# 

# Building an

Mississippi plumber builds his business around a reputation for quality remodeling work

page 14

► on the road THINKING OUTSIDE THE BOX page 24 \_\_\_\_\_\_

► smart business TESTIMONIALS ARE MARKETING MAGIC page 30

## **Gen-Eye Prism<sup>®</sup> Why Pay Extra?**



Why pay extra for a monitor and recording device when you already own one? The new Gen-Eye Prism pipe

The toughest tools down the l

inspection system lets you use your own tablet or Smartphone to view your inspection and record it. The Wi-Fi transmitter inside the Prism sends video to your device held securely in the expandable cradle on top of the unit.

### For more Info: www.drainbrain.com/prism

The Prism offers all the features of a full-size inspection system in a compact package including on-screen distance counter, nine page titler, and date and time stamp, plus a Power Port to keep your device charged during inspections.

For more information, call the Drain Brains® at 800-245-6200 or 412-771-6300, or visit www.drainbrain.com/prism.

C General Wire Spring 2016





What are these guys watching? Well, for one thing, they're watching profits go up. They're replacing a home sewer lateral trenchlessly with a pipebursting system made by TRIC Tools, Inc., the company that started it all.

For more info visit www.trictools.com or call 888.883.8742

ORIGINA





### Profile: Building an Identity

Mississippi plumber builds his business around a reputation for quality remodeling work. By Marian Bond



### ON THE COVER

Skeen Plumbing & Gas technician Gray Doty works on an outside water fixture at a home in Jackson, Mississippi.

(Photography by Justin Sellers)

### Coming Next Month: May 2016

- In the Shop: Give your fleet a lift
- First Responders: Plumber called for pet rescue
- On the Road: Trucks make a statement

### 10

From the Editor: Celebrating the Plumbing Industry A week at the WWETT Show highlighted the character and strength of this industry. By Luke Laggis



### @plumbermag.com

Be sure to check out our exclusive online content.



### **First Responders:**

Answering the Call Emergency work for new customer generates loyalty, appreciation and repeat business. By Paul Nicolaus



### On the Road: Thinking Outside the Box

Exterior storage compartments on Knapheide service bodies help technicians stay organized and work more efficiently.

By Ken Wysocky



### In the Shop: Wrap It Up

Eye-catching truck and equipment graphics can supercharge your marketing efforts and protect vehicle finishes at the same time. By Ed Wodalski

### Smart Business: 30

### Testimonials are Marketing Magic

Customer endorsements give your company honest credibility to back up your product or service claims. By David Carleton

2016 Plumber TV/Video Inspection & Location Directory



### **Product Focus:**

Pipeline Inspection, Location and Leak Detection By Craig Mandli



### Case Study: Pipeline Inspection, Location and Leak Detection By Craig Mandli



### Product News:

Product Spotlight: Thermodynamic box uses ambient air to continuously heat water By Ed Wodalski



Industry News

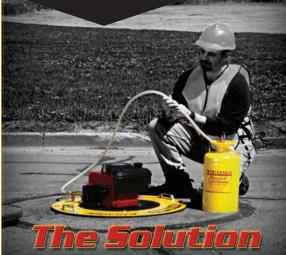
## A SIGHT TO BEHOLD.





The future is at your fingertips with Sparvision 200, a state-of-the-art pipe-inspection camera designed with you in mind. Featuring a wireless retina-display iPad<sup>®</sup> 4 as its screen, the Sparvision 200 offers full tablet computer features like instant snapshots, on-screen drawing and a touch keyboard for captions. With the Wi-Fi-enabled iPad, simply send the photo or video you shot directly to the customer and store your copy right on the tablet. The Sparvision 200 offers a self-leveling color camera, a 512 Hz locating beacon and a 200' high-efficiency, super-slick push rod. Plus, the entire unit is powered in the field with an on-board battery so you can take it anywhere. **If you're looking for the best, look no further**.





### CAN'T FIND A LEAK?

## SMOKER\*

- Quickly and safely locate leaks in indoor plumbing systems (sewer line tester shown above)
- Uses the ONLY tested safe smoke on the market

### **TOUGH VALVES?**



### Spin()Doctor

- Several options available to cater to the specific needs of your city
- All booms come with a LIFETIME WARRANTY

### **RELIABLE WATER SUPPLY?**





- The most accurate method available for flow testing activities
- Options vary from small communities that only want inventory options, to large cities needing GIS solutions

### VISIT OUR NEW WEBSITE:

HURCОтесн.сот 800-888-1436

## Plumber

### Exclusively serving plumbing contractors and franchisees

Published monthly by COLE Publishing, Inc. 1720 Maple Lake Dam Rd., PO Box 220 Three Lakes, WI 54562

Call toll-free 800-257-7222 Outside of U.S. or Canada call 715-546-3346 Mon.- Fri., 7:30 a.m.-5 p.m. CST Website: www.plumbermag.com Email: info@plumbermag.com | Fax: 715-546-3786

SUBSCRIPTION INFORMATION: A one-year (12-issue) subscription to Plumber in the United States or Canada is free to qualified subscribers. A qualified subscriber is any individual or company in the United States or Canada that is involved in the inspection, cleaning, repair and installation of residential and commercial sewer lines. Non-qualified subscriptions are available at a cost of \$60 per year in the United States and Canada/Mexico. Subscriptions to all other foreign countries cost \$80 per year. To qualify, visit www.plumbermag.com/order/ subscription or call 800-257-7222.

Our subscriber list is occasionally made available to carefully selected companies whose products or services may be of interest to you. Your privacy is important to us. If you prefer not to be a part of these lists, please contact Nicole at nicolel@ colepublishing.com.

CLASSIFIED ADVERTISING: RATE: No Photo Classified \$25 for 20 words, each additional word \$1. All classified advertising must be PAID IN ADVANCE. DEADLINE: Classifieds must be received by the first of the month for insertion in the next month's edition. PHONE-IN ADS ARE NOT ACCEPTED. Ads may be faxed only when charging to MasterCard, VISA, Amex or Discover. Please supply all credit card information with faxed ads. Be sure to include your phone number (with area code) in your ad. Make checks payable to COLE Publishing Inc. and mail with classified at to the address above. CLASSIFIED ADVERTISING APPEARS NATIONWIDE AND ON THE INTERNET. Not responsible for errors beyond first insertion.

#### DISPLAY ADVERTISING: Contact

one of our sales staff at 800-994-7990. Publisher reserves the right to reject advertising that in its opinion is misleading, unfair or incompatible with the character of the publication.



Ann Richmond Winnie May

REPRINTS AND BACK ISSUES: Visit www.plumbermag.com for options and pricing. To order reprints, call Jeff Lane at 800-257-7222 (715-546-3346) or email jeff.lane@colepublishing.com. To order back issues, call Nicole at 800-257-7222 (715-546-3346) or email nicole.labeau@colepublishing.com.

**CIRCULATION**: Circulation averages 30,000 copies per month. This figure includes both U.S. and international distribution.

#### © 2016 COLE PUBLISHING INC.

No part may be reproduced without permission of the publisher.

- f facebook.com/PlumberMag
- twitter.com/PlumberMag
- youtube.com/PlumberMagazine
- in linkedin.com/company/plumber-magazine





*"We do 40 to 60 calls a week and the K-60 is all we use."* 

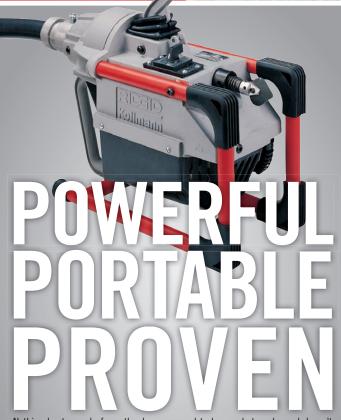


"I love the K-60. It's a beast!"



"The K-60 will handle 99% of my jobs."

RIDGID



Nothing beats word-of-mouth when you need to know what works and doesn't work. According to your peers, nothing beats the RIDGID<sup>\*</sup> K-60 Sectional Machine. Professionals call it the most versatile tool of its kind. Small enough to fit into tight spaces – powerful enough to clear tough blockages. Carries anywhere easily, including rooftops. Effective on lines up to 4" in diameter.

TELL US YOUR K-60 STORY AND READ WHAT OTHERS Are saying at ridgidforum.com/k60.



"Nothing like having a sewer machine that doesn't require a ramp, lift or strong back."

▶ ★ REQUEST A FREE ONSITE DEMO OR LEARN MORE AT 800.769.7743 | RIDGID.COM/K-60 ★



*"This is the drain cleaning machine to have."* 



*"I would never leave home without it. The K-60 is so versatile."* 



A. O. Smith		37
Amazing Machinery,	, LLC	19

#### ARTHUR PRODUCTS CO. an LSQ Mtg Company

### 

Central Oklahoma Winnelson41
CPI Products
Cyclops Electronics, Inc
Envirosight

### **General** PIPE CLEANERS

General Pipe Cleaners 2
Home Depot
Hot Jet USA
Hurco Technologies, Inc. 6

### PERMA-LINER<sup>\*</sup> INDUSTRIES<mark>, LLC.</mark>

Perma-Liner Industries, LLC	56
PHCC - GLAA	47

### PICOTE life for pipes

Picote Solutions

### PP<mark>LINING</mark> SUPPLY

Pipe Lining Supply, Inc
Pipeline Renewal Technologies
RIDGID
Screenco Systems LLC
Simple Solutions Distributing

Spartan Tool, LLC	5	

Superior Signal Company LLC	LLC	Superior Signal Company
-----------------------------	-----	-------------------------



he Knapheide Mfg Co13
-----------------------

## **TRIC**

fill plu

TRIC Tools, Inc
Vivax-Metrotech Corp
Watts Water Technologies, Inc

Plu	FREE SUBSCRIPTION (US, Canada & Mexico Guly)
LIKE	Start/Renew my subscription to Plumber Magazine.
What	Signature (required) Date
Vou	Print Name Title Company Name
CLL2	Mailing Address City State
SEE?	Zip Phone
Get Your <b>FREE</b> Subscription by	Fax
illing out information or online at Iumbermag.com	Also send a FREE subscription to: Coworker's Name Title
f Q+ E You Tube	Email

COLE Publishing Inc., PO Box 220, Three Lakes, WI 54562 Online: plumbermag.com • Ph: 800.257.7222 • Fax: 715.546.3786

## lateral inspection takes a **New** direction

Patent-pending CleanSteer combines powerful propulsion, positive steering and bidirectional jetting to view and clean drains and laterals.

Propelled by pressurized water (1), it uses a remotely aimed side jet to steer through branches (2) and levitate over debris (3). A forward jet can be pulsed to clear obstructions (4).

CleanSteer is ideal for locating cross-bores (**5**), pipe failures and blockages, all while jetting lines clean.



(973) 252-6700

FREE On-site Demo register at www.pipelinert.com an **Envirosight** company

Patents pending. ©2016 Pipeline Renewal Technologies (PRT). All rights reserved. CleanSteer is a trademark of PRT.





## **CELEBRATING THE PLUMBING INDUSTRY**

A week at the WWETT Show highlighted the character and strength of this industry

By Luke Laggis

he plumbing trade isn't celebrated as it should be. That's part of what I like so much about the Water & Wastewater Equipment, Treatment & Transport Show. It's the living embodiment of this industry, where all the people, stories and equipment are brought together and celebrated.

This year's show drew one of the largest crowds in the show's history. Total attendance climbed to over 14,400, and the number of exhibiting companies reached 599, an all-time high. Beyond the numbers, it was just great seeing so many of you in Indianapolis.

