

MUNICIPAL SEWER & WATER™

FOR SANITARY, STORM AND WATER SYSTEM MAINTENANCE PROFESSIONALS

February 2011

www.mswmag.com

TECHNOLOGY TEST DRIVE:
EXPLORER ZOOM CAMERA FROM UEMSI
PAGE 46

BETTER MOUSETRAPS: SLIPLINING A
BRICK-AND-MORTAR INTERCEPTOR
PAGE 28

HUMAN SIDE: KEEPING TEAM
MEMBERS MOTIVATED
PAGE 50



MARCH 2-5, 2011

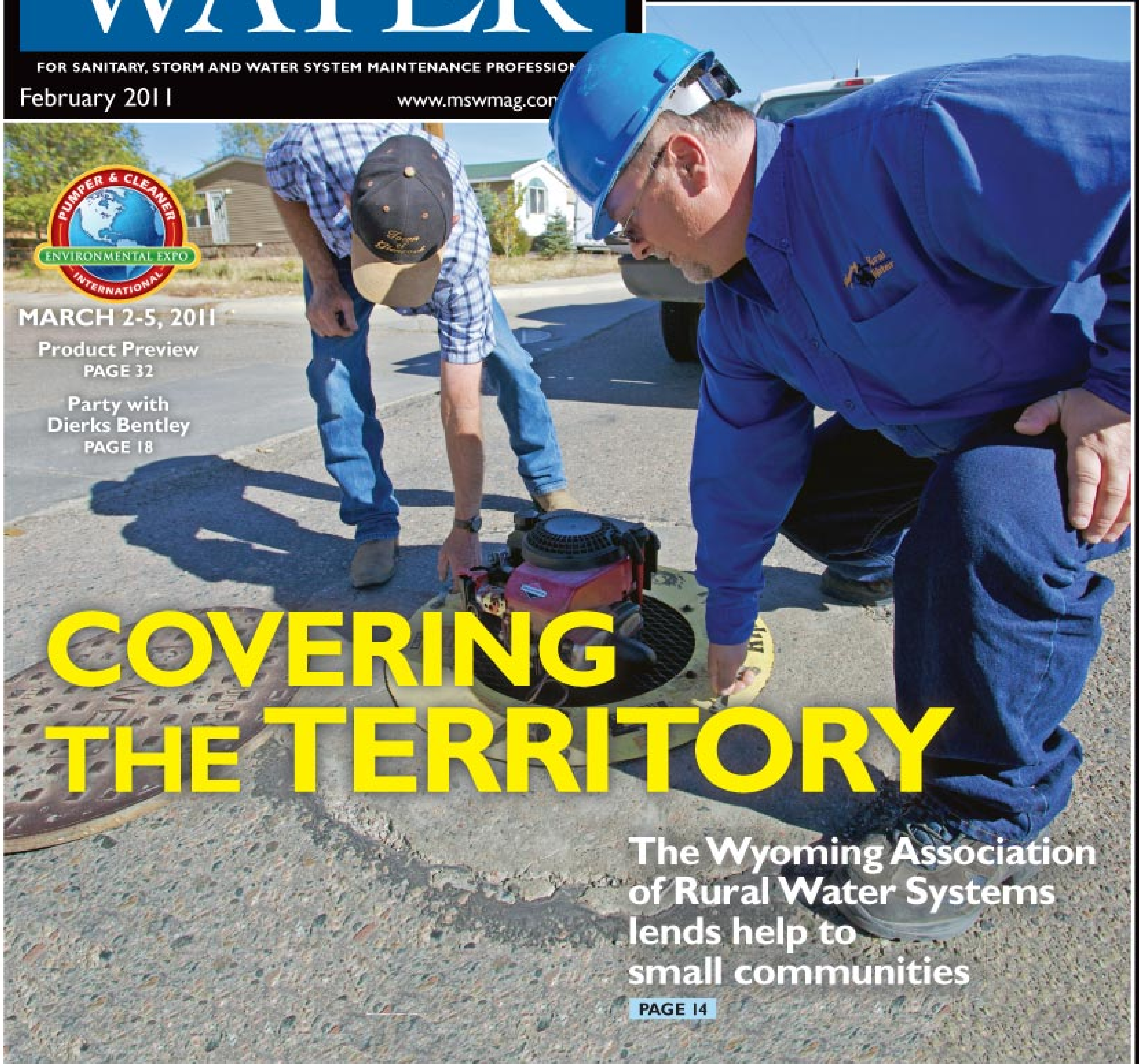
Product Preview
PAGE 32

Party with
Dierks Bentley
PAGE 18

COVERING THE TERRITORY

The Wyoming Association
of Rural Water Systems
lends help to
small communities

PAGE 14



Haloptic™ targeting

Will change how you see

Pipe infrastructure.

Think zooming can't provide a quality infrastructure assessment at the lowest possible cost? QuickView® with Haloptic™ targeting technology is here to prove you wrong. With powerful pinpoint illumination and a built-in manhole camera, this new QuickView captures pipeline infrastructure in a single pass. It's all you need to inspect pipe and manhole condition, scope maintenance work, and avoid confined space entry. More than 2000 operators already trust QuickView for fast, comprehensive inspection—if you're not one of them, let the new QuickView show you what you've been missing.



Manhole viewing.
Optional rear wide-angle camera views near targets.



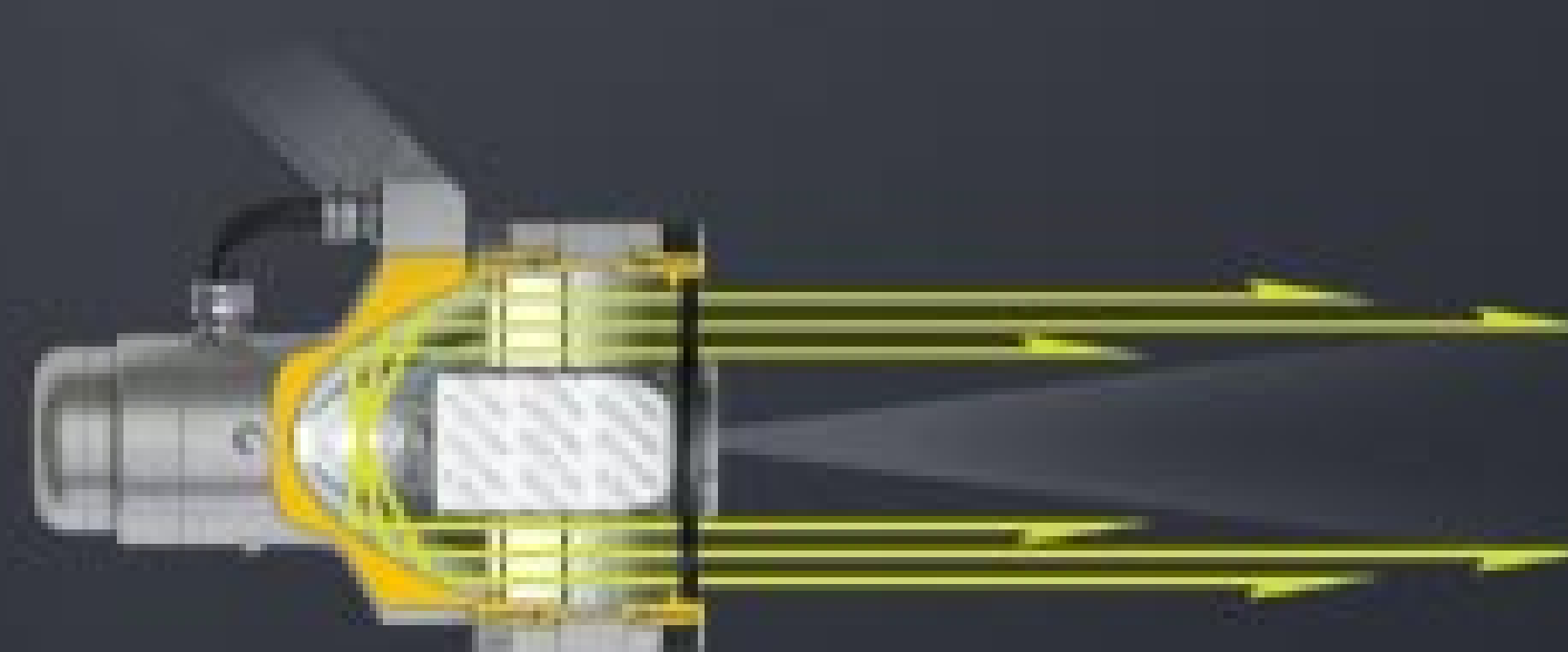
Wireless viewer/recorder.
Pole-mounted unit stores up to 32 GB.



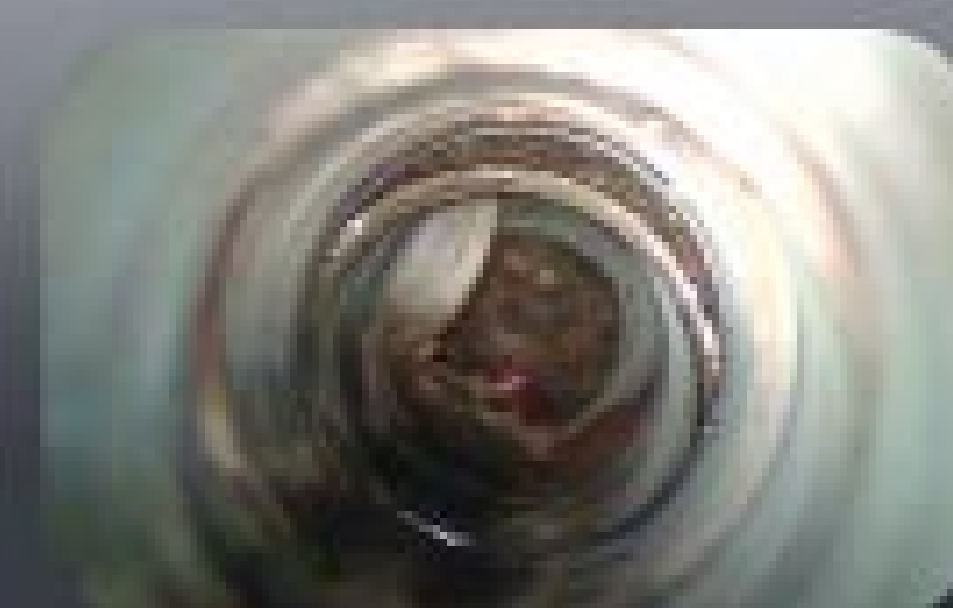
Complete kit.
Transport camera and viewer/recorder in a single rugged case.



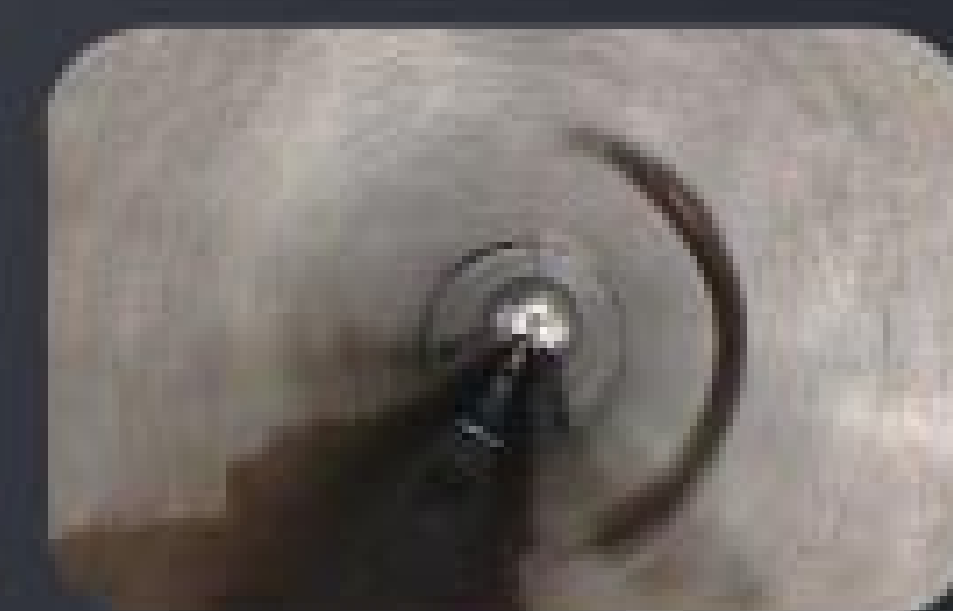
Patent-pending Haloptic technology uses an engineered lamp/reflector combo to project a halo of light precisely aligned with the camera view. This concentrated beam floods pipe walls with light, and illuminates distant targets for maximum clarity and detail.



Distance viewing



Common problems found



Sidewall & far illumination



Wide view in manholes

Envirosight LLC

www.envirosight.com • (866) 936-8476 • (973) 252-6700

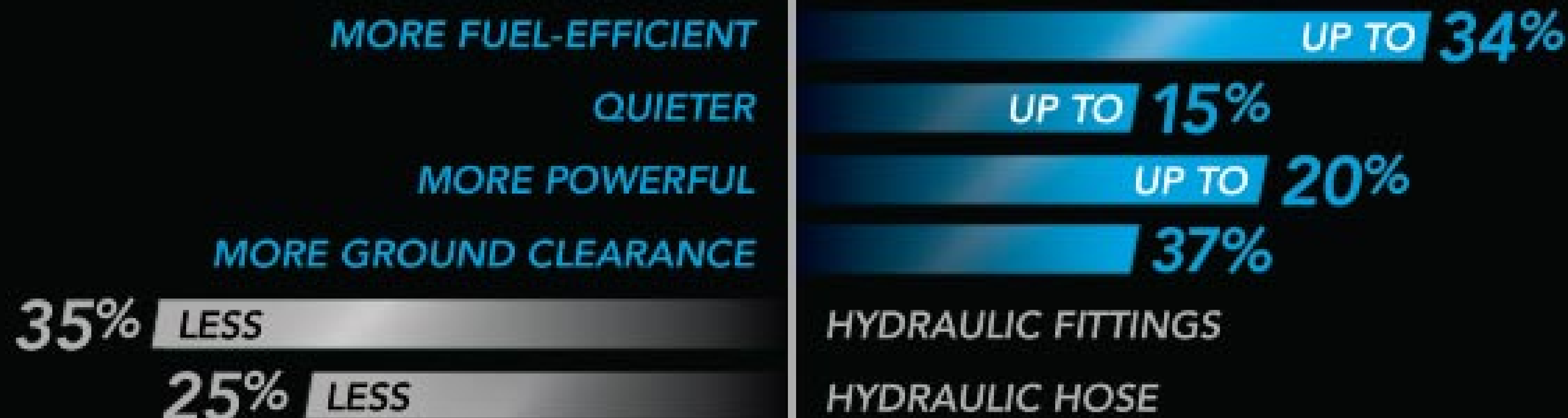
The QuickView, EnviroSight and Haloptic names and logos are trademarks of EnviroSight.
©2010 EnviroSight, LLC. QuickView carries patents 6,538,732 and 7,009,698; others pending.

VACTOR **2100**
Plus



THE STRENGTH TO CLEAN. THE SMARTS TO SAVE.

PROOF THAT VACTOR® 2100 PLUS IS THE SMARTER PARTNER.*



More than just a powerful combination sewer cleaner, the new Vactor 2100 Plus is the all-around smart partner you want working for you. Thanks to exclusive industry-leading innovations, the **Vactor 2100 Plus** is now quieter, more powerful and more fuel-efficient, saving you up to \$13,500 every year in fuel costs. Add to that a dealer support system that rivals none other and more standard features than ever before, and it's clear that the Vactor 2100 Plus is more than just muscle. It's a smarter, more powerful partner.

To find a Vactor Dealer near you,
call **1-815-672-3171**.

VACTOR®

A Powerful Partner

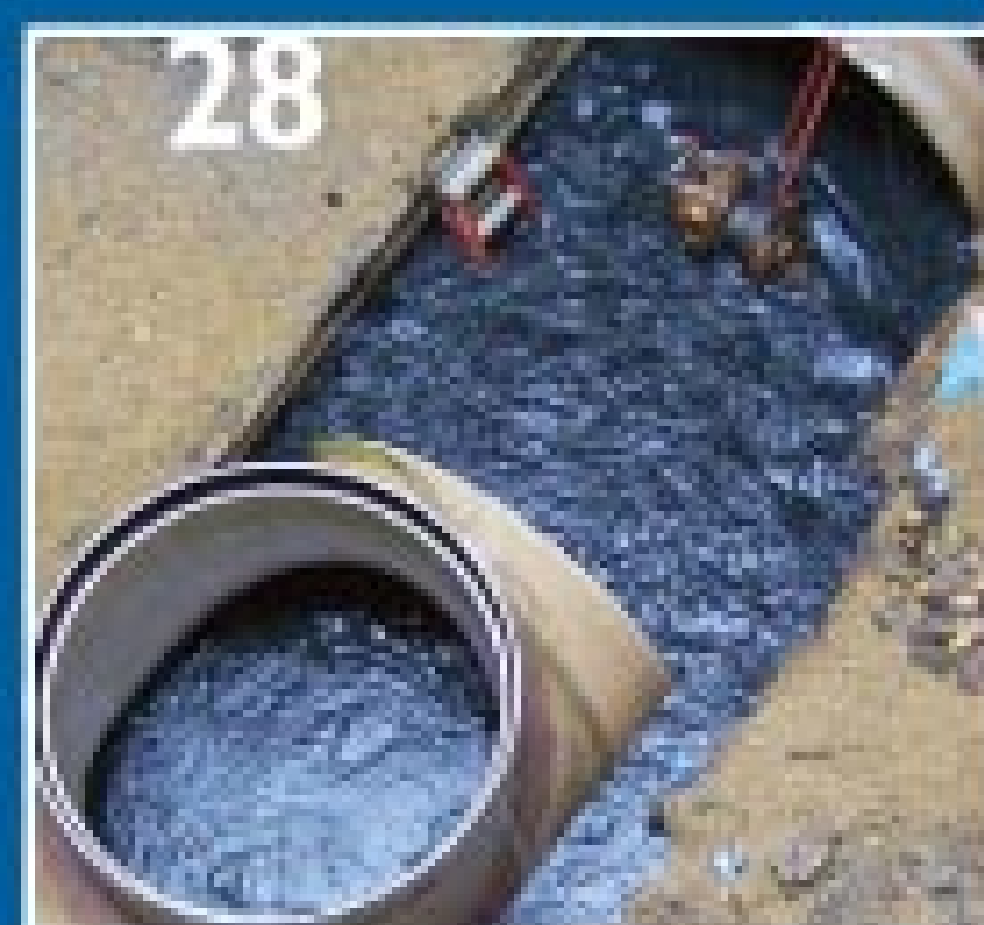
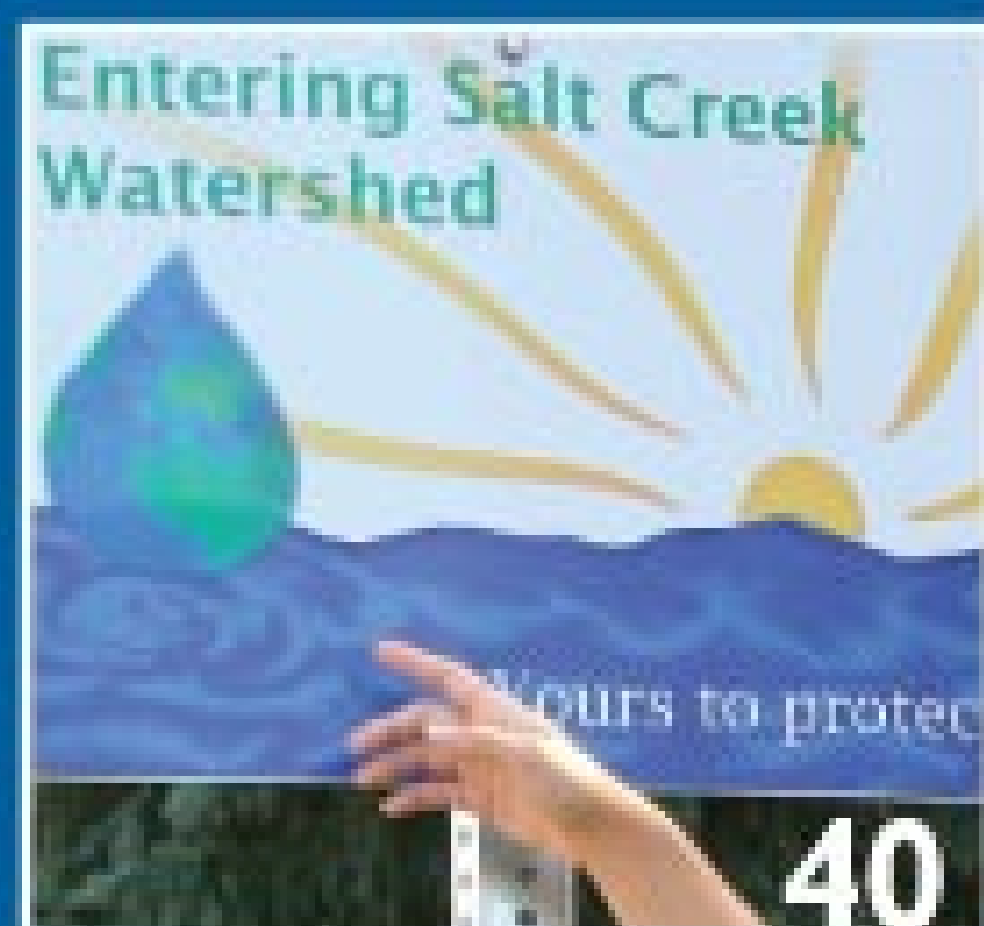
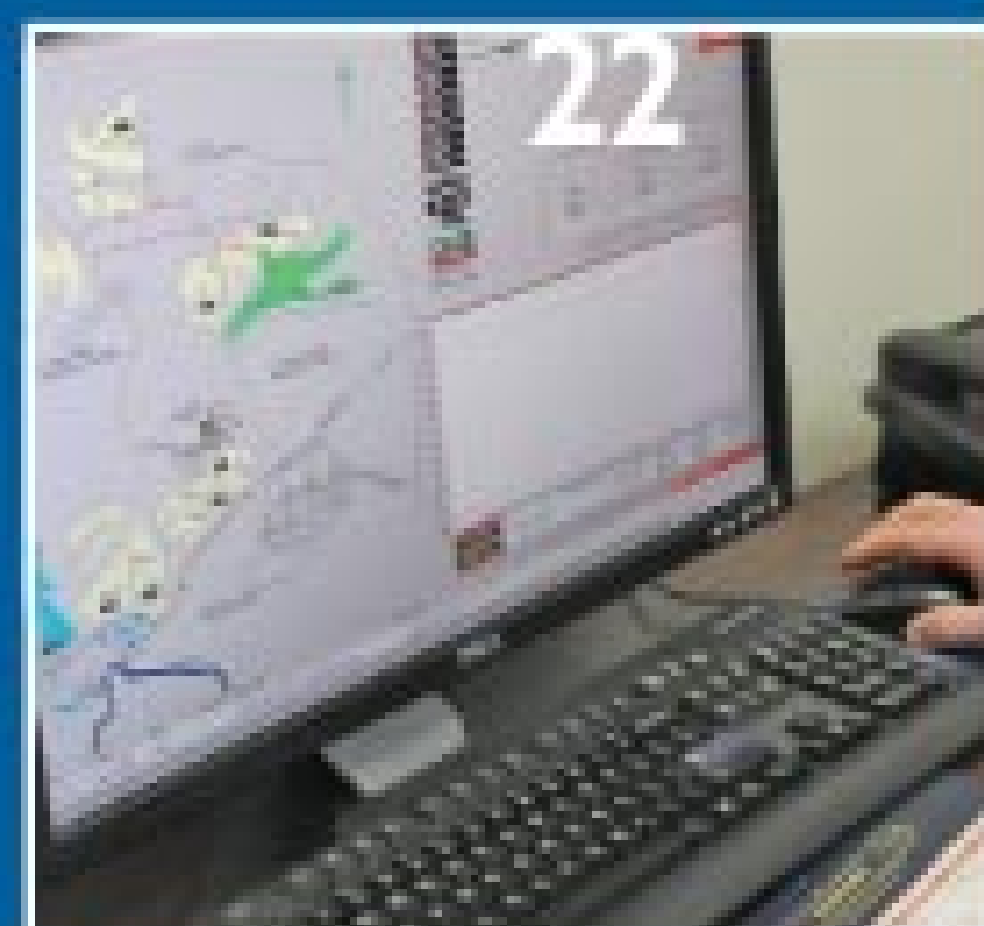
Visit us at
vactor.com.

©2009 Federal Signal Corporation. Listed in the NYSE by the symbol FSS.

*When compared to Vactor 2100 model. Source: Federal Signal engineering department. Fuel savings assumptions: 3 gallons/hour saved in combination mode (4" orifice at vacuum, 80 gpm @ 2500 psi), 1,500 hours per year at \$3.00/gallon.

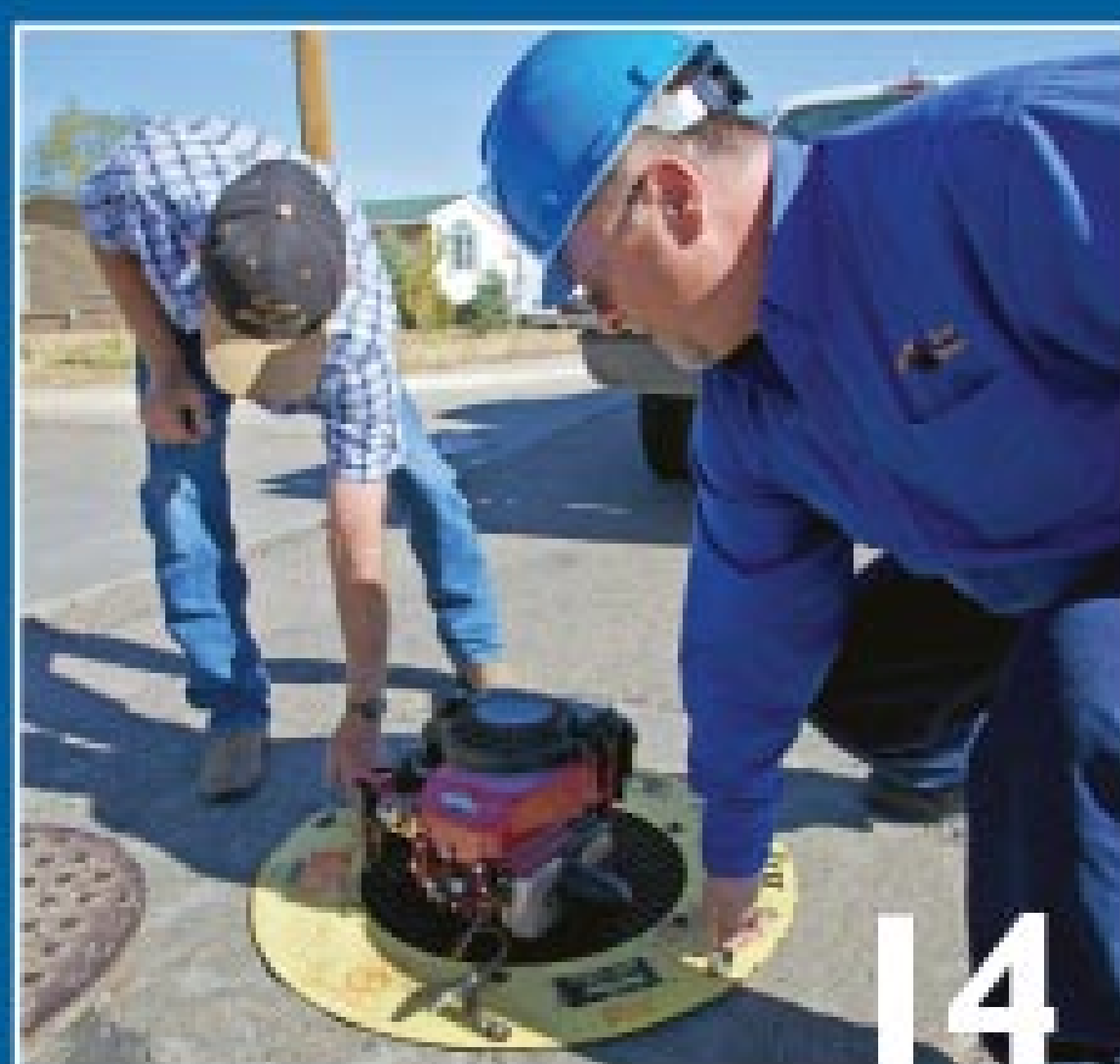
INSIDE:

2011 PUMPER & CLEANER ENVIRONMENTAL EXPO PRE-SHOW ISSUE/EXHIBIT PREVIEW



COVER:

The Wyoming Association of Rural Water Systems (WARWS) delivers training and technical assistance to some 550 small water and wastewater systems across 97,000 square miles of the state. Here, Dave Andrews, public works director in Glenrock (left) and Mark Court, registered wastewater trainer for WARWS, place a Hurco smoke-testing unit over a manhole. (Photography by Ken Ball)



COMING IN MARCH 2011

Pumper & Cleaner Environmental Expo Show Issue

- ◆ Sewer: Clamping down on SSOs in Fort Worth, Texas
- ◆ Sewer: In-house maintenance in Pinellas County, Fla.
- ◆ Storm: Education and system maintenance in Tega Cay, S.C.
- ◆ The Human Side: Staying focused on priorities

FEATURES

14 SEWER/WATER: Covering the Territory

The Wyoming Association of Rural Water Systems provides assistance small water and wastewater systems might not otherwise have at hand.

By Jim Force

18 2011 EXPO: Party With Dierks

Red-hot country performer — and one-time pumper — Dierks Bentley will rock the house in Louisville.

By Jim Kneiszel

22 SEWER: Little Town, Big Performance

The Etowah Water & Sewer Authority serves a small community, but delivers big results in water treatment and reclamation.

By Dan Heim

28 BETTER MOUSETRAPS: Play Ball!

Sliplining with fiberglass-reinforced concrete pipe rehabilitates a 1,300-foot sewer interceptor, enabling the Minnesota Twins to build their new ballpark.

By Scottie Dayton

32 2011 EXPO PRODUCT PREVIEW: Just for You!

Pumper & Cleaner Environmental Expo exhibitors offer a preview of their latest technologies and services.

By Ed Wodalski

40 STORM: Always an Educator

Whether working with developers or mentoring middle school students, Chesterton's Jennifer Gadzala makes an impact on stormwater quality.

By Scottie Dayton

46 TECHNOLOGY TEST DRIVE: Letting the Light Shine

The Explorer Zoom pan-and-tilt camera from UEMSI includes onboard LED lighting that makes it easier to see in large pipes.

By Erik Gunn

COLUMNS

8 FROM THE EDITOR: It's Basic Arithmetic

Solving our federal, state and local taxing and spending dilemma is really a simple matter. That's not the same as saying it's easy.

By Ted J. Rulseh

50 THE HUMAN SIDE: Roots of Motivation

Sometimes the best way to get team members fired up is to let them spend time with the people who rely on their services.

By Ken Wysocky

52 NASSCO CORNER: Sharing Cutting-Edge Technologies

The NASSCO annual meeting will include presentations from industry experts on the latest in trenchless innovations.

By Ted DeBoda, P.E.

