

# Cleaner

FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

JANUARY 2015



Feb. 23-26  
Indianapolis, Ind.

**Education  
Classes**

**PAGE 26**



## BUILT ON EXPERIENCE

SAK CONSTRUCTION SETS THE STANDARD FOR PIPE  
REHABILITATION AND TRENCHLESS TECHNOLOGY **PAGE 32**

### MONEY MANAGER

Focus on financial health

### SAFETY FIRST

Slow down and use caution in winter

### MONEY MACHINES

Powerful pressure washer helps contractor compete



**“My Workhorse!”**

## **Speedroooter 92® – Job Tested Tough**



Carl Helt, Helt Plumbing,  
Charleston, MO

**“We used the Speedroooter on four separate jobs in one day and it came through every time!” says Carl Helt.**

Contractors like Carl know that the Speedroooter can really take a beating.

“I’m from the old school,” Helt continues, “we stand behind our work, and we expect the same from the tools we use.”

The Speedroooter’s field tested design offers easy handling. One person can load it onto a truck. “It’s great for one man operation,”

Helt contends. “I’m certainly not as young as I used to be, and I can handle the Speedroooter with no trouble.” With the power to handle long tough jobs, the Speedroooter’s power cable feed takes the muscle work out of drain cleaning.

The Speedroooter remains Carl Helt’s favorite. “It’s so reliable,” he concludes. “I can just send the guys out, and know we’ll get the job done!”

**For details, contact the Drain Brains® at 800-245-6200, or visit [www.drainbrain.com/92](http://www.drainbrain.com/92).**



***The toughest tools down the line.™***

  
**MADE IN USA**

©2015 General Wire Spring

Join the  
empowered.



Let the confidence of a VAC-COM  
Certification empower you.

Questions answered. That's our goal with the



Operation of this unit involves  
high-pressure water and  
that can present potential  
precautions are not follow



# Safety. Efficiency. Sustainability.

That's why we've created the industry's  
most powerful on-line training system.

More power to you in the form of on-line training. Helpful videos, graphics and tests that get you and your team up to speed on maintaining and operating a Vac-Con truck more efficiently and safely.

[www.vac-con.com](http://www.vac-con.com)

A subsidiary of Holden Industries, Inc., Vac-Con is a 100% employee-owned company.  
©2014 Vac-Con, all rights reserved.





# WARTHOG

SEWER NOZZLES BY **STONEAGE**

**CLASSIC SERIES**

**NEW**  
**WGR MAGNUM**



WV WT WS WHP WG WD WGP

**MANY APPLICATIONS. ONE SOLUTION.**

**DESTROYS ICE, GREASE,  
ROOTS, DIRT & DEBRIS.**



**WARTHOG**  
SEWER NOZZLES BY **STONEAGE**

1-866-795-1586 • [WWW.SEWERNOZZLES.COM](http://WWW.SEWERNOZZLES.COM)

**SEE YOU AT THE 2015 WWETT SHOW!**

Visit us at Booth #5134

Proudly Manufactured in the USA



underground  
understood



# Pipe Inspection's All-star Lineup

new

## preferred build-outs

We've analyzed the most popular inspection vehicle configurations and geared up to deliver them faster and more affordably. Order with confidence knowing your build-out reflects industry preferences.



updated

## crawlers

Pan/tilt SAT is updated with new controls, drive train and camera; new RX400 crawler inspects pipe up to 10' dia.



new

## pan/tilt push camera

Reaching as far as 330' into laterals, VeriSight Pro 360 tilts  $\pm 135$  degrees and pans 360.



new

## video nozzle

Now view lines up to 24" with JetScan extension rollers, and record up to 16 hours of footage.



ROVER X dominates our industry—it's the most agile, capable crawler out there, with a single system letting you perform CCTV, lateral launch, side scanning and laser profiling in any size line.

But let's face it, even a performance crawler like ROVER X isn't always the best way to see inside pipe. That's why EnviroSight has pioneered game-changing technologies like zooming and video nozzles, and why we've perfected the push camera.

Ultimately, Underground Understood is about having the best equipment to answer any inspection challenge. **Schedule a free on-site demo and find out what it means to go all-star.**



**Envirosight**

[www.envirosight.com](http://www.envirosight.com) • 973.252.6700

inspection technology • asset strategies



32

## features

- 16 **Profile: The Root of the Matter**  
Southern California shop carves out important niche in residential trenchless sewer repair.  
By Marian Bond
- 26 **WWETT Preview: Learning Opportunities Await**  
The education offerings at WWETT 2015 provide insight and information for sewer and drain cleaners.  
By Craig Mandli
- 32 **Profile: Built on Experience**  
SAK Construction sets the standard for pipe rehabilitation and trenchless technology.  
By Ken Wysocky



### ON THE COVER:

Tim Bussen is a central region project manager for SAK Construction. The Missouri-based company's 300-plus employees serve customers nationwide from five offices and help bring in more than \$100 million in annual gross revenue. (Photography by Jerry Naunheim)



16



44

## departments

- 12 **From the Editor: Keep Moving Forward**  
Business carries inherent risks, but don't let fear of failure prevent success.  
By Luke Laggis
- 14 **@cleaner.com**  
Be sure to check out our exclusive online content.
- 40 **Money Machines: Working Under Pressure**  
Productivity gains from powerful hot-water pressure washers help Virginia contractor compete more effectively.  
By Ken Wysocky
- 44 **Tough Job: Extended Excavation**  
Exposing pipes at an Ohio natural gas plant snowballs from simple job to a larger, more complex project.  
By Scottie Dayton
- 56 **Money Manager: Know Your Numbers**  
Kick off the new year with a new focus on managing the financial health of your business.  
By Erik Gunn
- 60 **Safety First: Watch Your Step**  
Winter means more slips and falls so it's important to slow down and use caution.  
By Doug Day
- 64 **Product Focus: Chemical and Mechanical Root Control**  
By Craig Mandli
- 72 **Case Study: Chemical and Mechanical Root Control**  
By Craig Mandli
- 74 **Product News**  
Spotlight: Hose handling system improves safety.  
By Ed Wodalski
- 78 **Industry News**

## COMING IN FEBRUARY 2015

### ISSUE FOCUS:

#### WWETT Show pre-show issue

- **SAFETY FIRST:** Observations predict future incidents
- **MONEY MANAGER:** Be on alert for employee theft
- **PROFILE:** One Hour Rooter, Minneapolis, Minn.

# CHOOSE YOUR VIEW.



**NEW**

**CS65** 6.5" SCREEN AND 1TB HARD DRIVE



**CS6** 5.7" SCREEN AND LIGHT-WEIGHT DESIGN



**CS6PAK** 5.7" SCREEN AND DOCKS ON COMPACT2 REEL



**CS10** 12.1" SCREEN AND ONE-TOUCH RECORDING

©2014, RIDGID, Inc. The Emerson logo and RIDGID logo are registered trademarks of Emerson Electric Co. or RIDGID, Inc. in the U.S. and other countries. All other trademarks belong to their respective holders.

## BUILD YOUR INSPECTION SYSTEM WITH RIDGID® DIGITAL MONITORS.

RIDGID offers a variety of inspection monitors purpose-built for real-world applications. Every RIDGID monitor integrates seamlessly with our SeeSnake® reels and features a daylight readable LCD screen. Choose the solution that's right for you.

★ REQUEST A FREE ONSITE DEMO OR LEARN MORE AT 800.769.7743 | RIDGID.COM/INSPECT ★

We  
Build  
Reputations™

**RIDGID**

  
**EMERSON**  
Commercial & Residential Solutions

# The Summer Blockbusters TWO PUMPS...

One Pumps Water, the Other Pumps... Something Else.



Annovi Reverberi  
**RTX**

Battioni Pagani  
**WPT**

Now Available at



**NORTH AMERICA**  
First Choice When Quality Matters

Contact Thom Calvin at (763) 398.7564 or ThomasC@ARnorthAmerica.com

## Cleaner

FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

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.cleaner.com | Email: info@cleaner.com | Fax: 715-546-3786

**SUBSCRIPTION INFORMATION:** A one year (12 issue) subscription to *Cleaner* 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.cleaner.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 nicole@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 ad 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 which in its opinion is misleading, unfair or incompatible with the character of the publication.

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

**CIRCULATION:** Circulation averages 27,756 copies per month. This figure includes both U.S. and international distribution.

© 2015 COLE Publishing Inc.

No part may be reproduced without permission of the publisher.



Kayla Bisnette Jim Koshuta



GET SOCIAL WITH Cleaner

- [www.facebook.com/CleanerMag](http://www.facebook.com/CleanerMag)
- [www.twitter.com/CleanerMagazine](http://www.twitter.com/CleanerMagazine)
- [www.plus.google.com](http://www.plus.google.com)
- [www.youtube.com/CleanerMagazine](http://www.youtube.com/CleanerMagazine)
- [www.linkedin.com/company/cleaner-magazine](http://www.linkedin.com/company/cleaner-magazine)



**WATER & WASTEWATER EQUIPMENT, TREATMENT & TRANSPORT SHOW**

EDUCATION DAY: Feb. 23, 2015

EXHIBITS OPEN: Feb. 24 - 26, 2015

Indiana Convention Center

[WWW.WWETT.COM](http://WWW.WWETT.COM)



## Every day is Earth Day.™

"When we have a large rain storm there is so much infiltration into the sewer system, sewage treatment plants can be flooded. And if this overflows into the bay you have a problem. There are huge fines for dumping sewage into the bay, and a lot of cities have been going through inspecting and even doing grants for homeowners to upgrade their sewers."

**Denis O'Halloran**  
An Original Environmentalist  
President  
Southwood Plumbing & Heating  
San Bruno, Calif.

COLE Publishing cleaner.com • 800.257.7222  
Proudly Serving the Environmental Service Industry Since 1979



# PERMA-LATERAL™ LINING & STINGER STEAM CURE TURN-KEY TRAILER



“ WE LINE IT & Stokes Mechanical is excited to offer trenchless piping lining technology combined with our 50 plus years of plumbing experience. We are proud to partner with PERMA-LINER™ in this new endeavor and are confident it will allow us to continue to grow and expand into the next 50 years. ”

Erica Barnes  
Stokes Mechanical Contractor  
Certified Perma-Liner™ installer

**Zero Down. No Payments for 90-Days.**

Only \$2,192/per month

Financial and credit qualifications for zero down financing.

**Includes  
600 FT of material**  
(material, chemical and all necessary items)

Make a profit faster with  
Perma-Liner™

## PERMA-LATERAL™ LINING, STINGER STEAM CURE & PICOTE SMART CUTTER™ START-UP PACKAGE



PATENT # 8590575

**Zero Down. No Payments for 90-Days.**

Only \$1,771/per month

Financial and credit qualifications for zero down financing.



BOOTH  
3223

LIVE DEMOS



1-866-336-2568 Toll Free

1-727-507-9749 Int'l

www.perma-liner.com

Covered by US Patent Nos. 7,343,937; 7,448,413; 7,588,055; and 7,753,081

**A**

A Corp/Rooter-Man.....38

A.R. North America, Inc.....8

**ALLAN J. COLEMAN**  
SINCE 1905

Allan J. Coleman Co. .... 45, 86

**AMAZING MACHINERY**

Amazing Machinery, Inc.....65

**AQUA MOLE**  
TECHNOLOGIES

Aqua Mole Tehnologies, Inc.....22

Arctic Blasters, Inc.....75

**ARIES**  
INDUSTRIES, INC.

Aries Industries, Inc.....63

**C**

Cable Center, The..... 38, 61

**CAM**

Cam Spray.....54

**CENTRAL OKLAHOMA**  
**Winnelson**

Central Oklahoma Winnelson .....77

**Root Rat**

Chempure Products Corp.....38

CIPP Services, Inc.....39

Cloverleaf Tool Co. ....73

**COAST MANUFACTURING**  
THE PROFESSIONAL'S CHOICE

Coast Manufacturing .....22

**CUES**

CUES.....55

**D**

DRAINBO .....29

**DRAINABLES**  
direct

Drainables Direct.....42

**Duracable**  
Manufacturing Company

Duracable Manufacturing Co.....15

**E**

**Electric Eel**

Electric Eel Mfg.....48

**Envirosight**  
LLC

Envirosight, LLC.....5

**enz usa inc.**

Enz USA, Inc.....62

**F**

**Solutions**

F. S. Solutions.....59

Forbest Products Co.....71

**G**

**GapVax**

GapVax, Inc.....87

**GD**  
GARDNER DENVER  
PIPE CLEANERS

Gardner Denver Waterjetting Systems.....31

**General**  
PIPE CLEANERS

General Pipe Cleaners.....2

**GORLITZ SEWER & DRAIN, INC.**

Gorlitz Sewer & Drain, Inc.....43

**GUZZLER**

Guzzler Manufacturing.....11

**H**

**HammerHead**

HammerHead Trenchless Equipment .....25

**Hannay Reels**  
The reel leader

Hannay Reels .....54

**J**

**Jetstream**

Jetstream of Houston.....49

**K**

**Ken-Way**

Ken-Way Corporation .....81

**L**

**Lansas**

Lansas Products.....34-35

LaPlace Equipment Co.....81

**M**

**MRP**

Milwaukee Rubber Products, Inc.....72

**MyTana**

MyTana Mfg. Company, Inc.....13

**N**

**NLB Corp.**

NLB Corp.....24

**NozzTeq**

NozzTeq, Inc.....78

Nu Flow .....42

**O**

**OceanQuip LLC**  
TRENCH TOOL CABLES

Oceanquip Cables, LLC.....24

**P**

**PERMA-LINER INDUSTRIES**

Perma-Liner Industries, LLC.....9

**PHCC**

PHCC-GLAA.....47

**PICOTE**

Picote Solutions.....75

**Pipeline Analytics**

Pipeline Analytics.....54

Pipeline Renewal Technologies.....57

**PIPELOGIX**

PipeLogix, Inc.....41

**PRIMELINE**

PrimeLine Products, Inc.....37

**Pulsar 2000**  
Line Tracer

Pulsar 2000, Inc.....58

**Q**

Quik-Lining Systems, Inc.....30

**R**

**RapidView IBAK**

RapidView IBAK North America .....23

**Ratech**  
ELECTRONICS

Ratech Electronics, Ltd.....73

**RIDGID**

RIDGID®.....7

**RS**  
Technical Services Inc.  
THE SINGLE'S SOLUTION

RS Technical Services, Inc.....19

RYCOM Instruments, Inc.....48

**S**

**SAFETY SEWER DRAIN**

Safety Sewer Drain .....75

**SCOOTER**

Scooter Video.....69

**SOUTHLAND TOOL MFG. INC.**

Southland Tool Mfg., Inc.....67

**SPARTAN**

Spartan Tool, LLC.....88

**STONEAGE**

StoneAge, Inc.....4

Stutes Enterprise Systems.....21

**T**

**T&T TOOLS**

T&T Tools, Inc.....58

**TRYTEK**

TRY TEK Machine Works, Inc.....60

TST Sweden AB.....71

**U**

**ultraSTORE**  
PRODUCTS

Ultra Shore .....30

USB - Sewer Equipment Corporation.....12

**V**

**VAC-CON**

Vac-Con, Inc.....3

**VAR**  
CO

VARCo.....62

**VIVAX**  
METROTECH

Vivax-Metrotech Corp.....30

VSI Rentals.....47

**W**

**WATER CANNON**

Water Cannon, Inc. - MWBE.....79

Westmoor Ltd. ....77

Woma Corporation.....42

**Marketplace..... 80**

**Classifieds..... 82**

E-ZINE • E-ZINE • E-ZINE

Have you seen the

# Cleaner E-Zine?

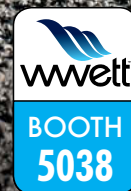
SPECIAL SEWER ROUTING TV INSPECTION EQUIPMENT

Playing the

Go to [cleaner.com](http://cleaner.com) to view the e-zine.

E-ZINE • E-ZINE • E-ZINE

# Who knew your best business partner would be a truck?



## It takes more than just steel

to create the toughest industrial vacuum truck in the business, it takes the same grit you're made of to give it all, day after decade. So every Guzzler® is built with the reliability you need in a business partner. Not the kind that wears a suit, but the kind that thrives on getting dirty and getting things done. This machine is built for the long haul, easy to operate and even easier to clean and maintain. So you'll never have to doubt that your investment gave so much more in return.

Because around here, we don't just build trucks. We build tough.



Guzzler.com • 800.627.3171



Luke Laggis  
editor@cleaner.com

# Keep Moving Forward

Business carries inherent risks, but don't let fear of failure prevent success

By Luke Laggis

Every month, *Cleaner* brings you stories of contractors who are succeeding, doing great work and making their businesses stronger. And to make that happen for your business, sometimes you need to take a chance.

Going into business for yourself is perhaps the biggest professional risk you can take. Adding a new line of services, expanding your staff or buying an expensive new jet/vac truck all carry risks, but they also present opportunities. These are important decisions in the course of operating a business, and they can play a huge role in shaping your future.

There is a balance between risk and reward, and good business owners must be willing to take occasional risks to keep their businesses moving forward.

That's one of the great freedoms in business ownership: You are the primary factor in creating your own success. When you embrace that, and put fear aside, everything becomes possible.

As we kick off the new year, we're working on several stories that demonstrate what it takes to make a business successful. From a Pennsylvania contractor who went out on his own with no help 10 years ago and now has 29 employees, to a woman in Georgia who took a risk and started her own inspection company, these stories will all provide some insight on operating your own business.

Some decisions will inevitably lead to failures or setbacks, but success and failure are often separated by the thinnest of margins, and the greatest failure is not taking the chance and giving yourself the opportunity to succeed.

There is no one-size-fits-all approach to succeeding in this industry. We try to show you a variety of approaches that have worked for other contractors. We've profiled companies with a focus on growth and continual expansion of their services and market share. We've profiled just as many companies that have found their niche on a smaller scale and in a more specialized approach. A company that specializes in pipe bursting and has remained steady at eight employees for the past 10 years might not look as impressive as a company that has 100-plus employees and handles everything from pipe inspection to hydroexcavation, but success can take many forms, and what it means to you is all that matters.

The key is setting goals for your business and having the courage to go after them. So be bold. When you see an opportunity for improvement, go after it. Some decisions will inevitably lead to failures or setbacks, but success and failure are often separated by the thinnest of margins, and the greatest failure is not taking the chance and giving yourself the opportunity to succeed.

There's a quote from one of my favorite writers, Hunter S. Thompson, that I've carried around with me for years. It's as important a question in business as it is in life:

*Who is the happier man, he who has braved the storm of life and lived, or he who has stayed securely on shore and merely existed?*

Don't be afraid to take a chance when you see an opportunity to improve your business, and don't ever let fear keep you on shore.

Enjoy this month's issue. **c**

**Often Imitated, Never Duplicated**

**USB - SEC**

**TURBO CHAIN CUTTERS**

Since 1989 USB has lead the way in the development of turbine driven chain cutters. These innovative highly reliable products offer superior performance and cleaning efficiency.

- » Achieves unsurpassed results in the removal of roots, grease and mineral deposits from 4"-48" sewer lines.
- » A barrel cutter attachment used in conjunction with a flexible skid can remove protruding laterals.
- » A flexible guide skid allows the cutter to navigate over slight offsets easily.
- » Require no lubrication and are low maintenance.
- » Can be used with recycled water too!

**BEST BANG FOR YOUR BUCK!**

**USB-Sewer Equipment Corporation**  
1700 Enterprise Way • Suite 116 • Marietta, GA 30067  
Toll Free 866-408-2814 • PHONE 770-984-8880 • FAX 770-984-2802  
USB - SEC Email info@usbsec.com • Web www.usbsec.com

# Upright

**Mainline workhorses for 3"-10" lines.**

Gearboxes handle 300' - 400' of cable and both models ship standard with 11/16" or 3/4" cable. MyTana cable machines feature quiet operation and quick reel change.

# or Sled.



## **M888 Upright Workhorse**


- 1/2 HP motor, 150 RPM
- Slide out autofeed,
- Slip-joint fittings and a closed polyethylene reel. (Open reel with cover also available)



## **M81 Big Workhorse**

- 1/2 HP motor, 132 RPM
- Slip-joint fittings and open reel with cover. (Closed polyethylene reel is also available)



 Made in the U.S.A.



Request your  
**FREE, FULL LINE**  
catalog today!  
**800.328.8170**

**1.800.328.8170**

**Factory Direct  
Customer Service**

Competent • Polite • Clear  
(M - F 7 am-5 pm CST)

# MyTana

*Professional grade tools for sewer & drain professionals*

**www.MyTana.com**

CABLE MACHINES • JETTERS  
PUSH CAMERAS FOR MAIN LINES  
& DRAIN LINES • LOCATORS  
RELATED PARTS • ACCESSORIES

# @Cleaner.com

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



## CLIENT CLASH

### Communication is Key

Delivering bad news to customers is a required skill in service-based businesses. Anticipate problems and learn how to prevent customer conflict.

>>[cleaner.com/featured](http://cleaner.com/featured)



## SMOOTH OPERATOR

### Tame Your Waterblaster

Run your machine smarter, not harder. Get your waterblasting machine to purr like a kitten, plus learn the No. 1 enemy for a waterblast pump. >>[cleaner.com/featured](http://cleaner.com/featured)

## KEEP IT CLEAN

### Equipment Care

Don't show up with a jetter caked with who-knows-what from your last customer's drain. Here are tips for keeping your equipment clean (and odor free) and working properly.

>>[cleaner.com/featured](http://cleaner.com/featured)



## WINTERIZE WISELY

### Cold-Weather Storage

It's that time of year for plumbers and drain cleaners in cold-weather climates to ensure a key piece of equipment is being properly protected and stored. Make sure you're giving your jetter enough TLC this winter.

>>[cleaner.com/featured](http://cleaner.com/featured)

## Emails and Alerts



Visit [Cleaner.com](http://Cleaner.com) and sign up for newsletters and alerts. Get exclusive content delivered right to your inbox and you'll stay in the loop on topics important to you!

## Join the Discussion



Find us on Facebook at [facebook.com/CleanerMag](http://facebook.com/CleanerMag)

or

Twitter at [twitter.com/CleanerMagazine](http://twitter.com/CleanerMagazine)

## OVERHEARD ONLINE

“Rather than simply talking to – or at – your employees about their attitudes, you need to help them improve themselves.”

–Skip the Pep Talk: Whip Those Employees Into Shape

>>[cleaner.com/featured](http://cleaner.com/featured)

# You Can't Beat Duracable

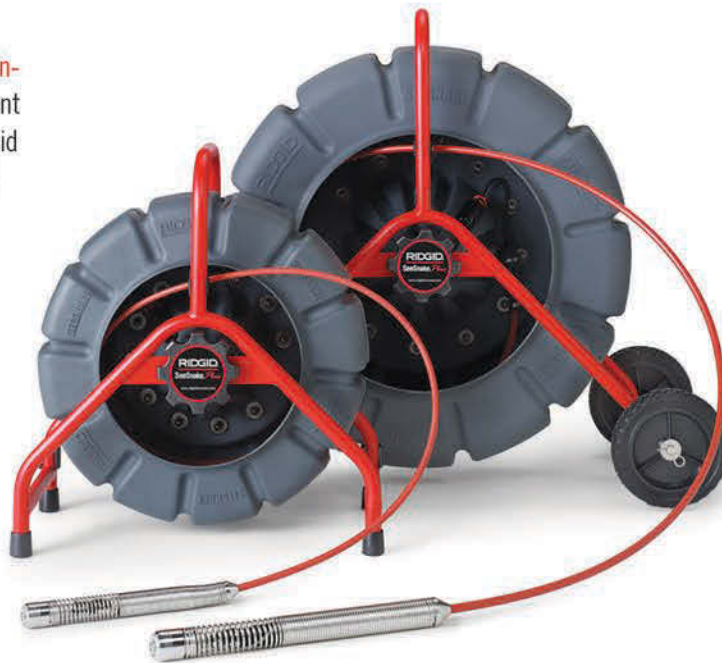
## New! Duracable Camera Repair Center

### Exclusively Repairs Ridgid SeeSnake Systems

Duracable is proud to announce the launch of our **Ridgid Camera Repair Center**. Select staff from Duracable were sent to complete factory training at the Ridgid Authorized Repair facility. Duracable is trained and ready to repair your Ridgid camera systems!

#### Why Choose Duracable?

- ▶ Quick Turnaround on Camera Repair
- ▶ Troubleshooting phone support
- ▶ Flat rate pricing\*



- ▶ Factory Trained and Certified
- ▶ Camera Head Repair/Replacements
- ▶ Push Cable Reterminations
- ▶ Hub/Slip Ring Issues
- ▶ Transmitter Repair
- ▶ Counter Repair

We Build Reputations™ **RIDGID**

\* Flat rate pricing applies to most camera repairs



#### Cables



#### Blades



#### Drain Cleaning Machines



#### Drain Care Products



#### Cable Accessories



**BUILT  
U.S.A.  
TOUGH**



Just give us a call at **877-244-0556**.

The one-stop source for all your plumbing and drain cleaning needs – Duracable Manufacturing. Or visit us on the web at [www.duracable.com](http://www.duracable.com)

**Duracable**  
Manufacturing Company

# THE ROOT OF THE MATTER

SOUTHERN CALIFORNIA SHOP CARVES OUT IMPORTANT NICHE IN RESIDENTIAL TRENCHLESS SEWER REPAIR

BY MARIAN BOND

PHOTOGRAPHY BY COLLIN CHAPPELLE

# W

illiams Brothers Plumbing is perfectly positioned to capitalize on its expertise. In Southern California – where the business is located – roots and badly deteriorating pipe have led to big problems, especially in lateral lines. Those problems create a huge demand for trenchless pipe rehabilitation, which just so happens to be the

company's specialty.

Many of the houses in the Los Angeles County communities the business serves were built in the 1970s with Orangeburg lateral lines, cast iron inside the home and clay in the street. Orangeburg was an inexpensive product, and 40-plus years after installation, the sewer systems are in dire need of replacement. Manager Joe Williams says roots go through the pipe like soft butter.

“It is paper lined with tar, and the idea is tar is waterproof and roots will not grow through,” he says. “It seemed the perfect product, but with water constantly running, the tar was washed away. The lift stations received an abundance of tar, and pumps were failing. They began to find the sewers were left with paper but no more tar. Roots ran through, and the pipes just collapsed.”

Williams says trenchless replacement is much easier with Orangeburg than with heavier lines such as plastic, which are typically 4-inch lines, 6 to 8 feet deep. The average length of a residential lateral line is 70 feet.

Williams points out that many of the trees and shrubs planted in these upper-income neighborhoods are not native to Southern California's desert region. The plants are not conditioned to the climate, so their roots continually seek water, growing and spreading until they find a source, which is often a sewer line.

## RECESSION REPERCUSSIONS

Established in 1980, the Thousand Oaks, Calif.-based company nearly retired its Bobcat about 20 years ago after it began using pipe bursting systems from HammerHead Trenchless Equipment. Pipe bursting makes up a significant portion of the business, and the firm has continued to update equipment as refinements come along.

By 2005, Williams Brothers was a booming operation, with 14 to 16 employees rehabilitating two sewer lines a day. However, business slowed significantly and abruptly during the Great Recession and they had to reduce staff.

Eventually, entrepreneurs began purchasing and flipping properties that had sat empty for six months or more. As new homeowners moved in, sewer system problems were uncovered. The roots that had enjoyed the water in the sewers were going crazy looking for water. The systems were collapsing. This, of course, put Williams Brothers – and many of the plumbing companies they work for – back into a productive and busy period. The company had an



Owner Bobby Williams and his son, manager Joe Williams, of Williams Brothers Plumbing in Thousand Oaks, Calif.





Williams Brothers Plumbing's John Barron fuses two 20-foot sections of HDPE pipe using the McElroy Pit Bull 26 fusion machine. Williams Brothers Plumbing is based in Thousand Oaks, Calif., an affluent suburb northwest of Los Angeles. The company specializes in one-day trenchless sewer repair and replacement with pipe bursting.



### WATCH THEM IN ACTION

TO LEARN MORE ABOUT WILLIAMS BROTHERS PLUMBING, VIEW THE VIDEO AT [WWW.CLEANER.COM](http://WWW.CLEANER.COM).

Owner Bobby Williams helps laborers Ali Eftekhari (left) and Fred Cortez (foreground) guide a 50-foot section of HDPE pipe into the entry pit on a residential pipe bursting job.

## profile

### WILLIAMS BROTHERS PLUMBING, INC. AND OAKS DRAIN SERVICE,

THOUSAND OAKS, CALIF.,  
SERVING THE SAN FERNANDO VALLEY

**OWNER:** Bobby Williams

**ESTABLISHED:** 1980

**SERVICES:** Drain cleaning, CCTV, trenchless sewer replacement

**CUSTOMER BASE:** Residential

**EMPLOYEES:** 10

**WEBSITES:** [www.williamsbrothersplumbing.com](http://www.williamsbrothersplumbing.com)  
[www.oaksdrain.net](http://www.oaksdrain.net)



opportunity to recover and grow again, and today they are handling at least one residential sewer replacement every working day of the year.

In addition to staff growth, Williams Brothers has also added new equipment, including a 4,000 psi/18 gpm trailer jetter from US Jetting and a 2006 Vac-Con on an International chassis. The unit produces 3,000 psi/10 gpm and features a 1,000-gallon plastic water tank, an 8-yard debris tank and an 8-inch boom powered by two blower motors. The truck is primarily used for hydroexcavating around utilities, and Williams says the 8-yard tank is sufficient for most jobs.

The company also purchased Oaks Drain Service, which provides basic plumbing services. Williams Brothers remains the flagship of the operation, but employees work for both entities.

### CHANGING WITH THE TIMES

As the demand for sewer replacement grows in the towns of Thousand Oaks, Agoura Hills, Newbury Park and Simi Valley, Williams Brothers subcontracts for more plumbing companies that do not provide trenchless rehabilitation services. Williams estimates 30 percent of daily business comes from this important segment.

“These companies have no problem having us on the site of their customer,” he says. “We give them a price and they deal with their customer. They just tell them that we are the guys they work with. They know we will not attempt to steal their customers.”

Because the company has been in the area so long, its name is well recognized and the business receives many calls directly. Williams says word of mouth continues to be the best advertising tool. He likes Angie’s List because members pay to be listed there, which he says gives them “skin in the game.”

“We also work with many homeowner associations dealing with these issues here in our area,” he says. “Also we have dealings with Realtors and home inspectors who more and more want to have a sewer line inspected before a sale.”

# TAKING ADVANTAGE OF OPPORTUNITY

When a good friend of Bobby Williams – owner of Williams Brothers Plumbing Inc. – was ready to sell Oaks Drain Service in 2006, he saw it as an opportunity to provide his clientele with basic plumbing services. The plumbing company had operated nearby for a number of years, and Williams thought it would complement their flagship drain cleaning and trenchless sewer replacement firm.

