

Cleaner

FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

JANUARY 2017



PRE-SHOW ISSUE

FEBRUARY 22-25
INDIANAPOLIS, IN

EVERYTHING THE CUSTOMER NEEDS

NEW JERSEY FIRM GENERATES STEADY GROWTH
BY EMBRACING NEW TECHNOLOGY FOR THE
RESIDENTIAL MARKET **PAGE 24**

MONEY MACHINES

Custom vacuum units reduce cleaning time

TOUGH JOB

Hydroexcavating over a road and through a basement

SAFETY FIRST

5 tips for accident-free vacuum excavation

Speedrooter XL[®]



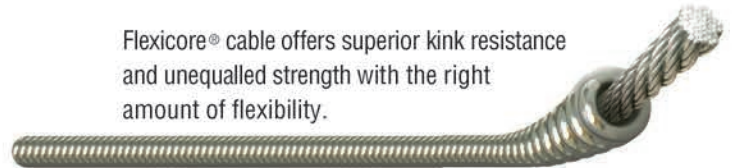
Tackle tough jobs with long distance clog-busting power

The rugged and powerful Speedrooter XL clears tough clogs in 3" to 10" lines up to 200 feet down the line. With easily interchangeable drums and a powerful 3/4 hp motor, this clog buster is surprisingly agile.

Change drums to add cable lengths or swap cable sizes with ease. Switch between 3/4" or 5/8" cables in the large drum, or substitute the small drum with 1/2" cable for smaller lines.

One person can easily load the Speedrooter XL onto a truck. The machine's frame slides smoothly from the loading wheel to the handle to stair climbers and finally to the wheels.

Flexicore[®] cable offers superior kink resistance and unequalled strength with the right amount of flexibility.



For details about the toughest tools down the line, contact the Drain Brains[®] at General Pipe Cleaners at 800-245-6200, or visit www.drainbrain.com/XL



General
PIPE CLEANERS

The toughest tools down the line.™



© General Wire Spring 2016



BECAUSE BUILDING TOUGH

reliable TRUCKS,

TAKES TOUGH

reliable PEOPLE

Meet Barry, our supervisor of the Fabrication and Machine Shop.

Barry is tough, for sure, and with two bachelor's degrees, his intellect is bigger than his biceps. Barry lives out "more power to you" everyday. It's not just our tagline, it's in everything we do: our technology, our culture and our leadership. Yes, our trucks are engineered to be powerful. But they're also built smart with the end-user in mind, giving you a machine that gets the job done. **GO ON-LINE TO LEARN MORE.**

VAC-CON.COM

 **BOOTH
1061**

 **VAC-CON**
MORE POWER TO YOU

VAC-CON IS A SUBSIDIARY OF HOLDEN INDUSTRIES, INC.. A 100% EMPLOYEE-OWNED COMPANY

A HOLDEN INDUSTRIES Company

WGR SWITCHER™

**SWITCH FROM CLEANING TO FLUSHING
WITHOUT EVER LEAVING THE PIPE**



Flushing jets activated



Cleaning jets activated



VIEW THE VIDEO HERE:
WWW.STONEAGETOOLS.COM/SWITCHER

WARTHOG
SEWER NOZZLES BY **StoneAge**
1-866-795-1586 • WWW.SEWERNOZZLES.COM

Proudly Manufactured in the USA 



An instant, wireless View into any sewer.



Sewer assessment—it's essential to prioritizing CCTV and maintenance work, planning cleaning and rehab, and achieving compliance. Controlled wirelessly with a touchscreen tablet, the patented new **Quickview airHD** camera lets you look inside any sewer with:

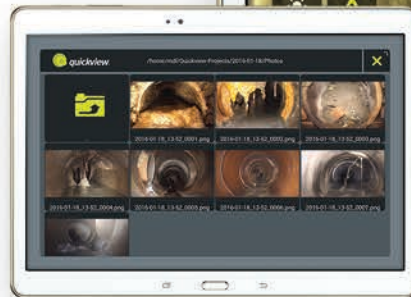
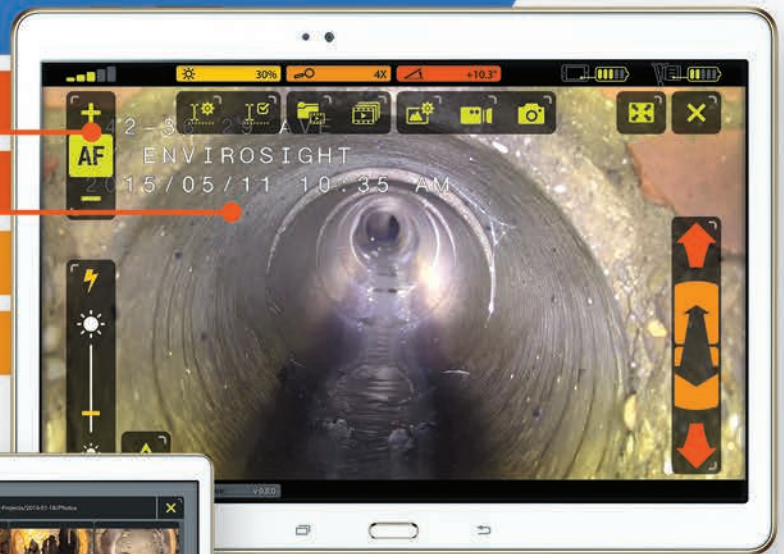
No cables at all!

Touchscreen control

Detailed HD video

In-manhole centering

Motorized tilt



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



envirosight.com/airhd • (973) 252-6700

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



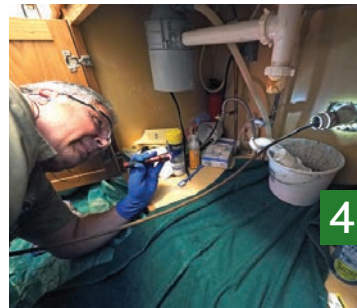
get a **demo**

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

©2016 EnviroSight. All rights reserved. Quickview and EnviroSight names/logos are trademarks of EnviroSight. Patents 6,538,732 and 7,009,698; others pending. Specifications subject to change without notice.



24



42



14

departments

- 10 **From the Editor: Sharing Different Perspectives**
There's so much to be learned in the stories of your peers' failures and successes.
By Luke Laggis
- 14 **Money Machines: Full Capacity in a Smaller Package**
Contractor's custom vacuum trailer is perfect for cleaning railroad tankers.
By Ken Wysocky
- 18 **@cleaner.com**
Be sure to check out our exclusive online content.
- 34 **Tough Job: Nowhere to go but Down**
Hydroexcavation firm sucks 3,000 cubic yards of debris out of a basement and over a street for a hospital expansion.
By Cory Dellenbach
- 50 **Safety First: 5 Tips for Accident-Free Vacuum Excavation**
Safe digging, regardless of the method, begins and ends with a focus on operator safety.
By Matt Timberlake
- 56 **Money Manager: Is It Time to Consider a Profit-Sharing Program?**
Spreading the wealth to employees when times are good can be a valuable motivational tool — and it's not just a big-company perk.
By Erik Gunn
- 62 **WWETT Spotlight: Dual Threat**
New camera from Pipeline Renewal Technologies cleans while it inspects.
By Craig Mandli
- 68 **Better Business: Addressing Your Company's Weaknesses**
An honest look at where your business may be falling short gives you an opportunity to improve.
By Alexandra Townsend
- 82 **Product News**
Product Spotlight: Aluminum frame adds durability to pressure washer series.
By Kyle Rogers
- 86 **Industry News**

features

- 24 **Profile: Everything the Customer Needs**
New Jersey firm generates steady growth by embracing new technology for the residential market.
By Marian Bond
- 42 **Profile: One-Man Show**
Go-it-alone contractor's only workday companions are reliable equipment and a passion for customer-oriented drain cleaning service.
By Ken Wysocky
- 72 **WWETT Product Preview**
Professionals will have the opportunity to see the top wastewater tools and equipment in the industry on the WWETT 2017 show floor.
By Craig Mandli

COMING IN FEBRUARY 2017

- ISSUE FOCUS:**
WWETT Show, CONEXPO Pre-Show, Field and Office Technology
- MONEY MANAGER:** Cut costs and raise your bottom line
- BETTER BUSINESS:** Build an abundance mentality
- SAFETY FIRST:** The cost of accidents is growing



ON THE COVER

Pipe Works Services owner Paul Giglio outside the company shop in Chatham, New Jersey. Pipe Works started as a one-man plumbing shop, but sewer work represents the fastest growing segment of the business today. (Photo by John O'Boyle)



two solutions for

LATERAL REHABILITATION

1

PERMA-LATERAL™ LINING

- REHABILITATING RESIDENTIAL HOME LATERALS TO MAIN SEWER.
- PATENTED ZERO DIG TECHNOLOGY.
- BEST SELLING SMALL DIAMETER PIPE LINING SYSTEM IN NORTH AMERICA

INNERSEAL™

- REHABILITATING TEE AND WYE CONNECTIONS FROM THE CITY SEWER MAIN TO RESIDENTIAL SEWER LATERALS.
- PATENTED TECHNOLOGY.
- MEETS ASTM F2561-16.

2



PERMA-LATERAL™ LINING

PERMA-LINER™ INDUSTRIES, LLC.

To learn more call **1-866-336-2568**
or visit perma-liner.com



INNERSEAL™

"SEALING THE SYSTEM" EDUCATIONAL PRESENTATION & LIVE DEMONSTRATIONS



Turn-Key Trailers &
Turn-Key Box Trucks



Zero Down, No Payments
for 90-Days



A

A Corp/Rooter-Man.....30
ALLAN J. COLEMAN
 SINCE 1905
 Allan J. Coleman Co. 19, 53

AMAZING MACHINERY
 Amazing Machinery, Inc.....93

Arctic Blasters, Inc.....16

ARIES
 INDUSTRIES, INC.
 Aries Industries, Inc.....13
 Arthur Products Co.....12

C

Cable Center, The..... 60, 65

CAM
 CAM
 Cam Spray.....38

WINNELSON
 CENTRAL OKLAHOMA
 Winnelson
 Central Oklahoma Winnelson.....48

CLOVERLEAF
 TOOL CO.
 Cloverleaf Tool Co.....48

TORQUEMASTER
 THE PROFESSIONAL'S CHOICE
 THE NUMBER 1 CHOICE
 Coast Manufacturing.....38

CUES
 CUES.....77

D

Doug Meadows.....30

DRAINABLES
 direct
 Drainables Direct.....75

DURACABLE
 Manufacturing Company
 Duracable Manufacturing Co.....41

E

Electric Eel
 Electric Eel Mfg.....22

Envirosight
 Envirosight, LLC.....5

enz usa inc.
 Enz USA, Inc.....16

F

Solutions
 F. S. Solutions.....79

Fatboy Outdoors.....86

Forbest Products Co.....54

Formadrain, Inc.....85

G

GapVax
 GapVax, Inc.....95

General PIPE CLEANERS
 General Pipe Cleaners.....2

GI Industries, Inc.....63

Gorlitz Sewer & Drain, Inc......55

GUZZLER
 Guzzler Manufacturing.....21

H

Hammelmann Corp.....58

Hannay Reels
 The reel leader
 Hannay Reels.....37

HATHORN
 Hathorn Corporation.....16

Hurco Technologies, Inc.....81

I

I.S.T. Services, Inc.....40

J

Jetstream
 Jetstream of Houston..... 11, 15, 29, 51

K

KEG Technologies, Inc.....40

Ken-Way
 Ken-Way Corporation.....48

L

Lansas
 Lansas Products.....26-27

LaPlace Equipment Co.....54

LIBERTY FINANCIAL
 Liberty Financial.....20

Liner Products.....17

M

MAXLINER
 MaxLiner USA.....49

MRP
 Milwaukee Rubber Products, Inc.....40

Mongoose
 Mongoose Jetters by Sewer Equipment....67

MyTana
 MyTana Mfg. Company, Inc.....59

N

NLB Corp.
 NLB Corp.....33

NozzTek
 NozzTek, Inc.....54

O

Oceanquip LLC
 Oceanquip Cables, LLC.....66

P

PERMA-LINER INDUSTRIES
 Perma-Liner Industries, LLC.....7

PHCC-GLAA.....71

PICOTE
 Picote Solutions.....70

PIPELOGIX
 Pipeline Renewal Technologies.....61

PipeLogix, Inc.....35

Pulsar 2000
 Line Tracer
 Pulsar 2000, Inc.....58

Q

Quik-Lining Systems, Inc.....22

R

RS
 THE SINGLE SOLUTIONS
 R.S. Technical Services, Inc.....45

RapidView IBAK
 RapidView IBAK North America.....31

Ratech
 ELECTRONICS
 Ratech Electronics, Ltd.....38

Rausch USA.....87

REELCRAFT
 Reelcraft Industries.....20

RIDGID
 RIDGID.....9

ROOT RAT
 NOZZLES
 Root Rat.....86

Rush-Overland Manufacturing.....69

S

SCOOTER
 Scooter Video.....47

Sewer Equipment of Nevada.....66

SOUTHLAND TOOL MFG. INC.
 Southland Tool Mfg., Inc.....23

SPARTAN
 Spartan Tool, LLC.....96

STONEAGE
 StoneAge, Inc.....4

T

T&T TOOLS
 T&T Tools, Inc.....12

TRIVISION
 Trio Vision LLC dba Cobra Tech.....83

TST Sweden AB.....57

U

ultraSTORE
 PRODUCTS
 Ultra Shore.....22

V

VAC-CON
 Vac-Con, Inc.....3

VAR
 CO
 VARCo.....66

Vector Technologies Ltd.....12

VIVAX
 METROTECH
 Vivax-Metrotech Corp.....70

W

WATER CANNON
 Water Cannon, Inc. - MWBE.....94

Westech Vac Systems.....39

Westmoor Ltd.....30

WinCan
 WinCan, LLC.....60

WWETT Show..... 32, 52, 64, 92

Marketplace..... 88-89
Classifieds..... 90-91

Have you seen the
Cleaner
E-Zine?

Cleaner

Playing the...
 Cleaning the...
 Cleaning the...
 Cleaning the...

Go to **cleaner.com**
 to view the e-zine.

Cleaner It's FREE! Subscribe online at www.cleaner.com

©2017, RIDGID, Inc. The RIDGID logo is a registered trademark of RIDGID, Inc. in the U.S. and other countries.

 **BOOTH**
1354

I know

**KNOWLEDGE CAN MAKE YOU A TRADESPERSON,
BUT ONLY EXPERIENCE CAN MAKE YOU AN EXPERT.**

RIDGID

BUILT FOR THOSE WHO KNOW.™



RIDGIDbuilds.com



Luke Laggis
editor@cleaner.com

Sharing Different Perspectives

There's so much to be learned in the stories of your peers' failures and successes

By Luke Laggis

I always wonder if you read this column and what you think of it.

I've never lined a pipe, run a jetter or inspected a sewer main. I can't share any technical wisdom. But I talk to you and your peers regularly. I hear your stories. I go to trade shows. I read about the industry. I certainly know far more about the work you do than your customers — you don't need to explain to me the value of a CCTV inspection or the benefits of pipe bursting. Still, I've never done the work, and that's where the real knowledge comes from.

I got a call the other day from Larry Larson at C&L Water Solutions in Littleton, Colorado. Larry has been in business since 1979, and he's been in the industry longer than that. I'm not teaching him anything new about the

work he's been doing for 40 years, but he still reads *Cleaner* and called about my column in the October issue.

The column, coincidentally, was about the evolution of the trenchless industry, and Larry was inquiring whether I was familiar with the UV-curing process for CIPP lining. I told him I am, but only in the way I'm familiar with other technologies: I've read about them, discussed them and seen them demonstrated, but I'm not out in the field practicing them.

Larry told me about his business and the tremendous growth it's seen in recent years since he and his sons have added and embraced new trenchless technologies. It was good to hear his perspective. It was also really nice to hear that he regularly reads the magazine and values my viewpoint. He referred to it as an outside perspective, and that was pretty interesting to hear — a useful reminder that no matter how much I write about the industry, I'm not out there doing the work.

So maybe I can't teach you how to properly wet-out a felt liner, safely hydroexcavate a utility line in a congested area, or run your cable machine through multiple bends without getting it stuck. I can't tell you which nozzle is best for the work you do and I can't provide any tips on coding inspection video. But I can put the industry's best and brightest in front of you every month. I can tell their stories. And I can give you the opportunity to learn from them.

There's plenty to learn from people like Larry Larson, and the more I learn the better I can tell those stories and put them in a context that's meaningful to you. People like Larry and their stories fill this magazine every month, and the vast breadth of knowledge and information they hold is the real value for you.

Keep your eye out for the profile on C&L Water Solutions next month. And in the meantime, enjoy this month's issue. **c**

FRANKIE BALLARD

LIVE

at the 2017 COLE Publishing Industry Appreciation Party!

February 24, 2017

Sagamore Ballroom
2nd Floor - Indiana Convention Center

Free with your 2017 WWETT admission badge.

wwett17
February 22-25, 2017 • Indianapolis, Indiana

Supporting his hit album "El Rio" featuring the single, "Cigarette"

Brought to you by COLEpublishing and these official WWETT Show publications:

Pumper Cleaner PRO installer CUSTOMER SERVICE WATER GPO GAS OIL & MINING PLUMBER digDIFFERENT

Socially Accepted

facebook.com/CleanerMag
twitter.com/CleanerMagazine
plus.google.com
youtube.com/CleanerMagazine
linkedin.com/company/cleaner-magazine

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: Submit classified ads online at www.cleaner.com/classifieds/place_ad. 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 jeffl@colepublishing.com. To order back issues, call Nicole at 800-257-7222 (715-546-3346) or email nicole@colepublishing.com.

CIRCULATION: Circulation averages 25,642 copies per month. This figure includes both U.S. and international distribution.

© 2017 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
- www.twitter.com/CleanerMagazine
- www.plus.google.com
- www.youtube.com/CleanerMagazine
- www.linkedin.com/company/cleaner-magazine



WATER & WASTEWATER EQUIPMENT, TREATMENT & TRANSPORT SHOW

FEBRUARY 22-25, 2017

Indiana Convention Center, Indianapolis, Indiana
www.wwettshow.com

Beyond buckets and blades.

digDIFFERENT

FIND OUT HOW.
FREE subscription at digdifferent.com



**THINK SAFETY.
THINK PERFORMANCE.
THINK JETSTREAM.**

The Orbi-Jet X22 Nozzle

Durability

Stainless steel body with Twis-Lok Shroud rated up to 22,000 psi.

Reliability

Precision magnetic braking system controls rotational speed.

Serviceability

Rebuilds 2x faster than the competitor's.*

*Test data available



Visit waterblast.com for more information or call 1-800-231-8192

Jetstream
Subsidiary of Federal Signal Corporation

SAFE, SURE & SIMPLE SOLUTIONS.



**BOOTH
5050**



T&T Tools, Inc.

Fax: 800.521.3260

Email: sales@mightyprobe.com

800.521.6893

www.MightyProbe.com



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

The Original Since 1976

Performance Proven VACUUM SOLUTIONS



The New Vac-Con Mudslinger 500 by Vector

For more information: Email us at: inquiry@vector-vacuums.com



Vector Technologies Ltd.
Milwaukee, WI 800-832-4010 FAX: 414.247.7110
www.vector-vacuums.com



ARTHUR PRODUCTS CO.

ENGINEERED SOLUTIONS



INCLUDES:

- Flusher Nozzle
- Penetrator Nozzle
- Deicer/Degreaser
- Sewer hose 50 ft
- Quick disconnect
- Carrying Case



Phone: 1.800.322.0510
Fax: 1.300.722.2698

E-Mail: apc@apclsq.com
Web: www.arthurproducts.com

FIERCE COMBINATION.

ANACONDA[®]
UV CURING SYSTEM

WOLVERINE[®]
CUTTING SYSTEM



POWERFUL. FAST. PRODUCTIVE.

Aries' fierce combination of UV curing and cutting systems gives you the tools to get your jobs done right. Powerful equipment sets up quickly with little maintenance. Lining cures in one-third less time than steam-cured processes.

- CCTV monitoring during the cure for perfect installs
- Less equipment, smaller crews and less fuel consumption
- Immediate lateral reinstatement with no cool-down time

Use the right tools for productive rehabilitation. Contact Aries today.



ARIES
INDUSTRIES, INC.

See what you're missing.

www.ariesindustries.com
(800) 234-7205

Full Capacity in a Smaller Package

Contractor's custom vacuum trailer is perfect for cleaning railroad tankers

By Ken Wysocky

When a client approached Covanta Environmental Solutions in search of quicker turnaround times on cleaning petroleum-based debris in railroad tanker cars, the company had just the answer: custom-built vacuum units that significantly reduce cleaning time — and get the cars back on the rails and generating revenue faster than before.

Covanta fabricated the trailer-mounted units in-house and calls them VacSimizers. They're towed by either Peterbilt 389 or Freightliner 122SD tractor cabs. By combining a 5,000-gallon tank (that's roughly as much capacity as a typical tanker trailer) with the smaller size and greater maneuverability of a standard vacuum truck, the unit offers Covanta customers increased productivity and efficiency, says Joe DeNucci, marketing manager at Covanta.

"The VacSimizer offers us a competitive advantage in the market because it effectively does the work of two vacuum trucks," DeNucci explains. "As such, it cuts job times by about 50 percent. By hauling more sludge than other trucks, we can finish jobs faster and also save money for our clients."

But how does a vacuum unit carrying that much weight comply with bridge laws? The answer to that question lies in a sliding subframe, which can extend four of the trailer's six rear tires past the back of the tank. This distributes the weight more evenly, allowing it to meet weight restrictions while making disposal runs. When the tank is empty, the tri-axle trailer's six wheels tuck back under the tank, which shortens the wheelbase and provides a tighter turning radius. That's useful when maneuvering in railroad yards during on-site tanker-car cleanings or at Covanta's railcar-cleaning facilities in Milwaukee, Wisconsin, and New Castle, Pennsylvania, DeNucci notes.

money machines

OWNER: Covanta Environmental Solutions, Milwaukee, Wisconsin

MACHINE: Custom-built VacSimizer trailer-mounted vacuum units

FUNCTION: Industrial cleaning

FEATURES: 5,000-gallon debris tank made by Advance Pump & Equipment; 2,200 cfm blower made by Roots Systems Ltd. (Howden Roots); extendable and retractable subframe that enables compliance with road weight restrictions; debris tank tilts up to 76 degrees.

WEBSITE: www.covanta.com



Covanta's VacSimizer vacuum trailers feature a sliding subframe, which can extend four of the trailer's six rear wheels past the back of the tank to distribute weight more evenly, allowing it to meet weight restrictions while making disposal runs. When the tank is empty, the tri-axle trailer's six wheels tuck back under the tank.



The VacSimizer trailers combine a 5,000-gallon tank typical of a full-size tanker trailer with the smaller size and greater maneuverability of a standard vacuum truck.

“When the wheels extend, the truck can weigh up to 80,000 pounds, which is the gross vehicle weight plus its maximum payload,” he says. “Most high-powered vac trucks designed to remove thick sludges don’t have tanks that big and can’t leave with more than 400 or 500 gallons of material in the tank.”

Moreover, the VacSimizer’s design achieves further weight reductions by using six tires instead of 12 on the rear triaxles. The tires are wider, low-profile super singles, which are less expensive to replace than regular tires. With fewer tires and rims, the vehicle gross weight when empty is 38,000 pounds.

Another key feature is a tilting debris tank that rises as high as 76 degrees, which largely eliminates the need for time-consuming tank cleaning performed via confined-space entry, DeNucci points out. Blowers (up to 2,200 cfm) made by Roots Systems Ltd. (Howden Roots) provide the VacSimizers’ vacuum power and Advance Pump & Equipment manufactures the units’ carbon steel debris tanks.

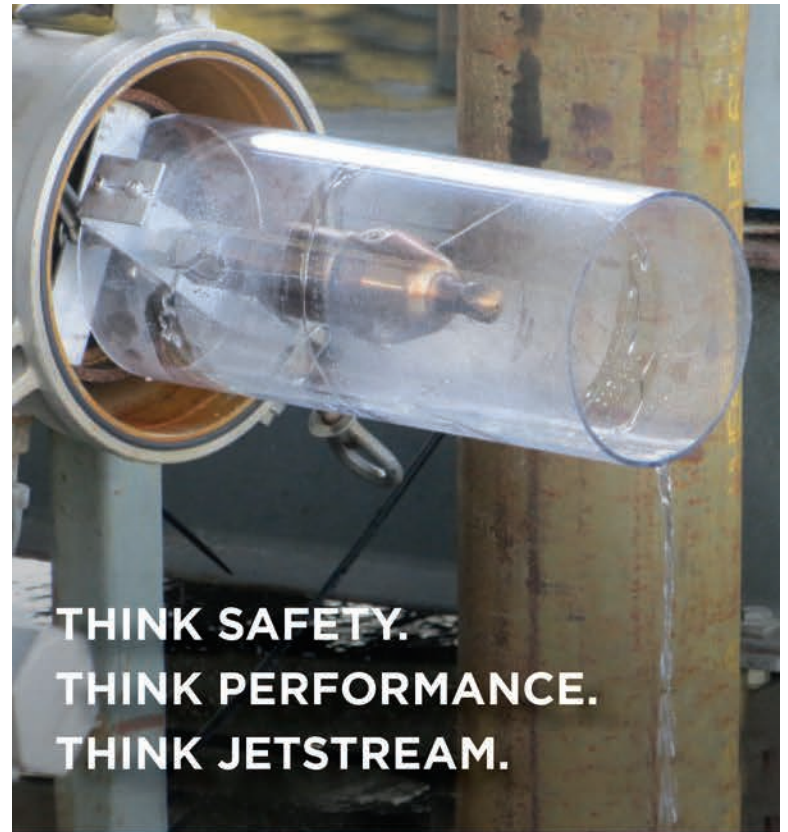
The railcars at issue are DOT-111 railroad cars, which are unpressurized tankers designed to carry liquid and gaseous commodities. In this case, the cars transport everything from petroleum-based products and cooking oil to crude oil and soybean oil. The time it takes to clean out the tankers varies according to how much “heel” — tar-like or even completely hardened oil-product residue — has formed on the bottom. “Sometimes it can take all day because the heel is rock-hard,” DeNucci says. “That can be very challenging to clean.”

