

Plumber



FINDING FINESSE

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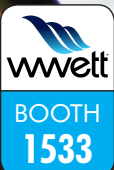


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Stop Relentless Rust From Eating Your Fleet

Trucks and equipment are your biggest capital investment. Try these solutions to prevent corrosion from costing you a bundle.

- By Peter Kenter



On the Cover

Jay DeFrates, owner of Jay's Plumbing & Sewer, stands in front of one of the company trucks at the shop. The company, based in Downers Grove, Illinois, covers an area of about 25 miles and offers services such as sewer repairs, sump pump repair, drain cleaning, fixture installation, power rodding, jetting, and water heater repairs and installation.

Photography by Rob Hart



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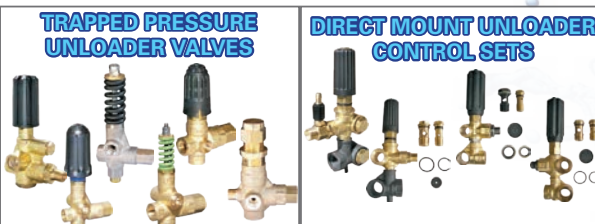
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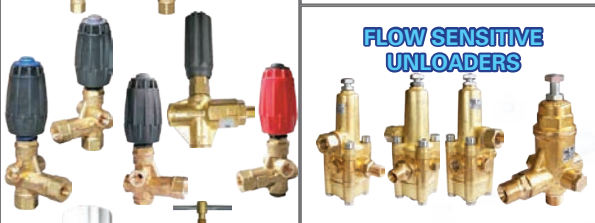


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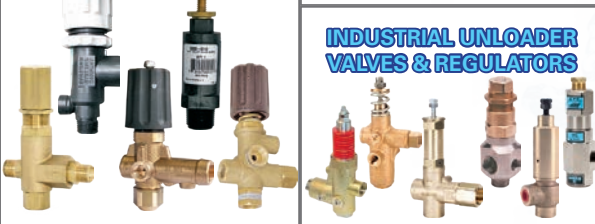


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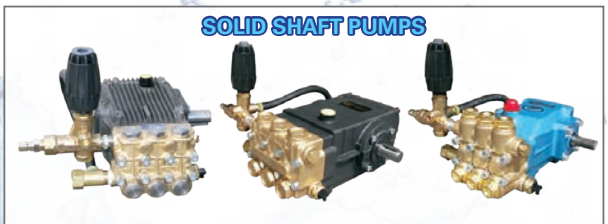
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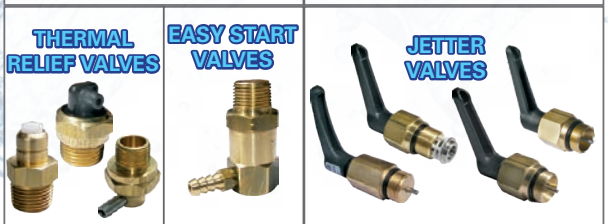


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The Driving Force

Find that one thing that motivates you, and build on it to make your business even more successful and profitable

W

hat motivates you? That's a tough question for anyone in any industry to answer. The reasons could be many: money, family or just for the love of it.

Many plumbers we profile tell me they love being plumbers because they enjoy helping others: They like coming in to "save the day."

Randy Lorge finds motivation in teaching the next generation of plumbers. Lorge, a plumbing apprentice instructor at a technical college in Wisconsin, will occasionally write Industry Insider columns for *Plumber* starting this year. In this issue, he talks about plumbers as superheroes.

Lorge and his students probably seemed like superheroes to the people of the Indonesian province of West Java in November 2017, when the Community Plumbing Challenge traveled to the country to renovate and expand bathroom facilities for two school buildings.

The challenge is organized by the World Plumbing Council and the International Association of Plumbing and Mechanical Officials. You can read more about the 2017 Community Plumbing Challenge at www.plumbermag.com.

MOTIVATED TO GROW

Jay DeFrates is motivated to keep his company growing by providing customers with professional and knowledgeable plumbers on job sites around Downers Grove, Illinois.

"I like to think we do a little bit better than our competitors — that we do things with a little bit more finesse," says DeFrates, owner of Jay's Plumbing & Sewer, featured in this issue. "Anyone can get a job done, but when you can do it with finesse ... well, I think we bring that little extra to the table."

DeFrates started in the industry 30 years ago as an apprentice, working for several plumbing businesses. He learned all he could as an apprentice and journeyman and now has his own company with 13 employees. The company offers services such as leak detection and diagnostics, fixture repair and replacement, water heater repairs, and sewer rodding and televising.

Many plumbers we profile tell me they love being plumbers because they enjoy helping others: They like coming in to "save the day."

THE NEED TO EXPAND


For some company owners, the need to expand services is a big motivation. You can learn great ways to expand your plumbing company later this month at the AHR Expo (short for the International Air-Conditioning, Heating, Refrigerating Exposition) in Chicago.

At this show, you'll see the latest products from plumbing manufacturers. You'll see products from crimpers and various PEX pipes all the way up to water heaters and hydronic heating systems.

You'll find a preview of the show in this issue.

WHAT'S YOUR MOTIVATION?

So, to echo the first line of this column, what motivates you? Tell me how you started your company or how you found your way into plumbing. Email me at editor@plumbermag.com or call 800-257-7222.

Enjoy this issue! 



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EQUIPMENT HUNTING

9 Tips for Choosing a Work Vehicle

A plumber's work vehicle is oftentimes both an office and a storage area. And with good branding, a vehicle also acts as a rolling billboard for a company's service offerings. Needless to say, choosing the right vehicle for your operation is important. Here are some tips to keep in mind.

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BUSINESS TIPS

Selling Your Services Without Coming Across as a Salesperson

Chances are, you didn't get into plumbing because you loved to sell. Most people got into the business because they liked working with their hands, liked helping homeowners, or were raised in or inherited a family business. Selling? That's a "necessary evil" that comes with the territory. It can feel forced or sometimes slimy, even if your services are legit, and customers may shut down if they think that they are being "sold." This online exclusive offers an alternative approach you can take with your sales technique.

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OVERHEARD ONLINE

"The big-name online job boards are effective because they are mobile-friendly. Today's job seekers may not read their local newspaper or have access to a computer, but most have smartphones, which is where they are likely to see and respond to an ad."

— *Don't Make That Same Big Hiring Mistake Again*

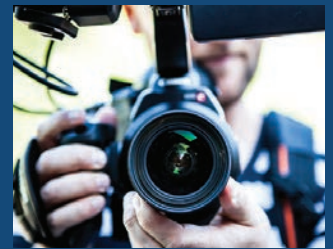
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MARKETING MATTERS

A Beginner's Guide to Video Marketing

Even if you're an expert marketer, video may be an area that is foreign to you. Perhaps daunting if you have it in your head that an effective video has to be of Hollywood blockbuster quality. But successful video marketing does not have to be complicated. One company's marketing manager shares some tips on how to get started.

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FOR THE PRO

Stop Relentless Rust From Eating Your Fleet

Trucks and equipment are your biggest capital investment. Try these solutions to prevent corrosion from costing you a bundle. *By Peter Kenter*



Given enough time, any object made of iron or steel that's exposed to oxygen or moisture will oxidize, or rust. Exposure to chemicals such as road salts or acids only accelerate the process. The good news is that there's a host of strategies — from chemical treatments to barriers — that can be used to beat rust at its own game.

The first question any work vehicle owner should ask is whether a corrosion treatment makes financial sense, says Leslie Wong, vice president of customer and dealer service at www.unhaggle.com, a service designed to help buyers negotiate the best price for a vehicle.