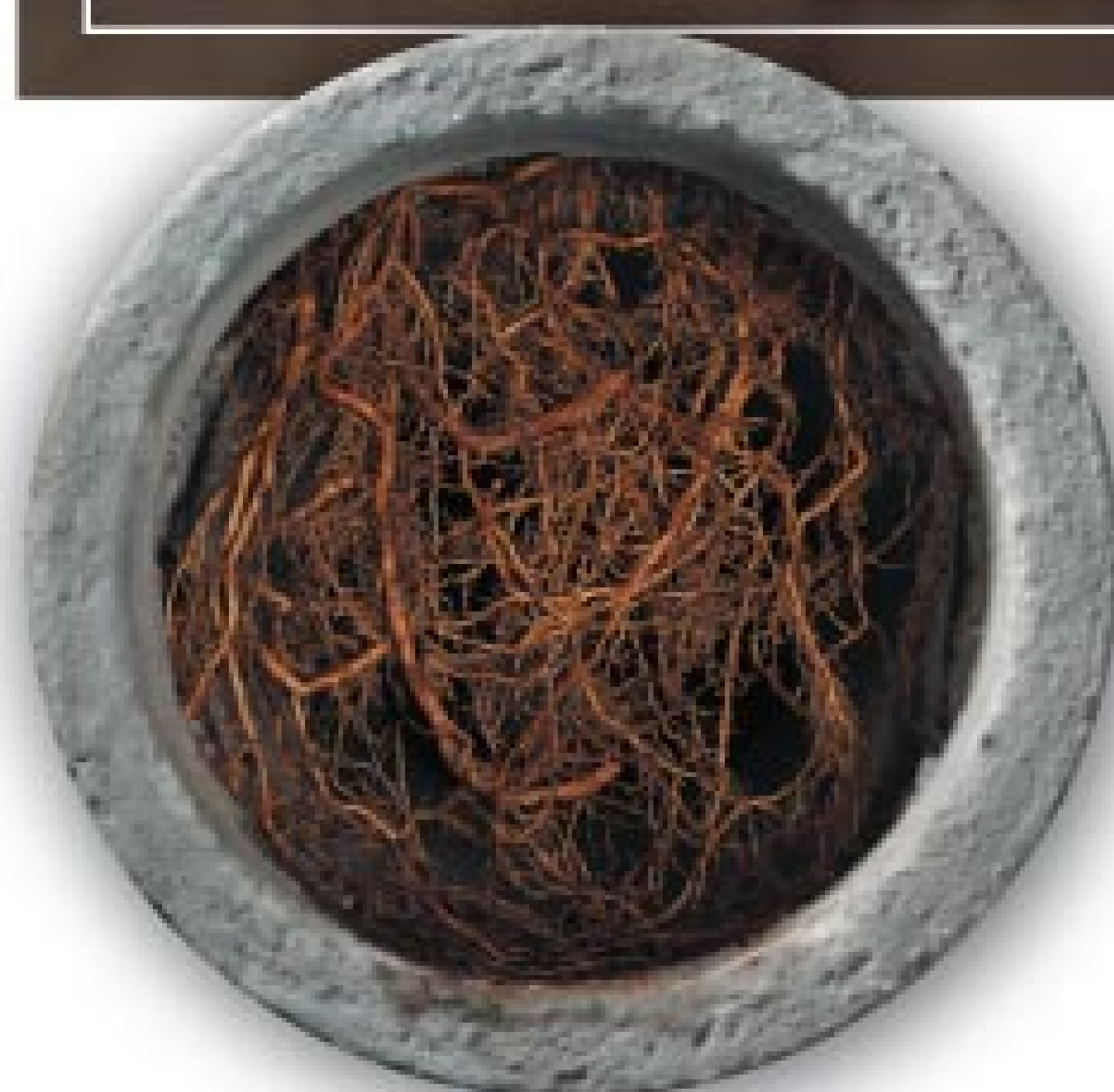
54 Industry News

62 Worth Noting

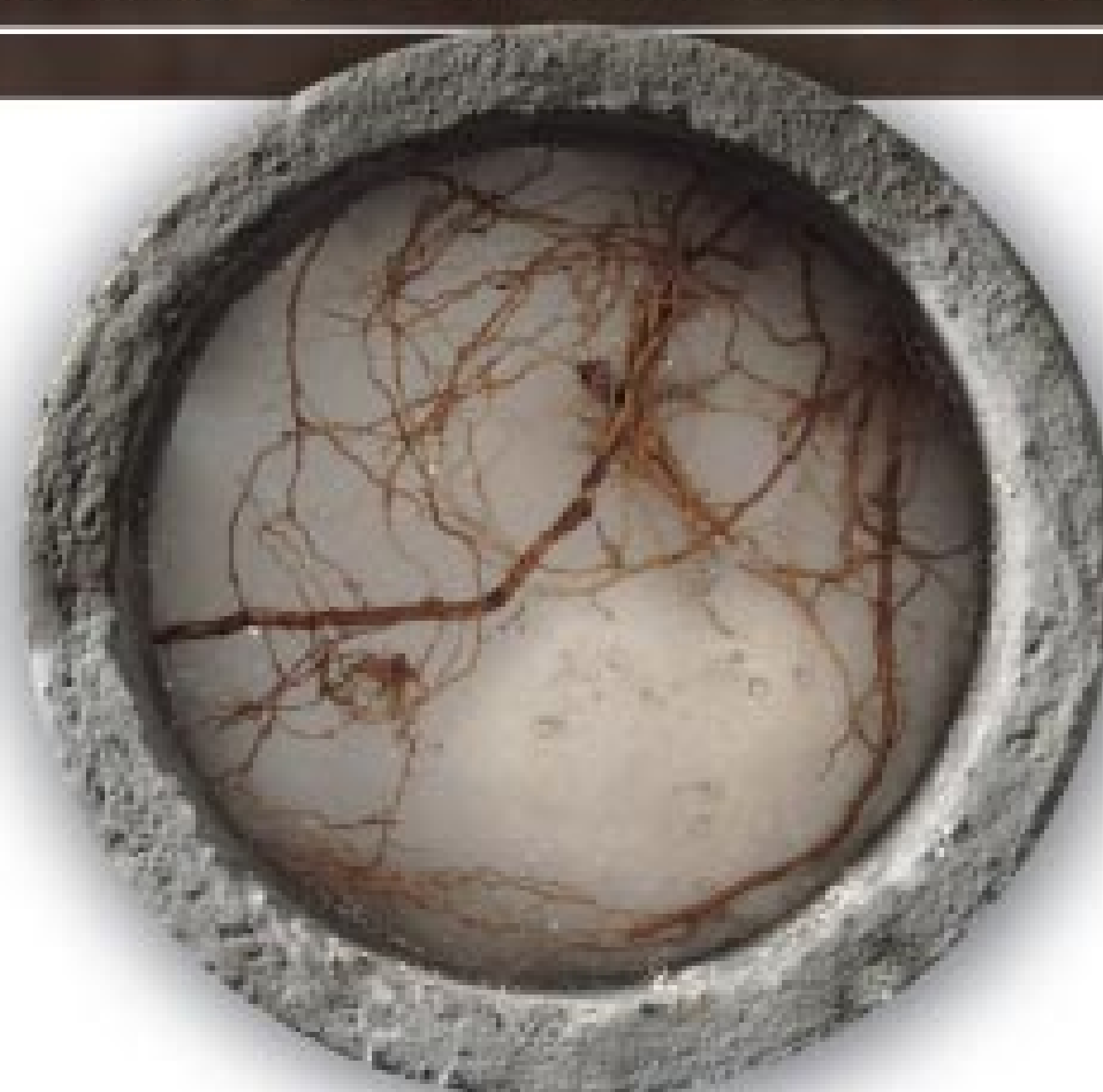
People/Awards; Learning Opportunities; Calendar

FEBRUARY 2011

MUNICIPAL
**SEWER
&
WATER**



The Problem...



The Solution...



The Result.

Simple. Effective. Proven.



1-800-844-4974

www.rootx.com

www.rootxperts.com



ADVERTISER INDEX

COMPANY PAGE

A

ACE DuraFlo Systems 38



American Highway Products, Ltd. 49

AP/M Permaform, Inc. 19

Applied Felts, Inc. 17



Aries Industries, Inc. 39

B

B2 Business Brokers 63

BigsEasyLift 10

C



Cam Spray 43



Central Oklahoma Winnelson 30



Chempace Corporation 26

Cloverleaf Tool Co. 12

Cretex Specialty Products 12



CUES, Inc. 20

D

Doug Meadows Co., LLC 44

E



Environmental Products & Accessories, LLC 20



EnviroSight, LLC 2



ENZ USA, Inc. 30

Epoxytec 44

G

Gamajet Cleaning Systems, Inc. 49



GapVax, Inc. 31

H



Hi-Vac Corporation/Aquatech 66

Hibon Inc. (a Division of Ingersoll Rand) 38

L



LMK Technologies 67

M



Magna-Flow Environmental, Inc. 45



Municipal Sales, Inc. 13

Municipal Services, Inc. 19

N



NozzTeq, Inc. 10

COMPANY PAGE

P



Perma-Liner Industries, Inc. 9

Petersen Products Co. 51



Pipeline Analytics 13



PipeLogix, Inc. 7



Prototek Corporation 51

R



RapidView IBAK North America 11



Ratech Electronics Limited 44



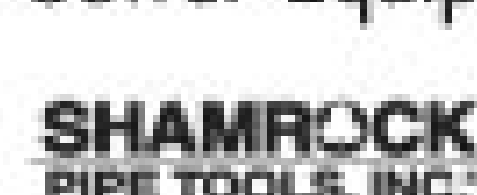
RootX, Inc. 5



RS Technical Services, Inc. 26

S

Sewer Equipment Co. of America 25



Shamrock Pipe Tools, Inc. 54



Sprayroq, Inc. 53



Street and Sewer Parts Superstore 13

Super Products, LLC 21

T



T & T Tools, Inc. 38

The Strong Company, Inc. 27

U



USABlueBook 10



USB - Sewer Equipment Corporation 26

V



Vac-Con, Inc. 68



Vactor Manufacturing 3, 53

CLASSIFIEDS 64

MARKETPLACE 60

TRUCK STOP 65



FOR SANITARY, STORM AND WATER
SYSTEM MAINTENANCE PROFESSIONALS

Published monthly by:



1720 Maple Lake Dam Rd., PO Box 220, Three Lakes WI 54562

www.mswmag.com

© Copyright 2011, COLE Publishing Inc.

No part may be reproduced without permission of publisher.

In U.S. or Canada call toll-free 800-257-7222

Elsewhere call 715-546-3346

E-mail: info@mswmag.com

Fax: 715-546-3786

Office hours Mon.-Fri., 7:30 a.m.-5 p.m. CST

SUBSCRIPTIONS: A one year (12 issue) subscription to Municipal Sewer & Water™ in the United States and Canada is free to qualified subscribers. A qualified subscriber is any individual or company in the United States or Canada that maintains, manages, designs or installs municipal or commercial sewer, water and storm infrastructures. 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 \$150 per year. To qualify, visit www.mswmag.com/order/subscription or call 800-257-7222.

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

CLASSIFIED ADVERTISING: Rate: \$1 per word, per month. Minimum of 20 words or \$20. All classified advertising must be paid in advance. DEADLINE: Classified ads must be received by the first of the month for insertion in the next month's edition. PHONE-IN ADS ARE NOT ACCEPTED. Fax to 715-546-3786 only if charging to MasterCard, VISA, Discover or AmEx. Include all credit card information and your phone number (with area code). Mail with check payable to COLE Publishing Inc. 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 below 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.



Kim McGee



Jim Flory



Winnie May



Kayla Wilkowski



Jim Koshuta

EDITORIAL CORRESPONDENCE: Send to Editor, Municipal Sewer & Water, P.O. Box 220, Three Lakes, WI 54562 or e-mail editor@mswmag.com.

REPRINTS AND BACK ISSUES: Visit www.mswmag.com for options and pricing. To order reprints, call Jeff Lane at 800-257-7222 (715-546-3346) or e-mail jeffl@colepublishing.com. To order back issues, call Nicole at 800-257-7222 (715-546-3346) or e-mail nicolel@colepublishing.com.

CIRCULATION: 2010 average circulation was 37,808 copies per month (U.S. and international distribution).



**PUMPER & CLEANER
ENVIRONMENTAL EXPO
INTERNATIONAL**

www.pumpershow.com

Education Day: March 2, 2011 ■ Exhibits Open: March 3-5, 2011
Kentucky Exposition Center, Louisville, Kentucky

Who says you can't have it all...

Survey Software Wish List

✓ MAINLINES

✓ Laterals

✓ MANHOLES

✓ Grout

✓ NASSCO Certified

✓ GIS Tools

✓ Laser Measurement

✓✓✓✓ GREAT
Tech Support

Everything you need to assess and manage all your underground assets from

ONE Vendor who has been providing innovative solutions for infrastructure management for over a decade.

With **ONE Software** that works with ALL CCTV systems, provides comprehensive analysis capabilities and powerful modules.

And **ONE Solution** to share your survey data quickly and efficiently with other software programs so you can make informed and accurate decisions for long-range planning or scheduling of maintenance tasks.

All this is backed by **THE BEST** after-sales support program in the industry (just ask our customers!).

Stop by and visit us at the Expo to see live demos of all of the new and exciting enhancements and additions to our products now available.
(The list is just too long to print here)

866.299.3150 | info@pipelogix.com
www.pipelogix.com



Partner Network
Silver

PIPELOGIX®

CAPTURE. ANALYZE. COLLABORATE.

Expo Booth
#158



IT'S BASIC ARITHMETIC

Solving our federal, state and local taxing and spending dilemma is really a simple matter. That's not the same as saying it's easy.

A

s I write this, the President's debt commission has just issued its preliminary report on the spending cuts and tax increases it recommends to fix the country's fiscal problems. Right away, critics from all sides pounced.

A union leader claimed it unfairly targeted working people and the middle class. A conservative leader warned that supporting it would violate some politicians' pledges never to raise taxes.

So this is what it comes down to: Everyone knows that deficit spending and debt are a serious threat to the nation's future. But everyone expects the problem to be solved without pain, or with pain only to someone other than themselves. Similar issues exist at the state and local levels, where budgets are in deficit, or where services have to be cut to keep budgets balanced.

The reality is that the solution to this problem is very simple, and everyone who runs a household or manages a public budget knows what it is: For every dollar spent, a dollar must be raised. Plain old arithmetic. If you want it, you have to raise the money to pay for it. If you can't raise it, you can't have it. Or if you borrow for it, you need to have a plan to pay it back.

Something for nothing?

Saying all that is not the same as saying that solving the problem is easy. Neither is it the same as saying "Live within your means." Because sometimes the means at hand simply are not enough, and more means need to be provided.

The trouble is that somewhere along the line the connection between "want/need" and "pay for" got broken, at least at the federal level. In recent times alone we've funded everything from wars, to a Medicare drug plan, to hurricane relief without so much as a discussion of where the money would come from. Then the recession reduced tax revenue and revealed just how bankrupt — literally — our approach had been.

Complicating things further is the assertion, taken as Gospel in some circles, that "taxes are too high" and can never be raised. So if we are to balance the budget, we can only do it by cutting spending. The trouble is that, at local levels at least, budgets have always been lean. So cutting spending means laying off teachers, police officers and firefighters, letting roads decay, cutting library hours, and so on.



FROM THE EDITOR

Ted J. Rulseh

cancelling defense equipment programs that employ thousands.

Maybe we'll end up doing things like that at all levels. Maybe we'll have to. But first it would be better to have a discussion of what services we want, versus what we're willing to pay.

That's a lot tougher (and plays less well on TV news and YouTube videos) than screaming, "No new taxes!" or "Soak the rich!" or "Keep your hands off my Medicare!" But it's also necessary — what alternative do we have?

The 'equals' sign

We seem to live in a fantasy world where we can cut government spending as much as we want and never feel any impact. The real world is different. Cutting spending affects real peo-

The reality is that the solution to this problem is very simple, and everyone who runs a household or manages a public budget knows what it is: For every dollar spent, a dollar must be raised.

ple and real physical assets — whether or not each one of us feels the effects personally.

A simple but powerful symbol in mathematics is the "equals" sign. It's like the pivot point of a balance scale. You can do anything you want to an equation: As long as you do the same thing to both sides, the scale will stay in balance. Where taxing and spending are concerned, we've forgotten the meaning of the "equals" sign.

We might as well get used to the idea that there's no easy way to make the equation ring true again. The concept is simple: A must always equal B. Getting there will be hard. If we all just dig in our heels and rail against any tax increases, and any cuts in spending, then we're going to slide slowly (or maybe not so slowly) into an abyss.

At some point, cooler heads and the laws of arithmetic must prevail. ♦

One Complete Package

mswmag.com

promonthly.com

onsiteinstaller.com

pumper.com

cleaner.com

gomcmag.com

tpomag.com

pumpershow.com

pumpertrader.com

septicyellowpages.com

sewerpages.com

NEW
in 2011

COLE Publishing | 1.800.257.7222 | 715.546.3346

Perma-Liner™ Sectional Main Line Point Repair™

- Repairs 6" to 54" Diameter Pipelines
- 100% Solids Epoxy
- Reinforced Materials With A PU Coated Finish
- As Many As 7 Repairs In A Single Day
- Exceeds ASTM F1216 Specifications
- Manufactured In Kit Form, No Measuring Or Waste



Turn-Key Trailers



2011 Trenchless Tour

April 13th / Baltimore, MD

May 11th - 13th / Clearwater, FL

June 8th / Chicago, IL

for more dates, please visit www.perma-liner.com



CALL
(866) 336-2568 Toll Free
(727) 507-9749 International



VISIT
www.perma-liner.com

Control Grease—Before it Controls You!

Eliminate stoppages, bad odors & service interruptions in your collection system!

Jetfoam™, EHC-33™, Big Blue Bio-Blocks and Formula 52 Odor-Eliminating Enzymes form a powerful solution for system-wide grease and odor control. Together these products keep your lines running clean and odor-free to full capacity. For more information, USABlueBook offers a free training DVD/Video. Just call and request Stock # DVD to get your personal copy today.

Now, for a limited time, USABlueBook offers a 10% introductory discount on this grease control system. Just call 1-800-548-1234 and mention **Promo Offer CMW** when placing your order. Offer ends December 31, 2011.

**10%
OFF**

| DESCRIPTION | STOCK # | REG. PRICE | PROMO PRICE |
|--------------------------------|----------|----------------------|-------------|
| Jetfoam Emulsifier, 5-Gal Pail | MS-48163 | \$ 124.95 | \$ 121.46 |
| EHC-33 Bioenzyme, 25-lb Pail | MS-48165 | 399.95 | 359.96 |
| Big Blue Bio-Block, 5-lb | MS-49828 | 99.95 | 89.96 |
| Big Blue Bio-Block, 10-lb | MS-49829 | 199.95 | 179.96 |
| Big Blue Bio-Block, 30-lb | MS-49831 | 399.95 | 359.96 |
| Formula 52, 1-Gal Jug | MS-64702 | 36.95 | 33.26 |
| Formula 52, 5-Gal Jug | MS-64703 | 176.95 | 159.26 |

USABlueBook

1-800-548-1234 • www.usabluebook.com



The industry's most complete line of grease control products

USABlueBook is your one-stop shop for all of your collection system needs. We offer the equipment and supplies you need to not only clear current blockages, but to prevent future blockages from occurring.

With over 27,000 items in stock, we have what you need, when you need it.

FREE!

Call 1-800-548-1234 today to request your FREE Master Catalog 121

and receive a **FREE New Products Catalog!**



**BIGS
EASY LIFT**

**THE BEST TOOL
ON THE MARKET!**

BIGS EASY LIFT - Manhole, Grate and Cover removing tools

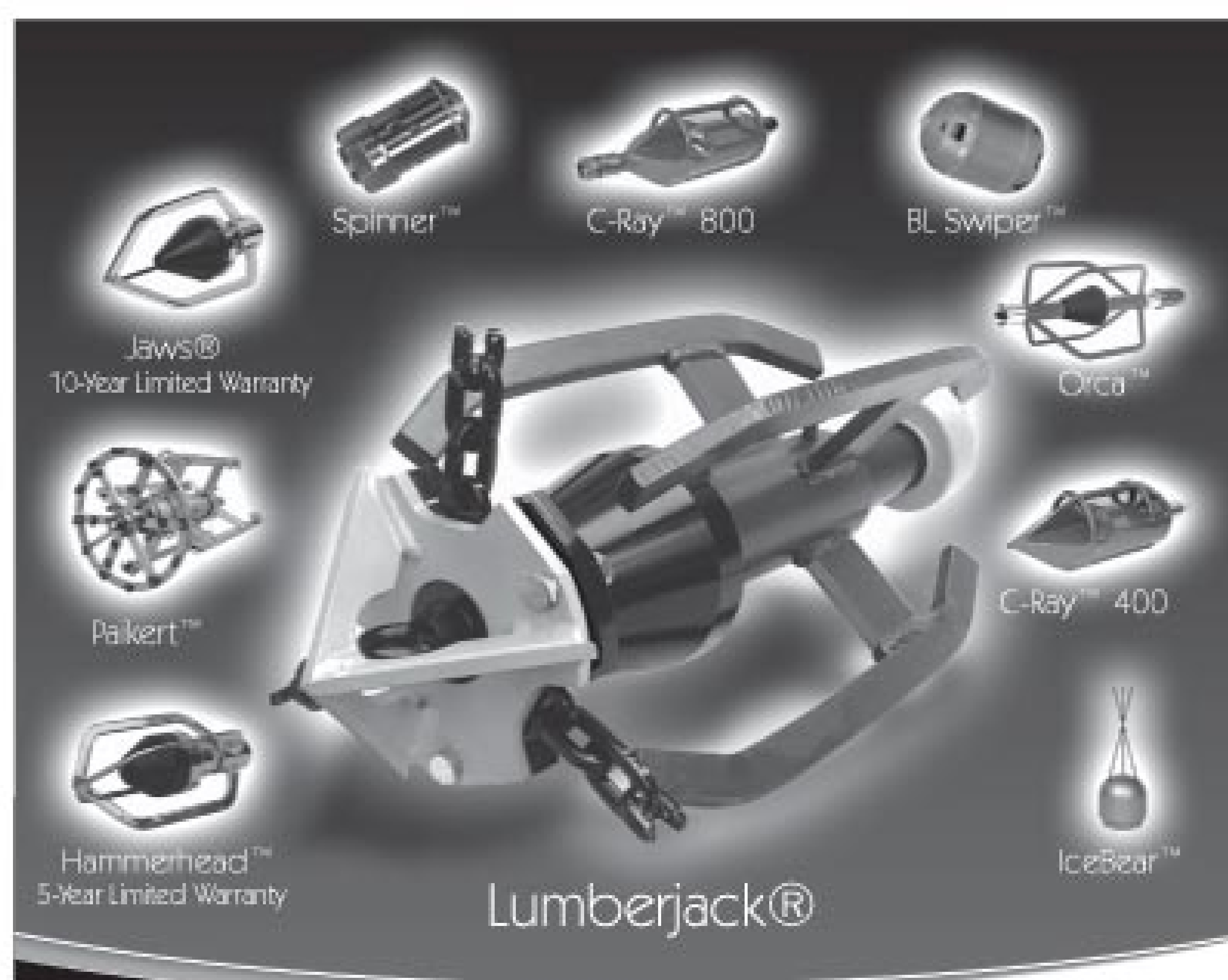
DID YOU KNOW:

- 20% of all workplace injuries are back injuries?
- Back injuries result in the loss of 20 to 50 billion dollars a year?

**LET LEVERAGE DO THE
JOB - NOT YOUR BACK!**



TOLL FREE: 866.926.LIFT (5438)
FAX: 866.271.9057
EMAIL: info@bigseasylift.com
WEB: www.bigseasylift.com



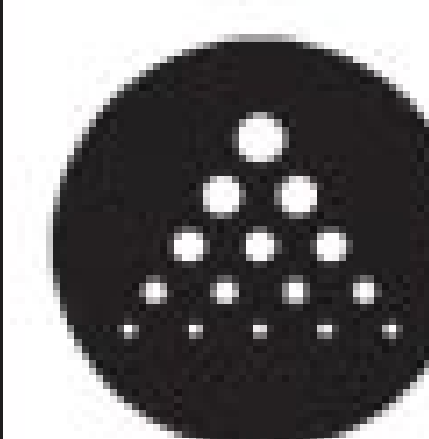
Equipment
Engineered for Long
Lasting Performance™

Rental and Leasing
Services Available!

Call For FREE DVD



Check out our
online store at
cole-mart.com/nozzteq



NozzTeq®
Taking Science to the Sewer!™

www.nozzteq.com

Phone: **1.866.620.5915**

Fax: **603.413.6744**



Your job isn't easy...

Booth #2130



We've worked harder since 1957 SO YOU DIDN'T HAVE TO.

Mainline | Drainline | Lateral Launch | Laser Profilers | Vehicle Conversions | PANORAMO 360° Pipeline and Manhole

Isn't it time to give yourself a break?

IBAK has been working for over 50 years to make your job safer and give you less headaches at the end of the day. Our pipeline inspection equipment is *not* the cheapest equipment you can buy, but we will guarantee you it is the highest quality, most reliable investment you can make.

We have the industry's largest research and development team with over 15% of IBAK devoted entirely to new product development. Adherence to core principles of quality and technological innovation have driven IBAK to remain the industry leader since they invented sewer cameras in 1957.

Please stop by booth #2130 during the Pumper & Cleaner Expo or visit our website to find a dealer near you, and let us show you how *quality makes the difference*.



800-656-4225

www.rapidview.com



**If it hurts,
you're probably
doing it wrong.**

Stop wrestling with backbreaking concrete grade rings. At one-tenth the weight of concrete, PRO-RING™ EPP manhole grade adjustment rings save time, effort, backs, fingers, toes — and especially workers' comp claims. And they take everything concrete can take.

Visit cretexseals.com to learn more about PRO-RING™ manhole adjustment rings and the many other products that Cretex offers to improve your bottom line. Whether you are a contractor or a municipal district, Cretex will help you make your manholes better, your workplace safer, and your budget go further.

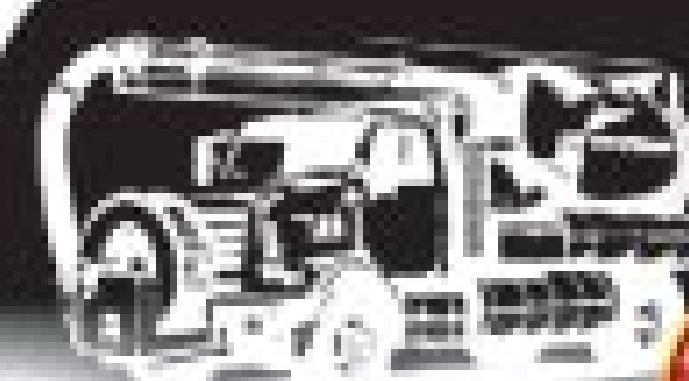
For ASTM, ASHTO and other performance test reports, visit: <http://www.cretexseals.com/products/pro-ring.php>

SPECIALTY MANHOLE SOLUTIONS FOR EVERY NEED

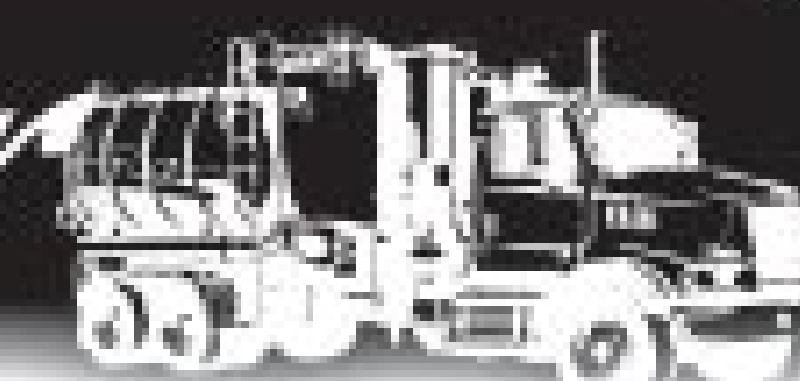
• Chimney Seals • SealGreen • PRO-RING™ • Grout Products

Cretex Specialty Products (800) 345-3764

E-mail your inquiries to info@cretexseals.com • www.cretexseals.com



Pipeline Cleaning & Maintenance Equipment



Booth
176

JETTERS & JET VACS

Penetrators

| | |
|------------|---------|
| 1/4"-15° | \$24.00 |
| 3/8"-15° | \$33.00 |
| 1/2"-25° | \$46.00 |
| 1/2"-25°LT | \$49.00 |
| 3/4"-12° | \$55.00 |
| 3/4"-12°LT | \$65.00 |
| 1"-12° | \$69.00 |
| 1"-12°LT | \$81.00 |

Aluminum Sand

| | |
|------------|----------|
| 3/4"-24° | \$139.00 |
| 1"-17°/24° | \$153.00 |
| 1"-24° | \$139.00 |

Swivel Joints

| | |
|---------------------------|----------|
| T-M® Style | |
| 90° or Straight, 6000 psi | |
| 3/4" & 1" | \$188.00 |
| 1-1/4" | \$199.00 |
| 1-1/2" | \$495.00 |
| 2" | \$570.00 |

Aluminum Grease

3/4" or 1"-17° \$122.00

Truder

1" \$345.00

Shark

1" \$480.00
1" Big Shark \$595.00

Stainless Steel Nozzles

| | |
|------|----------|
| 1/8" | \$30.00 |
| 1/4" | \$33.00 |
| 3/8" | \$39.00 |
| 1/2" | \$54.00 |
| 3/4" | \$59.00 |
| 1" | \$105.00 |

Ball Valves

| | |
|------------------|----------|
| Dyna Quip® Style | |
| 3000 psi | |
| 1" | \$227.00 |
| 1-1/4" | \$243.00 |

Radial Bullet

| | |
|------------------|---------|
| 3/4"-18° or 35° | \$50.00 |
| 3/4"-18°/24° | \$53.00 |
| 1"-18° or 30° | \$66.00 |
| 1"-15° or 30° | \$68.00 |
| 1-1/4"-18 or 35° | \$85.00 |

Steel Sand

1"-12° \$70.00

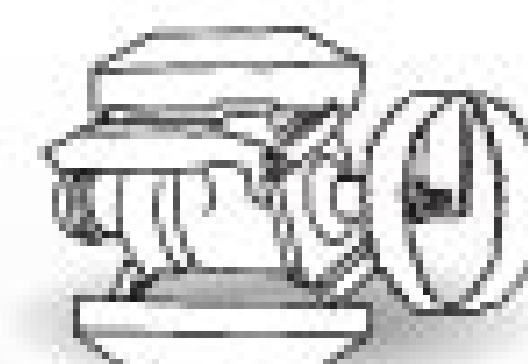
NEW Storm/Culvert Floor Cleaner Nozzles

Parker & Piranha Jetter Hose

1/8"-1-1/4"

Saw Blades

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



Root Cutter Assemblies

| | |
|---|----------|
| Skid Mounted | |
| w/flat blades | \$888.00 |
| w/concave blades | \$930.00 |
| w/spiral blades | \$930.00 |
| Donut Mounted | |
| w/flat blades | \$867.00 |
| w/concave blades | \$909.00 |
| w/spiral blades | \$909.00 |
| Lateral Mounted | |
| w/flat blades | \$850.00 |
| w/concave blades | \$920.00 |
| Assemblies come with one ea. of 6, 8, 10 and 12" blades, saw blades, hub, skids, etc. | |

Sewer Hose Guides

| | |
|------------------|---------|
| TigerTail™ Style | |
| 3" x 36" | \$40.00 |
| 2" x 36" | \$34.00 |
| with 24' rope | |



Power Clamps

8" \$13.00

3"-6" available

King Clamps

8" \$29.75

4"-6" available

Bandlock® Clamps

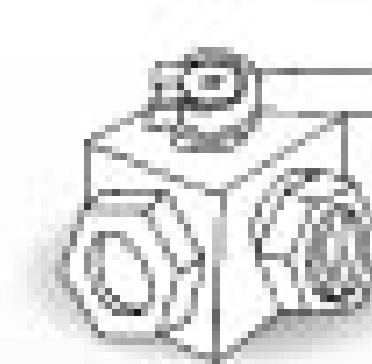
8" \$24.00

3"-6" available

Quick Clamps

8" \$26.50

3"-6" available

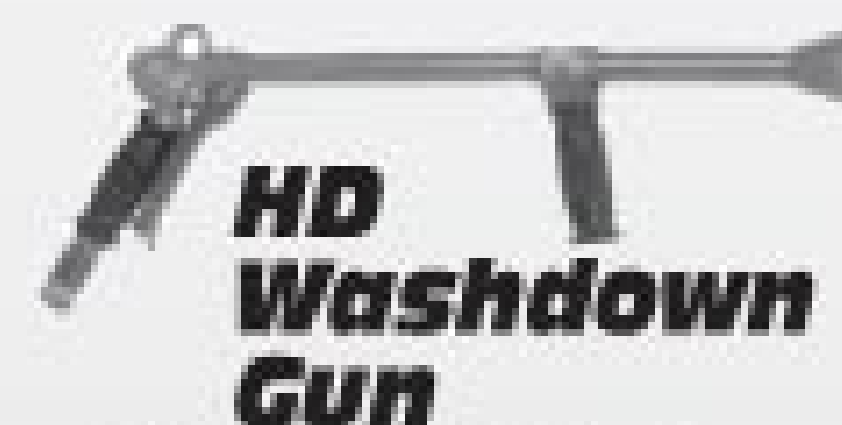


Hycon® Valves

2 & 3-way Ball Valves

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

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



HD Washdown Gun

25 gpm @ 850 psi
1/2" Inlet \$155.00

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



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

Toll Free: 800-365-6583
www.cloverleaftool.com

Full Catalog Online with Prices



CALL FOR OUR COMPLETE CATALOG WITH PRICES

MANY OTHER STYLES, SHAPES & SIZES AVAILABLE

MUNICIPAL SALES

A Root and Grease Control Company

www.municipalsales.net



Professional
Chemical Root
Control Services



Booth
4052

518.747.2044

fax: 518.747.5490

mark@municipalsales.net



What's Your Infrastructure Trying to Tell You?

Worldwide, More Users Trust WinCan™ to Understand Their Pipeline Assets.

When you choose underground infrastructure software, you're selecting more than specific capabilities at a given price—you're picking a partner to support and evolve the technology for decades to come. WinCan has been around 15 years—longer than anyone—and we've always been market leader. From small contractors to large cities, more users trust us to deliver responsive support, scalability and ceaseless innovation.



Booth
3193



WinCan Infinity entitles you to every upgrade, plus unlimited support and special pricing on new modules—all for an affordable annual subscription.



WinCan Value Bundles deliver more functionality for your investment, with savings up to 60% off traditional pricing.



(877) 626-8386 • www.pipelineanalytics.com

WinCan and Pipeline Analytics are trademarks of Pipeline Analytics. ©2010. All rights reserved.

STREET & SEWER PARTS SUPERSTORE



PURCHASE YOUR SEWER PARTS ONLINE:

- ◆ Sewer Nozzles
- ◆ Sewer Hose
- ◆ Vacuum Pipe & Hose
- ◆ Quick Clamps
- ◆ Sectional & Continuous Rod
- ◆ Couplings & Valves
- ◆ Root Saws
- ◆ Root Cutters
- ◆ Tools For Manual Rod
- ◆ Lighting Packages
- ◆ Rear Vision Camera Systems
- ◆ Sewer Dye Tablets & Smoke Bombs
- ◆ Rental Equipment
- ◆ Used Equipment

YOUR ONLINE PARTS STORE!

www.StreetAndSewer.com

1.251.285.SHOP (7467) • sales@streetandsewer.com



Mark Court, registered wastewater specialist for WARWS, monitors a Hurco smoke-testing unit. Smoke testing is one of a variety of services the association offers to small water and wastewater systems. (Photography by Ken Ball)

FOCUS: SEWER/WATER

COVERING THE TERRITORY

The Wyoming Association of Rural Water Systems provides assistance small water and wastewater systems might not otherwise have at hand

By Jim Force

Up before dawn, Mark Court climbs into his Kia Optima sedan and heads west on I-25. His destination: Jackson, Wyo., nearly 400 miles from home. His mission: visit with a small community water system and help them deal with a plant operations or water supply issue.

He'll stay in the area all week, visiting and helping other systems overcome operational problems, find funding sources, train for certification, and improve relationships with regulatory agencies and local governments.

"The Kia gets great gas mileage," says Court, wastewater specialist. That's good, because as one of three circuit riders for the Wyoming Association of Rural Water

Systems (WARWS), he delivers training and technical assistance to some 550 small water and wastewater systems across 97,000 square miles of the state. "I can put on close to 40,000 miles a year," he says.

Affiliated with the National Rural Water Association, WARWS is based in Glenrock, near Casper. It's in its 21st year, according to executive director Mark Pepper, and is funded by association dues, fee-based training, and federal grants through the U.S. EPA and the U.S. Department of Agriculture (USDA) Rural Utility Service. Like other rural water associations across the country, WARWS provides services at no charge to clients.

Pushing compliance

"We're charged with providing

training and technical assistance, but also advocating compliance with the Safe Drinking Water Act and the Clean Water Act," Pepper says. "Our activities include conducting two major training conferences a year and providing

and Dan Chamberlain, funded through the USDA Farm Services Administration.

"Our source water specialists work with local constituents to develop source water protection programs for their system or a sur-

"We have two water specialists and one wastewater specialist. They travel the state all year, meeting with every system at least once a year."

Mark Pepper

accounting services and information through our magazine and our website."

In addition to its circuit riders, the staff includes training specialist Kathy Weinsaft and two source water protection specialists: Miles Edwards, funded through the EPA,

rounding area including their system," Pepper says. "This includes on-site technical assistance as well as planning and training elements. Plus, we maintain a Power Smoker (Hurco Technologies) and a small Gen-Eye push camera (General Pipe Cleaners), so we

can actually help some of our customers with small smoke-testing or video projects where needed."

WARWS does not compete with private contractors for those services, but has the equipment on hand for emergencies or for small systems that can't afford to hire out projects.