I saw a lot of husband-and-wife teams walking around at this year's WWETT Show. There were a lot of families, everyone in matching shirts, representing their businesses, and maybe less consciously but possibly more importantly, who they are: strong families with integrity and a work ethic — businesses with a moral compass.

I saw familiar faces sitting in classrooms, walking the show floor, doing whatever they could to make their businesses stronger. Call it a team-building exercise, call it a vacation if you want, but they were there to make their businesses stronger. They were taking advantage of opportunities to learn and grow. I like seeing that. It's what this magazine is all about.

In some ways I think running a family business is more difficult and more complicated than running a Fortune 500 corporation. In a bigger company, you might have bigger issues, higher stakes and consequences that impact more people, but in a small business, in your business, it's often just you. All the decisions, all the responsibility, all the success and all the blame land squarely at your feet. And in addition to the business operations, there are family dynamics to balance. Issues in one realm can easily bleed over into the other. It's hard to lock up and leave business matters behind, especially when the office is right across the driveway from your house and you can see your service vans from the living room window. I've been in that position, where going home at the end of the day simply meant climbing a flight of stairs. I've played different roles on a lot of teams, from youth sports to captain of my high school hockey team, different jobs I've had, running a family business, coaching, marriage and more. I served many of those roles well, and in some I failed miserably. But I can tell you none felt more significant than running a business my mom built, that had supported my family and felt more like home than anywhere I'd ever lived.

Putting the team first isn't always the easiest thing to do, because it takes everything you've got. Running a family business takes even more. But that's nothing new to you; it's simply what you do. I just thought it deserved some recognition.

Enjoy this month's issue.

<section-header><text><text><text>

## SAVE BIG ON PVC AND ABS THAT'S NO PIPE DREAM.



### SMARTER SAVINGS WITH BULK PRICING ON PVC AND ABS PIPE.



BUY 10 OR MORE PIECES, GET 10% OFF



FEWER SUPPLY RUNS, GREATER PRODUCTIVITY BI PI

BUY ONLINE, PICK UP IN-STORE





Visit the site daily for new, exclusive content. Read our blogs, find resources and get the most out of Plumber Magazine.



### **REACHING OUT** MINNESOTA PLUMBING COMPANY PAYS IT FORWARD – ONE BATHROOM AT A TIME

Meet the couple whose community outreach program has been making a difference in the lives of others – one bathroom at a time. For the past three years, Todd and Gina Grundmeier, co-owners of T 'N G Plumbing of Dexter, Minnesota, about 100 miles south of Minneapolis, have been providing needy families with remodeled bathrooms as a way to say "thank you" to the community for the kindness it showed when a fire destroyed their home in 2010 and for voting them best plumbing company in 2014. >> plumbermag.com/featured

### **GETTING CONNECTED**

### PHCC LAUNCHES ONLINE JOB SERVICE

The PHCC Career Center enables employers to post jobs and search for qualified candidates based on specific plumbing, heating and cooling job criteria. The free service is available to members and non-members.

>> plumbermag.com/featured

### ⊠ News & Alerts





Join the Discussion

facebook.com/PlumberMag twitter.com/PlumberMag

### **OVERHEARD ONLINE**

"Referrals are important because you don't have to compete on price. For example, if you're getting a knee replacement, you aren't concerned with cost; you just want to have the best doctor. Many people don't think of their business that way."

### CAN REFERRALS BOOST YOUR PLUMBING BUSINESS?

>> plumbermag.com/featured

### **ON THE JOB**

### PIPE BURSTING SAVES CUSTOMER'S DRIVEWAY

Option One Plumbing & Rooter in Phoenix, Arizona, needed to replace an existing Orangeburg pipe that was flaking and causing blockages. Using pipe bursting, the company was able to install a 4-inch sewer line without damaging the customer's driveway and lawn.

>> plumbermag.com/featured





### Plumber Forums

We want to hear your voice. Check out the Plumber Forum on the *Plumber* home page for questions, answers, and all the conversation in between.

## THIS GUY KNOWS A LITTLE SOMETHING ABOUT QUALITY

And he knows what it takes to achieve it. Hard work. Dedication. And never settling for second best from himself or the tools he uses. At Knapheide, it means creating high-quality, work-ready vehicle solutions and services that make his job easier. We know you never settle and, at Knapheide, neither do we.

Find out more at Knapheide.com/NeverSettle.



**NEVER SETTLE.** 

©The Knapheide Manufacturing Company 2016

## Building an

Mississippi plumber builds his business around a reputation for quality remodeling work

Skeen Plumbing & Gas technician Gray Doty (front) uses a Radiodetection RD4000 locator while owner Ricky Skeen uses a RIDGID SeeSnake LT1000 camera to mark and inspect a lateral line at a commercial property in Ridgeland, Mississippi.

### Skeen Plumbing & Gas Inc., Ridgeland, Mississippi



FOUNDED1983OWNERRicky SkeenEMPLOYEES16SPECIALTIESPlumbing, bath and kitchen remodeling, drain cleaning, CIPPCUSTOMER BASEResidential, commercialSERVICE AREAJackson, Mississippi, metropolitan area and points beyondWEBSITEwww.skeenplumbinggas.com

By Marian Bond

### Photography by Justin Sellers

icky Skeen has been remodeling bathrooms long enough that he's done some twice.

He opened Skeen Plumbing in 1983 with a focus on kitchen and bath remodeling services, believing it would help him build a dedicated customer

base. Today, remodeling services still anchor the plumbing division, contributing 15 to 20 percent of revenue, and a lot of those early customers are still coming back.

The Ridgeland, Mississippi-based company has grown in many ways, with more services and a larger staff. Skeen added drain cleaning in 1995, and it's since become a separate division within the business, providing trenchless rehabilitation solutions in addition to standard cleaning and inspection services.

While the company has grown with additional services, remodeling has played a big role in developing the company's customer base. "You do a good job in the remodel, and when the client needs a plumber, they know where to go for that service," he says.

Remodeling work still generates new customers, but the majority of jobs come from the established client base. "We see that someone living in the same house for a number of years will want to do some kind of remodeling every 15 years or so. We can look at a track record of a customer and see what we have done in the past. People get older and want to make things easier to deal with."

Skeen will work for other contractors in some instances, but the company doesn't get involved with new construction. He says remodeling projects are often high-end, with elaborate bathrooms and shower setups that have numerous faucets and heads.

"So many people in our part of the country ride bikes and run, and are very health oriented," Skeen says. "When they come in from their activities they want this big, beautiful shower to refresh themselves. They want the body sprays. They want the whole works."

The price tag can rise to \$25,000 on some kitchen and bath jobs. Skeen's daughter, Emily, who recently graduated from Ole Miss with a degree in marketing and advertising, handles layout and design. She also manages the company website, which has become a virtual showroom for their many projects. She says the site provides a better platform to show design options and examples of their work than their physical showroom.



▲ Skeen Plumbing & Gas owner Ricky Skeen with one of his Chevrolet service trucks outside the company shop in Ridgeland, Mississippi.

"We will actually do role playing, where the technicians go through the process of meeting the client at the door and greeting the customer, and then giving up-front pricing, and doing a walkthrough and visual inspection of the home or property." - Ricky Skeen

### PREPARED TO PERFORM

From the beginning, Skeen recognized the importance of branding his company, and he has worked hard to present a clean, professional image. All employees are neatly uniformed. Service vehicles are lettered with the company logo and are always clean and uncluttered. On the job, technicians use shoe covers and always put down protective mats in the client's home. He instills in his people the importance of "treating the house as you would treat your mother's house."

Skeen preaches the tenets of good customer service in weekly meetings with his technicians. Every Tuesday morning they review policies, issues, project updates and proper interaction with the homeowner. "We will actually do role playing, where the technicians go through the process of meeting the client at the door and greeting the customer, and then giving up-front pricing, and doing a walkthrough and visual inspection of the home or property.

"In the service call we like to look at everything. We have a check-off sheet that describes if a fixture or piece of equipment is in fair shape, good shape or excellent shape. This only takes a few minutes, and our customers seem to appreciate it. Someone might have had a leaky faucet, but in the process of taking care of another problem, might forget that faucet. But we're there to take care of our customer. We try to look at everything."

Other issues that crop up in the morning meetings include safety, inventory and the appropriate care of service vans. Skeen has six 2007 Chevrolet 1-ton vans with enclosed KUV bodies from Knapheide. The drain cleaning division runs three Chevrolet 4500 2-ton trucks.

Each service van is set up the same, so no matter who is using the truck that person knows where to find every tool and fitting. Each technician takes care of his own truck, and cleanliness is required. Cabs are to be clean, with nothing on the dashboard, and even the tires are expected to shine.

Vans are equipped to fix anything from a simple stoppage to a new toilet installation. Each carries two different types of toilets and a water heater. Each van also carries a sewer camera, just in case, but if it's more than a simple clog, the drain team is called in. CONTINUED >

▼ Ricky Skeen inspects a Takagi T-M1 tankless gas water heater in the attic of a customer's home.





10.0

## **THE WATTS WILD RIDE IS BACK FOR 2016**

Get a Chance To Win a Harley-Davidson® Fat Boy® and other prizes such as:





**Open Road Motorcycle Adventure** 



MIN a Brand New Harley-Davidson® Fat Boy® Motorcycle

Harley-Davidson® Watches

### QUALIFYING WATTS PRODUCTS INCLUDE:



WATTS - A CANT











### ENROLL AT WattsWildRide.com TODAY!

NO PURCHASE NECESSARY. A purchase will not improve your chances of winning. Open to licensed contractors in the US and Canada (excluding Quebec). See official rules at WattsWildRide.com. Sponsored by Watts. Harley-Davidson Motor Company is not endorsing, sponsoring, or otherwise affiliated with this promotion. Actual Harley-Davidson\* FAT BOY\* motorcycle year and model awarded will be based upon availability of local dealership at the time of drawing.



▲ Ricky Skeen and his daughter, marketing manager Emily Skeen, review project plans in their Ridgeland, Mississippi, office.

### SUSTAINABLE SUPPORT

Efficiency depends on the right tools and a sufficient inventory of parts and fixtures. Richard Parker, a 28-year employee and senior technician over the plumbing/service department, has arranged for two supply houses to visit Skeen's facility every week to evaluate and update the inventory for both the plumbing and drain divisions, which are maintained in separate areas of the facility.

They deal with Carr Plumbing Supply, a local company, and Ferguson Plumbing. One house calls on Monday mornings, and the other stops in each Monday afternoon. They supply Delta faucets, Kohler toilets, water heaters from A. O. Smith and State Water Heaters, and all the other necessary parts, fittings and fixtures. "I don't think there is a better trade out there than plumbing and drain work. If a fellow does the right thing he can name his price as to what he gets paid." - Ricky Skeen

In the area of hand tools, the Skeen team uses RIDGID basin and pipe wrenches, Crescent pliers and Klein screwdrivers. They like Craftsman socket sets, TPI gas testers and specialty tools from Jones Stephens, along with DeWalt drills and saws. Drain cleaning equipment includes RIDGID K-50 and K-1500 cable machines, as well as SeeSnake cameras.

The company's 7,000square-foot facility sits on 2 acres, with 2,500 square feet of office space and plenty of room for all the vehicles, inventory and equipment.

### TECH SAVVY

Skeen currently has three plumbers and three apprentices on his staff. He says he empowers the technicians in the field and also makes sure they have time for life outside work.

"I missed so much of my kids when they were growing up

because I was so busy," he says. "I don't want that for my employees."

As a result, turnover among technicians is low. Most stay with the company for at least 10 years. "They know we are going to give them every tool, every bit of training because we want them to be in control," he says. "This is the career they have chosen. They know they can make good money with Skeen Plumbing."

