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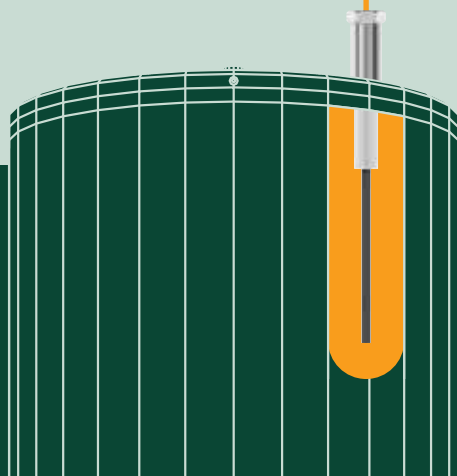
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Unconventional marketing strategies and employee commitments are a big reason Wisconsin's Tim Rausch Plumbing has seen continued success [Page 10](#)

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Plumber Profile

Exceeding Expectations

Unconventional marketing strategies and employee commitments are a big reason Wisconsin's Tim Rausch Plumbing has seen continued success.

- By Ken Wysocky



On the Cover

Caden Bellin, a plumber with Tim Rausch Plumbing & Remodeling in Appleton, Wisconsin, works on installing a new waterline using a press tool from Milwaukee Tool at a new-home construction project near Appleton. Tim Rausch Plumbing, founded in 1996, has 18 employees and offers new construction, repair and remodeling services throughout the Appleton area. (Photography by Alex Rossi)

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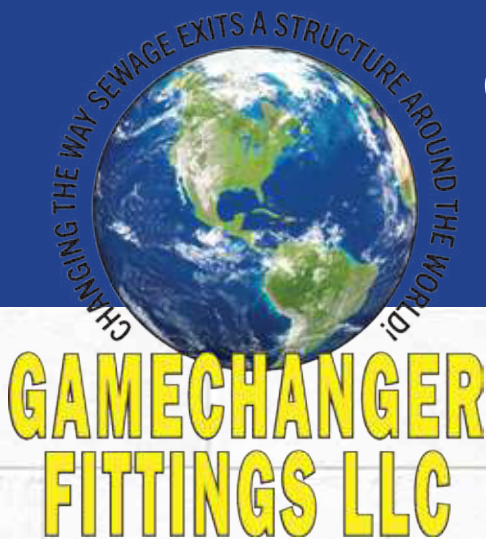
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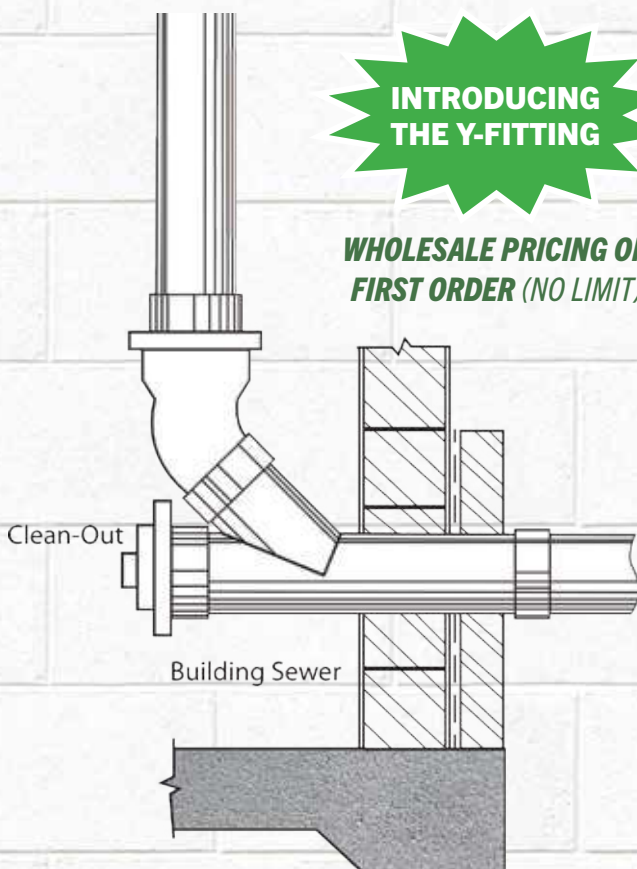
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*Cory Dellenbach*

Keeping the Spark Alive

Finding creative ways to reward or train your teams can bring benefits such as better morale and productivity

As plumbers, you're used to solving problems — pipes burst, drains clog and water heaters fail, and you're the ones to fix it. But what about when the problem isn't a technical one? What about when your crew seems disengaged or burned out?

Keeping morale high and your team motivated is just as important as keeping tools sharp, especially in an industry as demanding as this one.

In this issue's profile on Tim Rausch Plumbing & Remodeling in Appleton, Wisconsin, Tim Rausch keeps his team motivated and learning by creating a "buddy system" where journeymen are paired up with plumbers. The journeymen grade who they are paired up with, and Rausch also grades them. In the end, it builds camaraderie and helps with productivity and training.

It doesn't take much to start a program like Rausch did, but his company was presented with a local newspaper award for one of the best employers in the area. He must be doing something right. A happy team is a productive team, and the best way to keep your crew enjoying their work is to think creatively about what makes the job rewarding. Here are a few ideas to spark enthusiasm and camaraderie on your team.

1. Celebrate Wins — Big and Small

Did your crew just finish a massive commercial project? Or did someone find a brilliant solution to a stubborn plumbing problem? Take time to celebrate! Whether it's a quick shoutout in the morning meeting or a full-blown team lunch, recognizing achievements boosts morale and builds pride in a job well done.

2. Make Learning Fun

Plumbing is a field that's always evolving, with new tools, materials and techniques coming out regularly. Turn training into a hands-on competition. For instance, set up

a challenge to see who can assemble a system the fastest (correctly, of course) or troubleshoot a mock problem the quickest. Add a small prize to sweeten the deal, like a gift card or new tool for their kit.

3. Encourage Personalization

Let your team add a bit of personality to their work. Maybe it's a custom decal on their toolbox, a funny nickname embroidered on their uniform or even a crew playlist that gets pumped up on the drive to the next job. Allowing individuality fosters a sense of ownership and pride in their role.

4. Create Traditions

Think about starting traditions that your crew looks forward to. It could be Taco Tuesdays at a favorite spot, an annual team outing like a bowling night or fishing trip or even a seasonal contest for the best-themed holiday hat. Traditions create bonds beyond the job and turn co-workers into friends.

5. Get Involved in the Community

Organize your crew to participate in local charity projects or events. Whether it's volunteering to fix plumbing for a nonprofit or participating in a community parade, these efforts not only promote your business, but also build team spirit. Knowing their work contributes to something

At the end of the day, keeping your crew happy isn't just about what happens on the clock — it's about creating an environment where they feel respected, appreciated and motivated.

larger than themselves can give crew members a sense of purpose.

6. Open the Floor

One of the simplest yet most effective ways to engage your crew is to listen. Hold regular meetings where team members can voice their opinions, share ideas or offer feedback on workflows. Often, the people in the trenches have insights that can improve efficiency and job satisfaction.

7. Invest in the Little Things

Sometimes, it's the small gestures that make the biggest difference. Keep a stash of snacks and drinks in the work truck. Surprise your team with coffee on a cold morning. These small tokens of appreciation go a long way toward making people feel valued.

At the end of the day, keeping your crew happy isn't just about what happens on the clock — it's about creating an environment where they feel respected, appreciated and motivated. When your team enjoys their work, it shows in the quality of the service they provide. And that's a win for everyone — your crew, your customers and your business.

WHAT DO YOU DO?

What do you do for your team on a regular basis? I'd like to hear your ideas. Email me at editor@plumbermag.com.

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Exceeding EXPECTATIONS

Unconventional marketing strategies and employee commitments are a big reason Wisconsin's Tim Rausch Plumbing has seen continued success

By Ken Wysocky | Photography by Alex Rossi



Tim Rausch Plumbing & Remodeling LLC, Appleton, Wisconsin

OWNERS	Tim Rausch and sons Eric and Tim Jr.
FOUNDED	1996
EMPLOYEES	18
SERVICES	New construction, service and remodeling
SERVICE AREA	25-mile radius around Appleton
WEBSITE	timrauschplumbing.com

F

or someone who never intended to become a plumber, Tim Rausch — the owner of Tim Rausch Plumbing in Appleton, Wisconsin — has done well for himself.

The business employs 18 people, including 14 technicians, and runs six service trucks. It also offers a diverse range of services that evolved over the years and racks up annual revenue north of seven figures. In addition, the company boasts an average consumer rating of 4.9 stars out of five, based on more than 900 reviews on various social media platforms.