For all it does, the circuit rider program is perhaps most visible to Wyoming's small and widely dispersed systems because it allows them to meet face-to-face to discuss issues and develop solutions. "We have two water specialists (Jim Van Dorn and Ross Jorgensen), and one wastewater specialist (Court)," says Pepper. "They travel the state all year, meeting

with every system at least once a year. This is a headwaters state in an arid climate. Most of our systems rely on groundwater. Landfills and septic systems often represent threats to water quality."

Small-system operator Charlie Stickney of Thermopolis says the WARWS circuit riders "do a fantastic job for us. If we have a problem, they're up here that day or the next. No matter what the issue is, they're knowledgeable."

Solving problems

WARWS helps facilitate communications and resolve management issues. In late 2010, circuit

"These small systems can't afford to pay for this level of technical assistance. I call on WARWS all the time."

Duaine Faucett

rider Jorgensen was instrumental in setting up a brainstorming session to investigate solutions to a radionuclide problem at a small water system near Gillette.

Realizing that the recent WARWS conference in Gillette had attracted all the area's engineering consultants, technology suppliers, as well as local, state, and federal governmental agencies, he invited representatives of all groups to a post-conference meeting at the county building to focus on possible solutions.

"We had 25 to 30 people around the table, and we discussed the issue for over two-and-a-half hours," he reports. "Had the water system operators tried to get this much advice and input through normal channels, it would have taken weeks, maybe months, and it could have been quite costly."

Attendees included EPA officials (Wyoming chooses not to have primacy over its water but leaves it to EPA to administer), representatives from the USDA Rural Development Administration and the county engineering

Dave Andrews, public works director in Glenrock, marks an open vent stack at an abandoned trailer court.



TESTING AND INSPECTING

In addition to training and technical assistance, the Wyoming Association of Rural Water Systems (WARWS) maintains two pieces of equipment to help small systems smoke test and inspect water and sewer lines.

"We are not in the business of competing with private sector contractors," explains executive director Mark Pepper, "but sometimes these communities cannot afford to hire outside help, or they're faced with an emergency that needs prompt attention."



Mark Pepper,
executive director
of WARWS

The association's smoke-testing system and push camera are available to clients for special projects. The equipment is called in when small-system clients experience broken pipes, illegal connections, failing p-traps, or water or sewer line leaks. Sometimes the applications make for quite a story.

Circuit rider Mark Court recalls one project where Wyoming's first state penitentiary was being converted to a museum in Rawlins, now known as the Wyoming Frontier Prison. The cornerstone for the prison was laid in 1888, and the facility opened in 1901. Through the years until its closing in 1987, the penitentiary housed more than 13,000 inmates and was the site of various forms of punishment and execution.

Eventually, a joint powers board took ownership of the facility and made it into a museum that has since been placed on the National Registry of Historic Places. WARWS helped in the renovation by smoke testing water and sewer lines throughout the property. "Interestingly enough," says Court, "the lines in the cell blocks and gas chambers were tight. The only leaks we found were in the kitchen, where p-traps had dried out."

In other cases, the association's camera equipment has been instrumental in drug busts. "We've worked with law enforcement and set up our camera in the sewer line leading to a suspected drug house," he says. "Sometimes when the place is raided, the suspects flush the evidence and we end up with a video of the disposal. It's held up in court."

department, even two individuals running for county commissioner. "We explored potential funding and discussed the pros and cons of various treatment methods," says Jorgensen.

Duaine Faucett of Watrguy, the contract operator for the system, said the meeting was "great," and has led to a potentially positive outcome. "We are taking bids to camera the well, log it and take samples to see where the contamination is coming from," he says. "It's 2,000 feet deep. We've also

sampled other wells in the immediate area."

Faucett's company operates more than 60 small systems, including the one in question, which has only 43 taps. "These small systems can't afford to pay for this level of technical assistance," he says. "I call on these guys (WARWS) all the time."

Emergency response

Sometimes the WARWS circuit riders must take on plant operations themselves. One recent



Dave Andrews, public works director in Glenrock, right, and Mark Court, registered wastewater specialist for WARWS, replace a manhole after smoke testing.

TRAINING BEYOND OPERATORS

The Wyoming Association of Rural Water Systems (WARWS) provides hundreds of hours of on-site training for water and wastewater system operators throughout the state, helping them achieve certification. But that's not all the education WARWS offers its clients. A fair share of the focus is on other groups important in the water and wastewater arena, especially mayors, commissioners and boards, and engineers.

"After all, they are the people who own the systems, and who are responsible for them," says Kathy Weinsaft, who heads the training and technical assistance program funded through the U.S. EPA.

An example is a three-day training conference last June on septic systems, sponsored by the association and aimed not only at operators, but also the planners and community decision-makers. "When they think about planning new developments, they need to also think about septic systems and understand the regulations and the technologies," Weinsaft says.

The first day concentrated on decision-makers, the second day on different types of septic systems and where they worked best, and the third day on innovative system technologies. Total attendance was close to 80.

Weinsaft says other training programs for board members and decision-makers include sustainability, asset management and rate-setting. The association also conducts one-day training sessions for engineers who work with water and wastewater systems in Wyoming. "We're trying to get all our folks to think about the big picture — where we are today and where we'll be 10 years from now," says Weinsaft.



Smoke testing shows sewer system workers where there are vent stacks in buildings and where there are breaks in sewer lines that need repair.



Another treatment system ran into trouble when finished-water NTUs rocketed to 60 in the spring, when the plant draws its source water from irrigation ditches. WARWS's Van Dorn was on the scene quickly. "The operator was new, and we helped turn up the filtration rate and keep up with demand," he says. "We'll meet with anybody. When they call, we respond. We tell them they don't want to get dinged (cited for a violation) on this."

The solids side

A major challenge for many communities is sludge and sludge lagoons, which nearly all wastewater treatment systems in Wyoming use. There are few mechanical systems, since only eight of the state's municipalities have more than 10,000 residents.

"Biosolids monitoring is the key to good operations and compliance," says Court. "When the

case involved two small adjacent communities where the plant staff from one town ran both water treatment facilities. When both communities were hit with major flooding, the staff could only protect the home plant. The other, a

pressure sand filtration operation, was left unstaffed and became contaminated. The community had to issue a lengthy boil order.

WARWS literally came to the rescue. Jorgensen worked 16 hours a day with the community and its

leadership to get lines and tanks disinfected and to restore a chlorine residual to the system. "They had NTUs as high as 60 (permit is one NTU), and weren't sure what to do," Jorgensen says. "We helped them get the plant settled down."

weather's good, I'm out in the boat checking sludge depth." Using a special spreadsheet that calculates such factors as population growth, sludge inventory, and removal costs, he counsels operators on the relationship between solids buildup and effluent quality.

"Too much sludge can result in BOD and TSS excursions and algae buildup, including blue-green algae, which is toxic to the environment," Court says. "Plants need to keep their sludge inventory under control."

Court also encourages biosolids reuse. "I'm opposed to simply landfilling biosolids," he says. "The nutrient value of biosolids is higher than that of animal waste. We try to get our clients to land-apply the material. In this dry climate, it can change soil chemistry and help restore vegetation."

Dispute resolution

A dispute over chlorination drew the WARWS team to help another small system. "City officials wanted the operator to continue an old practice of buying bleach for disinfection, instead of using chlorine," Van Dorn recalls. WARWS worked with the community and the operator to make sure the system stayed in compliance and used proper disinfection methods.

In another case, Van Dorn helped a community access rural development funds for an infrastructure project, patching up botched communications among the various parties involved and securing funding. "That's my biggest cup of tea," says Van Dorn, "dealing with management and communication issues."

The Wyoming circuit riders do a lot of training as well, and help systems with emergency and O&M plans. Charlie Stickney of Thermopolis appreciates all the WARWS initiatives. "They train us to be better operators, to do our job better," he says. "They help us get certified and move up to higher levels of certification. That's how I use them."

Stickney says WARWS also helped him develop an emergency plan, which came into play when a water main broke under a highway. "We put the plan into practice and avoided washing out the whole road," he says.

He also credits WARWS for helping water boards and town councils understand the treatment system and how to manage it more efficiently, and for helping small systems secure funding for projects like the new water tank his system is planning to build. "I operate a small district," Stickney says. "If I run into a problem I can't solve, I call them. They help me solve it."

The satisfaction is mutual. "I feel good at the end of the day," says Van Dorn, who used to operate a large wellfield himself and now enjoys the freedom from the bureaucracy.

Jorgensen puts it this way: "A system I visited this week has a new operator learning the operation of his plant. He mentioned that he needed to calibrate the turbidimeters, but instead of calibrating, a simple cleaning provided a much lower and accurate NTU reading. To me, this was simple maintenance, but to the operator it was a signifi-

"They train us to be better operators, to do our job better. They help us get certified and move up to higher levels of certification. That's how I use them."

Charlie Stickney

cant technical assistance visit. He is more confident that the filters are producing good, clean water."

What may seem routine to the WARWS team means much more to the operators, clerks and water boards around the state, Court believes. "Too often we may never know," he says, "but I believe this is why we are out there — catching the little things before they become big." ♦

MORE INFO:

**General Pipe Cleaners/
Div. of General Wire Spring**
800/245-6200
www.drainbrain.com

Hurco Technologies, Inc.
800/888-1436
www.gethurco.com

NOBODY DEALS YOU A BETTER HAND ON FELT.



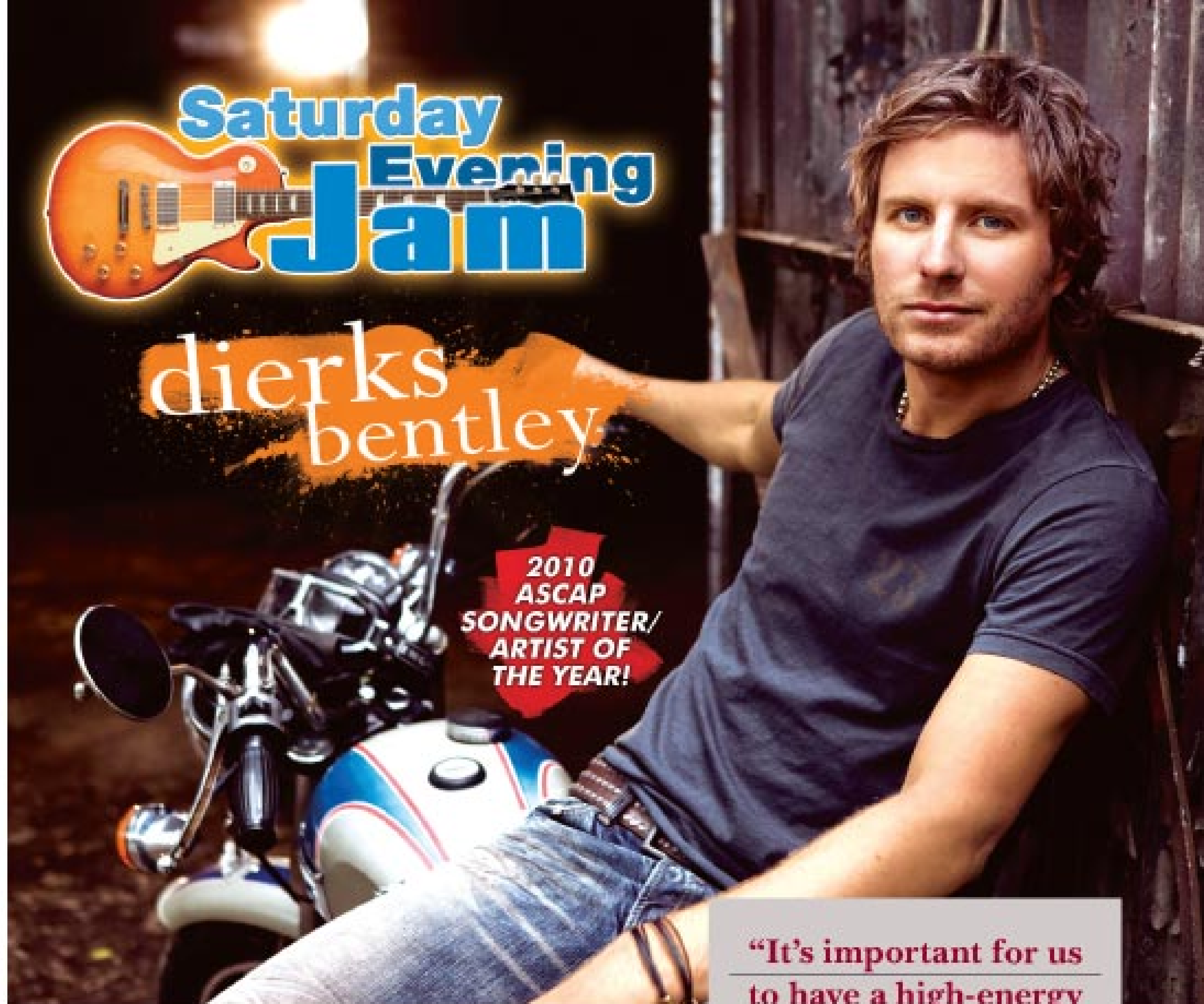
When you combine our high-performance cured-in-place pipe (CIPP) liners with our world-class customer service, you have what it takes to go all in. A global leader with unrivaled 24/7 technical support, Applied Felts provides industry expertise, guidance in the field, and custom CIPP liners designed to your unique specifications—wherever in the world your installation may be. Play to win with Applied Felts, the industry's leading independent manufacturer of quality CIPP liners. Visit appliedfelts.com for more info.



PARTY WITH DIERKS

Red-hot country performer — and one-time pumper — Dierks Bentley will rock the house in Louisville

By Jim Kneiszel



“It’s important for us to have a high-energy show and a lot of fun. If it’s a good night for us, everyone else will have a good time. This is one of the first shows we’ll have for the year and everybody will be extra excited to be out there playing.”

Dierks Bentley

How’s this for the hottest ticket in town: The Pumper & Cleaner Environmental Expo and Dierks Bentley.

The can’t miss trade show for environmental services professionals collides with the can’t miss country music performer of the past year. When Bentley takes the stage at Louisville’s Freedom Hall March 5, he will have just learned the fate of his three nominations from the 2010 Grammy Awards.

Bentley, 35, has had numerous No. 1 country hits since his 2003 debut album, but last year’s bluegrass-influenced *Up On The Ridge* took him to a new level. Recording with an ensemble of the hottest new stars — Punch Brothers, Miranda Lambert and Jamey Johnson — Bentley produced the contemporary country music that built his career, but used the acoustic sound that instilled his love of country music in the first place.

“I had a blast making this record,” Bentley said in an interview. “It was the most fun I’ve really ever had making a record. Bluegrass music is what really first got me turned on to country. I don’t think I’m a traditionalist. I

love country music and putting my own stamp on it. And using acoustic instruments is a big part of the formula; I want to push the boundaries of what you can do with them.”

A pumping past

Beyond music, there’s another reason the Expo crowd will enjoy this down-to-earth performer: He’s been a pumper. One of the many jobs he had before landing a contract in Music City was pumping out holding tanks on houseboats at Lake Powell in his home state of Arizona.

“I loved the lake and I loved being up there,” Bentley explains. “In the mornings, I’d go down and show the customers how to drive the boats — 35- to 60-foot houseboats. When the boats came back, we’d clean them from top to bottom, scrub the roofs and decks, pump out the tanks, and get them ready to go the next morning.”

Boats typically had 250-gallon holding tanks, and that waste was pumped through a pipe system installed at the marina. Careful evacuation of the tanks and constant cleaning is vital because Lake Powell provides a freshwater

supply for an expansive desert territory in the Southwest.

Bentley always enjoyed physical labor (he built decks for a time and retrieved golf balls at a driving range) and appreciates hard work. The jobs he didn’t like were in Nashville offices while he paid his dues in the music business.

“I poured coffee all over this town and worked in every building in Nashville before I got a publishing deal,” he recalls. “I like physical labor, but emotionally being in Nashville and working day jobs while trying to get a record deal was the toughest.”

Quit the day job

In 2003, Bentley’s first single, “What Was I Thinkin’” topped the country chart. His 2005 album, *Modern Day Drifter*, went platinum. That year he became the youngest member of the Grand Ole Opry and received the Country Music Association’s Horizon Award. He followed with the 2009 album, *Feel That Fire*, which included two No. 1 hits, the title track and “Sideways.”

Then Bentley had a thought. What if he returned to the bluegrass music he fell in love with when he arrived in Nashville years

ago? So he called his friends in the band Nickel Creek and started planning *Up On The Ridge*.

“I’ve always been a big fan of Nickel Creek, and I knew (mandolin player and singer) Chris Thile from bounding around in the bluegrass circles,” he says. “They were really out there with the progressive acoustic music and I really enjoyed what they did. I had moved here to do country music, and I walked into a bar and they were singing country songs using acoustic instruments. I really fell in love with that sound, and it gave me a foundation to start from.”

Thile’s new critically acclaimed band, Punch Brothers, recorded a number of tunes with Bentley, including a daring cover of the U2 hit, “Pride (In The Name Of Love).” Besides the Punch Brothers, the

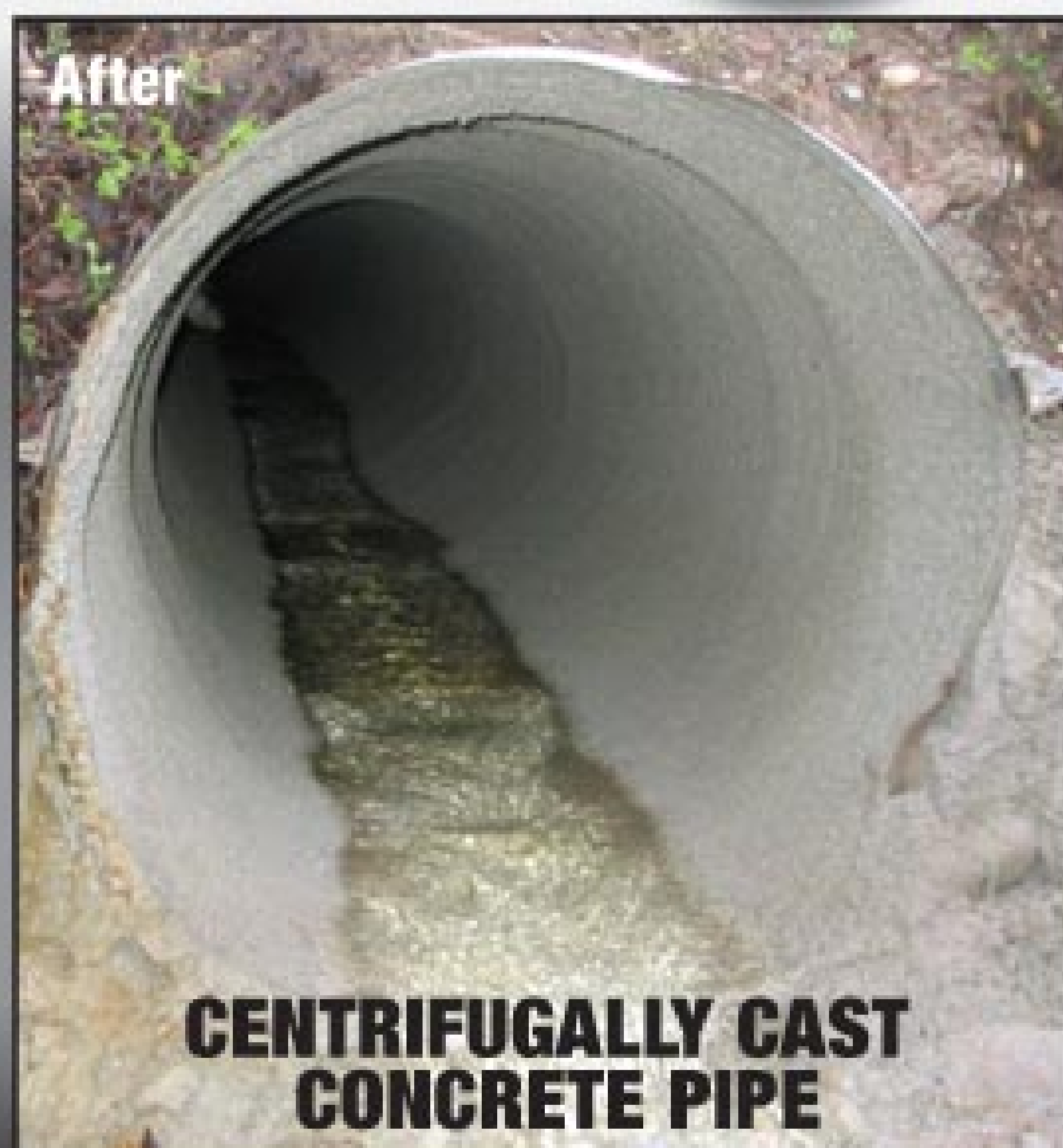
visit us at
The Pumper Show
booth #32

CENTRIPIPE™

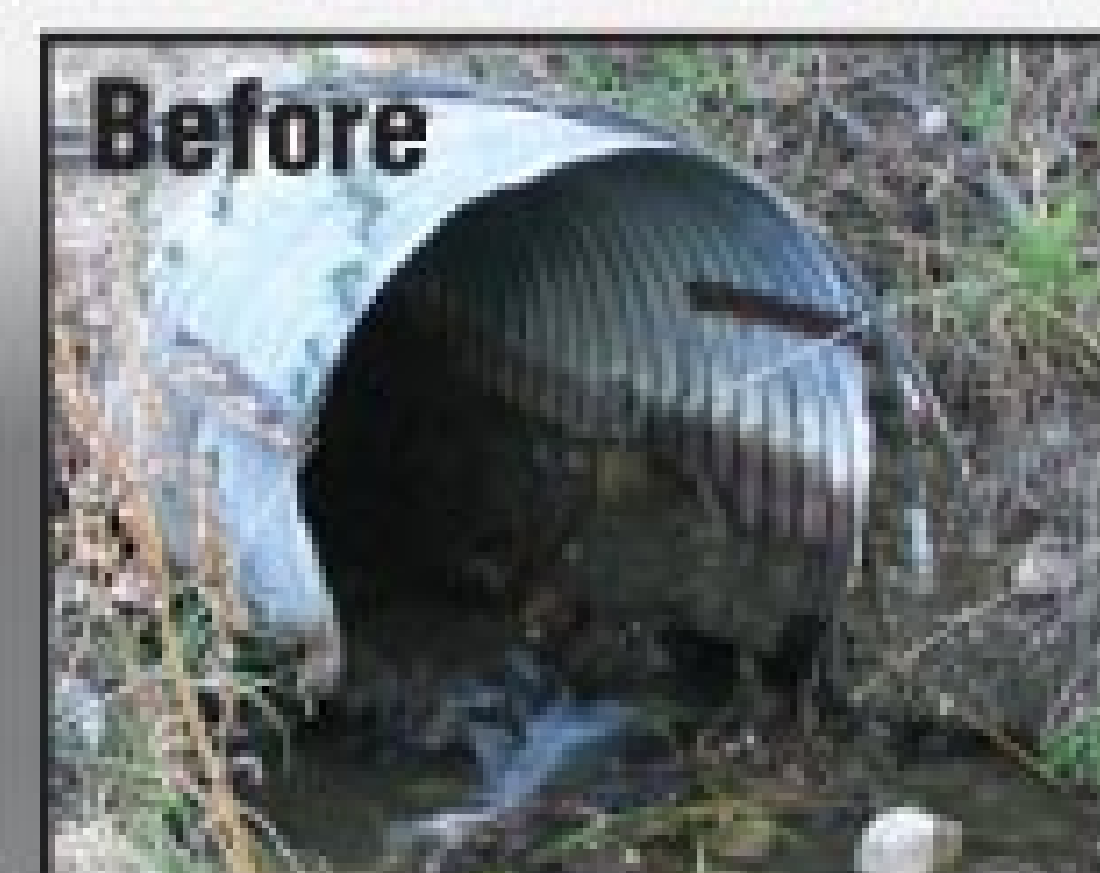
REPLACE FAILING CULVERTS BEFORE THEY COLLAPSE

- Fully Structural
- Centrifugally Spun Cast
- High Strength Concrete
- No Dig
- Cost Effective

See how it works at
www.centripipe.com



**CENTRIFUGALLY CAST
CONCRETE PIPE**



AP/M PERMAFORM
the trenchless solutions company



800-662-6465

Now looking for Applicators in U.S. and Canada

song features the high lonesome sound of bluegrass legend Del McCoury.

At first, friends didn't understand Bentley's choice to cover a rock band like U2, but "Pride" became one of several hits from the record, which also features "Bad Angel" with Lambert and Johnson, and the title track. "Pride" and "Bad Angel" were nominated for Grammys, and *Up On The Ridge* for Best Country Album Grammy.

"It's a tough song to cover, but you know if you're going to cover a song by a group like that, pick a big one," Bentley says. "It was a little daunting. They're one of my favorite bands, and you knew going into that song that it's going to go one way or the other. Either it's going to get a Grammy nomination or it's going to be a disaster."

Electric and loud

For the Expo, Bentley will perform an acoustic set from *Up On The Ridge*, but mostly he and his five bandmates will be plugged in and rowdy for Freedom Hall, where he has played numerous times. "The shows tend to be electric and

loud," he says. "We like to have a good party atmosphere going. But we'll break it down and get the upright bass and banjo out and do some things from this record."

"It's important for us to have a high-energy show and a lot of fun. If it's a good night for us, everyone else will have a good time. This is one of the first shows we'll have for the year and everybody will be extra excited to be out there playing."

It might be hard for Bentley to pry himself away from his family in Nashville to start touring again. He, wife Cassidy, and daughter Evie welcomed the birth of their second daughter, Jordan Catherine, a month ago on Christmas morning. But he's looking forward to meeting Expo fans and might bring some photos from his pumping past to share. "These are the folks I hang out with at shows," he says. "The hardworking people."

At-the-door registration for the Pumper & Cleaner Environmental Expo is \$60 for the full program, including the Saturday Evening Jam featuring Dierks Bentley. To find out more, visit www.pumpershow.com or call 866/933-2653. ♦

RAP-O

Manhole Cover Gasket

- ★ **RAP-O Will Silence** your noisy Manhole Covers
- ★ **RAP-O Will Reduce** wear in Manhole Covers & Seats
- ★ **RAP-O Will Reduce** infiltration from ground water



- **Individually Packaged**
(enough for one manhole)
- **No Waste**
- **No Cutting**



Municipal Services, Inc.
420 Boston Turnpike, Shrewsbury, MA 01545
Tel. **(508) 842-8901**
Fax **(508) 842-9648**

rapocushion@yahoo.com

"The Standard of the Industry"



ONE-STOP SHOP

Wastewater System Condition
Assessment SOLUTIONS



Booth
1068

With rugged, reliable equipment to ensure a return on your investment, CUES can help you meet any pipeline inspection, rehabilitation, or condition assessment challenge with a full line of standard and customized units, including truck, van, ATV, & trailer-mounted systems. Superior customer service and support is an integral part of our job!

At CUES, we strive to deliver legendary customer support & service that converts ordinary customers into lifetime customers. All CUES systems are proudly made in America!

Contact CUES for a discussion and demonstration!
www.cuesinc.com
800.327.7791



Lateral
Reinstatement Cutters



Laser & Sonar
Pipe Profilers



Push
Systems



Cameras &
Transporters



TV Seal / Grout Trucks
and Equipment



BUY
ONLINE!

One Stop for all your Jetting & Vacuum Parts

** Custom orders welcome **



866-448-5547
WWW.EPASALES.COM
INFO@EPASALES.COM



Find me on
facebook



Jetter & Vacuum Truck Hose



Pipe



Hydrant Hose



Tiger Tails



Hose Reel Swivel



Nozzles—100's of styles....



Clamps



Float Balls



Grit Catchers



Scrapers, Guides, Hooks, Grabbers etc...



Valves!!!!!!



Manhole Fiberglass Poles

Your Trucks.....Our Parts



TOUGH DAY AT WORK?



Super Products can make your job easier

Whatever challenges you encounter throughout the day, meeting them is easier with Super Products in your corner. In addition to offering the industry's most effective and easy-to-use equipment, the product support and training our experienced, responsive staff provides is second to none. And to help you reduce equipment downtime and keep your crews on the job, we offer an extensive inventory of parts, accessories and consumable items.



Welcome to Super Products

Living up to our name!



800.837.9711 • www.superproductscorp.com

LITTLE TOWN, BIG PERFORMANCE

The Etowah Water & Sewer Authority serves a small community, but delivers big results in water treatment and reclamation.

By Dan Heim

The Etowah Water & Sewer Authority enjoys the luxury of “first draw” on the Etowah River. And how the agency handles its responsibility for water stewardship has a lot to do with recent recognition.

In 2008, Etowah Water won the Collections System of the Year Award from the Georgia Association of Water Professionals (GAWP) for outstanding performance among systems with fewer than 10,000 customers.

In the same year, Richard Ray, operator at the authority’s Daw-

son Forest Water Reclamation Facility, received the GAWP Top Operations Award for outstanding and innovative performance in wastewater treatment. In 2010, Etowah Water won the GAWP Public Education Award.

The Etowah Water collection system is relatively new, but the staff still maintains it rigorously, with proactive inspections, upgrades, GIS-based asset management, and hydraulic modeling, all aimed at keeping the infrastructure functioning properly.

Like a family

Brooke Anderson, general manager of Etowah Water, observes, “People shouldn’t confuse size with quality. We’ve got a tight workflow and a proactive attitude. Being a small organization, we function more as a family with lots of collaboration.”

That small family nonetheless brings many years of experience to the task. “Our crews have, on average, five to six years experience,” says Kenneth Pearson, operations superintendent. “Our man-

agers have 10 to 20 years. We’ve got a low turnover rate and a very loyal and committed group of people here.”

Etowah Water serves Dawson County, Ga., on the north-central border between Georgia and Tennessee. Its headquarters is in Dawsonville, the county seat, about 40 miles north of Atlanta.

Much of the authority’s infrastructure is less than 15 years old, so there isn’t much excavation and pipe repair in the day-to-day routine. The 22 miles of pipes are dura-

PROFILE:

Etowah Water & Sewer
Authority, Dawsonville, Ga.



| | |
|--------------------|--|
| FOUNDED: | 1985 |
| SERVICE TERRITORY: | Dawson County |
| AREA SERVED: | 214 square miles |
| POPULATION: | 20,600 |
| INFRASTRUCTURE: | 22 miles of sewers, 13 lift stations, 500 manholes |
| ANNUAL BUDGET: | \$1.1 million operations, \$18 million capital |
| EMPLOYEES: | 28 |
| WEBSITE: | www.etowahwater.org |

Richard Ray, Class I water reclamation facility operator, services a nozzle located in the authority’s spray irrigation fields. (Photography by Clair Williamson)



Operations superintendent **Kenneth Pearson**, general manager **Brooke Anderson** and water reclamation facility superintendent **Dolly Pendley**.

"Knowledge is power. If you as a manager can't make the time to keep learning, that's a bad example for the staff. And in this field, there's always more to learn."

Dolly Pendley



ble PVC, except for a few miles of ductile iron. Because the system is new, Etowah Water focuses on proactive upgrades and inspections.

A recent big-ticket upgrade was a new influent lift station installed in 2009 at the Dawson Forest plant. It handles an average of 1 mgd but is sized to accommodate up to 2.5 mgd. "We're not a high growth area, especially with the current economy," says Anderson. "But we are growing, so we're looking down the road to ensure sufficient system capacity." At pres-

ent, most growth is commercial, in the form of restaurants and light industry. The single largest customer is a major outlet mall.

Typical soils are sandy loam and some clay, with a water table averaging 10 feet. I&I is minimal at present, but with average annual rainfall of 52 inches, it could become a problem in the future. That's where a rigorous inspection program pays off.

Proactive investigation

Early on, Etowah Water put in place a GPS-based GIS using ESRI software for asset management. Each of the system's 500 manholes are inspected twice yearly, and the spray fields at the treatment plant are inspected daily. "The treat-

ment plant is the core of our infrastructure, and we have staff on site 24/7 to ensure that it's functioning," says Dolly Pendley, plant superintendent.

Pearson adds, "You can never be too safe in the wastewater business. We're always looking for ways to make our inspection programs more stringent. We've recently found the time and resources to go to daily inspections of our 13 lift stations. We perform any preventive maintenance as needed."

Says Anderson, "Our GIS really helps out here. We've developed a hydraulic model of our entire system. This helps us predict weak points and proactively maintain full system integrity."



Class II water reclamation facility operator Jason Nix works on the GIS-based asset management software from ESRI.

IMPORTANT RIVER

Dawson County lies south of Chattahoochee National Forest, home of the Blue Ridge Mountains. From this watershed flows the Etowah River (pronounced ET-oh-wah), potable source for most of the county. In fact, through recent droughts in the Southeast, the river continued to fulfill 100 percent of the authority's needs.

The Etowah is not a large river. Typically 30 to 40 feet wide, it has normal flow rates of 400 to 500 cubic feet per second. But during drought, it has run closer to 100 cubic feet per second.

The river emerges from an abandoned mining tunnel in the mountains, through which it was diverted. It later absorbs the Amicalola River as a tributary, joins the Oostanaula River, and finally empties into Lake Allatoona.

From there, it becomes the Chattahoochee River, flowing ultimately to the Gulf of Mexico. But Dawson County draws first on the resource. "Having first draw brings its responsibilities," says Dolly Pendley, superintendent of the Dawson Forest Water Reclamation Facility.

"We don't just get our water from the Etowah. It's also popular for canoeing and kayaking and fishing. It's a real resource, and we owe it to everyone downstream to send along good water." Outreach and educational programs help in that effort.

"Public compliance is excellent," says Pendley. "A first warning is sufficient in the vast majority of cases where inspectors find issues. I think that, since 1985 when Etowah Water was formed, we've issued only a single fine."

The Etowah is home to 17 species of fish and 16 invertebrates listed as imperiled. That's more than for any other river its size in the nation. Stewardship is imperative, and Etowah Water recognizes that responsibility. "What it all comes down to," says Pendley, "is having pride in what you do."



Operations technician Mathew Smith checks the Verbatim alarm monitoring control system from RACO Mfg. and Engineering at one of Etowah Water's wastewater pump stations.



Jason Nix, Class II water reclamation facility operator, checks inside the pre-screening auger tank from Parkson Corporation that removes large items from the wastewater flow.

“Our crews have, on average, five to six years experience. Our managers have 10 to 20 years. We’ve got a low turnover rate, and a very loyal and committed group of people here.”

Kenneth Pearson

Another crucial part of the inspection program is the fats, oils, and grease (FOG) compliance cycle. Restaurants comprise

half the wastewater load, and Etowah Water conducts grease trap inspections quarterly. Compliance has been excellent.

“We’ve needed to manage our resources in spite of this bad economy, but we will never compromise when it comes to inspection and maintenance,” says Anderson. “Sure, we’ve had to tighten our belts a bit, but there have been no layoffs or hour cutbacks. And that keeps our staff happy. It motivates them to do their jobs well.”

