

# Plumber™

## EARNING **Loyalty**

California plumbing contractor takes what he knows and teaches it to grow his company and earn customers' trust  
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### Locked and Loaded

Electronic deadbolt-lock system gives Chicago plumber a feeling of security.

- By Ken Wysocky



#### On the Cover

Wife-and-husband team, Kelli and Robert Frank own and operate Four Star Plumbing in San Clemente, California. Robert is a second-generation service plumber and now leads a dedicated team of technicians, apprentices and staff. The company serves primarily South Orange County.  
**Photography by Collin Chappelle**

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Cory Dellenbach

## Handling the Stress

Difficult situations arise often in this industry, and knowing how to handle them will make you better and happier

**B**eing a plumbing technician can be stressful. You're dealing with anxious situations such as water pouring through ceilings, gas leaks and pipes bursting in subzero temperatures. If that's not enough stress, how about adding working with raw sewage and dangerous chemicals at times.

I recently watched a video on one of the plumber groups I follow on Facebook where the plumbing technician is under a bathroom sink in an apartment building trying to complete a repair and the water is just shooting out from the pipe. Water is starting to spill into the hallway and living room area. There's no way for the tenants or the plumber to get the water turned off to the apartment.

Instead of throwing the wrench — or other tools down — in a fit of rage and storming out, the plumber stays relatively calm trying to complete the fix. Eventually he grabs the hose from a nearby shop vacuum to try and get the spray water from the pipe to direct into the nearby bathtub.

If that isn't a stressful situation, I don't know what is. So, how do you deal with the stress you face day to day? It's not easy sometimes, but there are easy things you can do.

### Start Your Day off Right

After scrambling to get the kids fed and off to school, dodging traffic and combating road rage, many people come in already stressed, and are more reactive to stress at work. Some easy ways to try and relieve that stress are to have some quiet time to yourself after you get into the shop. Take a seat at a desk and go over the daily schedule, or spend some time organizing the shop. These are less stressful tasks and might help you calm down after your drive in.

### Stay Away From Conflict

Because conflict takes a toll on your physical and emotional health and because conflict among co-workers is so difficult to escape, it's a good idea to avoid conflict at

work as much as possible. That means don't gossip, don't share too many of your personal opinions about religion and politics, and try to steer clear of colorful office humor. Try to avoid those people at work who don't work well with others. If conflict finds you anyway, learn how to deal with it appropriately.

It goes for you when you are at a job site and dealing with a homeowner who is angry. Don't confront them or get into a war of words with them. If it gets to be too much, then it's time to talk to the company owner or your manager about the homeowner.

### Stay Organized

Even if you're a naturally disorganized person, planning ahead to stay organized can greatly decrease stress. Being organized with your time means less rushing from job site to job site, less time trying to find those tools you misplaced and less time cleaning up at a job site.


### Forget Multitasking

While everyone does it, multitasking can add stress. How are you when you're on the phone and trying to make that plumbing repair at the same time? Where is your attention really? There is a certain kind of frazzled feeling that comes from splitting one's focus that doesn't work well for most people. Take one task at a time and it'll end up better in the long run.

### What are your tips?

What you do is a serious job that involves a great deal of dedication and hard work. It also has a huge health and safety responsibility attached to it. So cutting back on the stress will only help you perform that job that much better.

I'd like to hear what your tips are when it comes time to dealing with a stressful situation or customer. Email me at [editor@plumbermag.com](mailto:editor@plumbermag.com) or call me at 715-350-8436.

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▼ Wife-and-husband team, Kelli and Robert Frank, center, are joined by Judi Hinkle, left, and Helene Safronova, right.

# EARNING Loyalty

California plumbing contractor takes what he knows and teaches it to grow his company and earn customers' trust

By Cory Dellenbach  
Photography by Collin Chappelle



## Four Star Plumbing, San Clemente, California

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uilding a company that prides itself on earning a customer's loyalty for life and continuing to do so after two decades in business can be tough to do.

California-based Four Star Plumbing has been accomplishing that goal since owner Robert Frank started the company in 1994. Even through growth, the company hasn't swayed away from its core goal of earning loyalty.

"It's been painstaking for sure," says Kelli Frank, Robert's wife and vice president of the company. "A lot of trial and errors, a lot of costly mistakes, a lot of blood, sweat and tears."

Over the last 25 years Robert has moved from just himself out of his garage with one truck to four fully stocked, emergency-ready trucks and a staff of four technicians, two apprentices and two office staff working out of a new facility in San Clemente, in Orange County.

"It was all done through word-of-mouth and working a lot of property management jobs," Robert says. "I had relationships with property managers and that helped me tremendously in the beginning of my business."

“It’s been painstaking for sure. A lot of trial and errors, a lot of costly mistakes, a lot of blood, sweat and tears.”

*Kelli Frank*

## ALWAYS A PLUMBER

Robert had an early introduction into the plumbing industry, helping his dad at his plumbing company on jobs in the Los Angeles area when he was high school. He had no doubt what he wanted to do post-high school.

He enrolled at the LA Trade Technical College for two years and from there joined the union and earned his journeyman's license, all while still helping his dad, Jack, periodically.

"I did other union jobs, helped my dad, new-construction jobs and then my dad passed away when I was 24," Robert says. "There wasn't much going on with his business and he had just one older truck, so I ended up dissolving the company and moved to South Orange County."

▶ Angel Salgado prepares to locate and repair a leak by first masking off the area with plastic.





Robert worked for a plumbing contractor there for about a year and half while earning his contractor's license. In 1994 he decided it was time to venture out on his own.

"I started up Four Star Plumbing and fixed up my dad's old 1974 Chevy Silverado with a utility bed and used that for a couple of years," he says.

In 2004 it was time to move out of the garage and into the company's first commercial space in order to be able to park a truck and store inventory.

### TIME TO GROW

By 2007 things were starting to change a little bit faster. Kelli started working with Robert that year, coming to the business with a background in sales, management and business development.

◀ Angel Salgado visually inspects the area for the cause of a leak at a residence in an affluent San Clemente, California, neighborhood.

## Finding what works

When it comes to finding the right dispatching software for a plumbing company, it can take some trial and error. Kelli and Robert Frank had that as they were finding the right solution for Four Star Plumbing.

The company, based in San Clemente, California, started with using a simple Google calendar and a whiteboard to plan the day.

"That didn't last very long," says Kelli, vice president of the company.

After doing research, the company moved to a software program from dESCO (which is now FieldEdge). At the time they started with the program, it wasn't a web-based program.

"With QuickBooks and a whiteboard, it was difficult," Kelli says. "We had to identify all of our customers and learn how to identify each of the associated jobs that would come with that customer."

However, moving to the software program provided a simpler solution. The program allowed the company to take customer information in a parent account and then

add subaccounts under that to keep track of what they did for every address in each community.

"It allowed us to do proper invoicing, proper proposals, and take pictures and attach them to our records," Kelli says. "Pictures are key because as we're growing, we have technicians out there and that is how Robert checks all the jobs that he hasn't personally gone out to himself."

Now with FieldEdge, all of that functionality is available to the company in a web-based program, making the technicians' jobs even easier. They're able to clock themselves in and out of jobs and take pictures on a job and upload them immediately.

"That actually has streamlined our processes in the office," Kelli says. "It allows them to capture signatures in the field, invoicing in the field, proposals in the field. We can see payments, and we can see when they are on the job or traveling."

It has also benefited the company's money handling. "It has really helped us keep an eye on our billable and nonbillable hours," Kelli says.

Shortly after starting with the company, she and Robert knew it was time to grow the business and teach a crew to do what Robert does. Otherwise Robert would have to work into his 70s.

“We decided to join forces, and I left my job and came to work with him,” Kelli says. “I thought I was going to start by picking up the phone and doing sales, but I truly have not been able to market this business and be dedicated to the marketing side until a year and a half to two years ago.”

Instead of marketing, the first two years were focused on hiring a team.

“Rob had helpers, which were great, but a helper is very different than having somebody going out to represent you,” Kelli says. “We tried hiring people who were seasoned, and that had its challenges.”

After a lot of trial and error using that method, the two decided instead to go after someone green in the industry. That way they would be trained the way the company wanted them to be.

“We might as well hire somebody that has strong character and work ethic and teach them what Rob knows and wait a couple years before we can actually let them run a truck independently,” Kelli says.

“Our job is to educate our customers because an informed customer is going to be the one that is in control and they're going to be satisfied at the end of the call.”

*Robert Frank*

But it wasn't as simple as finding the right fit for the company. Along with growing came the need for finding benefits packages that were not only affordable, but would entice employees to stay. There was also the process of creating the employee handbook.

“We were taking a business that was just a one-man shop into something that is a template to bring on multiple people to have it run at the same capacity and quality that Robert was doing,” Kelli says. “There was a lot going on there those first two years.”

