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A TOUGH START

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When handled correctly, upselling products is a proverbial win-win for plumbers and their customers.

- By Ken Wysocky




On the Cover

E.J. Knowles, technician at Forrest Anderson Plumbing and Air Conditioning, installs a faucet fixture in a bathroom at a new home construction job in Phoenix. The company, founded in 1948, specializes in commercial and residential HVAC services, drain cleaning, plumbing fixture installation and repair, and commercial backflow device maintenance. (Photo by Mark Henle)

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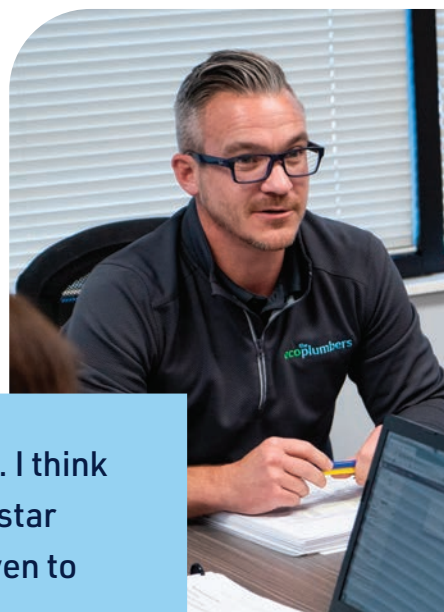
After 13 years in business, Aaron Gaynor of The Eco Plumbers has seen tremendous growth in the last 5 years. It's more than just trucks – in the same time period, he's gone from 13 employees to 73 employees and counting.

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-Aaron Gaynor

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The Thrill of the Challenge

Contractors can learn from and build upon things that get in their way as they operate a business

Running a company isn't the easiest thing to do. You will likely run into many challenges along the way. Challenges like finding the right employees and finding customers are just a couple of the major ones.

So why start or run a company when you have challenges to face along the way? I've often asked that of contractors I'm interviewing for profiles and, surprisingly, the one answer I seem to always get is: "It's the excitement you get from beating a challenge and knowing you've succeeded at doing something."

The profile in this issue is a big example of a contractor overcoming challenges. Audrey Monell took over her family's plumbing business just as the recession was hitting in 2008 and the company was shrinking because of it.

Monell didn't give up. She fought through, and the company survived the downturn and came out of it stronger than ever.

How do you overcome some of the challenges you are going to face? By brainstorming and solving problems, critiquing yourself and your team, developing some resilience, and sharing your stories.

THINK, THEN SOLVE

Finding a solution to a problem is the first step in building a strong company. First you learn that something went wrong, and then you begin to figure out why it went wrong in the first place and what can be done to fix it.

As an example, if you are having trouble finding that right employee, take a look at your ads and fine-tune them. Or if you are seeing your customer base drop, find out why. It could be the advertising you are doing; it could be bad reviews. Then find a way to solve those problems.

CRITIQUE YOURSELF

As tough as it might be, don't shy away from critiquing yourself and your team. It is a big step in building and sustaining a successful business.

Critiquing yourself will help avoid repeating the same mistakes, provide insight on how to improve, and enable you to be better equipped next time the challenge comes up.

The more you experience challenges and how to resolve them, the more you train yourself and the people around you (your staff).

DEVELOP RESILIENCE

With some of these challenges you're bound to come up against disappointment. An emotional roller coaster will never get you anywhere. The roller coaster will keep moving whether you are on it or not. Instead of being disappointed, focus and regroup, then do better the next time around.

Forget about things that are bad and move on. It's the only way you'll grow as a business owner. Most successful people have found ways to turn their challenges into successes. Their background stories reflect resilience. Just take a look at some of our past profiles and you'll see that in many of them.

SHARE YOUR STORIES

Sharing the challenges and failures you have come across will show others that you are human, resilient and ready for change.

Think about this: The main reason recent graduates are not hired immediately into top management is because experience hasn't taught them yet. So take those challenges and stories and use them to improve yourself.

Sharing your story will also help others realize they can overcome their own obstacles.

HEARING FROM YOU

Have you had to overcome challenges when growing your company? What kind? How did you overcome them? What did you learn? I'd love to hear more. Email me at editor@plumbermag.com or call 715-350-8436.

Enjoy this issue! 

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STAY SAFE

Shoring Solutions Should Be Top Priority

If your work has you occasionally digging trenches to install or repair pipe, you know how important it is to follow proper safety protocols. It could be the difference between life and death, as headlines about tragic trench collapses too often remind us. But staying safe requires more than following regulations. It takes a thorough understanding of the tools available to prevent trench collapses. This online exclusive provides an overview.

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PHOTO GALLERY

Plumbers At Work

When photographers accompany our featured contractors on job sites, far more photos are taken than are able to fit on the pages of the magazine. We put together another gallery of the best of all those extra photos of recently profiled companies. Check it out.

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HEALTHY FINANCES

Key Principles For Good Cash Flow Management

Without good cash flow, it can be difficult to take care of business essentials such as employee payroll and materials purchasing. The larger the company, the more finance people you may have in place to help manage the task, but good cash flow principles go beyond your finance people. Here's a look at how other members of your team should factor in as well.

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Plumber Profile

▶ Audrey Monell, owner of Forrest Anderson Plumbing and Air Conditioning, stands in front of one of her company's service vehicles. Monell took over the company from her dad. Her grandfather founded the company in 1948 in Indiana.

A TOUGH START

Arizona plumbing company takes its tumbles but comes back stronger with a big commitment to customers

By Giles Lambertson | Photography by Mark Henle



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Audrey Monell

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Audrey Monell took over the family plumbing business and began her executive career by managing a crisis: The economy in 2008.

"It wasn't a great time," Monell says. "We were hit pretty hard. Sometimes it was scary."

Monell was taking over Phoenix-based Forrest Anderson Plumbing and Air Conditioning from her father, who took it over from his father who founded the company in Indiana.

The construction industry was slammed throughout the U.S. in 2008, including in Phoenix, so homeowner and general contractor calls for trade services like plumbing slacked off severely. "We did small jobs," Monell says. "If there was a big job, no problem, we took it on."

The size of the company shrank as some employees moved to other states to find work: The workforce ultimately being halved to 17. Monell looks back with pride on the fact that the reduction in employee staffing was all voluntary. "We were able to make it through without laying off a single person. No matter what, our guys went home with their pay-

checks. We all banded together. It was very inspirational."

Today, Forrest Anderson has grown back to 27 employees with annual revenue in the range of \$5 million. Monell says she took away valuable lessons from the harrowing business experience. "I learned how important relationships really are in business. Not the dollars and cents of it, though that's important, but the ongoing connection with subcontractors. Everybody worked together. We have a better understanding of how much we rely on our employees."

BACK TO THE BEGINNING

After World War II, the company's namesake Forrest Anderson returned home to Rockport, Indiana — an Ohio River town about 1 1/2 hours west of Louisville, Kentucky — where in 1948, he and wife, Delores Anderson, founded their plumbing, heating and air conditioning firm. Like many other Midwestern "snowbirds," the Andersons sometimes winter-vacationed in Phoenix.



▼ David Veatch (center), Forrest Anderson Plumbing and Air Conditioning service manager, talks with technicians during a service meeting at the company's office in Glendale, Arizona.

After one such visit, Delores told her husband she wanted to live there. So, in 1961, the plumbing, heating and air conditioning firm relocated — symbolically leaving the “heating” part of the company name in Indiana. The firm prospered and eventually was handed to Don Hensley, Forrest’s stepson and Monell’s father.

Consequently, Monell grew up around the business, sweeping floors and performing other custodial jobs as a child and preteen. She eventually helped out with bookkeeping and, as a teenager, began to accompany crews on service calls and to work sites. After high school graduation, she went to Texas Tech University on rodeo and academic scholarships. When the family business harkened, Monell transferred to Arizona State University to earn a degree in economics.