But that doesn't mean hiring is easy. "Frankly, we don't get a lot of applicants because they know we will be screening and checking," Skeen says. "When we find someone, we will give them a shot at the job and do in-house training." CONTINUED >



### Introducing the All New

- 9" Color Flat Screen LCD in ABS Case
- Includes 12V Lithium-ion Battery (8-10 Hour Life)
- Built-in Digital Recorder with Remote Control
- Records to SD Card (4GB SD Card Included)
- Quality High Resolution Color Camera
- Camera Vision Angle Up to 60 Degrees
- 1.375 Inch Diameter "Easy Push" Camera Head
- Built-in 512Hz Sonde Transmitter (8-15 Feet)
- Stainless Steel Camera Body with Sapphire Lens
- Waterproof Camera Head
- 6 Super-Bright White LED Lights with Dimmer
- 12" Steel Spring Leader
- 3/8" or 1/2" Super Slick Push Cable
- Choose 100-225-foot Cable Length
- Heavy Duty Powder Coated Storage Reel

FLIR LOT

Warranty: One Year Parts and Labor
 FREE Freight

<image>



Get 6 Months to Pay on Purchases of \$99 or More. Choose PayPal Credit<sup>®</sup> at Checkout. Subject to Credit Approval.



HONDA

Complete Details At www.AmazingMachinery.com 1-800-504-7435 3807 Old Tasso Rd. • Cleveland, TN 37312 "I missed so much of my kids when they were growing up because I was so busy. I don't want that for my employees."

- Ricky Skeen

### **ALL IN THE FAMILY**

Emily Skeen recalls how embarrassed she and her sisters were when their father, Ricky Skeen, would pick them up from elementary and middle school in his big service truck.

The girls never worked in the office growing up, and it wasn't until Emily was in her second year at the University of Mississippi that she began to take a serious look at her career and her future, and the family business.

Emily, the youngest sister, was studying business and marketing. The idea of joining Skeen Plumbing began to take shape in her mind, but her father was skeptical she would actually make that decision.

She didn't feel obligated to join the family business, but rather saw an opportunity to utilize her education and skills. She came on board in December 2014. "As a business marketing major, I learned about business and advertising, and was ready to put all that into my dad's company.

"Every day is different, and this work is nothing like I expected," Skeen says. "Every job we get is different, every person is different. It is all different. I've really had to change a lot of my positions because nothing is the same and there is no strict schedule as I expected."

Skeen is spending a lot of time working on their website, and is always pushing to incorporate new technology. She also fields service calls, and has had opportunity to handle anxious customers with plumbing emergencies. She has had an opportunity to go on some service calls where she has seen firsthand how stressed customers can be when there is a leak somewhere and water is flowing or things are backing up to the toilet.

For the future, she is excited to continue learning the business, and her father is pleased to see his youngest in a leadership position. New hires go through a 90-day probation period during which they study training materials and spend time with a senior technician, who takes them out in the field and puts them to the test to determine if they are dedicated in the work or just passing through.

"We want to give people a chance, because I believe this is the best trade out there," Skeen says. "I don't think there is a better trade out there than plumbing and drain work. If a fellow does the right thing he can name his price as to what he gets paid. Definitely knowledge is power. You get in and learn your stuff backward and forward. You know what you are saying when you talk to the customer. If you are a people person to boot, you have won the battle right there."

Skeen gives a great deal of authority and responsibility to technicians in the field. He says they realize they are in control and have opportunities to make more money if they provide great service, and that kind of service keeps customers coming back.

"In 60 percent of the calls, the customer will ask for the specific technician they want to come into their home because they have worked with him before. If it's not an emergency they will wait two or three days for that person."

### FEATURED EQUIPMENT INFORMATION

**A. O. SMITH** 800/527-1953 www.hotwater.com (See ad on page 37)

**CRESCENT TOOLS** 919/362-1670 www.crescenttool.com

**DELTA FAUCET CO.** 800/345-3358 www.deltafaucet.com

DEWALT INDUSTRIAL TOOL CO. 800/433-9258 www.dewalt.com

FERGUSON 757/874-7795 www.ferguson.com

JONES STEPHENS CORP., PLUMBING DIV. 800/355-6637 www.jonesstephens.com

*KLEIN TOOLS, INC.* 800/533-4876 www.kleintools.com **KOHLER CO.** 920/457-4441 www.kohler.com

RADIODETECTION CORPORATION 877/247-3797 www.spx.com/en/ radiodetection

**RIDGID** 800/769-7743 www.ridgid.com (See ad on page 7)

**STATE WATER HEATERS** 800/365-8170 www.statewaterheater.com

TEST PRODUCTS INTERNATIONAL INC. 800/368-5719 www.testproductsintl.com

THE KNAPHEIDE MFG CO 217/222-7131 www.knapheide.com (See ad on page 13)

### An instant, wireless View into any sewer.





No cables at all!

Touchscreen control

In-manhole centering

**Detailed HD video** 

**Motorized tilt** 

Phased Assessment Strategy for Sewers (PASS) starts with zoom assessment. This FREE white paper explains why: envirosight.com/pass



*Full range of underground infrastructure inspection equipment, service and rentals.* 

quickview

5

Full wireless control, viewing, recording, annotation, playback and sharing capabilities.

.

0

AF



## **ANSWERING THE CALL**

*Emergency work for new customer generates loyalty, appreciation and repeat business* 

By Paul Nicolaus

logged drains aren't always an emergency. Sometimes they're just an inconvenience. Sometimes it's more serious.

"Sometimes customers think they have an emergency and they don't," says Scott Haymer, co-owner of Campbell Plumbing & Drain Cleaning. "If they have three toilets and only one's not working, it's definitely not an emergency."

But when he received a call from a local car dealership with a backed up sewer line and no bathrooms in working condition, he knew the issue needed prompt attention. "When people can't flush it's a giant inconvenience, and no one likes to have any inconveniences in their life," he says.

The manager of the dealership found Campbell through a simple Google search, and because the website looked professional he assumed they were, too. But he also expected immediate assistance.

### QUICK RESPONSE

"Most of our customers who have been customers of ours for a while are willing to wait, but the ones who don't know us will just go to the next company in a Google search or the next company in the phone book," Haymer explains. "They want you there as soon as possible to fix their problem as soon as possible."

Haymer arrived on scene within a half-hour and noticed the water was backed up onto the floor in one of the bathrooms. From there, he says he got the lay of the land and tried to determine what was blocked up and where.

	Timberlake	lentor
	Eastlake 2	
	(640) Willoughby	90
COMPANY	Campbell Plumbing & Drain	
	Cleaning	
OWNERS	Ray and Scott Haymer	
LOCATION	Eastlake, Ohio	
FOUNDED	1969	
SPECIALTY	Plumbing and drain cleaning	
WEBSITE	www.campbellplumbing.net	



▲ When a local auto dealership was dealing with backed-up drains and no functioning toilets, Campbell Plumbing responded immediately and solved the problem quickly.



psi/18 gpm) made quick work of clogged lines that were threatening the operations of a local auto dealership.

Once they had the clean-outs figured out, they were able to utilize a Spartan Warrior trailer jetter with a triplex ceramic plunger pump that delivers 4,000 psi at 18 gpm. After the water went down, a RIDGID camera was used to examine further.

The issue was caused by scale buildup inside the 4-inch cast iron sewer line, along with shop rags and paper towels that had been flushed down the drain. Havmer and his crew addressed the immediate issue and advised the dealership to stop flushing these types of items. They also informed the customer that the old sewer line would likely continue to wreak havoc until it's replaced.

### ADDITIONAL WORK

"At the end of the day, the manager was very pleased that we could get there so quickly and resolve the issue so quickly," Haymer says. In some cases it's important to be at the ready to take on emergency work and do a quality job in order to earn a new customer's future business, and that's exactly what happened in this case.

When they delivered on the initial emergency call, the manager at the car dealership was impressed enough to hire them to handle the replacement of the old sewer line.

Haymer laid out all possibilities, and because the dealership had recently invested in a new parking lot, a trenchless repair was found to be the best option. Campbell Plumbing & Drain Cleaning replaced the old 4-inch cast iron sewer line with 160 feet of new 6-inch pipe — all without tearing up the brand new lot.

Campbell's quick and effective response led to more work at the dealership, replacing the old 4-inch cast iron sewer line with 160 feet of new 6-inch HDPE pipe without tearing up the new parking lot.





## **THINKING OUTSIDE THE BOX**

*Exterior storage compartments on Knapheide service bodies help technicians stay organized and work more efficiently* 

By Ken Wysocky

or many plumbers, a service vehicle is essentially a tool of the trade that carries supplies and gets technicians from Point A to Point B. But Kevin Grabill views them as minibusinesses — profit centers that are critical to generating revenue and boosting efficiency.

As such, Grabill has invested around \$350,000 in 10 rolling "offices" for technicians at Grabill Plumbing, the company he owns in Kansas City, Kansas. Those offices feature KUV service bodies from Knapheide Manufacturing mounted on 2015 Ford E-350 truck chassis.

"I only buy vehicles that can serve as profit centers, and I try to have those profit centers on the road and working as much as possible," says Grabill, who established the company with his father, Gary, in 1986. "If you put a pickup truck out there and the guy driving it is just hauling stuff back and forth, it's real hard to be sure that it's accomplishing anything except serving as transportation for that employee. I don't look at trucks as transportation; I look at each one as an independent business."

Unlike cube bodies or service vans, the KUVs feature exterior storage compartments on each side of the service body. That's a relief for technicians who are tired



COMPANY	Grabill Plumbing Inc.
LOCATION	Kansas City, Kansas
VEHICLES	KUV service bodies made by Knapheide Manufacturing Co., mounted on 2015 Ford E-350 truck chassis
FUNCTION	Carrying about \$10,000 worth of repair parts and promoting organization and efficiency
FEATURES	Galvanized steel body and stainless steel hinges; exterior storage bays for easy access; ample headroom in central interior storage compartment; drop-down doors that double as horizontal work surfaces; conduit chutes for pipes
COST	About \$35,000

(chassis and body)

▲ Grabill Plumbing's fleet of 2015 Ford E-350 truck chassis with KUV service bodies from Knapheide Manufacturing are rolling offices for technicians, holding everything they need for any kind of job.

of crawling around the interior of a cluttered service van to retrieve tools and parts. A large central compartment, which offers enough headroom for most people, provides space for larger pieces of equipment and materials. Dedicated conduit chutes conveniently store up to 10-foot-long pipes and keep them from cluttering the floor — and from rolling around the interior, Grabill says.

The KUV's configuration provides a competitive advantage for Grabill Plumbing, which primarily does new-construction plumbing (about half commercial and half residential) and plumbing service and repairs throughout the metropolitan Kansas City area. How? For starters, Grabill Plumbing employees are cross-trained to handle both new construction/renovation plumbing as well as service work, and the trucks are spacious enough to hold tools and supplies for construction and service work. In fact, each truck carries approximately \$10,000 to \$11,000 worth of repair parts, Grabill says.

The upshot? Grabill says he can operate more efficiently with half as many trucks as he might otherwise require if he had bought vehicles dedicated to just construction work or just service work. "The KUVs can support two plumbers instead of one," he explains. "And "I don't look at trucks as transportation; I look at each one as an independent business." - Kevin Grabill

they help us handle sudden surges of service pressure," he adds, noting that the company employs just four full-time service technicians out of a little more than 20 field employees. "If we get a lot of rain and are inundated with service calls, we don't have to tell customers to wait until tomorrow for emergency work — our trucks are equipped for both service and construction. We couldn't do that with cargo or service vans."

