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CARING FOR the Customer

Multi-generation company continues to grow by doing what they've done for years, having a customer-first approach Page 12

▲ On the Road
WATER-TREATMENT UNIT KEEPS
BOILER SYSTEMS RUNNING
Page 18

▲ Industry Insider
SUBTLE CHANGES MAKE
PLUMBING OPERATION
MORE PROFITABLE
Page 28

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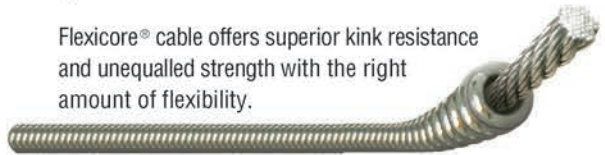
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18

in the ROAD

Bringing Quality to Water

Water-treatment unit removes minerals from water to keep boiler systems running at peak performance.

By Ken Wysocky



On the Cover

Brad Schefer, technician with Schefer Radiant, performs maintenance service on a chiller system at the Russian Hill Winery in Santa Rosa, California. The chiller is used with the steel barrels used for making Chardonnay. Schefer Radiant, based in Santa Rosa, performs plumbing and radiant installation and repair services.

Photography by Gerald Bybee

Coming Next Month - Commercial Plumbing

- ▲ Smart Businesses: Customers love to get free stuff, right?
- ▲ Industry Insider: Big D's Septic Service (Watson, Illinois)
- ▲ Plumber Profile: Scenic City Plumbing (Hixson, Tennessee)

8 From the Editor: Show Me the Money

Good communication and other methods can help you avoid the uncomfortable situation of a nonpaying customer
- By Cory Dellenbach

10 @plumbermag.com

Check out our exclusive online content.

12 Profile: Caring for the Customer

Multi-generation company continues to grow by doing what they've done for years, having a customer-first approach.
- By Cory Dellenbach

20 Smart Business: Will Cyber Insurance Save You from Devastating Losses?

Malicious hacking is a growing problem costing small businesses lots of time and thousands of dollars. Find out if you're covered.
- By Judy Kneiszal

22 In the Shop: Gearing Up for Greater Productivity

Driver shortages, lower fleet costs push a continued trend toward user-friendly automatic transmissions in work trucks.
- Ed Wodalski

24 First Responders: Dammed if They Don't

Contractor conquers cold weather, deep water and logistical challenges to clear a clogged pond drain.
- Scottie Dayton

28 Industry Insider: Finding a Way to Grow

Florida plumbing contractor stays with tradition while also making changes to make the company more profitable.
- By Marian Bond

30 Product Focus: Hydronic Heating Systems

- By Craig Mandli

32 Case Studies: Hydronic Heating Systems

- By Craig Mandli

34 Product News: Product Spotlight: Straight-Fit Backwater Valves Provide Easy Access

- By Craig Mandli

36 Industry News



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American Jetter 37

Cam Spray 21



Central Oklahoma Winnelson 27



Duracable Manufacturing Company 17

Fatboy Outdoors 33



General Pipe Cleaners, div of General Wire Spring Co. 2

HammerHead Trenchless Equipment 11

Hot Jet USA 38



Nu Flow Technologies 9

Pacific Emblem Company, Inc 37



Perma-Liner Industries, LLC 40



Picote Solutions 27



Pipe Lining Supply 39

RHR Products 23

Simple Solutions Distributing 37



Spartan Tool 5



TRIC Tools, Inc. 3



Ultra Shore 35



Water Cannon, Inc. - MWBE 7

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Cory Dellenbach

Show Me the Money

Good communication and other methods can help you avoid the uncomfortable situation of a nonpaying customer

I enjoy seeing photos and stories contractors post on Facebook and other social media pages. It's interesting to see the unique things plumbers come across — especially the strange setups you find in homes when customers try to fix things themselves.

One social media post caught my attention. It described a job that didn't go as planned. The contractor responded to a service call where the customer had been without water because he damaged the compression stop under the kitchen sink.

The plumber quoted a price and the homeowner agreed to it. The contractor finished the work, and that's when things turned bad.

The homeowner haggled with the contractor, trying to get him to do the work for free or at a discount. The contractor tried to work with the homeowner but wasn't going to give his work away. In the end, the homeowner refused to pay; the contractor cut the stop out, left the meter off, and left the job site.

What would you do if a paying customer became a nonpaying customer? Here are few recommendations:

- **Get paid first and protect yourself with a contract** — The contract can be as simple as invoicing the customer before the start of the work. Include a clause on the billing paperwork saying work will not be done until after a down payment or payment in full.
- **Don't rely on a handshake; document everything** — A handshake is about as good as a verbal agreement. It's not going to hold up in court if it comes down to small claims. Keep the emails between you and customers and make sure everyone has copies of the invoices and any other billing paperwork.

When you get to the job site, make sure you have a written itemized quote and have the customer sign before starting work.

- **Keep communication open** — If you're in the middle of a job and you run into a problem and know the price may increase, stop and inform the customer. The more you communicate, the better it will be for everyone.
- **Know the risks and plan for them** — Have a plan in place for the customer who refuses to pay. Have numbers available for the manager back at the office or even the authorities if it goes seriously sour.

Schefer Radiant and Wimpy's Dependable Plumbing, both featured this month, have had a customer-first approach from the time they were founded to generations later.


Tom Schefer, owner of Schefer Radiant, says it's something that his grandfather and father instilled in him, and he's proud to carry it on and teach it to his employees.

Wimpy's owner Mike Butler says over the years, from his grandfather to his dad and now to him, the customer service focus has never changed: "We always have and always will look after their interests."

One thing both owners have learned through the years is that open communication will resolve most issues between customers and contractors. They keep their customers informed on what they are doing along every step of the job.

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I'd like to hear how your company maintains its relationship with customers. Email me at editor@plumbermag.com or call me at 800/257-7222.

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"Your competitor likely spends a lot of money broadcasting their name all over. Let them spend all that money to spread themselves thinly across your market. Take a different approach and focus on just one area. You'll spend the same amount of money as you always have on marketing, but you'll start to see greater response because you can market more frequently to people."

— *5 Ways To Beat Your Competition*

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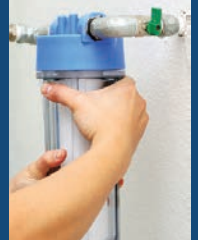
Widespread Use of Efficient Toilets Has Major Water-Saving Potential

Water-efficient toilets could potentially save up to 360 billion gallons of potable water per year across the country. That was the conclusion of a recently released study by the Alliance for Water Efficiency and Plumbing Manufacturers International. Read more about the study's results and the role plumbers can play in the move to efficiency products. ▶ plumbermag.com/featured

CLEAN WATER

The Lowdown on Whole-House Water Filtration

Many homeowners are concerned about the quality of water coming into their homes. They hear horror stories like what happened in Flint, Michigan, and wonder about the safety of their own water. This could be a business opportunity for you. Whether you want to install and service home water filtration systems, or you just want to be able to answer questions from your customers, the information in this article can help. ▶ plumbermag.com/featured



TOP TOOL

Drain Cleaning Brand Serves Plumbing Family for Two Generations

From the classic trucks he runs to the vintage uniforms he wears, second-generation plumber Cliff Lao has been strongly inspired by his father, Ruben. That influence also extends to the brand he prefers for his drain cleaning machines. Lao was featured in the April issue, and in this online-only story, learn about the company's go-to drain cleaning tool for when tough jobs or emergency situations arise. ▶ plumbermag.com/featured



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▼ Schefer Radiant owner Tom Schefer, left, stands with his wife, Laurie, and their son Brad near their shop in Santa Rosa, California.