Furthermore, in an annual Community's Choice Award program sponsored by a local newspaper, the business was voted the best plumbing company in the Fox Valley for 2024, plus it nabbed an impressive trifecta of other awards: best bathroom remodeler, best home remodeler and the best place to work.

"We're actually ranked No. 1 in the state for the percentage of high-quality reviews for plumbing," says Rausch, 57, who established his company in 1996. "And we don't even solicit online reviews. I thought about doing that, but I decided I'd rather have them come organically."

"I attribute the high ratings to how we answer the phones and how we perform our services," he continues.

"I like to say that I fell into plumbing — and it was a perfect fall. I liked working with my hands, but at the time, no one really talked about the trades because they got so beat up by the recession."

Tim Rausch

"And that our prices are reasonable."

Rausch also credits his employees, whom he says are the primary reason for the company's success. Moreover, he also points to an unconventional marketing strategy that plays big dividends: answering questions texted to him by customers. He also eventually realized that he needed to surround himself with professional specialists that would allow him more time to focus on business operations.

In short, Rausch has created a business that greatly exceeded his expectations.

"At first, I just wanted to earn enough money to replace what I was making at my last job, which was about \$50,000 a year," Rausch says as he looks back at his humble beginnings. "For the first 10 years, that's what I paid myself — I invested everything else back into the company."

▶ Plumber Aaron Zenner uses a Milwaukee Tool saw to cut PVC pipe pieces to size during a new home construction project in Appleton, Wisconsin. Behind him is another Tim Rausch Plumbing & Remodeling crew member doing more installation projects. Owner Tim Rausch developed a "buddy system" where experienced journeyman plumbers pair up with younger employees and grade them on their performance. Every two weeks, the journeymen work with a different buddy. It's a way to help the team be better and more productive.





▲ Plumber Caden Bellin pulls out PEX piping from his van's storage area as he helps on a new home construction project the company is handling.

"During our first year in business, our sales were about \$200,000," he adds. "And this year [2024], we're on track to hit around \$4.3 million."

ACCIDENTAL CAREER

As Rausch puts it, plumbing chose him, not vice versa. After graduating from high school with no career in mind, a friend's father, who worked in construction, told a plumber he'd hired about Rausch. The plumber then offered Rausch a job.

"I like to say that I fell into plumbing — and it was a perfect fall," he quips. "I originally was going to join the military. I never enjoyed studying, so college wasn't on my radar at all.

"I liked working with my hands, but at the time, no one really talked about the trades because they got so beat up by the recession."

Rausch nonetheless accepted the job offer from Paul Coonen Plumbing in Greenville. About two years after becoming an apprentice, he left to work for Salm Plumbing in Appleton.

"The training at Coonen Plumbing was excellent because it was all one-on-one," Rausch says. "And working for my friend Lenny Salm was great because they did everything from septic system installations to commercial work to residential plumbing. That really rounded out my plumbing experience. And I also learned that I really liked residential new-construction plumbing."

LEARNING CURVE

Four years later, Rausch struck out on his own, emboldened by a regional construction boom.

"I let builders I'd worked with in the past know that

Buddy System Fosters a Great Company Culture

With the plumbing industry facing an acute shortage of technicians, Tim Rausch — the owner of Tim Rausch Plumbing in Appleton, Wisconsin — knows full well the value of retaining employees.

That's why he developed what he calls a "buddy system," where experienced journeyman plumbers pair up with younger employees and grade them on their performance. It's not a static arrangement, either; every two weeks, the journeymen work with a different buddy, Rausch explains.

"It's 100% designed to create and fuel a great company culture," he says. "Everyone gets to transfer knowledge to each other."

The ongoing scoring system is a key component because it lets the younger employees know exactly where they stand in terms of job performance. Every two weeks, they receive their score — on a scale of one to five — from the journeyman they were paired with.

The score is based on things such as showing up on time in the morning, appropriate dress, customer reviews, add-on-sales and the number of callbacks received.

They also receive another score every quarter from Rausch — on a scale from one to 100 — that's based on 10 categories: on time for work, appearance, productivity, willingness to help, communication skills, paperwork proficiency, number of callbacks, having a clean and well-stocked truck, huddling for feedback on jobs and how well they follow the company mantra: Do the right thing the right away every time.

The biweekly scores factor into the quarterly scores and help Rausch to understand how teammates are getting along and helping each other at the shop.

In the end, it's all about building a team atmosphere. The journeymen touch base with their buddies every morning for a few minutes to review the day's job schedule, ensure the necessary materials are loaded on the truck and perhaps give a short pep talk regarding areas for improvement, he says.

"If a journeyman is on call but maybe has to attend, say, a child's function, their buddy will take their calls," Rausch says. "Everyone always has each other's backs."

Rausch believes the buddy system has built a great culture that promotes technician retention. As proof, he points to an annual Community's Choice Award the company received in 2024 for being the best employer in the Fox Valley area. (The awards program is run by an Appleton newspaper.)

"Customers and employees get to vote," Rausch says. "I was very humbled by the award, which I think reflects how much everybody cares for each other.

"This is the best group of people I've ever worked for."

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▲ Plumber Patrick Kagame sets up a Rheem water heater at a new-home construction project in the Appleton, Wisconsin, area.

▶ Jeff Keller, right, and Cameron Corpier check a customer's basement water heater and sump pump for leaks.

I was on my own," he says. "I also introduced myself to one of the biggest residential homebuilders in the area. He gave me a few jobs to work on and I've now been working for them for 28 years; almost 50% of our residential work comes from them."

After several years, Rausch recognized something that many tradesmen-turned-businessmen also realize: While he was good at his craft, he lacked fundamental business knowledge. That led him to hire specialists that took the business to the next level.

"I realized I should've taken some business classes," Rausch says. "As I added more employees and saw more and more business opportunities, I recognized that running the business was not just about turning wrenches. It was a steep learning curve, but by around year 10, I was surrounding myself with people who really knew their crafts."

"I saw that if I hired someone who knew more than me in a certain area, that would allow me to delegate things



and free up time to focus on the overall business," he adds. "I really like being out in the field and didn't want to lose out on training guys, as well as ensure that jobs are done the way I want them done. Customers love to see the company owner on site, too."

Those hires included Kelly Dietrich, a bookkeeper and is now director of human resources; Greg Jochman, an expeditor (and a licensed plumber) who organizes jobs, orders materials and coordinates projects with builders and customers; and Aaron Zenner, a journeyman plumber who leads a construction crew and often works side by side with Rausch.

BUILDING A DIVERSIFIED BUSINESS

After about 10 years, Rausch hired a service plumber to tap into new business opportunities.

"We were getting a lot of calls for service and had to turn them down," he explains. "So I eventually brought in another office person to field phone calls and hired a service plumber."

"I love the satisfaction of going into a home and by the time you leave, everything is up and running. When you stop and think about it, plumbing is what helps us avoid being a third-world country."

Tim Rausch

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◀ Tim Rausch Plumbing & Remodeling plumber and son to Tim Rausch Sr., Eric Rausch, looks for parts he'll need on a job call.

Today, about 50% of the company's revenue stems from service and repair plumbing. Plumbing new residential and commercial buildings contributes another 36% and remodeling chips in the remaining 14%, Rausch says.

Around 2018, the company entered the remodeling market, which prompted Rausch to hire another key employee, Doug Crusan, a builder who was getting close to retirement, but still wanted to work — just not outdoors in the elements, he says.

After Rausch began to understand the nuts and bolts of running a business, he started buying things in bulk to reduce expenses and boost profit margins.

"We weren't making much on money in the bank, so I instead invested in inventory," he explains. "For example, I would save a tremendous amount of money by buying a semi-trailer load of water heaters, especially as we kept hiring people and started going through inventory faster and faster."

SHREWD MARKETING MOVE

An outside-the-box customer-service strategy also drove growth: Answering texts from do-it-yourselfers with plumbing questions, both customers and noncustomers. Rausch started doing this during the pandemic to help people who were having problems on small plumbing projects without having to enter their homes.

"It worked out so nice that we kept offering it," he says.

The company uses a secure platform called Text TIM (Trusted Instant Messaging) and the phone number is easily visible on the homepage of the company's website.

Rausch says he receives about 50 texts a week, with most of them coming in on weekends. While doing this is time-consuming, it pays big marketing dividends, he notes.

“We land a lot of service calls on those texts from people who get stuck on plumbing projects, just for being available. Just getting someone to respond these days is a big thing for customers.”

