxial cable, and two layers of galvanized steel wire are contra-helically wrapped for strength and protection of the coaxial cable. These galvanized wires are also used as a safety ground for the system.

The result is a cable that is smaller (typically 1/4-inch diameter) and much stronger than other reinforced multiconductor options. In fact, while multiconductor cable has a breaking strength of just 500 to 2,000 pounds, the SinCon cable on Subsite mainline inspection systems has a breaking strength of 5,400 pounds.

Strength isn't the only advantage the SinCon cable delivers. The cost savings are significant. SinCon is less expensive than multiconductor cable, plus it has a longer life expectancy, which can save you substantial amounts of money over the life of the equipment. In fact, SinCon cable is so durable, it's been shown to last three times longer than multiconductor cable.

In addition to durability, SinCon cable is simple to maintain. End connectors can easily be replaced in the field in a matter of minutes. By contrast, multiconductor cable typically requires several hours of labor and advanced



technical skills to splice or troubleshoot multiple wires. In the event catastrophic damage does occur to the SinCon cable, the system's controller circuits automatically detect an issue and shut down instantaneously. This prevents damage to the camera, tractor or controller — saving money.

For clarity of inspection images, single-conductor technology is ideal. Multiconductor technology loses video signal quality along the length of the cable, but video signal quality is not affected by the length of a SinCon cable. The video signal is modulated at the camera and sent to the controller. Then the controller demodulates the signal and reproduces the original high-quality image that is seen on the monitor and recorded. You get pristine picture quality without the added noise or loss of signal that multiconductor users experience.

For more information about the benefits of single-conductor technology, including significant safety benefits, ask your nearest Subsite Utility Inspection dealer.

Subsite Electronics is committed to providing underground construction

professionals the most comprehensive suite of electronic products in the industry, including utility locators, horizontal directional drilling guidance equipment, utility inspection systems and equipment machine controls. By utilizing innovative technologies, extensive market feedback and outstanding customer support, Subsite has established itself as the premier source of electronic technology to support the installation, maintenance and inspection of underground pipe and cable.

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Sonde Locations Are a Breeze With vLoc3-Cam

ivax-Metrotech's vLoc3-Cam is an easy-to-use sonde locator. Its omnidirectional antenna array allows users to approach the sonde from any position. The directional arrows will guide the user first to the front or rear locate point and then directly to the sonde's position.

There's no need to sweep forward-to-back or side-toside. The vLoc3-Cam walks you to a position directly on top of the sonde.

Good compatibility

The vLoc3-Cam includes multiple sonde frequencies, making it compatible with the major push cameras, crawler cameras and directional drilling sondes on the market today.

The vLoc3-Cam comes with two passive locate modes of power and radio. They will detect the presence of most live power lines, TV cables, telephone and some metallic pipes, which radiate 50/60 Hz from nearby or overhead power lines.

For active locating, with the use of a portable transmitter, the vLoc3-Cam comes with an 83.1 kHz frequency for tracing the pushrod. This frequency is ideal for water and gas utilities, as well as locating smaller-diameter buried utilities.

Plug-and-play options for the receiver include an optional Bluetooth module usable with external GPS devices. Vivax-Metrotech's



free VMMap app can create a bird's-eye view of the pipe path, complete with GPS coordinates and user comments.

Customers can keep firmware up to date and download data from the receiver with the company's free MyLocator desktop app.



Vivax-Metrotech Corp. is a worldwide METROTECH leader in the manufacturing of buried

utility locators and video inspection cameras.

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Enhance Your Pipeline Inspections With Feature-Rich Ace 2 Camera

he compact and portable Ace 2 inspection camera from Electric Eel is loaded with features designed with industry professionals in mind. The 1.6-inchdiameter color camera head has a 512 Hz sonde built in for locating and is available with a self-leveling option. The unit comes standard with 200 feet of push cable, one-touch recording and an on-screen counter.



Making inspections easy

A 5.4-inch LCD monitor is protected by a steel cover and allows for good viewing even in sunlight. The unit also features a heavy-duty wheel kit for easy transport and a reel brake to lock the reel in place for transport. A protective skid comes standard on the camera head.

The Ace 2 is also available in a Wi-Fi version in which multiple devices can be used for viewing and recording.