Furthermore, Grabill notes that some companies dedicate trucks to just rough-in work or finish work. But the KUVs can carry enough equipment to do both. "They allow us to adjust very quickly to whatever type of work comes up," he says. "From a productivity standpoint, we can do a lot more work with less



people because we don't have downtime. ... We don't have service guys sitting around waiting for that next call.

"In addition, we don't have to hire more people to cover the high-pressure periods," he continues. "And from a profitability standpoint, we're working all the time, rather than experiencing uptime and downtime. Our work is pretty steady and the trucks help facilitate that."

► Dedicated conduit chutes along the sides of the truck conveniently store up to 10-foot lengths of pipe, keeping it off the floor and out of the way.

✓ Grabill's technicians are cross-trained to handle both new construction and service work, and their trucks are spacious enough to hold tools and supplies for both kinds of work, improving flexibility and efficiency.







The KUV body's central storage compartment provides ample floor space for big-ticket items that will be off-loaded for specific jobs, but even when that space is full, technicians still have access to all their parts and tools on the exterior for more urgent work.

Grabill says the central storage compartment is valuable because it provides ample floor space for big-ticket items that will be off-loaded for specific jobs — things such as bathtubs, water heaters, toilets and so forth. "Even if that space is stuffed with things for a specific job, you still have access to all your parts and tools on the exterior for more urgent work," he points out.

Some contractors balk at the KUV's exterior storage configuration because it exposes employees to inclement weather. But Grabill says that hasn't



been a deal-breaker for his employees. "We're big boys," he says. Moreover, the KUV's organizational capabilities more than make up for some exposure to the elements.

All of the KUVs are set up the same, so there's no confusion if technicians have to drive a different truck. For example, gas fittings and caulk, glue and flux go in a compartment over the wheel well on the passenger side of the body. Copper fittings are stored in a compartment above the wheel well on the driver's side. Valves are by the driver's-side door. And as luck would have it, small-parts organizers made by manufacturers like DeWalt and Milwaukee Tool stack perfectly in a compartment above the wheel well, he says.

"It's amazing how much stuff you can fit in those compartments," Grabill says. "The biggest benefit to being organized is that if everything has a place, it doesn't take much to stay organized. You only take out of the truck what you need and when you get back to the truck, you don't need to find a place for it. With these trucks, we never had to force our guys to stay organized — it just makes sense."

When it comes to KUV bodies, this is not Grabill's first rodeo. Attracted by a promotional deal that offered a five-year financing program with no interest payments, he bought 10 KUVs about 10 years ago. The only reason he recently bought 10 new KUVs was that the truck chassis on the old ones were wearing out and it's too expensive to transfer the bodies to new chassis.

"Plus the maintenance costs per truck were running about the same as a monthly payment for a new truck," he points out. "And buying 10 at one time allowed me to leverage the price a bit ... and I'm on a lease-to-own program, so the per-month cost of ownership per truck is very low. All in all, it was a no-brainer."

### FEATURED EQUIPMENT INFORMATION

DEWALT INDUSTRIAL TOOL CO. 800/433-9258 www.dewalt.com

MILWAUKEE ELECTRIC TOOL CORPORATION 800/729-3878 www.milwaukeetool.com THE KNAPHEIDE MFG CO 217/222-7131 www.knapheide.com (See ad on page 13)



### WRAP IT UP

### *Eye-catching truck and equipment graphics can supercharge your marketing efforts and protect vehicle finishes at the same time*

By Ed Wodalski

inyl vehicle wraps seem to be everywhere these days — on buses, trailers, cars and delivery vans — so why not on your trucks or equipment?

Wraps can serve as a constant reminder of the services you offer. And if you don't like

the look of your black truck — no problem — just wrap it in blue. Clear wraps can also add an extra layer of protection to your vehicle's finish.

Upgrading the look of your trucks and equipment doesn't have to be expensive. Prices can range from \$100 for a simple name or logo to \$3,000 or more for a full vehicle wrap. Cost often depends on the amount of surface covered and complexity of the surface being wrapped: Is it straight and flat, or does it have a lot of concave and convex surfaces?

Think of a wrap as a large vinyl graphic applied directly over the original paint of your vehicle. However, unlike paint, it can easily be updated or removed, returning your vehicle to its original appearance at trade-in time.

Wraps are made from cast or calendered film and can last up to seven years. The main difference between cast and calendered film is stretchability. Calendered film is best suited for flat applications, while cast easily negotiates curves and contours.

Vinyls are also available in various textures – such as brushed steel – that paint can't simulate, says Ryan Koth, owner of Wrap Right in Tomahawk, Wisconsin, who covered a showpiece truck displayed at the 2015 Water & Wastewater Equipment, Treatment & Transport Show.

Depending on complexity and size, it can take up to a week to design, produce and install a wrap. But once designed, it only takes the push of a button to duplicate. Koth says wraps have grown in popularity in the past decade, primarily because of the ability to reproduce almost anything.

"When vinyl graphics started coming out and you wanted multiple colors, you would take a stock color vinyl and each color would be a different layer of vinyl," he says. "Now we can print that on one sheet."

Designs are drawn on a computer and placed on a template that provides an accurate measurement of the year, make and model of the vehicle. It also calculates the amount of material needed. Koth suggests businesses incorporate their logo, phone number and Web address into the design, as well as color schemes.

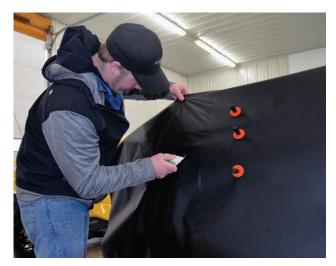




▲ Top photo: The brushed blue and gold WWETT Show truck began as a black 2014 Chevrolet Silverado 1500 4 x 4 extended cab; Bottom photo: Wraps are made from cast or calendered film and have a life span of up to seven years. Calendered film is best suited for flat applications, while cast easily negotiates the curves and contours of a front fender.

Top photo: Ryan Koth, owner of Wrap Right in Tomahawk, Wisconsin, uses a computer template to create a final design and estimate the amount of materials that will be needed to wrap the truck. Should the wrap become damaged, Koth can pull up the files and print a patch; Bottom photo: Ryan Koth strategically applies a vinyl wrap.





▼ The final wrapped WWETT Show truck took on a striking new look.

"A lot of people are doing Facebook and social media, too," he says. "We also suggest where to place logos and graphics. If it's on a curved surface it can distort lettering. We try to suggest good, visible places."

Final designs are sent to a large format digital printer and laminated. "All vinyls are laminated," Koth says. "What that does is protect the inks printed on the vinyl from fading in the sun. It gives it a longer life span and protects against small scratches and abrasions."

The durability of a wrap depends on how it's maintained. "If it's in the sun all the time, typically it will have a shorter life span than if it was kept in the garage," says Koth, who advises customers to keep their wraps clean and avoid automatic car washes.

"With full wraps, it's not that big of a deal because everything is covered," he says. "But if you have graphics with edges, that's where an automatic car wash can get under the wrap and take it apart. If you're hand washing it, you won't have a problem." Koth also advises using soap and water to quickly clean up fuel spills that splash the wrap.

While almost anything can be wrapped, new vehicles work best. Wraps do not stick to rust, and chipped or blistered paint can pull off when the wrap is removed. Vehicles must also be free of dust, mud and wax before they are wrapped. Should a portion become damaged, it can be replaced without rewrapping the entire vehicle.

"I've had customers who have hit deer," says Koth, who keeps copies of designs on file for two years. "I just did a truck where someone had backed into his doors in a parking lot. So that's another plus of what we can do with the vinyl, and we can match it exactly."







## TESTIMONIALS ARE MARKETING MAGIC

Customer endorsements give your company honest credibility to back up your product or service claims

By David Carleton

estimonials are powerful. They create believability, credibility and a sense of security for customers. They help break down the natural barriers and uncertainty customers may feel toward a business or industry. Watch any infomercial and you'll see they're loaded with customer testimonials.

Why? Because they work. Testimonials have the magic power of persuasion.

Testimonials will also create more loyalty in your customers. Once people put their name and reputation on the line by endorsing a product or service they will stand behind that decision with conviction. When you ask your customers for a testimonial they will also feel they are helping your business grow. Because they feel as though they have a direct hand in the success of your business, they will stay loyal.

### **10 STRATEGIES FOR SUCCESSFUL TESTIMONIALS**

There's more to obtaining testimonials than just asking customers for their feedback. If you want to have powerful testimonials that catch potential customers' attention and build trust, consider these strategies:

**1. Don't wait.** Get a testimonial from your customer as soon as possible. This could be within the first week after you provide service. Your customers will be the most motivated to write a testimonial during this time period.

2. Always ask customers to mention your unique selling proposition (USP) in the testimonial. For instance, if your USP includes same-day installation and a money-back guarantee, ask your customer to attest to those qualities.

**3. Don't ask for testimonials in survey requests.** Your customer needs to have the freedom to stay anonymous and say negative things in your survey, but this is the opposite of what you're looking for. **4.** Have customers be specific. For instance, if you fixed a furnace in the middle of a cold winter night, tell the customer to explain. If you delivered a stellar act of customer service, have him or her write about what you did and how it helped the customer.

**5.** Ask customers to talk about the problems they were having before receiving your service. Most likely those who read the testimonial will have experienced similar problems and will empathize. This will make your prospect more interested in hiring you to fix a furnace or install a water heater.

**6.** Have customers state their specific situation or product needs. This will make their testimonials even more persuasive and directly connected to a new customer's requirements of a contractor.

**7. Obtain a picture of your customer**, and take it yourself if you can so you know you'll get a good one. Photos double the effectiveness of a testimonial.

**8. Make sure you get permission** from your customers to use their testimonials in your advertising. Thank them profusely and let them know that testimonials like theirs help your business grow.

**9.** Ask if you can use not only their name but also the town where they live. This increases the believability of the testimonial and demonstrates that they are real people who may live in the same community as your potential new customers.

**10.** Suppose your customers procrastinate about sending their testimonials. Call them up and say that you know they are busy but that you value them as customers and their testimonials are important to you. Suggest that to save them time, you will draft a testimonial for them and they can make any changes they want.

### THANK YOUR CUSTOMERS

If you thank your customers for their testimonials it will increase the goodwill you already enjoy and affirm their decision to help you out. Send a personal letter thanking them for their effort. Thanking your customer tends to improve your rapport and solidify your relationship.

### HOW TO USE TESTIMONIALS

It's not enough to receive customer testimonials; knowing how to use them is what makes the difference. Consider these ideas to work testimonials into your marketing program.

**1. Scatter testimonials over your website.** Some businesses make the mistake of putting all the testimonials on one page. If you have testimonials pertaining to a specific product or service, place them on the page describing those products or services.

2. Always include a testimonial in your advertising. You'll never see an ad for a weight-loss product without a testimonial. Why? Because people are skeptical of ads, and testimonials overcome skepticism more than any other marketing tool.

**3.** In every direct mail piece you send, include one or more testimonials. This reinforces whatever offer you are promoting.

Once people put their name and reputation on the line by endorsing a product or service they will stand behind that decision with conviction.

### START A TESTIMONIAL DRIVE

Chances are, you haven't been diligent in getting testimonials. I would urge you to make a commitment today to start asking for them from every customer. You can't have too many customer testimonials. Plan a "customer testimonial drive" and set a goal to obtain a certain number within the next three months.

Testimonials are a powerful tool to remove uncertainty your potential customers have. And when customers give you a testimonial, it solidifies your relationship with them because they have "gone public" with their statement of support for your business.

David Carleton is the author of 7 *Steps to Website Success*. Learn more and contact him at www.localbusinessmarketingsuccess.com.