He notes that new pickup trucks, for example, offer warranties against rust perforation or surface corrosion. "If you don't intend to keep the vehicle beyond the point where the vehicle's manufacturer rust warranty runs out,

then there is absolutely no point in paying for rustproofing," he says.

Even GMC's own website notes: "Application of additional rust-inhibiting materials is not required under the corrosion coverage, and none is recommended."

MANY CHOICES

The home turf of the vehicle also plays a part. Locations experiencing heavy winters and lots of road salt offer more corrosion risk. So do coastal areas where salty sea spray eats metal. While rustproofing can make a big difference to vehicle longevity in salt-prone locations, simply washing the vehicle regularly is the best way to remove the salt that causes rust.



▲ Mike Stansbery, owner of Wyandot RustProofing, applies an undercoating of FLUID FILM, a lanolin-based rust inhibitor, to the undercarriage of a 1969 Chevy truck. (Courtesy of Wyandot RustProofing LLC)

“I ... have a series of wands that you won't likely find in the average garage. ... With that equipment, I can be more thorough and much quicker. I had a customer in here with a pickup truck who rustproofed it himself last year. It took him more than eight hours, and it took me 90 minutes.”

Mike Stansbery

- ▶ Rocker panels in northern climate are often subject to damage and corrosion. A black LINE-X coating has been applied to this truck. (Courtesy of LINE-X)
- ▼ The LINE-X truck bed liner protects against rust using a durable coating applied to truck metal. (Courtesy of LINE-X)



Most rustproofing treatments fall into several categories: undercoating with tar-based sprays, driplless oil sprays, drip oil sprays, rust conversion sprays, and bed liners. Some of these treatments are available as do-it-yourself products while others are proprietary products that can only be applied professionally.

Undercoating with tar-based sprays

Using this method, tar-based sprays are applied underneath the vehicle and into wheel wells and harden into a solid barrier. While the barrier remains intact, the protected surface won't rust. However, undercoating should be inspected annually to ensure it remains intact. If the surface cracks or peels, moisture can penetrate the coating and migrate behind the barrier, forming unseen rust.

Driplless oil spray

Driplless oil sprays form a waxy barrier and generally covers more area than undercoating. It can be applied to wheel wells, hoods and rocker panels. To fully apply the product, holes must be drilled into door panels and other areas of the car.

Drip oil sprays

Drip oil sprays are thinner than driplless sprays, and they are similarly applied through holes drilled into door panels and other sections of the vehicle. The upside: The thinner sprays tend to reach the inner crevices of the car a little better than driplless sprays. The downside: The car will drip a little oil for a few days after application.

Rust converters

These chemicals can transform red iron oxide into a more stable form, ferric tannate, which can be painted.

DIY APPROACH

Theoretically, truck owners can buy products in each category and perform rustproofing themselves.

Pro Form Products Ltd., for example, sells a range of driplless oil products, wax-oil blends, rubber plugs to seal drill holes, and anything else a truck owner might need for rustproofing.

However, Pro Form Products tech expert Robin Wason points out that many of the company's customers use the products for loving restoration and maintenance of cherished vehicles — not a quick rustproofing job for a company pickup.

"The largest part of our market is people who spend an inordinate amount of time taking their vehicles apart and putting them back together again," he says. "We sell these products with a complete kit with wands and applicators. The buyer would need to supply a wire brush, sandpaper to loosen any rust, and typical protective gear for automotive work — nothing exotic."

On the other hand, Mike Stansbery, owner of Wyandot RustProofing in Upper Sandusky, Ohio, believes that truck owners can benefit from the thorough work of a professional. He exclusively applies FLUID FILM, a lanolin-based formulation applied under nonaerosol pressure and acting most like a driplless oil spray.

"I've rustproofed everything from farm machinery to pickups, dump trucks, and semis," he says. "If it can rust, we'll do it."

Having a full range of equipment and rustproofing experience makes all the difference, he says.

“I have a gun specially optimized for spraying the product,” he says. “I also have a series of wands that you won’t likely find in the average garage. One of them is a 3-foot flexible wand with 360-degree spray head. With that equipment, I can be more thorough and much quicker. I had a customer in here with a pickup truck who rustproofed it himself last year. It took him more than eight hours, and it took me 90 minutes.”

BED LINERS

Some truck owners choose bed liners to rustproof their trucks, using either do-it-yourself or professionally applied products.

Paul DeSmet, executive vice president at LINE-X, notes that his company’s bed liner is applied using advanced equipment at high temperature by trained professionals to ensure a durable bond to the metal beneath, while do-it-yourself products are often rolled on.

“LINE-X could be considered a rustproofing treatment,” he says. “Any existing rust would need to be removed and treated prior to the LINE-X application, but once LINE-X is applied, it will resist future corrosion.”

The product is available in several formulations and is now often used beyond bed liners. In a formulation stable under ultraviolet light, it’s used to coat exterior panels, floors, or any part of the truck that requires corrosion and abrasion resistance.

“LINE-X has been applied to Bobcats, UTVs, forklifts, tractors, haulers, trailers and more,” DeSmet says.

He notes that company techs have seen LINE-X coatings that have lasted as long as 15 years in the field. The one common factor that predicts longevity is the condition of the metal substrate.

As with most rust protection products, the best time to apply is before you see any rust at all. **P**

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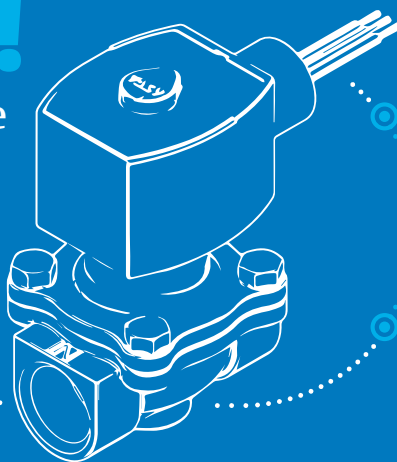


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Jay's Plumbing & Sewer in Illinois builds company by developing professional employees and being there for customers every day

By Giles Lambertson |
Photography by Rob Hart

▲ The staff of Jay's Plumbing & Sewer (from left): Victoria Kosirog, Dan Ranallo, Jake Kantor, Mike Krejci, Jay DeFrates, Bruce Sartin, Bryan Kantor, and Keith Wilmoth.

A

professional is an expert in his field and someone with knowledge, expertise, and the right skill sets to undertake and complete a job. But “professional” also alludes to the character of a person. That is, a true professional is one who respects his work and the person for whom he’s working, which he demonstrates by being trustworthy, dependable and candid.

Jay DeFrates would seem to fully qualify as a professional. The owner of Jay’s Plumbing & Sewer in a western Chicago suburb can fix a leak with the best of them, sure. But he has instilled in his crew the need to offer customers a larger package. After the drip-drip-dripping has stopped, DeFrates hopes a homeowner will also notice that the work area around the formerly leaking pipe is clean and that the plumber who comes to the door to repair the pipe is as courteous as he is knowledgeable — that he is a professional, in other words.

“Anyone can get a job done, but when you can do it with finesse...well, I think we bring that little extra to the table.”

Jay DeFrates

Jay’s Plumbing & Sewer is a professional shop with a philosophy, not just a business plan. After all, how many plumbing companies pledge in their online mission statement “to maintain an atmosphere of optimism, creativity, resourcefulness and excellence”?

“I like to think we do a little bit better than our competitors — that we do things with a little bit more finesse,” DeFrates says. “Anyone can get a job done, but when you can do it with finesse ... well, I think we bring that little extra to the table.”

Asked what he means by “finesse,” he uses adjectives like “polite, neat and thorough.” Such a workplace culture doesn’t just spontaneously develop. It’s cultivated. “We constantly teach it to our crew,” DeFrates says. “Once they get it, they know they are offering customers something above and beyond what others are offering.”

