

www.cleaner.com JUNE 2015



BLD AND UNDERGROUND EYES PLAY OFF EACH OTHER'S STRENGTHS, AND MAXIMIZE THEIR OWN PAGES 20 & 38

**MONEY MACHINES** 

Truck-mounted jetter delivers results

**SAFETY FIRST** 

Keep summer help safe

**MONEY MANAGER** 

Replacing employees will cost you





# **Sound Investment**

Now, a smaller investment gets you a better method for tracking down water leaks. The Gen-Ear LE is a simplified, economical tool that easily pinpoints water leaks in



residential and commercial water lines, whether they are under concrete slabs, carpeted floors, or open fields.

The Gen-Ear LE saves you a lot lot of guesswork and unnecessary digging. It's a sound investment!

- Compact Amplifier Fits in the palm of your hand. Provides noise fee amplification with built-in audio filters so you don't have to guess what setting to use.
- David Clark® Headphones High performance headphones with noise cancelation features to block out ambient noise.
- Sound Amplification Manifold (SAM) Amplifies hard to find leaks by adding air pressure to the line, making leak location easier.

See the Gen-Ear LE in action, visit drainbrain.com/genear, or call the Drain Brains® for more information at 800-245-6200 or 412-771-6300.

www.drainbrain.com/genear

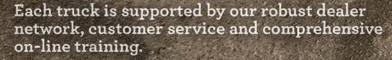




ONE OF THE 1ST VAC•CON TRUCKS - 1986 ONE OF THE LATEST VAC•CON TRUCKS

# two TRUCKS ARE

# OTHERS STILL running WORLDWIDE



Our manufacturing records date back to the first unit produced in 1986. We have the capabilities of providing you with technical service documents and parts for every single unit we have produced. Whether you have questions about parts or technical service, well-trained and dedicated personnel are standing by throughout the Vac-Con® network of dealers and service providers to assist you.

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



A HOLDEN CINDUSTRIES Company

HIGH PERFORMANCE. LESS MAINTENANCE. LONGER LIFE.



Operates longer between maintenance intervals

Effectively handles dirty or recycled water

Highest quality carbide nozzles

Quick, easy field maintenance and head changes

Streamlined body moves easily through pipe bends

Long life centralizer with individually repleacable fins

#### **TOOL OVERVIEW:**

• Pressure ..... Up to 8000 psi (550 bar)

Pipe Size..... 6–18 in. (150–450 mm)

• Inlet ...... 1/2" or 3/4" NPT/BSPP





#### preferred build-outs

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



#### crawlers

New large wheels adapt ROVVER X 400 to the largest mainlines; heavy weight and narrow profile handle high flows. Pan/tilt SAT is updated with new controls, drive train and camera.



#### pan/tilt push camera

VeriSight Pro 360 tilts ±135 degrees and pans 360. Its articulated head detaches to accept a compact axial camera.



#### video nozzle

The industry's first HD video nozzle is now available for pipes as small as 6".



# advanced capability

The battle to understand sewer condition is fought on many fronts. Winning takes an arsenal of inspection tools capable of meeting every challenge.

Envirosight arms you with advanced capability to inspect drains, laterals, mains, trunk lines and interceptors. See why more municipalities and contractors trust us to achieve ground superiority in the war on sewer deterioration. Schedule a free on-site demo.





www.envirosight.com • 973.252.6700

inspection technology • asset strategies



#### features

20 Profile: In Line Together

BLD focuses on lateral lining and leaves cleaning and inspection to a trusted partner.

By Ken Wysocky

38 Profile: Teaming Up on Laterals

Partnership allows contractors to play off each other's strengths and push each other's profits.

By Ken Wysocky

62 Product Focus: Location and Leak Detection, Drainline TV Inspection Equipment

By Craig Mandli

70 Case Studies: Location and Leak Detection,

**Drainline TV Inspection Equipment** 

By Craig Mandli



#### ON THE COVER:

BLD Services Vice President Jacob Trapani (left) and Underground Eyes Project Manager Ron Robichaux know the value in working together. The two companies regularly partner on lateral rehabilitation projects. Underground Eyes handles cleaning and inspection responsibilities while BLD takes on the rehabilitation work. (Photography by Jeff and Meggan Haller/Keyhole Photo)





#### departments

12 From the Editor: Work Smarter

Reward your employees and take advantage of good business opportunities. By Luke Laggis

16 @cleaner.com

Be sure to check out our exclusive online content.

30 Better Business: Set Clear Goals

Use these techniques to ease the fear and tension that accompany establishing employee objectives.

By Timothy F. Bednarz

34 WWETT Spotlight: Wireless Mapping

Smart device compatibility of RIDGID SR-24 improves locating accuracy and saves time.

By Craig Mandli

50 Money Machines: A Jetter of All Trades

From cleaning drainlines to thawing out catch basins, this truck-mounted machine is a Minnesota contractor's weapon of choice.

By Ken Wysocky

54 Money Manager: Stop the Revolving Door

Trying to keep workers doesn't have to cost a lot; not caring why they leave will cost you plenty.

By Erik Gunn

58 Safety First: Worker's Death Results in Prison Time

Employers must be aware of very specific regulations pertaining to young workers.

By Doug Day

72 Product News

Product Spotlight: Mobile device works like a tablet when filling out customized job forms.

By Ed Wodalski

74 Industry News

#### **COMING IN JULY 2015**

#### **ISSUE FOCUS:**

#### **Annual Buyer's Guide**

- MONEY MACHINES: Guzzler high-rail vac truck

- PROFILE: All Service Plus, Sicklerville, New Jersey

**- TECH PERSPECTIVE:** Virtual presence systems

# ZERO DOWN. NO PAYMENTS FOR 90-DAYS.

CALL TODAY
TO BECOME
CERTIFIED
1-866-336-2568

**ONLY \$2,261** PER MONTH

Total Cost \$109,733.35 60 Months / 6.9% APR







## **PACKAGE INCLUDES 600 FT OF LINER MATERIALS**

(LINER, CALIBRATION TUBE, PULL TAPE & EPOXY RESIN)

- PATENTED LINING THROUGH A CLEAN-OUT EQUIPMENT
- PATENT PENDING STINGER STEAM CURE EQUIPMENT
- TRAINING & INSTALLER CERTIFICATION
- MARKETING SUPPORT
- LEAD REFERRALS
- TECHNICAL SUPPORT

- UPC LISTING (UNIFORM PLUMBING CODE)
- ICC-ES PMG LISTING
- IRC LISTING (INTERNATIONAL RESIDENTIAL CODE)
- IPC LISTING (INTERNATIONAL PLUMBING CODE)
- IAPMO CLASSIFIED MARKING
- NSF / ANSI STANDARD 14 CERTIFICATION AND OUALITY ASSURANCE PROGRAM
- MEETS ASTM F-1216 SPECIFCATIONS

#### \* MADE IN AMERICA \*

### CALIFORNIA DISTRIBUTION FACILITY

1424 North Batavia Orange, California 92867 1-714-744-8446 Office

# PERMA-LINER" INDUSTRIES, LLC.

#### U.S. CORPORATE HEADQUARTERS

13000 Automobile Boulevard, Suite 300 Clearwater, Florida 33762 1-727-507-9749 International 1-866-336-2568 Toll Free www.**perma-liner**.com

#### ILLINOIS DISTRIBUTION FACILITY

10220 Bode Street, Unit D3 Plainfield, Illinois 60585 1-630-210-8663 Office



#### **Jetter and Washdown Pumps**



7.9-10 GPM @ 7250 - 8700 RTF 36-40 GPM @ 1500 RTJ 18.5 GPM @ 4000



RTX Pumps Model #'s 30-50-70-85-100 7.9 - 26.4 GPM 1450 - 4350 PSI

**Professional Strength Specialty Pumps** 

"The First Choice When Quality Matters"

**AR North America** www.arnorthamerica.com info@arnorthamerica.com (763) 398-2008

#### Rotary Vane /acuum Pumps Since 1952

- Septic Tanks and Slurry
- Sewage Pipes
- Sanitary
- · Oil Field Industries
- Milk and Water Tankers
- Agricultural



WPT 720

For More Information, Contact info@bppna.com





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

Call toll-free 800-257-7222 | Outside of U.S. or Canda call 715-546-3346 Mon- Fri., 7:30 a.m.-5 p.m. CST

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

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

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

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

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





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

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

#### © 2015 COLE Publishing Inc.

3346) or email nicolel@colepublishing.com.

No part may be reproduced without permission of the publisher.









www.twitter.com/CleanerMagazine

www.plus.google.com

You www.youtube.com/CleanerMagazine

www.linkedin.com/company/cleaner-magazine



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

EDUCATION DAY: Feb. 17, 2016 EXHIBITS OPEN: Feb. 18 - 20, 2016

Indiana Convention Center

WWW.WWETTSHOW.COM



#### XTremely Fast & Easy PACP Surveys

This Xtremely simple and affordable solution is an excellent choice for those new to pipe survey reporting and data collection.

Create data CDs and DVDs within the program to share your movies, pictures and reports without any installation of third party program.

A built-in wizard to guide the user through the required fields and survey process to eliminate the guesswork.





Call Today for a Free Online Demo or More Info 866.299.3150 | www.munixs.com



#### Viztrac® AM100-100

#### J/E4040HA-CKIT2





BUY BOTH 2895-00

6 Months, No Interest!



Get 6 Months to Pay on Purchases of \$99 or More.

Choose Bill Me Later® at Checkout. Subject to Credit Approval.



#### **ADVERTISER INDEX - June 2015**

Α
A.R. North America, Inc8
Advanced Infrastructure Technologies12
ALLAN J. COLEMAN SINCE 1905
Allan J. Coleman Co 17, 75
MACHINERY
Amazing Machinery, Inc9
ARIES
Aries Industries, Inc
Arthur Products Co48
В
BODUS GmbH47
<b>C</b>
Cable Center, The
CAM
Cam Spray61
Caneel Capital15
Winnelson
Central Oklahoma Winnelson71
Check-All Valve43
Root Rat.
Chempure Products Corp69
CIPP
CIPP Services, LLC60
Cloverleaf Tool Co14
a de des
THE MICHIGANIA SCHOOL
Coast Manufacturing60
CUES
_
D D
Doug Meadows Co., LLC52
O DRAINCABLES  direct
Draincables Direct43
Quracable.
Duracable Manufacturing Co25
J
FORM
Easy CAM
EasyCAM55
Electric Eel.
Electric Eel Mfg36
Envirosight IIC 5
Envirosight, LLC5
<b>enz </b> usa inc. Enz USA, Inc
LIIL OUN, IIICUI

F
<b>E.</b> S. Solutions
Footage Tools, Inc57
Forbest Products Co52
G
<b>GapVax</b> , Inc83
General PIPE CHAMPS
General Pipe Cleaners
Gorlitz Sewer & Drain, Inc27
н
HammerHead Trenchless Equipment33
Hi-Vac Corporation53
Hurco Technologies, Inc47
<b>Jetstream S</b>
Jetstream of Houston11
K
Ken-Way Corporation56
Neti-way Corporation
L <u>lansas</u> .
Lansas Products
LaPlace Equipment Co56
M
Milwaukee Rubber Products, Inc37
*
MyTana Mfg. Company, Inc49
N
NLB Corp.
NLB Corp28 Non Stop Hydro Excavating, Ltd43
NozzTeq

QceanQuip LLC	
Oceanquip Cables, LLC	48
Olvidium, Inc One Biotechnology	/² 7
one blocedinology	/
Р	
USTRIES;	
Perma-Liner Industries, LLC	
Petersen Products Co	
Petrofield Industries	57
	16
Picote Solutions.	40
Pipeline Analytics	1,
Pipeline Analytics	۱
PIPELOGIX MY MAIL COMMEN	
PipeLogix, Inc.	8
▲	
PARENT AND	
PrimeLine Products, Inc.	23
Pulsar 2000 Line Tracer	
Pulsar 2000, Inc	28
Quik-Lining Systems, Inc	67
Quik Elliling Systems, Inc	07
R	
IBAK	
RapidView IBAK North America	35
Ralech	
Ratech Electronics, Ltd	10
RS resource services in.	10
THE SINGLE/SOLUTION	
RS Technical Services, Inc	
RYCOM Instruments, Inc.	36
S	
Scooter Video	
Septic Services, IncSewer Equipment Co. of Nevada	46 46
SOUTHLAND OOL MILES	
Southland Tool Mfg., Inc.	19
SPARTAN	_
Spartan Tool, LLC	84
Stone Age Inc	,
StoneAge, Inc.	۔ <sup>د</sup> دے

т
THE FOOLS
T&T Tools, Inc31
Terry Byrne, Inc37
TRY TEK Machine Works, Inc74
TST Sweden AB
ultraSHORE
Ultra Shore55
3101C33
VAC-CON Vac-Con, Inc
VAR
VARCo48
VIVAX METROTECH
Vivax-Metrotech Corp31
VSI Rentals69
w
WATER CANNON
Water Cannon, Inc MWBE82
Westmoor Ltd32
Marketplace76
Classifieds78
· E-ZINE · E-ZINE · E-ZIN
Have you seen the
Cleaner
E-Zine?
E-ZI
Cleaner Z
B-ZI
E-ZI
· E

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



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

#### Lose the ball and chain.



#### Don't let continuous pump repairs and long lead times for basic parts drag you down.

Jetstream's legendary UNx® fluid end conversion can quickly and easily adapt to your high pressure water blast pump.

- Fewer parts = fewer problems
- Easy in-the-field repairs and conversions from 5,000 to 40,000 PSI
- 11 nationwide FS Solutions Centers for support
- Jetstream UNx® Conversions are available for most U.S. manufactured pumps



Want to release the chains from your water blaster? Call or visit:

800-231-8192 | www.waterblast.com

# Luke Laggis editor@cleaner.com

### Work Smarter

Reward your employees and take advantage of good business opportunities

By Luke Laggis

t's finally summer, and your busy season is getting busier.

Long days and warm weather make summer the season for big projects, which means you may need to take on extra staff. You're certainly not hiring high school kids to tackle pipe bursting jobs or leak detection and location work, but you very well may be among the many contractors who hire young workers for part-time or seasonal help.

This month's Safety First column should serve as a precautionary tale to everyone who finds themselves in that position. There are strict regulations related to the work employees under age 18 are allowed to perform, and if you don't follow them, you could find yourself in big trouble.

John Wilkes, the owner of a Florida tree service company, found that out the hard way when a 14-year-old employee fell from a tree and died.

**Work Horse** Finally a fixed jet nozzle that will scour the pipe 360° = reduced SSO's and longer periods between cleaning cycles Advanced Workhorse "Ask for the Phantom by name" Nozzles is excited to announce the appointment of **Advanced Infrastructure Technologies, LLC** Scott Krupinski Toll Free: 1-844-NOZZLES to the position of National Sales Manager (1-844-669-9537)scottk@advancedworld.com www.advancedworld.com Advanced Workhorse Nozzles are Looking for Dealers - Limited EXCLUSIVE geographies are still available.

The company was fined \$10,900 by OSHA, and Wilkes is staring down a 15-year prison term for aggravated manslaughter in what was an easily avoidable tragedy.

Sometimes the threats to your staff are different in nature. Sometimes they come from your competition. Most of you probably have one or two key people you really count on to keep your business running smoothly. Suppose you just signed a big cleaning and inspection contract with your local municipality. What would happen if your competition swooped in and hired away your best operator?

Keeping your best workers on staff doesn't have to cost a lot, as we discuss in this month's Money Manager column, but losing them will. The U.S. Department of Labor puts the average cost of training and developing a new staff member at one and a half to two times the annual salary of that individual. Of course, there's also the work you could lose. That municipality you signed the contract with won't be too happy if the work takes 90 days instead of the 45 you promised.

So don't let it happen to you. Don't be among those bosses who shrug their shoulders and figure they just have to hire continuously. Providing simple incentives, a good work culture and strong leadership will all help you keep your staff together.

#### **WORKING TOGETHER**

This month's profiles feature BLD Services and Underground Eyes, two contractors that frequently work together to maximize their efficiency. BLD has spent the past six years focusing on lateral lining work, while Underground Eyes has found it profitable to concentrate on cleaning and inspection. Together, they've formed a symbiotic — and profitable — relationship.

The stories are intertwined because their work is intertwined. One picks up where the other leaves off, and together they make each other stronger. Underground Eyes uses two-man crews for inspections and can do the work cheaper than BLD, which is then able to move from job to job lining the laterals without all the prep time and crew changeovers.

As a result of the companies' relationship, Underground Eyes has been able to narrow its scope, focusing more exclusively on a niche market it serves very well. Revenue has increased substantially since the partnership began, and approximately 50 percent of Underground Eyes' business now comes from BLD.

These are stories of success, and I hope they offer some perspective and can help you make your own businesses stronger.

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



# THE **BEST** TOOLS FOR LATERAL SERVICE INSPECTION

## PILS+ PORTABLE LATERAL & MINI-MAINLINE PUSH SYSTEM

The CUES MPlus+ offers the most flexible and feature packed lateral and mini-mainline push system on the market. The advanced MPlus+ system with stainless steel frame integrates video titling, video observation coding, digital recording and portability with optional line tracing into an easy to use, compact package.

New MPlus+ XL is available! The new MPlus+ XL configurations can be supplied with a fixed view Self-Leveling Color Camera or a Mini Pan & Tilt Camera. It can be purchased with a maximum of 500 ft. push cable for 6" and larger mainline pipe inspection. The Mini Pan & Tilt Camera features continuous 360 degree rotation and panning, self leveling, built in lens wiper, and a sonde with switchable frequencies at 512 Hz or 8kHz.

# LAMPII

#### **LATERAL & MAINLINE PROBE II WITH LATERAL PAN & TILT CAMERA**

- · Inspects lateral services with or against the flow! Navigate through multiple "wyes", bends, and sweeps!
- Self-leveling camera, 360 degree continuous pan and tilt, automatic self leveling
- · Built-in wiper system keeps the camera lens clean
- Built-in multi-frequency sonde transmitter

"The Standard of the Industry"

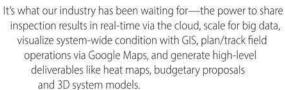


800.327.7791 www.cuesinc.com salesinfo@cuesinc.com



#### Demand More from Your Data.







real-time insight

#### Pipeline Cleaning & Maintenance Equipment for





#### **Penetrators**

1/4"-15°	\$24.00
3/8"-15°	.\$33.00
1/2"-25°	\$48.00
1/2"-25°LT	\$51.00
3/4"-12°	.\$61.00
3/4"-12°LT	\$72.00
1"-12°	\$76.00
1"-12°LT	.\$88.00



#### Aluminum Sand

<i>Aluminu</i>	m sana
3/4"-24°	\$165.00
1"-17°/24°	\$165.00
1"-24°	\$165.00



T-M° Style 90° or Straight, 6000 psi 3/4" & 1"....\$208.00 1-1/4"...\$221.00 1-1/2"...\$589.00 2"...\$844.00



3/4" or 1"-17° .......**\$130.00** 

3/4" or 1"-17	°\$365.00
	Shark
0 5000	
1"	\$521.00
1" Big Shark	\$642.00

#### Stainless Steel Nozzles

1/8"	\$39.00
1/4"	\$43.00
3/8"	\$48.00
1/2"	\$60.00
3/4"	\$96.00
1"	\$121.00



Dyna Quip° Style 3000 psi 1'.....\$227,00

MANY OTHER STYLES, SHAPES & SIZES AVAILABLE



#### Radial Bullet

3/4"-18° or 35°	\$57.00
3/4"-18°/24°	\$61.00
1"-18° or 30°	\$73.00
1"-15° or 30°	\$75.00
1-1/4"-18 or 35°.	\$85.00



**NEW** Storm/Culvert

#### Floor Cleaner Nozzles

Parker & Piranha Jetter Hose 1/8"- 1-1/4"



Saw Blades 4" · 18"

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



#### Root Cutter Assemblies

Skid Mounted	
w/flat blades	\$1237.00
w/concave blades	\$1261.00
w/spiral blades	\$1261.00
<b>Donut Mounted</b>	

w/flat blades	\$1184.00
w/concave blades	\$1221.00
w/spiral blades	\$1221.00
ataval Marintad	

Later ar ividuitte	и	
w/flat blades	\$1075.00	
w/concave blades	\$1131.00	
Assemblies come with one		
ea. of 6, 8, 10 and	12" blades,	

saw blades, hub, skids, etc.