Williams clearly has carved out his niche. He is available to step in when any of the plumbing contractors in his service area require CCTV and drain cleaning services, and most important, trenchless technology.

“Plumbers want to do plumbing,” Williams says. “We don’t necessarily want to do plumbing, although we can make that available with Oaks Drain Service. Plumbers don’t want to be carrying around and buying all the equipment that we can provide. They do the plumbing. We do the drains. It has been the best of both worlds all the way around.”

When inspections are called for, Williams Brothers gets the job done with RIDGID SeeSnake Compact 2 CCTV cameras.

“Until recently, people were not inspecting sewer lines. A home would sell, and then there would be problems in the line. Everyone would be upset. These inspections are more important when the homes have been sitting empty for a long period of time.”

He says the company’s website has been a good way to communicate that message to consumers, associations and plumbing companies.

**“Until recently, people were not inspecting sewer lines. A home would sell, and then there would be problems in the line. Everyone would be upset!”**

Joe Williams



John Barron prepares the HammerHead PB30 hydraulic winch to pull the new HDPE pipe through the existing lateral line.



*conductor*  
**THE SINGLE SOLUTION**

[www.rstechserv.com](http://www.rstechserv.com)

**vwvett**  
BOOTH  
2431

come see what's new

**Productivity + Power** for all your inspection needs

- Cameras  
Pan & Tilt, Zoom, JetCam, Pole, Well and Panomorphic
  - Tractors / Transporters  
Wheeled, Track and Steerable
  - Vehicles & Trailers  
High Cube, Step, Sprinter and Cargo Vans, ATVs and Trailers
  - Lateral Launch
  - Profiling  
Laser and Sonar
  - Software
- also available thru  
**HGACBuy.com**  
THE TRUCK PURCHASING SOLUTION

For more info call or visit us online today

**RS** Technical Services Inc.  
*Design and Manufacture of Video Pipeline Inspection Systems*



1800.767.1974    ✉ sales.info@rstechserv.com



**RELAY THE MESSAGE**

Educating the consumer is part of the package. Williams says pipe bursting is something a person almost has to see to believe.

“Occasionally, a prospective customer just doesn’t care. He or she just wants the system fixed. Those who are interested can see what is going on with the video camera. The technicians will fully explain – show the roots in the line, describe the process, where the holes will be dug. If they want more clarification they can go to our website and view the line being pulled.”

**“Those who are interested can see what is going on with the video camera. The technicians will fully explain – show the roots in the line, describe the process, where the holes will be dug. If they want more clarification they can go to our website and view the line being pulled.”**

Joe Williams

There are still nonbelievers – the homeowner or plumber who says he will do it the old-fashioned way – and Williams is fine with that.

“They can pay to have their lawn dug up and a trench dug, and then replace the lawn. So be it,” Williams says. “We do the inspection, video the lines, tell them what we can do. Then they can decide.”

**VALUING TALENT AND TRAINING**

Training technicians to fill these positions is an important financial investment.

“We are specialists,” Williams says. “If you hire a plumber, you can send that person out on a job. We do our training for trenchless technicians on site. A candidate will go out with another driver for up to two months of training.

**ABOVE:** The Williams Brothers crew includes (from left) Ali Eftekhari, manager Joe Williams, owner Bobby Williams, Fred Cortez, John Barron and crew supervisor John Barron Jr.

**BELOW:** John Barron (left) and Fred Cortez use a Vac-Con hydroexcavator to clear debris from the entry pit at the start of a pipe bursting job.



We want to provide a good education and have a candidate know how we do the process.”

For trenchless sewer replacement, the company typically dispatches a four-man crew. Lines are marked with RIDGID NaviTrack Scout locators before any digging takes place. Two technicians are stationed at the top hole by the house and two at the bottom hole where the line connects to the main. The Vac-Con is positioned at the bottom hole, which is typically 6 feet deep. The

CONTINUED >>



# hydraX



U.S. Patent Pending

## HALF THE SIZE, **TWICE** THE RANGE



**Hydra X** is the Xtreme Pad Dragon you need to safely and effectively clean hard-to-reach areas. Operators control rotation speed and range of motion inside a climate controlled cab with blast shield. Our innovative head design is half the size of competitors and offers twice the range reaching a full 180 degrees right to left and a full 180 degrees up and down at 90%. Our industry leading high-pressure hose management system keeps lines free and clear. Hydra X is the safest form of water blasting allowing for increased job productivity and less worker fatigue.

- > Full 180 degrees right to left
- > Full 180 degrees up and down at 90%
- > Climate controlled cab with blast shield
- > Variable rotation speed control
- > Quick change system with multiple tools
- > Industry leading high pressure supply hose management system
- > Default high pressure dump
- > Max PSI 20,000 (1379 Bar)
- > Max GPM 100 (378.5 Liters)
- > Up to 605 HP
- > Max Blast 20'

AQUABLASTERS.COM

866-362-9332



# COAST MANUFACTURING

Professional-Grade Drain Cleaning Machines, Cables & Accessories



## Drain Cleaning Machines

- ▶ Heavy duty construction
- ▶ The most powerful motor in the industry
- ▶ Quick and easy reel changeover
- ▶ A one year rock-solid warranty



## Cables

- ▶ Fabricated from high quality wire
- ▶ Most ends & couplings available
- ▶ All sizes and lengths
- ▶ Innercore available

COAST MANUFACTURING

www.coastmanufacturing.com  
1.800.541.7015



John Barron removes sections of vacuum tube from the side of the Vac-Con as the crew sets up to hydroexcavate an entry pit in a client's driveway.

men at the top hole hand-dig a 3-foot hole. Both are completed at about the same time.

The bursting process takes place while the Vac-Con drives away to dump the dirt. There are no soil piles at the site. After the new line is in place, the sand truck (2006 International chassis with a roll-off bin) dumps sand into the bottom hole and puts sod back on top while they hand-fill at the top hole.

If Williams Brothers can coordinate with an inspector, the entire process can be completed in one day.

Williams says in an emergency situation, the business might tackle two jobs in a day. Typically though – until more technicians and equipment are added – the schedule works with one trenchless replacement per day. The crew is usually scheduled one week ahead, but as a 24/7 operation, they will respond to emergencies.

## SATISFACTION

Williams keeps a busy schedule, but he enjoys the work to which he's dedicated his career. He says he's seen the industry evolve, and can still remember being involved with the early prototypes from HammerHead.

Today, he says helping customers is what brings him the greatest satisfaction, even though it's never fun to tell a customer they have a sewer problem they're going to have to pay to fix.

"The biggest bummer is when you see the customer in a real heartache about it. The sewer is backing up into the home and there is nothing they can do about it personally. I like to be the one who holds their hand and then walks them through it. Solving that problem is satisfying. We share their concern from the first phone call until we have things working again."



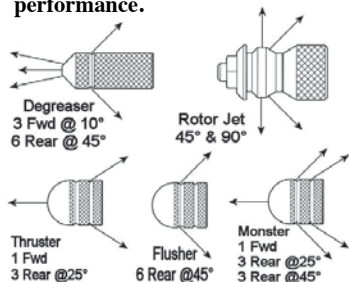
## CUSTOM DRILLED NOZZLES

### SEWER SQUAD PREMIUM KIT™

#### A Value Priced Nozzle Kit



- Each nozzle is custom drilled to match your pump's flow and pressure specs for optimized nozzle performance.



- Each nozzle is made with heat treated 416 stainless steel for superior corrosion and wear resistance, and rated up to 10,000 psi.
- Most orders shipped within one business day.
- 100% satisfaction guarantee.

NPT Size	Price	Savings*
1/8"	\$224	\$37
1/4"	\$254	\$44
3/8"	\$294	\$52
1/2"	\$373	\$67
3/4"	\$500	\$93

\*Compared to individual prices



CALL TOLL FREE: 877-457-2782

North Royalton, OH 44133 • www.aquamole.com • Fax: 440-237-2987

## more info

**HammerHead**  
Trenchless Equipment  
800/331-6653  
www.hammerheadmole.com  
(See ad page 25)

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

**US Jetting, LLC**  
800/538-8464  
www.usjetting.com

**Vac-Con, Inc.**  
855/336-2962  
www.vac-con.com  
(See ad page 3)

# Inspect assets from your desk, not the street.



**wvett** BOOTH  
2207

## PANORAMO Mainline and Manhole 360° Scanners

The PANORAMO® was designed from the ground up to address the weaknesses of traditional video technology. This revolutionary equipment will change your current process and increase your production. PANORAMO® enables your employees to work to their potential and avoid costly and time consuming mistakes caused by inattention or stress.

Once data is collected, anyone can review and analyze the data from a PC, putting more power in the hands of system

owners, engineers and decision makers. Dramatically reducing the time spent on the street by field personnel has a positive impact on employee and community safety. The increased quality and volume of data collected will greatly enhance the effectiveness of your proactive inspection program. These systems are used by major cities throughout North America and the world... Isn't it time you started working smarter, not just harder?



(800)-656-4225 | [www.rapidview.com](http://www.rapidview.com)

## New Typhoon™ nozzles: more tube cleaning choices

Three new nozzles in the Typhoon 10 series make it even easier to match pressures, flows and heads (*cutting, polishing or universal*) to your tube cleaning jobs. All are self-rotating, with a seal that cuts leakage in half.

To see how Typhoon™ 10 rotating nozzles can improve your productivity, call **800-441-5059** or visit [www.nlbcorp.com](http://www.nlbcorp.com).



	Model	Maximum Pressure	Maximum Flow	Minimum Tube I.D.
<b>NEW!</b>	RPN1506	15,000 psi	6 gpm	1/2"
<b>NEW!</b>	RPN2006	20,000 psi	6 gpm	1/2"
	RPN1510	15,000 psi	10 gpm	5/8"
	RPN2410	24,000 psi	10 gpm	5/8"
	RPN1520	15,000 psi	20 gpm	3/4"
	RPN2020	20,000 psi	20 gpm	3/4"
<b>NEW!</b>	RPN4009	40,000 psi	9 gpm	3/4"



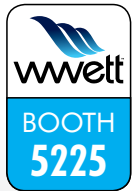
**The Leader in  
Water Jet Productivity**

29830 Beck Road, Wixom, MI 48393  
 MI: (248) 624-5555, IN: (219) 662-6800, NJ: (856) 423-2211  
 LA: (225) 622-1666, TX: (281) 471-7761, CA: (562) 490-3277  
[www.nlbcorp.com](http://www.nlbcorp.com) • e-mail: [nlbmkgtg@nlbusa.com](mailto:nlbmkgtg@nlbusa.com)



# Get Plugged In

## AFTERMARKET CONNECTORS • CABLES



*ALL* cables and connectors are individually inspected and tested before shipment.

**REASONABLE PRICES**



504 738 7833 p/f • [jfowler307@aol.com](mailto:jfowler307@aol.com)  
[www.OceanquipLLC.com](http://www.OceanquipLLC.com)





# **TRENCHLESS** is a puzzle we solve daily

## **WE CAN FIT ALL THE PIECES TOGETHER FOR YOU.**

You could get your liner, epoxys and resins from one guy. Your wet-out table and inversion drum from someone else. Maybe another company has a pipe-inspection camera that looks like it would work, and yet another outfit has some cutters that you could use. Of course, if you need pipe-bursting equipment, you talk to a totally different guy... Or you could just let the Trenchless experts at HammerHead put it all together for you. The best products. Bonafide expertise. All from a single source that has been earning your trust for over 25 years.



HEAD ON OVER TO [WWW.HYDRALINER.COM](http://WWW.HYDRALINER.COM) TO LEARN MORE ABOUT HAMMERHEAD'S COMPLETE TRENCHLESS LINE-UP.

**MOLING | RAMMING | BURSTING | HDD ASSIST | WINCHES | CIPP**

# Learning Opportunities Await

The education offerings at WWETT 2015 provide insight and information for sewer and drain cleaners

By Craig Mandli

**T**he Water & Wastewater Equipment, Treatment & Transport (WWETT) Show in Indianapolis not only features the newest equipment in the industry and opportunities to network with peers, but also an unmatched focus on educating attendees. The 2015 show will host a series of valuable educational opportunities and workshops to help sewer and drain cleaning professionals enhance their knowledge base, and in turn help their business.

WWETT 2015 kicks off Monday, Feb. 23, with the annual Education Day. Tracks of workshops are sponsored by a variety of professional organizations, including the National Association of Wastewater Technicians (NAWT), National Environmental Health Association (NEHA), Southern Section Collection Systems Committee (SSCSC), National Association of Sewer Service Companies (NASSCO), National Onsite Wastewater Recycling Association (NOWRA), Waterjet Technology Association/Industrial & Municipal Cleaning Association (WJTA-IMCA) and the Sump and Sewage Pump Manufacturers Association (SSPMA).

The following days will feature a variety of additional workshops and roundtable-type discussions covering a range of topics from nozzle selection to pipeline rehabilitation technology.

All workshops will be held at the Indiana Convention Center in meeting rooms adjacent to the exhibit hall. For more information on seminar times, locations and speakers, visit [www.wwett.com](http://www.wwett.com).

Seminars of interest to water and sewer and drain cleaner and rehabilitation specialists include:

## EDUCATION DAY, MONDAY, FEB. 23:

**Pre-Trip Inspections**, by Joe Zito, the sergeant of a commercial vehicle unit with a major metropolitan area police department with jurisdiction in two states. This session will cover walk-around inspection and completing a driver vehicle inspection report.

**Hours of Service (HOS) Overview**, by Joe Zito. This session is a general knowledge overview of part 395 of the Federal Motor Carrier Safety Regulations and to whom the regulations apply when operating a commercial motor vehicle.

**Roadside Inspections**, by Joe Zito. This session will cover how to be prepared and understand what will take place during a roadside inspection. Topics include brakes, lamps, securement and safe loading, as well as what you can do to better prepare a driver on what to say and do during the inspection.

**Ladies and Gentlemen: Create Your Personal Brand and Strategic Network for Success in 5 Easy Steps**, by Suzan Chin, the founder and chief marketing officer of Creative Raven. This session is designed for seasoned business pros and startups alike. It will cover five key elements for personal branding and creating a circle of influence to build business and develop useful and mutually beneficial relationships.

**Effective Website Design and Engaging Customers in the Digital Age**, by Suzan Chin. Review elements to consider and implement when designing and building an effective website to meet the needs of today's demanding online audience, such as developing a budget, a plan of action, strategy, timelines and content development.

**Tapping into the Power of Social Media and Content Marketing**, by Suzan Chin. Review the pros and cons of the various facets of social media to help department leaders perform due diligence and make good decisions for online marketing initiatives. The discussion will cover content marketing, how it works, when it should and can be used, and how to utilize it to maximize marketing advantage.

**A Trucker's Guide to Washington Speak**, by John Conley, who retired at the end of 2013 as president of National Tank Truck Carriers and remains active in tank truck industry issues through his communications company ConleyComm LLC. This session will help translate the acronyms and mysterious language of the Washington bureaucracy that truck operators are likely to encounter in regulatory compliance, enforcement actions, searches for information or at conference presentations.

**Cargo Tank Safety and Regulatory Report**, by John Conley. This session will focus on tank truck specific safety issues such as preventing rollovers and deaths/injuries involving workers who enter or repair cargo tanks.

**Compliance with Part 180 and Preparing for a Tank Truck CT Shop Audit**, by John Conley. Department of Transportation regulation 49CFR180 details test and inspection requirements for specification cargo tanks. This session will cover the various tests and inspections, requirements for testers and inspectors, and recordkeeping.

**Hydroexcavation – Tools to Stay Current in a Changing Marketplace**, by Neil McLean, who serves as a hydroexcavation consultant for companies throughout the United States and Canada with Hydro Excavation Consulting Unlimited. As the industry and government adds more regulations, drivers have

Education Day, slated for Monday, Feb. 23, will kick off four consecutive days of learning opportunities at the 2015 Water & Wastewater Equipment, Treatment & Transport Show. Courses are taught by industry experts and cover everything from pipe rehabilitation technologies to employee recruitment and retention.

to be knowledgeable and flexible to stay profitable. Water management, debris management, digging procedures and increasing production will be covered.

**Maximizing Productivity on Vacuum/Air Mover Projects**, by Gary W. Toothe, CET, a board-certified environmental safety and health trainer through the Board of Certified Safety Professionals. Discuss how everything from the man at the end of the hose through the operator can have a direct impact on the bottom line. Proper nozzle selection, friction and restriction in hose and pipe runs, and how to make sure an air mover is at its best before it leaves the yard will be covered.

**Waterblast Safety Can Enhance Productivity, Quality and Profits!** by Gary W. Toothe. Discuss the safety solutions that not only prevent handicapping productivity, but actually increase it. Staged cleaning, waterblast myth busting and the importance of proper water filtration will be covered.

**Combination Vacuum Unit Operation Overview**, by Chris Lopez, president/CEO of Municipal Collection System Consulting. From the pre-trip inspection to complex operation, discuss ways to enhance a combination unit's overall efficiency and how to implement cost-effective operational techniques.

**Been There, Done That, Got The T-Shirt (Small Business From a Hands-On Perspective)**, by Jim Aanderud, president and owner of Innerline Engineering. Look at the financial challenges in business and discuss ways to increase volume, profit and cash flow. Also discuss the challenges of family-owned businesses, and look at ways to inspire and challenge employees to be key players in the organization.

**So You Think You Are the Best? CCTV Inspection In Its Highest Form**, by Duane Johnson, vice president of Affordable Pipeline Services. Review the difference between "Pipeline Inspections" and "Pipeline Assessments," and identify the different types of inspections and the technology available today, some of which you may already have but may not be using to its full capability. Examine inspection software and discuss how it can add value to your services.

**Avoid the Pitfalls – Trenchless Pipeline Repair and Renewal**, by Mark Hill, senior project manager with Michael Baker Corp. Discuss the successes as well as the failures of major rehabilitation projects, and analyze the reasons behind both.

**Nozzles, Nozzles, Nozzles**, by Rick Lewis, who has over 23 years of experience in the wastewater collections field, and consults with contractors and cities with wastewater collections equipment and its use in day-to-day operations. This class will help you select the nozzles that best fit your cleaning needs.

**When, Why and How to Defeat Infiltration Cost-Effectively**, by Donald Rigby, who is responsible for strategy and execution of Avanti's marketing and education programs. Chemical grout is a complement to all other trenchless technologies. Three case histories with ROI facts and figures serve as proof statements for small communities, medium-sized sewer districts and large metropolitan areas.



**New Opportunities in Small-Pipe Relining and Reinstatement**, by Troy Miller, who for the past five years has been in product development at TRY TEK. Discuss some of the opportunities and challenges that are present in the small-pipe relining market, including interior and exterior laterals as well as vertical vent stacks. Several case studies will be presented providing a solid field perspective of working with small-pipe cutting systems.

**Pipeline Cleaning Best Practices**, by John Manijak, business development/project manager for National Power Rodding Corp./Carylon Corporation. This presentation will cover a history of sewer cleaning tools and methods used. Attendees will take away an understanding of why it is important to choose the proper pump size and nozzle configuration when cleaning sewers, as well as what situations may arise that call for the use of old techniques.

**Large-Diameter Pipe and Drain Rehabilitation Technologies**, by John Moody, who has worked with Heitkamp Inc. since 2010. This session will cover condition assessment and the decision-making process and discuss the benefits and limitations of HDPE, PVC, CIPP and steel pipe. Other topics include dealing with voids and grouting, sliplining, centrifugally spun cement and spiral wound applications.

**OSHA Regulations and Smart Business**, by Doug Lassiter, the executive director and lobbyist for the North Carolina Septic Tank Association. Learn the basics on OSHA, what to keep in mind and what to keep on hand in the field.

**Employee Retention and Recruitment**, by Beverly Lewis, a 15-year veteran of marketing in the sanitation industry. Attendees will discuss why the wastewater industry is a great place to work and how to create a strategy for both recruiting new workers and retaining existing staff.

**Grow or Go! Why Most Companies Fail to Grow Effectively and What You Can Do to Keep Your Company From Failing**, by J. Kelly Newcomb, principal/owner of i.e.Brand, an internal/external branding company, along with Newcomb Consulting Group, an organizational development firm specializing in helping family-owned and privately held businesses reach their growth goals. In this session, participants will clearly understand why 90 percent of organizations

fail to successfully realize their growth plans. By utilizing the power of the 80/20 principle and other organizational practices, companies will not only learn how to identify obstacles to growth, they will gain insight and direction on what to do about these obstacles.

**Target Marketing: How to Effectively and Efficiently Grow Your Sales**, by J. Kelly Newcomb. This session will provide participants a proven process and set of tools to effectively and efficiently grow sales.

**Effective Branding and How it Can Help Your Business**, by J. Kelly Newcomb. In this session, participants will understand the basics of branding and how effective branding can help companies grow their sales and improve their bottom line.

**Business Basics 101**, by Ellen Rohr, who helps business owners turn their ideas into successful businesses. She is a columnist and contributor to many publications and she has written four business-basics books. Learn how to lay claim to your financial power, and how to read and use financial reports to keep score in the game of business.

**Build the Business You Really Want**, by Ellen Rohr. Learn how to develop a simple strategy for a powerful business plan that will drive you in the direction of your goals.

**Women in Wastewater Roundtable Discussion**, featuring Lara Mottolo, Therese E. Wheaton, Shanna Sands and Joyce Gresh. The panel of professionals from different facets of the industry will address specific product and service questions, the future of the industry, as well as general managerial and career building advice for those starting out in the environmental services.

**Lobbying**, by Eric Casey, executive director of the National Onsite Wastewater Recycling Association. Participants will learn why it's important to be politically active and some of the ways they can become involved.

## TUESDAY, FEB. 24:

---

**Best Installation Practices for Trouble-Free Pump Controls**, by Brett Wilfong, distributor sales manager, and Mark McCollum, regional sales manager for the western United States for SJE-Rhombus. This presentation will discuss the best methods for installing wastewater pump control panels and float switches, things that can lead to premature pump system failures and troubleshooting pump systems when problems do occur.

**New Trends and Technology in Equipment for Excavation Safety**, by Mike Ross, shoring specialist and national training director at Efficiency Production Inc. This presentation covers current and emerging trends for excavation safety in urban, residential and congested environments; options and requirements for excavation safety, including OSHA standards; and specific new techniques, technology and safety equipment available to general contractors and subcontractors.

**Best Practices: Use, Care and Repair of High-Pressure Sewer Cleaning Hose**, by Bernie Hengels, who has been with UEMSI for the past nine years and currently works with OEM and key accounts, and Bob Glick, who assists

OEMs and distributors with sewer hose questions for UEMSI. This presentation covers how to identify the manufacturer of high-pressure sewer cleaning hose, how to identify the working pressure of the hose, proper usage and protection techniques, what to look for as indicators of wear and damage to your hose, and how to properly mend your hose in the field and the shop.

**How to Position Your Company in the Market Today**, by Mike Agugliaro, co-owner of Gold Medal Service, and owner of the service-business mentoring firm, ServiceKey. Discuss how identifying your target audience, finding a unique selling proposition and establishing an effective marketing strategy can help position your company exactly where you want it in the market.

**Six Proven Tactics to Generate Leads and Turn Them Into Revenue**, by Heather McLeod, brand manager for Mr. Rooter, and Dianna Worthington, franchise consultant and training manager for Mr. Rooter. This session is designed to give attendees straightforward advice on how to make the phone ring with qualified leads and tactics to turn those phone calls into viable, consistent sales dollars.

**Growth by Acquisition or Exiting Gracefully: Buying or Selling a Septic or Sewer Business**, by A. Rhodes Wilson, a successful businessman with over 40 years of experience in positions requiring creative thinking, detailed planning and faultless execution. This session will help identify prospective buyers or sellers and make a successful approach; apply appropriate valuation factors in determining a fair offer price; understand potential pitfalls of the sale and how to identify and understand typical sales terms and conditions; structure the deal; and know what to expect at closing and during the transition.

**Drain Cleaning Methods - Then and Now**, by Jake Saltzman, worldwide technical director for Picote Solutions Inc. This session will cover the various methods used for cleaning small-diameter piping in a range of pipe materials and the most common types of blockages.

**The Physics of Pipe Cleaning Tools and How I Make it Work for Me**, by Kurt Rivoire, sales and marketing manager at Duebre/Brendle Nozzles in Dettingen, Germany, and owner of Jet Clean Tools USA. Analyze the physics of the nozzle and the influence of pressure and flow on it. It pays to have the right nozzle with the right setup and save resources.

**Lateral Lining – Are You Using the Right Tool?** by Leke Osi, president of lateral lining manufacturer Easy Liner. This session describes the industry standard methodology and explains some of the shortcomings and challenges of using a standard method on nonstandard situations.

**GPS Tracking: Hype Vs. Reality**, by Richard Banks, national sales director for US Fleet Tracking. Learn what matters most when making the decision to implement GPS tracking within your core business functions. Understand factors such as refresh rates, leasing hardware versus purchasing it, contracts or no contracts and features that really help you manage your mobile workforce.

**Wireless Controls in the Waterjet Industry: Sacrificing Safety for Convenience**, by Terry Gromes Sr. and Terry Gromes Jr. of Terydon Inc. This session will be an assessment of the hands-free initiative in the contractor

market of the high-pressure waterjetting/waterblasting industry. There will be a discussion of safety versus convenience, productivity and cost-effectiveness.

## WEDNESDAY, FEB. 25:

**Integrating Temperature Sensor Technology Within Lateral Pipeline CIPP Installations**, by Jason Mathey, director of research and development and training manager for LMK Technologies. Municipalities, design engineers and contractors want verification that the resin used in the CIPP process has properly cured. New thermal sensor fiber technology is now being used in conjunction with lateral installations with great success. This is allowing for better documentation for QA/QC, higher physical properties of the finished product and a reduction of failed liners. A case study will be provided.

**CIPP Calibration and Vacuuming**, by John Heisler, owner of Quik Lining Systems Inc. This session will discuss the many methods of getting the resin in place to allow it to be installed into the host pipe. It will also explore the best practices adopted by the industry and embraced by the ASTM organization.

**Extending Life Expectancies with Corrosion-Resistant Coatings and Linings**, by Kevin Morris, a 22-year employee of Sherwin-Williams, with the past 13 years dedicated to the Protective and Marine Coatings Division. This presentation will discuss the primary corrosion mechanisms occurring in today's sewer collection systems and wastewater treatment plant environments, and how corrosion-resistant coating and lining systems can be employed to extend the life of new structures or to rehabilitate and extend the life of existing structures.

**Team Building for Profit**, by Don Daub, electrical engineer and highly successful certified business and technology trainer and consultant. The purpose of this class is to coach the contractor on the importance of bringing the whole team together, on the same page, to meet the same goals. This class identifies time management skills, personality types, basic group dynamics and team cohesiveness, which are some of the most important keys to success.

**Ten Common Sense Ways to Grow and Improve Your Business**, by Lane Post, president and founder of both Pacific Drain Service and Arrow Pipeline Repair. This talk stresses some of the intangibles in small-business ownership such as passion, personality and perseverance, and suggests a return to old-fashioned values aided by opportunities now available through electronic technology.

**Setting Expectations – The Key to Sales and Customer Satisfaction**, by Matthew Sutton, one of the founders of RapidView IBAK, and the vice president of sales and marketing. We all have expectations. Effectively managing these expectations can increase your business, make your customers much happier and avoid unnecessary conflict. **c**



### WATER & WASTEWATER EQUIPMENT, TREATMENT & TRANSPORT SHOW

EDUCATION DAY: Feb. 23, 2015  
EXHIBITS OPEN: Feb. 24 - 26, 2015  
Indiana Convention Center  
[WWW.WWETT.COM](http://www.wwett.com)

# Increase Your Profits With The Natural Solution



DRAINBO's Drain Treatment & Cleaner offers class leading performance and peace of mind. While giving you a Safe, All-Natural solution to offer.



DRAINBO's Septic System Treatment keeps the system operating at peak efficiency with 3 paths of action.

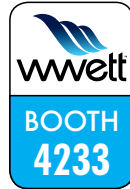


- 1) Treats the drain lines
- 2) Increases the digestion in septic tank
- 3) Removes sludge deposits in the leach field



Private Labeling Available  
Money Back Guarantee on all products

**DRAINBO** 877-372-4626  
[www.drainbo.com](http://www.drainbo.com)



**VIVAX  
METROTECH**

# vCam-5

## Inspection Camera

8" Daylight Readable LCD  
Interface for PACP Software  
Locatable Pushrod  
Easy to Operate Menu System

**Training Provided Free of Charge**

**Please call us to schedule an on site, no obligation demonstration!**

Vivax-Metrotech Corporation  
3251 Olcott Street, Santa Clara CA 95054, USA  
Toll Free: +1-800-446-3392  
Tel: +1-408-734-1400  
Fax: +1-408-734-1415  
Email: sales@vxmt.com

# Quik-Shot

[www.quiklining.com](http://www.quiklining.com)

## CIPP AUTOMATION

Simplifying the lateral sewer line rehabilitation process through automation.



- » Reduce Material Costs
- » Reduce Labor Costs
- » Simple to Set Up
- » Simple to Operate
- » No extra material handling found in other processes
- » No need to pass on longer lines because your equipment can't process the liner
- » No sleepless nights worrying about failure



**CALL TODAY**  
for the nearest training and support outlet facility to get you up and running.

**Quik-Lining Systems**  
**714-296-5262**  
[WWW.QUIKLINING.COM](http://WWW.QUIKLINING.COM)

*ultra* *ultra* *ultra*  
**LIGHT – VERSATILE – SAFE**

# ultraSHORE

## PRODUCTS



Quick to Install.  
As light as 130lbs.



Roll Your Own.  
Optional wheel kit.



Stacks easily with  
2' & 4' high panels.

**This is What Aluminum Shoring Was Meant to be!**



1-800-683-8837

**1-800-SHORING**

CALL TOLL-FREE NATIONWIDE • 1-800-746-7464

[www.shoring.com](http://www.shoring.com)

# TOUGH JOBS TOUGHHER TOOLS



ONE CALL

1-800-231-3628

For all your water jetting needs.  
**ALL of them.**



**GD**

**GARDNER DENVER**  
WATER JETTING SYSTEMS, INC.

(1) 281-448-5800 Phone  
(1) 281-448-7500 Fax  
(1) 800-231-3628 Toll-free U.S. & Canada

[www.waterjetting.com](http://www.waterjetting.com)

# BUILT ON EXPERIENCE



Kyle Bowen (left) and Zach Andrews of SAK Construction guide the terminal end of a CIPP liner out of a manhole on a sewer relining job in St. Louis.