FINDING HIS CALLING

DeFrates was born on the underside of Lake Michigan in northern Indiana, a contiguous part of Chicagoland.



He first put a wrench on a pipe 30 years ago as an apprentice, working for several plumbing businesses. He also labored at other kinds of jobs as a younger man, including factory work, before getting his plumbing license and opening his business west and a little south of Chicago's Loop in Downers Grove.

From there, his crew rolls out 25 miles or so to plumb homes and commercial properties in places like Wheaton, La Grange and Naperville. The area includes new residential developments as well as an abundance of World War II-era residences, structures that are still sturdy and attractive but have been occupied long enough to begin to have plumbing issues. Ninety percent of the work at Jay's Plumbing & Sewer is residential, and this housing stock is one reason why.

"It is a general mix of houses, but there are a lot of older homes in places like Riverside," he says. "Businesses — a lot of time — will have someone on staff to do the plumbing.

But the things that need to be maintained in a person's home are not the things that a lot of homeowners can do for themselves."

DeFrates worked from his own home in the beginning and then began to stockpile inventory in a warehouse owned by his brother in a nearby town before finally moving the company into the current Ogden Avenue facility in Downers Grove. He found plumbing work immediately. "I was at the right place at the right time," he says. "A large remodeling company I knew about was going through some plumbers. They had a ton of work, and I was hungry. It just kind of worked out."

He also began to develop expertise. At the same time he opened his business, DeFrates moonlighted as a licensed state Environmental Protection Agency inspector of cross-connection control devices — the backflow valves that prevent possibly tainted water from entering



- ▲ Mike Krejci works on a water ionizer (Leveluk) that he installed on a kitchen sink.
- ◀ Plumbing technician Mike Krejci installs a new hot water unit at a home in Downers Grove, Illinois.

“When customers realize you can come on a Sunday for the same price as during the week when they have no one home to let you in, it usually is seen to them as a blessing.”

Jay DeFrates

a potable water system. Seven years later, he tested out and became a certified plumbing inspector, subsequently inspecting plumbing work part time in Elmhurst and full time in Hinsdale.

More credentials? He is a certified “competent person” for excavations and confined spaces, both of which can come into play in plumbing projects. The latter competency protects his crew members while his inspection knowledge protects homeowners. “When I was inspecting, I basically was making sure a job was done correctly.” Though he is not inspecting now because he has more administrative responsibilities in the company, he says he gleaned knowledge from his inspection work that he regularly passes on to his crew.

A SHIFT IN JOBS

As years passed, the steady work continued for the company, but DeFrates began to modify the range of jobs undertaken

by his crew. He moved away from plumbing remodeled residences as well as working on new residential construction and small commercial properties. He moved instead toward service and repair work. He did so, he says, because there are fewer headaches in servicing existing plumbing systems. “And I think that’s where the demand is.”

Certainly there is enough potential work there — from jetting and repairing sewer lines to installing sinks or sump pumps and fixing leaky faucets or water heaters. DeFrates trademarked the slogan, “Your Problem is Our Problem,” to fit the changed focus of his company and to emphasize both the service nature of the business and the company’s personal approach to individual customer satisfaction.

His equipment, which includes pipe inspection cameras and electronic locators, has evolved along with the industry. His RIDGID cameras have become necessities, DeFrates says. “It’s common now to run a camera through a sewer

A focus on lead

Water flows from one place to another through man-made pipes and has been doing so for thousands of years. For just as long, pipes have been leaking — regardless of the material from which the pipes were made. Earthenware. Copper. Stainless steel. Or, yes, lead. In fact, “plumber” comes from the Latin word for lead, “plumbum,” so leaks and plumbers go back a long way.

Now, those old lead pipes may be the cause of a new wave of plumbing work. Jay DeFrates of Jay’s Plumbing & Sewer sees it happening. “If there is a coming news flash, it could be about underground lead waterlines. It’s a big issue around this part of the country (the Midwest).”

The issue flared up again in 2016 from reports about unhealthy water in Flint, Michigan, a community with lots of lead water pipes in the ground. Public health officials have long warned that consumption of lead is unhealthy — whether it be lead paint nibbled on by children or lead in water from deteriorating pipes. A water additive was developed that coats the interior of pipes and prevents lead from being leached into the flowing water. That preventive solution evidently failed in Flint.

The only permanent solution is to replace lead pipes with some other type of piping. DeFrates says it will not be easy. “Lead pipes are so entrenched in housing stock. If it was easy to replace them, they would be out already. But I think as time goes on, more people are going to get rid of those lead pipes. It may become mandatory that if you have a certain size remodeling project, you will be required to get the lead waterline out of there.”

If it comes to that, Jay’s Plumbing & Sewer might be a good choice for the job: Since 2010, DeFrates has been certified as a lead safety expert and his company has been certified by the U.S. Environmental Protection Agency as a lead-safe firm.



“When I personally was doing the work, it always was art to me: the finished jobs were works of art. I wanted my work to look better and be better than anyone else’s.”

Jay DeFrates

along with a rodder. It’s almost standard to push a camera in there. More and more, it is not doing a customer justice if you are not camera-ing as well as rodding a line.”

Each of the company’s crew members supplies his own hand tools. Larger company equipment is hauled to work sites in five service vehicles — box trucks with a Ford or Chevrolet van chassis and a utility body. DeFrates prefers Goshen, Indiana-based Supreme service box bodies because they “come in a lot of different styles, with bins on one side or the other, or bins on the outside. They seem to be of great quality.”

The company does pipeline work, so periodically, crews must dig up a lawn or alley to repair or replace a line. For such jobs, DeFrates leases excavation equipment for the same reasons so many other companies do. “Jobs that require excavation are not a big part of our work yet. That may come, but for now when I lease a mini-excavator or backhoe, it’s not my maintenance headache. I’m not paying for it when it’s just sitting around either.”



- ◀ Mike Krejci works on a toilet repair on a job site in Downers Grove, Illinois.
- ▶ A Jay's Plumbing & Sewer crew works on a new installation project at a residence in Downers Grove, Illinois, using a Spartan Tool jetter.



LUCKY NUMBER 7

There is, in fact, not a lot of sitting around at Jay's Plumbing & Sewer. The company offers customers service and emergency repair work seven days a week, from seven in the morning till seven at night. This "seven-seven-seven" schedule, as DeFrates refers to it, is not a common business schedule. What makes it especially appealing to customers is that the price of service work is the same every hour, every day.

"When customers realize you can come on a Sunday for the same price as during the week when they have no one home to let you in, it usually is seen to them as a blessing," he says. Consequently, while the company's office staff are not in the office on weekends, some crew members are on the job in people's homes.

The service schedule was implemented within the last year. DeFrates was asked how the weekend work sits with his crew. "It just kind of happened and works well. Some guys prefer to have some days off during the week as opposed to weekends and others couldn't work weekends, so it worked itself out. The ones who work weekends take off Monday and Tuesday or whatever days they want."

Whatever day they are working, the six service technicians at Jay's Plumbing & Sewer carry with them current know-how about doing their jobs. DeFrates keeps them informed by holding weekly hour-long training sessions. The in-house training ranges from new product knowledge and review of plumbing techniques to updates about company bookkeeping procedures. He and his service manager and general manager also welcome visits by manufacturers. "When parts on a water heater or

something change on a product, we have company reps come in and talk to us and show us what's involved. It's always very helpful to be a part of that circle."

CONTINUED GROWTH AHEAD

The 46-year-old company owner is a full-time administrator now, presiding over a company that he wants to keep growing. He is currently looking to add an employee and plans to roll out another service truck next year. All of which means DeFrates doesn't have time to handle the tools any more.