Electric Eel Mfg. Co. Inc. offers a full range of equipment, including pipeline inspection equipment systems, sectional drain cleaning

machines, drum machines, water jetters and gas-powered municipal sewer cleaners. Along with a commitment to quality, the company dedicates service and support to all its customers and distributors. Electric Eel works to expand its business in the U.S. through market penetration and internationally by seeking new distributors.

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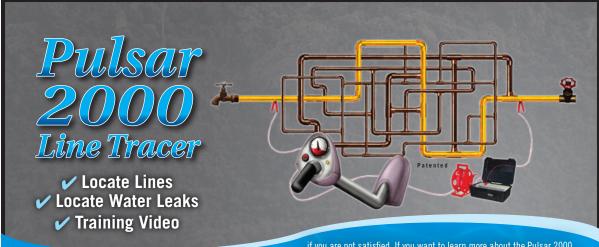
The FloLogic System offers plumbers a premium solution to sell and install. FloLogic is a U.S.-made cast bronze valve, which exclusively detects leaks in real time starting at 0.5 ounces per minute (about one drip per second) regardless of pipe size. The FloLogic valve assembly is waterproof for outdoor installations and can be installed in various orientations. The system can be integrated into alarm panels for additional monitoring and automatic mode changes.

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A Clear Picture

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

nspection cameras are a critical tool on many plumbing projects. So when a camera breaks down on a job, productivity, profitability and customer relations suffer.

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

Of course, inspection cameras are complex machines and many repairs must be performed at service centers. But industry experts say there are certain problems contractors can troubleshoot themselves — and keep jobs moving ahead on schedule.

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

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

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

On CUES camera trucks (most of the company's camera systems are truck-mounted), contractors can use a test cable to evaluate the state of various components; a test cable is included with cameras. For example, an operator can bypass the cable reel by plugging one end of the test cable into a test port on the truck and the other end into a camera head; if the camera works, it's not the source of the problem, James explains.

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

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

Adam White

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

No image on the monitor

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

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

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

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

Jon Beske, X Rooter Sewer & Drain technician, televises a line to make sure it is clear and to try and determine what the problem was. For this particular line, it had root intrusion about 15 feet in. (Photography by Cory Dellenbach)

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

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

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

Water/sewage in the light heads

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

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

Broken cable

If a cable breaks, operators sometimes can "reterminate" it in the field. To do this on a CUES camera, cut off the bad part of the cable, then use the metal splice chamber to reconnect to the cable; the splice chamber protects the connection between the cable and the "pigtail," which has pins on the end that plug into the mainline equipment, James explains.

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

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

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



Prepare with spares

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

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

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

On pan-and-tilt cameras, for example, minute bits of grit can compromise the pivot mechanism. "And when you're going up a sewer pipe, the wheels will pick up everything



from hair to dental floss," she adds. "Hair actually acts like wire and digs into the seals until they fail."

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

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

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

Taking care of your inspection camera will help prevent downtime when problem pop up on a job.



EMPLOYMENT

The septic sales rep will sell & provide support to all septic customers, delivering an excellent customer service experience throughout the customer's journey. Responsible for identifying technical needs & recommending appropriate septic products. Familiarization with the installation of these products & training new groups of installers. This individual will be responsible for the completion of the sales order process, providing excellent communication skills, professionalism & a desire to successfully close deals on sales opportunities. Profile: • 2+ years experience in Water Treatment Sector • 2+ years experience as a "Territory Sales Representative" or "Onsite/Septic Sales Representative" Excellent communication skills Positive, friendly, collaborative attitude in team environment . Strong computer skills (Word, Excel, data entry, software systems) . Ability to multitask & work in a fast-paced environment Duties: • Understand & strive to meet & exceed all sales goals - individual & group goals set forth by the

organization while providing excellent customer service. • Manage a large volume of inbound/outbound leads (emails/calls) in a timely manner with internal & external partners. Respond to customer inquiries and/or complaints regarding the organization's product and/or services. . Help develop technical professionals (installers & septic designers) by teaching them best practices • Build relationships with distributors/customers by providing excellent service . Available to travel up to 80%, to develop & visit distributors in the US. . Take part in training/learning opportunities. 817-262-0744. TX (L04)

EQUIPMENT & TOOLS

Pipe-lining equipment for sale. Large and small inversion tanks w/20cfm compressor. 2 mechanical reinstatement cutters by IST, non-robotic. Ready to work and make money. Also have many liners and resin that can be included. I have many pics. Looking to sell as a package. Asking \$30,000. Located in Cleveland, OH. Please call Justin 610-427-1357.