Phone: 1.800.322.0510 Fax: 1.300.722.2698 E-Mail: apc@apclsq.com Web: www.arthurproducts.com



*Plumber* is telling your story. Read past online issues to relive the articles, news and events of the Plumbing industry.

/isit www.plumbermag.com to read past issues

## 2016 Plumber TV/VIDEO INSPECTION & LOCATION DIRECTORY *Value of the anilogical of the log of the*

							(					
ad on page 19	<b>Amazing Machinery, Inc.</b> 3807 Old Tasso Rd. Cleveland, OH 37312 800-504-7435 <b>=</b> 423-790-1600 (f) 800-504-7436 order@amazingmachinery.com www.amazingmachery.com	Forbest, Opti-Cam, Wohler, Viztrac, FLIR	1.5" to 24"	65' to 300'	Flash Drive/ USB Thumb Drive, SD Card		~	~	•		•	
ad on page 41	<b>Central Oklahoma Winnelson</b> 5037 NW 10th St. Oklahoma City, OK 73127 888-947-8761 = 405-947-8761 (f) 405-947-1934 krjones@winnelson.com www.centralwinnelson.com	RIDGID	.75" to 12"	65' to 325'	Flash Drive/ USB Thumb Drive, DVD		~	~	~		~	
The Standard of the Industry	<b>CUES</b> 3600 Rio Vista Ave. Orlando, FL 32805 800-327-7791 = 407-849-0190 (f) 407-425-1569 salesinfo@cuesinc.com www.cuesinc.com	CUES	2" to 200"	100' to 4000'	HDD, Flash Drive/USB Thumb Drive, SD Card, Compact Flash, DVR, CD, DVD	~	~	~	~	•	~	
ad on page 53	Cyclops Electronics, Inc. 123 Commerce Ave. PO Box 1796 Boerne, TX 78006 830-249-9756 cyclopstv@gvtc.com www.cyclopstv.com	Cyclops Electronics, Inc.	3" to 60"	550' to 1100'	DVD, VHS		~	~	~	~		
Electric Eel .	<b>Electric Eel Mfg. Co., Inc.</b> 501 W. Leffel Ln. Springfield, OH 45501 800-833-1212 = 937-323-4644 (f) 937-323-3767 info@electriceel.com www.electriceel.com	Electric Eel Mfg.	3" to 10"	200' to 300'	HDD, Flash Drive/USB Thumb Drive		~				~	
<b>Erivirosight</b> ad on page 21	Envirosight 111 Canfield Ave. Unit B3 Randolph, NJ 07869 866-936-8476 = 973-252-6700 (f) 973-252-1176 mail@envirosight.com www.envirosight.com	VeriSight Pro, ROVVER X, QuickView, JetScan	4" to 96"	130' to 1640'	HDD, Flash Drive/USB Thumb Drive, SD Card, Compact Flash, DVR, CD, DVD, VHS, Cloud	~	~	~	~	~	~	
<b>BETTERNERS</b> ad on page 2	<b>General Pipe Cleaners</b> 1101 Thompson Ave. McKees Rocks, PA 15136 800-245-6200 = 412-771-6300 info@drainbrain.com www.drainbrain.com/geneye	Gen-Eye POD, SDN, SDW, SDP, Micro- Scope, Prism	2" to 10"	100' to 400'	Flash Drive/ USB Thumb Drive, SD Card, WI-FI	~					~	

		Dest	Piper.	<sup>Diameter</sup> Re	Recording Man	spoyies.	P. WareAvair	repair Facilie	Repair Part	Accessories	Pection Vet.	-ocation Equip.
	<b>Pearpoint</b> 39-740 Garand Ln. Unit B Palm Desert, CA 92211 800-688-8094 <b>=</b> 760-343-7350 (f) 760-343-7351 pearpoint.sales.us@spx.com www.pearpoint.com	Pearpoint	1.25" to 24"	100' to 1000'	Flash Drive/ USB Thumb Drive, Compact Flash	<i>v</i>	~	~	~	~	~	
Pipeline Renewal ad on page 9	Pipeline Renewal Technologies 111 Canfield Ave. Unit B3 Randolph, NJ 07869 866-936-8476 = 973-252-6700 (f) 973-252-1176 mail@pipelinert.com www.pipelinert.com	CleanSteer	4" to 12"	120' to 230'	HDD, Flash Drive/USB Thumb Drive, SD Card, Compact Flash, DVR, CD, DVD, VHS, Cloud	~	~	~	~	~	•	
THE SINGLE ASOLUTION	<b>R.S. Technical Services, Inc.</b> 1327 Clegg Street Petaluma, CA 94954 800-767-1974 <b>e</b> 707-778-1974 (f) 707-778-1981 kloux@rstechserv.com www.rstechserv.com	R.S. Technical Services, Inc.	2" to 200"	150' to 3000'	HDD, Flash Drive/USB Thumb Drive, SD Card, Compact Flash, DVR, CD, DVD, VHS	~	~	~	~	~	~	
> Radiodetection	<b>Radiodetection</b> 28 Tower Rd. Raymond, ME 04071 877-247-3797 = 207-655-8525 (f) 207-655-8535 rd.sales.us@spx.com www.radiodetection.com	Radio- detection	1" to 12"	100' to 500'	Flash Drive/ USB Thumb Drive, Com- pact Flash	~	~	~	~		~	
	Ratech Electronics 260-7 Spinnaker Way, Concord, ON L4K 4P9 CANADA 800-461-9200 = 905-660-7072 (f) 905-660-1519 sales@ratech-electronics.com www.ratech-electronics.com	Ratech	1" to 48"	50' to 1000'	HDD, Flash Drive/USB Thumb Drive, SD Card, DVR, CD, DVD, VHS, WI-FI	~	~	~	~	~	~	
ad on page 7	<b>RIDGID</b> 400 Clark St. Elyria, OH 44035 800-769-7743 = 440-323-5581 (1) 440-329-4862 RIDGIDinfo@emerson.com www.RIDGID.com	RIDGID SeeSnake	.75" to 12"	65' to 325'	HDD, Flash Drive/USB Thumb Drive, DVD	~	~	~	~		•	
ad on page 5	<b>Spartan Tool LLC</b> 1506 W Division St. Mendota, IL 61342 800-435-3866 <b>•</b> 815-539-7411 (f) 888-876-2371 customerservice@spartantool.com www.spartantool.com	Spartan Tool LLC	2" to 6"	200' to 200'	HDD, Cloud Storage		~	~	~		~	
ad on page 25	<b>Vivax-Metrotech Corp.</b> 3251 Olcott St. Santa Clara, CA 95054 800-446-3392 = 408-734-1400 (f) 408-734-1415 sales@vxmt.com www.vivax-metrotech.com	vCam series cameras and vLoc utility and sonde locators	2" to 8"	100' to 400'	HDD, Flash Drive/USB Thumb Drive, SD Card		~				~	



## PIPELINE INSPECTION, LOCATION AND LEAK DETECTION

By Craig Mandli

### **DRAINLINE INSPECTION**



### 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.

### ARIES INDUSTRIES SEEKER

The **Seeker** video inspection system from **Aries Industries** is a compact, portable unit for drainline inspection. The easy-to-use, contractor-grade system works in 3-inch-diameter



or larger pipe. Weighing only 40 pounds, the unit is self-contained with no external wiring. It can be used in conjunction with a CCTV truck. It comes with a builtin 512 Hz transmitting beacon and a bright 6.4-inch LCD screen. Users select from either a self-leveling mini-camera or a pan-and-tilt camera with self-cleaning wiper blade. Built-in AV outputs enable inspection data to be recorded onto an SD card, DVR or a laptop using any software. Wireless controls, video transmission up to 300 feet and line tracing are available. **800/234-7205; www.ariesindustries.com**.

### COBRA TECHNOLOGIES CP SERIES

The **CP Series** of portable inspection systems from **Cobra Technologies** has the functionality of a truck-mounted system in a compact, go-anywhere package. The portable plat-



form with wheels and collapsible handle makes transportation easy. Its lightweight cable allows for maximum crawler productivity, but can support multiple crawlers for 6- to 48-inch lines, while the auto-level rewind supports cable with 600- to 1,000-foot capacity. It includes built-in DVD recording, a daylight LCD monitor, Touch Pro Data Logger and CAMS Office software. **800/443-3761; www.cobratec.com**.



### CUES MPLUS+ XL

The **MPlus+ XL** push system from **CUES** includes a coiler configuration designed for larger pipeline applications up to 500 feet. It integrates swappable camera heads, a pan-andtilt camera with 360-degree

rotation and pan, video observation coding, observation coding interface and digital recording into an easyto-use and intuitive package. This lightweight system includes large and durable wheels for easy portability and a balanced footprint for stability. It facilitates quick removal of the control unit to be used separately for off-road or remote job sites or to accommodate compact storage. **800/327-7791; www.cuesinc.com**.

### EASYCAM MODEL E5150M

The Model E5150M midsize color sewer camera from EasyCAM is offered with optional Wi-Fi compatibility for Apple or Android products. It comes with 150 feet of heavy-duty pushrod



designed to prevent kinking. The 33-pound unit comes with a 7-inch monitor and allows recording to SD and USB formats, voiceover and image inversion for easy viewing. It is powered by a safe, cordless 12-volt battery that allows up to 12 hours of continuous use. It has a standard 512 Hz transmitter and a car charger. The unit is compact, easily fitting in a service van. 239/260-2056; www.easycamllc.com.

### ELECTRIC EEL ECAM PRO 2

The Ecam PRO 2 from Electric Eel allows technicians to quickly inspect 3- to 10-inch pipelines. It includes a stainless-steel-housed 1.68inch-diameter 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. The unit comes standard with 200 feet of Kevlar-braided 1/2-inch-diameter pushrod, industry-standard 512 Hz sonde, 10.4-inch daylight-readable monitor with click-touch controls and one-touch recording directly to a USB flash drive. It has an on-screen footage counter, a two-hour battery with built-in charger, adjustable light controls, 16 pages of text writing with memory saves, voiceover recording, an 8x zoom function, audio/video out jacks, 8-inch wheels for easy maneuverability, a secure-locking reel brake and powder-coated steel tube and bar construction. **800/833-1212; www.electriceel.com**.



### ENVIROSIGHT VERISIGHT PRO 360

The camera head of the VeriSight Pro 360 from Envirosight remotely pans and tilts to give the operator maneuverability when inspecting drainlines. A joystick on the control unit rotates the

camera continuously and tilts it plus or minus 135 degrees. Versions are available with 130, 200 and 330 feet of push cable. The unit makes it easy to view, record and document pipe condition. Its digital interface displays real-time inspection footage on an 8-inch LCD, records up to 90 hours of inspection video to internal memory and allows the operator to enter observation data for upload to WinCan. A customizable interface lets operators zoom 3x on live or recorded video, capture still images, configure the 16-page text writer, browse thumbnail galleries and select among several available languages. An integral tri-band sonde transmits at 33 kHz, 512 Hz or 640 Hz. The entire system runs on main or vehicle power, or on an internal rechargeable battery. **866/936-8476; www.envirosight.com**.



### HATHORN CORPORATION PORTABLE

The **Portable** camera system from **Hathorn Corporation** is a complete system in a small, compact frame that is lightweight and easy to use. The reel can be used vertically or horizontal-

ly. It includes a 7.4-inch daylight-readable monitor, Wi-Fi video transfer to any mobile device, 125 feet of pushrod, a text writer and footage counter, 512 Hz sonde transmitter, rechargeable lithium battery pack and adjustable lighting. Options include self-leveling camera heads, USB recording and an adjustable sun shield/ monitor cover. **905/604-7040; www.hathorncorp.com**.