If the heel is minimal, technicians “steam” the tankers using portable steamers. That melts any hard or gooey substances, rendering them easier to vacuum out via an outlet valve on the bottom of the tanker. “But some residue remains no matter how much steam you put in there,” DeNucci explains. “Then we have to go in through the top of the railcar and use really strong vacuum power.”

To clean any remaining residue, the company uses either a hydroblasting unit made by Jetstream of Houston (15,000 psi at 40 gpm) or a trailer-mounted water jetter (5,000 psi at 5 gpm) built by Landa. If all else fails, workers can also apply a solvent with a Torus 3-D spinner made by Jetstream or enter the tanker and scrape off the remaining heel with hand tools, he adds.

Scouring the tanks completely clean is critical to railroads’ profit margins because it allows them to maximize payload capacities, DeNucci points out.

The VacSimizers are used for more than just railcar-cleaning duties. They’re also used to clean things such as industrial tanks, catch basins and car-wash waste pits — virtually anything that contains sludge and solids, DeNucci says. “They’re one of our most essential pieces of equipment for industrial-service projects and are critical to reaching our revenue goals.” **■**



**THINK SAFETY.
THINK PERFORMANCE.
THINK JETSTREAM.**

The RotoMag X22 Nozzle

Durability

Self-powered rotary pipe cleaning nozzle with body protection shroud.

Reliability

Improved kit life through new O-ring assembly.

Serviceability

5-minute replacement of wear components.



Visit waterblast.com for more information or call 1-800-231-8192



SAFE, SURE & SIMPLE SOLUTIONS.



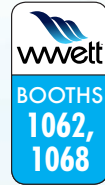
UNLEASH THE POWER of the enz[®] BULLDOG[®]!

Application range:
2.5" - 24"



This all-purpose nozzle is the most efficient and economical way to clear roots, debris and blockages from your pipes.

- Utilizes both fresh and recycled water
- Easy to handle and low maintenance
- Reduces transportation and water costs
- Oil-free braking system provides low wear and tear operation



CALL 1 877 ENZUSA1 For a dealer near you
www.enzusainc.com



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



Magnum M7 Rugged & Affordable

Compact and light weight (only 29lbs) the M7 is packed with features and fits pipe sizes ranging from 1.5" to 6" depending on push rod and camera configuration.

Key Features

- 7.4" Monitor with Acrylic Shield
- USB Recording
- 4 Hour Lithium Battery
- On-Screen Footage Counter
- 512Hz Sonde Transmitter
- Adjustable Lighting
- Text Writing
- 100' Push Rod with Straight View Camera

Options

- 200' of Push Rod
- Self Levelling Camera Head
- WiFi Transmitter



For more info visit:

www.hathorncorp.com or call 905-604-7040

SEE THE VIDEO AT: WWW.ARCTICBLASTER.COM

IT JUST MIGHT BE THE BEST
TOOL YOU'LL BUY THIS WINTER!!



Perfect for Public Works, Plumbers, Rentals, Etc.

Thawing: Frozen water lines • Sewer lines • Valve and load lines • Culverts

A PROPANE TORCH,
2 GALLONS OF WATER AND
THE AMAZING
ARCTIC BLASTER



THAT'S ALL YOU NEED TO SEE FAST, SAFE
AND ECONOMICAL THAWING RESULTS.

The Arctic Blaster will have the job done before most thawing devices are ready to work.

Perfect for Public Works - fits behind the wheel well in your pickup truck, makes steam in 10 minutes or less and will thaw 30 ft of water line in 15 minutes.

ARCTIC BLASTER BOX 918 SUNDRE, AB TOM 1X0 403-638-3934

TOTAL PACKAGE.

Dry Felt Tubes | Saturated Liners | UV-Cured Liners



Dry Felt Tubes
Saturated Liners
UV Liners

Clearly Superior

*Now offering saturated and UV-cured liners in addition
to our traditional dry nonwoven felt products.*

The Choice is Clear

Since 1999, Liner Products has supplied the CIPP industry with nearly 40 million feet of premium quality dry tubes. We are now pleased to offer saturated liners for water, steam and ultraviolet light-curing applications. Our entire product line comes with the high level of customer service that our longstanding customers know and trust.



812.723.0244 | LinerProducts.com

@Cleaner.com

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

OVERHEARD ONLINE

“Don't assume the best option is always the insurance policy with the lowest premium. A lower premium can mean a lack of needed coverage. Don't wait until after disaster strikes to learn you weren't covered for that particular disaster.”

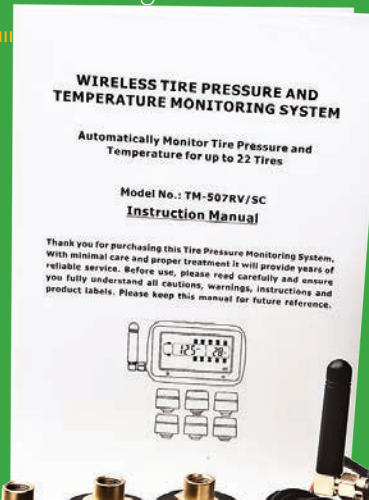
— Buying Insurance To Cover Your Small-Business Office
cleaner.com/featured



ANIMAL RESCUE

Pennsylvania Plumber Catches Cat with SeeSnake

The callers to Matt Mertz Plumbing were panicked but it wasn't because of a leak or a backed-up sewer line. A gray kitten named Emerald had crawled down a broken drainline and couldn't find its way out. Even the fire department hadn't had luck, but the plumbing firm had an idea — a RIDGID SeeSnake inspection camera. The unorthodox use for the camera not only turned out to be the perfect solution, the good deed led to more work for the company down the road. cleaner.com/featured



MONEY SAVER

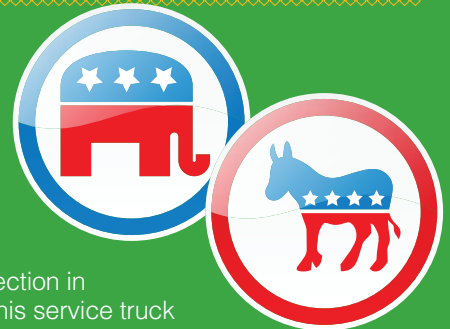
Pressure Monitors Help Avoid Early Tire Replacement

Want to increase your vehicles' gas mileage, extend the life of expensive tires, improve driver safety, and receive advanced warnings about hard-to-access parts that may need repair? A tire-pressure monitor can help. Learn about how these devices work and their various benefits. cleaner.com/featured

A HELPING HAND

Minneapolis Drain Cleaner Responds to Post-Election Vandalism

Two days after the presidential election in November, Ben Smith was out in his service truck and came across a photo of a vandalized garage posted on Reddit. The derogatory graffiti referencing Donald Trump was a sign of the heated political climate at the time, but for the owner of Marvel Sewer and Drain it was also a call to action. Armed with his pressure washer, he helped out the vandalism victims free of charge. cleaner.com/featured



Emails and Alerts

Visit 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



or Twitter at twitter.com/CleanerMagazine

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

MR-10 Magnetic Locator

- Quickly locate buried iron or steel objects
- Ergonomic rugged design includes carrying case and batteries
- Highly sensitive instrument with audio and visual feedback
- AutoNull feature blocks out nearby metallic interference such as an automobile or chain link fences



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



NaviTrack® Scout®

Scout is designed to solve demanding remote transmitter (sonde) locates using multi-directional locating technology.



SeekTech® SR-20

SeekTech uses omni-directional antennas, guidance arrows and an easy to read mapping display.



SeeSnake® Mini Camera Reel

- 1 1/2" to 6" Lines up to 200'
- New Self-Leveling Camera Head
- Built-In 512 Hz Sonde
- Metal Frame and Rugged Drum

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



CS65x Digital Reporting Monitor With Wi-Fi

- Wi-Fi and Bluetooth
- Storage Options: Internal Drive & USB Ports
- Internal GPS
- Water-resistant Keyboard
- Daylight Viewable Display



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



RIDGID®

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!

PHCC MEMBER

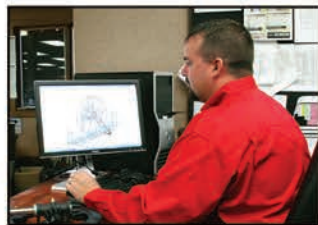
Rely on Reelcraft



Dual pedestal hose reels
Series 80000

Did you know...
Reelcraft can build to your specs?

Special paint colors and finishes ▶



Reelcraft's Capabilities

- ✓ Built to your exact needs
- ✓ Very few size and weight constraints
- ✓ Special finishes/paint options
- ✓ Various drive types
- ✓ Wide range of pressures
- ✓ No minimum quantities

To learn more visit us at
www.reelcraft.com/custom



▶ Jetter reels



◀ Turn-key systems



REELCRAFT®

www.reelcraft.com 800-444-3134

Flexible and Affordable Financing Options



Financing for New and Used Equipment:

- | | |
|----------|---------|
| Trucks | Tanks |
| Trailers | Toilets |
| Cameras | Jettors |

also Computer Hardware & Software



LIBERTY FINANCIAL
A DIVISION OF NAVITAS CREDIT CORP

7 Church Road Hatfield, PA 19440
Phone: 800.422.1844 Fax: 888.883.9380
Visit our website: www.libertyfg.com

COMMERCIAL EQUIPMENT FINANCING
CALL 800-422-1844 EXT. 112



Your Guzzler comes with a pit crew



When you buy a Guzzler®, you get more than the toughest, most reliable industrial vacuum truck in the business. You also get the full backing of the Guzzler team – for parts and service, round-the-clock support, training, consulting and industry expertise. Think of us as the pit crew dedicated to taking care of you and your truck. We can even help you expand your business by exploring new markets and applications for your Guzzler truck. With your Guzzler pit crew, the competition can eat your dust.

For a demo or to meet your Guzzler pit crew, call 800-627-3171 or visit www.guzzler.com/pitcrew.

Guzzler products are serviced and supported by FS Solutions™

Guzzler is a registered trademark of Guzzler Manufacturing.
©2016 All Rights Reserved.



Electric Eel 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 5104


www.electriceel.com
 Toll-Free: 1.800.833.1212

Your **TRUSTED** Lateral Lining Manufacturer!

Quik-Lining Systems



CALL TODAY!
605-695-6778

Quik-Lining Systems offers a revolutionary line of Lateral Lining Inversion Equipment for the installation of **Cured In Place Pipe**.

Our equipment saves **TIME and MONEY**

Can be used in even the most confined spaces!

CONTACT US FOR MORE INFORMATION !! 605-695-6778


BOOTH 6412

WWW.QUIKLINING.COM
 E-MAIL // JOHN@QUIKLINING.COM

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

ultraSHORE

P R O D U C T S



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

www.shoring.com
 1-800-683-8837

SOUTHLAND TOOL MFG. INC.

Building Innovative Tools for Municipalities



SOLUTIONS TO SEWER CLEANING THROUGH: CONCEPT • DESIGN • PRODUCTION

New Item



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



1430 N. Hundley St
Anaheim, CA 92806

ph: 714.632.8198
fax: 714.632.8228

YouTube
www.SouthlandTool.com



BY MARIAN BOND | PHOTOGRAPHY BY JOHN O'BOYLE

EVERYTHING THE **CUSTOMER NEEDS**

NEW JERSEY FIRM GENERATES STEADY GROWTH BY EMBRACING
NEW TECHNOLOGY FOR THE RESIDENTIAL MARKET

<<<: The Pipe Works Services team includes (front, from left) Kevin Jensen, Tricia Bruno, Jen Olsen, Debbie Perryman, Margie Vanderbilt, Paul Giglio and Michael Tapia. Back: Wade Palmer, Mario Chamoun, Armand Vaccaro, Keith Behre, Rob Cowden and Ryan Cerniglia.

>>> Technician Dwight Rodriguez uses a RIDGID locator to confirm the path of a pipe while searching for a blockage.



Paul Giglio started working out of his home 17 years ago, but his goals stretched way beyond his living room.

Today, the owner of New Jersey-based Pipe Works Services has 32 employees and a fleet of 21 vehicles. His focus is on providing comprehensive, high-quality service to residential clients in the affluent borough of Chatham, 30 miles from New York City.

Giglio initially focused on plumbing, HVAC and sewer cleaning services, but from the beginning, he had his sights set on additional services and becoming a one-stop shop for his customers. Along the way he has added divisions to provide insulation, water conditioning and electrical services.

While the plumbing division remains dominant with approximately 70 percent of the business, sewer cleaning, relining and excavation represent a growing piece of the pie. That sector is gaining ground significantly, and he sees a future where those divisions will amount to a more substantial figure.

STEPPING STONES

“From the beginning I wanted to build a business that would provide 24-hour service, seven days a week, and to offer a higher level of service,” Giglio says.

He immediately focused on the residential market and has stuck to that path, with 95 percent of the company’s business in home services.

Today, his company serves about a 25-mile radius going into several adjoining counties. With two technicians always on call, they are able to respond to emergencies within minutes at any time of day or night.

Having just opened his business when 9/11 hit, Giglio wasn’t sure how things would sort out. It was a troublesome time, but they worked through it and moved on, and began the march to growth while some competitors had to downsize.

By its fifth year the company had expanded to eight employees.

profile

PIPE WORKS SERVICES INC.

CHATHAM, NEW JERSEY


OWNER: Paul Giglio Jr.

ESTABLISHED: 2000

SERVICES: Plumbing, HVAC, sewer cleaning, jetting, CCTV, relining, electrical, energy-efficient insulation

EMPLOYEES: 32

CUSTOMER BASE: Residential



Even though the country was poised for an economic downturn, there were bigger things ahead for the company. They weathered the economic downturn and the service business continued.

“Our customers still needed plumbing services,” he says, adding he had been careful to not overspend, and was able to continue running the business and providing excellent service.

Pipe Works Services really took off between 2012 and 2016, doubling in growth and adding jetting and relining to the package.

HITTING THE MARK

The company hit its stride when it added a truck fully outfitted with Perma-Liner equipment and moved into CIPP lining. The vehicle is designed to carry all materials — a complete package for the company.

“Perma-Liner helped us with everything,” Giglio says. “Sales, marketing, training — it is a great company.”

“We do a lot of research with the manufacturers we want to partner with. Perma-Liner gave excellent training. We had them at our facility for five days to learn, which we were happy to pay for. But they offer training at their facility in Florida continually. Their training won me over.

“There are a lot of unknowns when you excavate to replace lines. Some are difficult to overcome as you find things in the earth, like underground utilities not marked properly by utility authorities. We wanted another way to replace a homeowner’s lines without excavation. I cannot say enough about Perma-Liner.”

“FROM THE BEGINNING I WANTED TO BUILD A BUSINESS THAT WOULD PROVIDE 24-HOUR SERVICE, SEVEN DAYS A WEEK, AND TO OFFER A HIGHER LEVEL OF SERVICE.”

Paul Giglio

Pipe Works does a lot of work in older neighborhoods, and the team sees a lot of old cast iron, clay and Orangeburg pipe. Most homes they deal with were built in the 1940s and ’50s, and they have well-established lawns and trees, which makes excavation a difficult solution.

“Pipes may be corroded, falling apart, rotted and with root infiltration,” Giglio says.

Giglio says these old pipes can typically be lined, even if they’re in bad condition.

“As long as the hole is there ... we can line it. Even with a break

in the line, or if it is collapsed, if you can jet it and clear it, the liner can pass through. Once you reline the pipe that liner is as strong, if not stronger than the original pipe.”

Giglio has four technicians specifically trained for this work.

“It is a technical process. A lot of calculation is required to line the pipe.”

He says it took his people three to four months before he felt completely comfortable with the actual work in the field.

From the startup, they had customers opting for relining, and there were no problems on the projects. He says the typical length of a lateral line in the area is 60 to 70 feet, and all they need is an accessible clean-out from inside the house, or they will dig a small hole just outside the house and shoot the liner. This saves their customer money and preserves the outside appearance of the home.

EQUIPPED FOR SUCCESS

Lining isn’t the only reason for the company’s growth.

Jetting has also been a huge part of the company’s success.

“We are proud of our 2016 Isuzu jetting truck. It is a cab-over-chassis with a Hackney box on the back,” Giglio says. “The jetter (US Jetting) is mounted inside the truck, and offers 3,000 psi/12 gpm. There is a side door and the jetter is wheeled out. There is no tow-behind trailer. With any kind of drain cleaning, the jetter is there to meet the additional needs of the consumer.

“It is a great way to clear the drain — scrub the lines clean again.”

All these services are helping in his quest to be a one-stop shop that meets all the needs of its customers. Part of that quest is proper diagnosis.



Lansas[®] PRODUCTS

Manufactured by Vanderlans & Sons, Inc.



Double sided gasket to seal a variety of pipe diameters!



New 8"-12" MST and Larger SST sizes Now Available!

Lansas Night Cap sizes 12" - 36" Now Available!



Pipe Works Services senior technician Jonathan Dorieux looks at a video display from a 200-foot RIDGID SeeSnake to find blockage in a pipe at a senior citizen housing facility in Orange, New Jersey.

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 1-832-831-4458
www.lansas.com

Lansas New and Improved Product



Technician Dwight Rodriguez feeds a RIDGID SeeSnake into a clean-out to find the source of a blockage, while senior technician Jonathan Dorieux looks on.

“Sending the camera down the line, it’s like going to the doctor and taking care of your health. Obviously medical issues are more complicated, but we need to take care of our bodies. It is like cholesterol in the arteries, and sending in a camera to see what is going on.”

Giglio says that with the company’s extensive stable of equipment and long list of services, other plumbing firms frequently call them in as a subcontractor.

“We do a lot of this,” he says. “Our trucks are all heavily logoed, but it’s never a concern. In fact, we really pride ourselves on the design of our trucks.”

Having the equipment to handle all their own work has been positive, as they don’t find it necessary to bring in subcontractors that might not meet their quality expectations.

THE ROSTER

There are 12 service technicians with Pipe Works, and then there are those they call “underground experts.” These are the fellows who go out and evaluate the situation after a technician has televised a line and found root infiltration or structural issues.

“I’M VERY FORTUNATE BECAUSE OF THE PEOPLE I HAVE SURROUNDED MYSELF WITH — CORE PEOPLE FROM THE START.”

Paul Giglio

There are four underground experts who typically arrive on the job site in Ford Transits outfitted with RIDGID cameras and locators. Their job is to find the right solution. They consider the depth of the line, the situation with landscaping, and determine the costs, logistics and ultimately the most appropriate way to solve the problem.

“I’m very fortunate because of the people I have surrounded myself with — core people from the start. Michael Tapia, my service manager, has 12 years with us. Kevin Jensen, production manager, has been with us 14 years.”

The company’s 12 service vans are a mix of GMC, Chevrolet and Dodge, some with Hackney bodies. They partner with several manufacturers for co-op dollars and include those logos on the vehicles. They work with Lennox, Kohler, GROHE and Viega.

“We also partner with Dr. Energy Saver out of Connecticut. They offer systems we install for our energy division. We work closely with them and they with us. It is a fabulous partnership.”

REFLECTIONS

Giglio says during the downturn in the economy, they promoted their company by starting a coupon program that went out to their customers. The coupons offered savings with no expiration date.

“Those coupons were a great value to the customer and to us,” he says. “They were dated 2007 and 2008, and we still are getting calls using that same coupon. Something unbelievable — they had a very long shelf life.”



Dwight Rodriguez rolls a 75-foot RIDGID K-400 cable machine out of the company's 2016 Isuzu jetting truck, which features U.S. Jetting equipment housed inside a Hackney body.

He believes one of the smart things he did from the beginning was establish a high level of service, and he attributes the regular meetings and training sessions with keeping his technicians in that same mode.

There is a management staff meeting every Tuesday at 9 a.m. where they discuss any problems or challenges. Then the technicians meet every Wednesday morning for an hour and a half to train and discuss issues.

He has also set up a call center, with three staff members handling the myriad of customer calls, dealing with scheduling and getting everything properly coordinated.

Finding qualified plumbers/technicians has taken an interesting turn since he opened the company, and not for the good.

"It isn't a problem for a technician to do both plumbing and drain cleaning. The problem is finding anyone who can come with the experience it takes. When we started in 2000 it was easy to find people, but today it is difficult and it is a big hurdle for us to overcome. Back then you could hire someone with the work experience. Now, viable workers are 55 and 60 years old — it is a challenge.

"There is no real training available. A true training is working in the field. That is the experience it takes." **c**

featured equipment

Hackney
252/946-6521
www.hackneyservice.com

Isuzu Commercial Truck of America
877/478-9828
www.isuzucv.com

Perma-Liner Industries, LLC
866/336-2568
www.perma-liner.com
(See ad page 7)

RIDGID
800/769-7743
www.ridgid.com
(See ad page 9)

US Jetting
800/538-8464
www.usjetting.com



**THINK SAFETY.
THINK PERFORMANCE.
THINK JETSTREAM.**

Tube Spinners

Durability

Stainless steel body and sleeve for 15,000 psi and 20,000 applications.

Reliability

Innovative, debris exclusion* sleeve design for maximum reliability and reduced maintenance.

Serviceability

Wrench flats for ease of attachment and detachment.



*Patent Pending

Visit waterblast.com for more information or call 1-800-231-8192

Jetstream
Subsidiary of Federal Signal Corporation

SAFE, SURE & SIMPLE SOLUTIONS.



RUGGED & RELIABLE

Performance By Design

Made in USA

Ideal For Grease Trap Service



Simply the BEST!!



ELECTRIC POWERED

ProVac
Industrial Pumpout System
Designed, Machined & Assembled in the USA



ProCheck - Transport Hold Down



GASOLINE POWERED

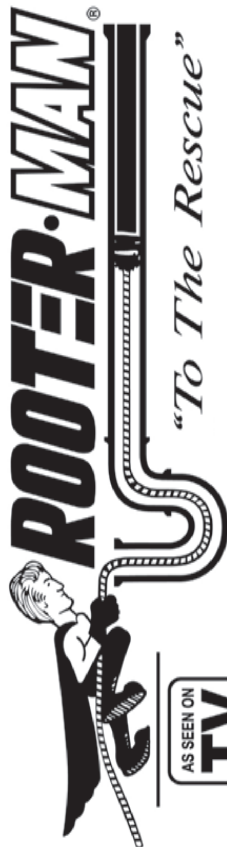
Check Us Out - Booth No. 5134 at the WWETT Show

www.westmoorltd.com

Westmoor Ltd., 906 West Hamilton Ave, Sherrill, NY 13461

TEL (800) 367-0972

**Join A National Brand
ROOTERMAN.COM**



Without Paying the National Brand Price

NEW CONCEPT: NO ROYALTY ON PERCENTAGE OF SALES

Reserve Your Exclusive Territory

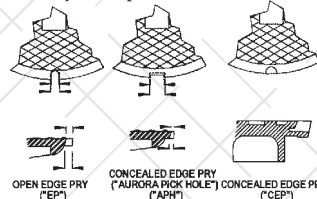
Call 1-800-700-8062

FRANCHISE PACKAGE \$3,975.

RHINO



- 8 lb. and 12 lb. (4140) ASTM A148 cast steel head breaks frozen covers free easily. Serrated edge strengthens pick-end and eliminates possibility of tool becoming bottlenecked in the cover.
- Combination sledge hammer and pick/pry bar. Two tools in one enables a worker to carry only one piece of equipment into the street
- Tapered saw-tooth pick fits 5/8" or larger drain holes and most pick slots.
- Top quality handle constructed of fiberglass.
- "Mary A" is patented.



Distributed by:
**DOUG MEADOWS
COMPANY, LLC**
1.800.588.3684
Fax (325) 695-7954

Web site: www.dougmeadows.com

THE WORLD'S FIRST AUTOMATIC POST-LINING LATERAL DETECTOR

**Locate and Mark
Laterals Automatically
After Relining!**

THIS AND MORE
NEW TECH
ON DISPLAY AT WWETT
BOOTH #2205

RapidView®
IBAK
North America

(800)-656-4225 | www.rapidview.com | Past Proven. Future Ready.

