

Cleaner

FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

www.cleaner.com FEBRUARY 2013

PIPE ASSAULT

CONTRACTOR TACKLES THE TWIN CITIES' TOUGHEST SEWER AND DRAIN PROBLEMS WITH MILITARY PRECISION **PAGE 16**

BUSINESS DIVERSIFICATION: PLUMBING

TOUGH JOB

Pipe bursting a blocked lateral

BETTER BUSINESS

Make the right decisions in crisis situations

EXPO PREVIEW

Start gearing up for four great days in Indy



Locating From A Different Direction: **EASY.**

General's NEW Gen-Eye Hot Spot™ Pipe Locator

Right out of the box, Hot Spot™ makes locating easier and simpler. Its total field antenna array and intuitive style of operation quickly leads you to exactly what you're looking for, whether you're a first-time user or a seasoned pro. Locate cameras, sondes, active power lines and utilities with confidence. It gets you where you need to be—on the Hot Spot.

For more information or a demonstration, contact the Drain Brains® at 800.245.6200 or visit www.drainbrain.com/hotspot.



For more information or a demonstration: www.drainbrain.com/hotspot

General
PIPE CLEANERS

The toughest tools down the line.™



©2013 General Wire Spring



Who's in Charge of Evolution?

The Vac-Con Combination Machine has evolved from many years of experience ... the customer's experience! If you want to know what works ... or not, ask the guy who spends his days at the end of a vacuum hose trying to do a good job.

Contact us Today!

888.491.5762 or
go to **www.vac-con.com**

We will listen because you make
the evolution for better machines.



Scan the QR code
to view a
combination
machine product
demonstration.

A HOLDEN INDUSTRIES Company



SABERTOOTH™

A NEW STANDARD IN AUTOMATED TUBE CLEANING

SRT-100



REMOTE CONTROL KEEPS OPERATORS AT A SAFE DISTANCE



FEATURES BANSHEE® TUBE CLEANING TECHNOLOGY



ACCOMMODATES HORIZONTAL OR VERTICAL APPLICATIONS

SABERTOOTH™

- Hoses are contained in an integrated reel system
- Operation can be manned from a safe distance
- Two lances working at once for double productivity
- Fits through man ways as small as 24 inches
- Shotgun-compatible for cleaning the bundle face and tube IDs with one setup

SPECIFICATIONS

Operating Pressure	22k psi /1500 bar
Maximum Flow	Up to 40 gpm /150 lpm
Hose	8mm, 66 ft length, 52 ft usable stroke
Total Weight.....	550 lbs/250 kg*

**Modular design allows components to be easily disassembled and transported individually.*



1-866-795-1586 • WWW.STONEAGETOOLS.COM

underground
understood

|| I'm always looking for ways to make cleaning more productive. With JetScan, there's no trial and error—my guys know in minutes what they are up against, without the cost of CCTV. **||**



Scott Nocero, Assistant Superintendent
Franklin Township (NJ) Sewerage Authority

 **jetscan**

Never jet blind.

The JetScan video nozzle is the quick, easy way to see what you're jetting. It helps you size up each job, pick the right tools, verify success, and determine if a pipe needs further attention. JetScan is affordable enough to put on every truck, yet captures valuable HD footage that can be viewed moments later on a laptop or tablet.



connect

Connect JetScan to any jetter hose and press the record button.



record

Launch JetScan and capture footage as it advances through pipe.



review

Afterward, eject the SD card to view footage on a laptop or tablet.



see it in action at <http://bit.ly/V5ykc9>



Envirosight

www.envirosight.com • 973.252.6700

features

16 Profile:
Pipe Assault
By Marian Bond



On the cover: Justin Moe, owner of All Ways Drains in Minnesota, stands in front of a service van with his wife, Amy. All Ways opened in 2000 providing drain cleaning services to real estate management companies, but the business has since expanded into CCTV inspection, jetting and septic pumping, and has experienced double-digit growth in all but one year. (Photos by Kathleen Purdy)

26 Expo Preview: Racing Toward Indy
Pumper & Cleaner Expo promises four fabulous and value-packed days in the Hoosier State.
By Craig Mandli

38 Profile: Service Network
Contractor draws on years of industry experience and good business relationships to support his company's transformation.
By Marian Bond

departments

10 From the Editor: Stories of Success
Every business faces struggles, but forward is the only direction on the path to success.
By Luke Laggis

12 @Cleaner.com

30 Safety First: Build a Barrier to Accidents
Improving safety and performance is easy with a few simple tools everyone in your company can employ.
By Doug Day

54 Money Machines: Just Say Yes
Guzzler trucks open up new markets for Alabama industrial and municipal cleaning company.
By Ken Wysocky

58 Better Business: Successful Crisis Management
Making the best decisions for your business and employees often comes down to three main factors.
By Lucien G. Canton

62 Tough Job: Maximum Effort
Pipe bursting enables a Louisiana contractor to replace a blocked sewer lateral after a failed directional boring attempt.
By Scottie Dayton

68 Expo Spotlight: Tackling Tight Spaces
Crap Shooter provides instant name recognition and compact, powerful performance.
By Craig Mandli

72 Money Manager: Paying it Forward
Following a strategy for saving will make your next big equipment purchase much easier.
By Erik Gunn

76 Product Focus: Business Diversification - Plumbing
By Craig Mandli

88 Industry News

90 Product News
Spotlight: Tube lancing system increases productivity, safety
By Ed Wodalski

Cleaner

FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

www.cleaner.com

Published monthly by:



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

© Copyright 2013 COLE Publishing Inc.
No part may be reproduced without permission of the publisher.

In U.S. or Canada call Toll-free 800-257-7222
Elsewhere call 715-546-3346
Email: info@cleaner.com Web: www.cleaner.com
Fax: 715-546-3786

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

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

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

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

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



Kayla Bisnette Jim Koshuta

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

CIRCULATION: Circulation averages 27,338 copies per month. This figure includes both U.S. and international distribution.

COMING IN DECEMBER

ISSUE FOCUS:
Chemical and Mechanical Root Control

- > Money Manager: Stay ahead of new tax issues
- > Profile: Odyssey Environmental Services, Youngstown, Ohio
- > Profile: Allen's Electrical & Plumbing, Statesboro, Ga.

Get Social with *Cleaner*



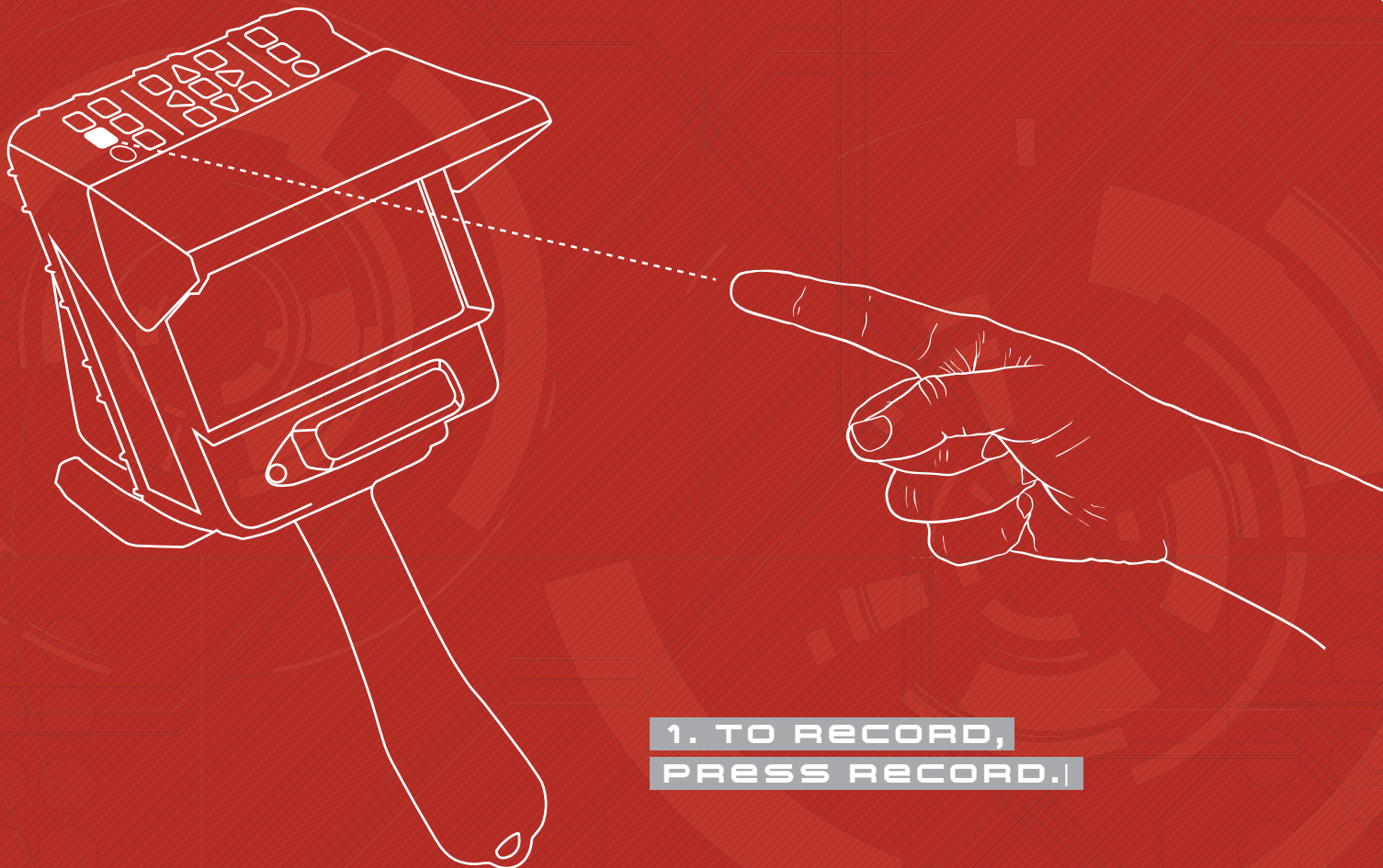
www.facebook.com/CleanerMag
www.twitter.com/CleanerMagazine
www.plus.google.com
www.youtube.com/CleanerMagazine



PUMPER & CLEANER ENVIRONMENTAL EXPO INTERNATIONAL

Education Day: February 24, 2014
Exhibits Open: February 25 - 27, 2014
Indiana Convention Center
www.pumpershow.com

RECORDING INSTRUCTIONS



1. TO RECORD,
PRESS RECORD.!

WHEN WE SAY OUR MONITORS ARE EASY TO USE, WE MEAN REALLY EASY.

One touch is all it takes to record digital video with RIDGID's growing family of CS digital recording monitors. Each monitor is designed for daylight visibility and easy image and video recording. Built-in USB ports provide easy transfer and storage of files, and the entire family integrates with SeeSnake® HQ™ and RIDGIDConnect.com, making sharing as easy as recording.



★ REQUEST A FREE ONSITE DEMO ★

RIDGID.COM/CS | 1.800.769.7743















We
Build
Reputations™

RIDGID

EMERSON
Commercial & Residential Solutions

November 2013

Advertiser Index


A	
A.R. North America, Inc.	44
Allan J. Coleman Co.	15, 57
 Amazing Machinery, Inc.	53
 Aqua Mole Technologies, Inc.	66
 Aries Industries, Inc.	61
Arthur Products Co.	46
B	
 Bandlock Corp.	89
 Bowman Tool Co. & Systems	70
C	
Cable Center, The 71, 89	
 Cam Spray 60	
 Central Oklahoma Winnelson 83	
 Chempure Products Corp. 73	
CIPP Services, LLC 79	
CIPP Technology & Equipment LLC 83	
Cloverleaf Tool Co. 74, 91	
 Coast Manufacturing 79	
 CUES 21	
D	
Doug Meadows Co., LLC 85	
 Drainables Direct 36	
Dultmeier Sales 79	
 Duracable Manufacturing Co. 23	
E	
 Easy Liner (Gadmon Industries) 94, 95	
 Electric Eel Mfg. 32	

 Envirosight, LLC 5
 Enz USA, Inc. 32

F	
 F. S. Solutions 52, 59	
Flush Quip 14	
Forbest Products Co. 24	

G	
 GapVax, Inc. 99	

 General Pipe Cleaners/General Wire Spring ... 2
 Gorlitz Sewer & Drain, Inc. 45
 Guzzler Manufacturing, Inc. 13

H	
Hackney 70	
 Hannay Reels 41	

J	
 Jetstream of Houston 11, 43	
Jetter Depot 69	

K	
 Ken-Way Corporation 85	

L	
 Lansas Products 24	
LaPlace Equipment Co. 85	

 Liberty Financial 66
--

M	
MaxLiner USA 19	

 Mid-Atlantic Waste Systems 56

 Milwaukee Rubber Products 52
Mongoose Letters 25

 MyTana Mfg. Company, Inc. 37

N	
 NLB Corp. 34	
 NozzTeq, Inc. 69	

O	
 Oceanquip, LLC 85	

 Olvidium, Inc. 10
--

P	
Pearpoint/SPX 28	

 Perma-Liner Industries, LLC 9
Picote Solutions. 14
Pipeline Renewal Technologies 55

 PipeLogix, Inc. 91
Piranha Hose Products 60

 PrimeLine Products, Inc. 87

 Prototek 22
 Pulsar 2000, Inc. 69

R	
Radiodetection Corporation 36	

 RapidView IBAK North America 31

 Ratech Electronics, Ltd. 46

 Reelcraft Industries 64
--

 RIDGID 7
Ring Power/Cat Rental Store 60

 RS Technical Services, Inc. 56
RYCOM Instruments, Inc. 81

S	
 Safety Corporation of America 52	


 Safety Sewer Drain 81
--

 Scooter Video 67
--

 Southland Tool Mfg., Inc. 29


 Spartan Tool, LLC 100
SPIR STAR 46

 StoneAge, Inc. 4, 81
 Super Products, LLC 35

T	
 T&T Tools, Inc. 66	
TeleVac South, Inc. 14	
Trenchless Solutions, Inc. 65	
TRIC Tools, Inc. 34	

 TRY TEK Machine Works, Inc. 10
TST Sweden AB 73

U	
 US Jetting, LLC 33	

V	
 Vac-Con, Inc. 3	
 Vacall - Gradall Industries 47	

 Vivax-Metrotech Corp. 75
VSI Rentals 75

W	
 Water Cannon, Inc. 98	
Westmoor Ltd. 28	
Woma Corporation 83	

Marketplace 92
Classifieds 94



Scan the code with your smartphone

PERMA-LATERAL™ LINING

The #1 selling small diameter pipe lining system in North America!

PIVOTING INVERTER

Allows the installer unlimited angles for optimal inversion head placement.

ANGLE LOCK

180° ROTATION

LOCKING WHEELS

PRESSURE GAUGE

AIR SUPPLY RECEIVER



NEW PRODUCTS FOR THE PERMA-LATERAL™ SYSTEM!



CLEAR CALIBRATION TUBE

Provides visual certification of liner placement and verification of cure



CAMERA INSPECTION PORT

Allows a lateral push camera to be inserted inside the clear calibration tube, providing a visual certification of the liner placement prior to curing.



DIRECTIONAL SHOES

Allows the installer to direct the liner and calibration tube upstream or downstream.

FALL 2013
**NEW TECHNOLOGY
SHOWCASE**

Nov. 5TH - 8TH
CLEARWATER, FLORIDA

Manhole Rehabilitation
Perma-Lateral™ Lining
End-Seals • Reinstatement Tools
MORE LIVE DEMOS



**PERMA-LINER™
INDUSTRIES, LLC.**

ZERO DIG TRENCHLESS PIPE REPAIR

1-866-336-2568 Toll Free • 1-727-507-9749 Int'l

www.perma-liner.com

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



Luke Laggis
editor@cleaner.com

Stories of Success

EVERY BUSINESS FACES STRUGGLES, BUT FORWARD IS THE ONLY DIRECTION ON THE PATH TO SUCCESS

BY LUKE LAGGIS

I really enjoyed working on both profiles in this month's issue of *Cleaner*. They feature companies born of very different circumstances, but they both illustrate the quality of people in and around this industry.

The profile on Minnesota-based All Ways Drains struck a chord with me immediately. Justin Moe formed the company with his father, Wayne, whom he idolized. Sadly, the older Moe fell ill and ultimately lost his battle with cancer.

I ran my mom's business for a handful of years after she was diagnosed with cancer. I idolized her, too, so I immediately identified with this story. I appreciate and have great respect for family businesses, and I know firsthand that it's an awful thing to be young and have a parent pass away well before their time.

We all deal with hardships; some are luckier than others, but sooner or later we all deal with the blunt realities of life. Things don't always work out the way you want. Some people are taken from you. Some leave you. My mom knew those realities well. In the end, all you can do is take a page from her book and work harder, have faith and keep moving forward. That's exactly what Moe did.

All Ways Drains has seen significant growth in all but one year – the year Wayne Moe died – since it opened in 2000. Justin Moe has carried on the family business, and he's carried on the values his father instilled in him. It's a big responsibility, and he's handled it well.

I appreciate and have great respect for family businesses, and I know firsthand that it's an awful thing to be young and have a parent pass away well before their time.

Today, in addition to an expanding list of services and a growing customer base, the company is very involved in the local community. They have been cosponsors for the past two years with the Community Association Institute annual golf tournament, and they also are cosponsors of the Holes for Heroes Ice Fishing Tournament, honoring the armed forces. Participants include families of military serving past and present. Since Moe's father served in the U.S. Army and spent a full year in Vietnam, it's a fitting way to show some appreciation.

The other profile in this month's issue features Scott Engineering. Dennis Denney had spent his share of time in the industry before he decided he was ready to own his own business. Rather than start a new company, he purchased Scott Engineering, a manufacturer of smoke detection equipment. Eventually, he began to see the business shifting and decided to segue into cleaning, inspection and repair services. In 2010, he sold the smoke testing equipment arm and pushed the company in a totally different direction.

Denney added CCTV equipment and bought a jet-vac combo unit and set out to provide inspection and cleaning services to municipalities and engineering firms. He eventually added lining equipment, which broadened his business base.

Both of these features are great stories about people with vision creating their own success in this industry. I hope the lessons contained within help you create your own success.

Enjoy this month's issue. 



blitiroot
Kills roots fast Keeps roots out
www.olvidium.com
(866) 676-7956



6" to 15" Tap Cutter

FAST DELIVERY
on
replacement parts



Contact us for more information:
Phone: 717-428-1477
Fax: 717-428-2865
Email: trytek@trytek.com
250 N. Main St.
Jacobus, PA 17407 USA

We accept most major credit cards

Hundreds in use!

www.trytek.com

Serving the industry for over **25 years**

**SAME-DAY SHIPPING.
PROBLEM SOLVING.
MAKING IT
HAPPEN.**

**We're here with whatever you need
when the pressure's on.**



Jetstream[®]
There's A Way. 

The waterblasting source for parts, service & expertise. To learn more, visit waterblast.com.

@Cleaner.com

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



OVERHEARD ONLINE

“Attendees are the key to putting on a great show year after year. You are leading the industry by learning about new equipment and technology.”

– 3 Reasons Not to Miss the Pumper & Cleaner Expo

>> www.cleaner.com/blog

Emails and Alerts



Visit Cleaner.com and sign up for newsletters and alerts.

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

Less Waste, More Haste

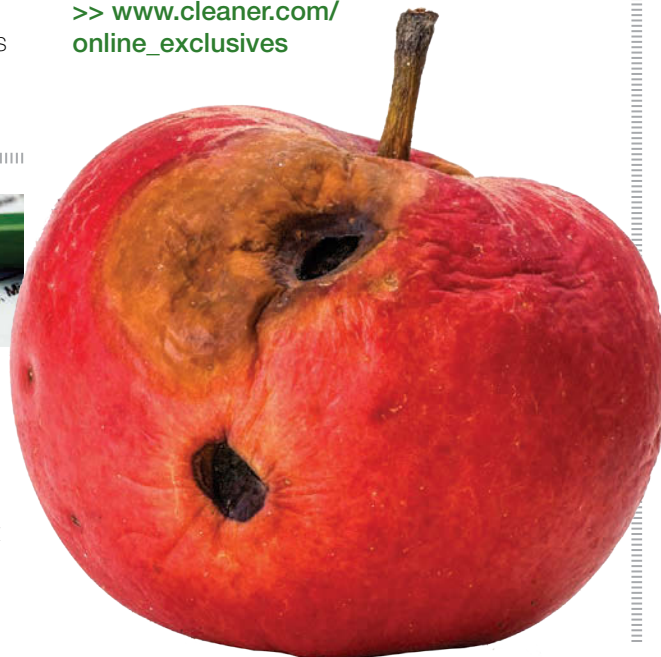
Want to reduce landfill waste and save valuable labor time? Learn how a new line of replaceable belt cleaner tips from Martin Engineering shortens maintenance time and increases wear life.

>> www.cleaner.com/online_exclusives

Rotten Apples

Crummy attitudes, chronic lateness and other negative behaviors can pull a business down. Find out how to avoid these chronic workforce issues in “Rotten Attitudes Ruin a Team” at

>> www.cleaner.com/online_exclusives



Join the Discussion



Find us on Facebook at www.facebook.com/CleanerMag

or
Twitter at www.twitter.com/CleanerMagazine



Health Care Checkup

Do you need an insurance checkup? Whether you're self-employed or a small-business owner, big changes are headed your way. Find out what the Affordable Care Act means to you, and get some tips on starting the application process at

>> www.cleaner.com/online_exclusives

WE JUST COULDN'T LEAVE RELIABILITY ALONE.



There's plenty to love in the new Guzzler Classic.

That's because it was designed with input from our customers. It's full of new and enhanced features that come in handy for easier operation, hassle-free maintenance and added safety. The thing we didn't mess with was the legendary performance — making the CL the same workhorse you can rely on, day after decade.

To get your hands on this upgraded Classic, visit GUZZLER.COM, or call us at 800.627.3171 ext. 298.

GUZZLER[®]
THE TOUGH YOU TRUST.SM



Branch out with lateral cutting & drain cleaning

Succeed with **smart** solutions for trenchless small diameter drain rehabilitation with a range of tried and tested tools.