Tim Rausch

"Those people do a lot of promoting for us — we get a lot of word-of-mouth business that way," Rausch says. "We land a lot of service calls on those texts from people who get stuck on plumbing projects, just for being available. Just getting someone to respond these days is a big thing for customers."

"Getting into their phone is key," he continues. "Once I'm in their contacts list, it's almost a 100% guarantee they're going to call me if they ever need something. Half the time they don't even know my name — they just put me in as 'plumber.'"

The company also relies on a website and trucks with vinyl wraps to enhance brand recognition.

To serve customers, the business relies on five Ford Transit 350s, which Rausch says are spacious and tall enough that technicians can walk into them instead of stooping over. It also owns a Ford F-350 pickup truck and a portable dump box from Monroe Truck Equipment.

The company also has invested in small RIDGID drum cable machines and a camera and locator from Milwaukee Tool, as well as Milwaukee power tools. Rausch says he prefers water heaters from Rheem Mfg. Co., Rinnai tankless water heaters and plumbing fixtures from Kohler and Delta.

The company also uses Verizon fleet-tracking software.



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Plumber Profile

► The Tim Rausch Plumbing & Remodeling team standing near one of their service vans at their shop in Appleton, Wisconsin. Front row, from left, Doug Crusan, Kelly Dietrich, Ann Rausch, Eric Rausch, Patrick Kagame, Mitchell Ourada, Jared Ziebell, Greg Jochmann, Cady Peterson. Back row, Tim Rasuch Jr., Tim Rausch, Caden Bellin, Connor Holzward, Ben LaMarche, Aaron Zenner, Danny Seubert and Luke Warner.



BETTER, NOT BIGGER

Looking ahead, Rausch says he doesn't see dramatic growth, though he does see potential for adding drain cleaning to the company's roster of services for the simple reason that customers keep asking for it.

"I'm content where we're at," he notes. "It's said that if you're not growing, you're dying, but I don't buy into that. I'd rather stay the same size and focus on improving our services."

Rausch also is eyeing an eventual passing of the reins to his two sons, Eric and Tim Jr., who work as service plumbers.

"There's nothing definite yet in terms of a succession plan, but we're working on it," Rausch says. "I want to plumb forever, so I'm hoping they'll let me hang around the shop for as long as I'm useful."

Looking back, Rausch says he feels very fortunate to have fallen into such a great career.

"I love the satisfaction of going into a home and by the time you leave, everything is up and running," he says when asked what he likes most about plumbing. "When you stop and think about it, plumbing is what helps us avoid being a third-world country."

"Good plumbing keeps us healthy by separating water from waste and keeping water healthy with proper practices," he adds. "It's a very satisfying and gratifying job."



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Anne Lackey

Inspiring Teens

Attract the younger generation to a trades career by telling them about the lives you've improved, the crises you've averted and your vital role in keeping the modern world functioning

By Anne Lackey

The smells, the destruction, the hopelessness — TV footage can't accurately convey the agony after communities are torn apart by natural disasters, such as in Asheville, North Carolina, recently after Hurricane Helene.

After the floodwaters and the flood of coverage recede, residents are left to pick up the pieces (literally) and try to rebuild their lives. It's truly difficult work. Floods ripped away infrastructure, leaving families without any normalcy. We rightly recognize emergency first responders for their work saving lives and providing relief for victims. They are heroes. But other heroes are needed to help rebuild communities. Plumbers and drain cleaners are on the front line of those efforts.

When you talk to teens about your work, don't forget this.

Plumbing is quite literally the infrastructure of modern life. It's a truth that often gets overlooked. Without it, we'd struggle with no running water at the tap, no flushing toilets, no hot showers. But it's more serious than that. Proper plumbing prevents diseases and has saved countless lives in the modern world.

When you fix a leak or install a new system, you ensure that surgeons can scrub in for operations, students can stay hydrated throughout the school day and chefs can prepare meals safely. After disasters like Hurricane Helene, you help communities rebuild their lives.

You are unsung heroes doing daily work to keep society running smoothly. That's just a straight fact, but one too often neglected.

GROWING DEMAND

And right now, our society needs more heroes like you. According to a recent *Bloomberg* report, the United States faces a critical shortage of plumbers. By 2027, it's projected that we'll be short 550,000 plumbers. This shortage isn't just a problem for the industry. It's costing the entire economy. In 2022 alone, the plumber deficit cost the U.S.

economy about \$33 billion, according to an analysis sponsored by bathroom-fittings maker Lixil.

These numbers underscore how essential your work is and how desperately we, all of us, need a new generation to embrace the profession. When you talk to young people about plumbing and drain cleaning, you're not just offering them a potential career path, you're also inviting them to be part of the solution to a nationwide challenge that impacts each of us.

When talking to a young person, try to see the profession through their eyes. What matters to them? What do they want from a career? Many teens are idealistic. They want to make a difference in the world. That's where the big-picture perspective comes in handy.

This big-picture view is a powerful tool when talking to young people about the trade. It elevates the profession from "fixing pipes" to "sustaining our modern way of life" — which is far from hyperbole when facing an in-home catastrophe or a community-wide dilemma.

But how do you bridge the gap between this big-picture idealism and the practical day-to-day realities that might make a teenager hesitate to consider plumbing and drain cleaning as a career?

COMMON HANG-UPS

Many young people might see plumbing and drain cleaning as dirty work, physically demanding or lacking

prestige compared to careers requiring a college degree. They might think it's boring or doesn't offer growth and innovation opportunities.

These perceptions are hurdles but also great opportunities to educate and inspire. When talking to a young person, try to see the profession through their eyes. What matters to them? What do they want from a career?

Many teens are idealistic. They want to make a difference in the world. That's where the big-picture perspective comes in handy. Talk about disasters and the role of plumbers in rebuilding. Explain how your work directly impacts people's lives. Share stories about the times you've solved problems for families in distress, or how you've helped businesses stay operational during crises. Make it personal and relatable.

TECH-SAVVY

For the tech-savvy youth, highlight the cutting-edge aspects of modern plumbing. You're not just working with wrenches. Talk about the advanced diagnostic tools you use, the computer-aided design in plumbing systems, or the integration of plumbing with smart home technology. Explain how the field constantly evolves, with new materials and techniques developed to improve efficiency and sustainability. Talk about how plumbing is at the forefront

of water conservation efforts. You install low-flow fixtures, design efficient systems, and implement technologies for water recycling.

Another sticking point is the perception of plumbing as "dirty work." Yes, the job can get messy sometimes. But so can surgery, which doesn't stop people from becoming doctors. The key is to shift the focus from the occasional unpleasant task to the work's overall impact. When you're elbow-deep in a tough job, you're not just fixing a pipe; you're restoring a family's quality of life or keeping a business operational.

CAREER PATHS AND EFFECTIVE COMMUNICATION

Plumbing isn't all about dealing with waste systems. A whole world of clean water systems, heating and even gas fitting falls under the plumbing umbrella. Many young people don't understand the variety of work available in the field. Help them envision the full range of possibilities.

Teens also frequently fail to understand the career opportunities in the industry and how it offers a clear path for advancement. You start as an apprentice, learning the ropes from experienced professionals. Then you become a journeyman, taking on more responsibility and honing your skills. Eventually, you can become a master plumber,



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overseeing complex projects and mentoring the next generation.

Young people need to recognize how many plumbers and drain cleaners eventually start their own businesses, combining their technical skills with entrepreneurship. This can be a powerful draw for ambitious teens who dream of being their own boss someday.

Remind them that while their peers rack up student loan debt, apprentice plumbers earn while they learn. By the time college graduates start their careers, a plumber could be well-established, debt-free and possibly even owning a home.

MEET THEM WHERE THEY ARE

How do you communicate all of this effectively to young people? It starts with meeting them where they are. Do you have someone on your team with a knack for social media engagement? If not, consider options for getting into that space. Short, engaging videos can highlight the problem-

solving aspects of the job, the satisfaction of completing a project or the occasional humorous situation.

Perhaps the social media angle isn't for you, but hopefully, you recognize that if you're not already partnering with local schools for hands-on demonstrations or workshops, you're missing a great recruiting opportunity. Let teens try their hand at simple plumbing tasks. The experience of working with tools and materials can be eye-opening for young people.

When you see talent and enthusiasm, reward it with your attention and your dollars. For instance, consider sponsoring talented local high schoolers who may be potential employees in trade competitions, such as Skills USA. If you help them develop confidence in competitions, they'll remember what you did for years to come, and if they don't join your staff, they'll still be vocal advocates and guide peers your way — their parents, too.