Then there was making sure all of the training Robert had was put onto paper step-by-step so employees



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Angel Salgado begins his repair by cutting a 2-foot section of copper pipe to replace using 1/2-inch copper couplers that are crimped rather than needing to be soldered.

“You have to know what to look for, you have to know what the different scenarios are and it’s still a process of elimination. You need to have a crew who knows what they are doing.”

*Kelli Frank*

could be trained the way he did it with the same workmanship and business ethics.

“We spent a lot of time working on our processes before we could continue to grow,” Kelli says. “I think one of the worst things that any company can do is grow so fast that now the quality lacks.”

## STANDING OUT

That quality is only a part of what makes Four Star Plumbing stand out from competitors in Orange County. Robert says other ways include his company’s professionalism and level of customer service.

“We take pictures of every job; our dispatching software (FieldEdge) is amazing,” Robert says. “It sends the customer a text message or email when we’re on our way with a picture of the technician.”

It was important for both Robert and Kelli to have that professionalism as they grew the company.

“Rob has built up his reputation over the years, and

it’s our job to make sure that we stand up to that as a company,” Kelli says. “From the time a customer calls our office to the time that we leave the job, it’s a professional experience. Our people are educated, they’re well-spoken, they’re trained, they’re qualified and they’re happy.”

Being honest is also important for the owners.

“We’re upfront about everything,” Robert says. “What it’s going to cost to have us show up, what our services are and I think people appreciate that.”

## FINDING THE LEAKS

When Robert started Four Star Plumbing one of those first services he knew he had to offer was leak detection, but it wasn’t as sophisticated as it is today.

“We didn’t have a lot of leak detection in LA,” Robert says. “There’s a lot of raised foundations out there, or if there was leak detection back in the day, it was done with a stethoscope.”

It was easier with a hot-water leak. Customers would be told to turn the water heater off at night, and then about a half-hour before a technician’s arrival, turn it back on and the plumber would just look for the warm spot and jackhammer the floor for a spot repair.

The days of using a stethoscope are gone now and the company instead uses Goldak equipment, with every truck equipped with a leak detector.

Continued ▶



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▲ Technician Angel Salgado uses a ROTHENBERGER USA crimping tool to begin his repair on a copper pipe, using 1/2-inch copper couplers that are crimped rather than needing to be soldered.

“The leak detector is such an important part of your equipment, but you also have to be trained in leak detection,” Kelli says. “You have to know what to look for, you have to know what the different scenarios are and it’s still a process of elimination. You need to have a crew who knows what they are doing.”

Many of the company’s customers on the leak detection side are homeowner associations where a 2-inch cold water main runs between eight to 12 units.

“Those leak detections are fairly difficult sometimes,” Robert says. “They’re all manifolds, but the units don’t have their own shut-offs. You could have water come up in one unit, but the leak could actually be under the slab two units away.”

That’s where some skill and training come into play.

“Sometimes a leak will even seal itself up and not present itself, so there are different approaches,” Robert says. “Sometimes we have to call a dry-down company

in, have them dry up the area and then we look for the wet spot.”

To help with locating those leaks that are hard to find or sealed up, each truck has a CO2 tank aboard. The technicians will pressurize the line with 100 pounds of CO2, blowing it open to where the leak can be seen.

## SETTING UP THE TRUCKS

If it seems like there is a lot on the Four Star Plumbing trucks, it’s because there is. The company has four trucks — a mix of Ford and Chevy. Robert’s favorite, though, is a Ford that looks like a van cutaway with the van-shaped front and the utility-bed back.

“It’s all 11-foot bed, so the techs can still get access to the utility bed on the back of the truck. You can almost stand up in it,” Robert says. “There are trays on the inside for parts.”

The Chevy Silverados also have a utility bed with a closing back. All of the company’s trucks have been customized with Rhino Lining and LED lighting throughout the vehicles. Most of the trucks have a lift for heavy sewer equipment.

“All of them are set up relatively the same,” Kelli says. “All of our hand tools and parts we access regularly are on the side where the sidewalk is so that our guys

don’t have to go into the street. We try to make everything so that it’s effective for work.”

Each truck is equipped with sewer and drain cleaning equipment from Spartan Tool and General Pipe Cleaners/General Wire Spring, able to work on small 1 1/2- to 6-inch lines. Hand tools used vary from Milwaukee Tool for the cordless tools to DEWALT. While the company does solder its copper fittings, it also has AquaPex press equipment from Uponor, if needed.

“The trucks are really organized, from our material to the tools,” Robert says. “They’re clean because it makes working that much easier. You could probably eat off the floor.”

## ACCOMPLISHING THE MISSION

Kelli and Robert take pride in maintaining their goal of earning a customer’s loyalty for life, but it isn’t an easy thing to do.



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"It's a really big hurdle for anybody in the service business and anybody in construction," Kelli says. "Plumbers get a bad rap. Homeowners already think they don't want to pay for plumbing because it's inconvenient and it should just work. Plumbers are dealing with people who feel like they are getting ripped off or being overcharged."

Four Star Plumbing technicians are transparent and upfront with customers, letting them know what the fees are upfront as accurately as possible and along every step of the project.

"Long gone are the days when you send the plumber into the bathroom and he comes back out three hours later and gives you your price," Robert says. "That's the way it was done back then, but you don't do it that way anymore. People are educated, plumbers are educated, so we have to approach it as such. Our job is to educate our customers because an informed customer is going to be the one that is in control and they're going to be satisfied at the end of the call."

Robert and Kelli have three-, five- and 10-year goals, and with both in their early 50s, it is almost time to start thinking about the future.

"There's a few things we're looking at, whether we do franchising, sell part of the company, retain part of it or acquire another," Kelli says. "This is where we are at in the heart of our conversations right now."

Most important, though, the two don't want to see the company lose what they've built over the years.

"First and foremost, the two things that are most important to us are that we leave a legacy behind for our children and the second is that our employees would benefit from that legacy and they too would have something to pass on to their children," Kelli says.

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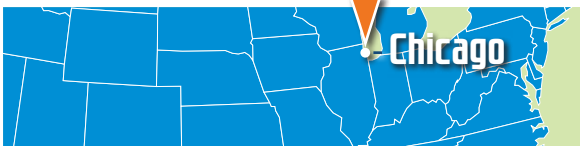
# Locked and Loaded

Electronic deadbolt-lock system gives Chicago plumber a feeling of security *By Ken Wysocky*

**A**fter a thief stole equipment worth a couple thousand dollars from a Ford Econoline service van owned by Jeffrey's Plumbing and Heating Service in Chicago, president and owner Jeffrey Kratowicz figured he'd have to up his game in terms of vehicle security.

The solution? An electronic deadbolt system from Cargolock.

"A guy I hired told me there are internal locks with a cam, like a deadbolt," says Kratowicz, who's been a plumber for almost



<b>COMPANY</b>	Jeffrey's Plumbing and Heating Service, Chicago
<b>OWNER</b>	Jeffrey Kratowicz
<b>DEVICE</b>	Cargolock electronic deadbolt-lock system
<b>FUNCTION</b>	Service-vehicle security
<b>FEATURES</b>	Electroless, nickel-plated steel deadbolt; integrates with existing key fob/locking system; one-year guarantee; fits most vehicles; manual-release function
<b>COST</b>	About \$350 (not including installation)
<b>WEBSITE</b>	<a href="http://www.jeffreysplumbing.com">www.jeffreysplumbing.com</a>
<b>CARGOLOCK WEBSITE</b>	<a href="http://www.cargolock.biz">www.cargolock.biz</a>

▲ Jeffrey Kratowicz, owner of Jeffrey's Plumbing and Heating Service in Chicago, uses the Cargolock electronic deadbolt-lock system on his vans to protect from theft. The electroless, nickel-plated steel deadbolt integrates with existing key fob and locking systems. (Photo courtesy of Jeffrey Kratowicz)

44 years and founded his business in 1982. "I investigated it and immediately realized it was the solution I was looking for.

"Ever since I had the Cargolock system installed about two years ago, I haven't had any more problems with break-ins."

Not that thieves haven't tried since then; the last time, they punched out the cylinders on the van's door locks. That released the doors' locking mechanisms, but the Cargolock deadbolt still held fast. "Unless you unlock it with the 'clicker' (the car's key fob), you simply can't get into the van," he says. "You hit the clicker and it shoots that deadbolt between the two doors and, believe me, they're not coming apart."

“You hit the clicker and it shoots that deadbolt between the two doors and, believe me, they’re not coming apart.”

*Jeffrey Kratowicz*

Since then, Kratowicz has installed plastic blanks, or lock covers, over the van’s standard door locks to deter thieves from punching out the locks.