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CARING FOR the Customer

Multi-generation company continues to grow by doing what they've done for years, having a customer-first approach

By Cory Dellenbach | Photography by Gerald Bybee



Schefer Radiant, Santa Rosa, California

OWNER	Tom Schefer
EMPLOYEES	6
SERVICES	Radiant heating, plumbing and solar
SERVICE AREA	60-mile radius around Santa Rosa
WEBSITE	www.scheferradiant.com

Customers have always come first for Schefer Radiant, no matter which generation has owned the company.

“My grandfather, my dad and myself, we’ve always strived on doing it the best possible way,” says Tom Schefer, current owner. “My dad always said that if you do it the best you can, the customer has no reason to complain. It’s always something that we’ve stood by. Just do it the best we can and give the customers what they deserve.”

The company, founded in 1945 in Santa Rosa, California, has gone through many technology changes, but the focus on radiant heating and plumbing and putting customers first has been a constant. That allows Schefer to look ahead to his son and even his grandson eventually taking over.

“I don’t think it ever started out to stay in the family, but it’s evolved into something like that,” Tom says. “The Schefer name has always been on the business and that is very important. I’d like to see it keep on going.”

BUILDING THE TRADITION

The family story begins with Walter Schefer in the late 1930s and early 1940s. He was just a young

“My dad always said that if you do it the best you can, the customer has no reason to complain. It’s always something that we’ve stood by.”

Tom Schefer

man working for a plumbing operation in Santa Rosa. “It was during the Depression, and he and the other guys would sit there on a bench outside and take turns on services calls,” Tom says. “It was tough back in those days.”

Walter made it through and decided it was time for a change. He bought a 21-foot double-ender salmon fishing boat and would go fishing and sell the fish at the local market to earn money to start his own business. “In 1945, he bought a plumbing business from another guy in town,” Tom says. “He started doing plumbing by himself. He knew boilers, so that is how we got into radiant.”

Once old enough, Walter’s two sons came along and took over Walter Schefer Plumbing. After a falling-out, they split the company. Tom’s dad, Mel, took the repair service division, and his uncle took the new installations. Tom assumed ownership of the company in 1991 from his dad and renamed it Tom Schefer Plumbing and Radiant Heating.



► Technician Mario Carrasco performs a routine service check on a chiller (G&D Chillers) at the Russian Hill Estate Winery in Windsor, California.



Things changed in 2005. “We had 14 employees and it was just so much,” Tom says. “We were just starting the recession and I had had enough. I was done. Another company came along and I sold the business.”

Tom stayed with that company as an employee for a couple years. After those couple of years, Tom decided the time was right to relaunch his company again, forming Schefer Radiant.

“When my grandfather first started, the city had maybe 11,000 to 12,000 residents,” Tom says. “Now, there’s almost 300,000, so we’ve just seen it grow and grow. Back then, there were three, maybe four plumbing companies, and now I don’t even know how many there are. We’re still very busy, though, because we do what we do.”

GOING BIG RIGHT AWAY

After he relaunched the company, it didn’t take long for Tom to get back to work. He received a job at a 16,000-square-foot, four-story house doing a new home installation project. “We did all the radiant,” Tom says. “All the plumbing was in cast iron and heavy type-K copper, and everything was just high-class top dollar.”

The homeowner wanted radiant components tied into a geothermal heat pump. “We had a company come in and

drill 14 wells at 350 feet deep,” Tom says. “We had the tubing go down inside those wells and then come back into a big, huge manifold in the basement to some heat pumps.”

Those pumps heated the water not only for the radiant floors, but also for the fan coils that were ducted throughout. In summer, the heat pumps would go into chilling mode and provide air conditioning. Schefer also installed a heat pump that worked the wine cave in the back of the house, supplied some of the refrigeration, and heated the swimming pool.

Tom worked on the project an average of three to four days a week, while also trying to build the company. He and his crews still go to the property every six months to check the systems — changing filters and UV bulbs used in the water filtration process.

“It was a very unique job and it lasted at least five years,” Tom says. “It was one of those jobs where it was so gratifying to work on it. Everything was the best and it turned out great.”

▲ Brad Schefer works on piping to the wine tanks at the Russian Hill Estate Winery. Crews were installing new pipes in the tank room at the winery and doing a general maintenance check on the rest of the system.

MANY SERVICES TO OFFER

While most jobs aren't as big as that multimillion-dollar home, the company does serve a wide range of clients, from residential to commercial, and will do new installations and repairs. "We'll put in water heaters, we'll go out and fix toilets," Tom says. "If people have leaky faucets, we'll go out and fix that. Anything that's inside the house we'll take care of."

Noritz tankless water heaters are a popular request on the plumbing side of the business.

There are some jobs, though, that the company won't do. "We don't do any sewer and drain," Tom says. "We didn't do enough of it to keep the equipment. You almost have to do that every day just to keep that side going."

Radiant is where Tom finds the most appreciation:

“We have to teach that into our employees, making sure they know how to take care of the people first and make sure they're happy.”

Tom Schefer

"That is something we really, really enjoy. The radiant is exciting and we love doing it."

The company typically installs Lochinvar, Viessmann and Baxi boilers.

THRILLING CHANGE

One big reason he enjoys working with radiant systems is the constant technology changes. Those changes are also a big reason his dad got out of the business.

"With the early boilers you'd just see one pilot light, a safety, an aquastat controlling the boiler and that's all," Tom says. "It was very simple and forgiving. You could do

Through the ages

Owning a company that's seven decades old, Tom Schefer isn't surprised when he's on a job and finds a system his dad or grandfather installed.

Tom, owner of Schefer Radiant in Santa Rosa, California, finds some radiant systems his grandfather put in back in 1945. "In those days they would use wrought iron black pipe for the tubing in the floor," Schefer says. "It would be welded together and they would put in big cast iron boilers."

His grandfather, Walter, typically did installations at churches, commercial buildings and large houses. "A lot of those systems are still working today," Tom says. "I just worked on a house that he did in 1948 and the system is still tight and everything's working great. It's on its third boiler with a big Buderus boiler in there now and it's working wonderfully. It's a tried-and-true system."

When Tom's dad, Mel, took over the company, copper installations became the norm.

"The copper had issues," Tom says. "They tied it to the rebar and something they didn't know then is that it would get electrolysis. The ones my dad did though, a lot of them are still out there because he did them in a certain way."

Crews would put in a slab of concrete, install the system on top of that and then put in a second slab on top of it.

Now that Tom owns the company, he's using PEX systems: "Maybe someday my grandson or future generations will be finding my installs."



▶ Schefer Radiant owner Tom Schefer conducts an inspection and adjustment of a mini split installation at a private residence in Sonoma, California.

a lot with those things, but they weren't very energy-efficient. We've taken out boilers 50 or 60 years old and it's just because we can't get the controls for them anymore."

The first technology change was spark ignition. Then boilers changed to two-stage gas valves so they would modulate. Then manufacturers moved into modulating controls and burners, and fan-assisted systems.