# SAK CONSTRUCTION SETS THE STANDARD FOR PIPE REHABILITATION AND TRENCHLESS TECHNOLOGY

BY KEN WYSOCKY | PHOTOGRAPHY BY JERRY NAUNHEIM

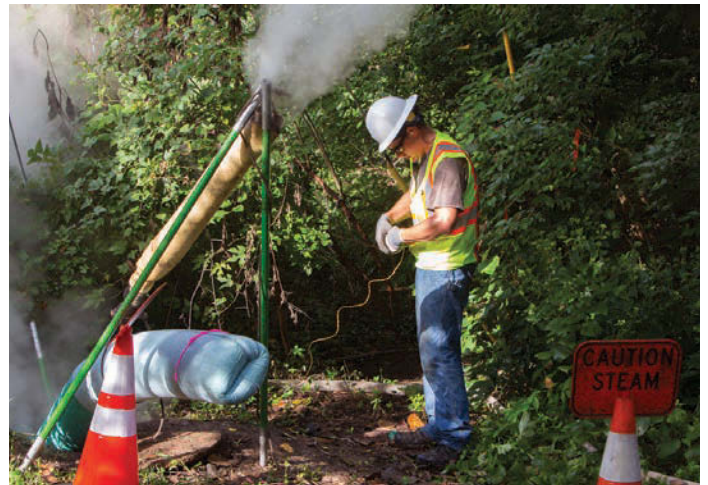
**T**here was a time when pipe relining was an unknown and little-trusted solution for repairing broken sewer lines. But judging from the rapid growth of SAK Construction in O'Fallon, Mo., that perception is disappearing like water down a drain.

Founded in 2006 by Jerry Shaw, Bob Affholder and Tom Kalishman – the S, A and K in the company's name – the pipeline rehabilitation and inspection firm started with just five employees.

“Like with any new product, it was considered an alternative solution when it was first introduced. But as people grew aware, and heard more and more reports of success with the product, it was no longer an unknown alternative. In fact, in most cases, it's now part of the normal specs in contracts.”

Jim Kalishman

Today it employs more than 300 people; owns a multimillion-dollar fleet of equipment, ranging from vacuum trucks and water jetters to cured-in-place pipe systems and pipeline inspection trucks; racks up more than \$100 million in annual gross revenue; and serves customers



Kyle Bowen, an SAK crew foreman, connects a temperature monitoring wire to an inverted CIPP liner at the start of the curing process.

nationwide from branch offices in Baltimore, Phoenix, Tampa, Fla., and Rocklin, Calif.

In addition to CIPP, SAK offers a wide range of pipeline rehab technologies, from sliplining to spiral-wound PVC to shotcreting to compression-fit liners.

“We're one of the fastest-growing, privately held pipeline rehabilitation companies in the country,” says Jim Kalishman, the company's chief information officer. “We mainly serve municipal markets, but we're expanding into industrial and energy segments, too. We also do tunneling and are looking to go international in that segment.”

Part of the rapid growth stems from the state of rapidly deteriorating sewer and pipeline infrastructure nationwide. “It's a competitive market, but it's still growing,” Kalishman notes.

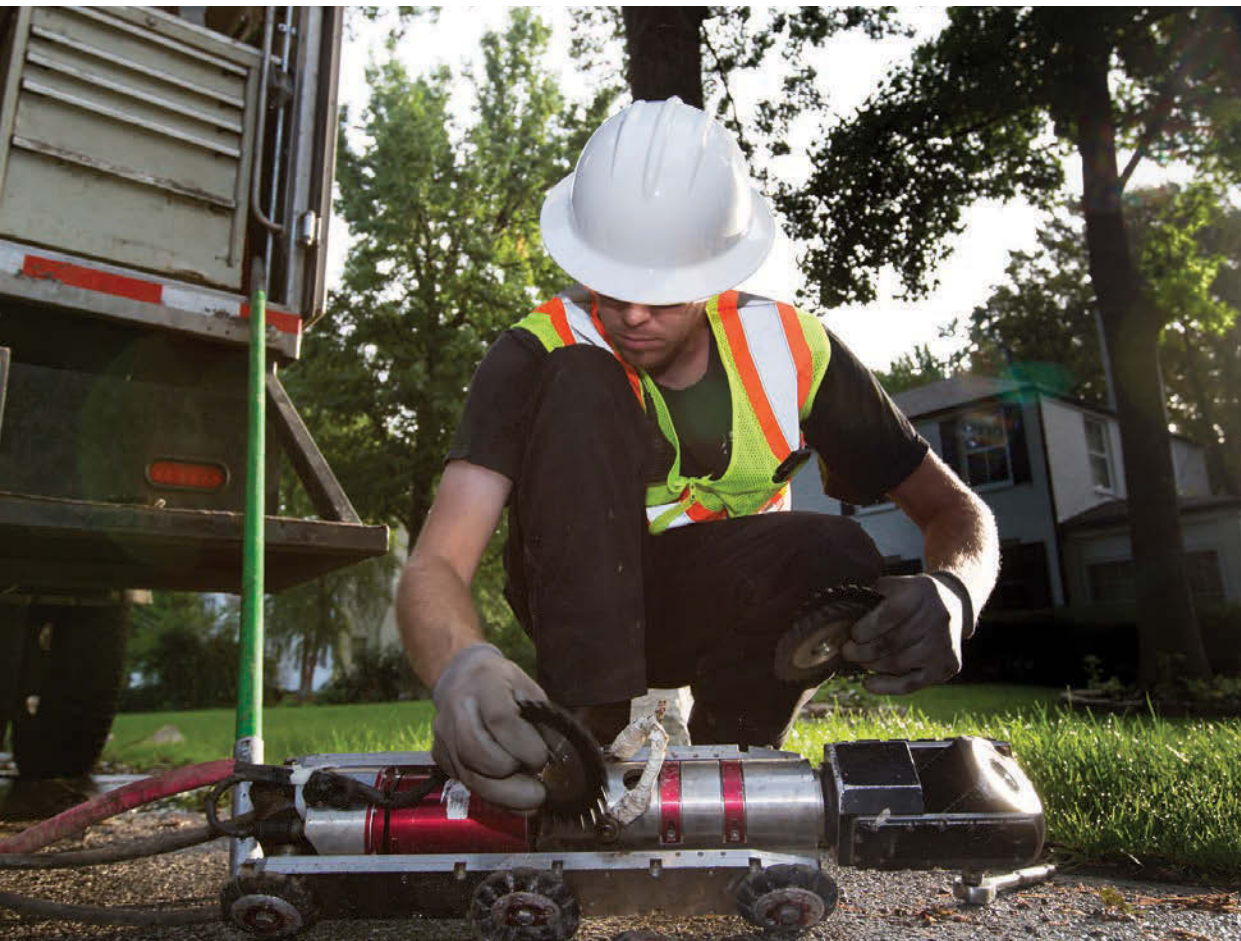
In fact, the U.S. Environmental Protection Agency estimates that some \$355 billion worth of work is required to address water and sewer pipeline woes throughout the United States. In addition, many municipalities nationwide are under orders from the EPA to make infrastructure repairs or improvements – and have committed funding to doing so. Then there's the growing acceptance of trenchless technology as a viable solution to broken sewers.

## profile

### SAK CONSTRUCTION LLC, O'FALLON, MO.

- OWNERS:** Jerry Shaw, Bob Affholder and Tom Kalishman
- FOUNDED:** 2006
- EMPLOYEES:** More than 300
- SPECIALTIES:** Pipeline rehabilitation and inspections, tunneling
- SERVICE AREA:** Nationwide
- WEBSITE:** [www.sakcon.com](http://www.sakcon.com)





SAK TV technician Zach Andrews changes the wheels on an Aries Badger transporter before launching the camera system on a mainline inspection in St. Louis.

“We have the expertise to solve the most complex infrastructure issues and get the job done right. Our team’s experience, at all levels of management and in the field, is second to none in the trenchless industry.”

Jim Kalishman

# lansas<sup>®</sup> PRODUCTS

MANUFACTURED BY VANDERLANS AND SONS, INC.



High & Low Pressure Joint Tester



“Smart Box™” Line Acceptance Test Kit



“Super Vac™” Manhole Vacuum Testing



Vacuum Test Plate with Protective Cover

“There’s broader acceptance of CIPP as customers see that it works,” Kalishman says. “Engineering firms are more receptive to it, too. Like with any new product, it was considered an alternative solution when it was first introduced. But as people grew aware, and heard more and more reports of success with the product, it was no longer an unknown alternative. In fact, in most cases, it’s now part of the normal specs in contracts.”

### PIONEERING VETERANS

But there’s another equally important factor at work here: The company’s founders, who comprise a “dream team” of sorts in the pipeline rehabilitation industry, with more than 100 collective years of experience in the industry. Shaw (the company’s president), Affholder (vice chairman) and Tom Kalishman (chairman and chief executive officer) are trenchless-technology pioneers who used to lead Insituform Technologies (now Aegion Corporation), one of the country’s largest pipeline rehabilitation contractors.

Moreover, Affholder – who founded St. Louis-based tunneling and boring company Affholder Inc., in 1968 before co-founding Insituform – recently was elected to the North American Society for Trenchless Technology Hall of Fame. Shaw was selected as the Underground Construction Technology Association’s most valuable professional for 2014.

“We have the expertise to solve the most complex infrastructure issues and get the job done right,” Jim Kalishman asserts. “Our team’s experience, at all levels of management and in the field, is second to none in the trenchless industry.”

That experience has enabled the company to successfully complete many difficult projects, including:



Zach Andrews operates the Aries CCTV system in the control room of the inspection van during a pipe relining project.

- Using CIPP technology to reline more than 10,400 feet of 54- to 78-inch-diameter interceptor line owned by the Los Angeles County Sanitation District and serving the Los Coyotes Water Reclamation Plant, without disturbing activities in busy residential and commercial districts.

- Employing high-density polyethylene to repair 3,100 feet of a 30-inch-diameter, cast-iron water main in Amarillo, Texas. Installed in 1927, the line’s lead joints were leaking. Open-cut repairs weren’t an option and flow capacity had to be maintained during the rehab work. Crews ended up doing unusually lengthy, 1,000-foot-long pulls to save time and minimize the need for connections and disruptions.



is announcing the **opening** of our **NEW Houston, Texas, location.** We’re growing along with you to help you meet the needs of your business.



AR™ Plugs



High Pressure Plugs ~ to 150 PSI



Multi-Size Domeheads™ Front and Back Plugs

*Custom Designs Are Always™ Available*

**VANDERLANS AND SONS, INC.**

California 1-800-452-4902

Atlanta 1-770-509-9309

Chicago 1-800-452-4902

Houston 1-832-804-6932

[www.lansas.com](http://www.lansas.com)





From left, Jason Hoffman, Dannon White, Tim Bussen, Zach Andrews, Erik Bowen and Kyle Bowen comprise one of SAK Construction's CIPP crews.

- Utilizing spiral-wound PVC technology to reline 1,050 feet of a deteriorating 42- to 48-inch diameter, stacked-stone sewer line in a historic area of Fort Worth, Texas, with limited access, restricted working hours and no bypass ability.

- Temporarily bypassing water service to 145 individual residences and 11 fire hydrants in a heavily populated neighborhood in Omaha, Neb., while relining more than a mile of 6-inch-diameter, cement-lined, cast-iron water main. The main ran under driveways, streets and sidewalks and the project was the city's largest structural lining endeavor to date. To save time, money and materials, SAK crews installed the bypass piping along common property lines through backyards. They also developed a new loader system that carried up to 11 service connection plugs into the pipeline, saving countless hours of labor. And to stop the liner's curing resins from getting into corporation stop valves, SAK crews relied on advanced robotics to plug and later reinstate the 145 service connections.

#### ADVANCED TECHNOLOGY

One of the keys to the company's success is its large fleet of technologically

advanced equipment, which includes: combination sewer cleaning trucks made by Vactor Manufacturing (a subsidiary of Federal Signal Corp.), generally equipped with 80 gpm Vactor pumps and 10- or 12-cubic-yard debris tanks; water jetters made by Sewer Equipment and Vactor Manufacturing (typically generating flow and pressure of 80 gpm at 2,000 psi); several International tractor cabs; tri-axle International trucks used for hauling materials and curing equipment; truck-mounted pipeline inspection systems made by Aries Industries, CUES and RS Technical Services; PipeTech, Granite (CUES) and WinCan inspection software; and Ford pickup trucks and F-550 crew trucks.

For sewer relining, SAK uses its own proprietary CIPP technology; for pressurized water pipes, the company offers customers a proprietary relining product.

"When it comes to equipment, we rely on a keep-it-simple philosophy," says Steve Hirtz, SAK's vice president of operations, noting that the company prefers to use the same vendors for equipment to leverage the benefits that derive from standardized vehicles and equipment.

"Standardization is a big thing for us," Hirtz says. "When you grow a company from zero to as big as we are, and you're spread all over the United

## GPS UNITS BOOST EFFICIENCY, REDUCE COSTS AND IMPROVE SAFETY

SAK Construction may be one of the largest and fastest-growing pipeline rehabilitation firms in the United States, but the O'Fallon, Mo.-based company relies on very small devices to improve productivity and employee safety and reduce operating costs: Global Positioning System (GPS) units.

All SAK vehicles carry a GPS unit that tracks everything from the operating hours and miles on the vehicle to employees' driving habits and fuel consumption (which helps the company reduce truck-idling time). "In terms of scheduling, we know where equipment is and how to efficiently dispatch it to where it needs to be," says Steve Hirtz, SAK's vice president of operations. "We also can track operating costs, who's using the equipment and determine if they're using it correctly."

By knowing how many hours a piece of equipment runs per month, Hirtz says the company can make informed decisions about whether to rent or purchase that kind of equipment in the future. The company has even recovered a couple of stolen vehicles via GPS, he notes.

The company used to put GPS systems only on larger pieces of equipment, but as the cost of GPS units decreased, SAK began installing them on all equipment, which allowed for greater benefits in terms of cost controls, maintenance and employee management.

"GPS is a big factor in employee safety, too," he adds. "We can tell if employees are speeding or driving erratically. There's no way to quantify the savings we've gained from using GPS, but the results pay for themselves. It's a very worthwhile investment."

Overall, keeping up with technology advancements is very important to SAK, and Hirtz says he spends much of his time looking at new equipment that can increase operating efficiencies. "You can't afford to have other contractors pass you by," he says. "In this industry, you either pay attention to what's going on or get left behind. Staying abreast of new technology plays a key role in our ability to grow."

States, standardization is important for easier maintenance, training support and purchasing power for repair parts. If employees know about a particular piece of equipment, they can easily move from one piece to another and will still know how to maintain it and operate it efficiently. It's really no different than Southwest Airlines running all [Boeing] 737 airplanes."

There are times when larger pieces of equipment might be more efficient on certain projects, Hirtz concedes. But in those instances, SAK still would

**"Standardization is a big thing for us. When you grow a company from zero to as big as we are, and you're spread all over the United States, standardization is important for easier maintenance, training support and purchasing power for repair parts."**

Steve Hirtz

rather run smaller machines or equipment a little longer because the overall benefits of standardization outweigh the incremental productivity gains.

SAK doesn't hesitate to invest in capital projects that can improve customer service, better manage inventory and exert more control over project scheduling. A good example is the CIPP tube-manufacturing facility the company built in 2012 in O'Fallon, which expanded the company's facilities there to 120,000 square feet.

"In a nutshell, we wanted to control more of our own destiny," Hirtz says, explaining why it made sense to manufacture its own CIPP tubes. "By making our own liner, we can shorten the lead times for ordering liner and carry less inventory on hand. But we still have great relationships with other vendors we work with."

#### MORE GROWTH EXPECTED

Looking ahead, company officials expect continued expansion into industrial and energy sectors and also are looking at major international projects as well. The company has new technologies "in the pipeline" to solve customers' infrastructure rehabilitation needs, Kalishman says. They are also planning for continued growth through a variety of means, like the 2011 purchase of Pipenology Inc. in Rocklin, which then became the company's western regional headquarters. But don't expect growth for growth's sake.

"This is a dynamic industry that is both growing and highly competitive," says Tom Kalishman. "We hope to continue to earn our share of new business. In the past, SAK has grown both organically and through acquisitions and we will consider all options as we move forward." **c**

#### more info

**Aries Industries, Inc.**  
800/234-7205  
www.ariesindustries.com  
(See ad page 63)

**CUES**  
800/327-7791  
www.cuesinc.com  
(See ad page 55)

**PipeTech Software**  
800/262-7817  
www.pent.com

**RS Technical Services, Inc.**  
800/767-1974  
www.rstechserv.com  
(See ad page 19)

**Sewer Equipment**  
800/323-1604  
www.sewerequipment.com

**Vactor Manufacturing**  
800/627-3171  
www.vactor.com



# PRIMELINE PRODUCTS, INC.

*"Your Prime Source for Solutions, Products, and Training"*



**Quik Shot Gun Quik Heater**  
**Primeliner™ QuikShot**

*Fastest Lateral Lining Gun in the World!*

- Installation Of Unlimited Liner Lengths
- Ambient Or Hot Water Cure With Quik Heater
- Financing Available



Now Offering Pre-packaged Sectional Lining Kits!!

**Primeliner™ CIPP Sectional Lining Materials**

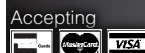
*Save up to 75% off Kit Pricing!*

- FiberGlass With Felt Scrim
- Epoxy Resins - Silicate Resins
- Carrier Packers

**FREE Training from Experienced Personnel**

**24/7 Customer Support**

**Call Us Today!! 407.772.8131 or 877.409.7888**



Visit our Website: [www.primelineproducts.com](http://www.primelineproducts.com)  
Facebook.com/PrimeLineLining

**You Tube** See for yourself!! See our Youtube channel  
[www.youtube.com](http://www.youtube.com) keyword: PrimeLineLining

**THE CABLE CENTER 1-800-257-7209**

**MIDWEST'S LARGEST FACTORY AUTHORIZED REPAIR CENTER FOR GATORCAM, GEN-EYE & SEESNAKE**

**24  
HOUR  
TURNAROUND**

**FREE  
DELIVERY  
ON ALL RIDGID  
CAMERA  
KITS**

**RIDGID's NEW  
CS10 Digital Recording Monitor**

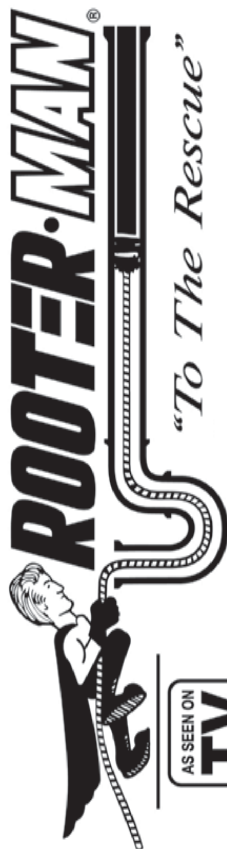
- USB Thumb Drive
- 12.1" Daylight Readable Display
- Multi Mode Recording  
take snapshots, record full video & lean video
- Software Integrations  
with SeeSnake HQ & RIDGIDConnect™



**CALL FOR  
SPECIAL  
PRICING ON  
ALL CAMERA  
KITS!**

• THE CABLE CENTER • 8318 OLIVE BLVD. • ST. LOUIS, MO 63132 • 314-993-3099 •

**Join A National Brand  
ROOTERMAN.COM**



*"To The Rescue"*



Without Paying the National Brand Price

**NEW CONCEPT: NO ROYALTY ON PERCENTAGE OF SALES**

**Reserve Your Exclusive Territory**

**Call 1-800-700-8062**

**FRANCHISE PACKAGE \$3,975.**

**This Is The Nozzle You've Been Waiting For**

*\*Patented*  
**Root Rat** **root  
cutter  
nozzle**

**1/2"**



7-35 gpm/1500-10,000 psi

**3/8"**



3-10 gpm/2000-7500 psi

**3/4-1"**



40-160 gpm/1500-4000 psi

**Custom Built Jetters**



Hot or cold water jetters from 4 gpm at 4000 psi to 12 gpm at 4000 psi, skid or cart frames or small trailer systems.

**Root Rat Combo Kit**



3/4" - 1" root rat combo kit. Use a reducer adapter to go from 1" to 3/4".

"The Root Rat is the easiest and most versatile root cutter nozzle I have ever used. The Root Rat works where other nozzles fail."  
*Tim Jones, owner of Eastern Sewer Jetting*



MADE IN THE USA

**WE SELL AND SERVICE  
COLD WATER JETTERS**

*We Sell PARTS, PUMPS,  
UNLOADERS, HOSES, JET TIPS, ETC.*

**CHEMPURE  
PRODUCTS CORP.**

**1-800-288-7873 • 330.874.4300**

Visa, Mastercard, Discover, AmEx Accepted

**www.rootrat.net**

# All-In-One STEAM TRUCKS

Custom Built Steam and Hot Water Trucks For Sale, Lease or Rent.



- 150 HP Steam Generator
- 750 CFM Air Compressor
- 25 KVA - 3 Phase Generator
- Chemical Injection System
- 1100 Gallon Fresh Water Tank



- Enclosed Control Room
- 24' Enclosed Body
- 3 Side Roll-up Doors
- 160 Cubic Feet Of Storage
- Underbody Hose Storage
- Water Softener System

See Our Full Product Line & Watch Videos at [www.cipp-services.com](http://www.cipp-services.com)

# All-In-One AIR INVERTERS



## Continuous Air Inversion No Deflation To Steam Cure



- Units Available For 3" to 72" Diameter CIPP Liners.
- Apply Heat Within Minutes After Inversion
- Pressurized Internal Gland Lubricating System On All Units
- Rental Units Available
- Professional Training & Support

Small Diameter Lining Equipment & Materials



Phone: 815-712-8708 • E-mail: [sales@cipp-services.com](mailto:sales@cipp-services.com)

# Working Under Pressure

Productivity gains from powerful hot-water pressure washers help Virginia contractor compete more effectively

By Ken Wysocky

**D**oubling productivity may sound like a pipe dream to most contractors. But for John Kistner, the owner of Steam 360° in Leesburg, Va., it's a distinct reality, thanks to a small fleet of hot-water pressure washers made by Mi-T-M Corp.

Kistner says he tried other pressure washers before he bought his first Mi-T-M HDS Series 3505 unit for his power-washing business. The firm performs a variety of services, ranging from cleaning sidewalks at malls and shopping centers to washing parking lots and parking garages. Now Steam 360° owns four Mi-T-Ms, all purchased from McHenry Pressure Cleaning Systems in Frederick, Md., and Kistner says they're the workhorses that drive productivity and profitability gains for his company.

**"I've put thousands of hours on both hot- and cold-water pressure washers, but none of them were as effective as the Mi-T-M units."**

John Kistner

Moreover, the Mi-T-M units enable Steam 360°, which Kistner founded in 2008, to bid more competitively on projects because crews can complete jobs faster. Steam 360° serves the metropolitan Washington, D.C., market between Baltimore to the north and Fredericksburg, Va., to the south.

"Mi-T-M is the best pressure washer I've used," Kistner says. "I've put thousands of hours on both hot- and cold-water pressure washers, but none of them were as effective as the Mi-T-M units. We clean Burger King restaurants, and before we bought the Mi-T-Ms, it probably took about four hours to clean one restaurant. Now my guys can do a Burger King in about two hours. We increased productivity significantly when we switched to those machines. We definitely started getting more work done."

Two of the units are skid-mounted on Ford F-150 pickup trucks and the other two are enclosed inside 12-foot box trucks with Ford dually F-350 chassis. Each unit features a belt-drive, triplex piston water pump made by General Pump, which produces 3,500 psi at 4.7 gpm; either a 200- or 400-gallon water tank; and a diesel-fired burner that produces 471,800 Btu per hour.

Hot-water pressure washers are more expensive than cold-water units, but Kistner says it's money well invested because they make short work of tough cleaning jobs. The HDS 3505 heats water up to 190 degrees, and when combined with a high-pressure water stream, easily removes grease stains, chewing gum and dirt.



Steam 360° in Leesburg, Va., increased productivity significantly when it switched to Mi-T-M HDS hot-water pressure washers. The company has four units, each with a belt-drive, triplex piston water pump from General Pump, a diesel-fired burner and either a 200- or 400-gallon water tank.

money  
machines

**OWNER:** Steam 360°, Leesburg, Va.  
**EQUIPMENT:** 4 Mi-T-M Corp. hot-water pressure washers  
**FUNCTION:** Commercial cleaning  
**FEATURES:** Belt-drive water pump that generates pressure of 3,500 psi at flow of 4.7 gpm, 200- or 400-gallon water tanks, hot-water capability, diesel-fired burner  
**COST:** About \$4,000 each

"We don't have to spend much time on gum," he explains. "We just hold it on the spot for about a second and it comes right off, versus pointing the wand right on the gum and waiting for it to slowly peel up."

Kistner says he also improves productivity by using two hose reels, each of which hold 200 or 300 feet of hose. One reel holds the water hose, which connects to a bib to supply water. The other reel holds high-pressure cleaning hose.

"How you organize and mount hose reels can make a big difference in efficiencies," he says. "With our hose reel setup, you don't have to keep stopping the machine because we have 400 or 500 feet of hose. We just keep moving the truck up without shutting down for anything. During a typical shopping center job, we have to stop just twice in most situations, and that's because we need to switch to a different water bib."



Steam 360° owner John Kistner uses the Mi-T-M HDS Series 3505 hot-water pressure washer to clean a parking lot.



Like most contractors, Kistner abhors productivity-killing equipment breakdowns, and praises the Mi-T-Ms for their reliability. He says his crews have run the units up to 10 hours in a row without any issues. And when minor breakdowns do occur, they're usually the kind that can be repaired in a day by McHenry Pressure Cleaning Systems. Crews can also resolve many issues by carrying spare parts like spraying wands on their trucks.

"They're quality, efficient machines, plus we have good employees to run them and the product support from McHenry, which helps us minimize downtime," Kistner says.

Kistner also likes the machines because they don't require any harsh chemicals to work effectively. As such, he doesn't need to worry about environmentally damaging cleaning products getting washed into storm sewers.

So far, the units have not helped Steam 360° break into new markets, but they do enable the company to handle a lot more work per year. Subsequently, Kistner says the machines have significantly increased revenue.

"These units have been very instrumental in growing my business," he says, noting he purchased new units incrementally, when the volume of work reached a level where his existing machine couldn't keep up with the workload.

"I'll probably need to buy another one next year," Kistner says. "This year, our guys are working six days a week, compared to only five days a week last year. So our business volume is reaching a point where it warrants thinking about expanding our equipment again." **C**

because  
not all  
pipe survey  
software  
programs  
are created  
equal



For over a decade, our software has been used by both Municipal Inspectors and Contractors. **What makes us "stand out"?** In addition to our data collection tools, we think it's our outstanding after-sales tech support.

Data collection tools for...

- ✓ Mainline, Lateral, Manhole and Grout Surveys
- ✓ GIS & Laser Measurement
- ✓ MPG1, MPG2, MPG4 & WMV
- ✓ Cost tracking for work orders



Call us today to schedule a free online demo or stop by and visit us at the Expo to learn more

**866.299.3150** · [www.pipelogix.com](http://www.pipelogix.com) · [info@pipelogix.com](mailto:info@pipelogix.com)



## SHOW US THE MONEY (MACHINE)

Money Machines, a feature in *Cleaner*, reports on innovative work vehicles that help contractors operate more efficiently, satisfy customers and earn more profit. We'd like to know about your Money Machine — be it a service van, camera truck, jetting rig, vacuum unit or any vehicle that really helps drive your business. To nominate your vehicle for a feature in this column, send an email to [editor@cleaner.com](mailto:editor@cleaner.com). Tell us briefly but specifically what features make it a great producer. And send a picture — because appearance counts. We look forward to seeing your Money Machine.

Our Business Partners: Lucity

INFOR  
complementary partner

Cityworks  
Partner Network

esri  
Partner Network  
Silver



# YOUR SINGLE SOURCE SOLUTION



- CABLES & ACCESSORIES
- JETTERS, HOSE & NOZZLES
- TOOLS & REPLACEMENT PARTS
- **RIDGID** LOCATORS & CAMERAS
- GLOVES, TOWELS & MORE!



**ORDER TODAY!** 800.421.4580 • [DRAINABLES.COM](http://DRAINABLES.COM)

JOIN A NETWORK OF OVER  
300 WORLDWIDE INSTALLERS!



**RE-NU** WITH NU FLOW 

**WE ARE HIRING**  
Contact us today for  
job opportunities!

Get started for as low  
as \$486.06/per month

1-800-834-9597 | [www.nuflowtech.com](http://www.nuflowtech.com)



"water as a tool"  
**WOMA**<sup>®</sup>  
CORPORATION

### WOMA High Pressure Systems

help solve almost any Industrial cleaning, maintenance  
and decontamination problem.

- HIGH PRESSURE PUMPS TO 40,000 PSI
- 25-600 HP HIGH PRESSURE UNITS
- ACCESSORIES TO MEET ANY APPLICATION

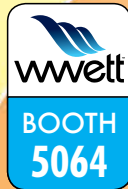
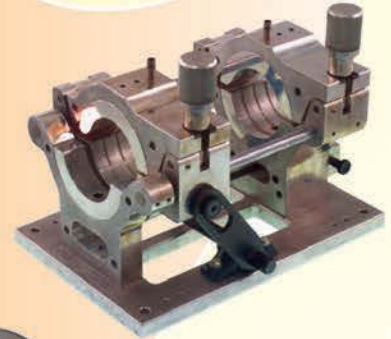
Let us help you more effectively use "water as a tool."

When quality, performance and reliability matter...  
**PHONE: 800-258-5530 . FAX: 732-417-0015**

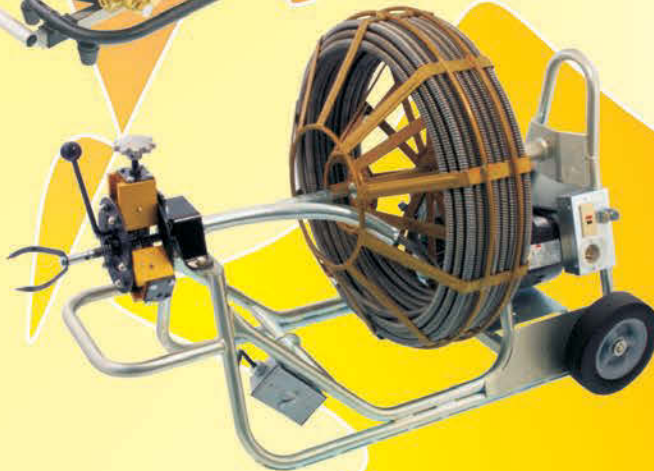


# GORLITZ SEWER & DRAIN INC.

Norwalk Blvd. Santa Fe Springs, Ca. 90670



- MACHINES**
- FEEDERS**
- CABLES**
- RAMPS**
- CONNECTORS**
- LEADERS**
- CHUCKS**
- ENDS**
- RETRIEVERS**
- SPLICES**
- AUGERS**
- JETTERS**
- NOZZLES**
- HOSES**
- TRENCHLESS PIPE SYSTEMS**
- SOCKET FUSION KITS**



*Engineering, Dedication, Quality, Sales and Service All In One Stop!*

www.gorlitz.com  
Email: sales@gorlitz.com  
GORLITZ on Facebook



Tel: (562) 944-3060  
Fax: (562) 944-7630



# Extended Excavation

Exposing pipes at an Ohio natural gas plant snowballs from simple job to a larger, more complex project

By **Scottie Dayton**

**A**n annual survey of high-pressure gas transmission mains by a local utility near Cincinnati pinpointed anomalies on the premises of the natural gas plant. Its maintenance policy allowed only vacuum excavation to avoid damaging the vast number of underground pipes while exposing them for visual inspection.