Sewer Hose Guides

Jewer Huse Guid		
	TigerTail™ St	yle ,
	3" x 36"	\$36.00 🛣
	2" x 36"	\$34.00
	with 24' rope	\$36.00 \$34.00



0	
3"-6" availal	ole
King Cla	mps
8"	\$29.75
4"-6" availal	ole
Bandlock	® Clamps

**Power Clamps** 

4"-6" available
Bandlock® Clamps
8"\$24.00
3"-6" available
Quick Clamps
8"\$26.50
3"-6" available

2" 3-way .......\$690.00

HD
Washdown
Gun

**5000 psi** 1/2" 2-way

3/4" 2-way

1" 2-way ...

4500 psi

3/8" 3-way

1/2" 3-way

3/4" 3-way

1" 3-way.

1-1/4" 3-way...

1-1/4" 2-way...

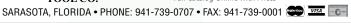
25 gpm @ 850 psi 1/2" Inlet......\$190.00

Cloverleaf®

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



Full Catalog Online with Prices



**Valves** 

2 & 3-way

**Ball Valves** 

\$65.00

\$89.00

\$119.00

\$226.00

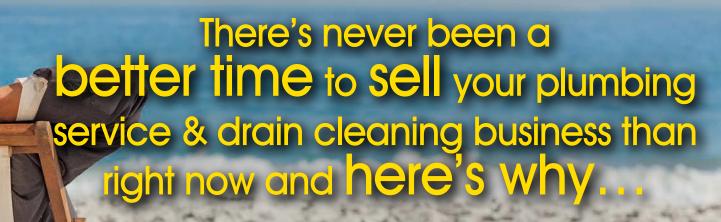
\$115.00 \$160.00

\$180.00

\$190.00

\$440.00

CALL FOR OUR COMPLETE CATALOG WITH PRICES



One of America's largest plumbing companies is eeking to grow through acquiring privately held lumbing and sewer & drain cleaning companies.

The companies they purchase retain their name, employees and unique culture.

#### They are purchasing companies that are:

- Non Union Open Shop
- Have revenues above \$2,000,000
- Recurring service revenue from broad based residential and commercial customers
- Service-oriented business with minimal new construction and minimal HVAC revenues

#### Benefits in selling to this company:

- They know and understand the Plumbing and Sewer & Drain Cleaning Industry.
- They pay cash for acquisitions that meet their criteria. No stock or earn outs!
- Complete confidentiality and non-disclosure (employees will find out after closing).
- Historically 90% of existing employees remain after acquisition, for sellers concerned with namesake and legacy issues.
- Typically they have been offering top dollar for quality businesses that meet their criteria.

To take advantage of this great opportunity contact me directly and in complete confidentiality at 941-779-7407 or via email at chad@caneelbusinessbroker.com.



#### Sinclair **Business Brokers**

on the web - www.sbbfl.com

**Chad Corbin** 

Sales Associate

Direct: 941-779-7407 Office: 941-906-8722 Fax: 941-296-7182

chad@caneelbusinessbroker.com

# @Cleaner.com

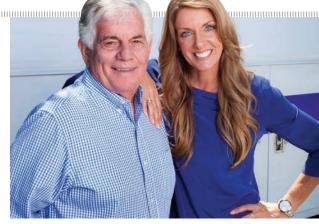
Visit the site daily for new, exclusive content. Read our blogs, find resources and get the most out of Chapter magazine.



SAFETY SLIDESHOW

#### 10 Photos of Confined-Space Entry Work

Working in confined spaces can be dangerous — even deadly — if standard precautions are not taken. Whether your workers clean tanks or climb down manholes for rehabilitation work, safety is critical. Without proper procedures and equipment, fatal accidents are all too common. Take a safety cue from these drain cleaners who demonstrate proper preparation and completion of confined-space entries. >>cleaner.com/featured



#### **California Cleaner Carries** On Family Legacy

A busy work schedule, community activities and her role as mom to a 7-year-old son keep Mendy Calegari running. But it's all paying off for the third-generation owner of Marin Roto-Rooter, which was recognized locally as Small Business of Year in 2014. Calegari learned how to treat customers right while working alongside her father, Don, for many years. Today, 75 percent the company's business is generated by repeat customers. >>cleaner.com/featured

#### **OVERHEARD ONLINE**

**66** Make certain you follow best method to building a nothing to build on.

> — 7 Startup Tips for Drain Cleaning Businesses >>cleaner.com/featured

ZEROED IN

#### **Building** a Team of **Trenchless Specialists**

When we profiled Accurate Leak and Line on the pages of Cleaner in 2012, the company had expanded to three

new locations in order to better serve the entire state of Texas. A small business that opened its doors just a decade earlier as a leak diagnostic company had grown into a leader in trenchless pipe repair. When we caught up with co-owner Scott Montgomery recently, he shared how building a team of high-tech plumbing specialists has helped Accurate Leak and Line find its niche. >>cleaner.com/featured



#### **Emails and Alerts**



Visit Cleaner.com and sian up for newsletters and alerts. Get exclusive

content delivered right to your inbox and you'll stay in the loop on topics important to you!

#### Join the **Discussion**





Find us on Facebook at facebook.com/CleanerMag

or

Twitter at

twitter.com/CleanerMagazine

# ALLAN J. COLEMAN SINCE 1905

Call us today! 773-728-2400

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

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

# SR-24 Line Locator with Bluetooth® and GPS

- · Omnidirectional antennas
- · Large display · Built-In GPS
- Bluetooth® technology
- · Smartphone/Tablet App
- Can trace any frequency from 10 Hz to 35,000 Hz

#### SeekTech® SR-20

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





#### NaviTrack® Scout®

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



#### SeeSnake® Mini Camera Reel

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



# SeeSnake® CS Digital Recording Monitor



- Direct-to-USB recording for fast, efficient documentation of inspection jobs
- Water-resistant keypad for direct control of essential camera and monitor functions
  - Daylight viewable display for a crisp, clear in-pipe image
  - SeeSnake HQ Software to edit, archive, and deliver reports via print, DVD, or online
- On-screen keyboard for basic titling and text entry
  - CS6 will dock in
     the RM-200 Max or
     operate as a stand
     alone monitor



- One touch recording
- 1 TB internal hard drive
- 6.5" Daylight viewable LCD display
- · Water-resistant keyboard
- · SeeSnake HQ Software



#### SeeSnake® MAX rM200 Camera System

- Next Generation Push Cable and Improved Reel Mechanics
- · Ultra Compact Camera Head
- Transport Enhancements
- Docking System
- · Self-Leveling Camera Head



#### Authorized SeeSnake Repair Center

THE BEST SERVICE AND FAST TURN AROUND!

# We Have Ridgid Parts!

If you buy the best, you are only sorry once!

## **Quality Used Trucks**

#### **Available for Immediate Delivery**



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

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



#### 2006 Jetstream Water Blaster | Water Blaster ID #06105

- Model 3600
- Cummins 5.9L engine
- 173 horsepower
- · 3600 pump
- · #6 plungers
- Tank inlet filtration system
- · Hydraulic trailer brakes
- · Hydro-throttle
- 40,000 PSI @ 6.8 GPM
- · Note: hours unverifiable



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

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

2015 FS Solutions Group

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



Follow us on Twitter @RatechCam

Video Pipeline Inspection Systems

Upload your inspection videos to You Tille Ask us HOW?

# SOUTHLAND OOL MFG. Inc. Building Innovative Tools for Municipalities

SOLUTIONS TO SEWER CLEANING THROUGH:

- CONCEPT
- DESIGN
- PRODUCTION

Manhole Tools • Debris Baskets • Vac-Traps • Root Saws Calcium Cutters • Sewer Rods • Handy Clams Nozzle Extensions • Deep Vac Tube Holder Grabbers Claws and Hooks • Diamond Tap Cutters Fiberglass Poles • Hydraulic Cutters • Top Manhole Rollers Sewer Spoons • Continuous Rod • Carbide Saws











1430 N. Hundley St Anaheim, CA 92806 ph: 714.632.8198 fax: 714.632.8228

www.SouthlandTool.com





Jake Johns, Tyrone Walls and Brent Faust (from left) of BLD Services prepare a liner for a lateral rehabilitation project.

# TOGETHER TOGETHER

BLD FOCUSES ON LATERAL LINING AND LEAVES CLEANING AND INSPECTION TO A TRUSTED PARTNER

biggest lateral lining contractors in the country just six years after entering the lateral rehab market. A large general contractor that works primarily on municipal and transportation infrastructure projects, BLD — based in Kenner, Louisiana, near New Orleans — decided to diversify its business base by forming a lateral lining division in 2009. Bolstered by substantial investments in technology, high-value service and partnerships with key subcontractors, the division has grown to 21 four-man installation crews (more than 100 employees in all), 21 camera trucks and 21 trailer jetters.

LD Services has become one of the

In addition, the company now operates out of 10 major cities — Baltimore, Boston, Charlotte, Cincinnati, Knoxville, Miami, Nashville, New Orleans, St. Louis and Richmond — which allows it to serve customers throughout the eastern United States, says Senior Vice President Jacob Trapani.

To understand why BLD decided to focus on rehabbing laterals with cured-in-place pipe technology, consider the following statistics from the U.S. Environmental Protection Agency:

- There are approximately 75 million private lateral lines in the United States — about 500,000 miles worth.
- Roughly 80 percent of laterals require some kind of repair.
- Leaking laterals account for about 75 percent of sewer inflow and infiltration.
- Around 40,000 sanitary sewer system overflows occur annually nationwide, and wastewater collection and treatment systems are reaching capacity.

Since the division's inception, crews have rehabbed more than 40,000 laterals using CIPP, says Trapani, who joined BLD in late 2008 to grow the lateral lining business. Before that, he worked for more than 25 years at Insituform Technologies, a leading supplier of CIPP products and technology that sold its lateral lining division to BLD just before he came on board.

"We saw lateral lining as a viable option to diversify the business," Trapani says. "We definitely thought it would be the next place CIPP products would grow, but it has exceeded our expectations. There is a compelling need for I&I reduction in service laterals."





profile

#### BLD SERVICES LLC,

KENNER, LOUISIANA

FOUNDED: 2001 EMPLOYEES: 150

SERVICES: CIPP lateral lining

SERVICE AREA: Eastern half of United States



To line laterals, BLD crews use the company's Service Connection Seal + Lateral product, which basically uses ambient-cure polyester or vinylester resins with a felt tube and bladder, along with a semi-ridge flange or sewn seam at the connection interface. When installed with hydrophilic sealant on its backside, the connection provides a watertight seal at the mainline. For lengths of 30 feet or less, crews can install a one-piece, jointless liner from the mainline to a clean-out, access point or termination point, Trapani says.

The Service Connection Seal + Lateral product is installed robotically by crews working remotely from an existing manhole. A lateral-launching train system developed by BLD carries the resin-impregnated liner to a lateral (typically 3 or 6 inches in diameter), where compressed air is used to invert it into the pipe.

#### **EXPERIENCE PAYS DIVIDENDS**

How did the division grow so fast? One growth driver was Trapani, who developed a wealth of CIPP industry experience during his years at Insituform. He also established good relationships and business contacts in the industry, so when it came time to hire employees he knew where to go for experienced, talented personnel — especially for his six regional project managers, he says.

"Our exponential growth was driven by the fact that these guys have been in the CIPP industry and in their territories for some time," Trapani adds. "And after we hired them, they picked up employees from guys they've known. They all have intimate knowledge of their geographic markets and they're dealing with the same people they dealt with at prior companies.

"We saw lateral lining as a viable option to diversify the business. We definitely thought it would be the next place CIPP products would grow, but it has exceeded our expectations."

Jacob Trapani

"On many projects, we're a subcontractor to mainline contractors," he continues. "About 60 percent of our work comes from them — it's just the way the work is bundled."

Another growth driver: the fact that BLD installs its own CIPP product instead of buying a manufacturer's product through a distributor. "We're unique because we're a contractor, but we install our own product," he explains. "We essentially manufacture our product on site ... we buy the raw product, such as the felt and resins, from suppliers. By sidestepping the distribution arm, we don't pay a markup on the distribution side, which allows us to bid more competitively.

"Plus we buy materials in bulk, which saves even more money," he adds. "We buy felt tubes in 5,000-foot pallets and buy resins by the tanker load. When you're running 21 lining crews, you need to have adequate inventory on hand. And since we manufacture the product on site, we can react immediately if something goes wrong or if the client suddenly wants to expand the project."



BLD Services crew member Johnny Polston prepares for a lateral liner installation in Nashville, Tennessee.



#### **BIGGER IS BETTER**

BLD's size also gives it a competitive advantage, in that the company can tackle large lining jobs that most companies do not have the resources to handle. Take a recent project lining 1,300 laterals in Pensacola, Florida. Trapani says only one other company in the country besides BLD is big enough to handle such a huge job, which lasted for eight or nine months.

In addition, BLD can line laterals remotely from mainline sewers, while other contractors require a clean-out. This gives the company another cost advantage, especially in communities where clean-outs aren't needed or wanted.

"We stand behind what we do — we fix things and make them right. We don't walk away from anything. That's important because anyone can go buy (CIPP) product off the shelf, so it's all about the character and integrity of the contractor installing it."

Jacob Trapani



BLD Services Superintendent P.J. Boihem (left) and Brent Faust work together to prepare a lateral liner for installation.

"Some municipalities don't own the clean-out or they don't want a cleanout because it's another potential source of inflow and infiltration," Trapani explains. "And the cost of installing clean-outs is expensive, especially north where the laterals are buried deeper. It might cost \$2,000 to \$4,000 to install clean-outs, not to mention the damage to yards from excavating."

Trapani also notes that fixing problems that periodically arise on job sites positively affects growth by building customer loyalty and encouraging word-of-mouth referrals.

"As a contractor that now installs about 14,000 laterals a year, we're going to make mistakes," he notes. "But we stand behind what we do — we fix things and make them right. We don't walk away from anything. That's important because anyone can go buy [CIPP] product off the shelf, so it's all CONTINUED>>



BLD Services Vice President Jacob Trapani (left) talks with Underground Eyes Project Manager Ron Robichaux on a job site in Nashville, Tennessee.

#### PARTNERS IN GRIME

Offering customers a one-stop shop that supplies a wide variety of service needs - and generates diverse revenue streams - is a common business strategy. But sometimes it's just more efficient and cost-effective to develop strong relationships with subcontractors that can provide some of those services, as officials at BLD Services can attest.

A general contractor in the field of municipal and transportation infrastructure, BLD - based in Kenner, Louisiana - has developed one of those mutually beneficial relationships with Underground Eyes, a company in West Blocton, Alabama, that specializes in sewer lateral cleaning and inspections. Jacob Trapani, the senior vice president of BLD, had developed a good working relationship with Underground Eyes when he worked at Insituform Technologies, a supplier of cured-in-place pipe products. At the time, Underground Eyes primarily cleaned and inspected large mainline sewers.

"When I went over to BLD, we needed a reliable subcontractor who could get out in front of our crews to do lateral inspections and cleaning," Trapani explains. "We taught them what we needed them to do and pushed them in that direction. Now they're our biggest subcontractor, but we use others as well, like TeleVac out of Florida and Diagnostic Resources & Solutions in Georgia."

Cost savings are another key reason why the Underground Eyes partnership makes sense for BLD. Underground Eyes uses two-man crews to do cleaning and inspections; BLD uses four-man crews. "So Underground Eyes can do it cheaper," Trapani explains. "And when our crews go in after the cleaning and inspection, we're just lining pipe. So we can be very efficient at just installing. They pave the road for us so we're not tied up doing the televising and cleaning - the stuff that takes time to get done."

BLD doesn't use subcontractors to clean and inspect laterals all the time, only when it makes sense geographically. "If we have a project up in, say, Columbus, Ohio, we're not going to send a sub up there to do it," he notes. "We can use our own crews just as efficiently."

Trust is critical to making these business relationships work. "If we're the contractor of record, they [subcontractors] need to be as good as we are," Trapani says. "They can hurt your reputation. They also need to own good equipment so we know they can do the job right. That's key. They've got to be reputable and deliver quality work on a timely basis."



\* Must purchase a DM175 or DM55 drain machine to qualify for the free loading ramp promotion. The Free Loading Ramp includes winch, tailpiece, wheel stops, and skid kit (skid kit optional for DM175 only). Not valid with any other offer. Promo #480 - June 1 - June 26, 2015.





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

The one-stop source for all your plumbing and drain cleaning needs – Duracable Manufacturing. Or visit us on the web at www.duracable.com





BLD crew members (from left) Johnny Polston, Superintendent Kreg Butler, Ryan Matthews and Anthony Smith install a liner in a residential sewer lateral.

"Your people are key - they can make you or break you on a day-to-day basis. They're breaking ground and doing installations every day, not just making widgets."

Jacob Trapani

about the character and integrity of the contractor installing it."

#### **GOOD EQUIPMENT MATTERS**

Investments in technologically advanced equipment also helped the company grow, because reduced downtime and improved productivity increase customer satisfaction. BLD owns 21 camera trucks, outfitted with lateral launch cameras by RapidView, Aries Industries and RS Technical Services; and 25 trailer-mounted water jetters built by PipeHunter and Sewer Equipment Co. of America, with flow and pressure ranging from 18 gpm at 4,000 psi to 40 gpm at 3,000 psi; water tank sizes are either 300 or 700 gallons.

The company also relies on air compressors made by Sullair (a division of Accudyne Industries) and owns four Vactor vacuum trucks and a Vac-Con, but the trucks aren't used by the lateral lining division.

Great employees have been another integral component of the company's success, but recruiting and retaining employees is a challenge because many of the lateral lining projects are large, long-term jobs that require employees to spend weeknights on the road. To compensate for the travel, BLD offers a motel and meal per diem. Moreover, the company pays 100 percent of each employee's health insurance premiums, plus many other competitive benefits.

"These benefits aren't typical in the industry," Trapani notes. "Your people are key — they can make you or break you on a day-to-day basis. They're breaking ground and doing installations every day, not just making widgets. As such, their performance dictates the profitability of the organization, so you want good employees.

"Sure, it's expensive, but we work in a niche market where the product is controlled by the quality of our in-the-field workers. So we want to treat them well"

As for the future, Trapani says he expects continued growth for the division. More and more often, customers are asking BLD to expand into territories farther west, but he doesn't want to overextend the company. "We don't want to get stretched in terms of what we can deliver," he says. "This industry is too small to get a bad reputation."

Nonetheless, he expects to add four more crews by the end of 2015, noting BLD just bought two more camera trucks and jetter trailers.

"Personnel is the biggest issue. We can always buy more equipment if we have the money, but you need personnel to deliver a quality project. It's all about finding the right people." c

#### more info

Aries Industries, Inc. www.ariesindustries.com (See ad page 29)

Insituform Technologies 800/234-2992 www.insituform.com

PipeHunter, Inc.