"Now we've got the Lochinvar boiler with the CON-X-US systems," Tom says. "We have an app on our phone and we can adjust the boiler from anywhere we want to. If the customer calls us because the house isn't hot enough, we can turn up the boiler from wherever we are. If there is a problem with it, it'll email me and send me an alert telling me what is wrong."

That technology helps when customers call with problems in remote areas. Crews can grab the parts they need right away instead of traveling back and forth. "That saves us so much time and saves the client a lot of money," Tom says.

The company often sends its employees to training with manufacturers to learn about new systems. "The boilers now, you don't even have to put in a conversion kit to switch between propane or natural gas because the

boilers figure out what it is and adjust to it," Tom says. "They're just incredible, but you have to be trained."

BIG ON CUSTOMER SERVICE

Tom knows how important customers are to any business: "We're there to take care of the people and we need to take care of them."

A big part of that is being available for service calls. For Burbank Housing, for example, Tom's crews installed close to 500 Baxi boilers — a combination boiler for domestic hot water and heating — in housing complexes. When one has an issue, his crews are on the job fast.

"When management calls and says they have a boiler down or it's acting up, we're there," Tom says. "I'll call my son, Brad, or our other plumber, Mario, and get them going. We're there within a few hours getting them taken care of because we want to keep them nice and happy."

Getting employees who will put customers first is a priority. Tom hires plumbers from other companies who have to be taught customer service: "We have to teach that into our employees, making sure they know how to take care of the people first and make sure they're happy."



▲ The staff of Schefer Radiant, from left, senior technician supervisor Brad Schefer, plumbing and radiant apprentice Million Hagos, owner Tom Schefer, owner Laurie Schefer, Ottilie (the dog), radiant heating technician Scott Lacoste, and plumbing and radiant technician Mario Carrasco.



▲ Brad Schefer uses a flue gas analyzer Test Products International on a boiler system at a private residence in Middletown, California.

FUTURE GENERATIONS AHEAD

At 60 years old, Tom knows its time to think about the future. His son, Brad, already works for the company and knows both radiant and plumbing.

“Brad has been with me since he was about 12 years old, working alongside me. I like to say he was born with a plunger in his hand,” Tom says. “Him knowing both radiant and plumbing is a big advantage.”

Schefer and his wife, Laurie, who serves as secretary, also have a grandson showing interest in the company. He will work with Tom this summer.

With the younger generations coming up, Tom has been spending more time in the office doing the design phase of the projects.

“It’s more of the designing and bidding, and going out and talking with the clients, and getting them set up,” Schefer says. “Then I’ll get all the materials ready for the guys doing the work so they’re ready to go and put the product in. I’ll go and check on them and make sure everything is done the way I wanted it. It’s time to let them do the hard work.” **P**

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Bringing Quality to Water

Water-treatment unit removes minerals from water to keep boiler systems running at peak performance *By Ken Wysocky*


Concerned about a growing number of premature heat-exchanger failures in customers' high-efficiency boilers, management at Cardinal Heating & Air Conditioning huddled with hydronic-system manufacturers and distributors to determine the cause.

The verdict: Excess minerals in water inside the hydronic systems were plugging up boilers' heat exchangers. The solution: A Hydrofill NA570924 water-treatment unit made by Caleffi.

“It gives the hydronic system a fighting chance when you're filling it with pure water and not introducing any extra minerals into the system.”
Craig Ouimette

“The passageways that water flows through in low-mass (wall-hung), high-efficiency boilers are a lot smaller,” explains Craig Ouimette, the service manager at Cardinal, based in Sun Prairie, located near Madison, Wisconsin. The company installs roughly 75 hydronic systems a year within about a 60-mile radius around Madison; about half are commercial and half are residential installations. “As such, they're not as forgiving as the old cast iron boilers. So water quality has become a bigger issue — lime and calcium deposits, hard water and so forth.

“The Hydrofill basically takes virtually all the minerals out of the water, making it pure,” he continues. “It gives the hydronic system a fighting chance when you're filling it with pure water and not introducing any extra minerals into the system. And since a hydronic system is a closed-



COMPANY	Cardinal Heating & Air Conditioning
LOCATION	Sun Prairie, Wisconsin
MACHINE	Hydrofill NA570924 water-treatment unit
FUNCTION	Demineralizes water while filling hydronic systems
FEATURES	Six mixed-resin filter bags made from water-permeable material and filled with beads; battery-operated; measures 21 inches at its widest point, 27 inches deep and 42 1/2 inches tall; weighs 98 pounds; includes two-wheeled cart; 12 gpm maximum fill rate
COST	About \$1,400
WEBSITE	www.cardinalhvac.com

loop system, the water that's in the system stays in the system. So if you can first condition the water, it should help the boiler last for years to come.”

Even an extremely thin layer of lime deposit on a heat exchanger can decrease a boiler's efficiency by as much as 20 percent. That's because the lime acts as an insulator that prevents the burner from transferring heat to the water passing through it. “So instead of heating the water all the way, you lose more and more heat out the exhaust pipe,” he notes. “And if that thin layer builds up to, say, 1/4 of an inch thick, the metal (exchanger) runs a lot hotter than it otherwise

would, which makes it flex at the welds. That's where leaks start to develop."

The Hydrofill NA570924 weighs 98 pounds and comes with a maneuverable two-wheeled cart. It measures 21 inches at its widest point, 27 inches deep and 42 1/2 inches tall. Its maximum fill rate is 12 gpm.

Here's how it works: A technician connects a hose from an on-site water supply to a standard hose fitting on the bottom of the Hydrofill. The water then filters up through six resin bags filled with tiny mixed-resin beads charged with positive and negative ions. The beads filter impurities from the water. Then the water leaves the unit via another hose that's connected to the hydronic system.

As the water passes through the Hydrofill, a highly accurate built-in meter monitors the level of totally dissolved solids (TDS), measured in parts per million (ppm). Tap water, for example, typically has a TDS level of 180 to 190 ppm. In a hydronic system, anything less than 30 ppm is considered a decent operating level. But the Hydrofill often attains levels of 5 to 10 ppm, Ouimette explains. "We can show that to customers right on the digital TDS meter," he says.

The unit shuts off automatically after 10 minutes of non-use. It's powered by a replaceable battery with a life of approximately 1,000 hours. Ouimette estimates that the resin bags need to be replaced about every 30 system fillings. He says Cardinal charges customers a modest add-on fee to essentially cover the cost of replacing the resin bags, which are made from a water-permeable material and come prepacked with beads. That makes replacing them quick and convenient: take the old bags out and put new ones in, he notes.

"It's not a game-changer in terms of revenue," he says. "We bought it more for adding value to system installations. A lot of customers have had a sour taste in their mouths because of all the issues they've experienced with high-efficiency units. They're not sure the new system will be any better than the old one that failed. But once we flush a system and show them what's coming out of their (water) piping, it's an easy add-on sale.

"The more we can do up front to protect that appliance, the more efficiently it will run and the longer it will last. And that, in turn, means happier customers."


Craig Ouimette



▲ Tim Pederson, lead hydronic expert for Cardinal Heating & Air Conditioning installs a Hydrofill NA570924 water-treatment unit at a commercial job site near Madison, Wisconsin. The unit removes minerals from water to make it better for the hydronic boiler systems.