### INSIGHT VISION CAMERAS IRIS PAN & TILT

The second-generation IRIS Pan & Tilt mainline crawler from Insight Vision Cameras operates on Windows 7 Professional. It uses Windows apps for recording, text writing, snapshot and



file transfer. A pendant controls the pan and tilt and light brightness features on the crawler camera. It can be used to inspect 6- to 12-inch lines and up to 18-inch lines with a larger wheel set sold separately. It is ultra-portable and comes with 600 feet of flexible coax cable. A user-friendly 10-inch LCD touch screen is mounted on the motorized reel, which is included with multi-speed forward/rewind controls on the reel drum for better handling. 800/488-8177; www.insightvisioncameras.com.



### MEDIT STORMER \$3000 PIPE CRAWLER

The **STORMER S3000 Pipe Crawler** from **Medit** is a rugged, portable all-in-one device designed to inspect 6-inch or larger pipelines. It has a durable crawler unit, with a waterproof high-defi-

nition pan-and-tilt camera head, a 656-foot multi-core kevlar braided insertion probe (with an optional 820foot version available) that is ideal for abrasive environments, and a stainless steel cable reel with an onscreen depth counter. The design is adjustable and can be modified within seconds depending on the pipeline diameter. The camera can be positioned in front of the crawler or mounted on top for larger pipes, and additional wheel sets can be easily attached to center the camera and drive over rough surfaces. The monitor has a large 10.4-inch TFT flat-panel display, with image/ video capture, a full keyboard to input text, controls to drive the unit and software compatible with WinCan. 800/239-9934; www.fiberscope.net.



### MYTANA MFG. COMPANY MS11-NG

The MS11-NG midsized video inspection system from MyTana Mfg. Company can be used to inspect 3- to 4-inch lines with up to 150 feet of range. It has a 1 1/2-inch color self-leveling camera

head, built-in 512 Hz transmitter allowing a technician to locate during the inspection, and a daylight-readable 6.4-inch monitor. 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**.

### PEARPOINT P350 FLEXITRAX

The **P350** flexitrax from **Pearpoint** offers inspection professionals an advanced portable crawler system with the simplicity and portability of a pushrod system, while delivering the



functionality and performance associated with more complex crawler systems. It is a modular system, with a command module fully compatible with P340 flexiprobe, allowing the user to switch from crawler to pushrod inspection without carrying a second system. It is easy to use thanks to its intuitive user interface and simple, one-touch control over video and photo capturing. Its ergonomic design and portability means companies can lower the cost per job as less training is required, and it allows for one-person operation. **800/688-8094; www.pearpoint.com**.



### PIPELINE RENEWAL TECHNOLOGIES CLEANSTEER

The **CleanSteer** from **Pipeline Renewal Technologies** uses high-pressure water for propulsion, steering and cleaning as it captures live inspection video from

inside lateral lines. Its design makes it able to 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, and 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-inone, fully portable video inspection system from **R.S. Technical Services** is a compact, lightweight unit for drainline condition assessment in lines 2 to 10 inches in



diameter up to 300 feet in length. The unit has a 7-inch bright LCD handle-mounted monitor equipped 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. 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. CONTINUED**>

# Want To Grow Your Business? CONSULT THE XPERT."



**GROW YOUR BUSINESS** with the help of an Xpert. The Xpert Product Selection Tool allows you to recommend a water heater that will meet the needs of a customer, while giving you the opportunity to upsell products that will provide additional hot water and/ or perform at higher efficiencies.

-

#### CREATE HAPPY CUSTOMERS.

The Xpert Product Selection Tool adds to your expertise by quickly selecting the best water heater based on your customer's lifestyle. The Xpert allows you to immediately show a customer the facts about a water heater and why it's the perfect fit, based on your recommendation.

Visit hotwater.com/Xpert to consult the Xpert or download the A. O. Smith App.







### RAPIDVIEW IBAK NORTH AMERICA 3D-GEOSENSE SYSTEM

The **3D-GeoSense Sys**tem from RapidView IBAK North America uses a sensor in the camera to provide users with a three-dimensional map of the lateral. 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 lateral being inspected. The unit can be used in push or lateral launch applications. Additional third-party software is required. **800/656-4225; www.rapidview.com**.

### RATECH ELECTRONICS ELITE SD WI-FI

The Elite SD Wi-Fi from Ratech Electronics allows users to record pipe inspections wirelessly to an iOS or Android device, and take live video and digital still photos that can be immediately up-



loaded to YouTube, ending the practice of recording to USB thumb drives, SD cards and DVDs. 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 ultra micro camera or pan-and-tilt push camera. Systems come in cable lengths from 100 to 400 feet. 800/461-9200; www.ratech-electronics.com.



### RAUSCHUSA MINCORD

The **minCord** miniature push camera system from **RauschUSA** includes a 1/2inch KK13 miniature color camera with 12 adjustable LED lights and 1 mm sapphire glass lens. This camera can inspect pipes from 0.6-

to 3-inch pipe diameters, or any other small crevice or access point. It is available with 50 or 100 feet of pushpull cable. It is very flexible, ideal for inspecting drains with many traps. The unit comes in a hand-held shatterproof housing and weighs 2.5 pounds. All units are outfitted with a 3.5-inch TFT LCD monitor, video and photo recording to an SD card, and video out. The integrated battery offers up to 2 1/2 hours of operation per charge. It can be upgraded with a 512 Hz locating sonde in the camera coil. **717/709-1005; www.rauschusa.com**.



### RIDGID SEESNAKE RM200

The **SeeSnake rM200** camera system paired with the CS65 digital reporting monitor from **RIDGID** provides a solution for drainline inspections. The rM200 is capable of inspecting lines up to 200 feet in length and

1 1/2 to 6 inches in diameter. It comes with a choice of two drums that each feature different push cable lengths, diameters, stiffness and springs for on-the-job flexibility. It has an integrated transport system for easy portability. The CS65 digital reporting monitor can be docked to the rM200 for on-site reporting. It has onetouch image recording for fast, efficient documentation of inspections. Its 1TB internal hard drive provides ample storage for multiple jobs. PhotoTalk pairs audio commentary with an image in an email-ready file. Its built-in, water-resistant keyboard allows for the easy addition of on-screen titles and annotation of captured media. **800/769-7743; www.ridgid.com**.

### SPARTAN TOOL SPARVISION 200

At 25 pounds, the **Sparvision 200** pipe inspection camera from **Spartan Tool** is self-contained for easy onthe-job maneuverability. It comes with the choice of either an iPad Air or Samsung



Galaxy S10 as the viewing screen, or is compatible with a personal device. It comes with 200 feet of ultraslick pushrod and a color self-leveling camera. It offers instant snapshots, an on-screen keyboard and telestration drawing ability, a 512 Hz locating beacon and distance counter. **800/435-3866; www.spartantool.com**.

### VU-RITE VIDEO INSPECTION SYSTEMS MINI CAMERA

The professional grade, durable 200-foot Mini Camera from Vu-Rite Video Inspection Systems is ideal for inspecting sewer lines as small as 2 inches, or larger lines with the use of a mini-lift adapter. The full-color camera has adjustable lighting and a heavy-duty stainless steel lens cover and body. It comes with a 512 Hz transmitter molded into the camera head pigtail. The rugged, lightweight, versatile frame has removable/



extendable wheels, legs and handle for operating in confined spaces. It is available with an accurate footage counter and on-screen digital display, built-in Wi-Fi and Android tablet. **423/256-3063; www.vu-rite.com**.

#### WOHLER USA VIS 350

The VIS 350 visual inspection system from Wohler USA allows users to inspect pipelines, precisely locate damage and accurately document the results of the inspection. Inspect 2-inch and larger waterlines with a 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 by the L 200 Locator, which has an easy-to-read color display. The user can record video footage and store photos on a 2GB SD card for documentation and archiving purposes. **978/750-9876; www.wohlerusa.com**.

### DYES



#### **BRIGHT DYES**

Concentrated leak inspection dyes from **BRIGHT DYES** dissolve rapidly in water and provide a vivid fluorescent color detectable in murky water, sewage or effluent. They can be used to identify leaks, infiltration

and exfiltration in plumbing connections, validate sanitary and septic hookups, and perform septic inspections to identify leachfield issues as well as sources of contamination in wells. They are safe, nontoxic, biodegradable and certified by NSF International to ANSI/NSF Standard 60 for use in and around drinking water. They are available in fluorescent yellow/green, red and orange, and non-fluorescent blue, in tablet, liquid or powder form. 800/394-0678; www.brightdyes.com. CONTINUED >



# **It's your** magazine. Tell your story.

At *Plumber,* we're looking for plumbing companies with an interesting story to tell. If you'd like to share your story, send us a note to **news@plumbermag.com**.



### **ELECTRONIC PIPE LOCATION**



### FORBEST PRODUCTS FB-R2012

The **FB-R2012** 512 Hz wireless digital locator from **Forbest Products** is designed to detect buried water pipes, sewer lines and other pipeline. It is compatible with the FB-T2011 512

Hz sonde transmitter and camera head with built-in 512 Hz sonde transmitter. It has two operation modes – NORM and NOISE CONTROL – for different application environments. NOISE CONTROL is chosen where there is interference. The shift button is for sensitivity grade conversion for locating and pinpointing the location and depth of the transmitter. On-screen status indicates the signal strength of 15 levels and battery volume. It is powered with six AA batteries, lightweight with retractable poles and easy to carry. **650/757-4786; www.forbestusa.net**.

### GENERAL PIPE CLEANERS GEN-EYE HOT SPOT

The Gen-Eye Hot Spot pipe locator from General Pipe Cleaners includes a total field antenna array and on-screen icons to lead the operator to the target without a long learning curve. It



can help quickly locate inspection cameras, sondes, active power lines and utility lines with pinpoint accuracy. The easy-to-see auto-backlit LCD display shows the way with arrows that point in the right direction. The null icon indicates the pipe location and the camera icon confirms when the locator is over the target. To locate utility lines, circle the energized pipe or tracer wire until the utility icon appears on the screen. Rated at IP65, it's dust- and dirt-proof, and water-resistant. It has passed the 1-meter drop test, while the screen passed an 18inch steel ball drop test. It locates two sonde frequencies, two power frequencies and four line frequencies, and the USB port can be used in the field to upgrade software. 800/245-6200; www.drainbrain.com.

### MILWAUKEE TOOL M12 7.8KP THERMAL IMAGER

The M12 7.8KP Thermal Imager from Milwaukee Tool has DUAL SENSE pixel technology for definition of



hot and cold details within the same image. Ideal for service professionals, it provides an affordable solution for predictive maintenance or troubleshooting applications, taking high-quality images in a compact, easyto-use design. It gives us-

ers detail to view the quality of construction, inspect hard-to-evaluate systems and understand the extent of damage instantly. DUAL SENSE technology allows it to individually optimize pixels to eliminate the blurring of hot and cold details in complex scenes. Equipped with 83-to-1 distance-to-spot performance, dual lasers and hot/cold spot locators, users are able to quickly scan, target and capture temperature readings from long range or small areas. Users can easily download images from the Thermal Imager with the included 8GB SD card or Micro-USB connection port. **800/729-3878;** www.milwaukeetool.com.

#### RADIODETECTION CORPORATION RD7100 The RD7100 from Ra-

diodetection Corporation has an arrangement of five antennas with optional integrated GPS and usage logging, keeping users on the right line while enabling



them to demonstrate safe working practices and validate quality of work. It has integrated, automatic GPS and usage-logging options. By analyzing usage patterns, users and management can assess individual locating operations to ensure compliance with best practices or to identify training needs. Additionally, the data can be used for internal audits or shared with customers to evidence task completion. 877/247-3797; www.radiodetection.com.