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

THE SMART CUTTER™



PRODUCT OF THE YEAR 2012

flushquip inc. 1.800.295.1669

We have solutions for your sewer cleaning problems

Please call, fax or email your request for a complete catalogue

Fax: 1.204.697.4790

Email: ubaziuk@flushquip.com

1900 Brookside Blvd.
Winnipeg, Manitoba
R3C 2E6



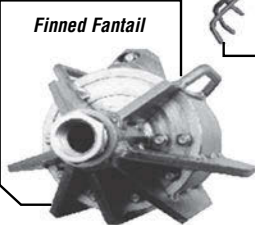
Grab-All



Rocket Nozzle



Penetrator Nozzle



Finned Fantail



Torch Nozzle

Also check out our website:

www.flushquip.com

FOR SALE

2000 Sterling Vactor 2100



- Cat motor
- 10 speed tandem axle
- 1,500 gallon water capacity
- 18" Roots blower

- 80 gpm @ 2,500 psi
Rodder pump
- 15 yd debris tank
- Ready to work

Price Reduced **\$80,000**

954-782-6752

Allan J. Coleman – Since 1905

Call us today! 773-728-2400

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

OLDEST NAME IN THE BUSINESS — Over 100 YEARS OLD

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



SeeSnake® CS6 Digital Recording Monitor



- Direct-to-USB recording for fast, efficient documentation of inspection jobs
- Water-resistant keypad for direct control of essential camera and monitor functions
- Daylight viewable display for a crisp, clear in-pipe image
- SeeSnake HQ Software to edit, archive, and deliver reports via print, DVD, or online
- On-screen keyboard for basic titling and text entry
- CS-6 will dock in the RM-200 Max or operate as a stand alone monitor

CS10 Digital Recording Monitor



- USB Thumb Drive Recording
- 12.1" Daylight Readable Display
- Multi-Mode Recording
- Software Integrations

RIDGID®

Convert
your old RIDGID
VCR monitor
to a USB
recorder!



Contact
us on
how we
can do it?

SeekTech® SR-20

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



NaviTrack® Scout®

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

We Have RIDGID Parts!

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

PIPE ASSAULT

FORMER MILITARY MEN FIGHT THE WAR ON ROOTS AND OTHER INVADERS IN THE TWIN CITIES **BY MARIAN BOND**

Since opening the doors of his drain cleaning business in 2000, Justin Moe has experienced double-digit growth, despite the worst recession in his lifetime, and the death of his father and business partner, Wayne Moe, in 2009.

All Ways Drains in St. Paul, Minn., came about when the father-and-son duo put together their many years of experience independently running separate maintenance operations, as well as their service in the U.S. Army. Justin Moe idolized his father, and wanted the joint venture to ensure his father would have a comfortable lifestyle in his later years. Wayne Moe was an integral part and advisor to the business, and Justin was devastated at the thought of losing his father when he was diagnosed with cancer in 2008.

While their initial customer base was the real estate management companies they had previously dealt with, they've also tapped into the residential and commercial market, and have since expanded beyond drain cleaning to offer CCTV and jetting.

They recently added septic pumping capabilities to satisfy their commercial accounts, and have brought in a master plumber to facilitate expansion in that direction as well.

TAKE AIM

In the beginning, this 24/7 operation advertised heavily in multifamily housing industry publications, and established a strong presence at trade shows, often as an exhibitor.

"You have to put some money into it," Moe says. "We attended and exhibited as frequently as possible, as well as making personal calls to acquire new customers. In the beginning, all our clients were in multifamily housing."

Community involvement has put the company in the forefront. They have been cosponsors for the past two years with the Community Association Institute annual golf tournament. They also are cosponsors for the Holes for Heroes Ice Fishing Tournament, honoring the armed forces. Participants include families of military serving past and present.

"Our technician went out and was attempting to cable the line, but hit a dead end. He put the Pearpoint camera in and found that a fiber-optic cable had been horizontally bored through the sewer line. The camera picked that up, showing the obstruction clearly."

Justin Moe



Rich Gilbert, left, and Wesley Sanford of All Ways Drains use a Spartan 758 jetter to clean a sewer line. (Photos by Kathleen Purdy)





LEFT: Wesley Sanford uses a RIDGID SeeSnake to diagnose a drainline problem on a residential service call. All Ways relies on the RIDGID mini cameras for inspecting smaller lines.



Moe says 50 percent of their current business is in multifamily housing, while residential has grown to 25 percent with the balance in commercial. They will target the municipal market next.

With a diverse clientele, they contend with a variety of situations and conditions. High-rise apartment and condominium buildings will run from five to 30 stories. These buildings were constructed from the 1960s into the beginning of the 21st century. On rare occasions, the company is required to work from the roofs of these large buildings to clear drains, but most often they are in the individual units dealing with clogged pipes or similar situations.

Their cameras and jetter will more typically come into play when dealing with the laterals going to the mainline, or in the garages where they have overhead drainlines.

Moe says the biggest challenge with these clients is the sheer number and sizes they deal with in large complexes.

Root infestations in sewer lines are a common situation, and the company combats the problem with standard cables as well as high pressure waterjetting. Once they've removed the obstructions, they always send in a camera to ensure the lines are truly clean.

Moe says that if he could go back and do one thing differently from the start, it would be adding cameras sooner.

"We recently had a call when a customer had a blockage," he says. "Our technician went out and was attempting to cable the line, but hit a dead end. He put the Pearpoint camera in and found that a fiber-optic cable had been horizontally bored through the sewer line. The camera picked that up, showing the obstruction clearly. Using our locator, we were able to inform the company

profile

**ALL WAYS DRAINS,
ST. PAUL, MINN.,**
SERVING THE METROPOLITAN AREA
WITH 2 MILLION RESIDENTS



OWNER: Justin Moe
ESTABLISHED: 2000
CUSTOMERS: Real estate management companies, high-rise condominium and apartment complexes, residential and commercial
SERVICES: Drain cleaning, CCTV, jetting
EMPLOYEES: 11 including two part-time employees, seven technicians



Rich Gilbert operates the controls of the truck-mounted Spartan 758 jetter on a cleaning job.

TROOPS AND TOOLS

Moe says it is not difficult to find technicians in their area, and he can generally find a suitable candidate after just three or four interviews. All technicians are made fully aware of safety issues involving the use of power tools and high-pressure water.

All Ways relies on Pearpoint lateral line cameras and RIDGID mini cameras for smaller lines. They also use a RIDGID locator. The Spartan Tool 758 (3,000 psi/12 gpm) high-pressure jetter sits on a skid inside a 2004 Chevrolet extended van.

Moe says their next jetter will also be a Spartan, but with more power so they can clean bigger pipe and pursue municipal work.

that put in the cable exactly where the problem was, and how deep. They came in, dug it up and replaced the damaged pipe. That company was so happy we could give them this information.

“Cameras give you the ability to know you did a good job – that you actually cleaned the pipe. You find defects in the pipe. This helps with warranty issues. Using the camera is included in the call. We don’t have a tech trying to sell the use of the camera. If someone does not want us to use the camera, we won’t. But it is not an added cost.

“Our jetter is a service with an additional charge,” Moe continues. “This is a more effective way to clean the pipe, to get rid of sludge or grease or sand and also roots. The cable doesn’t always do the job, but the jetter will clean it out.”

Moe adds that their jetter goes out on a daily basis, and they are in the process of adding another unit. All technicians are trained to use the cameras and the jetter, both of which have become essential tools in their arsenal.

At the office, Moe’s wife Amy and employee Jane Pemberton handle incoming calls and are trained to ask the proper questions as to what the problem might be. Moe uses this information to determine what equipment might be needed and what technician can best handle a problem. They don’t want to send the jetter if not appropriate, or fail to include the tools that might be required.

STAY ON THE CUTTING EDGE OF LATERAL LINING



The portable MaxLinerGun®

Quick cutting with MaxCutter®

WE KEEP MAXLINER INNOVATION ONE STEP AHEAD SO OUR CUSTOMERS CAN STAY ON THE CUTTING EDGE OF TECHNOLOGY.

- MaxLiner is the most comprehensive, turnkey set of CIPP equipment, accessories and materials around.
- The MaxLiner service team is the #1 reason many of our customers have stayed with us for more than 10 years.
- MaxLiner was the first CIPP system to receive code compliancy from ICC-ES, allowing us to lead the field in solutions for lateral and vertical repairs.

Check your local listings this spring for another new episode of THIS OLD HOUSE® featuring MaxLiner.

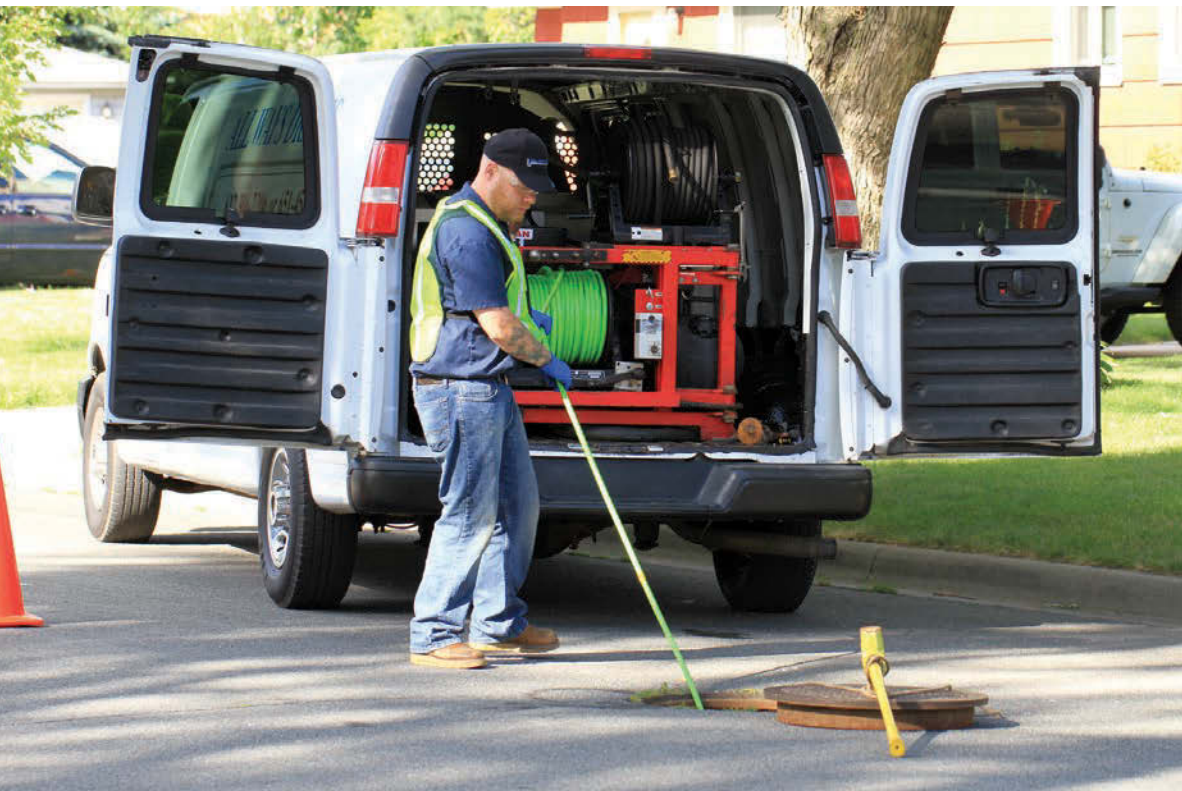


The lightweight, easy-to-operate MaxCutter 60™ is specially designed to perform quick and accurate cuts in small diameter pipes.

MAXLINER



276.656.1225
maxlinerusa.com



Rich Gilbert feeds the jetter hose down a manhole on a recent cleaning job.

capability will benefit the company's commercial accounts that require septic and grease trap pumping.

At this time All Ways Drains does not offer relining or pipe bursting, and will bring in a sub-contractor to replace pipe when required. The pipes they see are often not good candidates for some rehabilitation technologies because they are so damaged and misaligned.

"We've actually invested over \$100,000 in new equipment in the past few months," Moe says. "But the most important tool in the box is the technician. Beyond that, it would be the cameras and the jettters."

Moe says when buying equipment, he gives serious consideration to the services offered by manufacturers, such as availability of parts, particularly for electronics.

There are nine service vehicles, all Chevrolet cargo vans, from 1997 to 2006. A 2003 Ford F-350 with a custom-made trailer-mounted pumper unit with a jetter was recently added to the fleet. This has an 800-gallon waste and 200-gallon freshwater tank, and the Honda pump provides 4,000 psi/8 gpm. The septic truck was built by JTC Sales Inc. out of Wisconsin. The added

SURGE SEQUENCE

With high-rise and multifamily housing, preventive maintenance is encouraged, and Moe estimates around 50 percent of that client base will have such a program, while others call them in on an as needed basis.

Contracts usually include waterjetting the overhead drain lines in garages, *(continued)*

SALUTE TO THE HEROES

Wayne Moe, one of the founders of All Ways Drains, was a first lieutenant in the U.S. Army. He was in the Army for three years and served in Vietnam for the entire year of 1968. Justin Moe was in the U.S. Army Reserve from January 1992 to 2000. He attained the rank of specialist.

Their military background has had a strong influence on their dedication to hire employees who have served in the military. Currently they have on staff Richard Gilbert, who served two tours in Iraq. His brother, Matt Gilbert, who served one tour in Iraq, was injured in the line of duty. He is recovering and working part time with All Ways Drains while attending college. He will eventually be a full-time technician.

"Since my father and I had the military experience, we know the level of discipline and dedication we can expect," Moe says. "We know the work ethic."

The concept of brotherhood is not drilled into those who serve, but it comes about through living together. They do become brothers and sisters. It is natural.

Justin Moe had such high regard for his father, and he remembers an experience in 2002, when the family attended a reunion of Wayne Moe's company. Both the officers and the enlisted men praised Moe highly. It's something the younger man will always cherish.

In the business, the women have been "good soldiers," playing an essential role. Justin Moe's mother, Virginia, worked in the ranks until her husband passed away. His wife, Amy, has been on the front line during the critical years and continues as office manager.



Virginia Moe (Justin's mother) with Justin and Amy. Justin is holding a photo of his dad in Vietnam.

"Luckily for our business, my father and I had built a solid foundation as we fought back against a terrible adversary," Moe says. "And we stood our ground in the recession as well. That year we lost Dad was the only time we did not see the growth we had experienced before and as we see now."

INSPECT PIPELINES IN ANY LOCATION

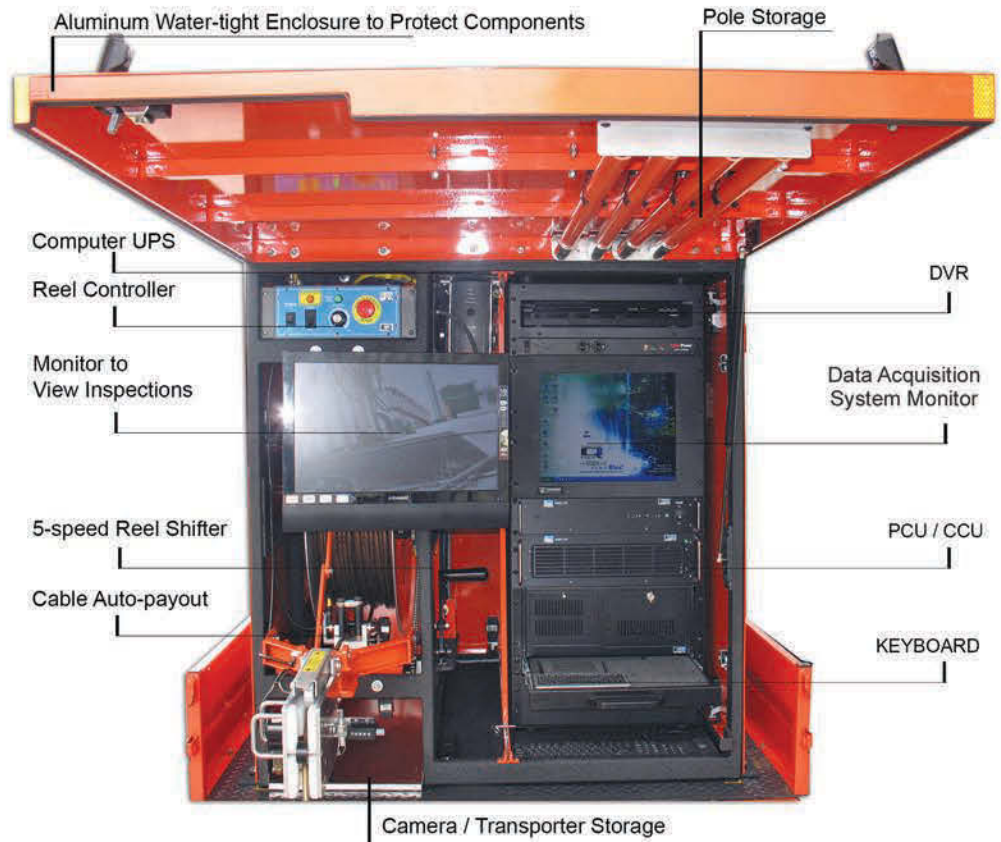
COMPACT, EASY-TO-USE SYSTEM FOR PIPE SIZES RANGING FROM 6" - 200"



CUES WIRELESS BASE STATION - PORTABLE CCTV INSPECTION SYSTEM

- Mount in an ATV, Pick-up Truck, Trailer, or Van
- Provides Maximum Protection via an Enclosed Video inspection System
- Compatible with CUES DUC Digital Universal Side Scanning Camera

The CUES Base Station is mounted in a compact, rugged, weatherproof enclosure and can fit into an ATV, van, or pick-up truck to access easements and hard-to-reach areas. Featuring wireless control, the unit operates all CUES transporters, cameras, and video cable reel functions to accommodate 6" - 200" pipe inspections. The reel features automatic payout with a capacity of 1700 ft. video cable. Camera options include a built-in inclinometer, sonde, laser diode system to measure cracks and offsets, and a laser pipe profiling system to measure ovality. Heavy duty welded lifting eyelets and forklift skids are provided for quick deployment to the host vehicle. Contact CUES for a discussion and demonstration!



THE WIRELESS BASE STATION IS COMPATIBLE WITH OUR DIGITAL UNIVERSAL SIDE SCANNING CAMERA (DUC)



www.cuesinc.com
800.327.7791
salesinfo@cuesinc.com

LEARN LOCATING IN LESS THAN AN HOUR.

OUR LF2200 RECEIVER MAKES IT EASY!

“Today was the first day we have had a chance to try out your LF2200. I had a new assistant with me, a 25-year-old with no knowledge of cameras or the location equipment available today. So I gave him a 7 minute walk thru, and left to pick up lunch. Within 20 minutes he had located the exact spot of the transmitter, and the depth was right on. I was so impressed with the ease of use I am going to update the 3 other units we have with you. One of my new guys used a number of your competitors’ products and he said by far yours was the easiest to catch onto. He especially liked the crossing signals your unit produces. Your technology is just the best.”

— Paul Veyna
TV Plumbing & Sewer, Los Angeles, CA



You can learn fast too! Watch our training videos right on our web site or call Prototek, and talk to the people who built the tool you’ve got in your hand. Call us for a **FREE** training DVD for the LF2200.



Prototek

800-541-9123
Web: www.prototek.net
Email: prototeksales@prototek.net



Wesley Sanford prepares for a jetting job at a residential call in Minnesota.



garage floor drains, lateral sewer lines and the kitchen vertical drain stacks.

Customer service and customer relations rank high with all their clients, and there are generally follow-up conversations at the site, or phone calls after a job, as well as emails to ensure satisfaction. Moe believes this, along with their professional attention and courtesy on the site, has been a big contributor to the company’s success.

“We’ve actually invested over \$100,000 in new equipment in the past few months. But the most important tool in the box is the technician. Beyond that, it would be the cameras and the jetters.”

Justin Moe

“Rule number one from the beginning, when it was just my father and me with our two service vans, has been we always carry our business cards,” Moe says. “Everyone, including all crew members and office staff, are encouraged to always have business cards.

“I believe business is all about relationships. That is part of rule number one.”

With plumbing added to the menu in 2013, a substantial investment in fixtures and tools was required, and several of the current technicians will eventually train as plumbers. Moe plans to hire other plumbers and expand the crew.

“This step has allowed us to become a full-service firm, something we believe will further enhance the company and the services our customers are looking for,” Moe says.

While the company now operates in a rented space with 1,000 square feet of warehouse and 400 square feet of office space, they are looking for a location that will better accommodate their growth, which has been substantial from the beginning.

“My main consideration and concern is with the customer. Making sure they are being cared for properly, and also my employees. We have always been a family oriented company. These are the issues that are at the forefront when I start out each morning, but they actually stay with me throughout the day.”

more info

Pearpoint/SPX
800/688-8094
www.radiodetection.com
(See ad page 28)

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

Spartan Tool, LLC
800/435-3866
www.spartantool.com
(See ad page 100)

Make Our Product Your Product



Why not sell ProClean Drain Care Products with YOUR name and logo?

- Increase profits on service calls
- Name recognition
- Gain additional sales

ProClean Concentrated Drain Cleaner from Duracable is an ideal add on sale after the drain cleaning job is done. And, when used as directed, it works to help keep drains running clean.

Duracable can show you how easy it is to have your own private label drain care product. Contact us today!

These products also available for private label



- Drain Line & Grease Trap Treatment
- Sugar Residue Digestant
- Concentrated Drain Cleaner (Quarts & Gallons)
- Septic Tank Treatment

MADE IN THE
USA

Duracable
Manufacturing Company

Call 877-244-0556 • www.duracable.com

Layflat Inspection Camera System

Model #FB-PIC3588/FB-PIC3588T

- 25 mm Waterproof Color Camera Head w/or without Built-in 512 HZ Transmitter
- 150 FT (8 mm) Cable Reel with **Footage Counter** and Stand
- 7" LCD Control Station with SD Card Recording

Promo Price: \$1990/\$2250
(Regular Price: \$2,290/\$2,550)



Luxury Portable Push Camera

Model #FB-PIC4188H

- 10" LCD Control Station with USB & SD Card Reader
- 130' Push Cable with **Meter Counter**
- 7/8" Color Camera Head with Built-in 512 Hz Sonde Transmitter
- Heavy Duty Waterproof Case

Network Video Repeater

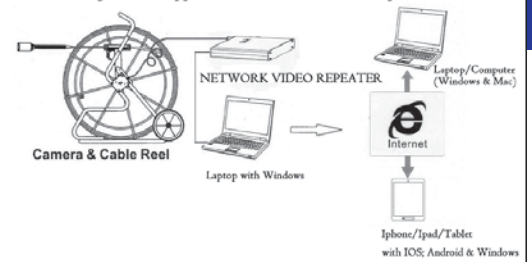
For Your Remote Real-time View Via Internet

Model #FB-NVR01

- Compatible with All Forbest Cable Reel Cameras
- Support to View/Record/Snapshot with a Laptop with Windows OS Onsite
- Support to View/Record/Snapshot with Computers/Laptop/iPhone/iPad/Tablets via internet



Figure: The Application of Network Video Repeater



315 Harbor Way, #B, South San Francisco, CA 94080
Tel: 650 757 4786

www.forbestusa.net
Email: forbestusa@gmail.com



lansas[®] PRODUCTS

MANUFACTURED BY VANDERLANS AND SONS, INC.