"Our job as contractors is to educate them about why the previous unit failed, and explain why a little additional water-quality upgrade will save them a lot of headaches down the road," he continues. "This component (the Hydrofill) is going to be huge for us because a lot of premature system failures in our area were due to water hardness, not installation errors."

Cardinal rented a Hydrofill unit several times from Monroe Equipment, a Caleffi distributor, before buying one in late 2016 for about \$1,400. While it's not a huge revenue generator, it's hard to put a price on expected higher levels of customer satisfaction in the years ahead as high-efficiency boilers start to reach their full life expectancy, rather than failing shortly after warranties expire, he says.

"The more we can do up front to protect that appliance, the more efficiently it will run and the longer it will last," Ouimette concludes. "And that, in turn, means happier customers." 



Judy Kneiszel

Will Cyber Insurance Save You From Devastating Losses?

Malicious hacking is a growing problem costing small businesses lots of time and thousands of dollars. Find out if you're covered. *By Judy Kneiszel*

Data breaches and hacked accounts are big problems associated with big companies like Yahoo, Home Depot and Target because those are the cases that get media attention. Small businesses however, are not immune.

A 2015 study by the independent research organization Ponemon Institute and IBM found companies with fewer than 10,000 records are more likely to be hacked than those with more than 100,000 records, probably because smaller businesses are viewed as easy marks, with less-sophisticated cyber security technology. A Fortune 500 company has more resources to shore up firewalls than a mom-and-pop shop, and thieves are opportunists if nothing else.

Smaller businesses are viewed as easy marks, with less-sophisticated cyber security technology. A Fortune 500 company has more resources to shore up firewalls than a mom-and-pop shop.

GONE PHISHING

How are small businesses being hacked? In a 2016 *Internet Security Threat Report*, cyber security company Symantec says businesses with 250 or fewer employees are often recipients of fraudulent emails whose senders aim to steal financial information. Known as phishing, this practice targeted small businesses 43 percent of the time in 2015 — a 9 percent increase over 2014. The report notes that in 2011 only 18 percent of attacks focused on small businesses, so it's clear how fast the risk is growing.

Symantec also reports about 1 in 40 small businesses are at risk of being the victim of a cyber crime. Within a

targeted business, hackers will go after the email of employees with access to company finances. A malicious email opened by an employee who pays vendors or processes payroll, for example, could put financial information at risk, allowing hackers access to funds as well as personal employee, vendor and client information.

Criminals can use hacked information to remove money from bank accounts through wire transfers, steal customers' identity information, file for fraudulent tax refunds, or commit health insurance fraud. Cyber crooks can even use one small business' website to hack other small businesses.

Adding to the bad news, ransomware attacks are also increasing. This type of malware is used to freeze data or an entire computer network in order to extort money from a company. Hackers demand payment in exchange for a decryption key. Payment demands range from a few hundred to several thousand dollars.

PROTECT YOUR BUSINESS

So how can a small business be protected? First, try to reduce risk as much as possible. Make sure all employees are smart about passwords, and monitor who has access to critical files. Once you've identified and reduced risk, the next step may be insurance.

Of course, if fire is a possible threat to a business, one purchases fire insurance. If water is the threat, there's flood insurance. Today, it's a sign of the times that companies are offering cyber insurance, but many small-business owners don't purchase it because they mistakenly assume any loss caused by computer glitches or hacking are covered by traditional insurance policies. What many find out too late however, is that commercial property insurance and business liability insurance policies don't

cover cyber liability, and the costs can be astronomical.

The price of a data breach includes financial reimbursement of stolen money, legal fees if lawsuits have resulted from the breach, and the cost of compliance with breach notification statutes. It can also be costly to identify what caused the breach and come up with solutions to keep it from happening again.

ASSESS YOUR RISK

Cyber liability policies may be offered by the insurance company already providing your business liability coverage, so that may be a smart place to start shopping, especially since having more than one policy with a company can mean qualifying for a discount.

If you're still not sure this specialized insurance is necessary, take stock of your business. Cyber liability insurance makes sense if a business stores or transmits sensitive third-party information like credit card numbers, Social Security numbers, bank account numbers, etc., which is just about any business that accepts credit cards, pays bills or processes payroll. A good cyber liability policy will pay for damages associated with a breach including breach notification expenses, credit-monitoring fees, security investigation and repair, and cyber extortion expenses. Some of these are costs you probably never even thought about unless you've experienced a breach.

Another factor to consider is that as more and more companies safeguard themselves against cyber crime, they are becoming pickier about who they do business with. You may start to see big companies requiring proof of cyber liability insurance before agreeing to conduct business with you.

RATES VARY

Cyber liability insurance rates vary depending on several factors including the type of industry, size of the company and amount of risk. You'll get added protection and may qualify for lower rates if you've put some effort into beefing up your network security.

This is similar to how owning a car with a good safety rating can lower auto insurance premiums. It can be as simple as improving firewalls, adopting better password practices companywide, training employees to identify and ignore phishing emails, and limiting the number of employees with access to sensitive information.

Christine Marciano, president of Cyber Data Risk

Managers, an insurance agency specializing in cyber liability, put together a sampling of what clients pay for premiums. While premiums will vary widely, from hundreds to many thousands of dollars, one of her examples that might be close to a plumbing business would be a doctor's office with \$700,000 in annual revenues and a premium of \$649.

While shopping around for cyber liability coverage, keep in mind that while no business owner looks forward to spending more to add insurance, the National Small Business Association technology survey reports the average cost of a cyber attack reported by small businesses that were targeted in 2013 was \$8,699. That kind of unplanned and unwanted expense can cause serious financial problems for any small business. **P**

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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Gearing Up for Greater Productivity

Driver shortages, lower fleet costs push a continued trend toward user-friendly automatic transmissions in work trucks **By Ed Wodalski**

The shift to automatic transmissions in vocational trucks continues to gain momentum with strong growth in automated mechanical transmissions and telematics (remote communication of your vehicle's performance).

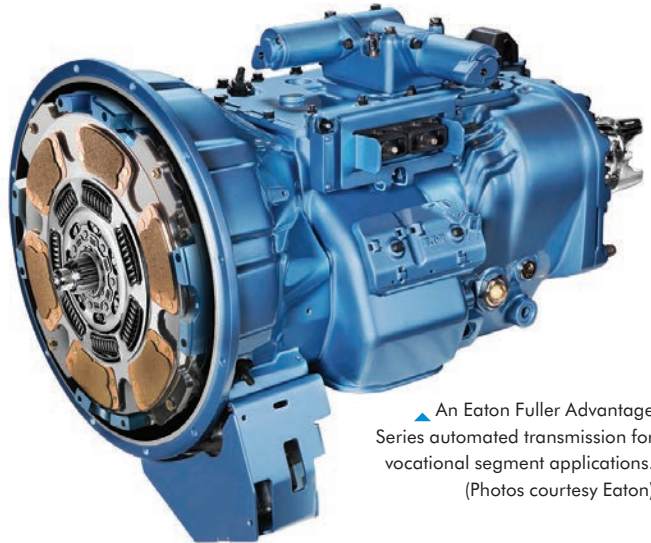
"If you look at the Class 8 market in particular, we've seen about a threefold increase in the percentage of AMT transmissions purchased over the last six years," says Scott Davis, director of strategic partnerships and customer experience at Eaton. "Roughly half of the Class 8 trucks purchased today have an automated transmission in some fashion."