May 5-7

National Hardware Show.

Las Vegas Convention Center. Las Vegas. Visit www.nationalhardwareshow.com

Mav 12-13

American Society of Plumbing Engineers (ASPE) Emerging Water Technology Symposium.

The Westin Riverwalk, San Antonio. Visit www.aspe.org/2020-ewts-registration

June 14-17

American Water Works Association Annual Conference & Exposition (ACE).

Orange County Convention Center, Orlando, Florida. Visit www.awwa.org/ace

June 23-25

Safety 2020 Professional Development Conference & Exposition.

Orange County Convention Center. Orlando. Florida. Visit www.safetv.assp.org

June 28-30

Canadian Institute of Plumbing & Heating (CIPH) Annual Business Conference.

Fairmont Tremblant, Mont-Tremblant, Ouebec. Visit www.ciph.com



INDUSTRY NEWS

IMARK Plumbing Group approves RectorSeal as vendor

RectorSeal, based in Houston, was approved as a vendor by the IMARK Plumbing Group, a vertical of IMARK Group, Bowie, Maryland, in January. IMARK Plumbing Group's 652 member companies operate more than 1,300 locations nationwide. RectorSeal was already an approved vendor of another IMARK Group vertical, Blue Hawk HVAC/R, with 216 members and 1,441 locations.

GPS Insight acquires ServiceBridge

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

Armstrong Fluid Technology names Rief CEO

Armstrong Fluid Technology announced that Todd Rief has joined the organization as CEO. Rief has over 25 years' experience in both small and large organizations. In his most recent



role, he worked with Honeywell International, where he served as chief commercial officer for the homes and buildings technologies division. In 12 years with Honeywell, he served in a variety of positions including president and general manager of the environmental and energy solutions group and president and general manager of the life safety and security group.

Rinnai America attains ISO 9001:2015 certification

Rinnai America announced it has received the ISO 9001:2015 quality management systems certification. The certification recognizes design and engineering support, component laboratory testing, manufacturing and assembly of residential and commercial water heaters, and space heating products and accessories. The ISO 9001 certification allows organizations to identify and certify the key processes that will maintain and improve the quality of the in-scope processes.

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Product Spotlight

sudden burst of piping hot (or freezing cold) water is a showering person's worst nightmare. But as a plumber, how can you prevent it?

Thermostatic mixing valves automatically balance the amount of hot and cold water being mixed, which will prevent drastic fluctuations in shower temperature. If the cold water flow is reduced (due to a toilet flush), the valve automatically adjusts the amount of hot water being mixed. This keeps the shower temperature more consistent, even when other fixtures are using water. Lenova has

paired aesthetically pleasing styling and new technology to create its own Thermostatic Shower System that offers control over shower operations, allowing users to finetune their preferences and accurately maintain water temperature within a single degree.

"There's nothing else like it," says Jay Beaumont, Lenova's director of sales and marketing. "It ail comes down to the valve technology -- it's the heart of our new shower series. Not only does one valve control three functions - temperature, volume and pressure -- but it keeps the shower experience consistent from beginning to end for a totally immersive experience."

While other shower systems commonly suffer a loss



of water volume or temperature when running multiple sprayers, Lenova's design delivers a precisely controlled shower environment, even when using the showerhead and body sprayers simultaneously. In fact, the Lenova system is able to keep all water outlets within a 1 degree F temperature difference, even when all showers are operating. The shower is crafted to high standards for performance, including solid brass valves for lasting durability. The system is created with lasting beauty in mind too and is available in polished chrome and brushed nickel.

One of the most popular features of the Thermostatic Shower System, according to Beaumont, is its host of interchangeable options. Customers can choose preset systems or design their own dream shower with the Design-It-Yourself option, which allows users to mix and match components. Choose showerheads, body jets, shower panels, hand-held showers and tub spouts to develop a truly custom design.

"The Thermostatic Shower offers a safer, more soothing and impressively consistent shower experience," Beaumont says. "It is a must-have addition to any spa-inspired bathroom where wellness, relaxation and superior design are valued." 877-733-1098; www.lenovasinks.com.