Custom Designs Are Always™ Available

High & Low Pressure Joint Tester



Vacuum Test Plate with Protective Cover



"Smart Box" Line Acceptance Test Kit



High Pressure Plugs ~ to 150 PSI

AR™ Plugs



Multi-Size Domeheads™ Front and Back Plugs



Vacuum Pump Manhole Vacuum Testing



"Super Vac"™ Manhole Vacuum Testing

VANDERLANS AND SONS, INC.
California 1-800-452-4902
Atlanta 1-770-509-9309
Minneapolis 1-763-428-9290
www.lansas.com



Best Products, **Best** Local Support 800.323.1604



sewerequipment.com



ram-vac.com



mongoosejettters.com



sewershop.com



Racing Toward Indy

PUMPER & CLEANER EXPO PROMISES FOUR FABULOUS AND VALUE-PACKED DAYS IN THE HOOSIER STATE

BY CRAIG MANDLI

See the best new equipment. Take advantage of quality educational opportunities. Enjoy networking opportunities with your peers. Those three key components keep thousands coming back to the Pumper & Cleaner Environmental Expo International every year.

The Expo will return to the Indiana Convention Center Feb. 24-27, 2014, again showing off the latest products and technologies in the environmental services industry, as well as providing educational seminars and roundtable discussions taught and moderated by skilled industry professionals.

"It really is an opportunity to meet the people behind these products. When you're talking about a hydroexcavating truck that costs a quarter of a million dollars, that's a big deal."

Bob Kendall

"The Expo is the one place the industry gathers where you can see the best equipment available from the best manufacturers, specific educational opportunities, and the chance to meet and network with others in the field from all over the world," says Bob Kendall, co-founder of COLE Publishing and president of COLE Inc. "Those ideas have always been the backbone of the Expo."

Education opportunities are the focus of Day 1 of the 2014 Expo, and will feature presenters from the industry's top manufacturers and associations. New to this year's Education Day is a business-marketing seminar from Suzan Chin of Creative Raven Marketing, as well as a technical session from

National Tank Truck Carrier's John Conley, who will focus on preventing tank truck rollovers. There are educational opportunities for everyone, though, as sponsoring associations are offering over 50 sessions on Education Day. Trade organizations taking part include the National Association of Wastewater Technicians (NAWT), National Environmental Health Association (NEHA), Southern Section Collection Systems Committee (SSCSC), National Association of Sewer Service Companies (NASSCO), National Onsite Wastewater Recycling Association (NOWRA), Waterjet Technology Association/Industrial & Municipal Cleaning Association (WJTA-IMCA), Portable Sanitation Association International (PSAI) and the National Precast Concrete Association (NPCA).

Learning opportunities are available throughout the week, with educational seminars from Expo exhibitors also slated for Tuesday and Wednesday, and the Roundtable Discussions set for the Expo's final morning. Not only can attendees gain valuable industry-specific knowledge, Expo education courses also count toward continuing education credits in many states. Visit the Expo website (www.pumpershow.com) for specific information on your state.

While the educational opportunities are immensely valuable and popular, it's the more than 550,000 square feet of tools, trucks and technology on display that leaves an indelible mark on most attendees. Every year, products introduced at the Expo become tried and true components of many industry professionals' toolboxes and equipment fleets. Outdoor demos will also be back for 2014. A new concept at the 2013 Expo, demos featuring hydroexcavation, industrial vacuum trucks and CIPP lining were well-attended despite inclement weather, giving attendees yet another opportunity to learn about the newest innovations in the industry.



"It really is an opportunity to meet the people behind these products," says Kendall. "When you're talking about a hydroexcavating truck that costs a quarter of a million dollars, that's a big deal."

More than 8,418 people representing 3,730 companies attended the 2013 Expo, with 520 exhibitors nearly spilling out of the Expo hall. Expo organizers are optimistic that the 2014 Expo will be even bigger and better.

"We're aiming for even more exhibitors in 2014," said Julie Gensler, COLE Inc. trade show coordinator. "The interest is there. People in the industry know this is the place to be."

The list of exhibitors is continually updated on the Expo website (www.pumpershow.com), which you can also use to preview the educational sessions, study the interactive floor plan, plan your itinerary and search for hotel rooms. Several hotels boasting more than 4,900 guest rooms are directly connected to the convention center. Rooms are booking fast, though, so it's best not to wait.

"Indy has the most connected downtown you can find," says Kendall. "Once you get there, you can stay inside, and everything you need is within a short walk. It's the perfect location for an industry convention. All you have to do is get there."

While many attendees will spend their time roaming the Expo hall, attending education sessions and networking, Indy is also extremely family friendly, with several museums, entertainment venues and shopping opportunities, along with hundreds of restaurants within a short walking distance of the Convention Center. In fact, the number of industry professionals who base their annual family vacation around the Expo continues to grow each year.

Of course, no Expo week is complete without the annual Industry Appreciation Party, moving to Wednesday evening for the first time. In 2014, in addition to popular 25-cent tap beer, up-and-coming country music crooner Lee Brice will perform at the JW Marriott Hotel, connected to the Convention Center. The concert is free to all Expo attendees with full registration.

"Wednesday is always the heaviest attended day of the Expo," says Kendall. "Moving the Industry Appreciation Party to Wednesday made sense. It will give more attendees the chance to attend and let loose a little."

The 2014 Expo is shaping up to be another great four days. More surprises are in store, so hop onto the website and check out the constantly evolving schedule of events. Whether your goal is to check out the new innovations in the industry, educate yourself, meet your contemporaries or all of the above, you'll be glad you visited the 2014 Expo. **c**



Indianapolis

FEBRUARY 24-27 2014

INDIANA CONVENTION CENTER



- » OVER 80 EDUCATION SESSIONS
- » MORE THAN 500 EXHIBITING COMPANIES
- » HUNDREDS OF NEW PRODUCTS



REGISTER TODAY!

WWW.PUMPERSHOW.COM
866.933.2653

Cleaner Socially Accepted






facebook.com/CleanerMag
twitter.com/CleanerMagazine
plus.google.com
youtube.com/CleanerMagazine



P350 FLEXITRAX™ SYSTEM



TRULY PORTABLE CCTV CRAWLER INSPECTION SYSTEM

- **Outstanding picture quality:** Ultra-bright LEDs and high-resolution cameras built on a powerful digital video platform.
- **Versatility:** Build the ultimate, motorized or manual compact system that offers both pushrod (up to 500') and crawler (up to 1,000') capability, to suit a wide variety of your inspection needs.
- **Reliability where you need it:** Weatherproof construction that's designed to withstand the toughest conditions.
- **Flexible digital data transfer:** Access your survey data with Compact Flash cards, USB 2.0 or Bluetooth® wireless technology.
- **Serviceability:** Designed for continuous operation and easy maintenance on and off site.

To find out more call us on **+1 800 688 8094**, or email crystal.machado@spx.com
www.spx.com www.radiodetection.com



The Bluetooth word, mark and logos are registered trademarks of Bluetooth SIG, Inc. and any use of such trademarks by Radiodetection is under license.



Performance by Design

Made in USA

Est. 1939

Ideal For Grease Trap Service

PRO-VAC



GASOLINE POWERED



ELECTRIC POWERED

RUGGED & RELIABLE

INDUSTRIAL PUMPOUT UNIT

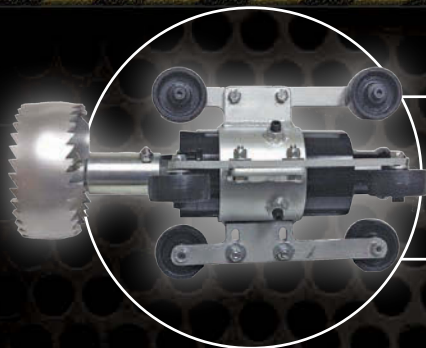
www.westmoorltd.com

Vacuum Technology

TEL (800) 367-0972

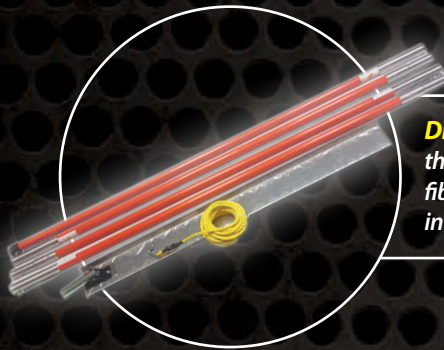
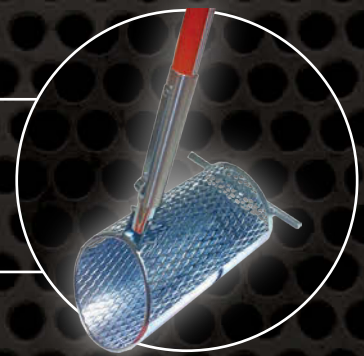
SOUTHLAND TOOL MFG. INC.

Building Innovative Tools for Municipalities



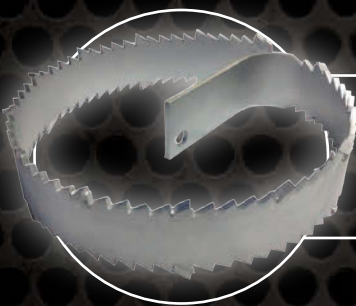
Puma Hydraulic Root Cutter Motor. This motor provides up to 215 lbs. of torque. Able to be used in 4" lines and up. Here it is pictured with adjustable wheeled skids from 8" to 10" and a concave saw in front. This motor is available in kits that can be adjusted to fit your size requirements.

Debris Grit Catcher Baskets. These are almost a must on every jetter. Don't let the debris flow down the line to cause a problem elsewhere. These Grit Catchers not only catch debris but also the fine sand and grit since they have covered bottom and half-moon back. Here is seen using our fiberglass pole system in any length you need.



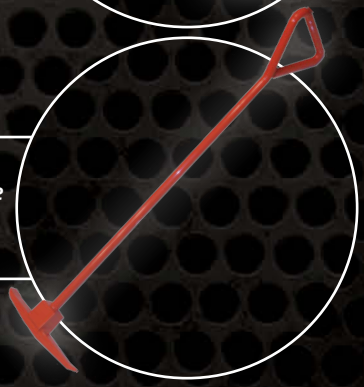
Drop Manhole Bridge Kit. The kit include the Drop Bridge that bridges the gap for your nozzle or camera over the drop hole. It comes with 24' of fiberglass poles that connect up easily. The bridge has a 25' rope to lift in into the pipe. Comes in widths of 5" or 6" and is 48" long.

Quick-Mount Fiberglass Pole Carriers. These carriers are a great way to store fiberglass poles on your truck. Can be used with poles, hooks and similar round handled tools. Made of cast aluminum and powder coated. The rubber uv protected flex-draw latches firmly holds the pole in place.



Carbide Tipped Root Saws. These saws have a carbide tip every 5th tooth on the front and every 10th on the back. Used for cutting out collapsed liners and super hard roots and grease. Available in any sizes from 4" to 20", concave or flat.

Pook. This patented design is the toughest on the market. One side is a pick to chip away asphalt and one side is a hook to flip open the manhole cover. Hence the name "POOK" a pick and a hook. Strong 3/4" handle. The whole unit is heat treated and powder coated safety orange.



Debris Basket with Rope. The baskets are lowered into place with a 25' rope. Eliminated the need for the poles and is easily retrieved at a 45° angle to avoid any spillage when lifted out of the invert.

Southland tools also carries a large inventory of other items including:
• SEWER RODS • DEBRIS BASKETS • GRABBERS • HANDY CLAMS • CORKSCREWS • AUGERS • NOZZLE EXTENSIONS • HYDRO CUTTERS • SPOONS • DEEP-VAC HOLDERS & more!

Build a Barrier to Accidents

IMPROVING SAFETY AND PERFORMANCE IS EASY WITH A FEW SIMPLE TOOLS EVERYONE IN YOUR COMPANY CAN EMPLOY

BY DOUG DAY

Accidents most often involve what can be called a “confluence of circumstances.” It’s also known as the domino theory, developed by W.H. Heinrich, a pioneer in the area of industrial safety. His 1930s work has been updated by others, leading to such things as the “multiple causation theory,” MORT (Management Oversight and Risk Tree), and the Canadian Centre for Occupational Health and Safety accident causation model.

The bottom line is that there are normally several causes when things go wrong. The more barriers you put up, the less likely something bad is going to happen.

These human performance tools are designed to prevent accidents and errors that can impact safety or quality. These tools are stated in different ways by different industries, but here is one example.

Training and qualifications

Are workers properly trained on equipment such as jettors and backhoes? They also need to be qualified for confined-space entry, fall protection, etc. You also need to train them on processes and procedures so everyone is doing work in the same way.

Prejob briefing

A good briefing (tailgate or tailboard) may last a few minutes or much longer depending on the complexity of a job. It should identify hazards, an OSHA requirement, but can also be used to ensure that the job gets done correctly the first time.

Procedure compliance

We all get hurried or distracted now and then. Checklists, even for mundane tasks, can help workers avoid missing steps that could lead to accidents or mistakes. They are especially needed in complicated duties, situations in which errors are likely and when completing rarely performed tasks.

Coaching

Leaders need to model these behaviors, reinforce them and correct those who are not using them appropriately. Coaching can also be done between peers to help improve overall team performance.

Operating experience

Using examples of bad (or good) experiences serves as a learning tool. They don’t necessarily have to come from your own company; you can use examples from other firms or even other industries to help illustrate proper behaviors. Having people tell their own stories can send a powerful message.

Self-checking (STAR: Stop – Think – Act – Review)

We are our best first line of defense. Instilling STAR as a discipline can help workers identify traps that could compromise safety or quality and help people stay focused on the job.

Peer checking

Employees need to feel comfortable checking on each other, as well. If someone isn’t wearing their hardhat or safety glasses, everyone should feel empowered to correct them.

Stop when unsure

If it doesn’t feel right, stop. It is just as important to support workers who do this as it is to train them on it.

Questioning attitude

“Why” can be a powerful question, and it’s one we’ve been asking since we learned to talk.

Situational awareness

Maybe you’ve had trouble cleaning a system in the past; being aware of risks and potential problems goes a long way in preventing them from affecting the work.

Clear communication

Three-way communications, phonetic alphabet, repeat backs; these are methods of making sure we understand each other and know what is about to happen. No sense working on a system on Beacher Street when you were supposed to be at Beeker Street.

Post-job critique

How did it go? Did you encounter unexpected problems or conditions, or learn anything you can share with others? Maybe the job gave someone an idea for improving a process. Taking a few minutes to review the job can save hours later on.

With a little training and practice, human performance and error reduction tools can help everyone work safer and smarter, reducing the chance of injury and preventing rework that can cost you money. **c**

LIKE WHAT YOU ARE READING?
visit www.cleaner.com to renew/subscribe

The NEW

Gator[®]

Cutters and Grinders

EXPERIENCE the

...Power

...Safety

...Reliability and

...Cost Savings of
ELECTRICITY!

As the world's premier manufacturer of pipeline inspection robotics, we are proud to introduce our new line of pipeline cutting & grinding robots. Manufactured to the same exacting quality standards, the GATOR[®] Series Cutters are designed to be durable, dependable and provide you with performance you won't find in the competition. The GATOR's high-power electric cutting system give you reliable, quiet power without the need for large, expensive air compressors or messy hydraulic systems.



PORTABLE SOLUTION

The FlexiGATOR[®] provides you with incredible power in a small, portable package. Work easily in 4"-8" pipes from one access point!



Units capable of centering themselves in a 24" pipeline and working in 360 degrees - 500 ft. from an access point!

Mainline | Drainline | Lateral Launch | Cutters & Grinders | PANORAMO 360° Systems

The new GATOR[®]s are powerful, single-point, electric cutters and grinders manufactured to the exacting quality standards of IBAK. Have you ever wished that you could have this level of reliability, durability and attention to detail in your cutter system? Well, the wait is OVER! With longer cable lengths, powerful and quiet cutting motors, and drive units designed to withstand the toughest jobs, these cutters have reset the industry's expectations. Call us or visit www.rapidview.com to find a dealer near you and see how we can keep you running!



(800)-656-4225
www.rapidview.com

NEW! Prevent Toilet Blowout with The Bulldog® Antiblast!



CALL 1 877 ENZUSA1
FOR A DEALER NEAR YOU



www.enzusainc.com

Specifically engineered to **prevent blowing toilets** when cleaning sewer lines near residential areas by reducing pressure in the pipe.

- Excellent streak-free, all around cleaning
- Low maintenance, & compatible with recycled water
- Proven design
- Pipe range cleaning 6" - 24"
- Scientifically engineered & tested
- For use in all types of pipe



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

New Eel Jet Electric and Gas Jetters

Eel Jet EJ1500 Electric and EJ3000 Gas Jetters are Professionally Engineered to Clean 1 1/2" - 8" Drain Lines with Power and Portability for a Fast Blast Through Clogs.



EJ1500

The New Eel Jet EJ1500 Electric Jetter Cleans 1 1/2" - 4" Dia. Drain Lines with These Outstanding Features:

- 1500 PSI / 1.7 GPM
- 1.5 H.P., 15 AMP Motor
- Duplex Pump w/Pulsation
- Reel Capacity 150 Ft. of 1/4" Hose
- Pump/Motor Assembly Removes in Seconds for Added Portability
- Thermal Relief Valve and Inlet Shut Off Valve
- Removable Handle/Reel on Cart Assembly.



EJ3000

The New Eel Jet EJ3000 Gas Jetter Cleans 2" - 8" Dia. Lines up to 300 Ft. with These Outstanding Features:

- 3000 PSI / 4.7 GPM
- 13 HP Overhead Valve Engine for Smooth Quiet Running and Dependable Operation - Electric Start Available
- 2-to-1 Gear Reduced Triplex Pump with Pulsation for Longer Life
- 300 Ft. Capacity Hose Reel
- Throttle Back Control Automatically Adjusts Engine Speed
- Low Tone Muffler for Quiet Operation.

www.electriceel.com

Electric Eel®

1.800.833.1212

Ready, Set, Jet

*Winter Jetting With
Enclosed & Insulated
Trailer Units*



**Low-Profile
Unit**

Available Models
4,000 PSI @ 18 GPM
5,000 PSI @ 18 GPM
6,000 PSI @ 18 GPM

www.usjetting.com
1-800-538-8464
sales@usjetting.com
1-800-jetting



- 300 or 600 Water Storage Tanks
- 7-Position Swivel Hose Reel
- Jump-Jet Pulsation System
- Electric Shore Power Heater
- Gen 4 Wireless Remote Control
- Self-Contained Anti-Freeze System
- Power Pull-Out Hose Reel
- Horizontal or Vertical Tanks
- Secure Front Storage Area
- Insulated Trailer
- Laminated Walls & Ceiling
- Up to 800' Of Jetting Hose



Save time: clean 2 tubes at once

A Saflex™ 2000 is twice as productive as manual water jetting. It cleans two tubes at once, with flexible tubes to handle bends. Key features include:

- pressures up to 40,000 psi
- eliminates lance contact by the operator
- manual indexing or optional X-Y positioner with wireless controls
- the ability to adjust to tube length and diameter

Make your operators more productive with a Saflex 2000... or a Saflex 3000 or ATL-5000 for bigger jobs. For a video demo or white paper, visit www.nlbcorp.com.

NLB Corp. The Leader in Water Jet Productivity

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

Pipebursting

saves time, money,
 trees, roads, driveways, lawns,
 gardens, steps, sidewalks, & more.

Oh, yes, and it's also quite profitable.

What you see here is trenchless replacement of a home sewer lateral using the TRIC X30, made by the company that introduced lateral bursting to the utilities industry. Now municipalities all over America are making lateral replacement a priority, and most of these replacements are done by pipebursting. If any of this sounds close to home for you, call us at TRIC to learn more.

TRIC
 888.883.8742
www.trictools.com



The best just got better!



Supersucker

Offering maximum flexibility, the new Supersucker® HDX performs superior waste removal and bulk material recovery as well as tank cleaning, potholing and other hydro excavating functions.

And it's available with Super Products' latest innovation, the Acculevel™ Load Sensor System.



800.837.9711 • superproductsllc.com

Super Products LLC...Living up to our name.



NEW:
On-board
battery option

GATORCAM[®]4 SYSTEM



CLASS LEADING FLEXIBILITY. SUPERIOR PICTURE QUALITY. OUTSTANDING VALUE.

The GatorCam4 system delivers flexibility, advanced digital technology and outstanding picture quality.

- Weatherproof, rugged and cost effective portable inspection package, now with optional on-board battery.
- Inspection capabilities from 1 1/4" (32mm) to 9" (230mm) with a built-in flexible sonde.
- Compact Flash or USB flash drives for recording and data transfer.
- Digitally pan, zoom and rotate live pictures and record in MPEG4 and JPEG.
- Full titler with 20 pages of text and built-in reporting.

To find out more call us on **+1 (877) 247 3797**, or email rd.sales.us@spx.com

www.spx.com www.radiodetection.com



NEED TO ORDER

- RootX & Grease-X
- RIDGID Hand Tools
- Drain Cleaning Machines
- Sectional Cables
- Jettors, Hoses, & Nozzles
- RIDGID Location Equip.
- Double Wound Cables

?

Your single source product solution.



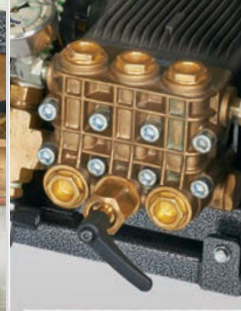
800.421.4580 | draincables.com

**New Re-designed Jetter
is Smaller and
Easier to Maneuver!**

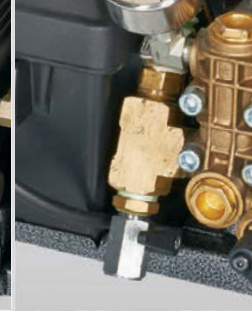
Mainline jetter for 3"-10" lines
8 GPM at 3,000 PSI as shown
24 HP Honda motor with electric start



Pressure Unloader
Control



Pulse Abler Valve
for vibration



Easy drain for
tank and pump




Clear filter housing

MV80 JetProCart



Request your
FREE, FULL LINE
catalog today!
800.328.8170

 Made in the U.S.A.

1.800.328.8170

**Factory Direct
Customer Service**

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

MyTana

Professional grade tools for sewer & drain professionals

www.MyTana.com

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

Service NETWORK

CONTRACTOR DRAWS ON YEARS OF INDUSTRY EXPERIENCE AND GOOD BUSINESS RELATIONSHIPS TO SUPPORT HIS COMPANY'S TRANSFORMATION BY MARIAN BOND



Scott Engineering LLC owner Dennis Denney, left, and employees Jerry Moore, middle, and Jason Austin pose for a picture on one of their trucks while on a job in Westport, Indiana. (Photo by Chris Bergin)

After many years in the investment business and time spent working for others in the sewer industry, Dennis Denney was presented with the opportunity to purchase a company within the industry.

“At the time I was a general manager for a sewer rehabilitation operation and we were doing a lot of business using smoke testing for municipalities and engineering firms,” Denney says. “The equipment we were using came from Scott Engineering, a company I had dealt with for many years. The owner explained he was going to be selling, and he offered me the opportunity to have my own company.”



They put the deal together and Denney carried on with the operation for a number of years. Eventually, he began to see the business shifting, and he decided to segue into cleaning, inspection and repair services. People he had dealt with throughout the years encouraged him to take advantage of his past experience and offered to

“I like the cash flow with residential work. We’re talking with plumbing companies where we would act as a subcontractor, and we’re running some ads and talking to people. That is the best way to get started on something like that.”