For those not ready to make the switch from a manual to a fully automatic transmission, the AMT combines a traditional clutch-actuated manual gearbox with a computer-controlled shift actuator and clutch. The best shift patterns are selected electronically for optimal power or fuel efficiency. With computer-controlled shifting and clutch engagement, only two pedals are needed to operate the truck: brake and accelerator.

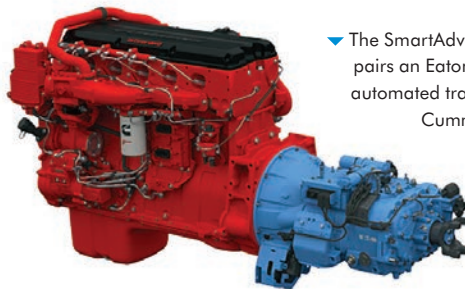
Driving demand for AMT and fully automatic transmissions is the pursuit of better fuel economy and lower fleet cost, as well as driver shortage, driver retention and the ability to recruit drivers into the industry with less experience. Another contributing factor is a decrease in cost between manual and AMT transmissions.

"Resale is a big factor in that equation," Davis says. "The vocational customers are very sophisticated in their financial modeling and figuring out that total life cycle cost, from the initial acquisition to operational costs, repairs and resale. With new technology, whether it's AMT or engines, resale has a big impact."

Technology, specifically telematics and the connected vehicle, are the current hot topic, from engine controllers and transmission controllers to body controllers and ADF controllers.



▲ An Eaton Fuller Advantage Series automated transmission for vocational segment applications. (Photos courtesy Eaton)



▼ The SmartAdvantage powertrain pairs an Eaton Fuller Advantage automated transmission with the Cummins ISX15 engine.

Greater efficiency

"You're seeing trends with the subsystems working closer together to become more efficient," Davis says. "That's a big part of our SmartAdvantage powertrain with Cummins — more integration on the control side to get a more fuel-efficient package."

Smaller and lighter transmissions achieved through aluminum enclosures and optimization also contribute to better fuel efficiency as well as greater cargo capacity.

“A high percentage of the clutches we sell today are Solo self-adjust clutches. Historically, clutches have required adjustment at a certain interval. The self-adjust clutch helps reduce the amount of preventive maintenance required.”

Scott Davis

“If you look at one of our flagship products, our SmartAdvantage powertrain, one of the purposeful things we did is weight reduction,” Davis says. “We looked at it not just as a transmission but as a total system. We were able to eliminate the cooler, the cooling lines and a large amount of oil in that system.”

The powertrain optimizes shifting based on grade, vehicle weight, engine torque and throttle position, making every driver as efficient as possible. Since its introduction in 2013, the powertrain has increased fuel economy by about 7 percent, according to Eaton’s website.

In addition to less weight, fewer components also means there’s less chance for hose and fitting failure.

Emerging technology

“If you look outside the vehicle, that’s where telematics comes in,” Davis says. “Fleet managers have greater insight into what’s happening in terms of usage, average speed, duty cycles, as well as indications of potential failures and how to service as a planned repair without extensive unplanned downtime. That’s where I think there’s a lot of interest from the end customer and more product offerings.”

One of the benefits of the emerging technology is the ability of truck owners and fleet managers to fix small problems before they become big problems.

Onboard diagnostics

“The last thing you want is a truck on the side of the road,” Davis says. “The other opportunity it presents is if you have better visibility into the usage of a product, you can extend maintenance intervals by actual usage rather than application.”

Emerging technology enables engines to communicate with transmissions, drivetrains and other components, as well as fleet managers.

Sophisticated electronics link communications, such as the SAE J1939 controller area network that operates like an onboard intranet. Raw data is collected and broadcast through a cellular connection to a telematics provider, such as Omnitracs, PeopleNet or Geotab, and relayed to the fleet manager.

Less maintenance


“I think the real key is going from raw data on the J1939 CAN link into something that is meaningful and actionable,” Davis says. “That’s where manufacturers like Eaton come into play — how do you avoid hundreds of text or email updates to a fleet manager as opposed to information the fleet manager can use and act on — adjusting maintenance cycles, feedback to drivers or if there is a truck-down situation?”

Technology has also impacted transmission maintenance, primarily extending service intervals for lubricants, and clutches that can go 50,000 miles between greasing.

“If you’re a fleet manager, the fewer times you have to grease the clutch the better,” Davis says. “A high percentage of the clutches we sell today are Solo self-adjust clutches. Historically, clutches have required adjustment at a certain interval. The self-adjust clutch helps reduce the amount of preventive maintenance required.”

So what’s the next big thing in truck transmissions?

Concepts already being studied are autonomous vehicle tuning and communication from one transmission to another in local area networks, enabling fleets to travel in tightly packed convoys.

“I think that’s the next frontier beyond telematics,” Davis says. 



Dammed if They Don't

Contractor conquers cold weather, deep water and logistical challenges to clear a clogged pond drain *By Scottie Dayton*

Heavy winter rains and a clogged cast iron drainage system in a private 2-acre pond flooded a family's pet cemetery in Lexington, South Carolina. A plumber recommended the homeowners call Drain Pro in Columbia, South Carolina.

"The water was 18 to 20 inches above the vertical 6-inch overflow," says Drain Pro owner Chris Bergeron. "It had happened before, and the customer blamed turtles for the blockage."

Bergeron and his brother, Jeremy, had never worked on a pond and were concerned about maintaining its integrity. Although they anticipated challenges, the project ballooned into their most difficult to date. The homeowner's cooperation, and equipment from Perma-Liner Industries, made it a success.

LAY OF THE LAND

A 15-foot-high earthen dam across a stream in a heavily wooded area had created the 65-year-old pond. A walkway on top of the dam encompasses the pond. A 90-degree elbow connects the 12-foot-deep overflow to 75 feet of 6-inch pipe daylighting behind a woven field fence on the downstream side of the dam. The line discharges to the stream.

Bergeron used his Club Car turf utility vehicle to transport three Powerhorse bypass pumps from the staging area 500 yards to the pond. Three days of pumping with two 2-inch pumps (7,860 gph each) and a 3-inch pump (11,820 gph) failed to lower the water level.

"They couldn't keep up with the rain," says Bergeron. "Our only other option was extending the height of the overflow by attaching a flexible Fernco coupling and a 24-inch length of 6-inch PVC pipe. However, we risked snapping off the elbow in the process."

To reach the overflow 30 yards from shore, the brothers designed a small barge, but the idea was expensive. The homeowner responded by offering his rowboat. "This year,



▲ Chris Bergeron of Drain Pro struggles to attach a 6-inch PVC extension with flexible Fernco coupling to a submerged cast iron overflow pipe. Jeremy Bergeron uses a bow rake to steady the extension and rowboat. (Photos courtesy of William Huang Photography)



COMPANY Drain Pro

OWNER Chris Bergeron

LOCATION Columbia, South Carolina

FOUNDED 1999

SERVICE OFFERED Video inspection, pipe lining, pipe bursting, plumbing

“They couldn’t keep up with the rain. Our only other option was extending the height of the overflow by attaching a flexible Fernco coupling and a 24-inch length of 6-inch PVC pipe.”
Chris Bergeron

January temperatures were in the low- to mid-40s,” says Bergeron. “Once out on the pond, we discovered the boat had a hole in the bottom. The water bubbling up was frigid and we struggled to keep our feet dry.”