The plant's pipeline integrity contractor had trailer-mounted hydroexcavation units, but using them would take too long to remove the anticipated volume of material. Seeking a full-size machine, he hired Tele-Vac Environmental of Mason, Ohio.

"We've worked together before," says hydroexcavation manager Alex DuDeVoire. "Our responsibilities were to dig two standard 5- by 10- by 8- or 9-foot-deep trenches, expose the anomalies and make the pits safe for entry. We figured one to two weeks max on the job." Instead, undocumented pipes, soil flows, rain and a near cave-in stretched the project to almost four weeks.

## WORK ZONE

The anomalies appeared near the compressor station's concrete substructure, which resembled a basement with a flat roof 2 feet above grade. Inflow and outflow pipes ran above and through the substructure. Work began on the outflow side, which had the most anomalies.



**ABOVE LEFT:** Chris Distler (left) and Shamus Ridner from Tele-Vac Environmental jet a trench to expose the inflow pipes at a natural gas plant. (Photos courtesy of Tele-Vac Environmental)

**ABOVE:** The workday begins by vacuuming water, which accumulated overnight, from the inflow trench.

## tough job

**PROJECT:** Excavate natural gas pipes with anomalies  
**CUSTOMER:** Natural gas plant, Cincinnati, Ohio  
**CONTRACTOR:** Tele-Vac Environmental, Mason, Ohio  
**EQUIPMENT:** HXX hydroexcavator from Vactor Manufacturing  
 800/627-3171  
 www.vactor.com  
**RESULT:** Anomalies inspected and repaired

Shamus Ridner and Chris Distler parked the 2013 HXX hydroexcavator (Vactor Manufacturing) 20 feet away. Distler operated the truck, which has a 12-cubic-yard debris body, 5,250 cfm/28-inch Hg Hibon 8702 TriLobe blower, and a 1,300-gallon/20 gpm water system.

The men used Monroe jet rotating nozzles (NozzTec) and 10 gpm at 2,500 psi to open the trench. Their first challenge was not to damage the coating on the above-ground piping as they worked from the substructure back. Soils were compacted hard clay and rock for 3 to 4 feet, then sand and pea gravel backfill.

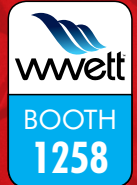
CONTINUED >>

# ALLAN J. COLEMAN

## SINCE 1905

Call us today!  
773-728-2400

5725 North Ravenswood Avenue • Chicago, IL 60660 • [info@allanjcoleman.com](mailto:info@allanjcoleman.com) • [www.allanjcoleman.com](http://www.allanjcoleman.com)



**CALL FOR  
GENERAL  
SPECIALS**

**Special pricing  
on all  
General jetters,  
cameras and  
machines**



### Warthog® Nozzles



**Repair Center for: RIDGID SeeSnake, Gen-Eye, Radiodetection, Electric Eel, Vision Technology, Insight Vision & Spartan Cameras Fast Turnaround Time**

## UPGRADE your camera system to the GVISION. A Better System



Visit [www.eplsolutions.net](http://www.eplsolutions.net)  
for more details.

### GVISION

Gvision V3 is a universal monitor capable of recording from a variety of camera reels. View the screen in the blaring sunlight or in the shade with no visible difference.

This ruggedized monitor records onto flash drives, hard drives, and an iPhone®, iPad®, or iPod Touch®. Connect to the A/V in/out connector to use DVD-RECs and other compatible recorders.



Ask what the  
**GP-PLAYER**  
can do for you?



JetSonde Carriers - P-Trap Cable Sonde Carriers

**Turn ANY push camera into a Jetter Camera with the JetCam Adapter.**



A specialized sonde for locating cast iron and non-metallic pipe 20+ feet deep.



JetCam Adapter

JetSonde Nozzle

Jetter Hose

**OLDEST NAME IN THE BUSINESS**  
**— Over 100 YEARS OLD —**

PHCC MEMBER

“The loose material kept falling out, threatening to undermine the sidewalls of the ditch,” says DuDeVoire. “If the heavy material collapsed on the transmission mains, it would damage the coating.”

The farther back the men dug to uncover a pipe, the more undocumented lines they found with potential coating issues. “The GC said to expose all of them,” says DuDeVoire.

### WHILE YOU'RE HERE ...

The jungle gym of pipes made it difficult for the pair to enter the trench, to work without damaging coatings and to clean 1 to 2 feet below lines to facilitate inspection and repairs. The congestion also made it impossible to insert shoring boxes. Ridner and Distler used shoring boards instead, but even they had to be pulled up to enlarge the hole as more problem pipes emerged. The trench eventually reached 50 feet long and 12 feet wide.

“Shamus and Chris deserve a lot of credit for making everything as safe as possible for the people who will spend days working in those trenches.”

Alex DuDeVoire

Soil flows prevented shoring one end of the pit, so they sloped it back, tapering the width to 10 feet. “It’s very difficult to excavate OSHA-compliant slopes and benching with pressurized water,” DuDeVoire says. “Shamus and Chris deserve a lot of credit for making everything as safe as possible for the people who will spend days working in those trenches.”

Just as the outflow trench work was almost done, the client requested exposing the piping coming out of the ground on that side. “It became a never-ending project where we started one thing and they kept adding to it,” DuDeVoire says. “However, as long as we’re there, we’ll do anything customers require to keep them happy and complete the job.”

Ridner and Distler excavated 12 inches around the pipes and down 3 feet to the concrete footers supporting them. Before leaving the trench, they laid pallets where possible or poured in pea gravel to form a floor for the inspection and coating contractors.

### MORE WRINKLES

Excavation at the inflow trench duplicated work at the first pit until the men exposed a broken 4-inch PVC pipe. It drained stormwater from part of the property and the discharge from a sump pump in the compressor station.

“The amount of water draining from the pipe impeded progress,” says DuDeVoire. “Then major storms struck over two weekends. On the following Mondays, Shamus and Chris found 2 or 3 feet of water in the trench and a lot of muck under the pipes.”

They spent half the morning sucking up several thousand gallons of water and repeating the cleaning work accomplished the previous Friday. Distler dumped the material on site. Finally, a contractor spliced in a new length of pipe after Ridner cleaned the exterior of the broken line.

As excavation neared a service road, soil flow began to undermine it. The men switched their attention to other extemporaneous projects while waiting for a contractor to cut out that section of road to prevent it from collapsing onto high-pressure gas mains.

The inflow trench reached 45 feet long and tapered from 12 to 10 feet wide at the slope back. Twice daily, Distler emptied the truck on site,



**ABOVE:** Shoring board braces add to the congestion in the inflow trench.

**BELOW:** The beginning section of the 50-foot-long outflow trench was a maze of piping and shoring board braces.



eventually off-loading 360 cubic yards. After the material dried somewhat, the general contractor removed it. To date, contractors have inspected and repaired all anomalies at the gas plant. **C**

# VSI Rentals, LLC.

51 Stone Road Lindenwold, NJ 08021  
888-VAC-UNIT Fax: 856-627-3044

**2014 Peterbilt 348** cab & chassis with a 3,200 U.S. gallon, carbon steel, D.O.T. certified 412 vacuum tank; dump type with full open rear door and a Presvac PVB 750 vacuum-pressure pump.

**6 Available**  
**Price by Request**



**2002 GMC**, dual steer truck mounted, large capacity sweeper with dual sweep gear and catch basin cleaner unit  
**Price by Request**

**2014 Freightliner** truck mounted combination vacuum and jetter units  
**3 Available**  
**Price by Request**



**BOOTH**  
**4162**



**2014 Freightliner** truck mounted, industrial wet/dry vacuum loaders with 27" Hg blowers  
**4 Available**  
**Price by Request**

Scan the QR code with your smartphone



**All Units Available For  
Rent or Purchase  
888-VAC-UNIT**

# 1975 FLOW EXPO 40 YEARS 2015

SATURDAY, MARCH 21ST, 2015, 9AM - 4PM -  
LONG BEACH CONVENTION CENTER



*Come Help Us Celebrate*



## 40 Years

*We're Giving the Gifts!*

From humble beginning's in 1975 the Flow Expo has grown into the largest PHC Trade Show in the Western United States.

PLUMBING  
HVAC/R  
BACKFLOW  
JETTING  
FIRE SUPPRESSION  
TRENCHLESS  
TRUCKS  
INSPECTIONS  
GREASE HANDLING  
UTILITY LOCATING  
DRAIN CLEANING  
VEHICLE TRACKING  
WATER DAMAGE  
SERVICE & REPAIR  
REMODELING AND MORE...

*It's our 40th Birthday  
and you get the gifts...*

Raffles will be held throughout the day to celebrate.

Over 200 booths representing more than 400 brands with the newest in tools, services and training to make your job easier and your company more productive.

Everyone knows no matter what kind of Contractor or Technician you are... The **FLOW EXPO** is the ONE.

**Pre-Register Online for complementary admission**

# FLOWEXPOUSA.COM

Flow Expo presented by PHCC-GLAA Off: 323.913.7340



# **CAM ace 2™**

- » One-touch USB recording
- » 5.4" LCD monitor
- » 200' of Kevlar braided ½" dia. push cable
- » 1.68" dia. color camera
- » 512 Hz Sonde
- » On-screen footage counter
- » Wheel kit for easy transport and maneuverability
- » Reel brake
- » Centering skid


**BOOTH 4156**



[www.electriceel.com](http://www.electriceel.com)  
 Toll-Free: 1.800.833.1212




## **8873** Locating System

SIMPLE, INEXPENSIVE & IDEAL for locating camera inspection systems, sondes and utilities. The 8873SD is an effective solution for sewer inspection and drain cleaning. Available with 512Hz, 640Hz & 33kHz sonde modes and 82kHz line locating mode, the 8873 is an effective solution for sewer inspection and drain cleaning.

800-851-7347  
[www.rycominstruments.com](http://www.rycominstruments.com)



# Jetstream's hands-free waterblast solutions deliver improved operator safety, productivity

Provides broadest offering of hands-free cleaning solutions and training in the industry



Jetstream of Houston, LLP, a leading manufacturer of industrial high-pressure waterblasting equipment, parts and accessories, continues to invest and grow in providing industrial cleaning contractors with the most productive hands-free solutions available. By partnering with the leading manufacturers of automated tools and robotics – including Aquajet Systems, Peinemann, StoneAge and Terydon, Jetstream offers the industry's best total equipment solutions for such hands-free, high-pressure waterblasting applications as hydrodemolition, pipe cleaning, surface cleaning and preparation, tank and vessel cleaning and tube cleaning.

“These strategic partnerships enhance Jetstream's product offering and provide customers with greater access to category-leading specialty equipment and accessories that enhance operator safety and productivity and help contractors perform their jobs more profitably,” said Joe Varca, business unit director at Jetstream. “The collaboration with these well-known automation partners, combined with our nine FS Solutions authorized retail support and rental centers across the United States, enables Jetstream to better meet our customers' needs for total hands-free solutions, including the purchase and/or rental of Jetstream waterblasting equipment, parts, accessories, training and service support.”

With the goal of reducing the number of workplace fatalities and injuries related to improper use of high-pressure waterblasting and providing a safer environment for equipment operators, Jetstream is developing and delivering hands-free waterblasting solutions and training to industrial cleaning contractors. As part of the initiative, Jetstream's experts consult with customers, visiting job sites to identify the right hands-free waterblasting solutions for the location.

“Jetstream and FS Solutions can demo, sell and rent the broadest offering of hands-free cleaning solutions in the industry, including automated and robotic tools and accessories.” Varca said.

**WE'RE NOT QUITE HERE YET.**

**BUT WE'RE CLOSE.**

Though Jetstream is the industry leader, we're constantly looking for new ways to advance hands-free automated operations. We've partnered with the leading manufacturers in the industry to offer the broadest line of hands-free waterblasting solutions. We have cutting-edge automated and robotic tools as well as accessories. We also have the most experienced application experts in the business for all of your consulting and productivity solutions. Contact Jetstream or your local FS Solutions and Jetstream rental center today.

## Jetstream's Hands-free Waterblast Solutions

Jetstream manufactures high-pressure waterblasting equipment operated at pressures up to 40,000 psi for a wide range of applications, including industrial cleaning and surface preparation. Backed by strong after sales service and support, Jetstream product offerings include a complete line of skid- and trailer-mounted pump units, control guns, valves, hoses, replacement parts and nozzles.



A proud member of the Federal Signal Family.



www.waterblast.com 1.800.231.8192



# wwett™ 2015

Water & Wastewater Equipment, Treatment & Transport Show

To register or for  
detailed information:

**wwett.com**  
**866-933-2653**

**FEBRUARY 23-26, 2015** INDIANA CONVENTION CENTER

## Current Exhibitor List

543 companies - list current as of December 1, 2014

- |  |  |  |   |                                     |                                      |                                  |                                   |
|--|--|--|---|-------------------------------------|--------------------------------------|----------------------------------|-----------------------------------|
| 3T Equipment Company Inc.              | Blasters, Inc.                                       | Duracable Manufacturing Company        | HammerHead Trenchless Equipment           | Liquid Waste Industries, Inc.       | Penn Valley Pump Co., Inc.           | ROBUSCHI USA                     | Terydon Inc.                      |
| A. Rhodes Wilson & Associates, Inc.    | Blue Angel Pumps                                     | Dyna Flex, Inc.                        | Hannay Reels                              | Liquid Waste Technology LLC         | Penny Pockets                        | RODDIE, Inc.                     | The Strong Company, Inc.          |
| A.R. North America, Inc.               | bluefrog Plumbing + Drain's                          | Dyna-Vac Equipment                     | Happy Feet                                | LMK Technologies                    | Pentair Flow Technologies            | Roeda Signs & ScreenTech Imaging | Thieman Tailgates, Inc.           |
| Abbott Rubber Co., Inc.                | BODUS GmbH   | Dynablast                              | Harben, Inc.                              | LMT Inc.                            | People's United Equipment            | Roll-Off Paris.com               | Thompson Pump                     |
| ABCO Industries Limited                | Boerger, LLC   | DynaLiner LLC                          | Hart Industries                           | Lock America, Inc.                  | Perma-Liner Industries, LLC          | RootX                            | TOPP Industries, Inc.             |
| Absolute Ablutions PTY LTD             | BOXR Mfg., Inc.                                      | Dynamic Decals & Graphics, Inc.        | Hathorn Corporation                       | Loqus                               | Petersen Products Co.                | Roth Global Plastics             | Trade-Serve                       |
| Acro Trailer                           | Brandenburger Liner GmbH & Co. KG                    | Dynamic Filtration Ltd.                | Hauler Agent                              | Lodar Ltd.                          | Petrofield Industries                | ROTHENBERGER USA                 | Trans Lease, Inc.                 |
| Advance Pump & Equipment, Inc.         | BRAWOLINER   | E Z Onsite                             | HCP Pumps of America, Inc.                | Logan Clutch Corporation            | Phoenix USA Inc.                     | RotoSolutions, Inc.              | Transway Systems Inc.             |
| Advanced Containment Systems, Inc.     | BrenLin Company, Inc.                                | E-Tank, Ltd./E-Pump                    | Hedstrom Plastics                         | Logiball, Inc.                      | Picote Solutions                     | RouteOptix Inc.                  | Trellberg Pipe Seals Milford Inc. |
| Advanced Drainage Systems, Inc.        | BRIGHT DYES  | E.H. Wachs                             | Helix Laboratories, Inc.                  | Longhorn Tank & Trailer, Inc.       | Pik Rite, Inc.                       | RS Technical Services, Inc.      | Tremcar Inc.                      |
| Advanced Infrastructure Technologies   | Bright Technologies, div. of Sebright Products, Inc. | Easy Kleen Pressure Systems Ltd.       | Hella, Inc.                               | Ludwig Pfeiffer Hoch- und Tiefbau   | Pipe Lining Supply, Inc.             | Rush Refuse Systems              | TRIC Tools, Inc.                  |
| Advanced Pressure Systems              | Brown Bear Corporation                               | Easy-Liner                             | Hermann Sewerin GmbH                      | MacQueen Equipment                  | PipeHunter, Inc.                     | SAERTEX-multiCom                 | Trillium Industrial Services      |
| Advantage Funding                      | Burckhom Pumps, Inc.                                 | Eco Infrastructure Solutions           | Hermes Technologie                        | Madwell Products Corporation        | Pipeline Renewal Technologies        | Safety Sewer Drain               | TRY TEK Machine Works, Inc.       |
| AERO-TECH                              | Bucks Fabricating                                    | Ecological Laboratories Inc.           | Hi-Vac Corporation                        | Maihot Industries                   | PipeLogix, Inc.                      | Solor Inc.                       | TT Technologies, Inc.             |
| Airfeet                                | BulkTP   | Eldon C. Stutsman, Inc.                | Hibon Inc. (a division of Ingersoll Rand) | Mainline Backflow Products, Inc.    | PipeTech Software                    | Satellite Industries             | Tu-Tite Inc.                      |
| AK Industries                          | BullFrog Industries LLC                              | Electric Eel Mfg.                      | Hino Trucks                               | Manitex Sabre                       | Piranha Hose Products                | Sauereisen, Inc.                 | TURBO FOG                         |
| Alderon Industries, Inc.               | BW Technologies by Honeywell                         | EleMech, Inc.                          | Hot Jet USA                               | Masport, Inc.                       | Plug-It Products                     | Savatech Corp.                   | UDOR U.S.A.                       |
| All Star Sewer Equipment               | C&H Plastics Inc.                                    | Eljen Corporation                      | Hurco Technologies, Inc.                  | Masterliner Incorporated            | Polston Applied Technologies         | SchallVac Equipment Inc.         | UEMSI                             |
| Allan J. Coleman Co.                   | C&H Services   | Envirosig                              | Hydro-Flex, Inc.                          | Material Motion, Inc.               | PolyFlow, LLC                        | Scorpion Protective Coatings     | UHRIG Kanaltchnik GmbH            |
| Allied Forward Motion, LLC             | C.I.Agent Solutions                                  | Environment One Corporation            | Hydro-Tech Pump                           | McLaurin USA                        | PolyJohn Enterprises, Inc.           | Screeno Systems LLC              | Ultra Shore                       |
| Allied Graphics, Inc.                  | Cam Spray  | Envirosight                            | IBG HydroTech                             | McLaughlin Group, Inc.              | Polylok, Inc. / Zabel                | Sealing Systems, Inc.            | UltraVal by Wells Cargo           |
| Alpine Equipment Funding, Inc.         | CanAm Equipment Solutions, Inc.                      | Enz USA, Inc.                          | Imperial Industries, Inc.                 | Medit Inc.                          | PolyPortables, LLC                   | SECO Truck Inc.                  | Uncle Freddie's Super Gloves      |
| Alteris Insurance Services             | Canplas Industries Ltd                               | Eggs Products                          | Impreg International GmbH                 | Meese Orbitron Dunne Co.            | Portable Sanitation Association Int. | See Water Inc.                   | Under Pressure Systems, Inc.      |
| AltumaMATS, Inc.                       | Cape Cod Biochemical Co.                             | Explorer Trailers - McKee Technologies | IMS Robotics GmbH                         | Merrell Bros., Inc.                 | POSM Software                        | Septic Maxx, Inc.                | US Fleet Tracking                 |
| Amazing Machinery LLC                  | Cappellotto S.P.A.                                   | EZTrakR Systems Inc.                   | In The Round Dewatering, Inc.             | MF-FMachine                         | Powertrak International, Inc.        | Septic Products, Inc.            | US Jetting, LLC                   |
| Ameri-Con                              | Cat Pumps  | F.M. Manufacturing, Inc.               | Infiltrator Systems, Inc.                 | Mid-State Tank Co., Inc.            | Premier Drilling Equipment           | Septic Services, Inc.            | USABlueBook                       |
| American Express OPEN                  | CEMTEC   | Famhost Apps                           | InfraSense, Inc.                          | Miller Pipeline                     | Premier Tech Aqua                    | Septronics, Inc.                 | USB - Sewer Equipment Corporation |
| American Melt Blown & Filtration Inc   | Chandler Equipment                                   | Federal Signal Environmental           | Infrastructure Repair Systems, Inc.       | Milner-Haufen Tool Company          | Presby Environmental, Inc.           | Service Roundtable               | Vac-Con, Inc.                     |
| American Pipe & Plastics, Inc.         | Chelsea Products, div. of Parker                     | FerroTex                               | Infrastructure Technologies - ITPipes     | Milwaukee Pump                      | Pressure Lift Corporation            | ServiceTitan                     | Vac2Go, LLC                       |
| Amesbury / Bandlock Products           | Chempe Corporation                                   | Fieldbook ERP                          | Innovative Equipment, LLC                 | Milwaukee Rubber Products, Inc.     | Prevac Systems                       | Sewer Equipment                  | Vacall - Gradall Industries       |
| Amthor International                   | Chempure Products Corp.                              | Fisher Labs                            | Insight Mobile Data Inc.                  | Mobile Restroom Designs             | PRIME DRILLING GmbH                  | Shamrock Pipe Tools, Inc.        | Vacaturx Manufacturing            |
| Anderson Metals Corp., Inc.            | Cherne Industries                                    | Five Peaks                             | Insight Vision Cameras                    | Money In Motion                     | PRIME Resins                         | Shenzhen Schroder Ind.           | Vacuflux Limited                  |
| Anua                                   | CIPP Services, LLC                                   | FKC Co., Ltd.                          | Integrated Vehicle Leasing/Financing      | MONOFORM by Infracore               | Prime Resins                         | Sherwin-Williams                 | Vacuum Sales, Inc.                |
| AP/M Permaform                         | Clayton Industries                                   | Fleamatics                             | IST - Innovative Sewer Technologies       | Moro USA, Inc.                      | PrimeLine Products, Inc.             | Shubee                           | Vacuum Truck Rentals              |
| Aqua Blast Corporation                 | Clear Computing                                      | Flo Trend Systems                      | ITI Trailers & Truck Bodies, Inc.         | Mr. Rooter                          | Progress Tank                        | Sim/Tech Filter Inc.             | Vaporooter                        |
| Aqua Male Technologies Inc.            | Clearstream Wastewater Systems                       | FlowMark                               | J & J Chemical Co.                        | MTC                                 | Proline Group AB                     | SJM-Rhombus®                     | VARCO                             |
| AquaSoles by V.P. Marketing            | Cloverleaf Tool Co.                                  | FM Environmental Ltd                   | J. Hydavid Larsen US                      | MTEch                               | Pranal-USA, Inc.                     | Slew Master, Inc.                | Vermeer                           |
| Arcan Enterprises, Inc.                | Cobra Technologies                                   | Foremost Products Co.                  | J.C. Gury Company, Inc.                   | Mud Technology International, Inc.  | ProPulse, A Schieffler Company       | Slide-In Warehouse               | Veyance Technologies, Inc.        |
| Aries Industries, Inc.                 | Comet USA, Inc.                                      | Forest River, Inc.                     | Jack Doheny Companies                     | Murphy by Enovation Controls        | PRIME DRILLING GmbH                  | Shenzhen Schroder Group, Ltd.    | Vivax-Metrotech Corp.             |
| Armal, Inc.                            | Comforts of Home Services, Inc.                      | Farmadrain, Inc.                       | JAG Mobile Solutions, Inc.                | MyIana Mfg. Company, Inc.           | Prime Resins                         | SnakeLiner                       | Vogelspann                        |
| ART Company                            | Concrete Sealants, Inc.                              | Franklin Electric                      | Jameson LLC                               | NASSCO, Inc.                        | Primatech Products, Inc.             | Solar LED Innovations            | VT Hackney                        |
| Arthur Custom Tank / Mid-State Tank    | Coneqtec-Universal                                   | Fruitland Manufacturing                | JD7                                       | National Precast Concrete Assoc.    | Proline Group AB                     | Sonetics                         | Vu-Rite Video Inspection Systems  |
| Arthur Products Co.                    | Consolidated Treatment Systems, Inc.                 | Garnajet, part of the Alfa Laval Group | Jet Inc.                                  | National Truck Center               | Pranal-USA, Inc.                     | Source One Environmental         | Wager Company Inc.                |
| Ashland PolyTraps                      | Containment Solutions, Inc.                          | GapVax, Inc.                           | JeTech, Inc.                              | National Vacuum Equipment, Inc.     | ProPulse, A Schieffler Company       | Quik-Lining Systems, Inc.        | Walex Products Company, Inc.      |
| Ashland Pump                           | CreteBologic, LLC                                    | Gardner Denver                         | Jets Vacuum AS                            | Nature Calls                        | ProPulse, A Schieffler Company       | R. Nesbit Portable Toilets       | Wallenstein Vacuum Pumps          |
| Atlanta Rubber & Hydraulics, Inc.      | CreteX Specialty Products                            | Gardner Denver Waterjetting            | Jetter Depot                              | Netafim USA                         | ProPulse, A Schieffler Company       | R. Nesbit Portable Toilets       | Wastequip                         |
| Avanti International                   | CromFlow Inc   | GE Oil & Gas - Roots Blowers           | Joe Johnson Equipment, Inc.               | Nexstar Network, Inc.               | Proline Group AB                     | Reed Manufacturing Co.           | WasteWater Education 501(c)(3)    |
| B Green Group                          | Crust Busters/Schmitz Brothers, LLC                  | GEA Farm Technologies, Inc. (USA)      | John Bean Jettors                         | NLB Corp.                           | Proline Group AB                     | Ratech Electronics, Ltd.         | Water Environment Federation      |
| Bad Dog Tools                          | CUES   | General Pipe Cleaners                  | Johnny's Choice by Chemcorp               | Northeast Industrial Mfg            | Proline Group AB                     | Rausch USA                       | Waterblasting Technologies        |
| BakerCorp                              | Downey Ridge Environmental                           | General Pump                           | KeelVac Industries, Inc.                  | Norweco, Inc.                       | Proline Group AB                     | Ravo Sweepers                    | WC Leasing                        |
| Ball Brass & Aluminum Foundry, Inc.    | Dragon Products, Ltd.                                | Geofflow, Inc.                         | KEG Kanalreinigungstechnik GmbH           | NozzTeq, Inc.                       | Proline Group AB                     | RC Industries, Inc.              | Weber Industries                  |
| Banjo Corp.                            | Draincables Direct                                   | GG Instrumentation, Inc.               | Keith Huber Corporation                   | NSF International                   | Proline Group AB                     | RCS II, Inc.                     | Wee Engineer, Inc.                |
| Barrett                                | Dultmeier Sales                                      | Giant Industries                       | Kentucky Tank, Inc.                       | No Flow                             | Proline Group AB                     | RecoverE                         | Wells Fargo                       |
| BASE Engineering Inc.                  |  | Global Vacuum Systems, Inc.            | Kewanna Screen Printing                   | Oakmont Capital Services, LLC       | Proline Group AB                     | Reed Manufacturing Co.           | Western Equipment Finance         |
| Bayco NightStick/The Jolly Group, Inc. |  | Go Green Environmental Products        | Kros International USA                    | Oceanquip Cables, LLC               | Proline Group AB                     | Reidcraft Industries, Inc.       | Western Mule Cranes (D&S Sales)   |
| BDP Industries, Inc.                   |  | Godwin, a Xylem brand                  | Kroy Industries                           | Ohio Electric Control, Inc.         | Proline Group AB                     | Refractron                       | Westmor Ltd.                      |
| Benjamin Media Inc.                    |  | Goldak, Inc.                           | Kuriyama of America, Inc.                 | Omega Liquid Waste Solutions        | Proline Group AB                     | Refractron                       | Whirlygig, Inc.                   |
| Benlee, Inc.                           |  | Gorman-Rupp Company                    | Kansas Products Mfd. by Vanderlans        | OMSI Transmissions, Inc.            | Proline Group AB                     | Refractron                       | Wiedemann & Reichhardt GmbH       |
| Best Enterprises, Inc.                 |  | GPM Pump and Truck Parts, LLC          | Lansas Products Mfd. by Vanderlans        | One Biotechnology                   | Proline Group AB                     | Refractron                       | Wieser Concrete Products, Inc.    |
| Best Equipment Company                 |  | GPS Insight                            | Lely Manufacturing, Inc.                  | Oreco Systems, Inc.                 | Proline Group AB                     | Refractron                       | Wohler USA, Inc.                  |
| Betts Industries Inc.                  |  | GPS North America                      | Lenzyme/Trap-Clear Inc.                   | Oto Trading Inc.                    | Proline Group AB                     | Refractron                       | Zhejiang Danau Industries Ltd.    |
| Biffs Pathfinders, LLC                 |  | GRU, LLC                               | Liberty Financial Group, Inc.             | PA S.p.A.                           | Proline Group AB                     | Refractron                       | Zoeller Pump Company              |
| Bio-Microbics, Inc.                    |  | H2 Technical Rescue Equipment          | Liberty Pumps                             | Parson Environmental Products, Inc. | Proline Group AB                     | Refractron                       |                                   |
| Bio-Systems International              |  | Hamburg Messe und Congress GmbH        | LIFTPLAQ                                  | Par's Pump & Blower                 | Proline Group AB                     | Refractron                       |                                   |
| Biolynceus                             |  | Hammelmänn Corp.                       | Linco-Precision, LLC                      | Peapoint/SPX                        | Proline Group AB                     | Refractron                       |                                   |
| BKP Berolino Polyester GmbH            |  |  | Liquid Environmental Solutions            | Peinemann Equipment                 | Proline Group AB                     | Refractron                       |                                   |
| Block Tie Products, LLC                |  |  |   |                                     | Proline Group AB                     | Refractron                       |                                   |



# Education Day Sessions

Monday, February 23, 2015

## NAWT

National Association of Wastewater Technicians  
Room 234-236

- 8 a.m. | Pre-Trip Inspections
- 9:30 a.m. | Hours of Service (HOS) Overview
- 11 a.m. | Roadside Inspections
- 1:30 p.m. | Environmental Impact Study: Effects of Water Softener on Septic Tank Performance
- 3 p.m. | A Study of Microbiological Induced Corrosion
- 4:30 p.m. | Ask the Expert Q & A

## WJTA-IMCA

Water Jet Technology Association  
Industrial Municipal Cleaning Association  
Room 140-142

- 8 a.m. | Hydroexcavation — Tools to Stay Current in a Changing Marketplace
- 9:30 a.m. | Maximizing Productivity on Vacuum/Air Mover Projects
- 11 a.m. | Waterblast Safety Can Enhance Productivity, Quality and Profits!