#### FOR ANY VAN

The Cargolock is hard-wired into a vehicle’s electronic system, which allows users to activate it via their vehicles’ key fobs. It includes a deadbolt lock for both rear and side doors on cargo vans, plus all the required hardware. The company makes locks to fit various brands of vans, including Chevrolet, GMC, Ford (including Transits, both full-size and smaller Connect models), Nissan, Dodge ProMasters and Mercedes-Benz Sprinters.

The deadbolt is made of electroless nickel-plated steel and includes a manual-release function; this allows users to activate the locks even if a vehicle’s electronic system fails (or if a key-fob battery dies). The lock actuator, which activates the deadbolt, comes with a one-year guarantee against failure.

For do-it-yourselfers, the Cargolock system comes with installation instructions. Or contractors can have them installed, which is what Kratowicz did. Installation takes anywhere from a half to a full day and can be performed by car-alarm and car-stereo companies and van outfitters.

The deadbolt system sells for approximately \$350 and Kratowicz says he paid about \$200 to have it installed, for a total expenditure of around \$550. “It easily pays for itself,” he notes.

#### EASE OF USE

The ability to activate the Cargolock with the van’s key fob also is a game-changer for Kratowicz. Why? Because he used to use so-called “hockey puck” exterior locks on the van, which were cumbersome and time-consuming to use. “First of all, you’re dealing with yet

another key,” he explains. “Then it takes 20 seconds or so to unlock it and remove it. Then you take your stuff out of the van; then put the puck back on.

“You do that four or five times a day at three to four minutes a pop and it adds up to hours and hours and hours over the course of a year,” he adds. “Plus, there are times when my mind is somewhere else and I put down the hockey puck and accidentally throw stuff on top of it. Then you waste even more time looking for it.”

Furthermore, the puck locks aren’t foolproof, Kratowicz says, noting that thieves have pried them off his van before — and did significant damage to the vehicle in the process. “They’re a reasonable theft deterrent, but they’re not as good as a deadbolt,” he says.

In addition, the pucks aren’t a good look aesthetically, and they stick out far enough that they can get snagged on things and break off. “One time I was driving in an alley and got too close to a dumpster and it ripped the puck right off my door because it stuck out so far past the body,” he says. “That’s another good reason to get an internal deadbolt system.”


Moreover, the pucks get coated with snow and ice during the brutal Midwest winters. As such, Kratowicz says there are times he’s had to thaw them out with a torch.

“We’re not an easy target anymore.”

*Jeffrey Kratowicz*

#### NOT AN EASY TARGET

As a plumbing contractor in a major city, Kratowicz realizes he’s a prime target for thieves. “The sign on the side of my truck is advertising for thieves,” he says. “It might as well say, ‘Tools inside.’”

But with the Cargolock system, he no longer feels vulnerable. “We’re not an easy target anymore,” he says. “If we buy another truck, we’ll also buy another Cargolock system. Eventually, I plan to outfit other vehicles we own with them. Given that they’re so secure, save time and are much less frustrating to use, it just makes sense.” 



Sue Bingham

# One of Your Workers Is Nothing but Trouble. What's Next?

Replace the drawn-out 'progressive' discipline model with a cleaner, easier approach that respects the employee and your manager while resolving problems *By Sue Bingham*

**I**t's a great irony that the discipline policy preferred by most companies is called "progressive." The word progressive means "making favorable progress or change;" nothing is further from the truth with this type of policy.

A progressive discipline policy is about punishment — not improvement. This senseless and dehumanizing process was created to protect companies from adverse legal rulings, and mostly at the advice of legal counsel. The irony is that a claim or charge can be adjudicated in favor of the employee — not because of what the terminated employee has or hasn't done — but because the company failed to follow the myriad details outlined in its own policies.

Most managers denounce their company's progressive discipline policy as lengthy, overengineered and ineffective. For the bad apple who shouldn't have been hired in the first place, this process takes far too long. And the small minority of abusers use the policy like a playbook and keep ahead of the game by changing the performance issue that is violated. They also know the time required for the last warning to be removed so they can do it again. Here's how it works:

## PLEASE SIGN HERE

Typically, progressive discipline policies are comprised of steps, with each step involving an employee and his/her manager and eventually witnesses. In each step, the communication is routinely one-way and parent-child, ending with the threat: "Failure to improve will result in further disciplinary action up to and including termination."

- Step 1 is a verbal warning. The word "warning" is correct because the discussion ends with a threat. The angry employee then leaves (often after being asked to sign the *written* verbal warning).

- Step 2 is just like the first step but is now called a written warning. Again it ends with a threat (in a more serious tone) and the angry, dispirited or apathetic employee leaves after being asked to sign the warning.
- Step 3 varies among companies. It may be a second written warning or an unpaid suspension from work. The employee is sent home (which seems much like sending a child to his or her room), and the employee and his or her family are being punished because the company is withholding pay.

Some companies even have a Step 4 — a third and final written warning. This is usually a tense and negative interaction between the manager and employee. It exists to create a paper trail that will hold up in an unemployment claim or court of law once the employee is terminated (at this stage, the decision has already been made to fire the employee).

Punishment is not instructive. It cannot teach a new behavior or solve a problem. The improvement or desired

Continued ▶

Assume that the vast majority of employees are good people who want the company to succeed. They are adults who own homes, raise children and serve in their communities. If a problem develops and is brought to their attention, their desire is to solve it.

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behavior will never be permanently learned unless an employee and his or her supervisor work together to solve the problem.

In most traditional companies, equipment is treated better than employees. Using a progressive disciplinary approach is like banging on a machine to make it run better.

### HERE'S A BETTER WAY

Assume that the vast majority of employees are good people who want the company to succeed. They are adults who own homes, raise children and serve in their communities. If a problem develops and is brought to their attention, their desire is to solve it.

A performance coaching approach is based on this assumption. If a problem arises, those involved will want to solve it. This coaching meeting has an agenda the manager partially prepares in advance to be clear and concise about the problem. When prepared, the manager can state the issue, usually in under 15 seconds, and then ask, "What's going on?" This turns the problem-solving conversation immediately over to the employee to discover the cause of the performance issue.

This is not a "step" process. This is an adult conversation, and the ending depends on the employee's response. For example:

- **Cooperative:** If the employee is cooperative (most are), he or she accepts responsibility and offers an action or commitment to address the cause — problem solved! The action or solution is not provided by the manager. The manager helps follow through on the employee's plan.
- **Uncooperative:** The employee may be uncooperative, meaning he or she isn't forthcoming regarding the cause, blames others or simply avoids responding as an adult to the manager's questions. When this happens, the manager reflects what he or she is seeing and hearing. Most people become cooperative at this point. If not, the manager will ask the employee to go home for the rest of the day. Unlike a suspension, this time off is paid because the employee's job that day is to decide

about his or her employment. Is this a job he or she wants? Can he or she meet expectations? If so, the employee is expected to return with a sincere commitment statement or plan of action. If the employee determines the job is not for him or her, the company processes his or her resignation. (A surprising number of people make the decision to change.)


- **Disrespectful:** Occasionally an employee can go beyond uncooperative and become downright disrespectful. There is no room for disrespectful behavior in this process. The manager reflects what he or she is seeing or hearing, and if the employee continues to be disrespectful, the manager ends the meeting. The employee is sent home and informed that the manager will call in the morning to let the employee know if he or she still has a job.

In all three instances, the problem is solved — usually with less than two conversations.

This process does have documentation. When a manager lacks confidence that the improvement will be made, a letter is sent to the employee that documents both sides of the conversation including the employee's plan of action. It is kept in a company file. When the employee's response results in resignation or termination, a report detailing the conversations is submitted.

### AVOID LEGAL ISSUES

With this approach, the legal process is now focused on the employee's response and subsequent actions versus whether the detailed progressive discipline steps were followed by the company.

As competition for good people becomes more intense, companies that treat their employees with respect, and as adults, gain the advantage. Managers are then free to use the leadership, judgment and communication skills for which they're paid. 

*Sue Bingham is founder of HPWP Group, a coach, speaker, and author of [Creating the High Performance Work Place: It's Not Complicated to Develop a Culture of Commitment](#). Reach her at [www.hpwpgroup.com](http://www.hpwpgroup.com).*



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Randy Lorge

## Certiably the Best

They aren't just titles: The certifications represent your education and will help pull in customers looking to hire for work *By Randy Lorge*

**“B**ack in my day,” my dad would say, “you didn’t need all these silly certifications: You just did the work because that’s what plumbers did!”

Cross-connection control, medical gas installation, residential fire sprinkler systems, service plumbing, hydronic heating and cooling systems, health and safety of construction workers, OSHA, brand “X” water heater installations — the list of certifications go on and on.

If my gut instinct serves me right, you probably have one or more of these types of certifications, or one of many others not listed.

### SO WHY GET THEM?

The need for plumbers to become certified for various installations and or processes is essential to the success of the modern-day plumber.