Where to from here?

EWSA never rests on its lau-

“We’re now developing some of our own in-house equipment for routine maintenance and other small jobs. Nothing major, but we think we can save some money and improve response time by allocating some funds for minor equipment.”

Brooke Anderson

rels. The authority continues to seek ways to do the job better. One target for improvement is the work order system. “We need to make the whole process of phone call to work order to fix much easier and quicker,” says Pearson. “What we’ve got now is OK, but I know we can do better. We’re looking to streamline the process by linking our databases and automating many of those steps. When a phone call comes in, I don’t think shooting for a same-day fix is at all unrealistic.”

Much of the fieldwork is farmed out to Townley Construction, a local contractor available 24/7. It has been more effective to contract with Townley, with its full complement of excavators, vacuum trucks, and inspection vans, than to budget for in-house equipment.

Still, Etowah Water is looking at bringing a few more jobs inside. “We’re now developing some of our own in-house equipment for routine maintenance and other small jobs,” says Anderson. “Nothing major, but we think we can save some money and improve response time by allocating some funds for minor equipment. I’m talking about things like tools and safety equipment for service line repairs and routine manhole maintenance, and maybe a small portable camera system.”

Stressing education

Etowah Water is committed to education. Both Pendley and Pearson regularly attend conferences sponsored by GAWP, as well as academic and public forums and vendor training sessions. “Knowledge is power,” says Pendley. “If you as a manager can’t make the time to keep learning, that’s a bad example for the staff. And in this field, there’s always more to learn.”

The 2010 GAWP Public Education Award recognized Etowah Water for its Award Notebook, a compilation of many previously separate documents detailing the best practices that enabled the

authority to win numerous awards.

“Some of the notebook content wasn’t even written down,” says Anderson. “It was just floating around in the heads of our staff, and it’s important to get all that wisdom into print for future reference.” Etowah Water now makes the notebook available through GAWP for use by other Georgia municipalities, and feedback has been highly positive. The notebook covers areas including:

- Public outreach and education
- Community interaction
- Promotion of conservation
- Workshop design
- Protection of resources
- Capacity management operations

The notebook is updated and revised continuously as new or more effective tactics and practices are developed. “It’s a bit like a playbook for how to win with GAWP, and we’re happy to share it with other pros in our industry,” says Anderson.

Doris Cook, resource manager, adds, “Adopting our notebook is really great recognition. What an honor to know that other authorities are being encouraged to follow our lead. Still, we always want to do better.”

Anderson adds, “This is important work. And if we do it well, we’re pretty much invisible to our customers. They just want everything to work. Out of sight is good.” ♦

MORE INFO:

ESRI

800/447-9778
www.esri.com

Parkson Corporation

888/727-5766
www.parkson.com

RACO Mfg. and Engineering Co.

800/722-6999
www.racomfg.com



Search: Search

Nozzles

Nozzles Extensions

Root Saws

Cutters

Hose

Pumps

Laterals & Small Line

Rodding Accessories

Rod

Mechanical Cleaning

Manhole Tools

Cleaning Accessories

Repair Parts

Vacuum Tools

Vacuum Excavation Tools

Sewer Dye

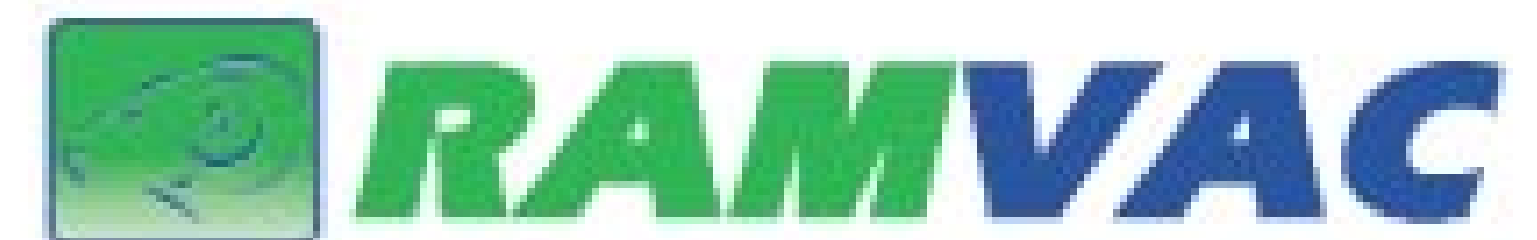
Cable Machine & Acc.

Pipe Plugs

Jetting Accessories

BestPRODUCTS.
BESTLocalSupport.
800-323-1604

FROM THE MAKERS OF:



All of your Jetter & Vacuum Parts on one site.

SewerShop.com is your one stop shop for Jetting and Vacuum Machine parts and accessories. Find what you need when you need it. SewerShop.com is the best location to find everything from Nozzles to Sewer Hose. We have an extensive variety of parts and accessories for Rodders, Jetters, Vacuum Machines, Hydro Excavators, and Cable Machines.

10% OFF*

Take 10% off your next order on sewershop.com

Qty:

Add to Cart

Details

Enter Promo Code: **Sewer10** to receive a 10% discount.
Offer expires July 1, 2011.



* Take 10% off the list price of your next order on sewershop.com.



FROM LATERALS TO MAINLINES TO STORM DRAINS...

**There's so much more you can do when
your crews are running RST systems.**

- Interchangeable cameras, tractors and crawlers to perform fast, accurate inspections in lines 4" to 200" in diameter and up to 3,000 feet in length
- Cameras feature high intensity white LED lights
- 40:1 Zoom with automatic iris and focus available
- Portable, truck and trailer mount configurations



GET MORE. DO MORE. RST.

Call today for more info about our custom-fit inspection tools for municipalities and sewer service contractors.

VEHICLES | CAMERA SYSTEMS | SOFTWARE



**Booth
4069**

800 767 1974

www.rstechserv.com

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

chempace[®]

corporation
www.chempace.com

One-Stop-Solutions For MUNICIPALITIES!

**CONTINUOUS
TREATMENT!**

**bioFORCE
LIFT STATION
BLOCK**

\$40EA
(4 Per Case)

Provides continuous bacterial treatment, controls odors & reduces grease accumulation



chempace

**SEWER FOAM
\$50.00** (Per Pail)

Dual-action, foaming cleaner with long-lasting bacterial treatment. Eliminates sewer line solids & hydrogen sulfide odors!

**ECONOMICAL
SEWER
MAINTENANCE!**



**FR 2
DEODORANT PAIL
\$55.00**

Activated charcoal "draws" in malodors and neutralizes them anywhere
REPLACES PARABLOCKS!



**See Us at the
Pumper Show or
Call for Additional
Show Specials!**

BUY DIRECT! CALL 800-423-5350



USB - SEC

TURBO CHAIN CUTTERS

NEW

**Adjusts Continuously From
8"-16" And With
Expansion Kit Up To 24"**



This innovative, highly reliable and efficient product offers superior drive and thrust. The chain retainer is driven by a high performance turbine thus achieving unsurpassed results in the removal of roots, grease and mineral deposits from 8"-16" sewer lines. When used in conjunction with the extension kit the chain cutter can expand up to 24". The Turbo S400 can easily be converted to a barrel cutter to remove protruding laterals. Offsets? No problem, the Turbo S400 has a continuously adjustable guide skid. The Turbo S400 requires no lubrication-low maintenance. This cutter can be used with recycled water.



**Booth
51**



USB-Sewer Equipment Corporation

1700 Enterprise Way • Suite 116 • Marietta, GA 30067

TOLL FREE **866-408-2814**

PHONE **770-984-8880** • FAX **770-984-2802**

USB - SEC EMAIL info@usbsec.com • WEB www.usbsec.com



Strong-Seal®

SYSTEMS

The Technology Leader in Manhole Rehabilitation



Strong-Seal® Systems

The fast, cost-effective solution for

- Stopping infiltration
- Restoring structural integrity
- Corrosion protection

Offering
Manhole
Rehabilitation
Solutions Since
1989

Complete Family of Strong-Seal® Engineered Products

- MS-2A - Portland cement based structural lining material
- MS-2C - Calcium Aluminate based structural lining material
- High Performance Mix - 100% pure fused Calcium Aluminate cement and aggregate structural lining material
- Profile Plus - Calcium Aluminate underlayment for epoxy/urethane coating
- Strong Plug
- Quick Set Repair (QSR)
- Bench Mix
- Strong-Seal® Ring Sealant
- Dependable and high output application equipment

THE
Strong Company
INC.

Toll-free: **(800) 982-8009**

Fax: (870) 850-6933

E-mail: info@strongseal.com

Web Site: **www.strongseal.com**



A pneumatic winch (background) pulls a 10-foot length of replacement pipe upstream until the spigot enters the bell of the previous pipe. (Photos courtesy of Lametti and Sons Inc.)

BETTER MOUSETRAPS

PRODUCT:

Centrifugally cast, fiber-reinforced, polymer-mortar pipe

BENEFITS:

Quick fabrication, corrosion resistance, stability

USER:

Metropolitan Council Environmental Services, St. Paul, Minn.

MANUFACTURER:

HOBAS Pipe USA

PLAY BALL!

Sliplining with fiberglass-reinforced concrete pipe rehabilitates a 1,300-foot sewer interceptor, enabling the Minnesota Twins to build their new ballpark

By *Scottie Dayton*

“The city had closed the street, but crews were demolishing the bridge’s west abutment. Our main concern was that all the activity and vibrations from vehicles would cause a collapse.”

Dan Banken

An 84-inch brick-and-mortar interceptor, constructed in 1889, lay north of the proposed Minnesota Twins ballpark, but in the path of transportation improvements.

Staff from the Metropolitan Council Environmental Services, the wastewater agency serving the Twin Cities, feared that driving the pilings to support the Northstar Commuter Rail to the stadium and a new west abutment to the Fifth Street Bridge could collapse the pipe.

The council hired Brown and Caldwell, an engineering and consulting firm in St. Paul, to inspect

the interceptor and recommend solutions. The assessment team found crown cracks, mineral deposits, two sagging areas, inward bulging near the pilings supporting the bridge, numerous leaking joints, and dislodged bricks and stonework in the east and west reaches.

Without a way to bypass the interceptor, Brown and Caldwell recommended sliplining it with centrifugally cast, fiber-reinforced, polymer-mortar pipe from HOBAS Pipe USA. The firm chose that pipe because it could be fabricated quickly and would resist corrosion, stabilize the interceptor

during construction, and extend the line’s service life by 50 years. Lametti and Sons Inc. in Hugo, Minn., won the bid.

“The council insisted that no other work begin until we rehabilitate the pipe,” says project manager Dan Banken. “If the stadium were to open on schedule, we had to complete our job before the end of 2007.” Unable to use heavy equipment, crews labored above and below ground with manual tools in a grueling environment for eight months. Despite backbreaking conditions, the firm met its deadline, and the Twins played their 2010 opening game in Target Field.

Critical areas

To avoid construction delays, Lametti's crews concentrated on the most critical area — the west abutment marking the halfway point of the 1,300-foot-long interceptor. Two crews excavated two 35- by 15-foot rectangular pits and Pit 7, a 25-foot-diameter pit, in the middle of Fifth Street under the bridge.

"The city had closed the street, but crews were demolishing the bridge's west abutment," says Banken. "Our main concern was that all the activity and vibrations from

the pit helped pull the carts back and forth to a debris tub lowered by a crane. It took four to five days to clean between pits spaced 200 to 500 feet apart.

Sliplining began in Pit 7. "We pulled in 200 feet of 78-inch HOBAS pipe so Northstar Rail could begin driving piles," says Banken. "Although Brown and Caldwell had measured the interceptor, engineers decided on 10-foot sections to avoid getting a 20-foot stick stuck." Each pipe length weighed 4,500 pounds.

"The engineers did a good job laying out the manhole in the curve so everything went together smoothly.

It was such a tight fit down there that the guys could barely maneuver."

Dan Banken

vehicles would cause a collapse." The pits, up to 50 feet deep, took two weeks to dig using mini-excavators. Workers shored the excavations with bracing and wood lagging or circular ring beams. The soil was tested for potential industrial contamination before removal and disposal.

Once the excavator operator uncovered the crown of the interceptor in Pit 7, he removed the soil down to the pipe's spring line. Meanwhile, a team entered the sewer from upstream and built a platform under the exposed crown to catch falling bricks as four men removed the crown to the spring line with hammers and chisels.

"This was hard work because if one part of the sewer began unraveling, it could start a domino effect and take down the whole structure," says Banken. "We also didn't want bricks falling into the live flow." The crew removed the material from the platform once a day. They chiseled for three days in each pit.

Even at night, the flow in the sewer was too strong to use jetting equipment. Working knee-deep in sewage, the men removed bricks, rocks, and sediment with shovels and four-wheel carts. A cable attached to a pneumatic winch in

A tight fit

Sliplining occurred at night with a three-man crew working 10-hour shifts. They sliplined 950 feet of 78-inch pipe in the west reach and 350 feet of 72-inch pipe in the east reach. After a crane lowered a length of pipe into the sewer, the winch pulled it forward until the spigot entered the bell. The men then rocked the section from side to side while pulling with hand winches to lock the joint. "The flow gave the pipes some buoyancy, but it was brutal, physical work," says Banken. "We normally slide the sections on a rail, but we couldn't do that this time."

Simultaneously, an excavation crew dug and shored 20-foot-deep circular pits at the west end of the interceptor, while a second crew removed shoring and backfilled the middle pits. The excavation crew then turned to the east reach of the pipe, which had a curve with a short radius.

"Even with a rectangular pit, we couldn't fit curved pipes into the interceptor," says Banken. "We gave HOBAS the radius of the curve, and the engineers designed 4-foot-long segments. They worked very well."

The lengths had special joints that the installers could open a lit-

tle to ease the sections around the bend without jeopardizing the pipe's watertight integrity. HOBAS numbered the lengths and provided a drawing of the assembly sequence.

Meeting up

HOBAS also constructed a 24-inch drop manhole with inlet pipes for sewage from Target Field and future development to the north. "The engineers did a good

job laying out the manhole in the curve so everything went together smoothly," says Banken. "It was such a tight fit down there that the guys could barely maneuver. There was very little room for error."

The new sewer lined up perfectly with the drop connection, enabling contractors to begin building the ballpark. The interceptor rehabilitation work was a home run, completed on schedule for \$4 million. ♦



A crane lowers a 10-foot length of 78-inch HOBAS pipe weighing 4,500 pounds into the 84-inch brick sewer.



The customized manhole T-base is made of centrifugally cast, fiber-reinforced, polymer-mortar pipe to match the material of the replacement pipe and increase hydraulic efficiency.

YOUR TOUGHEST JOBS START & END WITH ENZ!



★ A TOOL FOR EVERY PIPE CLEANING APPLICATION ★



- ★ ROTATING NOZZLES WITH SPEED CONTROL
- ★ CHAIN FLAIL HEADS FOR ROOT CUTTING
- ★ IMPACT DRILLING CUTTER HEADS FOR CUTTING CONCRETE
- ★ VIBRATING ROTOJETS

Enz golden jet is the leader in sewer and pipeline cleaning equipment, offering a versatile, durable and economical line of virtually maintenance-free products, which outperform the competition time and again.

369-8721
CALL 1-877-ENZUSA1

to learn how easily Enz Golden Jet Nozzles can fit into your existing operation.

ENZ USA INC

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

www.enz.com



STRONG, FAST AND ENGINEERED TO LAST!

CENTRAL OKLAHOMA

Winnelson
COMPANY

**YOUR SOURCE FOR
RIDGID**



microEXPLORER™ Digital
Inspection Camera



CS1000
Digital
Recording
Monitor



LT1000 Laptop
Interface System



microDrain Reel



DVD Pak

LCD Pak Monitor

6% 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**

- Call Us Evenings and Weekends -
Keith: 405-602-9155 & Jim: 405-205-3974

CALL TOLL FREE: 888-947-8761

5037 NW 10th
Oklahoma City, OK 73127

www.centralwinnelson.com

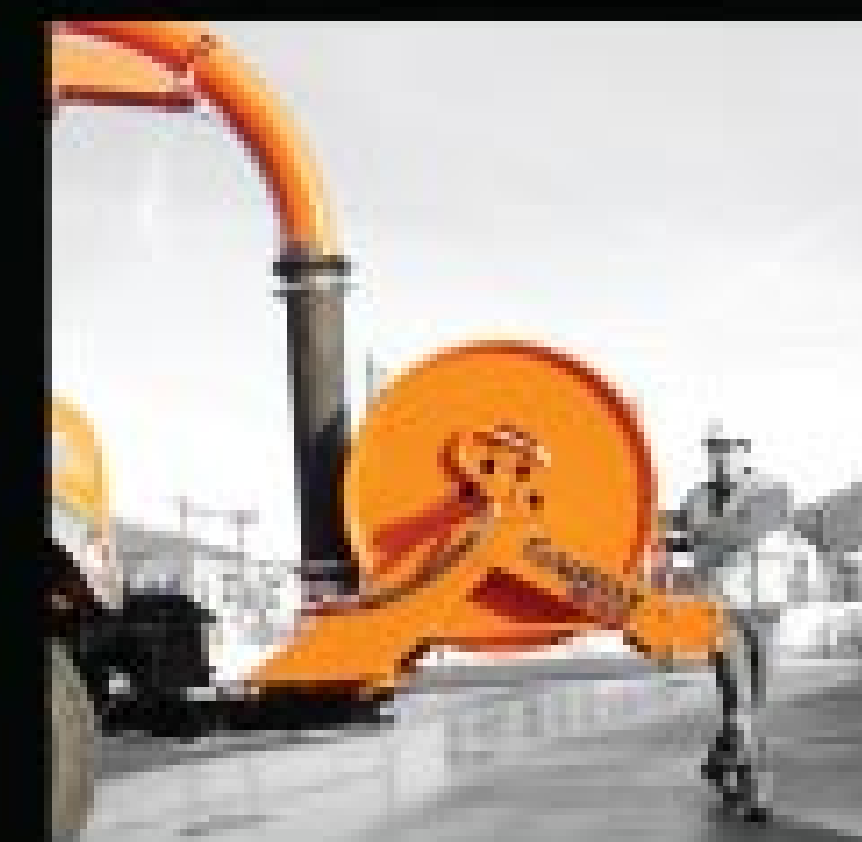
GapVax®

888-442-7829



**STAND OUT
FROM YOUR COMPETITORS**

✓ better fuel efficiency ✓ easier to operate ✓ easier to maintain
✓ safer operation ✓ superior design



At GapVax, Inc. we CUSTOM-BUILD trucks and equipment to fit YOU! Check out all of the equipment we've been manufacturing since 1989 on our website www.gapvax.com. Watch videos on our YouTube channel, photos and more on our Facebook page too! Stop by the Pumper Show and say hello, we'll be in booth 1022! Scott will show you all of our parts and accessories you want to complete any task!

PARTSEXPRESS

GET SOCIAL  



2011 PRODUCT PREVIEW

MARCH 2-5, 2011 • KENTUCKY EXPOSITION CENTER • LOUISVILLE, KY



JUST FOR YOU!

Pumper & Cleaner Environmental Expo exhibitors offer a preview of their latest technologies and services

By Ed Wodalski

Ask anyone who's been to the Pumper & Cleaner Environmental Expo and they will tell you one of the reasons they keep coming back is to see the latest products and services for their industry. With hundreds of exhibitors, thousands of products and more than 500,000 square feet of floor space to cover, it's difficult to see it all.

To make sure you don't miss out on any of the new breakthroughs at the Kentucky Exposition Center, show sponsor COLE Inc. has dedicated an area exclusively to new products. Introduced in 2010, this year's exhibit is moving to larger quarters and is expected to double in size. The display opens on Wednesday, March 2, for a pre-show sneak peek and will remain open during regular show hours.

There's also an interactive floor plan on the Expo website (www.pumpershow.com) to help you pre-plan your visit. So whether you're a first-time visitor or long-time guest, we're certain the 31st Annual Expo will have what you need to become more efficient and your business more profitable. As a start, here's a look at some of the products and services you don't want to miss.

INSPECTION SYSTEMS

1 Aries Industries Inc.

The PE3600 mini pan-and-tilt camera from Aries Industries Inc. features a rotational wiper system that enables the operator to clean the camera lens and light windows while still in the line. Infinitely Continuous Dual Axis Rotation Technology returns the camera to production after cleaning. The unit is compatible with most Aries inspection equipment, including the Seeker push camera, Pathfinder wheeled transporter and Lateral Elevation Television System (LETS). 800/234-7205; www.ariesindustries.com, Expo booth 1008.

2 CUES Inc.

The K2 Series portable CCTV pipeline inspection system from CUES Inc. can be mounted on ATVs, vans, trucks or used as a stand-alone system. The unit includes a wireless handheld control that can operate all CUES transporters and pan-and-tilt cameras. Features include built-in diagnostics, including video cable. The portable video cable reel includes automatic payout to minimize cable drag and maximize pull distance while inspecting pipes from 6 to 12 inches in diameter. The base station can be mounted on the built-in docking part of the reel, staged independently or in a weatherproof enclosure. The unit can be used with Granite XP Asset Inspection/Decision Support software for seamless data integration with asset management and GIS mapping systems. 800/327-7791; www.cuesinc.com, Expo booth 1068.

3 Envirosight LLC

The QuickView zoom inspection pole camera from Envirosight LLC is designed for rapid, complete assessment of pipeline infrastructure. The system includes a pole-mounted viewer/recorder with wireless roaming, optional auxiliary camera for manhole viewing and rugged travel case. Features include Haloptic technology that combines lamp, reflector and camera for a halo of illumination. The concentrated beam floods pipe walls, illuminating distant tar-

gets for maximum clarity. The system can store up to 16 GB of video and still images on a micro SD card, while the monitor unlocks for wireless viewing at distances up to 32 feet. 866/936-8476; www.envirosight.com, Expo booth 1130.

4 RapidView IBAK North America

The LISY 3 lateral launch inspection robot from RapidView IBAK North America is designed to travel 500 feet up a mainline sewer, inserting a pan-and-tilt camera and inspecting as much as 100 feet up the lateral line. The modular launching system can be attached to an existing mainline crawler, reducing the need for redundant equipment. 800/656-4225; www.rapidview.com, Expo booth 2130.

5 Vivax-Metrotech Corp.

The vCam inspection system from Vivax-Metrotech Corp. includes modular control module with 8-inch color LCD monitor, dual-frequency transmitting sonde, digital recording to the internal hard drive or SD card, full-function keyboard, internal microphone, AC/DC power, rechargeable batteries, USB interface, video and audio RCA jacks, distance counter and camera LED brightness control. The control module's modular design makes it field serviceable. The system can inspect pipe from 3 to 12 inches in diameter from distances of 60 to 400 feet. 800/446-3392; www.vxmt.com, Expo booth 4032.

6 General Pipe Cleaners/ Div. of General Wire Spring

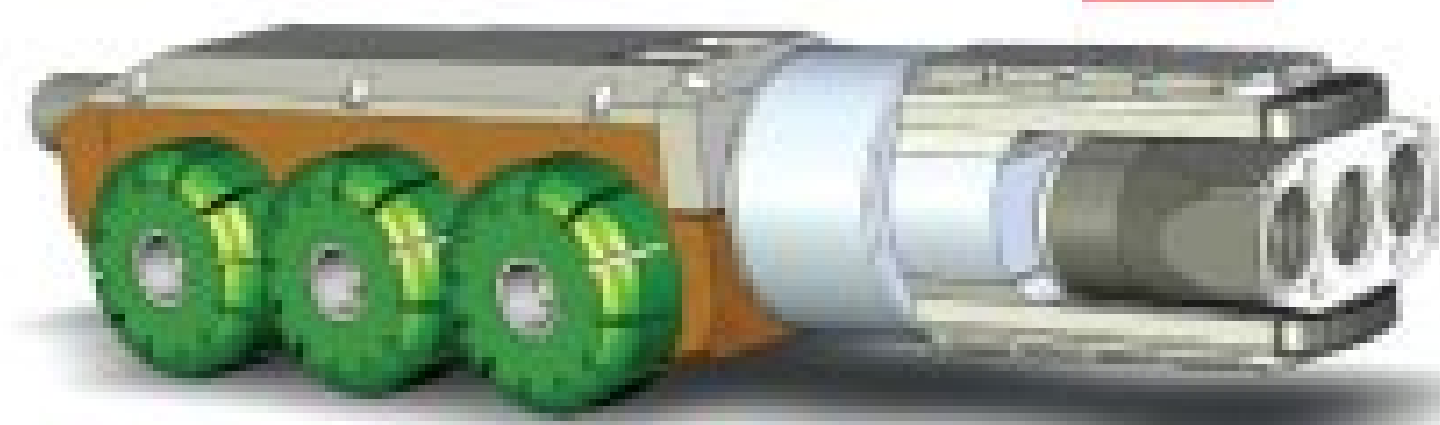
The Gen-Eye X-POD inspection system from General Pipe Cleaners combines the 24-inch compact frame of the MINI-POD with a standard size Gel-Rod and self-leveling camera. The system is designed to inspect 3- to 10-inch pipes in lines up to 100 feet long. Features include 7-inch LCD color monitor with padded case, picture inverter, steel frame that can be operated vertically or horizontally, AC and DC power cords, LED dimmer control, 3-inch trap skid, 512 Hz trans-



7



8



10



9



11



12



14



13



15

FOR DETAILED INFORMATION PLEASE VISIT:

WWW.PUMPERSHOW.COM

mitter and video-out connection for recording to an external device. 800/245-6200; www.drainbrain.com/pod, Expo booth 6077.

7 RS Technical Services Inc.

The TranSTAR II steerable tractor and TrakSTAR II zoom camera from RS Technical Services Inc. are designed to inspect 6- to 30-inch lined sanitary and storm sewer pipelines. Mounted together the units measure 20 inches long. The tractor has two 90-watt motors and can inspect pipelines at up to 65 fpm. The six-wheel-drive unit can turn on its own axis and has freewheel for quick retrieval. Multiple wheel types and optional camera lift are available. The pan-and-tilt camera features a 16-bit digital signal processor, 360-degree rotation, 32 linear light settings, onscreen camera data display and prompts for setting calibration, as well as programmable home positions for the camera head. 800/767-1974; www.rstechserv.com, Expo booth 4069.

8 Remote Vision/JLF Enterprises LLC

The Remote Vision System portable, pole-mounted, battery-operated camera inspection system from JLF Enterprises LLC is designed for inspecting manholes, vaults, tanks and other confined or hazardous areas. The system can be used in light or dark conditions, in water or out, overhead or underground. Systems include camera, cable, monitor, carrying case, 18-foot telescoping pole, on-board batteries and power cords. 612/221-6690; www.remotevisionsystem.com, Expo booth 4020.

9 Forbest Products Co.

The FB-PIC3188D portable sewer/drain basic inspection system from Forbest Products Co. includes a 7-inch LCD monitor with built-in DVR, CCD color camera and 65-foot fiberglass push cable (100- and 130-foot cables available). 650/757-4786; www.forbestusa.net, Expo booth 4150.

10 Cobra Technologies

The 8-inch wheeled transporter from Cobra Technologies is designed for the inspection of 7- to 60-inch diameter pipe. The low-profile transporter offers maximum ground clearance and easily maneuvers through 8-inch lined pipe. Features include electric-tooth clutch wired in parallel with the motor for automatic freewheel capability. When power is removed, freewheel is automatically selected for quick recovery. Using wheels and remote elevator, the transporter can inspect pipes up to 60 inches in diameter. High-traction carbide wheels are offered as an option for use in PVC and lined pipe. Measuring 20 inches in length, including the Cobra PTZ camera, other transporter features include solid bronze body for optimum weight/power configuration. A lightweight aluminum model is available. 800/443-3761; www.cobrathec.com, Expo booth 7061.

PIPE, MANHOLE REPAIR

11 Cretex Specialty Products

The Pro-Ring manhole grade adjustment system from Cretex Specialty Products is designed to replace concrete rings and brick in the construction of manhole chimneys. Made of expanded polypropylene, the ring is engineered to seal chimneys from inflow and infiltration. It is HS-25 load rated and weighs one-tenth that of concrete. The ring can be adjusted in 1/4-inch increments, eliminating the need for shims and mortar. 800/345-3764; www.cretexseals.com/products/pro-ring.php, Expo booth 9149.

12 Avanti International

AV-100 chemical grout from Avanti International is an ultra-low viscosity, chemically activated gel, available in either powder or liquid. Having the same viscosity as water, the grout quickly permeates the substrate and cures to form a matrix with the soil and porous rock, creating a long-lasting water barrier and soil stabilizer. It has been used in probe grouting, remote packer grouting, curtain

grouting and tube-a-machete grouting for pre-excavation groundwater control, hazardous waste encapsulation, the prevention of structural movement due to groundwater, as well as sealing entire sewer systems and underground transit systems. 800/877-2570; www.avantigrout.com, Expo booth 7136.

13 Parson Environmental Products Inc.

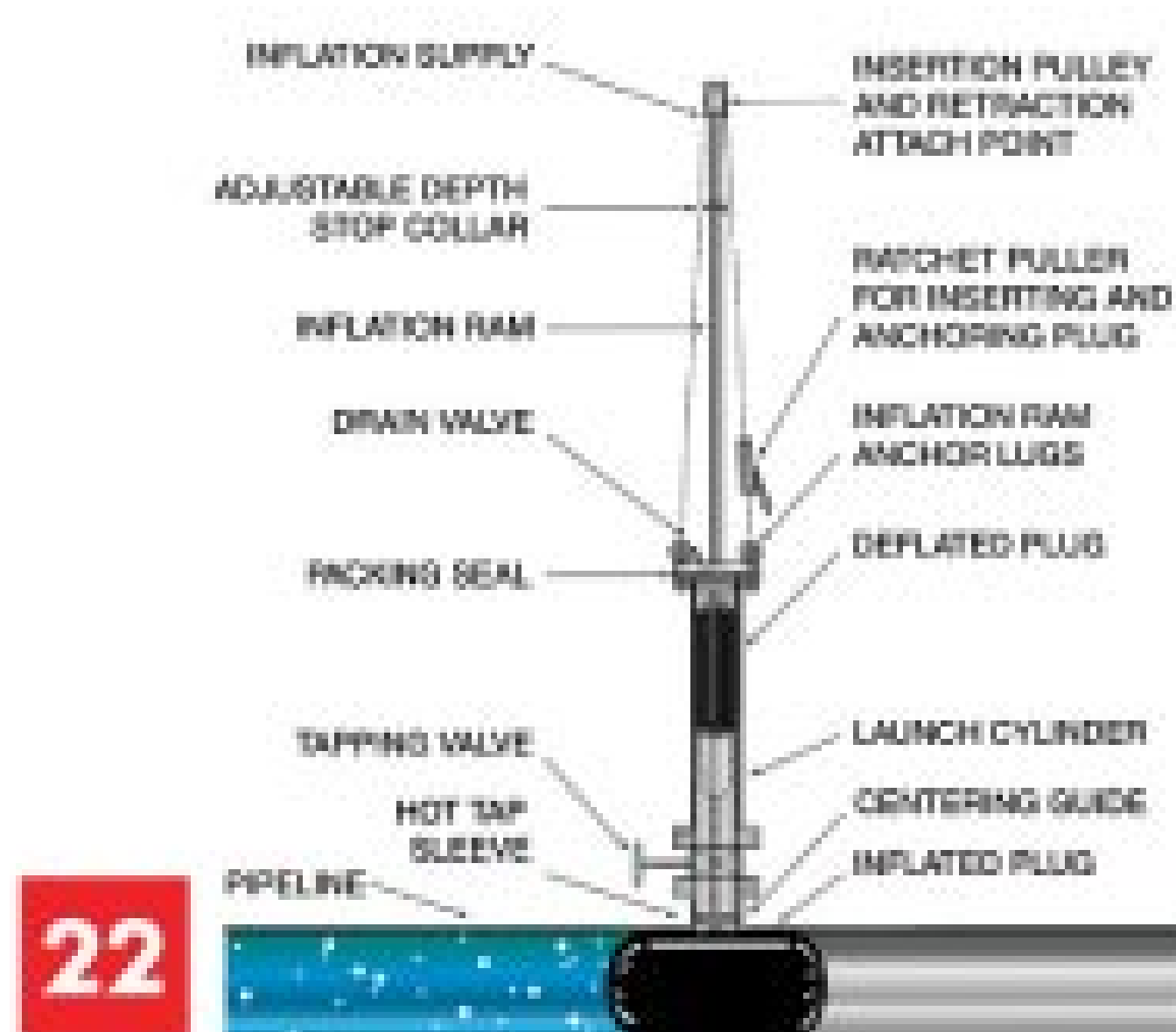
Seal-Tite two-component, moisture-insensitive, fast-reacting polyurethane grout from Parson Environmental Products Inc. is designed to stop active leaks up to 50 gpm in manholes, pump stations and other wastewater structures. The chemically resistant formula cures to a dense, rigid mass in approximately 30 seconds. The sealant is packaged in a dual cartridge with static mixer and is injected at or near the source of the leak using a manual, dual-compartment caulk gun. The product contains no solvents, CFCs or HFCs. 800/356-9023; www.parsonenvironmental.com, Expo booth 6075.

14 Infratech Infrastructure Technologies Inc.

The MONOFORM ABS interior manhole forming system from Infratech Infrastructure Technologies Inc. is designed for the pouring of new concrete walls and bases for complete rehabilitation of existing manhole structures. Engineered to exceed H-20 traffic loading requirements, restoration is completed without traffic detours, external sewage bypassing and disruption to adjacent utilities. Custom forms are available for larger structures, including lift station rehab or retrofit. 800/533-4244; www.infratechonline.com, Expo booth 9059.

15 Sealing Systems Inc.

Flex-Seal Utility Sealant from Sealing Systems Inc. is a plural-component aromatic urethane, featuring 800 percent elongation and tensile strength of 3,200 psi. The sealant is designed to prevent inflow/infiltration and provide corrosion protection at the grade adjustment ring or joint section, as well as provide protection from hydrogen sulfide and salt. The internal seal is manually applied using



2011 PRODUCT PREVIEW

MARCH 2-5, 2011 • KENTUCKY EXPOSITION CENTER • LOUISVILLE, KY



a paintbrush. The kit is made to cover 12 vertical inches on a 27-inch diameter manhole. The sealant meets ASTM vacuum test standards. 800/478-2054; www.ssissealingsystems.com, Expo booth 165.

16 Vaporooter

The Jet Set Commander applicator from Vaporooter is designed for the application of Sanafoam Vaporooter II, a chemical root-control product formulated to eliminate roots and resulting blockages in sewer systems. The applicator can be installed on most hydrojetters or combination sewer cleaning trucks with front-, mid- or rear-mounted reel. It can be easily removed when not in use and can be installed on a standard receiver hitch or chassis in place of a toolbox. The applicator can be factory installed or added as an after-market option. 816/781-4250; www.vaporooter.com, Expo booth 4126.