## SSCSC

Southern Section Collection Systems Committee  
Room 231-233

- 8 a.m. | Combination Vacuum Unit Operation Overview
- 9:30 a.m. | Been There, Done That, Got The T-Shirt (Small Business From a Hands-on Perspective)
- 11 a.m. | So You Think You Are the Best? CCTV Inspection In Its Highest Form
- 1:30 p.m. | Avoid the Pitfalls — Trenchless Pipeline Repair and Renewal
- 3 p.m. | NOZZLES, NOZZLES, NOZZLES!
- 4:30 p.m. | Ask the Experts Q & A

## SSPMA

Sump and Sewage Pump Manufacturers Association  
Room 243-245

- 1:30 p.m. | Sizing Guidelines for New or Replacement Sewage Pumps
- 3 p.m. | Backup Battery and Combination Pump Systems Evaluation and Installation
- 4:30 p.m. | Specifying Pumps: Why Do Pumps Fail?

## NASSCO

National Association of Sewer Service Companies  
Room 130-132

- 8 a.m. | Overview of Manhole Rehabilitation Technologies
- 9:30 a.m. | When, Why and How to Defeat Infiltration Cost Effectively
- 11 a.m. | New Opportunities in Small-Pipe Relining and Reinstatement
- 1:30 p.m. | Pipeline cleaning Best Practices
- 3 p.m. | Large-Diameter Pipe and Drain Rehabilitation Technologies
- 4:30 p.m. | Ask the Experts Q & A

## NEHA

National Environmental Health Association  
Room 237-239

- 8 a.m. | New Technologies for Non-Potable Water Use
- 9:30 a.m. | Rules & Regulations with New Technologies and Working with Regulators
- 11 a.m. | New Technologies for Non-Potable Water Use Part 2
- 1:30 p.m. | OSHA Regulations and Smart Business
- 3 p.m. | Sales & Marketing with New Technologies
- 4:30 p.m. | Ask the Experts Q & A

## NOWRA

National Onsite Wastewater Recycling Association  
Room 240-242

- 8 a.m. | Lobbying
- 9:30 a.m. | Field Inspections Part One
- 11 a.m. | Field Inspections Part Two
- 1:30 p.m. | Septic Tank Safety — Lethal Lids
- 3 p.m. | Time Dosing
- 4:30 p.m. | Ask the Experts Q & A

## Portable Restroom Track

Beverly Lewis  
Room 243-245

- 8 a.m. | Mastering the Busy Season
- 9:30 a.m. | A Great Customer Experience
- 11 a.m. | Employee Retention and Recruitment

## Business Track

Kelly Newcomb, Ellen Rohr, Women's Roundtable  
Room 136-138

- 8 a.m. | Grow or Go! Why Most Companies Fail to Grow Effectively and What You Can Do to Keep Your Company From Failing
- 9:30 a.m. | Target Marketing: How to Effectively and Efficiently Grow Your Sales
- 11 a.m. | Effective Branding and How it Can Help Your Business
- 1:30 p.m. | Business Basics 101
- 3 p.m. | Build the Business You REALLY Want
- 4:30 p.m. | Women in Wastewater Roundtable Discussion

Gil Longwell  
Room 140-142

- 1:30 p.m. | Protecting Private Enterprise

## Marketing Track

Susan Chin  
Room 133-135

- 8 a.m. | Ladies and Gentleman: Create Your Personal Brand and Strategic Network for Success in 5 Easy Steps
- 9:30 a.m. | Effective Website Design and Engaging Customers in the Digital Age
- 11 a.m. | Tapping into the Power of Social Media and Content Marketing

## Road Rules & Safety Track

John Conley  
Room 133-135

- 1:30 p.m. | A Trucker's Guide to Washington Speak
- 3 p.m. | Cargo Tank Safety and Regulatory Report
- 4:30 p.m. | Compliance with Part 180 and Preparing for a Tank Truck CT Shop Audit

*You can view the complete schedule of events along with an exhibitor list, floor plan, travel information and everything else you'll need to plan your trip to Indy at [www.wett.com](http://www.wett.com)*



# Tuesday Sessions

Detailed session information available at: [wwett.com](http://wwett.com)

February 24, 2015

## NAWT Track

Room 234-236

- 8 a.m. | Septage Processing Introduction:  
Working with an Engineer
- 9:30 a.m. | Analyzing Your Resources:  
What Goes on Around You is Important!
- 11 a.m. | Introduction to Odor Control

## Onsite Installer Track

Room 231-233

- 8 a.m. | Soils, Design, O&M: What Every Installer  
Should Know
- 9:30 a.m. | Best Installation Practices for  
Trouble-Free Pump Controls
- 11 a.m. | Introduction to Effluent Filters

## \*MSW Track

Room 237-239

- 8 a.m. | Mapping Solutions for Repair and  
Maintenance of Water Distribution Systems
- 9:30 a.m. | The Shift from Reactive to Proactive  
Wastewater Management Best Practices
- 11 a.m. | Why Hasn't Your Sewer System Evaluation  
Survey Testing Worked?

\*MSW - Municipal Sewer & Water

## Treatment Plant Operator Track

Room 240-242

- 8 a.m. | An Emerging Technology for Lagoon-Based  
Nutrient Removal
- 9:30 a.m. | The New Wastewater: Collection System  
Challenges Caused by Today's Modern Trash
- 11 a.m. | Wastewater Microbiology

## Industry Safety Track

Room 243-245

- 8 a.m. | New Trends and Technology in Equipment  
for Excavation Safety
- 9:30 a.m. | Best Practices: Use, Care and Repair of  
High-Pressure Sewer Cleaning Hose
- 11 a.m. | Development and Execution of a Cross-Bore  
Prevention Program

## Business Track

Room 130-132

- 8 a.m. | How to Position Your Company in the Market Today
- 9:30 a.m. | Six Proven Tactics to Generate Leads and  
Turn Them Into Revenue
- 11 a.m. | Growth by Acquisition or Exiting Gracefully:  
Buying or Selling a Septic or Sewer Business

## Drain Cleaning Track

Room 133-135

- 8 a.m. | Drain Cleaning Methods - Then and Now
- 9:30 a.m. | The Physics of Pipe Cleaning Tools and  
How I Make it Work for Me
- 11 a.m. | Lateral Lining - Are You Using the Right Tool?

## Industry Technology Track

Room 136-138

- 8 a.m. | How to Manage Septic Systems  
using Remote Monitoring
- 9:30 a.m. | GPS Tracking: Hype Vs. Reality
- 11 a.m. | Wireless Controls in the Waterjet Industry:  
Sacrificing Safety for Convenience

## Septic Series Track

Room 140-142

- 8 a.m. | True Crime Scene Stories: How to Inspect  
and Troubleshoot Suspect Onsite Systems
- 9:30 a.m. | One Man's Waste is Another Man's Treasure
- 11 a.m. | Dewatering Options for Roll-Off Containers



\*Complete contest rules and details at: [wwett.com/rules](http://wwett.com/rules)



# Wednesday Sessions

Detailed session information available at: [wwett.com](http://wwett.com)

February 25, 2015

## Septic Series Track

Room 140-142

- 8 a.m. Considerations in Building Your Next Vacuum Truck
- 9:30 a.m. Grease Collection and Treatment:  
Raising the Bar Via Resource Recovery
- 11 a.m. Analyzing Common Onsite Septic System  
Malfunctions and Options for Prevention & Correction

## \*MSW Case Study Track

Room 231-233

- 8 a.m. Retrofit of the Lansdowne Sanitary P/S
- 9:30 a.m. Huntington Beach Successfully Navigates  
Emergency Repair of Fragile Storm Drain  
Collection System Rehabilitation –  
Alternative Technology
- 11 a.m. Collection System Rehabilitation –  
Alternative Technology

## \*MSW Technology Track

Room 237-239

- 8 a.m. Implementation of Acoustic Inspection Technology  
at the City of Augusta
- 9:30 a.m. Highlights from the 7th Edition of Operation  
and Maintenance of Wastewater Collection  
Systems Manual
- 11 a.m. Technological Advancements Fulfill the  
Promise of Zoom Survey Paradigm

\*MSW - Municipal Sewer & Water

## Portable Sanitation Track

Room 136-138

- 8 a.m. Portable Sanitation - Special Events
- 9:30 a.m. Making Your Portable Restroom Business Lean  
and Mean – How to Boost Productivity and  
Increase Your Bottom Line
- 11 a.m. T.B.D.

## Treatment Plant Operator Track

Room 240-242

- 8 a.m. Utility Regulation Basics for Grease Haulers
- 9:30 a.m. The Waste in Our Wastewater
- 11 a.m. Security Issues and Best Practices for Water/  
Wastewater Facilities

## Pipe Rehab Track

Room 243-245

- 8 a.m. Integrating Temperature Sensor Technology  
within Lateral Pipeline CIPP Installations
- 9:30 a.m. CIPP Calibration and Vacuuming
- 11 a.m. Extending Life Expectancies with Corrosion-  
Resistant Coatings and Linings

## Business Track

Room 133-135

- 8 a.m. Team Building for Profit
- 9:30 a.m. Ten Commonsense Ways to Grow and  
Improve Your Business
- 11 a.m. Setting Expectations – The Key to Sales  
and Customer Satisfaction

## Advanced Onsite Installer Course

Room 234-236

8 a.m. - 5 p.m.

- Introduction and Site Evaluation
- System Sizing and Basic Design Principles
- Pumping to Systems
- Installations of ATUs
- Installing for Management
- Troubleshooting Systems

To register or for  
detailed information:

**wwett.com**  
**866-933-2653**

# Register Today and Be Entered to Win!

Register to attend the 2015 WWETT Show and you'll automatically be entered to win this Chevy 4x4!



collaborate · understand · deliver

# Demand More from Your Data.



It's what our industry has been waiting for—the power to share inspection results in real-time via the cloud, scale for big data, visualize system-wide condition with GIS, plan/track field operations via Google Maps, and generate high-level deliverables like heat maps, budgetary proposals, and 3D system models.



sold & supported by:

[www.pipelineanalytics.com](http://www.pipelineanalytics.com) • (877) 626-8386



real-time insight



## Pressure Washers and Drain Jetting Equipment



Skid and truck mount models up to 7000 psi



Portable Hot and Cold Water Diesel Powered Models



Hot and Cold Trailer Models  
Up to 7000 psi  
Flows up to 40 gpm  
Powered Reels  
Diesel powered models



We will custom build to your specifications

[www.camspray.com](http://www.camspray.com) 800-648-5011

## Hannay Reels handle the toughest treatment.



Made in U.S.A.

You face severe conditions every day. We build custom reels that perform even in the harshest environments.

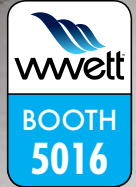
- Built to spec for washdown, jetting, pipeline inspection and more
- Heavy-duty design and construction
- Standard reels ship within a week

Let us solve your reel issues, so your crew can get back to business.

Find your reel solution: [hannay.com](http://hannay.com) or 877-467-3357



# INSPECT WHERE THE OTHERS CANNOT GO!



## LAMP II

Lateral & Mainline Probe II  
with Mini Pan & Tilt Camera

Pan & tilt inspection of  
lateral connections,  
with or against the flow!  
Simultaneous pan, tilt & zoom  
inspection of mainlines!



Lateral Pan & Tilt Camera

- Navigate through multiple "wyees", bends, and sweeps
- Self-leveling camera, 360 degree continuous pan and tilt capabilities
- Built-in wiper system keeps the camera lens clean
- Built-in multi-frequency sonde transmitter
- Traverse up to 1000 ft. to avoid multiple set ups

Contact CUES for a discussion & demonstration!  
800.327.7791 • [www.cuesinc.com](http://www.cuesinc.com) • [salesinfo@cuesinc.com](mailto:salesinfo@cuesinc.com)



Launches in all laterals with or against the flow in 6" pipe and larger!



Erik Gunn is a magazine writer and editor in Racine, Wis. Readers may direct inquiries to him by contacting this publication at 800/257-7222 or emailing editor@cleaner.com.

# Know Your Numbers

Kick off the new year with a new focus on managing the financial health of your business

By Erik Gunn

It's another year. What New Year's resolutions have you made to improve the money management of your business? If you have a hard time thinking of any, these tips should help.

**1. Get to know your numbers.** How closely do you really follow the metrics of your business – sales, expenses, profit? You'd be surprised how many business owners don't know or just have a vague idea. But even if you have an outside accountant (see resolution No. 2), you shouldn't simply rely on that professional to keep an eye on how your business is doing. It's important to be knowledgeable about those details yourself.

**2. Get professional help.** So you're already intimately acquainted with every up and down of your monthly cash flow and balance sheet? Good for you. That doesn't mean you can do it all by yourself, however.

An outside public accountant will still bring a deeper understanding of what the numbers mean, what they might foreshadow down the road and which ones are most important for you to pay attention to.

Moreover, the professional accountant brings something else to the table: a necessary detachment. If you're like most business owners, you can't help but be passionate about what you're doing, and that's a good thing. But as you pour so much of yourself into the operation, you can't help but get too close to it. That's where a trusted adviser provides a necessary counterweight and the cool objectivity that will help you make the best decisions for the long term.



**3. Save for a rainy day.** Carve out something from your monthly profits that you can put into a reserve fund you can build up over time to help cover lean periods. And leave that money alone until you face a real emergency.

**4. Watch your waste.** One benefit of paying attention to the financial details is helping you spot where you are spending money needlessly. Do you keep too big an inventory of some supplies? That means you spent more than you needed in order to stock up at some point. Are you getting the best deal you can on insurance, or on finance charges for your business loans, or even on various commodities you require? Do your drivers let their vehicles idle unnecessarily, wasting fuel? Is your mobile phone plan giving you the best return for what you're paying? The list of ways you can shave expenses is virtually endless.

**If you spend money, do it because the service or product is something that will help your business make more money more efficiently or otherwise serve the long-term interests of you and your employees.**

**5. But don't go overboard.** When cutting expenses you need to exercise judgment. I hope you're not driving all over town just to see which service station has the cheapest gas. But there are other ways in which we hurt ourselves with thoughtless "savings." Skimping on routine machinery maintenance is penny-wise and pound-foolish and likely to cost you more in the long run when equipment breaks down.

**6. Ban "It's deductible!" from your speech.** I'm not saying don't take every tax deduction to which your business is entitled. But never let tax deductibility be the primary justification for any expense. If you spend money, do it because the service or product is something that will help your business make more money more efficiently or otherwise serve the long-term interests of you and your employees. Spend it on things that would benefit your operation even if it weren't tax-deductible.

**7. Think twice about overtime.** Many employers these days have difficulty finding more workers with the skills they need. Others aren't sure if a spike in business will last, and so they don't want to hire on new workers only to lay them off if a hot streak suddenly goes cold. Those are real issues that can help drive up overtime expenses unavoidably.



But at some point the cost of working people too many hours will overtake the savings of not hiring. Not just in having to pay time-and-a-half when hours go above 40 a week, but in wearing out your workforce and depriving them of time for family life, their non-work pursuits and leisure time. If it gets out of control, you may face a lot more new-hiring costs than you thought.

**8. Get smart about marketing.** Promoting your business has two sides to it: helping people find their way to you for the first time, and keeping them coming back. And neither of those is entirely free.

To recruit customers, pay attention to which advertising channels work for you and invest in those that are the most productive. To keep them, provide great service. That means paying your employees competitively and investing in their continuing training and development. You may also need to provide incentives that will help customers recognize the value you provide. Customer loyalty discounts, preventive maintenance services and other kinds of customer perks all help.

**9. Pace yourself.** One thing I've heard a lot in the last year – from consultants and business owners alike – is the error of growing too fast. When business is booming, it can be easy to think that more of it will mean still bigger returns. But the stories of companies large and small that flame out like that are legion. So if things are going well, count your blessings and make sure you can take care of your existing customer base before you go crazy expanding it beyond what you can sustain.

**10. Plan ahead.** How soon should you think about retirement? How about, from the day you first go to work? And if that's already well behind you, then, right now. Put funds into a long-term retirement account so that you don't have to sell the business when you turn 65 just to keep you going financially. (While you're at it, see how you might be able to offer employees some kind of retirement benefits, too.) And don't just think about your own fiscal future. For business owners, retirement planning includes looking out for the future of the business through succession planning so you can groom future leadership and lay the groundwork for the firm to change hands in an orderly fashion.

So there you are: 10 ready-made New Year's resolutions that can help you make 2015 more productive, more profitable and in all likelihood more fulfilling for you and the business you've worked so hard to build.

Happy New Year. **c**

MUNICIPAL SEWER & WATER MAGAZINE

[www.mswmag.com](http://www.mswmag.com)

For sanitary, storm and water system maintenance professionals



**cut ahead**

**rent one!** great rates, flexible terms

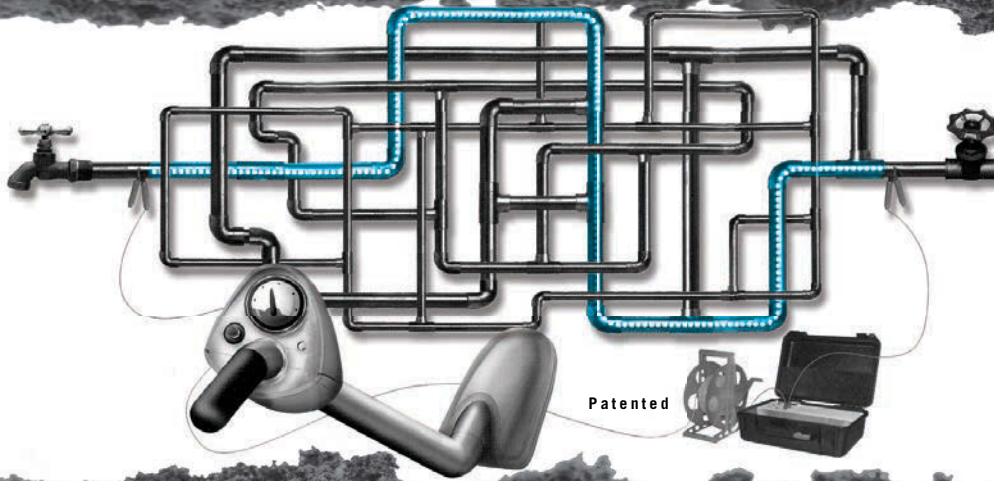
**Exceed expectations, outperform competition, maximize profit**—as a pipe rehab contractor, your success demands all three. Lateral cutters from PRT deliver unmatched versatility and power, giving you the confidence to meet every job head-on. Schedule a demo today and learn what it means to cut ahead.

**Pipeline Renewal**  
TECHNOLOGIES™

**wwett**  
BOOTH  
6026

(866) 936-8476 • [www.pipeliner.com](http://www.pipeliner.com)

# Pulsar 2000 Line Tracer



**Locate Lines  
Locate Water Leaks  
Training Video**

*It's a jumble out there.*

***www.Pulsar2000.com***  
DISTRIBUTORS WANTED



The Pulsar 2000 line tracer is designed primarily to locate metallic pipes. The Pulsar 2000 is a directional line tracer. Connect the Pulsar's powerful and unique transmitter to your target pipe and locate only that pipe. Locating can be accomplished under floors, in walls and in ceilings. The Pulsar 2000 does not require grounding.

**Leak detection personnel...** The Pulsar 2000 is a must have locator. Now you can quickly identify the pipe location, thereby reducing the search area of the leak.

**100% satisfaction guarantee...** We are so sure that you will see the time saving benefit of the Pulsar 2000, we will let you return it for a full refund if you are not satisfied. If

you want to learn more about the Pulsar 2000 and our leak locating equipment, please call 1-888-752-5463 or e-mail [jsmll@aol.com](mailto:jsmll@aol.com) for a free demonstration video or CD and references of satisfied customers.

We have been using the Pulsar 2000 along with the XL2 fluid detector and Geophones since January 1989 in our leak locating business. Our leak locates are **accurate 95% of the time**, but I can honestly say, the line we trace is always there. Our equipment is user-friendly and requires very little training, as you will see on the video. Purchase the Pulsar 2000 line tracer, XL2 fluid detector and Geophones, and start locating leaks immediately.

**T&T TOOLS**

**T&T Tools, Inc.**

Fax: 800.521.3260

Email: [sales@mightyprobe.com](mailto:sales@mightyprobe.com)

**800.521.6893**  
**www.MightyProbe.com**

Call for a FREE Catalog



Call for a FREE Catalog

## HOOKS...

- > Several different styles of heat-treated hooks are available
- > Top Poppers are great to open manhole covers
- > The Handy Hooks allow two handed use

## PROBES...

- > Insulated, standard, and specialty soil probes
- > Metal shaft sizes: 3/8" round, 3/8" hex, or 7/16" hex
- > Replaceable tips are threaded on and hardened
- > A "slide" allows the handle to pound the shaft into the ground



# Liquid Vacuum Tanks

## Priced for Immediate Sale!



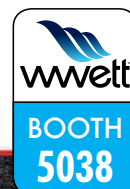
### Five 100 barrel BCA Fabricators Liquid Vacuum Tanks

Ideal for vacuuming and transporting non-DOT code materials.

- Tank capacity of 4000 gallons
- Equipped with Fruitland pump to operate the system
- Units include heavy duty rear bumper, underbody toolbox, tool tray
- Also available with a used Watson Chalin 20,000 lb. lift axle

**Priced to sell at just \$17,500 per tank!**

Contact Jim Bray for details.  
(205) 381-8125 | [jbray@guzzler.com](mailto:jbray@guzzler.com)



# Quality Used Trucks

## Available for Immediate Delivery



**2014 Kenworth T300 with 2014 Predator Vacuum System | Truck ID #14148**

- Paccar PX-9 engine
- Fuller FRO 11210C 10 speed transmission
- 350 horsepower
- 2,488 miles and 60.9 hours
- GVWR: 36,000; front 16,000; rear 20,000
- RFL 100 Wittig pump
- 3,000 gallon tank capacity
- NVE valve upgrade
- 4" vacuum piping



**2007 Mack with 2012 Guzzler CL Truck ID #56434**

- 246,335 miles with 10,698 engine hours
- 425 horsepower
- 60 bag filtration with air cannon
- Single mode filtration
- 14" SS liquid level float ball shutoff
- 5300 CFM 28" vacuum blower
- Blower discharge temperature gauge
- Omsi transfer case



**2009 Int. 7600 with 2010 Vector HXX | Truck ID #72091**

- Cat C-13 engine
- Fuller FRO-15210C transmission
- Mileage: 109,287 Hours: 4,612
- 430 horsepower
- GVWR: 66,000; front 20,000; rear 46,000
- 20 GPM Cat pump
- 8702 Hibon blower
- 12 yard debris box

Interested? Call John Stafford, FS Solutions Used Equipment Sales Manager (815) 341-3512 for pricing or visit [fssolutionsgroup.com](http://fssolutionsgroup.com) for a complete listing of used equipment

# Watch Your Step

Winter means more slips and falls so it's important to slow down and use caution

By Doug Day

**S**low down, get good traction, plan for extra time – it turns out that safe winter walking is a lot like safe winter driving. The onset of cold weather brings with it an increased chance of accidents, and it takes us a while to get used to it.

The scope of the risk may surprise you. In its first report on ice- and snow-related injuries, the Maine Department of Labor reported 1,035 lost-time injury claims due to slips and falls on snow and ice from January 2012 through June 2013. That is 5 percent of all lost-time accidents and 27 percent of slips, trips and falls during the period – and most of those 18 months were non-winter months.

The reports says, “There were six times as many injuries from snow and ice-related slips and falls as there were involving falls from ladders or falls from buildings and other structures and ... four times as many ice/snow injuries as there were from falls off vehicles or trailers.”

Another statistic from the report provides more context: “Since 2011, these accidents have led to more than 25,000 days of lost time each year in the Maine workforce, with medical costs topping more than \$1.5 million each year and total costs to Maine workers, employers and insurance providers exceeding \$2.3 million annually.”

## FORTIFY YOUR SHOES

Most ice- and snow-related mishaps, around 80 percent, happen in parking lots and on sidewalks. Entryways are another danger area. It's an employer's responsibility to keep those areas safe, of course. Workers can help by not wearing shoes that are more likely to slip on ice, such as those with smooth soles and high heels. Workers can also help keep areas safe if given the proper tools, such as mops and salt located near doors.

For those who spend their day outside and encounter slippery conditions all the time, there are many kinds of non-skid shoes and overshoes available. Detachable cleats and chains are another option – perhaps even a necessity for some.

The selection is nearly endless. There are also many styles available in non-metal materials that prevent sparks and don't conduct electricity.

**Most ice- and snow-related mishaps, around 80 percent, happen in parking lots and on sidewalks. Entryways are another danger area. It's an employer's responsibility to keep those areas safe, of course.**

## WALK LIKE A PENGUIN

Humans weren't designed to walk on slippery surfaces, but penguins do it all the time, so we can learn a lot from them. Call it a shuffle or a waddle, the main idea is to keep both feet on the ground as much as possible while keeping your center of gravity over your feet.

Be especially careful while getting in and out of your vehicle. Your body is in an odd position, so use the vehicle for support. While walking on slippery surfaces, spread your feet a bit so you have a wider base and point your feet outward. Bend over a little and walk flat-footed with slow, short steps. Extending your arms a little helps you keep your balance.

Sure, it's cold and you may want to put your hands in your pockets, but that changes your center of gravity. It also makes it impossible for you to use your hands and arms for balance or to break your fall. Keeping your hands free will help you avoid landing awkwardly if you do fall.

There are other common sense tips that we sometimes forget in our haste: use handrails on steps, clean snow and water from your shoes when entering buildings, don't carry heavy items on snow or ice and avoid quick actions.

In short, whether you're walking or driving, slow down and take your time. **C**

## TRYTEK 3" to 6" Lateral Cutter

### NEW! TRYDENT 80 Cutter System

- > For interior or exterior relined pipes
- > Access pipe systems through clean-out ports or rooftop vents
- > Navigate standard 90 degree elbows in 3" pipe
- > Includes 100' of hose reach



[www.trytek.com](http://www.trytek.com)

Contact us for more information:

Phone: 717-428-1477

Fax: 717-428-2865

Email: [trytek@trytek.com](mailto:trytek@trytek.com)

250 N. Main St.  
Jacobus, PA 17407 USA

Serving the  
industry for over  
**25 years**



Join over 9,800 of your colleagues who already get great content delivered right to their inbox with the Cleaner e-newsletter.

[www.cleaner.com/newsletter](http://www.cleaner.com/newsletter)

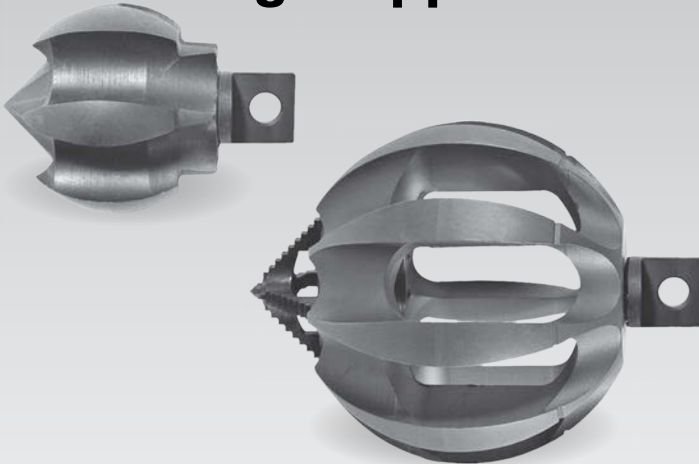
# THE CABLE CENTER • 1-800-257-7209



**24 HOUR TURNAROUND - MIDWEST'S LARGEST FACTORY AUTHORIZED  
REPAIR CENTER FOR GEN-EYE, GATORCAM & SEESNAKE**



## ClogChopper™



- Multi-function cutting tools
- Six self-sharpening blades
- Risk-free pipe damage
- Maneuvers around tight bends
- Safe cleaning on metal, plastic and clay pipes
- Variety of sizes
- Connector options for most drain cleaning machines

**CALL FOR PRICING!**

## NEW Gen-Eye Hot Spot™ Pipe Locator



- Easy to read display – Icons lead you to your target and auto backlight lets you locate in dimly lit areas.
- Total field antenna array – Allows you locate from any direction.
- Line direction compass – Tells you the lay of the pipe.
- Industry's most rugged locator – Rated IP65, the industry's highest, it is dust and dirt proof and water resistant.
- Superior Battery Life – Batteries lasts twice as long as other brands.
- Expanded Frequencies – Locates two sonde frequencies, two power frequencies and four line frequencies.
- Upgradeable Software – Use the USB port to upgrade software in the field.

**CALL FOR PRICING!**



**General J-2900**  
Basic Unit Machine Only

**\$2745**  
FREE DELIVERY



**General J-1450**  
Portable Jetter  
Basic Unit Machine Only

**\$1540**  
FREE DELIVERY



**Mini-Rooter XP™**  
Basic Unit – No cable cutters  
or power feed

**\$580**  
FREE DELIVERY



**General Speedroooter 92™**  
Basic Unit – No cable cutters  
or power feed

**\$1160**  
FREE DELIVERY

# VARCO

LIQUID WASTE HOSE & ACCESSORIES

PROUDLY MADE IN THE USA

**VARCO Branded and MADE IN THE USA; We get it for cheaper, so we can sell it for cheaper.**

- Lateral line hose has become the standard for the septic industry.
- Polyether-urethane cover provides exceptional cut, abrasion and fungus resistance.
- Sizes from 1/8" up to 1", Working pressures up to 4800psi.



**Comes on Plastic Reel- For No Extra Charge! No Cardboard to Get Wet!**  
Smaller sizes and lengths do not come on reel - check with your customer service rep for details.

## NEW VARCO SEWERFLEX SEWER HOSE

DESCRIPTION	3/4"	1"
Varco Sewerflex Orange 2500psi	\$2.48 ft	\$3.10 ft
Varco Sewerflex Blue 3000psi	\$2.45 ft	\$2.89 ft



3/4" AND UP FOR VAC TRUCKS



1/8" AND UP FOR JETTERS

## NEW VARCO JETTERFLEX LATERAL LINE / JETTER HOSE

4000 psi rated • Safety Green - Pressure Tested • Precoupled assemblies MXM pipe thread fittings

	50 ft	75 ft	100 ft	150 ft	200 ft	250 ft	300 ft	400 ft	500 ft	600 ft
1/8"	\$15.28	\$21.25	\$26.38	\$37.49	\$48.60	\$56.74	\$66.88	\$87.15	\$107.45	-
3/16"	\$26.12	\$33.17	\$41.35	\$55.25	\$69.95	\$84.68	\$99.38	\$128.82	\$158.25	\$187.69
1/4"	\$29.85	-	\$55.85	\$81.82	\$107.77	\$126.38	\$150.52	\$198.77	\$247.02	\$295.28
3/8"	\$62.08	\$91.28	\$105.54	\$151.12	\$215.06	\$259.57	\$304.05	\$382.09	\$469.43	\$556.77
1/2"	-	-	\$186.69	-	\$353.97	-	\$505.85	\$660.02	\$815.97	\$972.66

## NEW VARCO JETTERFLEX



## NEW VARCO SEWERFLEX

### JETTER NOZZLE KITS

Free tip cleaner included with each nozzle kit. Individual nozzles available for each type and size.