Dennis Denney


provide job opportunities and assist in rounding up some serviceable equipment to help with the transition. In 2010, the smoke testing equipment arm was sold, and Denney was on the road to steer Scott Engineering in a totally different direction.

Denney was able to purchase property adjoining his home for the expanding business. In addition to the 1,800-square-foot house, which serves as an office, there is a three car garage and room to add an additional building on the 2-acre site.

With the addition of CCTV equipment from Cobra Technologies and a rented Vactor combination unit through Jack Doheney Companies, Scott Engineering was positioned to provide inspection and cleaning services to municipalities and engineering firms. When an

profile

SCOTT ENGINEERING, LLC,
SHIRLEY, INDIANA,
SERVING INDIANA, ILLINOIS, KENTUCKY, OHIO



OWNER SINCE 2000: Dennis Denney
YEARS IN BUSINESS: 45
SERVICES: Lateral line cleaning, CCTV, jetting, relining, locating, smoke testing, manhole repair, mainline and lateral CIPP, confined-space entry, consulting
EMPLOYEES: Four
CUSTOMER BASE: Municipalities, engineering firms, commercial/industrial, plumbing companies
AFFILIATIONS: PACP (Pipeline Assessment Certification Program), NASSCO (National Association of Sewer Service Companies), IACT (Indiana Association of Cities and Towns), VBE (Veterans Business Enterprise)

opportunity came to fill a substantial lateral relining commitment in the city of Westport, Ind., Denney drew on his past relationship and experience with Perma-Liner Industries and invested in a lateral relining system.

“We’re now doing a lot of relining as a subcontractor and we have worked throughout Indiana and into adjoining states,” he says. “The big relining job was for Westport with a population of 1,200 people and lines for 700

residences and businesses. We have done cured-in-place relining on around 400 lines, after the pre-cleaning and televising. The engineers were deciding which lines they wanted to reline and which they wanted to dig out.”

NOTEWORTHY CHALLENGES

Despite the challenges that go along with starting a relatively new business, Denney has seen their yearly sales increase substantially, and he says he only wishes he had started his own business 20 years ago.

In the 200-mile radius they serve, Denney says many smaller municipalities are focused on their mainlines and infiltration issues with manholes. Along with these projects, the lateral lines, which are frequently the responsibility of the homeowner, are also in need of service and repair.

Pipes are typically vitrified clay, a few as old as 100 years, but many were installed in the '50s or '60s.

“These pipes are good,” Denney says. “They would last forever, but the material used for the joints is deteriorating, and there is a tremendous amount of infiltration. The pipes become offset. Soil has migrated into the pipes. It’s like a roller coaster – up and down, causing stress, cracking and breaking.

“Then there have been problems when other lines have been added along the sewer lines and equipment has punched holes in the pipe. Fortunately, technology has improved the process through better locating equipment and the use of hydroexcavation to expose lines.”



ABOVE: Scott Engineering employee Jerry Moore prepares to lower a camera into a sewer system during a job in Westport, Ind. LEFT: Jason Austin, right, feeds a camera into a sewer line as Dennis Denney, left, and Jerry Moore view the picture on a computer screen as they work on a lateral lining project.



Denney frequently rehabilitates leaking manholes, and they also see the destructive effects of hydrogen sulfide on the interior of older manholes. Older brick manholes often need to be rebuilt.

“We find little leaks, and big, and systems that need to be completely rebuilt,” he says.

“All this support was imperative for a virtually new business when you are waiting 60 to 90 days to get paid and you have invoices out there. You might have \$50,000 coming in, but you don’t know when it comes in and you have payroll, insurance, a lot of things, and it’s spent before you get paid.”

Dennis Denney

In 2012, the company had a contract to inspect 500 manholes in Indianapolis, where they handled all of the surveying and paperwork for the engineers so they could determine what the rehabilitation project would entail.

Denney says their current customer base is principally municipal at 80 percent, and the balance is industrial and commercial. They work as subcontractors about 50 percent of the time, typically for general contractors, engineering firms and lining companies.

A CHANGE IN COURSE

Dennis Denney had every intention of continuing to manufacture smoke testing equipment when he purchased Scott Engineering, a company located 30 miles south of Indianapolis.

"Smoke testing is a good tool used by municipalities and engineering firms," Denney says. "It is one of the first things done in investigating for leaks. But we soon found that having a single product was not sufficient to sustain a business and we started looking for other directions. We also saw that municipalities were buying their own equipment to do the smoke surveys. My wife Brenda worked with me on the machines, but we saw Scott Engineering needed

He is now making an effort to develop the residential business in order to create a more steady revenue stream, since receiving final payment for municipal work often means a wait of up to six months.

"I like the cash flow with residential work," Denney says. "We're talking with plumbing companies where we would act as a subcontractor, and we're running some ads and talking to people. That is the best way to get started on something like that."

OUTSTANDING SUPPORT

Denney says the initial encouragement and support he had from his suppliers made the venture a success. When he contacted Cobra about a CCTV unit, a long-term relationship paid off, and he was able to rent a unit that turned into a lease and eventually a purchase. The same with Perma-Liner, a system he had worked with prior to having his own company. Even the local bank made loans available based on past experience with Denney, at a time when loans were hard to obtain.

"All this support was imperative for a virtually new business when you are waiting 60 to 90 days to get paid and you have invoices out there. You might have \$50,000 coming in, but you don't know when it comes in and you have payroll, insurance, a lot of things, and it's spent before you get paid."

Denney currently works with a 1999 Vac-Con on a Ford L 9000 chassis, a Vac-Con pump (2,000 psi/80 gpm), a three-fan blower, and a 14-cubic-yard steel debris tank from Cobra Technologies. Four pickup trucks (three Dodge and one Chevrolet) complete the fleet.

His CCTV van is a 2002 Ford box van with a Cobra pan/tilt/zoom camera and software featuring a data logger.

Other equipment includes a ProCam mini camera system and Mainline sewer root cutter from UEMSI, and a MaxLiner hot water boiler unit for lateral lining.

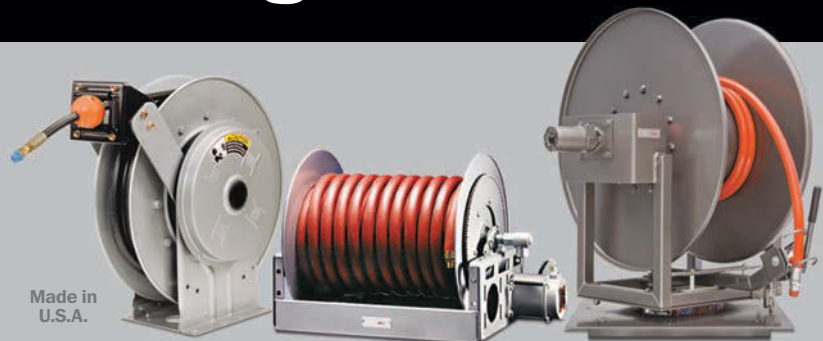
Denney says all his services go hand in hand in making things work for the benefit of his clients.

to do something else as well. In past employment, my wife worked with me for 10 years operating jetters, CCTV and chemical grouting equipment. Currently she primarily works in the office and even in the field on some occasions."

People they had worked with in the past were calling and saying they would put them to work if they got the equipment, and that's pretty much what happened, Denney says.

Denney, a Vietnam-era Marine, has been on the City Council in Shirley, Ind., for 14 years. He doesn't plan to grow Scott Engineering into a large company, but he does want it to be profitable, and he wants to continue in the work he enjoys and build on the relationships that have been so beneficial in these initial stages of expansion.

Hannay Reels handle the toughest treatment.



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

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

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



Find your reel solution: hannay.com or 877-467-3357



 **Hannay Reels®**
The reel leader.



Jason Austin, left, and Jerry Moore use a Perma-Liner inversion unit to line a residential sewer lateral.

“The Vac-Con is essential. I wish I had a couple more. With the experience we have and the equipment, I think we can go out and offer residential service effectively. I’m hoping that the plumbing companies will see the benefit of working with us in that capacity.”

Dennis Denney

STARTING LINE

Denney depended on Jerry Moore, his superintendent and a longtime industry associate, to assist in managing the relining project in Westport, 65 miles from their headquarters. There were two to three men on that crew during the year-long commitment, including technicians Daniel (Opie) Hornyack and Jason Austin. All three had extensive experience with the system from previous jobs, as did Denney.

“During the project I would be at our headquarters running the CCTV truck, or bringing in extra manpower to run the vac truck and help clean pipe,” Denney says. “I have to be out there, and I admit it is hard work. I work with my guys.”

Additionally, Denney wants his crew to be able to work independently and take the initiative.

The Westport project was unique in that in this older community there were no city curbs and no continuity in layout. Denney says they saw low-quality pipe – some completely collapsed – and a lot of roots. Every line was a different length. The first step was cleaning and televising the lines to assess the condition of the pipes, which ranged from 20 to 160 feet long. Obtaining proper measurements was a challenge. Lines had 90-degree bends, and many had multiple 45-degree bends, which made it very hard. They used a Root Rat cutting head from Chempure Products with their Vac-Con to deal with the roots.

“Every situation, every setup was different,” he says. “We had to get into the lines. We found different pipe – different sizes, different lengths. We started the process when the temperature was in the 80s or 90s, and then it was in the teens. That was one of the hard things because the resins we used were temperature sensitive. There were challenges.”

He notes relining is a concept that is catching on in the area. Prior to having the capability, he would get calls from towns and consulting engineers who had two or three laterals needing relining, but because of the cost of the system, he was turning down those opportunities.

(continued)

HIS JOB

HIS LIFE



Protect them both.

High-pressure water can't tell the difference between steel and skin.

So suit up with protective gear from TST at any pressure. It only takes a few minutes to prevent serious, even life-threatening injury. There's just no good excuse not to suit up — every time.



800-231-8192
waterblast.com



800-822-8785
fssolutionsgroup.com



BELOW: Brenda Denney, wife of Scott Engineering LLC owner Dennis Denney, takes care of the office work. (Contributed photo by Scott Engineering LLC) RIGHT: Dennis Denney operates the Cobra Technologies pan-tilt-zoom camera from control room of the Cobra-outfitted inspection van.





ANNOVI
REVERBERI

The Power of Experience



RTP
GPM 7.9 - 10
PSI 7250 - 8700

RTF
GPM 36 - 40
PSI 1500

RTJ
GPM 18.5
PSI 4000

Jetter &
Washdown
Pumps

www.arnorthamerica.com

Tel: 1.800.893.4235 | Fax: 1.800.331.2762

Email: info@arnorthamerica.com

“The startup costs are substantial and we were not in a position to make that investment until I had a job,” Denney says. “When you are a small guy you can’t go out and drop that kind of money to do a little job. The numbers don’t work.”

GOOD COMBINATION

Denney’s combination truck has been an important tool for cleaning and repair, particularly in preparation for relining projects.

“The lines must be 100 percent free of dirt and deposits. Protruding taps have to be eliminated. And then you use the TV unit to be sure everything is clean and ready.

“The Vac-Con is essential,” he says. “I wish I had a couple more. With the experience we have and the equipment, I think we can go out and offer residential service effectively. I’m hoping that the plumbing companies will see the benefit of working with us in that capacity. We are not a plumbing company. We will not compete. We will do the work and let them bill the homeowner.”

Denney wants to maintain an attitude of friendly competition. “If I get too much work, I’ll call them. When they have too much they will call me. It all goes back to networking. My past experience proves this to be a winning prescription.”

more info

Chempure Products Corp.

800/288-7873
www.chempure.com
(See ad page 73)

Cobra Technologies

800/443-3761
www.cobratec.com

MaxLiner USA

877/426-5948
www.maxlinerusa.com
(See ad page 19)

Perma-Liner Industries, LLC

866/336-2568
www.perma-liner.com
(See ad page 9)

UEMSI

800/666-0766
www.uemsi.com

Vac-Con, Inc.

888/491-5762
www.vac-con.com
(See ad page 3)

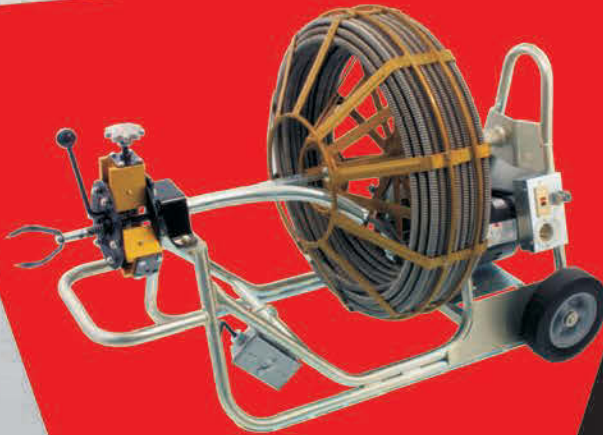
Vactor Manufacturing

800/627-3171
www.vactor.com



GORLITZ SEWER & DRAIN INC.

Norwalk Blvd. Santa Fe Springs, Ca. 90670



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

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

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



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

View and capture maximum details at every angle.

NEW!

Unparalleled imaging
Pans 360°, tilts 210°.

**Pan n' Tilt
Push Camera**

(Includes Reel and
Remote Control)



Optional
Steerable
Gooseneck



Record to
Cell Phone or iPad



Ultra Micro™
5/8", 3/4", 1" Available



Fast Peek™



Inspector PC²-xi



Locator



Jet Cam



Elite Jr.®

Trust the industry leader for consistent innovation.

For over 32 years now, Ratech Electronics has been at the forefront in the development, manufacturing and servicing of CCTV video pipeline inspection camera systems and equipment. Serving the municipal, industrial, and residential markets, our innovative products are created and manufactured with the quality and durability industry professionals demand.



Staying ahead of your customer's needs.



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

Ratech
ELECTRONICS

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

Follow us on Twitter @RatechCam

Video Pipeline Inspection Systems

SPIR STAR®

SILVER MONGOOSE
SPIR STAR
TYPE 576H
MADE IN GERMANY
BATCH NO. 7360

**Proven Products
Proven Solutions**

Specialists in High Pressure
Hose | Fittings | Adapters
Quick Disconnects | Valves

www.spirstar.com
Toll Free: 800.890.7827 • Fax: 888.893.1255
ISO 9001:2008 Certified

© SPIR STAR 2013

ARTHUR PRODUCTS CO.
"Engineered Solutions"

Phone: 1.800.322.0510
E-Mail: apc@apclsq.com
Website: www.arthurproducts.com



ARE YOU CONSTANTLY FEEDING A FUEL GUZZLING BEAST?



AllJetVac

SPEND MORE TIME WORKING
AND LESS TIME AND MONEY ON FUELING AND MAINTENANCE

GREEN
THAT WORKS

The Vacall AllJetVac combination sewer cleaner uses superior vacuum and jetting power to open clogged sewer lines, and keep them clear. All with one engine, rather than two required by other machines. The result is more productivity with less fuel cost. Not to mention less money and time for routine maintenance and a unit cost that doesn't require you to pay for a second engine. Tired of big fuel bills? Call 800-382-8302 for the Vacall break you need.



AIISmartFlow™
Intelligent Control System
Standard on AllJetVac

LEARN ABOUT THE VACALL SINGLE ENGINE ADVANTAGE ▶
VACALLINDUSTRIES.COM/SINGLEENGINE



VACALL™
INGENUITY AT WORK

(800) 382-8302
www.VACALLINDUSTRIES.COM





FEBRUARY 24-27, 2014

» **INDIANA CONVENTION CENTER • INDIANAPOLIS, INDIANA U.S.A.**

WE'VE SAVED YOU A SPOT!

When you step onto the Pumper & Cleaner Expo show floor, you're entering the hub of your industry. It's where the magic happens. It's where you trade ideas, make connections and learn about the newest technologies and best money saving strategies. So make your reservation today! Get in on the excitement, come enjoy the show and find out why the 2014 Pumper & Cleaner Expo is where it's at!



THESE INDUSTRIES WILL BE REPRESENTED AT THE 2014 EXPO

- SEPTIC PUMPING
- TV INSPECTION
- COMPUTER SOFTWARE
- ONSITE INSTALLATION
- PIPELINE REHAB/CIPP
- INDUSTRIAL VACUUMING
- PORTABLE SANITATION
- WATERBLASTING
- HYDROEXCAVATION
- DEWATERING
- HIGH-PRESSURE CLEANING
- UNDERGROUND TRENCHLESS PIPE REPAIR
- GREASE HANDLING
- SAFETY EQUIPMENT
- UTILITY LOCATION
- SEWER CLEANING
- CONFINED SPACE
- WATER TREATMENT
- LATERALS & MAINLINES
- LIFT STATION MAINTENANCE



» **REGISTER BY JANUARY 24 TO RECEIVE THE EARLY BIRD RATE OF \$50 PER PERSON!**

\$70 PER PERSON AT THE DOOR. CHILDREN 12 AND UNDER ADMITTED FREE.

**REGISTER ONLINE AT WWW.PUMPERSHOW.COM
OR BY CALLING 866-933-2653**





EDUCATION DAY

MONDAY FEBRUARY 24, 2014

NASSCO NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES

- 8 a.m. Lessons Learned During Sewer Rehab on Public and Private Property
- 9:30 a.m. Pipe Bursting a Mature and Diverse Trenchless Technology
- 11 a.m. Resurgence of Chemical Grout Industry: Niche Business Opportunities
- 1:30 p.m. Chemical & Biological Control of F.O.G. in a 2,500-Mile Collection System
- 3 p.m. Lateral Rehabilitation, What's Available
- 4:30 p.m. Fiber Optic Temperature Sensing Technology for CIPP Cure Quality Control

NEHA NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION

- 8 a.m. DEER in the Headlights
- 9:30 a.m. Basic Chemistry of Onsite Wastewater Treatment Systems
- 11 a.m. Making the Most of Experience: Training and Credentials for Wastewater Pros
- 1:30 p.m. Winners Communicate
- 3 p.m. Best Available New Technology
- 4:30 p.m. Best Available New Technology: How to Get Your Regulators on Board

NPCA NATIONAL PRECAST CONCRETE ASSOCIATION

- 8 a.m. 7 Things About Design, Installation & Maintenance of Precast Concrete Tanks
- 9:30 a.m. Grease Interceptors: A Slick Solution to a Greasy Problem

WJTA-IMCA WATERJET TECHNOLOGY ASSOCIATION INDUSTRIAL & MUNICIPAL CLEANING ASSOC.

- 8 a.m. Preparing for your First High Pressure Waterjetting Job
- 9:30 a.m. Vacuum Truck Operation and Safety
- 11 a.m. Hydroexcavation: Getting the Best Bang for Your Buck

SAFETY SESSION JOHN CONLEY

- 8 a.m. Preventing Tank Truck Rollovers

PSAI PORTABLE SANITATION ASSOCIATION INTERNATIONAL

- 9:30 a.m. State of Global Sanitation
- 11 a.m. Industry Image
- 1:30 p.m. Visions of the PSAI and the Education Initiative
- 3 p.m. What's New with OSHA Safety Requirements
- 4:30 p.m. An Introduction to Entering the Federal Government Contracting Arena

SALES & CUSTOMER SERVICE FRANK TACIAK

- 8 a.m. Be Always Profitable: Setting up the Sale
- 9:30 a.m. Be Always Profitable: Your Best Sales Presentation
- 11 a.m. Be Always Profitable: Servicing Your Sale
- 1:30 p.m. Be Always Profitable: Our Attitude to Success

NAWT NATIONAL ASSOCIATION OF WASTEWATER TECHNICIANS

- 8 a.m. CSA 2010 Implementation/Impact on Carriers/Drivers
- 9:30 a.m. DataQ's: When and How to Challenge
- 11 a.m. US DOT Update/Recent, Upcoming and Proposed Regulations
- 1:30 p.m. What is a Good Septic System Inspection?
- 3 p.m. The History of the PSMA Hydraulic Load Process
- 4:30 p.m. Improving Arizona's Inspection Program to Meet Modern Challenge

NOWRA NATIONAL ONSITE WASTEWATER RECYCLING ASSOCIATION

» SITE EVALUATION AND DESIGN OF ONSITE WASTEWATER TREATMENT SYSTEMS

- 8 a.m. Why Do We Care About Soils?
- 9:30 a.m. Design for Dummies
- 11 a.m. How to Do a Good Site Evaluation
- 1:30 p.m. Designing for Tough Sites
- 3 p.m. Wastewater and Soils: Clean It Up AND Get It To Go Away
- 4:30 p.m. Good Installation for Long-Term User Satisfaction

» FROM INSTALLATION TO MARKETING YOUR BUSINESS AND EVERYTHING IN BETWEEN

- 8 a.m. Look Out for Gophers! Taking Care of Mound Systems
- 9:30 a.m. ATU's - How to Make them Work
- 11 a.m. Rest Stops: A Case Study of Challenging Wastewater
- 1:30 p.m. Troubleshooting Onsite Systems
- 3 p.m. Installation Mistakes: How to Avoid and Fix Them
- 4:30 p.m. Marketing & Customer Service for Small Business Owners

SSCSC SOUTHERN SECTION COLLECTION SYSTEMS COMMITTEE

- 8 a.m. Personal Safety
- 9:30 a.m. Understanding the Nuances of a Quality CCTV Inspection Program
- 11 a.m. In the Trenches with Trenchless Pipeline Repair and Renewal
- 1:30 p.m. Nozzle Application: What, Why, Where, When and How?
- 3 p.m. Stop It! A Closer Look at Plugging
- 4:30 p.m. Getting the Most out of Your Combination Unit

BUSINESS TRAINING & MARKETING SUZAN CHIN

- 1:30 p.m. Marketing on a Shoestring
- 3 p.m. Getting Some... Brand Recognition
- 4:30 p.m. The Online Marketing Toolbox

VIEW FULL SESSION DETAILS AT:

WWW.PUMPERSHOW.COM



FEBRUARY 24-27, 2014

» INDIANA CONVENTION CENTER • INDIANAPOLIS, INDIANA U.S.A.

TUESDAY SESSIONS

February 25, 2014

SSCSC TRACK

- 8 a.m. Don't Fear the Shapefile
- 9:30 a.m. What's Important for Your Company; Is it Size, or Profit or Both?
- 11 a.m. 1 + 1 = 14: Cleaning and Inspection Equipment Working as an Entity

NAWT LAND APPLICATION TRACK

- 8 a.m. Be Ready to Land Apply
- 9:30 a.m. Soils and Cropping Systems
- 11 a.m. Land Application Rates and Nutrient Management

SAFETY COMPLIANCE TRACK

- 8 a.m. OSHA Confined Space and Fall Protection Untangled
- 9:30 a.m. Air Monitoring Application for the Liquid Waste Industry
- 11 a.m. T.B.D.