Certifications can open doors you didn’t even know existed. When a customer is looking for a plumbing contractor, the simple addition of “Certified in \_\_\_\_\_” or “\_\_\_\_\_ Certified” following your name or your company’s name makes a very powerful statement about the expertise and commitment you bring to the trade and assures the customer that you are one of the best in your field.

### EFFECTS OF BECOMING CERTIFIED

Certifications can help you earn credibility and respect in your field. I recently had some brake work done on my car. As I entered the mechanic’s shop to set up the appointment, there was a banner hanging there for all to see that stated that all personnel working here were certified. I had no clue what it meant, but internally I automatically felt a sense of confidence that the work I needed done on my car was going to be done by competently trained individuals.

Your potential customer is looking for what sets you apart from the next plumber on the list. The argument

The need for plumbers to become certified for various installations and or processes is essential to the success of the modern-day plumber.

could certainly be made that this decision is based on how much your services are going to cost, but we have to give the customer the benefit of the doubt and realize that they know they are going to get what they pay for in the end.

As the current market of customers seems to be doing less of their own work than customers in the past simply due to, in most cases, lack of time to do it, it doesn’t mean that they will just hire anyone. On the contrary, today’s customers are more informed than ever due to technology. They have information at their fingertips 24/7. They will do their research on your company and find out why they should hire you. Your very own advertisements or website is a perfect place to display these industry certifications. It’s an opportunity to demonstrate your commitment to your profession by going the extra mile to achieve them.

From an individual plumber’s perspective, becoming certified in plumbing-related skills can open more opportunities for advancement within your company and also provide some job security when times get slow. We all know the amount of work in the plumbing industry can fluctuate. When times are slow and employers need to look at laying off employees, those without the certifications are more commonly the first to be let go versus those who have them. Case in point are those with backflow tester certifications.

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Whether times are slow or not, backflow preventers need to be tested on a yearly basis. If you have a testers certification and the next employee doesn't, it makes the employer's decision much easier as to who is let go first.

### AN EVER-CHANGING INDUSTRY

I'm pretty sure that the water heaters my 75-year-old dad worked on during his years as a plumber were a "little" different than today's water heaters.

Just remove the panel on a modulating tankless water heater or take the control panel off a commercial water heater. It won't take long to realize that without some form of extra education or industry certification, you wouldn't be able to troubleshoot the problem, much less make a repair.

The plumbing industry sees this as well and offers certification classes on many products. Water heaters, tools, pumps, CSST gas piping, PEX, copper — almost every facet of our trade has some specialized training available. By attaining these various types of certifications, we as plumbers build confidence in our knowledge of the profession and we can then assure our customers will have confidence in us that we can effectively, and efficiently, repair and/or install the products and services they require.

### DAD'S DEFENSE

I tend not to disagree with my dad very often. He still schools this 51-year-old plumber every time we sit down to talk. So, in his defense, he was partially right when he said that we as plumbers "should" know how to do these now-certified plumbing tasks. By becoming certified, however, we stay up to date on the skills needed to accomplish them.

Every time our industry changes or learns something new, the public can rest assured that the *certified plumber* they hire is ready to help them.

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**Master Plumber – Randy R. Lorge**

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*Randy Lorge is a third-generation plumber and plumbing instructor and trainer for the Plumbers Union, Local 400 out of Kaukauna, Wisconsin. Lorge was a coach for Team USA in 2015 in Nashik, India; 2016 in Diepsloot, South Africa; and in 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. To contact Lorge, email editor@plumbermag.com.*

# Going Through the Paperwork

Looking at all the paperwork that could be required when opening a new business can be overwhelming, but necessary *By Joan Koehne*

**P**lumbers don't just wake up one day and say, "Surprise! I'm open." Before they hang up their shingle, they need to attend to a host of details. These details include the state and federal legal documents that establish the company's identity, organizational structure and taxation.

Attorney Devin Shanley, principal of Shanley Law in Green Bay, Wisconsin, recommended a two-step approach to making legal decisions for a new business. On day one, you determine how to get into business and address problems you may encounter as a business owner. On day two, you decide how to get out of business and create a way to ease the transition.

"This goes beyond the documents and into a legal strategy," Shanley says. "This is where a lawyer is going to be more than a document vending machine and a little bit more of a planning guide."

It's inadvisable to skip the legal paperwork because it puts you in a vulnerable position. You'll be operating as a sole proprietorship without the protections of the law. "It's the most classic form of business. You just go out there and do it," Shanley says.

This arrangement is problematic on a number of levels. Liability is one concern. If you're taken to court, you face the potential of losing not just your business, but your personal property and assets, too.

"There's zero protection," Shanley says. "You're totally exposed,"

## LIMITED LIABILITY COMPANY

A limited liability company provides better protection for owners. An LLC establishes a business as a legal entity. With an LLC, business and personal finances are separated, and personal finances are protected from lawsuits, business debts and losses. An LLC can be created for a sole proprietorship, a partnership or a corporation.

“A lawyer's job is to think through terrible situations all day. We naturally assume the worst thing is going to happen, and we try to steer you so it doesn't.”  
*Devin Shanley*



▲ Devin Shanley, principal of Shanley Law, based in Green Bay, Wisconsin

"In Wisconsin, it's stupid-easy to form an LLC," Shanley says. "The Department of Financial Institutions literally puts the form as a fill-in-the-blank on its website. Individuals enter their information and pay a fee.

"Suddenly, you're an LLC. Isn't that grand?" Shanley adds. Yet there's more to consider.

The articles of organization used to form an LLC require the name of the organizer (essentially, the person filling out the form) and the registered agent (the person who accepts the official correspondence and is publicly associated with the company). Filling in these blanks may be as simple or sophisticated as an owner wishes, handled with or without an attorney.

## LIMITED LIABILITY PARTNERSHIP

If two or more owners decide to form a partnership, an LLC or a limited liability partnership is recommended. The LLP is like the LLC, but it is specifically designed for partnerships. In addition to their LLC or LLP agreement, partners should negotiate an operating agreement.

This agreement sets guidelines for how the business will operate.

“It’s going to say how people vote, how decisions are made, who’s in control, who represents the business and how to sell,” Shanley says.

Incorporation requirements vary by state, and business owners should check with a local attorney or their secretary of state to see what other documents are necessary. On the federal level, the IRS issues employment identification numbers to new businesses. Small-business owners quickly learn that obtaining an EIN is a necessity.

“Most independent business owners are going to hit this wall when they go to open a bank account,” Shanley says. Visit the IRS portal at [www.irs.gov](http://www.irs.gov) to apply for free.

## SETTING UP CORPORATIONS

While some plumbers operate as sole proprietorships or partnerships, others form corporations instead. Corporations require their own set of documents.

“Instead of forming articles of organization, you file articles of incorporation,” Shanley says. “Instead of an operating agreement, you’re going to set up bylaws. Instead of setting up ownership interest, you are going to be selling stock.”

Consulting with an accountant can help you determine which type of organizational structure makes sense for your business based on tax implications and state requirements. For instance, some states require an annual meeting.

## OTHER DOCUMENTS

Plumbers also need specific licenses and certifications, which vary depending on the municipality and state. Government officials and seasoned plumbers can help you determine what licenses are necessary in your region.

Solo plumbers, as the lone service provider in a company, face different decisions than partnerships or corporations.

“If you take that person out of the business, what is left? The owner needs to take a look at this,” Shanley says. Powers of attorney documents or a trust can provide a backup plan if something happens to the owner unexpectedly.

“Make sure you have documents that say someone can walk in and run the business if something happens to you,” Shanley says. “Partners will generally be able to figure something out, mostly because another partner or partners still have the power to run the business. But what is the

plan for a solo owner who has no one else?”

Once you hire employees, a new set of legalities surface. You’ll want to set up a payroll system to withhold taxes, obtain workers’ compensation insurance, post the required notices and abide by other state labor laws.