“The year before I graduated, I decided I wanted to go into the family business,” she says, a decision the family had encouraged. Upon graduation, she began to work with her parents at the shop and, a year later, became chief executive. “My dad called everyone together and announced our vision for the company and that I would be taking over as president.”

Eleven years later, Monell was asked if she still believes joining the family business was a good decision. “Oh, yes. Not many people get to grow up in a business and have the chance to run it,” she says. “We have people who have worked here for 20 years or more and taught me everything. Now they encourage me to lead them. It’s been a great transition.”

Unacknowledged here so far is the salient fact that Monell is a female leading a company in a traditionally male industry. That she is succeeding is evident in assorted awards presented to her in the last couple of years, including being named one of the Most Influential Women in Arizona Business. She also is president of the Phoenix Chapter of Executive Women International.

It hasn’t always been easy.

“One of our guys quit when it was announced that I would be president of the company,” she says. “Too bad. He didn’t know me very well. He just declared he wouldn’t ever work for a woman. I’ve encountered that kind of attitude. I’ve not been taken seriously sometimes because I am a woman.” She adds that, notwithstanding the one disgruntled employee’s reaction, she has received “great support” from company employees.



▲ Plumber Dan Veatch stocks his van prior to the start of his workday.

“I learned how important relationships really are in business. Not the dollars and cents of it, though that’s important, but the ongoing connection with subcontractors. Everybody worked together.”

Audrey Monell

Her position atop the company was “a very big deal to me at the very beginning,” says the 36-year-old executive. “There still is a pride factor in that I get to do something in business that other girls can look up to me for doing. But as far as the day to day, it’s not that big of a deal anymore.”

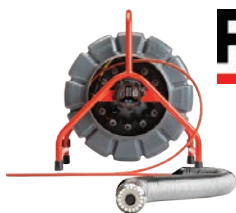
ADAPTING TO THE ENVIRONMENT

The mix and scale of services provided by Forrest Anderson has changed year to year during her tenure. The customer base has changed somewhat, too, according to Monell, with increasing focus now on 24- to 39-year-old residential customers — millennials — and heavy commercial clients.



▼ E.J. Knowles adjusts the temperature control in a shower at a residential job in Phoenix.

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▼ Jacob Pello, a technician with Forrest Anderson Plumbing and Air Conditioning, loads parts and tools he'll be using on jobs onto a trailer being hauled by his van.



Business volume is pretty evenly split between service calls and new construction. In the latter, plumbing dominates the work over HVAC mechanical jobs. As for service calls, some 60% of them in 2019 were for plumbing, which is not typical for Phoenix, where triple-digit temperatures are recorded more than a hundred times a year and air conditioning work is a given.

"It was a weird summer this year. It didn't get really hot so often, so we weren't as busy as usual," Monell says.

The company offers a full lineup of services for both residential and commercial customers — cooling, heating and plumbing services for each, plus backflow device maintenance for businesses. Monell says the commercial side of the ledger is growing.

"The work used to be a lot heavier on the residential side than on the commercial, but a couple of years ago, I hired a new service manager with a lot more background serving commercial clients," she says. "Since then, commercial volume has grown about 15%."

THE RIGHT EQUIPMENT

To respond to its calls, Forrest Anderson runs 16 vans, box trucks and pickups.

The company's maintenance agreement for central heat and air systems features spring and fall inspections of equipment and 15% discounts. The agreements are offered as Comfort Club memberships and predated Monell taking

“Not many people get to grow up in a business and have the chance to run it. We have people who have worked here for 20 years or more and taught me everything. Now they encourage me to lead them. It's been a great transition.”

Audrey Monell

over. She says she is trying to grow the number of members.

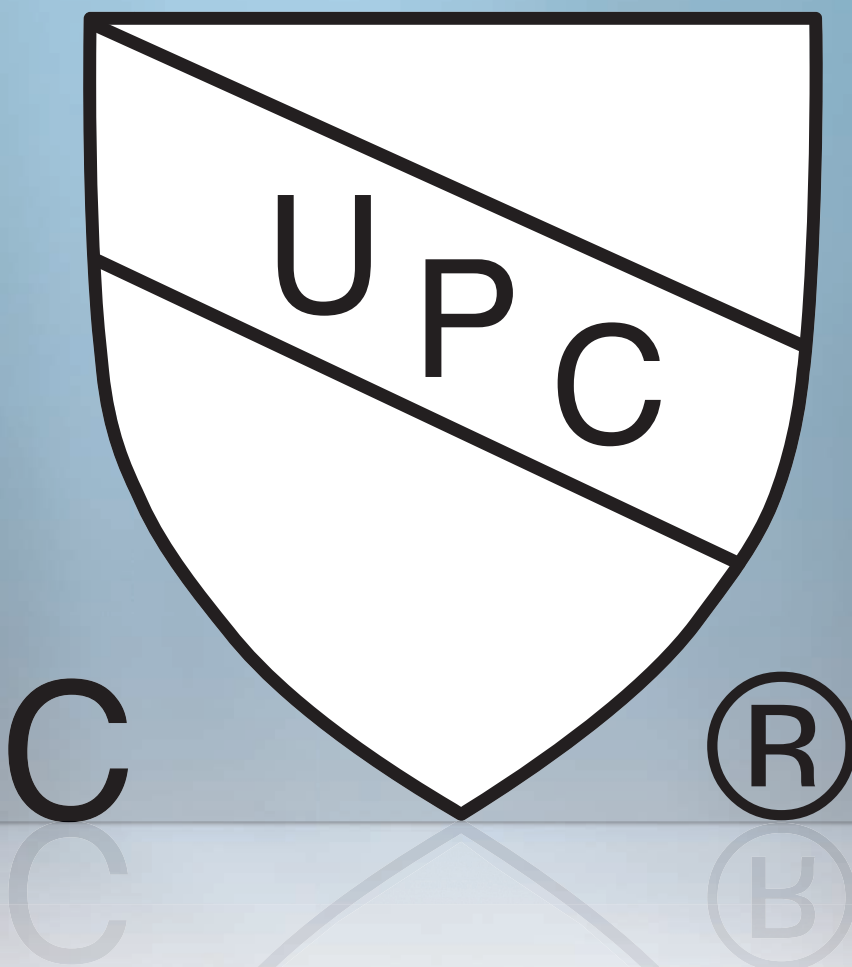
"Unfortunately, most customers don't take advantage of the agreement," Monell says. "I'm trying to get the techs to talk to customers about it a lot more, rather than just fixing a problem in a home or business and leaving. It's all about educating the customer."

In this era of heightened environmental concern, the company website places some emphasis on conserving water and reducing electrical consumption. Low-flow fixtures and air conditioner maintenance are stressed as conservation solutions.

"There was a recent report about the No. 1 concern of rural Arizonans being water conservation," Monell notes. "People are more conscious of the need for it."

Two years ago, the company invested in a CCTV system to inspect pipes. One employee was given the job of videotaping, a service previously subbed out. "If a customer

Continued ►



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A developed service model

Forrest Anderson Plumbing and Air Conditioning has what it calls a four-point service model. The Phoenix company came up with it many years ago, and Audrey Monell, the company's president, acknowledges it is "kind of what you would expect a service company to provide a customer."

Even so, it concisely states a positive approach to working with customers. The service model uses four words to express the tenets of comprehensive service: understand, discuss, solve and deliver.

Basically, an ideal service sequence involves quickly identifying and understanding a problem, discussing it with a customer until all options for resolving the issue are clear, carefully explaining a proposed remedy so there are no surprises, and then delivering a promised resolution of the problem along with a report on the work done.

The goal, according to the company website, is to "provide a consistent, high-quality experience each and every time." To that end, the service model is regularly revisited in Monday morning training sessions for Forrest Anderson technicians.

"The guys are given talking points and then asked to develop their own style for talking with a customer. Whatever works for them," Monell says. "We don't want them to sound like salesmen."