MUNICIPAL TRACK

- 8 a.m. Sealing - Take Control of Inflow & Infiltration in Manhole Sealing Systems
- 9:30 a.m. DC Water is Utilizing CIPP to Rehabilitate the Nation's Capital
- 11 a.m. Nozzle Explanation and Selections

INSTALLER TRACK

- 8 a.m. Septic Tank Bells and Whistles
- 9:30 a.m. Aeration Units for On-Site Septic Systems
- 11 a.m. Understanding ATU's, their Service Requirement, and Maintenance

GENERAL TRACK

- 8 a.m. Portable - The Best of Both Worlds - Liquids vs. Portion Control Deodorizers
- 9:30 a.m. Vacuum Loaders - Taking the Mystery out of Vacuum Truck Operation
- 11 a.m. DOT Compliance - The Value of DOT Certification for Vacuum Trucks

CUSTOMER SERVICE & EMPLOYEE DEVELOPMENT

- 8 a.m. Gen Y + Gen X + Baby Boomers = #@\$%???
- 9:30 a.m. Get and Keep the Best Co-Workers
- 11 a.m. Win, Win, Win in Residential Service Contracting

WEDNESDAY SESSIONS

February 26, 2014

BUSINESS TRACK

- 8 a.m. Improving Profitability through Tracking
- 9:30 a.m. How Paperless Operations Save Time and Money
- 11 a.m. Book More Calls – Wow More Customers

PORTABLE TRACK

- 8 a.m. Deodorizers and Making the Right Choices
- 9:30 a.m. Oh Shift! 6 Future Trends You Must Gear Up For to Compete and Succeed
- 11 a.m. Portable Restroom Service Units

MUNICIPAL TRACK

- 8 a.m. Sewer Cleaning 101
- 9:30 a.m. Underground Coatings – Restore Deteriorated Infrastructure
- 11 a.m. How Small Contractors Can Make Big Money Doing Manhole Rehabilitation

LIQUID WASTE TRACK

- 8 a.m. Right Sizing Your Pump System
- 9:30 a.m. Make More Money by Using a Biological Product with Your Services
- 11 a.m. Septic Drainfield Restoration

ADVERTISING & MARKETING TRACK

- 8 a.m. Advertising and Marketing for Service Companies
- 9:30 a.m. Getting Sales Personnel to Properly Price and Present
- 11 a.m. 7 Incredibly Effective Ways to Improve Your Sales



ONSITE INSTALLER COURSE

- 8 a.m. – 5 p.m. All Day Installer Course
Jim Anderson and Dave Gustafson
Sponsored by COLE Publishing and Onsite Installer Magazine



LIVE ENTERTAINMENT

Network with your peers over a 25¢ tap beer and enjoy a private concert just for Expo attendees! The Industry Appreciation Party is the must-attend Expo event!

LEE BRICE

Live



» Brice, currently on tour with Brad Paisley, has celebrated three back-to-back No. 1 songs from his 'Hard 2 Love' album and his hit 'Parking Lot Party' stormed to the top of the Country radio charts. You can expect a great time as Lee Brice brings his energetic show to the Industry Appreciation Party!

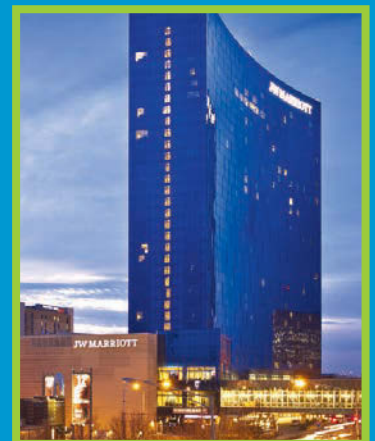
INDUSTRY APPRECIATION PARTY

5 P.M. - WEDNESDAY FEB. 26

GRAND BALLROOM
JW MARRIOTT HOTEL

Admission included
when you pre-register!

» Attendees enjoy Craig Morgan at the 2013 Industry Appreciation Party.





Quality Used Trucks Available for Immediate Delivery



**2006 International Vactor HXX
ID# 26795 Call for pricing**

- Cat C-13
- 22,328 miles
- 380 HP
- 5,207 hours
- Fuller 10 speed transmission
- GVWR 66,000; 20,000 front axle; 46,000 rear axle



**2009 ORS 8000 Skid Mounted Unit
ID# 90005 Call for pricing**

- New unit 1500 CFM blower
- 125 HP John Deere engine
- 2000 gallon tank
- 28" vacuum
- 14 PSI pressure offload capabilities



**2009 International 7600 w/ 2010 Guzzler
CL Module ID# 64298 Call for pricing**

- Chassis - Cat C-13 Engine
- Eaton Fuller FRO-14210C transmission
- 70,334 miles
- 28" Hibon blower
- 18 yard debris box
- 1,598 hours

©2013 FS Solutions Group

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

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

ultraSHORE P R O D U C T S



Quick to Install.
As light as 130lbs.



Roll Your Own.
Optional wheel kit.



Stacks easily with
2' & 4' high panels.

This is What Aluminum Shoring Was Meant to be!



1-800-SHORING

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

www.shoring.com



Early Bird Special on Winter Jackets

www.MilwaukeeRubber.com



\$49.95*

75-1301 Yellow
PU coated, polyester lined, fully taped seams and a zip-out liner. Waterproof. Detachable hood, elastic ribbed waist and cuffs with inside and outside pockets. Stenciling/logo service available
Sizes M - 6XL.



\$69.95*

75-1381 Yellow
Eight wearing options including a CL3 zip-out liner or CL2 vest. Jacket and liner have removable sleeves. Six pockets, fleece collar, detachable hood, radio handset straps, ID pocket badge holder and many more features. Waterproof. Stenciling/logo service available
Sizes M - 6XL.

*Tall sizes available for an additional \$2.

Jackets meet ANSI/ISEA 107-2010 CL3 standard.



**Call Toll-Free
1.800.325.3730**

AMAZING MACHINERY

Your Equipment SUPERSTORE Since 1995



130' SEWER CAMERA with 512HZ SONDE

SYSTEM INCLUDES

- » 7" Flat Screen LCD in ABS Case
- » Records to SD card (NOT INCLUDED)
- » High Quality Color Camera
- » 1-3/8" Diameter Camera Head
- » 512 Hz Sonde Transmitter (8'-15')
- » Stainless Steel Camera Body With Sapphire Lens
- » Water Resistant Camera Head
- » 9 White LED Lights w/Dimmer
- » 12" Steel Spring Leader
- » 130' long, 3/8" Super Slick Push Cable
- » 20" Storage Reel
- » Operates On 120 Volt Electricity
- » Two Year Mfg. Limited Warranty

SALE Price
\$1995.00

**Sewer Camera
Repair Center Now Open**

Add This Locator
to Any Camera!

Only **\$589.00**



Complete Details At
www.AmazingMachinery.com

1-800-504-7435
2160 S Lee Hwy. • Cleveland, TN 37311

Just Say Yes

GUZZLER TRUCKS OPEN UP NEW MARKETS FOR ALABAMA
INDUSTRIAL AND MUNICIPAL CLEANING COMPANY

BY KEN WYSOCKY

Saying “no” to potential customers was so distasteful to Arland Hilyer that he finally decided about five years ago to take a calculated gamble and make a \$200,000 investment in his company: the purchase of a powerful Guzzler CL industrial vacuum truck, made by Guzzler Manufacturing Inc.

As a result, Hilyer’s business – ATC/Hilyer Services, based in Montgomery, Ala. – has increased its gross revenues by nearly a third. Moreover, the company, which also offers plumbing, drain cleaning, waterblasting, hydroexcavating and pipeline video inspection services, now owns three Guzzler CLs and is considering the purchase of a fourth.

“At the time, I had to turn down business,” says Hilyer, recalling the days when potential customers would call and ask if his company did industrial vacuuming work. “And I hate to lose work.

“These trucks opened up a whole new market for us,” he continues, noting that the trucks primarily service factories such as lyme plants and paper mills, where they’re used to clean tanks, pulp dryers and other general-purpose industrial vacuuming jobs. “They’ve increased our revenue volume by about 30 percent ... they’ve provided a decent return on investment.”

The trucks feature 18-cubic-yard debris tanks; tri-lobe blowers with maximum vacuum range of 16 to 27 inches Hg and airflow range of 5,089 to 5,250 cfm; and telescoping booms. But Hilyer’s favorite features are the trucks’ dependability and durability – critical elements in an industry where downtime can cost some customers thousands of dollars an hour.

“Keeping equipment running is very important to our business,” he explains, noting the trucks often handle industrial spills and other emergencies. “If your equipment is down, you stand a chance of losing work. The industrial

money machines

OWNER: ATC/Hilyer Services, Montgomery, Ala.
EQUIPMENT: Three Guzzler CL industrial-cleaning vacuum trucks, made by Guzzler Manufacturing Inc.
FUNCTION: Industrial wet-and-dry vacuuming
FEATURES: 18-cubic-yard debris tanks; tri-lobe blowers with maximum vacuum range of 16 to 27 inches Hg and airflow range of 5,089 to 5,250 cfm; telescoping booms
COST: About \$200,000



One of ATC/Hilyer Services’ Guzzler vacuum trucks offloads at a steel foundry in Marion, Alabama, where it was vacuuming liquid and dry material out of tunnels and pits and under conveyor belts.

business is like that ... if you can't get the job done, they'll find someone else who can. They shut down parts of plants for us to do work. So we have to get in and get out as quickly as possible."

Hilyer didn't look around for vacuum trucks when he felt it was time to buy. As a longtime veteran in the industrial cleaning industry, including stints with other companies before forming his own, he was very familiar with Guzzler products.

"I've had a relationship with Guzzler for a long time," he says. "In 25 years, I've had very, very few problems with them. Plus, they have a shop about 100 miles from me, so if something does go wrong, it's easy to get it serviced.

"If you take good care of them – service them like you're supposed to – there's no reason why you can't get 20 years out of these trucks."

"Our customers have been very impressed with these vacuum trucks. They illustrate the importance of keeping up with new technology. You never want someone else getting a leg up on you, that's for sure."

Arland Hilyer

So far, Hilyer says he has yet to see anything the Guzzlers can't handle. In one particularly difficult job, one of the trucks ran for three or four days straight, he says. In that incident, which occurred about three years ago, about 400 or 500 gallons of grease spilled into a storm drain at an Alabama food-processing plant. From there, it ran out into a detention pond in a wooded area. To make matters worse, the detention pond overflowed its banks because of heavy rains, spreading out the grease a couple hundred feet farther.

"It was a real mess," Hilyer says. "And because of the woods, the closest we could get to the pond was about 800 feet away; plus the pond was downhill, beyond a steep incline. Usually, you lose some vacuum power with that kind of distance and going uphill. But I was amazed at how that Guzzler vacuumed at that distance ... you could hardly tell if it lost any power at all.

SHOW US THE MONEY (MACHINE)

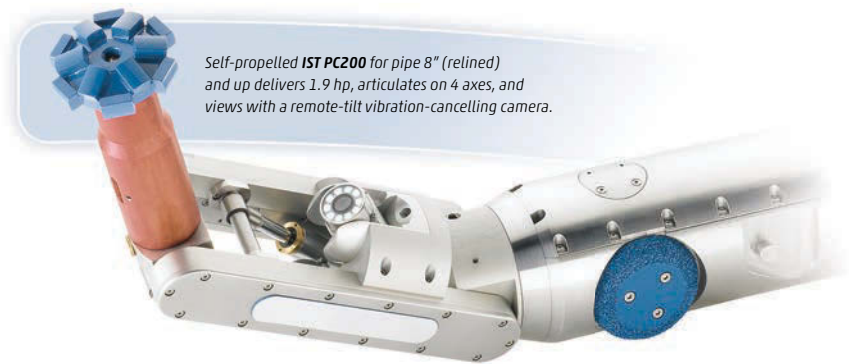
Money Machines, a feature in *Cleaner*, reports on innovative work vehicles that help contractors operate more efficiently, satisfy customers and earn more profit. We'd like to know about your Money Machine — be it a service van, camera truck, jetting rig, vacuum unit or any vehicle that really helps 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.

"That truck ran pretty much continually for three or four days, and it didn't hurt it one bit."

Hilyer says the trucks have made a huge difference in his company's business outlook by opening up new markets and diversifying its client base. Had he been able to afford it, he says he would've bought his first Guzzler even earlier than he did.

"Our customers have been very impressed with these vacuum trucks," Hilyer notes. "They illustrate the importance of keeping up with new technology. You never want someone else getting a leg up on you, that's for sure.

"Once you get inside these plants and show customers what you can do, your [revenue] volume increases significantly," he adds. "Without them, we'd still be making a living, but we definitely wouldn't be as big as we are now." ©



Self-propelled **IST PC200** for pipe 8" (relined) and up delivers 1.9 hp, articulates on 4 axes, and views with a remote-tilt vibration-cancelling camera.

Cut ahead.

Deliver more and earn more with PRT's full range of top-performing cutters.

Robotic cutters from PRT redefine what's possible when cutting in drains, prepping for relining, and reinstating laterals. Exceed expectations—choose PRT for the agility and power to cut ahead.



Positioned with remote air bladders, **IMS Micro** travels 100' into laterals 3-6", maneuvers past elbows, articulates on 2 axes, and views with an illuminated camera.

Rental program.

Any cutter can be rented for trial purposes, or for a specific job.

Pipeline Renewal
TECHNOLOGIES™

www.pipelinert.com
(973) 252-6700

©2013 Pipeline Renewal Technologies. All rights reserved.
PRT name and logo are trademarks of Pipeline Renewal Technologies.



800.767.1974 rstechserv.com

the CUBE

conductor
THE SINGLE SOLUTION

The power of a full mainline system in a free-standing, mobile solution

- Mainline system with up to 1,500' of cable
- Rack mount or laptop data collection system
- Fully self-contained with on-board generator, two 500 lb capacity storage drawers and front access 9-gallon pressurized wash-down system
- Fits on an ATV or in the bed of a pickup truck

For more information about this inspection tool and our full range of inspection equipment solutions, call or visit us online today.



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

SEWER EQUIPMENT
SALES | RENTALS | SERVICE | PARTS
EASTON, MO | BALTIMORE, MD | CLINTON, MD |
PITTSBURGH, PA | CHESTER, PA |
CHESAPEAKE, VA | BEDFORD, VA

Mid-Atlantic Waste Systems Stock Equipment Priced to Sell! **800.338.7274** EXT. 1009

Combination Sewer Cleaner Vacall AJV 1215	Combination Sewer Cleaner Vacall AJV 1015	John Bean Sprayers Sewer Jet JB7040D	Rausch M-Series Camera Trailer	TV Ferrett Portable Camera System	Hathorn OPT HDD 12.1 Push System
<ul style="list-style-type: none"> • 2012 Freightliner M2 • 410 HP Diesel Engine • 85GPM @ 2000PSI Myers • Roots 18" PD Blower 	<ul style="list-style-type: none"> • 2008 Sterling • 350 HP Cummins Diesel Engine • 80GPM @ 2000PSI GE • Roots 16" PD Blower 	<ul style="list-style-type: none"> • 40 GPM at 2000 PSI • 80 HP John Deere Diesel • KEG Nozzle Upgrade Pkg. • Only 10 Hours 	<ul style="list-style-type: none"> • Side Office with Posm Software • Mainline & Lateral Launch • 100' Lateral Inspections • 1250' Main Cable, 6-60" Daimeter 	<ul style="list-style-type: none"> • Mainline Camera Pan & Tilt • Screen Footage Counter • DVR Recording • 600' Mainline Cable 	<ul style="list-style-type: none"> • 12.1" HDMI LCD Screen • 320GB HD with USB Ports • Play, Pause, 8X Digital Zoom • 200' Cable w/Self Level Camera

Extra! Extra!

Want More Stories?

Get more news,
more information,
more features with

Online Exclusives

Exclusive online content
for *Cleaner*

www.Cleaner.com/online_exclusives



Allan J. Coleman – Since 1905

Call us today! 773-728-2400

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

StoneAge® Warthog® Nozzles



WD-1 1/4"
(8-36" lines)



WG-1"
(8-36" lines)



WH-1/2
& 3/4"
(6-18" lines)



WS-1/2"
(4-8" lines)



WT-3/8"
(3-6" lines)



WV-1/4"
(2-4" lines)



Special pricing
on all
General jettors,
cameras and
machines



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

UPGRADE your camera system to the GVISION. A Better System



JetSonde Carriers - P-Trap Cable Sonde Carriers



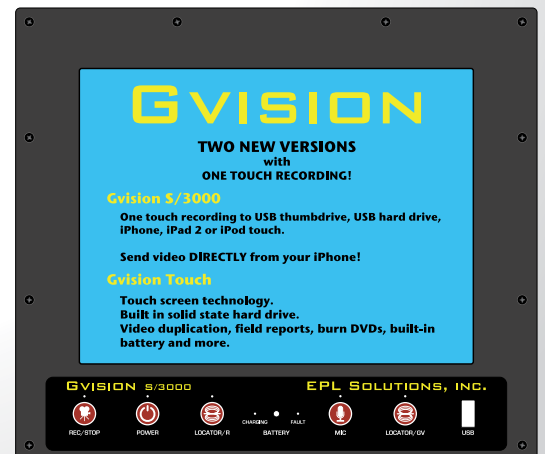
Ask what the
GPLAYER
can do for you?

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

Jetter Hose

JetSonde Nozzle

JetCam Adapter



GVISION

TWO NEW VERSIONS
with
ONE TOUCH RECORDING!

GVision 5/3000

One touch recording to USB thumbdrive, USB hard drive, iPhone, iPad 2 or iPod touch.

Send video DIRECTLY from your iPhone!

GVision Touch

Touch screen technology.
Built in solid state hard drive.
Video duplication, field reports, burn DVDs, built-in battery and more.

GVISION 5/3000

EPL SOLUTIONS, INC.



GVISION

Visit www.eplsolutions.net for more details.

OLDEST NAME IN THE BUSINESS
— Over 100 YEARS OLD — PHCC MEMBER

Successful Crisis Management

MAKING THE BEST DECISIONS FOR YOUR BUSINESS AND EMPLOYEES OFTEN COMES DOWN TO THREE MAIN FACTORS

BY LUCIEN G. CANTON

When the first hijacked plane slammed into the North Tower of the World Trade Center at 8:46 a.m. on Sept. 11, 2001, Robert Scott, president and chief operating officer of Morgan Stanley-Dean Whitter, was at 3 World Trade Center addressing 400 members of the National Association of Business Economists.

Scott evacuated the building just in time to watch a second aircraft slam into the South Tower, which housed his company offices and several thousand employees. By 9:30 he and his senior executives had convened at a backup site that became their command center. The decisions made by Scott and his team that day would make Morgan Stanley a case study in successful crisis management and would enhance Scott's reputation as a leader.

Your business isn't likely to ever have to deal with anything as horrific as the attacks on Sept. 11, but businesses face smaller crises every day. How you handle them will be a big key to your success, and the difference frequently comes down to three main factors:

- Failure to consider the human factor
- Failure to gather adequate information to support decision-making
- Failure to act quickly and decisively

These failures are so common that they suggest three keys to successful crisis management:

1. Recognize that you are your own worst problem. Too often in preparing for crisis one tends to ignore the human factor. Understanding human nature and how people react to crisis is one of the fundamental keys to crisis management.

- No matter how much information on risks they are given, people do not believe that a crisis will happen to them. They may understand it intellectually but viscerally they do not believe it will happen. This hampers their willingness to prepare for a crisis.
- When confronted with a crisis, a person's first reaction is denial – they often do not recognize that a crisis is occurring. This leads to a hesitation to act.
- There is a tendency to normalize crisis; that is, to see what one expects to see rather than what is actually occurring. It is easy to misinterpret or completely miss indicators that a crisis is imminent or occurring. These indicators may be obvious after the fact but are easily missed during the crisis.

2. Good information is essential to good decision-making. The second phase that people experience when confronted with a crisis is deliberation – the need to seek corroboration about what has occurred or is occurring and to consider courses of action. There are, however, problems inherent in this process:

- Most information available in the early stages of crisis is fragmentary, contradictory and unreliable. There can also be a considerable volume of information available, most of it not really helpful. Sorting through

this mess requires an understanding of what information is important and why it is needed by decision-makers.

- A common failing in a crisis is the tendency to seek only information that confirms what the crisis team thinks is happening or expects to see happening. The problem with this is that the team misses the true nature of the crisis and makes decisions that can be counter-productive or flat-out wrong.
- The paradox of information collection is that while the better the information the better the decision-making, there will never be a situation where one has all the information needed. At some point, you will have to make decisions based on incomplete information. Information collection cannot become an end in itself that delays decision-making.

3. Act decisively. Overcoming denial and moving through deliberation leads to action. In most cases, the quicker you are seen to act and to provide information on the crisis and your actions the more likely you are to mitigate the effects of the crisis. Effective action depends on a number of elements:

- Isolating the crisis by identifying a crisis management team and dedicating them solely to the crisis. Other parts of your organization can be devoted to business as usual but your crisis management team must be focused exclusively on the crisis and must have the authority and resources necessary to act.
- Speed is essential, particularly in crisis communications. Depending on the nature of your organization, you may have only minutes to get your story out. Even if it's just acknowledging that the crisis has occurred and that you are assessing the situation, it is critical that the public, your employees and your shareholders hear from you.
- Acting quickly, demonstrating empathy with anyone affected by the crisis and, above all, being honest can go a long way to countering the negative effects of a crisis.

Surviving a crisis requires that you quickly recognize and accept that a crisis is occurring, gather sufficient information to make decisions regarding the crisis and move quickly to implement those decisions. Incorporating these three keys into your preparations for crisis may not guarantee success but they will certainly go a long way to preventing failures. **C**

ABOUT THE AUTHOR

Lucien G. Canton, CEM, is a consultant and author of the best-selling "Emergency Management: Concepts and Strategies for Effective Programs." For more information, please visit www.lucienanton.com.

Don't show up to a job
unprepared.



Stock your equipment with the right parts to get the job done.

Think of FS Solutions® as your personal **Parts Supplier** for all makes and models of
Industrial Vacuum Loaders, Vacuum Excavators and Waterblasters.