**FROM \$13100**

YOU WILL NEED TO KNOW YOUR GPM AND PSI TO ORDER THESE NOZZLES- THEY ARE CUSTOM DRILLED

**ORDER TOLL FREE 866-872-1224**

**SHOP 24 HOURS A DAY 7 DAYS A WEEK**

**ONLINE AT WWW.VARCOPUMPER.COM**



**SOURCE KEY 01C15**

**UNCONDITIONAL 5 YEAR WARRANTY ON ORIFICE WEAR**

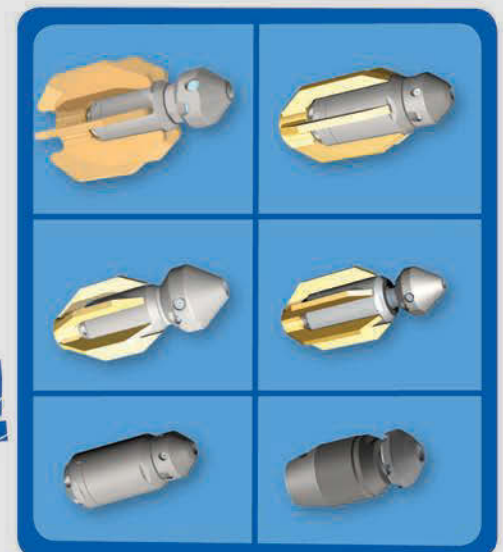
# Unleash the Bulldog!

Working pressure up to 3,000psi

The Bulldog® Recycling Rotating Nozzles are on the prowl to provide the most efficient and economic pipe cleaning. With an all-purpose nozzle and broad application base, the Bulldog® is basically four tools in one—great for clearing roots, debris and blockages!

**Enjoy the following Bulldog® advantages.**

- Operates with both fresh and recycled water
- Oil-free braking system results in low wear and tear operation
- Easy to handle
- Extremely low maintenance
- Transport and water costs are noticeably reduced



Application range: 2.5 - 24

**enz® usa inc.**

1585 Beverly Ct., Unit 115 | Aurora, IL 60502

**CALL 877-ENZUSA1 FOR**  
(369-8721)  
**A DEALER NEAR YOU**  
[www.enzusainc.com](http://www.enzusainc.com)



# predator or prey



**WOLVERINE**  
CUTTING SYSTEM

Are your budgets getting eaten up due to long set-up times? Have you been a victim of low productivity due to poor cutter performance? Now you can attack the challenge of lateral reinstatement cutting with the Wolverine Cutting System.

Hunt down and reinstate your laterals rapidly and accurately with this self-propelled cutter. The Wolverine provides a feature-rich, powerful alternative to your current cutting equipment.

**Are you predator or prey when it comes to pipeline rehabilitation?  
Call Aries today and start tracking your success.**



[www.ariesindustries.com](http://www.ariesindustries.com) | (800) 234-7205

**ARIES**  
INDUSTRIES, INC.

See what you're missing.

# Chemical and Mechanical Root Control

By Craig Mandli

Chemicals can be an effective remedy for root infiltration, but mechanical methods such as cabling and jetting are often needed for more severe blockages. Manufacturers offer a wide variety of tools for cutting out and clearing root problems. Here are some offerings.

## ROOT CUTTERS

### FRONT AND REAR-BLADE CUTTER

The **Spider Cutter** from **General Pipe Cleaners** has front and rear blades, so cutting starts as the cable feeds into the line and continues as it retracts. The Double U-Cutter and the Double Heavy Duty Side Cutter each come in 3- and 4-inch sizes. Double U-Cutters can also be adapted to sectional machines, or to other brands of cable-type drain cleaners. **800/245-6200; www.drainbrain.com.**



General Pipe Cleaners

### CHAIN ROOT CUTTERS

Turbo chain cutters from **USB - Sewer Equipment Corporation** are made of tempered stainless steel and offer continuously adjustable guide skids. The chain retainer is driven by a high-performance turbine to remove roots, grease and mineral deposits from 4- to 48-inch sewer lines. With an optimized 3-D hydromechanics design in conjunction with ceramic nozzle inserts, the cutters use recycled or clean water. They can be used as barrel cutters with diamond bits for smooth removal of protruding laterals. Heavy mineral deposits can also be removed with carbide bits attached to the specialized chain. **866/408-2814; www.usbsec.com.**



USB

## ROOT CHEMICALS

### ROOT HERBICIDE

**Razorooter II** root-control herbicide from **Duke's Root Control** contains the active ingredient diquat dibromide, and is registered with the U.S. Environmental Protection Agency for controlling nuisance tree roots in sanitary sewer line collection systems. Crews insert a hose



Duke's Root Control

from manhole to manhole, preparing to fill the affected sewer pipe with foam. Once released, the foam compresses against pipe surfaces, penetrating cracks, joints and connecting sewers. Roots are killed on contact, decay naturally and slough away. Applications prevent root-related stoppages for two to three years. **800/447-6687; www.dukes.com.**

### FOAMING ROOT CONTROL SOLUTION

Foaming **Root Control** from **Lenzyme/Trap-Cleer** has double the dichlobenil active ingredient of previous solutions, and a latex base that helps it stick to roots longer. It is easy to apply, and provides a slower foaming action to coat the entire pipeline and eliminate fast foam-over messes. **800/223-3083; www.lenzyme.com.**



Lenzyme/Trap-Cleer

### FOAMING ROOT CONTROL

**Oblitroot**, a foaming sewer line root control product from **Olvidium**, is formulated to use the maximum amount of active ingredient dichlobenil allowed by the U.S. Environmental Protection Agency. It comes in two pouches which, when combined, create a sticky foam with a latex base that can be applied through the clean-out or in the toilet bowl. The latex makes it stick to pipes and roots, which causes the dichlobenil vapor to remain in the line to kill roots longer. **855/782-4531; www.olvidium.com.**



Olvidium

### DRY POWDERED ROOT CONTROL FORMULA

**RootX** dry powdered formula can be applied with existing sewer cleaning equipment or directly from the package. Just add water to the formula to create a root-killing foam that will kill the roots it comes in contact with and leave a residual to stunt new growth for a long period of time. The simplicity of the application means city sewer crews can do root control on demand and professional drain cleaners have a powerful tool to add to their business. It is registered with the EPA for both sanitary and storm use (EPA Reg. No. 68464). **800/844-4974; www.rootx.com.**



RootX

### ROOT-KILLING FORMULA

The **Vaporooter** scientific formula destroys roots on contact and inhibits regrowth for years. It uses a combination of two herbicides that penetrate root cells, destroying roots on contact and binding to pipe walls, joints and cracks to inhibit new growth for years. Computerized application equipment allows operators to jet up the line, push a button and fill the pipe with foam while retrieving the hose. The application system fits any jet truck and is available as an option from many truck manufacturers. **800/841-1444; www.vaporooter.com.**



Vaporooter

CONTINUED >>



# AMAZING MACHINERY

Your Equipment SUPERSTORE Since 1995

## Viztrac® AM100-100



**ONLY**  
**\$1495.00**

- 20' Reel w/ 100' of 3/8" Cable
- 7" Color LCD Display
- Heavy Duty Powder Coated Frame

~~\$1895.00~~  
FREE Freight

## J/E4040HA-CKIT2



**ONLY**  
**\$1495.00**



- 4000 psi @ 4.0 gpm w/Pump
- GX390 Honda OHV Engine
- 150' x 1/4" Hose w/Remote Hose Reel
- 3 Nozzles/Ball Valve/Aqua Pulse

~~\$1895.00~~  
FREE Freight

**BUY BOTH**  
**\$2895.00**

**6 Months, No Interest!**



Get 6 Months to Pay on Purchases of \$99 or More.  
Choose Bill Me Later® at Checkout. Subject to Credit Approval.



Complete Details At  
[www.AmazingMachinery.com](http://www.AmazingMachinery.com)

**1-800-504-7435**  
3807 Old Tasso Rd. • Cleveland, TN 37312

## NOZZLES

### TOWABLE JETTER NOZZLE

The **Cnt-r-KUT “TOW HOOK”** towable jetter nozzle from **Arthur Products** allows for pressurized water to be applied by the integration of a towing nozzle that can be pulled through the line. The technician can also pull a line from point “A” to point “B” if required. It is flexible enough to conform to damaged or deformed lines and can easily be trimmed in the field to fit virtually any line from 2 to 8 inches in diameter by attaching a 3/8- or 1/2-inch NPT hose to one end. It is available in standard and mini sizes. **800/322-0510; www.arthurproducts.com.**



Arthur Products

### CUTTING NOZZLES

**Root Rat** cutting nozzles from **Chempure Products** are used with jetters from 11 hp to large truck-mounted models. The cutters are made of hardened stainless steel and come with a toolbox with two interchangeable rotors – one with cables and the other with chains. The combination kit includes extra chain, cable and bearings. They need no repair or rebuilding other than bearing replacement, which can be completed in less than two minutes for under \$10 in parts. **800/288-7873; www.chempure.com.**



Chempure Products

### VIDEO INSPECTION NOZZLE

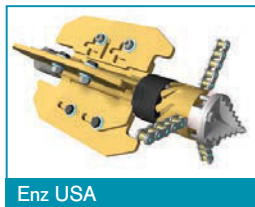
Deployed in pipes 6 to 10 inches in diameter, the **JetScan Mini** video nozzle from **Envirosight** gives sewer cleaning crews visual feedback to select tools, troubleshoot backups, identify buried safety hazards and document successful cleaning. This simple, rugged device captures valuable HD video footage from underground pipes for offline tablet viewing. It records up to eight hours of 720p HD MPEG video to an onboard 32 GB SDHC memory card. The card is easily removed to view video on an iPad or other SDHC-compatible device. **866/936-8476; www.envirosight.com.**



Envirosight

### TURBINE CUTTING NOZZLE

With operating flows as low as 13 gpm at 2,000 psi, the **Golden Jet 10.125TR** turbine nozzle from **Enz USA** is a powerful cleaning tool with a turbine design allowing for lower flow and less water usage, while maintaining high torque for effective pipe cleaning in lines ranging from 5 to 12 inches. Because of its sealed bearings, it can be operated with both clean and recycled water while being relatively maintenance free. This compact, efficient nozzle is a powerful root remover and is effective on grease, solids, mineral deposits, concrete and grout. The kit includes a selection of pre-cut chains, skids and two head styles. **877/369-8721; www.enzusainc.com.**



Enz USA

### SELF-ROTATING TUBE CLEANING NOZZLE

**Typhoon 10** self-rotating nozzles from **NLB Corp.** can clean pipes and tubes as small as 1/2 inch in diameter. The RPN1506 operates at pressures up to 15,000 psi and the RPN2006 at up to 20,000 psi. Both rotate at 7,000 rpm with a maximum flow of 6 gpm. They are precision-machined and coated with titanium nitride for long life. They come with cutting/cleaning or polishing heads, or with a universal head that serves both purposes. **248/624-5555; www.nlbcorp.com.**



NLB Corp.

### LOW-TORQUE CUTTING NOZZLE

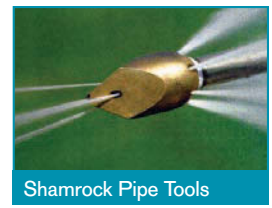
The **Lumberjack** low-torque, high-speed cutter from **NozzTeq** cuts roots, but can also be used to cut grease, tuberculation, protruding laterals and other buildups. Because it's low-torque, it's unlikely to cut through host pipes. The bearings are sealed, grease-lubricated, water-cooled and largely maintenance-free. It rotates at a minimum speed of 10,000 rpm, with flow rates from 10 to 250 gpm at varying pressures. It operates in pipes from 3 to 48 inches. All models clean with chain links, with optional cutting blades for severe blockages, and come with a propelling jet housing. Tow rings are optional. **866/620-5915; www.nozzteq.com.**



NozzTeq

### FRONT PENETRATING NOZZLE

The **TriStar Chisel** from **Shamrock Pipe Tools** utilizes a front penetrating nozzle for boring through blockages and/or blocked lines. The unit avoids hang-ups and is easily retracted from sewer lines. It is constructed out of heat-treated alloy steel for durability, with yellow zinc plating for corrosion resistance and replaceable carbide inserts for long service life. **800/633-7696; www.shamrocktools.com.**



Shamrock Pipe Tools

### ROTARY SEWER NOZZLE

The **Warthog WGR Magnum** high-performance rotary sewer nozzle from **StoneAge** has speed control and seal technology for improved tool life, reduced maintenance and better operation in harsh environments. It effectively handles recycled water, retaining jet quality under poor water conditions, and its streamlined design allows for better forward and reverse movement through pipe. Hardened steel centralizer fins can be replaced individually as wear occurs, further protecting the tool for longer operation in the field. **866/795-1586; www.sewernozzles.com.**



StoneAge

CONTINUED >>

WWW.CLEANER.COM

# SOUTHLAND TOOL MFG. INC.

*Building Innovative Tools for Municipalities*



## SOLUTIONS TO SEWER CLEANING

Manhole tools

Debris baskets

Vac-Traps

Root Saws

Calcium Cutters

Sewer Rods

Handy Clams

Nozzle Extensions

Deep Vac Tube Holder

Grabbers

Claws and Hooks

Diamond Tap Cutters

Fiberglass Poles

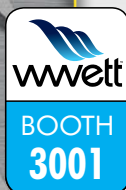
Hydraulic Cutters

Top Manhole Rollers

Sewer Spoons

Continuous Rod

Carbide Saws



An ISO  
9001-2008  
Certified  
Company



## CABLE MACHINES

### SECTIONAL DRAIN AND SEWER CLEANING MACHINE

The **Model C** dual-cable sectional drain and sewer cleaner from **Electric Eel** runs up to 200 feet of 1 1/4-inch self-feeding dual cable in 8- or 10-foot sections that require no handling when rotating. It spins cable at a high rpm for maximum cleaning power in 3- to 10-inch lines. It offers one-man operation, and has a heavy-duty 1/2 hp motor, with optional 3/4 and 1 hp motors available. A custom-designed and manufactured gearbox ensures high-quality, low-cost parts availability. The heavy-duty, fully adjustable safety clutch keeps cable and tool breakage to a minimum and provides overload protection. A fold-down handle allows for easy transportation, storage and use in crawl spaces. A carry handle provides balance and easy transport. **800/833-1212; www.electriceel.com.**



Electric Eel

### HEAVY-DUTY ELECTRIC DRAIN CLEANING MACHINE

The **Model GO 68HD** heavy-duty electric drain cleaning machine from **Gorlitz Sewer & Drain** is available in two different versions, either with an open steel reel or enclosed polyethylene drum, and can be outfitted with an optional power feeder. The standard configuration includes 150 feet of 11/16-inch hollow-core cable that should reach most blockages with a single reel. The machine weighs 185 pounds, and adding a loading ramp and electric winch to any vehicle makes transportation quick and simple. It is designed to clean pipes from 3 to 8 inches in diameter. **562/944-3060; www.gorlitz.com.**



Gorlitz Sewer & Drain

### BLOCKAGE-CLEANING CABLE MACHINE

The **400** cable machine from **Ken-Way Corporation** is designed for cleaning 3- to 10-inch lines of blockages ranging from roots to grease. It is equipped with an air switch-activated 1/2 hp motor and a three-speed pulley that allows speed adjustment depending upon length of cable and the obstruction being encountered. Two 8-inch wheels, along with a set of stair climbers, aid in handling and maneuverability. It is available with an optional power feed or as a manual feed unit. Cables of 5/8-, 11/16- and 3/4-inch-diameter are available in either hollow core or inner core in various lengths. A set of six heavy-duty root cutting blades, along with a retriever tool and flexible cable leader come standard. **800/533-0551; www.ken-way.com.**



Ken-Way Corp.

### BELT-DRIVEN CABLE MACHINE

The belt-driven **Model 1065** cable machine from **Spartan Tool** can be used to clear significant root intrusion in drainlines from 3 to 10 inches. Its smart motor automatically senses the need for additional power and gears down to cut through stubborn roots. A Dial-A-Cable power feeder allows the operator to quickly feed cable down the line, saving time and effort. The enclosed drum keeps contaminants contained and eliminates post-job cleanup. With additional drums and cable, operators can clean lines at distances to 250 feet. Permanent magnet motors provide power with a small amount of noise. **800/435-3866; www.spartantool.com.**



Spartan Tool

## JETTERS/JETTING PUMPS

### JETTER/PRESSURE WASHER COMBO UNIT

The **Performance** line of trailer-mounted jetter/pressure washer combo units from **Amazing Machinery** is designed for easy trailering and the large water supply tank allows technicians to jet anywhere. A rear-mounted 12-volt electric jetter hose reel and SS rear stack-mounted manual pressure washer and garden hose reels provide ample hose space. They come standard with 300 feet of jetter hose, two nozzles and a complete set of washdown accessories. The triplex ceramic plunger pump provides pressures up to 4,000 psi and flow rates up to 15 gpm. **800/504-7435; www.amazingmachinery.com.**



Amazing Machinery

### SKID-MOUNTED JETTER

**RCJ Series** skid-mount jetters from **Cam Spray** are offered in flows and pressures of 8 gpm at 3,500 psi and 7 gpm at 4,000 psi. A three-plunger industrial pump with pulse is powered by a 688 cc Honda engine. It comes with 200 feet of jetter hose that can also be used to supply an optional portable reel cart available with 200 or 300 feet of hose. It is equipped with a 35-gallon buffer water tank with float control, powder-coated heavy tube frame, washdown gun and four-nozzle set. It mounts in the side door of a cargo van, on a truck bed or inside a service truck. Add a root cutting nozzle for residential root cutting. **800/648-5011; www.camspray.com.**



Cam Spray

### WATER JET CLEANING GUN KIT

The **79WGD** water jet cleaning gun kit from **Guardair Corporation** delivers a turbulent, high-velocity air/water stream for tough cleaning jobs. It has a precision air-volume control and water shut-off valve. Users can choose air/water for cleaning, water-only for rinse or air-only for drying. The coupler allows for multiple syphon options. An 18-inch stainless steel extension adds ease for spraying hard-to-reach locations. The ergonomic Classic+ pistol-grip-style handle provides user comfort. It has a durable cast aluminum body, hanging hook, aluminum safety nozzle tip, 6-foot feed tube with brass sinker and a 3/4-inch garden hose adapter. It meets OSHA standards. **800/482-7324; www.guardaircorp.com.**



Guardair Corporation

### TRUCK-MOUNTED HYDROJETTER

The **O'Brien 7000-T** hydrojetter from **Hi-Vac Corporation** includes all of the features of the O'Brien 7000 Series trailer jetter but is designed for truck-mounted applications. It has flow ranges of 18 to 65 gpm and pressure capabilities of 2,000 to 4,000 psi. **800/638-1901; www.obrienmfg.com.**



Hi-Vac Corporation

### HOT- OR COLD-WATER JETTER

The **Hot Jet II "Hybrid"** drainline jetter from **Hot Jet USA** has the capability to clean drains with hot or cold water. It runs two different hose reels, one for sewer cleaning and one for sanitary applications and power washing. The sanitary application hose is ideal for indoor use to attach a foot control reel for cleaning smaller drains or food plants where a sanitary hose is mandatory. It has a solid-state remote control, Vanguard engine (made by Toyota), General



Hot Jet USA

CONTINUED >>

# SCOOTER

VIDEO  
INSPECTION SYSTEMS  
20843 Santa Lucia • Tehachapi, CA 93561 • Fax: 661.822.8917

**"Simplify your life!"**

SCOOTERS ARE EASY TO USE, TOUGH AND DEPENDABLE.  
DON'T LEAVE THE SHOP WITHOUT ONE.

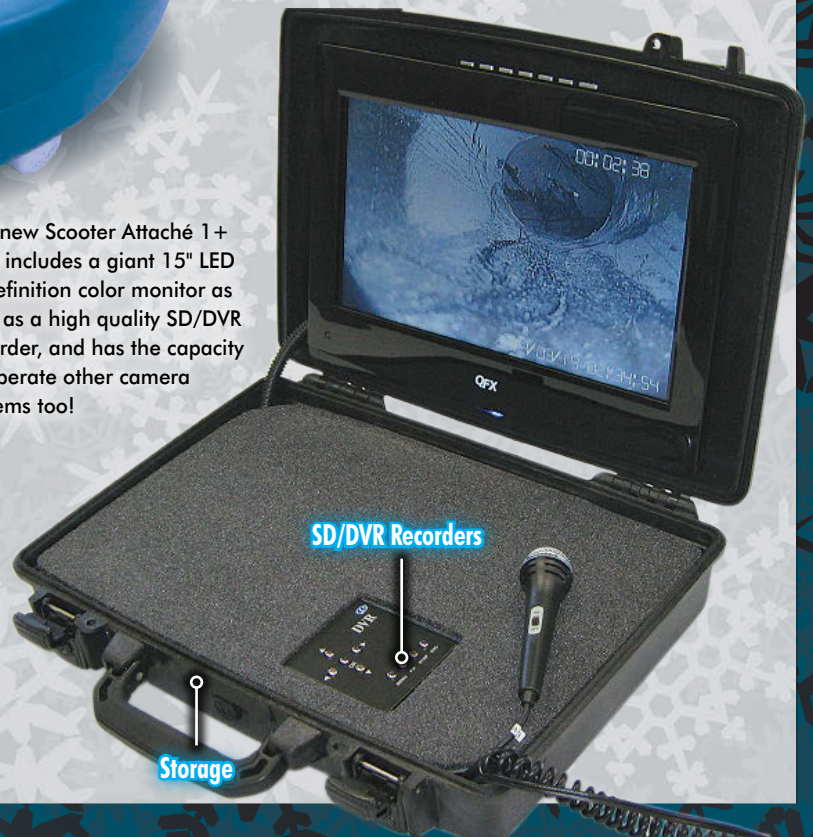
Merry Christmas &  
Happy New Year



Tired Of Squinting  
At A Tiny Monitor?

Get An Attaché  
With A **15" LED**  
Hi-Def  
Monitor

The new Scooter Attaché 1+ now includes a giant 15" LED hi definition color monitor as well as a high quality SD/DVR recorder, and has the capacity to operate other camera systems too!



**SPECIAL  
PACKAGE**

Scooter 200

Color, Attaché SD/DVR, Locator Transmitter, Voice Over

**Complete Package**

**\$4,995**

800.772.6165  
www.tvinspection.com



Emperor pump, and super-duty powder-coated, diamond-plate steel deck trailer. Packages can include nozzles (including the Warthog), jumper reel and toolboxes. **800/624-8186; [www.hotjetusa.com](http://www.hotjetusa.com).**

### PORTABLE CART JETTER

The **MV80 Jet Pro Cart** from **MyTana Mfg. Company** delivers 8 gpm at 3,000 psi, and is powered by a 24 hp Honda engine. It has a compact steel cart and easy-to-use controls for the pressure unloader and pulseable valves. The 12-gallon water tank is set up for continuous resupply from a garden hose. The unit comes with 250 feet of 3/8-inch thermoplastic jetter hose and a set of nozzles for penetrating, cornering and blind thrust. The hose cart has two reels, one for the 3/8-inch hose and one for a 50-foot jumper hose useful for remote jetting. **800/328-8170; [www.mytana.com](http://www.mytana.com).**



MyTana Mfg. Company

### PORTABLE WATER JETTER

The **Model KJ-3100** portable water jetter from **RIDGID** offers 3,000 psi actual working pressure to handle large commercial and industrial applications. It propels a highly flexible and lightweight hose through 2- to 10-inch lines, providing increased flexibility without reducing any of the strength. The hose blasts through sludge, soap, grease and sediment blockages, power scrubbing the line to flush debris away and restore drainlines to full, free-flowing capacity without the use of harmful chemicals. Its removable hose reel makes it unnecessary to purchase portable reels. The reel can be completely removed to ease loading, and the two-wheeled cart, which was designed to fit through standard doorways, easily negotiates tight turns. The pulse action can be activated to effortlessly navigate difficult bends and traps. **800/769-7743; [www.ridgid.com](http://www.ridgid.com).**



RIDGID

### DURABLE TRAILER JETTER

The **Mongoose Model 184 Jetter** from **Sewer Equipment** has a durable tubular steel frame and corrosion-resistant pre-painted subassemblies. It comes with state-of-the-art controls, a strong hose reel, high-quality diesel engine and a run-dry pump. **800/323-1604; [www.mongoosejettters.com](http://www.mongoosejettters.com).**



Sewer Equipment

### COMPACT JETTER

The **SJPE-1500** portable, compact jetter from **Shark Pressure Washers & Jetters** has a detachable hose reel and a retractable handle that accommodates easy loading and unloading into vehicles, and allows for transport around work sites. Its Pulse Technology propels hose through the line and around tight curves to break through clogs. Rated at 1.7 gpm at 1,500 psi, it operates on 115-volt electricity and comes standard with a 35-foot power cord with GFCI. Designed for use in pipes less than 4 inches, it has a roll cage steel chassis, triplex pump and heavy-duty Baldor motor, and fits into tight work spaces with easy one-person operation. It is ETL safety certified. **800/771-1881; [www.sharkpw.com](http://www.sharkpw.com).**



Shark Pressure Washers

### TRUCK-MOUNTED HIGH-PRESSURE JETTING SYSTEM

The **Camel Jet 1600** truck-mounted, high-pressure waterjetting system from **Super Products** offers a convenient method for dealing with root control issues. This unit is also ideal for keeping municipal sewers, sanitary and storm

sewer lines, laterals, and drainage lines clean and free flowing. It utilizes three modular tanks to carry up to 1,600 gallons of water. The tanks are rotationally molded polyethylene with ultraviolet stabilizers. Its Lexan Containment System means that users have additional safety protection from hose rupture or high-pressure water. It utilizes a heavy-duty, triplex continuous-flow water pump to provide up to 80 gpm and pressure up to 2,000 psi. In addition to its efficient single-engine design, the unit offers water pump and drive system options, as well as a front- or rear-mounted 180-degree rotating hose reel with a 1,000-foot capacity. **800/837-9711; [www.superproductsllc.com](http://www.superproductsllc.com).**



Super Products

### TRUCK-MOUNTED JETTER

The truck-mounted **Vector Ramjet** from **Vector Manufacturing** comes equipped with a Jet Rodder water pump. Armed with up to 2,500 gallons of water in a stainless steel tank, it delivers flows of 60 to 100 gpm at 2,000 or 2,500 psi. The water pump is a single-piston, hydraulically driven, dual-acting pump that delivers a jackhammer-action water flow, breaking through line blockages and scouring caked-on debris from pipe walls. A single operator can quickly drive to each job site to solve line problems and tackle regular line maintenance. It can be configured with either a front- or rear-mounted hose reel. The auto-wind hose guide allows hands-free operation from the control panel for a clean, tight wrap. **800/627-3171; [www.vector.com](http://www.vector.com).**



Vector Manufacturing

### WATER BLASTER

The **17H85 Water Blaster** from **Water Cannon** has a Honda GX 690 engine with electric start, 15-gallon long-run fuel tank, roll cage, poly chain drive, a TSP Series General triplex plunger pump that offers 4 gpm at 7,000 psi, a portable wheel and push handle, 50-foot hose, a trigger gun, wand, QC nozzles and safety couplers. It meets or exceeds all 2014 EPA and State of California regulations relating to fuel tanks, vents and carbon canisters, and can be sold in all 50 states. It has low-permeation fuel tanks and fuel lines, and fuel caps vent to engine air cleaners rather than externally to the atmosphere, as required by law. **800/333-9274; [www.watercannon.com](http://www.watercannon.com).**



Water Cannon

### SEWER JETTING PUMP

**ARP Series** sewer jetting pumps from **WOMA Corporation** cover a range of up to 1,000 hp, delivering volumes up to 432 gpm and pressure ranges up to 5,800 psi. They have a compact design and incorporate an internal gear-reduction system with three different gear ratios to maximize speed and power input for optimal pressure and flow output. They are well-suited to dirty water, have suction and discharge connections on either side, are available with either left- or right-side drive shaft, drive shaft placed on top or bottom, and pressurized gear-end lubrication systems via external crankshaft-driven oil pump. Plungers are high-grade ceramic and valves are large bore, with low-velocity, highly wear-resistant valve seats. Packing seals are long life and the pump design incorporates an internal plunger and gear-end cooling system. **800/258-5530; [www.womacorp.com](http://www.womacorp.com).** c



WOMA Corporation

# WATERJET PROTECTION

PROTECTIVE CLOTHING - WITH THE STRONGEST FIBER IN THE WORLD!



+ PROTECTION UP TO 43500 PSI

+ CE CERTIFIED  
VERIFIED PROTECTION

+ FAST AND EASY GEAR UP  
TO MAXIMIZE PRODUCTIVITY!

+ RESISTS WATER AND DIRT  
KEEPS OPERATORS  
DRY AND LIGHT!

**PROTECTION LEVEL 10/28**  
SINGLE 1000 bar/15000 psi  
ROTOR 2800 bar/40000 psi  
CE 89/686/EEC

**PROTECTION LEVEL 20/30**  
SINGLE 2000 bar/30000 psi  
ROTOR 3000 bar/43500 psi  
CE 89/686/EEC



UNIQUE PROTECTION EQUIPMENT

For US distributors and e-catalogues, please visit:

**WWW.TST-SWEDEN.COM**

## FORBEST

## FORBEST INSPECTION CAMERA SYSTEMS

vwelt

BOOTH  
6231

Happy  
New Year!

### WHY BUY FORBEST

- Our products are the most easy devices to use and record with both USB and SD cards;
- Our products are reliable and the most affordable;
- We offer the lowest service cost and the shortest turn-around.