HERE'S WHY YOU SHOULD ATTEND

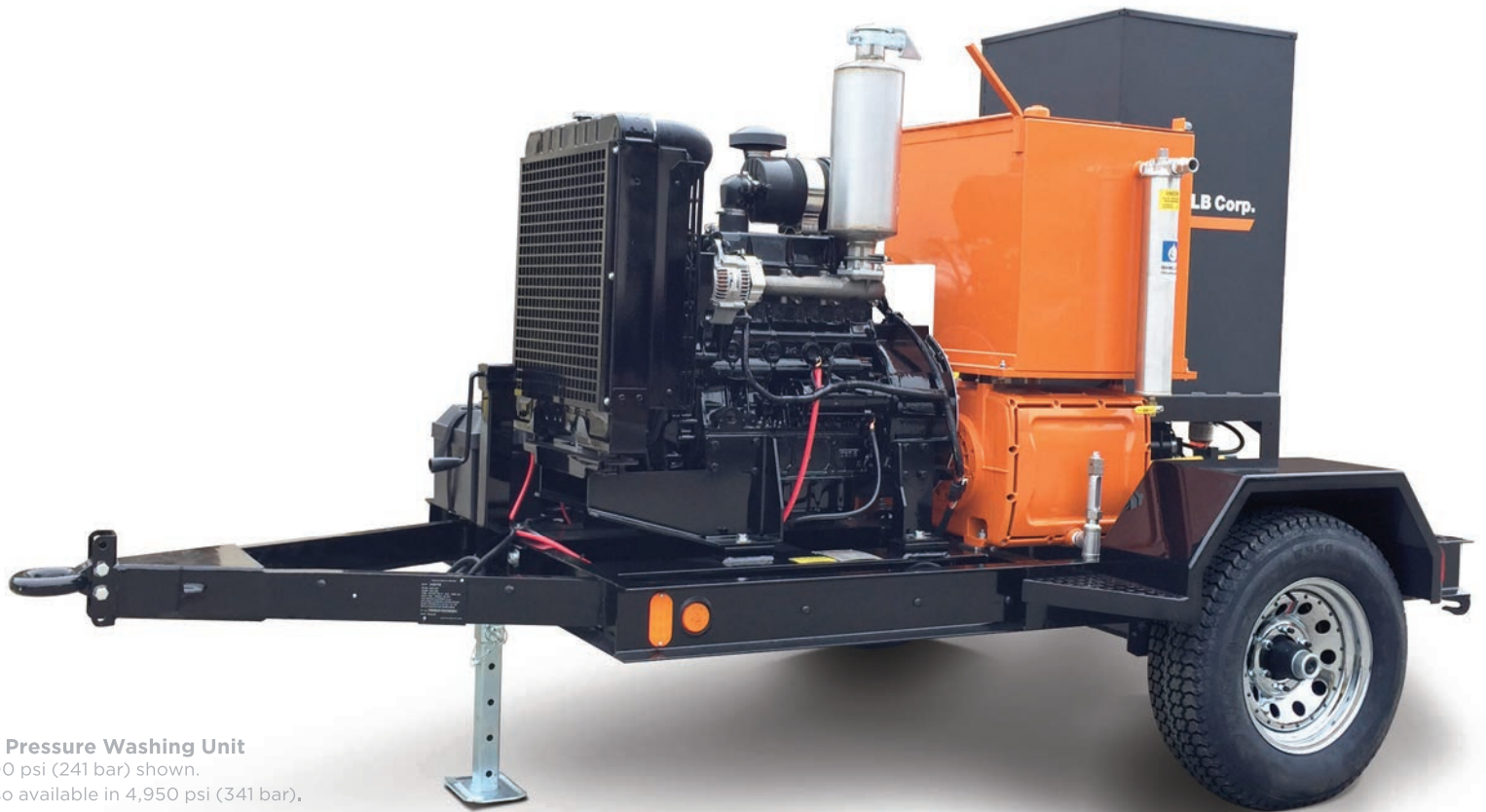
- Largest WWETT Expo Marketplace
- Education sessions to build your skills, and your business
- COLE Publishing Industry Appreciation Party
- Spartan Tool Kick Off Party



**COME AND SEE
WHY IT IS CALLED
'THE INDUSTRY
EVENT OF THE YEAR'.**

Register today at
www.wwettshow.com

LOWER PRESSURE SHOULDN'T MEAN LOW EXPECTATIONS.



335 Pressure Washing Unit
3,500 psi (241 bar) shown.
* Also available in 4,950 psi (341 bar).

THE NEW 335 PRESSURE WASHING UNIT. BUILT TO THE ORANGE STANDARD.

There seems to be an acceptance that low pressure water jetting systems are fragile and prone to breakdown. We don't believe just because it's not ultra-high pressure, it should get a pass on reliability. In fact, it's exactly why we've built the new NLB 335 3,500 psi (241 bar) hot water pressure unit. The 335 is built to the same standards as our industry leading high pressure systems and building reliability to our standards means profitability to you. If you're ready to learn about how a real unit can operate, look at the NLB 335. Just another reason why the industry gold standard is orange.



LEADING WATER JET TECHNOLOGY™



US (800) 227-7652
Intl. +(248) 624-5555

NLBCORP.COM

Nowhere to go but Down

Hydroexcavation firm sucks 3,000 cubic yards of debris out of a basement and over a street for a hospital expansion

By Cory Dellenbach

Working at a hospital presents challenges. Working under a hospital presents more challenges.

Ecotech Hydro Excavation crews learned that lesson when they took on a job to expand a Philadelphia hospital. The job required working in tight spaces and vacuuming 3,000 cubic yards of compacted soil and debris over a span of more than 400 feet.

“It was definitely a challenge,” says Ryan Frank, operations manager. “We just needed to think outside the box and get creative.”

The air and hydroexcavation company based in Quarryville, Pennsylvania, wasn't afraid to tackle the job, which spanned nine months. The company works throughout Pennsylvania, New York, New Jersey, Delaware, Maryland and other areas of the Northeast.

“This was one of our biggest and toughest jobs,” Frank says. “It was a lot of the worst-case scenarios of every aspect of what we do.”

TAKING ON THE JOB

The downtown Philadelphia hospital was undergoing an expansion, but it couldn't go any higher than its nine stories because of ordinances, and there was no room to expand laterally. “The best option was to expand down,” Frank says. “There was an area in the center of the hospital that was just a crawl space

tough job

PROJECT:	Remote dig under a hospital to expand its facilities
CONTRACTOR:	Ecotech Hydro Excavation, Quarryville, Pennsylvania
OWNERS:	Blake and Mitch Huber
EMPLOYEES:	16
EQUIPMENT:	GapVax HV-56 hydroexcavator, electric mini-excavator (unknown manufacturer)



Ecotech Hydro Excavation had to park its truck across the driveway from where the work was being done in the hospital and string the hose over the roadway and sidewalk to allow for vehicle and pedestrian traffic.



<< A crew member from Ecotech Hydro Excavation carries a heavy-duty vacuum hose — with a short section of PVC pipe attached for added durability — through the basement of the hospital in Philadelphia.

“This was one of our biggest and toughest jobs. It was a lot of the worst-case scenarios of every aspect of what we do.”

Ryan Frank

and not a full basement, so that is where they would add extra offices.”

The general contractor was given the option of building a temporary hallway within a permanent hallway; laborers would hand-dig the soil into 50-gallon drums. The drums would then be carted out of the building and emptied into a dumpster. After the drums were cleaned out and brought back in, the process would repeat.

“One of their guys thought about vacuum excavation and they contacted us,” Frank says. “A total of 3,000 cubic yards of dirt, rocks and bricks had to be removed. Our estimate for the job was around \$650,000 and the bid for doing it with the drums came in at \$1.3 million, just to get the material out of the hospital. So there was a substantial cost savings going with vacuum excavation.”

Ecotech crews determined that the only way to get to where the excavation would take place was through crawl spaces and utility access areas in the lower level of the hospital. “We set up the vacuum truck outside at their loading dock area and ran 400 feet of pipe and hose into the center of the hospital,” Frank says.

The company’s GapVax HV-56 hydroexcavator was parked on the opposite side of the road away

because a lot is riding on your data...





You're responsible for helping manage your community's vital resources and services. Collecting pipeline survey data is only the beginning.

PipeLogix's array of analysis tools and reports gives contractors and municipalities the insight to make good decisions and take action where and when it can do the most good. With built-in tools to share information across departments and other programs like GIS and popular asset management suites, your teams can manage systems more effectively.

Call today, visit us at our booth or online to learn more about our tools to assess and understand underground assets.

866.299.3150 | 760.779.1700 www.pipelogix.com

Our Business Partners:












ABOVE: The hospital was originally built with only a crawl space under the center of the building, so the Ecotech team had to excavate several feet down to create enough space for basement offices.

BELOW: The only access to the excavation site was through crawl spaces and utility access areas in the lower level of the hospital.



from the hospital, and its boom was stretched over the road to allow cars to pass underneath. The hose was positioned over scaffolding on the sidewalk closest to the hospital, giving pedestrians a safe place to walk.

A NEED FOR STRONGER PIPE

Crews used 6-inch PVC pipe connected to 6-inch hoses from the hydroexcavator to the center of the hospital.

In the first few days on the job, workers were already running into issues. “Our initial problem was that everywhere there was a bend in the pipe, the pipe would want to blow apart from the rocks,” Frank says.

Crews also had two elevation changes to contend with: The hose from their hydroexcavator entered the building and dropped 17 feet into a room, then stretched across the floor and back up a 20-foot wall into the room that was being excavated.

“Trying to keep productivity up in that long-distance remote

“Inside the hospital no one even knew Ecotech was there working or that there was construction going on. We all worked really hard and did a great job. All parties involved were impressed and happy with the end result.”

Ryan Frank

excavation was a big factor,” Frank says. “One thing we found is that the elevation changes made a tremendous difference.”

Debris going down the hose became a bigger problem than the material going back up. “You had to have so much cfm to get the material to pull 400 feet, but you couldn’t have the cfm up too high,” Frank says. “When that material would hit the downslope it would come screaming down that hill, build up too much velocity and damage everything it came into contact with.

“Anything plastic or metal on the hose was just wearing through because the material was dry and very abrasive. The pipe also had to be light enough for two men to carry it through a crawl space.”

To deal with these challenges, crews switched to 5/8-inch thick-walled pipe made for waterline installation and used heavy rubber elbows to make the bends.

FINDING EASIER WAYS TO WORK

Finding a way to break up the dirt so it could be vacuumed was another challenge.

“An air knife wasn’t a possibility and other air-spade tools like jackhammers were incredibly slow,” Frank says. “We ended up finding an electric mini-excavator that we pushed through the hallways of the hospital on a wood skid and dolly.”

Crews connected the mini-excavator to the available power source and as one worker used the machine to break up dirt, another vacuumed it.

“The GapVax kept up,” Frank says. “The material we were able to pull out of the building was going faster than what we could get broken up, so the truck and mini-excavator worked well in tandem.”

Ecotech was allowed just one truck on the job site. Two vacuum boxes were set up near the truck.

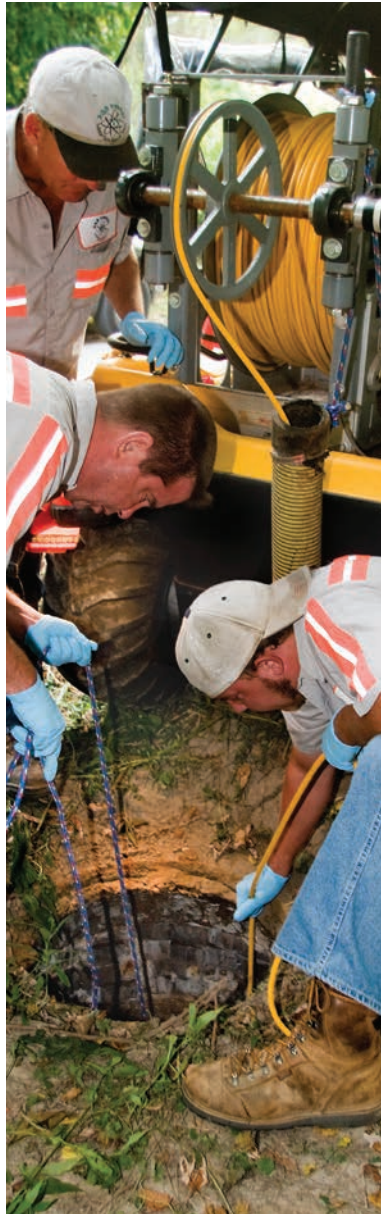
“Once we had the material in the truck, all we had to do in the middle of the day was switch hoses and move it to one of the two vacuum boxes,” Frank says. “We didn’t have to move the truck and we could just keep on working.”

GAINING CONFIDENCE

The new offices in the hospital’s basement were completed in late 2015.

“Inside the hospital no one even knew Ecotech was there working or that there was construction going on,” Frank says. “We all worked really hard and did a great job. All parties involved were impressed and happy with the end result.

“More than anything it gave us confidence knowing there wasn’t a job we couldn’t successfully do.” **c**



THE REEL THAT WORKS AS HARD AS YOU

When it comes to your equipment, you demand quality and value – and Hannay Reels delivers every time.

Pressure ranges from 300 PSI up to 10,000 PSI

Heavy-duty ribbed discs and one-piece axle hub assemblies

Low, hassle-free maintenance

Reels built to order with fast delivery

Come to the Hannay Booth #5041 at the 2017 WWETT Show, February 23–25, and register to win a GH1100 portable hose reel on wheels from Hannay Reels.



Find your local dealer: hannay.com or 877-467-3357

 **Hannay Reels®**
The reel leader.

35 YEARS

MULTIPLE INSPECTION SOLUTIONS,
ONE PROVIDER: RATECH.

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

Always at the forefront in the development, manufacturing and servicing of CCTV systems and equipment, Ratech adds to the growing list of ways you can view and record CCTV video pipeline inspections with their NEW wi-fi interface. Safe, secure, and delivering on the promise of quality and durability industry professionals have demanded from Ratech for over three decades.

Elite SD or USB



Mini Crawler with Pan n' Tilt



Pan n' Tilt Push Camera (Includes Reel and Remote Control)



Ratech

ELECTRONICS

Video Pipeline Inspection Systems

For more information on these or other products call toll free:
1-800-461-9200 or 905-660-7072 www.ratech-electronics.com

Upload your inspection videos to [YouTube](https://www.youtube.com) Ask us HOW?



Working Well Under Pressure

CAM SPRAY

Pressure Washers & Drain Jetting Equipment

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

Skid and truck mount models up to 7000 psi

Portable Hot and Cold Water Diesel Powered Models

wwett BOOTH 2501

We will custom build to your specifications
www.camspray.com 800-648-5011

ultra LIGHT - ultra VERSATILE - ultra 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-SHORING
CALL TOLL-FREE NATIONWIDE • 1-800-746-7464

www.shoring.com

1-800-683-8837

Taking Quality To The Extreme

*At Westech Vac Systems, we take **QUALITY** to the **EXTREME**, building high-quality trucks that perform in the toughest work environments imaginable.*



Now backed by Federal Signal Corporation's Environmental Solutions Group and the combined strength of the Elgin, FS Solutions, Guzzler, Jetstream, and Vactor brands, we're able to deliver Canada-tough quality to customers across North America with even greater responsiveness.



Producing Combination, Hydrovac, Trailer and Straight Vac Systems

For help meeting your most extreme challenges, call 780-955-3030. or visit www.westechvac.com

Copyright ©2016 Federal Signal Corporation. All rights reserved. Westech Vac Systems is a brand of Federal Signal Corporation's Environmental Solutions Group.

wvett17
BOOTH 6038

ELASTOTEC COATING SYSTEM

Coating with ELASTOTEC increases the lifespan of pipes - with high resistance to pressure and chemicals



ELASTOTEC Machine

Easy to use and transport
Repairs 1.5 to 8 inch diameter pipes
No wasted material or reinstatements
Dual application method; Spray & Brush system

**DURABLE
NEW SURFACES
IN PIPES**
- Especially smaller diameters

ELASTOFLAKE Coating Material

2 component Polyurethane resin
90 second curing time
Ultra durable and chemically resistant



Coating: ≥ 3 mm

For more information visit www.istamerica.com or call (858) 997-0004

I.S.T.
creating value

KEEG
Technologies

The Difference is Performance!

Introduces Kleen-Sight

www.kegtechnologies.net

- Camera has Wi-Fi
- Stainless Steel Body
- 80 LED Lights
- 2 Rechargeable Batteries



Upload to a smart phone or tablet by turning camera into a hotspot!

**A Nozzle
That Cleans 360°
While Recording!**

wvett BOOTH 3407

WINTER JACKET SALE



75-1301 Yellow

PU coated, polyester lined, fully taped seams & a zip-out liner. Waterproof. Detachable hood, elastic ribbed waist & cuffs with inside & outside pockets.

Sizes M - 6XL.

\$49.95*

CSJC-306OR Orange

PU coated, polyester lined, fully taped seams & a zip-out liner. Waterproof. Detachable hood, elastic ribbed waist & cuffs with inside & outside pockets.

Sizes M - 5XL. **\$49.95***



75-1381 Yellow

Eight wearing options including a CL3 zip-out liner or CL2 vest. Jacket & liner have removable sleeves. Six pockets, fleece collar, detachable hood, radio handset straps, ID pocket badge holder & many more features. Waterproof.

Sizes M - 6XL. **\$69.95***



*Tall sizes available on some styles for an additional \$6.

wvett
BOOTH 3030

MRP
MILWAUKEE RUBBER PRODUCTS

Jackets meet ANSI/ISEA 107-2010 CL3 standard.

Call Toll-Free
1.800.325.3730

**Come In We're
OPEN**
www.cleaner.com

KEEP YOUR CAMERA IN TOP CONDITION WITH EXPERT, **FAST REPAIR**

Exclusively Repairs Ridgid SeeSnake Systems

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!

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

Why Choose Duracable?

- ▶ Factory Trained and Certified
- ▶ Quick Turnaround on Camera Repair
- ▶ Troubleshooting phone support
- ▶ Flat rate pricing*



We
Build
Reputations™ **RIDGID**

Duracable
Manufacturing Company

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

* Flat rate pricing applies to most camera repairs



www.duracable.com

ONE-MAN SHOW

GO-IT-ALONE CONTRACTOR'S ONLY WORKDAY COMPANIONS ARE RELIABLE EQUIPMENT AND A PASSION FOR CUSTOMER-ORIENTED DRAIN CLEANING SERVICE

BY KEN WYSOCKY | PHOTOGRAPHY BY BRAD STAUFFER

It's estimated more than half of small businesses fail during their first year of operation. When Steve Nerheim established Steve's Professional Sewer & Drain Service in 2009, he was bound and determined not to become one of them.

So far, so good. In the last eight years, the company — based in New Brighton, Minnesota — has grown considerably. His secret sauce? A very basic and simple set of principles: Be honest. Provide great service. Invest in the best equipment you can afford. Be frugal and avoid getting too far in debt. Focus on what you do best. And hustle like crazy.

"I make 600 to 650 service calls a year and work Monday through Saturday," says the plain-spoken Nerheim, 61. "I've grown incrementally each year, and that's fine with me. There were a couple of years when revenue was flat, but I never went backward.

"I try to bring honesty along everywhere I go," he adds, explaining how he avoided the first-year small-business curse. "In a business that's rife with fly-by-night outfits, I've built up a great reputation through word-of-mouth referrals."

Nerheim has also benefited from concentrating on just one thing and doing it well. Almost all his business comes from cleaning and inspecting residential drains; if a job requires other services, he refers customers to other contractors he trusts. And he maintains healthy profit margins by steadfastly refusing to buy market share by lowering his rates to meet competitors' prices. That may seem like a bold move for a sole proprietor whose livelihood depends on a steady flow of customers every week, but Nerheim understands the importance of covering his overhead costs — a concept that many failed entrepreneurs don't grasp until it's too late.

"Customers always tell you that so-and-so will do the job for less," he says. "But more often than not, that guy can't

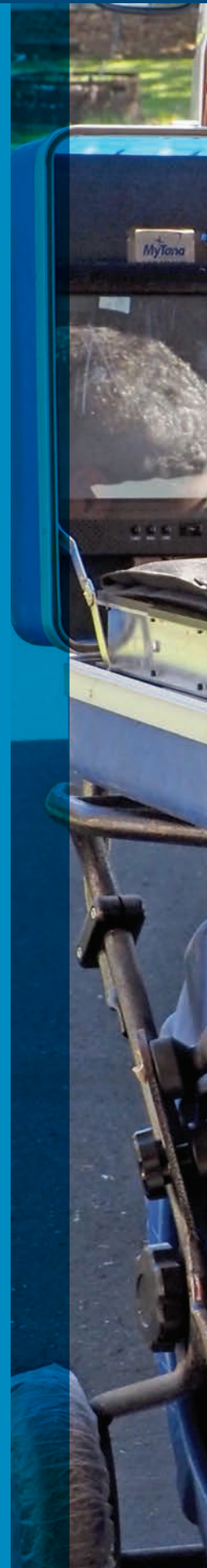
get there for two or three weeks. So I tell those customers to go ahead and use him. I'm a professional, and the low-ballers are usually doing it on the side. I tell customers that I need to cover my overhead and also mention that they're paying for my training and expertise."

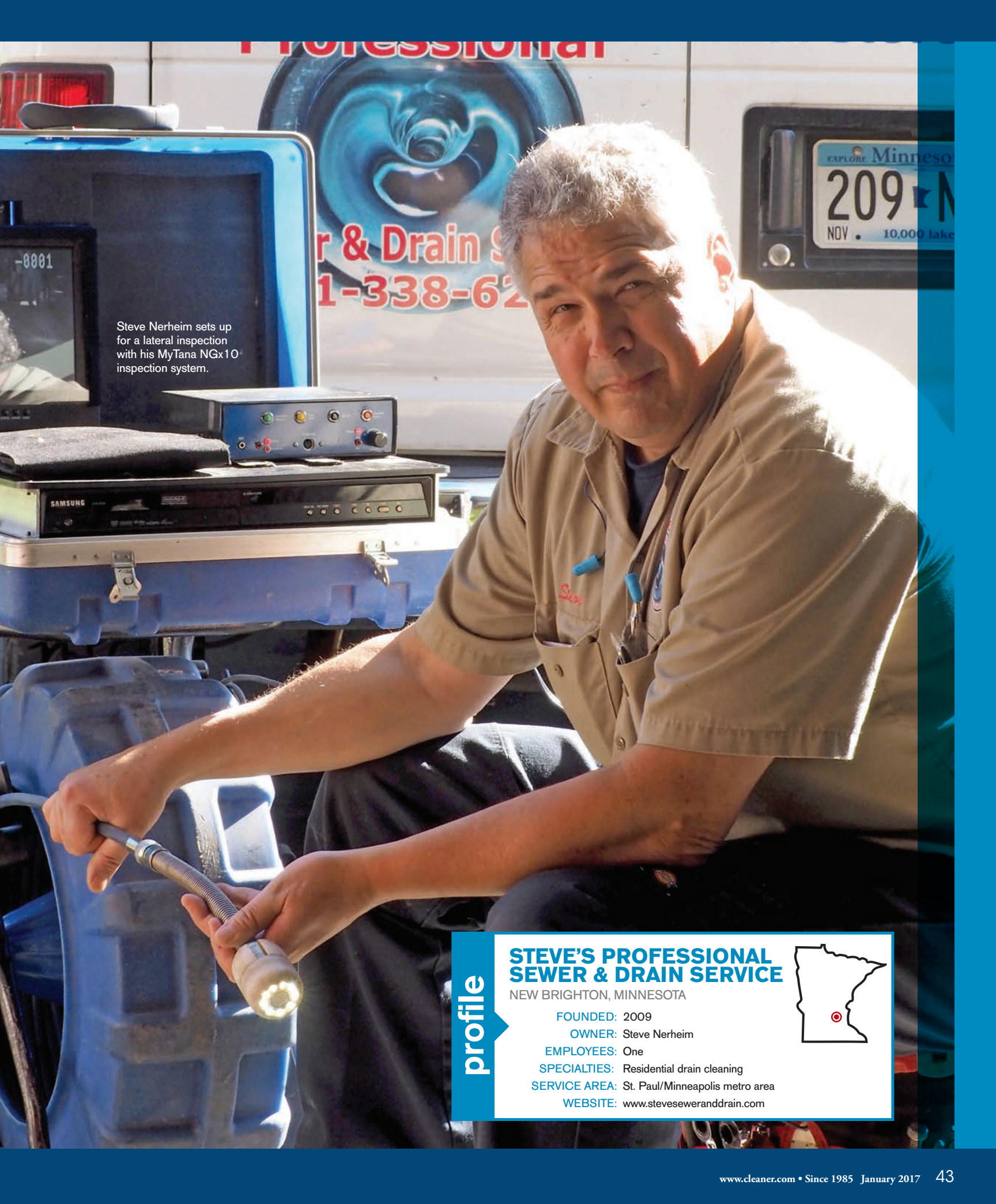
EXPERIENCED DRAIN CLEANER

Early in Nerheim's career, he worked in a factory, a job that he hated. "I went home every day with my head down and my



Steve's Professional Sewer & Drain Service owner Steve Nerheim preps a kitchen with a protective tarp before servicing a clogged sink drain.





Steve Nerheim sets up for a lateral inspection with his MyTana NGx10 inspection system.

profile

STEVE'S PROFESSIONAL SEWER & DRAIN SERVICE

NEW BRIGHTON, MINNESOTA

FOUNDED: 2009

OWNER: Steve Nerheim

EMPLOYEES: One

SPECIALTIES: Residential drain cleaning

SERVICE AREA: St. Paul/Minneapolis metro area

WEBSITE: www.steveseweranddrain.com



INSPECTION CAMERA SEALS THE DEAL FOR DOUBTING CUSTOMERS

Most everyone is familiar with the old saying about how a picture is worth a thousand words. But for drain cleaning contractor Steve Nerheim, pictures are also worth a lot of money — more specifically, videos taken by a pipeline inspection camera made by MyTana Manufacturing.

The owner of Steve's Professional Sewer & Drain Service in New Brighton (suburban Minneapolis/St. Paul), Minnesota, Nerheim invested in the self-leveling color camera system in 2010. It was a game-changer not only for him, but for customers, too.

Instead of just guessing at the cause of a blocked drainline, Nerheim can see exactly what's creating the problem — and confidently take the appropriate course of action. And seeing is believing for doubting customers who otherwise might not commit to paying for an expensive repair because of suspicions they're being scammed by an unscrupulous contractor.

Moreover, when Nerheim uses the camera in conjunction with a MyTana Accu-Stic 512 locator, he knows exactly where the blockage is occurring. The camera's self-leveling capability also plays a role here, because the radio signal travels in whatever direction the top of the camera head is pointing. As such, if the camera head isn't level, the signal doesn't travel straight upward, which leads to inaccurate pipe locating, he notes.