NAVIGATIONAL SKILLS

To avoid accidentally rowing over the top of the overflow, Jeremy hooked it with a bow rake, then pulled gently until they drifted alongside. Attaching the extension to the overflow went slowly. The water numbed Chris’ hands in a minute and he had to warm them repeatedly under his armpits. Meanwhile, Jeremy steadied the extension and boat with the rake.

The only way to reach the outfall to inspect the pipe was down the face of the dam. After the brothers parked a Generac generator and 18 gpm/4,000 psi trailer-mounted 300-gallon jetter (US Jetting) on the dam’s walkway, they tied a rope to trees to help navigate the slick 65-degree slope as they hauled the extension chord and jetter hose behind them.

With the owner’s permission, they cut and rolled back a section of fence wide enough for the ATV. “We strapped our Pearpoint P350 flexitrac sewer camera to the bed, then I drove the vehicle down the embankment,” says Bergeron. Inspecting the pipe revealed vegetation, heavy scaling in areas, and two dead turtles causing a blockage. Cleaning the line with a 1/2-inch Warthog nozzle from StoneAge exposed holes in the brittle metal.

Driving back up the hill, Bergeron didn’t have enough momentum to crest the top. Gravity rolled the car into a tree, caving in the fender and grille, and breaking the driver’s side mirror. Hemmed in by trees, Bergeron struggled to turn the vehicle around and back up the embankment.

BEST SOLUTION

To prevent the pipe from collapsing, Bergeron suggested rehabilitating it using the Perma-Lateral liner system (Perma-Liner). The homeowner agreed. However, inverting the 3-mil liner downstream through the



- ▲ Jeremy Bergeron of Drain Pro feeds the liner and calibration tube pull-in-place assembly into the extension on the overflow pipe.
- ◀ Jeremy Bergeron steadies himself and the pull-in-place liner assembly as brother Chris paddles the boat to the overflow.

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overflow would be complicated and risky. “We didn’t want to capsize, so we went with two liners, inverting the first from the outfall,” says Bergeron.

In preparation, the brothers hand-dug through the clay to expose 7 feet of pipe, then cut off 6 feet to make room for the inversion unit. In the Perma-Liner trailer, they wetted 75 feet of material with hot epoxy resin (60-minute working time), then transported it via ATV and by hand to the inversion unit.


Before blowing the liner at 8 to 10 psi, they turned off the bypass pumps to hear each other on two-way radios. The liner traveled 70 feet and stalled at the elbow. “We pulled the liner back 5 feet, increased the pressure to 25 psi — just below popping the safety valve — and made four attempts before it shot around the bend,” says Bergeron.

As expected, the 3 feet of unsupported liner in the overflow collapsed. Bergeron assumed the calibration tube would push the liner into place. It didn’t. “We switched from inversion to pull-in-place,” says Bergeron. After retracting and inverting the calibration tube, Chris sent a fish tape downstream, Jeremy attached the liner’s pull strap and the tube, and Chris pulled them up into the overflow.

“As we introduced steam, the pressure pushed the liner where we wanted it, while smoothing any wrinkles in the bend,” says Bergeron. Because the water and pipe were cold, the brothers steamed the liner for 30 minutes at 6 psi to jump-start the accelerant and compensate for heat displacement, then they introduced air at 10 psi for an hour to cool the liner.

DOWN THE HATCH

To line the top 9 feet of the overflow and overlap the bottom liner by 12 inches, the brothers glued the second liner to the calibration tube. Once Jeremy was in the boat holding the assembly, there was no room for Chris to use the oars, so he paddled the boat like a canoe to the overflow. They attached the pull strap to the fish tape, sent it downstream, and an assistant pulled the strap as Jeremy fed the assembly into the overflow. “We shorted the second liner by 4 inches, as cutting it flush with the top of the overflow would require electric tools,” says Chris.

To project the outfall 12 inches into the stream, Chris attached 5 feet of PVC pipe to the liner using a Fernco coupling, then backfilled. Jeremy removed the extension on the overflow as Chris inspected the cured-in-place pipe. “The homeowner couldn’t believe how good it looked,” he says. “Perma-Liner equipment came through for us again under difficult conditions.” 

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Finding a Way to Grow

Florida plumbing contractor stays with tradition while also making changes to make the company more profitable

By Marian Bond

Mike Butler has his work cut out for him as he follows in the footsteps of both his father and grandfather.

While he's carrying on the tradition of what they started with Wimpy's Dependable Plumbing Inc. by serving primarily residential customers, the 32-year-old CEO is also changing things up with new technology and business practices.

Winfred "Wimpy" Butler started the company based in Sarasota, Florida, in 1973 working out of his service van and at the kitchen table. The business eventually passed on to his son, Robert "Bubba" Butler. Bubba handed the business off to Mike in 2014.

Q: After 44 years, what would you say has changed at Wimpy's Dependable Plumbing?

MIKE: What has not changed is our honesty and integrity and how we take care of our customers. We always have and will look after their interests. Our level of service has never changed.

What has changed recently is our method of charging for our services. We have gotten away from offering plumbing services on an hourly basis. I explained to my father that the prices we charged hourly were just getting us by. We needed to not only take care of our customers, but we needed to provide for our family and employees. Flat-rate pricing would achieve those goals.

We had done work for Habitat for Humanity and we were doing the same job over and over, and bidding was redundant. I did research

to find what would be fair all-around. With this in mind, I made up my own menu of our services with pricing for each project we would offer.

Q: When you introduced this, how did it go over with your customers?

MIKE: Our customers were somewhat confused initially about how it worked. We explained it took into account time and material and other issues. Yes, we did lose maybe 15 percent of our customer base; our devoted customers have stayed with us. They liked that they did not have to keep an eye on the clock to see what the cost would be. They also knew that if the job was harder than anticipated, the price would not change. We actually built a higher level of trust with our customers.

▼ Wimpy's Dependable Plumbing owner Mike Butler sits in the cab of a service truck his company, based in Sarasota, Florida, uses. (Photo courtesy of Wimpy's Dependable Plumbing)

“Personally, I love being a hero. Every call I go out on, I get to be a hero to somebody.”

Mike Butler





Q: Were you concerned that your plumbers would go to a job and not waste time visiting with the customer?

MIKE: Our plumbers know they are given a job to do, but we want them to also know they are not pressed by the clock. They can spend time hearing about the dog or some other personal item. We do not want to miss that connection. They can always remind a customer that they must get on to the next job. We want to maintain those important relationships. Our motto has been “Building relationships since 1973.”

Q: Any other changes you want to mention?

MIKE: We have changed our fleet of six service trucks and now run completely custom Ford F-450 Lariat trucks with 11-foot reading service bodies with custom aluminum pipe racks and storage boxes. They are larger and more well equipped so we can better serve our customers.

Q: What is your staff as of today?

MIKE: We have myself, my father, Bubba, three plumbers and our secretary is my aunt, Lori Stone. Lori has been with us for 43 years. She is the cheery voice on the telephone. Our plumbers work under my license, but they are all working toward getting their own licenses. We encourage them and pay for them to have their own licenses.

If someone is going to be in the trade they owe it to themselves and the customer to be highly trained.

