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A photograph of two men, presumably plumbers, wearing blue striped shirts and grey flat caps. They are leaning over a white sink, focused on working on a chrome faucet. The man on the left is using a red-handled tool. The background shows a typical bathroom with a mirror, a green towel hanging on a rack, and various toiletries like soap dispensers and bottles. The overall scene is brightly lit, suggesting an indoor setting.

A CLASS ACT

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▼ Tim Breault, owner of Tim Breault Plumbing in Charlotte, North Carolina, demonstrates the Palmer's Plug. The plug is a plastic device used to perform pressure tests of drainage, waste and vent (DWV) lines. (Photograph courtesy of Tim Breault)

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Cliff's Classic Care Plumbing's A.J. Lao replaces a bathroom faucet at a home in Sierra Vista, Arizona. A.J.'s dad, Cliff, owns the small plumbing operation with a service area of 100 miles from Sierra Vista.

Photo courtesy of Mark Henle

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- ▲ On the Road: Hurco Power Smoker



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Plumber

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Cory Dellenbach

Look Sharp, Be Sharp

Ditch the stereotypical plumber image. You'll stand out from competitors and build a more profitable business.

Who would you choose? A plumber coming to your door in ripped and dirty jeans, soiled T-shirt and muddy shoes? Or one wearing a nice dress shirt with company logo, clean pants and polished boots (maybe even with shoe covers in hand)? An easy choice, right?

Plumbers who take time to make themselves presentable show customers that they'll also take time to do the work in a professional manner.

PRIME EXAMPLE

To see how plumbing professionals should dress, look no further than Cliff's Custom Care Plumbing of Sierra Vista, Arizona, profiled in this issue.

Owner Cliff Lao combines a passion for classic, vintage vehicles with classy uniforms and exemplary service to destroy negative stereotypes. He and his staff wear pressed blue shirts with dark pinstripes, white T-shirts, gray slacks and a black belt, black shoes and black socks. The blue shirt is embroidered with the company name and emblem.

"I think that if you dress well, it shows customers that you'll take care of their homes as well," says Lao.

BUILD THE RELATIONSHIP

A good appearance is just one step in building long-term relationships with customers. It all starts when that customer calls looking for service.

I recently called a local plumbing, heating and cooling contractor after my furnace took a nosedive — not a fun experience in the middle of winter in Wisconsin. Right away I was talking to a friendly, knowledgeable receptionist.

After asking for some basic information, she

asked what the problem was and immediately dispatched one of the on-call technicians — seeing how it was after-hours. (Isn't that when most things break?) Within a few minutes, that technician called, then arrived and got the furnace working.

Plumbers who take time to make themselves presentable show customers that they'll also take time to do the work in a professional manner.

It's that type of communication that keeps customers — you can bet I'll call that contractor again.

Getting to that level will take hard work on your part as owner. You'll have to train the right receptionist, and then also train your technicians how to speak to customers on the phone.

Here are some easy ways you can make that first contact a bridge to more business:

Adopt a positive tone — Use an enthusiastic, natural and attentive tone while on the phone. It will help the customer feel comfortable.

Speak clearly — Help the customer understand what you're saying. That can make the difference between a productive conversation and one filled with stress and tension.

Be sincere — Most times the customer will be facing some sort of emergency. Starting with the greeting, say hello and be genuine. Avoid scripted greetings. **Continued** ▶

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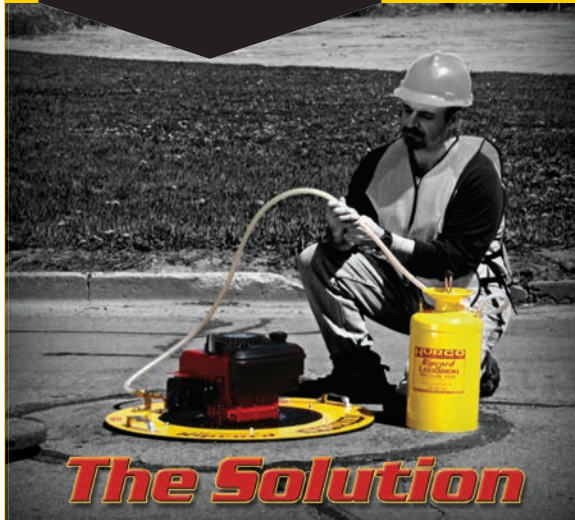
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Use the name — Ask for the customer's name right away, then use it. Make the caller feel comfortable and connected to your company.

Leave the customer satisfied — Finishing on the right note can create a lasting positive feeling and a satisfied customer. Ask if they need anything else.

DO THE EXTRA CREDIT

After the work is done, continue to be professional. Clean up any mess you have made — spare parts, broken components and any garbage. Leave the home cleaner than when you got there. Then, a day or two later, call the customer and make sure things are working the way they should.

All this will show that you care about your work and that they are happy. More than likely, you'll get the call for their next service.

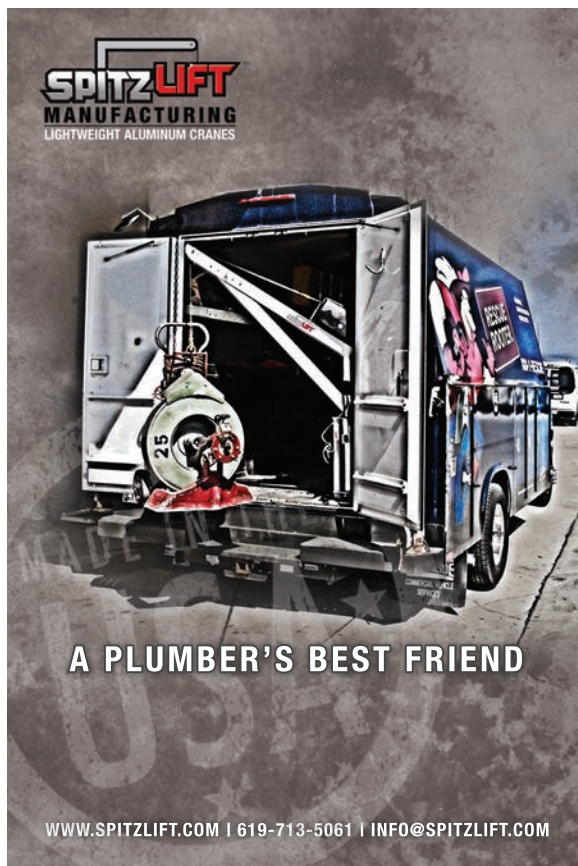
YOUR CUSTOMER SERVICE

Do you have any suggestions for other plumbers on how to succeed at customer service? You can share those tips with me by emailing editor@plumbermag.com or calling 800/257-7222.

Enjoy this issue!

HAVE A STORY IDEA?

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PROS OF PEX

Using PEX Pipe in Hydronic Systems

Although PEX is growing in use in plumbing applications, copper has still been the top go-to when it comes to the hydronic market. But the benefits of PEX that proponents tout make the pipe material a good fit for hydronic heating systems. Here's why.

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OVERHEARD ONLINE

"Take a cue from the sports world and offer a signing bonus. To the employee, it might help defray the costs of taking a new job. For the employer, it shows the seriousness of the job offer without altering the company's salary structure."

— *Hiring Strategy: How to Play the Negotiation Game*

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FREE PUBLICITY

The Trick to Getting Local Press Coverage

It's one thing to find out your local paper is writing a story on your plumbing company. It's quite another to open your Sunday paper and find a huge front page article, complete with a photo of your logo and phone number right behind your smiling face. Suddenly, every newspaper delivered that morning has the potential to turn into a new customer. Regular contributor Anja Smith describes how it happened for her family's business.