17 TRIC Tools Inc.

The X30 lateral bursting unit from TRIC Tools Inc. features 30 tons of pulling force in an 80-pound unit. The system offers an extra margin of strength for bursting pipes 6 inches in diameter and less. The unit is available with an 80-pound, heavy-duty pulley base or 50-pound standard resistance plate. 888/883-8742; www.trictools.com, Expo booth 103.

18 PipeLogix Inc.

The re-branded PIPELOGIX Version 6.4 (formerly flexidata) survey software from PipeLogix Inc. features formats from NASSCO for LACP, PACP and the revamped MACP with inspection level 1 and 2. The 3D Measurement Tool in the 360 Manhole Module enables users to select, outline and measure pipe connecting to the manhole as well as cracks or other conditions. The colored graphic and measurements can be turned on or off in the 360 Viewer, allowing a picture of the displayed graphic with measurement to be saved as a report that can be shared. 866/299-3150; www.pipelogix.com, Expo booth 158.

19 Mainline Backflow Products Inc.

The Adapt-a-Valve inspection chamber from Mainline Backflow Products Inc. is typically installed at the municipal property line. The chamber features an optional "open-gate" or "closed-gate" design and has a "test gate" that can be used for pressure testing during installation or to isolate property for pressure cleaning or non-payment of services. The chamber comes with 4-inch gasketed ends with 8-inch riser and constructed to SDR26, heavy-wall PVC sewer specifications. The optional lightweight gates offer little to no flow restrictions, but can withstand 50 psi backpressure. Options include a cap and collar for the inspection chamber. Caps come in red, green or blue to help differentiate service lines. The caps also have a locking nut and pressure-reducing screw for safer maintenance. 780/413-7204; www.backwatervalue.com, Expo booth 7070.

PLUGS

20 Logiball Inc.

Securimax multize, reinforced plugs for line acceptance testing, flow-through plugs for bypass pumping or flow diversion and flexible push plugs for laterals from Logiball Inc. are made with multiple piles of reinforcement and factory tested at pressures equivalent to twice the maximum recommended inflation. Plugs come with anchoring devices, and if damaged, can be factory re-sleeved. 800/246-5988; www.logiball.com, Expo booth 7114.

21 Vanderlans and Sons Inc.

Lansas Multisize Interchange plugs from Vanderlans and Sons Inc. are designed to keep work flowing and manholes dry during rehabilitation. The bypasses can be quickly changed to connect to a rigid pipe using the supplied flanged or NPT ends or optional Super-Flow ends for flexible hose. Plugs are available from 4 to 24 inches in diameter. Custom and single-size plugs are available. 800/452-4902; www.lansas.com, Expo booth 37.

22 Petersen Products Co.

The Inflatable Line Stop Plug from Petersen Products Co. is designed to plug a pressurized pipeline. The plug is installed by attaching a tapping sleeve, full-port valve and making a tap. The Line Stop Plug Launch Cylinder is attached to the tapping valve and opened to equalize pressure. The plug is then pushed into place and inflated. 262/692-2416; www.pipeplug.com, Expo booth 4136.

23 Savatech Corp.

High-performance pneumatic blocking and bypass pipe plugs from Savatech Corp. are made from rubber reinforced with Kevlar cord for extra strength. The plugs offer multi-functional usage and greater inflation pressure for higher backpressure conditions. Designed for flow stopping, bypassing and pipe testing in pipes from 4 through 96 inches in diameter, bypass flow plugs with multiple options are available. 386/760-0706; www.savatech.com, Expo booth 9037.

LEAK DETECTION, SAFETY

24 Hurco Technologies Inc.

The PowerSmoker 2 leak detection system from Hurco Technologies Inc. utilizes indoor-safe and laboratory-tested LiquiSmoke to identify leaks in new plumbing construction prior to inspection and to locate sewer odors. The smoker leaves no residue or odor. All smoke is exhausted through the plumbing out the vent stack. 800/888-1436; www.gethurco.com, Expo booth 41.

25 Superior Signal Company LLC

The SE electric smoker from Superior Signal Company LLC is designed for hard-to-find leaks and odors. The unit weighs 8 pounds and is available in 110-volt AC or 12-volt DC. The smoker connects to any cleanout or vent and can be set up in minutes. Smoke candles for 30 seconds to three minutes for residential and



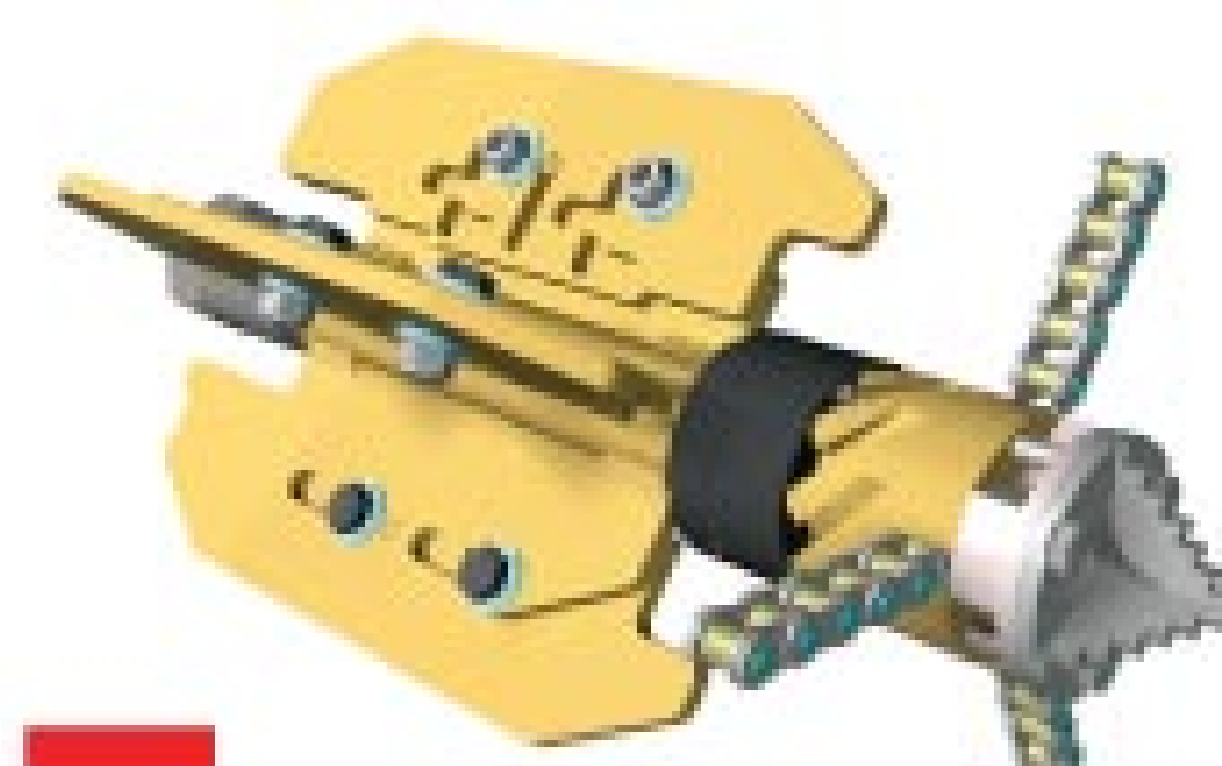
25



26



31



32



27



29



33



34



28



30

FOR DETAILED INFORMATION PLEASE VISIT:

WWW.PUMPERSHOW.COM

commercial testing units are available. 800/945-8378; www.superiorsignal.com, Expo booth 6141.

26 BW Technologies by Honeywell

The GasAlert Max XT II portable four-gas detector from BW Technologies by Honeywell combines simple operation with an integrated, high-flow SmartSample sampling pump for reliable performance and protection in confined spaces and other hazardous areas. The unit features one-button operation, a go/no-go interface and automated compliance for fewer operational errors and reduced training time. The UL and CSA approved unit alerts users to carbon monoxide, hydrogen sulfide, oxygen levels, methane and other flammable gases. Compatible with the MicroDock II docking station, an automated test and calibration device are available as an accessory, it can be connected to a PC for greater control and as a safeguard for compliance concerns. Tamper-proof, user-adjustable options enable the gas detector to be customized for any application. 888/749-8878; www.gasmonitors.com, Expo booth 6147.

JETTERS

27 Cam Spray

The STB2712H waterjetter from Cam Spray produces 12 gpm at 2,700 psi. Powered by a 27 hp Honda engine, features include powder-coated, full-metal deck trailer with road-ready lights and brakes, 300-gallon water tank with auto shutoff, 400 feet of 1/2-inch hose on a DC-powered reel with remote foot switch, 150 feet of garden hose and 2-inch hydrant fill. Available models include 7 gpm at 4,000 psi, 8 gpm at 3,700 psi and 12 gpm at 2,700 psi. 800/648-5011; www.camspray.com, Expo booth 3069.

28 Spartan Tool LLC

The Ultimate Warrior trailer jetter from Spartan Tool LLC is designed to deliver 4,000 psi and 18 gpm of water for cleaning pipes

up to 24 inches in diameter. Compliant with National Association of Trailer Manufacturers standards, the fully enclosed jetter is powered by an 84 hp Kubota engine and features a Giant brand pump and 600-gallon water tank. 888/876-2371; www.spartantool.com, Expo booth 1170.

29 John Bean Sprayers/Durand-Wayland Inc.

The model 7030D trailer jetter from John Bean Sprayers/Durand-Wayland Inc. delivers 40 gpm at 3,000 psi. Powered by a 99 hp Kubota turbo-diesel engine, the jetter features a Bean L1114SC pump. Designed for larger stormwater and sewer pipes, options include a dual hose reel for smaller applications. 800/241-2308; www.johnbeansprayers.com, Expo booth 2017.

REELS, HOSES

30 Piranha Hose Products Inc.

Slither jetting hoses from Piranha Hose Products Inc. feature an ultraslick cover that enables the hose to snake around and through difficult bends in residential and industrial sewer applications. The hoses are available in Series SLSPOR orange, 2,500 psi, I.D. sizes 5/8 to 1 1/2 inches; Series SLLBU blue, 3,000 psi, I.D. size 1/2 inch, and Series SLHPBU blue, 3,000 psi, I.D. sizes 3/4 to 1 inch. Also available are Series SLGR green, 4,000 psi, I.D. sizes 1/8 to 1/2 inch; black 4,000 psi Series SLSHBK in 1/2- and 5/8-inch I.D. sizes; Series SLLHBK in 1/2-inch I.D. and Series SLRD red, 5,000 psi in 1/4-, 3/8- and 1/2-inch I.D. Hoses 1/8, 3/16, 1/4, 5/16 and 3/8 inches have a temperature rating of 160 degrees F. Hoses 1/2, 5/8, 3/4 and 1 inches have a rating of 150 degrees F. 800/250-5132; www.piranhahose.com, Expo booth 6123.

31 Reelcraft Industries Inc.

The DP7000 Series dual-pedal reel from Reelcraft Industries Inc. features a two-piece, non-welded, interlocking base. Other

features include steel-formed and stamped-base design for strong, compact assembly and vibration resistance. Reels are available with up to 50 feet of 1/2-inch I.D. hose. 800/444-3134; www.reelcraft.com, Expo booth 7128.

NOZZLES, PUMPS

32 ENZ USA Inc.

The 10.125TR/10.125TR-US turbine-driven roter cutter nozzle from ENZ USA Inc. can be used with both clean and recycled water in 5- through 12-inch pipes. The nozzle also can remove grease, solid and semi-solid sediments, mineral deposits, concrete, grout wash and other debris. A variety of attachments are available. The nozzle requires a 3/4- or 1-inch hose connection and is available on a larger skid body with 6- to 10-inch extension skids. 630/692-7880; www.enzusainc.com, Expo booth 67.

33 NozzTeq Inc.

The BL SWIPER sewer nozzle from NozzTeq Inc. features a green poly exterior shell and stainless steel internal tubes that loop the water along air channels, increasing airflow and jet stream length inside the pipe. The nozzle is designed for 12- to 36-inch pipes. A smaller version for 8- to 18-inch pipes is available. 866/620-5915; www.nozzteq.com, Expo booth 8181.

34 USB-Sewer Equipment Corp.

High-quality sewer cleaning nozzles with Optimized 3D Hydro Mechanics from USB-Sewer Equipment Corp. are precision engineered according to DIN EN 9001:2000 standards. Water from the pressurized hose is diverted by a cone piece and guided into the hydro channels, preventing turbulence in the nozzle chamber. The nozzles are manufactured in one piece under Tier 4 standards. 770/984-8880; www.usbsec.com, Expo booth 51.



2011 PRODUCT PREVIEW

MARCH 2-5, 2011 • KENTUCKY EXPOSITION CENTER • LOUISVILLE, KY



35 StoneAge Inc.

The Banshee cleaning tool from StoneAge Inc. is designed to clean tubes from 1/2-inch to 2-inches I.D. The straight-flow-designed tube cleaner delivers 2,000 to 40,000 psi. Maintenance-free, the nozzle uses high-pressure water as a liquid bearing, eliminating the need for seals, oils or ball bearings. Replaceable head options include unplugging, polisher, universal and custom. 970/259-2869; www.stoneagetools.com, Expo booth 4133.

36 Cat Pumps

High-performance SCP5140 triplex plunger pumps from Cat Pumps offer enhanced cleaning on the SCP frame. Rated at 5.5 gpm, 3,500 psi and 1,500 rpm, the compact pump is designed for the small space requirements of hydraulic-drive, truck-mount cleaning systems, gas gearbox direct-mount systems, conventional belt-drive systems or portable jetting units. Features include forged brass manifold and V-Packing high-pressure seal. Models include SCP5140 pump, SCP5140G1 pump with gearbox, SHYD5140 pump with hydraulic motor, base and accessories, and SCP5140J pump with Mag-Jet jetting valve. 763/780-5440; www.catpumps.com, Expo booth 4068.

37 Hydra-Tech Pumps

The expanded line of 3-, 4- and 6-inch hydraulically driven submersible shredder pumps from Hydra-Tech Pumps features variable-speed pumping and violet shredding action. Other features include carbide-tipped impellers and hardened-steel serrated suction plates designed to shred rags, sticks, straw, plastic bottles and other waste. The mechanical seal is isolated from the wetted area and oil lubricated for extended life, even in run-dry events. The cast-iron bodied pumps can run off any open center hydraulic power source. The 6-inch model delivers up to 1,000 gpm with heads to 170 feet. The 3-inch model accepts hydraulic flows as low as 8 gpm with pressure to 2,500 psi. The low-profile 4- and 3-inch pumps both fit in a 21-inch manhole. 570/645-3779; www.hydra-tech.com, Expo booth 9303.

LINING SYSTEMS

38 Flow-Liner Systems Ltd.

The Neofit potable pipe lining system from Flow-Liner Systems Ltd. is designed for lead, copper, polyethylene, PVC or steel water service lines from 1/2- to 1 1/2-inch I.D. The flexible PET liner is pulled through the pipe and expanded, forming a thin-walled protective barrier. The lining system is NSF/ANSI 61-G certified. 800/348-0020; www.flow-liner.com, Expo booth 7141.

39 Formadrain Inc.

The LMC (lateral-main-connection) lining repair system from Formadrain Inc. is made for repairing Tee and Wye sewer connections from 4-to-6 inches up to 24-to-8 inches. The inflatable rubber T-shaped tube requires three access points for repair: two manholes and one cleanout, inside or outside of the building. The steam-cured NSF-certified lining system includes fiberglass, polyethylene sheeting and Styrene-free epoxy. 888/337-6764; www.formadrain.com, Expo booths 4200, 4201.

40 LMK Technologies Inc.

The Schwalm Pipe Rehabilitation Robot, manufactured by Schwalm Robotics and distributed by LMK Technologies Inc., is a self-propelled, remote-operated cutting tool engineered to remove protruding tabs and trim off-set joints prior to cured-in-place pipe lining mainline pipe. Designed to quickly re-instate services from accessing one manhole, the robot features a pan-and-tilt camera with lens-washing device, ensuring the operator has a clear view of the work being performed. The robot also is capable of cutting straight forward, crawling through collapsed CIPP linings, inserting mechanical plugs into service laterals and installing LMK's Main to Lateral Shorty and Stubby CIPP connection sealing systems. 815/433-1275; www.performanceliner.com, Expo booth 8203.

41 AP/M Permaform Inc.

The PL-8000 centrifugally cast concrete pipe culvert lining from AP/M Permaform Inc. is designed for H-20 wheel loading. The liner is spun-cast the length of the culvert using the concave-convex procedure (CCCP). It contains rust inhibitors to prevent corrosion of the old metal culvert and is highly resistant to abrasion. 800/662-6465; www.centripipe.com, Expo booth 32.

42 Perma-Liner Industries Inc.

The Perma-Lateral inversion lining system from Perma-Liner Industries Inc. is designed to negotiate 22-, 45- and 90-degree bends in 4- through 6-inch pipe. Made from formulated epoxy resins, the lining is NSF Standard 14 approved, can eliminate root intrusion, bridge missing pipe and increase flow efficiency. Offering a 50-year (tested) lifespan, the non-woven/no-stretch liner can seal open joints, stop infiltration/exfiltration and is IAPMO and NSG certified and ICC (International Code Council) approved. 866/336-2568; www.perma-liner.com, Expo booth 1186.

TRUCKS, ACCESSORIES

43 GapVax Inc.

The HV-56 high dump hydroexcavator option from GapVax Inc. enables wet or dry debris to be off-loaded on the jobsite into a 60-inch-tall open roll-off container for disposal. 814/535-6766; www.gapvax.com, Expo booth 1022.

44 Hi-Vac Corp.

The B10 Aquatech combination jet/vac truck from Hi-Vac Corp. features 800 feet of 1-inch hose on a rear-mounted reel for safety and ease of operation and triplex water pump, designed for uninterrupted water flow at rates from 65 to 125 gpm. Other features include a 360-degree top-loading rotating boom and Roots-type blower for airflow and vacuum. The single-engine design offers



44



47



50



45



48



46



49



51

FOR DETAILED INFORMATION PLEASE VISIT:

WWW.PUMPERSHOW.COM

ease of maintenance and lower fuel consumption. The self-cleaning tanks are made of a non-corrosive material and engineered to rise with the debris body. The hydraulic rear door fully opens for discharge. Options include extended boom, higher flow jetting pumps, remote control, jet cam, high-lift discharge and dual hose reels. 800/752-2400; www.hi-vac.com, Expo booth 4115.

45 Gradall Industries Inc.

The Vacall AJV (AllJetVac) combination vacuum /jetting sewer cleaner system from Gradall Industries Inc. is easily customized and features 16- to 27-inch Hg vacuum pumps with a range of water pump sizes and options. The three-stage filtration system is designed for increased machine life, reduced maintenance and minimal noise. Front- and rear-mounted hose reels have a high-torque, direct-drive planetary gearbox and hydraulic cushion valve. The unit has a telescoping boom: 26 feet from the centerline of the chassis with 8-foot, 6-inch boom extension option. Other options include waterproof control panel with labeled wiring harness, tailgate and debris body safety props operated from ground level. 800/382-8302; www.vacallindustries.com, Expo booth 5171.

46 Vac-Con Inc.

The X-Cavator combination machine from Vac-Con Inc. is designed to locate and safely excavate around utilities. Other applications include potholing/daylighting, trenching, highway repairs and water and sewer repair. Available in single- and tandem-axle models, the unit features a three-stage centrifugal compressor, cyclone separator, hydrostatic drive, front-loading telescopic boom with pendant control, 270-degree rotating boom, 10 gpm/3,000 psi hydraulically driven water system, passenger-side controls, 100-foot retractable reel, full-opening rear door with hydraulic door locks and hydraulic door grabber. 904/284-4200; www.vac-con.com, Expo booth 1202.

47 Wastequip

The Mastervac combination vacuum truck from Cusco, a Wastequip company, is capable of handling both wet and dry materials, including heavy sludge, fly ash, as well as hazardous and non-hazardous applications. Equipped with cyclone/baghouse filtration technologies and airflow ratings of 2,500 cfm to 5,500 cfm, along with vacuum levels of 28 inches Hg, options include high-pressure wash system, stainless steel tank, hydraulic suction boom, HEPA filtration systems, heated valves and pressure unloading systems, storage cabinets/toolboxes, DOT 407/412 and TC 407/412 configuration. 800/490-3541; www.wastequip-cusco.com, Expo booth 2055.

48 Williams Innovations LLC

The TeleSwivel 400 frame-mounted trailer hitch from Williams Innovations LLC features a 2.5-inch receiver box (2 inches with adapter sleeve). Made for medium- and heavy-duty truck frames with a 15,000 to 40,000 GTW tow capacity, the hitch eliminates the need for precise truck and trailer alignment by extending out and swiveling side-to-side, increasing the target zone by 25 times. The hitch also eliminates the need to "muscle" trailers into place and enables most drivers to attach a trailer in a single pass. 888/835-7948; www.teleswivel.com, Expo booth 7198.

SOLIDS MANAGEMENT

49 Septic Drainer/Municipal Sales Inc.

The Mini-Foamer applicator from Septic Drainer/Municipal Sales is designed to use Bio-Septic Boost II, a bio-nutrient stimulant, to reduce grease, odors and hydrogen sulfide in grease traps, pump stations and collection lines. The foamer measures 17 inches wide, 42 inches high, 19 inches deep and weighs 75 pounds. It is available in 4- or 6-inch hose configurations. The unit includes foamer, hose/plug, uptake hose with inline strainer, 5-gallon solution container and steel-frame cart with 8-inch wheels. 518/747-2044; www.municipalsales.net, Expo booth 4052.

PROTECTION MATS, TRENCHERS

50 AlturamATS

Ground protection mats from AlturamATS are designed to protect landscapes and keep heavy equipment from becoming stuck in mud, sand or snow. The half-inch-thick mats are available in black or white with cleats on both sides, one side or smooth on both sides. Sizes range from 2 feet by 4 feet up to 4 feet by 8 feet. 888/544-6287; www.alturamats.com, Expo booth 7102.

51 Ditch Witch

The RT23, 22.3 hp hydrostatic trencher from Ditch Witch is designed for electrical, plumbing and other aboveground construction professionals. The unit can dig trenches 48 inches deep and 8 inches wide. In difficult digging conditions, chain speed can be adjusted by substituting a 10-tooth sprocket for the standard 12-tooth chain. Features include hydraulic skid-steer-style steering and high-flotation tires. Heavy-duty tracks that oscillate 12 degrees can be added for stability and traction. 800/654-6481; www.ditchwitch.com, Expo booth 9048.



POWER YOUR Future

Same Truck, More Lift!

Drop in a TS Series blower and achieve 18" Vacuum without a CUMBERSOME HEAT SHROUD.

hibon®

Better by design.

Need to replace your Roots 8.24 or 6.24 Blower?

The TS Series blowers from Hibon "draw LESS POWER, run QUIETER and COOLER, and evacuate the tank much FASTER than comparable Roots blowers."

Contamination issues during washdown?

Hibon uses CLOSED END PLATES which prevent contamination during washdown while improving blower performance and reducing overall noise!



Booth
26



IR Ingersoll Rand
Industrial Technologies

Low Pressure Business Unit / Air Solutions
Ingersoll Rand Industrial Technologies
12055, Côte de Liesse
Dorval, Quebec
Canada, H9P 1B4

Tel.: +1 514 631-3501
Fax.: +1 514 631-3502
www.ingersollrand.com
www.hibon.com



T&T Tools, Inc.

800.521.6893



Hooks...

- ★ Heat treat for long life
- ★ Manhole Cover Hooks
- ★ Septic Tank Lid Hooks
- ★ Many styles available
- ★ "T" handles for two hands or compact "D" handles



Booth
3101

Probes...

- ★ Insulated, Standard and Specialty
- ★ Metal shafts: 3/8 round or hex
- ★ Replaceable hardened tips
- ★ Optional "slide" available to make your probe a mini-slide hammer

Call for a FREE Catalog

www.MightyProbe.com

Email: sales@tandttools.com

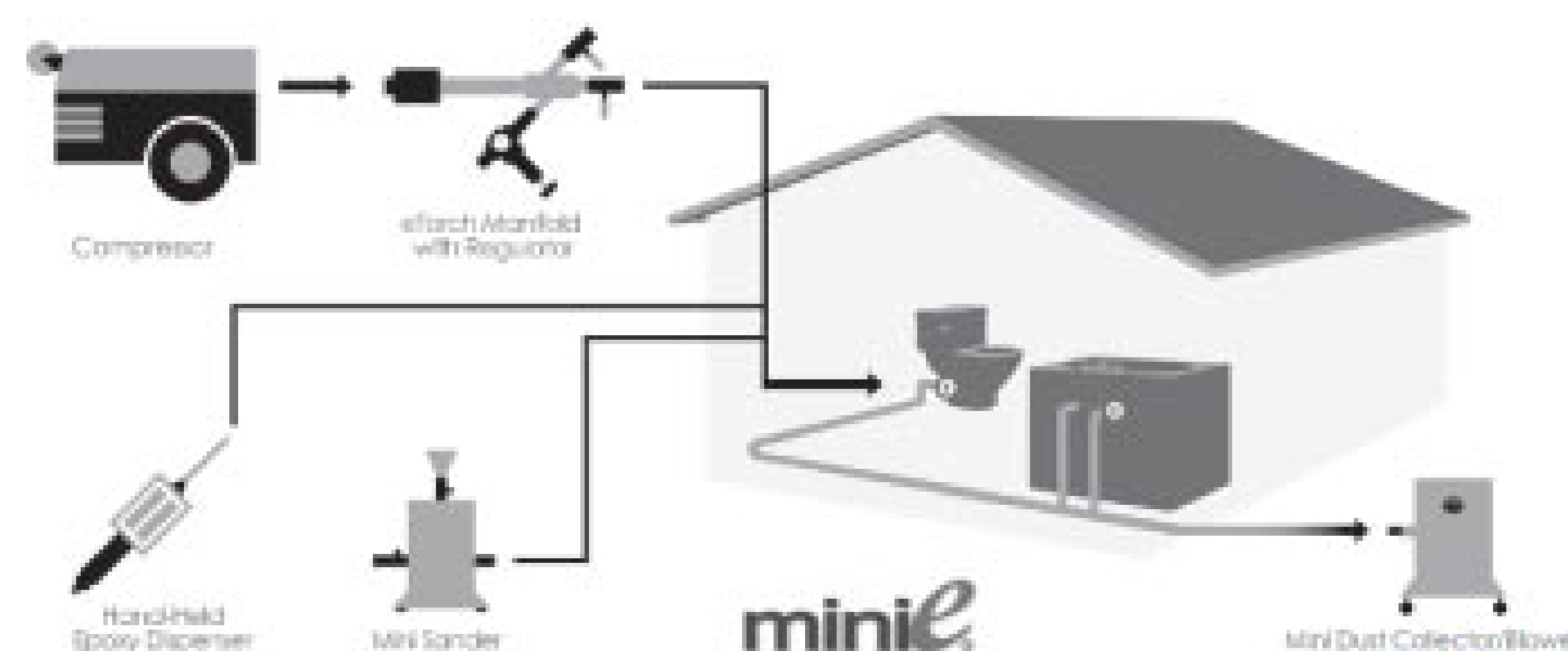
Fax: 800.521.3260

Some of the nations largest plumbing companies have chosen ePIPE

ePIPE®

AN ACE DURAFLU PRODUCT

Make ePIPE Your Choice in 2011!



Join us in Louisville and see a live demo of our ePIPE **PATENTED** process!



Booth
7216

www.epipeinfo.com

800.359.6369 info@aceduraflo.com

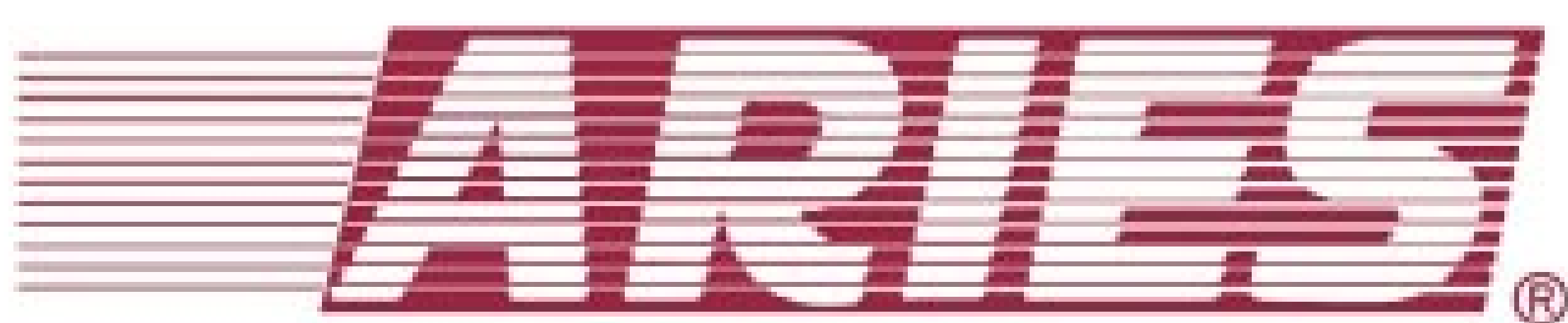
SORRY RAG, YOU'RE OUT OF A JOB.



SEWER INSPECTION'S BIGGEST PROBLEMS. WIPED CLEAN.

The latest innovation from Aries is the PE 3600 Mini Pan & Tilt Camera. This exclusive inspection tool features one-of-a-kind replaceable **wipers which clean your lens and lights while still in the line**. Utilizing Aries unique 360° continuous rotation technology, you will return to productive inspections seconds after the cleaning.

Capturing clear images has never been faster or easier, and the PE 3600 is compatible with most Aries inspection equipment. For more information contact your Aries dealer or sales representative today.



Proudly Manufactured in the U.S.A. | ARIESINDUSTRIES.com | (800) 234-7205

PATENT PENDING

Keep Chesterton Beautiful

Chesterton Stormwater Utility staff worked with Chesterton High School students on graphic design projects. From left, Jennifer Gadzala, MS4 operator; Jessica Lohse, high school sophomore; Jannon Jeffries, high school senior, and Kirsten Renehan, high school art teacher. (Photography by Daniel Bruhn)

Lake Shore
TOYOTA everyday



FOCUS: STORM

ALWAYS AN EDUCATOR

Whether working with developers or mentoring middle school students, Chesterton's Jennifer Gadzala makes an impact on stormwater quality

By Scottie Dayton

Chesterton Middle School science teacher Samantha Hayes, left, and Jennifer Gadzala prepare a water sample for testing along Coffee Creek.

Elevating a stormwater quality management plan from the industry template to a dynamic program was a challenge relished by Jennifer Gadzala, MS4 operator in Chesterton, Ind.

To help developers and contractors comply with town ordinances, Gadzala works with them throughout the construction process, does post-construction follow-ups, and even walks sites to identify potential improvements. Along the way, she revised construction requirements to reduce paperwork and simplify the process.

Her efforts have helped lead to installation and proper maintenance of numerous best management practices that help reduce runoff pollution to the area's waterways.

In her free time, Gadzala mentors girls interested in science, technology, engineering and math. Helping them prepare for their futures gave her the idea of combining education and outreach programs with student career goals. "I wanted them to learn more than just the water-quality message," she says. "I wanted to give them a taste of working in the real world on actual campaigns."

High school teachers and the community rallied to the cause. From 2008 to 2010, students created the town's watershed signs, a Keep Chesterton Beautiful logo, and a video on how litter contributes to water pollution. In 2009, the Indiana Department of Environmental Management recognized Chesterton's MS4 program for excellence.

Under construction

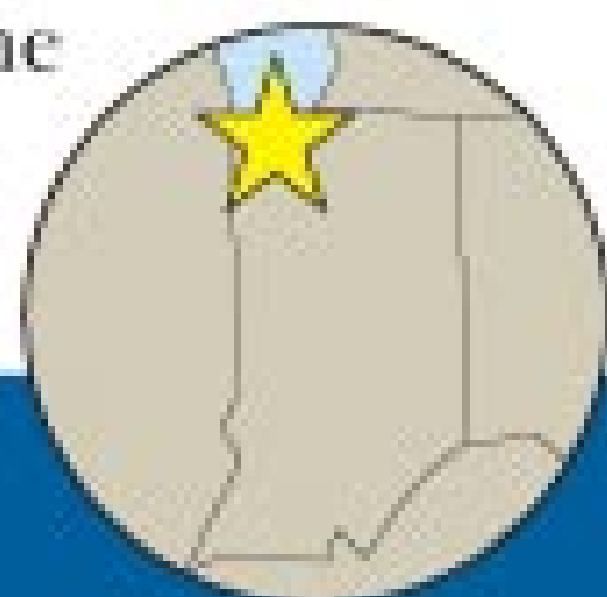
Chesterton, a town of 12,000, lies 50 miles southeast of Chicago, near Indiana Dunes State Park. Its 9.4 square miles touch seven sub-watersheds within the Lake Michigan watershed.

A cumulative sewer fund addresses individual flood-control cases, while a stormwater fee gen-

erates \$430,000 annually for water-quality programs. The Street Department maintains Chesterton's 40 miles of separate stormwater pipes, 111 outfalls, and more than 500 manholes.

Private entities own many best management practice facilities. They include seven wetland systems, one bioretention pond, three lakes encompassing three to 14 acres, seven infiltration swales, one section of porous pavement, two underground stormwater chambers, multiple stormwater separators, one green roof, and a level spreader system (see sidebar).

To persuade developers and contractors to comply with town ordinances, Gadzala began providing one-on-one assistance and unifying construction requirements. The utility created a construction project packet with checklists, guidance, and application forms. After reviewing the paperwork and



PROFILE: Storm Water Utility, Chesterton, Ind.

FOUNDED:
1989

POPULATION:
12,000

SERVICE AREA:
9.4 square miles

EMPLOYEES:
5

ANNUAL RAINFALL:
37 inches

INFRASTRUCTURE:
40 miles of stormwater collection and conveyance, 111 outfalls, 500+ storm manholes

OPERATING BUDGET:
\$430,000 (water quality)

WEBSITE:
www.chestertonin.org



ENGINEERING SUCCESS

Coffee Creek Center, a newer development in Chesterton, Ind., is protecting and enhancing the 15-square-mile Coffee Creek watershed by using best management practices. Its most ambitious effort coordinated with the Coffee Creek Watershed Conservancy, a 167-acre preserve in Chesterton.

"This is our only hilly area, and runoff from roads and parking lots was polluting Coffee Creek, raising water temperatures, and harming the biological community," says Jennifer Gadzala, MS4 operator for the town.

JFNew and Associates of Walkerton, Ind., and Conservation Design Forum of Elmhurst, Ill., designed an underground storage system known as level spreaders and tied it to ponds and expanses of restored prairie to control and treat the runoff.