But she does want each tech to be able to clearly convey to customers just what they will be doing with their tools and the benefits that will come from doing it. It probably comes as no surprise that she has learned not all techs are created equally as communicators.

"Some can do it better than others," Monell says. "Valued employees of ours who have been here a long time sometimes have a hard time expressing themselves. Then there are those who can talk your ear off."



▲ Staff sit down in the office prior to the start of the day for a safety meeting and to go over the day's schedule.

has multiple stoppages in a drainline, chances are they have a broken line or something. That means we'll just keep coming out and clearing it. With the camera, we show a customer exactly what the problem is so it can be corrected. Video inspections have helped our customer relations."

The RIDGID SeeSnake rM200 camera is one diagnostic tool the company uses to visualize pipe problems. Another is a portable Power Smoker 2 liquid smoke tester (Hurco Technologies). When a stoppage is evident in a small-diameter line, a Forrest Anderson crew member can grab a Super-Vee Drill Snake (General Pipe Cleaners/General Wire Spring) and ream out the blockage. When a larger blockage turns up, a Spartan Tool jetter is called on to clear the way.

A DEPENDABLE CREW

Among the company's employees are some old hands who, as in any organization, are people with institutional memory and valuable experience. For example, E.J. Knowles has worked at the firm for 27 of the 58 years it's operated in Phoenix. Monell can also tap the knowledge of Dennis Correll, director of the Metro Phoenix Plumbing Heating Cooling Contractors Association, who is also a childhood friend of her father.

Such veteran resources are reassuring to any executive these days because the employee situation remains worrisome. Keeping a full complement of technicians employed is a problem for all construction trade leaders as newer generations of Americans continue to spurn blue-collar careers. Monell characterizes staying fully staffed as a "major struggle."

Various advertising venues have been tried to fill positions, with mixed success. Monell says the company has also tried to hire graduates of Phoenix trade schools. But the company finds itself competing for the graduates with much larger companies, some of which have offered \$5,000 sign-on bonuses.

"It's a little hard for a company the size of mine to compete," Monell says.

TOTAL CUSTOMER RESPECT

Her grandparents started the company with core beliefs that continue to direct it. The rules are to treat employees and customers


right, do only the best work and always do the right thing. How that plays out is encapsulated in a recent episode Monell talks about.

"On a service call, we didn't communicate as clearly as we should have and disappointed a customer," Monell says. "The next morning when I found out about it, I immediately refunded the diagnostic service charge and called up the customer. She had already written a scathing review online. I told her she was right. It's on us. We hadn't done what we said we were going to do, and I offered to have us come out and do the right job."

The apology and rescinding of the fee quickly turned things around. "An hour later, she updated the review, and now she loves us," Monell says. She concisely summarizes the matter this way:

"People don't like to give their money to people they don't like."

So, the company moves ahead on the strength of its policies of total customer respect and performing the best quality of work it can muster. The formula has been successful for 71 years. Looking ahead, two questions remain: Can the success be sustained for another seven decades, and will a fourth generation of the family lead the effort?

Monell believes the company will continue to serve customers for years to come, but says she has no idea if her 7-year-old daughter, Ava, will want to follow in her footsteps. A recent incident at home suggests Ava just might be interested. "She was playing in her room and I heard her pretending to run a company," Monell says. "That was a proud mom moment." 

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Anthony Pacilla

The Unsung Heroes

Understanding where the water comes from and who takes care of it are important things for plumbers to know

By Anthony Pacilla

Of all the things we take for granted, potable water may be at the top of our list. While people in other countries walk miles to get a drink of swamp water, we have water anytime we want it in the convenience of taking three steps into the bathroom or kitchen and turning on the faucet.

Even plumbers often take water for granted, even though we work around it nearly every day.

Many plumbers and service technicians know what happens from the service line into the house and what happens to each fixture in a structure, but how does it even get into the water mains? How does that water get into the treatment facility? What happens once it gets there? Who decides what treatment the water gets? How do contaminants and pollutants get into the aquifers and rivers? And who are these people who take care of all this?

THE PROCESS

These answers start with the available water source for the area in which you live. If you live in a river valley with an abundance of rivers, your local municipality may draw straight from the river and pump it to its treatment facility. If your area happens to have a large underground aquifer, they might draw from the aquifer into the treatment plant. The term for the water at this stage of the process is referred to as “raw water.” This is the water as it is directly from the source.

This raw water can be first generally treated with a process called prechlorination. This involves the addition of chlorine to keep down the smell and the corrosion elements in the raw water until further treatment.

The water is then pumped directly into aeration towers to get it in direct contact with oxygen. Many times, plants will pump water to the top of the tank, where it trickles down through packing materials as air is blown from the bottom of the tank. This process is called aeration, and

the method is called an air stripper. It is designed to aerate the water, forcing the removal of volatile organic chemicals, or VOCs.

At this stage, they consistently test the water for contaminants, chemicals, acidity, etc., to figure out how to treat the water for human consumption. One of the biggest concerns is bacteria.

As with any filtration system, you are trying to remove large sediment, kill harmful bacteria using chemicals, adjust for corrosion control, smell, color, taste and pH levels.

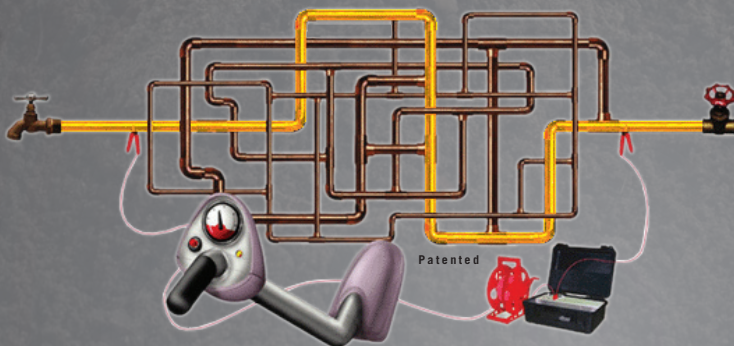
Even plumbers often take water
for granted, even though we
work around it nearly every day.

What can cause raw water to have all different levels of contaminants and pollutants? Again, it depends on the source. Think for a moment: If an aquifer has a large farm above it using pesticides and chemicals all day long, there’s a good chance the aquifer has traces of pesticides that need to be removed. Or it could be an area with a large volume of petroleum products that could soak in through the ground and cause significant issues.

Every plant must decipher what is in the water and how to get it removed. Through routine testing and water updates, they can adapt and overcome what comes their way, which requires a lot of knowledge and planning. There are a million different contaminants with a hundred different ways to treat them.

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WORKING IN THE TREATMENT PLANTS

This process varies greatly depending on what exactly is contained in the raw water. There are aquifers in the U.S. where the raw water already exceeds water standards but still must be treated for consistency. The people in charge of water treatment have one of the most fundamentally essential jobs for sustaining life on earth.

I spoke with treatment expert Salvatore Astuto, a Grade 2B water operator on Long Island, New York, who says, "You need to have a commitment and dedication to the trade. People depend on you whether they realize it or not. Think about how many things we need water for: showers, coffee, drinking water, cooking, cleaning, indoor plumbing, agriculture, sprinkler systems, fire systems, etc. Millions of gallons of water are used per day here locally, and it's our responsibility to put out safe and consistent water to support and sustain life in the communities we serve. We take it very seriously."


Not only do they have to deal with treating and filtering pollutants and contaminants, but there are other factors such as source planning for heavy-use period's such as springtime/summertime yard sprinkler systems.

Astuto says, "On an average day, you might run through 5 million gallons of water, but when the sprinkler systems start running in spring/summer, usage might jump up to 15 million gpd. Think about that for a moment: That's 10 million gallons extra per day used for sprinklers

alone. You have to plan accordingly and be prepared for that dump load."