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FINDING A NICHE

Medical Gas Pipe Installations Provide Boon for Kansas Plumber

Installing medical gas pipes requires Superior Plumbing to maintain special certifications for some of its technicians. But the investment has been worth it. The Wichita, Kansas-based company, featured in the January issue, still offers the full range of traditional plumbing services, but adding the extra specialty has provided higher profit margins. Read about how the company has established this niche service offering in an exclusive online story.

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A CLASS **ACT**



Cliff's Classic Care Plumbing, Sierra Vista, Arizona

OWNERS	Cliff and Debra Lao
FOUNDED	2005
EMPLOYEES	3
SERVICES	Primarily residential repair and service
SERVICE AREA	100-mile radius around Sierra Vista
WEBSITE	www.cliffsclassiccareplumbing.com

▼ Cliff Lao (right) and son, A.J. Lao, with their 1 1/2-ton 1957 Studebaker Transtar truck near Sierra Vista, Arizona. The company uses only older model vehicles as its service vehicles.



Plumber's novel business approach shatters industry stereotypes, drives brand recognition

By Ken Wysocky
Photography by Mark Henle

Hobbies and work don't often intersect in the business world. But at Cliff's Classic Care Plumbing, co-owner Cliff Lao combines a passion for classic, vintage vehicles with classy uniforms and exemplary service to redefine negative stereotypes about plumbers, as well as create a textbook case of branding.

A classic-car collector who once owned rare beauties like a 1962 Sunbeam Alpine sedan and a 1959 Studebaker Lark two-door wagon, Lao indelibly differentiates his company by driving service vehicles that reflect his love for all things automotive: a 1 1/2-ton 1957 Studebaker Transtar truck and a 1954 Chevrolet sedan delivery. The vehicles were not only relatively inexpensive (about \$11,000 for the Studebaker and roughly \$6,000 for the Chevy sedan delivery), they also make a distinct impression on potential customers in and around Sierra Vista, Arizona, where the company is based.

"This is a very competitive market," says Lao, 55, who co-owns the company with his wife, Debra, and works with his son, A.J. The company's primary focus is residential service work. "Everyone else is driving brand-new vehicles and you really can't tell one from the other. It's practically a cookie-cutter look.

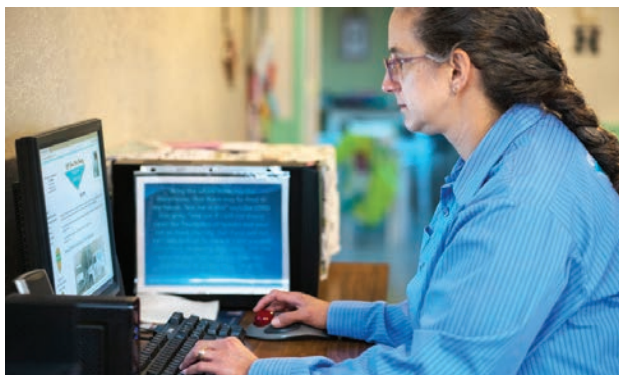
"But we stand out," he continues. "I'd say that the trucks generate about half of our service calls. We've had people flag us down while they're walking or even while driving. And many of them tell me, 'If you plumb as good as you take care of your trucks, then you're my plumber from now on.' Our trucks are the best calling card money can buy."

The company's snappy uniforms — a pressed blue shirt with dark pinstripes (embroidered with the company name and logo), white T-shirt, gray slacks and a black belt, black shoes and black socks — strongly reinforce the "classic" image Lao aims to project. He completes the period look with a jaunty gray newsboy cap. Lao buys the uniforms from Aramark. "I think that if you dress well, it shows customers that you'll take care of their homes as well as you dress," he adds.

Lao's father, Ruben, played a key role in inspiring the classic theme. Not only did he drive classic vehicles to reflect his company's name, Classic Rooter, back

in the 1960s and '70s in California, he was also a dapper dresser. "When my father went to work, he always looked prim and proper, with shined shoes and

◀ Debra Lao, Cliff's wife, works in her office at their company headquarters in Sierra Vista.



“I’d say that the trucks generate about half of our service calls. We’ve had people flag us down while they’re walking or even while driving.”

Cliff Lao

▶ A.J. and Cliff Lao look for flexible water lines in their shop.

his shirt tucked in,” Lao explains. “He dressed like a professional, and it kind of stuck with me. I also wanted to remove myself as far as possible from the industry stereotypes.

“Our motto is ‘quality service, always in style,’ he adds.

RUNS IN THE FAMILY

Born in Spanish Harlem in the 1930s, Ruben Lao got into the plumbing business at an early age. Lao worked for

his father while growing up, either on “the end of a shovel” or hauling cast iron pipe. “He was very old-school,” Lao explains. “If I wanted a new baseball glove or a part for my motorcycle, there was sweat involved.”

But Lao never planned on becoming a plumber. It was only after working various jobs, including stints as a car mechanic and a logger, that he realized his father’s footsteps offered a path worth following. So in the 1970s, he again worked for his father, who by this time had moved

Continued ▶

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to California. “All that time, my father was teaching me a trade and I didn’t even realize it,” Lao says.

In September 1990, Lao opened his own business in Apple Valley, California, called Delao Plumbing (named after his father’s original ethnic name). But after about seven years, the business failed. One factor was 24-hour emergency service, which Lao said took its toll over the years.

Lao then moved to Sierra Vista, where he worked for several plumbing companies before striking out on his own once again. The tipping point occurred when a friend at church encouraged him to start his own company as a counter against other plumbers who were taking advantage of elderly people. “Being churchgoing people, my wife and I prayed about it and came to agreement that we would start a company,” he says. “But we agreed to not offer 24-hour emergency service because family is more important.”

The company remains a relatively small operation. Aside from the two classic trucks, the company’s only other major pieces of equipment are three Spartan Tool drain cleaning machines: a Spartan 1065 (for cleaning 3- to 10-inch-diameter lines); a Model 100 (for 1 1/4- to 4-inch pipes); and a Model 700, a hand-held unit for shower, tub and sink drains. Lao prefers Milwaukee power tools and also owns a 2,100-pound-capacity winch, mounted on the Studebaker and manufactured by Warn Industries Inc.

BUYING IN BULK

Lao’s business isn’t all about just marketing and branding, however. He also takes a very commonsense approach to business, which carries over into how he purchases repair parts. Instead of constantly making trips to supply houses, Lao instead mail orders most of his parts from Wolverine Brass in South Carolina.

Why buy parts via mail? For one, Lao’s father also relied almost exclusively on Wolverine parts. Secondly, he believes brass is more durable. Third, Wolverine offers a lifetime warranty on all their parts — a great selling point for customers. “Over the years, I’ve learned firsthand what works and doesn’t, and Wolverine Brass parts work,” he notes. Last but not least, Lao says he believes in just doing things differently.

The Laos work out of their home. Lao stores the parts in a “warehouse” that’s actually about a 160-square-foot

▶ Cliff Lao checks the work his son is doing as they replace a bathroom faucet.



For more on Cliff’s Classic Care Plumbing, go to www.plumbermag.com/featured

shed on the property. While ordering parts by mail would appear to be more expensive than buying from local supply houses, Lao says the prices actually are competitive because he orders in bulk, plus he has a long-standing relationship with Wolverine.

“I’ve used them since I was a plumber in California, so they give us a break on purchases because they know we’re not some fly-by-night handyman,” he explains. “If we order, say, 100 ball valves, they know we’ll sometimes go through them in a month or two.”

On average, Lao carries roughly \$10,000 to \$15,000 worth of repair parts in his inventory, including specialty parts for customers with older homes. That pays dividends when Lao works in a 100-year-old home, for example. “I know I’ll have something in the shop,” he says. “It removes the guesswork about whether or not local supply houses carry an older part.”

“Our motto is ‘quality service, always in style.’”

Cliff Lao

Continued ▶



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AN EMPHASIS ON SERVICE

To provide top-notch customer service, Lao does all the things that customer-minded plumbers do, such as wearing shoe covers in customers' homes and spreading a tarp before starting on a job to keep the space clean.