#### SUBSITE ELECTRONICS UTILIGUARD

The UtiliGuard utility locating system from Subsite Electronics automatically scans the surrounding area for noise and recommends the best frequency among its 70 options. To help users

make more accurate locates of obstructed utilities, it measures distances (depth) both horizontally and vertically to the utility. To ease use, the system has an intuitive, six-button, multi-language operator interface and a high-contrast LCD display to ensure visibility in all conditions, including direct sunlight. A dual-output feature allows users to connect the transmitter to two utilities at once, and the system is Bluetooth-enabled to simplify data transfers. Its rugged housing with an IP65 rating protects against dusty, dirty and wet conditions, and its transmitter and receiver battery life is 100 and 30 hours, respectively. **800/846-2713; www.subsite.com**.

### SUBSURFACE INSTRUMENTS AML PRO AND AML+ SERIES

AML PRO and AML+ Series all-material locators from SubSurface Instruments use ultrahigh radio frequencies to find differences in subsurface densi-



ties for locating PVC and PE pipes and nearly any other subsurface object that has an edge. They will locate subsurface materials indiscriminately, including plastic, metal, wood, cable or pipe, and work in clay, wet soil, snow or even standing water. They have a durable ABS housing, advanced microprocessor, USB and headphone connectivity, and a variety of sensitivity levels. **855/422-6346; www.ssilocators.com**.



#### VIVAX-METROTECH VLOCPRO2

The vLocPro2 Series of buried-utility locators from Vivax-Metrotech helps execute locates with speed, accuracy and confidence. With a range of frequencies low enough for telecom and

power, and high enough for gas and water, it serves as one tool for various applications. The left/right direction arrows help increase the speed at which the technician can locate, and SD and CM features allow the user to pinpoint a target line in congested areas. The unit is lightweight and balanced, and uses rechargeable or alkaline batteries. The MyLocator2 desktop application allows the user to fully configure the unit



to specific requirements. Supervisors/managers have the ability to lock features, ensuring consistency and reliability of locating techniques across the workforce. 800/446-3392; www.vivax-metrotech.com.

### LEAK DETECTION EQUIPMENT



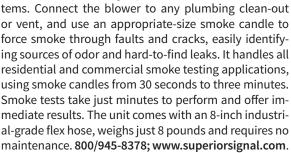
### SUBSURFACE LOCATORS

The LD-18 digital water leak detector from SubSurface Locators reduces ambient, intermittent noises from dogs barking, cars passing by, footsteps and people talking. Its digital electronics

sample the sounds every few thousandths of a second, and if it detects an intermittent sound, it suppresses it instantly. Water leak sounds are almost always continuous noises, and the unit can identify continuous leak sounds even in difficult conditions, like busy streets. **775/298-2701; www.subsurfaceleak.com**.

### SUPERIOR SIGNAL COMPANY 5E ELECTRIC SMOKER

The **5E Electric Smoker** from **Superior Signal Company** offers a cost-effective solution to find difficult leaks and odors in residential and commercial plumbing sys-



### TURBO FOG M-45

The **TURBO FOG M-45** is a versatile, lightweight, portable, self-contained smoke generator capable of producing dense, voluminous white smoke using leak-proof liquid smoke cartridges. Each cartridge can be replaced in seconds, allowing quick and easy replacement even while the unit is operating, allowing for uninterrupted smoke



production. There is no need to add additional smoke bombs or pumping garden sprayers for additional test time. The Briggs & Stratton powered turbine-type blower is a lightweight 45 pounds and creates a discharge velocity of over 75 mph and

2,000 cfm. It continues to work under pressure in up to 5.75 inches of water. It is available with a plumbing conversion kit. **800/394-0678; www.turbo-fog.com**.

### **SAFETY EQUIPMENT**

#### **CESTUSLINE HMD CUT-5**

HMD Cut-5 gloves from Cestusline offer maximum Level 5 cut protection with dexterity. The fast-drying glove provides the needed protection from cut injuries. The double-dipped nitrile palm offers both water- and



oil-resistant grip. The breathable glove material, with sandy-finished palm, offers flexibility for handling smaller objects while working on big tasks. Flexible TPR shields protect the fingertips while allowing for maximum range of motion, with knuckles and metacarpals that bend with hand movement. They are CE-rated 4543. **503/894-8549; www.cestusline.com**.



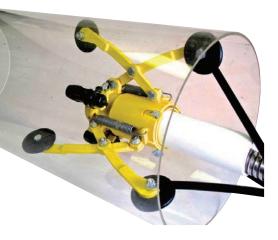
### SVE PORTABLE ROADWAY SYSTEMS TRAKMAT

TRAKMAT ground protection cover mats from SVE Portable Roadway Systems are designed to move large vehicles over lawns, sidewalks and driveways without causing damage. The

mats are easy to handle and provide longevity, strength and safety. The traction surface helps keep the mat in place and prevents vehicle slippage. The lightweight mats with hand cutouts are easy to lift, load and unload. They can be used to build roadways with additional accessories like two- or four-way urethane connectors, and provide an easy access road to remote locations. **800/762-8267; www.trakmat.com. CONTINUED** >



# PUSH CAMERA INSPECTION GAME-CHANGER



### THE UNIVERSAL ROLLER SKID

The Universal Roller Skid allows you to use your push camera in ways that were not previously possible.

- o For 6" to 18" pipelines.
- o Keeps camera centered.
- o Maneuvers through 90° corners.
- o Increases depth range.
- o Improves vision & lighting.
- o Faster inspection.
- o Protects push camera.



### THE TRAPMASTER



- o For 4" to 6" pipelines.
- o Guides camera through p-traps.
- o Works with terracotta pipes.
- o Maneuvers through multiple corners.

### THE MINI ROLLER SKID



- o For 4" 6" pipelines.
- o Maneuvers through corners.
- o Great with cast iron pipes.
- o Improves vision.

### THE PRO KIT

### THE JOE KIT

Includes:

- o Universal Roller Skid
- o TrapMaster
- o Mini Roller Skid
- o PoleCat
- o 3"Wheel Kit
- o LED Lights
- o Hard Shell Foam Case



### AVAILABLE ONLINE: WWW.CPLASPRODUCTS.COM

### Includes:

- o TrapMaster
- o Mini Roller Skid
- o PoleCat
- o Hard Shell Foam Case



Made in the USA. CPI Products. Pittsfield, MA.



### TST SWEDEN PROOPERATOR PROTECTIVE CLOTHING ProOperator Protec-

tive Clothing from TST Sweden is available in a version that is CE-certified according to EN ISO 20471:2013 Class 3 High Visibility. The

clothes are comfortable and functional, and protect from dangerous water jets. They are constructed from strong Dyneema fiber. In addition to the high-visibility clothes, a short apron, arm protections and a hose protection shroud are available. www.tst-sweden.com.

### WORKRITE UNIFORM COMPANY ULTRALIGHT FR CLOTHING

Ultralight flame-resistant coveralls, shirts and pants from **Workrite Uniform Company** are made from 5.3-ounce Glen Raven GlenGuard, a colorfast and



lightweight fire-resistant fabric. These NFPA 70E Category 2 products offer long-term durability and moisture management, as well as lightweight comfort that helps encourage wearer compliance. They are UL-certified to NFPA 2112 and are available in a variety of colors. 800/521-1888; www.workrite.com.





# Plumber

www.facebook.com/Plumbermag www.twitter.com/Plumbermag www.plus.google.com www.youtube.com/Plumbermag www.linkedin.com/ company/plumber-magazine Wisconsin State Fair Park, Milwaukee, Wisconsin

PRODUCED BY COLE PUBLISHING

# SEPT. 12-13, 2016

# Live demonstrations and operational equipment for the water and wastewater industries!



\$30

per person on site

Registration includes ear plugs and safety glasses! **MONDAY** September 12th Fair Hours: 12 p.m. - 6 p.m.

# **TUESDAY** September 13th

Fair Hours: 8 a.m. - 2 p.m.

Outdoor Event - Rain or Shine



Wastewater Equipment Fair

MILWAUKEE

Cleaner

# View complete event details at: WEOFAIR.COM Call 866-933-2653 for more info.



# PIPELINE INSPECTION, LOCATION AND LEAK DETECTION

By Craig Mandli

### CITY ADDS SCANNING SYSTEM TO COMBAT RAIN-DEPENDENT INFILTRATION



**Problem:** Oregon receives 2.8 inches more rainfall than the national average. As a result, rain-dependent infiltration (RDI) is an issue for cities such as Coos Bay, which receives between 60 and 80 inches of rain per year. RDI can be difficult to locate using visual methods, since in dry weather a defect may not be actively leaking so it may not be seen. Meanwhile, in wet weather, there may be too much water in the pipe to locate the defects visually. Coos Bay has an area zoned for industrial, commercial, single-family and multifamily development, which will add a large volume of sewage to the system. The city has analyzed the existing sanitary sewer system that serves this area and has determined that it is over capacity.

**Solution:** The city turned to **Electro Scan** technology for a way to locate and quantify its RDI. By locating and eliminating the RDI, the city hoped to be able to make room in the system for additional sewage.

**Result:** Electro Scan testing was completed on four pipes. Sources of infiltration were identified, and results showed that the PVC pipe was in ideal shape and no defects were detected. However, the three concrete pipes were in varying conditions of disrepair; a total of 112 defects were located, representing an overall potential leakage rate of approximately 44 gpm, or 63,461 gpd. The data resulted in the city council's decision to purchase an **ES-620 for Sewer Mains** system, which was installed in December 2015. **800/975-6149; www.electroscan.com.** 

### What's Read All Over?



plumbermag.com

You Tube



# April 23rd, 2016 Long Beach Convention Center - 9am - 4pm

Industries Include: Plumbing Backflow Jetting Video Inspection Leak Detection Sewer Cleaning Communications **Grease Handling** Water Treatment

**HVAC/R** Trenchless **Piping Rehab/CIPP** Pump Systems Utility Locating Vehicles **Computer Software** Fire Suppression Service & Repair

Kitchen/Bath Remodeling and Much More!

### Experience... the newest tools and equipment!

### Explore...

opportunities to grow your career

# Excel...

with educational opportunities





# PRODUCT SPOTLIGHT

Thermodynamic box uses ambient air to continuously heat water

By Ed Wodalski

he Magic Thermodynamic Box water heating system uses ambient air and liquid circulated through a thermodynamic panel to continuously heat water to 131 degrees F in a 26- to 40-gallon cylinder. Designed for residential and commercial applications, the system delivers 2.2 gallons of hot water per minute. Multiple panels can be used for greater output.

Working like a refrigerator in reverse, ozonefriendly refrigerant circulates within the 31- by 62-inch external panel, which absorbs energy from the air. The liquid refrigerant (R134a) is converted to a gas and compressed inside the box, which works as a heat exchanger. Hot water from a nearby cylinder (not included) is drawn inside the box, heated and returned through the cold water supply, completing the cycle. Spent gas is converted to a liquid and re-circulated through the panel.

The system works day and night all year long, generating hot water in all weather conditions.

"The Little Magic Thermodynamic Box is a retrofit system, meaning the box and aluminum panel can be installed using the customer's current water heater," says Alex Basile, marketing director for Magic Thermodynamic Box. "The product can be installed in various types of properties, including residential and commercial."

Basile says the box can save customers up to 80 percent on their hot water bill and can be installed by a licensed plumbing and heating contractor.

"The only cost is about \$128 dollars a year to run the heat pump inside the box," he says.