"When I personally was doing the work, it always was art to me: the finished jobs were works of art. I wanted my work to look better and be better than anyone else's." He admits, "It was hard to break away from that. It was. But I think it's part of the evolution of the company. You find key people who want to come behind you, and you let them do the work." 📍

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Upon Further Review...

A fast, app-based review process makes it easy for customers to give this plumber an online thumbs-up

By Ken Wysocky

In the years BI (Before Internet), the biggest marketing decision Rick Clemmons had to make was what size ads to take out in the phone books to promote his company, The Plumbing Doc, a service and repair outfit he established in 2000 in Bakersfield, California.

Things are much more complicated now. Instead of fighting for consumers' attention in phone books, contractors are now scrambling to boost their internet presence through positive online reviews on websites and social-media platforms, and struggling to combat false negative reviews posted by unethical competitors. But Clemmons has found a simple, yet effective weapon to wield in this digital battle: Real Time Reviews, an app that makes it extremely easy for customers to review his service — and eliminates false negative ads.

"I never expected things to go this way," Clemmons, 58, says of the burgeoning importance of online reviews. "But reviews really have a major effect on my business." As such, he decided to give Real Time Reviews a try about a year ago, although he concedes he was a bit skeptical at first.

That skepticism lasted until Clemmons, a master plumber with 12 employees, almost immediately saw a boost in his online ranking — coupled with a corresponding jump in sales calls. "For the money, it's about the most impactful thing you can do for effective online marketing," he reports. "We do some pretty good tracking on service calls. Our people can't put calls into the dispatch board without first finding out where customers heard about us — Angie's List, Google, HomeAdvisor, Yelp and so forth.

"I would say that within the first two weeks, we saw a 10 percent increase in calls that came off Google searches," he continues. "People see the number of stars (on the reviews) and call us. Consumers really read those reviews."

Use of the app costs \$199 a month, and there's no annual contract required. Clemmons praises its simplicity, which is critical for time-strapped customers who are unlikely to provide reviews if the process is complicated. Here's how it works: After completing a job, a technician asks the customer



COMPANY	The Plumbing Doc
LOCATION	Bakersfield, California
OWNER	Rick Clemmons
TOOL	Real Time Reviews app
FUNCTION	User-friendly, online-review process
FEATURES	Cellphone app; quick text-based notification; takes customers 3 to 5 minutes to post online reviews
COST	\$199 per month
WEBSITE	www.plumbingdoc.net
REAL TIME REVIEWS WEBSITE	www.realtimereviews.com

if they're willing to provide an online review of the work. If they agree, the technician calls up the Real Time Reviews app on a cellphone, types in the customer's name and phone number, and sends the customer a text.

The resulting message thanks the customer for using The Plumbing Doc and asks if he or she would recommend the company to others. They can hit either "yes" or "no." If they hit "yes," then it asks if they want to give a review on Facebook and/or Google. If they click on that, it walks them through some basic steps and then publishes the review immediately. "Sometimes our techs call me after a job and say, 'Hey, Rick, check out the review I just got,'" he says.

“I would say that within the first two weeks, we saw a 10 percent increase in calls that came off Google searches. People see the number of stars (on the reviews) and call us.”

Rick Clemmons

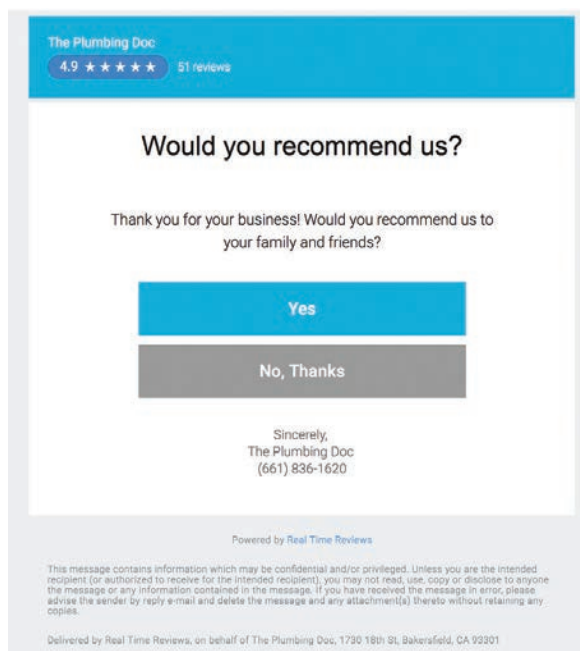
The process doesn't take more than three to five minutes. During that time, technicians usually load tools back on their trucks so they're not standing around, wasting time. The ability to do the reviews quickly is important because technicians don't leave until the customer finishes the review. Why? Even if customers say they will do a review, research shows the vast majority won't do so after a contractor leaves the job site, he notes. “They mean well, but real life tends to intrude.”

The system's simplicity is a big asset, too, Clemmons adds. He explains that in the past, he's had customers who were willing to provide a good review but didn't do so because the process was too difficult and time-consuming to navigate. “I actually used to give people a hard copy of instructions for how to post an online review,” he recalls. “And if I asked 20 people to give us a review, I might've received one.”

Of course, technicians must be discerning about which customers they ask to do a review. As Clemmons puts it, “If they're a pain in the butt, you don't send them the link. It doesn't take rocket science to figure out if a customer is happy or not. I like this system because it gives you more control over who's going to give the reviews.”

Speaking of control, Clemmons also praises the app's security. Customers can provide a review only if a technician sends them a link via the app, and then they have to log in to platforms such as Facebook or Google to complete the process. That ensures they're legitimate reviewers, not unscrupulous competitors.

“We all have problems with false reviews, and they're very hard to get rid of,” he says. “I still have one on Yelp that's been there for more than a year. I have no record of ever doing work for a customer with that name, so I know it's fake. But with Real Time Reviews, I'm certain the



▲ A screenshot of The Plumbing Doc's Real Time Reviews app that is sent to customers following a service call.

reviews are legitimate because we send the link directly to the customers.”

The Real Time Reviews app benefits the business in more ways than just raising its online ranking. For starters, Clemmons says he's recorded a 10 to 15 percent increase in revenue just from reduced spending on phone book ads. “If you can get a \$150,000 to \$200,000 increase in annual revenue for an investment of a couple hundred dollars a month, I'd say that's a pretty good return on your money,” he says.

Furthermore, the reviews act as a quality-control program of sorts. While Clemmons says his technicians are conscientious about providing good customer service, knowing they have to ask for a review makes them even more aware of what it takes to make customers happy. And if a technician consistently doesn't obtain Real Time Reviews, that alerts Clemmons to a potential problem.

So far, that hasn't been an issue. In fact, Clemmons says that The Plumbing Doc consistently maintains an online ranking of 4.75 to 4.85 stars out of a possible five. “It's hard to make every single customer happy,” he says.

The takeaway for other plumbers? If they don't feel comfortable pursuing a positive online presence, it's only going to hurt them in the long run if they don't because the internet is just too powerful a forum to ignore. “If a customer is ticked off, thousands of potential customers can see their negative review,” he says. “So you've got to maintain good ratings. If you're not rolling with the times, you're falling behind.” 📌

Figuring Out the Bidding Process

Contractors who don't have a planned approach for taking on more work could bring trouble to their business

By Neil Feldman

From small bathroom retrofits to large ground-up buildings and wastewater treatment plants requiring substantial amounts of product and labor, the vast majority of commercial projects are run through a competitive bidding process.

For contractors looking to expand, it may be tempting to significantly ramp up bidding output by firing off as many quotes as possible on various types of projects. But caution must prevail over temptation, as an overly zealous approach to taking on new business can easily backfire.