7 locations - same day shipping - huge inventory - competitive prices - expert technical and application advice.



fssolutionsgroup.com • (800) 822-8785

INVENTORY REDUCTION SALE



- Standard accessory package
- 12 yd³ debris body
- 3-stage blower, hydrostatic driven
- 1,300 gallon water supply
- 600' articulating hose reel
- 10' hydraulic telescoping boom with pendant control
- 400 gpm pump off system
- Gravity drains system
- 80 @ 2000 water pump with 4-cylinder diesel auxiliary engine



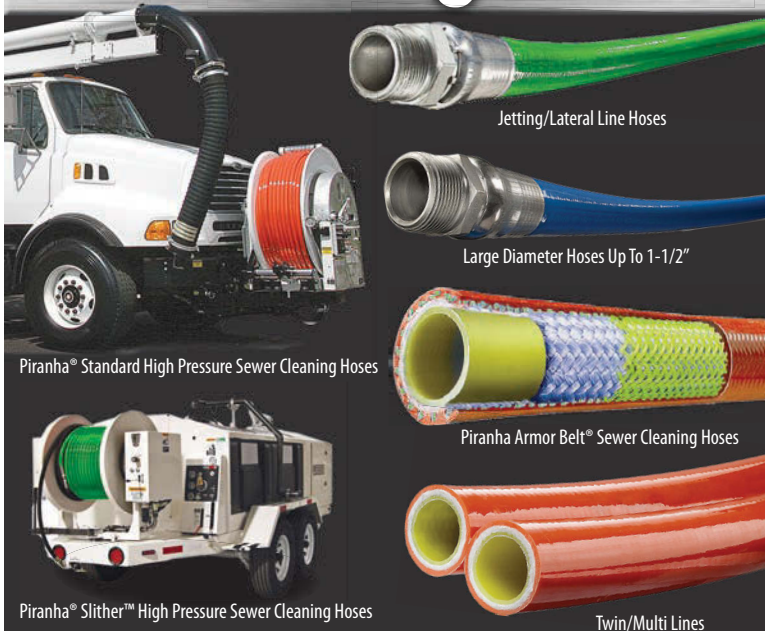
YEAR	CHASSIS	HOURS	MILES	PRICE
2008	Peterbilt PB365, Cat® C9 335 HP SN: 02084878	2,679	22,135	\$205,000
2008	International, 7400 MaxxForce 300 HP SN: 11074794	5,452	20,204	\$200,000
2008	International, 7400 MaxxForce 300 HP SN: 10074760	6,106	12,533	\$195,000

Ring Power  THE RENTAL STORE

Matt Taylor, 850-514-1958
Matthew.L.Taylor@ringpower.com

ALL TRUCKS LOCATED IN FLORIDA

Need Jetting Hoses?



Jetting/Lateral Line Hoses

Large Diameter Hoses Up To 1-1/2"

Piranha® Standard High Pressure Sewer Cleaning Hoses

Piranha Armor Belt® Sewer Cleaning Hoses

Piranha® Slither™ High Pressure Sewer Cleaning Hoses

Twin/Multi Lines

For samples, literature and more information contact us at



Piranha Hose Products, Inc.,
Cadillac, MI
1-800-250-5132
www.piranhahose.com

Working well under pressure!



GET MORE JETTER FOR YOUR DOLLAR!



STB2712H-MAX

Trailer Jets from \$6699.00

- EJT4007H 688 cc Honda 7GPM @ 4000 PSI... \$6699
- STB2712H 688 cc. Honda 12 GPM @ 2700 PSI... \$13849
- SK3012K 29 h.p. Fuel Injected Kawasaki 12 GPM @ 3000 PSI... \$16299
- STB3015V 35 h.p. Briggs Vanguard 15 GPM @ 3000 PSI ... \$19299
- GW4018DT 66 h.p. Kubota Diesel 18 GPM @ 4000 PSI... \$41900

Van and Truck Mounts starting at \$4995.00

www.camspray.com 800-648-5011



predator or prey



WOLVERINE
CUTTING SYSTEM

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

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

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



www.ariesindustries.com | (800) 234-7205

ARIES
INDUSTRIES, INC.

See what you're missing.

Maximum Effort

PIPE BURSTING ENABLES A LOUISIANA CONTRACTOR TO REPLACE A BLOCKED SEWER LATERAL AFTER A FAILED DIRECTIONAL BORING ATTEMPT

BY SCOTTIE DAYTON

For more than 25 years, blockages and backups were a way of life for the owners of a two-story pier-and-beam house in Shreveport, La. In 2011, local service provider Pioneer Comfort Systems began responding to emergencies.

“Service calls took two to three hours because the blockages were so difficult to remove, even when using our RIDGID K-60 cable machine,” says operations manager Michael Smith. “Massive root intrusion in the 4-inch clay tile lateral caused bathroom tissue stoppages. We removed tons of it.”

The lateral ran through a concrete stormwater vault in the neighbor’s driveway, then 15 feet across her yard to an abandoned 12-inch clay sewer discharging to a manhole in the street in front of the property. As the only lateral tied to the capped sewer, and with no flow from upstream to help wash away the client’s solids, blockages occurred when solids built up in the sewer and dammed the lateral.

On Smith’s last service call – only six months after a previous visit – he used a RIDGID SeeSnake to inspect all 230 feet of the clogged line, then cleaned it with a Cam Spray cart-mounted jetter. The amount of the bill, with no guarantee of how long the lateral would remain open, convinced the owners to replace the pipe.

Under the mud and wrapped around the bursting head is a 4-inch cast iron check valve. The TRIC C20 pipe bursting system pulled it through a 4-inch clay tile lateral with a 45-degree elbow and a wye, then 60 feet to the pit.



Matt Holtz and Brian Hester from Pioneer Comfort Systems notice that the bursting head looks a little strange as it emerges through the resistance plate. A 4-inch cast iron check valve is wrapped around the head. (Photos courtesy of Pioneer Comfort Systems)

tough job

PROJECT:	Replace sewer lateral after directional drilling failed
CUSTOMER:	Residential home, Shreveport, La.
CONTRACTOR:	Pioneer Comfort Systems, Shreveport 318/795-8000 www.pioneercomfortsystems.com
EQUIPMENT:	C20 pipe bursting system, TRIC Tools
RESULT:	Lateral replaced

GOOD NEIGHBORS

The home, built more than 50 years ago at the bottom of a hill, has two laterals. One runs from the front of the house and connects with the second lateral from the laundry room and full bath. The pipe passes through the 30-inch-deep vault, then turns 45 degrees shortly before a wye connects it to the sewer. Both fittings are under the neighbor’s flower beds. Developers would never obtain building permits for the site today.

“Our initial plan was to directional drill a replacement lateral from the customer’s backyard, under the square vault with two 36-inch concrete storm drains, and straight out to the manhole,” says Smith. “The boring contractor said the grade was going to be close, but he saw no problems. Boy, was he wrong.”

When Smith's crew excavated beside the manhole, they uncovered a water main crossing the path where the bore bit would enter the structure. Their alternative solution was to excavate upstream from the manhole to expose the old sewer, then bore to it and cap the downstream end of the main. With the city's approval, the team trenched 15 feet back from the manhole following the sewer, then dug the bore pit.

Both sewer excavations were in the neighbor's front yard. At some point, the deteriorating main had created a large void under her house, causing the city to abandon the line and reroute it alongside her driveway. "She understood what our customer was going through and cooperated fully," says Smith. "We are indebted to her."

THREE STRIKES AND OUT

The boring contractor arrived the next morning. On his first attempt, the bit deflected off a 12- to 18-inch-thick concrete mass beneath the vault and dove straight down. The operator changed the machine's location three times to find a route under the obstruction, but there wasn't enough distance for the bit to regain sufficient fall before reaching the exposed sewer.

"We fought the problem for six hours, then the operator packed up and went home," says Smith. "That left pipe bursting and the possibility of destroying the rest of neighbor's front lawn. I talked to her again and she gave us permission to continue."

On the third day, the crew burst the laterals. Smith's major concern was lodging the 6-inch O.D. bursting head in the vault or downstream fittings. To avoid problems in the vault, they cut out the section of lateral running through it, then enlarged the entry and exit holes with a hammer drill.

"The boring contractor said the grade was going to be close, but he saw no problems. Boy, was he wrong."

Michael Smith

Workers dug a 6- by 6- by 5-foot-deep entry pit 6 feet upstream from the vault and enlarged the sewer excavation to create a 6-foot-wide by 8-foot-deep pulling pit. Wishing to use the main as a sleeve for the 4-inch HDPE pipe, Smith set the C₂ pipe bursting system (TRIC Tools) as low as possible, enabling the lateral to rest on the bottom of the pipe. The ram is rated for 8,000 psi or 19.24 tons of pull.



ABOVE: The TRIC C20 pipe bursting system, rated for 8,000 psi, sits at the bottom of the 8-foot-deep pulling pit next to the water main. Operations Manager Michael Smith used a Sharp Shooter drain spade to cut crisp, straight walls against which to position the resistance plate. **RIGHT:** The 4-inch HDPE pipe advances through the enlarged holes in the concrete stormwater vault. Behind the pipe are two 36-inch diameter concrete drains. The original clay tile lateral switched to cast iron at this point.



It took 60 minutes to send the rodder through the lateral and pull back the 3/4-inch swage cable attached to the bursting head, erect shoring and the resistance plate, and set the pulley and ram. Meanwhile, other workers fused two 40-foot sticks of HDPE pipe in the customer's backyard, then snaked it through a gate to the entry pit.

"We painted a green mark on the HDPE pipe to indicate when the bursting head had passed through the wye," says Smith. "Once the mark disappeared into the pit, we knew we'd be home free."

HITCHIN' A RIDE

The first pull was 80 feet from the entry pit to the pulling pit. Smith stationed himself at the stormwater vault to make sure the head passed through it uneventfully, then he controlled the ram and monitored the hydraulic pressure. Pressures for a normal pipe burst on this machine run 2,000 to 3,000 psi (5 to 7 tons of pulling force), and sometimes reach 3,500 psi (8.5 tons of pull). They will hit 6,000 psi (14 to 15 tons of pull) when going through a 45-degree elbow.

Rely on Reelcraft



Photo courtesy of Vactor, a subsidiary of Federal Signal Corporation

Special paint colors and finishes ▶



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



Reelcraft's Capabilities

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

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

▶ Turn-key systems



Multiple spools ▶



www.reelcraft.com | 800-444-3134



The 6- by 6- by 5-foot-deep entry pit was 6 feet upstream from the square stormwater vault with two 36-inch concrete drains.

As soon as the head entered the vault's downstream side, the pressure jumped to 6,500 psi, then hovered between 6,800 to 7,200 psi (17 tons of pull) for 30 minutes. Twice, the needle hit 7,800 psi (19 tons of pull). "I was a nervous wreck," says Smith. "We'd never pushed the machine that hard before and had no idea how the equipment would react." Once the head entered the sewer, the pressure returned to 3,500 psi.

When workers extracted the head, they found a 4-inch cast-iron check valve wrapped around it. "We were amazed," says Smith. "The ram had pulled that valve 20 feet through the lateral, then through the two fittings and 60 feet to the exit pit."

"I was a nervous wreck. We'd never pushed the machine that hard before and had no idea how the equipment would react."

Michael Smith

While two laborers moved the ram to a hand-dug 4- by 4- by 2.5-foot-deep pit in the customer's backyard, another person butt-fused a 20-foot stick of HDPE pipe to connect the new lateral to the manhole, then sealed the sewer opening.

BUBBLE TROUBLE

The second pull, 130 feet from the entry pit to the backyard, replaced the house lateral. It was uneventful. The crew backfilled on the fourth day and spent a few hours laying sod on the fifth. When Smith returned a few days later to check on the sod, the customer's wife ran out to meet him.

"On a service call, I'd noticed water and soap suds around the floor drain in the laundry room," says Smith. "The owner assured me the drain had always worked that way. His wife was as excited as she could be because the wash water was no longer bubbling out." c

Trenchless Solutions and B&S Equipment...

...A Team for ALL Your Lining Needs

Material Sales:

- Lateral Lining
- Sectional Lining
- Main Lining

Technical Training



**TRENCHLESS
SOLUTIONS**
INNOVATORS IN NO-DIG TECHNOLOGY



Main Lining Equipment:

- Custom Boiler Trucks/Trailers
- Air Inversion Systems

System Rental w/ Refrigerated Delivery

Field Proven Equipment

Tailored to Meet Your Budget!

AFFORDABLE

RELIABLE

EXPERIENCED

1237 Hayes Blvd, Bristol, PA 19007 1-855-LINE-TSI (546-3874)

www.trenchless-inc.com

www.bsequip.com



T&T Tools, Inc.

Fax: 800.521.3260
Email: sales@tandttools.com

800.521.6893
www.MightyProbe.com



Call for a FREE Catalog

Call for a FREE Catalog

HOOKS...

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

PROBES...

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

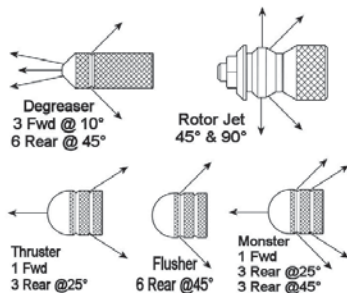


CUSTOM DRILLED NOZZLES

SEWER SQUAD PREMIUM KIT™

A Value Priced Nozzle Kit

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



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

*Compared to individual prices

• Each nozzle is made with heat treated 416 stainless steel for superior corrosion and wear resistance, and rated up to 10,000 psi.

• Most orders shipped within one business day.

• 100% satisfaction guarantee.

CALL TOLL FREE: 877-457-2782

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

Flexible and Affordable Financing Options



Financing for New and Used Equipment

Trucks • Tanks • Trailers • Toilets • Cameras • Jetters
Computer Hardware & Software



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

Call Michael DeGroat (ext 12)

Commercial Equipment Financing Call 800-422-1844

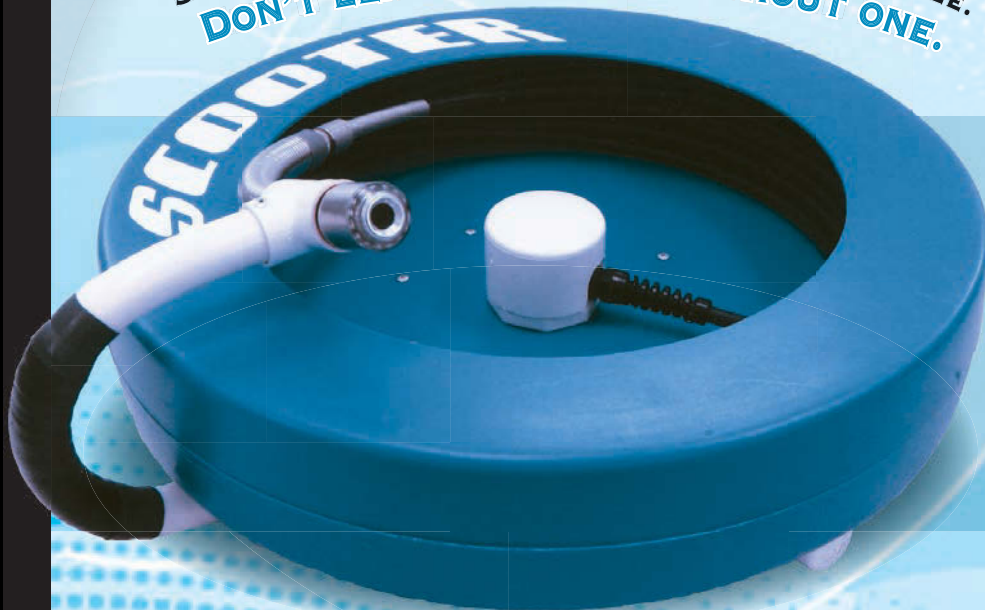
SCOOTER

VIDEO
INSPECTION SYSTEMS

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

"Simplify your life!"

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



**Tired Of Squinting
At A Tiny Monitor?**

Get An
Attaché
With A

15" LED
Hi-Def
Monitor

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!



**SPECIAL
PACKAGE**

Scooter 200

Color, Attaché DVD, Locator Transmitter, Voice Over

Complete Package \$4,995

Call for SPECIAL PRICING on
ATTACHÉ II & III

800.772.6165
www.tvinspection.com



Tackling Tight Spaces

CRAP SHOOTER PROVIDES INSTANT NAME RECOGNITION AND COMPACT, POWERFUL PERFORMANCE

BY CRAIG MANDLI

Jason Coleman believes name recognition leads to sales. So when the sewer and pipe cleaning industry veteran chose a name for his new suitcase-style jetter, he went humorous, calling it the Crap Shooter. “It definitely sticks in your mind,” says Coleman, the founder of BullFrog Industries in Aurora, Colo.

“Let’s face it, this is an industry that is pretty easy to poke fun at. We’ve developed a product that we’re very serious about, but having a lot of fun with, too,” he says. “Honestly, the name was more a working title during the beta testing phase last year, and it just kind of stuck.”

Coleman says he had many offers to purchase his prototype model on display at the 2013 Pumper & Cleaner Expo in Indianapolis, and the company took several orders. Coleman also signed deals with several distributors during his time at the Expo.

“The Crap Shooter definitely had the reaction we were hoping for, and more,” says Coleman. “We figured that the Expo would be the right choice to really roll things out. A lot of the people we spoke with were excited to hear about the product, and I’m always excited to talk about it.”

“I think people assume that because it weighs so little, it’s going to be cheaply constructed. That’s not the case at all. This jetter is designed to stand up to the rigors of the job, and make life easier for sewer and drain cleaners that need to get into tight spaces.”

Jason Coleman

The diminutive 1,500 psi jetter can be powered using a common 15-amp circuit, meaning contractors are not spending time searching for a high-amp power source. Coleman says the device’s convenient features and notable moniker kept Expo attendees flocking to BullFrog’s booth.

“I think a lot of people are surprised that we can offer this kind of performance out of something so light and easy to handle,” says Coleman. “We designed it to fill a gaping hole in the industry.”

Coleman says he went to work designing the Crap Shooter after working with other portable jetters in his family sewer and drain cleaning business. “We have worked with so many different jetters that we found were heavy and bulky, or never quite worked how we needed them to,” he says. “We took more than 30 years in the family business into account, and this was the result. We couldn’t be more excited.”

The jetter features a 50-foot high-pressure hose with quick connect, and two heavy-duty nozzles (named the Flusher and the Thruster) that enhance



Jason Coleman, right, owner and founder of BullFrog Industries and inventor of the Crap Shooter portable jetter, shows it off to a couple of attendees at the 2013 Expo.

the performance of the unit. The unit is designed to clear up to 4-inch pipes and comes with two faucet adapters for versatility in many applications. Components and hoses can handle water up to 120 degrees. The unit is packed in a heavy-duty case with a carry handle, with a total weight of 21.4 pounds.

“I think people assume that because it weighs so little, it’s going to be cheaply constructed,” says Coleman. “That’s not the case at all. This jetter is designed to stand up to the rigors of the job, and make life easier for sewer and drain cleaners that need to get into tight spaces. We haven’t encountered a small-diameter pipe cleaning job yet that we haven’t been able to tackle with it.”

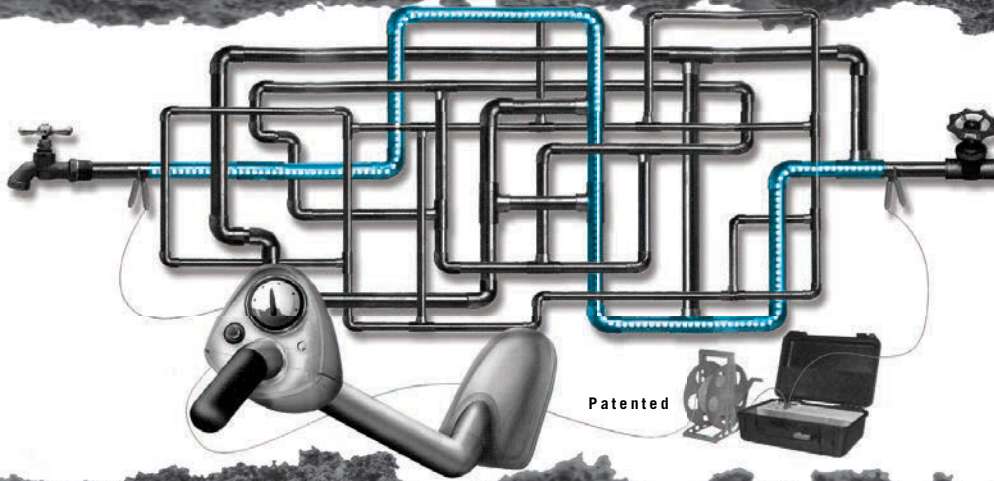
Coleman says the BullFrog crew is already planning to make a big splash at the 2014 Expo – with a 3,000 psi electric jetter they’ve named the Crap Shooter II. “We’ll definitely be back in Indy in 2014,” says Coleman. “We had a lot of fun at the 2013 show.” 303/338-0805; www.bullfrogind.com. **c**



PUMPER & CLEANER ENVIRONMENTAL EXPO

EDUCATION DAY: FEB. 24, 2014 EXHIBITS OPEN: FEB 25-27, 2014
INDIANA CONVENTION CENTER - INDIANAPOLIS | PUMPERSHOW.COM

Pulsar 2000 Line Tracer



**Locate Lines
Locate Water Leaks
Training Video**

It's a jumble out there.

www.Pulsar2000.com
DISTRIBUTORS WANTED



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

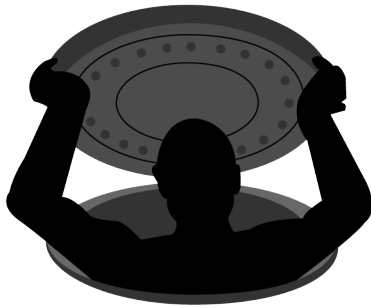
Leak detection personnel... The Pulsar 2000 is a must have locator. Now you can quickly identify the pipe location, thereby reducing the search area of the leak.

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

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

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

JETTER DEPOT

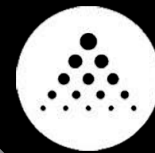


SUPPLYING THE MEN DOWN UNDER

Fair Prices • Quality Service • Guaranteed
Nozzles - Hoses - Parts - Jetters - Cameras

www.jetterdepot.com • 678 431 8136

Men In Manhole T-shirts Now Available!!



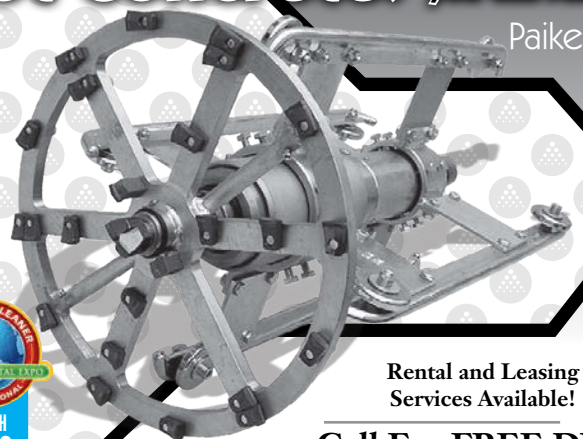
NozzTeq®

Taking Science to the Sewer!®

Equipment Engineered for Long Lasting Performance™

Got Concrete! Why buy when you can rent!

Paikert™



Rental and Leasing
Services Available!

Call For FREE DVD



www.nozzteq.com

Phone: **1.866.620.5915**

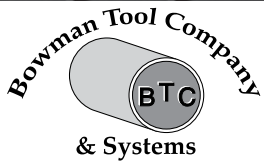
Fax: **603.413.6744**

1-800-763-0700



AVAILABLE NOW

IN-STOCK TRUCKS. VIEW ONLINE INVENTORY HACKNEYSERVICE.COM



**HOME OF THE
DOMINATOR® CUTTER**



**Dominator®
Cutters**

- » Generation II Infinite Controls
- » Streamlined Air Motors Ranging from .7 HP- 2.5 HP
- » Air & Drive Motor Rebuilds
- » Classic 615 & Jumbo 1236 Repair Parts & Service
- » Free Training at Our Facility on Our Products

BTCS MAGNUM DRIVE MOTORS
For Dominator® 4-30 Cutters



Patent Pending

Designed for Superior Life & Performance.