Every area of the country has its way of treating water, depending on the quality of its water source. There is not enough time to go through the hundreds of different treatment processes used. One thing is for certain, however, the treatment plant guys and girls are one of the true unsung heroes of modern civilizations. They should be commended for their detailed approach, professionalism and commitment to providing us sustainable life on earth.

If someone asks them what they do for a living, they can respond, "I sustain life on earth." How cool would it be to say that and still be valid? For them, it is their reality.

Big thank you to all who work in that field and profession! 

Anthony Pacilla has been in the trades since he was 9 years old (family business). He started cleaning toilets, mopping floors and putting fittings away in the warehouse. As he picked up skills, he would add becoming a ground man and laborer. When he was ready, Pacilla became an apprentice and then a journeyman plumber. He graduated college with a business and economics degree and immediately wanted to come back to work in the family business. A few years ago, Pacilla became a licensed master plumber. To contact Pacilla, email editor@plumbermag.com

Sales and Service

When handled correctly, upselling products is a proverbial win-win for plumbers and their customers

By Ken Wysocky

For some plumbers, upselling is a dirty word that evokes images of overzealous contractors forcing unneeded products on unwary customers. Or of wasting valuable time playing salesman instead of moving on to the next job.

But savvy plumbers know that tactful upselling can benefit their bottom lines without offending customers. It can also boost customer satisfaction and lead to more word-of-mouth referrals, says Ed Del Grande, a master plumber and a how-to expert for Kohler/Sterling.

“You’re in someone’s home and you have a captive audience,” Del Grande says. “You go into homes with a fresh eye and perspective and see things that can improve customers’ lives. All you need to do is keep your eyes and ears open, see customers’ needs and fulfill them. You help them out, and you help your business by increasing sales.”

As an example, Del Grande cites a plumber who fixes a bathroom faucet but then notices an old, worn-out showerhead. That presents an opportunity to sell a newer fixture with advanced features, such as a water-saving design or multiple functions (massage or pulse-massage jets, rinse mode, etc.) — or even one with a convenient hand-shower attachment, he says.

“You can offer them a product that looks and works better,” he says.

Plumbers should explain that they’re already at the home and have time to do the work. They should also point out that it’s better financially to do the work now rather than wait until an aging fixture breaks and pay for another service call down the road, he explains.

KEEP IT SMALL AND SIMPLE

Successfully upselling products requires a strategic approach. For instance, it’s best to upsell items that can be installed quickly and easily, without delving too deeply into the plumbing system. Showerheads, faucets and broken toilet seats are good examples, he says.



▲ Ed Del Grande, a master plumber and a how-to expert for Kohler/Sterling, poses with a new showerhead for a customer. Del Grande says it should be easy for plumbers to upsell services at the right time. (Photo courtesy of Kohler/Sterling Co.)

“You go into homes with a fresh eye and perspective and see things that can improve customers’ lives. All you need to do is keep your eyes and ears open, see customers’ needs and fulfill them. You help them out, and you help your business by increasing sales.”

Ed Del Grande

“A showerhead is one of those rare plumbing items where you don’t have to tap into the water system,” he notes. “You turn off the shower mixing valve and take off the old head with a turn of a wrench — no need to turn off the water supply.

“Aim for small jobs that wouldn’t take you any longer than stopping for a cup of coffee on your way to the next job,” he adds. “You don’t want to replace things that will hinder your schedule.”

It’s also helpful to carry a small range of upsellable products so customers can actually see what they’re buying. When customers can actually “kick the tires” and see how a certain item can help them improve their homes or lifestyles, it creates a connection that helps avert a quick, “no thanks, I don’t need that” response.

Once again, smaller items make more sense because cargo space on most service trucks is limited. As such, toilets are a tough upsell because most plumbers don’t have room to carry one on their trucks, so upselling one would require scheduling another service call, he says.

THE PRICE IS RIGHT

Faucets, on the other hand, don’t take up much room. “Faucets are a great upsell because most of them nowadays are ready to go right out of the box, with all the connections included,” Del Grande says. “And in many cases, I can actually replace an old faucet with a new one for less labor because I won’t have to chase around trying to find parts that match the customer’s existing faucet.”

How should plumbers determine what grade of product to carry on their trucks? Del Grande says that products at middle-of-the-road price points are best, as opposed to the cheapest or most expensive products.

And speaking of costs, it usually works best to quote

a customer a flat-rate price for the upsell. For plumbers who don’t use a flat-rate pricing system, it’s easy enough to develop a fair price by estimating how long the job will take, calculating a labor charge based on their hourly rate, then adding on the cost of the product plus an appropriate markup, he says.

“Customers like flat-rate pricing because they know what they’re getting into, compared to time-and-materials quotes,” he explains. “Customers don’t like surprises.”

Of course, it’s critical to closely scope out a job ahead of time and uncover potentially time-consuming problems — rusted-out pipes, for instance — before quoting an installation price.

“And if a job takes a lot less time than expected, you can knock, say, \$25 off the price, which always makes customers happy,” he says.

ENTERTAINMENT VALUE


One last tip: Upsell products that are as fun, novel and entertaining as they are functional. For example, some toilet seats now feature built-in deodorizing systems or night lights. And some showerheads now come with a removable Bluetooth-capable speaker; this allows customers to stream their favorite tunes and listen to music in the shower, he says.

“It’s a cool little gadget that gives customers a little more fun and zip in life,” Del Grande says.

While some plumbers may think it’s not worth the effort to sell a few more faucets and showerheads every week, Del Grande says it all adds up over the course of a year.

“If you can go out every day and sell a showerhead and a toilet seat and make, say, 10% more every day on each job, it adds up in a hurry,” he says. “Any revenue you generate is revenue you otherwise would never see.”

If plumbers are unsure of where to start, Del Grande suggests picking products they like, perhaps even installing them in their own homes. That allows them to provide personal testimonials about a product’s value, which can help close a sale, he notes.

“Experiment with different products to see what sells in your market,” he advises. “When you run a small business, almost everything is an experiment. So go find your groove — get a chip in the game and find out what works for you.” 



Patrick Ungashick

7 Reasons to Put Golden Handcuffs on Your Best Employees

Create a solid plan to encourage your top employees to stick around; but tread lightly when it comes to giving up equity in the company

By Patrick Ungashick

High-performing employees are often the most valuable assets in a company. Customers, products, technology, inventory and many other assets come and go. A company that cannot hold on to its best employees, however, likely cannot grow.

Yet few companies take any formal steps to minimize the risk of losing top employees. Sure, you pay your best employees well and presumably have a great culture and work environment. But your competitors can offer the same incentives. To truly hold on to your best people, consider tying them to your company with golden handcuffs.

“Golden handcuffs” is a generic term describing a wide range of programs that share one core purpose: to incentivize top employees to stay with your company for the long term. There are many types of programs: incentive compensation plans, stock options, phantom stock, stock appreciation rights, synthetic equity programs, share bonus plans and more.

Making things even more confusing, each of these types of programs has variations in its design and operation. This complexity makes it difficult to approach these programs and select a plan design that best fits the situation. However, learning about golden handcuffs programs is worth the effort. They offer a unique combination of advantages and benefits that can help your company reduce risk, propel growth and maximize value at exit.

Companies that design and implement effective golden handcuff plans can accomplish the following seven important outcomes:

- 1. Reduce the risk of top employees leaving prematurely or unexpectedly.** Golden handcuff plans offer a future compensation payout that’s partially or completely forfeited if the employee terminates employment prior to an agreed-upon date (such as retirement age) or an event (such as the sale of the company). To create the desired impact, the potential compensation amount must

be significant — typically several times the employee’s current annual income or more.