RapidView IBAK North America 800/656-4225 www.rapidview.com (See ad page 35)

RS Technical Services, Inc. 800/767-1974 www.rstechserv.com (See ad page 45)

Sewer Equipment Co. 815/835-5566 www.sewerequipment.com

219/879-5451 www.sullair.com

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

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



Email: sales@gorlitz.com

GORLITZ on Facebook







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

#### Contractor Solutions



# Torrent™ 3D heads now clean at up to 200 gpm

For tank cleaning jobs large or small, choose a Torrent™ 3D head from NLB. Their rotating water jets clean quickly and completely, with adjustable speeds and long-life seals that are easy to change.

- Torrent 200 up to 200 gpm and 20,000 psi
- Torrent 50 up to 50 gpm and 20,000 psi AND fits through a 6" opening

  Torrent 3D heads offer a variety of nozzle arms, all designed for optimum coverage. For details, call 800-441-5059 today or scan the QR code below.



The Leader in Water Jet Productivity

since January 1989 in our leak locating business. Our leak locates are accurate 95% of

the time, but I can honestly say, the line we trace is always there. Our equipment is userfriendly and requires very little training, as you will see on the video. Purchase the **Pulsar** 

**2000** line tracer, XL2 fluid detector and Geophones, and start locating leaks immediately.

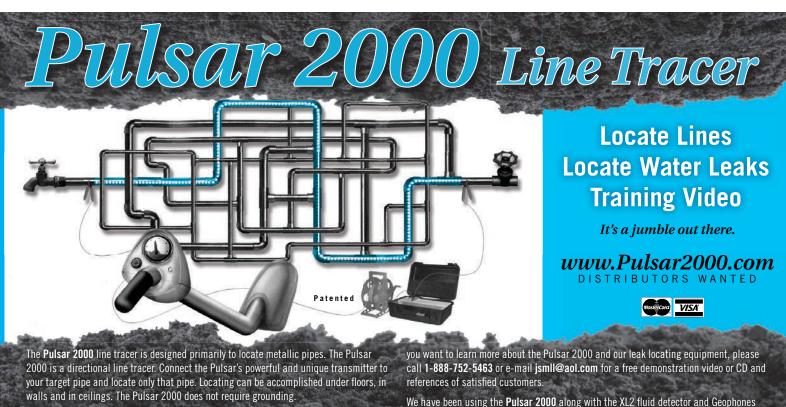
29830 Beck Road, Wixom, MI 48393

MI: (248) 624-5555, IN: (219) 662-6800, NJ: (856) 423-2211

LA: (225) 622-1666, TX: (281) 471-7761, CA: (562) 490-3277

www.nlbcorp.com • e-mail: nlbmktg@nlbusa.com



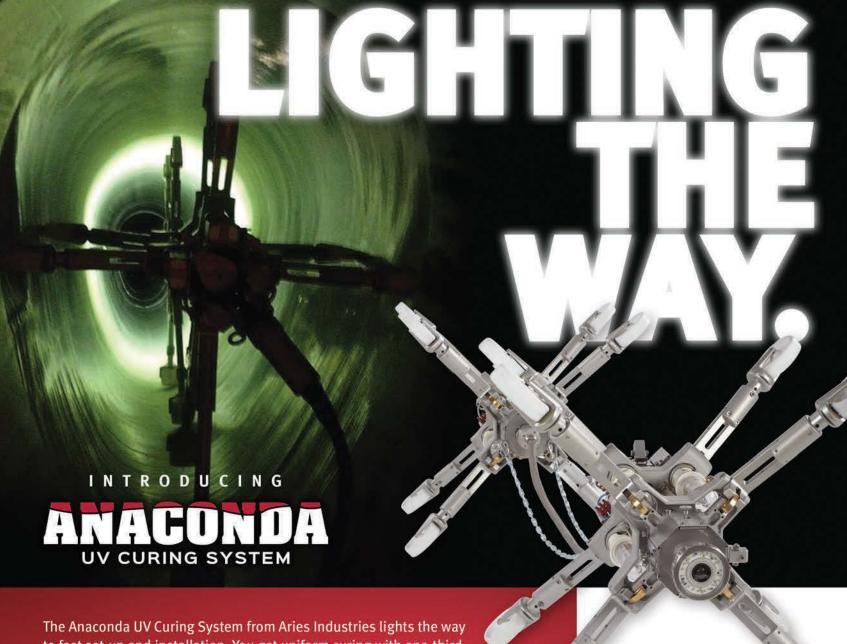


**Leak detection personnel...** The Pulsar 2000 is a must have locator. Now you can

of the Pulsar 2000, we will let you return it for a full refund if you are not satisfied. If

100% satisfaction guarantee... We are so sure that you will see the time saving benefit

quickly identify the pipe location, thereby reducing the search area of the leak.



The Anaconda UV Curing System from Aries Industries lights the way to fast set-up and installation. You get uniform curing with one-third less time than steam-cured processes.

Controlled UV light train speed ensures consistent lining installation. CCTV video inspection of the liner before and during the cure allows any sags and wrinkles to be corrected.

With no need to invert the liner, UV curing requires less equipment and smaller crews. No hot water usage eliminates the steam truck for less fuel consumption. With no cooling time, lateral reinstatement can start immediately.

The Anaconda provides an enlightened solution to sewer renewal and profitability. Contact Aries today to learn more.



ARIES INC.

See what you're missing.

www.ariesindustries.com (800) 234-7205

## Set Clear Goals

Use these techniques to ease the fear and tension that accompany establishing employee objectives

#### By Timothy F. Bednarz

stablishing individual employee goals and objectives can be stressful for many companies, especially if this is a new concept. Employees often resent being held accountable for their actions. Their perception is that these actions are punitive rather than intended as a mechanism to move the business forward.

While the establishment of individual goals or objectives is a critical process, managers should recognize they may be dealing with employees with varying degrees of experience in goal setting and implementation.

It is important for managers to understand that these gaps in experience can affect the ultimate success or failure of an individual employee. With this in mind, managers must take steps to help employees succeed, which is dependent upon their personal levels of experience. They must recognize that some employees will need more assistance than others. The key is to dedicate the time required for everyone to be successful in attaining individual goals.

Individual goals can be overwhelming when viewed in their entirety. Managers can effectively ease employee fears by breaking long-term objectives into smaller, short-term targets that move the employee forward.

This can be a stressful exercise for many employees. Though the process includes elements of an employee review, it is not an evaluation but a process of setting the employee's direction for the future as well as coordinating individual goals with those of the business. The following techniques and strategies should be utilized to successfully establish individual goals:

Listen. Before beginning the process of establishing goals and objectives with an employee, the first step is to allow the employee to express his or her ideas and feelings. This discussion should establish a good mood and focus on the positive aspects of the employee's job. If complaints are brought up, managers should ask the employee for ways to correct the problem. By giving an employee the opportunity to resolve a problem, the discussion remains focused on the positive aspects of his or her job while empowering him or her to develop a realistic solution.

Look forward. Past performance will undoubtedly become part of the discussion. However, managers should keep the discussion focused on goals and objectives and avoid dwelling on past performance issues. This way the employee is focused on future performance and not mired in past problems.

Be candid. As managers move through the discussion of individual goals and objectives, they must be both candid and honest regarding the employee's abilities to arrive at obtainable goals. This is a constructive gesture that helps uncover what the employee is capable of and expected to achieve.

Small steps. Individual goals can be overwhelming when viewed in their entirety. Managers can effectively ease employee fears by breaking long-term objectives into smaller, short-term targets that move the employee forward. Creating annual, quarterly and monthly goals that the manager and employee can agree on is the starting place; it is then the employee's responsibility to break those goals into weekly and daily objectives.

It should be noted that not all employees have the skills to effectively plan their own activities. Managers should review this procedure with their people and perhaps walk them through the process of taking a month's goals and organizing them into weekly and daily tasks.

**Secure agreement.** Once both the employee and manager have developed a realistic set of goals and objectives and demonstrated how to plan the employee's weekly and daily activities around meeting them, both parties should secure an agreement. The agreement should focus on the individual objectives and how they will be achieved.

> Coordinate. Managers must make sure individual goals are aligned with the company's goals, as well as with those of other employees. Failure to do so can result in employees working against each other rather than cooperatively toward accomplishing common goals and objectives.

Share. Managers are facilitators, so whenever they see an opportunity or need, they should take the time to share their knowledge and expertise with employees regarding how to best reach their individual objectives.

Since goal setting can be a new experience, employees may accept a goal and not know where to start or how to get there. When managers share their expertise, the process becomes more meaningful and worthwhile.

Remain task-oriented. Throughout the goal-setting process, the climate should be warm, friendly and informal. Yet managers should ensure the process remains task-oriented and be aware that they will need each employee's assistance to help attain their goals.

Commit to change. Managers should recognize establishing goals and objectives is a commitment to change. With this in mind, employees may be resistant to change and fear its consequences. Employees may also be reluctant out of personal fear that they will be unable to attain their goals and objectives.

Review. Once the goal-setting process is complete, managers should review each individual objective with the employee. These goals should be committed in writing, with both the employee and manager receiving a copy for future reference. c

#### **ABOUT THE AUTHOR**

Timothy F. Bednarz is the author of Great! What Makes Leaders Great: What They Did, How They Did It and What You Can Learn From It. Contact him at timothy.bednarz@majorium.com or call 715/342-1018.







Made in USA

**ELECTRIC POWERED** 

**NEVER COMPROMISE** 

Provac

**Industrial Pumpout System** 

**Simply the BEST!** 



**GASOLINE POWERED** 

**Ideal For Grease Trap Service** 



Vacuum Technology

www.westmoorltd.com

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

TEL (800) 367-097

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

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

HOUR TURNAROUND

> FREE DELIVERY ON ALL RIDGID CAMERA KITS

## RIDGID's NEW

**CS10 Digital Recording Monitor** 

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



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



# TRENCHLESS is a puzzle we solve daily

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

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



HEAD ON OVER TO WWW.HYDRALINER.COM TO LEARN MORE ABOUT HAMMERHEAD'S COMPLETE TRENCHLESS LINE-UP.



# Wireless Mapping

Smart device compatibility of RIDGID SR-24 improves locating accuracy and saves time

#### By Craig Mandli

martphones, tablets and GPS devices are becoming everyday tools in the workflow of locating professionals. With an understanding of this dynamic, RIDGID has integrated wireless and mapping functions into a new underground locator - the SR-24 - unveiled at the 2015 Water & Wastewater Equipment, Treatment & Transport Show.

The SR-24 essentially adds wireless and GPS features to the company's popular SR-20 utility locator. It uses wireless Bluetooth communication to connect to external devices such as GPS units, compatible signal transmitters and smartphones. The free RIDGIDtrax app makes most smartphones and tablets compatible, visually displaying GPS line traces in real time.

"It was designed to easily replace inaccurate hand sketches and drawings, creating a digital representation of pointers underground," says Eric Huber, senior product manager with RIDGID. "Not only does the system leverage tools that most professionals likely already have, it allows them to quickly share accurate information with customers."

The mapping features can be utilized in several ways. The SR-24 connects wirelessly to most high-accuracy sub-meter GPS hand-held devices with Bluetooth. In this mode, the GPS hand-held device is the primary data capture point to obtain the most accurate position information, obtaining depth and signal information wirelessly from the SR-24.

The unit has its own GPS antenna for applications that do not require detailed sub-meter position information. It has a nominal accuracy of less than 8 feet, and gets more accurate with clear line of sight to GPS satellites overhead. This level of location resolution can be used to create reference maps of underground assets, but not exact dig points. It records GPS and locating information on its onboard microSD card at the press of a button. The universal KML file created can be viewed on GIS mapping programs such as Google Earth.

"It enables the operator to go back to the exact spot they need to after mapping is complete," Huber says. "This system is going to appeal to utility and municipal excavators, utility locators, plumbers and even facility maintenance crews."

The RIDGIDtrax app enables operators to view positional information in real time to document underground assets. Just select a utility type and record "digital yellow paint" as you walk the line. The finished KML map is easy to share by email for quick viewing, providing an easy way to document the layout and depth of underground lines.

"We did demos for RIDGIDtrax almost constantly at the WWETT Show this year," Huber says. "It was an extremely popular attraction for us, especially when people saw how it integrated with products such as the SR-24."

The unit is also compatible with the ST-33Q+ signal transmitter, which can be controlled remotely from the SR-24 keypad up to 200 yards away. Eliminating the need to walk back to the transmitter to change frequencies



RIDGID territory manager Joe Borneman (left) explains the features of the SR-24 underground locator and RIDGIDtrax app to an attendee at WWETT 2015. The locating system offers compatibility with smart devices. (Photo by Craig Mandli)

and power settings saves time during difficult locates, a feature that Huber says came directly from customer feedback.

"Our goals attending shows like WWETT are not only to get our new product info out, but also to solve problems that techs deal with in the field,"

Huber was thrilled with the turnout at WWETT 2015, and promised that RIDGID would be back with several new developments in 2016.

"This is really our target audience and core customer base," he says. "It's such a huge show for the plumbing and drain cleaning profession. It's a huge date on our calendar." 800/769-7743; www.ridgid.com. c



One Tractor to inspect 5" to 300" diameters.



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







& Hose Clamps • Ball & Lever Valves • Masport Pumps • Jurop Pumps • Moro Pumps •

# NEED IT? GOT IT!







**Hose & Couplings** 



**Pumps** 



Traffic Safety

Safety Glasses



**Rain Gear & Boots** 

**Hard Hats & Face Shields** 











Gloves







**First Aid Kits** 







**Tripod Systems** 

Coveralls

**GasAlert Monitors** 



1.800.325.3730 www.MilwaukeeRubber.com



- > Ready to paint in 60 seconds
- > No more Expensive Sand Blast Contracts.
- > Manual Labor and Man Hours **SLASHED**
- > Hand & Eye Injuries Eliminated
- > No Mess No Clean up
- > HUGE SAVINGS, Time & Money



SPARKLE YOUR CITY AND MAKE YOUR WATER DEPARTMENT LOOK GOOD TOO

"I was very pleased with the performance of the Plug Hug in our fire hydrant maintenance program. The wear on the brushes in the Plug Hug itself was very minimal and my crew was very happy to not be using hand

operated wire brushes to prepare the hydrants for painting."



"The Plug Hug is the only tool on the market that takes the undesirable chore of cleaning and prepping a hydrant for painting to a paint ready hydrant in 60 seconds with no clean up, which ultimately increases productivity and job satisfaction."



Bill Bishop Butler County Waterline Maintenance Manager Hamilton, Ohio

Terry Byrne Inc. • PO Box 444, Mansfield, OH 44901

www.theplughug.com · 419.564.9809



BY KEN WYSOCKY
PHOTOGRAPHY BY JEFF AND
MEGGAN HALLER/KEYHOLE PHOTO

# TEAMING UP ON LATERALS

PARTNERSHIP ALLOWS CONTRACTORS TO PLAY OFF EACH OTHER'S STRENGTHS AND PUSH EACH OTHER'S PROFITS

WHEN A MATURE
BUSINESS HITS THE WALL
IN TERMS OF GROWTH,
SOMETIMES THE
BEST REMEDY IS
A CHANGE IN SCENERY.

That strategy worked well for Underground Eyes, an Alabama outfit that revitalized its revenues by narrowing its focus on a more profitable niche market and simultaneously establishing a mutually beneficial relationship with another local contractor.

Based in West Blocton, Alabama, about 45 miles southwest of Birmingham, Underground Eyes switched gears about two years ago, shifting from inspecting and cleaning large mainline sewers to inspecting and cleaning much smaller residential lateral lines. The move was bolstered by a close working relationship with the lateral lining division of BLD Services, a municipal infrastructure and heavy construction firm based in Kenner, Louisiana.

The result? About a 110 percent increase in gross revenues since 2013, says Ron Robichaux, project manager for Underground Eyes. About 80 percent of the company's work centers on laterals; the rest comes from video inspections of mainline sewers to ensure installations/pipe relinings were

performed correctly. About 70 percent of the company's lateral work revolves around inspections, with the balance coming from post-inspection cleanings, he says.

"There was a lot more competition in mainline work and not many contractors cleaning and cameraing laterals," Robichaux says, explaining the company's switch to a new market. "With more contractors bidding on mainline jobs, our margins were getting squeezed. We still got our fair share of work, but there wasn't as much opportunity for growth. Our sales became stagnant."

Another factor in the company's growth: The growing realization among municipalities that aging, leaking laterals are responsible for much of the inflow and infiltration problems that plague their sewers.

#### **INFORMAL PARTNERSHIP**

Underground Eyes and BLD weren't strangers before the two companies started working together more closely; the owners of Underground Eyes, Donna Jo and Jerry Deerman, occasionally worked as a subcontractor for BLD when mainline projects were the company's primary focus. Right around the time that Underground Eyes decided to make a market U-turn, Robichaux

orofile

#### **UNDERGROUND EYES INC.,**

WEST BLOCTON, ALABAMA

OWNERS: Donna Jo and Jerry Deerman

FOUNDED: 2002 EMPLOYEES: 12

SERVICES: Lateral sewer line inspections and cleaning

SERVICE AREA: East Coast





— who joined the company at that juncture — recognized an opportunity to dovetail services with BLD.

"I talked to them and suggested that maybe we could help by doing all the prep work on laterals so all BLD had to do was concentrate on lining them," Robichaux explains. "They invested in crews to install liners in laterals, but were using the same guys to do the prepping and the cleaning, and there's not as much money in the prepping and cleaning work as there is in installations.

"I talked to them and suggested that maybe we could help by doing all the prep work on laterals so all BLD had to do was concentrate on lining them. They invested in crews to install liners in laterals, but were using the same guys to do the prepping and the cleaning, and there's not as much money in the prepping and cleaning work as there is in installations."

Ron Robichaux

"I figured that we could save them the time and energy of prepping, which, in turn, would allow them to make more money by focusing on higher-margin installation work — that's how we started off. Now they're one of our biggest customers. About 50 percent of our work comes from working as a subcontractor for BLD.

Project Manager Ron Robichaux (front) stands with members of the Underground Eyes crew, including (from left) Jesse Smith, Jeffrey Carter, Brian Villafranco, Bill Connors, Tom Ford, Russell Tannehill, Mark Sanchez, Ben Smith and Dallas Sheler.

"I wouldn't say it's an unusual arrangement — every contractor has favorite subs that they like to use," he adds. "I'm sure there are other guys doing the same thing, and I know that BLD uses other guys, too. But they sure keep us busy."

Why didn't Underground Eyes just start doing lateral lining and grab a bigger piece of the local revenue pie? Two things: the high cost of market entry and the special set of skills required, says Robichaux. "We did not want to get into the lining business. It requires a considerable investment and the required skill set is tenfold more [than inspections/cleanings]."

BLD initially was cautious about Robichaux's proposal because the firm had tried an informal arrangement before and it didn't work out very well. But both parties agreed to give it a try on one job and take it from there. "We started out with one camera truck and now have five," Robichaux points out. "We wouldn't have five trucks without this relationship. They're a big part of our success."

#### **CHANGING EQUIPMENT NEEDS**

Of course, a business makeover isn't cheap, especially when it requires entirely different equipment. Robichaux estimates that the company has invested approximately \$2 million in five camera trucks (built on Ford and International chassis) and five water jetters made by the Sewer Equipment Co. of America.