"When you find the blockage and shut off the television picture, the camera head emits a tone for the locator," he explains. "The (radio) signal shoots straight out from the camera head — all you have to do is find the spot where the signal is strongest. Without self-leveling capability, the signal doesn't always go straight up ... and it's pretty embarrassing when you mark a spot for an excavation company to come out and dig up a broken line and you find out you were, say, 8 feet off."

The self-leveling feature also makes it much easier to tell what's going on inside a drainline during an inspection, as opposed to trying to make sense of an upside-down video. It's even more important if there's a customer watching the video with him. The camera's LED lights, coupled with a high-resolution color monitor, create clear, easy-to-see videos. That's critical when he's trying to point out a problem to a customer, Nerheim says.

The contractor also cites the camera's durability, pointing out it rarely breaks down — a critical factor in customer satisfaction. "But I take care of it, too," he says. "And if you take care of your equipment, it'll take care of you. After a job, I wipe everything off so it doesn't rust. You have to make it last because it's expensive equipment."

"In addition, I don't beat it up," he adds. "If I see the camera is about to get into a tight spot, I slowly edge up to it instead of trying to ram it through. If the camera head breaks off when it's 8 feet underground and 60 feet away from you, how are you going to get it back?"

One of the best gauges of contractors' esteem for a product is their willingness to buy it again. When asked, Nerheim says there's no question he'd invest in another MyTana camera, but points out that he has no plans to do so right now. "That's because I don't think this one is going to wear out anytime soon," he says.



tail between my legs," he recalls. Then he saw a recruitment ad for a national drain cleaning franchise that would pay for the cost of training and decided to give it a go. "You don't necessarily wake up one day, slap your thigh and say, 'I want to get into the sewer and drain cleaning business.' But it's worked out OK."

"I was a volunteer firefighter for 30 years and we always used to say that we show up at people's homes on their worst day," he notes. "Now it's essentially the same thing — I'm helping them on their worst day by producing a successful outcome."

"I WAS A VOLUNTEER FIREFIGHTER FOR 30 YEARS AND WE ALWAYS USED TO SAY THAT WE SHOW UP AT PEOPLE'S HOMES ON THEIR WORST DAY. NOW IT'S ESSENTIALLY THE SAME THING — I'M HELPING THEM ON THEIR WORST DAY BY PRODUCING A SUCCESSFUL OUTCOME."

Steve Nerheim

After working for the national drain cleaning franchise on two different occasions for a total of nearly seven years, he started thinking about being his own boss. After talking with other small-business owners about the pros and cons of sole proprietorship, he decided it was time to make the break. "I'm a bit adventurous, so I took the plunge," he says. "I have a bit of an independent streak and I don't suffer fools gladly, so being on my own was an attractive option."

Not that Nerheim didn't feel a bit daunted. "It was absolutely frightening," he recalls. "I'd equate it to when you first start taking swimming lessons ... and one day they say, 'Today you're jumping into the deep end of the pool.' It's either sink or swim. And I figured if things didn't work out after a year, I could always go back and work for one of the big boys."



◀◀◀: Steve Nerheim takes a closer look at a clogged kitchen drain he's working to clear.

▶▶▶: Nerheim loads his 2007 Ford E-250 and checks supplies for a day's run from his home base in New Brighton, Minnesota.



But armed with determination and a common-sense marketing plan as simple and direct as the name he chose for his company, Nerheim quickly established himself. His first move: order 5,000 promotional magnets imprinted with the company name and phone number. "I walked in a local parade and passed out about 4,000 of them, and some of my customers still have those original magnets," he explains.

"From the Tuesday after Labor Day 2009 to the following Friday, I also walked a lot of neighborhoods and distributed 2,000 to 3,000 flyers," he continues. "I also covered all the townhome and condominium complexes in New Brighton (suburban Minneapolis/St. Paul)."

The results were almost instant. In fact, Nerheim was out distributing flyers when someone who'd received one called him; he had to run home and put on his work uniform. "I still remember that day very clearly and she's still one of my customers," he says.

EQUIPMENT MATTERS

To save money, Nerheim bought a used 2007 Ford Econoline 250 van; formerly utilized as a service truck for a local natural gas utility, it was already outfitted with an interior storage system.

To maintain a high level of productivity and efficiency, Nerheim invested in reliable, quality equipment. His equipment includes a RIDGID K-7500 drum cable machine for cleaning mainlines; a RIDGID K-3800 for cleaning branch lines; a self-leveling, color inspection camera built by MyTana Manufacturing; and a MyTana Accu-Stic 512 pipe locator. He also

Introducing The RST Helix Advanced Manhole Inspection System



Increase System Performance and Dramatically Lower Your Costs!

The RST Helix is our latest innovation to increase efficiency and lower costs for municipalities.

This ground-breaking system can complete a scan in under a minute and can easily survey 50 or more manholes a day. Along with this dramatic manpower saving, the RST Helix delivers an unprecedented level of detail to help you head off dangerous structural failures plus source inflow and infiltration from surface and ground water.

Fast and . . . As Easy As 1,2,3!

1. Operate from a CCTV truck, pick up, or ATV for limited access challenges.

2. Press "Start Scan." The process is fully automated or can be run manually.

3. Capture every detail in 2D and 3D while your operator remains safe and monitors progress on a tablet or laptop.



Six Color Cameras



Panoramic Imagery



3D Point Cloud Accuracy

Field Tested & Delivering Results

"I can say with absolutely no exaggeration that our production with the Helix had our clients immediately as excited as we were!"
- Chris MacDonald, Empipe (contractor)

SPECIFICATIONS, SOFTWARE, STUDIES:

RSTECHSERV.COM/HELIX
Demonstrations/Sales: 800.767.1974
sales.info@rstechserv.com

★ **Featured at UCT and WWETT Shows!** ★



RS Technical Services Inc.
High Performance Pipeline Inspection Systems

conductor
THE SINGLE SOLUTION

>>> Steve Nerheim checks a message from a customer and writes down job details in his shop before heading out for the day.

BELOW: Nerheim wheels a RIDGID K-3800 Drum Machine into a home to clear a kitchen drain.



“IT WAS ABSOLUTELY FRIGHTENING.

I'D EQUATE IT TO WHEN YOU FIRST START TAKING SWIMMING LESSONS ... AND ONE DAY THEY SAY, 'TODAY YOU'RE JUMPING INTO THE DEEP END OF THE POOL.'

IT'S EITHER SINK OR SWIM.”

Steve Nerheim

relies on a smaller MyTana camera with a 1 1/16-inch-diameter camera head designed for inspecting floor drains.

When it comes to buying equipment, Nerheim follows a philosophy espoused by Clint Eastwood when he played Detective Harry Callahan in *Magnum Force*: “A man’s got to know his limitations.” He says he pays cash whenever possible, doesn’t buy what he can’t afford and keeps business debt to a minimum. “I prefer to pay for it as I go — that’s just the way I’ve always been,” he explains. “When I was a young man, I got into credit card debt. It took me a long time to get out of it and I didn’t like it. So I always want to be able to pay off things in a reasonable amount of time.”

Investing in reliable equipment is a form of good service because frequent breakdowns lead to dissatisfied customers. But along with good equipment, Nerheim also offers customers the courtesy of treating their homes like his own. “I just unclogged a kitchen sink for a little old lady who’s been widowed for at least 20 years,” he says, citing an example. “The drain hadn’t been cleaned for years. It was full of black yuck that was like molasses. So I put down a towel and a tarp, and try to keep the mess to a minimum. It’s not easy because this is not a clean business — no two ways about that.”

KEEP PLUGGING AWAY

When Nerheim started out, he was the company’s only employee. Eight years later, he’s still a sole proprietor, mostly by design and partly because his workload rarely exceeds his ability to keep up. The bottom line: Nerheim is one of the country’s roughly 23 million sole proprietors who prefer a less-is-more approach to running a business. Bigger may be better to some, but it also carries the potential for management and operational headaches Nerheim



prefers to avoid. Moreover, skilled and reliable employees are hard to find.

So what lies ahead for Nerheim? More of the same, he says. “My wife asks me when I’m going to retire and I say I’m going to keep doing it until I can’t,” he quips. “I know some guys who are pushing their mid-70s and still doing kitchen sinks and baths.”

After all these years, does Nerheim still find the work fulfilling? Absolutely, he says. “When I was a trainer for my previous employer, I always impressed on the new guys how important it was to prove your work to customers. For instance, when you’re finished with a clogged sink drain, you should always fill the sink with water and pull the stopper while the customer is watching.

“They see that tornado of water forming and the drain makes a sucking sound,” he continues. “And the customer says, ‘I can’t remember the last time I saw and heard it drain like that.’ I can’t put into words how thrilling it is for me to still hear those unprompted words.” **C**

featured equipment

MyTana Mfg. Company, Inc.
800/328-8170
www.mytana.com
(See ad page 59)

RIDGID
800/769-7743
www.ridgid.com
(See ad page 9)

SCOOTER

VIDEO
INSPECTION SYSTEMS

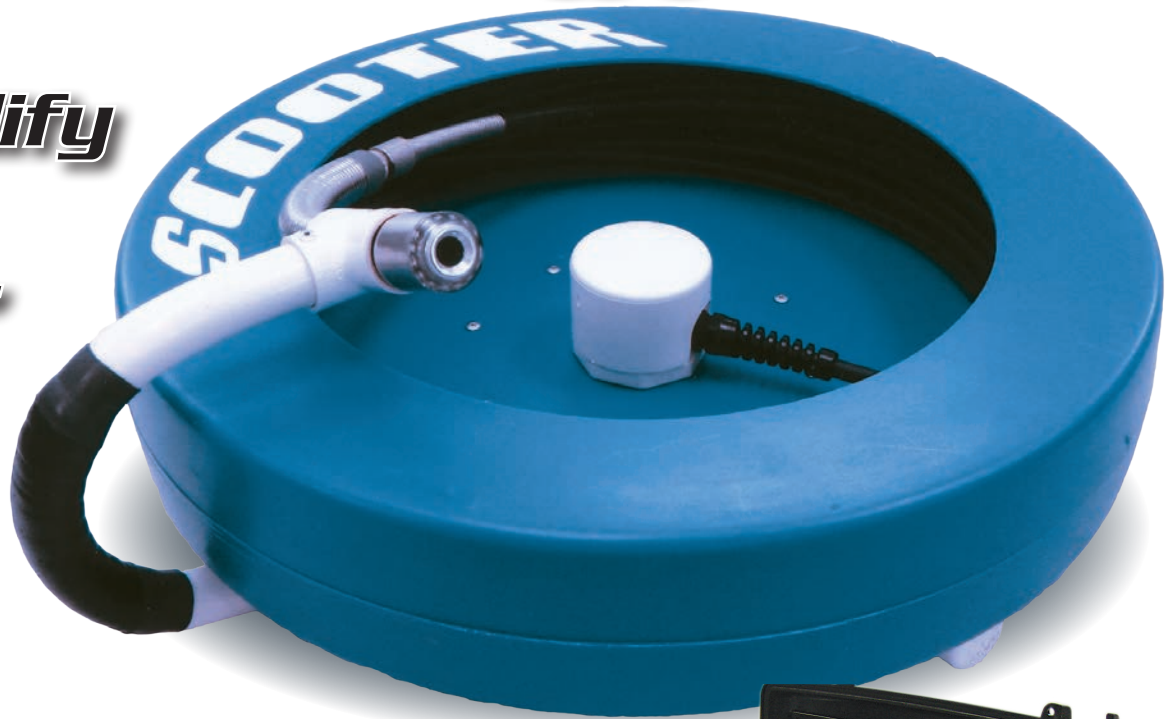
20843 Santa Lucia • Tehachapi, CA 93561 • Fax: 661.822.8917

Merry Christmas & Happy New Year

**“Simplify
Your
Life!”**

SCOOTERS ARE
EASY TO USE,
TOUGH AND
DEPENDABLE.

**DON'T LEAVE
THE SHOP
WITHOUT ONE.**



**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
CHRISTMAS
DISCOUNT
15% OFF**



800.772.6165

www.tvinspection.com

YOUR SOURCE FOR RIDGID®



**CS6 Digital
Recording Monitor**



**CS10 Digital
Recording Monitor**
with Flash Drive



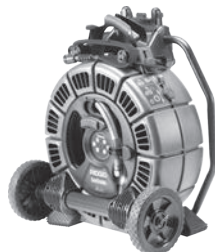
DVPak



**LT1000 Laptop
Interface System**



**SeeSnake® Compact 2
Camera Reel**



**SeeSnake®
MAX rM200
Camera System**



microDrain Reel

CENTRAL OKLAHOMA
Winnelson
COMPANY

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

BUYING A SEESNAKE?

**CALL US FOR
GREAT PRICING &
FREE SHIPPING!**

**WE
WILL NOT BE
UNDERSOLD**

FREE SHIPPING!

**- Call Us Evenings and Weekends -
Keith: 405-602-9155**

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

5037 NW 10th
Oklahoma City, OK 73127

www.centralwinnelson.com

Inside The Pipe "GRIPPER" Tool



**Easy To Use Pneumatic Tool
For Grabbing Objects
in Sewers & Ventilation systems**

- Makes 90° Bend in 4" Pipe
- Air Powered (15psi) Operation up to 82' Standard or Longer Distances Possible (Option)
- Fast & Simple Maintenance
- "No" detection needed
- Camera Hook Up Optional
- Easy In/Out using Fiberglass Push Rods, Cable or Sectional Rods
- 2.16" dia. x 9.45" length - Weight 10#
- Pliers Teeth Grabbers Optional

Cost \$2400.00 + Freight



CLOVERLEAF Tool Co.®

"Quality Products at Affordable Prices"
P. O. Box 110757 • Bradenton, Florida 34211 USA
Toll Free: 800-365-6583
Tel: 941-739-0707 • Fax: 941-739-0001
www.cloverleaftool.com • email: sales@cloverleaftool.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



KEN-WAY Exclusive Built Cables

- Heat Treated
- Inner-Core or Non-Core
- Fit Most Other Brands
- Interchangeable with Most Brands
- Coupling or Blade Holding Types



Leasing plans available. Call for details.

1-800-533-0551

930 ROBERTS ROAD, SPARTA, WI 54656
www.ken-way.com • E-mail: info@ken-way.com



DON'T SETTLE FOR SECOND PLACE. FINISH STRONG.

No matter where you are in the CIPP installation process, it's never too late to join the race. MaxLiner's precision Cured-in-Place equipment, high performing resins and quality custom liners—designed to accommodate diameter changes, easily negotiate bends and resist unwanted longitudinal stretch—help you finish strong with the best training and customer support in the industry. MaxLinerUSA.com

MAXLINER



VISIT US AT WWETT BOOTH #1049

T 877.426.5948



5 Tips for Accident-Free Vacuum Excavation

Safe digging, regardless of the method, begins and ends with a focus on operator safety

By Matt Timberlake

Vacuum excavation is the process of excavating and removing soil using high-powered vacuum suction, which transfers material to a debris tank. Water and air are often used to break up soil and expose underground utilities. Vacuum excavation is a less destructive and more accurate way to excavate soil and locate underground utilities.

Hydroexcavation equipment, which combines high-pressure water, compressed air and vacuum, can be complex. The process and equipment are very safe, but it is critical that the operators are competent and are properly trained to use the equipment. A comprehensive training program should follow a manufacturer's recommended operating procedures, industry standards, and safety policies and procedures of a company or utility.

Vacuum excavation has many applications, including utility locating or potholing; digging assistance near active utilities; installation of road signs,

posts or footings; and many others. If an operator will be exposing existing utilities, it's critical they understand best practices for damage prevention and underground utility construction methods. This lets the operator perform the work, recognize hazards and manage risks to themselves and the public, along with minimizing utility damage during excavation.

After you've established traffic control and site safety plans, and vacuum excavation work begins, use these tips to maintain a safe work site:

1. Use a one-call center to mark all underground utilities so you can excavate a precise hole and anticipate hazards as you progress through the ground.

2. Use proper personal protective equipment as determined by your company or utility safety policy. This usually includes rubber steel-toe boots, safety glasses, face shield, hard hat, gloves, hearing protection and rain suit. Protect those in the immediate area by explaining site hazards. Set



Proper safety gear is a must for hydroexcavation. Without it, you're putting yourself and your company at risk.



If an operator will be exposing existing utilities, it's critical they understand best practices for damage prevention so they can recognize hazards and manage risks to themselves and the public.

up a safety perimeter with limited access and consider a splashguard when starting the hole.

3. As you excavate, don't stand near a hole as it gets larger and deeper. Cave-ins are possible at this point, so protect yourself and those nearby.

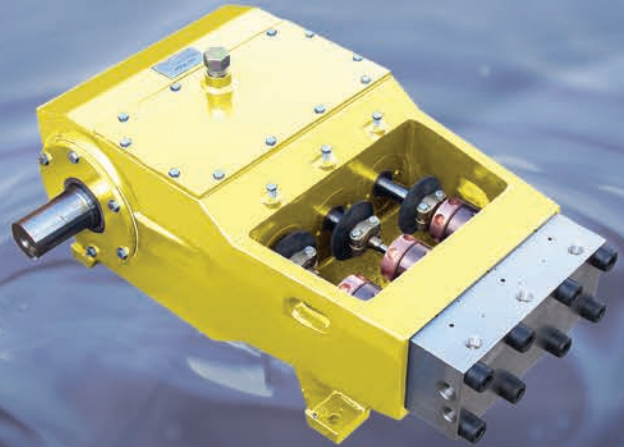
4. If you are using pressurized water or air be careful not to use more pressure than necessary so you don't damage existing utilities. A high-pressure water gun at 4,000 to 5,000 psi can easily cut a power cable.

5. Don't leave large rocks hanging inside the hole because they could fall onto and damage exposed utilities. Remove large rocks as you excavate or lower them to the bottom of the hole and leave them there at the end of the job.

Vacuum excavation is used worldwide and has quickly grown into the best method of damage protection and standard construction practice in the United States. The process will continue to grow through proper use and safe application. Work smart. Work safe. **c**

ABOUT THE AUTHOR

Matt Timberlake is president of Ted Berry Company, a municipal and industrial services and trenchless technologies company located in Livermore, Maine. Contact him at matt@tedberrycompany.com.



**THINK SAFETY.
THINK PERFORMANCE.
THINK JETSTREAM.**

UNx Bareshaft Pump with Fluid End

Durability

Ductile iron power frame and a stainless steel fluid end are the strongest in the industry.

Reliability

Meets heavy-duty demands with horsepowers up to 600 HP and flow rates up to 115 gpm.

Serviceability

Few parts + No tools required = Fewer problems



Visit waterblast.com for more information or call 1-800-231-8192







SAFE, SURE & SIMPLE SOLUTIONS.





Conference: February 22-24, 2017
Exhibits: February 23-25, 2017
Indiana Convention Center, Indianapolis, IN

THE LARGEST WWETT EXPO MARKETPLACE EVER

- ◆ 600 exhibitors
 - ◆ 350,000 square feet of exhibit space.
 - ◆ Exhibitor Demonstrations
-    
- ◆ WWETT Live at Lucas Oil Stadium



**COME AND SEE
WHY IT IS CALLED
'THE INDUSTRY
EVENT OF THE YEAR'.**

Register today at
www.wwettshow.com

ALLAN J. COLEMAN

SINCE 1905

Call us today!
773-728-2400

5725 North Ravenswood Avenue • Chicago, IL 60660 • info@allanjcoleman.com • www.allanjcoleman.com



JM-1000

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

**CALL FOR
GENERAL
SPECIALS**



JM-2900

Warthog® Nozzles



WGR SWITCHER™
NORTHERN IL. ONLY

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



CPI Products Camera Skids

The Universal Roller Skid

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

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

The Mini Roller Skid

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

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



JetSonde Carriers - P-Trap Cable Sonde Carriers

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



JetCam Adapter

JetSonde Nozzle

Jetter Hose



OLDEST NAME IN THE BUSINESS

— Over 100 YEARS OLD —

PHCC MEMBER

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.

Layflat Pipe Inspection Camera

FB-PIC3588A/3588BT

- 7" LCD Control Station with Built-in USB Flash & SD Card Recorders & Li-Ion Battery
- 3/8" 150' /200' 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)



Economic Inspection Camera System

FB-PIC3188SD

- 7" Color LCD Control Station with SD Card Recorder
- 1" Color Camera Head with 512HZ Built-in Sonde for Option
- 65'/100'/130' Cable Reel Available for Choice
- Heavy-duty Waterproof Case

\$550



Mid/Long Range Pipe Inspection Camera

FB-PIC3388MT/3288T/3488T

- 200'/300'/400' Cable & Reel w/Meter Counter
- 1 1/2" Self Leveling Color Camera Head
- Stainless Steel Spring Kit w/Built-in 512HZ Transmitter
- 10" LCD Monitor w/USB & SD Recording
- Heavy Duty Waterproof Case
- Crawler for Easier Push



Mini Self-leveling Color Camera Head

CHD-C26/CHDT-C26



- 1" Mini Self-leveling Color Camera Head
- 512 HZ Built-in Sonde Transmitter for Option
- Compatible with All Forbest Cable Reel & Control Station

Potable Color Sewer/Drain Camera

FB-PIC3188A/3188DN

- 65'/100'/130' 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 130' Cable & Reel w/Meter Counter



Well Camera

FB-WIC580

- 12" High-resolution LCD Color Monitor w/Built-in Hard Disk 160G
- Camera Head Options:
 - Panoramic Camera Head w/170° Angle
 - 4-Picture Camera Head w/170° Angle
 - Pan Tilt 360°/180° Camera
- Cable's Working Depth & Length: 500' w/Meter Counter (Max length: 6,600')



FB-R2012

- Frequency: 512HZ
- Operation Mode: NORM/NOISE CONTROL
- Power Supply: 6* AA
- Current: < 55mA
- Sensitivity: NEAR/FAR
- Continuous Adjustable
- Output Intensity: LCD 15 Levels
- Retractable Poles for Easy Use

512HZ Locator

NEW



Promo Price:
\$499

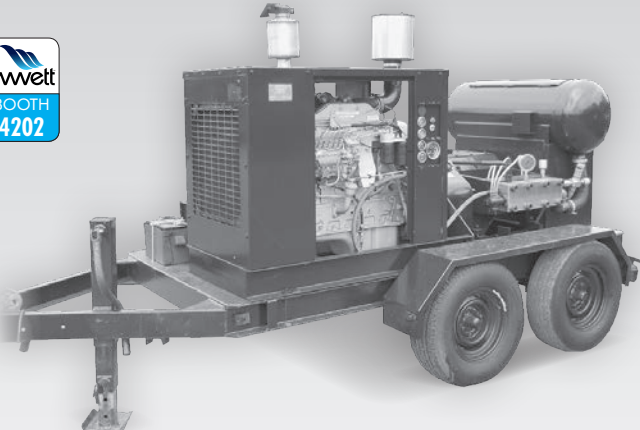
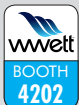
Luxury Portable Sewer/Drain Camera

FB-PIC4188M/4188H

- 130' Cable & Reel w/ or w/o Meter Counter
- 1" 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



RENTAL, SALES & SERVICE



UNITS FOR SALE:

- JETSTREAM 3620**
- CUMMINS "B" ENGINE
 - THEROTICAL 20K @ 12.9GPM
 - TRAILER MOUNTED WITH DAY TANK

- JETSTREAM 4220**
- 20K @ 20GPM

- B/W T-300**
- 10K @ 16GPM

CALL 985.652.5210

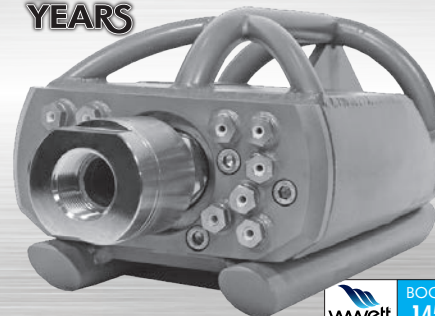
FOR YOUR WATERBLAST PROJECT SOLUTIONS
WWW.H2OBLAST.COM

**LaPlace
Equipment
Company**

Recycle Water Friendly

**10
YEARS**

Manta™



wvett BOOTH 1454

Equipment Engineered for
Long Lasting Performance™

**CALL TODAY FOR AN
ON-SITE DEMONSTRATION**

Call For A FREE DVD



NozzTek®
Taking Science to the Sewer!™

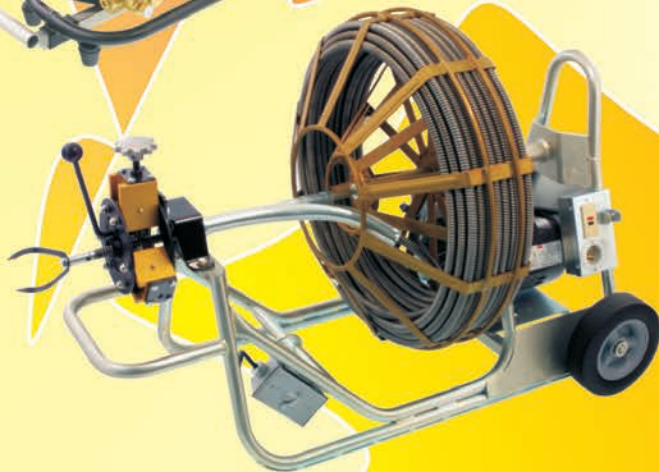
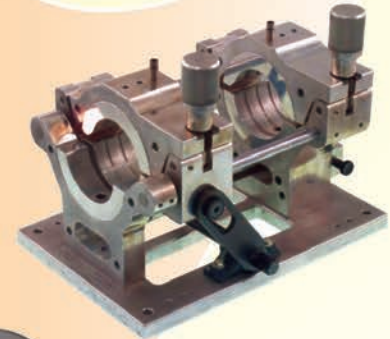
www.nozztek.com
Toll Free 1.866.620.5915





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
 f GORLITZ on Facebook



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

Is It Time to Consider a Profit-Sharing Program?