But one of Lao's highest priorities is simply listening intently to customers so he can sufficiently address their needs. That includes asking good questions when customers call so he can accurately diagnose the problem and be sure he has the right parts on the truck. He also emphasizes customer education. "If someone wants us to drain their water heater, and we find a plastic drain valve clogged with sediment, for instance, we physically show them the problem and replace it with something better, like a 3/4-inch full-port ball valve," he points out. "We also make a point of bringing other potential problems (other than the actual repair) to customers' attention."



▲ A.J. Lao works on a bathroom faucet component.

To keep things personal, and further enhance the company's branding, Debra Lao handcrafts thank-you cards for customers. "Some of our customers collect them and hang them on their walls," he says. Moreover, the Laos used to create custom Christmas cards and mail them to customers each year, but when they exceeded 600 customers, they had to start buying cards instead, Lao says.

How good is Cliff's Classic Care service? Lao says that for three years in a row, the company has earned a coveted Super Service Award from Angie's List, a national contractor-rating service that's based on reviews from consumers. Winners must meet strict eligibility requirements, including an overall "A" grade from customers. Less than 5 percent of contractors earn the award, according to the Angie's List website.

EYEING FUTURE GROWTH

Looking ahead, Lao says he'd definitely like to expand his business. But that would first require finding a tradesman who'd be a good fit for Lao's service-oriented approach. "It's just a matter of finding someone who's looking for a trade, not just a paycheck," he says.

Moreover, Lao hopes that A.J., who is currently an apprentice and will become a journeyman plumber in a year or so, will come on board as a business partner and eventually run the business. That might even open the door to 24-hour emergency service work, he says.

"Right now, we're limited to serving about a 100-mile radius around Sierra Vista,"

Lao explains, noting the limitations imposed by having just two plumbers in the company. "And as a practical matter, we currently don't advertise for emergency calls. But as A.J. becomes a journeyman, he might want to start taking emergency calls. Then we'd really have to find someone else that he can train."

Of course, another employee will require a third vintage vehicle to maintain the company's classic branding theme. "I'll have to start searching on eBay," Lao says. "I'm always watching (for classic cars) on eBay. I've probably owned as many cars as the years I've been on this Earth."

"There's always something out there that follows me home," he continues. "My wife thinks there's something wrong with me, but I've always enjoyed getting my hands dirty. I love turning wrenches." And adding a touch of class to the plumbing industry. **P**

“My wife thinks there’s something wrong with me, but I’ve always enjoyed getting my hands dirty. I love turning wrenches.”

Cliff Lao

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Ad on page 5

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Cliff Lao, front, and his son, A.J. stand by their service vehicles. The company uses a 1 1/2-ton 1957 Studebaker Transtar truck and a 1954 Chevrolet sedan delivery. Cliff also requires the plumbers to wear gray slacks, a blue long-sleeved shirts and a gray newsboy cap to complete the old-time look.



Service vehicles deliver the marketing goods

When Cliff Lao and his wife, Debra, established Cliff's Classic Care Plumbing in Sierra Vista, Arizona, they wanted vintage service vehicles that would reflect the company's name, as well as tell customers they're in for a unique service experience.

The couple found exactly what they were looking for in a 1 1/2-ton 1957 Studebaker Transtar truck and a 1954 Chevrolet sedan delivery. Cliff Lao found both classic vehicles on eBay. The Chevy came first, purchased for \$6,000 in Long Beach, California.

"It was in pretty good shape," he says. "We had it rewired, added front disc brakes and replaced the wheels and tires."

When Lao needed a bigger vehicle, he found the completely restored Studebaker truck in Atlanta. "We negotiated for two years," he recalls. "The owner kept relisting it and finally came to a price (\$11,000) where I said, 'Let's go get it.'"

Two features caught Lao's attention: The vehicle's factory-installed power steering and a five-speed manual transmission with overdrive. Lao did research that showed only about 430 of the trucks were equipped that way. "There are areas in Cochise County where we have to drive in 'granny gear' (first gear)," he explains. "If you're climbing (in steeper terrain) or towing something, you definitely need the torque."

A local fabricator custom-built metal bins to store repair parts and tools. The Studebaker features an 8-foot-long cargo bed, and the metal bins can be removed if Lao needs more space. The engine, a 1963 Studebaker 289, is underpowered for the company's needs. Lao says it generates about 130 hp, not much for a truck with a gross vehicle weight of about 3,500 pounds. As such, he eventually plans to replace the engine with a more powerful unit.

While it might seem that older trucks don't offer the productivity-enhancing efficiencies provided by modern vehicles, which are more spacious and feature larger, comprehensive storage systems, Lao says that isn't the case. And even if the trucks were a little more inconvenient to work with, the marketing firepower they offer would more than offset any disadvantages, he notes.



Judy Kneiszel

Daddy, What's a Check?

Accepting credit cards is a business necessity these days, but do you need to invest in a chip card terminal?

By Judy Kneiszel

My 17-year-old son recently opened a checking account. He rolled his eyes and shook his head “no” when the bank teller asked if he needed paper checks and a registry. Is he a frugal saver who doesn’t plan to spend any of his earnings? No. He’s going to spend electronically and via plastic. It’s a fact of life that few people under age 25 write checks — for anything. Banking and spending is all handled via debit card, credit card, online payment services, direct deposit, and maybe an ATM for the rare occasion young adults use cash.

When you accept a credit card for payment, you can be sure that when the charge is processed and approved you will receive payment.

Everyone else is doing it

But, you say, isn’t taking charge cards risky and/or expensive? Won’t I have to give up a percentage of every sale to the credit card company? Yes, but your competition is doing it, so what’s more expensive, giving a percentage of a sale to the credit card company or giving the entire sale to the plumber down the road who takes plastic?

Immediate payment

Here’s another benefit of taking credit cards: When you accept a credit card for payment, you can be sure that

when the charge is processed and approved you will receive payment. No more waiting for the check in the mail. Also, long-term customers may prefer to set up auto-payments via credit card, which keeps their account up to date and your cash flow consistent month after month.

Bye-bye swipe card

If you’ve read up to this point thinking, “Of course a business needs to accept credit cards in this day and age; we’ve been doing it for years.” Good for you! But do you use a chip-reading terminal for credit card transactions?

In the past few years there has been a major change to credit cards in the U.S. Credit card companies are replacing traditional magnetic strip cards with new microchip-enabled cards, commonly referred to as EMV chip cards. These are more secure because traditional magnetic strip cards store unchanging data that can easily be copied to produce counterfeit cards. When an EMV card is used for a payment, however, its data-storing computer chip creates a unique code that cannot be used for another transaction. This technology makes cards more difficult to counterfeit.

Because the new “smart” cards are more secure, a change in liability took effect last October. Previously, if fraud occurred, the card issuer was liable. Now, fraud is the responsibility of the merchant. Why? The justification commonly given is that if a merchant had upgraded to an EMV terminal, the fraud would have been prevented.

Is upgrading necessary?

All this has probably left you wondering if you need to purchase a chip-reading terminal for your business in order to continue accepting credit cards.

At this time replacement is not required, but it is a good idea. You can still run transactions with the older

terminals because, for now anyway, chip cards also have a magnetic strip for swiping. If a chip card you swipe is used fraudulently, however, you will be liable. And here's added incentive: Because most large retailers are switching to chip-reading terminals, criminals are targeting small businesses more frequently. So while you may not want to shell out \$200-\$600 for an upgraded card terminal, you can consider it an investment in fraud protection. If it prevents just one instance of fraud, your terminal could pay for itself many times over.

Why the delay?

The good news is that if you haven't adopted the new technology yet, you're not too late to the party. You may have noticed at the retailers you frequent that many of them have an EMV slot on their terminals, but signs telling you to swipe your card.