When explaining plumbing to a curious teen, don't just describe the task. Paint a picture of the impact. Instead of saying, "I installed a new water heater," try, "I made sure a family of five could have hot showers and clean dishes, even on the coldest winter morning. Have you ever taken a cold shower on a winter morning?" Make it relatable to their everyday experiences.

Ultimately, before you talk to young people, develop your strategy for communicating the complete picture. Yes, there will be days of hard work and getting your hands dirty. But there's also problem-solving, technology, customer service and the satisfaction of knowing you're making a real difference in people's lives.

When you talk to teens, go far beyond the pipes and wrenches. Tell them about the lives you've improved, the crises you've averted and your vital role in keeping the modern world functioning. Help them understand the impact plumbers have in communities after a disaster like Hurricane Helene. Show them that plumbing is more than just a job. It's a calling, a craft and a crucial part of the future.

With the current shortage of plumbers, there's never been a better time to answer that call. And, of course, thank you for answering that call. You should hear that regularly, not just in a crisis. 



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Anne Lackey is the co-founder of HireSmart Virtual Employees, a full-service HR firm helping others recruit, hire and train top global talent. Lackey and her husband, Mark, also run a nonprofit, HireSmart Cares, which focuses on providing young people with the tools they need to succeed in ag and trades-based professions. She can be reached at anne@hiresmartvirtualemployees.com.

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Ken Dickerson

Understanding Water Distribution Systems

Tips on how to fill out and what to do with a water calculation worksheet when working with water distribution systems

By Ken Dickerson

Water distribution systems are designed with a certain velocity, pressure and volume at every fixture and device, even at peak demand. It is our job to make sure that this is accomplished with our codes and standards. We must also assure not only to our customers, but the water purveyors that we are preventing cross-connections via backflow conditions.

Here in Wisconsin, the first thing that we need to accomplish is a water calculation worksheet. This worksheet, once completed, will determine minimum pipe sizes to serve all the fixtures and devices that need a supply of water.

We do have a minimum water service size of 3/4 inch. If the building has fire sprinklers, it will drastically change the size, but other than that, we can pretty much use whatever size and material we would like, within reason of course.

Now that we have found out all the pressure losses through the water service, we have to find out the pressure demands and losses in the water distribution system.

INFORMATION REQUIRED TO SIZE WATER SERVICE AND WATER DISTRIBUTION:		
1-	Demand of building in water supply fixture units (WSFU):	WSFU _____
1.a.	Demand of building in WSFU converted to Gallons Per Minute: (Table SPS 382.40-3)	GPM _____
2-	Elevation difference from main or external pressure tank to building control valve: (feet)	_____
3-	Size of water meter (when required): 3/8" _____ 3/4" _____ 1" _____ other _____	
4-	Developed length from main or external pressure tank to building control valve: (feet)	_____
5-	Low pressure at main in street or external pressure tank: (psi)	_____

With the first part of the water calculation worksheet, there is information that is required to obtain before any water distribution piping can be installed. Lines 1 and 1a you can get from looking at the plan and counting up the demand from each fixture. For Lines 2-5, you may need to reach out to the water purveyor in that area to obtain the rest of the information.

The second part of the worksheet is finding out the pressure loss from the water service. This can vary so much from one building to the next based on water demand, material, elevation and sizes.

CALCULATE THE PRESSURE AVAILABLE FOR UNIFORM LOSS (VALUE OF "A")		
B.	Available pressure after the bldg. control valve. (from "1" above)	Value of "B" _____
C.	Pressure loss of water meter (when meter is required)	Subtract value of "C" _____
		Subtotal _____
D.	Pressure at controlling fixture: (Controlling fixture is: _____) (Controlling fixture is the fixture with the most demanding pressure to operate properly which includes the following when determining fixture performance: loss due to instantaneous water heaters, water treatment devices, and backflow preventers which serve the controlling fixture.)	Subtract value of "D" _____
		Subtotal _____
E.	Difference in elevation between building control valve and the controlling fixture in feet: _____ X .434 psi/ft.	Subtract value of "E" _____
		Subtotal _____

Line C takes in the pressure loss through the water meter. This one in Wisconsin is more confusing than it needs to be. We have a graph in our code book that shows how much loss is through each size meter and certain GPMs. The confusing part is, that not every meter has the exact same pressure loss, and that particular graph is from a meter made in the 1960s that is no longer used. This goes along with the first part of the water calculation worksheet where you have to contact the water purveyor and get a proper make, model and size to accurately determine the pressure loss for the meter.

Line D wants to find out which fixture in your building requires the most pressure to work properly. This fixture can also vary drastically from one building, to the next or even inside the same building! Line E wants to know the elevational difference of that particular fixture. If the building is a standard residential house the fixture that requires the most pressure to perform properly would be

CALCULATE WATER SERVICE PRESSURE LOSS (unnecessary for internal pressure tanks)

6-	Low pressure at main in street or external pressure tank. (value of # 5 above)	_____
7-	Determine pressure loss due to friction in _____ inch diameter water service. Water service piping material is _____ Pressure loss per 100 ft. = _____ X _____ (decimal equivalent of service length, i.e. 65 ft = 0.65)	Subtract value of "7" _____
		Subtotal _____
8-	Determine pressure loss or gain due to elevation. (multiply the value of # 2 above by .434)	Subtract value of "8" _____
9-	Available pressure after the bldg. control valve.	Subtotal _____

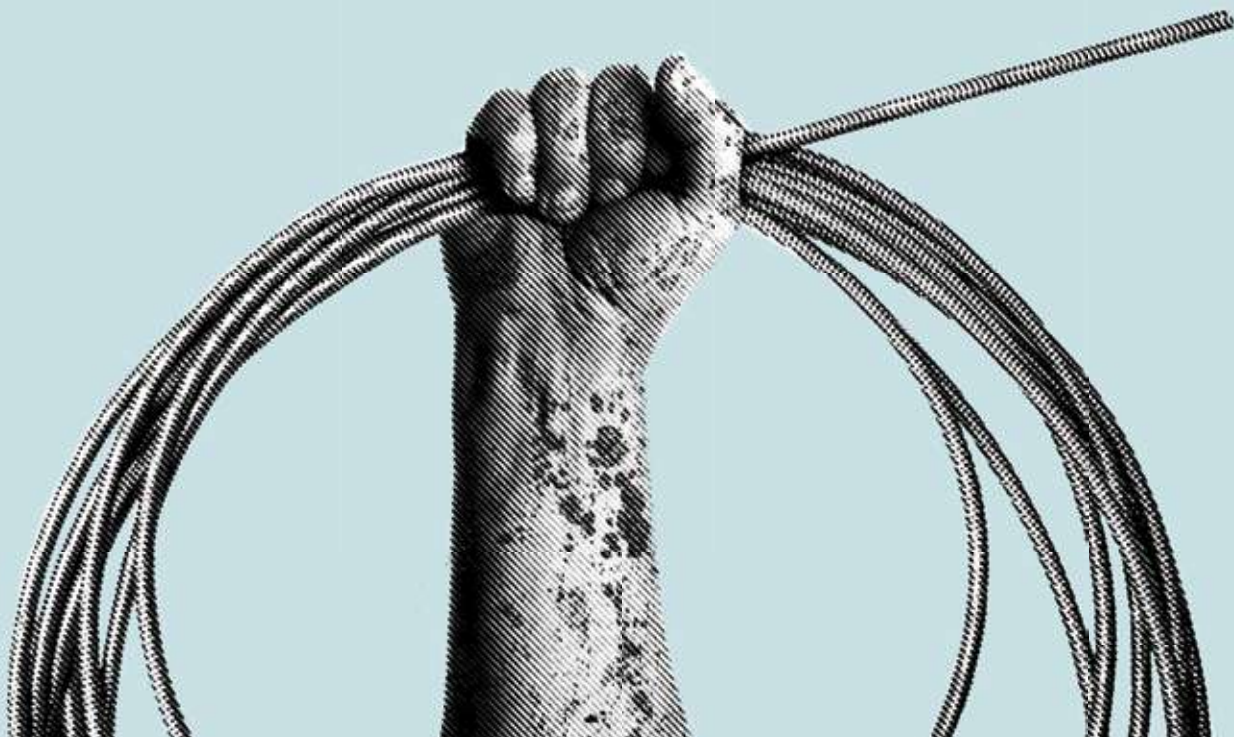
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the pressure balanced shower valve, and if there is a valve on the second floor, it would be that fixture compared to if the pressure balanced shower valve is on the first floor. Now if we are in a larger commercial building, we would have to determine which fixture requires the most pressure and not only at an elevational difference but a developed length difference. For example, if we have a flushometer water closet, which demands 15 psi, on the second floor and has a developed length of 25 feet, it may not require as much “starting pressure” as an outside hose bib which has a demand of 8 psi on the first floor, but has a developed length of 500 feet.