- 2. Incent top employees to help create long-term, sustained company growth.** The potential for a future compensation payout orients the employee toward achieving the company’s business goals, especially if the payout amount is tied to long-term company growth.
- 3. Create incentives for top job candidates to join your company.** A golden handcuffs program offered to a desired recruit — in addition to competitive pay and compelling career opportunities — can be the tipping point that convinces an important hire to join your business.
- 4. Protect the company against the risk of losing customers, other employees or trade secrets should an employee who has those relationships and information leave.** Golden handcuff plans should include a legal agreement that commonly includes provisions such as noncompete, nonsolicitation and nondisclosure language wherever possible.
- 5. Provide a way for business owners to create alignment with nonowner top employees around creating business value prior to exit.** Many business owners are understandably concerned about discussing their future exit plans with their top employees who don’t have an equity stake in the company. In those situations, the owner’s future exit is a potential wealth-building event for him or her, but it presents career uncertainty and risk to the nonowner employee. Golden handcuff plans build a bridge between owner and nonowner top employees by including those employees in a wealth creation opportunity at exit and providing for their career stability.
- 6. Enhance business value at company exit, particularly upon the sale of the business.** Your future business buyer will often see greater value in your company

Continued ▶

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if a golden handcuffs plan has been effectively implemented, particularly when the plan includes “stay bonuses” that incent top employees to stay with the company after a sale, typically for one to two years.

7. **Thank top employees for their service with the company.** Most business owners want to thank high-performing employees after they have given years of effective service to the organization. While golden handcuffs plans are primarily intended to incent and reward top employees, they can provide double duty by providing lucrative compensation awards in the future to the very same people you likely will want to acknowledge.

Many business owners and advisors assume a golden handcuffs plan requires sharing actual ownership interest with the employees who will be included in the plan. This is not always true. Some programs such as stock option plans include the potential for actual ownership sharing. Other plan types such as phantom stock or executive bonus plans involve compensation and do not share actual equity. Sharing ownership with employees presents significant risks and downsides. Whenever possible, consider a golden handcuffs

Golden handcuff plans build a bridge between owner and nonowner top employees by including those employees in a wealth creation opportunity at exit and providing for their career stability.

plan that pays out compensation to the employee rather than shares actual company equity.

Business owners and leaders need effective tools to motivate top employees, retain them for the long term and drive company growth. Few tools have the potential to address all of these needs simultaneously like a well-designed golden handcuffs program. A little research here can go a long way to securing a bright future for your employees and your company. 

Patrick Ungashick is the CEO of NAVIX Consultants and author of A Tale of Two Owners: Achieving Exit Success Between Business Co-Owners. For more information, visit www.navixconsultants.com.



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Pipeline and Lateral Rehabilitation

By Craig Mandli

Bursting



Pow-R Mole Trenchless Solutions PD-33M

The PD-33M pipe bursting machine from **Pow-R Mole Trenchless Solutions** is designed to replace existing underground pipes 2 to 6 inches in diameter. Its nonslip, cylinder-activated jaws prevent cable damage while providing 60,000 pounds of pulling force. It offers a cost-effective alternative to open-cut excavation, reducing customer disruption and increasing company profits. The process replaces the existing pipe with a fused HDPE pipe, which eliminates all joints, and allows the operator to pull through bends such as 45-degree fittings. This system is modular and can be easily disassembled and reassembled for 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.**

Spartan Tool UnderTaker

With 30 tons of lateral pulling force, the **UnderTaker** pipe bursting system from **Spartan Tool** employs a hydraulically powered cylinder that pulls a bursting head through the existing line while simultaneously replacing it with seamless, high-flow, code-approved HDPE pipe. With a small hole at each end of the run, the user can pull pipe from the building to the main, accommodate bends in the pipe, increase diameter and lay new line at a rate of up to 5 feet per minute. The system allows replacement of 2- to 6-inch pipe with up to three 45-degree bends in the pipe. It can also upsize from 4- to 6-inch pipes. When assembled, the unit weighs 210 pounds, but it disassembles into four separate components for easy transport, with no part weighing more than 70 pounds. **800-435-3866; www.spartantool.com.**



CIPP Equipment

Emagineered Solutions THE SHOOTER

THE SHOOTER from **Emagineered Solutions** is a continuous air-inversion machine for cured-in-place pipe. Two fast and reliable models are available: the mobile SHOOTER 12 for 6- to 12-inch pipe, with built-in lubrication system and knife gate for after the tail passes, and the trailer-mounted SHOOTER 24 for 15- to 24-inch lines. An optional conversion kit for the SHOOTER 12 inverts 15-inch liners, and one for the SHOOTER 24 inverts 6- to 12-inch liners. A water-cure flange is also available. The new lubrication system includes an oil overspray guard that keeps operators dry. The fully adjustable, structurally reinforced lip seals are robust and available in 4 through 24 inches. **541-504-0416; www.theshootercipp.com.**



HammerHead Trenchless QuickLok

QuickLok inversion drums from **HammerHead Trenchless** have two drum sizes capable of holding up to 125 feet and 225 feet of 4-inch liner, respectively, and have a single-lever lockdown that gives a positive seal and secure latch. Other features include extra viewing ports and a detachable spindle wheel that makes it easier to navigate tight areas. Once in place, the wheel may be reattached to either side of the drum, accommodating workspace limitations or the preference of the operator. **800-331-6653; www.hammerheadtrenchless.com.**



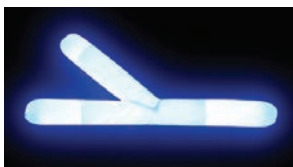


Logiball sleeve installers

Logiball manufactures a complete line of sleeve installers for the installation of CIPP sectional liners in laterals and mainline. Available for the installation over bends for 4- or 6-inch pipes, the Logiball Bendy Carriers conform to the bends. An optional “slide through” option to slide in a 3/8-inch fiberglass pushrod to push the installer from the front end versus back end greatly helps in pushing and positioning the sleeve installer. For standard installations, sleeve installers for 3-, 4- and 6-inch pipes in different lengths and configurations are available. **800-246-5988; www.logiball.com.**

Nu Flow Technologies Cold Cure UV Technology

Cold Cure UV Technology from **Nu Flow Technologies**, powered by Pro-Kanal, uses UV cold light LEDs, minimizing the risk of error by activating liners in place. Being able to cure liners in minutes is a significant advantage for contractors, as it allows them to install more liners in a shorter amount of time. Additional benefits include being able to wet-out either on site or offsite and the ability to push a point repair or pull a sectional repair. Both the point repair system and light train system are run by the same control station for ease of use. The system’s capabilities include 2- to 6-inch inside diameters, wyes and tees, UV resin, and reusable translucent bladders that are interchangeable and can be used with the same light train. **800-834-9597; www.nuflowtechnologies.com.**



Perma-Liner Industries vertical connection lining system

Perma-Liner Industries’ vertical connection pipe lining system offers a way to approach and repair vertical pipelines in residential and commercial markets, making the process easier in less time. The system cures in one hour using a compact, electric steamer or vacuum pump. The system offers uniform thickness throughout. The host pipe does not need to be dry prior to installation, which lessens the installation and cure time. The materials come in kit form, eliminating measuring and waste, and an experienced crew can easily install five or more per day. **866-336-2568; www.perma-liner.com.**



Pipe Lining Supply Quik-Shot

The **Quik-Shot** CIPP lateral lining system from **Pipe Lining Supply** weighs in at less than 70 pounds, meaning it can be easily carried down basement steps, into a launch pit or up to an attic. It can line pipe of virtually any length in pipe diameters from 2 to 8 inches. It processes any manufacturer’s inversion liner and any resin system approved for the CIPP process. It doesn’t need a dedicated vehicle to carry the equipment needed for a successful job. A two-person crew can easily operate the unit successfully. **888-354-6464; www.pipeliningssupply.com.**