Four of the camera trucks are equipped with IBAK LISY lateral-launch tractors made by RapidView. Each tractor carries a RapidView Orion-L lateral inspection camera. The remaining truck carries a LETS 2165 tractor-mounted





# lansas.

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



AR™ Plugs



High Pressure Plugs ~ to 150 PSI



Multi-Size Domeheads™ Front and Back Plugs

# Custom Designs Are Always™ Available

## VANDERLANS AND SONS, INC.

California 1-800-452-4902 Atlanta 1-770-509-9309

Chicago 1-800-452-4902

Houston 1-832-804-6932

www.lansas.com



lateral-launch camera, manufactured by Aries Industries Inc.

The trailer-mounted water jetters feature dual hose reels that carry 800 feet of 3/4-inch hose and 800 feet of 1/2-inch hose, a 98 hp CAT engine, a 650-gallon water tank and a pump (40 gpm at 3,000 psi) made by F. E. Myers (owned by Pentair Ltd.). The company also depends on

"We started out with one camera truck and now have five. We wouldn't have five trucks without this relationship. They're a big part of our success." Ron Robichaux

two different kinds of nozzles: StoneAge Warthogs, which are used to remove small roots and heavy grease, and Turbo chaincutters made by USB Sewer Equipment Corp., used to remove larger roots.

"We had to get into tractors with lateral launches and smaller jetters that used smaller nozzles," Robichaux says of the transition from one market to another.



## **RELATIONSHIPS 101: HOW TO FORGE A POTENTIAL PARTNERSHIP**

Offering more services is a classic strategy for diversifying a business and generating new revenue streams. Unfortunately, going that route sometimes requires a large capital outlay for new equipment.

There's an alternative, though: Rip a page from the Underground Eyes playbook and do even more of the work you currently perform, but do it as a subcontractor for a good company that provides a service that complements what you already do. This strategy worked for Underground Eyes, a lateral inspection and cleaning company based in West Blocton, Alabama. The firm has forged a mutually beneficial relationship with BLD Services, a company based in Kenner, Louisiana, that does lateral lining.

"It's been pretty smooth, overall," Underground Eyes project manager Ron Robichaux says of the company's relationship with BLD. He recognized the potential synergy between the two companies and approached BLD about joining forces in 2013. "They understand that we have other customers, too, so we can't always be there when they need us," he says. "They use other subs if we can't handle it, but we do our best to keep those guys rolling."

What's key to making a relationship like this work? Robichaux says it's critical to show the potential "partner" that working together will result in the proverbial win-win

situation. "You have to be able to show how it will benefit them," he suggests. "And the other party has to have a little trust - a little faith - in order to give it a try. So you first have to have a good relationship established." BLD and Underground Eyes had already worked together before, he adds.

In this case, BLD benefited because it could shed inspection services and focus more manpower, capital and resources on higher-margin lateral lining projects. And for Underground Eyes, the relationship allowed the company to stop doing less lucrative mainline sewer inspections and cleaning work and focus instead on inspecting laterals, which is a less competitive market segment with higher profit margins. It also reduced expenses because lateral inspections can be performed with smaller work crews, Robichaux says.



BLD Services Vice President Jacob Trapani (left) talks with Underground Eyes Project Manager Ron Robichaux on a job site in Nashville, Tennessee.





#### HES - Hydro Excavating Separator

Non Stop is pleased to introduce a totally new innovative method of hydro excavating - The Non Stop Hydro Excavator Separator (HES). HES means separating the water from the solids leaving clean water immediately available for further use in the process for high pressure jetting. The solids are left with a moisture content of 22-40%. The solids can be used for back fill. If the solids are left in the atmosphere for 2-4 days, they can be compacted. The process is accomplished while Hydro Excavating is in progress. The complete HES is mounted on one truck or carrier. It is patented in USA and Canada and can operate very well in extreme cold temperatures.

For more information, contact us at: 403-346-0996 OR goto our website:

www.nonstophydroexcavatingltd.com

#### **Business Opportunity:**

This complete operation, including patents, is available for sale. Will consider both advance payment with royalties OR joint venture possibilities.



sales@checkall.com • www.checkall.com



"We're always willing to try cutting-edge equipment — new nozzles and cameras, for example. If a company introduces a new product that can save us money and make it easier for our employees, I'm willing to buy it and try it."

Ron Robichaux

"And we also had to learn how to launch those lateral cameras  $\dots$  it's a much more specialized inspection."

Technicians received training from manufacturers at the Water & Wastewater Equipment, Treatment & Transport Show and through demonstrations at manufacturers' headquarters.

Underground Eyes now runs two-man crews, with a back-end operator working outside the truck and a superintendent running the robot and recording inspection information from inside the truck. After a lateral is inspected, whoever hired Underground Eyes or BLD decides if the line needs just a cleaning or lining/repair. Underground Eyes typically inspects the lateral from the mainline to the transition point, where the 6-inch-diameter pipes that tie into the mainline meet the 4-inch-diameter pipes that run to the homes.

"A lot of times, there's a clean-out at the transition, right on the property line, and we inspect up to that point," Robichaux explains. "Other times we inspect the line all the way to the house."

**ABOVE:** Project Manager Ron Robichaux (left) talks to Russell Tannehill of Underground Eyes as he jets a line in Nashville, Tennessee.

**BELOW:** A RapidView/IBAK inspection camera sits at the edge of a manhole while Tannehill sets up for a lateral inspection.



#### **KEYS TO SUCCESS**

Robichaux says staying abreast of new technology and keeping employees properly trained and certified have been critical to the company's success. "We're always willing to try cutting-edge equipment — new nozzles and cameras, for example. If a company introduces a new product that can save

Underground Eyes and BLD Services trucks sit in BLD's equipment yard in Nashville, Tennessee. The companies frequently work together on lateral rehabilitation projects.

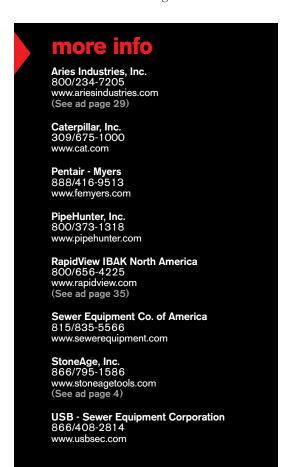
us money and make it easier for our employees, I'm willing to buy it and try it.

"We also have great employees - people who do their jobs and do them right," he adds. "We keep them trained and educated about what's going on in the market."

Because more and more customers require it, technicians are required to obtain pipeline and lateral assessment certifications, which cost about \$700 per employee and must be renewed every three years. "But it's well worth the money," Robichaux says.

Looking ahead, Robichaux envisions more growth for Underground Eyes, though he prefers slower growth to avoid overextending company finances and resources. "We have enough work to keep adding [camera] trucks," he says. "But if we run into bad weather, then we have a lot of trucks sitting around. It would be different if all our work was in the South. We don't want to overgrow — I'd rather be so busy that the guys are working more hours than normal before we can justify adding another truck.

"But the outlook is very good," he adds. "Municipalities are spending more money on lateral rehabilitation. Cities are seeing that it makes a big difference in terms of reducing I&I." c









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

#### Picote Millers & Chains Easy & efficient cleaning of cast iron drains & sewers







Locate your reseller at **picotesolutions.com** or call **219 440 1404** for further information. Thank you for visiting us at the WWETT 2015 in Indianapolis, Feb. 24 - 26, 2015.









# **bodus** gmbh

## SMALL, BUT MIGHTY: the mobile air circulating heating unit "Air Heater"





The Air Heater from bodus is a compact and powerful air-circulating heating unit, designed to accelerate the curing process of inliner in house connections.

It is ideally used in the renovation of drain pipes or on short sections, when installation of large heating units would be time-consuming or laborious. With its lightweight and compact design, the Air Heater can be installed and used in confined spaces or inaccessible sites. Sewer rehabilitation that meets quality demands is no longer an issue!

> The operating principle is similar to a hair dryer, circulating hot air in the relined pipeline, shortening the curing time of cold-setting resins many times over.

> > Handling, connecting to the impregnated liner and operating the device is simple. All required parameters, which are necessary for the heating process, can be adjusted and controlled easily.

> > > On construction sites, the Air Heater can be used as second heating unit. For example, when the larger mainline is cured with a steam generator, smaller secondary lines or drain pipes can be heated and cured. This means the Air Heater more than pays off even

> > > > after a short time. You'll never want to do without it again.

0049 176 2033 8571 · www.bodus.ch



# ORDER TOLL FREE 866-872-1224

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

PayPal<sup>\*</sup>

**VARCO** 

**JETTERFLEX** 

**PREMIUM** 

**PIRHANA** 

SEWER HOSE





service rep for details.





## **VARCO LATERAL LINE/WATER JETTER HOSE**

VARCO Branded and MADE IN THE USA;

We get it for cheaper, so we can sell it for cheaper.

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

5	SH	01	NZ
3	SPE	CIA	

	PREMIUM PIRHANA SEWER HOSE Z										
	DESCRIPTION	<u>500 ft</u>	<u>600 ft</u>								
3/4"	Premium Pirhana Orange 2500psi	\$1,145.55	\$1,357.65								
<u>1"</u>	Premium Pirhana Orange 2500psi	\$1,291.00	\$1,540.00								
3/4"	Premium Pirhana Blue 3000psi	\$1,142.96	\$1,287.39								
<u>1"</u>	Premium Pirhana Blue 3000psi	\$1,357.16	\$1,700.97								

NE	NEW VARCO JETTERFLEX LATERAL LINE / JETTER HOSE SAVE												
4000 psi rated • Safety Green - Pressure Tested • Precoupled assemblies MXM pipe thread fittings *3/16" ON CLOSEOUT SPECIAL - SA									CIAL - SAVE	25%			
	<u>50'</u>	<u>75'</u>	<u>100'</u>	<u>150'</u>	<u>200'</u>	<u>250'</u>	<u>300'</u>	<u>350'</u>	<u>400'</u>	<u>450'</u>	<u>500'</u>	<u>550'</u>	<u>600'</u>
<u>1/8"</u>	\$13.24	\$18.41	\$22.87	\$32.49	\$42.12	\$49.17	\$57.96	\$66.75	\$75.53	\$84.33	\$93.12	\$101.91	\$110.69
<u>3/16"*</u>	\$21.23	\$26.95	\$33.60	\$44.89	\$56.84	\$68.80	\$80.75	\$92.71	\$104.66	\$116.63	\$128.58	\$140.54	\$152.50
<u>1/4"</u>	\$25.87	-	\$48.40	\$70.91	\$93.40	\$109.53	\$130.45	\$151.36	\$172.27	\$193.17	\$214.08	\$235.00	\$255.91
3/8"	\$53.80	\$79.11	\$91.87	\$130.97	\$186.39	\$224.96	\$263.51	\$301.15	\$331.15	\$368.99	\$406.84	\$444.69	\$482.53
<u>½"</u>	-	-	161.80	-	\$306.77	-	\$438.40	-	\$572.01	-	\$707.17	-	\$842.97







# Our tools help you with every task on the job.

#### MS11-NG Mid-Sized Video **Inspection System**

 1½" diameter state-of-the-art camera provides one of the clearest pictures in the industry. Suitable for 3"-4" Lines. 150' Push Rod.

#### **ACCU-STIC 512 Locator**

· Peak and null modes. All digital.

#### LD30 Leak Detector

 Super sensitive survey sensor "listens" for hissing, trickle, or seeping sounds.

#### **800HL Dual Frequency Pipe Tracer**

 Locates cast iron, water pipes, tracer tape and more. Conductive and inductive modes, uses either 9 kHz or 480kHz.

MyTana is your ONE Source for all the tools the sewer and drain cleaning professional needs. And personal customer service to help you in the shop or in the field.



1.800.328.8170 www.MyTana.com















FULL LINE catalog today!



# A Jetter of All Trades

From cleaning drainlines to thawing out catch basins, this truck-mounted machine is a Minnesota contractor's weapon of choice

By Ken Wysocky

hen a business does a little bit of everything, it needs equipment that can do the same. That's why sewer and drain cleaner Phil LaRoche invested in a Cam Spray waterjetting truck — a machine that's as versatile as it is reliable.

LaRoche is the owner of LaRoche's Sewer, Drain & Septic Services in Faribault, Minnesota. During the course of more than 40 years in business, LaRoche has diversified his drain cleaning services to provide whatever customers require. Emergency drain service? Check. Preventive grease trap and drainline maintenance? Got it covered. Cleaning septic drainfield lines? No problem. Unclogging frozen lines during Minnesota's brutally cold winters? Bring 'em on.

"We do a lot of different things," says LaRoche, who employs seven people and generally operates within a 30-mile radius around Faribault, located about 60 miles south of the Twin Cities. "We do a lot of preventive jetting at restaurants and nursing homes and so forth, thaw frozen lines in winter and clean drainfield lines. We even thaw out stormwater catch basins and exit lines from catch basins."

To provide this wide range of services, LaRoche relies on a 2014 Ford F-450 box truck that carries a Cam Spray jetter, a pump (18 gpm at 4,000 psi) made by Udor U.S.A., a 49 hp HATZ Diesel engine and a 325-gallon water tank. The engine, pump and hydraulic tank reservoir that powers the jetter's

money machines OWNER: LaRoche's Sewer, Drain & Septic Services,

Faribault, Minnesota

MACHINE: 2014 Ford F-450 box truck outfitted

with a Cam Spray water jetter

FUNCTION: Cleaning drainlines and catch basins,

thawing pipes, preventive maintenance

FEATURES: Cam Spray water jetter, Udor pump (18 gpm at

4,000 psi), HATZ 49 hp diesel engine, 325-gallon

water tank, insulated and heated truck box,

450,000 Btu boiler

COST: About \$90,000

hose reel are all skid-mounted on a steel plate that's bolted to the floor of the box truck.

Normally, this kind of Cam Spray jetter is mounted on a trailer. But Bill Jensen at Cam Spray and two of his technicians, Michael Jensen and Paul Price, designed a modular system that can be mounted inside a truck. LaRoche says it required a little more thinking and designing from everyone to make it happen.

"This is my fifth or sixth water jetter and the second one from Cam Spray," LaRoche says. "All the ones I had before were trailer mounted, but I decided that this time I'd rather have one inside an insulated box, where it's warm and less apt to freeze up."



The truck-mounted Cam Spray system features an Udor U.S.A. pump (18 gpm at 4,000 psi), a 49 hp HATZ Diesel engine and a 325-gallon water tank.

The truck is also equipped with a 450,000 Btu boiler made by Beckett Corp. that produces hot water (about 160 degrees) for extreme pipe-thawing situations. LaRoche estimates that 99 percent of the time he can use cold water to unclog frozen pipes, which he encounters only about a dozen times a year on average. But he opted for the hot-water capability after the bitterly cold winter of 2013-14, during which he estimates he unthawed about 300 frozen lines. "That winter I really wished I had hot-water capability," he says.

Good nozzles are also critical for effective pipe thawing and cleaning, LaRoche says. He uses nozzles made by Cam Spray, MyTana and StoneAge.

LaRoche lauds the system's hydraulically powered hose reel, which saves time and boosts productivity in the field. "That's huge," he says of the efficiency benefits. "If I put 250 feet of 5/8-inch-diameter hose out there and have to reel it in by hand, that's a lot of work. With the hydraulic system, I can do it in three to five minutes."

#### "I'd give up a lot of revenue without it, because there's certain things I wouldn't be able to do."

Phil LaRoche

The truck is equipped with two other hose reels. One holds a garden hose that's used to refill the water tank. The other is a high-pressure washdown hose to which LaRoche attaches wands to perform tasks such as pressurized cleaning of manholes or catch basins.

"I use the 5/8-inch line for cleaning lines that are 6 inches in diameter or larger," he says. "I'd say that 95 percent of the time I run that hose X number of feet out to wherever I'm cleaning a line. I also carry 250 feet of 3/8-inch hose that I use for 4-inch-diameter or smaller lines. And I also have the capability to downsize it all the way down to 1/4-inch hose for 2-inchdiameter or smaller lines."

LaRoche still does a fair amount of emergency service work. But over the years he's developed a solid base of routine preventive maintenance accounts that he services at regular monthly, quarterly or biannual intervals.

"You're always going to have reactive work, but I've worked for the last 30 years to get people on preventive maintenance programs," he says. "It helps spread out the workload and promotes more consistent cash flow. I wanted to get rid of those feast-and-famine cycles and spread out the work."

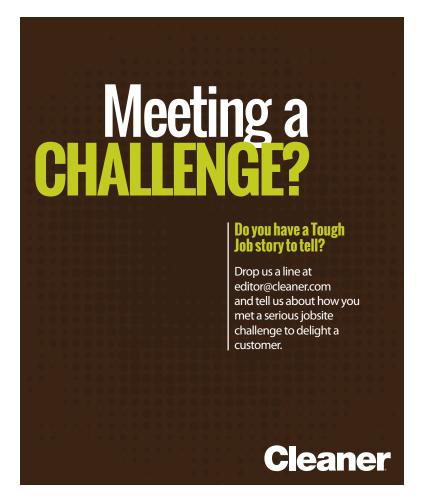
The only thing cleaner than the lines he scours with the jetter is the truck itself, which is washed often to promote a positive and professional image. "I'm very anal about having things look good," he says. "I'm a strong believer in having nice-looking graphics, too ... and people tell us all the time that they called us because our trucks are clean and look good. I think people relate a clean truck to the kind of work they think you will do."

LaRoche says the truck jetter is critical to his business, estimating that it generates about 30 percent of the company's overall gross revenue. (About 50 percent of his revenue is generated by septic pumping and another 20 percent comes from septic system installations and inspections.)

"I'd give up a lot of revenue without it, because there's certain things I wouldn't be able to do," he says of the unit's importance. "And it would be a lot more labor intensive to get jobs done without the jetter. It's been a very worthwhile investment." c

#### SHOW US THE MONEY (MACHINE)

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





## FORBEST INSPECTION CAMERA SYSTEMS

#### WHY BUY FORBEST

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

#### **Economic Color Sewer/ Drain Camera**

FB-PIC3188/3188D-65 Specs:

- 65FT Cable & Reel
- · Waterproof Color Camera Head
- 7" LCD Monitor w/ or w/o DVR & MIC
- Aluminium Case

#### **Layflat Pipe Inspection Camera**

FB-PIC3588A/3588BT

- 7"/10" LCD Control Station with Built-in USB Flash and SD Card Recorders and Li-Ion Battery 3/8" 150FT /200FT Cable & Reel
- w/Electronic Meter Counter
- Crawler for easier push
- 7/8" Stainless Steel Color Camera Head w/Builtin 512HZ Sonde Transmitter for 3588A (1.5" Self leveling Head w/ Built-in 512HZ Sonde Transmitter for 3588BT)

#### Pan-Tilt 360°/180° Camera System

FB-PIC3688B Specs:



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

#### **Portable Color Sewer/Drain Camera**

FB-PIC3188A/3188DN

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

Option 2: upgrade to 130FT Cable & Reel w/Meter Counter (New)



FR-PIC3388UT/3388MT

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



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



512HZ Locator

NEW



Specs:

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



FB-PIC3288T/3488T

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





US: 44110 Old Warm Springs Blvd. Fremont, CA 94538 Tel: 650 757 4786 Toll Free: 1 877 369 1199 Canada: 9040 Leslie St. Unit 1, Richmond Hill, ON L4B 3L8 Tel: 905 709 6226 Toll Free: 1 877 369 1199

Email: forbestusa@gmail.com





# UNLOCK THE PERFECT COMBINATION FOR SUCCESS!



- MODULAR DESIGN
- EASY OPERATION
- **SIMPLE MAINTENANCE**
- GLOBAL SALES & SUPPORT
- MAXIMUM EFFICIENCY
- ERGONOMIC DESIGN

800.752.2400 • 740.374.2306 • www.AquaTechinc.com

The Global Leader in Combination Jetting and Vacuum Systems

# A Product of Hi-Vac Corporation

A Product of Hi-Vac Corporation

#### INTRODUCING OUR NEW O'BRIEN

Featuring a sleek design, larger tank capacity and a new eye-catching aqua blue color.

editor in Racine. Wisconsin

# **Stop the Revolving Door**

Trying to keep workers doesn't have to cost a lot; not caring why they leave will cost you plenty

#### By Erik Gunn

abor markets are getting tighter, the headlines tell us, and you probably didn't have to pick up the paper to know that. As the economy inches back to life and jobs start to open up again, you may have already seen some employees head elsewhere.