Outfitting merchants with new hardware is the first step in converting to chip technology. The second step, new software, has caused delays.

Merchants need to load new software from a third party into their systems before a terminal can accept EMV. Then the new terminals and the merchant must go through a certification process with each of the card networks. This is usually done through the bank that processes credit or debit card payments on behalf of the merchant. The wait for certification has been long due to the number of merchants converting to EMV at the same time.

According to CreditCards.com, 70 percent of U.S. consumers had a chip card as of March 31. According to the EMV Migration Forum, at that same time approximately 5 million EMV-ready terminals were in U.S. stores, but only 1 million could actually accept and process chip card payments. The EMV Migration Forum estimates 90 percent of terminals will be enabled by the end of 2017.

The bottom line is, you should switch to a chip-reading terminal to minimize your liability, but you certainly don't have to rush. As long as your customers can dip their chips sometime in the next year or two, you'll be on par with most other U.S. businesses. **PI**

Judy Kneiszel has operated her own small business for about 20 years and is familiar with the many rewards and challenges of ownership. Write to her with questions, comments or topic suggestions at thewordhouse@ameritech.net.



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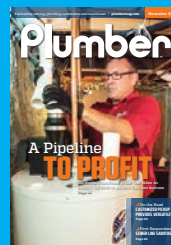
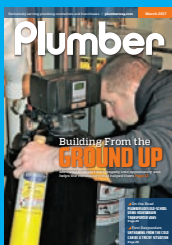
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Holding Up Under Pressure

When it comes to testing DWV lines for leaks, this inexpensive and easy-to-use plug acs the exam *By Ken Wysocky*

There was a time when master plumber Tim Breault used to take showers at work — and not by choice. But those mishaps dried up after he found out about the Palmer's Plug, a plastic device used to perform pressure tests of drainage, waste and vent (DWV) lines.

"I swear by them," says Breault, who has been a plumber for more than 35 years and owns Tim Breault Plumbing in Charlotte, North Carolina. "They're ingenious. When I first saw one, my first thought was, 'Why didn't I invent that?' I turn other plumbers on to them and they say, 'Are you kidding me?'"

The on-the-job showers occurred back when Breault used inflatable rubber balls to plug test tees for pressure testing. Occasionally the balls would blow up during testing or removal, unexpectedly releasing the pent-up water in the lines above — and dousing any unlucky plumber who happened to be standing near the test tee.

"Sometimes the test ball gets blown into the other end of the tee, so all the water goes all over you," he explains. And if plumbers aren't careful when deflating the ball after an inspection is complete, the force of the water (which could be exerting pressure of 30 psi or more) can quickly push it down past the tee opening, trapping their fingers between the ball and the pipe.

Furthermore, if the ball gets pushed too far down the pipe, it's difficult to locate and retrieve. Sometimes the only alternative is tearing up a concrete basement floor. In addition, a blow-up ball is much more expensive than the Palmer's Plug.

"They're ingenious. When I first saw one, my first thought was, 'Why didn't I invent that?'"

Tim Breault

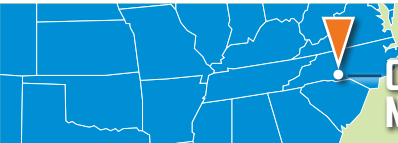


▲ Tim Breault demonstrates what the Palmer's Plug would look like in a pipe.

▼ The Palmer's Plug is shown inside of a pipe as a demonstration of how it would appear if a plumber was using it.



► The Palmer's Plug, yellow device at right, gets inserted into a pipe to stop the water so a plumber can work on the rest of the system. The pressure-test plug, made by Palmer's Plastics, is made out of heavy-duty plastic and can withstand 20 to 40 psi of water pressure in test tees for up to one month.



Charlotte, NC

COMPANY	Tim Breault Plumbing Inc.
LOCATION	Charlotte, North Carolina
OWNER	Tim Breault
DEVICE	Palmer's Plug pressure-test plug, made by Palmer's Plastics
FEATURES	Made out of heavy-duty plastic, fast tool-free installation, easy removal, various diameters can withstand from 20 to 40 psi of water pressure in test tees for up to one month
WEBSITE	www.breaultplumbing.com

Made by Palmer's Plastics and invented by a plumber, Denny Palmer, the disc-like device is made from heavy-duty plastic that will not adhere to pipe glue. The plugs come in 1 1/2-, 2-, 3- and 4-inch diameters with respective pressure limits of 40, 25 and 20 pounds psi.

The plug is easy to install. Just insert it into either end of a test tee until it snugs up against the hub of the fitting and it's ready to go, says Breault. "That's a fraction of the time it takes to use a blow-up ball. Some of my guys put a little bead of caulk around the hub of the fitting, but you don't really have to," he adds. "You can just stick it in and then go rough out your bathroom or whatever you need to do." (The manufacturer suggests using plumber's putty.)

Removing the plug is just as easy. First, snip off the end of the nipple that protrudes from the plug. That releases the pent-up water, which goes where it's supposed to go — down the drain and not all over the plumber. "Since you're pulling it out without any pressure behind it, you don't get a shower," Breault points out.

After the water is fully drained, take a screwdriver and poke it through the small tab on the plus and pull it out.



“It's as solid as the PVC pipe and fitting that's holding it. I don't think it could ever blow through.”

Tim Breault

“It peels right out, just like when you pull open the lid on a can of sardines,” Breault says. “Then put in your test tee plug and you're done.”

The Palmer's Plastics website says the plugs, which are good for one-time use only, can hold water for about a month, and Breault says that claim, well, holds water. “I've heard guys say they've gone to set fixtures and the sewer is backed up, but that dang plug is still in there,” he says. “It's as solid as the PVC pipe and fitting that's holding it. I don't think it could ever blow through.”

Breault says he can't see any downside to using the product, citing benefits such as improved job site safety, cost-effectiveness, and fast and efficient installation. “I can install one in about 10 seconds and have a leak-proof test tee,” he notes. And never worry again about unwanted on-the-job showers. 📺

A Different Option for Heating

More plumbing contractors looking at geothermal for pool-heating options *By Irwin Rapoport*

More and more owners of home pools — be they new or existing — are converting the heating systems from gas to geothermal, which is creating new opportunities for plumbing contractors. While going the geothermal route may appear more expensive initially, over time operating costs are less expensive because they are more efficient, and bring advantages when selling a home.

“Geothermal systems extract heat energy from the relatively constant temperature of the earth (50-55 degrees F) rather than the outside air, which can dip to well below freezing in the winter,” says Joe Parsons, chief operating officer of EarthLinked Technologies Inc. “Refrigerant within the system is compressed into a hot gas and then routed through a titanium-walled coil where it exchanges heat with the pool water. The most efficient methods use the geothermal system to maintain the pool temperature around 85 degrees throughout the season.”

EarthLinked Technologies, based in Lakeland, Florida,

manufactures geothermal renewable energy systems, which replace pool-heating systems run by gas and earth loops, used to capture the energy beneath the ground. These products are combined with titanium pool heat exchangers that are integrated into the pool filtration and circulation system.

The operating conditions for geothermal includes the desired water temperature, indoor and outdoor design conditions, occupancy, months of intended operation, and the current method of conditioning to the pool.

“Our engineers, in conjunction with the installing contractor’s agent, select the most appropriate and cost-effective solutions,” Parsons says. “Once approved, our equipment is shipped to the home.”

ADVANTAGES OF GOING GEOTHERMAL

Parsons says the biggest advantage of going the geothermal route is the long life span of the equipment and the predictable operating efficiency. “The cost savings associated with using geothermal versus alternative pool heating applications are clear,” he says. “The EarthLinked systems installed in Manjimup, Australia, for an aquatic center, showed efficiency numbers four to five times greater than fossil fuel fired systems.”

The advantages for commercial operators and homeowners are similar.