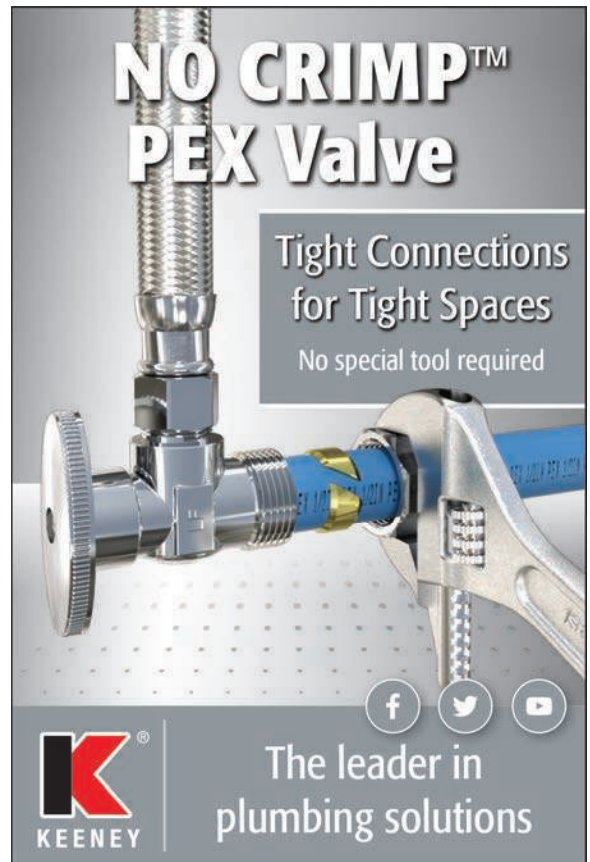
Working with business consultant, attorney or accountant can help you form the foundation necessary for a successful business.

“A lawyer’s job is to think through terrible situations all day,” Shanley says. “We naturally assume the worst thing is going to happen, and we try to steer you so it doesn’t.”



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# Inspection, Location and Leak Detection

By Craig Mandli

## Drainline TV Inspection Cameras

### CPI Products Universal Roller Skids

Universal Roller Skids from CPI Products fit most push cameras and are designed to improve performance and protection in pipes from 3 to 16 inches in diameter. According to the manufacturer, using a plastic roller skid can protect a push camera from debris inside pipes and keep the lens from impacting pipe walls. A properly sized and fitted roller skid also keeps the camera centered for an improved image. 413-443-0925; [www.cplasprouducts.com](http://www.cplasprouducts.com).



### Cua Claws crawler wheels

Crawler wheels from Cua Claws can help improve footage in wet slippery PVC or another plastic pipe. The wheels have tungsten carbide furnace brazed to the wheel. An extended range of modes is available that can be retrofitted to the customer's crawler. The company also offers a service to apply its carbide to crawler wheels. Some wheels are stainless and cannot be processed so Cua Claws has a line of replacement wheels of exact fit in mild steel so the grit can be applied. This way the customer can harvest the savings to re-grit instead of replacing the wheels when necessary. 714-697-8697; [www.cuaclaws.com](http://www.cuaclaws.com).



### CUES MPlus+ XL

The CUES MPlus+ XL push system is designed for easy operation with an all-in-one setup and flexibility by quick removal of the control unit to be used separately. It includes a coiler configuration and pan-and-tilt camera for mainline and larger pipeline applications up to 500 feet. It integrates video observation coding, observation coding interface and digital recording.



The lightweight system includes large, durable wheels for portability and a balanced footprint for stability. It is manufactured to handle rigorous field use. 800-327-7791; [www.cuesinc.com](http://www.cuesinc.com).

### Electric Eel Ecam Pro 2

The Ecam Pro 2 mainline pipeline inspection camera system from Electric Eel has a stainless steel-housed, 1.68-inch self-leveling color camera with sapphire lens; 20-LED light ring with an impact-resistant polycarbonate light ring cover; and high-resolution CCD element. The auto-iris adjusts light automatically. A flexible camera spring navigates 3-inch P-traps. The unit comes standard with 200 feet of braided fiberglass premium 1/2-inch-diameter pushrod (with a capacity of 400 feet available on the reel), industry-standard 512 Hz sonde, 10.4-inch daylight-readable monitor with click-touch controls, and one-touch recording directly to a USB flash drive. It has an on-screen footage counter, a two-hour battery with built-in charger, adjustable light controls, 16 pages of text writing with memory saves, voiceover recording, an 8x zoom function, audio/video out jacks, 8-inch wheels for easy maneuverability, a secure-locking reel brake, and rugged powder-coated steel tube and bar construction. 800-833-1212; [www.electriceel.com](http://www.electriceel.com).



### Envirosight VeriSight Pro

The VeriSight Pro from Envirosight has a stainless self-leveling camera with shadowless, variable LED illumination to capture crisp video footage regardless of pipe material, according to the manufacturer. With supplied centering devices, it inspects lines 2 to 9 inches and snakes through multiple bends for maximum range. An integral tri-band sonde (33 kHz, 512 Hz, 640 Hz) works with almost any locator. Its welded steel coiler comes with 130, 200 or 330 feet of pushrod. The system runs continuously for six hours off internal rechargeable lithium-ion batteries





or off main or vehicle power. Its multilanguage controller displays footage on an 8-inch thin-film-transistor LCD and captures up to 90 hours of MPEG-4 video on an SD/SDHC card or USB stick. It has 3x zoom, captures images in JPEG format from both live and recorded video, and offers a 16-page text writer with full QWERTY keyboard. **866-936-8476; www.envirosight.com.**

### Forbest Products FB215

The **FB215** crawler inspection camera from **Forbest Products** is suitable for 6- to 16-inch pipe and comes with a waterproof crawler with three types of wheels on the six-wheel-drive system and double motors that can turn left or right with the creeping speed of 20 to 66 feet per minute. The waterproof, pan-and-tilt, high-resolution color camera head's focus can be adjusted with the high-brightness LED lights. It carries 500 feet of cable and includes a meter counter and universal wheels with braking function. The heavy-duty, waterproof control box includes a 10-inch LCD color screen with USB and built-in SD card to record photos and videos. Typing and editing is available. **877-369-1199; www.forbestusa.net.**



### General Pipe Cleaners/General Wire Spring Gen-Eye X-POD

The **Gen-Eye X-POD** from **General Pipe Cleaners/General Wire Spring** offers a command module with a USB port to record on a flash drive. The lightweight unit combines camera, reel and monitor into a compact package. It comes with a 7-inch LCD color monitor, one-touch recording, digital zoom, voice-over recording, date and time stamp, and a flash drive capacity indicator. It includes a 3-foot probe rod with color camera for inspecting hard-to-reach places. The full-size unit includes a self-leveling color camera and 200 feet of Gel-Rod for inspecting 3- to 10-inch drainlines. The compact Mini-Reel carries 100 or 200 feet of Gel-Rod with mini color self-leveling camera for troubleshooting 2- and 3-inch lines. The rugged steel frames and reels include a drag brake and reel lock. The full-size reel has 10-inch wheels. **800-245-6200; www.drainbrain.com.**



### Hathorn Magnum M7

The **Magnum M7** from **Hathorn** is packed with multiple features and is extremely lightweight at only 29 pounds. The unit can easily be carried down a flight of stairs or rolled on its 6-inch wheels. The 7.4-inch monitor delivers a clear, bright picture and is covered by an acrylic shield for durability. It offers USB recording, two-hour lithium battery, on-screen footage counter, 512 Hz sonde transmitter, adjustable lighting and text writer. A Wi-Fi transmitter can be added for recording to a mobile device. It comes with a variety of pushrod lengths and camera sizes to fit every job type. **905-604-7040; www.hathorncorp.com.**



### MyTana Mfg. MS11-NG2

The **MS11-NG2** midsize inspection system from **MyTana Mfg.** has USB for recording and storage. The system is suitable for inspecting 3- to 6-inch lines with the choice of 150 or 200 feet of pushrod. The unit has a 64 GB internal drive as well as two USB ports and a 32 GB removable USB drive. The one-piece design is lightweight with a carrying handle. The color camera head is self-leveling with a built-in 512 Hz transmitter for locating trouble spots, even in cast iron pipes. **800-328-8170; www.mytana.com.**



### Pearpoint/SPX P342

The **Pearpoint/SPX P342** with the Plumbers add-on is a combination of convenience and performance, offering users one system for confined work areas and ease of use in congested work sites. This equipment requires just one universal command module to operate and offers an option of a 1- or 2-inch camera. The 2-inch camera is self-leveling, keeping the video picture upright when navigating pipes. **800-688-8094; www.pearpoint.com.**



## Perma-Liner Industries drain/pipe inspection camera system

Perma-Liner Industries offers a drain/pipe inspection camera system with either a 130-, 165- or 197-foot cable length option and a diameter of 1/4 inch on each cable. The 7-inch monitor offers LCD color with universal installation brackets, a push record button, SD card slot and rechargeable battery that lasts up to five hours per charge. The camera head is made of 304 stainless steel, measures 1 1/2 by 3 1/4 inches, and features a view angle of 120 feet, focal distance of 5 to 47 inches, 1/3-inch Sony CCD, 480 TV lines sensor and self-leveling feature. The camera head is waterproof up to a maximum of 65 1/2 feet underwater. The inspection camera boasts two roller skids: a mini one with a diameter of 2 3/4 inches and another universal skid with a diameter of 4 3/4 to 6 inches. The camera system is a lightweight design at approximately 25 1/2 pounds. **866-336-2568; www.perma-liner.com.**



and the removable batteries run for four hours. Its RID steering skid enables it to push into 45-degree Y and 90-degree T branches in the pipe. The 8.4-inch, sunlight-readable monitor enables recording video, voice and photos directly to an SD card. This system is designed as a capable stand-alone inspection system, including a text generator for detailed reporting capabilities and an on-screen distance counter. Applications range from 3- to 20-inch pipe diameters with all centering accessories. **717-709-1005; www.rauschusa.com.**