So, what can you do?

Don't be among those bosses who shrug their shoulders and figure they just have to hire continuously. If you are, you need to know that employee turnover can cost you much more than you think.

There's a bright side, however: You can reduce your turnover, even if you operate in a business or a geographic area where good workers are in high demand.

#### THE COST OF THE LOSS

Dov Baron is a consultant whose work focuses on developing business leadership through his firm, Authentic Paragon Alliance. He hosts a radio and podcast show on leadership, and his most recent book, Fiercely Loyal: How High Performing Companies Develop and Retain Top Talent, focuses on exactly this topic.

"The average cost of training and development of a new staff member is one and a half to two times the annual salary of that individual," Baron says, citing U.S. Department of Labor statistics. When your business loses a person, there is a diminishing return on the investment in hiring and training that individual.

The cost doesn't just come in training and development expenses. Jan Watson, whose consulting firm, Inflection Point, in McKinney, Texas, helps businesses with hiring and retaining employees, points out that when you lose workers, you'll spend more on everything from processing the paperwork to recruiting and hiring a replacement.

Add to that the cost of lost productivity while the newcomer gets up to speed. And if the departed employee had performance problems, she observes, you've probably made an additional investment in coaching that person and documenting problems along the way — only to see it all evaporate when the person leaves anyway.

Don't forget another, lesser-known cost, adds Dan Kalish, managing partner of HKM Employment Attorneys in Seattle: "Anytime an employee leaves, there is always the possibility of litigation, even if frivolous, which can cost tens of thousands of dollars to resolve."

#### WHY THEY WALK

We usually think better pay or benefits are the bait that employees follow when they go across town to your competitor. The truth is a lot more complicated.

OK, you're saying, but you're already paying competitive wages and offering good benefits. Does that mean you've got to pay still more for either, or both?

Not necessarily, says Watson: "Some of the most simple, cost-effective incentives range from providing an 'Employee of the Month' parking space, or gift certificates to a restaurant, spa or sporting event, to success-performance bonuses with incentivized goals, team rewards or trips."

Sometimes money is just a red herring. Watson and Baron agree that money doesn't talk as loudly as it once did.

We're told that the under-35 set, the so-called Millennial Generation, is especially deaf to the sound of dollars, but it's not just them.

"Baby Boomers and Millennials alike want more from working," Watson says. "They want to belong to a work culture that provides core values, accountability and shared responsibility, effective communication and praise."

"With a purpose that is strong and a leader who lives, eats, sleeps and breaths it, your people will go above and beyond what is required."

Dõv Baron

So, she says, if you're seeing employees flock elsewhere, consider that your work culture might be driving them away — and what it would take to fix that.

Another problem could be a bad match between the worker and the job. Watson notes that an applicant's resume won't actually do much to help you make a good match. Instead, she recommends a professionally designed exam closely aligned to the job you're trying to fill that assesses not just the applicant's technical knowledge but other necessary qualities, such as attitudes and personality traits.

Baron considers poor leadership the No. 1 reason that people quit. "Generally speaking, people don't leave jobs, they usually leave bosses," he says. Another problem? "There's nothing to bond to! This means your people have no reason to be there outside of the fact that you pay them. Once someone is disengaged, it's easy to lose them."

#### **MAKING THEM STAY**

One way to engage people is to give them a sense of their future with you. Watson suggests developing stronger professional development programs. Once an employee passes the nine-month mark, "an employer should start to discuss advancement opportunities and create a professional development plan," she says. "This can be as basic as providing continuing education or as extensive as succession management planning and grooming the employee for leadership."



Beyond that, Baron says it's time to get serious about demographics. Millennials are the new workforce, and they really are different, he contends. "Trying to make them fit the mold will push them out even faster."

He urges bosses to develop a stronger ability to relate to their employees and to foster cooperation and collaboration all across the business. "Everyone on your team needs to embrace becoming a chief relationship officer," he says.

Strengthening the emotional bonds among employees can help foster loyalty that will lead workers to stick around. Again, that's especially true for this new generation, in Baron's view, and it's why money isn't everything.

#### THE MILLENNIAL MACHINE

"Throwing money at Millennials doesn't really work," he declares. "They do care about money; they have to pay bills like the rest of us. However, there is a point where money is no longer the motivator."

What is?

"Millennials want to work for organizations that are purpose-driven, meaning it's about more than the bottom line," Baron says. He likes thinking big — the way Apple did when it claimed the slogan, "We're here to put a dent in the universe."

So the bosses need to adapt.

"With a purpose that is strong and a leader who lives, eats, sleeps and breaths it, your people will go above and beyond what is required," Baron says. Yet very few companies large or small have taken the time to do that. They can start, he suggests, with a history lesson: "Sit down with the founder of the company and discover the originating purpose. What was the true driving force that made them keep going when they hit the wall?"

And if you're that founder, maybe you can find the spark that lit your fires all those years ago in the first place — and see it catch once again in a new generation. Wouldn't that be something to stick around for? c



1-800-683-8837

<mark>www.shoring.com</mark>





## Want More Stories?

Get more news, more information, more features with

#### **Online Exclusives**

Exclusive online content for Cleaner

www.Cleaner.com/online\_exclusives







#### Industries

- Oil & Gas
- Municipal
- Utilities
- Construction

#### APPLICATIONS

- Safe Exposure of Utility Lines
- Line and Pipe Excavation
- Equipment Cleaning
- Shoring
- Trenching Keyhole Excavation

#### FEATURES

- 0-3000 psi Wand Pressure Incredible Vacuum Power
- Wireless Remote Control
- 26 ft. Boom with 342° Radius Hydraulic Powered Mud Sweep
- Positive Displacement Blowers
- Centralized Grease Manifold Divided Tank for Debris and Water

THE WORLD'S BEST HYDROVAC



sales@petrofield.com



www.tornadotrucks.com



1.877.340.8141

# What's MONE **Machine?**

Do you have a go-to service vehicle or high-tech workhorse tool that conquers many jobsite challenges?

Let us know about it at editor@cleaner.com and we'll consider highlighting your most valuable performer in our Money Machines feature.

Cleaner

# TAP INTO GREAT SAVINGS WITH OUR **T752 SADDLE TAPPING TOO**

#### **FEATURES INCLUDE:**

- INDEPENDENT FEED & CUTTER ROTATION
- **COMPACT & LIGHTWEIGHT**
- CORROSION RESISTANT COMPONENTS
- ABLE TO TAP CI/DI, PVC & PE PIPE
- LIFETIME WARRANTY!





#### **FACTORY SPECIAL!**

T752 kit complete with all accessories including your choice of 3/4" & 1" CI/D or PVC cutters.

PLUS: Free Shipping!

Call Today! 1-888-737-3668 or Visit www.footagetools.com



# **Worker's Death Results in Prison Time**

Employers must be aware of very specific regulations pertaining to young workers

#### By Doug Day

he owner of a Florida tree service company will spend 15 years in prison for aggravated manslaughter of a child in the death of a 14-year-old employee. John Wilkes pleaded guilty and was sentenced in February.

Wilkes' intentions were good when he hired the boy. The youngster was following in the footsteps of his grandfather, the owner of another tree trimming company who had passed away about eight months before the 2013 accident. His mother thought he was just working on the ground, but he was 71 feet up a tree when he either cut his safety vest or it failed and he fell to his death.

Under state law, he was too young to be climbing trees, which led to the manslaughter charge. Wilkes did say he thought the boy was 16, but that is still too young under state law and OSHA regulations. The company was fined \$10,900 by OSHA for four "serious" violations, including the general duty clause to provide a safe workplace.

OSHA regulations ban those under 18 from occupations listed as hazardous:

- Trenching or excavating
- · Driving a motor vehicle or working as an outside helper on motor
- Using many power-driven machines and tools (saws, chainsaws, shears, wood chippers, cutting discs, woodworking, hoists, meat processing and packing, metal forming, bakery, balers, compactors and others)
- · Roofing work
- · Manufacturing or storing of explosives
- Forest fire fighting and forest fire prevention, forestry and occupations in logging and sawmilling
- Exposure to radioactive substances and ionizing radiation
- Manufacturing brick, tile and related products
- Wrecking and demolition

(Agricultural jobs have different regulations.)

Federal law further restricts jobs based on age.

#### **UNDER 14**

OSHA's youth page specifically mentions three jobs they can have: deliver newspapers, babysit and gather evergreens and make evergreen wreaths. These youths can also work for their parents' business if it is not a banned occupation.

#### 14 AND 15

At this age, young workers can take on a variety of jobs, but most don't pertain to the construction trades. Related positions for 14- and 15-year-olds include:

- Errands or delivery work by foot, bicycle and public transportation
- Cleanup and yard work (no use of power-driven mowers, edgers or similar equipment)
- Dispense gasoline or oil for cars, and washing or hand polishing cars
- Loading or unloading objects for use at a work site
- Limited tasks in sawmills and woodshops (must meet certain requirements)

#### **HOURLY RESTRICTIONS FOR 14- AND 15-YEAR-OLDS**

- All work must be outside school hours (with a few exemptions)
- · No more than three hours on a school day
- No more than 18 hours per week when school is in session
- No more than eight hours per day when school is not in session
- No more than 40 hours per week when school is not in session
- Cannot work before 7 a.m. or after 7 p.m. (9 p.m. from June 1 to Labor Day)

#### 16 OR 17

Any job not listed as a hazardous occupation and no hourly restrictions. According to OSHA, 335 young workers were killed in 2013 and more than 170,000 were injured in 2012. When employing those under 18, companies are required to inform young workers about the hazards of the job, provide information about OSHA standards, conduct safety training regarding workplace hazards and required safety gear, inform them whom to talk to if they have a health or safety question, and educate them about what to do if they get hurt on the job.

While Wilkes' prison sentence may be a rare outcome of employing a teenager, it illustrates the importance of being aware of the laws and regulations that apply to your company.

Check your state laws and regulations for other requirements concerning the employment of children — you must follow the most restrictive.

For more OSHA information about employing young people, visit www.osha.gov/youngworkers. c

www.cleaner.com

WATCH HOT NEW INDUSTRY VIDEOS, READ EXCLUSIVE ONLINE CONTENT, PLACE A CLASSIFIED AD, READ THE CURRENT E-ZINE, SHOP THE CLASSIFIEDS . . .



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

## Tired Of Squinting At A Tiny Monitor? Get An **Attaché** With A Monitor

# **SPECIA PACKAGE**

Scooter 200
Color, Attaché DVD, Locator Transmitter, Voice Over
Complete Page

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



15" Color Monitor

**DVD Recorders** 



800.772.61 www.tvinspection.com





Custom Built, Fully Enclosed Units For Weather Protection & Security

For Sale Or Rent

Wet-Out Tables • Air Inverters • Static Resin Mixers • 53' Reefer - Hydraulic CIPP Liner Unloader Trailers •

Phone: 815 - 712 - 8708 Fax: 815 - 220 -1920 E-Mail: sales@cipp-services.com

Air & Water Inverters For 36" to 72"
Diameter CIPP Liners Available For

www.CIPP-SERVICES.COM

www.FASTPIPELINING.COM

### **COAST MANUFACTURING**

**Professional-Grade Drain Cleaning Machines, Cables & Accessories** 





#### Drain Cleaning Machines

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

#### Cables

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

**COAST MANUFACTURING** 

www.coastmanufacturing.com

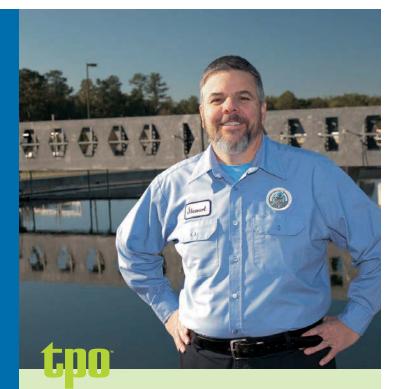
# Every day is Earth Day.™

"I was named a Water Environment Federation Water Hero — professionals who 'protect public health and the environment by cleaning the world's water day after day.' But it was a good crew of operators who pulled together as a team. It was great to work with such fine people."

Jimmy Stewart

An Original Environmentalist

CHIEF OPERATOR (2000-08) Shoal Creek Water Reclamation Facility, Clayton County (Ga.) Water Authority

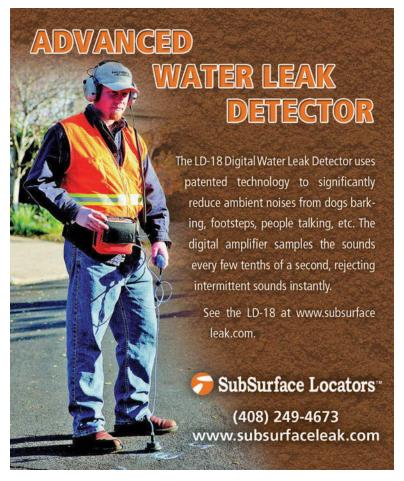


Read about original environmentalists like Jimmy each month in *Treatment Plant Operator*.

COLE PUBLISHING INC. / tpomag.com

Proudly Serving the Environmental Service Industry Since 1979







# **Location and Leak Detection, Drainline TV Inspection Equipment**

By Craig Mandli

Locating the source of inflow and infiltration in sewer and drainlines can be accomplished with camera systems, acoustic electronics or mechanical methods such as smoke testing. These items, including dyes, leak detectors, electronic line locators, push TV cameras, smoke locators and transmitters, can help pinpoint leaks.

#### **DYES**

#### **BRIGHT DYES**

Concentrated leak inspection dyes from BRIGHT DYES dissolve rapidly in water and provide a vivid fluorescent color detectable in murky water, sewage or effluent. They can be used to identify leaks, infiltration and exfiltration in plumbing connections, validate sanitary and septic hookups, and perform septic inspections to identify leachfield issues, as well



as sources of contamination in wells. They are safe, nontoxic, biodegradable and certified by NSF International to ANSI/NSF Standard 60 for use in and around drinking water. They are available in fluorescent yellow/green, red and orange and non-fluorescent blue, in tablet, liquid or powder form. 800/394-0678; www.brightdyes.com.

#### **ELECTRONIC LINE LOCATORS**

#### FORBEST PRODUCTS FB-R2012

The 512-hertz FB-R2012 wireless digital locator from Forbest Products can detect buried water pipes, sewer lines and other pipelines. It can be used in normal or noise-control modes for different application



environments. Noise control is chosen when there is interference. A shift button enables sensitivity grade conversion between near and far for locating and pinpointing the location and depth of the transmitter. On-screen status indicates the signal strength of 15 levels and battery volume. The lightweight hand-held locator is powered with 6 AA batteries and comes with retractable poles that make it easy to carry. 650/757-4786; www.forbestusa.net.

#### MCLAUGHLIN GROUP VERIFIER G2

The Verifier G2 from McLaughlin Group uses smart transmitter technology along with noise reduction to achieve accuracy in utility line location and depth calculation. It has peak and null locating modes, four active frequencies, depth estimate readout and current measurement index, passive radio search, increased depth capacity to 30 feet and a weatherproof receiver. 800/435-9340; www.mclaughlinunderground.com.



#### **RIDGID ST-Q33+ TRANSMITTER**

The ST-Q33+ Transmitter from RIDGID allows complex locates to be finished quickly and efficiently. The transmitted frequency or power setting can be changed wirelessly from either device when the unit is connected with an SR-24 Line Locator using Bluetooth. This connectivity results in accurate locates in less



time. The RIDGIDtrax utility-locating app enables the creation of visual maps of underground utilities using a mobile or tablet device. Connected with an SR-24 Line Locator, multiple lines can be traced, color-coded and named on an overhead satellite image of a job site. RIDGIDtrax is free and available for iOS and Android devices. 800/769-7743; www.ridgid.com.

#### SCHONSTEDT INSTRUMENT COMPANY XTPC+

The XTpc+ multi-frequency pipe and cable locator from Schonstedt Instrument Company has a lightweight, compact receiver and 5-watt transmitter. The receiver operates at 512 Hz, 33 kHz and 82 kHz, with passive detection at 50/60 Hz and sonde detection at



512 Hz. It is powered up to 12 hours by a single 9-volt alkaline battery. It operates at a maximum depth of 19 feet in temperatures of -4 to 140 degrees F. The transmitter is powered by a rechargeable 12-volt NiMH battery pack that operates up to eight hours. It has a backlit white LED array and ambient light sensing. 800/999-8280; www.schonstedt.com.

#### SUBSURFACE INSTRUMENTS **ALL-MATERIAL LOCATORS**

AML PRO and AML+ all-material locators from SubSurface Instruments use ultrahigh radio frequencies to find differences in subsurface densities to locate PVC and PE pipes and nearly any other subsurface object that has an edge. They can locate subsurface materials indiscriminately, including plastic, metal, wood,



SubSurface Instruments

cable or pipe. They work in clay, wet soil, snow and standing water. They have lightweight and durable ABS housing construction, advanced microprocessor intelligence technology, USB and headphone connectivity, and a high range of sensitivity levels to eliminate any unwanted and inaccurate readings. 855/422-6346; www.ssilocators.com.

#### **LEAK DETECTORS**

#### **ELECTRO SCAN ES-620**

The ES-620 from Electro Scan helps find and measure defect flows in sewer mains and CIPP lining projects 6 inches and up, and is available for integration with most multi-conductor CCTV trucks. Variations of electricity flowing through cracks, bad joints and defective connections are automatically recorded and transmitted to the PC-based application, including defect location and size in accordance with ASTM F2550. Simulating a wet-weather event inside the pipe, a jet truck and funnel cone are used



to create a moving reservoir of water surrounding the probe. Upon completing the scan, data is instantly available on the Critical Sewers Cloud, providing immediate access to defect locations and measurements of infiltration or exfiltration. 916/779-0660: www.electroscan.com.

#### LANSAS COMPLETE **LEAK LOCATION KIT**

Complete Leak Location Kits from Lansas Products include an air-motor-driven hose reel (manual hose reel is optional) that comes



with 500 feet of color-coded triple-test hose and a three-way air swivel, all mounted on a heavy-duty welded frame. The Manhole Winch with footage counter can precisely indicate where leaks are found in the pipe. Hydraulically actuated heavy-duty manhole jacks prevent damage to the hose and winch cables during use. All the technician needs to do is select the appropriate size pipe plugs and begin testing. 800/452-4902; www.lansas.com.

#### **RADIODETECTION CORPORATION RD547**

RD547 from Radiodetection Corporation uses acoustic and hydrogen tracer gas to locate and pinpoint leaks in underground water infrastructure. Supplied in six kit options, it provides the water leak specialist with a flexible



toolkit to tackle a broad range of leak types. To locate and trace water pipes, it can be used with the RD550 pulse wave generator. This method is suitable for locating most pipe materials, including PVC, PE, AZ, cast iron and steel. 877/247-3797; www.radiodetection.com.