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Enz USA Cutting Ball

The water-driven **Cutting Ball** nozzle from **Enz USA** is available in 3- and 4-inch sizes; and it can move easily around curves in 3- to 6-inch polyethylene, steel or concrete pipes while safely removing roots and mineral deposits, resulting in no damage to the pipe. It works without impact but has the ability to switch to a vibrating nozzle. It comes with a hard metal front blade for pipes that are more than 50% clogged. The side blades are self-sharpening and maintain their sharpness over their entire service life. The cutting ball operates with controlled rotation speed and is capable of running on recycled water. It is leak-free. **877-362-8721; www.enz.com.**



Fitting

REHAU EVERLOC+

The **REHAU EVERLOC+** compression-sleeve fitting system has 26 additional configurations, making transitions between pipe sizes more convenient in single-family and multifamily residential plumbing projects. The system comprises RAUPEX UV shield PEXa pipe in 3/8- to 2-inch diameters, polymer and lead-free brass fittings, and power tools for reliable and safe



connections. Designed for no-leak security, the two-step fitting expansion and compression process is performed quickly in any weather, making installation faster than other PEXa cold-expansion fittings and copper. The NSF/ANSI 14 and 61 certified system delivers safe drinking water with no mineral buildup, allowing contractors to create healthy and sustainable residential environments in less time. **800-247-9445; www.everlocplus.com.**

Pipe

Uponor Ecoflex Potable PEX Plus

Ecoflex Potable PEX Plus pipe from **Uponor** is a preinsulated PEX pipe system



for underground potable-plumbing applications that provides energy-efficient freeze protection in cold climates. The pipe features 1 1/4-inch AquaPEX service pipe with a heat-trace cable. The pipe and cable are surrounded by multilayer PEX-foam insulation and covered by a corrugated, waterproof HDPE jacket. The pipe is approved for underground potable-water applications, is available with a full line of accessories and uses ASTM F1960 expansion fittings for durable, reliable connections. It is offered in 300-foot coil lengths, with custom-cut lengths available. **800-321-4739; www.uponorpro.com.**

Pipe Fusion

RIDGID Quick-Acting Pipe Welding Clamp

The **RIDGID Quick-Acting Pipe Welding Clamp** is designed for quick setup and easy alignment of pipe from 2 to 12 inches. It comes in two sizes — 2- to 6-inch and 4 1/2- to 12-inch — allowing contractors to select the clamp best suited to their needs. Both sizes offer quick-release buttons and integrated handles for fast adjustment, alignment and easy switching between pipe sizes. They also include spring-loaded winged setscrews for precision three-point alignment and an integrated size gauge for simple pipe measurement. ACME threaded screws transmit ample clamp force, while the heavy-duty steel construction is built to withstand rugged job site applications. **800-769-7743; www.ridgid.com.**



Pipe Lining

Flow-Liner Systems Neofit+

The NSF 61-approved **Neofit+** potable pipe lining system from **Flow-Liner Systems** is a noninvasive option for leaking underground water services with inside diameters from 1/2 to 2 inches. The expandable pressure pipe forms a continuous barrier between existing pipe and drinking water, making it suitable for lead replacement programs. It can be installed in steel, copper, plastic and lead pipes, and in lengths up to 300 feet. The smooth bore and thin-wall liner provides the same or increased flow capacity. It often only requires a single, small access pit, saving yards, sidewalks and floors from demolition. The process allows for many installations a day and immediate return to service. **800-348-0020**; www.flow-liner.com.



Prime Resins PR10

PR10 acrylamide from **Prime Resins** is a low-viscosity permeation chemical grout that is injected from within the manhole, wicking into the soil outside or used to curtain-grout the exterior. A high-pressure pump injects grout through the manhole wall into the surrounding soil or is injected directly into the surrounding soil, creating an impermeable barrier. The permeation grout doesn't expand, but rather saturates the soil immediately outside of the manhole (with a desired gel time) that permanently stabilizes the soil and prevents further groundwater penetration. **800-321-7212**; www.primeresins.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.

Pipe Relining Equipment

MaxLiner USA Max E-Roller

The **Max E-Roller** from **MaxLiner USA** is a compact, electric calibration roller with built-in gap setting display, adjustable speed, directional switch, pressure limit safety and emergency stop. It can be mounted to a table or easily transported closer to the work site by unlocking from the detachable base plate. It is suitable for a small crew wetting out longer liners with a diameter range up to 12 inches. This 48-pound, 110-volt powered unit operates with a foot peddle, allowing for a hands-free operation. **877-426-5948**; www.maxlinerusa.com.



Picote Solutions Dual-Color Epoxy Brush Coating System

The **Dual-Color Epoxy Brush Coating System** from **Picote Solutions** allows technicians to rehabilitate pipes from 1.25 to 12 inches for drains, sewers, water pipes, electrical conduits, and heat and air-conditioning ducts by brush casting a coating. The coating resin forms a pipe inside the original pipe that is a tested, safe and environmentally friendly product. The new pipe is dampproof, corrosion-resistant, wear-resistant and noncorrosive. It is ASTM and NSF certified (NSF/ANSI 61-5). It is a 100% solids epoxy, and the method allows for clear visual verification during the application process. Apply to small areas or all drains in multistory buildings. The system is practical and easily fits in tight places. **219-440-1404**; www.picotesolutions.com.

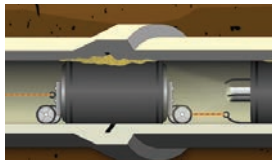


Rehabilitation

CUES LOCK

CUES LOCK is a structural point repair system designed to be used for stand-alone spot repairs or to enhance the quality and simplicity of CIP relining.

It is easy to install and requires very little equipment; most repairs can be carried out in live sewer operating conditions. It doesn't require digging or external point repair. It includes stents for a quick and easy way to bridge holes, voids, cracks and weakened/broken sections in pipes to help and allow easy installation of any type of CIP pipes through the stents; structural and sealer sleeves to restore damaged areas to full structural strength and seals infiltration; and end sealers to seal the annular space between the CIP liner and the host pipe at the pipe ends. End sealers prevent the ends of the CIP liner from delaminating or sagging from the host pipe. **800-327-7791; www.cuesinc.com.**



Duke's Root Control Razorooter II

Duke's Root Control uses **Razorooter II**, a thick, herbicide-laden foam with the consistency of heavy shaving cream. Since effectively killing roots in sewer systems requires access to the entire line, Duke's crew inserts a hose from manhole to manhole. The hose releases and sprays the foam in all directions, allowing it to adhere to roots and penetrate through wye connections to kill roots even in lateral lines. The entire system is treated as the foam compresses against pipe surfaces and penetrates cracks, joints and connecting sewers. Roots are killed on contact inside and outside the pipe walls before they decay naturally and slough away, with regrowth delayed for two to three years. Trees and other aboveground vegetation are not harmed. **800-447-6687; www.dukes.com.**



Reinstatement Cutter

Pipeline Renewal Technologies Micro Automatic

Using three remote-inflated air bladders, the arm of the **Micro Automatic** small-diameter lateral and drain cutter from **Pipeline Renewal Technologies** positions itself remotely by creeping and climbing, clamps itself for precise cutting in vertical or horizontal orientation, and uses a full 4-inch feed on the cutting head. Just 72 mm in diameter, the arm fits through small openings, and its agile articulation facilitates precision cutting, as well as maneuvering through 90-degree bends in 4-inch lines. This versatile cutter can handle lines from 3 to 6 inches or 8 to 10 inches with modification. The cutter is controlled with a CANbus-based controller with twin multifunction joysticks. This allows for easy position recall, making repetitive work quick and intuitive. **866-936-8476; www.pipelinert.com.**



Trenchless Point/Spot Repair

Ratech Electronics Snap Lock

The **Snap Lock** repair system from **Ratech Electronics** is a no-dig repair system that renovates defective sections of sewer or pipe. No chemicals are needed to install. It is the most economical and efficient system for the quick repair of damaged areas of pipe that have an overall condition that makes evacuation and the whole relining unnecessarily expensive. Made of high-grade stainless steel and surrounded by a rubber outer sleeve, the Snap Lock system is durable and resistant to most chemicals including hydrogen sulfide. It is available in various diameters and lengths. **800-461-9200; www.ratech-electronics.com.**



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Trelleborg Pipe Seals Type A

Type A silicate resin from **Trelleborg Pipe Seals** is suitable for patch repair. The "A" stands for accelerator, based on the high amounts of catalyst that have been added to this custom-formulated resin system. Catalysts activate the components of the resin, making them more susceptible to react with the hardener.