“The family aquatic center in Manjimup used multiple systems and was designed to operate on commercially available electrical power (400 volt/3 phase/50 hertz),” says Parsons. “Residential applications generally use a single unit designed to operate on residential electrical current, and can also include hybrid designs that provide ancillary benefits of using heat otherwise wasted as well as possible air conditioning. This provides progressive-thinking contractors with an opportunity to get into an underserved market.”

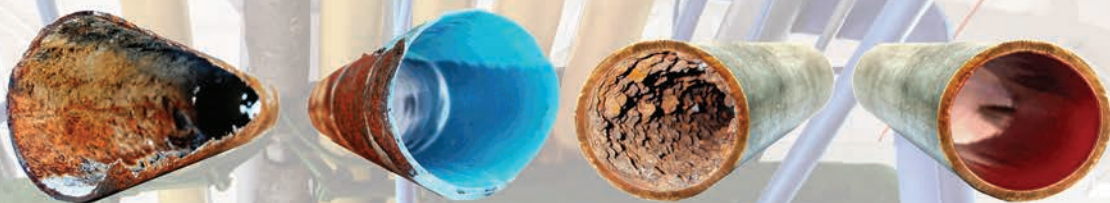
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▲ Geothermal heating units sit on a wall where they are regulated to 85 degrees F. (Photos courtesy of EarthLinked)

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INSTALLING THE SYSTEMS

Scott Roberts, owner and president of Robert's Service Company (RSC) in Austin, Texas, and a partner in 360 Comfort Solutions, has been installing geothermal systems for residential pools for the past 22 years. His firm is a combination contractor/geothermal equipment dealership.

For a new pool, explains Roberts, separate contractors install the geothermal loop and the pool. The pumping system for the pool and piping connections are standard, with the exception that the water is circulated through the geothermal heat exchanger.

"The installation requires very few specialized parts," says Roberts. "We're able to tie into the piping for an existing pool system and can use the connections in place with the heating system. We work closely with pool contractors, as they are ones who size the piping, select the filtration systems and pump systems. We typically tie into their designs. We have the software to size the heater based on whether it is an outdoor or indoor pool and the climate where it is located."

“It's actually easier than standard plumbing as most of it is PVC piping. The highly technical side is in the sizing of the system and installation of the geothermal system.”

Scott Roberts

heating/cooling system for the home and pool, which RSC is looking forward to installing. Currently, the company can install a geothermal heating system for a pool within one to two days.

"This does not require any specialized tools," says Roberts. "We do other types of heating and cooling and we have standardized brazing torch kits, vacuum pumps, and

Plumbing contractors require some specialized training to install geothermal systems.

"It's just standard plumbing," Roberts says. "It's actually easier than standard plumbing as most of it is PVC piping. The highly technical side is in the sizing of the system and installation of the geothermal system. For those entering this market, they need to be trained and certified to install geothermal systems. From there it's pretty straightforward piping diagrams for the pool side of it."

EarthLinked recently came out with a combined



▲ A plumbing contractor checks over geothermal heating units at a pool. The units were installed on the outside wall of the pool.

everything else needed for air-conditioning and geothermal installation. On the plumbing side we have reciprocating saws, pipe wrenches and other standard equipment."

RSC is looking forward to entering the market for municipal, commercial and institutional pools. "It's a viable market," says Roberts.

SELLING TO HOMEOWNERS

Homeowners, says Roberts, understand that the up-front costs of going geothermal are higher.

"However, the cost savings and maintenance of the system is going to be considerably lower than what they have with most gas heating systems," Roberts says. "It's a long-term investment that lasts three times longer than the average gas pool heating systems, which do not have a real history of longevity. With geothermal you're dealing with a controlled environment as opposed to dealing with great fluctuations of temperatures, and the system itself is more reliable because you are dealing with a consistent temperature between the loop and the pool."

Roberts foresees more people going the geothermal route as they will be able to combine home and pool heating and cooling.

"It's just one system and it's becoming more economical to install," he says. "An advantage for markets in Texas and states where it can get very hot in the summer is that geothermal is able to chill the pools. It's an unusual notion, but with a reverse cycle, you can switch the system into cooling and keep the water at a moderate temperature. This is something you cannot do with a gas heating system."

While cost savings are a good selling point, Roberts notes that many people choose geothermal for environmental reasons.

"They are more aware of the environment and want to treat it in a friendly manner by going a sustainable route that uses renewable energy," he says. "This is definitely a driving factor in the Austin area, as well as other parts of the Southwest and southern California." ■



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Riding out the Storm

Virginia contractors prepare for the worst when hurricanes and strong storms strike *By Cory Dellenbach*

When Hurricane Matthew hit the East Coast of the U.S. in October 2016, Atomic Plumbing & Drain Cleaning knew it would likely have some challenging work ahead. However, the company didn't know the storm would bring one of its most memorable calls.

The company, based in Virginia Beach, Virginia, is no stranger to hurricanes. Typically, Atomic Plumbing is busiest during the time after a storm hits. A brunt of the calls are relighting pilot lights that were blown out or replacing sump pumps and water heaters due to flooding.

It was just after Hurricane Matthew roared through the area that the company received a call about a water leak in the area. "This one sticks out to me," says Paul Keane, operations and service manager for Atomic Plumbing. "It's a pretty unique call."

“Typically we'll get affected by the storms after they come through”

Paul Keane

LINES COME DOWN

As the high winds whipped across the area, a homeowner's tree fell down, taking power lines with it.


"When the live power lines hit the ground it charged the ground, and the electric charge managed

to find the copper waterline to the house 18 feet below the surface," Keane says. "It blew a small hole about the size of a pinky finger into the copper waterline."

The power lines posed the biggest threat when Atomic Plumbing arrived. "We had to wait for Virginia Power to get the line cleared after we got on site," Keane says. "We couldn't do anything until that happened first."

MAKING THE REPAIRS

After the line was cleared, it didn't take long for Atomic Plumbing to fix the pipe.



Virginia Beach, VA

COMPANY	Atomic Plumbing & Drain Cleaning
OWNER	Jim Steinle
LOCATION	Virginia Beach, Virginia
FOUNDED	1968
EMPLOYEES	24
SERVICE AREA	Virginia Beach, Norfolk, Chesapeake, Suffolk

"The water had eroded a lot of the dirt away, but we had to go in there and dig it up, and that's when we found the hole over the top of the waterline," Keane says. "We took care of the issue."

At the homeowner's request, the company replaced a 50-foot section of the pipe instead of replacing the entire 80-foot pipe. "It saved him some money and it meant we didn't have to tear up his garden or other landscaping," Keane says.

FLOODING BASEMENTS

Keane says before a hurricane strikes, he often sees people who are not prepared and not doing the things they should be doing in advance of a storm. Many of the calls the company will respond to are people reacting to what has already happened.

"Typically we'll get affected by the storms after they come through," says Keane. "Things like tidal floods or heavy rains are what we see most of our calls for after a storm because we sit at sea level."

The company recommends to its customers that if they do have sump pumps to check them before the storm hits. Dump some water in the pit holding the pump and make sure it turns on and is working. When they aren't working, that is when crews will run into flooded basements.

"That'll flood basements and water will typically get to the water heaters," Keane says. "Water heaters probably take the biggest toll. Once the control valve gets wet, you need to really replace it and not try to repair it."

Following Hurricane Matthew, Keane says the company replaced many sump pumps.

"The homeowners found out after the fact that they didn't work and unfortunately in some cases, the people lost their water heaters too," he says. "Had their pump worked, the water might not have gotten that high and it would've saved themselves a costly repair."

GETTING READY FOR THE STORM


When a storm is approaching, Atomic Plumbing staff will run all of the pumps they have on hand to make sure they are operational, also checking suction and discharge hoses. "We want them ready for when the storm hits,"

“When the live power lines hit the ground it charged the ground, and the electric charge managed to find the copper waterline to the house 18 feet below the surface.”