#### SUBSURFACE LOCATORS LD-18

The LD-18 digital water leak detector from SubSurface Locators reduces ambient, intermittent noises from dogs barking, cars passing by, footsteps and people talking. Its digital electronics sample the sounds every few thousandths of a second, and if it detects an intermittent sound, it suppresses it instantly. Water leak sounds are almost always continuous noises, and the unit can identify the continuous leak sounds even in difficult conditions, like busy streets. 775/298-2701; www.subsurfaceleak.com.



#### VIVAX-METROTECH HL10

The HL10 hand-held acoustic water leak location device from Vivax-Metrotech is compact and easy to use with acoustic and visible values for a leak survey and leak pinpointing while reducing leak location time. Its acoustic properties enable it to reliably locate even tiny leaks. With three filter settings, it can be finely adjusted to the individual task and suppress interfering background noise. The visual LED indicator assists the leak location procedure, and simple one-handed operation enables the operator to accomplish



tasks easily. An LED light is built in for use in low-light areas. Greater versatility is gained by combining it with the sensitive GM 80 wind-protected ground microphone. 800/446-3392; www.vivax-metrotech.com.

#### **PUSH TV CAMERA SYSTEMS**

#### **AMAZING MACHINERY** VIZTRAC II AM240-200

The Viztrac II AM240-200 pipe inspection camera from Amazing Machinery has 200 feet of durable 1/2-inch push cable with a fiberglass rod inner core, a 20-inch cage reel and attached water-sealed case containing the controls, a high-resolution 7-inch LCD monitor and wheels to increase mobility. It also



has a 1-inch powder-coated lay-flat frame with upright rolling stand; a 1 3/8inch O.D. metal camera housing; nine dimmable high-output 5 mm LED lights; high-resolution color camera with a self-leveling head; scratch-resistant sapphire glass lens; high-grade 512 Hz sonde locator with an average range of 12 to 15 feet; and an integrated digital video recorder with remote control, compatible with most standard SD cards. 800/504-7435; www.amazingmachinery.com.

#### **ARIES SEEKER**

The compact, portable Seeker video inspection system from Aries Industries works in 3-inch or larger pipes. The 40-pound unit is a self-contained system with no external wiring and can be used in conjunction with a CCTV truck. It comes with a built-in 512 Hz transmitting beacon and a bright 6.4-inch LCD screen. Users can select from either a self-leveling mini camera or a pan-and-tilt camera with selfcleaning wiper blade. Built-in AV outputs enable inspection data to be recorded onto an SD card, DVR or a laptop. Wireless controls, video transmission up to 300 feet and



line tracing are available. 800/234-7205; www.ariesindustries.com.

#### **BLOOD HOUND LATERAL** LAUNCH CAMERA

The Lateral Launch Camera system from Blood Hound can snake through pipe or conduit, winding around corners to pinpoint the exact location of a collapse or blockage, without having to resort to exploratory digging. Camera systems UL-listed as "intrinsically safe" are available, which



allows them to inspect lines containing a hazardous and/or explosive atmosphere, such as remediation piping or fuel pipelines. All camera inspection technicians are PACP, MACP and LACP certified. 888/858-9830; www.bhug.com.

#### COBRA TECHNOLOGIES CP SERIES

The CP Series portable inspection system from Cobra Technologies has all the functionality of a truck-mounted system in a compact, go-anywhere package. The portable platform with wheels and collapsible handle makes transportation easy for any operator. Its lightweight cable allows for maximum crawler



productivity, but can also support multiple crawlers for 6- to 48-inch lines, while the auto level rewind supports cable with 600- to 1,000-foot capacity. It comes with built-in DVD recording, a daylight LCD monitor, a Touch Pro Data Logger and CAMS Office software. 800/443-3761; www.cobratec.com.

#### **CPI PRODUCTS TRAPMASTER**

The TrapMaster from CPI Products allows for most standard push camera systems to negotiate traps, bends and corners in 4- to 6-inch pipelines while centering the camera at all times. It enables inspection cameras to negotiate through 180-degree P-traps. Eight wheels are



mounted on two separate skids spaced roughly 2 inches apart. The front section mounts to the camera head while the rear mounts at the optimal spot along the camera head or spring push cable. Each section of the skid has four rocking SeamLeapers that swivel back and forth and adjust to various radiuses in the pipe, allowing for wheel contact and maneuverability. 413/443-0925; www.cplasproducts.com.

#### **CUES MPLUS+**

The **MPlus+** lateral and mini-mainline push system from **CUES** comes with a stainless steel frame and enables easy operation with its all-in-one setup. Its control unit can be removed quickly to be used separately for off-road or remote job sites or to accommodate compact storage. It includes video titling, video observation coding, digital recording and optional line tracing into an easyto-use package. This lightweight system includes large and durable wheels for easy portability and a balanced footprint for stability. 800/327-7791; www.cuesinc.com.



#### EASYCAM E5150

The mid-size E5150 sewer inspection camera from EasyCAM comes with a color camera head and a 512 Hz transmitter with 150 feet of heavy duty pushrod nestled in a powder-coated aluminum frame. It is 22 inches around and 11 inches high, ideal for confined space and roof work. The unit has a standard 7-inch recordable monitor with sun shield, offering the choice of video or simple photo saved on a standard SD card. Voice-over and image inversion are standard. The monitor is held in place by a



360-degree swivel bracket for personalized viewing angles and can be removed from the bracket for any viewing angle. It has cordless, safe 12-volt operation and is designed with plug-and-play components that allow for easy repairs. 239/260-2056; www.easycamllc.com.

#### **ELECTRIC EEL ECAM PRO 2**

The eCAM Pro 2 mainline pipeline inspection camera system from Electric Eel Mfg. has a rugged stainless-steel-housed 1.68-inch self-leveling color camera with sapphire lens, a 20 LED light ring with an impact-resistant polycarbonate light ring cover, and a high-resolution CCD element. The auto iris adjusts light automatically. A flexible camera spring navigates 3-inch P-traps. The unit comes standard with 200 feet of Kevlarbraided 1/2-inch-diameter pushrod, industry-standard 512 Hz sonde, 10.4-inch daylight-readable monitor with



click-touch controls, and one-touch recording directly to a USB flash drive. It has an on-screen footage counter, a two-hour battery with built-in charger, adjustable light controls, 16 pages of text writing with memory saves, voice-over recording, an 8X zoom function, audio/video out jacks, 8-inch wheels for easy maneuverability, a secure-locking reel brake, and rugged powder-coated steel tube and bar construction. 800/833-1212; www.electriceel.com.

#### HATHORN CORPORATION MAGNUM DVR

The Magnum DVR command module from Hathorn Corporation has USB recording and a navigation menu that is simple to use and easy to learn. With its 10.4-inch daylight-readable monitor, images can be seen clearly in bright sunlight. The system has a full-size keyboard, 16 pages of text writing, 512 Hz sonde, on-screen



**Hathorn Corporation** 

footage counter, 8X zoom, microphone, speaker and two-hour built-in battery with smart charger. Several reel options are available along with three camera head sizes. The command module can also be programmed to work with other manufacturer's reels. 905/886-2835; www.hathorncorp.com.

#### **INSIGHT VISION CAMERAS IRIS**

The IRIS Windows app-operated mainline crawler from Insight Vision Cameras inspects pipes from 6 up to 12 inches, and up to 18 inches with an optional larger wheel set. The ultra-portable and heavyduty unit comes with 750 feet of advanced tether cable, pan-and-tilt and a 10-inch LCD



touch screen. The system includes a six-wheel-drive transporter and uses four powerful LED lights to illuminate a large area. The camera and transporter are controlled via a hand-held pendant. Video will display on the reel unit as well as an external monitor via HDMI, or a dedicated Wi-Fi-enabled Windows tablet. allowing easy file management and post-software reporting. 800/488-8177; www.insightvisioncameras.com.

#### **INUKTUN SERVICES SPECTRUM 45**

The Spectrum 45 push camera from Inuktun Services has a diameter of 1.75 inches, making it ideal for remote inspections in pipes as small as 4 inches in diameter. Even in tight confines, it can effortlessly pan, tilt and focus as close as an 1/8 inch with six high-intensity built-in LED lights for optimal viewing. With 300



CONTINUED >>

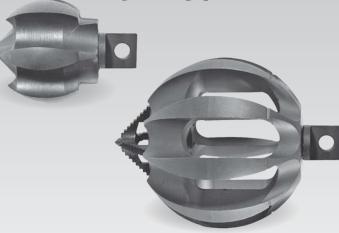
# **THE CABLE CENTER •** 1-800-257-7209



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







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





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





Basic Unit Machine Only

FREE DELIVERY



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



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



General Speedrooter 92™

Basic Unit – No cable cutters or power feed

feet of tether and a cable counter built in to the reel, it can travel the distance required for remote visual inspection needs. It is available in aluminum or stainless steel, and can be used in applications such as remote toxic analysis, underwater inspection, caisson surveillance, ship hull inspections, and foreign object search and retrieval. 877/468-5886; www.inuktun.com.

#### **KEG TECHNOLOGIES KLEENSIGHT**

The KleenSight Camera Nozzle from KEG Technologies can clean and inspect sewer mains in one pass. The 1080P HD selfleveling camera ensures a high-quality video to clearly see pipe condition and any issues that are present. Video is recorded to a 16GB internal memory, where it is stored until the memory is



**KEG** Technologies

full and the files are written over. To download video, set the KleenSight to Wi-Fi mode where it becomes a Wi-Fi hot spot. Any Wi-Fi-capable device such as computers, tablets or smartphones can access and download the data. Videos can be emailed or sent to the cloud to share with co-workers or customers alike. A high-performance nozzle is used to propel the camera nozzle and also clean the line, eliminating the need to preclean. The system is designed to work with existing flush and camera trucks and the MPEG 4 format videos are compatible with most software currently on the market today. 866/595-0515; www.kegtechnologies.net.

#### MYTANA MFG. COMPANY MS11-NG

The MS11-NG mid-size inspection system from MyTana Mfg. Company is suitable for inspecting 3- to 4-inch lines up to 150 feet long. The monitor, control box, pushrod reel and camera are contained in a single piece of equipment with a carrying handle. In addition to color self-leveling, the camera head has a built-in 512 Hz transmitter for locating trouble spots, even in cast iron pipes. Wi-Fi transmission of the video image is available, so inspections can be



MyTana Mfg.

simulcast to a smartphone, tablet, laptop or other Wi-Fi-equipped laptop with the free MyTana Viewer app. An optional recording device captures inspection records to provide to customers. 800/328-8170; www.mytana.com.

#### PEARPOINT/SPX P350 FLEXITRAX

The modular P350 flexitrax portable crawler system from Pearpoint/SPX has interchangeable main components to suit specific needs. Options include a manual or powered drum, three interchangeable cameras, a range of wheels and tires, and users can determine the cable length and crawler size. The command module is also fully compatible with the P340 flexiprobe, allowing access to a range of pushrod reels, cameras and accessories. Survey data can be transferred from a compact flash to a PC or laptop via USB 2.0. FlexiSight Windows-based



software edits video and converts reports to Word format. An integrated report writer creates inspection reports on site. It can fit in the trunk of a car and can be wheeled on site using the ergonomic barrow design. 800/688-8094; www.spx.com.

#### PIPELINE RENEWAL **TECHNOLOGIES JETCAM 40**

The JetCam 40 from Pipeline Renewal Technologies uses high-pressure water for propulsion, steering and cleaning as it captures live inspection video from inside lateral lines. It can traverse multiple bends in pipe, steer through branches and levitate above debris to locate failed pipes, cross bores and blockages, as well as perform cleaning. It is fully water-driven, with six propulsion nozzles generating the power to pull its own flexible hose through multiple bends, and a side nozzle



on the camera can be aimed to steer through diverging pipes and hover past obstacles. An optional forward-facing nozzle can be pulsed to clear debris and other obstructions. The system works with any high-pressure water source, including pressure washers and combination trucks. Its 1/2-inch hose comes in lengths from 115 to 190 feet. 866/936-8476; www.pipelinert.com.

#### RAPIDVIEW IBAK NORTH AMERICA POLARIS

The POLARIS camera system from RapidView IBAK North America has a three-axis range of movement, making it effective for inspection of branching, smalldiameter pipeline systems. The ability to pan and tilt is enhanced by the camera's pivot arm, which allows the operator to choose direction while moving through the pipeline and encountering T's and Y's. It keeps the pipe in clear view on the monitor and allows for laser measurement of pipe diameter and other observations. It has upright



RapidView IBAK

picture control, wide-angle view (plus or minus 120 degrees), powerful LED lighting and low-light sensitivity. 800/656-4225; www.rapidview.com.

#### RATECH ELECTRONICS ELITE SD WI-FI

The Elite SD Wi-Fi inspection system from Ratech Electronics allows operators to record pipe inspections wirelessly to an iOS or Android device and take live video and digital still photos to immediately upload to YouTube. It doesn't require USB thumb drives, SD cards or DVD discs. Just download an app to an iPhone or iPad and stream the video wirelessly. The Wi-Fi



interface is available on any current Ratech product or existing Ratech system in the field, and is available with a sun-readable 10-inch LCD monitor and either a self-leveling camera, small ultra micro camera or pan-and-tilt push camera. Systems come in cable lengths from 100 to 400 feet. 800/461-9200; www.ratech-electronics.com.

#### RAUSCH USA MINCAM DUO SERIES

The minCam Duo push camera from Rausch USA replaces the need for two different systems by integrating two pushrods and two cameras for small and large pipes in a compact and easy-to-use system. It comes with built-in lithium-ion batteries and is immediately ready to use. An integrated 8.4-inch sunlight-readable



screen has a documentation system with video, photo and voice recording, onscreen distance counter and file management. Files are recorded to an SD card







up to 32GB. The system has a stainless steel housing, standard 512 Hz sonde and scratch-resistant sapphire glass lens. 717/709-1005; www.rauschusa.com.

#### RITEC GMBH RIFLEXIO S

The flexible RiFlexio S push camera from Ritec GmbH can be pushed over deposits or staggered pipe joints. By pressing a button of the remote control, the camera head is lifted upward and in this lifted position it can be pushed over the obstacle. Its extremely slim construction



allows the camera to turn off into pipes 2 to 3 inches in diameter. The camera head can turn 90 degrees side-to-side inside pipes without losing its endless rotation capability. www.ritec-tv.de.

#### RS TECHNICAL SERVICES QUICKPEEK

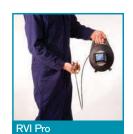
The compact QuickPeek portable video inspection system from RS Technical Services comes in a lightweight, easily transportable, yet durable stainless steel housing. It can be used to inspect lines 2 to 10 inches in diameter and up to 300 feet in length. It comes with a high-resolution color, low-lux, self-leveling camera with high-intensity LED lighting, high-impact sapphire lens and 512 Hz in-line transmitter. The unit also features a 2-inch sleeve and 3-inch finned skid, 200-foot pushrod, 7-inch bright LCD monitor with adjustable viewing angle, easy-access control center and sun-shield that reduces



glare and protects the monitor during transport. It has an AC/DC input, video/audio I/O, condenser microphone and keyboard for text annotation. Options include an onboard or external battery pack; SD digital card recorder or laptop interface; additional roller skids for 6-, 8- and 10-inch straight runs; 100- to 300-foot pushrod assembly; and a 512 Hz receiver with depth readout. 800/767-1974; www.rstechserv.com.

#### **RVI PRO MINCORD**

The minCord miniature drain inspection system, distributed by RVI Pro, incorporates a .5by .25-inch camera head with 50 feet of push/pull cable, integrated 3.5-inch LCD monitor with image capture and video recording, and AC/DC operation, all self contained in shatter-proof housing with reel. 219/787-5092; www.lookrvi.com.



#### **SPARTAN TOOL SPARVISION 200**

At 25 pounds, the SparVision 200 pipe inspection camera from Spartan Tool is selfcontained for easy on-the-job maneuverability. Outfitted with iPad Air or Samsung Galaxy S10 technology, it includes telestration to actually draw on the screen to indicate problems. It has a full onscreen QWERTY keyboard and Wi-Fi for freedom of movement and simple emailing of video. Its 200 feet of ultra-slick pushrod travels quickly and easily



through the drain, and the self-leveling camera head simplifies diagnosis. It enables instant snapshots, and includes a standard 512 Hz locating beacon and distance counter. 800/435-3866; www.spartantool.com.

#### **VU-RITE VIDEO INSPECTION** SYSTEMS MODEL C-150 T2M

The durable Model C-150 T2M mini camera from Vu-Rite Video Inspection Systems is ideal for inspecting sewer lines as small as 2 inches or larger lines with the use of a mini-lift adapter. The full-color mini camera has adjustable lighting and a heavy-duty stainless steel lens cover and body. It comes with a 512 Hz transmitter molded into the camera head pigtail. The rugged, lightweight, versatile frame has



removal/extendable wheels, legs and handle for operating in confined spaces. It is available with an externally mounted footage counter with on-screen digital display. 423/256-3063; www.vu-rite.com.

#### WOHLER USA VIS 350 PLUS

The VIS 350 Plus visual inspection camera system from Wohler USA comes with a 1 1/2inch, 360-degree-pan and 180-degree-tilt camera head; and a 1-inch, straight camera head. Both are waterproof and have bright LED lights with adjustable brightness levels for an all-encompassing view. Technicians can follow the camera's path on a vibrant color monitor as it glides around 90-degree bends and up to 100 feet away. Its digital distance



Wohler USA

measurement feature pinpoints the exact location of trouble spots. It takes still photos and records video via SD card or USB port. It comes in a tough, selfcontained carrying case with two rechargeable batteries, providing up to four hours of mobility. 978/750-9876; www.wohlerusa.com.

#### **SMOKE LOCATORS**

#### SUPERIOR SIGNAL **MODEL 25 SMOKE BLOWER**

The Model 25 High-Output Smoke Blower from Superior Signal blasts 4,000 cfm of smoke at 4.0 static pressure to push smoke through large systems requiring high volume and pressure. It fits all standard manholes, plus has a second outlet to blow into pipes and other openings. It



can be configured for use with smoke candles or smoke fluid to quickly and easily detect sources of surface inflow and other faults in sanitary sewer lines. It has an insulated heating chamber with stainless steel injector to maximize dry smoke output and high-quality liquid-based smoke. 800/945-8378; www.superiorsignal.com.

#### **TURBO-FOG M-45**

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



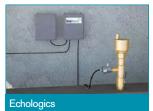
allowing for continuous uninterrupted smoke production. There is no need to add additional smoke bombs or pump garden sprayers for additional test

time. The Briggs & Stratton-powered turbine-type blower weighs only 45 pounds and creates hurricane-force velocity with a discharge velocity of over 75 mph and 2,000 cfm. It continues to work under pressure in up to 5.75 inches of water. It is available with a plumbing conversion kit. 800/394-0678; www.turbo-fog.com.