The resin can be combined with other Trelleborg silicate resins, such as Type S and W (summer and winter) in the Northern Hemisphere. It increases the speed of the polymerization without jeopardizing the mechanical properties of the cured liner. It also enables customers to adapt the composition of the resin mixture to the ambient temperature. By supplementing this resin with Type A resin, the curing time can become faster. 800-626-2180; www.trelleborg.com/pipe-seals.

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Pipeline and Lateral Rehabilitation

By Craig Mandli

Piping choice speeds conversion of offices to apartments in historic building



Problem: A contractor sought to convert the Standard Building, a downtown Cleveland landmark, from an office building into 281 luxury apartments. The project included all-new potable water and HVAC water-source heat pump piping. The new piping had to fit into tight spaces throughout the 20-story building, which was built in 1924.

Solution: **Aquatherm Green Pipe** was selected for the building's potable water applications and **Aquatherm Blue Pipe** for its HVAC applications. The pipe is made from lightweight polypropylene, which is hydrophobic and will never leach, scale or corrode. Green Pipe is potable water (NSF 61) rated. The heat fusion method of joining the pipe is suitable for retrofit projects because it eliminates welding and does not require a hot work permit. On this project, the pipe was transported to the top floor where it was fused and then lowered through the building's stacked mechanical rooms.


Result: Using Aquatherm increased the productivity of the team of 20 installers and offered a clean, budget-conscious solution for the Standard Building, with a total installed cost savings of \$250,000 compared to steel pipe. Ultimately, more than 8,300 feet of pipe — ranging from 3/4 to 12 inches — and more than 800 fittings were used on this project. The Standard Building is up and running and occupied. 801-805-6657; www.aquatherm.com.

Internal pipe heater saves homeowners extensive demo costs



Problem: A country home in South Dakota got its fair share of heavy snow and pouring rain. Most years, its 107-foot underground perforated plastic tile to exposed PVC drainage system drained water away from the house without fail. But last winter brought 72 inches of snow to the area — 36 inches in April alone. With freezing temperatures persisting into the spring, the exposed outlet froze solid, causing water backup into the finished basement. That left the homeowners with a tough choice: either demolish the basement floor and install a sump pump or find a less costly but still reliable fix.

Solution: After an exhaustive online search, they found **HotLine's Internal Pipe Heater** fit the bill. HotLine requires no demolition and is easily installed from an interior or exterior access point to the end of the drainage system. Because it is low voltage, 6 to 32 volts depending on length, there is no risk of electric shock if someone touches the exposed outlet. And its low voltage won't melt the plastic tile or PVC pipe. As the transformer required outdoor installation, the homeowner also used HotLine's weatherproof protective case to ensure flawless operation in rain, ice and snow.

Result: "DIY installation was very easy," the homeowner says. "The online videos were clear and easy to follow. When I had specific installation questions, HotLine's engineers were very responsive and helpful. We'll never have to worry about frozen drainage backups again!" 877-881-2980; www.hotlineinternalpipeheater.com. 



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- ☐ Plumbing/Heating/Cooling ☐ Rehabilitation/Relining/Bursting
☐ Sewer/Drain Cleaning ☐ Dealer/Distributor/Manufacturer
☐ Septic System Installation/Repair ☐ Consulting/Engineering
☐ Other _____

WHAT BEST DESCRIBES YOUR PRIMARY JOB FUNCTION?

- ☐ President/CEO/Owner ☐ Management/Supervisor
☐ Operator/Technician ☐ Other _____

HOW MANY EMPLOYEES DO YOU SUPERVISE OR WORK WITH AT YOUR FACILITY?

- ☐ 0-3 ☐ 4-9 ☐ 10-19 ☐ 20+

HOW MANY VEHICLES DO YOU CURRENTLY HAVE IN SERVICE?

- ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21+

WHAT IS THE APPROXIMATE POPULATION OF THE AREA IN WHICH YOU PROVIDE SERVICE?

- ☐ 0-10,000 ☐ 10,001-50,000 ☐ 50,001-100,000
☐ 100,001-200,000 ☐ 200,001-500,000 ☐ 500,001+

WHAT IS YOUR ANNUAL EQUIPMENT BUDGET?

- ☐ \$0-\$50K ☐ \$51K-\$75K ☐ \$76K-\$150K ☐ \$151K-\$250K
☐ \$251K-\$350K ☐ \$350K +

WHAT SERVICES DO YOU PERFORM ON A REGULAR BASIS?

- ☐ Plumbing Maintenance/Repair ☐ Sewer/Drain Cleaning
☐ New Construction - Commercial ☐ Pipe Bursting
☐ New Construction - Residential ☐ HVAC ☐ TV Inspection
☐ Location/Leak Detection ☐ Septic System Installation
☐ Septic Tank Pumping ☐ Other _____



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Product Spotlight

Mechanical joint system for waste drainage pipe reduces installation time and costs

By Craig Mandli

It's no secret that corrosive waste can take its toll on piping systems. Often the first areas to show the wear and leaks are the system's joints and fusions. In an effort to combat that issue, GF Piping Systems has developed a durable joint system that is also easy to install.

Fuseal Fast-Lock polypropylene is a mechanical joint system for waste drainage systems designed to significantly cut down on installation time and costs. The Fast-Lock system includes new fittings in sizes 1 1/2 to 4 inches in flame retardant Fuseal polypropylene that connects with both flame retardant and nonflame retardant pipes. The only tool needed for pipe installation is an off-the-shelf cordless drill or hand tool. Unlike cemented systems, it does not require special cement or applicators and there aren't any toxic fumes. Most important, there are no cure times to wait for, which can be hours or days. The Fast-Lock system is immediately ready for operation.

"Fast-Lock is different from anything else on the market — somewhat similar products require more steps and are therefore more time-consuming," says Alphonse Anderson, Engineered Piping Systems product manager for GF Piping Systems. "The new system fulfills a market need for an easier-than-ever method of corrosive waste



piping installation. For contractors, time is money, so any savings on labor is highly valued."

The system is pressure rated due to the design of the sealing and clamping mechanism of the Fast-Lock Collar. This is a necessary property to maintain proper operation of vacuum and pumped draining systems that have intermittent pressure requirements. Another popular

feature of the Fast-Lock system is the small dimension of the outer collar, which not only allows for installation in tighter spaces, such as between walls where other systems will not fit, but also makes system layout easier for contractors and piping designers.