Since we have to find out how much pressure is available at the most demanding fixture, we have to find out everything that will lose pressure between the main building control valve and that controlling fixture. There are several things that have a pressure loss. The most common device that we install in Wisconsin is a water softener, due to having very hard water. Just like the water meter, each water softener has a different pressure loss for different demands and sizes.

F. Pressure loss due to water treatment devices and backflow preventers which serve the controlling fixture. (water softeners, filters, etc.)
(Pressure loss due to: _____).

F1. WSFU Downstream of Water Treatment Device: _____

F2. Convert wsfu to GPM using Table 382.40-3: _____

F3. Convert wsfu to GPM using Table 382.40-3e*
(for individual dwellings only) _____

F4. Refer to manuf. graph to obtain pressure loss:
(if no water treatment device enter "0") _____

Subtract value of F4 _____

Subtotal _____

The really nice thing about Line F is that back in the early 2000's, we had a couple companies do an experiment with demand flows in “average” houses. This was accomplished to make sure that we do not oversize our water distribution piping and also take an appropriate pressure loss for the water softeners and filters being installed.

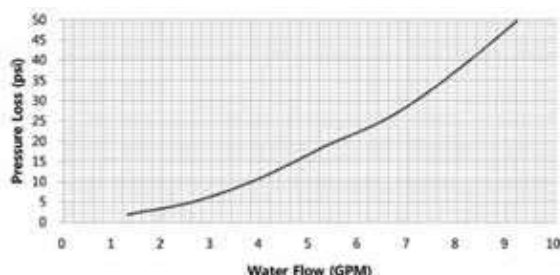
Table 382.40-3e
Conversion of Water Supply Fixture Units to Gallons Per Minute for Water Treatment Devices* Serving an Individual Dwelling*

Water Supply Fixture Units (WSFU)	Gallons Per Minute (GPM)
1	1
2	2
3	3
4	4
5	4.5
6	5
7	6
8	6.5
25	9
35	8
40	9

*Treatment devices providing treatment for compliance with Table 382.30-1 shall use Table 382.40-3 for conversion.
*Table shall not be used for connecting house laterals, high flow fixtures or hydrant walls.

This table gives you a reduced gpm demand for each fixture unit in a residential building, compared to a public building.

Line G is for an instantaneous or tankless water heater. There are many great parts of instantaneous or tankless water heaters, but I feel the one major drawback would be the pressure loss through it. If your controlling fixture is also required to have a hot water demand, we have to take into account the loss through that water heater.



As you can see in this graph is that it doesn't take a large gpm demand to lose a fair amount of pressure.

Line H is for the place where we put in the developed length to the controlling fixture, which requires the most pressure. We don't need to count every single fitting from the main building control valve to the controlling fixture and take the loss for each fitting. We just take the developed length and multiply it by 1.5 to take in consideration for fitting loss.

We complete this water calculation worksheet to get a pressure available for uniform loss. Then we take that final number and apply it to our water distribution tables. There is a different table for each piping material, and that will determine the maximum number of fixture units we can put on any certain size pipe, without exceeding 8 fps flow velocity.

There are other aspects we may need to address to accurately get a pressure available for uniform loss. Do we even have enough pressure to supply our entire water distribution system or do we need to install a booster pump? Do we have too much pressure at the main and need to install a pressure reducing valve to make sure we don't exceed what our materials can handle? Water hammer arrestors can also play a vital role in protecting our water distribution system. Hot water circulation systems and expansion tanks may also need to be addressed to accurately size our water distribution system. **PI**

Ken Dickerson teaches plumbing apprenticeship at Waukesha County Technical College. He is the 2022 Associated Builders and Contractors of Wisconsin Instructor of the Year, a U.S. Air Force veteran and proud husband and father of two. To reach Dickerson, email editor@plumbermag.com.



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Building a Program

NASSCO launches self-paced certification program to address growing need for reliable sewer and drain inspections

By James Careless

In a bid to help plumbers, sewer and drain contractors, and inspectors in the proper inspection and assessment of private property building sewer and drains for real estate transactions and general best practices, NASSCO has launched a Building Sewer & Drain Inspection Certification Program that began in February. Offered for a fee of \$180, the BSDI program course offers:

- A detailed inspection form that includes property location, inspector information, point of access, pipe characteristics, general inspection details and inflow characteristics including downspouts, floor drains, sump pumps and so forth.
- A self-paced online training course that explains what to look for during an inspection, how to use the form and how to properly inspect, assess and document conditions of building sewers and drains.
- A study guide for use during the course and for reference in the field, post-certification
- An online exam that, when successfully completed, will provide individuals with certification that proves they have demonstrated basic knowledge in the proper inspection of building sewers and drains.

"We decided to create the BSDI program because my daughter, who is a Realtor, was in the middle of helping a client with a home inspection and there were problems

with the drainage system," says Sheila Joy, executive director for NASSCO. "The contractor that had been hired said everything needed to be pulled out and replaced. She then sent me the CCTV footage to look at. I shared it with one of our consultants, Lynn Osborn, and he said, 'Sheila, this is no good. You can't see anything on this CCTV video, so don't go forward with what has been proposed.' I also had a call from the Pennsylvania chapter of PHCC citing a similar problem, which means there is a need for properly trained people to be conducting these inspections."

Faced with this need, Joy approached NASSCO's Lateral and Building Pipe committee and asked them to look into it.

"Over the past couple of years, they have been working on this program to allow all plumbers, contractors and inspectors to receive certifications," she says. "In doing so, our goal is to provide Realtors with reliable sources for these sewer and drain inspections. As well, once they see that these graduates have been NASSCO certified in BSDI, hopefully that will give them a competitive advantage while ensuring that these inspections are being done properly."

Although the BDSI course is being offered by NASSCO, a NASSCO membership is not required to become certified. "This course is open to every plumber or small contractor that chooses to become certified in this area," Joy says.

NASSCO chose to offer the BDSI program as a self-paced, online course for the benefit of plumbers and small contractors, many of whom work long, unpredictable hours and can't easily set aside a set date and time each week to suit an educator's demands.

"What this really does is to allow plumbers, contractors and inspectors to take this course anytime, anywhere," says Joy. "Being self-paced, it's not instructor-led. So the BDSI course is something that they can start on a Saturday morning and complete Sunday night after their kids go to bed or whenever they have the free time. So it doesn't take

"What this really does is to allow plumbers, contractors, and inspectors to take this course anytime, anywhere."

Sheila Joy



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them away from their business. It allows them to become certified at their convenience. That's what we mean by self-paced: You can start, stop and complete it based on your own schedule."

Upon completing the BDSI course successfully, each graduate will receive a certificate and a photo ID attesting to their NASSCO-tested BDSI qualifications.

"Most importantly, they will be listed on the NASSCO as a BDSI-certified individual, and we will be pushing out to the industry to look for BDSI-certified individuals to provide such services," Joy says. "The other real benefit to these small contractors is that these BDSI certifications can be listed on their Google Local Services ads, and be useful for people searching for certified drain inspectors online. Ultimately, NASSCO's hope is that BDSI certification resolves the issue of finding reliable drain inspectors for Realtors and their clients, while providing course graduates with ongoing business opportunities."

In concluding her comments, Joy added, "I would also just like to share that NASSCO is in the process of developing a sister/brother program — whatever you want to call it — for certifying drain cleaning. When that has been released, which will be later in 2025, we will be bundling those two programs together so you can become certified in inspection and cleaning at the same time." 