Erik Gunn is a magazine writer and editor in Racine, Wisconsin.

Spreading the wealth to employees when times are good can be a valuable motivational tool — and it's not just a big-company perk

By Erik Gunn

The business is doing well and you'd like to show your employees some extra appreciation — and maybe encourage them in a meaningful way to keep up the good work.

Consider profit sharing.

We mostly think of profit sharing as a big-company benefit. Where I live and work, in Racine, Wisconsin, home care products giant SC Johnson is famous for doling out hefty profit-sharing bonuses to all employees. It's so well known that some big-ticket retailers, such as car dealers, have tied sales promotions to the annual profit-sharing payday.

But what about small businesses like yours? Can a small drain cleaning business really set up a profit-sharing plan? Is it worth considering?

WHO SHARES PROFITS?

The consensus among economists is that profit-sharing plans boost productivity. How much is hard to say, because plans and the companies using them can differ widely. Still, the general trend favors them, as a 2010 report from the National Bureau of Economic Research found.

Roughly one in five employers offers some kind of profit-sharing plan, says Kerry Chou, an expert on the subject at WorldatWork, an organization that offers advice, training and certification programs for human resources professionals. WorldatWork's primary focus is on pay, benefits, work-life matters, and strategies to attract, motivate and retain employees.

The available statistics don't detail whether the companies that participate in such plans are most likely to be large, small or in between, but Chou is confident that size doesn't matter: "Profit sharing can be an effective plan at any-size company," he says. "It promotes the cultural element in the company that we're a family — we're going to win or lose together."

They have other things going for them. "One of the biggest advantages to a profit-sharing plan is that, regardless of the company's size, it's very simple to understand," Chou says. "If the company makes profits, we are simply going to be sharing those with the employees."

Kerry Chou

"Profit sharing can be an effective plan at any-size company. It promotes the cultural element in the company that we're a family — we're going to win or lose together."

The typical profit-sharing plan is just what it sounds like: The employer

takes a fixed percentage of company profits and pays that money out in the form of bonuses to employees.

HOW TO PAY?

The bonus is typically an annual payment, although nothing stops a business from making payments more frequently — once a quarter, for instance.

It's also possible to set up a deferred payment plan — contributing the bonus to an employee's 401(k) or other retirement plan, or breaking a payment into two chunks paid over two years "so the employees have to stay another year to get it," Chou says.

But variations like those can make accounting a lot more complicated — and also less powerful as an incentive, because deferred payments "are less of a value to the employee," he notes.

"The predominant practice is to simply cut the employees a check to give them the actual cash," Chou says. "Most employees like cash because they can spend it right away." And if they want to invest it on their own, they can simply do that.

You're sold on the idea — so what do you do next? Step one, Chou says, is to determine competitive pay levels for the positions at your organization. Check with local wage surveys (there are many sources, including state and federal agencies, your local employers association, and private consultants) to see where you stand. Don't simply look at base pay; see what forms of variable pay, such as profit sharing or other bonus plans, prevail in your area as well.

Then identify some expert advisers who understand how profit-sharing programs work — a human resources consultant or a suitably qualified attorney or certified public accountant.

HOW GENEROUS?

The typical plan may set a flat percentage of net income or EBITDA — Earnings Before Interest, Taxes, Depreciation and Amortization — to be distributed, usually after profits clear a certain threshold. But you don't want to make the choice off the top of your head.

Instead, Chou says, take a close look at how much you can realistically afford to share and how much you are willing to pay out if profits hit the target at which the bonus is triggered. Of course, you'll need to think hard about what that target should be in the first place.

There's also the question of how to divide the total pool. Again, Chou says, your compensation survey information will be important.

Some employers might take the position that everyone should get the same amount, perhaps with incremental increases based on how long a

WATERBLAST PROTECTION

PROTECTIVE CLOTHING - WITH THE STRONGEST FIBER IN THE WORLD!



Available in
FLAME RETARDANT



+ **VENTILATION AVAILABLE**
GOOD WORKING CONDITIONS!

+ **FLAME RETARDANT**
AVAILABLE TO ORDER

+ **FAST AND EASY GEAR UP**
SAVES VALUABLE TIME!

+ **PROTECTION UP TO 43500 PSI**

+ **CE CERTIFIED**
PIN AND ROTATING, 0,5 m/s



Protection level	Pressure bar (psi)	Flow l/min (gpm)	Nozzles		RPM	Distance mm (in.)	Linear Speed m/s (in./sec)	Result
			n	Dia. mm (in.)				
20/30	2000 (30000)	17.9 (4.7)	1	0.8 (.031)	-	75 (3)	0.5 (20)	No penetration
20/30	3000 (43500)	19.5 (5.2)	2	0.6 (.024)	3000	75 (3)	0.5 (20)	No penetration

Find US distributors, News, Movies and E-catalogues, at:

WWW.TST-SWEDEN.COM

person has been with the company. But market considerations lead most to scale the bonus according to management rank, he says.

Line workers, for instance, might get a payment amounting to 5 percent of their base pay, while higher managers' bonuses might be 10 or even 20 percent of base. In essence, that means the higher a person is up the ladder, the more of his or her pay is at risk.

CHECK THE FINE PRINT

There aren't a lot of regulations on profit-sharing plans — but there are some.

An important thing to remember, Chou says, is that under federal wage-and-hour laws, the typical profit-sharing payment is generally considered part of an employee's regular rate of pay. That's because it's "nondiscretionary" — the employer has committed in advance to paying the bonus if a certain target is met.

This becomes especially important when calculating overtime pay. Because the profit-sharing bonus gets added to the employee's earnings, it effectively increases the individual's standard hourly wage. That also leads to an increase in the employee's overtime premium (half the hourly wage, paid on top of the regular wage for overtime hours). When the profit-sharing bonus is paid out, a sum representing that retroactive additional overtime pay must be paid out, too.

"One thing employers need to do is make sure that their payroll departments are able to get those numbers included, and make sure that a retroactive payment is made if additional overtime is required," says Chou. Failure to do so could lead to fines and other penalties in addition to an order to pay the back wages owed.

"Discretionary" bonuses — awarded at the whim of the employer with no advance communication to employees — don't have to be included in

overtime calculations. But they limit the ability to motivate performance because you didn't tell employees in advance about them — or how to earn them. And if the employer awards such bonuses every year, they may become an annual expectation and may be viewed as nondiscretionary in the event of a wage-and-hour regulations audit — and once again, make the business subject to penalties.

"It's much better just following the law," Chou says.

A BIG THANK-YOU

All those considerations point to the care required when setting up a profit-sharing plan. But if it's something you can afford, it may be well worth it.

After all, what better way is there to tell your workers that everyone's in it together? **C**

HAVE AN ISSUE YOU CAN'T SEEM TO FIGURE OUT?

TIPS FOR MAINTAINING YOUR JETTER?

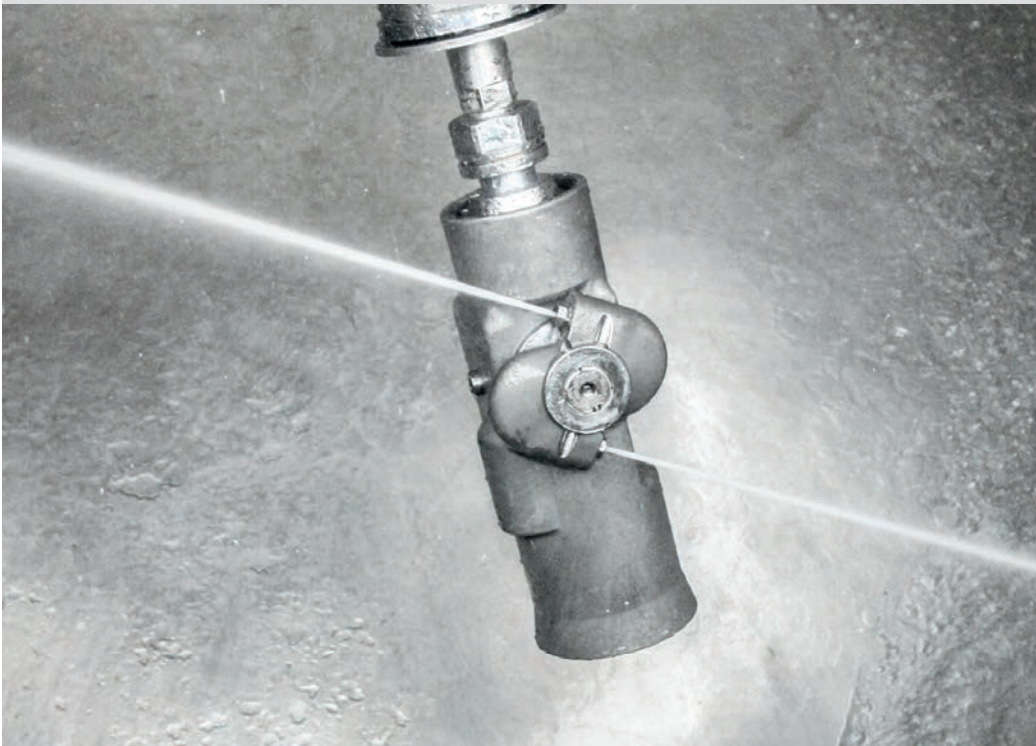
THOUGHTS ON PRODUCT COMPARISONS?

Post a question or comment on the Cleaner Discussion Board to engage fellow colleagues. Create a user name and join the discussion!

>>> www.cleaner.com <<<<

The Tank Cleaner. If you need power & reliability.

HAMMELMANN®



Just a toll free call away to rent

1-800-783-4935

Op. pressures: up to 26,100 psi

Flow rates: up to 220 gpm



Hammelmann Corp.
www.hammelmann.us

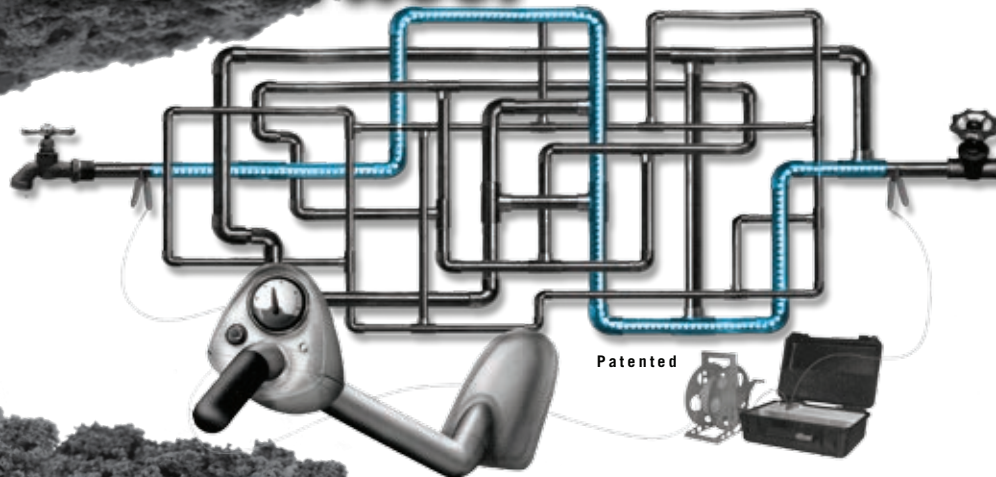
Dayton / Miamisburg OH
Phone: +1 937-859-8777

Houston / La porte TX
Phone: +1 281-842-9450



February 22-25, Indianapolis
See us at at booth #3107

Pulsar 2000 Line Tracer



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. No grounding required.

Leak detection personnel... The Pulsar 2000, a must have locator, can quickly identify the pipe location, reducing the search area.

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

To learn more about the Pulsar 2000 and our leak locating equipment, call **1-888-752-5463** or e-mail jsmil@aol.com for a free demonstration video or CD and references of satisfied customers.

We have been using the **Pulsar 2000**, 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. Purchase the **Pulsar 2000** line tracer, XL2 fluid detector and Geophones, and start locating leaks immediately.

Locate Lines
Locate Water Leaks
Training Video

It's a jumble out there.



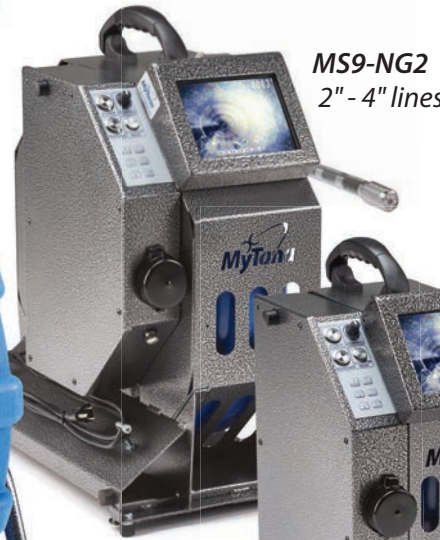
www.Pulsar2000.com
DISTRIBUTORS WANTED

Our new **NG2 Inspection Systems** feature USB for recording and storage to the internal drive or removable drives. The camera heads, with built-in 512Hz transmitters, undergo **rigorous testing** to stand up to harsh environments and still deliver one of the clearest pictures in the industry.

Every MyTana product includes **Factory Direct Support and Service** to help you with any problems or questions you have. Because solving problems — cleaning and unclogging, identifying blockages, hustle in emergency situations — is what our business and this industry is all about.



NGx10
3" - 8" lines



MS9-NG2
2" - 4" lines



MSA-NG2
1½" - 3" lines



MS11-NG2
3" - 6" lines

*We have answers,
advice and solutions.*

*Products are IN STOCK and
ship factory direct to you.*

We've got your back.

*"How can we
help you?"*



CABLE MACHINES

JETTERS

PUSH CAMERAS

LOCATORS

RELATED PARTS

ACCESSORIES

1.800.328.8170 www.MyTana.com



collaborate · understand · deliver

Demand More from Your Data.

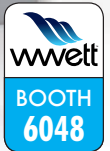


It's what our industry has been waiting for—the power to share inspection results in real-time via the cloud, scale for big data, visualize system-wide condition with GIS, plan/track field operations via Google Maps, and generate high-level deliverables like heat maps, budgetary proposals and 3D system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



real-time insight

sold & supported by:
www.pipelineanalytics.com • (877) 626-8386



THE CABLE CENTER 1-800-257-7209

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

24
HOUR
TURNAROUND

**FREE
FREIGHT
ON ALL RIDGID
CAMERA
KITS**

RIDGID's 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 · www.thecablecenterinc.com

lateral inspection takes a **new** direction

The patent-pending CleanSteer combines powerful propulsion, positive steering and bidirectional jetting to view and clean drains and laterals from any main line or clean-out.

Propelled by high-pressure water (1), CleanSteer snakes past multiple bends. A side jet is aimed remotely to steer through branches (2) and levitate over debris (3), and a forward jet can be pulsed to clear obstructions (4).

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



FREE On-site Demo
Register at www.pipelinert.com



(973) 252-6700

an **Envirosight** company.

Patents pending.

©2016 Pipeline Renewal Technologies. All rights reserved. CleanSteer is a trademark of Pipeline Renewal Technologies.



Dual Threat

New camera from Pipeline Renewal Technologies cleans while it inspects

By Craig Mandli

Most drain cleaners need to carry separate tools for lateral cleaning and inspection. The equipment takes up valuable space and switching back and forth is time-consuming. But there is another option.

CleanSteer, the newest camera from Pipeline Renewal Technologies and the featured demo in the company's 2016 Water & Wastewater Equipment, Treatment & Transport Show booth, solves this problem.



Jordan Eickelberger, right, the Midwest regional sales manager for Pipeline Renewal Technologies, shows the CleanSteer to a 2016 WWETT Show attendee. The unit uses high-pressure water for propulsion, steering and cleaning as it captures live video from inside lateral lines. (Photo by Craig Mandli)

The CleanSteer uses high-pressure water for propulsion, steering and cleaning as it captures live video from inside lateral lines. In addition to cleaning, it is able to traverse multiple bends in pipe, steer through branches and levitate above debris, allowing municipal contractors and commercial plumbers to locate failed pipes, cross bores and blockages.

"The CleanSteer is ideal for inspecting and flushing drainlines," says Jake Wells, director of marketing for Pipeline Renewal Technologies. "It can be deployed from any clean-out, and can even be steered into a lateral from a sewer main to perform cross-bore inspections."

The unit is fully water-driven. Six propulsion nozzles generate the power needed to pull its own flexible hose through multiple bends, and a side nozzle on the camera can be aimed to steer through diverging pipes and hover past obstacles. An optional forward-facing nozzle can be pulsed to clear debris and other obstructions. The system works with any high-pressure water source, including pressure washers and combination trucks.

"The steering jet is a completely new concept," says Wells. "Traditionally, drain inspection and jetting are brute-force operations, but CleanSteer allows an operator to be very precise in how they navigate past obstacles and remove debris."

CleanSteer's 1/2-inch hose comes in lengths from 115 to 190 feet. The system attaches to any 1/2-inch connection, delivering water at 2,000 psi and 20 gpm. "The hose itself maintains a very high pressure rating while incorporating power and video signal conductors, as well as the video-streaming electronics, which let an operator view live and record video on a mobile device," says Wells.

The camera itself measures 1 inch in diameter (or 2 inches with optional centering device), offers a 145-degree field of view, casts shadowless LED illumination, and can be located using an optional sonde transmitter. High-resolution video with footage superimposed is displayed on an integral 5.6- or 8-inch monitor and output via BNC connector, with options for digital recording (up to 32GB) and Wi-Fi streaming. It is housed on a welded stainless steel frame, and can travel to challenging locations easily on pneumatic wheels. The system can be operated upright or lying down, and can run on utility power or last up to two hours on an internal, rechargeable 12-volt DC battery.

"It allows the user to deliver video footage from regions of a drain pipe that common push cameras simply cannot access," says Wells. "Municipalities tell

us it's the perfect tool for handling callouts, providing positive proof when a backup is due to a blockage somewhere in a service connection, and thus the resident's responsibility. Contractors tell us it's a great way to perform cross-bore inspections without the expense and maintenance of a lateral-launch inspection crawler."

Pipeline Renewal Technologies, along with parent company Envirosight, is a longtime exhibitor at the WWETT Show. According to Wells, it's the perfect format to get their inspection products in front of potential customers.

HEAVY-DUTY PIPE & SEWER CLEANING

- Variable speed from 0 to 850 rpm
- Forward/Neutral and Reverse Rotation
- Cutting/Cleaning Grinding, Re-instating
- Cleans up to 150 ft.
- Built-in Air/Water Flush
- ID from 1/2" to 2 ft.
- Runs on 110/220 volt
- Universal tool attachment

Contractor's Package Part Number - TCM-4001

- 1 TCM-4000 Drilling/Reaming
- 1 Flexible Shaft 100'
- 1 Flexible Shaft 50'
- 1 4" Pipe Cutter "Re-instater"
- 1 4" Flex Hone 40 grit abrasive
- 1 Expandable Root cutter
- 1 Complete maintenance set
- 2 Universal tool attachments
- 1 Freight included

Package \$6,500



Universal Tool Attachment

Built-in Air/Water Flush



Owned/Operated
and Made in the U.S.A.

THE WIZARD
Complete Package for
\$6,500
See the details at
www.giind.com

GI INDUSTRIES

GI Industries Inc. • 800-724-1944 • www.giind.com • sales@giind.com

"WWETT attracts everyone who loves this product: commercial plumbers, cities and contractors," he says. "CleanSteer combines inspection and jetter cleaning in a way no other tool does, offering these attendees a truly unique capability. Beyond that, the show is brimming with trailer jetters, combination trucks and pressure washers, all of which provide ample water pressure and flow for the CleanSteer."

Wells says potential customers were excited to have the opportunity to demo the unit in the company's booth. "We love bringing new technology to WWETT. It's a hands-on crowd that's not afraid to handle the equipment and tell you what they think," says Wells. "We had a full demo set up for the CleanSteer, complete with a maze of clear PVC drain pipe. Once visitors experienced firsthand how they could steer the camera through multiple branches, they were sold on the concept." 866/936-8476; www.pipelinert.com. **c**



Searching for More?

More news at
Cleaner.com/featured

Cleaner

BEST-IN-CLASS EDUCATION

- ◆ Build-Your-Business sessions
- ◆ Technology training
- ◆ 22 topic tracks
- ◆ 37 states and organizations offering CEUs and PDHs
- ◆ Nine national associations participating
- ◆ Onsite certification training from NAWT and PSAI

A photograph of a diverse group of people, including men and women, sitting in an audience and looking towards the left. The photo is framed by a hexagonal border.

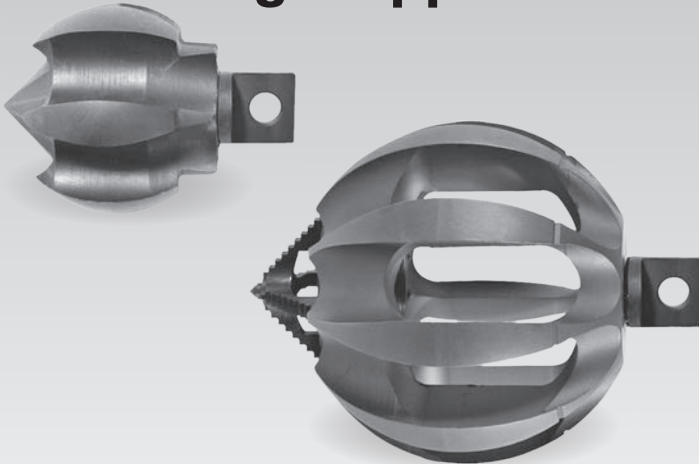
**COME AND SEE
WHY IT IS CALLED
'THE INDUSTRY
EVENT OF THE YEAR'.**

Register today at
www.wwettshow.com



**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



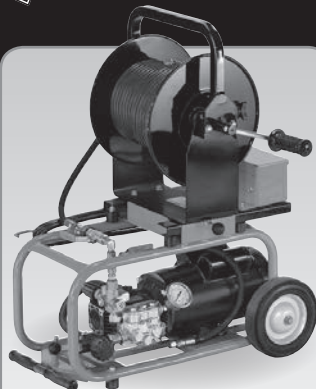
- Easy to read display – Icons lead you to your target and auto backlight lets you locate in dimly lit areas.
- Total field antenna array – Allows you locate from any direction.
- Line direction compass – Tells you the lay of the pipe.
- Industry's most rugged locator – Rated IP65, the industry's highest, 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

FREE FREIGHT ON ALL CAMERA KITS

VARCO

LIQUID WASTE HOSE & ACCESSORIES

ORDER TOLL FREE
866-872-1224

SHOP 24 HOURS A DAY 7 DAYS A WEEK
ONLINE AT WWW.VARCOPIUMPER.COM



VARCO LATERAL LINE/WATER JETTER HOSE

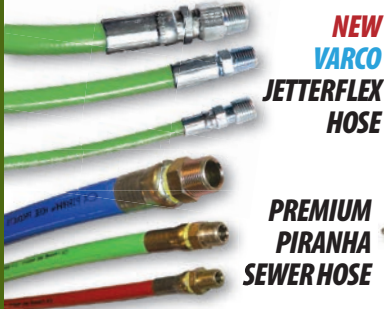
VARCO Branded and MADE IN THE USA;

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 3/8" up to 1", Working pressures up to 4800psi.

PREMIUM PIRANHA SEWER HOSE

	DESCRIPTION	500 ft	600 ft
3/4"	Premium Pirhana Orange 2500psi	\$1,095.00	\$1,314.00
1"	Premium Pirhana Orange 2500psi	\$1,285.00	\$1,540.00
3/4"	Premium Pirhana Blue 3000psi	\$1,154.00	\$1,385.00
1"	Premium Pirhana Blue 3000psi	\$1,485.00	\$1,780.00



NEW
VARCO
JETTERFLEX
HOSE

PREMIUM
PIRANHA
SEWER HOSE



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.

PROUDLY MADE IN THE USA

NEW VARCO JETTERFLEX LATERAL LINE / JETTER HOSE

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

***3/16" ON CLOSEOUT SPECIAL - SAVE 25%**

	50'	75'	100'	150'	200'	250'	300'	400'	500'	600'
1/8"	\$15.28	\$21.25	\$26.38	\$37.49	\$48.60	\$56.74	\$66.88	\$87.15	\$107.45	-
3/16"	\$21.23	\$26.95	\$33.60	\$44.89	\$56.84	\$68.80	\$80.75	\$104.66	\$128.58	\$152.50
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	-	\$518.17	\$660.02	\$853.29	\$972.66

SOURCE KEY
01C17

Down time is expensive.

DO YOU HAVE A SPARE CABLE IN THE TRUCK?



AFTERMARKET CONNECTORS • CABLES



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

REASONABLE PRICES

Seacon/
Turck



OceanQuip LLC
ORCA TOUGH CABLES

504 738 7833 p/f • jfowler307@aol.com
www.OceanquipLLC.com



GAS ENGINE PORTABLE
JETTERS PRICES
STARTING AT \$2,599



ELECTRIC MINI
JETTERS PRICES
STARTING AT \$1,199

made in the USA • AMERICAN MADE
• Fast Shipping
• Call Us For A Quote

(702) 527-5100

LIVE TECH SUPPORT • PARTS & ACCESSORIES
AVAILABLE FOR ALL EQUIPMENT
WWW.SEWEREQUIPMENTCOMPANYOFNEVADA.NET

COMPLETE PARTS & SERVICE

WE DIAGNOSE &
SERVICE ALL BRANDS

Sewer Equipment Company of Nevada

CAMERA & LOCATOR COMBO
STARTING AT \$1,899
3 YEAR WARRANTY

SEWER CAMERA & LOCATOR
PACKAGES AVAILABLE
3 YEAR WARRANTY



WWW.SEWEREQUIPMENTCOMPANYOFNEVADA.NET



Quality and Affordability in a single machine.