LEADERS IN CUTTING TECHNOLOGY

717-432-1403 • www.bowmantool.com • bowmantoolco@earthlink.net

REPRINTS

Featured In An Article?

We provide reprint options



POSTERS
Starting At
\$35

Sizes: 24" x 30" & 36" x 45"



**LASER
REPRINTS**
Starting At
\$10

**ELECTRONIC
REPRINTS**
Starting At
\$25





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



ClogChopper™



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

CALL FOR PRICING!

WAREHOUSE LIQUIDATION SALE

- Used Camera Kits Starting As Low As **\$500**
- G-I Reels
- G-I Monitor/VCR Combo Packages
- G-II Reels
- G-II Monitor/VCR Combo Packages
- G-II Locators
- G-III Reels
- G-III Monitor/VCR Combo Packages
- DVD Upgrades Available For Additional Charge
- J- 3055 Jetter Demo Models
- J- 3080 Jetter Demo Models
- J- 2000 (One Available, NEW In Box)

EVERYTHING MUST GO!
No Reasonable Offer Will Be Refused



General J-2900
Basic Unit Machine Only

\$2745
FREE DELIVERY



General J-1450
Portable Jetter
Basic Unit Machine Only

\$1540
FREE DELIVERY



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

\$580
FREE DELIVERY



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

\$1160
FREE DELIVERY

Paying it Forward

FOLLOWING A STRATEGY FOR SAVING WILL MAKE YOUR NEXT BIG EQUIPMENT PURCHASE MUCH EASIER

BY ERIK GUNN



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

How did you pay for the last big piece of equipment you bought? And how would you want to pay for the next one?

You may think that for big-ticket items – a new truck or some other piece of machinery, say – it’s inevitable that you’ll have to get financing. And it’s true there is an advantage for many businesses to stretch payments over time.

But that’s not the only way to go. When it comes to acquiring major pieces of new equipment, you have three alternatives.

Financing is, of course, one of them: After a down payment, you take out a loan for the balance of the cost of your purchase and pay it out over time, with interest, typically with monthly payments.

Another is leasing: You may have a large up-front payment – depending on the terms of your specific deal. In either case, you then have monthly payments, as with a loan. The difference is that after a fixed amount of time you can walk away from the transaction or buy the product at a price usually set in advance.

Even the most profitable small business is unlikely to be able to just peel off tens of thousands of dollars or more on the spur of the moment to replace a machine that broke down unexpectedly.

But some business owners opt for a third way: cash. You do that for small purchases all the time. And with careful planning you can even use it for high-priced items.

BALANCING YOUR INTERESTS

Which alternative will serve you and your business best can depend on a lot of factors – not just the obvious ones.

If the equipment is expensive and your need is genuinely urgent, financing may be your only option. Even the most profitable small business is unlikely to be able to just peel off tens of thousands of dollars or more on the spur of the moment to replace a machine that broke down unexpectedly.

And if you have another reason to want to hang on to cash – to cover expenses and payroll during a predictable, upcoming seasonal slump, for instance – you have another incentive to borrow for a major purchase.

Leasing offers some of the same benefits as borrowing, but it also has a downside. While a lease often has a lower up-front cost, it’s likely to be more expensive overall than a simple loan, especially if you want to keep the product when the lease expires.

Leasing has some other distinct advantages, though. The main one is that it can help you guard against obsolescence.

If the product you need is expensive and is also one frequently upgraded thanks to rapid technological advances, you might think twice about owning it outright. By leasing, you could simply upgrade to the newest model every few years.

CASH ON THE BARREL

Some business owners, though, prefer to keep finance debt to a minimum. And the best way to do that is to pay cash when you buy something new.

Even if you do finance or lease equipment, you still need to be saving for the down payment or other up-front costs, as well as the buyout cost in the case of a leased product that you choose to buy at the end of the lease term – just as people hoping to buy a house someday save for the down payment, even if they know they’ll have to take out a mortgage.

Households save for the future in other ways – and more should, as personal finance experts will no doubt attest.

But so do municipalities. Equipment replacement funds are common on the line-item budgets of many units of government. They are sometimes required by law. In Wisconsin, the state Department of Natural Resources oversees local municipal sewer collection and treatment agencies and issues the permits required for operation. One condition of those permits is for the municipality “to properly operate and maintain the facilities, including maintaining adequate funding.”

For municipalities that receive loans from the state Clean Water Fund Program to help cover the costs of treatment facilities, an equipment replacement fund – or ERF – is also a requirement. The DNR rule specifies that the fund is to be used “only for expenses incurred for equipment related to the municipality’s wastewater treatment works or urban runoff treatment works” – including both the cost of the equipment as well as the costs of installing it.

The rule further specifies how much the community must set aside based on the cost of the equipment that it covers. For communities with \$1 million or less in the assets covered by the rule, the equipment replacement fund balance must be at least 50 percent of that value. As the amount increases, the required percentage falls; communities with more than \$30 million in relevant assets must keep 5 percent of that value in their ERF. As you can easily see, that indicates those higher-priced items are probably still going to be purchased through a loan, but the regulation is aimed at making sure the agency has enough for a down payment.

MAKE IT A HABIT

Private business owners aren’t governed by that sort of regulation, of course. But that doesn’t keep you from abiding by its spirit.

WATERJET PROTECTION

PROTECTIVE CLOTHING - WITH THE STRONGEST FIBER IN THE WORLD!



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

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

+ PROTECTION UP TO 43500 PSI

+ CE CERTIFIED
 VERIFIED PROTECTION

+ FAST AND EASY GEAR UP
 TO MAXIMIZE PRODUCTIVITY!

+ RESISTS WATER AND DIRT
 KEEPS OPERATORS
 DRY AND LIGHT!



UNIQUE PROTECTION EQUIPMENT

For US distributors and e-catalogues, please visit:

WWW.TST-SWEDEN.COM

That takes planning and discipline, although there's no great mystery to it. We're simply talking about setting aside cash consistently, in a fund or account designated for that purpose, instead of spending all your profits or distributing it to the owners.

You can do that any way that works for you. One simple approach is, with every price you set for a service, simply build in a fixed percentage to cover future maintenance and replacement of your assets. When you get paid, put that particular sum aside into your designated fund.

If you wanted, you could tie the size of that added factor directly to the kind of job and thus the nature of the equipment that you use, but that's a lot of work and isn't really necessary. Picking an appropriate flat percentage for everything is going to be easier.

Your tax advisor or accountant will be able to help you figure out just how much – and also how to make sure that it gets properly accounted for so that it's not treated as taxable profit when it hasn't been distributed.

Just like a municipal sewer utility, your business depends on quality equipment to do the job efficiently and deliver value to your customers.

Making sure you can adequately maintain your equipment and replace it when the time comes ensures you live up to that standard. c

This Is The Nozzle You've Been Waiting For

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

1/2"



7-35 gpm/1500-10,000 psi

3/8"



3-10 gpm/2000-7500 psi

3/4-1"



40-160 gpm/1500-4000 psi

Custom Built Jetters



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

Root Rat Combo Kit



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

MADE IN THE USA

WE SELL AND SERVICE COLD WATER JETTERS

We SELL PARTS, PUMPS, UNLOADERS, HOSES, JET TIPS, ETC.

CHEMPURE PRODUCTS CORP.

1-800-288-7873 • 330.874.4300

Visa, Mastercard, Discover, AmEx Accepted

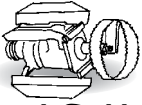
www.chempure.com

CHECK OUT **NEW** ONLINE EXCLUSIVES AND MORE AT **WWW.CLEANER.COM**



Pipeline Cleaning & Maintenance Equipment

for **JETTERS & JET VACS**



Root Cutter Assemblies

Skid Mounted

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

Donut Mounted

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

Lateral Mounted

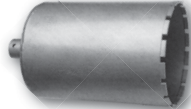
- w/flat blades..... \$1020.00
- w/concave blades..... \$1075.00

Assemblies come with one ea. of 6, 8, 10 and 12" blades, saw blades, hub, skids, etc.



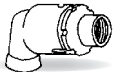
Saw Blades

4" - 18"
Flat - Concave - Spiral
"Carbide Tipped Flat Blades"



"Diamond" Tap Cutters

- 6" to 18"
- DCD6 6"..... \$1200.00
 - DCD8 8"..... \$1500.00
 - DCD10 10"..... \$1975.00
 - DCD12 12"..... \$2500.00
 - DCD15 15"..... \$3200.00
 - DCD18 18"..... Special Order

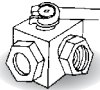


Swivel Joints

T-M Style

90° or Straight, 6000 psi

- 3/4" & 1"..... \$198.00
- 1-1/4"..... \$210.00
- 1-1/2"..... \$560.00
- 2"..... \$802.00



Hycon® Valves

2 & 3-way Ball Valves

- | | |
|----------------------------|----------------------------|
| 5000 psi | 4500 psi |
| 1/2" 2-way..... \$65.00 | 3/8" 3-way..... \$115.00 |
| 3/4" 2-way..... \$89.00 | 1/2" 3-way..... \$160.00 |
| 1" 2-way..... \$119.00 | 3/4" 3-way..... \$180.00 |
| 1-1/4" 2-way..... \$226.00 | 1" 3-way..... \$190.00 |
| | 1-1/4" 3-way..... \$440.00 |

Piranha - Parker - Aeroquip

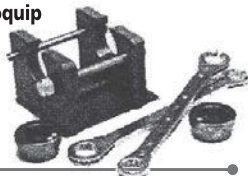
Jetter Hose - 1/8" - 1-1/4"
Call for Current Price

Hose Mending/Swaging Machines

Piranha™ - Parker Predator™ - Aeroquip

Hydraulic Jack Style or Mechanical
Price includes 2 Sets/Dies & Pusher
1/2" - 3/4" - 1" - 1-1/4"

- Hydraulic..... \$1300.00
- Mechanical..... \$798.00



Full Line of Nozzles

From 1/8" to 1-1/2"



Call for Pricing



Clamps

- Power Clamps**
- 8"..... \$13.00
- 3"-6" available
- King Clamps**
- 8"..... \$29.75
- 4"-6" available
- Bandlock® Clamps**
- 8"..... \$24.00
- 3"-6" available
- Quick Clamps**
- 8"..... \$26.50
- 3"-6" available

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



Cloverleaf
TOOL CO.

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

Full Catalog Online with Prices

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



Every day is Earth Day.™

"We must be one of the earliest plants to employ full-scale UV. We're proud of the fact that we are not adding chemicals to our discharge. We maximize the biological activity — let the microbes do their thing. Engineers design the best plant they know how to, and contractors build it as well as they can. In the end, though, it's the operators who make it work."

Joni Emrick
An Original Environmentalist

WATER RESOURCE MANAGER
Kalispell (Mont.) Wastewater Treatment Plant

Get your **FREE subscription** and read about original environmentalists like Joni each month in *Treatment Plant Operator*.



COLE PUBLISHING INC.
tpomag.com
800-257-7222

Proudly Serving the
Environmental Service Industry
Since 1979

The vCam-5 Camera Systems have all the features that you liked in the previous models, with the addition of some great new features. The vCam-5 components are also backwards compatible with the previous vCamDigital and vCamModular systems.



Control Module

- WiFi and RJ45 computer interfaces
- One touch recording and still images
- Small profile, light weight and durable
- AC/DC powered with Li-ion rechargeable batteries
- Video streaming to Laptops and Smartphone's

Reel Coilers

- Mini and Standard sizes
- 512/640Hz locatable Sonde
- All stainless steel construction
- Heavy duty termination springs
- Narrow profile for easy deployment

Camera Heads

- Ultra bright LED's
- Modular repairable resin
- All stainless steel construction
- Full color auto upright cameras
- Auto iris adjust lighting automatically



Call us for your no obligation on-site demonstration!

Vivax-Metrotech Corporation

3251 Olcott Street, Santa Clara, CA 95054, USA

Toll Free: 800-446-3392

Email: sales@vxmt.com

Fax: +1-408-734-1415

www.vivax-metrotech.com

VSI Rentals, LLC.

51 Stone Road Lindenwold, NJ 08021

888-VAC-UNIT Fax: 856-627-3044



2008 Sterling truck mounted combination vacuum and jetter units
3 Available
Price by Request

**ALL UNITS AVAILABLE FOR
RENT OR PURCHASE
888-VAC-UNIT**



2008 Condor, dual steer truck mounted, large capacity sweeper with dual sweep gear and catch basin cleaner unit
Price by Request



2008 International truck mounted, industrial wet/dry vacuum loaders with 27" Hg blowers
2 Available
Price by Request



2006 GMC (very low mileage) truck mounted high pressure jetter unit with TV inspection and vacuum system
Price by Request

Scan the QR code with your smartphone



Business Diversification - Plumbing BY CRAIG MANDLI

Professional sewer and drain cleaners can diversify and increase profits by adding various plumbing services to their offerings. These products, including cable drain cleaning machines, push TV cameras, portable jettors and truck/trailer jettors, are some of the industry stalwarts that have crossover appeal.



CABLE DRAIN CLEANING MACHINES

1. DRAIN CLEANING MACHINE

The **DM138** drain machine from **Duracable Manufacturing** cleans lines from 1 1/4 to 3 inches. It has a continuously welded frame, heavy-duty front bearing mount and self-aligning head bearing to ensure proper reel placement, quick reel change and extended lifespan of the machine. It is designed for residential sink, shower and bathtub drains, with a heavy-duty, 20-amp switch and revolving arm. Powered by a 1/4 hp motor that operates at 230 rpm, the machine weighs 22.5 pounds with a 7.75-pound, 14-inch reel made of a polyethylene that will not rust or dent and is easily drained with plugs located on the back of the reel. It can be operated upright or horizontally, and has nonmarring rubber pads to protect the floor. The small footprint of this machine makes it easy to transport. **877/244-0556; www.duracable.com.**

2. HEAVY-DUTY DRAIN CLEANING MACHINE

The **Model GO 68HD** heavy-duty electric drain cleaning machine from **Gorlitz Sewer & Drain** is available in two different versions, either with an open steel reel or enclosed polyethylene drum, and can be outfitted with a power feeder. Standard configuration is 150 feet of 11/16-inch hollow-core cable, which should reach most blockages. The overall weight of the machine is 185 pounds. Adding an optional loading ramp and electric winch to any

vehicle makes transportation quick and simple. It is designed to clean pipes from 3 to 8 inches in diameter. **562/944-3060; www.gorlitz.com.**

3. CUTTING PIPE CLEANER

The **Picote Cutter Systems Smart Cutter** distributed by **LMK Technologies** enables the removal of tuberculation and tree roots, and the reestablishing of branch lines in building drains and sewer pipes to be done easily through a single pipe access such as a clean-out. Service lateral pipes can also be reinstated post mainline lining by simply accessing a clean-out for insertion. It is suitable for use in pipe diameters between 1 1/4 and 8 inches. **815/433-1275; www.lmktechnologies.com/picote.**

4. COLD-WEATHER CLEANING PACKAGE

The **Cold Weather/Hot Cleaning Package** from **MyTana Mfg. Company** includes the **Max Blast MY30** gas jetter and the portable **Hot Box** high-pressure hot-water heater. Together, these units deliver 4 1/2 gpm and 3,000 psi with water heated to 180 degrees F. This package includes a washer wand with four different nozzles for cleaning, ramp, tool bucket, antifreeze kit and high-temp hose setup. This combination is ideal for dissolving grease in food applications, melting iced-up septic tanks and frozen lines in cold climates, and works when cleaning equipment, siding, parking lots and more. **800/328-8170; www.mytana.com.**



5. FLEXIBLE DRAIN CLEANER

The **Flexi-Cleaner** from **Southland Tool Mfg.** comes equipped with a Briggs and Stratton or Honda engine and features a steel frame and four wheels for easy tracking (pneumatic tires are available). It comes with instant reverse transmission and an automatic chuck to grip cable. Its close-coiled, left-hand-wound rods are 1-inch diameter and 25 feet long. They are easily coupled together for cleaning runs up to 600 feet. Once the rod and tool are started in the drain, the unit is wheeled forward or pulled back, which pushes or pulls the rod in or out of the line. **714/632-8198; www.southlandtool.com.**

PUSH TV CAMERA SYSTEMS

6. LIGHTWEIGHT PUSH CAMERA SYSTEM

The **SEEKER** system from **Aries Industries** is a user-friendly, contractor-grade examination tool for pipes from 3 to 24 inches and for distances up to 300 feet. It can be operated as a stand-alone system or in conjunction with a CCTV truck to record all of the video to a PC or laptop. When used as a stand-alone unit, it is a self-contained system with no external wiring. Weighing as little as 40 pounds, it is easily transported to any job site and comes standard with a built-in 512 Hz transmitting beacon and bright 6.4-inch LCD screen. It offers either a self-leveling camera with either a ball skid or a roller skid, or a self-cleaning pan and tilt camera with wireless control. Options include digital video recording, on-screen footage, wireless video transmission up to 300 feet away, rechargeable battery, PAL video and live-line tracing. **800/234-7205; www.ariesindustries.com.**

7. PORTABLE LATERAL AND MINI-MAINLINE PUSH SYSTEM

The **MPlus+** portable lateral and mini-mainline push camera system from **CUES** enables easy operation with an all-in-one setup, and flexibility by facilitating quick removal of the control unit to be used separately for off-road or remote job sites or to accommodate compact storage. It features video titling, video observation coding, digital recording and portability in an easy-to-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.**

8. PIPE INSPECTION CAMERA

The **EasyCAM E3200** was designed from a plumber and drain cleaner's perspective, using easily replaceable modular components. When repairs are needed the owner can easily do them, as no special tools are needed. It includes a lightweight titanium color camera head for further distance, 200 feet of HYTREL abrasion-resistant pushrod with molded waterproof connectors, 512 Hz transmitter, onboard 8-inch daylight readable monitor, powder-coated aircraft aluminum frame, RCA video jack for laptop or DVR use, safe 12-volt operation, heavy-duty wheels and a two-year warranty. **239/260-2056; www.easycamllc.com.**

9. PIPELINE INSPECTION CAMERA SYSTEM

The **ACE2** from **Electric Eel Mfg.** features one-touch USB recording, an on-screen footage counter and a wheel kit for easy transport and maneuverability. It has a rugged stainless steel-housed 1.68-inch-diameter color camera with sapphire lens, 20 LED light ring and high resolution CCD element (optional self-leveling color camera available), 200 feet of Kevlar braided 1/2-inch-diameter pushrod, a 512 Hz sonde, 5.4-inch LCD monitor with AR Film for optimal viewing in sunlight encased in an anodized aluminum housing mounted to the reel, a protective acrylic anti-glare monitor shield, a video output jack for recording option, flexible camera spring to navigate 3-inch P-traps, a portable powder-coated steel frame, a secure-locking reel brake and a centering skid. **800/833-1212; www.electriceel.com.**

10. PAN/TILT PUSH CAMERA

The camera head of the **VeriSight Pro 360** from **Envirosight** remotely pans and tilts to give an operator optimal maneuverability when inspecting drainlines. A joystick on the control unit rotates the camera continuously and tilts it 135 degrees. Versions are available with 130, 200 and 330 feet of push cable. Its digital interface displays real-time inspection footage on an 8-inch LCD, records up to 90 hours of inspection video to internal memory and allows an operator to enter observation data for upload to WinCan. A customizable interface lets operators zoom in on live or recorded video, capture still images, configure the 16-page text writer, browse thumbnail galleries and select among several available languages. An integral tri-band



sonde transmits at 33 kHz, 512 Hz or 640 Hz. The system runs off mains or vehicle power, or an internal rechargeable battery. **866/936-8476; www.envirosight.com.**

11. MULTIFUNCTION SEWER/DRAIN CAMERA

The **FB-PIC4188H** portable multifunction sewer/drain camera from **Forbest Products** features a 130-foot cable with reel, a 10-inch LCD color monitor with DVR and microphone, a stainless steel color camera head with built-in 512 Hz sonde transmitter and a heavy-duty waterproof case. It has video and snapshot recording capability via SD card or USB flash drive. The 13-inch cable reel features a footage counter. **650/757-4786; www.forbestusa.net.**

12. COMPACT VIDEO INSPECTION SYSTEM

The lightweight **Gen-Eye POD** from **General Pipe Cleaners** combines camera, reel and monitor in a lightweight package. It features a 5.6-inch LCD color monitor protected by a padded case, and is mounted on a rugged, flexible gooseneck that swivels to provide multiple viewing angles. It comes standard with a self-leveling camera and 200 feet of Gel-Rod for troubleshooting 3- to 10-inch drainlines. A video-out connection allows for recording to an external device. It features a picture inverter, both AC and DC power cords, LED dimmer control, 3-inch trap skid and a 512 Hz transmitter. **800/245-6200; www.drainbrain.com.**

13. COMMAND MODULE

The **Magnum DVR** command module from **Hathorn Corporation** features 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 features a full-size keyboard, 16 pages of text writing, 512 Hz sonde, onscreen footage counter, 8X zoom, microphone, speaker and two-hour built-in battery with smart charger. Several different reel options are available, along with three different camera head sizes. **905/886-2835; www.hathorncorp.com.**

14. PUSHROD/CRAWLER COMBINATION CAMERA

The **P350 flexitrax** from **Pearpoint/SPX** offers the simplicity and transportability of a pushrod system with the functionality and performance of a crawler system. Its modular structure allows all its main components to be fully interchangeable. Available modules include a manual or powered drum, three interchangeable cameras, a wide range of wheels and tires and multiple cable lengths and crawler sizes. The command module is also fully compatible with the P340 flexiprobe. A built-in digital recording and reporting system is standard. It can be van- or truck-mounted. From there it can be wheeled on site using the barrow design, allowing users to reach conduits beyond the range of a vehicle. Once on site, the system is quick and easy to set up, deploy and use. **800/688-8094; www.radiodetection.com.**

15. PORTABLE INSPECTION SYSTEM

The **GatorCam4** inspection system from **Radiodetection Corporation** offers the convenience of a portable system that can be used in most weather conditions. It boasts an onboard lithium-ion battery, and the push-button fuel gauge provides a quick indication of remaining power even when switched off. It can be configured to suit most inspection requirements. A range of pushrods is available, from an extra-flexible 100-foot plumbers reel to navigate the bends and traps found in commercial and residential plumbing, up to the 500-foot extra-stiff rod designed to push for longer distances. **877/247-3797; www.radiodetection.com.**

16. MINI PUSH CAMERA

The **MiniLite** push camera system from **RapidView IBAK North America** is a pipe inspection system that allows users to inspect, record and measure the internal dimensions of smaller pipelines. During normal inspection, users can accurately capture diameter measurements with one touch using the ORION Zoom Camera. The system consists of a cable coiler cartridge, which makes replacement easy, a portable command console and one of several choices of cameras. It includes a high-visibility 10.4-inch monitor and a full QWERTY keyboard. Inspections can be recorded on a built-in MPEG digital video recorder on SD and SDHC memory cards. The system is currently available in 100- and 130-foot lengths. **800/656-4225; www.rapidview.com.**

(continued)

TRANSFER PUMPS



HOSES



VACUUM PUMPS



HIGH PRESSURE PUMPS

**CALL
FOR YOUR
FREE
CATALOG**



VALVES

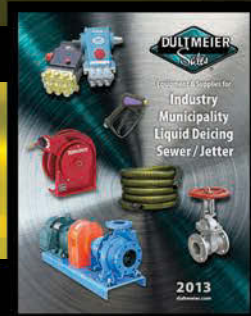
PARTS • SUPPLIES • EQUIPMENT

Call Now or Visit Dultmeier.com

Vacuum Trucks, Sewer Jetter, High Pressure, De-Watering.