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Pipeline Rehabilitation

By Craig Mandli

Bursting



Power Mole Trenchless Solutions PD-33M

The PD-33M pipe bursting machine from **Power Mole Trenchless Solutions** is designed to replace existing underground pipes 2 to 6 inches in diameter. Its nonslip, cylinder-activated jaws prevent cable damage while providing 60,000 pounds of pulling force. It offers a cost-effective alternative to open cut excavation, reducing customer disruption and increasing company profits. The process replaces the existing pipe with a fused HDPE pipe, which eliminates all joints and allows the operator to pull through bends such as 45-degree fittings. This system is modular and can be easily disassembled and reassembled for manhole and basement applications. With a compact design and very small footprint of only 20 by 20 inches, this unit can be used in tight locations. **800-344-6653; www.powrmole.com**



RODDIE R8

The R8 pipe bursting system from **RODDIE** is easy to use and lightweight, can be set up vertically or horizontally and can also be adjusted to use three different size cables. This unit can replace 1-, 2-, 3-, 4-, 6- and 8-inch pipes with ease and speed. Inexpensive cable grabbing inserts last 70 to 120 jobs, which reduces costs. High-quality tool steels on articulating bursting heads promote rare resistance for long-lasting service. The pulling rate is 8 feet per minute and is hydraulically powered from your tractor, providing a pulling force of 30 tons. The wireless remote system is reliable and has a signal strength that moves through any cellar wall. Maintaining the system is simple as the user only needs to rinse off and regrease six Zerk fittings. **888-406-3821; www.rodzieunderground.com**



TRIC Tools E24

The E24 revisits the essential **TRIC Tools** 4-inch lateral bursting package that created the industry of trenchless home sewer replacement decades ago. Redesigned with economy and practicality in mind, it is geared primarily toward residential bursting jobs up to 4 inches in diameter. The standard system includes a portable and reliable 10,000 psi electric pump plus light-weight 5/8-inch compact swaged cable. It is suitable for indoor use, difficult backyard easements and very tight spaces with limited access. **888-883-8742; www.trictools.com**

CIPP Equipment

EMAGINEERED SOLUTIONS THE SHOOTER

THE SHOOTER from **EMAGINEERED SOLUTIONS** is a continuous air-inverter for CIPP. **THE SHOOTER 12** has a range of 4 to 12 inches and up to 15 inches with the conversion kit as well as a knife gate for after the liner tail passes. It comes with either the self-lubricating hand truck or basic non-oiler cart. **THE SHOOTER 24** for 15 to 24 inches is trailer-mounted and comes with a knife gate and remote operating station on the fender. An optional conversion kit expands its range from 6 to 24 inches. Additional equipment offered includes full steam packages with portable dry steam generators, steam hose, A and B stations, water cure flanges and LED UV Y adapters. **541-504-0416; www.theshootercipp.com**



Flow-Liner CIPP Liners and Resins

Flow-Liner CIPP Liners and Resins provide high-performance solutions for trenchless pipe rehabilitation, offering durability and cost efficiency. The liners, available in sizes 2- to 12-inch sizes, ensure precise quality control. Custom lengths and sizes can be produced with a quick turnaround to meet unique project needs. Resins are designed to pair seamlessly with the liners, with high-strength 100% epoxy for lasting adhesion. Together, they create a durable, joint-free barrier that is ideal for sewer and drainage systems. Contractors benefit from reliable, cost-effective materials that minimize downtime while delivering proven results. They make pipe repair efficient and dependable, offering a trusted solution to extend pipeline life without excavation. **800-348-0020; www.flow-liner.com**



HammerHead Trenchless Bluelight LED

The **Bluelight LED CIPP** lining system for laterals and small drainpipes from **HammerHead Trenchless** uses a specially formulated resin that only cures under light in the blue wavelength, giving installers a significantly longer working time between liner wet-out and curing. Once installed, the automated curing system pulls the LED light head through the liner, curing the resin almost instantly — up to five times faster than other methods. Instead of waiting hours for the liner to cure, a 50-foot sewer line could be fully cured in under 10 minutes. **800-331-6653; www.hammerheadtrenchless.com**



MaxLiner GhostLiner

GhostLiner CIPP liner from **MaxLiner** becomes transparent during wet-out and reduces LED light-cure times without sacrificing strength. It offers a faster and higher quality cure due to transparency once saturated and negotiates pipe bends up to 45 degrees. It is a uniquely manufactured synthetic fiber felt with a TPU coating designed to maximize LED light-cure capabilities. Tube forming and seam bonding are achieved by an overlocking chain stitched seam with an extruded taped joint,



creating a high-performance impermeable liner designed for sweeping bends up to 45 degrees and very minimal stretch. **877-426-5948; www.maxlinerusa.com**



Pipeline Renewal Technologies CIPP Inversion Drums

CIPP Inversion Drums from **Pipeline Renewal Technologies** are designed to be versatile, highly portable and user-friendly. Multiple sizes offer compatibility with many sizes of liner. The large drum can easily handle up to a 12-inch liner on its own and can shoot larger sizes and unlimited lengths with an attachment. All drums may be used for UV cure, steam, hot-water or ambient cure methods, and have a camlock coupling for easy nozzle exchange. Other features include wide access doors, corrosion-resistant aluminum construction, built-in wheels and tool-free tilt adjustment. **866-936-8476; www.pipelinert.com**

Excavating

Ditch Witch MT164

Built to help contractors easily create a clean, narrow trench in one pass, the **Ditch Witch MT164** microtrencher attachment offers maximum compact cable installation performance. Equipped with a standard hydraulic plunge and option to offset the frame, the MT164 provides variable depth control and allows contractors to cut right up next to a curb. It can trench up to 2 inches wide by 16 inches deep to cut deep enough to get through a standard-sized curb. It can also be set up for a push or pull application depending on the job site. The microtrencher's compact footprint provides increased flexibility with minimal disruption to surrounding infrastructure in urban areas. **580-336-4402; www.ditchwitch.com**



Hydra-Flex Ripsaw HD

The **Ripsaw HD** from **Hydra-Flex** is designed for the hydroexcavation industry. It is built to handle any digging application and offers a safe, efficient solution for locating underground utilities. Its front stream continuously rotates to create an 18-degree cone of coverage, which allows for daylighting without the risk of damage to utilities. Flow-straightening technology ensures all water particles follow a smooth, streamlined path. This delivers a powerful impact force that completes tasks faster and uses less water. Built with a heavy-duty coating, stainless steel housing and tungsten carbide wear surfaces, the nozzle's durable components withstand harsh conditions, including frost, shale and rocky soil. It is repairable in the field in about 10 minutes to extend its life span. **952-808-3640; www.hydraflexinc.com**



REHAU EVERLOC+

The **REHAU EVERLOC+** compression-sleeve fitting line has been growing to help plumbers stay on schedule, ace tricky installations and avoid rework in even more projects. The system now includes seven EVERLOC+ copper press adapters, 12 EVERLOC+ CPVC adapters, nine EVERLOC+ polymer multiport tees and 22 EVERLOC+ polymer tees and couplings. **800-247-9445; www.na.rehau.com**



SharkBite (RWC) Max

Max push-to-connect fittings from **SharkBite (RWC)** can help quickly fix burst pipes, making emergency pipe repairs faster and stronger than ever. Re-engineered and enhanced, the fittings build on the brand's push-to-connect technology while adding a higher pressure threshold to withstand double the burst pressure. The re-engineered fitting body lets you insert piping using half the insertion effort. A stainless steel collar adds double the strength and durability. Ideal for leak repairs, the slip and transition fittings are compatible with PEX, copper, CPVC, polybutylene, PVC and HDPE pipe, and can be installed in wet lines. **877-700-4242; www.sharkbite.com**



Fittings

IPEX Blue Brute PVC Fittings

Blue Brute PVC Fittings from **IPEX** are designed for durability in pressure applications, featuring a thicker bell and injection-molded walls up to 125% thicker than DR18 for exceptional strength. Available in sizes up to 12 inches, larger fittings are custom-fabricated with an added fiberglass reinforcement layer for extra durability. Engineered to create tight joints, the fittings withstand pressures three times higher than the pipe's pressure class. The smooth interior surface prevents buildup, promoting superior water quality and optimal flow. Made from noncorroding PVC, these fittings resist rust and corrosion in aggressive soils, eliminating the need for expensive protective measures. Tested to exceed industry standards, they come with standard gaskets for cast-iron-sized PVC pipe and optional transition gaskets for IPS-sized pipe. **289-881-0120; www.ipexna.com**



Pipe Relining Equipment

ACME Trenchless Pipe Winch

The **ACME Trenchless Pipe Winch** makes trenchless pipe pulling quick, and routinely easy. It delivers the pulling power needed — 20,000 pounds breakout force — applied to MAX 7/16 pulling cables which have a minimum rated breakpoint of 24,000 pounds. The pulling cables are reusable, and tensioned pulling cable remains inside the confines of the winch frame. It attaches to a compact excavator or backhoe via a quick coupler and will dispatch to the access pit at any approach angle, allowing for the preservation of the original bury depth of the existing waterline. It works with lead, galvanized, copper and plastic piping. **920-376-4222; www.acmetrenchless.com**



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Picote Xpress Brush Coating System