Made in the United Kingdom, the microwave-sized box (about 12 inches tall by 20 inches wide and 17 inches long) weighs 66 pounds and is available worldwide.

The LMB can also be used with the company's Central Heating Management System instead of a boiler, saving up to 30 percent on central heating energy usage. www.magicthermodynamicbox.com.



#### FRANKLIN ELECTRIC GP SERIES GRINDER PUMP

The Little Giant GP Series of grinder pump models from Franklin Electric operate using 208 to 230 volts. The GP-A (automatic) and GP-M (manual) models are designed to handle low-

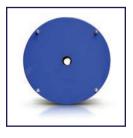
pressure sewage applications, utilizing 414,000 cuts per minute. The pumps have a non-clogging impeller to handle sewage slurries and a shut-off head of 130 feet. Both models have a 2 hp single-phase, 3,450 rpm with capacitor start/run motor and built-in overload protection. **260/824-2900; www.franklinwater.com**.

### BAYCO INTRINSICALLY SAFE CLASS 1 ANGLE LIGHTS

Nightstick intrinsically safe Class 1, Division 1 angle lights from Bayco Products include models XPP-5570R, XPR-5572R and XPR-5572RM. Each model is cULus- and



MSHA-certified and IP67-rated waterproof. They meet the requirements of NFPA-1971-8.6 (2013). Made from glass-filled nylon polymer, the lights feature user-selectable flashlight settings of 200, 100 and 60 lumens, plus a strobe feature with 267-meter distance. **800/233-2155; www.mynightstick.com**.



### COXREELS FACTORY-TUNED SPRING MOTORS

Factory-tuned spring motors from Coxreels are designed for safe and efficient reel retraction. Coxreels manufactures over 150 different types of spring motors, including six various

spring thicknesses and three spring widths. The spring motors do not have a joint or attached hook connection that can fail during retraction. **800/269-7335;** www.coxreels.com.

### ELECTRIC EEL INSPECTION CAMERA WITH WI-FI

The Ecam ACE pipeline inspection camera system with Wi-Fi from Electric Eel Mfg. enables users to record video with their mobile device. The Wi-Fi transmitter sends a wireless signal to



most hand-held devices. Using the custom downloaded app the user can see video, record video or take snapshots. Once a video is recorded, the user can email it directly from the device or download it to a computer. The camera system is designed to inspect 3- to 10-inch lines and features a 5.4-inch LCD monitor with stainless-steel-housed 1.68-inch color camera and sapphire lens. The flexible camera spring navigates 3-inch P-traps. The system includes 200 feet of durable braided 1/2-inch-diameter pushrod, industry standard 512 Hz sonde and a heavy-duty screen cover. **800/833-1212; www.electriceel.com**.



#### TOTO INTELLIGENT, SELF-CLEANING TOILET

The Neorest 750H intelligent toilet from Toto, winner of the iF International Award for design excellence, features intuitive sensor operation with auto-open/ close and auto-flush; inte-

grated personal cleansing system with warm, aerated water, warm air dryer and heated seat; in-bowl catalytic deodorizer; and energy- and water-saving features. Tornado dual-flush technology consumes 1 gallon of water per flush for the full flush and 0.8 gpf for the light flush. The flushing system simultaneously releases two water jets inside the bowl, creating a whirlpool effect that removes waste and cleans the bowl's surface and rim. 888/295-8134; www.totousa.com.



### STREET INVOICE CREDIT CARD PROCESSING APP

The Mobile Invoicing app from Street Invoice provides desktop, laptop, tablet and smartphone users with 'Click 'n Send/Click 'n Pay' technology to create and send an invoice and process

credit card payments on the spot. The app is also designed to deliver instant estimates including appropriate taxes. **917/435-4230; www.streetinvoice.com**.

### CALEFFI MAGNETIC SEPARATION PRODUCTS

The suite of magnetic separation products from Caleffi are designed to address problems caused by ferrous oxide debris found within hydronic systems. The debris, which is abrasive and



often microscopic, is created from the oxidation of iron or steel materials. It can deposit onto heat exchanger surfaces and accumulate in other components, including circulators. **414/238-2360; www.caleffi.com**.



### INFRASTRUCTURE REPAIR SYSTEMS ELBOW

The Trenchless 90-Degree Elbow Spot Repair System from Infrastructure Repair Systems is an elbow spot repair system designed to seal joints, cracks or missing sections within the

90-degree curve of any 4-inch to 6-inch pipe. 877/327-4216; www.irsi.net. ■





CALEFFI INVITES DESIGNERS TO SHOWCASE WORK



▲ Ryan Bristow (left) of Equipco shakes hands with Caleffi Excellence winner Bill Olschewski of Tip Top Plumbing, who recently won a trip to Italy.

Caleffi Hydronic Solutions invites designers of hydronic or plumbing systems to showcase photos and video of their work from installations that incorporate Caleffi products as part of Caleffi Excellence, an ongoing contest entering its third year. Monthly winners are determined by an instant audience poll of attendees to the Coffee with Caleffi educational webinar series. Winners receive an iPad mini and become eligible to win the grand prize — a trip for two to tour Caleffi's World Headquarters in Italy.



### AMERICAN STANDARD VORMAX WINS DESIGN AWARD

The VorMax toilet line from American Standard was named a 2015 Good Design Award recipient in the bath category for design excellence. This award is presented by the Chicago Athenaeum Museum of Architecture and Design in cooperation with the European Centre for Architecture, Art, Design and Urban Studies. The WaterSense-certified, high-efficiency toilets (HET) remove splatter and clinging waste using 1.28 gallons of water per flush.

 The American Standard VorMax highstyle, water-efficient toilet received the 2015 Good Design Award for design excellence in the bath category.

### ENVIROSIGHT APPOINTS SALES PARTNER FOR PACIFIC NORTHWEST

Envirosight appointed True North Environmental Equipment as its exclusive sales partner for Envirosight equipment in Oregon, Washington and Alaska. The partnership will give True North exclusive rights to sell Envirosight's sewer inspection technology throughout the Pacific Northwest region. True North Environmental Equipment is a division of Vimar Equipment and has offices in Hillsboro, Oregon, and Marysville, Washington.

### FERGUSON PARTNERS WITH MARINES TO COLLECT TOYS FOR TOTS

Ferguson partnered with the U.S. Marine Corps Reserve Toys for Tots Foundation as part of the company's third annual Project Holiday Joy. Ferguson served as a national corporate donor for the Toys for Tots program and collected more than 4,000 toys for children on the Virginia Peninsula, home to the company's headquarters. Over 150 Ferguson locations across the country also participated in Project Holiday Joy and collected toys, gift bags, food and monetary donations for local children, families and the military.

### BILL HOWE OFFERS HOME-OWNERS 'HOWE-TO' VIDEOS

The Bill Howe Family of Companies is helping homeowners save money with helpful DIY tips and simple repairs through a series of "Howe-to" videos. Each video features a plumber or HVAC specialist. The first video in the series demonstrates how to change a toilet flapper to stop a running toilet and save water.

### TT TECHNOLOGIES LAUNCHES WEBSITE



TT Technologies launched a new website that enables users to view and interact with the site using mobile devices. Trenchless contractors and engineers are able to get information on trenchless tools, methods, and parts and accessories on their mobile device directly from the job site. The site contains photographs, illustrations and animations of trenchless methods and applications including pipe bursting, pipe ramming, horizontal boring, lateral replacement and directional drilling.

#### VAC-CON SAVES \$150,000 ON SALES TAX EXEMPTION

Vac-Con, in the midst of an \$11 million plant expansion, hosted Florida Gov. Rick Scott in January at a stop on his Million Miles for a Million Jobs Tour. Vac-Con plans to hire about 60 employees as a result of the expansion.

### WILKINSON ACQUIRES ULTRA FILTRONICS

George T. Wilkinson, supplier of energy-efficient commercial and industrial boilers, services and mobile boilers, acquired Ultra Filtronics, provider of ultrapure water purification systems for the biotech and pharmaceutical industries. Ultra Filtronics will retain its name and operate as Ultra Filtronics, Inc.



Spartan Tool promoted Eric Boonstra to sales manager. He will support the needs of the company's customers by coordinating and communicating with the territory managers, customer service representatives, engineers and the factory.



## What's New With You? Send In Your Industry News To Us!

Send your company's latest business news to news@plumbermag. com. Newsworthy items may include business expansion, honors and awards, new contract announcements, employee promotions and executive hires, and new services. Please include high-resolution digital photos with the news releases.

# Keep it coming each month! Don't miss:

- » Company Profiles
- **» First Responders**
- » On the Road
- » In The Shop

### FREE SUBSCRIPTION (US, Canada & Mexico Only)

### □ Start/Renew my subscription to Plumber Magazine.

Imber

Signature (required)				
Date				
Print Name				
Title				
Company or Facility				
Mailing Address				
City				
State				
Phone	Fax			
Email				

### Also send a FREE subscription to:

Coworker's Name	 	
Title	 	
Email	 	

COLE Publishing Inc., PO Box 220, Three Lakes, WI 54562 plumbermag.com • Ph: 800.257.7222 • Fax: 715.546.3786



#### Please tell us about yourself, so we can better serve you.

#### 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 +
 \$350K +

### WHAT SERVICES DO YOU PERFORM ON A REGULAR BASIS?

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

# Buying Something? Selling Something? Looking for Something?





Keeping it GREEN since 1979

www.colepublishing.com

### I MARKETPLACE



our story.

# **HotJetusa**

THE PROFESSIONAL PLUMBER'S #1 CHOICE IN JETTING EQUIPMENT

# BEST SELLER

F PRICE





**EXCLUSIVE VENDOR PARTNER FOR:** 

MOT OR COLD OPERATION

- 🏹 CLEANS 2" 12" LINES
- **DUAL PURPOSE:**

**JETTER & POWER WASHER** 

🗹 BEST ROI IN INDUSTRY!



QUESTIONS? CALL OUR FRIENDLY & HELPFUL JETTING PROFESSIONALS

Contact us about customizing your jetter including your choice of color & custom signage!

CHESTER

DENIS

LORI

SASLOWAS

GOOD 'TIL 2-28-16

OVER 30 YEARS OF BUILDING QUALITY EQUIPMENT 1-800-213-3272 • www.HotJetUSA.com

ELLE

### THE MOST ADVANCED LINING EQUIPMENT ON THE MARKET!



### CHECK OUT OUR WEEKLY BLOG POSTS! VISIT OUR WEBSITE & SUBSCRIBE FOR UPDATES.

WIKSHOG



# Our equipment saves TIME and MONEY

CALL TODAY

 $\star \star \star$ 

1-888-354-6464

Can be used in even the most confined spaces!

CONTACT US FOR MORE INFORMATION II 1-888-354-6464

WWW.PIPELININGSUPPLY.COM

# SAVE THE LANDSCAPING "

WITH TRENCHLESS PIPE REPAIR

> TRENCHLESS PIPE REPAIR

# **PERMA-LATERAL**<sup>™</sup> LINING SYSTEM

THE BEST SELLING SMALL DIAMETER PIPE LINING SYSTEM IN NORTH AMERICA REPAIRS CRACKED OR BROKEN PIPES WITHOUT EXTENSIVE EXCAVATION

ELIMINATES ROOTS AND INFILTRATION

BRIDGES MISSING PIPE SECTIONS / STAND ALONE REPAIR

PATENTED TECHNOLOGY





www.perma-liner.com

UPG

Taker Environment Tedevalor

**PERMA-LINER INDUSTRIES, LLC.** 

(MAST)

**NSF** 

CALL 1-866-336-2568 TO LEARN MORE

ESPMG