## RIDGID SeeSnake CS12x digital recording monitor

The RIDGID SeeSnake CS12x digital recording monitor has a large screen for easy viewing, dual battery functionality for maximum runtime and Wi-Fi connectivity for simple footage sharing. This latest generation digital recording monitor streams and records inspections to any iOS or Android mobile or tablet device with the free HQx Live companion app. The app can be downloaded through the iOS App Store and Google Play for immediate sharing of inspection footage. Images can also be saved to a USB drive for simple postinspection transfer to clients and team members. In addition, it features a more powerful processor for quick startup and enhanced performance and a 12.1-inch, high-contrast display provides crisp, clear images for easy viewing of footage in daylight. **800-769-7743; www.ridgid.com.**



## Ratech Electronics Elite SD/USB Wi-Fi

The Elite SD/USB Wi-Fi pipeline inspection camera system from Ratech Electronics records pipe inspections wirelessly to an iOS or Android device and takes live video and digital still photos that can immediately be uploaded to YouTube. A smartphone app allows video to be streamed wirelessly. The Wi-Fi interface is available on any current Ratech Electronics product or existing Ratech Electronics systems in the field and is available with a sun-readable, 10-inch LCD monitor and either a self-leveling camera, small ultramicro camera or pan-and-tilt push camera. A built-in battery is optional. Users can also record to a USB stick or SD card if Wi-Fi isn't required. Systems come in cable lengths from 100 to 400 feet. **800-461-9200; www.ratech-electronics.com.**

## RauschUSA minCam360

The 2-inch minCam360 remote-controlled, pan-and-tilt push camera from RauschUSA has digital zoom and a tri-band sonde with selectable frequencies. The Bluetooth remote includes a joystick for camera control. The cable reel is equipped with 200 feet of cable (with up to 300 feet available),



## Spartan Tool TrapJumper

The TrapJumper from Spartan Tool is a lightweight pushrod camera designed to provide both the flexibility to navigate tight trap-bends and the strength to be pushed up to 130 feet. The beacon is built into the camera, not the spring, so that it doesn't hinder flexibility and is protected from potential damage. With a self-leveling camera and LED light ring with a 41-lumen output, the camera with Explorer control box lets its user easily show the customer exactly what ails their plumbing system. **800-435-3866; www.spartantool.com.**

## Trojan Worldwide C100-512SL

The **C100-512SL** self-leveling color camera system from **Trojan Worldwide** is a lightweight, easy-to-operate system designed for 1 1/2- to 4-inch lines. It has a 1-inch, self-leveling waterproof color camera head with adjustable LED lights. The 512 Hz sonde transmitter is built into the spring of the camera, which allows more flexibility when maneuvering around sharp turns, and also creates a stronger signal for locating. The system has a 115-foot durable pushrod and a built-in footage counter. The display screen is a 7-inch LCD with DVR, with SD card recording and a built-in microphone for voice recording. The built-in battery offers seven hours of runtime and has an AC adapter for charging or direct power. Also included is the SD card, USB adapter for the SD card, protective visor, two skids and a waterproof case for the entire system to fit in for easy transportation. **800-392-4902; www.trojanworldwide.com.**



## Wohler USA VIS 700

The **VIS 700** high-definition inspection system from **Wohler USA** provides flexible features needed for a variety of inspection applications. It offers razor-sharp, high-definition images; zoom; a focus function via joystick for precise inspection; and the ability to stream live images and video via wireless LAN. It comes with a removable touch-screen monitor with adjustable handgrip; automatic screen rotation; on-screen keyboard for notes; a voice-over recording option; an easy-to-clean, removable pushrod; and variable pan-and-tilt speed via joystick. **978-750-9876; www.wohlerusa.com.**



## Zistos Industrial Zoom Inspection System

The **Zistos Industrial Zoom Inspection System** is battery-operated and equipped with a true 10x optical zoom camera, mounted on a hand-held articulating pole that can be immersed in water. The user views the image on a body-worn or tripod-mounted 5.6-inch daylight viewable LCD. A thermal camera option is available. The system increases the safety



and efficiency while reducing costs of many inspection applications. It allows the operator to inspect vessels large and small, vaults, tanks and other difficult or unsafe areas to inspect, without breaching the confined-space boundary. The use of this approach benefits the inspection operation and helps ensure the safety and well-being of employees. **631-434-1370; www.zistos.com.**

## Dye

### BRIGHT DYES - Division of Kingscote Chemicals inspection dye

Concentrated leak inspection dyes from **BRIGHT DYES - Division of Kingscote Chemicals** dissolve rapidly in water and provide a vivid fluorescent color detectable in murky water, sewage or effluent. They can be used to validate sanitary and septic hookups; identify leaks, infiltration and exfiltration in plumbing connections; and perform septic inspections to identify leachfield issues, as well as sources of contamination in wells. They are safe, nontoxic, biodegradable and certified by NSF International to NSF/ANSI Standard 60 for use in and around drinking water. They are available in fluorescent yellow/green, red and orange, and nonfluorescent blue. They come in tablet, liquid or powder form. **800-394-0678; www.brightdyes.com.**



## Electronic Leak Detection

### Bacharach USA H-10 PRO

The **H-10 PRO** from **Bacharach USA** is a highly responsive universal refrigerant leak detector that uses heated diode sensor technology. It is ultrasensitive to all halogen-based, nonflammable CFC, HFC and HCFC refrigerants for reliable use in a wide range of refrigerant leak detection applications. It can detect refrigerants as low as 0.006 ounces per year, including R-410A and R-507, and comes equipped with dual power options for either battery operation for wall power for uninterrupted usage. Visual and audible indicators include an incremental flashing LED in the probe tip, an internal speaker and a headphone jack.



It has a 4.5-foot probe for detecting leaks in hard-to-reach areas, visual and audible indicators to show relative leak sizes and an auto-zeroing feature (automatic mode only) for finding leaks in backgrounds where target gas is present. It has an internal sensor calibration reference to ensure optimum performance. **800-736-4666; www.mybacharach.com.**

### FloLogic 2-Inch System

The **FloLogic 2-Inch Systems** can be used to help protect large residential estates and a wide range of commercial properties. The full-port system provides a flow capacity exceeding 200 gpm and offers the same leak-sensing abilities of the 1- and 1.5-inch systems, which provide constant and comprehensive detection of leaks of virtually any size. The EverWatch flow-sensing technology catches leaks as small as a half-ounce per minute in real time anywhere in a plumbing supply and automatically shuts off the supply to prevent damage and waste. All systems are available with the FloLogic CONNECT platform, which enables app-based alerts and system control from a smartphone or tablet device. **877-356-5644; www.flologic.com.**



### GROHE Sense Guard

The **GROHE Sense Guard** water management system offers reliable protection against costly water damage by notifying homeowners about excess moisture or leaks using a convenient smartphone app. It uses multiple sensors to track water pressure and the flow of water and to measure general water consumption. It automatically turns off the water supply when it exceeds a specific maximum set by the user. Installed by a professional installer directly to the main water pipe of a home, the smart water controller measures the system temperature to indicate the risk of frost, detects leaks, and shuts off the water supply automatically when a pipe bursts and water consumption passes a certain threshold. It also conducts periodic micro leakage tests by measuring and tracking pressure drops in the waterline so that the homeowner can detect leaks — through a notification via the GROHE ONDUS smartphone app — immediately before major damage can occur. **800-444-7643; www.grohe.us.**



### Hermann Sewerin GmbH AQUAPHON A 150

The **AQUAPHON A 150** from **Hermann Sewerin GmbH** allows professional pre-location and the precise pinpointing of leaks. The receiver has a compact design and maximum carrying comfort. Connected to high-end microphones and wireless headphones, it can help produce brilliant reproduction quality. In addition, noises are visualized on the display so they can be reliably and uniquely evaluated. Thanks to adjustable filters and automatic frequency scanning, frequency ranges can be individually adapted to the user's hearing. Influences from sound interference are minimized, and the sound quality is optimized for reliable evaluation of the leak situation. **888-592-9916; www.sewerin.com.**



## Electronic Pipe Location

### Schonstedt Instrument Rex

The **Rex** (Receiver + Xmitter) multifrequency locator from **Schonstedt Instrument** is less than 2 inches thick and weighs less than 3 pounds. The pistol-grip receiver extends for greater sensitivity and retracts for easier carrying and storage. At slightly over 7 pounds, the entire system fits easily into a custom shoulder bag. The Multi-Purpose Combo Kit (MPC-Rex) includes a GA-92XTd magnetic locator and a Rex multifrequency pipe and cable locator. **800-999-8280; www.schonstedt.com.**