State of the Art Controls
Weatherproof Nema 4 Control Box

Superior Wireless Remote
True one man operation

Duraprolene Water Tank
One of a kind repairability and fully baffled

Cat Diesel Engine
Increases serviceability options

Rotational Hose Reel
Mounted on 5000# sealed bearing
Hose Size: 1/2"
Hose Length: 600ft capacity

Strong Frame
Made from tubular steel for superior durability

Run Dry Pump
GPM: 18
PSI: 4,000

above unit MONGOOSE MODEL 184

Other units and configurations can be found on mongoosejetters.com

Mongoose Jetters delivers industry leading high pressure jetting equipment that is purposefully built for the plumbing contractor market. Quality, service and a wide variety of equipment and options keep our customers operational and profitable. Mongoose Jetters stands behind its promise to provide customers with...

“SERIOUS MACHINES FOR A SERIOUS BUSINESS”



Contact Us for Updated Pricing Details

877.735.4640

Mongoose Jetters is a Sewer Equipment brand

Sewer Equipment

1590 Dutch Road, Dixon, IL 61021

Products subject to change without notification. Actual products may not be an exact match to product as shown.

Addressing Your Company's Weaknesses

An honest look at where your business may be falling short gives you an opportunity to improve

By Alexandra Townsend

Even though I would like to believe my company, A Royal Flush, is the perfect company, we all know there is no such thing. Every company has strengths and every company has weaknesses. Successful companies recognize their weaknesses and build a strategy to improve.

Admitting weaknesses can be really hard to do. Over the years, we have realized it is always the best idea to have a group effort when outlining weaknesses in the company. The more eyes you have on something, the better the outcome.

Every Monday morning, we have an operations meeting. We go over all of our routes, looking at all the driver hours, number of services completed and complaints per route. In addition, we go through all our weekend events. This includes any complaint calls that we received over the weekend and discussion of any mistakes that occurred.

The point of this meeting isn't to point the finger at every mistake a person made. It's to find out how they happened. Was it a clerical error?

Admitting weaknesses can be really hard to do. Over the years, we have realized it is always the best idea to have a group effort when outlining weaknesses in the company.

This could be something so small as the wrong digit in an address or the wrong street name. Was it a scheduling error? Did we have too many orders scheduled for 8 a.m. Saturday? We look at where we went wrong so we can make sure it doesn't happen again.

We have always said that we are an operations-driven company. We can get any job done, usually in a short period of time.

Where we are weak is in our processes. We will always get the job done but we don't do it the same way every time. We have tried for years to enforce procedures but it is our major weakness. Maybe this comes from our beginnings as a small company that didn't care about processes because we just needed more customers. Or maybe this comes from our drive to constantly grow our company. Either way, we just can't nail down a process and stick with it.

That was hard to admit! But I know no person or company is perfect. You just keep striving to get better with each job you take.

Try having a similar meeting. Invite all your employees to the meeting. Take your time and go through all points of the order, from the initial phone call to the completion of service. Where does your company fall short?

Also take time to acknowledge customer complaints. Are they all about service or is it more than that? Do you have a technician who's always late? Do you have a customer service employee who notoriously forgets phone numbers?

All of these things are weaknesses. And when you finally recognize them, you can work toward fixing them and strengthening your company. **C**

ABOUT THE AUTHOR

Alexandra Townsend is co-owner of A Royal Flush, based in Philadelphia.



THE NEW "GEN II" HEATER & STEAM UNIT FOR CIPP



Improved Heater Efficiency | Increased Air Flow Capacity | Increased Water Storage Capacity
Wireless Data Acquisition System to Record Discharge Temperature and Upstream/Downstream Liner Temperature



Improved Heat Output/Efficiency | Larger Work Platform
Wireless Data Acquisition System to Record Water Temperature, Flow Rate and Upstream/Downstream Liner Temperature

COME VISIT US AT THE W.W.E.T.T. SHOW, BOOTH #1037.

(800) 489-2397

WWW.RUSHOVERLAND.COM



GET
EMAIL NEWS
ALERTS FOR
Cleaner

Go to cleaner.com/alerts and get started today!

VIVAX METROTECH

Vivax-Metrotech Corporation
3251 Olcott Street
Santa Clara, CA 95054, USA

Toll Free: +1-800-446-3392
Fax: +1-408-734-1415

Email: sales@vxmt.com
www.vivax-metrotech.com



The preferred cameras for cross bore projects

vCam-5 Inspection Camera

- LACP/PACP ready
- Five hour battery life
- 8" daylight viewable display



vCamMX Mini Camera

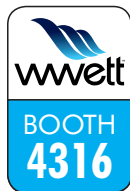
- Six hour battery life
- Portable all-in-one system
- Interchangeable camera heads

Call us for your no obligation on-site demonstration!



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

Picote Coating System A simple way to renew small diameter drains



Locate your reseller at picotesolutions.com or call 219 440 1404 for further information.

NEW: Picote Worldwide Training Center now open in Anderson, SC.

THE SMART CUTTER™



PRODUCT OF THE YEAR 2012

FLOW EXPO '17

42nd Year

THE WESTERN UNITED STATES REGIONAL PLUMBING-HEATING-COOLING INDUSTRY TRADE SHOW®

FEBRUARY 4TH, 2017

Long Beach Convention Center - 9am - 4pm

Over 200 Booths! More Than 400 Brands!

THE PRODUCTS YOU NEED FROM THE BRANDS YOU TRUST!

FOR MORE INFORMATION VISIT US AT FLOWEXPOUSA.COM

Plumbing

Backflow

Jetting

HVAC

Leak Detection

Sewer Cleaning

Communications

Grease Handling

Water Treatment

Video Inspection

Trenchless

Piping Rehab/CIPP

Pump Systems

Utility Locating

Vehicles

Software

Fire Suppression

Service & Repair

Remodeling

and Much More!

You Tube SEE WHATS HAPPENING AT THE FLOW EXPO



Reeves Journal's Jack Sweet at the Flow Expo

https://www.youtube.com/watch?v=K_W3Q6Twmcc



Flow Expo Quick Walk Through

https://www.youtube.com/watch?v=hFeUjc_pHuw



ATTENDEE REGISTRATION OPENS NOV. 1ST, 2016

Professionals will have the opportunity to see the top wastewater tools and equipment in the industry on the WWETT 2017 show floor

By Craig Mandli

The Water & Wastewater Equipment, Treatment & Transport Show will fill the Indiana Convention Center Feb. 22 to 25 with the best products and services the industry has to offer. To make sure you don't miss out on any of the new, innovative industry offerings in Indianapolis, be sure to check out the interactive floor plan on the WWETT website (www.wwettshow.com). All attendees are sure to bring home a new idea or product to assist them in the coming year.

Here's a look at some of the most exciting products and services that will be on the WWETT Show floor:

AMAZING MACHINERY VIZTRAC MAX

The **Viztrac Max** camera from **Amazing Machinery** has the same durability and super slick push cable as previous Viztrac cameras, with a 22 percent larger 9-inch LCD color display, and a rechargeable lithium-ion battery pack capable of up to eight hours of field use before recharge. The unit includes an AC/DC adapter for direct power supply, a 512 Hz sonde transmitter, and a DVR recorder that records to standard SD cards. A 4GB card is included. 800/504-7435; www.amazingmachinery.com; **Booth #3022**.



AP/M PERMAFORM PERMACAST

The **Permacast** engineered fine aggregate cementitious liner and polymer coating system from **AP/M Permaform** is centrifugally cast from a robotic applicator. The high-strength, corrosion-resistant liner is applied at the best thickness (1/2 to 2 inches) for the condition, depth, traffic loading and groundwater pressure of the existing structure. For added protection, **ConmicShield** antimicrobial additive is added to prevent *Thiobacillus* bacteria that produce sulfuric acid in sanitary sewer systems, providing long-term protection of concrete structures. 800/662-6465; www.permaform.net; **Booth #2048**.



ARIES ANACONDA UV CURING SYSTEM

The **Anaconda UV Curing System** from **Aries Industries** provides consistent lining installation. CCTV inspection before and during the cure allows any sags and wrinkles in the lining to be corrected. UV curing requires less equipment, less setup and smaller crews that reduce service disruptions. No hot-water usage eliminates the steam truck for less fuel consumption. Lingering odor and downstream contamination are prevented. 800/234-7205; www.ariesindustries.com; **Booth #6201**.



CAM SPRAY TT4025HZ-350

The Model **TT4025HZ-350** sewer jet from **Cam Spray** is rated to 25 gpm at 4,000 psi with a Hatz H50 liquid-cooled, turbocharged diesel engine producing 74 hp. It is EPA Tier 4 Final compliant and comes with a wireless remote to control engine functions and water flow. It has a hydraulic-powered swivel reel, over-center clutch, 500 feet of 5/8-inch hose and a 350-gallon tank. The remote control/valve package was engineered from the ground up. 800/648-5011; www.camspray.com; **Booth #2501**.

CHEMPACE BIOFORCE

The **bioForce** biological line from **Chempace** can be used on septic, grease trap and municipal lines. From liquids to private labeled packets, solutions are biodegradable and environmentally friendly. New **bioForce Maxx** drainfield treatment is now available. 800/423-5350; www.chempace.com; **Booth #3012**.



CRETEX SPECIALTY PRODUCTS PRO-RING

The **PRO-RING** concrete-alternative manhole and catch basin grade adjustment system from **CreteX Specialty Products** is available in round, square and rectangular. It is manufactured from expanded polypropylene (EPP), which is known for its exceptional strength-weight ratio, durability, chemical resistance and long service life under harsh conditions. One man can install the system in just minutes to within a quarter-inch of finished grade, and they are watertight. The system eliminates the hazard of concrete rings breaking and causing injury. It can dramatically speed up manhole installation and repair time. 800/345-3764; www.cretexseals.com; **Booth #1337**.



CUES GRANITENET

GraniteNet from **CUES** is a next-generation infrastructure inspection and decision support software for water, wastewater and municipal public works asset management. Whether used in the field on tablets or via a web browser to review and analyze inspections, it uses the Cloud for media storage while enabling simple, precise data collection with integrated GIS mapping and GPS. It can help contractors and municipal asset managers lower their operating costs and increase efficiency across departments. 800/327-7791; www.cuesinc.com; **Booth #5024**.



DURACABLE DM140

The **Duracable DM140** is ideal for smaller jobs. With a 1/4 hp motor running at 200 rpm, it can handle smaller jobs easily. It is easy on the user, too, as there is no heavy machine to carry from the truck to the job. It can be operated horizontally or vertically, and uses 75 feet of 3/8-inch cable standard or, with the optional flat drum, 75 feet of 1/4 inch cable. The standard package comes with a revolving arm and a 14-inch enclosed polyethylene reel. Both reel options are lightweight and keep splatter contained. 877/244-0556; www.duracable.com; **Booth #1560**.



ENVIROSIGHT QUICKVIEW AIRHD

The **Quickview airHD** camera from **Envirosight** captures HD video from sewers, and transmits it wirelessly to a touch-screen tablet for live viewing. Its motorized tilt, in-manhole centering capability and hands-free stabilization enable easy setup, as both the operator's hands remain free to operate the tablet. It has an HD zoom camera with 30X optical zoom (plus 12X digital) tuned to deliver maximum detail from within pipes. Its Quad-Haloptic light engine combines four offset LED/reflector pairs to surround the camera with powerful, focused illumination aligned for maximum range and optimum viewing at any distance. 866/936-8476; www.envirosight.com; **Booth #6024**.



ENZ USA CUTTING BALL

The water-driven **Cutting Ball** nozzle from **Enz USA** moves easily around curves in 4- to 6-inch PE, steel or concrete pipes while safely removing roots and mineral deposits, resulting in no damage to the pipe. It works without impact, but has the ability to switch to a vibrating nozzle. It has a hard metal front blade for pipes that are more than 50 percent clogged. The side blades are self-sharpening and maintain their sharpness over their entire service life. It operates with controlled rotation speed and is capable of running on recycled water. It is leakage free. 877/369-8721; www.enzusainc.com; **Booth #1062, 1068**.



FORBEST PRODUCTS 1-INCH MINI SELF-LEVELING COLOR CAMERA HEAD



The high-resolution **1-Inch Mini Self-Leveling Color Camera Head** from **Forbest Products** is available with a built-in 512 Hz sonde transmitter CHDT-C26, which comes with durable sapphire glass, stainless steel spring kit and 15 LED lights. The CHDT-C26 can work with Forbest portable 65-, 100- or 130-foot fiberglass cable and reel. With an adapter, it can also be used on 150-, 220-, 300- or 400-foot cable and reel. With the self-leveling function, users can always have upright pictures. 877/369-1199; www.forbestusa.net; **Booth #2271**.

FOREMOST 1200 NON-CODE HYDROVAC

The **1200 Non-Code Hydrovac** from **Foremost** is a full-size unit, offering 10.5 cubic yards of debris capacity and 1,200 gallons of freshwater storage. This package is normally mounted on a tandem chassis with a single drop axle. Foremost designs and manufactures vehicle-mounted vacuum equipment for use in the oil and gas, municipal, industrial and utility market segments across North America. 403/742-6686; www.foremost.ca; **Booth #6333**.



GAPVAX MC SERIES COMBO JETVAC

The **MC Series Combo JetVac** from **GapVax** is made of 3/16-inch ASTM A572 Grade 50 Exten steel. The debris body ranges from 5 to 12 cubic yards, and is also available in stainless steel. The stainless steel water tank can hold up to 2,000 gallons. It has a unitized water and debris tank with a double sub-frame. A heavy-duty double acting single-lift cylinder provides a stable 50-degree dump angle. Vacuum pump options range from 3,500 to 5,000 cfm with up to 27 inches Hg. It has an 8-foot front-mounted telescopic boom with dual lift cylinders, reaching 26 feet with a 180-degree rotation. The front-mounted hose reel has 800 feet of 1-inch hose capacity. 888/442-7829; www.gapvax.com; **Booth #6010**.

GENERAL PIPE CLEANERS JM-1000 MINI-JET



The compact, lightweight **JM-1000 Mini-Jet** from **General Pipe Cleaners** offers an easy way to clear small lines, clogged sinks and laundry drains from 1 1/2 to 3 inches with 1,500 psi of cleaning power. The powerful little jetter hits the stoppage with a high-pressure, wall-to-wall water spray and flushes it away. Pulse helps slide the hose around tight bends and farther down lines. It resists job site abuse, too, as the pump and motor assembly are safely contained in a rugged diamond plate metal case. To protect the unit from damage, a sensor automatically stops the motor if water stops flowing through the pump. 800/245-6200; www.drainbrain.com; **Booth #4125**.

GUZZLER CL INDUSTRIAL VACUUM TRUCK EQUIPPED WITH GEROTTO LOMBRICO MINI-EXCAVATOR

Guzzler Manufacturing and **FS Solutions**, in conjunction with a distribution partnership with Gerotto of Italy, will showcase the latest advancements in hands-free industrial vacuuming equipment. Equipped with the **Gerotto Lombrico** mini-excavator, a **Guzzler Classic** industrial vacuum truck will be on hand to demonstrate the robotic attachment's ability to remotely control the end of the vacuum hose for a completely hands-free application. A track drive system allows the compact unit to access tight locations that may be hard to reach using traditional methods. The Lombrico mini-excavator includes customizable head configurations for a variety of applications. The Gerotto Lombrico mini-excavator is available exclusively at FS Solutions' nationwide locations. 800/627-3171; www.guzzler.com; **Booth #5050**.



HAMMELMANN CORP. PIPEMASTER

The Hammelmann Corp. Pipemaster is a manually operated, high-pressure hose rotating system used to remove both soft and hard deposits from the insides of pipes and pipelines, including those with bends and vertical sections.

A high-pressure supply hose line is fixed between the pump and the rotary joint on the hose-rotating unit. A second hose is connected to the rotary joint and runs via the deployment unit into a protective hose to the positioning device at the work piece. The rotation of the second high-pressure hose around its longitudinal axis is effected by a chain drive from a pneumatic motor to the rotary joint. The rotation speed can be smoothly adjusted with throttle check valves. 800/783-4935; www.hammelmann.com; Booth #3107.



HATHORN CORPORATION PORTABLE

The Portable camera system from Hathorn Corporation has a small compact frame, is lightweight and easy to use. It includes a 7.4-inch daylight-readable monitor, Wi-Fi video transfer to any mobile device, 125 feet of pushrod, a text writer and footage counter, 512 Hz sonde transmitter, rechargeable battery pack, and adjustable lighting. Options include self-leveling camera heads, USB recording and adjustable sun shield/monitor cover. 905/604-7040; www.hathorncorp.com; Booth #5053.



I.S.T. SERVICES ELASTOTEC COATING SYSTEM

Create a seamless and durable new surface inside any pipe material without damaging existing structures with the Elastotec Coating System from I.S.T. Services. It can increase the life span of pipes with high resistance to pressure and chemicals. The Elastotec machine is easy to use and transport, and repairs 1 1/2- to 8-inch pipes with no wasted material or reinstatements. The spray-and-brush dual-applications system applies an elastoflake coating material made up of a two-component polyurethane resin. It has a 90-second curing time, and is ultra-durable and chemically resistant. High elasticity avoids the cracks and tension that can arise from thermal expansion or other mechanical stress. 858/997-0004; www.ist-web.com; Booth #6038.



INFOSENSE SL-RAT

The Sewer Line Rapid Assessment Tool (SL-RAT) from InfoSense uses active acoustics to provide a quick view of blockage conditions within gravity-fed sewers. The test takes three minutes with no flow contact. It allows a crew of two to inspect 10,000 to 20,000 feet per day. It is EPA validated and GPS enabled. Data can be downloaded to the Sewer Line Data Organizer, or SL-DOG, cloud application for visualization in Google Earth, or integrated with enterprise/GIS applications. 704/644-1164; www.infosense.com; Booth #2103.



JETSTREAM ROTOMAG X22 NOZZLE

In production for several years, the Jetstream RotoMag X22 2-D self-powered rotary nozzle for vessel cleaning and pipe cleaning applications features a stainless steel body and rotor, and a body shroud to protect the nozzle while cleaning. A longtime favorite of industrial cleaning customers, the RotoMag X22 is available as a single tool rated up to 22,000 psi. A magnetic braking system controls rotational speed for minimal wear and maximum impact without streaking. Spinning on a film of high-pressure water, the RotoMag X22 nozzle has no ball bearings to replace, making field service simple. 800/231-8192; www.waterblast.com; Booth #5050.



LADTECH MANHOLE RISER RING

Manhole riser rings from LADTECH can be installed in minutes. The rings nest together, and include a 2 percent slope ring and a 1/4-inch spacer ring for a precision fit. They're made of high-density, lightweight recycled polyethylene, meet AASHTO's HS-25 axle-loading spec, and are impervious to H2S corrosion that destroys concrete. 877/425-1252; www.ladtech.com; Booth #1131.



LENZYME/TRAP-CLEER FIELD AND LINE CLEANER

Field and Line Cleaner from Lenzyme/Trap-Cleer effectively helps restore clay fields. It can be used in jetting machines to clean lines and leave a biocoat in the line. It works on all septic systems, going to work immediately. The cleaning agents and strains of bacteria cleanse deeply into the field, helping to cause a disruption with crystalizing biomat or grease buildup. 800/223-3083; www.lenzyme.com; Booth #3026.



MAXLINER USA SUPERFLEX

SuperFlex single-layer CIPP liner from MaxLiner USA is PU laminate coated, stitched and bonded to polyester felt. Extremely flexible in bends, the versatile liner is offered in diameters of 2 to 8 inches, with a thickness of 4.5 mm. Using inversion installation, it is used with MaxPox resin and hardener from the MaxLiner system, and will go around bends with minimal wrinkling. 877/426-5948; www.maxlinerusa.com; Booth #1049.



MILWAUKEE RUBBER PRODUCTS GAS ALERT MICRO CLIP

The Gas Alert Micro Clip from Milwaukee Rubber Products provides protection from atmospheric gas hazards. It offers visual compliance at a glance with the flashing green IntelliFlash. Easy one-button operation reduces training time and lets workers focus on the job at hand. For simple, cost-effective management of records, calibration and bump testing, it is compatible with the MicroDock II automatic test and calibration system and Fleet Manager II software. Its continuous LCD shows real-time gas concentrations while its compact and lightweight design makes it comfortable to wear. It is water-resistant with a built-in concussion-proof boot and multi-language support. It is powered by a rechargeable lithium polymer battery. 800/325-3730; www.milwaukeeerubber.com; Booth #3030.



CONTINUED >>




GET YOUR **FIX**

RIDGID **REPAIR CENTER**

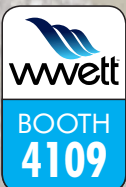
800.421.4580

DRAINABLES.COM

 **DRAINABLES**
direct



Drainables Direct now has RIDGID Repair locations in Ohio and Texas. Our repair specialists are dedicated to fast, quality repairs; getting you back to business faster.





MYTANA MS11-NG2

The MS11-NG2 midsize inspection system from MyTana has a USB for recording and storage. The system is suitable for inspecting 3- to 6-inch lines with the choice of 150 or 200 feet of pushrod. The unit has a 64GB internal drive as well as two onboard USB ports, and a 32GB removable USB drive. The one-piece design is lightweight with a handy carrying handle. The camera head is color, self-leveling with a built in 512 Hz transmitter for locating trouble spots, even in cast iron pipes. The monitor provides a clear picture. 800/328-8170; www.mytana.com; **Booth #2200.**

NATIONAL VACUUM EQUIPMENT 887

The 887 500 cfm rotary vane vacuum pump from National Vacuum Equipment is a makeover of the 866, and includes enhanced pressure capabilities and continuous-duty vacuum to 25 inches Hg. A positive function ballast check system turns on or off as vacuum level passes 18 inches Hg. It includes NVE vanes and an NVE oil pump for precision oil delivery. It can be packaged in a variety of ways to fit any installation and drive system. It includes an enhanced, efficient oil catch muffler and sound deadening designs. 800/253-5500; www.natvac.com; **Booth #2401.**



NOZZTEQ MANTA SERIES BOTTOM CLEANER

The MANTA Series Bottom Cleaner from NozzTeq is recycled water friendly, with interior surfaces and interchangeable rear jetting plates made of stainless steel and ceramic parts to stand up to hard water and grit. It is more than 50 pounds, and slides on wide runners that are replaceable. It is designed to stay on the bottom of large-diameter pipes for effective jetting, and the nozzle doesn't wear out. The jetting plate is also interchangeable and replaceable, and plates come in eight-, 10- and 12-jet configurations. 866/620-5915; www.nozzteq.com; **Booth #1454.**

OMSI TRANSMISSIONS

OMSI Transmissions offers split-shaft and engine power take-offs used in sewer cleaning machines, drilling rigs, concrete pumpers, fire fighting vehicles, along with mechanical/hydrostatic combined drive groups used in street sweepers, street flushers and airport support equipment. The company's axles, transmissions and gearboxes are used in agricultural and industrial machines, while railway transmissions are used in railway maintenance vehicles, and mining transmissions and drives are used in mining equipment. 330/405-7350; www.omsitransmissions.com; **Booth #3101.**



ONE BIOTECHNOLOGY LIQUID BIOONE

Liquid BioOne from One Biotechnology is a 100 percent natural drainline, septic and grease trap maintainer. Applied on a regular basis after a drain or septic treatment, it can help to maintain free-flowing drains, eliminate odors and reduce the number of backups between scheduled pumpings. It doesn't contain enzymes or caustic agents and is safe for people, pets and pipes, displaying the EPA's Safer Choice Program logo that "allows customers to quickly identify and choose products that can help protect the environment and are safer for families." Adding it to customers' lines and grease traps does not emulsify FOG and move it down the line. Regular use can help avoid potentially expensive wastewater surcharges and fines. 800/951-4246; www.onebiotechnology.com; **Booth #6152.**



PIK RITE USED TANK SERVICE WORK

Pik Rite provides complete makeovers to used trucks. This 2004 Sterling cab was repainted to a clean white and the 4,000-gallon Pik Rite tank was cleaned up and repainted as well. New aluminum hose trays replaced the old ones, along with new wiring and toolboxes. In the end, this 12-year-old tank and chassis was made to look new again. One smooth transition at Pik Rite, rather than subbing it out to various shops, allowed for a complete team approach, and the components fit together seamlessly, from paint to wiring and chassis and tank fit-up. 800/330-3965; www.pikrite.com; **Booth #4213.**



PIPELINE RENEWAL TECHNOLOGIES QUICK-LOCK

For stand-alone point repair, or for pre-lining under high infiltration, the Quick-Lock sleeve from Pipeline Renewal Technologies offers a rapid, easy-to-install and economical way to repair failing pipe. It restores the host pipe's strength with heavy-gauge 316L stainless steel, and seals out infiltration with a single-piece vulcanized EPDM rubber gasket. A sleeve installs in minutes with minimal equipment and overhead. It is positioned inside the host pipe on a wheeled flow-through packer pushed by any standard CCTV crawler. They are available in diameters ranging 6 to 28 inches, and in lengths of 16 and 20 inches. Multiple sleeves can be interleaved to perform longer repairs. 866/936-8476; www.pipeliner.com; **Booth #6032.**



R.S. TECHNICAL SERVICES HELIX

The Helix from R.S. Technical Services is an advanced manhole inspection system designed to help municipalities improve system performance by dramatically lowering manpower costs, avoiding structural failures, and easily sourcing inflow and infiltration. Deployed from a CCTV vehicle, pickup or ATV, it is capable of scanning a manhole in under a minute, allowing a one-man crew to perform over 50 manhole inspections a day. It has six high-resolution cameras that capture panoramic imagery of every surface, as well as six active 3-D sensors that record hundreds of thousands of spatial data points for precise measurements. 800/767-1974; www.rstechserv.com; **Booth #2723.**

CONTINUED >>

Technology for Locating Buried Utilities

"The Standard of the Industry"



Unparalleled Production for Lateral Launching & Crossbore Inspection

LAMP II Lateral & Mainline Probe

The CUES LAMP II (Lateral and Mainline Probe II) is an inspection tool for identifying infiltration and inflow, potential crossbores, pipe defects, and structural conditions in lateral services and mainlines.