The sequential infiltration system directs stormwater to exfiltration manholes spaced along distribution pipes, then to a fingered network of perforated detention pipes for storage and percolation. The overflow enters a pond. When the water level exceeds the pond's capacity, the excess spills through a manifold system onto the restored prairie.

Water in the distribution system enters a transmission pipe that feeds laterals to the upper two level spreaders. The horizontal spreaders are installed flush in a hill that drains away from the pond. If the topmost pipe fills faster than water can drain through the perforations, it spills out through an open grating covering the pipe and runs down to the next spreader. The process repeats through 10 rows spaced 12 inches or more apart, depending upon the slope of the hill. The hill is planted in prairie vegetation.

approving the development's stormwater pollution prevention plan, Gadzala holds a preconstruction meeting to discuss requirements and maintenance expectations.

"In 2008, we required developers of new properties to create a post-construction narrative for all stormwater management structures," says Gadzala. "It's basically a maintenance plan that became very successful."

The plan for commercial developments stays with the owner and explains how often structures should be checked and cleaned. Property owner associations retain residential development plans and are responsible for maintaining structures' capacity, clearing the pipes, and keeping the water trash-free.

Guiding hand

Besides working with developers and contractors throughout the construction process and doing a post-construction follow-up, Gadzala spends hours walking sites to identify potential improvements. "Construction is down right now," she says. "Some sites are mostly vacant, but they all have disturbed soil. The contractors worked hard to lay down ground cover last fall, but if I point out areas needing a little more work, I can help them remain compliant."

Gadzala's most challenging best management project was a new school gymnasium. The Little Calumet River was just north of the

three-acre site, and the building sat atop a deep ravine running to the floodplain. "An area to the east collected a lot of water, and we weren't expecting it to run through the disturbed site with such velocity," she says.

As construction proceeded, Gadzala noticed that water was tearing down straw bales, wattles and silt fences, allowing soil to erode. The site also had a new half-acre detention pond that was discharging at the top of the ravine.

"We sought solutions within the project's budget," says Gadzala. "It became apparent that redirecting the flow was too expensive. We worked with the developer and created a swale with three check dams between the gymnasium and the woods to slow and contain the water before it hit the ravine."

"In 2008, we required developers of new properties to create a post-construction narrative for all stormwater management structures. It's basically a maintenance plan that became very successful."

Jennifer Gadzala

Reasonable expectations

When Gadzala joined the utility in 2006, she evaluated the six minimum control measures of the stormwater quality management plan for what was and wasn't doable. For education and outreach, she obtained materials from the Northwestern Indiana Regional Planning Commission, but the information didn't always focus on what she believed was

important to residents at the time.

"I'm a dog owner, and seeing people not pick up after their pets motivated me to launch a Let's Talk About Poop campaign in 2009," says Gadzala. "We bought doggie bag dispensers that attach to leashes, designed a logo for the dispensers, and created a double-sided postcard explaining why cleaning up pet waste is healthy for humans and the environment." At Bark in the Park, a day of games and races with dogs, Gadzala handed out 400 dispensers.

In spring 2010, she began a Leave It On The Lawn campaign that stressed the benefits of allowing grass clippings to decompose in situ. "The Street Department hauled 320 tons of clippings to its compost facility in 2008 and 2009, traveling more than 1,362 miles

and costing taxpayers \$3,800," says Gadzala.

A newspaper insert on the subject reached 4,800 homes, while brochures were left in a box at the compost facility. On weekends, Paul Thorpe, a seasonal Street Department employee, hands brochures to people arriving with clippings.

School days

In 2007, Gadzala approached Chesterton Middle School with the idea of creating a four-week water-quality and conservation unit for seventh grade science students. Working with science teacher Samantha Hayes, Gadzala developed the Watersheds and Non-Point Source Education Unit.

One idea was to teach students the fundamentals of testing water downstream from farms and developments. Hayes collected the samples, and 165 students tested them for dissolved oxygen, phosphates, nitrates, pH, and turbidity to determine which land uses contrib-

uted the most pollutants.

"We always change the final assignment," says Gadzala. "In 2008, the kids made information boards from their test results, then talked about what they had learned at a town council meeting. In 2009, they designed brochures that we put in the library and school administration office. Last year, they wrote news articles."

Each year, the curriculum changes a little. For 2011, pupils also sampled for *E. coli*, then used



Photo courtesy of Jodi Nix

Watersheds and Non-Point Source Field Day, May 12, 2010.

math skills to graph the information. They pulled garlic mustard, an invasive species, and cooked it in the classroom. "Yes, garlic mustard is bad in the environment, but early settlers used it in cooking and for its supposed medicinal properties," says Gadzala.

In the field

Gadzala designed the course to end with an all-day field trip. Made possible by the assistance of local partners, it simulates how scientists work in the field and enables students to use skills learned in the classroom.

At Coffee Creek Park, Save the Dunes volunteer Erin Crofton helped the group test Coffee Creek's water quality. Volunteer Jennifer Nebe taught the youngsters how to build a rain garden, and they also pulled garlic mustard and Canada thistle.



Educational endeavors include campaigns launched to educate children and the general public.



Jennifer Gadzala and Jannon Jeffries discuss the attractiveness of a watershed sign design.

Students also collected more than 300 pieces of garbage from roadsides and toured the Chesterton Wastewater Treatment Plant. Finally, wetland expert Steve Barker led the group through the Coffee Creek Watershed Conservancy.

He discussed the role of wetlands in watersheds and the plants, animals and insects found there. Joe Exl, a volunteer from the Northwestern Indiana Regional Planning Commission, kick-sampled the stream bottom to collect

macroinvertebrates, then explained how they indicate water quality.

Real-world experiences

In 2009, when the utility sponsored a contest for Chesterton residents to design a watershed awareness poster, 14 of the 15 designs submitted came from Chesterton High School art students. A public vote chose junior Jannon Jeffries' design, which was ultimately printed as signs. Street commissioner John Schnadenberg and his staff helped coordinate the sign placements.

The contest gave Gadzala more ideas. In spring 2010, she approached art teacher Kirsten Renahan and proposed treating her students as if they were graphic designers in an advertising agency. Gadzala, the client, would hire them to create a logo for the utility's Keep Chesterton Beautiful campaign.

"I told the students about the campaign goals and what I was looking for, then critiqued the designs," Gadzala says. "I picked the logo by sophomore Jessica Lohse. It appears on our cam-

paign literature and website."

Gadzala also worked with high school video teacher Matthew Waters. "As the client, I wanted a 30-second educational video on litter reduction and recycling that tied into the Keep Chesterton Beautiful campaign," says Gadzala. "Teams submitted their work, and I chose one written and produced by Jake Webb, Kristen Pesut and Mike Lara." The video is on the town's website.

Gadzala has learned never to assume that people are interested in water quality. To reach the unreachable, she has found innovative ways to inform and educate, going above the standard templates to excellence. ♦

MORE INFO:

Conservation Design Forum
630/559-2000
www.cdfinc.com

JFNew and Associates
574/586-3400
www.jfnew.com

Come In We're
OPEN
www.mswmag.com

Keep It Flowing!

- Reliable Products
- Excellent Delivery
- Incredible Support
- Personal Service

Manufacturing Drain and Sewer Jetting Equipment since 1985. Cold and hot water Portable, stationary and trailer mounted models for lines up to 24"

Custom built equipment to your specifications.

520 Brooks Road Iowa Falls, IA 50126 800-648-5011 www.CamSpray.com

CAM Spray
Working well under pressure


Booth 144



ELITE-SD



Plumber's Mate



Light, Portable Mainline System

**See Further.
See Clearer.
See Everything.**



REBEL Crawler



TORPEDO Crawler



Receiver/Locators

TOLL FREE 800.461.9200
tel. 905.660.7072
fax 905.660.1519
www.ratech-electronics.com





See Everything.

An epoxy patching paste for concrete repair
(vertical, overhead and floors).

Epoxytec CPP™ GEL

- Structural (16,000 psi compressive strength)
- Superior adhesion (even for feather edging)
- Seals and protects (great for rebar, pipes, joints, etc.)
- Absorbs vibration
- Easy to mix 1:1 kits (100% solid, no solvents)
- Controlled thickness (ultra thin to high build - 1/2")





1.877.GO.EPOXY | epoxytec.com
epoxytec.com/products/CPP_Gel

"High performance products that work where others fail"

RHINO

8 lb



"JAKE"
Manhole Cover Extractor

12 lb



"MARY A"
Manhole Cover Extractor

- 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, patent pending on the "Jake"







**D
M
C**

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

Web site: www.dougmeadows.com

**Magna
Flow**
Environmental



Waste Transportation & Disposal

Large Diameter Pipe Cleaning



CCTV Sonar And Laser Profiling



Go with the Flow!
www.magna-flow.com

**Magna
Flow**
Environmental

Houston, Texas
Phone: (281) 448-8585
Fax: (281) 397-7195
Info@magna-flow.com

LETTING THE LIGHT SHINE

The Explorer Zoom pan-and-tilt camera from UEMSI includes onboard LED lighting that makes it easier to see in large pipes

By Erik Gunn

Technology has produced continuous improvements in sewer video cameras, enhancing their capabilities. Larger pipes especially challenge inspection crews because they require far more light for inspection operators to see defects adequately. UEMSI has introduced the Explorer Zoom pan-and-tilt camera with three noteworthy features:

- Advanced lighting to inspect larger-diameter lines without auxiliary lighting.
- Capacity for an extended cable, allowing inspection runs up to 4,000 feet.



The zoom/pan/tilt camera head allows the operator to look closely at lateral junctions within the main sewer line.

- A universal electronic interface that allows the unit to be connected to most other camera manufacturers' video systems.

That third capability means communities can use the camera without also investing in a separate new control system and inspection truck.

Frank McGuinn, national sales manager for UEMSI, and employees of customer Pipe-View LLC demonstrated the camera in Ingleside, Ill., on Nov. 11.

Walk-around

The Explorer Zoom pan-and-tilt camera is 16.25 inches long with an outer diameter of 3 inches for the body and 4 inches for the rotating camera head. The camera head can rotate 360 degrees continuously and can pan a 270-degree arc.

The 380,000-pixel imaging system is equipped with 10:1 optical and 4:1 digital zoom capability. The camera also has an auto-focus lens with a manual override and an auto-iris with manual override to control the light level of the images.

A key feature of the camera is a system of four LED lights that



The Explorer Zoom pan-and-tilt camera is mounted on a UEMSI Prowler wheeled tractor unit. (Photography by David Hoel)

"When it comes to camera pictures, lighting is everything."

Frank McGuinn

surround the lens. The lenses for the lights can be easily interchanged in the field by removing the faceplate on the camera with a Torx (star-shaped) screwdriver. As demonstrated, the unit had two clear lenses (the equivalent of high-beam lights on a car) and two lenses with a diffuser pattern that scatters the light (essentially a low-beam setting).

When in operation, the camera can be run with all four LEDs on, enabling a much clearer view in larger pipes than is usually possible without auxiliary lighting. The operator also can shut off two of the lights at a time, such as to prevent the light from washing out an image when at very close range to the pipe wall.

The unit comes with a handheld wired remote to control the camera's functions, including zoom, pan, tilt, focus and lighting. A home button brings the camera back to a straight-ahead position

TECHNOLOGY TEST DRIVE

EQUIPMENT:

Explorer Zoom pan-and-tilt camera

MANUFACTURER:

UEMSI, Menomonee Falls, Wis.
800/666-0766
www.uemsi.com

LOCATION OF DEMO:

Ingleside, Ill.

DEMONSTRATED BY:

Frank McGuinn, UEMSI;
Todd Bates, Pipe-View LLC

LIST PRICE:

\$14,900 as demonstrated (camera only)

after the operator has used the pan-and-tilt functions to inspect all around the pipe. The unit also can be wired to control whatever tractor or crawler the camera is mounted on.

Operation

The demonstration was conducted during work on a contract in which Pipe-View was hired to do a routine preventive maintenance inspection of about 60,000 feet of sewer lines in the Village of Ingleside. An inspection crew led by operator Todd Bates of Pipe-View lowered the Explorer unit into a manhole on a sewer line



The Explorer Zoom system includes advanced lighting to inspect larger-diameter lines without auxiliary lighting and has capacity for an extended cable, allowing inspection runs up to 4,000 feet.

60-pound UEMSI Prowler crawler with four 10-inch balloon tires and elevated to a total height of about 15 inches on a gantry, bringing the camera to the center of the pipe.

Bates ran the inspection from a truck Pipe-View originally acquired as part of its purchase of another company's camera system. The functions of the camera were controlled with UEMSI's handheld remote, connected to the camera via cable.

To control the motor of the crawler, meanwhile, Bates used the system control board already mounted at the truck's workstation. The camera's imaging cable was hooked into the truck's onboard

back by shutting off two of the four LED lamps. The reduced lighting gave a sharper view, in the same way dimming a car's headlights can make it easier to see on a foggy night.

At 390 feet down the line, Bates paused the crawler to examine a lateral service entering the line from above at about the 2 o'clock position. Using the remote control, he panned the camera up to look at the opening, rotating the camera head as well to better orient the image. He zoomed in

lems with them in terms of reliability, which is a big thing," he said.

Bates said he has found the home control on the remote unit particularly handy, making it easier to resume an inspection quickly after pausing to examine a lateral junction. "I can hit that home button and go," he said. He also liked the camera's weight, which he said is about half that of some comparable units he has used.

Bates said the camera's lighting has lived up to its promise. The lights themselves don't get hot in

The unit comes with a handheld wired remote to control the camera's functions, including zoom, pan, tilt, focus and lighting. A home button brings the camera back to a straight-ahead position after the operator has used the pan-and-tilt functions to inspect all around the pipe.

closer to get a thorough look at the connection.

The image adjusted itself with the auto-focus, and Bates used the remote to refine the image for optimal sharpness. Then, hitting the home button, he quickly restored the camera lens to look straight down the line again.

Using the remote, Bates zoomed the lens deep down the line. The image darkened some because of the degree of zoom. Bates then brought the zoom lens back to its normal setting as the camera continued down the line.

As the inspection progressed, Bates continued to examine each lateral and junction, alternately panning, tilting and zooming the lens, then returning it to its normal position. Throughout, the lighting proved more than adequate to return clear, sharp and detailed images, which Bates recorded in the MPEG file format to save on the truck's hard drive.

Observer comments

Pipe-View LLC co-owner Tony Duffy said his company had been using two Explorer pan-and-tilt cameras for several months and was impressed with their hardiness. "We haven't had any prob-

the manner of some other units he has used. And he found the camera to work adequately without additional lighting in larger pipes.

Manufacturer comments

McGuinn said the unit has been successfully used in pipes as large as 72 inches without auxiliary lighting. "When it comes to camera pictures, lighting is everything," he said. Because the lighting in the camera has its own circuitry, if auxiliary lights are used, they can be controlled separately from the control room in the truck, independent of the camera's onboard lights.

McGuinn said the camera also works well in smaller pipes when matched with a suitably sized transporter. He noted that the camera head has a very small profile.

He also observed that the auto-focus feature can be disabled from the remote control. This makes it easier to get high-quality pictures under conditions that confound auto-focus systems, such as when mist and steam are present — a common occurrence in larger pipes.

"In really large pipe, that's a nice feature," said McGuinn. ♦



Camera operator Todd Bates of Pipe-View LLC observes images from the Explorer Zoom camera as it proceeds through the sewer line.

running parallel to a road just south of State Highway 138. From a single entrance point, the team planned to inspect a 1,000-foot stretch of 30-inch concrete sewer, without stopping to remove the camera.

"We're doing anywhere from 8- to 36-inch sewers," Bates said. "There's a big portion of 30-inch sewer that we're on right now." The camera was mounted on a

video monitoring system — it did not require its own monitor. Using the control board, Bates sent the camera forward through the pipe, running 30 feet a minute.

The light from the camera flooded the sewer line, producing clear, well-defined images. Passing through a segment of the line where steam clouded the image because it scattered the bright light, Bates cut the illumination

OUND FF

When you're looking for a new machine, the first thing you should do is check out the latest in sewer inspection technology.

The latest in sewer inspection technology is the Spartan. It's a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.

The Spartan is a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.



The Spartan is a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.

PERIOD OF DISCOVERY

Discover how a physical test can help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.



When you're looking for a new machine, the first thing you should do is check out the latest in sewer inspection technology. The Spartan is a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.

EVERYTHING UNDER CONTROL

When you're looking for a new machine, the first thing you should do is check out the latest in sewer inspection technology. The Spartan is a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.



When you're looking for a new machine, the first thing you should do is check out the latest in sewer inspection technology. The Spartan is a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.



A person working on a sewer pipe.

When you're looking for a new machine, the first thing you should do is check out the latest in sewer inspection technology. The Spartan is a new machine that's designed to help you find and fix problems in your sewer system. It's a small, compact machine that can fit into tight spaces and it's easy to operate. It's a great investment for any sewer inspection company.



A person working on a sewer pipe.



A person working on a sewer pipe.



A person working on a sewer pipe.



A person working on a sewer pipe.

Featured in an article?

Make the most of it!

REPRINTS AVAILABLE

We offer:
Hard copy color reprints
Electronic reprints

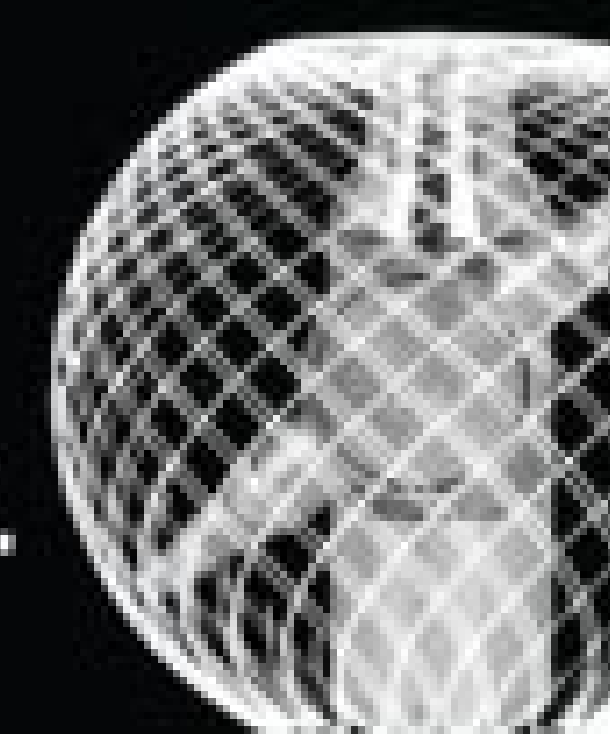
Visit mswmag.com/order/reprint
for articles and pricing



A person working on a sewer pipe.

AVOID CONFINED SPACE DANGERS - CLEAN FASTER AND SAFER FOR LESS

THE 12 MINUTE SOLUTION
Keep up with your wet well
and manhole maintenance plan.
Once a year is NOT enough.



GAMAJET®

The World Leader in Tank Cleaning Technology

1. CONNECT GAMAJET TO HOSE
2. CONNECT HOSE TO PUMP
3. LOWER GAMAJET INTO MANHOLE, WET WELL, LIFT STATION OR ANY OTHER TANK
4. TURN PUMP ON
5. RELAX

No PUMP, NO PROBLEM ASK US
ABOUT OUR GOBYJET PORTABLE
PUMP SYSTEM.

If you have a tank to clean... we have a way to do it!
Learn more at Gamajet.com or call 1-877-Gamajet



AMERICAN HIGHWAY PRODUCTS LTD.

RAISING AMERICA, ONE INCH AT A TIME



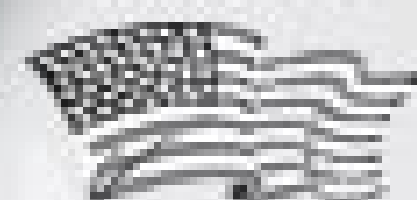
the **PIVOTED TURNBUCKLE** Manhole Riser



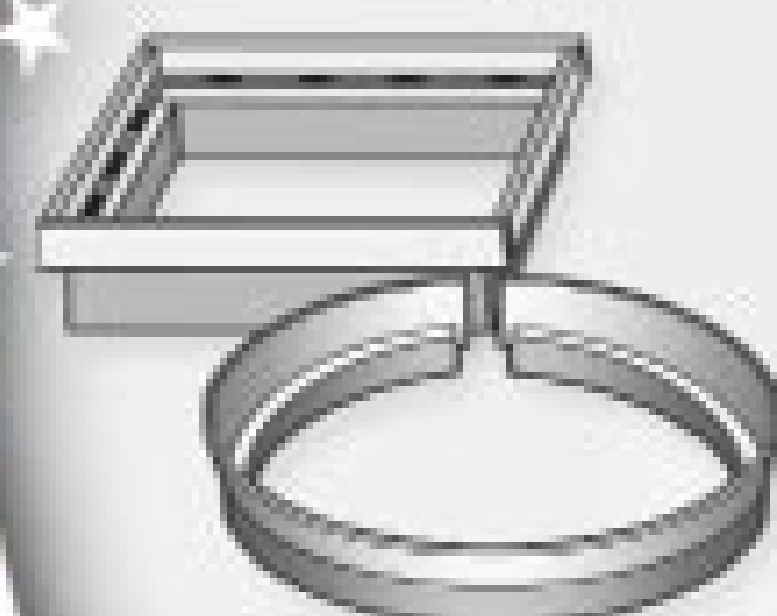
The Most Efficient
and Powerful Expanding
Riser on the Market.

Riser Heights 3/4"
and up in
All diameters.
1" diametric
variance and
DOT approved
in most states.

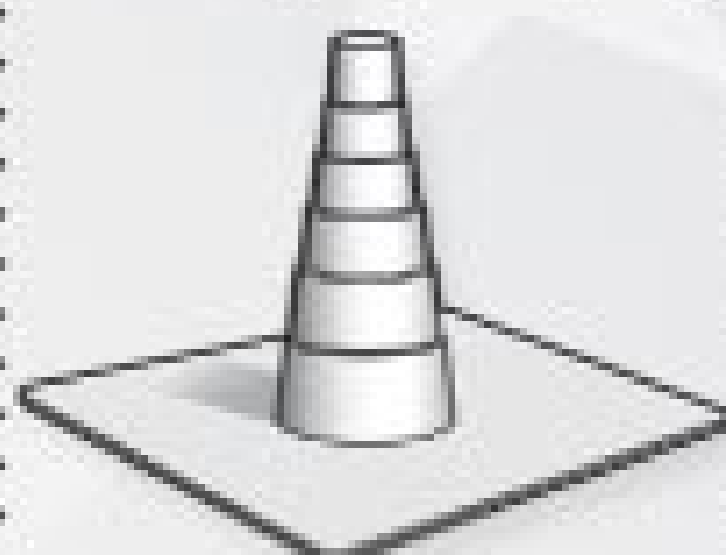
Made in
the USA



**Catch Basin &
Valve Box Risers**
reduce costs and
streamline adjustments



I.D. Locator allows
for easy location of
common utilities
and aids in
identifying striping



Sewer Lid Seal Kit
eliminates
lid vibration and
reduces moisture
penetration



**Rubber Adjusting
Ring** protects
sub-structure,
eliminates noise
and vibration



EZ Lift will unseat,
lift, and set down a
manhole cover in
one smooth
motion



**SAFETY RAMPS
ELIMINATE**

- Vehicle Damage Claims •
- Material Cost for Cold Patch •
- Labor and Disposal Costs •



Toll Free 1-888-272-2397 • www.ahp1.com • e-mail: sales@ahp1.com • Free DVD/CD ROM

ROOTS OF MOTIVATION

Sometimes the best way to get team members fired up is to let them spend time with the people who rely on their services

By Ken Wysocky

From financial bonuses to extra time off, supervisors are always looking for ways to motivate employees to be more creative and share ideas. Adam Grant has an outside-the-box suggestion: Find ways for your water and sewer maintenance crews to grab some face-time with their customers, as well as with their colleagues in other departments.

An organizational psychologist and professor of management at the Wharton School of the University of Pennsylvania, Grant has studied what motivates employees. His findings indicate that when workers meet and talk with customers and colleagues, and realize that what they do benefits real people, that spurs creative thinking.

“People who can do both — be intrinsically motivated and put themselves in someone else’s shoes — end up becoming the most creative employees and add most to the knowledge they share with others.”

Adam Grant

“A lot of people have jobs that really make a difference in the lives of end users,” Grant says. “All products and services are ultimately designed to benefit someone. But not many jobs are designed to connect workers with end users.”

Ironically, the isolation of workers from those they serve is driven by efficiency, says Grant. Organizations generally discourage such interaction under the assumption that it makes people and processes less efficient. And

modern technology makes it easier to work with minimal face-to-face communication.

“Sure, minimizing distractions can increase efficiency,” Grant says. “But some distractions can be incredibly motivating and provide information about how to do a job better.” Grant’s interest is largely driven by his own experience. He noticed that while some people always came in early, stayed late, and volunteered for projects, others would do the minimum.

An experiment

To help determine what motivates employees Grant conducted a research study in 2008 at a large water treatment operation in the southeastern United States. It cen-

tered on employees at 30 to 40 sites with a wide range of responsibilities.

“There were many people working in fragmented locations, so they weren’t in contact very much,” Grant says. “We wanted to find out what could be done to encourage more idea and knowledge sharing.” Employees were asked to fill out online surveys that measured things such as job perceptions, levels of intrinsic motivation, and relationships with co-workers. Supervisors were asked

to rate the employees’ creativity.

One finding came as no surprise: Employees who are intrinsically motivated and curious about new ways of doing things come up with lots of great ideas. But for the most part, those concepts were typically impractical to implement.

“On the other hand, the most novel and useful ideas came from employees who were most adept at taking the perspectives of others — thinking about their work from co-workers’ points of view, or understanding a supervisor’s goals or a customer’s needs,” Grant says. “It’s that active perception-taking that allows them to filter through ideas and select the ideas that are the most practical to apply.

“People who can do both — be intrinsically motivated and put themselves in someone else’s shoes — end up becoming the most creative employees and add most to the knowledge they share with others.” According to the study, creative ideas included techniques for preventing equipment failures, new pollution-control methods, and new work processes and safety protocols.

Meet and greet

So what can supervisors do to increase creativity and idea sharing? Grant says they need to think more broadly. “The upshot for supervisors is that they often think about how to make work more interesting for employees, whether it involves giving them more autonomy to do a job, or provide

learning opportunities to heighten their interest in work,” he says.

“Studies suggest that those are valuable things, but we need to take some additional steps to translate ideas to others, like hiring more employees who naturally tend to take the viewpoints of others.”

Supervisors can accomplish this by asking specific screening questions during job interviews, or by having job candidates perform short tasks that would indicate an aptitude for considering others’ viewpoints.

For current employees supervisors should nurture more interaction by enabling employees to meet with the beneficiaries of their work or, at the very least, foster more employee empathy by communicating to them the urgency of problems that customers or co-workers face.

“You also can train people — get them in the habit of walking in other people’s shoes more often and more effectively,” Grant says. “One way to do that is through job rotation. Doing various jobs for a couple weeks at a time allows employees to see all the tasks an organization does, and it also creates more interaction between people whose work is interdependent.

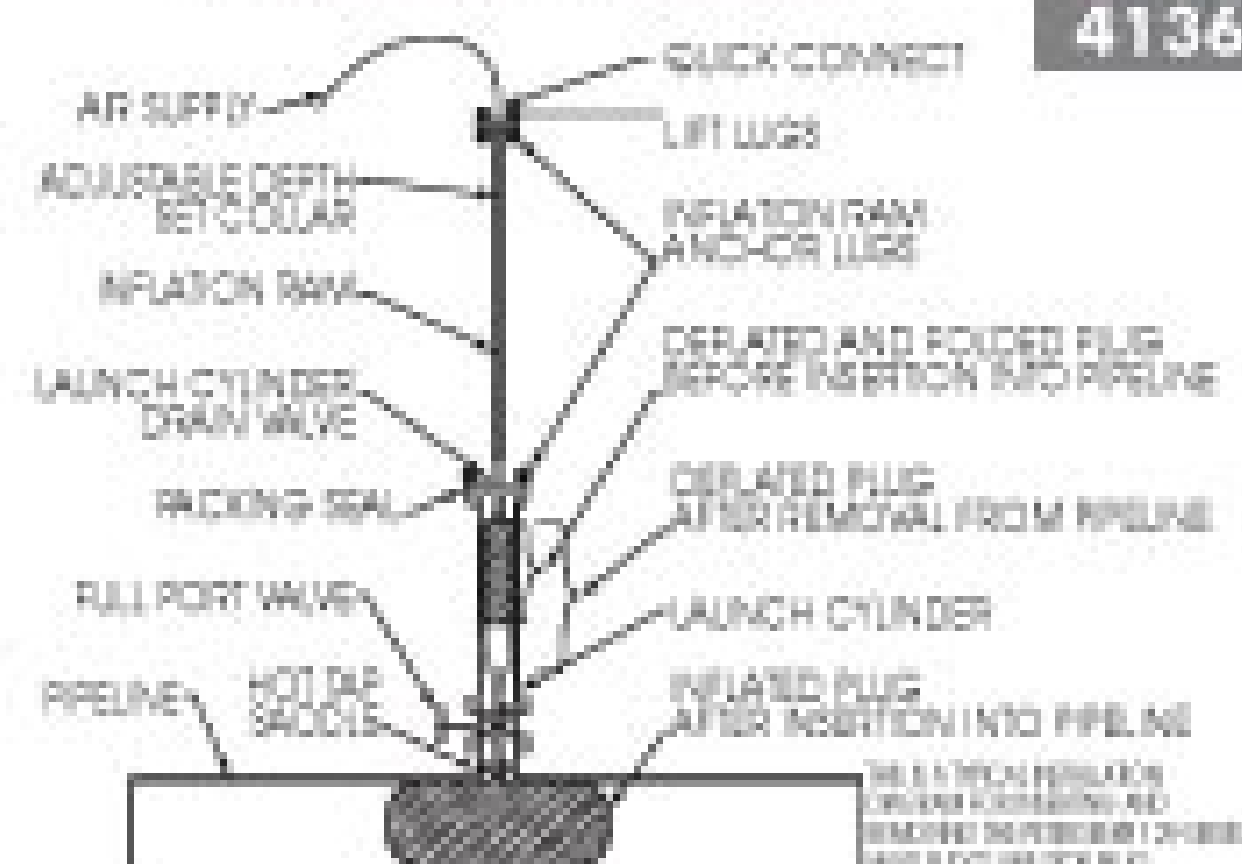
“Too often we do work without a full, complete and vivid understanding of how people benefit from it. There’s a lot we can do to humanize work and make employees understand how their ideas can affect people around them.” ♦

We invite readers to offer ideas for this regular column, designed to help municipal and utility managers deal with day-to-day people issues like motivation, team building, recognition and interpersonal relationships. Feel free to share your secrets for building and maintaining a cohesive, productive team. Or ask a question about a specific issue on which you would like advice. Call editor Ted Rulseh at 800/257-7222, or e-mail editor@mswmag.com.

Petersen® Pipe Plugging Systems



Economical Hot Tap Plugging Systems



Pipe Plugs and Packers for all your Pressure, Chemical, and Temperature Requirements.

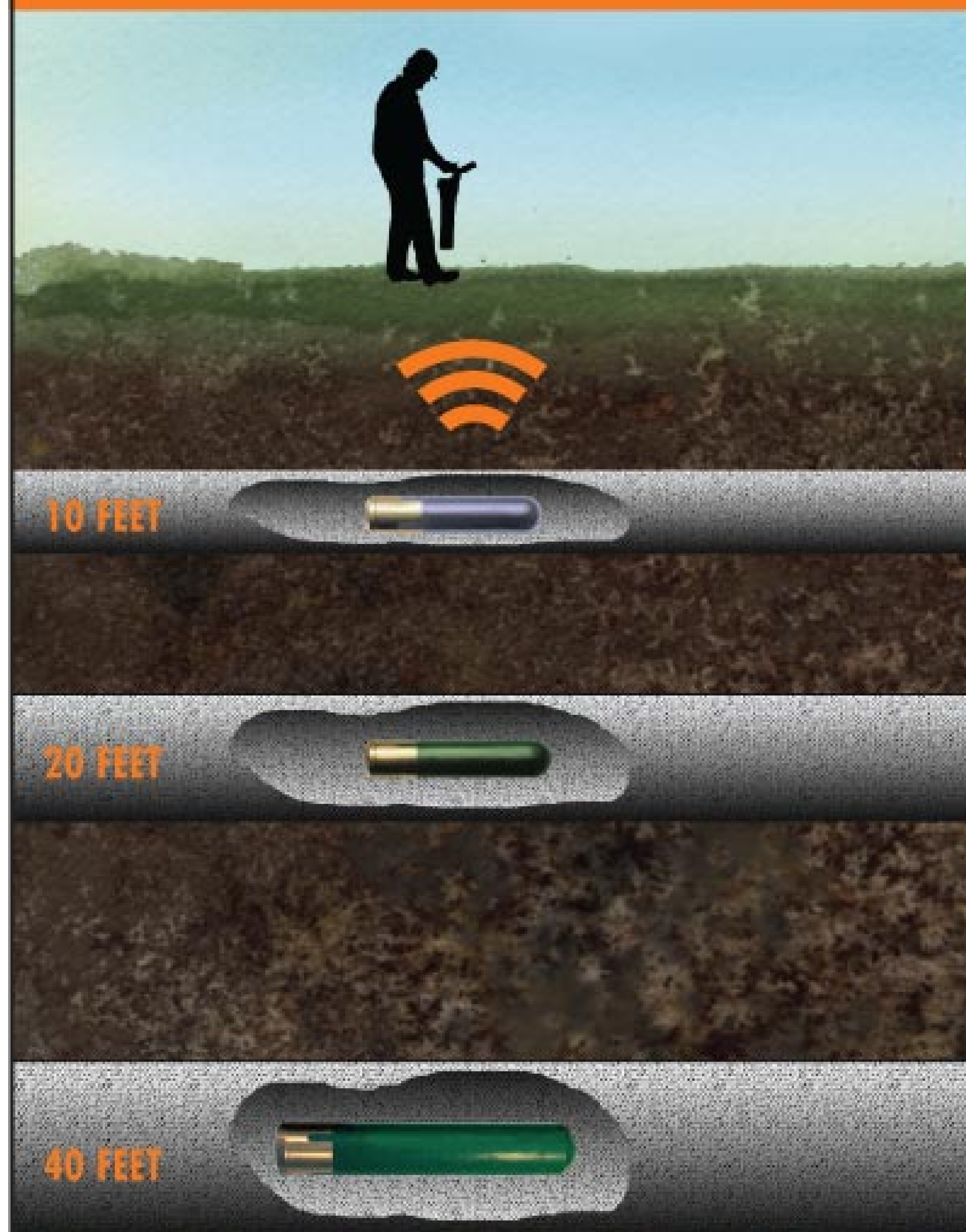
Call us to quickly customize a pipe plug or plugging system for your specific application.

www.pipeplug.com

Petersen PRODUCTS COMPANY
Serving Professionals Since 1916

PHONE 800.926.1926 OR 262.692.2416
FAX 800.669.1434 OR 262.692.2418

DEEP THINKING



GOT A PROBLEM THAT NEEDS A SPECIAL SOLUTION?