### Vivax-Metrotech vScan M

The **vScan M** utility avoidance tool from **Vivax-Metrotech** helps contractors prevent damage to buried utilities. It allows the excavating operator to check an area for buried utilities before digging. It is simple to operate, requiring minimal training while being reliable and rugged for site use. An optional integrated manhole detector allows even these hazards to be detected. **800-446-3392; www.vivax-metrotech.com.**





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The 5E Electric Smoker from Superior Signal offers a cost-effective solution to find difficult leaks and odors in residential and commercial plumbing systems. Connect the blower to any plumbing clean-out or vent, with the appropriate size smoke candle to force smoke through faults and cracks, easily identifying sources of odor and hard-to-find leaks. Smoke candles produce a highly visible, nontoxic smoke and are completely biodegradable. They are manufactured with zero-waste stream and include labels printed with vegetable-based ink on recycled paper as well as biodegradable, recycled paperboard tubes. The unit does not generate any harmful exhaust gases and handles all residential and commercial smoke testing applications. Smoke tests take just minutes to perform and see immediate results. The unit comes with an 8-foot industrial-grade flex hose, weighs just 8 pounds and requires no maintenance. 800-945-8378; [www.superiorsignal.com](http://www.superiorsignal.com). 



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## Inspection, Location and Leak Detection

By Craig Mandli

Mic system used to locate leak in high-traffic area



**Problem:** A plumbing contractor in Calabasas, California, was dealing with a situation where a pipe broke under a high-traffic area. According to the contractor, when working in high-traffic areas, there is only so much noise that can be filtered out when performing leak detections. The break was in a water main that ran between two buildings, but because of the high traffic, they weren't able to pick up the sound of the leak with traditional testing and deck plate listening methods.

**Solution:** The contractor used the FLASH from LeakTronics Leak Detection Equipment. They inserted the FLASH mic all the way into the pipe, put the pipe under slight pressure and pulled back on the mic until they got right over the leak. When they isolated the location of the leak listening with the mic, the contractor plugged in the 512 Hz FLASH sender, distributing a pulse signal from the FLASH head. With the receiver, they located the signal coming from the FLASH head underground and marked the exact location of the leak under the parking lot. The unit works well in high-traffic areas because the mic is literally listening underground. It's always quieter when working subsurface than when working directly on the surface, and the accuracy of the FLASH identifies leak noise precisely and transmits its location from depths up to 6 feet.

**Result:** After the leak was located, the pipe was repaired without incident. 818-436-2953; [www.leaktronics.com](http://www.leaktronics.com).



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## Product Spotlight

### A solution for accurate pressure testing

By Craig Mandli

**D**espite the high risk associated with failure of a plumbing regulatory test, the methods and equipment used for that testing remain somewhat antiquated. Typical methods rely on analog gauges for pressure measurement and human operators to conduct the test and interpret the results correctly. There are no tangible records beyond the required signoff of a permit line item, which means the liability burden falls on the plumbing contractor in the event of a plumbing failure.

To answer that issue, Presscision's PPT product is a portable, digital test instrument that provides automated pressure and temperature testing for a multitude of industries, including plumbing, HVAC, gas utilities, fire suppression, medical gas and marine. It was designed to support regulatory testing of pressure, particularly tests that carry a high risk in the event of failure, such as fuel gas testing.

"The instrument's automation imposes minimum requirements on the test pressure and test duration that are unique to each of the regulatory tests supported," says Edwin Slate, founder and CEO of Presscision.

The instrument is a modular system for the automated testing of pressure and temperature. It combines accurate, certified sensors with modern computer technology to



provide reliable, automated and fully documented testing of plumbing installations. All tests generate a comprehensive test record that is stored in permanent, tamper-proof memory. Test reports are automatically generated for each test and can be printed using the built-in thermal printer. The instrument is easy to set up and operate thanks to the integrated color touch-

screen display and intuitive, menu-driven user interface. The instrument is comprised of a universal base unit and measurement-specific sensor pods. Sensor pods are available for pressure measurement to support regulatory testing of natural gas and propane installations, water supply lines, drain waste vents, fire suppression systems, med gas installations and radiant heating/cooling systems. Sensor pods are also available for water temperature measurement to support plumbing fixture hot-water temperature testing and documentation. While the product is relatively new to the market, Slates says that feedback has been promising.

"Comments are mainly focused on the ease and speed at which the instrument allows regulatory pressure tests to be conducted, as well as the bulletproof data trail that is created with each test," he says. "Several customers have remarked, 'It makes pressure testing a crystal-clear process.'" 774-521-9132; [www.presscision.com](http://www.presscision.com).

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## MyTana Mfg. M745 Workhorse drain machine

The M745 Workhorse drain machine from MyTana Mfg. can adjust cable speed on the fly for maximum performance, and it features two torque settings for safety. The M745 incorporates SmartDrive technology, so cable speed can be throttled up to 300 rpm to negotiate turns, strengthen cleaning force, and expedite feeds and retrievals. Or, speed can be reduced to as low as 100 rpm for tackling obstructions and debris. SmartDrive sounds an alarm when cable torque approaches unsafe limits and then automatically cuts power when that limit is reached. The machine comes equipped to work in 3- to 4-inch lines with 100 feet of cable, slip-joint fittings, auto-feed, blades and accessories. A sink line kit is available to address 1 1/2- to 2-inch lines, and no tools are needed to swap reels due to the quick-release design of the drive system. **866-327-7176; www.mytana.com.**



## Reelcraft Industries' Series LG cord reels

Reelcraft Industries' light-weight and compact Series LG cord reels are constructed from a durable, impact-resistant composite material. Three models have been added to the medium-duty line of cord reels with two new cord endings. The power cord reel option features circuit breaker-protected, quad-grounded NEMA5-15 outlets with an LED power-on indicator light. The quad outlet reel is available with 65 feet of 12/3 cord or 75 feet of 14/3 cord. The light cord reel option features a 1,300-lumen LED light with bright COB illumination, a grounded 12-amp outlet and an on/off switch on the handle. The LED reel model is supplied with 50 feet of 14/3 cord. All three Series LG models are ETL listed. **800-444-3134; www.reelcraft.com.**



## Milwaukee Tool M18 Brushless Threaded Rod Cutter

The M18 Brushless Threaded Rod Cutter from Milwaukee Tool delivers clean, burr-free cuts for threading nuts on by hand. It also has the power to cut through 1/4-, 3/8- and 1/2-inch mild steel or 1/4- and 3/8-inch stainless steel threaded rod in seconds. It offers 1 1/2-inch built-in trim length and one-handed center grip for making uniform,

controlled overhead cuts. Not only is the tool optimized for overhead cutting, but it can also be laid flat on its back for prefab cutting. A brushless motor and an M18 REDLITHIUM 2.0Ah battery deliver over 400 nut-ready cuts per charge, reducing the need to file the threaded rod before applying the nut. The die includes three different cutting sizes, which can be changed by rotating the dies. **800-729-3878; www.milwaukeetool.com.**



## GROHE Atrio bath faucet collection

The updated Atrio bath faucet collection from GROHE features a slimmer, more streamlined shape for homeowners who crave a more simplistic look and feel. Providing design flexibility, the faucet collection offers a choice of cross or lever handles, a variety of configurations and a complete selection of accessories. The collection is available in StarLight Chrome and Brushed Nickel Infinity Finish. The Environmental Protection Agency WaterSense-certified lavatory faucets in this collection feature a water-efficient flow rate of 1.2 gpm and are compliant with California Energy Commission regulations. **800-444-7643; www.grohe.com.**

## NIBCO press-connect wrot copper fittings

NIBCO has filled out its line of press-connect wrot copper fittings with the addition of 10 new fittings in a variety of configurations. The PC611 press tee line additions comprise nine new configurations, including 1 1/4 by 1 by 1/2 inch, 1 1/4 by 3/4 by 1 1/4 inch, 1 1/4 by 3/4 by 1 inch, 1 1/4 by 3/4 by 3/4 inch, 1 1/4 by 3/4 by 1/2 inch, 1 1/4 by 1/2 by 1 1/4 inch, 1 1/2 by 1 1/4 by 3/4 inch, 2 by 1 1/2 by 2 inch, and 1 by 1/2 by 3/4 inch. NIBCO has also added the PC612, a 3/4-inch press-by press-by female-thread fitting in wrot copper, suitable for potable water, hot or chilled HVAC, and process applications. The fittings may be installed underground. The NIBCO leak detection system identifies uncrimped connections during system testing. When properly crimped, a unique "N" witness mark is clearly visible. The NIBCO Press System includes a complete line of fittings, valves, accessories and pressing tools. **574-295-3000; www.nibco.com.**



**Taco Comfort Solutions SmartPlus-e ECM hot-water recirculation system**



SmartPlus-e is a high-efficiency domestic hot-water recirculation system from Taco Comfort Solutions. It's ideal for application with a dedicated hot-water return line and tank-style water heater. It pairs a 006e3 ECM hot-water circulator with the intelligence of Taco's SmartPlug Instant Hot Water Control in one easily installed package. The SmartPlug learns hot-water usage patterns and delivers hot water when it's needed, reducing energy use and extending the life of the water heater. The hot-water circulator is designed to make installation and operation of domestic hot-water recirculation systems easier and more efficient. It has a dial to select from three performance curves to best match the application and a setting selection guide to make the choice simple. 401-942-8000; [www.tacomfortsolutions.com](http://www.tacomfortsolutions.com).