Q. You offer drain cleaning. When did you include that service?

MIKE: We’ve done it from the beginning. If you are a plumber you are in the drain cleaning business. Every plumber I know has always carried a drain machine. We have three, and also a trailer hydro jetter. In Florida we have problems

▶ Mike Butler, left, and his father Robert “Bubba” Butler, stand with the company’s fleet of trucks.

with cast iron corroding, and the hydro jetter allows you to descale that iron and then drag it outside the house, and clean the line completely. We can do 2- to 10-inch lines.

If that is not enough, we have a pipe bursting machine and we can pipe burst the sewer lines or lines under the house.

Q: When did you begin using pipe bursting, and what product?

MIKE: We started that in 2015 and use TRIC Tools equipment.

Q: Is it difficult to offer a flat rate for pipe bursting?

MIKE: When we are planning a pipe bursting job, either Bubba or I will go out and look at the job. We take into account footage, access, how much concrete needs to be cut, and other aspects. We have a method to help us give the customer a firm rate. We complete the job regardless of what we find, as long as it is not extremely out of the ordinary. We do 4-inch pipe with our pipe bursting.

Q: What kinds of jobs are you most interested in, and what would you avoid?

MIKE: We do very little commercial business. We also do not provide service to condominiums in our area because parking is limited and many of these buildings can be 10 stories, and there are difficulties in getting access.

We will service town homes, which are generally two to three units, with access and parking much more accommodating. We also, of course, do all residential homes.

Hydronic Heating Systems

By Craig Mandli

Controls

Viega Hydronic Mixing Block

The **Hydronic Mixing Block** from **Viega** simplifies wiring, piping and programming for radiant heating systems. It can be a user-friendly and economical solution for controlling radiant heating systems. It combines mixing, control, air elimination and a circulator in a single, simple unit that makes wiring, piping and programming easy. It has only three connections for simple installations, with clearly labeled fittings and ports, removing the obstacles with increased functionality, minimized settings and easy connections for piping and wiring. The installer inserts the fittings, mounts the unit into the bracket, and then ties it into the system. The block's control offers an intuitive menu structure for quick, simple programming without sifting through multiple menus. **800/976-9819; www.viega.us.**



REHAU Construction EVERLOC+

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Continued from page 29 ▶

Q: What are the major challenges you face as CEO of Wimpy's?

MIKE: Biggest challenge is that customers still want Bubba to come take care of their problem. He is still working here, but we are trying to let him take a back seat. They have known Bubba for 20 years.

On a personal level, I feel a huge responsibility. Everyone's well-being depends on me. I have come to realize that "I will not fail."

Q. What are your goals?

MIKE: I'd love to have 10 to 12 trucks, and more plumbers. We are always looking at new technology, attending trade shows. Our goal is to serve the customer with all their needs.

Personally, I love being a hero. Every call I go out on, I get to be a hero to somebody. Every call is different and I love figuring it out and solving it for the customer. **PI**



Taco Comfort Solutions 0015e3

With three easy settings, the 0015e3 ECM high-efficiency circulator from Taco Comfort Solutions replaces all three-speed hydronic circulators in its class. Its variable-speed, high-efficiency ECM motor uses up to 85 percent less electricity. It is ideal for hydronic systems zoned with circulators or zone valves, and provides three maximum-feet-of-head pressure settings to match system requirements — low (5 feet), medium (10 feet), or high (18 feet), with a maximum flow of 16 gpm. Its BIOBarrier protects the pump from system contaminants, especially black iron oxide that otherwise tends to collect around strong ECM magnets. SureStart automatically unblocks a locked rotor and purges air from the circulator. It is double-insulated, which eliminates the need for a ground wire. It qualifies for most state, regional and utility efficiency incentive programs. An integral flow check is included, and both two-bolt or two-way flange models are available. 401/942-8000; www.tacomfort.com. **PI**

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Hydronic Heating Systems

By Craig Mandli

Condensing boiler provides savings with efficiency boost



Problem: Weighing over 1,000 pounds, an oversized, cast iron boiler once dominated the basement of a Pennsylvania residence. Dave Yates from F.W. Behler stepped in to redesign the customer's system to save them money and energy during the winter heating season.

Solution: With a 95 percent efficiency rating, a NHB Series condensing boiler from Navien was chosen as a replacement. This space-saving unit offers a 15-1 turndown ratio to reduce energy consumption, and was installed with a Navien preassembled primary manifold. While the original boiler took more than five people to remove, Navien's NHB Series weighs 80 pounds and can be hung on the wall by a single individual.


Result: The switch proved to be cost-effective not only for the homeowner, but also for the contractor using preassembled manifolds. "When you look at the value of the time saved versus what this costs, it's a net positive for us as contractors because we're able to move in and out and go onto the next job faster," says Yates. F.W. Behler compared seven months of energy-usage data to the previous year during the winter heating months, and calculated a 56 percent reduction on therm usage, totaling 1,230 fewer therms used. Their utility bill also decreased 56 percent, saving the customer over \$1,200 during the coldest time of the year. 800/519-8794; www.navienamerica.com.

Condensing boiler provides savings and reliability



Problem: Astacio Plumbing & Heating lead technician Jonathan Alvarez had grown tired of problematic condensing applications, and wanted to find a new boiler that wouldn't create callbacks. Late last year a call came in to install a boiler and copper tube baseboard in a 50-year-old, 2,500-square-foot home in southeastern Connecticut that was being heated with electric baseboard. Alvarez decided to use it as an opportunity to try a new boiler.

Solution: Torrc Plumbing Supply suggested that Alvarez try the K2 Firetube high-efficiency boiler from U.S. Boiler Company. The home's heat load, in addition to a new 80-gallon sidearm tank, required around 200 mBh. Alvarez installed a 205 mBh K2 Firetube, along with all-new radiation. The boiler is available in five sizes from 85 to 270 mBh, all of which can be floor or wall mounted. It offers efficiencies of up to 95 percent, and the 155 mBh model is available as a combination.

Result: During the installation, Alvarez noted how easy the boiler was to install. The inside of the boiler cabinet wasn't crammed full of wires and sensors, and he liked how the boiler looked on the outside, too. The homeowner has been much more comfortable, and over the past winter, saved between 40 and 60 percent on heating expenses. 717/397-4701; www.k2boiler.com. 

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Product Spotlight

Straight-Fit Backwater Valves Provide Easy Access

By Craig Mandli

New plumbing codes typically require backwater valves to be accessible for maintenance and servicing. That can be difficult for in-ground installations, though, where plumbers often need to construct a concrete pit with an access lid. To combat that problem, and save plumbers some time, Mainline Backflow Products offers the Straight-Fit Backwater Valve.

The Straight-Fit simplifies in-ground installations with a removable extended flapper system, allowing for easy ground-level access at any depth. The flapper system opens under normal flow conditions, but closes and remains friction-sealed during backflow from the sewer or septic line. It's a product that is a fit for inside the home or out, according to Mainline Backflow's sales and marketing coordinator Mark Wells.

"You don't need any special tools or rigging to install or remove the Straight-Fit gate, simply attach a standard Schedule 40 pipe to the gate housing," he says. "The body has a minimal slope, making it ideal for new installations and retrofits."

The unit's Smart-Curve flapper is designed to smoothly guide cleaning and surveying equipment through the backwater valve, also allowing for safe withdrawal of the same, minimizing risk of damage to the flapper. The addition of a Smart-Curve snake guide at the elbow of the valve body also allows easy snaking from the main access.