Paul Keane

Keane says. "Everything is ready to go for when the calls start coming."

Company leadership also tells its employees to prepare for long hours following the hurricane.

"We tell them to mentally prepare themselves for working long days," Keane says. "The storm is going to come through here, it's going to cause a lot of damage and they need to be ready to put in some hours. We tell them to figure it's going to be bad, but if it's not, then great. People are going to need us, people in the community, the neighborhood, are going to need us. We have to be here to help." 

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Expanding Beyond Plumbing

Plumber moves into drain cleaning and leak locating services as a way to grow customer base *By Marian Bond*

When Ted Curtis and his sister, Tammy Owens, started Emergency Mr. Plumber in 1990, the company's primary focus was plumbing. After 10 years, the pair decided it was time to add to the company's menu of service.

Emergency Mr. Plumber, based in Toledo, Ohio, added several new services, including pipeline inspection, drain cleaning and locating. "We got calls for these kinds of services and we wanted to keep up with the competition," says Ted Curtis.

Now, the company operates with a crew of five serving northwest Ohio and eastern parts of Michigan.

Q: Why did you decide to include some of the additional services like sewer and drain cleaning and locating to your menu?

TED: The reason was to keep up with other companies, and to add to our revenue. We saw these services as a money-maker. Drain cleaning is not that intense of a process and most anyone can become a drain cleaner with minimal



▶ The staff of Emergency Mr. Plumber. Front, from left, Diane Brackett, Ted Curtis and Tammy Owens, in front of their fire engine vehicle that they use on the job in Toledo, Ohio. Their employees on the truck are, from left, Rich Chadwell, Dean Bumpus, Martin Saazar and George Buder III. (Photography by Amy Voigt)

involvement. We thought we could offer something that involved more substance. We also got into directional drilling and excavating.

Q: Had your customers been asking for these services?

TED: We got calls for these kinds of services and we wanted to keep up with the competition. If you don't you will get left behind. That is how the industry goes these days. One company sees another company doing something that is working and next thing you know others will follow.

“These days a plumbing company needs to be so diversified in order to keep the doors open. You have to do a little bit of everything.”

Ted Curtis

Q: How did you happen to move into directional drilling?

TED: This kind of fell into my lap. We were on a job and a fellow asked me if we were hiring plumbers. I said yes, and it turned out that he had been a directional drill operator. He was not happy where he was, so we hired him. After hiring him we ended up buying a directional drill. This allows us to offer more services as we can now put in water, gas and electrical lines by going under lawns and driveways, and not disturb landscaping. We recognized the benefits and it was kind of neat. Prior to this we would have had to hire a company to perform these services.

Q: Why was it important for your company to offer locating and leak detection?

TED: Locating equipment is important in finding the break underground so it can be repaired. These days a plumbing company needs to be so diversified in order to keep the doors open. You have to do a little bit of everything. Thirty years ago you could get by just being a plumber replacing faucets and cleaning sink drains, but to survive these days you have to diversify.

Q: What percentage of your business is in basic plumbing, as opposed to the other services?

TED: It is about 50-50. On any given day we might have three plumbing jobs, and three drain cleaning related projects.

Q: What service is the best money-maker for your company?

TED: I think drain cleaning is the best. Here again, it shows how the industry has changed. It used to be a plumber did plumbing and a drain cleaner cleaned drains but did no plumbing. Now you have to do both to survive.

Q: In looking back over the years, what would you say was one of the smartest moves you made?

TED: Smartest thing we did was we hired Diane Brackett as our office lady 15 years after we opened. Ms. Brackett is always positive. You can call and talk to her, and she is our first responder and sets the example for us to go out in the field and do our job. She is positive and knowledgeable and answers questions. She is not a robotic call and this helps tremendously getting us into the door of the customer and fulfilling the needs of the customer. An employee like this is a huge benefit for a service provider in our industry. **PI**

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Pipeline Inspection, Location and Leak Detection

By Craig Mandli

Drainline TV Inspection Cameras

Amazing Machinery Viztrac Max

The **Viztrac Max** camera from **Amazing Machinery** has the same durability and super-slick push cable as previous Viztrac cameras, with a 22 percent larger 9-inch LCD color display and a rechargeable lithium-ion battery pack capable of up to eight hours of field use before recharge. The unit includes an AC/DC adapter for direct power supply, a 512 Hz sonde transmitter and a DVR that records to a standard SD card. A 4GB card is included. **800/504-7435; www.amazingmachinery.com.**



Cobra Technologies from Trio Vision CT601

The **CT601** small crawler from **Cobra Technologies** from Trio Vision has brass construction that makes it a hardy performer for its size without adding undue weight. It can be configured with a powered camera lift and accessory wheels, making the system capable of inspecting 30-plus-inch lines. It can be paired with the Cobra PTZ Version 9 Camera that is rated from 6 to 48 inches. **800/443-3761; www.cobratec.com.**



CUES MPlus+ XL

The **CUES MPlus+ XL** push system enables easy operation with its 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 designed for mainline and larger pipeline applications up to 500 feet. It integrates video observation coding, observation coding interface and digital recording into an easy-to-use package. This lightweight system includes large and durable wheels for portability and a balanced footprint for stability. It is manufactured to handle rigorous field use. **800/327-7791; www.cuesinc.com.**



Electric Eel Ecam PRO 2

The **Ecam PRO 2** from **Electric Eel** allows users to quickly inspect 3- to 10-inch-diameter pipelines and locate a wide variety of pipeline problems. It has a stainless steel-housed 1.68-inch self-leveling color camera with sapphire lens, 20 LED light ring and high-resolution CCD element. A flexible camera spring navigates 3-inch P-traps. The auto-iris adjusts lighting automatically. It provides an industry-standard 512 Hz sonde and has a 10.4-inch daylight-readable display with an on-screen footage counter, 16 pages of text writing with memory saves and click-touch controls with one-touch recording. Users can record directly to a USB flash drive. It has voiceover recording and audio/video out jacks, an 8X zoom function and adjustable light controls. It comes standard with 200 feet of braided fiberglass premium 1/2-inch-diameter pushrod, and powder-coated steel tube and bar construction with a secure-locking reel brake. It rolls on 8-inch wheels for easy maneuverability. **800/833-1212; www.electriceel.com.**



Envirosight VeriSight Pro

The **VeriSight Pro** from **Envirosight** has a stainless self-leveling camera with shadowless, variable LED illumination that captures crisp video footage regardless of pipe material. 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 most any locator. Its welded steel coiler comes with 130, 200 or 330 feet of pushrod. The entire 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 TFT LCD, and captures up to 90 hours of MPEG-4 video on an SD/SDHC card or USB stick. It lets the user zoom 3X and capture 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 FB-PIC3688M

The **FB-PIC3688M** long-range pipe inspection camera from **Forbest Products** has a dock for a digital monitor and optional 360-/180-degree camera. It comes with 400 feet of 9 mm fiberglass cable on a reel with a meter counter. The stainless steel frame carries a dock for placing the 10-inch LCD monitor for convenient operation and transportation. Camera head options include a 1 1/2-inch self-leveling color camera head or 2 1/4-inch waterproof 360-/180-degree pan-and-tilt high-resolution color camera head with zoom for panorama pictures. The heavy-duty multifunction waterproof control box includes a 10-inch LCD color screen with USB and built-in SD card to record photos and videos. Users can type and edit on the screen with the installed keyboard. Control buttons on the front panel are designed for remote controlling camera head rotation for over 20,000 hours continuously. 877/369-1199; www.forbestusa.net.



Hathorn Corporation Magnum M7

The **Magnum M7** from **Hathorn Corporation** weighs in at 29 pounds, allowing it to be easily 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 includes USB recording, two-hour lithium battery, on-screen footage counter, 512 Hz sonde transmitter, adjustable lighting and a text writer. A Wi-Fi transmitter can be added for recording to a mobile device. It is available with a variety of pushrod lengths and camera sizes. 905/604-7040; www.hathorncorp.com.