The **Picote Xpress Brush Coating System** provides a solution for refurbishing pipes ranging from 1 1/4 to 12 inches in diameter, boasting rapid curing times, zero waste and quick setup

providing savings in both cost and time. Used in conjunction with Picote Millers, the heart of the system is the Xpress Coating Pump featuring dual hydraulic resin cylinders for the new 1-1, single color epoxy. It has a built-in extended life battery and internal resin heater providing several hours of working time. The system also includes a motorized delivery hose reel with 131 feet of delivery hose, allowing for easier setup, movement and storage. The Xpress Epoxy is applied at approximately 1 mm thickness per layer, and curing time is as low as an hour between coats, resulting in a minimal number of coats needed, little time between coats and a quick return to service. **864-940-0088; www.picotegroup.com**

Warrior Trenchless Solutions Thermoform

Thermoform from **Warrior Trenchless Solutions** is a PVC-alloy structural pipe lining system designed for the trenchless rehabilitation of failing sewer and culvert pipes. It is an environmentally friendly, styrene-free thermoplastic. There are no harmful emissions, and it does not rely on any chemical reaction during installation. Factory-controlled production with rigorous material testing ensures a consistent quality product that conforms to and exceeds the expected standards. The material is highly flexible, allowing it to expand and fit tightly to the host pipe, including changes in shape and dimensions. It is produced in sizes ranging from 4 to 36 inches in diameter, and the wall thickness can be varied according to the application. All installers must be accredited and audited to ensure the highest quality work possible. **716-601-7760; www.thermoformliner.com**



Reinstatement Cutter



CUES Currahee Cutters 2.0

Currahee Cutters 2.0 from **CUES** provide a number of solutions for pipe inspection and rehabilitation — from clearing

blockages, debris, protruding laterals and roots to reinstating laterals in a CIPP liner. The cutters function in a range of 5.25- through 12-inch pipe, are equally effective in CIPP or fold-and-form liners and can be installed on a K2 truck-mounted cutter system. The system performs optimally using 1,000 to 1,500 feet of cable and is operated with the CUES gamepad controller. **800-327-7791; www.cuesinc.com**

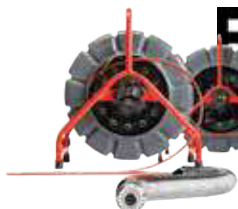
Trenchless Point/Spot Repair

American Pipelining Supplies Versa-Patch

The **Versa-Patch** point repair patching system from **American Pipelining Supplies** features locking pushrods and reusable packers that expand from the center push outward, eliminating wrinkles and ensuring a seamless finish every time. Elastic bands allow for repositioning after inflation, reducing waste and enhancing efficiency. Available in 3- and 6-foot lengths, it easily handles bends, transitions, P-traps and damaged pipes, making it the go-to solution for diverse pipe conditions. With a low cost of entry and a fast return on investment — often from a single job — it offers a profitable pathway to CIPP repairs without the complexity or expense of full-length lining systems. **888-258-9359; www.americanpipeliningsupplies.com** 



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Pipeline and Lateral Rehabilitation

By Craig Mandli

Polyurea lining system allows hotel to stay in operation during pipe rehab project



Problem: The Hyatt Soma Hotel is a 36-story upscale hotel in the Union Square district of downtown San Francisco. The busy hotel was in need of piping rehabilitation, and owners hoped to stay in operation during the work.

Solution: Six full columns of both supply and return heat piping (from the third to 36th floor) for the building's guest rooms, and occupied spaces were fully rehabilitated utilizing the **PipeCaster Pro** polyurea system from **IPP Solutions**. Work segments were completed in riser column scenarios or basically one column out at a time to meet the hotel's requirements for bookings and events. Risers were broken into multiple workable sections to keep crews in contained areas and to allow for the removal and replacement of existing expansion compensator units in these specific locations.

Result: The hotel remained fully operable and maintained over 90% occupancy during the nine-week rehabilitation process and that included the seven guestroom allowance given to the contractor for the crew to stay onsite for the duration of the project. 970-444-5655; www.ipp-solutions.com

Trenchless solution saves time and money for homeowner



Problem: A Las Vegas couple moved into their 1970s home, only to face severe sewer backups within their first week. A plumber's inspection revealed the pipes were in critical disrepair, leaving the homeowners unable to use their bathrooms without constant backups. The plumber recommended traditional pipe replacement, which required jackhammering through the home's concrete slab foundation, beneath the kitchen, bathrooms and laundry room. Complicating matters further, the slab contained asbestos, necessitating abatement before excavation could begin.

Solution: Desperate for alternatives, the homeowners received a postcard from Re-Nu America, a **NuFlow** certified contractor. They contacted Byron Summersville, who performed a camera inspection and confirmed the pipes had extensive cracks and corrosion, which had allowed roots and debris to infiltrate the system. The process began with a careful cleaning of the plumbing system, using specialized tools to remove debris without further damaging the fragile pipes. Once clean, liners were installed in the most damaged sections, addressing critical failures. By the end of the first day, the homeowners could use their bathrooms again. Over the next two days, the team rehabilitated 100 feet of 2- and 3-inch pipes using existing cleanouts and toilet removal for access.

Result: The project was completed in just three days at 40% less than the cost of pipe replacement. Best of all, the homeowners were able to remain in their house during the repair. The couple's positive experience caught the attention of their neighbors, who had been dealing with similar plumbing issues. Since completing that first job, Re-Nu America has worked on 30 additional homes in the same neighborhood, averaging one to two projects per week. 866-430-2134; www.nuflow.com 



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Product Spotlight

AI tackles leak detection for homeowners

By James Careless

Leak detection is something that typically only happens after the damage has become visible and noticeable. If the leaks could somehow be detected and addressed as soon as they occurred, the savings to property owners would be substantial — and the repair jobs facing plumbers would be far simpler.

Fortunately, there is a solution. With the arrival of artificial intelligence and its ability to autonomously collect, assess and respond to sensor data on a real-time basis, plumbers now have access to AI technology that can detect leaks as soon as they start. Moen's AI-enabled Flo Smart Water Monitor and Shutoff system is exactly the type of leak detection/response system that homeowners are looking for and a value-added product that plumbers can sell with confidence.

"It is an innovative device that attaches to the home's main waterline that offers a proactive approach to water security, making it a valuable tool in both preventing damage and streamlining service," said Suzy Kummer, senior product manager with the Moen Smart Water Network. "If it detects an abnormality in usage or the beginnings of a leak, it can intervene proactively, automatically shutting off the water supply so the home suffers no damage."

According to Moen, installing their AI-enabled Flo Smart Water Monitor and Shutoff System in a home (or



business) can reduce water damage claim frequency events by as much as 96%, as well as household water wasted through preventable leaks by up to 90%.

"With the use of machine learning, the device learns the unique water usage patterns of the home, enabling it to sense leaks as small as one drop per minute," says Kummer. "Its automatic shutoff feature responds proactively to potential leaks,

saving precious time in the event of a leak or other potentially catastrophic water damage."

Not only can Moen's Flo Smart Water Monitor and Shutoff System reduce water damage claims and water losses, but it can even be used to isolate specific areas of plumbing systems for repairs or maintenance. This is because the Flo Smart Water Monitor and Shutoff System can detect issues like running toilets and small drips!

"By educating their customers about the risks of water damage and recommending products such as the Moen Flo Smart Water Monitor and Shutoff, plumbers can showcase their commitment to customers' long-term safety, satisfaction and peace of mind, while reinforcing their dedication to providing the most effective and modern solutions," says Kummer.