The Fuseal Fast-Lock system comes standard with the mechanical joint collar, which can be easily converted to an electrofusion joint by changing to an electrofusion collar in the field. Fuseal polypropylene piping systems have excellent chemical resistance and physical properties, which make it suitable for handling the corrosive waste mixtures of acids, bases and solvents present in laboratory, industrial, or food and beverage processing drain, waste and vent (DWV) applications. **800-854-4090; www.gfps.com.**

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Bonomi North America S250 series stainless steel in-line check valves

Bonomi North America's S250 series stainless steel in-line check valves are NSF 61/372 certified for potable water and lead-free applications. All six sizes of the NPT threaded S250 series, from 1/2- to 2-inch, have been certified lead-free by the methods prescribed in NSF/ANSI 372. The metal-forming process for the valves allows an improved flow profile inside the valve body to minimize headloss. It also eliminates machining for reduced manufacturing cost. The S250 series is electron-beam welded at the end cap-to-body connection, creating a unibody for leak-free service. The valves are rated to 250 WOG (water, oil, gas) with an operating temperature range of 4 degrees below zero to 302 degrees F. **704-412-9031; www.bonominorthamerica.com.**



used each time the toilet is flushed: 1.0 or 1.28 gpf for solid waste or 0.8 gpf for liquid. **888-295-8134; www.totousa.com.**

BainUltra Bain de Ville tubs

BainUltra's Bain de Ville is a collection of tubs tailored for alcove installations in city lofts and high rises where space is at a premium. The tubs pair a sleek, sophisticated aesthetic with a full menu of luxurious therapy options. Created to fit snugly in a bathroom alcove, the tubs are notable for their modern lines, wider deck and minimalist integrated skirt. The bathing well is deeper than many traditional tubs and includes two sizes: the 6030 tub measuring 60 by 30 by 17 inches and the slightly larger 6632 measuring 66 by 32 by 20 inches. Both are crafted from 100% pure acrylic and hand-finished for long-lasting beauty and amazing durability. They are offered in glossy white or biscuit finish or UltraVelour matte in white. **800-463-2187; www.bainultra.com.**



General Pipe Cleaners JM-1000 Mini-Jet

General Pipe Cleaners/General Wire Spring's portable JM-1000 Mini-Jet has a new, high-performance stainless steel braid jet hose that offers drain



cleaning power and performance in a small package. The JM-1000 Mini-Jet is available with stainless steel braid/Teflon core hoses in a variety of lengths. It has 1,500 psi of cleaning power in a compact package, yet weighs only 23 pounds. The stainless steel braid hose design slides the jet nozzle down 1.5- to 3-inch drainlines and more easily navigates tight bends. The 3/16-inch Teflon core also reduces flow resistance, further improving small-line cleaning power. The standard package has a four-piece nozzle set, water supply hose, shut-off valve and universal faucet adapter. Safety features include a three-wire GFCI. **800-245-6200; www.drainbrain.com.**

TOTO wall-hung toilets

TOTO introduced six new models to its wall-hung toilet collection in North America with the new WASHLET+ AP, EP, RP and SP and standard wall-mount AP and EP. These new wall-mount toilets offer a clean, modern aesthetic while saving as much as 9 inches of bathroom space, which is important in small bathrooms and powder rooms, where square footage is at a premium. The wall-hung toilets may be installed at 17 inches from floor to seat, making them ADA compliant. The company's DYNAMAX TORNADO FLUSH system offers the ability to select the level of water



Lenova Sinks thermostatic shower system

The thermostatic shower system from Lenova Sinks provides control over shower operations, allowing users to fine-tune preferences and accurately maintain water temperature within a single degree. It is crafted with solid brass valves for lasting durability and is available in polished chrome and brushed nickel. Preset systems can be used or a DIY option allows users to mix and match components, including showerheads, body jets, shower panels, hand-held showers and tub spouts to develop a custom design. **877-733-1098; www.lenovasinks.com.**



Ranger Design lockers and workbenches

Ranger Design's lockers have been updated with new black end panels. The width has increased by 2 inches to add extra storage space, and the install brackets have been updated to newer and tougher versions. For both the new lockers and workbenches, the doors have been standardized to match the shelving doors. This helps reduce inventory and makes install simpler for both our customers and distributors. The end panels on the aluminum workbenches have altered slightly to accommodate updated brackets. **800-565-5321; www.rangerdesign.com.**





Viega sponsors snowboarder/plumber Cheever

Viega announced its sponsorship of Jonathan Cheever, a 2018 Olympian and a 14-year member of the U.S. Snowboard Team as a snowboard cross racer. This winter he is competing in the FIS Snowboard World Cup in Europe. He is racing for the U.S. as an independent athlete. Cheever is also a licensed journeyman plumber who supports himself in the off-season installing water heaters and plumbing bathrooms. He works as a plumber out of Park City, Utah, where he's done jobs for teammates and coaches. He also sometimes returns in the summer to his hometown of Saugus, Massachusetts, to work with his father and brother, who own Mark Cheever Plumbing and Heating.

Noritz America announces new sales partner

Noritz America recently announced that Keyline Sales, based in Downey, California, will help cover the Southern California plumbing and heating market, working in conjunction with the company's staff sales team in that region. Established in 1974, Keyline personnel will serve the entire plumbing and heating chain of distribution, calling on wholesalers, contractors, builders and inspectors, as well as mechanical and specifying engineers, according to Jason Fleming, Noritz vice president of sales and marketing.

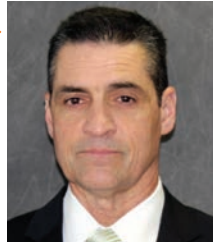
Municipal sewer grout school dates announced

In conjunction with CUES, Avanti and Logiball, the municipal grout school will be held March 25 and 26 in Orlando, Florida. The level 200 program will provide hands-on demonstrations for leak sealing and present technical information on several topics including lateral and mainline test-and-seal packer operation and performance, mixing and optimizing AV-100 acrylamide grout performance, review and demonstration of new NASSCO/ICGC grout specifications, live infiltration and

grout-sealing demos, and new grout testing and monitoring information and methods. Attendees will receive credit for 10 professional development hours certified by the Center for Innovative Grouting Materials and Technology. To register, contact Jessica Williams at Avanti, 281-956-3111 or email jessica.williams@avantigrout.com.

Bradley appoints Johnston vice president of manufacturing

Bradley announced the appointment of Jim Johnston to vice president of manufacturing. Johnston will be responsible for operations of all Bradley manufacturing/plant locations — including Menomonee Falls and Germantown, Wisconsin; Marion, Ohio; and Delton, Michigan — directing supply chain, quality assurance and lean/continuous improvement. He will be leading the design, development and implementation of strategic initiatives to continuously enhance operations. With more than 20 years' industrial manufacturing experience, Johnston has overseen domestic and international operations, as well as operational integrations. He has worked for companies such as Bucyrus, Caterpillar and most recently L3Harris Technologies.



Amazing Machinery announces expansion of products

Amazing Machinery announced it has expanded its selection of cable machines, cables and blades. It now offers a full line of Draincables Direct cables, replacement ends, and blades. It has replacement cables for Electric Eel, Valor, General Pipe Cleaners/General Wire Spring, Cobra and many others. It also offers cable machines and sectional machines from Steel Dragon, RIDGID and General Pipe Cleaners. Cable lengths range from 10 to 150 feet, and cables are available in 1/4 to 1.5 inches in diameter. Additionally, it offers most cables with choice of no core, aircraft wire, cable core or plastic core. **PI**

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CALENDAR

March 15-19

Mechanical Contractors Association of American (MCAA) Annual Convention Wailea,
Maui, Hawaii. Visit www.mcaa.org

March 16-18

ACCA 2020 Annual Conference,
St. Louis Union Station Hotel Curio Collection by Hilton,
St. Louis. Visit www.accaconference.com

March 20

Illinois Plumbing Heating Cooling Contractors (PHCC) Expo North,
Drury Lane Conference Center,
Oakbrook Terrace, Illinois.
Visit www.ilphcc.com

March 21

Flow Expo, Fairplex,
Pomona, California.
Visit www.flowexpousa.com

May 5-7

National Hardware Show,
Las Vegas Convention Center, Las Vegas.
Visit www.nationalhardwareshow.com

June 14-17

American Water Works Association Annual Conference & Exposition (ACE),
Orange County Convention Center, Orlando, Florida.
Visit events.awwa.org

June 23-25

Safety 2020 Professional Development Conference & Exposition,
Orange County Convention Center, Orlando, Florida.
Visit www.safety.assp.org 

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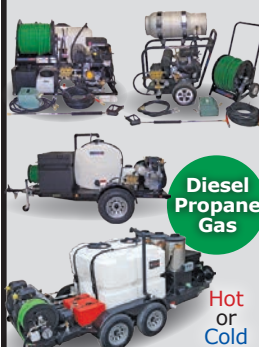


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