IBAK 3D-GeoSense

The **3D-GeoSense** system from **IBAK** uses sensors in the camera to provide users with a 3-D map of mainline and lateral pipelines. The XYZ coordinates can be determined when the camera is moving both forward and backward, immediately providing the operator a real-life site plan with the width, length and elevation data of the pipeline being inspected. It can be used in mainline, push or lateral launch applications. Additional third-party software is required. 800/656-4225; www.rapidview.com.



MyTana Manufacturing MS11-NG

The **MS11-NG** mid-sized video inspection system from **MyTana Manufacturing** can be used to inspect 3- to 4-inch lines, and is available with 200 feet of strong pushrod. It has a 1 1/2-inch color self-leveling camera head; a built-in 512 Hz transmitter, allowing a technician to locate during the inspection; and a daylight-readable 6.4-inch monitor. A technician can record or upload an inspection using the **MyTana Viewer App**, available for iPhone, iPad and Android. Built-in Wi-Fi allows multiple viewers on relining/rehabilitation projects. Inspection records can be uploaded to YouTube or still photos emailed to customers. Media connects through RCA jacks on the front of the unit. 800/328-8170; www.mytana.com.



Pipeline Renewal Technologies Cleansteer 40

The **Cleansteer 40** from **Pipeline Renewal Technologies** uses high-pressure water for propulsion, steering and cleaning as it captures live inspection video from inside lateral lines. It can traverse multiple bends in pipe, steer through branches, and levitate above debris, allowing municipal contractors and commercial plumbers to locate failed pipes, cross bores and blockages, as well as perform cleaning. It is fully water-driven, as six propulsion nozzles generate the power needed to pull its own flexible hose through multiple bends. A side nozzle on the camera can be aimed to steer through diverging pipes and hover past obstacles. An optional forward-facing nozzle can be pulsed to clear debris and other obstructions. The system works with any high-pressure water source, including pressure washers and combination trucks. Its 1/2-inch hose comes in lengths from 115 to 190 feet. 866/936-8476; www.pipelinert.com.



R.S. Technical Services Quick Peek

The **Quick Peek** all-in-one, fully portable video inspection system from **R.S. Technical Services** is a compact, lightweight solution for drainline condition assessment in lines 2 to 10 inches in diameter up to 300 feet in length. It has a 7-inch bright LCD handle-mounted monitor with a sun shield/screen protector that can be positioned for a comfortable



viewing angle. Easily accessible monitor controls include power mode, aspect ratio (screen size) and menu, plus set buttons for color, brightness, contrast, tint and volume. The side-mounted AC/DC power source houses controls for all camera functions, and provides a camera test terminal, AC/DC input, video/audio output, keyboard input and a condenser microphone with on/off switch. It has a high-resolution, low-lux color camera, keyboard for annotation, video/audio output, a microphone, and is fully locatable with a 512 Hz inline transmitter. Options include battery power, a self-leveling camera, 512 Hz receiver, roller skids, laptop interface, SD card reader and Wi-Fi interface. **800/767-1974; www.rstechserv.com.**



Ratech Electronics Elite SD Wi-Fi

The **Elite SD Wi-Fi** from **Ratech Electronics** allows technicians to record pipe inspections wirelessly to an iOS or Android device, and take live video and digital still photos that can be immediately uploaded to YouTube, so there's no more recording to USB thumb drives, SD cards or DVD discs. Simply download the app to an iPhone or iPad and stream the video wirelessly. The Wi-Fi interface is available on any current Ratech product or existing Ratech 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. Systems come in cable lengths from 100 to 400 feet. **800/461-9200; www.ratech-electronics.com.**

Rausch USA minCam360

The 2-inch **minCan360** remote-controlled pan-and-tilt push camera from **Rausch USA** 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) and the removable batteries run for four hours. Its RID steering skid enables pushing into 45-degree Y and 90-degree T branches in the pipe. The 8.4-inch sunlight-readable monitor enables recording video, voice and photo 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.rauschema.com.**



Vivax-Metrotech Type-CP

The **Type-CP** inspection system from **Vivax-Metrotech** has a reel available in 200-, 300- or 400-foot lengths of stiff pushrod flexible enough for easy entry and turns. The 1.6-inch D34-CP self-leveling camera provides 700 pixels of resolution to inspect up to 6-inch pipes. It includes the vCam-5 control module with an 8-inch color LCD, transmitting sonde, digital recording USB thumb drives, SD cards or to the internal hard drive, full-function keyboard, internal microphone, AC/DC power, rechargeable batteries, distance counter and camera LED brightness control. The control module ships ready-to-use with LACP software such as POSM, WinCan or MuniXS. **800/446-3392; www.vivax-metrotech.com.**

Wohler VIS 350Plus with locator

The **VIS 350Plus** visual inspection system from **Wohler** allows users to precisely locate damage and document the results of the inspection. Its 1.5-inch camera head can pan 360 and tilt 180 degrees. Users can inspect waterlines 2 inches and larger with the pan-and-tilt camera head to ensure no damage is overlooked throughout the pipeline. The camera head has an integrated transmitter that facilitates location detection with a Wohler L 200 Locator, which has an easy-to-read color display. Users can record video footage and store photos on a 4GB SD card for documentation and archiving purposes. **978/750-9876; www.wohlerusa.com.**



Electronic Pipe Location

RIDGID SeekTech SR-24

The **RIDGID SeekTech SR-24** line locator paired with the RIDGIDtrax app can help simplify locating jobs and streamline the creation of accurate maps of underground utilities to protect critical assets. The SR-24 is a locating receiver that uses integrated Bluetooth communications to transmit data and GPS coordinates to a mobile device. Its omnidirectional antennas capture the complete signal field, making it easy to locate a line and follow its path. Pairing it with the RIDGIDtrax app for iOS or Android allows for creation of visual maps of underground utilities using a phone or tablet. Multiple lines can be traced, color-coded



Continued ►



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and named on an overhead satellite image of a job site. The SR-24 weighs 3.5 pounds, has a battery life of eight hours, wireless range of 200 yards and can be programmed to detect any active frequency from 10 Hz to 35 kHz. 800/769-7743; www.ridgid.com.

Leak Detection

General Pipe Cleaners Gen-Ear LE

The **Gen-Ear LE** from **General Pipe Cleaners** allows users to pinpoint water leaks in residential and commercial waterlines, whether they are under concrete slabs, in walls, swimming pools and hot tubs. The compact amplifier fits easily in the palm of the user's hand, and provides noise-free amplification with built-in preset audio filters. High-performance headphones with noise cancellation help block out interference from surrounding ambient noise. The advanced acoustic ground sensor listens for the gurgling or hammering of water escaping from a cracked pipe under concrete, asphalt or tile. For soft surfaces like grass or carpet, use the probe rods. For above-ground pipes or hydrants use the magnetic attachment. A safety button in the amplifier mutes sudden loud noises when the button is released. Two AA batteries power it for 20 or more hours. 800/245-6200; www.drainbrain.com.



Superior Signal Company 5E Electric Smoker

The **5E Electric Smoker** from **Superior Signal Company** connects to any clean-out or inspection port to smoke test an entire system in just a few minutes. Smoke testing can be an effective technique for finding sources of odors and many other faults throughout the building plumbing, laterals, the septic system and leachfield. The unit gently pushes smoke throughout the system to find cracks and leaks, and quickly identify problems; sets up and shows results quickly. It comes with an 8-foot industrial-grade flex hose. 800/945-8378; www.superiorsignal.com.