"It's important to evaluate your business and have a clear direction where you want to take it," says Jim Gaffney, owner of Goshen Mechanical in West Chester, Pennsylvania. "Taking on too much in a short period of time can put a lot of stress on a business and can lead to serious problems."

Those problems could include not having sufficient labor to handle the work, taking on projects outside of your comfort zone, taking on projects with questionable clients, and impeding cash flow.

WHAT TO CONSIDER

Prior to commencing a push to take on more work, plumbing contractors are well-advised to establish a clear strategy and approach to a ramped-up estimating effort. "There's a lot to consider when determining what type of work to take on," says Vitaly Kontorovich, owner of Vital Plumbing in Brooklyn, New York. "The first consideration is the type of labor being used. If you're a union shop, you'll never be competitive bidding nonunion work against open shop contractors, and so quoting those jobs is a waste of time for estimators."

The next consideration is the size of projects you're comfortable taking on. "If you have a few employees and a bonding capacity of \$3 million, you can't be looking at new apartment complexes and other projects that will

require a lot of capital and manpower," Kontorovich says. "It makes good business sense to err on the side of conservativeness to ensure you don't bite off more than you can handle at a given time."

Kontorovich notes that it's better to have multiple smaller- to moderate-sized projects running simultaneously rather than managing one large one. If something goes awry or the money doesn't flow as fast as expected on one project, it's much easier to handle if there are multiple projects running.

"Taking on too much in a short period of time can put a lot of stress on a business and can lead to serious problems."

Jim Gaffney

The actual customers being quoted are another key consideration when looking to expand. "It's important to run a Dun & Bradstreet report and have a good sense of the credit history of a prospective account," says Bill Soper, senior estimator at Calvert Mechanical in Baltimore. If you're on the fence about a particular new client, Soper suggests treading lightly by starting with a couple of small opportunities.

THE BIDDING PROCESS

It's relatively easy to get on a lot of bidders' lists and in short order have more projects to quote than you can get to. Trying to estimate jobs too quickly, however, can undermine diligent practices and result in costly mistakes.

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It's important to allow ample time to review vendor quotes to ensure they are accurate and pricing is optimal. On projects where multiple manufacturers are noted as acceptable, estimators are well-advised to have at least two of them provide figures, especially on moderate and larger jobs where a lot of the same items are called for.

There's a fine line between putting proposals together expeditiously and putting too many together too fast. "You don't want estimators under so much pressure to churn out quotes that they end up making costly mistakes," Gaffney says. "General contractors rely on competitive bids to win their work, so if they rely on a quote with a mistake, they will do whatever they can to hold you to that number."


Gaffney notes that a couple mistakes with bids will quickly spread within the contractor community.

Following up on bids is nearly as important as submitting them. General contractors and end users are busy juggling many things at once, and quite often, those who are diligent with follow-up will be a top contender when it comes to buying out the plumbing package. "Sometimes things get very hectic, and we are trying to purchase many different trades for multiple projects at the same time," says Bill White, senior estimator and purchasing manager at Walsh Brothers, a Boston-based construction management firm. "I appreciate subcontractors who follow up weekly because

it gets my mind thinking about that package, and I turn to that subcontractor when I need to ask questions or confirm scope."


STAYING ORGANIZED

Though it may seem like an obvious point, maintaining an organized bid schedule and updating it daily is extremely important. It's easy to get caught up and neglect a handful of bids or begin reviewing certain bids the day before they're due. By maintaining a schedule and adjusting bid dates as necessary, estimators can prioritize and focus on those jobs that are due sooner.

Lastly, it's important to not take jobs below the margin threshold you're comfortable with. "Just adding a lot of volume at tight margins is not a good approach," Kontorovich says. "You need to have some cushion in it in case labor goes over budget or the money doesn't flow as fast as you expected. You're in business to make money, and passing up bad jobs and jobs with no money in them is just as important as getting proposals out and negotiating good work." 

Do you have a plumbing business question you'd like answered? Email editor@plumbermag.com with your question.

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					No					
		Up to 11.2 gpm @ 35° temp rise/5.7 gpm @ 67° temp rise	17.3" x 27.4" x 13.2"	Up to .99 EF/.97 EF	No		✓			
		Up to 11.2 gpm @ 35°temp rise/5.7 gpm @ 67° temp rise	17.3" x 27.4" x 13.2"	Up to .99 EF/.97 EF	No					

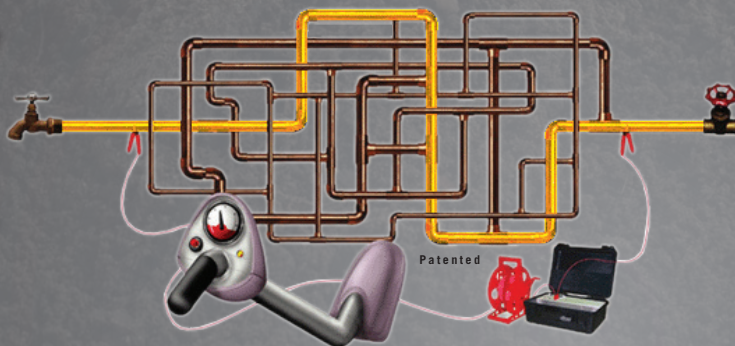
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				RATING	ENERGY STAR CERTIFIED	DRY-FIRE PROTECTION	HIGH- EFFICIENCY	WI-FI	BLUETOOTH
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It's a Bird, It's a Plane, It's a ...

The plumber is the superhero of yesterday, today and tomorrow

By Randy Lorge

Crazy, isn't it? How in the world could a plumber be compared to a superhero? Well, I'm glad you asked.

First of all, let's define "superhero." *Merriam-Webster* defines a superhero as "an exceptionally skillful or successful person." Nailed it! Now, let me explain.

Superheroes are known for defending the innocent from evil, doom and death. The plumber has been defending the health of the nation for centuries, and what's even more astounding is that they go about it every day, in broad daylight, in plain sight of the public, unnoticed. It's almost like being the invisible man when you think about it.

You can trace the marvelous feats of the plumber all the way back to the time of the Romans in 735 B.C. It was during this time that sewers were first installed to convey wastewater away from buildings. What's ironic about where plumbing has been traced to have begun is that it can also be traced to where it came to its end. When the Roman Empire was eventually conquered between A.D. 406-19, its plumbing systems were all but destroyed with it. Eventually, due to the poor sanitation conditions, the bubonic plague broke out and wiped out roughly 25 million people in Europe alone.

As civilization evolved from this point forward, the need for safe plumbing systems followed. Plumbing codes were written, apprenticeships evolved, licenses were issued, and safe systems were designed and installed.

Just like the life of a superhero, evil always finds a way to rise up and challenge the forces of good. Plumbing has faced many deadly challenges. In 1933 at the Chicago World's Fair, amebic dysentery occurred from a cross connection between the potable water supply and sanitary drain system. It's believed that 75 to 100 deaths resulted from this incident. While evil took its toll on mankind during this time, the plumber prevailed by applying his talents to correct the problem.

Between 2002 and 2003, "inadequate" plumbing was determined to have been a contributor to the spread of severe acute respiratory syndrome, or SARS. Hundreds of lives were lost, and yet again, it was the plumber who came to the rescue and made the plumbing systems safe.

“The plumber has been defending the health of the nation for centuries, and what's even more astounding is that they go about it every day, in broad daylight, in plain sight of the public, unnoticed.”

In 2014, all I need to mention is Flint, Michigan. Poor judgment, to say the least, created one of the largest modern-day plumbing disasters in U.S. history. And again, it was the men and women of the plumbing trade who suited up and worked to correct a wrong.