#### Chimney Camera

FB-CC-7/10

Specs:

- 100FT Cable & Reel
- Pan-Tilt 360°/180° Waterproof Color Camera Head w/Manual Zooming
- Control Panel for UP-DOWN-LEFT-RIGHT and Manual Zooming
- 7"/10" LCD Monitor w/DVR & MIC
- Recording with USB Flash Drive & SD Card
- Heavy Duty Waterproof Case • Crawler for easier push



#### Layflat Pipe Inspection Camera

FB-PIC3588A/3588BT

Specs:

- 7" LCD Control Station with Built-in USB Flash and SD Card Recorders and Li-Ion Battery
- 3/8" 150FT/200FT Cable & Reel w/Electronic Meter Counter
- Crawler for easier push
- 7/8" Stainless Steel Color Camera Head w/Built-in 512HZ Sonde Transmitter for 3588A (1.5" Self leveling Head w/ Built-in 512HZ Sonde Transmitter for 3588BT)



#### Pan-Tilt 360°/180° Camera System

FB-PIC3688B

NEW

Specs:

- 400FT Cable & Reel w/Meter Counter
- Pan-Tilt 360°/180° Color Waterproof Camera Head w/Manual Zooming
- 7"/10" LCD Monitor w/DVR & MIC.
- Recording with USB Flash Drive & SD Card
- Crawler for easier push **Starting at \$5,190**



#### Portable Color Sewer/Drain Camera

FB-PIC3188A/3188DN

Specs:

- 65FT/100FT/130FT Cable & Reel
- Color Camera Head
- 7" LCD Monitor w or w/o DVR & MIC
- Heavy Duty Waterproof Case
- Option 1: upgrade to Color Camera Head w/Built-in 512HZ Sonde Transmitter
- Option 2: upgrade to 130FT Cable & Reel w/Meter Counter (New)



#### Mid-Range Pipe Inspection Camera

FB-PIC3388UT/3388MT

- 200FT Cable & Reel w or w/o Meter Counter
- Self Leveling Camera Head w/Built-in 512HZ Sonde Transmitter
- 10" LCD Monitor w/DVR & MIC
- Recording with USB Flash Drive or SD Card
- Heavy Duty Waterproof Case
- Crawler for easier push



#### 512HZ Locator

FB-T2011-Locator

NEW

Specs:

- Frequency: 512HZ
- Operation Mode: NORM/NOISE
- Power Supply: 6\*AA
- Current: < 100mA
- Sensitivity: NEAR/FAR
- Continuous adjustable
- Output Intensity: LCD 15 levels



#### Luxury Portable Sewer/Drain Camera

FB-PIC4188M/4188H

Specs:

- 130FT Cable & Reel w or w/o Meter Counter
- Color Camera Head w/Built-in 512HZ Sonde Transmitter
- 10" LCD Monitor w/DVR & MIC
- Recording with USB Flash Drive & SD Card
- Heavy Duty Waterproof Case



#### Long Range Pipe Inspection Camera

FB-PIC3288T/3488T

Specs:

- 300FT/400FT Cable & Reel w/Meter Counter
- Self Leveling Camera Head w/ Built-in 512HZ Sonde Transmitter
- 10" LCD Monitor w/DVR & MIC
- Recording with USB Flash Drive or SD Card
- Heavy Duty Waterproof Case
- Crawler for easier push



## FORBEST

US: 44110 Old Warm Springs Blvd. Fremont, CA 94538 Tel: 650 757 4786 Toll Free: 1 877 369 1199

www.forbestusa.net

Canada: 800 Denison St. Unit 10, Markham ON L3R 5M9 Tel: 905 604 6226 Toll Free: 1 877 369 1199

Email: forbestusa@gmail.com



**GasAlert Monitors** Most popular four gas monitors



**Blowers**

- > Available in 8" with 25' of duct at 831 cfm
- > Available in 12" with 25' of duct at 1842 cfm
- > Available in 16" with 25' of duct at 3200 cfm

Call For A  
**FREE**  
Catalog  
Today!

**MRP** 1.800.325.3730  
MILWAUKEE RUBBER PRODUCTS [www.MilwaukeeRubber.com](http://www.MilwaukeeRubber.com)

— CASE STUDY —

# Chemical and Mechanical Root Control

By Craig Mandli

## NOZZLE REMOVES ROOTS WITHOUT A CHAIN FLAIL

### PROBLEM

While doing routine line cleaning in Ville St. Laurent, Quebec, a contractor encountered a 10-inch clay pipe that was heavily root bound for most of the 410-foot length. As the municipality does not allow chain flails in its system, the contractor needed to find a solution that would effectively remove all the roots quickly without damaging the pipe.



### SOLUTION

The large **Axis** controlled-rotation nozzle from **KEG Technologies** was used to match the contractor's 75 gpm, 3,000 psi flush truck and inserted in the line. The nozzle was brought to pressure and sent down the line at a steady rate. Once it had reached the upstream manhole, a camera was inserted and followed the nozzle on the return trip.

### RESULT

The nozzle was effective in removing the roots, and with the camera following, it was determined the pipe was 95 percent clear of roots after the first pass, with no damage visible on the pipe or services. Both the municipality and the contractor were pleased with the results and have adopted the nozzle as their tool of choice for this type of work. 866/595-0515; [www.kegtechnologies.net](http://www.kegtechnologies.net). c



GET  
**EMAIL NEWS**  
**ALERTS** FOR  
**Cleaner**

Go to [cleaner.com/alerts](http://cleaner.com/alerts) and get started today!



# Taking you places you've never been before.



Record wirelessly  
to Cell Phone or iPad

Wi-Fi

Ratech now adds a wi-fi interface to its arsenal of innovation.

Safe, secure, and delivering on the promise of quality and durability industry professionals demand, Ratech now introduces a wi-fi interface to the growing list of ways you can view and record CCTV video pipeline inspections. Just one more example of how for over 33 years, Ratech Electronics has been at the forefront in the development, manufacturing and servicing of CCTV systems and equipment.



Staying ahead of your customer's needs.

**NEW**



Mini Crawler  
with Pan n' Tilt

Interchangeable  
Heads



Inspector PC-Xi®  
(Also works with tablets)



Optional  
Steerable  
Gooseneck

Pan n' Tilt  
Push Camera

(Includes Reel and Remote Control)



Elite SD®



We also carry

Ultra Micro®  
Cameras



For more information on these or other products call  
toll free: 1-800-461-9200 or 905-660-7072 or visit [ratech-electronics.com](http://ratech-electronics.com)



Video Pipeline Inspection Systems

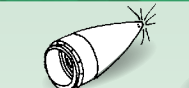
Upload your inspection videos to **YouTube** Ask us HOW?

Follow us on Twitter @RatechCam



## Pipeline Cleaning & Maintenance Equipment *for*

### JETTERS & JET VACS



#### Penetrators

- 1/4"-15".....\$24.00
- 3/8"-15".....\$33.00
- 1/2"-25".....\$46.00
- 1/2"-25"LT.....\$49.00
- 3/4"-12".....\$59.00
- 3/4"-12"LT.....\$69.00
- 1"-12".....\$72.00
- 1"-12"LT.....\$84.00



#### Aluminum Grease



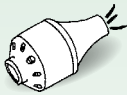
#### Truder

- 3/4" or 1"-17".....\$350.00



#### Shark

- 1".....\$495.00
- 1" Big Shark.....\$610.00



#### Stainless Steel Nozzles

- 1/8".....\$37.00
- 1/4".....\$41.00
- 3/8".....\$45.00
- 1/2".....\$57.00
- 3/4".....\$91.00
- 1".....\$116.00



#### Aluminum Sand

- 3/4"-24".....\$141.00
- 1"-17"/24".....\$156.00
- 1"-24".....\$141.00



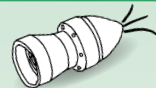
#### Swivel Joints

- T-M® Style
- 90° or Straight, 6000 psi
- 3/4" & 1".....\$198.00
- 1-1/4".....\$210.00
- 1-1/2".....\$560.00
- 2".....\$807.00



#### Ball Valves

- Dyna Quip® Style
- 3000 psi
- 1".....\$227.00



#### Radial Bullet

- 3/4"-18" or 35".....\$50.00
- 3/4"-18"/24".....\$53.00
- 1"-18" or 30".....\$69.00
- 1"-15" or 30".....\$69.00
- 1-1/4"-18 or 35".....\$85.00



#### Steel Sand

- 1"-12".....\$73.00

#### NEW Storm/Culvert Floor Cleaner Nozzles

#### Parker & Piranha Jetter Hose

- 1/8" - 1-1/4"



#### Saw Blades

- 4" - 18"
- NEW Chain Root Cutters
- 4"-48", All Stainless Steel, No Lubrication



#### Root Cutter Assemblies

- Skid Mounted
- w/flat blades.....\$1175.00
- w/concave blades.....\$1198.00
- w/spiral blades.....\$118.00

- Donut Mounted
- w/flat blades.....\$1125.00
- w/concave blades.....\$1160.00
- w/spiral blades.....\$1160.00

- Lateral Mounted
- w/flat blades.....\$1020.00
- w/concave blades.....\$1075.00
- Assemblies come with one ea. of 6, 8, 10 and 12" blades, saw blades, hub, skids, etc.

#### Sewer Hose Guides

- TigerTail™ Style
- 3' x 36".....\$38.00
- 2' x 36".....\$38.00
- with 24' rope



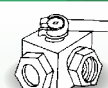
#### Clamps

- Power Clamps
- 8".....\$13.00
- 3"-6" available

- King Clamps
- 8".....\$29.75
- 4"-6" available

- Bandlock® Clamps
- 8".....\$24.00
- 3"-6" available

- Quick Clamps
- 8".....\$26.50
- 3"-6" available



#### Hycon® Valves

- 2 & 3-way Ball Valves

- 5000 psi
- 1/2" 2-way.....\$65.00
- 3/4" 2-way.....\$89.00
- 1" 2-way.....\$119.00
- 1-1/4" 2-way.....\$226.00

- 4500 psi
- 3/8" 3-way.....\$115.00
- 1/2" 3-way.....\$160.00
- 3/4" 3-way.....\$180.00
- 1" 3-way.....\$190.00
- 1-1/4" 3-way.....\$440.00
- 2" 3-way.....\$690.00



- HD Washdown Gun
- 25 gpm @ 850 psi
- 1/2" Inlet.....\$185.00

Pipe/Sewer Plugs • Hose Reels • Aluminum Intake Tubes  
Kanaflex™/Rubber Debris Hose • Full Line Of Warthog Nozzles



Toll Free: 800-365-6583  
[www.cloverleaftool.com](http://www.cloverleaftool.com)

Full Catalog Online with Prices

SARASOTA, FLORIDA • PHONE: 941-739-0707 • FAX: 941-739-0001



MANY OTHER STYLES, SHAPES & SIZES AVAILABLE

CALL FOR OUR COMPLETE CATALOG WITH PRICES

## PRODUCT SPOTLIGHT

### Hands-free hose handling system offers safe alternative to manual cleaning

By Ed Wodalski

The AutoBox ABX-500 hands-free hose handling system from StoneAge is designed to provide a safe and efficient alternative to manual feeding of high-pressure hose for industrial pipe cleaning.

“It was basically designed to replace a person manually feeding a hose in pipe cleaning applications,” says Jeff Barnes, senior product engineer for StoneAge. “Typically you should only jet a tool for what the operator can comfortably control, which in a lot of cases limits how far the tool will pull itself down the pipe. With the AutoBox you can jet the tool for more power and the operator doesn’t get tired. It can maintain a constant feed rate and allows you to get farther down the pipe.”

In addition to operator safety, the hose handling system can improve cleaning performance.

“It allows you to feed the hose at a controlled rate,” he says. “An operator manually feeding the hose, even the best operator, is not going to be consistent over 10 feet, let alone a couple hundred feet. Feeding at a consistent rate allows the rotary tool to clean everything in the pipe. You don’t get any striping. It doesn’t move quickly through an area and leave material in the pipe wall. You have a controlled feed rate and you get a better cleaning performance.”

The 19-inch-tall by 13-inch-wide by 12-inch-deep hose handling system has a feed rate of 1 to 30 feet per minute. Two synchronized drive rollers feed the hose into the tube while air cylinders apply a clamp load to prevent slippage.

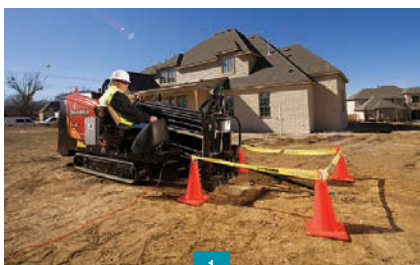


“From the control box you can adjust the speed that you’re feeding the hose as well as the amount of clamp you’re putting on the hose,” Barnes says. “Our standard setup has a 25-foot hose between the tool and the control box. If there was a need you could go with longer or shorter hoses.”

The box also has a pressure gauge and regulator to control the load on the clamping air cylinders, as well as a toggle switch for the high-pressure dump control.

The 90-pound system can be used with any of StoneAge’s rotary pipe cleaning tools having a flow range of 5 to 200 gpm, pressure range of 2,000 to 43,000 psi and rotation speed of 20 to 300 rpm. Safely operated from outside the blast zone by a single operator, the portable, air-powered system can accommodate hoses from 0.56 to 1 inch and pass couplings up to 1.75 inches O.D.

Bolt holes enable the drive box to be safely secured. A mounting strap is available. **866/795-1586; www.stoneagetools.com.**



1



2



3

### 1 DITCH WITCH JT9 HORIZONTAL DIRECTIONAL DRILL

The JT9 horizontal directional drill from Ditch Witch, powered by a Tier IV 64 hp Deutz diesel engine, delivers 9,000 pounds of pullback force and holds 300 feet of drill pipe. **800/654-6481; www.ditchwitch.com.**

### 2 GENERAL PIPE GEN-EYE SD VIDEO INSPECTION SYSTEM

The Gen-Eye SD video inspection system from General Pipe Cleaners has a 10.4-inch LCD screen, built-in waterproof keyboard, integral SD recorder and heavy-duty Pelican case. Weighing 10 pounds, the inspection system can troubleshoot 3- to 10-inch lines with the docking arm mounted to a full-size reel or 2- to 4-inch lines using a mini reel. **800/245-6200; www.drainbrain.com.**

### 3 VERMEER RIDE-ON SERVICE PLOW

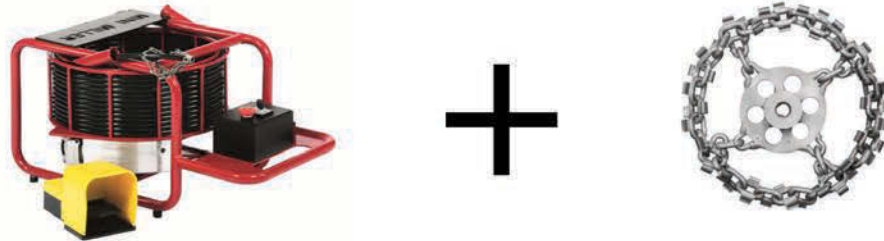
The PTX44 ride-on service plow from Vermeer is designed primarily for the installation of fiber-optic cables, electrical and gas services, and irrigation systems. Powered by a 46.8 hp Kubota water-cooled gasoline engine, the plow delivers 88.7 ft-lbs of torque and features a dedicated plow with the option to utilize a forward-mounted trencher and/or bore attachment. The plow has a maximum installation depth of 24 inches. The optional trencher attachment has a maximum trenching depth of 42 inches and width of 6 inches. The optional bore attachment has a rotational torque of 620 ft-lbs. **641/628-3141; www.vermeer.com.**

CONTINUED >>



WHY DO LESS WHEN YOU CAN **ACHIEVE** SO MUCH MORE?

The Picote Chains Easy & efficient cleaning of cast iron drains & sewers



Locate your reseller at [picotesolutions.com](http://picotesolutions.com) or call 219 440 1404 for further information.  
 Visit us and our resellers at the WWETT 2015 in Indianapolis, Feb. 24 - 26, 2015.



# Freeze-Up Problems?

Get The **ARCTIC BLASTER**

**THAWING DEVICE**

**SIMPLE — SAFE — QUICK — CONVENIENT — ECONOMICAL**

Have freeze-up problems? We've got the simple, low cost **ARCTIC BLASTER THAWING DEVICE** that thaws pipes above and below ground. The perfect winter tool for: rental shops, plumbers, battery operators, septic tank truckers, farmers, feedlot operators, native and remote housing, mobile home parks, electrical contractors, and more. Use on plastic, copper or ABS. Perfect for roof drains.



**ORDER IT TODAY!**

It will probably pay for itself the 1<sup>st</sup> day you need it.

**AUNTY SEPTIC SAYS...**

"Invest in this little money-maker for excellent winter profits! Give your income a big boost!"



**ARCTIC BLASTERS INC.**

SUNDRE, ALBERTA

403.638.3934 • Fax: 403.638.3734 • [www.arcticblaster.com](http://www.arcticblaster.com)

# SAFETY SEWER DRAIN



- Safety Risk Reduced
- Professional Image
- Less Mess
- Contamination Reduced
- Pays For Itself
- Easy To Use



Scan this QR Code with your smartphone app reader to see a video on how to use this product.

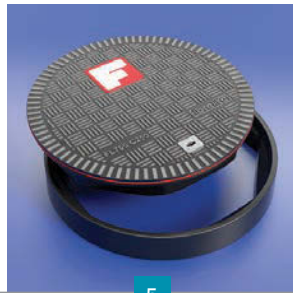
Ingalls, Michigan

**906.753.4002**

[www.SafetySewerDrain.com](http://www.SafetySewerDrain.com)



4



5



6



7



8



9



10



11

#### 4 KLEIN TOOLS TRADESMAN PRO ORGANIZER BAGS

The Tradesman Pro Organizer line of tool bags from Klein Tools includes the new lighted tool bag, work light, 17-inch tool tote, drill pouch and two sizes of hard cases (medium and large). The lighted tool bag has a twist on/off LED light; the separate work light has a swivel hook and magnet for hands-free use. The 17-inch Tool Tote has 17 pockets, an open section for drills and zipper bags, while the drill pouch fits most impact and battery drills. **800/553-4876; [www.kleintools.com](http://www.kleintools.com).**

#### 5 FIBRELITE LIGHTWEIGHT COMPOSITE COVERS

Corrosion-resistant fiber reinforced plastic covers from Fibrelite are designed to eliminate unsafe manual handling of concrete and cast-iron access covers. Two lifting points for specially designed lifting handles enable workers to remove covers without bending over. Covers are available with company logo and in multiple colors. **800/421-3297; [www.fibrelite.com](http://www.fibrelite.com).**

#### 6 STEAM JENNY DIRECT-DRIVE PRESSURE WASHERS

Direct-drive cold pressure washers from Steam Jenny, a division of Jenny Products, are powered by 9 or 13 hp Honda GX Series engines. Models feature a triplex ceramic plunger pump with pressure ratings from 3,000 to 4,000 psi and flow rates of 3 and 4 gpm. **814/445-3400; [www.steamjenny.com](http://www.steamjenny.com).**

#### 7 TRELLEBORG SEALING SOLUTIONS D-SHAPED RING

The Glyd Ring D-shaped seal from Trelleborg Sealing Solutions is made from Zurcon Z13 polyurethane to resist pressures up to 7,250 psi at both sides of the seal and temperatures up to 248 degrees F. Applications include mobile cranes, forklifts and other equipment involving mobile hydraulics. **800/626-2180; [www.trelleborg.com](http://www.trelleborg.com).**

#### 8 POLSTON MULTIPURPOSE CLEANING TRUCK

The PAT 360-HD multipurpose cleaning truck from Polston Applied Technologies has four 8-inch hydraulic pumps (2,500 gpm each) and delivers up to 1,100 hp. The knuckleboom crane has 49 feet of reach from the center and 180-degree rotation. **844/765-7866; [www.polstonprocess.com](http://www.polstonprocess.com).**

#### 9 SCHONSTEDT XTPC+ PIPE, CABLE LOCATOR

The XTpc+ multi-frequency pipe and cable locator from Schonstedt Instrument Co. features a lightweight, compact receiver and 5-watt transmitter. **800/999-8280; [www.schonstedt.com](http://www.schonstedt.com).**

#### 10 PEERLESS BATTERY DISCONNECT SWITCHES

Kissling Electrotec battery disconnect switches, distributed by Peerless Electronics, range from 200 to 500 amps. Options include single- or dual-pole configurations. Switches are (IP67) environmentally sealed, highly resistant to vibration and shock, rated for full amperage continuous duty at up to 32 VDC and feature flange or center mount with removable key option. **800/285-2121; [www.peerlesselectronics.com](http://www.peerlesselectronics.com).**

#### 11 SNAP-ON SHORT-HANDLE RATCHET

The 3/8-inch-drive short-handle flex ratchet from Snap-on Industrial Brands comes with an 8 5/16-inch handle and 9/16-inch profile and is 1 1/4 inches wide. Features include a sealed head to keep lubricants in and contaminants out, alloy steel construction and nickel chrome plating to prevent corrosion. **800/446-7404; [www.snaponindustrialbrands.com](http://www.snaponindustrialbrands.com). c**

[www.cleaner.com](http://www.cleaner.com)

classifieds, editor's blog, discussion forums and more!

# PRO-VAC INDUSTRIAL PUMPOUT UNIT

IDEAL FOR GREASE TRAP PUMPING



Constructed of LIGHTWEIGHT ALUMINUM  
Extremely Quiet  
Easy to Maneuver  
Easy to Use  
Easy to Maintain & BUILT TO LAST

*Simply The BEST!*



Westmoor Ltd.

Manufacturers of



Vacuum Technology

800-367-0972

www.westmoorltd.com

We Look Forward To Seeing You  
at the **WWETT Show**  
Visit Our **Booth 5124**

## YOUR SOURCE FOR RIDGID



LT1000 Laptop Interface System



CS10 Digital Recording Monitor with Flash Drive



microDrain Reel

SeeSnake® Compact 2 Camera Reel



DVD Pak



CS6 Digital Recording Monitor



SeeSnake® MAX rM200 Camera System



CENTRAL OKLAHOMA

# Winnelson

COMPANY

**8% ONE YEAR FINANCING AVAILABLE!**  
Longer lease rates also available. Call Keith for details.

**BUYING A SEESNAKE?**

**CALL KEITH  
FOR SHOW  
SPECIALS**

**WE  
WILL NOT BE  
UNDERSOLD**

FREE SHIPPING!

- Call Us Evenings and Weekends -

Keith: 405-602-9155 &

Jim: 405-205-3974

CALL TOLL FREE: **888-947-8761**

5037 NW 10th  
Oklahoma City, OK 73127

www.centralwinnelson.com

**HD Supply Waterworks moves to new headquarters**

HD Supply Waterworks relocated its St. Louis corporate headquarters and training facility to 1830 Craig Park Road, Maryland Heights, Mo. The 60,000-square-foot building houses the company's executive, administrative, sales, marketing and operations teams.

**Vermeer names president, board chair**

Vermeer Corp. named third-generation family member Jason Andringa company president and chief executive officer. Mary Andringa, president and CEO, transitions to board chair and Bob Vermeer, board chairman, will serve as chair emeritus.



Jason Andringa Mary Andringa

**Milliken acquires Pipe Wrap**

Milliken Infrastructure Solutions acquired the assets of Pipe Wrap's pipe repair business. Based in Houston, the company provides custom solutions for structural reinforcement, leak repair and corrosion prevention.

**Perma-Liner adds China distributor**

Perma-Liner of Singapore signed a partnership agreement with Pipeline Assessment and Service Company for sewer inspection, maintenance and municipal sewer rehabilitation programs.

**GapVax launches hydroexcavator rental company**

GapVax launched GapVax Rental Units (GRU). Based in Deer Park, Texas, GRU offers daily, weekly or monthly rentals of GapVax HV-55 hydroexcavators.



**ASTM releases pipeline laser profiling standard**

ASTM released pipeline laser profiling standard F3080-14. ASTM F3080 provides engineers and inspectors with an internationally accepted procedure for the measurement and/or confirming of installed pipe size and/or shape deformation.



**HammerHead moves to new location**

HammerHead Trenchless Equipment moved to a 19-acre, 136,500-square-foot facility in Lake Mills, Wis. The new site will enable the company to consolidate operations at one location.

**Mueller receives product award**

Mueller Water Products received the 2014 Best Smart Water Product or Solution Award at the inaugural Smart Water Summit. Mueller was recognized for its suite of Intelligent Water Technology solutions.

**Schieffer changes name to ProPulse**

Schieffer Co. International, the U.S. presence of the Schieffer Group, changed its name to ProPulse. The new name and logo more succinctly reflect the company's approach to high-pressure hose solutions.

**InfoSense named tech award finalist**

InfoSense is a finalist for the NC Tech Awards in the Energy and the Environment Use of Technology category. Presented by the North Carolina Technology Association, the awards program recognizes companies and individuals who have demonstrated excellence, innovation and leadership.

**Pure Technologies names regional VP**

Pure Technologies named David Burke, PE., vice president for its southeast region. Based in Pure's Columbia, Md., office, Burke will manage business development in the region and work with existing clients to develop pipeline management strategies.



David Burke

**Southland Tool earns ISO 9001-2008 certification**

Southland Tool has been certified ISO 9001-2008 compliant after less than four years in operation. The company's rapid growth and success led them to apply for and obtain the ISO certification, which will ensure stability and a quality manufacturing process for years to come. The certification shows a commitment to quality management and control as well as a commitment to Southland's employees and the long-term success of the company. Southland is the only company in this field that is ISO 9001-2008 certified, which is a benefit to Southland Tool dealers in the U.S. and worldwide. **C**



CALL FOR A FREE DVD

**NozzTeq®**  
Taking Science to the Sewer!  
www.nozzteq.com  
Toll Free 1.866.620.5915



# Pressure Washers, Replacement Engines, Pumps, Parts & Accessories

## 15J84 - Electric Jetter Package



- Commercial Industrial Grade Motor 2.0 HP - 115 Volt Single Phase 18 Amp
- GFCI Protected - Hand Carry - General Triplex Plunger Pump - 2.0GPM - 1500PSI - UPS shippable - 2+5+5 Year Manufacturer's Warranty - Jetter/Pulse Valve On Demand (Not Shown) - Ball Valve - 150' x 1/4" 4000 PSI Red Jetter Hose - 50' x 1/8" 4000 PSI Red Jetter Hose - 4 Jetter Nozzles

**\$999**

## 15J27 - Jetter Base Model



- Honda GX 200
- Portable - Roll Cage Protected
- General Triplex Pump - 2.8GPM
- 3200PSI - 3+5+5 Manufacturers Warranty - Jetter/Pulse Valve On Demand
- 150' x 3/8" Capacity Hose Reel, Ball Valve, & Jetter Nozzle

*Jetter Hose Sold Separately*

**\$1,099**

## 15J91 - Electric Jetter Package



- Commercial Industrial Grade Motor 2.0 HP - 115 Volt Single Phase 18 Amp - GFCI Protected
- Portable with Rollcage
- General Triplex Plunger Pump - 2.0GPM
- 1500PSI - 2+5+5 Year Manufacturer's Warranty - Jetter/Pulse Valve On Demand - Ball Valve - Assembled in USA - 150' x 3/16" 4000 PSI Red Jetter Hose - 50' x 1/8" 4000 PSI Red Jetter Hose - 4 Jetter Nozzles

**\$1,399**

## 15J41 - Jetter Package



- Honda GX 390 - Portable
- Roll Cage Protected - EZ Series General Triplex Pump - 4.0GPM
- 4200PSI - 3+5+5 Manufacturer's Warranty - Jetter/Pulse Valve on Demand
- 250' x 3/8" Capacity M10-5 Hose Reel, Ball Valve - 200' Jetter Hose
- 4 Jetter Nozzle Pack

*Attachment Kits Sold Separately*

**\$1,479**

## 17HJ39 - Jetter Package



- Honda GX 630 Electric Start - 15 Gallon Fuel Tank - Roll Cage Protected - V-Belt Drive - Triplex Plunger Pump
- 5.5GPM - 3500PSI - 3+5+ Lifetime Manufacturer's Warranty - Jetter/Pulse Valve on Demand, 350' x 3/8" Capacity Hose Reel, Ball Valve & 4 Jetter Nozzles Included. 300' Jetter Hose - 50' Hose, Trigger Gun, Wand, Chemical Injector, & QC Nozzles

**\$4,599**

## 16T52 - 2 Wheel Road Ready Commercial Jetter Trailer



- Electric Rewind High Capacity, 500' x 3/8" or 350' x 1/2" Hose Reel
- 200 Gallon Tank with Float Valve - Poly Tool Box - Lights, Front Jack with Wheel, Safety Chains, Aluminum Fenders - Commercial High Pressure Jetter - Vanguard 18 HP Electric Start Engine - V-Belt Drive - Trailer Mounted Skid - 15 Gallon Fuel Tank - Tank Feed Capable - General Triplex Plunger Pump - 5.5GPM - 3500PSI - Pump Mounted Jetter Pulse Valve - Foot Valve with 8' jumper Hoses - 3 Jetter Nozzles, Penetrator, Flusher & De-Greaser / De-Icer - 1 Year Manufacturer's Warranty

*Jetter Hose & Attachment Kits Sold Separately*

**\$7,999**

**WaterCannon.com**

**30**  
YEARS OF SERVICE

**1.800.333.WASH (9274)**



**Industry Trained Staff** available from 8:30 a.m. to 7:00 p.m. weekdays E.S.T.

Water Cannon, Un contacto en Espanol: llama al: 1.800.917.9274

Orlando | Phoenix | Minneapolis | Hattiesburg | Melbourne | Toronto | Bogota  
International: 1-321-800-5763

Water Cannon  
is proud to be a  
**MWBE**

# DR DYNAMIC REPAIRS

## We Repair:

General Wire, Ratch, RIDGID, Hathorn Corp.  
Electric Eel, GatorCams, Vision Intruders  
and Vivax Inspection Cameras,  
Locators, Command Modules and Cables

## New & Refurbished Inspection Equipment For Sale

Rental Equipment Available  
Daily & Weekly Rates

Ask About Our 48-Hr. Turn Around Time

**INSPECTION CAMERAS ARE OUR ONLY BUSINESS!**

**973-478-0893**

## DYNAMIC REPAIRS

40 Arnot St., Unit 20  
Lodi, NJ 07644  
dynamiccablerepairs@yahoo.com  
www.dynamicrepairs.net

## Water Jets for rent



- Units from 4,000 to 40,000 psi, including convertibles
- 60-600 hp, diesel or electric
- Rent, buy or lease
- 6 convenient branches: MI, IN, NJ, LA, TX, CA

**NLB Corp.** 1-800-441-5059  
www.nlbcorp.com

## CONFINED SPACE ENTRY PACKAGE ONLY \$2,995



- 4-Gas Air Monitor
- 7' Tripod
- 3-Way Fall Protection
- Work Winch
- Full Body Harness

Add a Blower with 15' of duct for only \$350!  
Add a 5 Minute Escape Respirator for only \$500!

**MTECH.** 800.362.0240  
www.mtechcompany.com

Over 25 years of building quality equipment

# HotJetusa®

DRAIN LINE JETTING EQUIPMENT

## Most Versatile Jetter On The Market!

• 35 HP Vanguard  
• Remote Control  
• Cleans Drains from 2"-8"+

On Sale For Only **\$24,995!**

**Fully loaded! Call for details!**

**1-800-213-3272**  
**www.hotjetusa.com**

## HONDA ENGINES DELIVERED PRICE

GX120QX - 4HP	\$375
GX160QX - 5.5HP	\$375
GX200QX - 6.5HP	\$399
GX270QAG - 9HP	\$579
GX390QA - 13HP	\$599

Specify Red & White or Black

Un contacto en Español: llama al: **800.786.9274**

**GXPARTS.COM**

## T&T Tools, Inc. 800.521.6893

CALL for a **FREE Catalog**

Many styles Available

wwelt BOOTH 6000

Insulated Soil Probes (for locating)

Heat-Treated Hooks (for covers, lids, etc)

**www.mightyprobe.com**

## You Can Install Sewer and Water Lines (Without Digging A Trench)

**Pipe Genies Do It All!**  
Ductile & Cast Iron, Clay & Concrete, ABS, PE & PVC

**Pipe Genies Pull Any Pipe!**  
System Power From 20 Tons to 240 Tons!  
(Rated for 1/2" - 30" Pipe)

**Pipe Genies Work Anywhere!**  
The Most Compact Systems Available!

We have everything you need to get started making profits with pipe bursting!