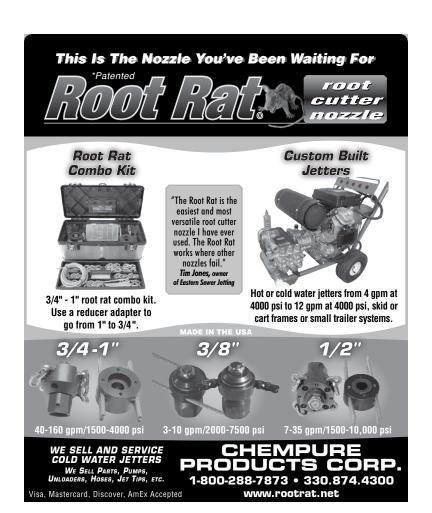
#### PERMANENT LEAK DETECTION

#### **ECHOLOGICS ECHOSHORE-TX**

The EchoShore-TX advanced technology platform from Echologics is designed to monitor water transmission mains. It is easy to deploy, simple to maintain and can be applied throughout transmission systems on any pipe material. The system leverages components



of LeakFinder, creating a network that continuously monitors critical water transmission mains and alerts operators to leaks before they result in main breaks. The system collects data and uploads it to a secure server, where it is then analyzed to determine the location, with an alert then sent to the operator. The platform has a high degree of monitoring flexibility such as static pressure, flow, temperature, chlorine levels, acoustic anomalies and other operator requirements. 866/324-6564; www.echologics.com. c





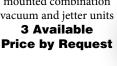




2002 GMC, dual steer truck mounted, large capacity sweeper with dual sweep gear and catch basin cleaner unit

**Price by Request** 

2014 Freightliner truck mounted combination vacuum and jetter units 3 Available







wet/dry vacuum loaders with 27" Hg blowers

4 Available **Price by Request** 

Scan the QR



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

# Location and Leak Detection, **Drainline TV Inspection Equipment**

By Craig Mandli

#### **INSPECTION CAMERA AIDS IN** LOCATING FOREIGN BLOCKAGE

#### **PROBLEM**

When repeated snaking failed to clear the sewer line of a Tallahassee, Florida, residential property, McNeill Plumbing sought a tool to identify what was causing the blockage.

#### SOLUTION

A technician for the company used his **Gen-Eye** video inspection equipment from General Pipe Cleaners. Running the camera



between the street and house clean-outs, McNeill's crew quickly discovered a baseball bat in the line. "Someone intentionally put it there," special projects manager Keith Walker says. "The Gen-Eye image was so sharp that we could clearly read the logo on the bat itself."

Gen-Eye systems can be used to troubleshoot 2- through 10-inch lines, and include an on-screen distance counter, date and time stamp, voice-over unit, built-in titler, and AC/DC power option. The self-leveling color camera automatically keeps pictures right side up, letting professionals and customers clearly follow the action through lines.

#### **RESULT**

With a wire and rope loop, and using their Gen-Eye, McNeill's professionals removed the bat, sparing the property owner considerable cost and inconvenience. 800/245-6200; www.drainbrain.com.

#### **SMOKER CONNECTS** TO SMALL CLEAN-OUT TO UNVEIL LEAKS

#### **PROBLEM**

Utility managers in Freeman, South Dakota, were experiencing backup issues in their sewer system during heavy spring rains and couldn't find the exact



location of the problem. They were fairly certain of the general area, but were unable to pinpoint the leak locations in order to stop the overflow. The water infiltrating into the sewer system was overwhelming lift stations and the wastewater treatment system, as well as depositing debris in the pipe, which required cleaning.

#### SOLUTION

South Dakota Rural Water was hired to perform a smoke test with the Hurco Power Smoker, but testing the sewer lines wasn't revealing where the infiltration was coming from. Having the location narrowed down to a field, they found an old building sewer clean-out. Since the clean-out was only a 4-inch line, they were unable to do the smoke test using the standard smoker for sewer main testing. SDRW used its Hurco Power Smoker 2, which is typically used in plumbing systems, and was able to easily connect to the 4-inch clean-out.

#### **RESULT**

After a couple minutes setting up for the test, smoke immediately appeared in several locations, revealing multiple uncapped sewer connections from an abandoned mobile home park. The city was able to quickly mark all of the leak locations and get them all properly capped to prevent further damage and issues caused by the inflow into the sewer system. 800/888-1436; www.hurcotech.com.

#### PRESSURIZED PIPE INSPECTION SYSTEM HELPS UNCOVER DEFLECTED PIPE JOINT

#### **PROBLEM**

A university in San Diego wanted to ensure a 6-inch live water main was operating without any disruption.

#### SOLUTION

JD7 North America completed a successful leak investigation via a fire hydrant riser with the Investigator Light, a fully integral



pressurized pipe inspection and leak detection system designed for harsh environments.

#### **RESULT**

Within two hours, the Investigator Light pinpointed a single deflected pipe joint in the live system after investigating more than 400 linear feet of pipe through six valves. 858/242-1640; www.jd7usa.com.



















CENTRAL OKLAHOMA

#### 8% ONE YEAR FINANCING AVAILABLE!

Longer lease rates also available. Call Keith for details.

**BUYING A SEESNAKE?** 

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

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

Jim: 405-205-3974

CALL 888-947-87

5037 NW 10th Oklahoma City, OK 73127

www.centralwinnelson.com

# /BioOne

# is not your ordinary drain/septic treatment.

BioOne's beneficial microbes immediately go to work digesting Fats, Oils and Grease naturally.

Add BioOne® to each call and build sales for your business! Call 1.800.951.4246



BioOne® is uniquely recognized by the U.S. EPA's Safer Choice Program as a product that is safer for people, pets, and the planet.

View our BioOne® video at http://bioonevideo.com/



Made in USA • www.onebiotechnology.com

#### PRODUCT SPOTLIGHT

#### Mobile device works like a tablet when filling out customized job forms

By Ed Wodalski

The mobile data terminal from GPS Insight, in partnership with Garmin, provides a new dimension to fleet management. In addition to dispatching routes and communicating with drivers through a Garmin device, the terminal can be taken out of the cab and used like a tablet or iPad.

"You can fill out forms on the Garmin that you formerly filled out on paper," says Ryan Driscoll, marketing director for GPS Insight. "There are forms that you can customize through GPS Insight to your business, like job number, loads completed and other details."

Completed forms can be sent in real time to the office for analysis and processing.

"It helps with billing, and for payroll purposes it can identify who was on a particular crew or job," he says.



As a management system, the device can track inventory, noting what type of equipment was used on a job.

"It also helps track pre- and post-trip inspections, which are becoming more important for fleets," Driscoll says.

Cleaning contractors can note job type, time started and when work was completed.

"You're more productive because you see your vehicles and receive job data in real time," he says. "Using GPS Insight's Garmin integration helps you dispatch people more effectively. You always know how far along on the job they are and who's closest to the next job." 866/477-4321; www.gpsinsight.com.









#### MCELROY CONFINED SPACE FUSION MACHINE

The In-Ditch 48 fusion machine from McElroy Manufacturing is designed for working with large-diameter pipe. The top-loading heater and facer provide flexibility in confined spaces with minimal excavation required. The fusion machine delivers up to 3,000 psi for 16-inch O.D. to 48-inch O.D. pipe. Features include removable jaws and clamp cylinders. 918/836-8611; www.mcelroy.com/fusion.

MAXLITE LED RETROFIT LAMPS

LED DirectFit PL lamps from MaxLite convert existing four-pin fixtures to LED technology. The 13-watt plug-and-play replacement lights for compact fluorescent lamps operate off the fixture's existing ballast. Offered in two designs to suit horizontal or vertical mounting positions, the lamps are available in three color temperatures. They deliver up to 900 lumens and consume 50 percent less energy than the 26-watt CFL bulbs they replace. 973/244-7300; www.maxlite.com.

#### VACTOR HYDROEXCAVATOR BLOWER OPTION

The HXX HydroExcavator from Vactor Manufacturing is available with an optional Robuschi blower. The blower is rated for 6,176 cfm and 28 inches Hg. The hydroexcavator has a 3,000 psi variable water multi-flow pump with DigRight technology that allows the operator to select a maximum water pressure limit. 800/627-3171; www.vactor.com.

CULTEC AUTOMATED DRAWING PROGRAM

The StormGenie v.2.5 automated drawing program from Cultec is an AutoCAD plug-in tool that enables engineers, contractors and landscape architects to create preliminary stormwater system proposals, final designs and project-specific drawings for Contactor and Recharger stormwater chambers. The software can draw from Cultec's Stormwater Design Calculator and HydroCAD's Chamber Wizard. 800/428-5832; www.cultec.com.















#### REELCRAFT REEL PAINT OPTIONS

Hose reels from Reelcraft Industries are available in bright red as well as secondary colors (white, black, blue, gray) and special orders. Parts are coated with a polyester powder coat for a corrosion-resistant finish. Paint samples are available. 800/444-3134; www.reelcraft.com.

#### VANAIR GAS ROTARY SCREW AIR COMPRESSOR

The Viper gas rotary screw air compressor from Vanair Manufacturing delivers 60 to 80 cfm at 100 to 150 psi and features an EFI certified Kohler engine. The 42-inch-long by 21-inch-wide by 30-inch-tall compressor fits behind the cab or can be mounted on the side pack. 800/526-8817; www.vanair.com.

#### JENNY PRODUCTS C-SERIES AIR COMPRESSORS

Four-wheeled, portable C-Series air compressors from Jenny Products feature single-stage C pumps and 6.5 hp Honda GX commercial engines. The compressors deliver 9.8 cfm at 125 psi and are available with ASME certified 8-, 15-, 17- and 30-gallon powder-coated air tanks. Standard features include enclosed belt guard, anti-vibration feet, manual tank drains, stainless steel braided discharge hose, pressure-release safety valve and tank, regulator and outlet pressure gauges, pneumatic tires and lifting handles. Options include oil sight glass, lubricator and air line filter. 814/445-3400; www.steamjenny.com.

#### HINO CLASS 4 155 MODEL TRUCK

The 14,500-pound GVWR Class 4 155 model cabover truck from Hino Trucks is powered by a 210 hp J05E-TP engine. Hino also offers a double cabover 155-DC model. 248/699-9300; www.hino.com.

#### LOWELL MULTI-ANGLE RATCHET WRENCH

The Model 8E two-in-one ratchet wrench from Lowell Corp. has 36 teeth and a 10-degree handle throw for working in confined areas. The ergonomic stamped steel handle is 17 inches long, 1/2 inch thick and weighs 2 3/8 pounds. The wrench has a torque rating of 100 ft-lbs and is available with 1 1/4- by 1 1/16-inch and 1 1/8- by 15/16-inch hex socket combos. 800/456-9355; www.lowellcorp.com.

#### COXREELS T SERIES STAINLESS STEEL REELS

Spring-driven Stainless Steel T Series hose reels from Coxreels feature an extra-large chassis with dual pedestal-style design and Super Hub that provides triple axle support to reduce vibration and strengthen the structural integrity of the reel. The reels are made from electro-polished stainless steel with stainless steel fluid paths, offering noncorrosive performance in required applications. 800/269-7335; www.coxreels.com.

#### SUBSITE ELECTRONICS UTILITY LOCATING SYSTEM

The Subsite Electronics UtiliGuard utility locating system's AIM automatically scans the surrounding area for noise and recommends the best frequency among its 70 options. It measures distances (depth) both horizontally and vertically for more accurate locates, and has an intuitive, sixbutton, multi-language operator interface and a high-contrast LCD display to ensure visibility in all conditions. A dual-output feature allows users to connect the transmitter to two utilities at once and the system is Bluetoothenabled to simplify data transfers. 800/846-2713; www.subsite.com. c

#### RS Technical names president

RS Technical Services named Mike Sutliff president. He takes over for his father and company founder, Rod Sutliff, who passed away last year.

#### Honda Power receives MarCom Award

Honda Power Equipment received a Gold MarCom Award in the print and design and packaging category for the Honda HRX lawn mower carton. Administered by the Association of Marketing and Communication Professionals, winners were selected from 6,000 entries in 200 categories.

#### General Pump names sales representative

General Pump promoted Nick Viestenz to outside sales representative. He has been with General Pump for 12 years, working in research and development, customer service and inside sales.

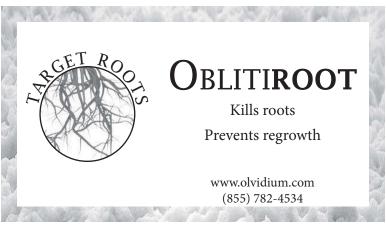


Nick Viestenz

#### Legacy Equipment expands facility

Legacy Equipment completed a 16,000-square-foot addition at its Salt Lake City facility. The addition includes six service bays, a 6,000-square-foot warehouse and paint booth.





### Safety Today launches websites

Safety Today launched its website for customers in the United States, www. safetytoday.com, and sister site for customers in Canada, www.safetytoday.ca. Product libraries on each site are



presorted in line with relative national standards, including the American National Standards Institute (ANSI) and CSA International (Canadian Standards Association). The site also includes an overview of available safety training initiatives.

#### Quadex rebrands, launches division

Quadex launched a rebranding campaign with the expansion of its products and services and introduced Quadex Lining Systems for pipe rehabilitation. The new division will license its turnkey pipe rehabilitation system featuring GeoKrete geopolymer to qualified contractors.

#### PIP expands sales team

PIP named Dan Lessard regional sales manager in central Canada, John Harrison regional sales manager for western Canada, Mario Miron regional sales and marketing manager for Quebec and the Atlantic regions, Jerry Gascon ATG country manager for Canada and Kurt Reichart territory account manager for Canada.

#### GapVax website enables users to build their own truck

The Build-A-Truck feature from GapVax enables website visitors (www.gapvax.com) to design their own equipment by choosing the options that best meet their needs. Selecting Municipality



or Contractor, users can design an MC Series combination jet/vac or HV Series wet/dry vacuum truck. Hydroexcavator options include debris and water tank sizes, debris tank material, duct work and cyclone material, interior debris tank coating, liquid load indicator, cold weather package, off-load, sound, boom and lighting options. Other options include toolbox, chassis, gauges and electronics. When finished, users can submit their design and receive a formal proposal for their truck.

#### Avanti International names vice president

Avanti International named Burt N. Babcock vice president of sales. He will focus on the company's national and global growth.

#### Advanced Workhorse Nozzles names sales manager

Advanced Workhorse Nozzles named Scott Krupinski national sales manager. He will focus on building the company's dealer sales channel.  ${\bf c}$ 

# ALLAN J. COLEMAN SINCE 1905

Call us today! 773-728-2400

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

**UPGRADE** your camera system to the GVISION.

**A Better System** 



Visit www.eplsolutions.net for more details.

GVISION

Gvision V3 is a universal monitor capable of recording from a variety of camera reels. View the screen in the blaring sunlight or in the shade with no visible difference. This ruggedized monitor records onto flash drives, hard drives, and an iPhone®, iPad®, or iPod Touch®. Connect to the A/V in/out connector to use DVD-RECs and other compatible recorders.



JetSonde Carriers - P-Trap Cable Sonde Carriers

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



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



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



Special pricing on all General jetters, cameras and machines





With a Purchase of 1/2" or Larger Nozzles Receive a FREE Service Kit through 3/31

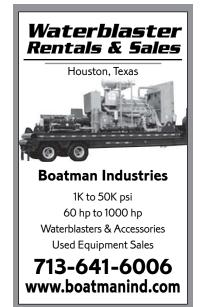
OLDEST NAME IN THE BUSINESS

— Over 100 YEARS OLD — PHOC MEMI



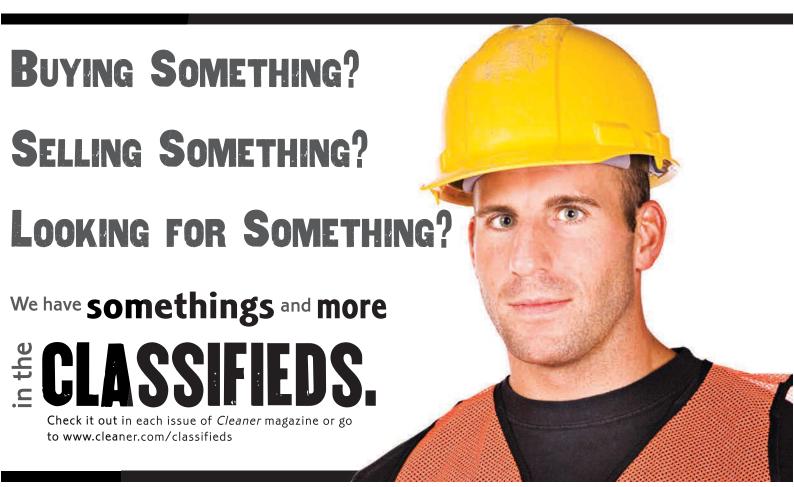




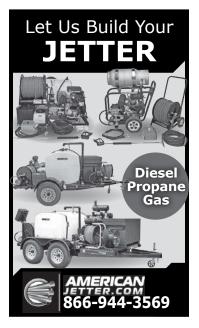








**DYNAMIC** 









Superior

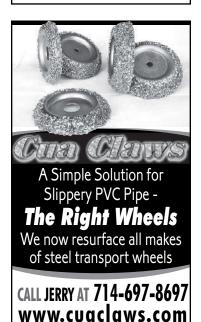














• 3-Way Fall Protection

Full Body Harness

800.362.0240

· Work Winch

Add a Blower with 15' of duct for only \$350!

Add a 5 Minute Escape Respirator for only \$500!

www.mtechcompany.com

- - 000

### classifieds

see photos in color at www.cleaner.con

#### **BUSINESSES**

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

Drain cleaning, septic pumping, grease dewatering business in Montana for sale. Established 36 years ago. Honest and reliable reputation. Fleet, equipment, inventory to provide diversified and comprehensive services. Real estate negotiable. Large, active customer database. Three-year previous annual revenue average is \$700,000. Motivated to sell, owner is tired. Call 406-231-0361 to inquire. (C08)

#### CATCH BASIN CLEANERS

2001 Vactor 2100 on Freightliner tandem. Ex-municipal, 2,000-gallon water, 6-yd debris, dual fans, multi-flow water, 600' flush hose. Fully serviced/detailed and ready to work. \$75,000. 866-744-9921 (C07)

#### **COMPUTER SOFTWARE**

FreeServiceReminderSoftware.com, FreeServiceDispatchSoftware.com, FreeRouteManagementSoftware.com. (C06)

#### DRAIN/SEWER CLEANING EQUIPMENT

Used and rebuilt cable machines in stock: RIDGID K-7500, K-40, K-60, K-1500, Spartan #1064, #300, #100, Electric Eel model #C machines. The Cable Center: 800-257-7209. (CBM)

#### EASEMENT SEWER FLUSHER

SECA Hydrostatic easement sewer flusher with dually wheels. Articulating hose reel, Honda engine, auto levelwind, 600' of 1 hose, many more options. Unit has never been used. \$16,900. Dave 262-951-8979 (C06)

#### HAZARDOUS WASTE UNITS

New 3,200 U.S. gallon, carbon steel, DOT certified 407/412 vacuum tank; dump type with full open rear door and a Presvac PVB-750 vacuum-pressure pump installed on a 2015 Peterbilt 348 cab and chassis. (Stock #13587D-E) www.VacuumSalesinc. com, (888) VAC-UNIT (822-8648). (CBM)

#### **JETTERS-TRAILER**



**Xtreme Flow Trailer Jetter Hot/Cold!** Model# HJ2TA8536, tandem axle trailer, 35 hp Vanguard 8.5 gpm @ 3,600 psi, 325-gallon water tank, 300' hose, General Pump. List \$36,995. On sale for \$32,995. Fully loaded!