As the superhero's work is never done, neither is a plumber's. I can only imagine the work that will need to be done by our skilled plumbers in the wake of hurricanes Harvey, Irma and Maria.

What I find fascinating about all this is that while it seems so simple and straightforward here in the U.S. that without safe plumbing systems installed by skilled plumbers we would surely fall back to the times of disease and death, there are still parts of this world without safe plumbing systems, such as India.

In 2015, under the leadership of the International Association of Plumbing and Mechanical Officials and the

BID MORE. WIN MORE. EARN MORE.

International Water, Sanitation and Hygiene Foundation, the Community Plumbing Challenge was formed. I had the unique opportunity of traveling to India where teams of young plumbers and engineers from around the globe made improvements to a school's plumbing system. With strong support from various organizations such as the World Plumbing Council, not only did we make plumbing improvements, but we also left behind our know-how, skills, and blueprints in hope that work will be continued.

Then in 2016, I was blessed again to travel with the Community Plumbing Challenge to South Africa. There, we worked on improving plumbing conditions for an overpopulated shantytown. While the project only lasted a week, the improvements we made will count toward saving many lives. This past November, I was also in Indonesia for the Community Plumbing Challenge, doing a project for a school in a small village.

My life has been forever changed by those three trips. I'm proud to be a third-generation plumber of 25 years and an instructor of plumbing apprenticeship in northeastern Wisconsin for 18 years. My love and respect for the plumbing trade, and the men and women of it, has grown deeper due to these experiences. They have driven me to work even harder toward creating tomorrow's "superhero" in my plumbing apprenticeship classrooms and continuing my work of assisting each and every "superhero" I know by providing continuing education to them and doing whatever I can to support the plumbing trade.

So, is it a bird? Is it a plane? No, it's a plumber, and he's on his way to protect the health of the nation! 🇺🇸

Randy Lorge is a third-generation plumber and has been the instructor of plumbing apprenticeship at Fox Valley Technical College in Appleton, Wisconsin, for the past 18 years. Lorge was a coach for Team USA in 2015 in Nashik, India; 2016 in Dieplsoot, South Africa; and 2017 in Indonesia, where his team and he participated in the Community Plumbing Challenge. Lorge also sits on the International Association of Plumbing and Mechanical Officials Training and Education committee. He enjoys time with his family and spending as much time as possible in his deer stand. Lorge can be reached at 920-851-2914 or rlorge@fvtc.edu.



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Tight Fitting Fix

Boston plumber restores hot water to residence in one of the oldest neighborhoods in the city *By Cory Dellenbach*

When Joseph Wood started his plumbing business nine years ago, he did so because he wanted to make an impact in his Boston community. Last summer, his company made a big impact on a family needing a new heating system.

Wood and his crews from Boston Standard encountered an old, four-level, 2,000-square-foot home in Boston's Charlestown neighborhood that had two failing heating systems and two failing tankless units.

“They had a funky setup where they had some old tankless heaters,” Wood says. “The heaters were giving them trouble because they had never been maintained; and then they had two other midefficient heating systems that also weren’t doing so hot.”

After five days on the job with two plumbing technicians, the home was updated with a new tankless system that uses less space in the tight area.



“It’s a tight workspace, and I think that played into the selection. It always does play a factor.”
Joseph Wood

▲ Two failing heating systems and two failing tankless systems are dismantled at a residence in Boston’s Charlestown neighborhood. Boston Standard replaced the old systems with a new Navien NHB-150 boiler with a Heat-Flo 80-gallon indirect water heater and a Caleffi North America SEP4 magnetic hydraulic separator. (Photos courtesy of Boston Standard Company)



- ◀ The new Navien NHB-150 boiler with a Heat-Flo 80-gallon indirect water heater and a Caleffi North America SEP4 magnetic hydraulic separator installed at the residence.
- ▼ One of Boston Standard's work vans sits in the parking spot at the job site where they were replacing two failing heating systems and two failing tankless systems.

“The heaters were giving them trouble because they had never been maintained; and then they had two other inefficient heating systems that also weren't doing so hot.”

Joseph Wood



GETTING TO WORK

The home is technically a two-family home, but it has been occupied by the same family since the 1960s. The mother and daughter lived in the upper level unit, and a son lived on the lower level.

The equipment in the house was in the 10- to 15-year-old range and was due for replacement. Boston Standard plumbing technician Jose Murillo and helper Ben Strolsky responded to the service call and began talking to the homeowners about some of the options that were available. The two then put together a proposal.

“Jose called me and asked what I thought about this and that,” Wood says. “I look at — in the hierarchy of hot water — life span beats efficiency, and we chose indirect tanks as a replacement option for that reason. It's been the same family using it forever, so why bother with two heating systems and two hot water systems? Why not merge it all into one? So, that's what we decided to do.”

The first order of business was to ensure the homeowners had hot water while the replacement boiler was being installed. An electrician with Boston Standard came in to temporarily wire a hot water system into place. The rest of the first day involved removing old equipment and bringing in new equipment.

Crews first had to fabricate a wall to make the new system presentable. Murillo and Strolsky spent five days installing a new Navien NHB-150 boiler with a Heat-Flo 80-gallon indirect water heater for the five-zone baseboard system. The advantage to this system, according to Wood, is that the boiler has a 15-stage burner that will allow it to modulate down as low as 10,000 Btu per hour but still performs when the hot water demand is high.

“A lot of boiler manufacturers out there have modulating burners, but they're only five-stage,” Wood says. “But this particular boiler is a 15-stage burner and allows it to better load match. We've become bigger and bigger fans of the Navien line because we get to send our guys down to the factory in New Jersey for training and they do a really good job of keeping parts available.”

PAIRING SYSTEMS

The Navien boiler and Heat-Flo 80-gallon water heater were paired with a Caleffi North America SEP4 magnetic hydraulic separator to ensure crews could manage the system flow and any trapped air in the piping, as well as to keep the piping and heating system clean.

“All these boilers that don’t have any actual water content to them or are very low water-content boilers, you have to do hydraulic separation, which is basically done with the way you arrange your piping,” Wood says. “We’ve always done that and we’ve always done air elimination, but the magnetic thing was kind of an afterthought.”

That changed when crews ran into a problem a few years ago with a big boiler they had installed. The unit kept clogging with dirt, which Wood had never seen before. “We didn’t believe it was happening until we cut a pipe open, and at that point, we repiped this system with one of these Caleffi North America SEP4 units, and it’s been trouble-free since that point.”

For flow control, the company used a Taco Comfort Solutions Viridian Delta-P pump, which will automatically respond to changing system pressures as the zone valves open and close. “This system will not only be efficient on the gas usage, but also on the electrical side of things,” Wood says.

Crews were able to unclutter the mechanical room because of the new equipment. Instead of several vents

going out of the house for the old equipment, crews brought it down to just one vent penetration and one gas line.

LEARNING FROM THE CHALLENGES

One of the biggest challenges the crew faced on this job was the tight space to work in. No more than two technicians could work the job because of the limited space.

“The footprint of the space we had to work in always dictates things, and that Navien boiler is a really compact product,” Wood says. “It’s a tight workspace, and I think that played into the selection. It always does play a factor.”

Wood was pleased with the work Murillo did, saying he learned on the job as well. “I had drawn up the schematic for the job, but I think Jose learned a better way to orient things and a better way to use some of the products on the market,” he says. “I don’t think there is a lot that could have been done better on that job. He learned how to take everything available on the market today.”