Safety Equipment

Screenco Systems Handle-Tech Hose Handles


Handle-Tech Hose Handles, distributed by **Screenco Systems**, enable technicians to safely clamp onto hose or pipe and easily grip, torque and release it single-handedly through a natural movement. Through mud, cold, rain or sleet, the handles' design allows workers to safely and efficiently manipulate hoses and pipes in any climate. They are ideal for drilling, mud suction hose, tanker hose, pneumatic truck hose, aircraft refueling hose, frac pipe, drill pipe, welding poly pipe and other rigid pipes. Sizes range from 1 1/2 to 6 inches, with an 8-inch version coming soon. Handles are manufactured with long-glass nylon that enhances the thermal insulation properties. They are strong, nonconductive and wear-resistant in temperatures from minus 40 to 150 degrees F to withstand steam blasting with de-icing equipment. 208/790-8770; www.screencosystems.com.



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Product Spotlight

Simplifying float system control

By Craig Mandli

The EZconnex Float Connection System from SJE-Rhombus provides a new, simple way to install float switches in a wet well for level control applications in lift stations, septic systems, or any other application controlling pumps using float switches. Rather than running multiple individual cables from float switches to a control panel, one single cable is run from the panel to a waterproof connection manifold conveniently located near the top of the wet well. This means less time on the job for plumbers.

“Individual floats can be quickly and easily replaced by a single worker rather than replacing long cables in a conduit run back to the panel,” says John Desmond, Product Manager with SJE-Rhombus. “Just plug in the new float switch, and the job is done. In most cases, there is no need to access the panel at all.”

The EZconnex system includes an electrical wiring manifold with mounting bracket and hardware. The manifold has three quick-release float switch connection ports. A single six-conductor direct burial cable has Red-Blue-Yellow wire pairs that match the R-B-Y imprint on the float housing to aid installers in field wiring. The mounting bracket is designed to allow quick access to the manifold and float switches for easy maintenance.

“The system offers major savings in manpower, time and expense in both initial installation and ongoing maintenance,” says Desmond. “Emergency float switch replacements that otherwise would take hours and require a crew

of two or three workers can now be completed in minutes by one person, greatly reducing downtime.”

The float switches feature an internal switching mechanism with sealed gold cross-point contacts for reliable low-current operation down to 0.16 mA at 125 volts. A range of wide- or narrow-angle float switches feature a quick-release connection that simply plugs into the manifold port(s) for a quick, clean installation. The system can be used with one to three float switches. Each float switch includes a protective rubber boot that provides a dual-seal design for an extra layer of protection to keep connections clean and dry. Sealing plugs are available for unused port(s). The system is rated for short-term water submersion, and is CSA certified. According to Desmond, the testing phase to develop the system was extensive before it hit the market in June 2016.

“The system has been in development for more than two years, and has gone through extensive lab and field testing for ease of operation, operating cycle testing, seal testing, and resistance to corrosive and toxic gases,” he says. 888/342-5753; www.sjrhombus.com.



RIDGID CS65x digital reporting monitor

The CS65x digital reporting monitor from RIDGID provides immediate drainline inspection footage and features Wi-Fi and Bluetooth capabilities

to simplify footage viewing and transfer. It has a built-in, water-resistant keyboard for easy addition of on-screen titles and annotation of captured media, and a daylight-viewable display for clear in-pipe images. A companion app is available for download and is compatible with Android and iOS devices. 800/769-7743; www.ridgid.com.



TRIC hydraulic pump

TRIC Tools' 14 hp, 6,000 psi hydraulic power pack is designed to accompany the TRIC lateral pipe bursting system. The pump delivers 2 to 8 gpm to the pulling unit, and the Kohler engine couples directly to the oil gear pump, eliminating the need for a lovejoy connector between the pump and the engine. It also has a muffler heat shield and an all-welded steel frame for strength and durability. The wheels have been upgraded to withstand rigorous field use. 888/883-8742; www.trictools.com.



CUES Easy Grout system

The computerized grout control system from CUES is designed to consolidate the valves, electrical controls and more into an instrumentation cabinet that can be mounted in any location. Easy Grout's graphic user interface leads you through the grouting process, and includes help files and tool tip descriptions to assist new users. An automated entry logic provides recommended settings for the grouting process based on the basic inputs of pipe size and depth. **800/327-7791; www.cuesinc.com.**

Superior Signal 5E Electric Smoker

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 or to the septic tank, and use an appropriately sized smoke candle to force smoke through faults and cracks to identify the sources of odor and hard-to-find leaks. It handles all residential and commercial smoke testing applications using smoke candles from 30 seconds to three minutes. 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.**



Bosch Thermotechnology Green-therm 9000 tankless water heater

Bosch Thermotechnology's new line of tankless gas-condensing water heaters, the Greentherm 9000 Series, offers nine models for high-efficiency domestic hot water in residential or commercial applications. The series features an energy factor of 0.99 with thermal efficiency of 100 percent, and has an operating range between 9,000 and 190,000 Btu. Wi-Fi is an option, enabling homeowners to control the water heater remotely via a free mobile app. Each model offers conversion to LPG using the included manifold injector kit, which eliminates stocking both LP and NG units. **800/283-3787; www.boschheatingandcooling.com.**



Perma-Liner Stinger Steam Cure System

The Stinger Steam Cure System from Perma-Liner works year-round and has infinite working time while using 100 percent solids epoxy. The system is compact and easily transported, and can install and cure in 40 minutes. **866/336-2568; www.perma-liner.com.**

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Water Cannon VHP39 adjustable pressure unloader

The VHP39 unloader from Water Cannon is machine-forged and constructed with a brass valve body and a stainless steel ball and seat for trouble-free operation. It manually adjusts from 100 up to a maximum of 5,650 psi via an adjustment knob that has a tamper-resistant setting. The unloader includes a built-in easy-start feature that allows starting without any static back pressure when mounted in a vertical position. It automatically sends the water into a bypass loop when the water flow is stopped at the trigger gun, allowing for safe release of pressure at the pump head. **800/333-9274; www.watercannon.com.**



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Taco Comfort Solutions names Will Vandewiel CEO

Taco Comfort Solutions announced the promotion of Will Vandewiel to chief executive officer. He was previously president and chief operating officer. He has an engineering degree from the Netherlands and received his business schooling at MIT.



GPS Insight donates to 60 charities in 2016

GPS Insight donated over \$200,000 in 2016 to 60 local and national charities and not-for-profits chosen by its customers and employees. The company's customers and employees suggested the charities that meant the most to them by posting their picks on social media. A few of the charities included Donate Life America, Habitat for Humanity, Leukemia & Lymphoma Society, Honor Flight Network, and Boys & Girls Clubs of Greater Scottsdale (Arizona).

Rausch announces new distributor

Rausch Electronics announced Peirce-Eagle Equipment of Branchburg, New Jersey, as the newest addition to their list of authorized distributors. Peirce-Eagle will provide Rausch Electronic equipment sales, service and parts to the municipal sales market.




ACV Triangle Tube's new manufacturing facility

ACV Triangle Tube has announced a new production facility that is designed to streamline the manufacturing process for their Smart indirect-fired water heater line, specifically Smart 30 through 60.

Jay Hassel named to lead Noritz America

Noritz America announced the promotion of Jay Hassel from his current post as vice president of sales and marketing to president and chief operating officer. The company also announced two other management promotions: Jason Fleming is the new vice president of sales and marketing; and Jason Corey has been promoted to the new position of national sales manager.

Northern California PHCC Expo 2017

The Northern California Plumbing-Heating-Cooling Contractors (PHCC) presents Expo 2017 on April 25, from 4 to 8 p.m. at the Alameda County Fairgrounds, Pleasanton, California. Admission is free. For more information, contact the PHCC of Alameda and Contra Costa Counties at 925/455-4188. 

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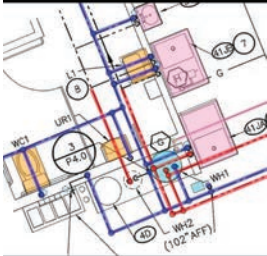
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