800-213-3272 www.hotjetusa.com

CBM



**2006 O'Brien 7040-SC** for sale. 40 gpm @ 2,000 psi, 786 hours. ...... Asking \$23,000 OBRO

John 215-892-5135, PA co7

2008 GMC PipeHunter: John Deere rear engine, 700-gallon poly water tank, 3/4" jet hose, Giant pump. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)

2000 John Bean Trailer Jet: 35gpm @ 2,000psi. 400-gallon tank, 400' new hose. \$11,000 OBO. 231-325-0052 or 734-365-4035. (CBM)

2008 Ford PipeHunter: 7844TMV. 1/2" hose. Giant jet pump 14.2gpm @ 4,000psi. Tuthill blower, 1/2-yd. debris tank. John Deere rear engine. 294 hrs. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)

#### **JETTERS-TRUCK**



Call 308-237-6651, NE CO7 lewis@midlandscontracting.com



**MAKE OFFER:** Myers high-velocity sewer cleaner, model # RJ-2065DS. Rear engine is a Perkins 6.3544, starts and runs good. 1,500-gallon water tank, 500+ feet on hose reel, 2,000psi 1" hose. Mounted on a Ford L8000 with Allison auto. transmission recently rebuilt and CAT 3208 diesel.

800-536-9454 or 419-466-6098

**6098** co6



**1993 GMC 1-ton Jetter:** 35gpm FMC pump, 3/4" hose, 500-gallon plastic tank. ......\$14,500 OBO Other jet trucks and trailers available.

608-835-7767, WI

Jack Doheny Supplies Inc. offers a full range of late model combo units and DOT industrial vacuum loaders. Call us @1-800-3D0HENY.

1990 GMC-SRECO Jet/Flusher truck. Runs good. Pics available. \$12,000. Dayton, OH. chuber@hightecindustrial.com or 937-667-1772 (C06)

2006 Chevy C4500, ONLY 8,000 miles with 1986 FMC jetter, 1,800psi/35gpm, 600-gallon tank. \$23,000. 716-664-3260 Jamestown, New York. (C07)

1995 Ford F800: 64,000 miles, Vac-Con, 60gpm 2,000psi. 1" hose on hydraulic-driven reel. John Deere engine, 1,600-gallon water tank. \$13,000. 218-750-3394 (C06)

#### **JET VACS**

2009 Sterling Vac-Con: VPD3616LHAEN S\N: 09085083. 3,975 main engine hours. Bean jetting pump. Roots 824 RCS blower, 16-yard debris tank. New aluminum extension tubes. Hydraulic-driven jetter pump. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)



> Kyle 515-360-8582, IA kyle@accujetiowa.com

C08



Call Us - We Deal Nationwide
Al Asher and Sons, Inc.
855-885-2295
www.alasher.com



**2002 Vactor 2112 PD:** Remanufactured 824 blower at 8,700 hrs. on engine. New 3126 motor and Allison transmision with less then 10,000 miles. Unit has 257,750 miles and 12,541 engine hrs. .. \$65,750

509-586-2446, WA

C07

2002 International Guzzler: 54,000 miles, 10-speed, 27" Roots blower. Stainless steel tank. Stk# 2300. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)

PLACE YOUR AD ONLINE AT www.cleaner.com - IT'S ALWAYS THERE TO MEET YOUR BUSY SCHEDULE



2002 International Vac-Con: 10-yd., 3-stage fan, ex-municipal unit. Work ready. VERY LOW HRS. Only 808! Very clean with new tires. ..... \$57,900

800-627-0778

C06



2001 Freightliner M112 6x4, VIN# J49135, Cummins ISM 32hp, Allison 4560P automatic, 60,000 GVWR, 20,000 front & 40,000 rear, 60 gallons fuel. Brown interior white cab. safety-vellow body, air-ride drivers, a/c, stereo, 32,796 miles and 8,510 hours. VacCon Model V309SHA Serial# 05012766, 9-yard debris body, 1,300 gallons water, 3-stage fan, auxiliary 4-cylinder diesel engine, 50apm @ 3.000psi, 600 feet of hose on a 800-foot reel, strobes, arrow board rear. Municipal machine well taken care of, excellent condition. ......\$119,500

800-672-6010 ext.115, CO CO9



1989 Guzzler Ram Rodder jet vac on GMC Brigadier chassis w/CAT 3208 engine. Myers pump (2,000gpm @ 80psi), 2-yd. debris tank, 2,000-gallon water tank, and 600 feet of 1-inch hose. Runs well. ..... \$30,000 OBO

Call Marc 801-209-6086, UT C06

2007 Mack Guzzler: Damaged, rear unit new in 2011. Ingersoll Rand Air Solutions Hibon model SIAV 8702 blower. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277

2006 International Vactor 2112\15: 9.300 hours, S\N: 05-07V-9443, Vactor jet pump 80gpm @ 2,000psi. 600' 1" new hose. 800' hose reel capacity. Pump-off system. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)



2001 VacCon jet vac combo International chassis: Navistar engine, 3-stage fan. Allison automatic. 65.000 miles. 600 ft. 1" hose, 2,000psi @ 80qpm, 1,200-gallon water tanks, 11-yd. debris tank. 3,200 hours on aux. engine, rear strobes, arrow board on rear. Debris body flush system. 8" telescoping boom. Truck engine overhauled summer of 2014. Excellent condition. \$50,000 OBO

> Kvle 515-360-8582. IA kvle@accuietiowa.com

C06

1991 Volvo Camel 200: Tandem axle. Great condition. Ready for work. \$25,000. Green Bay, WI. 920-655-7302 or 920-866-9109. (CBM)

1998 Volvo GapVax: Stk# 2301, VIN# 4VHJCB JF8WN857157. Stainless steel tank, N-14 Cummins, 9-speed Fuller transmission, Roots 27" blower. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)

2002 Sterling LT7501 Vac-Con Model V390LHA combination sewer cleaning truck: Freshly painted white. CAT 3126 - 275hp engine. 3-stage fan. 1.000-gallon water tanks, pump off option available. 10' telescopic boom. FMC water pump - 65qpm @ 3,000psi. Articulating hose reel with 600 feet of new 1" hose. 84,316 miles. Located in Orange, CA. \$79,900. Contact Craig: 714-639-8352. Additional details at www.empireequip.com (CBM)

Vac-Con V390LHA combination unit with Roots 827 blower, 1999 International Model 2554 cab and chassis. (Stock #3918C) www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648).

Vac-Con industrial machine mounted on a pre-owned 2006 Sterling cab and chassis. (Stock #8593C) www.VacuumSalesinc.com (888) VAC-UNIT (822-8648) (CBM)

2006 Volvo cab & chassis with a Vactor 2110 combination vacuum loader and high-pressure sewer cleaning system. (Stock #3483C) www.VacuumSalesinc.com (888) VAC-UNIT (822-8648) (CBM)

#### **LEASE/FINANCING**

North Star Commercial Credit: Commercial loans for trucks or equipment. Flexible purchase programs to fit your budget. 21 years in the industry. Contact Tom Myers - 877-804-2274. (CBM)

#### **LOCATORS**

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

#### **MISCELLANEOUS**

Titan 8000 series, high performance, RIDGID 8000 Zero-Gravity. The Cable Center: 800-257-7209.

#### **NOZZLES**

**SAPPHIRE NOZZLES** for UHP. laser-etched. heat treated, excellent quality, fantastic savings! 772-286-1218. info@allietting. com; www.alljetting.com.

#### **PARTS & COMPONENTS**



Units, nozzles, hoses, accessories and safety gear. From High Flow 65 GPM Units to High Pressure 6.000 PSI Units and everything in between. The best products and the best advice in the business.

800-538-8464 | 770-740-9917 www.usjetting.com CBM

#### **PIPE BURSTING EQUIPMENT**

New 50-ton TRIC pipe bursting equipment complete with 300 feet of 7/8" cable. Down hole unit 12-inch base, 8-inch head. M50 hydraulic puller. Cost \$38K, will sell for \$32,000, 415-883-3676 ask for Mike. (C06)

#### **PIPELINE** REHABILITATION

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.

Complete Max Liner ambient and hot water cure system. All in good working order. Does not include tow-behind compressor. \$14,900. Buyer pays all shipping. pgalligani@rooterman-capecod.com 508-430-4000 (C06)

#### **POSITIONS AVAILABLE**

New Jersey-based sewer rehab company looking for experienced TV/cutter and vac truck operators. MUST BE WILLING TO TRAV-EL, CDL REQUIRED. Send questions and/or resume to newjobapv@gmail.com (C08)

GapVax, Inc., a nationally recognized manufacturing business, is seeking a talented. highly motivated individual to fill a full-time Sales Position in the Midwest (lowa based preferred) region. GapVax is the leading manufacturer of industrial and municipal vacuum units and hydroexcavation units in the United States. We provide the most reliable, comprehensive, and efficient mobile vacuum units in the industrial and municipal markets. Specifications of the position are listed on our website, www.gapvax. com, click on the Now Hiring link in the left hand column. Send resumes to Lthomas@ gapvax.com or 575 Central Avenue, Johnstown, PA 15902. (CPMGBM)

National pipelining company seeks smalldiameter pipelining technicians. Must have at least three years experience with 3 to 4-inch diameter air inversion. Must be willing to travel. Good pay and benefits. Immediate positions available. Please call 800-504-6108

#### **PUMPS**

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

#### **RENTAL EQUIPMENT**

Liquid vacs, wet/dry industrial vacs, combination jetter/vacs, vacuum street sweeper & catch basin cleaner, truck & trailer mounted jetters. All available for daily, weekly, monthly, and yearly rentals. VSI Rentals. LLC. (888) VAC-UNIT (822-8648) www.vsirentalsllc.com. (CBM)

#### SERVICE/REPAIR

**Dynamic Repairs - Inspection Camera** Repairs: 48 hour turn-around time. General Wire, Ratech, RIDGID, Electric Eel Mfg, Gator Cams, Insight Vision, Vision Intruders. Quality service on all brands. Rental equipment available. For more info call Jack at 973-478-0893. Lodi, New Jersey. (CBM)

#### **TOOLS**

RIDGID model #300 with stand. RIDGID tristand vises. RP 330 ProPress kit. The Cable Center: 800-257-7209.

T&T Tools: Probes, hooks. Probes feature steel shafts with threaded and hardened tips. The insulated Mighty Probe™ tested to 50,000 volts. Top Poppers™ open manhole covers easily. Free catalog. www.TandT tools.com. Phone 800-521-6893. (CBM)

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

#### **TOOLS**

Ritchie Yellow Jacket Recovery System & BULLET 7 cfm pump. The Cable Center: 800-257-7209. (CBM)

#### TV INSPECTION



**2002 Ford E450 CUES camera van,** Night Owl camera, newer CUES computer, newer water-cooled generator. 56k miles, V-10. Auto crane to do the heavy work. Approx. 1,500 ft. of cable. \$37,950. Go to our website for more info and pics:

www.letsrollautoandequipment.net 719-494-4927, CO co6



**1999 Ford E450** Hi-Cube CUES TV truck Reduced!! \$25,000 OBO. If interested, please call for more info and photos.

**904-284-2141, FL** 

Cleaner AVERAGE MONTHLY CIRCULATION REACHES 26,083 READERS!



**2010 Aries Pathfinder:** Great package includes rack-mount computer, all cables, extra wheels (6"/8"/xxl), cable reel, pan/tilt, auxiliary light. 2,233 hours. In great condition, inspection ready. ... \$15,000

Call 800-832-6417, WI

C06

2010 Envirosight Rovver portable inspection camera system. Only 300 hours on unit --municipal owned. Includes RA300 automatic cable reel with 660' of cable, RC90 pantilt-zoom camera, Rovver 125 crawler with standard wheels, adjustable manual lift kit, backeye camera, and portable CCU. System is in excellent working order contact Brian @ 303-898-9475. (C06)

USED Envirosight ROWER System: Brand new RC90 camera. Cable reel (SN 360570) has new power supply, motor, clutch, cable (656') and winding rollers. 125 crawler (SN 0260768) has new top plate, side plates, axles and seals, plus new control board compatible with rear-view camera accessory (not included). CCU (SN 0160981) with new power card, new 56V card, new +/-26 card, and new card. Control pendant (SN 0492645) is compatible with RC90 camera and R225 crawler. \$32,500. Call 973-252-6700.

1994 CUES TV Seal Step Van GMC Diesel 14,000 GWW, 81,000 miles, automatic, CUES interior. 7.5kW Onan diesel generator, roof a/c, CUES 1208 PCU LCD 17" rack-mount video, CUES ProData 2000. Std. CUES desk controllers, 1210 video reel, 800' cable terminated quad grout reel with 500' quad hose, H block with transducer, Graco pumps, 30-gallon grout tanks, manual grout panel w/pos power winch with 3/16 SS cable. CUES Shorty 6/30 with CUES PT camera. Contact Alan Grant at Cobra Technologies 800-443-3761.

2006 Chevy 3500 CUES camera truck. Aries step truck. Also have 0Z II camera, crawlers, transporters, Lily jetter, PCU system, MP2020 monitor, all for sale. Pictures avalaible here: http://s1068.photobucket.com/user/rdavey1/library/?sort=6&page=1. Call Russell if interested 803-465-1351 (C06)

2003 Ford Aries TV Inspection: Stk# 2168, V10 Triton gas engine. Honda motor powers rear unit. One (1) camera. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (CBM)

2000 Ford E350 CUES Prodata 2000 inspection van: 72,000 miles, roof air, 7kw Onan, TV & video monitor, camera, reel and cable & much more. Government retired. \$26,999 OBO. www.shumatetruckcenter.com 813-877-6638 (C06)

Used and rebuilt camera kits in stock: RIDGID Mini Compact, Mini Color, Standard Self-Leveling, General Gen-Eye I, II and III, Aries Seeker, and SRECO kits. The Cable Center: 800-257-7209. (CBM)

Aries mainline camera system mounted in a 14' trailer with separate equipment and control rooms. Wheeled transporter, zoom, pan & tilt, approx. 1,000' of cable. LCD monitors, rack-mounted electronics, roof-mounted a/c and wall heater, 6kw generator. Unit in excellent condition. \$48,000. Dave 262-951-8979 (C06)

PEARPOINT — Mainliner buying & selling used equipment. Canada & USA PEARPOINT MAINLINE EQUIPMENT ONLY. Will buy complete Pearpoint trucks. Will buy your old system. Do you need parts? 399, 599 reels; 420, 448 tractors: 494 digital and zoom 420 light heads. Call 1-800-265-4298 or mainliner2075@hotmail.com (C09)

NEED TRACTION? We make aftermarket more aggressive pads and chain assemblies for all chain-driven camera tractors. Custom, dependable, double-hole fabrication secured to high quality carbon steel chain, or just pads and rivets. Samples upon request. Pipe Tool Specialties LLC: 888-390-6794; Fax 888-390-6670; www.yourtractionpads.com or email pts4422@yahoo.com (CBM)

#### **VACUUM LOADERS**

FOR SALE: Guzzler and SuperSucker air movers; Wet vacs; Hydraulic submersible pumps; Air compressors; Sandblast systems; 5,500-gallon dump tank trailers. Call 502-551-0158 for more info. Cash buyer of used equipment. (C06)

1998 Ford LNT 9501 Clean Earth V-RB Dresser/Roots blower, 1021DVJ Caterpillar 350hp, Eaton-Fuller, \$35,000, 904-743-3437 (CO7)

#### **WANTED**

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

Buying Sewer Cleaners: The fast, safe and easy way to sell your sewer cleaner, under any condition the best deal for you. 915-301-5225. info@trucksofelpaso.com (C10)

#### WATERBLASTING



250-203-4742, BC



**Butterworth high-pressure pump:** 20k @ 17gpm, on trailer with new filter. Series 40 engine 235hp...\$35,000 USD

250-203-4742, BC



NLB 10150 in back of a 1995 GMC Top kick. Excellent pump and set up. .....\$45,000 USD

250-203-4742, BC

C06

Two (2) Flow Husky S-200 diesel UHWJ units. 40,000psi @ 7gpm. Three lances, tumble boxes and hoses each unit. Very low hours, very well maintained. Stored indoors. Skid-mount units. \$45,000 USD each. 604-483-6202 (C07)

PLACE YOUR AD ONLINE AT www.cleaner.com - IT'S ALWAYS THERE TO MEET YOUR BUSY SCHEDULE



40,000 psi Sapphire Nozzles, UHP hoses & replacement parts. Excellent quality & prices. 772-286-1218, info@alljetting.com, www. alljetting.com.

WATER JETTING EQUIPMENT: We sell, repair and retrofit water blasters. Visit us at: www. waterjettingequipment.com or phone 714-259-7700.

FOR SALE: Diesel water blasters; Jet rod truck; Jet rod trailers. Call 502-551-0158 for more info. Cash buyer of used equipment. (C06)

Gardner Denver T-375M: Bare Shaft pump. Gardner Denver T450M Bare Shaft pump. Gardner Denver TF-375M 21 gpm @ 10.000 psi, Gardner Denver TX-450HB 21gpm @ 20,000 PSI. Gardner Denver TF-450MB 52gpm @ 10,000 psi. NLB 10-200. 34 gpm @ 10,000 psi. HT-150S 25 gpm max 10,000 psi max, Shell Side Machine, Wheatley 165: 30 gpm @ 10,000 psi. Wheatley 125 with aluminum bronze fluid end. Boatman Ind. 713-641-6006. View @ www.boatmanind.com. (CBM)



#### Sell your equipment in Cleaner classifieds

Reach over 26,000 potential buyers each month when you list your equipment in the classified section. Plus, your listing is placed automatically online at the Cleaner website. In addition, your ad will be placed in the Pumper e-Trader, an electronic magazine that is e-mailed to readers. That's three ways to move your equipment out of the yard!

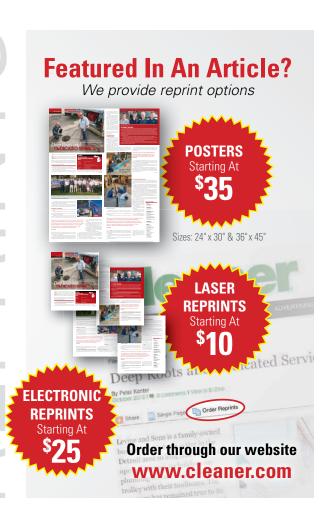
### Why wait?

Go to Cleaner.com/classifieds/place ad



code

PLACE YOUR AD ONLINE AT www.cleaner.com







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













Jetter Package 4 GPM @ 4200 PSI

Hydraulic Pressure Washer -26 GPM Pump

Power Take-Off Pressure Washers













Hot Water Trailer Packages

Portable Generator 6500 Watt

### WaterCannon.com



### 1.800.333.WASH (9274)













Honda-Powered Trash Pumps

Honda-Powered Compressors Vanguard Hot Water Pressure Washers



Custom Pump Assemblies

Mag Wheel Under Carriage Cleaner

3"-24" Stainless Steel Spinners

Locking Safety Quick Connects

Pressure Washer Hoses

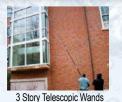
Industrial Trigger Gun Assemblies

**Under Carriage Cleaner** 

Car Wash Booms & Parts













Truck Wash Components

**Duct & Chute Cleaning Spinners** 



Air Recovery Works on Walls



Clean Indoors with No Mess

Air Recovery System Cleaner Versatile Hand Controlled Cleaning



Air Recovery Avoids Run Off

Air Recovery Graffiti Removal



Surface Cleaners Save Time



- •User friendly, easy to operate and maintain simple controls, components that require maintenance are easy to access
- •Standard 3/16" stainless steel water tank.
- •Tube storage mounted at chest height.
- •Shaft driven water pump.
- •Low center of gravity water tank and debris body are between the frame rails. Others mount water tanks high on the sides or all over the sides of the truck obstructing any room to maintain the chassis and body.
- Durability stainless steel water tank.

You can't find a used GapVax MC on the used equipment websites because people keep them forever. Contractor grade.

•Commonly used components, ensure readily available replacements - not proprietary to GapVax Not to mention CUSTOM-BUILT, Versatile, and just plain awesome~see full specs on our website

## A SIGHT TO BEHOLD.





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