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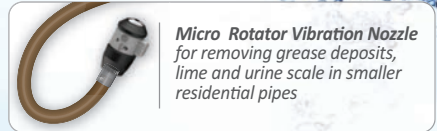
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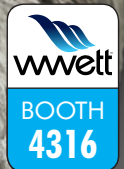
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Breaking Out the New

The latest HVACR innovations, products and technologies will be on display at the AHR Expo in Chicago *By Megan Shamas*

The future of HVACR will be on display in late January when hundreds of new and upgraded products and technologies for the HVACR industry will be featured at the 2018 AHR Expo (short for the International Air-Conditioning, Heating, Refrigerating Exposition) in Chicago.

The 2018 AHR Expo will be held Jan. 22-24 at McCormick Place in Chicago. Last year's show in Las Vegas drew 68,615 attendees.

Exhibitors will display an impressive variety of new or enhanced HVACR-related products, systems, and technologies across every facet of the industry, from complete systems engineered for large commercial and industrial buildings to labor-saving tools and profit-generating services for residential contractors.

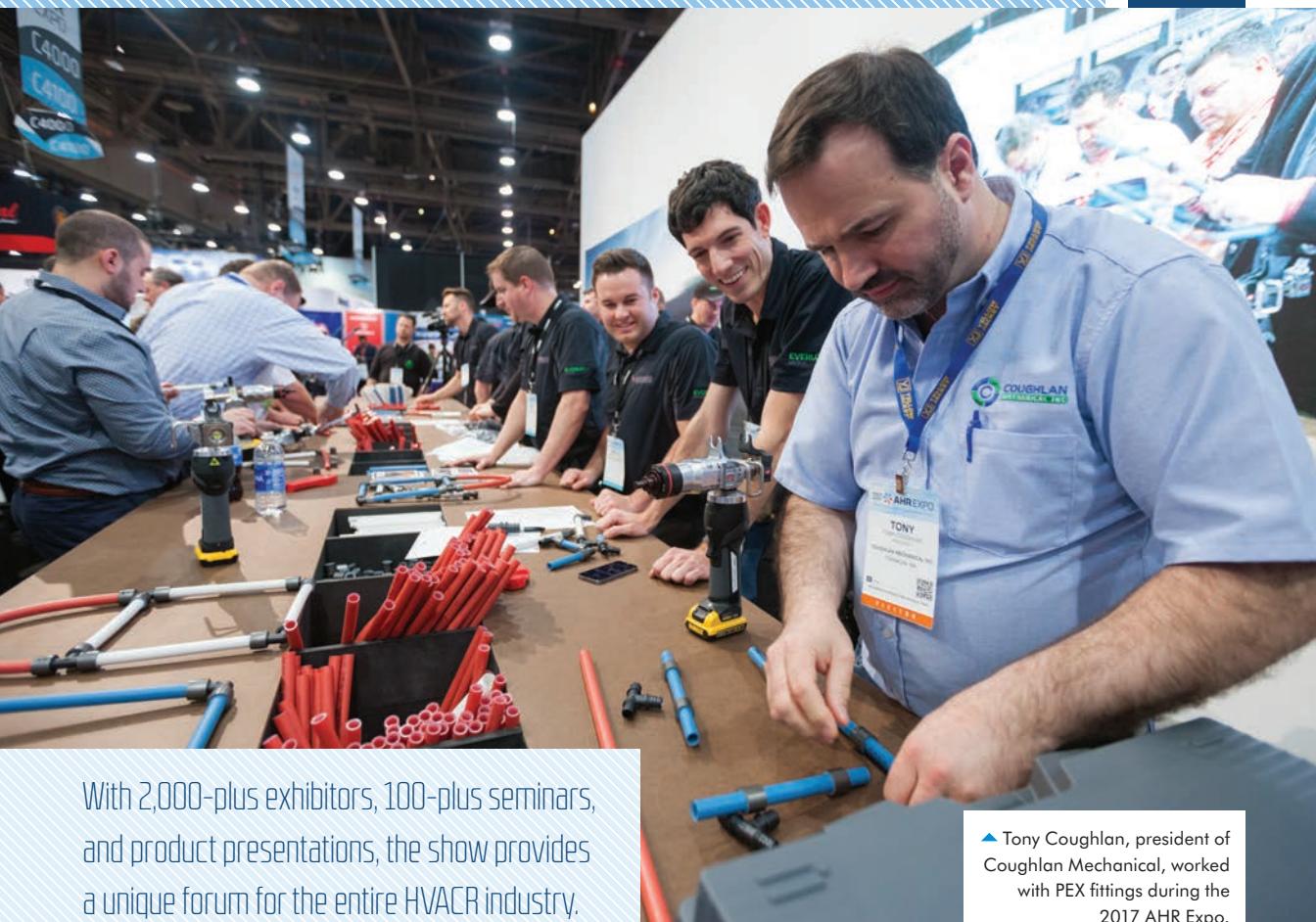
With 2,000-plus exhibitors, 100-plus seminars, and product presentations, the show provides a unique forum for the entire HVACR industry — from product designers and engineers to installers and end users — to come together and share ideas, discover new products, and find solutions to technical problems.

There are several exhibits that contractors, engineers and other attendees can look forward to:

- VFDs for HVAC applications that are specifically designed for building automation applications, helping minimize energy costs and maximizing occupant comfort.
- Upgraded, Wi-Fi-connected thermostat technology that allows for control via iOS or Android apps, plus email notifications and advanced voice control.



◀ A press tool demonstration was provided during the AHR Expo (or International Air-Conditioning, Heating, Refrigerating Exposition) in 2017 in Las Vegas. Thousands attend the show each year to see the latest products available in the HVACR industry.




With 2,000-plus exhibitors, 100-plus seminars, and product presentations, the show provides a unique forum for the entire HVACR industry.

▲ Tony Coughlan, president of Coughlan Mechanical, worked with PEX fittings during the 2017 AHR Expo.

- A digitally controlled mixing valve that provides fast, accurate temperature control for domestic hot water applications.
- New bionic impeller technology with a special blade design, modeled after the tubercles on a whale to ensure an optimized airflow angle and reduced flow separation on the blade surface.
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- An oscilloscope for testing motor shaft voltages, allowing contractors to determine if motors are at risk of premature bearing failure due to bearing currents.
- New electrical test meter technology for reliable, true-RMS measurements in crowded junction boxes or along conductors with inaccessible ends points, saving time, minimizing potential errors, and greatly reducing the possibility of arc flash.

- Software that allows engineers and designers to create air systems including both air handlers and rooftop units, including the tools to design complex hydronic, steam, plumbing and VRF (variable refrigerant flow) systems along with control schematics.
- An array of tools including heavy-duty wire strippers built with the durability of pliers and the sharpness and precision of a wire stripper; thermal-imaging technology with Wi-Fi that uses a slim IR camera with an integrated touch screen; a hand-held particle counter for indoor air-quality investigations; and a copper line cleaning tool that removes contaminants from existing refrigeration and air-conditioning lines.

This is only a sample of the huge array of innovations to be highlighted at the 2018 AHR Expo. For more information — including a searchable directory of exhibitors and product categories — and to register, visit www.ahrexpo.com. 