Need deeper than 40 feet? Call Prototek. We can work with you to get the performance you need, through just about any material. Get the smart design, versatility and rugged performance that Prototek is famous for. Ask about our top-of-the-line receivers and find that transmitter fast.

Prototek

BREAKING NEW GROUND UNDERGROUND

800-541-9123

Email: prototeksales@prototek.net



www.prototek.net

Check Out MUNICIPAL SEWER & WATER's Website



SHARING CUTTING-EDGE TECHNOLOGIES

The NASSCO annual meeting will include presentations from industry experts on the latest in trenchless innovations

By Ted DeBoda, P.E.

For months now NASSCO has been preparing for its annual meeting Feb. 16-19 in Rio Grande, Puerto Rico. Besides celebrating NASSCO's 35th anniversary and sending retiring executive director Irvin Gemora out in style, we will bring together the best minds in the industry to share and discuss new technologies.

As I begin my first year as NASSCO executive director, it is exciting to work with our team of underground industry experts to prepare a valuable, educational experience for members who attend the annual meeting.

At NASSCO we continually take a pulse on the benefits of membership. Time after time, we learn that networking, education, and training are the most important reasons trenchless industry

professionals join. The annual meeting provides a potent combination of all three, most notably Technical Day, Feb. 18. To date, our schedule includes a number of important topics, including:

Design of CIPP — A New Approach for the Industry. Ed Kampbell of Jason Consultants will head this discussion, using his

her insight on how the Pipeline Assessment Certification Program is now the basis for many municipalities and pipe utility owners responsible for developing GIS programs to manage their pipeline assets.

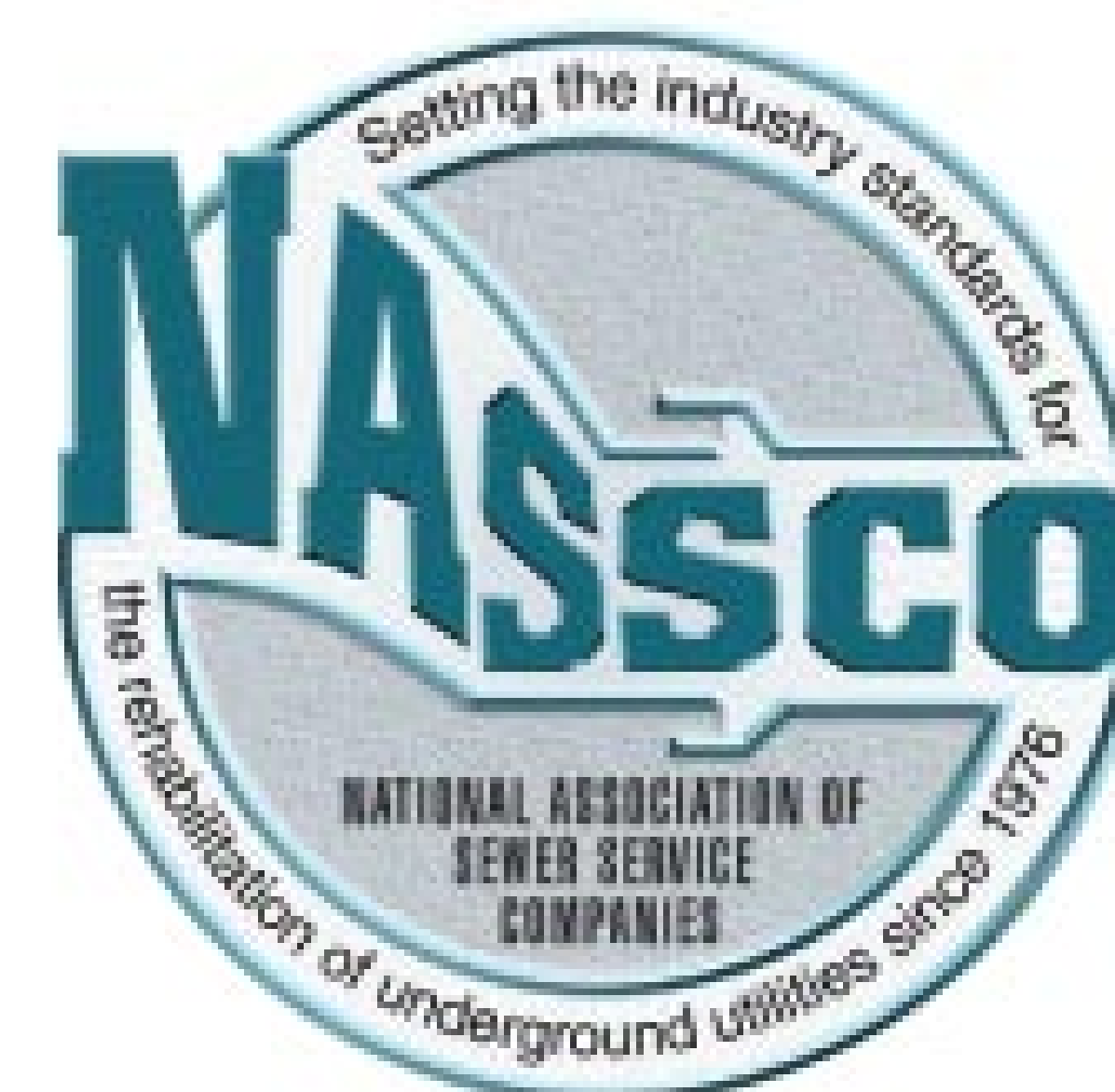
Laser Profiling — Calibration and Training Requirements for Consistent, Accurate and Reli-

Each topic will include a panel of industry experts who will lend their expertise and answer specific questions from the audience. The forum will be fully educational, and all presenters will leave their sales pitches at the door.

experience with ASTM International on developing a new, more accurate pipeline design for CIPP.

PACP — A Primary Ingredient in Development of Geographic Information System Programs. Joan Stone of PipeLogix will share

able Data Delivery. This program will explain how new construction is evaluated, in some cases, on pass-fail criteria, and how data from laser profiling devices must be accurate enough to avoid unnecessary pipe repair by the contractor.



Resin Systems for CIPP Installations, Improvements and Changes.

As the cured-in-place pipe industry grows, new and improved resin systems are being developed for the sewer and water industry. Presenters will give a brief overview of current technology and what improvements and changes may be in store.

Monitoring the CIPP Lining Process Using Underground Sensors. CIPP is a product that is cured after it is installed into an existing pipeline. Monitoring of the curing process has been measured by the use of thermal sensors installed at various access points in the line section. Monitoring the cure on a more frequent interval may be possible and will be discussed by the presenters.

Each topic will include a panel of industry experts who will lend their expertise and answer specific questions from the audience. The forum will be fully educational, and all presenters will leave their sales pitches at the door, along with any comparisons to the competition. The goal is to educate engineers, contractors and municipalities on the newest technologies available and so help support NASSCO's mission to set industry standards and promote the trenchless industry. ♦

Ted DeBoda is executive director of NASSCO. He can be reached at director@nassco.org. NASSCO is located at 11521 Cronridge Drive, Suite J, Owings Mills, MD 21117.

STEP UP

Take a stand for better and higher quality CIPP installations.

Complete Nassco's two-day Inspector Training Certification Program (ITCP) and expand your knowledge of CIPP technology, the fastest-growing method for sewer pipeline rehabilitation.

Why is this training important? Because it's critical to everyone involved in CIPP design and inspection. Consulting engineers know their reputation depends on successful installations, and municipalities can relax when they hire an ITCP-trained expert, knowing the job will be properly inspected. But most importantly, with NASSCO's ITCP, the industry's most rigorous and well-respected training programs, everyone wins by improving standards for higher quality CIPP installations.

Please call or visit our website for training dates and registration information.



NASSCO, Inc. (410) 486-3500 www.nassco.org





Price. Availability. Quality.

And the **VACTOR** name to back it all.

Need a reliable source for your sewer cleaning hose? Vactor Manufacturing and their worldwide dealer network have partnered with Piranha Hose to bring you Vactor branded rodder hose. The new Vactor Rodder Hose is constructed with a yellow polyolefin tube, high tensile synthetic braid reinforcement to reach the desired pressure rating, and then covered with a high abrasion resistant polyether-urethane cover for long life and reliable sewer line cleaning performance.

And you don't have to worry about availability - we carry all of the Piranha hose products, sizes from 1/2" - 1 1/4" are in-stock and available at competitive prices for quick delivery from your Vactor dealer.

To find out if there are specials or to order call your Vactor dealer today or visit us at www.vactor.com to find a dealer near you.

Rehabilitation Vocabulary Lesson #3

Compressive Strength

the force measured in the axial or inward direction (squashing) of a given material

HOMEWORK

How will the use of Sprayroq products affect the outcome of your structural rehabilitation project?

Hint: See ASTM D695 or call 800-634-0504

*Get in the Habit of
Doing Your Homework!*

SPRAYROQ
Protective Lining Systems
www.sprayroq.com



Booth
6035

EXCELLENCE IS REFLECTED IN EVERYTHING WE MAKE

For over 30 years Shamrock Pipe Tools has been the sewer service pro's vendor of choice for high precision tools that achieve unparalleled results on every type of pipe cleaning project. Why?...

increased efficiency & productivity
outstanding tool performance & reliability
excellent return on investment



Booth
2203

- Nozzles
- Saws & Cutters
- Pumps
- Blu-Steel® Rod
- CCTV Cameras
- Hoses & Swage Tools
- Rodding Tools & Accessories



For more information about our complete line of **100% AMERICAN MADE** cleaning and inspection solutions, please call or visit us online today.

SHAMROCK PIPE TOOLS, INC.®

800.633.7696 · WWW.SHAMROCKTOOLS.COM

StoneAge Named Top Colorado Company

StoneAge Inc. was named a Top Company award winner for 2010 in the manufacturing category by *ColoradoBiz* magazine. The Durango, Colo.-based company was chosen from among 36 finalists. The award recognizes Colorado businesses that demonstrate sustained financial performance, operational excellence and community involvement. The cleaning tool company was recognized for its investment in research and development, community economic development activities and annual donations of time and money to more than 50 nonprofit and community programs.

RWL Acquires Aeromix Systems

RWL LLC has acquired a majority interest in Aeromix Systems Inc., manufacturer of water and wastewater treatment systems. Peter Gross will remain Aeromix's CEO.



Aeromix's CEO Peter Gross, left, and RWL's chairman Ronald Lauder.

Forbest Products Co. Launches Online Store

Forbest Products Co. has launched a 24-hour online products and equipment store at www.cole-mart.com/forbest. The store offers the ability to research and compare products, and a simple order process.

Vac-Con Offers Imron Elite Coating System

Vac-Con will feature the DuPont Imron Elite coating system on its new industrial cleaners, vacuums and hydroexcavators. The primer's advanced resins increase impact and chip resistance, while Imron Elite technology delivers excellent gloss and color retention.

U.S., UK Companies form Pipe Restoration Service

U.S.-based Pipe Restoration Technologies LLC and UK-based Morrison Utility Services have formed Pipe Restoration Services to line service pipes with blown-in-place epoxy resin (ePIPE) as an alternative to lead service pipe replacement.

Wachs Water Services Forms Pipeline Division

Wachs Water Services has formed a pipeline systems assessment services division and is in negotiations with companies to provide trenchless solutions.



ABB Offers Flowmeter Reference Guide

ABB Measurement Products offers a 74-page reference guide for selecting and applying electromagnetic flowmeters (magmeters). The guide, *Magmeter Basics – A Technical Reference Guide*, introduces magmeters, summarizing such topics as principles of operation, construction, magnetic fields, maintenance, transmitters, installation and calibration. For

a copy, contact Robert Mapleston at 800/922-2475, or go to www.abb.us/instrumentation. ♦



WHAT'S INSIDE?

Vital information on caring for
vital infrastructure.

Municipal Sewer & Water™ serves municipal decision-makers, sewer and water directors, technicians and private water and wastewater contractors who install, inspect, maintain and rehabilitate sewer, water and stormwater infrastructures.

35,000+ municipal and utility maintenance professionals rely on it every month.

A subscription is FREE.

www.mswmag.com or 800-257-7222



MARCH 2-5, 2011

LOUISVILLE, KY
KENTUCKY EXPOSITION CENTER

POWER YOUR Future

"This is our yearly chance to recharge our batteries."

Education, new products, and networking attract **Susan Taylor** to the Expo. "You come here and get your education and enjoy camaraderie with others in the industry," she says. "Plus, you can see all the products at one stop. There are some really, really good classes where you can learn a lot about the business, from the presenters and from the attendees. One seminar helped us define our true cost of service. That was a real eye-opener. Seminars like that give us the tools to increase profitability."

POWER your Future
COME TO THE 2011 EXPO.



SUSAN TAYLOR

Taylor Services Restrooms 2 Go
Macon, Ga.



WHO SHOULD ATTEND? IF YOU ARE IN...

- | | | |
|------------------------|--------------------------|--------------------------------------|
| • SEPTIC PUMPING | • TV INSPECTION | • COMPUTER SOFTWARE |
| • ONSITE INSTALLATION | • PIPELINE REHAB/CIPP | • INDUSTRIAL VACUUMING |
| • PORTABLE SANITATION | • WATERBLASTING | • HYDROEXCAVATION |
| • DEWATERING | • HIGH-PRESSURE CLEANING | • UNDERGROUND TRENCHLESS PIPE REPAIR |
| • GREASE HANDLING | • SAFETY EQUIPMENT | • UTILITY LOCATION |
| • SEWER CLEANING | • CONFINED SPACE | |
| • LATERALS & MAINLINES | • LIFT STATION MAINT. | ...YOU NEED TO BE HERE! |





EDUCATION DAY

WEDNESDAY, MARCH 2ND

WWW.PUMPERSHOW.COM

SSCSC

Southern Section Collection Systems Committee

- 8 a.m. Sewer Collection System History & the Evaluation of Pipeline Materials and Problems
- 9:30 a.m. Combo Vacuuming, a Forgotten Art
- 11 a.m. Keeping your Standard CCTV Inspection Program Relevant
- 1 p.m. Growing Your Business by Building Your Company Image
- 2:30 p.m. Pump and Lift Station Fundamentals: How to Achieve Maximum Service and Reliability
- 4 p.m. Making Sense out of Nozzle Nonsense

NAWT

National Association of Wastewater Transporters

- 8 a.m. So You Think You Want to Own a Waste Treatment Facility?
- 9:30 a.m. Grease as a Resource
- 11 a.m. Resource Recovery - Methane and Septage
- 1 p.m. O & M Problems on Drip Distribution Systems
- 2:30 p.m. O & M Problems We Have Seen
- 4 p.m. O & M Problems with Media Filters

NASSCO

National Association of Sewer Service Companies

- 8 a.m. Grout: Its Use and Application for the Total Collection System
- 9:30 a.m. Cured-In-Place Pipe
- 11 a.m. Pipe Bursting Tools for Everyday Utility Installations
- 1 p.m. How Will You Know if You Need to do a Sewer System Evaluation Survey (SSES)?
- 2:30 p.m. Laser Profiling Applications for Documenting Piping System Conditions
- 4 p.m. Advancements in UV Technology for Curing CIPP

WJTA

WaterJet Technology Association

- 8 a.m. Estimating the Vacuum Job for Fun and Profit
- 9:30 a.m. How to Maximize the Power of Your Waterjetter
- 11 a.m. Waterjetting - Financial Startup Considerations and Real-World Application

PSAI

Portable Sanitation Association International

- 1 p.m. Understanding Your True Cost per Service for Special Events - Part 1
- 2:30 p.m. Understanding Your True Cost per Service for Special Events - Part 2

NARC

National Association of Regulated Carriers

- 4 p.m. Avoiding Violation Fines and Tickets with DOT Safety Compliance

NOWRA

National Onsite Wastewater Recycling Association

- 8 a.m. Troubleshooting Our Modern Waste Stream
- 9:30 a.m. Pumps - A Basic Understanding
- 11 a.m. System Remediation - Why, What, When, Where and How?
- 1 p.m. Selling the System to Site Conditions
- 2:30 p.m. Sampling Sewage Treatment Systems
- 4 p.m. Effluent Dispersal and Water Management

NEHA

National Environmental Health Association

- 8 a.m. The Qualified O & M Service Provider
- 9:30 a.m. Effluent Screens and Filters for Onsite Applications
- 11 a.m. Develop Champions for Your Decentralized Wastewater Projects
- 1 p.m. The Business of Management
- 2:30 p.m. Developing O & M Inspection Actions
- 4 p.m. Working with Regulators, Regulations & Industry

SCOTT HUNTER

Business Track

- 8 a.m. Creating an Extraordinary Organization - The Mindset of Leadership (Part 1)
- 9:30 a.m. The Mindset of Leadership (Part 2)
- 11 a.m. The Mindset of Leadership (Part 3)
- 2:30 p.m. Creating an Outrageously Successful Organization (Part 1)
- 4 p.m. Creating an Outrageously Successful Organization (Part 2)

LRN

Leaders Resource Network

- 8 a.m. The Disciplines and Art of Business Success
- 10 a.m. Developing a "Fantastic" Team
- 1 p.m. Diversifying or Specializing Your Services
- 3 p.m. Succession Planning

DETAILED SESSION INFORMATION AVAILABLE AT:

WWW.PUMPERSHOW.COM



THURSDAY SESSIONS

March 3, 2011

BUSINESS TRACK

- 8 a.m. 45 Marketing Tips in 45 Minutes
Lenzyme Inc. - Jerard Nighorn
- 9:30 a.m. The Benefits of Vehicle Routing Software in Today's Economy
RouteOptix Inc. - Ron Davey
- 11 a.m. Unleashing the Power to Profit and Freedom
Nexstar Inc. - Kenny Chapman

LIQUID WASTE TRACK

- 8 a.m. The Evolution of Effluent Filters
Bear Onsite LLC - Theo Terry
- 9:30 a.m. "Life Cycle" From Waste to Windfall
Big Fish Environmental - John Campbell
- 11 a.m. Take Confined Space Seriously - A Matter of Life and Death
M Tech Co. - Chris Cira

NEW BUSINESS OPPORTUNITY TRACK

- 8 a.m. Centripipe (Centrifugally Cast Concrete Pipe)
AP/M Permaform - Steve Henning
- 9:30 a.m. Valve Exercising and Fire Flow Testing for a Reliable Water Distribution System
Hurco Technologies Inc. - Lynn Hurley
- 11 a.m. The Basics of Buying and Selling a Septic or Sewer Business
COLE Publishing - Jeff Bruss

MUNICIPAL TRACK

- 8 a.m. Think Like Grout... For Better Point Repair of Below Grade Structures
Prime Resins Inc. - Scott Kelly
- 9:30 a.m. CCTV Inspections Evolve to Unparalleled Heights
Aries Industries Inc. - George Rada
- 11 a.m. Manhole Chimney Section Rebuilds
Mr. Manhole Systems - Michael Crites

INSTALLER TRACK

- 8 a.m. Membrane Bioreactor (MBR) Technology for Decentralized Wastewater Systems
Bio-Microbics Inc. - Dr. Reza Shams
- 9:30 a.m. Shallow Pressurized Drainfields for Soil-Based Effluent Dispersal
Orenco Systems Inc. - Mark Gross
- 11 a.m. Onsite System Solutions for Shallow Installations
Infiltrator Systems Inc. - Dennis Hallahan

CLASES EN ESPAÑOL

- 8 a.m. Técnicas Corrientes de Limpieza de Tuberías
Innerline Engineering - Jim Aanderud
- 9:30 a.m. Avances en la Evaluación de Tuberías y Tecnologías sin Zanja para Rehabilitación de Tuberías
CDM - Luis Roberto León
- 11 a.m. La Elección de Boquillas en la Limpieza de Drenajes
Innerline Engineering - Jim Aanderud

FRIDAY SESSIONS

March 4, 2011

MUNICIPAL TRACK

- 8 a.m. Large Pipe Inspection
CUES Inc. - N.H. Doc Bennett
- 9:30 a.m. Chemical Grouts & Grouting Methods
Avanti International - Jim Gentry
- 11 a.m. Sectional CIPP Repairs Per ASTM F2599
LMK Enterprises Inc. - Rick Gage

BUSINESS TRACK

- 8 a.m. Save Money - Go Paperless
Clear Computing Inc. - Joel Smith
- 9:30 a.m. Marketing Your Septic/Drain Service Business
COLE Publishing Inc. - Jeff Bruss
- 11 a.m. Evolving Your Business with Digital Solutions
RIDGID - Josh Sooy, Brad Yuranich

CLASES EN ESPAÑOL

- 8 a.m. Anúnciate exitosamente y económicamente, Cuidando tu negocio con atención
Armal Inc. - Angel Romero
- 9:30 a.m. Eficiente las operaciones de limpieza de cualquier red de alcantarillado de América Latina
Hi-Vac Corp. - Gerardo Ramirez
- 11 a.m. Varilla Herramientas y Equipos Simples para Limpieza De Alcantarillas
Max-Life Manufacturing, David Pryor

LIQUID WASTE/INSTALLER TRACK

- 8 a.m. Grease Interceptor 101
Schier Products - Charlie Ismert, Ben Ismert
- 9:30 a.m. Datalogging for Onsite Septic System Diagnosis
SJE Rhombus - Scott Rietsema
- 11 a.m. Belt Press Performance Optimization
BDP Industries Inc. - Kelly Brown

SEWER & DRAIN CLEANING TRACK

- 8 a.m. Inline Cutting Tools - Taking Science to the Sewer!
NozzTeq Inc. - Scott Paquet
- 9:30 a.m. Waterjetting! Impact on Drain Cleaning
US Jetting - Nick Woodhead, Ken Bryson
- 11 a.m. Don't underestimate your cable machines?
MyTana Manufacturing - Jack Donaldson

PORTABLE RESTROOM TRACK

- 9:30 a.m. Give Me 3 Reasons Why I Should Advertise My Portable Restroom Company
Satellite Industries Inc. - Mitch Moores
- 11 a.m. How to Start a Business in South America, Marketing and Importing/Exporting
Armal Inc. - Angel Romero

DETAILED SESSION INFORMATION AVAILABLE AT:

WWW.PUMPERSHOW.COM



ADVANCED INSTALLER COURSE

ALL DAY THURSDAY, MARCH 3RD, 2011

8 a.m. - 5 p.m. • Jim Anderson and Dave Gustafson

2011 EXHIBITOR LIST

Current list of exhibiting companies as of January 18, 2011.
List subject to change without notice.



1-800-Plumber
A & L Systems, Inc.
A Corp./Rooster-Man
A.R. North America
Abbott Rubber Company
Abernethy Welding & Repair Inc.
ACE DuraFlo Systems
Acro Trailer
Advance Pump & Equipment
Advanced Containment Solutions, Inc.
Advanced Drainage Systems
Advanced Infrastructure Technologies
Advanced Pressure Systems
Advanced Tank Systems
Advanced Wastewater Systems
Advanlink International Corp.
Aero-Tech
AeroTech, LLC
AK Industries
All Star Equipment Sales, Inc.
Allan J. Coleman
Allied Forward Motion LLC
Allied Graphics
Allied Tank Co.
AlumaMats
Ameri-Con Engineering
American Express OPEN
American Highway Products
Amerik Engineering
Anther International
Anchor Graphics, Inc.
AP/W Permaform
Aqua Ben Corporation
Aqua Blast Corporation
Aqua Male Technologies
Aqua-Zyme Disposal Systems Inc.
Aquesales
Arcan Enterprises Inc.
Aries Industries Inc.
Arrow Magnolia International, Inc.
Art Co. LLC
Arthur Products
Atlanta Rubber & Hydraulics Inc.
Avanti International
B.A.G. Corp.
Bad Dog Tools
BakerCorp
Bandlock Corporation
BB & T Insurance Svc, Inc.
BDP Industries
Beer Onsite
Benjamin Franklin Franchising
Best Enterprises Inc.
Betts Industries
Big Fish Environmental, LLC
Bio Clean
Bio-Microbics Inc.
Black Tie Manufacturing
Blasters, Inc.
Blood Hound Underground
Blue Angel Pumps
Boerger LLC
Bord no Mono
Bowman Tool Co.
Brenlin Co., Inc.
Bright Dyes, Division of Kingscote Chemicals
Bright Technologies
BW Technologies by Honeywell
Cam Spray
Canam Equipment Solutions Inc.
Cargus Industries Ltd.
Cape Cod Biochemical Co.
Capital Partners
Capital Rubber Corp.
Cappelletto S.P.A.
Carbo
CAT PUMPS
CEMTEC / A.W. Cook Cement Products, Inc.
Century Chemical Corporation

Century Paper & Chemical
Champion Pump Company, Inc.
Chandler Equipment Inc.
Chelsea Products/Div. of Parker
Chemical Containers, Inc.
Chempac Corporation
Chempure Products Corp.
Chemie Industries Inc.
City Wide Development Group, Inc.
Clarus Environmental/
Zoeller Pump Company
Clear Computing
Clearstream Wastewater Systems Inc.
Clew
Cloverleaf Tool Co.
Cobra Technologies
Comet USA, Inc.
Comforts of Home
Compa Industries
Conaqtec
Containment Solutions Inc.
Control Chief
Corlec Corporation
Cosmic Tophat LLC
Cougur Vibration
a Division of Martin Engineering
Correals
Crane Pumps & Systems
Crescent Tank Manufacturing
Cretek Specialty Products
Cross Bore Safety Association
Crust Buster/Schmitz Bros.
CSI Controls
CUES Inc.
Custom Biologicals Inc.
Cyclops Electronics, Inc.
D&W Diesel, Inc.
De Neef Construction Chemicals
Deal Associates
Del Val Chemical Co.
Delta Environmental
Direct Purchase Quick Couplings
Ditch Witch
Downey Ridge Environmental Company
Dr. Shrink, Inc.
Dragon Products
Drainables Direct
Dresser Roots
Dultmeier Sales
Durable Manufacturing
Durand-Wayland, Inc.
Dyno Flex Inc.
E.H. Woods Company
Easy Liner
ECA-SSI
Ecological Laboratories Inc.
Ecological Tanks, Inc.
Electric Eel Mfg. Co. Inc.
Eljen Corporation
Engine & Accessory Inc.
Environmental Products and Access.
Envirosight LLC
Envirotab
Enz USA Inc.
EPA-MDU Partners
Explorer Trailers
EZ Trakr
Federal Signal Environmental
Solutions Group
Fergus Power Pump Inc.
FindaPlumber.com
Fisher Research Laboratory
Five Peaks Technology
FRC Co. Ltd.
Flitz International Limited
Flo Trend Systems Inc.
Flood Grouting Systems, LLC
Flow-Liner
Fluid Systems, Inc.

FM Manufacturing Inc.
FMC Technologies
Footage Tools, Inc.
Force America Inc.
Formadrain Inc.
Fournier Industries Inc.
Fresher Start
Fruitland Tool & Manufacturing
GamaJet Cleaning Systems
GapMax Inc.
Gardner Denver Inc.
Gardner Denver Waterjet, Sys. Inc.
GEA Hauls Inc.
General Pipe Cleaners
General Pump
GeoFlow, Inc.
Giant Industries Inc.
Global Pipeline Systems
Gloves4you.com
Go Far Digger
Godwin Pumps / ITT
Goldak Inc.
Goritz Sewer & Drain, Inc.
Goulds/ITT
Granite Leasing Company
Great Lakes Equipment Sales, Inc.
Green Leaf Inc.
Greenovative Technologies
Hackney - Division SVC
Hammelmann Corp.
Handaga, LLC
Hannay Reels
Harben Inc.
Hathorn Corporation
Hedstrom Plastics
Hoffman Insurance Brokers
Holtzmann Corp.
Hella, Inc.
Heritage Truck Equipment Inc.
Hi-Vac Corporation
Hibon, Inc./Div. of Ingersoll Rand
High Pressure Equipment Company
House of Imports
Hurco Technologies Inc.
Hydra-Tech Pumps
I.E. Monitoring Instruments Inc.
I.S.T. LLC
IHl Compact Excavator Sales
Imperial Industries Inc.
Infiltrator Systems Inc.
Infrastructure Repair Systems, Inc.
InfraTech
ITI Trailers & Truck Bodies Inc
ITT
IMS Hydro Inc.
J&J Chemical Company
Jack Doherty Supplies, Inc.
Jag Mobile Solutions, Inc.
Jameson LLC
Jet Inc.
JETS/COG
Jetter Depot
Johnny's Choice by Chemcorp Industries Inc.
Juggler by Labrie
Kar-Tech
KeeVac Industries Inc.
KEG Technologies, Inc.
Keith Huber, Inc.
Kentucky Onsite Wastewater Association
Kentucky Tank, Inc.
Kewanna Screen Printing
Kroy Industries
Kruz Inc.
Kuriyama of America Inc.
L.M.T.
La Place Equipment Co Inc.
Lassen Vanderlans & Sons Co.
Ledwell & Son
Lely Manufacturing

Lenzyme Incorporated
Liberty Financial
Liberty Pumps
LightStream
Liquid Environmental Solutions
Liquid Waste Technology
Little Giant DBA Franklin Electric
LMK Technologies, Inc.
Lock America, Inc.
Logiball Inc.
Longhorn Tank & Trailer
M.A.R.S. Workwear/Communications
Madwell Products Corp.
Mainline Backflow Products, Inc.
Manhole Guard
Masport Incorporated
Matrix Payment Systems
Max-Life Mfg.
MaxLiner
Meese Orbitron Durine Company
Marrell Bros., Inc.
MicroSpring International, LLC
Mid-State Tank Co., Inc.
Milwaukee Electric Tool
Milwaukee Rubber Products Inc.
Mody Pumps, Inc.
Mongoose Jetters
Moro USA
Mr. Rooster Corp.
MTC Enterprises, Inc.
MTech
Mundie Power Products
MWI Corporation
Myers
Myers-Seth Pump Inc.
Nylane Mfg. Company Inc.
NASSCO
National Oilwell Varco
National Precast Concrete Association
National Pump and Compressor
National Truck Center
National Vacuum Equipment
NAWT Inc.
Netalim USA
NewTech Inc.
Nexstar
Nilladar Inc.
NIB Corp.
Norweco Inc.
Novaflex Hose
NOWRA
Nozzlec™ Inc.
NSF International
Nu Flow Technologies, Inc.
Nuhn Industries Ltd
Oceanquip, LLC
Ohio Electric Control, Inc.
Oliner System
OMI Industries
OmniSite
OMSI Transmissions Inc.
One Biotechnology
Onset Pipe Products, Inc.
Opersoft
Orenco Systems, Inc.
Painters Union District 53
Parson Environmental Products Inc.
Pat's Pump & Blower
Pearpoint, Inc.
Painmann Equipment
Pekasys
Pelican Worldwide
Penny Pockets
Pentair Water
People's United Equipment Finance Corp.
Perma-Liner Industries, Inc.
Petersen Products
Picadilly Concepts

Pik Rite Inc.
Pipe Genie Mfg. Inc.
Pipehunter
Pipeline Analytics
PipeLogix Inc.
PipeTech Software
Piranha Hose
Plug-It Products
Poly-Flow
PolyJohn Enterprises Corp.
Polylok/Zabel
PolyPortables Inc.
Porta Pro
Portable Sanitation Assoc. Int'l.
POSM Soft LLC
Pow-R Mole
Powertrack International Inc.
Premier Tech Aqua
Presby Environmental, Inc.
Press-Seal Gasket Corp.
Presvac Systems, Ltd.
PRH LLC
Prime Resins, Inc.
Prime Solution, Inc.
Protective Liner Systems
PUMTEC
PURE Software Solutions, LLC
Pure Technologies US, Inc.
Rabco
RAE Systems
RapidView IBAK North America
Rotech Electronics, Ltd.
Rausch Electronics USA LLC
RC Industries Inc.
Reckitt Benckiser
REED Manufacturing Company
Reekraft Industries Inc.
Reline America Inc.
Remote Vision System
Rhino Linings Corporation
Rich Mobile Restroom Mfg.
RIDGID
Ritam Technologies, LP
RKI Instruments
Robert H Wager Company Inc.
Robuschi & C.S.p.A.
Roebic Laboratories, Inc.
RoatX
Roth Global Plastics
Rothenberger USA
Roto-Rooter Corporation
RotoSolutions
RouteOptix Inc.
RS Technical Services Inc.
Rush Refuse Systems
SAERTEX multiCom LP
Safe-Tee Chemical Co.
Safety Corporation of America
Safety Vision
Salcor, Inc.
Sanitation Insurance Services
Satellite Industries Inc.
Sauverson, Inc.
Sevatech Corp.
Schier Products
ScreenTech Imaging
a div. of Reeda Signs Inc.
Sealing Systems Inc.
Septic Drainer / Municipal Sales, Inc.
Septic Products Inc.
Septic Services Inc.
Septonics
Servant Products
Service Sales Company
Sewer Equipment Co. of America
Shamrock Pipe Tools Inc.
Sherwin Williams
ShuBee
SIM/TECH Fibers

SJE-Rhombus
SludgeHammer Group Limited
Sludgenet
Spartan Tank & Trailer
Spartan Tool LLC
Specialty B Sales
Speed Beveller
SPIR STAR
Sprayraq Inc.
Stamp Works
Standard Equipment
Stellar Industries Inc.
Stephens Technologies
StoneAge, Inc.
Subsurface Instruments
Sunbelt Rentals
Sunrise Environmental
Superior Signal Company
SuperVac 2000
SVE Portable Roadway Systems, Inc.
Synergy Insoles by V.P. Marketing
T & T Tools Inc.
Tank Technologies & Supply Co., LLC
TEC Equipment Finance
TeleSwivel
The Service Program
The Strong Company
Thompson Pump
Toico Industries
Topp Industries, Inc.
Tracker Solutions
Transway Systems Inc.
Trenchless Technology Magazine
Tri State Tank LLC
TRIC Tools Inc.
Trident Insurance/Septicover/
Waste Insurance Program
Trillium Environmental Services
TRY TEK Machine Works, Inc.
TSF Co. Inc.
TSI Tank Services Inc
TT Technologies Inc.
Tuf-Tite Inc.
Turbo-Fog, Division of Kingscote Ind.
U.E.M.S.I.
Under Pressure Systems, Inc.
UPS Logistics Technologies
US Jetting, LLC
USA BlueBook
USB-Sewer Equipment Corporation
Vac-Con, Inc.
Vacoll
Vacutrax Limited / Explorer Trailers
Vacuum Truck Rental
Vaporooter
VAR Co.
Vermeer
Vivox Corp.
Walex Products Co.
Wallerstein Vacuum Pumps
Wastequip
Water Environment Federation
Weber Industries, Inc. (Webtrol)
Webster Capital Finance, Inc.
Wells Fargo COG
Wells Fargo Equipment Finance
Western Mule Cranes
Westmoor Ltd.
Wieser Concrete Products Inc
WJTA-IMCA
Wahler USA
Xerxes Corporation
Yodel

CALL 866-933-2653
OR VISIT WWW.PUMPERSHOW.COM

MUNICIPAL
SEWER
&
WATER
**Marketplace
Advertising**

CONFINED SPACE ENTRY PACKAGE
ONLY \$2,995

The best package on the market includes:

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

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

MTECH 800.362.0240
www.mtechcompany.com

Superior® SMOKE
for Sewer Testing

Fast • Inexpensive • Easy



MADE IN THE
USA

Booth
6141

Superior® Smoke Testing
the most cost effective method
to find sources of inflow

Choose Candles or Fluid

800-945-TEST

www.SuperiorSignal.com

**THE ULTIMATE TRACTOR
TRACTION PAD**

- Silicone carbide composite
- Chemical/heat process to construction for long life
- Custom dependable
- double hole fabrication for any CUES, Aries or other style of tractor
- Chain assemblies
- Competitive pricing
- Money back guarantee
- We are a 612 company
- For prices, questions or a sample please contact us

PIPE TOOL SPECIALTIES

PHONE 1-(503)-390-6794 OR FAX 1-(503)-390-6670
Email at pts4422@yahoo.com

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

**"Your One-Stop
Stopper Shop!"**

FOR 31 YEARS - HOME OF THE ORIGINAL
**PIPE PLUG & NB BAG/
PILLOW DESIGN STOPPER**
[SINGLE SIZE OR MULTI SIZE PIPE STOPPERS 4" & UP]

- SINGLE & MULTI SIZE PASS THRU PLUGS
- MULTI SIZE PLUGS & MULTI SIZE LEAK LOCATORS
- SINGLE & MULTI SIZE TEST PLUGS
- COMPLETE LINE OF SEWER & DRAINAGE TOOLS AVAILABLE

disc plugs | high pressure plugs | large inflatable pipe plugs | pipeline testing & acceptance plugs | pneumatic bypass plugs

**SEWER EQUIPMENT CO.
OF FLORIDA, INC.**

NEW SMYRNA BEACH, FL
IN FL 800.225.2952 | OUT OF FL 800.635.2323
IN CANADA 800.328.3318

www.SewerEquipmentCo.com

**TV
FERRET**

Advanced Pipe Inspection Systems

- Full Pan&Tilt systems starting at \$40,000
- The only completely DC powered system
- Inspect pipes from 6" and up



more information at:
tvferret.com

518.399.2211

SPECTRA SHIELD
LINER SYSTEMS

**MANHOLE & WETWELL
RESTORATION SYSTEM**



Prevents Corrosion
Stops Infiltration
Stress Skin Structural Panel
Cost Competitive

10 YEAR WARRANTY

A 7' DEEP MANHOLE CAN BE
LINED IN LESS THAN 1 HOUR

CCI Spectrum, Inc.