- Easy entry into lateral services with "WYE" connections while inspecting with or against the flow! Navigate through multiple "wyes", bends, and sweeps.
- Self-leveling camera image is always upright; camera has 360 degree continuous pan and tilt capabilities.
- Built-in wiper system keeps the camera lens clean; no need to remove the camera from the pipe to clean the lens.
- Built-in multi-frequency sonde transmitter.
- Complete 'Pre' and 'Post' gas line installation inspections using Granite software with the optional Lateral Inspection Module to generate full reports for easy analysis and delivery to the client; sort all inspections with critical issues and email them to the installer.



BLUE = NOT INSPECTED
GREEN = SEWER LATERAL CLEAR OF UTILITIES
RED = GAS MAIN IN SEWER LATERAL
YELLOW = GAS LINE

800.327.7791 • salesinfo@cuesinc.com • www.cuesinc.com

Contact CUES for a free demo!

RAPIDVIEW IBAK GATOR AUTOMATIC LATERAL DETECTOR

The **Automatic Lateral Detector** sensor from **RapidView IBAK** mounts on the front armature of GATOR cutters, and allows the user to locate lateral connections through the pipe liner before reinstatement. Using a small microwave emitter and easy-to-use software, it locates the lateral behind the liner and automatically marks the center of the lateral for reinstatement. The system can be operated in a completely automatic mode, finding the laterals, even if a pre-inspection was not completed prior to lining. The sensor allows rehabilitation companies to avoid costly and time-consuming mistakes when reinstating laterals. 800/656-4225, www.rapidview.com; **Booth #2205**.



REELCRAFT SERIES HD70000

Series HD70000 hose reels from **Reelcraft** are designed to accommodate up to 100 feet of 3/8-inch-I.D. hose or 75 feet of 1/2-inch-I.D. hose. The heavy-duty base design, all-steel construction and a baked-on powder-coat finish combine to produce a rugged, corrosion-resistant product. A newly redesigned latching mechanism provides longer service life of the latch components. The containerized drive spring offers safer and easier handling during maintenance. Two sealed ball bearings produce a smoother spool rotation and easier operation. The guide arm adjusts to seven positions for various mounting locations and applications. 800/444-3134; www.reelcraft.com; **Booth #1572**.



RIDGID CS65X

The **RIDGID CS65x** enhanced digital reporting monitor allows users to provide immediate drainline inspection footage using Wi-Fi and Bluetooth capabilities to simplify footage viewing and transfer while improving workflow efficiency. The upgraded model has the same technology of the CS65, providing one-touch image recording for fast, efficient documentation of inspections, along with a new quad-core processor and solid-state hard drive. A companion app is available for download and is compatible with Android and iOS devices. 800/769-7743; www.ridgid.com; **Booth #1354**.



RITAM TECHNOLOGIES SUMMIT RENTAL SYSTEM

The **Summit Rental System** from **Ritam Technologies** allows users to keep their familiar QuickBooks environment and take advantage of automated billing. Every transaction is instantly memorized, meaning the user only has to touch accounts when something changes. Billing is automatic, whether monthly, 28-day or special event. It allows for automatic “from” and “to” billing dates, pro-rations, damage waivers and delivery charges. Routes can be built from a single point of entry, and inventory assigned instantly. QuickBooks continues to capture revenue totals, balances the checkbook, and an accountant can continue using it for tax reporting. It enables route optimizing with the latest mapping software and mobile route management. 800/662-8471; www.ritam.com; **Booth #4300**.



SEALING SYSTEMS INFI-SHIELD GATOR WRAP

Infi-Shield Gator Wrap from **Sealing Systems** prevents infiltration and erosion by providing a watertight seal around any manhole, catch basin or pipe joint. It resists harsh soil conditions and provides a root barrier for any crack or joint. It is made of a stretchable, self-shrinking, intra-curing halogenated-based rubber. The backside of each seal is coated with a cross-linked reinforced butyl adhesive. The seal is designed to stretch around the joint and then overlap, creating a cross-linked and fused bond between the rubber and butyl adhesive. It installs easily with no special tools and can be immediately backfilled. 800/478-2054; www.ssisealingsystems.com; **Booth #4122**.



SPARTAN TOOL SOLDIER

The midsize **Soldier** trailer hydrojetter from **Spartan Tool** delivers 3,000 psi at 12 gpm for pipe sizes 3 to 12 inches in diameter. With a standard antifreeze system, it can be used in any weather conditions. An optional Warthog nozzle lets the user make quick work of ice, grease and tough root blockages. It has a pivoting hose reel for full access to any drain location. With its compact form, fully enclosed and lockable engine cover, and 200-gallon water tank, it is ready to handle stubborn stoppages. A skid-mount version is also available. 800/435-3866; www.spartantool.com; **Booth #5032**.



STONEAGE TOOLS SWITCHER

Switcher cleaning heads from **StoneAge Tools** eliminate extra runs by switching between pulling and descaling jets. They allow technicians to use the same tool to quickly run down the line, engage full cutting force to clear obstructions or roots, then switch again to move debris. Every time the pump is idled down and brought back to pressure, the tool alternates function between two different sets of jets. Field use of Magnum tools with a Switcher head versus the traditional method of using two tools demonstrates marked water and time savings. 866/795-1586; www.sewernozzles.com; **Booth #5144**.



SUPER PRODUCTS CAMEL 1200 WITH WASTEWATER RECYCLING

Available on the Camel 1200 sewer cleaner, **Super Products'** wastewater recycling system has a six-stage water filtration process that enables effective sewer cleaning action without the need for freshwater, leading to substantial water, time and money savings for municipalities and sewer contractors. Its ejector plate serves as a full-body primary filter that thoroughly separates solids from liquids collected in the debris body. The collected water then travels through a series of filters, strainers and a separator that removes particles from the liquid using centrifugal action. 800/837-9711; www.superproductsllc.com; **Booth #6244**.



CONTINUED >>

DO YOU HAVE A TRAINING PROBLEM? WE HAVE THE SOLUTION.

Finding it difficult to get experienced help?

Have the man power but need to increase the skill level?

Call us to arrange training for your team to enable them to **maximize your investment** in the equipment you own. Training programs can include operation and maintenance of equipment, OSHA safety issues, application specifics, tech tips and best practices.

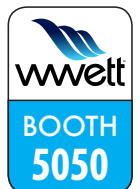
You **invested millions** in equipment, **invest** in getting operators to run it efficiently. Call us and, we will build a training program to fit your organization.

We have the solution



12 SITES AND GROWING. \$10 MILLION PARTS IN STOCK

PARTS • REPAIRS • MAINTENANCE • SALES • RENTALS • TRAINING
WHATEVER THE PROBLEM, WE HAVE THE SOLUTION



OEM GUZZLER VACTOR JETSTREAM
CONSUMABLES AND ACCESSORIES AVAILABLE FOR ALL MAKES



WWW.FSSOLUTIONSGROUP.COM • 800.822.8786

SUPERIOR SIGNAL SMOKE FLUID SYSTEM

Smoke Fluid Systems from Superior Signal are used to find faults and sources of surface water inflow in collections systems. The smoke fluid is both high quality and economically priced. All blowers are engineered for smoke testing, using a double-insulated heating chamber with stainless steel injector to maximize dry smoke output, and produce the best-quality liquid-based smoke. Blowers can also be configured to work with Superior Smoke Candles. 800/945-8378; www.superiorsignal.com; **Booth #4110.**



SUPERVAC2000 TRITON

The Triton combination sewer cleaner from SUPERVAC2000 has a water recycling system that uses a Juggler filter to allow continuous work without downtime for water filling. It filters water collected in the debris tank and transfers it to a water reservoir used by the Jeter water pump. It comes with a 2,500-gallon debris tank with stainless steel

liner and vibrator, 1,500-gallon water tank, hydraulic boom and dump, and a full-opening rear door. Vacuum is provided by a 3,800 cfm at 27 inches Hg Robuschi blower, while jetting power is provided by an 80 gpm, 2,500 psi Pratisoli water pump. The rear door-mounted hydraulic hose reel holds 600 feet of 1-inch hose. 866/839-5702; www.supervac2000.com; **Booth #1537.**

T&T TOOLS MANHOLE COVER OPENER

The manhole cover opener and septic tank lid remover from T&T Tools has a T-handle design that integrates the strength of a 5/8-inch heat-treated hex shaft. This T-handle allows the user to securely use both hands to grip the hook and remove the cover. The weight of the cover is effectively transferred to the grip of both hands, allowing for a better pulling posture. The 5/8-inch hex shaft is heat-treated and hardened, creating a durable, long-lasting tool while reducing the chance of bending. The working end is designed to fit in a wide variety of openings. It is available in 24-, 30- and 36-inch lengths. 800/521-6893; www.mightyprobe.com; **Booth #6004.**



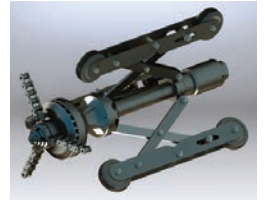
TRANS LEASE

An independent lease and finance company, **Trans Lease**, covers the U.S. and Canada, with a focus on the transportation industry. The company's specialty markets division covers specific industries, such as industrial cleaning and excavation. 877/600-6423; www.transleaseinc.com; **Booth #5259.**



USB-SEWER EQUIPMENT CORPORATION TURBO S600

The Turbo S600 chain cutter from USB-Sewer Equipment Corporation is made of tempered stainless steel and has a continuously adjustable guide skid. The chain retainer is driven by a high-performance turbine on a robust body to remove concrete, calcium deposits, hardened grease and tuberculation from 12- to 24-inch sewer lines. Its optimized 3-D hydromechanics in conjunction with ceramic nozzle inserts allow the cutter to be used with recycled or clean water. 866/408-2814; www.usbsec.com; **Booth #5055.**



VAC-CON OMNIBUS PRECISION POWER CONTROL SYSTEM

The Omnibus Precision Power Control System from Vac-Con gives the operator control authority over all vacuum, water and engine functions. One simple control operates all of the vacuum and water system functions of Vac-Con combination machines, allowing the operator to use only as much power as needed, saving time and fuel while allowing precise movements of the hydraulic components. It uses an upgraded electrical system (CANbus) that improves hydraulic performance and optimizes hydrostatic vacuum efficiencies, which include lower engine rpm and increased vacuum performance. It includes an easy-to-use, full-color operator display that contains all necessary operator functions on a single screen, along with a dedicated diagnostics page, chassis page and virtual circuit breaker. 904/284-4200; www.vac-con.com; **Booth #1061.**



WATER CANNON 16T55

The 16T55 turnkey jetter package from Water Cannon is road-ready with an onboard 200-gallon water tank capacity and customizable jetter hose up to 500 feet. It includes a two-wheel road-ready commercial jetter trailer, electric-rewind high-capacity hose reel that can hold 500 feet of 3/8-inch or 350 feet of 1/2-inch hose, poly toolbox, lights, front jack with wheel, safety chains, and aluminum fenders. The jetter includes a Honda GX690 twin-cylinder electric-start engine, V-belt drive, trailer-mounted skid, and 15-gallon EPA and CARB-approved poly fuel tank. Its TS-Series General triplex plunger pump supplies 8 gpm at 3,500 psi. It has a pump-mounted jetter pulse valve, foot valve with 8-foot jumper hose, and three jetter nozzles - the Penetrator, Flusher and De-Greaser/De-Icer. 800/333-9274; www.watercannon.com; **Booth #5255.**





WESTTECH VAC SYSTEMS PREDATOR DOT 407/412 LIQUID VACUUM TRUCK

Westtech Vac Systems, a member of the Federal Signal Environmental Solutions Group, will feature a new Predator DOT 407/412 liquid vacuum truck.

The Westtech Predator LVT combines high vacuum and pressure off-loading designed to deliver reliable performance in the most demanding applications. Available for rental or purchase, with features available such as a dumping 3,000-gallon DOT-certified tank, full-opening rear door and a powerful 28-inch Hg rotary vane vacuum pump, the Predator LVT is designed to handle bulk liquids, sludge and semisolid waste in industrial applications. The Westtech Predator expands Federal Signal Environmental Solutions Group's industrial cleaning offerings by expanding into hazardous material transportation offerings, certified with TC/DOT 407/412 specifications. 780/955-3030; www.westtechvac.com; Booth #5050.

WESTMOOR CONDE' PROVAC LIQUID WASTE PUMPING SYSTEM

The preassembled industrial Conde' Pro-Vac Liquid Waste Pumping System from Westmoor is designed to promote efficient grease trap pumping. The unit is quiet and lightweight and pumps at 120 gpm. Flip a switch to start the unit in vacuum mode for pumping. The built-in exhaust deodorizer keeps odor at a minimum. Flip the switch to pressure mode for off-loading. It can be used for servicing locations not suitable for large vacuum truck hoses, including indoor or remote difficult-to-access jobs. 800/367-0972; www.westmoorltd.com; Booth #5134. c



wwett™

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

FEB. 22-25, 2017

Indiana Convention Center,
Indianapolis, Indiana

www.wwettshow.com





**BOOTH
4000**



The Solution

CAN'T FIND A LEAK?



**POWER
SMOKER™**

- Quickly and safely locate leaks in indoor plumbing systems. Model available for sewer line testing.
- Uses the ONLY tested safe smoke on the market

NEED A VAC THAT DOES IT ALL?



VAC 250

- 250 or 500 gallon units with compact configuration creates easy access to places large hydro excavation systems can't reach.
- Ideal for cleaning out catch basins, potholing, exposing buried utilities, and miscellaneous jobs on property that requires extra care, such as parks and golf courses.
- Years of dependable use provided by top of the line components, including Cat® diesel or Kohler® gas engines, Gardner Denver® blowers, and Giant® pumps.

HURCOTECH.COM
800-888-1436

PRODUCT SPOTLIGHT

Aluminum frame adds durability to pressure washer series

By Kyle Rogers

An aircraft-grade aluminum frame highlights the features of the new Aluminum WaterBlaster Series pressure washer from SIMPSON, an FNA Group brand. Along with the other features that carried over from the standard WaterBlaster Series, it means a more durable machine that can perform in whatever harsh working conditions cleaners might find themselves in, says Kiara Willard, marketing coordinator with FNA Group.

“We continued to use the same quality brands for engines and pumps that we have for other series, for this series as well,” Willard says. “The major difference with this product line is the aluminum frame. It’s more durable for those harsh environments. We’re targeting professionals working in a more heavy-duty type of industry with this aluminum series.”

Three different models make up the Aluminum WaterBlaster Series. The 60828 Model features a Honda engine and CAT triplex plunger pump and can produce 4,200 psi at 4 gpm. The 60827 Model is the same but with an AAA triplex plunger pump. The 60825 Model has a SIMPSON engine, an AAA triplex plunger pump, and is rated for 4,400 psi at 4 gpm. Available on the AAA pumps is PowerBoost Technology, which delivers full performance to the nozzle by eliminating the typical loss of pressure and flow across the chemical-injection venturi. The series includes limited warranties on all the main components — 10 years for the frame, three years for the engine, two years



for the CAT pump option, and five years for the AAA pump option.

All the models also come with 13-inch pneumatic tires, 50 feet of 3/8-inch steel-braided hose and a wand with five quick-connect nozzle tips: 0 degrees, 15 degrees, 25 degrees, 40 degrees, and a soap applicator nozzle.

It is a dual-belt drive system, which prevents overheating and excessive vibration and helps reduce pump fatigue, Willard says.

“A belt drive machine will definitely give you more operating hours,” she says. “That was the idea behind creating this aluminum series — to provide commercial cleaning professionals with a high-quality durable belt drive machine.” 847/348-1500; www.simpsoncleaning.com.



1

1 COXREELS UL-APPROVED PRODUCTS

COXREELS added two models to its UL-approved product line. The PC19 and PC24 were approved by Underwriters Laboratories after passing numerous safety and reliability tests. The PC (Power Cord) Series are industrial-grade reels designed as a solution to tangled power cords. They feature 1/4-inch bases, lubricated precision bearings and noncorrosive stainless steel springs for retraction. 800/269-7335; www.coxreels.com.



2

2 WATER CANNON HAND-HELD CLEANER

The Mosmatic FL-ABB 200 hand-held surface cleaner from Water Cannon is designed to simplify surface restoration, such as paint and graffiti removal. The cleaner features stainless steel construction, a 7.9-inch-radius dual rotor arm and 5,076 psi maximum pressure. With air vacuuming, the cleaner causes no overspray or flying debris, creating a safe work area. 800/333-9274; www.watercannon.com.

CONTINUED >>

trio-vision-ary

cctv inspection technology

forward-thinking, quality-built video inspection solutions to meet the needs of all budget types and application requirements

Cobra TECHNOLOGIES

Get the job done easily with mainline inspection systems for 6" and larger pipelines. The Cobra line's simple, reliable and powerful design makes it a favorite of contractors and municipalities alike. Go the distance with Cobra's portable or custom truck builds.

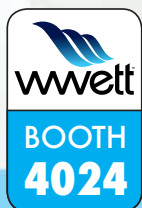


Feature rich and versatile products for mainline inspection in 6" and larger lines. Portable components offer operators incredible flexibility at a cost point lower than comparable systems.



Easy to use, touch screen technology data collection software. PACP Certified.

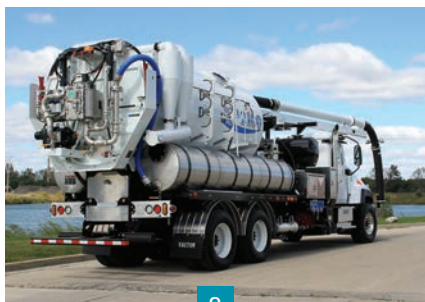
Call or click today to learn more or schedule a field demo



TrioVision, LLC.
Smyrna GA USA
800.443.3761



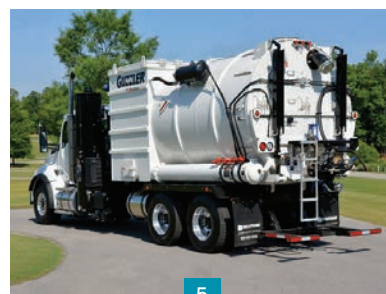
Systems | Vehicles | Software



3



4



5



6



7



8

3 VACTOR MANUFACTURING WATER RECYCLING SYSTEM

Vactor Manufacturing has introduced an optional water recycling system for 2100 Plus combination sewer cleaners. The system reuses water already in the sewer to clean sewer lines, potentially eliminating the need for clean water and saving thousands of gallons of clean water every shift. The recycling system also helps improve productivity by eliminating time spent refilling the tank and driving to a tank filling location. Initiated by a switch on the control panel, a five-stage filtration process combines settling and centrifugal separation and absolute filtration to 100 microns, preventing solids from entering the jetting system. All components of the recycling system are located on the rear door of the 2100 Plus. **800/627-3171; www.vactor.com.**

4 HANNAY REELS SPRING REWIND REELS

N700 Series spring rewind reels from Hannay Reels are designed for 1/4-through 1/2-inch-I.D. hoses for use with lubrication, steam, washdown, air tools, high-pressure and general industrial applications. Standard N Series reels feature a narrow frame and non-sparking ratchet assembly to prevent damage from reverse winding. Reels are available to accommodate pressures from 3,000 to 10,000 psi. **877/467-3357; www.hannay.com.**

5 GUZZLER VACUUM TRUCK

The LR (Liquid Ring) Classic vacuum truck from Guzzler Manufacturing is designed to provide lower-temperature discharge and quieter operation. Based off the Guzzler Classic truck platform, the LR Classic features dual 1,820 cfm liquid ring pumps as the vacuum source instead of a blower. The vacuum system operates effectively from more than 1,000 feet away, through suction lines up to 8 inches in diameter, and features an 18-cubic-yard debris body. The filtration system consists of a radial deflector, a cyclone centrifugal separator and 60 70-inch-long Dacron bags. **800/627-3171; www.guzzler.com.**

6 GAPVAX/WIEDEMANN RECYCLE JETVAC

The GapVax/Wiedemann Recycle JetVac is designed to improve efficiency by eliminating time spent driving to a fill site. The unit uses a combination of

self-cleaning backflush mesh, centrifugal separation cyclones and progressive sedimentation to remove abrasives in recycled water. The unit has a 10 1/2-cubic-yard debris tank, 125-gallon freshwater tank and 1,500-gallon stainless steel water tank. Other features include a 180-degree rotation boom, a 6-inch by 66-foot-long suction hose and 125 gpm/2,175 psi water system. **888/442-7829; www.gapvax.com.**

7 PK SAFETY CONFINED-SPACE ENTRY CONTRACTOR'S KIT

PK Safety has compiled a complete Confined-Space Entry Contractor's Kit that features OSHA-compliant products, designed for teams doing periodic or occasional confined-space entry. This kit includes a BW Max XT II four-gas monitor, an 8-foot aluminum Protecta tripod, a compliant Protecta man-rated winch with 50 feet of cable, a Protecta snatch block pulley assembly, an Allegro blower/ventilator with 25 feet of flexible ducting, and a five-point full-body Protecta harness. The kit provides all the confined-space tools needed for OSHA compliance. It is ideal for applications in tanks, manholes and other vertical-entry work practices. **800/829-9580; www.pksafety.com.**

8 ENVIROSIGHT CRAWLER MAINTENANCE LOGBOOK

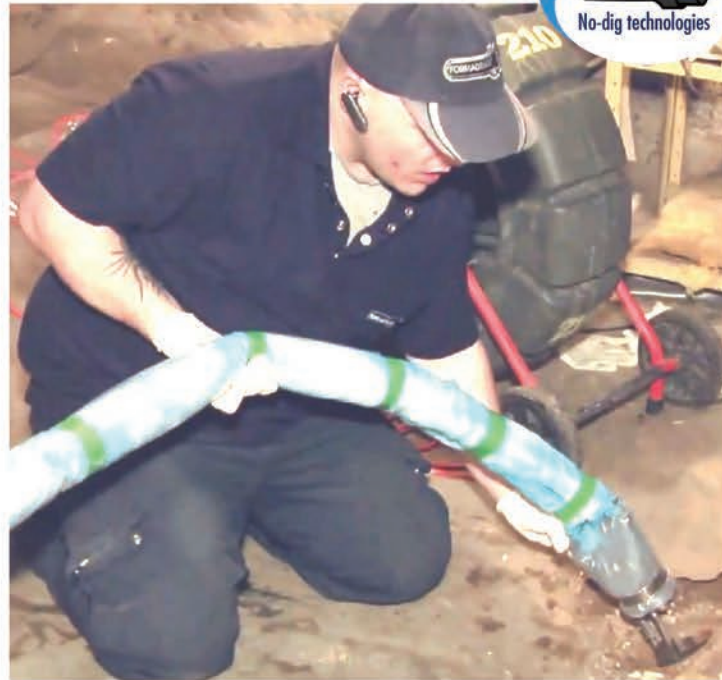
A free maintenance logbook from Envirosight allows users to document proper care of inspection crawler equipment, helping ensure its reliability and low cost-of-ownership. With a complimentary copy, a crew will be able to quickly check off daily and weekly maintenance procedures, producing a concise record of what was done, when and by whom. Businesses can order a free copy by sending their address (in the U.S. or Canada) to Envirosight. **866/936-8476; www.envirosight.com/logbook.**

www.cleaner.com

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



Everyone knows that relining a 30-foot lateral is different than a 450-foot main. *Right?*



Shouldn't You Use A Different Type Of Lining System?
It's here: the Cured-in-Place-Pipelining system specifically made for laterals & spot repairs!



We have a proven and virtually perfect pipe lining system for laterals and spot repairs:

1. It's practically indestructible
2. Cures five times stronger
3. No stitching felt tubes
4. No measuring for transitions
5. Absolutely no digging

Is This Really Different?

Yes. This does not use a felt tube but epoxy and woven fiberglass. Also it's pulled or pushed into place — so that you can place the epoxy pipe exactly where you want it.

Look At Your Benefits:

Why is Formadrain worth a hard look? Because this system works, really well.

- **Lining T's, Y's and Offset Joints:** Tees, Ys and offset joints aren't a problem and it doesn't matter whether you're doing a 4" to 6" transition or have an offset joint. No need to measure—it will adjust.

- **Exceptional Customer Support:** We're going to give you and your crew personal training and preparation so you can get into the field fast. Our engineers will help you any time from 8:00am to 8:00pm.

- **Incredible Strength:** The woven fiberglass and steam-cured epoxy is very strong — we haven't found any one else with a stronger product.

- **Quality of the Product:** The finished product is amazingly uniform and due to the fiberglass and epoxy design there are no wrinkles.

- **Perfect Spot Repairs:** Because you can pull the system in place exactly where you want it, you can repair a precise section of pipe.

Do the research and it will change the way you look at spot repairs and lateral lining.



Jim with Levine & Sons, a Formadrain installer for around 8 years

"We can re-line through a 4-inch cast iron clean out, a Y in a 45 and go right to the city main with zero digging..."

We can do the 4 to 6 transitions without measuring...The fiberglass epoxy just opens up beautifully and you get a nice, seamless transition.

Also the support we get is second to none. You can call any time, day or night..."