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## Perma-Liner Industries celebrates 20 years of manufacturing

Perma-Liner Industries is celebrating 20 years of manufacturing in the trenchless pipeline rehabilitation industry. Founded in 1999 by Jerry D’Hulster, the company was the first relining company to achieve NSF approval, which allowed for cured-in-place pipe to be used for plumbing code approvals. The business was acquired in 2013 by Triwater Holdings, a Chicago-based water company, and is now a Triwater’s Waterline Renewal Technologies division, which also includes the brands LMK Technologies and AP/M Permaform.

## Envirosight signs Jet Vac Equipment as sales partner

Envirosight announced it has partnered with Jet Vac Equipment to provide more extensive sales and service coverage across New Jersey and Delaware. Jet Vac Equipment will work in conjunction with Bruce Kosensky, longtime Envirosight New Jersey direct sales manager, to maintain continuity with existing accounts and develop new ones.

“We’ve watched what Envirosight has been able to accomplish here in New Jersey and in the broader sewer inspection market,” says Adam Emusov, vice president of sales at Jet Vac Equipment. “We’re excited to join the team and to be part of the next chapter of growth.”

## Brasscraft announces 2018 Zell award recipient

Brasscraft announced it has awarded the 2018 Robert M. Zell Award to Sarah Jones, manager of claims administration. She works at the company’s headquarters in Novi, Michigan. The Zell award was created 28 years ago in honor of the company founder, Robert M. Zell, to recognize employees who epitomize and embrace Zell’s vision — to deliver the highest quality and innovative products to customers.



▲ Sarah Jones

## Pipe Lining Supply offers Quik-Shot system exchange program

Pipe Lining Supply’s Quik-Shot lateral lining inversion unit now features an improved nozzle design that allows the CIPP lateral lining material to flow through with ease, using the venturi process. With the new design, Pipe Lining Supply now offers a retrofit exchange program to rework any nozzles from existing customers.

## Watts announces new managers, director

Mark Parent joined Watts as business development manager, HVAC - East. He will be responsible for the sales of Watts Radiant and tekmar products in the Eastern U.S., working closely with manufacturers’ rep firms, wholesalers, engineers and contractors. Parent was formerly director of business development - new markets for Viega, where for 17 years he held many positions. Previously, he was also product manager-OEM for Watts.



Mark Parent

Gary Parker was named business development manager, drains - East. In this role, he will be responsible for selling Watts’ drainage products and solutions in the Eastern U.S. Previously, Parker served in similar roles at Clean Energy Fuels, SteelMaster Buildings and Ferguson Enterprises. He has a bachelor’s degree in resource management from Virginia Tech and an MBA from Averett University.



Gary Parker

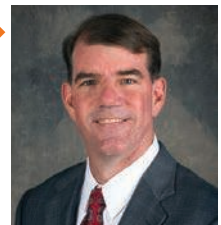
Greg Brandon has been promoted to sales director - West. In his new role, Brandon, who joined Watts in 2016, will help to develop and execute the sales strategy for Watts’ portfolio throughout the Northwest, Southwest and South Central U.S. sales regions.



Greg Brandon

## Frank Windsor named president of Rinnai America

Rinnai America announced that Frank Windsor has been promoted to president of the Peachtree City, Georgia-based company. Windsor joined the company as general manager in 2014 and was later promoted to chief operating officer in 2016. During his time with Rinnai America, Windsor has led major strategic initiatives including the start of the organization’s North American manufacturing facility in Griffin. He has also supported the organization’s vision for future growth by leading the expansion of the company’s Peachtree City headquarters, which opened in September 2018.



Frank Windsor

## FieldEdge announces partnership with Atlanta Unicorn GreenSky Financial

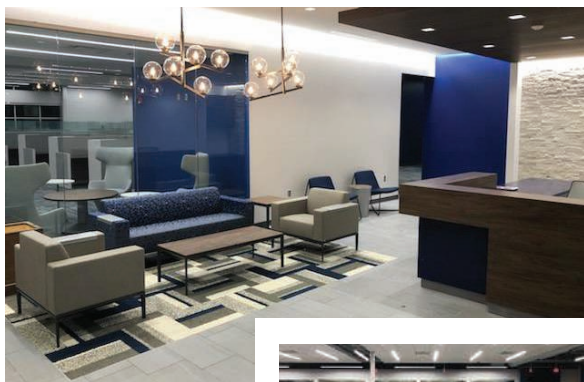
FieldEdge (formerly dESCO) announced its newest integration partnership with GreenSky, a leading financial lending company. FieldEdge is partnering with GreenSky so it can fully implement timesaving, paperless and user-friendly financing solutions to expedite the process and better serve the financial needs of customers.

## Saniflo appoints Serrano as business development manager

Saniflo - part of SFA Group, appointed Lupe Serrano to the newly created position of business development manager for California. Based in Santa Ana, he will report to Chris Peterson, western regional sales manager. In his new role, Serrano will work with Saniflo wholesaler-distributors and plumbing contractors to increase sales through plumber product trainings to help the trade better understand the various pumping solutions Saniflo offers.




Lupe Serrano



## SJE-Rhombus opens new facility in Ohio

SJE-Rhombus opened a new 51,000-square-foot facility in Ashland, Ohio.

About 67 employees work at the new modern-looking facility, which was designed with both time and energy efficiency in mind. It replaces the company's older, multi-level building. 



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**American Water Works Association (AWWA) Annual Conference & Exposition (ACE),**  
Colorado Convention Center, Denver. Visit [events.awwa.org](http://events.awwa.org)

June 9-12

**Safety 2019 Professional Development Conference & Exposition,** Ernest N. Morial Convention Center, New Orleans. Visit [www.safety.assp.org](http://www.safety.assp.org)

Sept. 11-13

**World Plumbing Conference,**  
Melbourne Convention Centre, South Wharf, Australia.  
Visit [www.worldplumbingconference.com](http://www.worldplumbingconference.com)

Oct. 2-4

**Plumbing Heating Cooling Contractors Connect 2019,**  
The Westin Indianapolis, Indianapolis.  
Visit [www.phccweb.org](http://www.phccweb.org)

Oct. 16-18

**Service World Expo, Paris Las Vegas Hotel & Casino,**  
Las Vegas. Visit [www.serviceworldexpo.com](http://www.serviceworldexpo.com)

Oct. 24-27

**American Society of Plumbing Engineers (ASPE) Technical Symposium,**  
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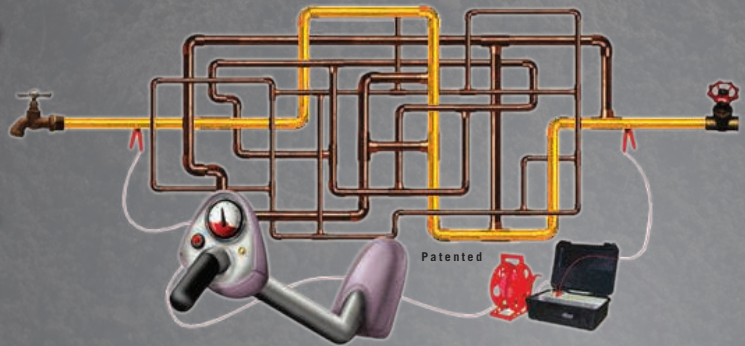
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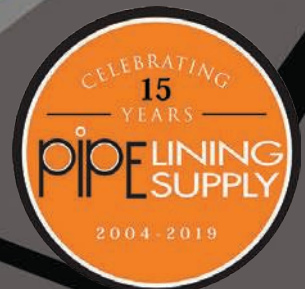
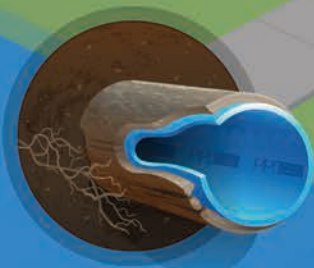


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