Flo Smart Water Monitor and Shutoff Systems come in 3/4-, 1- and 1 1/4-inch sizes to ensure compatibility with various plumbing systems. 877-663-6776; www.moen.com

WHAT'S TRENDING FOR CAMERA INSPECTION?
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Noritz America upgraded EZ Series PRO tankless water heaters

Noritz America launched the next generation of its flagship EZ Series of residential condensing tankless water heaters. The upgraded EZ Series PRO range offers numerous improvements, including higher energy efficiency and Bluetooth connectivity that provides installers with a faster startup with a built-in remote. The product launch also includes a new size, the EZ71. Top-mounted hot-water and cold-water connections remain critical features, helping lessen the hassle and expense of replacing a conventional storage tank-type water heater. Any of the three models can be installed either outdoors or indoors (single-vent or direct-vent). Multiple venting options — 75 feet of 2-inch PVC or 2-inch flex vent — further streamline installation time and labor. 714-422-8120; www.noritz.com



HammerHead Trenchless PortaBurst PB30X unit

HammerHead Trenchless released the newest addition to its product line, the PortaBurst PB30X. The PB30X is a portable, cost-effective and efficient method of replacing 2- to 6-inch lateral pipes in a minimum amount of time, with up to 30 tons of pulling

force. Along with being lighter than HammerHead's previous downhole unit, the PB30X prioritizes portability and breaks down into three components, allowing for easy carrying into basements and overall transportation of the unit. The unit can burst sewer laterals and slit water and gas services. To accompany the new PB30X, HammerHead Trenchless has also released a new hydraulic control unit, the PB13X. The PB13X comes equipped with a new tethered controller or optional wireless controller to allow the operator to be close to the pit while the control unit is further away. 800-331-6653; www.hammerheadtrenchless.com



Watts LOCKSMITH commercial softeners and backwashing filtration systems

Watts' LOCKSMITH commercial softeners and backwashing filtration system line features a new controller with robust features, functionality and performance. The controller, now standard on select Watts commercial softening and backwashing filtration systems, is a simple, single-platform engineered to streamline operations and system maintenance, eliminating the hassle of managing multiple platforms. LOCKSMITH systems are available on a broad range of 1 1/2- and 2-inch model options. The controller is highly configurable, with customizable programming that can be easily tailored to specific application needs. 978-688-1811; www.watts.com



Chicago Faucet HyTronic Tempshield faucets



Chicago Faucet Company has launched an update to its line of HyTronic faucets. The HyTronic Tempshield faucets now have an integrated ASSE 1070-certified thermostatic mixing valve in the faucet body, limiting infection and preventing scald protection. It also speeds up installation. The faucets are ideal in any space where health and well-being are crucial to the occupants of a building but especially healthcare with its vulnerable populations. The HyTronic TempShield Series offers three spout designs: gooseneck, contemporary and traditional to meet specifier or facility manager specifications. 847-503-5000; www.chicagofaucets.com

Niagara HydroTech bidet seats and accessories



Niagara's new HydroTech bidet seats and handheld bidet sprayer offer customers the ability to customize their bathroom experience and cut down on toilet paper use, while enhancing comfort and personal hygiene. Customers can choose from three options that suit their personal hygiene and budget needs. The bidet has a heated, elongated seat with adjustable temperature for a more comfortable experience. A nightlight feature assists during nighttime trips to the bathroom and also comes with a slow-close seat for an upscale experience. The bidet also offers adjustable water temperature and pressure. 833-812-0908; pro.niagaracorp.com

Superior 5E FLEX battery-powered smoke blower

Superior Signal's 5E FLEX battery-powered smoke blower is designed for smoke testing building plumbing and laterals to quickly find faults, odors, leaks and inflow. The 5E FLEX is compatible with leading 18- to 20-volt tool batteries utilizing a high-quality power adapter. The 5E FLEX smoke blower integrates with existing electric toolsets or can run off any 12- to 24-volt DC power source. Smoke-testing is a cost-effective solution ideal for hard-to-find faults in commercial, residential and municipal facilities. While the 5E blower is popular for a variety of plumbing applications, it is also particularly useful in testing sewer laterals, showing where a fault or leak may occur on private property. Made in the USA, the 5E FLEX comes with an 8-foot industrial-grade hose. Used with Superior's SP-8 premium encapsulated smoke pellets, the 5E Flex is easy to use and gets the job done quickly every time. **732-251-0800; www.superiorsignal.com/prflex**



Oatey Stain-Free Plumber's Putty

Oatey's reformulated Stain-Free Plumber's Putty is now compatible with ABS plastic pipe. Plumber's putty creates a waterproof seal between rigid surfaces, effectively preventing leaks and maintaining fixture integrity. With its unique formulation, the Stain-Free Plumber's Putty stays flexible and is easy to mold and work with, offering exceptional performance in every application. In addition, its nonstaining formula guarantees that it will not discolor most porous surfaces, including granite, marble, quartz, sandstone and Corian, preserving the aesthetic quality of the work. The putty cleans up easily and requires no cure time, saving valuable time on the job site. **800-321-9532; www.oatey.com**



Rheem ProTerra hybrid electric heat pump water heater upgrade

Rheem announced design upgrades to its ProTerra hybrid electric heat pump water heater line. Available in 40-, 50-, 65- and 80-gallon sizes, the ProTerra models include quick install elements such as new top-of-the-tank water connections and a duct-ready design. Built-in Demand-Response-Ready EcoPort and Wi-Fi powered by Rheem's EcoNet technology provide additional smart features. The built-in LeakGuard system helps protect homes with a 360-degree leak detection and auto water shut-off valve. **800-621-5622; www.rheem.com**



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NIBCO promotes Edds to director of product management

NIBCO announced the promotion of Aaron Edds to director of product management. In his new role, Edds will be responsible for overseeing and guiding the product management team, working closely with senior leadership and cross-functional teams to ensure product development aligns with NIBCO's business strategy and meets customer needs. Edds will continue to report to Joseph Choflet, vice president of sales and marketing. Bringing more than 30 years of fluid handling industry experience to the position, Edds originally joined NIBCO in 2006 as a product manager and held various positions of increasing responsibility through 2015. In 2022, after holding product manager positions at Reelcraft Industries and Tuthill Transfer Systems, he rejoined NIBCO to serve as senior product manager for plastic fittings and the Chemtrol brand.



Franklin Electric appoints Mike Pimentel to senior management

Franklin Electric appointed Mike Pimentel to the role of senior business unit manager for industrial and engineered systems. Pimentel will set the strategic vision for the segment, leading all commercial activities and supporting the needs and growth of Franklin Electric's customers. Pimentel has worked in the pumping and irrigation industries throughout most of his 25-year career. He joins Franklin Electric after serving in various sales and management roles at Mitchell, Lewis and Staver, where he led teams across the company's industrial, commercial and residential markets.



RectorSeal expands midwest plumbing market coverage

RectorSeal added Balfrey and Johnston as its plumbing representative in Wisconsin. Balfrey and Johnston will continue covering RectorSeal's Michigan territory and providing comprehensive support to clients across Michigan and Wisconsin.

Bradford White helps fund expansion of ECA heat pump internship program

Bradford White Corporation is partnering with Pennsylvania's Energy Coordinating Agency for the third consecutive year to expand training on heat pump technology to meet future marketplace demands. Already a supporter of ECA's heat pump water heater installation

and maintenance training program, the \$50,000 grant from Bradford White's Industry Forward charitable giving program will allow ECA to further scale its Internship Program for HVACR heat pump trainees. The program, which launched in 2024, has 15 interns going through the program this year. ECA hopes to accommodate 45 students in its internship program in 2025. 

Email personnel, business acquisitions and related plumbing news, photos and videos to editor@plumbermag.com.

CALENDAR

March 2-6

Mechanical Contractors Association of America Annual Convention,

JW Marriott Austin, Austin, Texas. Visit mcaa.org/events/calendar/mcaa-annual-convention-2025/

March 16-19

40th Annual WaterReuse Symposium,

JW Marriott Tampa Water Street, Florida. Visit watereuse.org/news-events/conferences/

March 18-25

National Hardware Show, Las Vegas Convention Center.

Visit nationalhardwareshow.com

March 19-20

Austin Build Expo, Palmer Events Center, Austin.

Visit buildexpousa.com/austin-build-expo/

March 21

Illinois PHCC EXPO North, Drury Lane Conference Center,

Oakbrook Terrace. Visit: ilphcc.com/expo

March 24-27

Air Conditioning Contractors of America 2025

Conference & Expo, Kalahari Resort, Austin.

Visit accconference.com

April 23-24

Dallas Build Expo, Dallas Market Hall, Dallas.

Visit buildexpousa.com/dallas-build-expo/

Continued ▶

May 6-9

International Association of Plumbing and Mechanical Officials UPC & UMC Technical Committee Meetings, The Sheraton Grande, Los Angeles. Visit iapmo.org

May 19-21

Plumbing Contractors Association Plumbing Service Conference, Live! by Loews, St. Louis, Missouri. Visit mcaa.org/events/

June 8-11

AWWA Annual Conference & Exposition, Colorado Convention Center, Denver. Visit events.awwa.org

June 11-12

Houston Build Expo, NRG Park Center (Hall D), Houston. Visit buildexpousa.com/houston-build-expo/

June 16-18

Women in the Mechanical Industry (WiMI) 2025 Conference, Loews Kansas City Hotel, Missouri. Visit mcaa.org/events/

June 29-July 1

Canadian Institute of Plumbing & Heating Annual Business Conference, Fairmont Tremblant, Mont-Tremblant, Quebec. Visit ciph.com



Plumber invites organizations and associations to submit details about upcoming industry trade shows and conferences for our calendar of events. editor@plumbermag.com.



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