Sewer Equipment Tempest industrial air mover

The RAMVAC Tempest industrial air mover from Sewer



Equipment has an 18-cubic-yard debris box and a 28-inch Hg cfm positive displacement blower through an 8-inch system. The self-discharging filter system provides automatic interval cleaning of the filter house during operation, reducing downtime. The articulating, extendable knuckleboom provides 4.5 feet of extension, with a total working length of 16 feet and 270-degree range of motion. Standard with a fully opening rear door, the Tempest requires only one dump to eliminate all debris within the box. Also standard is a 50-degree dump angle and 50-inch clearance from splash plate to the ground, allowing for easy off-loading of material into roll-off containers. 800-323-1604; www.sewerequipment.com.

Milwaukee Tool PACKOUT compact toolbox

Milwaukee Tool has added the PACKOUT compact toolbox to its PACKOUT modular storage system. Featuring a 75-pound weight capacity and quick-adjust dividers, the toolbox



allows for internal adjustments to the layout in order to accommodate various job site materials. Constructed with impact-resistant polymers and an IP65-rated weather seal, the compact toolbox is built to withstand harsh job site environments. 800-729-3878; www.milwaukeetool.com.

Zurn Industries 20XL pressure reducing valve

The 20XL pressure reducing valve from Zurn Industries is designed to reduce high-inlet pressure on potable waterlines. Its short lay length and compact design ensure ease of installation in residential or commercial



applications from new construction to replacement. The balanced stem design enables the valve to react in a smooth and responsive manner when changes to system flow occur. The composite cartridge and bellhousing deliver superior strength and corrosion resistance. The stainless steel strainer screen catches debris, while the cartridge ensures easy repairs. The 20XL is available in 3/4- and 1-inch sizes with versatile connection options. 814-875-1252; www.zurn.com.

PRIER Products small valves

PRIER Products extended its line with the launch of eight new small valves, suited for replacement or new residential construction and for mild climates where temperatures are above freezing. The valves have three color options for the handles: green, red and blue. Each offers quick

installation with no special tools and is compatible with most piping systems. 800-362-9055; www.prier.com.

RIDGID StrutSlayr shear head

The RIDGID StrutSlayr strut shear head creates clean, square strut cuts / free from chips and burrs with a single pull of the trigger, in five seconds or less. It easily attaches to the RIDGID



RP 340 press tool. It has a built-in measuring guide and 13/16inch, 1 5/8-inch or combo quick-change dies. It's also TRISTAND mountable. 800-769-7743; www.ridgid.com.



Uponor Propex EP reducing tees

The new series of ProPEX engineered polymer reducing tees from Uponor North America are designed for residential and commercial plumbing and hydronic applications. The tees streamline

installations by eliminating unnecessary connections when joining pipes of various diameters. The series consists of 10 different reducing tees in a variety of outlet configurations, from 1/2 to 2 inches in diameter. Made of a highly durable and reliable engineered polymer, the fittings will resist corrosion, withstand thousands of pounds of force and handle the high temperatures found on many commercial projects. 800-321-4739; www.uponor.com.



Noritz America NRCR residential condensing tankless heater

The NRCR residential condensing tankless water heater series from Noritz America uses a fully integrated pump to keep hot water close to even the farthest outlet in the home, minimizing the wait and the waste of unused potable water

down the drain. Auto mode on the unit quickly learns household water usage and automatically triggers recirculationloop activation in line with expected usage. It is available with inputs of 165,000 Btu/h and 199,900 Btu/h. Both models in the series carry a Uniform Energy Factor of 0.97 while offering the durability of dual, stainless steel heat exchangers. 714-433-2905; www.noritz.com.

PTI InnoShield pipe insulation

InnoShield from PTI. a division of HSM, is a foam pipe insulation with an



innovative outer coating. It provides performance in outdoor HVAC and plumbing applications that are prone to extreme temperatures, moisture and sunlight. The coating also provides maximum cut and tear resistance, making it less prone to damage during installation. InnoShield is rated for usage in temperatures ranging from negative 297 to 220 degrees F, and it also features UV protection and low water vapor permeability. InnoShield meets ASTM E-84 standards up to 3/4-inch wall thickness. 828-328-2201; www.hsmsolutions.com.

MARKETPLACE

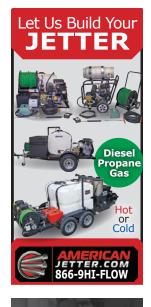




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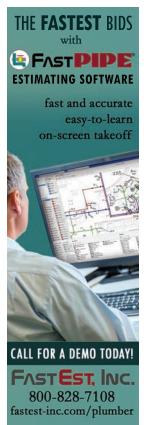
















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