See The System For Yourself at Booth-1448

Get all your questions answered!
Don't Miss Booth 1448.
 See you there!

Find out more with our FREE Info Kit!
 Download at www.Laterals.work
 Call (888) 783-7415 or email Bruce at bruce@formadrain.com

RAT OUT YOUR ROOT PROBLEMS

Root Rat nozzles are uniquely designed to make short work of big sewer line headaches – chewing up roots and encrustations in all kinds of pipe. Interchangeable heads use the chain rotor for major obstructions and the cable rotor for less aggressive problems.

Simplified service means extra uptime.



3/8", 1/2", 1" nozzles come in kit form.



Patented • Made in USA • www.rootrat.net

SEE IT IN ACTION

Call 330.874.4300 to learn more about the nozzle you've been waiting for



INDUSTRY NEWS

HammerHead Trenchless acquires RS Lining Systems

HammerHead Trenchless Equipment acquired RS Lining Systems. The RS Lining team will join the HammerHead Trenchless team at its facility in Lake Mills, Wisconsin. RS Technik pipe rehabilitation solutions will be added to HammerHead's product and service offerings.

PipeLogix adds location and expands staff

PipeLogix Inc. will open a new East Coast sales and support office. It will be located in Detroit, Michigan, and will be staffed by new hires.

Westech launches new website

Westech Vac Systems launched a new website following an acquisition by Federal Signal. The redesigned website covers the company's products and services in the U.S. and western Canada, and places an emphasis on improved navigation and user experience.

Ditch Witch offers online training in Spanish and German

Ditch Witch now offers certified online training courses in Spanish and German. The program provides novice operators six online HDD courses that can be taken at home, at a dealership or on a mobile device.

Sprayroq names director of business development

Sprayroq named Jeremy Huckaby director of business development. Huckaby has 12 years' experience in the commercial and industrial coatings industry, and will focus on matching the company's products to the country's deteriorating infrastructure needs.



Jeremy Huckaby

ServiceTitan partners with GreenSky

ServiceTitan partnered with the GreenSky program to bring homeowners an easier, more modern way to finance home improvement. With the new integration, technicians can show financing options and allow homeowners to submit applications within ServiceTitan's mobile app. The partnership will also provide access to GreenSky's financing programs to help homeowners finance improvements.

Carylon Corp. partners with JD7

Carylon Corp. has purchased several pipeline asset management and investigative technologies from JD7 Technologies. The LDS 1000 and Investigator systems from JD7 will allow Carylon to inspect and conduct condition assessments in live-pressure water mains across the U.S.

US Jetting passes certification for safety-compliant trailers

US Jetting passed its safety compliance certification with the National Association of Trailer Manufacturers. NATM sets regulations and guidelines governing trailer construction in an effort to stop the production of unsafe trailers for American roadways. US Jetting trailers will now display NATM decals to recognize the completion of on-site consultations and compliance with these guidelines. **c**

FATBOY

Keep stuff cold. Keep stuff dry. Keep stuff safe.

Unique 3-in-1 Dry Bag, Cooler & Padded Backpack



Fatpack Original
\$69.95

Fatpack Heavy-Duty
\$79.95



Order yours at FatboyCoolers.com. Use promo code **COLEPUB17** to save \$10 per bag and get free shipping

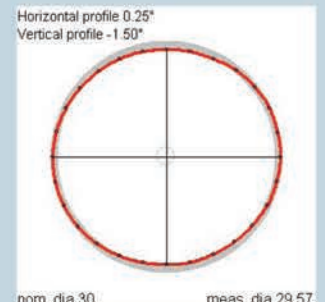
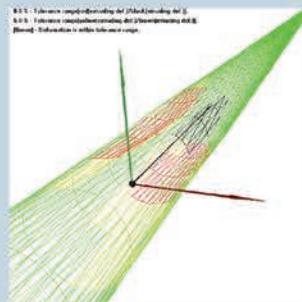
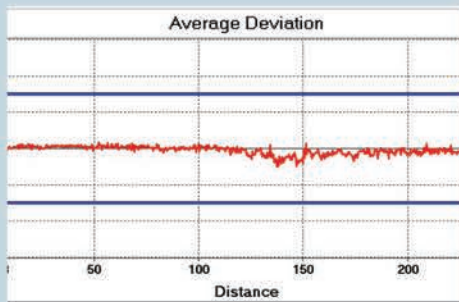
Laser Pipe Profiling

with **rausch** USA

spinning laser technology • instant on-site reports
2D & 3D pipe profile scans



no field calibration • calculates deflection, deformation, and diameter
laser crack measurements




Schedule a demo today | **877-Rausch1** (877-728-7241)

www.rauschusa.com



rausch USA



Internal Pipe Coating System

- Seals separated joints and cracks
- Chemical resistant • Abrasion resistant
- Sets in seconds, not hours or days like epoxy
- Safe for drinkable water and environment (NSF 14 & 61 Approved)
 - Withholds up to 200 psi
 - Works on any size 2" to 24", and 300' in length
- Coats from 100 mil to 300 mils in one pass
 - Structural • 700° rated

▶ Watch A Video Of This Process

877-507-0861 • PipeTechUSA.com

GET OFF TO A GREAT START THIS NEW YEAR WITH FOOTAGE WATER PRODUCTS



THE WEDGE Service Line Replacement Tools
MLT412 Mainline Tapping Tool
T752 Mini Tap XL

BIG SHOT Underground Piercing Tools

GREAT PRODUCTS / GREAT VALUE
 1-888-737-3668 • www.footagetools.com

Join A National Brand: 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

T&T Tools, Inc.
800.521.6893



CALL for a **FREE Catalog**

Many styles Available

Insulated Soil Probes (for locating)
 Heat-Treated Hooks (for covers, lids, etc)

www.mightyprobe.com

DYE TRACERS



BRIGHT DYES
 Division of Kingscote Chemicals

Solutions for:

- Infiltration
- Septic Systems
- Cross Connection
- Leaks and more...

www.brightdyes.com • 1-800-394-0678


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!

www.PipeGenie.com
 Toll Free 1 877 411 7473



Cua Claws

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

We resurface all makes of steel transport wheels-Including Rausch

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

CONFINED SPACE ENTRY PACKAGE
 ONLY \$3,195

The Best Package On The Market Includes:

- 4-Gas Air Monitor (2 Year Sensor Warranty)
- 7' Tripod
- 3-Way Fall Protection
- Work Winch
- Full Body Harness

www.mtechcompany.com

Superior SMOKE
 For SEWER TESTING

Superior Smoke Fluid Systems
 Smoke Candles • Smoke Blowers


Superior Smoke Testing
 The Most Cost Effective Method to Find Sources of Surface Inflow

SuperiorSignal.com/Cleaner

GET EMAIL NEWS ALERTS FOR **Cleaner**

Go to cleaner.com/alerts and get started today!

Let Us Build Your **JETTER**



Diesel Propane Gas

AMERICAN JETTER.COM
 866-944-3569

ERICKSON
Tank & Pump



WE TAKE TRADES

509.785.2955
CALL FOR UPDATED LIST OF EQUIPMENT

WWW.ERICKSONTANK.COM

Masport®
PUMPS & QUALITY COMPONENTS

Quincy, WA
fax: 509.785.3770
sales@ericksontank.com
"TANKS" FOR YOUR BUSINESS!

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"-12"

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

Fully loaded! Call for details!

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

WATER CANNON UNDERCARRIAGE CLEANERS



7 POSITION ADJUSTMENT

21" or 30"
4000 PSI
250° F
\$985

TIRE CLEANER APPLICATOR

16" or 18.5"
4000 PSI
Starting At **\$419**

UNDERCARRIAGE CLEANER

24"
4000 PSI
250° F
Starting At **\$499**

UNDER CAR-WATER BROOM

16" - 4 Nozzle
4000 PSI
250° F
\$45.99

WaterCannon.com **35** 1.800.333.WASH (9274)

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
dynamicablerepairs@yahoo.com
www.dynamicrepairs.biz

OBLITERATE ROOTS



OBLITIROOT
SEWER LINE
FOAMING ROOT KILLER

Up to 3x the active ingredient

www.olvidium.com (877) 477-5338

LOCATED AT FAIR PARK • DALLAS, TX

WEQFAIR
Wastewater Equipment Fair

APRIL 4-5, 2017 | DALLAS, TEXAS



TUESDAY April 4th
Fair Hours: 12 p.m. - 5 p.m.

WEDNESDAY April 5th
Fair Hours: 9 a.m. - 1 p.m.

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

FREE REGISTRATION
For Qualified Industry Professionals

★ **OUTDOOR EVENT** ★
Rain or Shine

Call **866-933-2653** or **WEQFAIR.COM**
view complete details at:

BUSINESSES

www.RooterMan.com. Franchises available with low flat fee. New concept. Visit website or call **1-800-700-8062.** (CBM)

Fully-equipped Long Island, NY cesspool cleaning company for sale. Established 50+ years serving Nassau & Suffolk Counties with excellent reputation and high-repeat customer base. High volume of drain cleaning calls every week. Best offer. 516-993-0446 (C02)

Sewer Rehabilitation Contractor in Denver is closing the doors. All equipment is for sale: Jet truck, Vac-Con 1300, boiler truck, Aries cutter truck, CIPP shooters and other CIPP equipment. All available equipment can be seen at the website: www.RMSRI.com. Contact John for more information at 303-953-0210. (C01)

COMPUTER SOFTWARE

FreeServiceReminderSoftware.com, FreeServiceDispatchSoftware.com, FreeRouteManagementSoftware.com. (C01)

COMPUTER SOFTWARE/ BILLING

Affordable Business Software. Online, any device access. Dispatching, billing, mobile apps. Get back time to run your business. Free proposal, demonstration. 888-332-5327; sales@clearcomputing.com; www.clearcomputing.com (CBM)

DRAIN/SEWER CLEANING EQUIPMENT



CUES grout reel, controls and extension cord reel, approx. 800 ft of Penta 4 hose. Was purchased used as spare, never used. \$3,000 USD
arussell@cwvcanada.com C01

2006 Sterling Camel hydrovac, 41,000 miles - \$130,000. 2004 Sterling Camel hydrovac, 46,000 miles - \$45,000. Pictures upon request @ cdscar@aol.com. 916-747-3819 (C02)

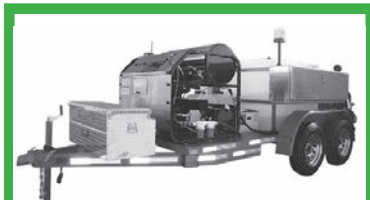
Aries Cutter/Camera Truck. 1985 GMC P van 3500 retrofitted by Aries in 2005. (3) Raptor cutters, (1) P111 pan-and-tilt camera, (1) TR2000 tractor. \$79,000 OBO. Call Kyle @ 240-882-2997 or humphreyandson@comcast.net (C02)

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 2016 Peterbilt 348 cab and chassis. (Stock #13671A-C) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (CBM)

JETTERS-TRAILER



Xtreme Flow Trailer Jetter Hot/Cold! Model# HJ2TA8536, tandem axle trailer, 35 hp Vanguard 10 gpm @ 3,850 psi, 325-gallon water tank, 300' hose, General Pump. List \$36,995. On sale for \$32,995. Fully loaded!
800-213-3272
www.hotjetusa.com CBM

2013 Sewer Equipment Company of America 747 FR-2000 ECO demo unit with LESS THAN 10 operating hours. Diesel, 40gpm @ 2,000psi, electronic throttle, auto level wind and more. \$63,000. www.ahequipment.com 800-753-7566 (C01)

2007 Pipe Hunter 38T44 with 80hp John Deere-driven Giant LP301 pump, 4,000psi @ 25gpm, 335-gallon water tank. (Stock# 4313V) **www.VacuumSalesInc.com (888) VAC-UNIT (822-8648)** (CBM)

Submit your classified ad online!
www.cleaner.com/classifieds/place_ad

JETTERS-TRUCK



1999 SECA 747-SP: 40 gpm @ 2,000 psi, 700-gallon poly tank. 4,940 hours. Mounted on ex-municipal truck with 37,400 miles. \$16,000
608-835-7767, WI CBM

GMC Sierra 3500 with 88,000 miles. 500' of hose. 500-gallon tank. Great for jetting sewer mains. Great way to get a jetter truck ready to use at a reasonable price. \$8,499 OBO. John at 612-817-6913 www.alpine.sewerinspection.com (C01)

2003 Sterling: CAT engine, Allison automatic, 44,750 miles, 12,867 hours. Vac-Con V390LHA, 1,000-gallon water tank, 3-stage fan, Cummins engine. Former county-owned. Nice truck. Pics on request. Call 615-516-2119. (C01)

Jack Doheny Supplies Inc. offers a full range of late model combo units and DOT industrial vacuum loaders. Call us @1-800-3DOHENY. (CBM)

JET VACS

2000 Vactor 2100 Combination: Single axle, well maintained on International chassis. 10-yd. debris body, 1,000-gallon clean water tank. \$50,000. mag@cromwellmechanical.com (C01)

2007 Vactor 2115, 7600 Series International chassis, 15-cubic-yard debris body, hydro-excavation kit. \$155,000. Call for more details, Matt 618-566-3003. (C02)

2009 Mack Vactor 2100 Series: 63,784 miles on chassis, 2,008 hours on pony motor, new Allison transmission. 80gpm/2,500psi. Ex-municipal truck. \$80,000. joshk@kpisewer.com (C02)

2007 Sterling Vactor 2100PD tandem-axle combination cleaning truck. Ex-city owned, well maintained, and equipped with California Carb Compliant DPF System. See details of this unit and other cleaning and CCTV inspection units at www.empireequip.com. Contact Craig at 714-639-8352. (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 2006 Sterling cab and chassis. (Stock #8593C) **www.VacuumSalesInc.com (888) VAC-UNIT (822-8648)** (CBM)

Vactor 2100 body parts unit with blower on a 2005 Sterling (no engine & transmission) (Stock# 0311V) **www.VacuumSalesInc.com (888) VAC-UNIT (822-8648)** (CBM)

LOCATORS

Used RIDGID NaviTrack, Gen-Eye Model 100 and Goldak Model 4400. The Cable Center 800-257-7209. (CBM)

PIPELINE REHABILITATION



CIPP Lateral Reinstatement Carbide Cutters for sale.

Call Ben Graham 574-350-8419
or e-mail bg@bj-rocket.com
www.bj-rocket.com C02



LMK. 24-foot Pace wet out trailer. Tank. Boss bullet. Mini steam cure. Like new -- call for details. \$25,000

920-627-7867 C01

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)

PORTABLE RESTROOM TRAILERS

1995 Olympic restroom trailer: 3 womens' stalls. 2 mens' stalls and 3 urinals. Would make a great construction trailer. Located in Willisville, IL. Please call or text 618-927-1041 for more information. (C01)

Cleaner
AVERAGE MONTHLY
CIRCULATION REACHES
26,460 READERS!

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, click on the Now Hiring link in the left hand column. Send resumes to or betty@gapvax.com or 575 Central Avenue, Johnstown, PA 15902. (CBM)

Lead Operator – Video Inspection and Leak Detection: Fort Lauderdale, Florida based leak detection, sanitary and storm video inspection and ESRI mapping company (Est. 1979) is seeking lead operator. Experienced in CCTV, Win Can, Pipe Logix Software, Laser Profiling, inspections and reporting. Excellent computer, communication and organizational skills. Capable of heavy lifting. PACP Certification, ESRI or Trimble knowledge a plus! Position is 80% travel, home most weekends. Valid driver's license, with an excellent record is required. Drug-free workplace. Please send resume with work history for consideration to info@subsurfacespecialists.com (C01)

New Jersey based sewer rehabilitation contractor seeking experienced Video Inspection and Sewer Cleaner operators. Clean CDL required. Background search will be performed. OSHA certification and PACP training preferred. Must be willing to travel. Please send Resume and contact information to newjobapv@gmail.com (C03)

PRESSURE WASHERS

Industrial Pressure Washer - New w/warranty \$9,500. 2,000psi, 18gpm. 999cc Kohler & AR pump. Will deliver. 321-800-5763 (CBM)

Honda horizontal GX engines, new in-the-box w/warranty. GX200QX - \$399; GX270QAG - \$579; GX390QA - \$599 delivered price. 800-363-9855 or GXParts.com (CBM)

PUMPS

Honda model WP40X, 8 hp, 4" with hoses. Honda 4 hp, 2" pump with hoses. The Cable Center: 800-257-7209. (CBM)

New F.E. Myers DP80-20 RH Drive - \$13,529; D65-20 RH Drive - \$12,353. Other models available. Cloverleaf Tool Co. 941-739-0707 www.cloverleaftool.com (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)

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. www.dynamicrepairs.biz (CBM)

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 manhole covers easily. Free catalog. www.TandTtools.com. Phone **800-521-6893.** (CBM)

RIDGID model #300 with stand, RIDGID tri-stand vises, RP 330 ProPress kit. The Cable Center: 800-257-7209. (CBM)

Bosch Brute hammer drill with cart irons. The Cable Center: 800-257-7209. (CBM)

TRAILERS – VACUUM/TANKER

2002 Super Products Camel 3-cubic-yard vacuum trailer with a Roots 412 blower package. (Stock# 0197C) www.VacuumSalesinc.com (888) VAC-UNIT (822-8648) (CBM)

TRUCKS – HIGH PRESSURE

2007 Freightliner M2 20 insulated box. Aluminum floor truck. Has a Butterworth L Series head. High-pressure truck. Water filtration and 700-gallon tank. Water pump powered with 6-cylinder Perkins engine. Water pump assembly is skid mounted. Sold complete. Asking \$60,000. arussell@cwccanada.com (C01)

TV INSPECTION

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. Also available: non-gritted pads. Samples upon request. **Pipe Tool Specialties LLC:** 888-390-6794; Fax 888-390-6670; www.yourtractionpads.com or email pts4422@yahoo.com (CBM)

2011 Chevy High-Cube TV Inspection truck: 18,000 miles, new cable. \$63,000. Call for more information. 630-333-3704 (C01)

2008 Ford E-350 RST TV Van: POSM, Omni 3, Washdown system. Approximately 1,200' of single conductor, 5.5 Onan Gen Set, inclometer. Great shape and READY to make money. Needs nothing. \$50,000. Dave 214-536-2915 in Dallas area (C03)

IBAK Panorama SI Manhole Inspection System in enclosed aluminum portable skid. Pano SI Inspection System, interface card, BE5 Pano SI controller, 300 feet of FO cable, KW180 SI cable reel. Skid includes computer, monitor, and 1,000w generator. Call Matt at 618-566-3003. (C02)

2004 Ford E350 V8 TV Inspection Truck. 24,547 miles and like-new tires. RST Omni III pan-and-tilt zoom color camera with new tractor. Approx. 1,300' of cable. Great shape and ready to be used. \$34,500 OBO. John at 612-817-6913 www.alpinesewerinspection.com (C01)

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 800-265-4298 or mainliner2075@hotmail.com (CBM)

USED Envirosight ROWVER System: Brand new RC90 camera. Cable reel (SN 360570) has new power supply, motor, clutch, cable (656') and winding rollers. 125 crawler (SN 0260768) has new top plate, side plates, axles and seals, plus new control board compatible with rear-view camera accessory (not included). CCU (SN 0160981) with new power card, new 56V card, new +/-26 card, and new card. Control pendant (SN 0492645) is compatible with RC90 camera and R225 crawler. \$27,500. Call 973-252-6700. (CBM)

GET MORE FOOTAGE with HIGH TRACTION wheels, tires and tracks that work better, last longer and cost less. Fitting all major brands. See our website at SewerParts.com. info@sewerparts.com 407-900-1091 (C02)

Aftermarket IBAK™ ORION-L Kiel Sticks for a fraction of the cost at only \$90. Visit SewerParts.com or call 407-900-1091 info@sewerparts.com (C02)

2002 Chevy 3500 RST van with new POSM computer - \$35,000. 2001 Chevy 2500 RST van with new POSM computer - \$30,000. Pictures upon request @ cdscar@aol.com 916-747-3819 (C02)

Used SeeSnake Camera Systems in all sizes; Used General Wire Spring Camera Systems in all sizes; Used machines in all sizes. We want your trade! The Cable Center: 800-257-7209. (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)

VACUUM EQUIPMENT

2000 Sterling LT7501 TL 125,841 miles and 20,155 hours. \$35,000. Please call for any questions or interest 256-739-4747 ext. 105 (C03)

WANTED

UEMSI/HTV® seeks additional regional representation for our industry-leading inspection camera systems, sewer hose lines and parts. Call Brian, Bill or Bernie - 877-389-9999. (C03)

Wanted to Buy: Vactor 2100s and late model Guzzlers. Cash. 800-336-4369. (CBM)

WATERBLASTING

20,000 - 55,000 psi Sapphire Nozzles, OS4, OS6, OS7 replacements, 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)



FILL *a job opening*
BID OUT *an upcoming job*
ANNOUNCE *contracted services offered*
SELL *used equipment*
OBTAIN *a position wanted*
FIND IT
IN THE CLASSIFIEDS!
In Cleaner magazine and on the web. Cleaner.com

PLACE YOUR AD ONLINE AT www.cleaner.com

wwett[™]17

Conference: February 22-24, 2017
Exhibits: February 23-25, 2017
Indiana Convention Center, Indianapolis, IN

IT'S NOT ALL WORK AT THE WWETT SHOW

- ◆ COLE Publishing Industry Appreciation Party, *featuring the music of Frankie Ballard.*
- ◆ Spartan Tool Kick Off Party at Lucas Oil Stadium.
- ◆ Women in Industry Social Hour.
- ◆ Hang with old friends. Make new ones.



Frankie Ballard



Jai Baker Band

**COME AND SEE
WHY IT IS CALLED
'THE INDUSTRY
EVENT OF THE YEAR'.**

Register today at
www.wwettshow.com

AMAZING MACHINERY

Your Equipment SUPERSTORE Since 1995

PACKAGE PRICE
\$3295
 FREE Freight

Introducing the **All New** **BossJet MAX**

VizTrac BASIC

STARTING AT
\$1995
 FREE Freight

STARTING AT
\$1495
 FREE Freight



FREE

Warthog® Nozzle with the purchase of a BossJet MAX Jetter!

Shown with optional reels

- Commercial Quality OHV Air-cooled, 4-Stroke Engine
- Low Oil Automatic Shut Down
- Adjustable Pressure
- HD Powder-Coated 1.5" Tube Frame
- Aqua Pulse Feature
- Premium CAT or A/R Triplex Pump
- 1/4" Laser Penetrator Nozzle
- Wash-down Gun and Tips
- 50' High Pressure Lead Hose
- Lock-in Station for Remote Hose Reel
- 4 Large Tires for Stability & Ease of Use
- Compact to Fit Through Most Doorways
- Protective Roll Cage
- Designed to Clean 2" to 6" Lines

- 7" Flat Screen LCD in ABS Case
- Quality High Resolution Color Camera
- Camera Vision Angle Up To 60 Degrees
- 1.375" Diameter "Easy Push" Camera Head
- Stainless Steel Body with Sapphire Lens
- Waterproof Camera Head
- 6 Super-Bright White LED Lights w/Dimmer
- 12" Steel Spring Leader
- 3/8" or 1/2" Super Slick Push Cable
- Heavy Duty Powder Coated Storage Reel
- Operates On Single 120 Volt Electric Plug



6 Months, No Interest!



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



Complete Details At
www.AmazingMachinery.com

1-800-504-7435
 3811 Old Tasso Rd. • Cleveland, TN 37312



35 *Pressure Washers*

CELEBRATING YEARS OF SERVICE

WaterCannon.com 1.800.333.WASH (9274)

Hydraulic Driven Pressure Washer Pump Assemblies for 2017

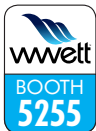


IN STOCK

HYD3010	3.0GPM	1000PSI	\$889
HYD3525	3.5GPM	2500PSI	\$979
HYD4050	4.0GPM	5000PSI	\$1,645
HYD4040	4.0GPM	4000PSI	\$1,795
HYD5530	5.5GPM	3000PSI	\$1,799
HYD1130	11GPM	3000PSI	\$2,099
HYD1722	17GPM	2200PSI	\$2,099
HYD2020	20GPM	2000PSI	\$2,099
HYD2418	24GPM	1800PSI	\$2,099
HYD8043	8.0GPM	4300PSI	\$2,099
HYD1840	18GPM	4000PSI	\$6,599

FREE DELIVERY* • Quantity & Fleet Discounts Available

*Some delivery restrictions may apply. Call for details.



Industrial-Grade Pressure Washers

15GPM
2200PSI
\$8,599

18GPM
2000PSI
\$9,499

WHEEL KIT OPTIONAL



Industry Trained Staff available from 8:30 a.m. to 6:30 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

GapVax®

HYDRO-EXCAVATORS
COMBO JETVACS
RECYCLE JETVACS
AIR MOVERS
SKID-MOUNT VAC UNITS
JETTERS
PARTS & ACCESSORIES



New Year. New Possibilities.



FEBRUARY 22-25
INDIANAPOLIS
wwett 17
BOOTH **6010**

MAKE SURE TO STOP BY AND SEE OUR
NEW EQUIPMENT! TWO NEW UNITS BY
GAPVAX + ASK US ABOUT OUR NEW
RECYCLE JETVAC AND MEET THE TEAM!
ALSO - LIVE DEMOS IN THE STADIUM!

Can't wait to see you!

DEER PARK, TX
281-884-8658

 **PARTSEXPRESS**

JOHNSTOWN, PA
888-442-7829



**SPARTAN
PROFESSIONAL
GRADE.
FOR TOUGH
CUSTOMERS.**

TIM HECKMAN, PRO DRAIN INC. BRONX, NY



SPARTAN CABLE



SPARVISION

MODEL 2001

**SPARTANTOOL.COM
800.435.3866**