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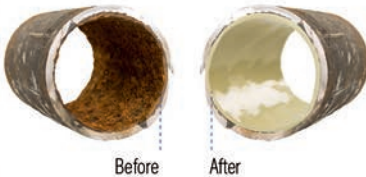
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Water Quality and Conditioning

By Craig Mandli

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Water Conditioners

A. O. Smith Product Preservers Tankless Anti-Scale System

Where water quality plays a significant role in a water heater's performance and cost of operation, **A. O. Smith's Product Preservers Tankless Anti-Scale System** prevents hard water scale from accumulating. Scale can reduce efficiency, cause the heat exchanger to overheat, and eventually damage a water heater to the point it begins to leak water. The unit is designed to promote the formation of inactive scale crystals,



Plumber's Choice Flow-Tech Home MAX

The **Flow-Tech Home MAX** anti-scale physical water treatment system, distributed by **Plumber's Choice**, has a sleek design with a digital display and self-regulating resistance modification to ensure ideal signal propagation. It overcomes the issue of ensuring proper grounding of the plumbing and electrical system by providing user-friendly readings from startup on an enclosed digital screen that displays system diagnostics. The system can alert installers and users of ground issues and assure that the system is always running properly. 615-866-6100; www.flowtechhome.com 

Product Spotlight

Anua system is a predictive maintenance solution

By Craig Mandli

Should a septic system be out of sight, out of mind? In a perfect world, the answer is yes. However, things do go wrong, and components fail. If it isn't caught early, often a failing septic system component can lead to heavy damage, which means big bucks. So why not go predictive instead of reactionary?

The i/o.site system from Anua provides performance monitoring of electromechanical components while keeping both the homeowner and the installer and/or plumbing contractor connected to information through a simple, easy-to-use web interface. According to Colin Bishop, Anua's president, the system is designed to prevent "worst case scenarios."

"For example, you see when a pump becomes clogged which can be addressed before it fails," he says. "That way, you can react to the issue before you have a domino effect and the whole septic system fails."

The system can be integrated to remotely monitor any blower, aerator, pump, float switch or motor, regardless of type or model. According to Bishop, the system takes readings from every electromechanical component of the wastewater treatment system to analyze for irregularities. Once it is installed, it provides measurement of various data points throughout the life of the system.

"That's what makes this particular unit a good fit for any residential or commercial treatment system," Bishop says. "Basically, it is going to take a reading from anything with a motor that you may want to monitor."

It tracks water use, catches motor issues before failure, uses any mobile device or computer, and monitors any powered onsite system. According to Bishop, the device is going to save both homeowners and installers money in the long run.

"It serves as an insurance policy for the homeowner and as an extra line of defense for the installer," he says. "For the installer, they will make less maintenance trips in the long run, while being able to keep track of things from their mobile device. The homeowner will appreciate that you are going that extra mile to make sure their system is operating properly." 336-547-9338; www.anuainternational.com.



What's Read All Over?

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John Guest USA ProLock shut-off valves

ProLock shut-off valves from John Guest USA are available in 1/2- or 3/4-inch copper tube size. Manufactured from engineered black thermoplastic, the shut-off valves are UV-resistant and safe to use outdoors. The shut-off valves have two interchangeable buttons for color-coding hot and cold-water applications. These fittings are suitable for use with copper, PEX or CPVC pipe. ProLock are lead-free and require no tools to make secure, leak-proof connections. **973-808-5600; www.johnguest.com.**



Noritz America NCC199CDV condensing tankless water heater

The NCC199CDV condensing tankless water heater from Noritz America is approved for common venting up to six units in commercial applications. The unit has a thermal efficiency rating of 98 percent and is EPA Energy Star certified. It has a maximum flow rate of 11.1 gpm. With a maximum input of 199,900 Btus per hour, the NCC199CDV features two austenite, 316L stainless steel heat exchangers that resist corrosion from condensate and chloride, maximizing durability and life span. **866-766-7489; www.noritz.com.**



Ideal Clamp Products Pow'r-Gear no-hub couplings

The heavy-duty Pow'r-Gear no-hub coupling from Ideal Clamp Products fits properly between the locator lug on the fitting and the pipe, eliminating the need to grind down the lug. The coupling has fewer clamps, which reduces installation time. They are UPC listed, NSF certified to ASTM C1277, conform to CISPI 310, and were tested by NSF International, conforming to ASTM C1540 performance requirements. **800-251-3220; www.idealtridon.com.**



Bradley Keltech Portables

Keltech Portables from Bradley offer a convenient and flexible mobile solution for using Keltech Tankless Water Heaters on transportable carts to supply heated water wherever needed.



They are ideal for temporary or semipermanent applications that need an immediate and unlimited supply of heated water or fluid at a precise temperature. They are easy to use, only needing to be hooked up to an electrical connection and cold-water line. A variety of heavy-duty cart packages are available, which are constructed from welded steel tubing and include 8-inch polyurethane casters and forklift pockets. **800-272-3539; www.bradleycorp.com.**

FloLogic 1 1/2-inch valve

The FloLogic System with a 1 1/2-inch flow path provides a flow capacity exceeding 100 gpm and features a flow-sensing technology that catches leaks as small as one drop per second. The larger valve offers protection for high-water-demand properties. **877-356-5644; www.flologic.com.**



Franklin Electric Inline Controls

Inline Controls from Franklin Electric are compatible with both Franklin Electric and Little Giant brand pumps, and they include five pump starting and control devices that pair with a variety of submersible or surface pumps, up to 20 amps, to provide or boost the system's overall water pressure. The product family offers various forms of system protection, including dry run, deadhead pumping, over amperage, locked system and over pressurization. They also offer a daily motor rotation start, designed to energize the motor at least once every 24 hours to prevent system locking. An automatic restart feature eliminates the need to manually restart the pump in case of an unexpected trip or fault. **260-824-2900; www.franklinwater.com.**



StoneAge Jetting App 2.0

StoneAge launched an update for its free suite of water-blasting calculators, the Jetting App 2.0. It includes nine calculators for configuring jetting and managing flow, pressure loss, and jet reaction force to help maximize results. **866-795-1586; www.stoneagetools.com. [P]**

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Real Time Reviews partners with SkyBoss

Real Time Reviews announced that it has partnered with SkyBoss, a management software provider for field service companies, to streamline the customer review process. Real Time Reviews offers online business review management solutions.

SJE-Rhombus announces new manufacturers rep

SJE-Rhombus announced the company hired FTI Sales as the new manufacturers' representative for its standard control product line in northern Illinois. FTI Sales, founded in 1997, is located in Elgin, Illinois.


TomTom Telematics partners with LeasePlan

TomTom Telematics and LeasePlan announced a partnership where LeasePlan customers will be able to access TomTom Telematics' cloud-based fleet management and car solutions, including WEBFLEET.

Electric Eel launches new website

Electric Eel announced a new website (www.electriceel.com) that better supports customers across the many markets it serves. It consists of two major categories: rental, which addresses all the needs of the tool rental market, and professional, which includes products for plumbers, drain cleaners, schools, hospitals, municipalities, property management, government, and maintenance professionals.

StoneAge names new vice president of sales and marketing

StoneAge announced the appointment of Barbara Beaubien to vice president of sales and marketing. She previously worked for Flowserve's corporate headquarters, developing strategy and marketing for their pump, valve and mechanical seal divisions. 

Jan. 22-24

International Air Conditioning, Heating, Refrigerating Exposition (AHR Expo), McCormick Place, Chicago. Visit www.ahrexpo.com.

Feb. 25-28

Union-Affiliated Contractors (UAC) Unity Conference, Reunion Club of Orlando, Orlando, Florida. Visit www.phccweb.org.

March 3

Flow Expo 2018, Long Beach Convention Center, Long Beach, California. Visit www.flowexpousa.com.

March 18-22

Mechanical Contractors Association of America (MCAA), JW Marriott San Antonio Hill Country, San Antonio. Visit www.mcaa.org.

March 23

Illinois Plumbing Heating Cooling Contractors Association EXPO & Education Day, Drury Lane Conference Center, Oakbrook Terrace, Illinois. Visit www.ilphcc.com. 

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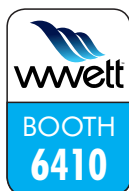
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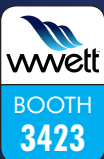


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