800-284-2030

www.spectrashield.com



Infi-Shield External Seal

SEAL IT!

Save money and gain effective capacity quickly and affordably

SEALING SYSTEMS, INC.

9350 County Road 19, Loretto, MN 55357

Toll Free: (800) 478-2054

VISIT OUR NEW WEBSITE:

www.ssisecalingsystems.com



Booth
165

1-800-538-8464

**Nozzles, Hoses
& Parts for ALL
Jetting Units.**

www.usjetting.com



SEWERLOCK.COM
MANHOLE SAFETY COVER
(800) 767-5882

- SEWER
- STORM
- UTILITY
- GREASE
- HOMELAND SECURITY

Installs below & independent of frame in new & existing manholes, & prior to street overlay for safety, to catch debris, deter dumping & theft.

SEE "HOW TO GET STARTED" www.sewerlock.com

**WARNING
Don't
Miss
Out!**

Get
your

**FREE
issue of
Municipal
Sewer &
Water.**

COLE Publishing
www.mswmag.com



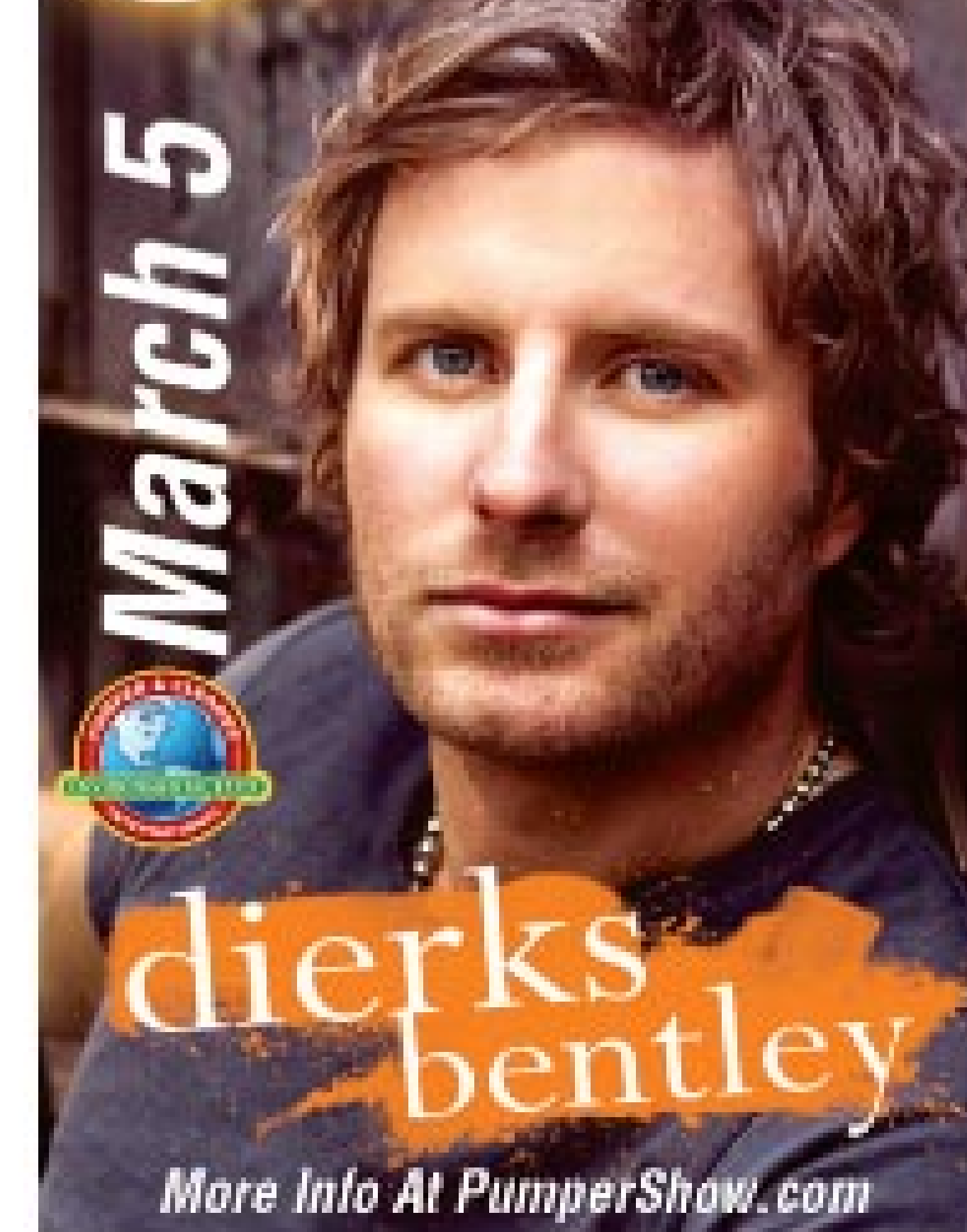
**ATTRACT
ATTENTION**

Marketplace ads are available in color.

Call today to get started 800.994.7990



March 5



**dierks
bentley**

More Info At PumperShow.com

MUNICIPAL SEWER & WATER

Municipal Sewer & Water Marketplace gives you nationwide exposure to thousands of industry professionals.

Layout and design is included **FREE**, and we can fax or e-mail you a proof for final approval

**Now Available In
4-Color
or
Spot Colors**

Choose a size that works best for you!

**Call
1.800.
994.7990**

*Black and white prices, call for 4-color pricing.

Send ad materials and payment to:
**COLE PUBLISHING INC.
P.O. BOX 220
THREE LAKES, WI
54562**

Size A:
\$319⁰⁰*
1.875" W x 4.875" H
This size is great for two photos!

Size B:
\$219⁰⁰*
1.875" W x 3.2" H
Perfect size for one photo!

Size C:
\$119⁰⁰*
1.875" W x 1.5" H
A great value!



\$2,999
Confined Space Entry System

- 7' Tripod
- 3-Way Fall Winch
- Work Winch
- Full Body Harness
- MSA Altair 4 Gas Monitor

Call for Catalog & Prices
800.365.6583
www.cloverleaftool.com

Footage

TOOLS INC.

- Underground Piercing Tools
- Service Line Replacement Tools
- Pipe Fusion Tools
- Tapping Tools

Visit us at the Pumper & Cleaner Show! Booth # 104

Call us toll free:
1-888-737-3668
View our entire product line at:
www.footagetools.com

DYE TRACERS

Solutions for:

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

BRIGHT DYES
Division of Kingscote Chemicals

www.brightdyes.com **FREE SAMPLE 1-800-394-0678**

BUST BLOCKAGES!



safe-tee
STC 300 heavy duty degreaser


1 GALLON
5 GALLON
55 GALLON

- Used in high pressure jet cleaners to bust the toughest grease blockages.
- Safe for the environment and your crew.
- Eliminates H₂S odors.
- Great for grease and oil spill cleanup.

866-366-0587
safe-tee
chemical
cleaning responsibly since 1988
www.safeteechemical.com

IndustrialOdorControl.com

A broad and economical range of odor control solutions



Pictured: Super Wolverine DF Unit

- ▣ **Manhole Odor Inserts**
- ▣ **Pollution Control Barrels**
- ▣ **Activated Carbon**
- ▣ **Vapor Phase Adsorbers**
- ▣ **Septic Vent Filters**
- ▣ **Custom Solutions**

866-NO-STINK (667-8465)
973-846-7817 in NJ
IndustrialOdorControl.com

Simple Solutions
DISTRIBUTION LTD.
Makers of the Wolverine Brand of Odor Control Solutions

PEOPLE/AWARDS

The **Village of Schaumburg (Ill.) Department of Public Works** received its third Re-Accreditation Award from the American Public Works Association.

The **American Public Works Association** announced that the following public works professionals earned credentials as Certified Stormwater Managers:

- Cody Whittenburg, City of Stillwater, Okla.
- Pamela Acre, City of Northglenn, Colo.
- Joseph Chaplin, City of Loveland, Colo.
- Jenny Gaus, City of Kirkland, Wash.
- Lou Leet, City of American Canyon, Calif.
- Sandra McDonald, City of Arvada, Colo.
- Jamie Paige, City of Wentzville, Mo.
- Tracey Pond, City of Golden, Colo.
- Richard Price, EA Engineering, Honolulu, Hawaii
- Pablo Rubio, PR Engineering Services, San Antonio, Texas
- Alan Searcy, City of Lakewood, Colo.
- Susan Strong, City of Fort Collins, Colo.

LEARNING OPPORTUNITIES

APWA

The American Public Works Association offers these courses:

- Feb. 15 – Gray Water Reuse and Rainwater Harvesting, Audio/Web Broadcast
- Feb. 24 – Team Dynamics: Stepping up to the “New Normal,” Audio/Web Broadcast
- March 8-9 – Stormwater Management Workshop, Charlotte, N.C. Visit www.apwa.net.

ASCE

The American Society of Civil Engineers offers these webinars:

- Feb. 7 – An Introduction to Design Specifics and Tools
- Feb. 14 – Understanding the Use of Ineffective Flow Areas
- Feb. 16 – Improved Project Communication: Within and Outside of the Project Team
- Feb. 25 – Engineered Rainwater Collection and Case Studies for Sustainable Water Management
- March 2 – Delegation: Why Put Off Until Tomorrow What Someone Else Can Do Today?
- March 4 – Stormwater BMPs: What Works, What Doesn't and What About Maintenance?
- March 11 – Negotiating Better Engineering and Architectural Contracts
- March 15 – An Overview of Unsteady Flow Simulations Using HEC-RAS

CALENDAR

Feb. 8-11

American Water Works Association Utility Management Conference, Denver, Colo. Visit www.awwa.org.

Feb. 20-23

International Erosion Control Association Annual Conference, Disney's Coronado Springs Resort, Orlando, Fla. Visit www.iejca.org.

Feb. 24-25

International Conference on Stormwater and Urban Water Systems Modeling, Toronto, Ont. Visit www.asce.org.

March 2-5

Pumper & Cleaner Environmental Expo International, Kentucky Exposition Center, Louisville, Ky. Call 800/257-7222 or visit www.pumpershow.com.

March 13-16

American Society of Civil Engineers Geo-Frontiers, Sheraton Dallas Hotel, Dallas, Texas. Visit www.asce.org.

March 23-25

American Society of Civil Engineers International Conference on Sustainable Design and Construction, Hyatt Regency Crown Center Hotel, Kansas City, Mo. Visit www.asce.org.

March 28-31

American Water Works Association Membrane Technology Conference and Exposition, Long Beach, Calif. Visit www.awwa.org.

- March 28 – Engineering Through Ethical Challenges
 - March 30 – Sustainable Sites, Stormwater Design and Water Efficiency Points for LEED Projects
- Visit www.asce.org.

AWWA

The American Water Works Association offers these courses:

- Feb. 9 – Water Agency Management in the 21st Century, webcast
 - Feb. 22-25 – Stormwater Modeling Workshop, Toronto, Canada
 - March 23 – UV Disinfection: Fundamentals, Regulations and Application, webcast
- Visit www.awwa.org.

Wisconsin

The University of Wisconsin Department of Engineering-Professional Development is offering these courses:

- March 21-22 – Upgrading Your Sanitary Sewer Maintenance Program, Madison
 - March 23-25 – Wastewater Pumping Systems and Lift Stations, Madison
 - March 28-29 – Municipal Engineering Fundamentals for Non-Engineers, Madison
- Visit www.epdweb.engr.wisc.edu.

The Wisconsin Department of Natural Resources offers these courses:

- Feb. 1-3, 8-10 – Groundwater Supply and Distribution, Green Bay
 - Feb. 15 – Water Supply Safety, Chippewa Falls
 - Feb. 16 – Advanced Water Treatment Strategies, Chippewa Falls
 - Feb. 17 – Security and Emergency Planning for Utilities, Chippewa Falls
 - Feb. 22-23 – Iron, Zeolite and VOC, Madison
 - Feb. 24 – Government Affairs, Middleton
 - March 17 – Distribution, Green Bay
 - March 18 – Distribution, Wisconsin Dells
 - March 29-31 – Distribution, Fond du Lac
- Visit www.dnr.state.wi.us. ♦



A Bag Full

mswmag.com

- > Classifieds
- > Used Equipment
- > E-zines
- > Product Categories

B² BUSINESS BROKERAGE Marketing & Brokering

TRYING TO SELL YOUR BUSINESS?

We can effectively market your business to more than 60,000 potential buyers in the commercial drain and sewer maintenance industry, your local markets, and other venues. No

upfront fees – you don't pay anything unless your business sells. To learn more about brokering your business through B², call 800-257-7222.

LOOKING TO BUY?

Call us, and we can add you to our VIP Buyer List

LISTINGS

Amarillo, Texas sewer, drain & plumbing business established in 1976. Owner wants to retire, so take the keys to a 2004 Sprinter outfitted with all of the equipment you'll need to run this business. Price includes real estate with 80x100 shop/office on two city lots. Good gross, good profit, financials available with signed non-disclosure. **Offered at \$495,000.**

Chicago-Area Biosolids, Land Application, Dredging and Industrial Services Business.

Established in 1985, owner is retiring. Reputable business includes real estate servicing the entire Chicagoland area with sludge and biosolids disposal and treatment services. Real estate and shop included with sale valued at \$750,000, business grosses in excess of \$3 million annually, \$6.3 million in equipment and assets including several TerraGators, Vac Trailers, dump trailers, loaders and much more. **\$4,900,000.** Huge potential, good profit and priced right. Non-disclosure Agreement required, all P&L statements, list of assets, and financials available to qualified buyers.

New Jersey/Pennsylvania drain cleaning and pipe service business has all the elements for an ample start to a new foundation or an addition to your existing business. Established in 1994, well-rounded client base, customer contracts, and owner is willing to train. Modern equipment and inventory. Real estate optional. **Reasonably priced at \$425,000.**

Successful business with a large amount of equipment and inventory. Profitable sewer and septic business in central Pennsylvania. Increasing revenue over the past 3 years and a large amount of equipment and inventory. Equipment is a mix of old and new, but all is working and making money. **Selling price \$349,000.**

WANTED. Very serious and well qualified buyer looking for sewer, septic or industrial business in Dallas, Texas area. Must be grossing between \$500,000-\$1,000,000. All inquiries are kept confidential.

Dallas/Fort Worth Texas Area Sewer/Rehab Business For Sale. Drain Cleaning, TV inspection, Pipeline & Manhole Rehab/Relining, Municipal Cleaning and Maintenance business for sale. Excellent opportunity to expand or start your own business. Good revenue history and priced to sell. Includes all equipment to get started. **Asking \$195,000.**

WANTING TO PURCHASE. Serious buyer looking to purchase portable restroom and/or septic businesses in the North NJ or Hudson Valley NY area. All inquiries are kept confidential. (C611)

Well-Established and Profitable Texas Septic, Sewer & Installation Business For Sale. Price reduced. Grossing in excess of \$600,000 annually, customer list of nearly 2,000 accounts and 430 contracted customers. Includes nice late model equipment, most are 2007, 2008 model years. Owner retiring after nearly 40 years in business. Real estate available upon request. **Reduced to \$450,000.**

New Jersey VIP Restroom/ Portable Toilet Business. Servicing Metro Philadelphia and Southwest New Jersey with VIP restroom trailers and portables. Many late model assets including 2 nice service trucks, 1 back-up service truck, pick-up truck, 4 VIP restroom trailers, nearly 300 restrooms, sinks, holding tanks, slide-in unit, 2 forklifts, and more. Assets worth over \$300,000 – priced to sell at **\$399,000.**

Established portable restroom and septic service business located in central Virginia. Excellent gross each of the past 3 years with no decline in revenue makes this business recession-proof. Steady work including many contracts and repeat customers. Extensive equipment inventory, good revenue, and owner willing to train. Great opportunity for expansion or a new career. **Asking price \$775,000.**

CLASSIFIEDS

BLOWERS

New Roots 27" 1021 PD blower. In stock, ready to ship or install. **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

VFC200P-5T, FUJI Pumps, Regenerative Blowers, Ring Compressors. All models, accessories. Authorized distributor. Authorized parts and repair center. Call 888-227-9822. **www.carymfg.com** (MBM)

BUSINESSES

Well-Established and Profitable Texas Septic, Sewer & Installation Business For Sale. PRICE RECENTLY REDUCED. Grossing in excess of \$600,000 annually, customer list of nearly 2,000 accounts and 430 contracted customers. Includes nice late model equipment, most are 2007, 2008 model years. Owner retiring after nearly 40 years in business. Real estate available upon request. Reduced to \$450,000. E-mail jeffb@colepublishing.com or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing - www.BTwo.biz.** (MBM)

Successful business with a large amount of equipment and inventory. Profitable sewer and septic business in central Pennsylvania. Increasing revenue over the past 3 years and a large amount of equipment and inventory. Equipment is a mix of old and new, but all is working and making money. Selling price \$349,000. E-mail jeffb@colepublishing.com or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing - www.BTwo.biz.** (MBM)

Looking to buy a business in the liquid waste, portable sanitation, or sewer & drain industries? Call B2 Business Brokers powered by *Municipal Sewer & Water* at 800-257-7222 and we can add you to our VIP buyer list. No obligation, no fees, no pressure. (MBM)

BUSINESSES

Amarillo, Texas sewer, drain & plumbing business established in 1976. Owner wants to retire, so take the keys to a 2004 Sprinter outfitted with all of the equipment you'll need to run this business. Price includes real estate with 80x100 shop/office on two city lots. Good gross, good profit, financials available with signed non-disclosure. Offered at \$495,000. E-mail jeffb@colepublishing.com or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing - www.BTwo.biz.** (MBM)

Chicago-Area Biosolids, Land Application, Dredging and Industrial Services Business. Established in 1985, owner is retiring. Reputable business includes real estate servicing the entire Chicago-land area with sludge and biosolids disposal and treatment services. Real estate and shop included with sale valued at \$750,000, business grosses in excess of \$3 million annually, \$6.3 million in equipment and assets including several Terra-Gators, Vac Trailers, dump trailers, loaders and much more. Offered at \$4,900,000 - huge potential, good profit and priced right. Non-Disclosure Agreement required, all P&L statements, list of assets, and financials available to qualified buyers. E-mail jeffb@colepublishing.com or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing - www.BTwo.biz.** (MBM)

New Jersey/Pennsylvania drain cleaning and pipe service business has all the elements for an ample start to a new foundation or an addition to your existing business. Established in 1994, well-rounded client base, customer contracts, and owner is willing to train. Modern equipment and inventory. Real estate optional. Reasonably priced at \$425,000. E-mail jeffb@colepublishing.com or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing - www.BTwo.biz.** (MBM)

BUSINESSES

Dallas/Fort Worth, Texas Area Sewer/Rehab Business For Sale. Drain Cleaning, TV inspection, Pipeline & Manhole Rehab/Relining, Municipal Cleaning and Maintenance business for sale. Excellent opportunity to expand or start your own business. Good revenue history and priced to sell. Includes all equipment to get started. **Offered at \$195,000.** E-mail jeffb@colepublishing.com, visit www.Btwo.biz, or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing.** (MBM)

Looking to sell your industrial cleaning, hydroexcavation or waterblasting business? We have buyers. Must have gross revenue in excess of \$1,000,000 annually. Nationwide interest. E-mail jeffb@colepublishing.com or call 800-257-7222 and ask for Jeff Bruss for more details. **A B2 Business Brokerage Listing.** (MBM)

BUSINESS OPPORTUNITIES

Looking to sell your business? We can effectively market your business to more than 60,000 potential buyers in the liquid waste, portable sanitation, and sewer & drain industries, as well as your local markets, the Internet and other venues. No upfront fees — you don't pay unless your business sells. To learn more about brokering your business through B2 Business Brokers powered by *Municipal Sewer & Water*, call 800-257-7222. (MBM)

CATCH BASIN CLEANER

2008 American La France Condor with a new VacAll VS10DC, 10-yd. debris body, dual steer dual sweep street sweeper and catch basin cleaner. (Stock #13352V) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

DRAIN/SEWER CLEANING EQUIP.

Used and rebuilt cable machines in stock. Ridgid K-7500, K-3800, K-380, K39. General, Speed-rooter, Metro Rooter, T-3 Mini Rooter. Spartan #1065, #300, #200, #100, Electric Eel #C and #D. National #400, gas-powered Ridgid K-1500. The Cable Center. 1-800-257-7209. (CBM)

JETTERS-TRAILER

1997 Sewer Equipment Company of America 747FR2000 trailer jetter, 40 GPM, 2000 PSI, 600' hose reel, 700 gal. tank. Works great. \$12,000. Call Rob 209-993-5549 CA. (C03)

JET VACS

2008 Sterling LT7501 with a VacAll AJV1015, 10-yd. debris body, 1500 gal. water, combination vacuum/jetting unit. (Stock #13366) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

JETTERS: TRUCKS

2006 GMC TC6500 cab and chassis with Pipe Hunter trunk mounted jetting unit, 3000 psi @ 50 gpm with a 1,000 US gal. water tank, rear mounted hose reel with JET EYE camera system. **6,800 original miles, like new. \$129,000 sale price. (Retail for \$210,000)** (Stock #13234V) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

For Sale: 2009 Sreco Flexible jet truck 3000 gal. tank. 125 gpm @ 2000 psi mounted on 2007 Sterling with 17,000 miles. We replaced hydraulic motors, larger hydraulic tank, installed a hydraulic cooler, rebuilt extendable hose reel, replumbed water lines, rewired most of unit and added rubber motor mounts to the John Deere auxiliary engine. \$250,000. 605-880-1358 SD. (M03)

1992 Ford L8000 cab and chassis with an enclosed Sewer Equipment Co. jetting unit with a Myers D-65 hydraulically driven water-cooled pump. (Stock #1505C) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

USED JETTERS FOR SALE! Visit us at www.ahequipment.com for details. Various makes, models and years. We also **BUY** used units! (C02)

For Sale: 2009 Sreco Flexible jet truck 3000 gal. tank. 125 gpm @ 2000 psi mounted on 2007 Sterling with 17,000 miles. We replaced hydraulic motors, larger hydraulic tank, installed a hydraulic cooler, rebuilt extendable hose reel, replumbed water lines, rewired most of unit and added rubber motor mounts to the John Deere auxiliary engine. \$250,000. 605-880-1358 SD. (C03)

PIPELINE REHABILITATION

Maxliner Gun complete system except compressor, 4, 6 & 8 rings. 330' 4" thick liner resin & hardner. \$17,500. Brian 901-461-8776 TN. (C03)

2010 UVC Tec ultra violet curing system. 6 - 24" diameters - new system - never used. Mounted in 2006 F450 14' Cube Van, c/w 30 kilowatt generator. PH: 250-962-9382. (C02)

One trade-in model of Pipe Genie heavy duty pipe bursting equipment. Excellent condition, looks new. 30-ton, 100 feet cable, full 2 year warranty. 877-411-7473. (CBM)

POSITIONS AVAILABLE

Experienced Jet-Vac Truck Operator. Fast growing company looking for Operators Camera and Vac Units. Full-time and part-time positions available (East Coast). Fax work history to Pipeline Investigations, Inc. 410-242-1038 or fleetbarnes@pipelineinvestigations.com. (C02)

BUSINESS DEVELOPMENT MANAGER: DBI Services, Inc., one of the Nation's leading highway infrastructure companies, is seeking a Business Development Manager in our Cleaning Management Division. Qualified applicants must demonstrate a proven ability to build and maintain strong, effective relationships with customers, along with excellent organizational and time management skills. Prior experience in sales, business development or managing marketing strategies is required. Preference will be given to those with experience in industrial cleaning, pressure washing, street sweeping, etc. This position is based out of our Corporate Office in Hazleton, PA, but extensive travel is required. We offer an excellent starting salary and benefits package, including 401K plan along with the opportunity to be a part of a growth oriented organization. For career opportunity and confidential consideration, send, fax or email resumes to: DBI Services, Inc., Attn: Ellen Mendofik, 100 North Conahan Drive, Hazleton, PA 18201. FAX: 570-459-5363; emendofik@dbiservices.com. EEO/AAP M-F-DV. (C02)

TRUCK STOP

See photos in color at
www.mswmag.com



2007 Ring-O-Matic 750 High CFM Vac Trailer: Cat 3024 @ 50 HP, 696 hours, liquid-cooled, 750 gallon cap., 850 CFM lobe style blower, 20,860# GVW.....\$29,500
715-546-2680 WI MBM



1995 Vactor 1645: L9000 14.6L Cat, 3406 diesel, 9-spd. Fuller trans., 4.30 rear end, 18' blower, 3000 gallon tank. Ready for work!!\$62,500
734-699-4949 MI C03



(2) 1999 Sterling LT9501: Cat 3126 @ 230 HP, Allison A/T, spring susp., 86K miles and 82K miles, disc wheels\$19,500 Choice
715-546-2680 WI MBM



2001 Peterbilt 357 Vac Truck: C-10, 127K miles, 21/46 axles, Fuller 8LL, ATRO susp., PTO, front floats, cruise, NVE pump, Keith Huber tank, 3,200 gallon cap.....\$69,500
715-546-2680 WI MBM



1991 Camel 200: 6-speed, 65 gpm, 2000 psi, Roots 624 blower, tandem axle, ready for work, 169,000 miles, excellent condition.\$28,900
920-655-7302 or 920-866-9109 WI C03



2001 Sterling LT9500: Cat C-12 @ 395 HP, 97K miles, shows 7K hours, 20/46 axles, spring susp., 273" WB, 22.5 tires, disc wheels, VacCon end dump, Dresser rotating lobe blower\$79,500
715-546-2680 WI MBM



2002 Sterling V230H Vac-Con: Cat 210 hp engine, 26,000 GVW, 3.5-yd. debris body, 500 gal. water tanks, extendable boom, FMC water pump, 500' hose/reel/accessories, 122,000 miles.\$50,000 OBO
760-480-2347 CA M03

**FOR JUST \$125 YOUR TRUCK STOP AD WILL APPEAR IN MSW and ONLINE!
JUST GO TO www.mswmag.com; Place a Truck Stop Ad; Fill in the ONLINE FORM!**

POSITIONS AVAILABLE

GapVax has two SALES POSITIONS AVAILABLE. Check details on our website, www.gapvax.com, or send resume to betty@gapvax.com. (P2C3)

JOIN THE INDUSTRY LEADER!

Since 1943, Spartan Tool has been leading the way in sewer and drain cleaning. We're dedicated to helping our customers work quickly, efficiently and safely. We are seeking territory sales managers who possess good customer relationships, business to business selling skills and understanding of the sewer and drain industry. Our hands on products are marketed to a large customer base, offering repeat sales opportunities. If selected to join our growing sales team, you will benefit from base salary, commissions, great benefits and an opportunity to experience years of strong income and remarkable independence. Interested candidates are asked to forward their resume to Spartan Tool's National Recruiting Director, bkuty@spartantool.com. (CBM)

PUMPS

Buy & Sell all makes and models, **new & used** vacuum pumps & high pressure water pumps, and good used replacement parts. Call for an inventory sheet and save. **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

New water end barrel for Vactor water pump, \$1,250.00. 714-381-4141. (CPBM)

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.** (M02)

SEPTIC TRUCKS

One (1) 2006 3200 US gallon **stainless steel** vacuum tank. **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

SEPTIC TRUCKS

2010 Peterbilt 348s with new Presvac 3600 US gal. aluminum vacuum pressure tanks with Masport HXL400WV vacuum pressure pumps. (Stock #8807 & 8808) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

For Sale in Wyoming: 1980 3208 Cat diesel, Top Kick w/2,000 gallon tank. Please call Ryan 307-367-2767. (P03)

1998 Mack RD6885 with a 3200 US gallon stainless steel vacuum tank unit. (Stock #6653V) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

SERVICE/REPAIR

Dynamic Repairs - Inspection Camera Repairs: 48-hr. turn-around time. General Wire, Ratech, Ridgid, Pearpoint, Electric Eel, 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. (MBM)

TANKS

One (1) 2006 3200 US gallon **stainless steel** vacuum tank. **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

VACUUM LOADERS

1999 International with a Guzzler Ace 27" HG wet/dry industrial vacuum tank loader. **Demo/Rental unit.** (Stock #7390) **www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).** (M02)

WANTED

WANTED TO BUY: Any make/model GapVax equipment. 888-442-7829. (C04)

WANTED: We buy sewer trucks. Any year, any condition. Results immediately. 915-239-2266 or mmachinerymexico@gmail.com. (CBM)

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

WANTED

Very serious and well qualified buyer looking for sewer, septic or industrial business in Dallas, Texas area. Must be grossing between \$500,000-\$1,000,000. All inquiries are kept confidential. Call Jeff at 800-257-7222. (MBM)

WATERBLASTING

40,000 PSI sapphire nozzles, UHP hoses & replacement parts. Excellent quality & prices. 772-286-1218; info@alljetting.com; www.alljetting.com. (CBM)

NLB 12GPM @ 10K w/Detroit 4-71T. **Gardner Denver** T-450 VSDT 60.6GPM max 10K max. **Jetstream** 4215 w/Cummins 10K @ 39GPM. **Gardner Denver** TX-450SB w/V12-71 Detroit 10K @ 70GPM. **Gardner Denver** T-450 w/Jetstream fluid end transmission 10K @ 40GPM. **THE-500UH** 50K bareshaft pump. **NLB** 10-600 Cummins 10K @ 104GPM. Boatman Ind. 713-641-6006. View @ www.boatmanind.com. (CPBM)

BUY IT - SELL IT - PLACE IT - www.mswmag.com - AVAILABLE ANYTIME, ANYWHERE, ANY DAY

ALL THE TOOLS OF THE TRADE. FROM ONE SOURCE.



AQUATECH

COMBINATION MACHINES ENGINEERED & BUILT AROUND THE OPERATOR.



O'BRIEN®

JETTERS THAT PAY FOR THEMSELVES. AGAIN, AND AGAIN, AND AGAIN.



ultraVac®

THE NEW POWER IN HIGH VACUUM LOADERS.



X-vac®

VACUUM EXCAVATORS. THINK OF THEM AS SURGICAL INSTRUMENTS.



When you invest in any of the Hi-Vac Corporation Brands, you are getting "The most value for your money". They are designed to be the easiest to operate. Cost less to maintain. And, are built tough to withstand the test of time.

HI-VAC®
CORPORATION
ENVIRONMENTAL PRODUCTS FOR A CLEANER WORLD

740-374-2306
USA 800-752-2400
FAX: 740-374-5447
hi-vac.com

This isn't your normal cleanout.



This is a Vac-a-Tee®

BREAKING NEW
GROUND...



WITHOUT BREAKING
ANY GROUND.

TECHNOLOGIES®

A Truly **Green**
Trenchless Cleanout Installation System

Municipal Agencies:
You don't have to dig up yards and sidewalks

COVERED BY US PATENT NUMBER U.S. 6,705,801



No Open Trenches



Installed Cleanout

WWW.PERFORMANCELINER.COM



Booth
8203

The most intelligent operating system in the industry.

EXPERTISE

TECHNOLOGY

RESPONSIBILITY

Knowledge is power

What makes the Omnibus Control System the most intelligent operating system in the industry? Because one simple control operates ALL the vacuum and water system functions of the Vac-Con Combination Sewer Cleaner. This coordination of systems allows you to use only as much power as is needed, saving time and fuel expended on the job.

The Omnibus Control System is precise, economical, and expandable. Not to mention it's backed by a worldwide network of trained distributors.

Omnibus is what happens when you blend the power of experience with the power of technology. For more information visit www.vac-con.com



A HOLDEN INDUSTRIES Company

969 Hall Park Drive • Green Cove Springs, FL 32043 • Tel: 904-284-4200 • Fax: 904-284-3305 • vns@vac-con.com

Vac-Con is a subsidiary of Holden Industries, Inc., a 100% employee-owned company.