**www.TrenchlessAmerica.com**  
Toll Free 1 877 411 7473

# ERICKSON Tank & Pump

**509.785.2955**

CALL FOR UPDATED LIST OF **EQUIPMENT**

**WWW.ERICKSONTANK.COM**

## Masport®

PUMPS & QUALITY COMPONENTS

800 Rd. P.5 S.W. / Quincy, WA 98848  
fax: 509.785.3770  
e-mail: sales@ericksontank.com  
"TANKS" FOR YOUR BUSINESS!

**WE TAKE TRADES**

## Let Us Build Your JETTER

**Diesel Propane Gas**

**AMERICAN JETTER.COM**  
**866-944-3569**

## Cua Claws

A Simple Solution for Slippery PVC Pipe - **The Right Wheels**

We now resurface all makes of steel transport wheels

**CALL JERRY AT 714-697-8697**  
**www.cuaclaws.com**

## It's 2015.

When was the last time someone under the age of 40 actually used the phone book to find your business?

We can build your site ... for **FREE\***

- » Mobile Optimized
- » Tablet Optimized
- » Custom URL
- » SEO-Friendly
- » Updates Included
- » Listed at **SewerPages.com**

\*Monthly fees apply. Starting at \$59/month.

**SewerPages.com**  
800.257.7222 • info@sewerpages.com

Powered by: **Cleaner | COLE publishing**

- BECOME MORE PROFITABLE
- NETWORK WITH PEERS
- WORK SMARTER, NOT HARDER

## Pumper & Cleaner PROFIT Series

**3 DAYS OF HANDS-ON BUSINESS BUILDING & NETWORKING**

**ORLANDO, FLORIDA GAYLORD PALMS**  
**MARCH 25-27, 2015**

**WWW.PUMPERPROFIT.COM**  
**866-933-2653**



**DYE TRACERS**

**Solutions for:**

- Infiltration
- Septic Systems
- Cross Connection
- Leaks and more...

**BRIGHT DYES**  
Division of Kingscote Chemicals

NSF Certified to ANSINFS 60

www.brightdyes.com • 1-800-394-0678

BOOTH 6114

Join A National Brand: [www.RooterMan.com](http://www.RooterMan.com)

**ROOTER-MAN**

*"To The Rescue"*

NO ROYALTY ON PERCENTAGE OF SALES

Franchise Package \$3,975

RESERVE YOUR EXCLUSIVE TERRITORY • Call 1-800-700-8062

**THE "ORIGINAL" LIQUID SMOKE**

**Turbo Fog M45:**

- Versatile
- Light Weight
- Compact
- Creates Dense Smoke

**TURBO-FOG**  
Since 1977

www.turbo-fog.com • 1-800-394-0678

BOOTH 6116

**You'll get friendly service when you let us repair your equipment**

> We service push rod reels, cameras and command modules. We repair most brands.

> We are an authorized service center for General Wire, Rotech, Vison and Ridgid.

> Your equipment is very expensive and we would be happy to supply references on our quality work. Just call Terry or Stan!

> We understand when your equipment is broken, you are losing Big Bucks! We give fast and quality service.

Electronic Repair Co. • 205-836-0454 • [servicewithasmile.com](http://servicewithasmile.com)

**Waterblaster Rentals & Sales**

Houston, Texas

**Boatman Industries**

1K to 50K psi  
60 hp to 1000 hp  
Waterblasters & Accessories  
Used Equipment Sales

**713-641-6006**  
[www.boatmanind.com](http://www.boatmanind.com)

**Follow Cleaner on**

**f** **t**

[www.facebook.com/CleanerMag](http://www.facebook.com/CleanerMag) [twitter.com/#!/CleanerMagazine](http://twitter.com/#!/CleanerMagazine)

FEBRUARY 23-26  
INDIANA CONVENTION CENTER  
**wwett 2015**  
Water & Wastewater Equipment, Treatment & Transport Show

[www.wwett.com](http://www.wwett.com)

**KEN-WAY Beats the Others DAY-IN • DAY-OUT**

And they have for over 50 years

**KEN-WAY CABLE CLEANERS**  
for cleaning sewer, drain or process lines from one to ten inches, up to 75 feet with the Junior and up to a full length of 300 feet with the Model 400

Junior Model 400

**KEN-WAY Exclusive Built Cables**

3/8" 13/32" 1/2" 3/4" 11/16" 5/8" 5/16" 1/4"

- Heat Treated
- Inner-Core or Non-Core
- Fit Most Other Brands
- Interchangeable with Most Brands
- Coupling or Blade Holding Types

**KEN-WAY CORPORATION**

Leasing plans available. Call for details.  
**1-800-533-0551**

930 ROBERTS ROAD, SPARTA, WI 54656  
[www.ken-way.com](http://www.ken-way.com) • E-mail: [info@ken-way.com](mailto:info@ken-way.com)

**LAPLACE EQUIPMENT**

RENTALS, SALES & SERVICE

- **WATERBLASTERS:** PRESSURE TO 40K, FLOW TO 100 GPM
- WATER JETTING TOOLS
- HYDRO-MOWERS
- 3D NOZZLES
- ROTATING NOZZLES
- HIGH PRESSURE HOSES
- LANCES
- FITTINGS
- TIPS
- SUPPLIES
- EXPERIENCED TEAM FOR PLANNING, TRAINING & SETUP

CALL 985.652.5210 FOR YOUR WATERBLAST PROJECT SOLUTIONS  
[WWW.H2OBLAST.COM](http://WWW.H2OBLAST.COM)

## BUSINESSES

**PRICE REDUCED!** Well-established sewer & drain cleaning business for sale serving area for over 46 years. Two-truck operation. Loyal customer base. Employee with 15 years experience willing to manage business. Located in Central Indiana. 765-664-4741 (C01)

**www.RooterMan.com.** Franchises available with low flat fee. New concept. Visit website or call **1-800-700-8062.** (CBM)

Georgia plumbing, sewer and drain cleaning business for sale. Licensed for septic and drain fields. Sale includes 55 commercial-zoned acres on main highway. Property includes house, office, sheds and all equipment. Call for more details. 478-469-3187 (C01)

## COMPUTER SOFTWARE

FreeServiceReminderSoftware.com,  
FreeServiceDispatchSoftware.com,  
FreeRouteManagementSoftware.com.  
(C01)

## DEWATERING



**Filter Press for Sale:** Non-gasketed polypropylene plates, 100 psi. Includes 2 tanks/mixers - 300-gallon pre-coat and 900-gallon sludge mixing tank. Refurbished trailer. Ready to go. .... \$30,000  
**Eddie 231-499-7050** C01

If you are using an  
**800 NUMBER**

in your ad, be sure it can be used  
in all areas nationwide.

## DRAIN/SEWER CLEANING EQUIPMENT

Used and rebuilt cable machines in stock: RIDGID K-7500, K-40, K-60, K-1500, Spartan #1064, #300, #100, Electric Eel model #C machines. The Cable Center: 800-257-7209. (CBM)

## HAZARDOUS WASTE UNITS

New 3,200 U.S. gallon, carbon steel, DOT certified 407/412 vacuum tank; dump type with full open rear door and a Presvac PVB-750 vacuum-pressure pump installed on a 2015 Peterbilt 348 cab and chassis. (Stock #13587A-D) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (CBM)

## HYDROEXCAVATING EQUIPMENT



**GapVax Hydroexcavators for Rent –** New GapVax HV56 in stock and equipped ready to work. Delivery available. Operational training provided. Call for monthly rental rates and rent-to-own programs.

**Rural Truck Sales & Rental**  
**570-760-2064**  
**www.RentHydroVac.com** C01

## JETTERS-TRAILER

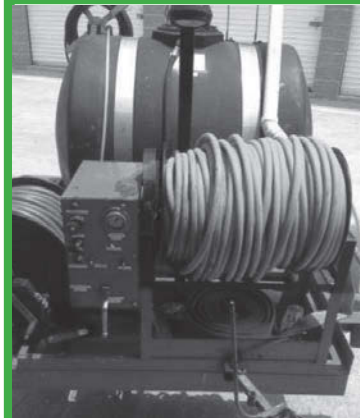


**Xtreme Flow Hot/Cold Jetter!** Model #HJ2TA8536, tandem axle trailer, 35 hp Vanguard 8.5 gpm @ 3,600 psi, 325-gallon water tank, 300' hose, General Pump. List \$34,995. On sale for \$29,995. Fully loaded!

**800-213-3272**  
**www.hotjetusa.com** CBM

2008 GMC PipeHunter: John Deere rear engine, 700-gallon poly water tank, 3/4" jet hose, Giant pump. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

2003 Harben 4016 DTHS 300 E-Series. Jump jet, strobe light, aluminum toolbox, manhole light. Maintained by dealer. \$18,500. 813-792-7876 (C01)



**Tyger Jet:** Gas, 27hp, 300-gallon black tank. 400' 1-year-old hose, two (2) nozzles. Runs good. Cold weather air purge. Needs re-weld on muffler, everything else is fine. Bought new machine. .... \$9,500 OBO

**214-563-0278, TX** C01

2008 Ford PipeHunter: 7844TMV. 1/2" hose. Giant jet pump 14.2gpm @ 4,000psi. Tuthill blower, 1/2-yd. debris tank. John Deere rear engine. 294 hrs. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

## JETTERS-TRUCK



**1999 Vac-Con Hot Shot,** Ford chassis, 6-speed, FMC 65gpm water pump, 1,650-gallon tank. Cummins main engine 133k miles, Cummins aux. engine. .... \$25,000 OBO

**Call 317-773-7996, IN** C01



**Pipehunter.com Jet Truck** (pre-owned) 4,000psi @ 20gpm. A great looking, operating and dependable piece of equipment.

**239-821-2596**  
**Rod@marcoplumbing.com** CBM

Jack Doheny Supplies Inc. offers a full range of late model combo units and DOT industrial vacuum loaders. Call us @1-800-3DOHENY. (CBM)



**1999 Sterling w/K-7501 Jetter:** 5.9 Cummins ISB, Allison automatic w/PTO, air brakes. 26,000 GVW. Rear jetter FMC Model 6540SC. 1,250-gallon tank, 1" hose. .... \$29,900  
Other trucks, jets and trailers available.  
Call for details!

**608-835-7767, WI** CBM

## JET VACS



**1999 Vac-Con** combination truck, International 2554, rebuilt Navistar engine, Allison auto, Cummins B3.9P aux. engine, FMC 80gpm/2000psi water pump. .... \$49,000 OBO.

**Call 317-773-7996, IN** C01



**1995 Ford L9000 Vactor 2115:** 15-yard, 2-stage fan, 80gpm @ 2,000psi. Runs and drives. Fan works. Needs rod-der pump. .... \$28,800

**800-627-0778** C01



**1997 Ford L8000 Vactor 2115:** 15-yard, 2-stage fan, 80gpm @ 2,000psi. Fresh paint. New rod-der hose. Runs and drives. Work ready. .... \$37,500

**800-627-0778** C01



**2005 International Vac-Con:** 12-yd., 3-stage fan, 65gpm @ 2,000psi. Ex-municipal unit. Low hours, low miles. Work ready. ....\$77,900

**800-627-0778**

C01

2002 Sterling LT7501 Vac-Con Model V390LHA combination sewer cleaning truck: Freshly painted white. CAT 3126 - 275hp engine, 3-stage fan, 1,000-gallon water tanks, pump off option available. 10' telescopic boom. FMC water pump - 65gpm @ 3,000psi. Articulating hose reel with 600 feet of new 1" hose. 84,316 miles. Located in Orange, CA. \$79,900. Contact Craig: 714-639-8352. Additional details at [www.empireequip.com](http://www.empireequip.com) (CBM)

1980 Ford 8000 Jet Vac combo. Newer cab, newer Cummins engine and jet/hoses. Vac powered by CAT-designed engine & in great condition. Truck and vac tank need TLC. \$10,000. Call 216-398-4000. (C01)

2007 Mack Guzzler: Damaged, rear unit new in 2011. Ingersoll Rand Air Solutions Hibon model SIAV 8702 blower. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

2002 International Guzzler: 54,000 miles, 10-speed, 27" Roots blower. Stainless steel tank. Stk# 2300. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

2006 International Vactor 2112\15: 9,300 hours, S\N: 05-07V-9443, Vactor jet pump 80gpm @ 2,000psi. 600' 1" new hose. 800' hose reel capacity. Pump-off system. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

2009 Sterling Vac-Con: VPD3616LHAEN S\N: 09085083. 3,975 main engine hours. Bean jetting pump. Roots 824 RCS blower, 16-yard debris tank. New aluminum extension tubes. Hydraulic-driven jetter pump. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

1998 Volvo GapVax: Stk# 2301, VIN# 4VHJCB JF8WN857157. Stainless steel tank, N-14 Cummins, 9-speed Fuller transmission, Roots 27" blower. Ken's Truck & Equipment: [www.khtrucks.com](http://www.khtrucks.com) 972-938-1905 or 214-632-5277 (CBM)

1991 Volvo Camel 200: Tandem axle. Great condition. Ready for work. \$35,000. Green Bay, WI. 920-655-7302 or 920-866-9109. (CBM)

Pre-owned 2002 Sterling LT 9500 cab and chassis with a Clean Earth Safe Jet Vac 1015 Combo Unit. (Stock #3876C) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (CBM)

Vac-Con V390LHA combination unit with Roots 827 blower, 1999 International Model 2554 cab and chassis. (Stock #3918C) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (CBM)

Vac-Con industrial machine mounted on a pre-owned 2004 Sterling cab and chassis. (Stock #8593C) **www.VacuumSalesInc.com (888) VAC-UNIT (822-8648)** (CBM)

2006 Volvo cab & chassis with a Vactor 2110 combination vacuum loader and high-pressure sewer cleaning system. (Stock #3483C) **www.VacuumSalesInc.com (888) VAC-UNIT (822-8648)** (CBM)

## LEASE/FINANCING

**North Star Commercial Credit:** Commercial loans for trucks or equipment. Flexible purchase programs to fit your budget. 21 years in the industry. Contact **Tom Myers - 877-804-2274.** (CBM)

"Lease to Own" financing of new or used sewer and drain equipment with early pay-off. Alpine Equipment Funding is a direct source of funding that understands your equipment needs. We are not brokers and will give you a quick response. Call 800-640-8660 (C04)

## LOCATORS

Used RIDGID NaviTrack, Gen-Eye Model 100 and Goldak Model 4400. The Cable Center 800-257-7209. (CBM)

## MISCELLANEOUS

Titan 8000 series, high performance, RIDGID 8000 Zero-Gravity. The Cable Center: 800-257-7209. (CBM)

## NOZZLES

**SAPPHIRE NOZZLES** for UHP, laser-etched, heat treated, excellent quality, fantastic savings! 772-286-1218. [info@alljetting.com](mailto:info@alljetting.com); [www.alljetting.com](http://www.alljetting.com). (CBM)

## PARTS & COMPONENTS



Units, nozzles, hoses, accessories and safety gear. From High Flow 65 GPM Units to High Pressure 6,000 PSI Units and everything in between. The best products and the best advice in the business.

**800-538-8464 | 770-740-9917**

**www.usjetting.com**

CBM

## PIPELINE REHABILITATION



**Steam Boiler Truck/unit:** 2005 Freightliner, 220K miles. Cleaver Brooks Model CBE200-125 diesel fire steam boiler. 2008 Ingersoll Rand compressor and Doosan generator. This unit is all plumbed and ready for work. \$94,000. Please email for additional info. C02

**casbury@californiatrenchless.com**

One trade-in model of Pipe Genie heavy-duty, pipe bursting equipment. Excellent condition, looks new, 30-ton, 100 feet cable, full 2-year warranty. 877-411-7473. (CBM)

## POSITIONS AVAILABLE

GapVax, Inc., a nationally recognized manufacturing business, is seeking a talented, highly motivated individual to fill a full-time Sales Position in the Midwest (Iowa based preferred) region. GapVax is the leading manufacturer of industrial and municipal vacuum units and hydroexcavation units in the United States. We provide the most reliable, comprehensive, and efficient mobile vacuum units in the industrial and municipal markets. Specifications of the position are listed on our website, [www.gapvax.com](http://www.gapvax.com), click on the Now Hiring link in the left hand column. Send resumes to [Lthomas@gapvax.com](mailto:Lthomas@gapvax.com) or 575 Central Avenue, Johnstown, PA 15902. (CPMGBM)

Southwest Florida pipe inspection company looking for experienced laser profile, Vactor, CCTV, grout, and sag remover operators. Pay based on experience. Relocation benefit negotiable. EOE DFWP. Please send resume or contact info to [sewerone@aol.com](mailto:sewerone@aol.com) or call 239-267-3344. (C03)

## PUMPS

Honda model WP40X, 8 hp, 4" with hoses. Honda 4 hp, 2" pump with hoses. The Cable Center: 800-257-7209. (CBM)

## RENTAL EQUIPMENT

Liquid vacs, wet/dry industrial vacs, combination jetter/vacs, vacuum street sweeper & catch basin cleaner, truck & trailer mounted jetters. All available for daily, weekly, monthly, and yearly rentals. **VSI Rentals, LLC, (888)VAC-UNIT (822-8648) www.vsirentalsllc.com.** (CBM)

LATERAL REINSTATEMENT CUTTER - RENTAL, 2" to 18" diameter. Reasonable rates, weekly/monthly. Training available. Contact: Sean Lipscomb, 443-866-8612, [SLipscomb@PipelineRT.com](mailto:SLipscomb@PipelineRT.com) (C02)

## SEPTIC TRUCKS

1985 GMC Pumper, tank and pump working and truck operational but DOT Certification has lapsed. Truck needs work to be road safe, recommend towing. \$4,000. Email [john@hoosierroto.com](mailto:john@hoosierroto.com) for inquiries. (C01)

## SERVICE/REPAIR

**Dynamic Repairs - Inspection Camera Repairs:** 48 hour turn-around time. General Wire, Ratech, RIDGID, Electric Eel Mfg, Gator Cams, Insight Vision, Vision Intruders. Quality service on all brands. **Rental equipment available.** For more info call Jack at 973-478-0893. Lodi, New Jersey. (CBM)

SSR Technology Repair Center for all your video inspection needs! We repair all brands of video inspection equipment: RIDGID-MYTANA-SCE-GEN EYE-TROJAN-SCOOTER-Many more. [www.ssrtechnology.com](http://www.ssrtechnology.com) 866-937-0571 Sales & Repairs. (C01)

## TOOLS

**T&T Tools:** Probes, hooks. Probes feature steel shafts with threaded and hardened tips. The insulated **Mighty Probe™** tested to 50,000 volts. **Top Poppers™** open man-hole covers easily. Free catalog. **www.TandTtools.com.** Phone **800-521-6893.** (CBM)

Bosch Brute hammer drill with cart irons. The Cable Center: 800-257-7209. (CBM)

## TOOLS

Ritchie Yellow Jacket Recovery System & BULLET 7 cfm pump. The Cable Center: 800-257-7209. (CBM)

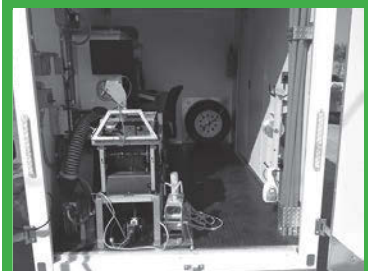
RIDGID model #300 with stand, RIDGID tri-stand vises, RP 330 ProPress kit. The Cable Center: 800-257-7209. (CBM)

## TV INSPECTION



**EnviroSight Supervision** inspection van, 3 yrs. old, 140 crawler, SVA 350 reel w/ approx. 1,100' cable, PTZ camera, POSM software. 2002 Ford E450 van, 6,500-watt generator. ....\$72,000 OBO

Call 317-773-7996, IN C01



**Aries Mainline Camera System:** Dealer demo. Pathfinder Series zoom camera and tractor for 6"-24" lines. Generator, wash-down system, 1,000 ft. cable. Saturn control unit. Luxury trailer, full wheel kit. ....\$55,000

616-949-2385, MI C12

2003 Ford Aries TV Inspection: Stk# 2168, V10 Triton gas engine. Honda motor powers rear unit. One (1) camera. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)

COMPLETE TURNKEY RST SYSTEM! \$30,000. The system was purchased NEW in 2006 and has less than 40 hours of use. Will email photos. Call 661-401-0695 or truevideo@gmail.com (C01)



**1998 EnviroSight Rovver 125:** LED lights, extra wheels/hardware, camera head, cable reel, riser, pendant control. Truck: 1990 Chevrolet with rear/office work areas. Contact Dan Gage at MacQueen Equipment:

651-645-5726 C12



**1997 CUES Inspection System:** 3 pan/tilt NightOwl crawlers. Cable reel, power winch, Onan generator. 7,751 hours. Van: 1997 GMC 2500 4x4. Contact Dan Gage at MacQueen Equipment:

651-645-5726 C12

**NEED TRACTION?** We make aftermarket more aggressive pads and chain assemblies for all chain-driven camera tractors. Custom, dependable, double-hole fabrication secured to high quality carbon steel chain, or just pads and rivets. Samples upon request. **Pipe Tool Specialties LLC:** 888-390-6794; Fax 888-390-6670; www.yourtractionpads.com or email pts4422@yahoo.com (CBM)

**PEARPOINT** — Mainliner buying & selling used equipment. Canada & USA **PEARPOINT MAINLINE EQUIPMENT ONLY.** Will buy complete Pearpoint trucks. Will buy your old system. Do you need parts? 399, 599 reels; 420, 448 tractors: 494 digital and zoom 420 light heads. Call 1-800-265-4298 or mainliner2075@hotmail.com (C02)

**CUES K2 SYSTEM:** Steerable Compact Pipe Ranger (CPR), OZ3 camera, 1000' gold cable, auto cable reel, CPU, CCU, wireless controllers, six different wheel sets, two different wheel spacer sets, tool and manual. Like new (app. 40 hours) at 20% off list. Call 866-936-8476 or emailoffice@envirosight.com.(CBM)

Used and rebuilt camera kits in stock: RIDGID Mini Compact, Mini Color, Standard Self-Leveling, General Gen-Eye I, II and III, Aries Seeker, and SRECO kits. The Cable Center: 800-257-7209. (CBM)

## WANTED

Wanted to Buy: Vactor 2100's and late model Guzzlers. Cash. 800-336-4369. (CBM)

**Buying Sewer Cleaners:** The fast, safe and easy way to sell your sewer cleaner, under any condition the best deal for you. 305-509-0467. mmachinerymexico@gmail.com (C03)

## WATERBLASTING

Gardner Denver T-375M: Bare Shaft pump. Gardner Denver T450M Bare Shaft pump. Gardner Denver TF-375M 21 gpm @ 10,000 psi. Gardner Denver TX-450HB 21gpm @ 20,000 PSI. Gardner Denver TF-450MB 52gpm @ 10,000 psi. NLB 10-200. 34 gpm @ 10,000 psi. HT-150S 25 gpm max 10,000 psi max, Shell Side Machine, Wheatley 165: 30 gpm @ 10,000 psi. Wheatley 125 with aluminum bronze fluid end. Boatman Ind. 713-641-6006. View @ www.boatmanind.com. (CBM)

40,000 psi Sapphire Nozzles, UHP hoses & replacement parts. Excellent quality & prices. 772-286-1218, info@alljetting.com, www.alljetting.com. (CBM)

**WATER JETTING EQUIPMENT:** We sell, repair and retrofit water blasters. Visit us at: www.waterjettingequipment.com or phone 714-259-7700. (CBM)

Cleaner  
AVERAGE  
MONTHLY  
CIRCULATION  
REACHES  
**26,083**  
READERS!

Come In  
We're

OPEN 24/7

www.cleaner.com

PLACE YOUR AD ONLINE AT [www.cleaner.com](http://www.cleaner.com) - IT'S ALWAYS THERE TO MEET YOUR BUSY SCHEDULE

# Pumper & Cleaner

# **PROFIT**

## *Series*

**3 DAYS OF HANDS-ON BUSINESS BUILDING & NETWORKING**

**ORLANDO, FLORIDA • GAYLORD PALMS**  
**MARCH 25-27, 2015**

**EARLY REGISTRATION: ONLY \$395 PRIOR TO NOV 25, 2014**  
**ADDITIONAL REGISTRANTS FROM SAME COMPANY SAVE \$100**

**[WWW.PUMPERPROFIT.COM](http://WWW.PUMPERPROFIT.COM)**

**866-933-2653**

### **DAY 1 & 2 - ELLEN ROHR**

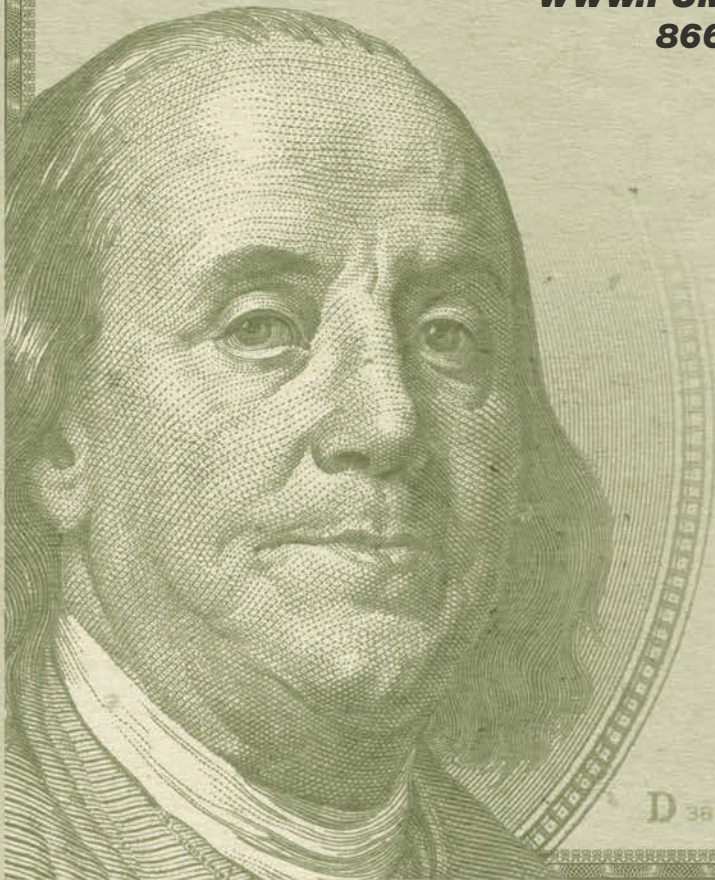
- **WHERE DID THE MONEY GO?**
- **HOW MUCH SHOULD I CHARGE?**
- **REWARD THE RIGHT STUFF**
- **BUYING, SELLING AND GETTING OUT**

### **DAY 3 - JEFF BRUSS**

- **HOW TO USE AND UNDERSTAND SOCIAL MEDIA, E-MAIL AND THE INTERNET AS A BUSINESS TOOL**

### **SMALL BUSINESS BREAK-OUTS**

- **MARKETING**
- **EMPLOYEE RETENTION AND HIRING**
- **SALES AND PRICING STRATEGIES**
- **BUYING OR SELLING A BUSINESS**
- **PROFITABLE IDEAS**



# ALLAN J. COLEMAN

## SINCE 1905

Call us today!  
773-728-2400



5725 North Ravenswood Avenue • Chicago, IL 60660 • info@allanjcoleman.com • www.allanjcoleman.com

### OLDEST NAME IN THE BUSINESS — Over 100 YEARS OLD

# RIDGID®

## SeeSnake® CS6 Digital Recording Monitor



- Direct-to-USB recording for fast, efficient documentation of inspection jobs
- Water-resistant keypad for direct control of essential camera and monitor functions
  - Daylight viewable display for a crisp, clear in-pipe image
  - SeeSnake HQ Software to edit, archive, and deliver reports via print, DVD, or online
- On-screen keyboard for basic titling and text entry
  - CS6 will dock in the RM-200 Max or operate as a stand alone monitor

## CS65 Digital Reporting Monitor



- One touch recording
- 1 TB internal hard drive
- 6.5" Daylight viewable LCD display
- Water-resistant keyboard
- SeeSnake HQ Software

## SeeSnake® MAX rM200 Camera System



- Next Generation Push Cable and Improved Reel Mechanics
- Ultra Compact Camera Head
- Transport Enhancements
- Docking System
- Self-Leveling Camera Head

## SR-24 Line Locator with Bluetooth® and GPS

- Omnidirectional antennas
- Large display • Built-In GPS
- Bluetooth® technology
- Smartphone/Tablet App
- Can trace any frequency from 10 Hz to 35,000 Hz



## SeekTech® SR-20

SeekTech uses omni-directional antennas, guidance arrows and an easy to read mapping display.



## NaviTrack® Scout®

Scout is designed to solve demanding remote transmitter (sonde) locates using multi-directional locating technology.

Convert your old RIDGID VCR monitor to a USB recorder!



Contact us on how we can do it?

**Authorized SeeSnake Repair Center**

**THE BEST SERVICE AND FAST TURN AROUND!**

**We Have RIDGID Parts!**

**If you buy the best, you are only sorry once!**



See you in Indy!  
Booth 6004

**wwett**  
Water & Wastewater Equipment,  
Treatment & Transport Show

# GapVax®

www.gapvax.com



# #1 CHOICE

industrial vacuum equipment



Custom Built - industrial vacuum loaders,  
hydro excavators, jetvacs, skid-vacs, and more!

Want easy to use, reliable and durable  
vacuum equipment that outperforms the others?  
Then give us a call!



888-442-7829

# THE WARRIOR. THE SOLDIER.

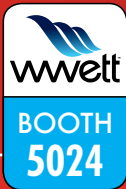
## NOW REPORTING FOR DUTY.



Spartan Soldier



Spartan Warrior



**SPARTAN**  
FOR TOUGH CUSTOMERS.  
SINCE 1943

Introducing the industry's sleekest, quietest trailer jets ever. Spartan's fully enclosed, 4,000 PSI Warrior and stealthy 3,000 PSI Soldier feature exclusive soundproofing technology for engine noise below OSHA's strict standard for mandatory hearing protection. What's more, both come packed with all the power and performance you expect from the most trusted name in the business. Spartan. Innovation comes standard.



**Pop the hood:** Uncover all the hard-hitting features and specs at [spartantool.com](http://spartantool.com)

CONTACT US TODAY | 800.435.3866