"The Smart-Curve is a huge addition because it provides such a smoother ride under the gate deflecting the snake," says Wells. "Any plumber who has had to perform



maintenance or snake a line through the backwater valve knows it's easy to get tools stuck and make a mess."

The unit is available in ABS and PVC pipe, in 3-, 4- and 6-inch sizes. Plumbers can request an optional gate for pressure testing or isolation of the system as well. Wells says the unit has been on the plumbing market for roughly five years, and is gaining a loyal following among the plumbing and septic system installation industry.

"I feel this is a terrific fit for plumbers, but the septic industry is a market we are really trying to grow in," says Wells. "There is so much crossover between those two markets, it makes a lot of sense for us to be in both." 877/734-8691; www.backwatervalve.com.



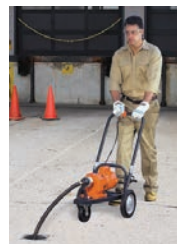
RIDGID digital recording monitors

The SeeSnake CS6x and CS6xPak digital recording monitors from RIDGID feature Wi-Fi and Bluetooth connectivity for quick viewing of drainline conditions. The monitors stream and record inspections to a designated iOS or Android phone or tablet using the free HQx Live companion app. Each monitor has a water-resistant keyboard for direct control of camera and monitor functions to provide for

uninterrupted work in tough conditions. 800/769-7743; www.ridgid.com.

General Pipe Cleaners Model 88 sectional drain cleaner

The Model 88 sectional drain cleaner from General Pipe Cleaners features a heavy-duty 3/4 hp motor as standard equipment and drives a 3.5-1 ratio gear head for plenty of power. It has a longer



frame to protect the drive coupling, and a larger front caster wheel. The cleaner spins 8- or 10-foot quick-coupling cable sections at distances of 200 feet or more. The cables self-feed while the operator stands behind the machine as the cables screw into the line. Standard equipment includes a safety clutch, air-actuated power switch, ground fault circuit interrupter, folding handle, 10-inch wheels and a cable-feeding tool. **800/245-6200; www.drainbrain.com.**



Picote PVC chain

Picote PVC chains are available as the Cyclone and Original designs, and do not have carbide inserts, making them safe for use inside PVC pipes. The chains are used with the Picote Micro or Mini Miller machines, utilizing the 1/3-inch-diameter shaft in 2-, 3- and 4-inch-diameter pipes. When used with the Midi and Maxi Miller machines with its 1/2-inch shaft, the chains can be used in 4- and 6-inch-diameter pipes. **219/440-1404; www.picotesolutions.com.**

SJE-Rhombus Tank Alert Solar Alarm

The Tank Alert Solar Alarm from SJE-Rhombus is powered by a rechargeable battery via a 12-volt DC, 10-watt solar panel. In full alarm, the unit will run for about 24 hours. Idle use without any solar charging will run for about five days. It features a NEMA 4X indoor/outdoor rated enclosure with integral mounting tabs for convenient installation and features LED indicators to show power on, reverse battery polarity and battery charging. Lithium-ion batteries provide backup power. **888/342-5753; www.sjrhombus.com.**



Reelcraft's spring-retractable high-capacity hose reels

The G9000 Series high-capacity hose reels from Reelcraft are designed to be compact and allow for longer lengths of larger-diameter hose. The redesigned gooseneck can be removed from the reel for easier hose attachment. An external drive spring allows for convenient access to the spring components and improved servicing of the reel. The roller bearing inside of the pillow block produces a smoother spool rotation and easier operation. Models are available for 1 1/2-inch I.D. by 50-foot low-pressure air and water hose, 1-inch I.D. by 75-foot and 3/4-inch I.D. by 75-foot medium-pressure oil hose. **800/444-3134; www.reelcraft.com.**

Armstrong Fluid Technology COMPASS R circulators

The COMPASS R from Armstrong Fluid Technology has a high-efficiency dry rotor design, optimized hydraulics, replaceable mechanical seal, bolt-for-bolt connection compatibility with a range of installed three-piece circulators and an onboard control panel for easy selection of the appropriate operations mode and flow. It is available in .25 hp to 1.5 hp models with a maximum flow rate of 225 gpm and maximum head of 65 feet. The COMPASS R complies with EEI<0.22 and a large wiring chamber. **800/356-9845; www.armstrongfluidtechnology.com.**



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Kenney named Franklin Electric president

Franklin Electric announced that it has appointed Donald Kenney as president, North America Water Systems. He will be responsible for all aspects of the NAWS business that supports the sale of Franklin Electric products to customers in Canada, the U.S., Mexico and Central America.



Telular launched new fleet management portal from SkyBitz

Telular launched a new fleet management portal and mobile app from SkyBitz Local Fleets. The Ops Center portal and app deliver GPS tracking features and data including vehicle location, fuel usage, and speed and mileage reports.

Caleffi appoints new marketing communications manager

Caleffi announced Nicki Bowling has joined the company as the marketing communications manager. She will be responsible for conceiving and leading North American marketing initiatives involving branding, advertising, events, communications, specialized marketing programs and field sales support.



Source One Environmental announces partnership

Source One Environmental announced its partnership with Vortex Infrastructure as an exclusive distributor of Pipe-Robo-Tec USA. Vortex provides a suite of services and products within the trenchless rehabilitation market, including product lines under Quades, Pipe-Robo-Tec and Schwalm USA.

Goettl Air Conditioning and The Sunny Plumber welcome VP

Daniel Bonner has joined Goettl Air Conditioning and The Sunny Plumber as vice president of operations. Bonner will be based out of Goettl's Tempe, Arizona, office and will be responsible for all plumbing and HVAC operations in their market areas, including Phoenix; Tucson, Arizona; Las Vegas; and Southern California.

J.C. Whitlam's new eastern regional sales manager announced


Jason Seelman is J.C. Whitlam's new eastern regional sales manager for the company's plumbing, HVAC, waterworks, irrigation and fire protection markets. He brings an extensive sales management background as well as purchasing experience through his years at Robertson Heating Supply in Alliance, Ohio.



Knipex Tools L.P. joins DPA Buying Group

Knipex Tools L.P. joined the Distributor Partners of America Buying Group, which caters to the distributors and vendors of tools, fasteners and industrial supplies. The company has more than 1,400 different professional pliers and tools available to the DPA distributor member base.

PMI's technical director joins committees

Matt Sigler, Plumbing Manufacturers International's technical director, has been appointed to the Joint Committee on Drinking Water Additives – System Components. He also recently began serving on the International Code Council's Plumbing, Mechanical, and Fuel Gas Code Action Committee. 



Taco Comfort Solutions wins local safety award

Taco Comfort Solutions earned the 2017 Excellence in Safety Performance and Records Award from *Providence Business News*, Rhode Island's statewide business weekly.

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WHAT IS YOUR PRIMARY SERVICE?

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

WHAT BEST DESCRIBES YOUR PRIMARY JOB FUNCTION?

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

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

0-3 4-9 10-19 20+

HOW MANY VEHICLES DO YOU CURRENTLY HAVE IN SERVICE?

1-5 6-10 11-15 16-20 21+

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

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

WHAT IS YOUR ANNUAL EQUIPMENT BUDGET?

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

WHAT SERVICES DO YOU PERFORM ON A REGULAR BASIS?

Plumbing Maintenance/Repair Sewer/Drain Cleaning
 New Construction - Commercial Pipe Bursting
 New Construction - Residential HVAC TV Inspection
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