1-800-228-9666 (Omaha, NE) 1-800-553-6975 (Davenport, IA)



CIPP

Services, Inc.
La Salle, Illinois



**Complete System
\$ 21,995.00**

Continuous Air Inverter With Adapters For 6" to 18" CIPP Liners; Includes "B" Steam Station.

- Steam & Hot Water Boiler Trucks
- Static Resin Mixers
- Wet-Out Tables
- Improved Cutter Systems
- 53' Reefer - Hydraulic CIPP Liner Unloader Trailers

Phone: 815 - 712 - 8708 Fax: 815 - 220 - 1918
E-Mail: sales@cipp-services.com

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
1.800.541.7015



17. WEB-ENABLED INSPECTION CAMERA

Pipeline inspection cameras from **Rotech Electronics** can record to Apple devices, including iPhones, iPads or iPods, allowing technicians to instantly upload pipe inspection video from the job site to YouTube. Using the integrated cellphone interface and camera, they can give customers immediate information about what is wrong with their sewer or pipes. Packages include quick and easy one-touch recording with no more USB thumb drives, SD cards or DVDs to organize. This low-cost interface is adaptable to any new or existing Rotech system. Also included is an on-screen display overlay system providing electronic distance counter, time and date. The camera has built-in 512 Hz sonde for locating purposes. The standard Gel-Rod cable length supplied is 200 feet, with longer lengths available. **800/461-9200; www.ratech-electronics.com.**

18. PUSH TV CAMERA

The **minCam** push camera system from **Rausch Electronics USA** ships ready to use instantly, as there is no unpacking, no cables to be connected and no monitor to be mounted. The included color camera has auto-upright picture, integrated locator sonde and an application range of 3- to 16-inch-diameter pipe. Each system has 200 feet of standard fiberglass push cable, an integrated lithium-ion battery for up to two hours of operation, on-screen distance counter and an 8.4-inch sunlight-readable monitor. An SD card reader is built into the system to record up to 32 GB of video, images and audio. **717/709-1005; www.rauschusa.com.**

19. DIGITAL RECORDING MONITOR

The **SeeSnake CS6** hand-held digital recording monitor from **RIDGID** is designed for fast and efficient field work, and equipped with SeeSnake HQ software to capture still images and video clips, allowing users to quickly and easily edit, archive and deliver reports directly to customers through USB thumb drives or via print, DVD or Web. Features include a 5.7-inch daylight-readable LCD screen, a water-resistant keypad for direct control of camera and monitor functions, an on-screen keyboard for basic titling and text entry, and an integrated microphone and speakers for adding voiceovers to custom reports. It docks onto the SeeSnake Max rM200 camera system for transportation and storage. **800/769-7743; www.ridgid.com.**

20. REMOTE PUSH CAMERA

The **RiFlexio S** push camera from **Ritec GmbH** can be pushed over deposits or staggered pipe joints, extending pipe inspections further. The camera head is remotely lifted upward and pushed over obstacles, and can turn in pipes 2 inches in diameter, making it ideal for slim work areas. The head can turn 90 degrees inside the pipe without losing its rotational capabilities. **www.ritec-tv.de.**

21. PORTABLE PIPE INSPECTION CAMERA

The **Jet Cam** from **RS Technical Services** is powered by a 12-volt DC battery system and allows the operator to see the condition of 2- to 24-inch-diameter pipes instantly. It is easy to install, and features a motorized cable reel with speed and torque controls, rewind and the choice of 650 feet of steel-armor or plastic-jacketed Kevlar single conductor cable; a control unit with TFT, 10-inch LCD high-resolution display and isolated and regulated power to operate both camera and video equipment; auto-upright, high-resolution color camera in stainless steel casing with wide angle lens, high-intensity LED lights and remote intensity control; and stainless steel skids. Options include recording capability to USB drive and on-screen footage counter display. **800/767-1974; www.rstechserv.com.**

22. MINI-CAMERA INSPECTION SYSTEM

The **ProCam DVR Ultra** from **UEMSI** is a compact and lightweight color mini-camera inspection system. It includes a 10.4-inch color LCD monitor and a built-in DVR that records video files and photos to an SD card. The push reel is made of powder-coated steel for durability. The nylon-jacketed push cable has a water-blocking gel inside to prevent water infiltration. The data display package includes on-screen digital footage and a full-size flexible keyboard. Options include an inline transmitter and rechargeable battery pack. **800/666-0766; www.uemsi.com.**

(continued)

ONE TOOL DOES IT ALL DESTROYS ICE, GREASE, ROOTS, DIRT AND DEBRIS.

RATED TO 5K PSI OR HIGHER



GET THE INDUSTRY'S MOST
POWERFUL & DURABLE TOOLS
1-866-795-1586 • WWW.STONEAGETOOLS.COM



SONDE

- Exceptional penetration with a 25 to 30 foot range
- Length: 3.7"
Diameter: 0.85"
- Available in 512Hz, 640Hz, 8kHz or 33kHz
- Rugged design in an impact resistant compound
- Rounded heads and tails prevent hang-ups
- Operates on 1 AAA
- Made in the U.S.A.
- Low price of \$250.00

RYCOM
instruments, inc.

800-851-7347
www.rycominstruments.com

SAFETY SEWER DRAIN



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



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

Ingalls, Michigan

906.753.4002

www.SafetySewerDrain.com



23



24



25



26



27



28

23. INTERFACE CONTROLLER

The **vCam-5 Live View** interface from **Vivax-Metrotech Corp.** allows technicians to connect to the control module by Wi-Fi or RJ45 Cross Talk Cable. When connected they can stream video, capture JPEG images and record directly to a hard drive or other storage device. In addition they can access the control module's internal hard drive and any USB thumb drive or SD card plugged into the control module. They can see a list of the videos or pictures on the hard drive and play them in the video player or download them. An app that runs on either the iPhone or Android platform allows them to stream video to smartphones and tablets, capture, email or text still images, and record video to the device. Up to five devices can be connected to the control at once. **800/446-3392; www.vivax-metrotech.com.**

24. VISUAL INSPECTION CAMERA

The **VIS 350** visual inspection camera from **Wohler USA** features a home function that helps maintain a sense of orientation when troubleshooting, as the position of the camera head is indicated on a display. Its integrated locator transmitter pinpoints damage and saves time. Its pan-and-tilt camera head can inspect wastewater lines, house connections, flue gas systems, ventilation lines and false ceilings. It comes equipped with two rechargeable batteries, providing greater mobility. It can also take still photos and stream video. **978/750-9876; www.wohlerusa.com.**

25. PORTABLE VIDEO INSPECTION SYSTEM

Portable video camera inspection systems from **Zistos Corporation** are battery operated, and feature interchangeable camera options, including dual view thermal, black and white, a self-illuminated 10:1 color zoom and a variety of other self-illuminated options. Its tripod-mounted display isolates the operator, and telescoping fiberglass extension poles of various lengths are available. Its optional thermal imager sees temperature differences through smoke and in total darkness. It has optional image recording capability for documentation of findings, an ideal option to avoid confined-space entry. **631/434-1370; www.zistos.com.**

PORTABLE JETTERS

26. RUBBER-TRACKED POWER CARRIER

The **Easement Machine** from **K&W Products** is a heavy-duty, all-terrain, rubber-tracked power carrier used in conjunction with a high-pressure hydraulic sewer cleaner. Self-propelled, hydraulic steering allows it to travel easily in all directions, and maneuver with a zero-turn radius at various speeds. With approximately 3 1/2 psi ground pressure, the track system enables operation in soft ground areas that are usually inaccessible. Its narrow design allows easy access through a standard 48-inch gate. The standard variable-speed reel is 600 feet of high pressure, 2,500 psi 1-inch hose controlled by a hydraulic motor, with a reel guide foot counter to assist in rolling the hose. Other features include a 27 hp super-duty Kohler engine with twin cylinders, overhead valve, oil alert and an oil cooler. **800/503-0076; www.easementmachine.com.**

27. PORTABLE ELECTRIC CART JETTER

The **SJPE-1500** from **Shark Pressure Washers & Jetters** is rated at 1.7 gpm at 1,500 psi, operating on 115-volt electricity. It comes standard with a 35-foot power cord with GFCI, and features a slide-in handle to help accommodate loading and unloading into any van, truck or car, and also allows for convenient customer transport around work sites. Its Pulse Technology helps propel the hose through the line and around tight curves to break through stubborn clogs. Designed for indoor use on 2- to 4-inch pipes, it comes standard with a roll cage steel chassis, triplex pump and heavy-duty Baldor motor. It fits into tight workspaces and allows for easy one-person operation. It is ETL certified to UL-1776 safety standards. **800/771-1881; www.sharkpw.com.**

28. PORTABLE CARTED JETTER

Portable water jetter systems from **Water Cannon** feature a Honda GX 390 engine, flow rates of up to 4 gpm, pressure up to 4,200 psi and a 200-foot jetter hose. The upgraded version includes a jetter that features 4.8 gpm, 3,200 psi and a 300-foot jetter hose for added reach and power. Both versions have stable tilt-back portable frames with roll cages, plus a pulsation valve for

(continued)

**YOUR SOURCE FOR
RIDGID**

CENTRAL OKLAHOMA
Winnelson
COMPANY

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

BUYING A SEESNAKE?

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

**WE
WILL NOT BE
UNDERSOLD**

- Call Us Evenings and Weekends -

Keith: 405-602-9155 &

Jim: 405-205-3974



micro CA-100
Inspection Camera



CS10
Digital
Recording
Monitor
with Flash Drive



LT1000 Laptop
Interface System



microDrain Reel



DVDPak



SeeSnake® MAX rM200
Camera System

CALL TOLL FREE: 888-947-8761

5037 NW 10th
Oklahoma City, OK 73127

www.centralwinnelson.com

CIPP Technology and Equipment LLC



- Leasing Options Available
- Steam Trucks Built To Order

Our Steam Systems Reduce Overhead by 50%, and Cuts Curing time by 75%

- >Your Premier Industrial Source for Pipe Lining Equipment
- >Specific to the Cured In-Place Pipe Lining Industry
 - >Your Steam System Specialist
 - >Custom Manufactured Equipment

1.574.259.0903 ■ cipptechnologyandequipment.com



"water as a tool"

WOMA
CORPORATION

WOMA High Pressure Systems

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

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

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

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



instant pulsation on demand to quickly loosen and flush blockages. They also come with a ball valve, high-capacity Hosetract hose reel and four nozzles. 800/333-9274; www.watercannon.com.

clean up to 24-inch lines. Features include DC- or hydraulic-powered reels, 325-gallon water tank, low water shut-off, power pulse, powder-coated heavy frame and foot control of the reel. 800/648-5011; www.camspray.com.

TRUCK/TRAILER JETTERS

29. JETTER/PRESSURE WASHER COMBO UNIT

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

30. COMPACT TRAILER JETTER

The compact **55 Series** (formerly Mini Series) trailer jetter from **American Jetter** has been redesigned with a 150-gallon tank, larger wheels and a removable trailer tongue for easy storage. User-friendly controls allow for easy operator learning curves. It's powered by gas or propane Kohler engines with up to 40 hp, flow ranges from 4 to 11 gpm and pressure to 4,000 psi. The powered reel holds up to 500 feet of 3/8- or 1/2-inch jetting hose with forward and reverse reel function and manual pullout. Options include an anti-freeze system for cold climates and wireless remote for one-man operation. Low oil and water shut-off prevent engine and pump damage. 866/944-3569; www.americanjetter.com.

31. TRUCK-MOUNTED JETTER

The **TM Series** of truck-mounted drain and sewer jettors from **Cam Spray** is built on a heavy steel platform that can be forklifted into place and secured to the bed of a trailer or truck body. They are designed for cleaning up to 10-inch-diameter drainlines, with available custom packages that will

32. HIGH-PERFORMANCE JETTER

The **Sewer Duck** from **GPM Pump and Truck Parts & Service** is a high-performance jetter available in 1,000- and 3,000-gallon capacities. It comes standard with a Perkins engine, with Cummins and CNG engine options available. The engine and pump enclosure comes with an aluminum roll-up door for access. The jetter is easily transferable from one chassis to another. A tandem axle chassis is available on 3,000-gallon units, with an optional cold-weather package. The rear engine keeps the unit self-contained, separating the chassis from the jetter to reduce fuel costs. The hydraulically operated rotating hose reel has a mounted throttle control and 700-foot hose. 630/543-7373; www.gmpumpandtruck.com.

33. VAN JETTER

The **Van Pack** water jetter from **Harben** allows operators to put a full-size jetter into an enclosed and heated van. Users can mount a 4,000 psi, 18 gpm unit in a powder-coated, lightweight folded steel skid/frame measuring 75 by 53 by 61 inches. It has a dry weight of 1,600 pounds. The system comes standard with the company's P Pump; a 108-gallon water tank (additional tanks available based on van payload); a 48 hp Kubota water-cooled diesel engine; 500-foot-capacity hydraulic hose reel; and a hinged, telescoping, manual garden hose reel. Options include a jump jet pulsation system, antifreeze system, MK II dump washdown gun, 1/4-inch mini-jet kit, strobe, manhole and workstation lights, and a range of nozzles. It will allow cleaning of 2- to 8-inch drains. 800/327-5387; www.harben.com.

34. JETTER/POWER WASHER

The **Hot Jet II** from **Hot Jet USA** features a V-twin Vanguard motor manufactured by a division of Toyota. The pump is a premium General Emperor Series that is triple V-belt driven. It generates a minimum of 8.5 gpm at 3,600 psi with either hot or cold water, and has a remote control system.

(continued)

KEN-WAY Beats the Others DAY-IN • DAY-OUT

And they have for over 50 years

KEN-WAY CABLE CLEANERS

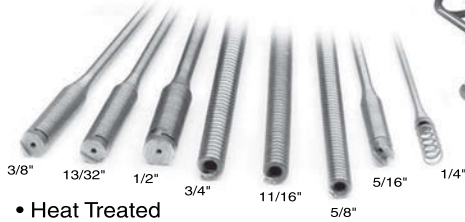
for cleaning sewer, drain or process lines
from one to ten inches, up to 75 feet
with the Junior and up to
a full length of 300 feet
with the Model 400



Junior

Model
400

KEN-WAY Exclusive Built Cables



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



Leasing plans available. Call for details.

1-800-533-0551

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

Get Plugged In

AFTERMARKET CONNECTORS • CABLES



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

REASONABLE PRICES

Seacon/
Turck



OceanQuip LLC
ORCA TOUGH CABLES

504 738 7833 p/f • jfowler307@aol.com

www.OceanquipLLC.com

LAPLACE EQUIPMENT

RENTALS, SALES & SERVICE

- **WATERBLASTERS:**
PRESSURE TO 40K,
FLOW TO 100 GPM
- WATER JETTING TOOLS
- HYDRO-MOWERS
- 3D NOZZLES
- ROTATING NOZZLES
- HIGH PRESSURE HOSES
- LANCES
- FITTINGS
- TIPS
- SUPPLIES
- EXPERIENCED TEAM
FOR PLANNING,
TRAINING & SETUP

CALL
985.652.5210
FOR YOUR
WATERBLAST
PROJECT
SOLUTIONS
WWW.H2OBLAST.COM

RHINO



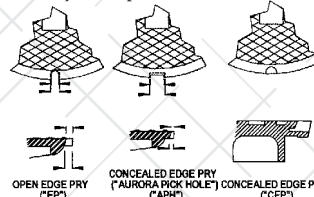
"JAKE"

Manhole Cover Extractor

"MARY A"

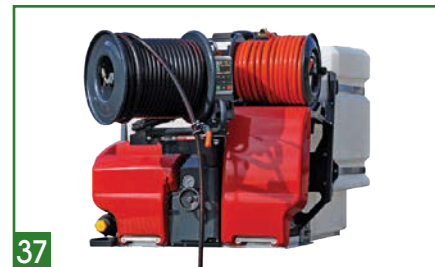
Manhole Cover Extractor

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



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

Web site: www.dougmeadows.com



It is mounted on a 5- by 12-foot diamond-plate steel deck trailer that has tandem axles and dual electric brakes for safety. The hot water deep cleans and emulsifies fats, oils and greases. The unit also can serve as an industrial-grade hot-water power washer. **800/213-3272; www.hotjetusa.com.**

35. COMPACT WATERBLASTING SYSTEM

The **IX100 Series** compact waterblasting system from **Jetstream of Houston** features a UNx fluid system designed for fast conversion between 8,000 and 40,000 psi operating pressures. Additional features include an external gear drive, comprehensive shutdown systems, a high-performance 93 kW Tier 3 engine, high-capacity fuel tank and sealed control panel. Options include an air compressor, extended-run fuel tank, inlet regulator, insulated exhaust system, bench vise, remote e-stop, lube water recirculation pump and system pressure sensor and over-pressure shutdown. Shutdown systems include low-supply water pressure, dirty water filter, engine fault, manual emergency stop and manual override. The heavy-duty compact frame is hot-dip galvanized. **800/231-8192; www.waterblast.com.**

36. ADJUSTABLE JETTER TRAILER

The **EAGLE-300** trailer jetter from **JETTERS NORTHWEST** features a front-end enclosure to protect the pump/engine compartment from weather and road debris, while providing a sharp image to customers. The 18 gpm, 4,000 psi jetting system is fully adjustable, providing the versatility to clean large and small pipes. It is safe for one-man operation, with all controls at the rear by the hose reels. It comes standard with 500 feet of jetter hose, four nozzles, a level-wind hose guide and 100 feet of fill hose. The contractor's package adds a Warthog, portable mini hose reel, foot valve and wash gun. It features a lifetime framework warranty. **877/901-1936; www.jettersnorthwest.com.**

37. SEWER JETTING VAN PACK

The **EcoNomic** sewer jetting van pack from **ROM bv** is compact, lightweight and features a swivelling hydraulically driven high-pressure hose reel with hinged guiding system and rotating control panel. It features a daylight display and water-resistant control panel, with function display

(speed/working-hour counter) and automatic service-interval indicator. It is suitable for medium-sized commercial vehicles, and is delivered with a Kubota liquid-cooled diesel engine, including temperature control and maintenance-free stainless steel exhaust. The SPECK high-pressure pump delivers cleaning pressure up to 2,900 psi and a water capacity up to 26 gpm, ideal for cleaning house connections and sanitary sewer systems. **www.rombv.com.**

38. HYBRID HYDROJETTER

The **Model 740** hybrid hydrojetter from **Spartan Tool** features 4,000 psi of jetting power at a 12 gpm flow on a wide track chassis towable by any vehicle in your fleet. It is available in either a traditional gasoline-powered configuration or in a hybrid version that runs exclusively on liquid propane. It features 350 feet of hose and a 40 hp electric start engine. It is also available in a skid-mounted version for installation onto an existing van or trailer. **800/435-3866; www.spartantool.com.**

39. HIGH-PRESSURE JETTING SYSTEM

The **Camel Jet 1600** from **Super Products** is a truck-mounted, high-pressure waterjetting system that utilizes three modular tanks to carry up to 1,600 gallons of water. The tanks are formed of rotationally molded polyethylene with ultraviolet stabilizers to eliminate costly repairs. Its Lexan Containment System means that users have additional safety protection from hose rupture or high-pressure water. It utilizes a heavy-duty, Triplex continuous-flow water pump to provide up to 80 gpm and pressure up to 2,000 psi. Its single-engine design translates to lower fuel costs, and it offers water pump and drive system options, as well as a front- or rear-mounted 180-degree rotating hose reel with a 1,000-foot capacity. **800/837-9711; www.cameleasy.com.**

40. HIGH-PRESSURE WATER JET MACHINE

Hot Shot high-pressure water jet machines from **Vac-Con** are used for removing stones, bottles, cans, grease, sludge and other debris from sanitary sewer and/or storm drainlines by the flushing action of high-pressure water. They are equipped with a noncorroding, polyethylene water tank. All controls for high-pressure water and hose reel are located at the front of the machine



41



42

for simpler operation. They are available with a 1,000- and 1,600-gallon water tank capacity. Options include variable flow, an articulating hose reel, cold-weather recirculation system, side-mounted toolboxes, an air purge system, hose footage counter, arrowboard, strobe lights, inspector cam, high-pressure spray bar and selection of nozzles. 888/491-5762; www.vac-con.com.


FRANCHISE SYSTEMS

41. PIPE-LINING LICENSING SYSTEM

The Nu Flow Services Licensing System allows businesses to offer different pipe lining technologies for various mechanical piping systems in buildings. Nu Flow offers dual lining solutions from a single source, and also manufactures all its own epoxies, liners and specialty equipment. Nu Flow features more than 300 licensees in more than 50 countries. The licensing system ensures that the licensees receive all of the proper tools to perform application and restoration, on-site training, 24-hour support, print-ready advertising, operational/sales forms and continual technician training. The system allows the licensee to implement services into its market as it sees fit. 800/834-9597; www.nuflowtech.com.


42. EMERGENCY PLUMBING SERVICES

Rooter-Man builds a team of independent dealers and provides them with the opportunity to own a nationally recognized trademark for a low initial investment. It provides emergency plumbing and drain cleaning services, including clogged drains, water leaks and septic tank service. The franchise utilizes Internet technologies to connect customers with locally owned and operated service providers 24/7. Rooter-Man began franchising in 1981 and has since grown into a network of over 480 locations across the United States and Canada. 800/700-8062; www.rooterman.com. c




PRIMELINE PRODUCTS, INC.

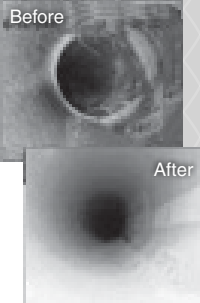
"Your Prime Source for Solutions, Products, and Training"



Quik Shot Gun



Quik Heater




Before
After

Primeliner™ QuikShot

Fastest Lateral Lining Gun in the World!

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



Primeliner™ CIPP Sectional Lining Materials

Save up to 75% off Kit Pricing!

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

FREE Training
from Experienced
Personnel


24/7 Customer
Support


Call Us Today!! 407.772.8131
or 877.409.7888

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

YouTube See for yourself!! See our Youtube channel
www.youtube.com keyword: PrimeLineLining

Accepting







**SAUEREISEN NAMES
ENTREPRENEUR OF YEAR**

J. Eric Sauereisen, president of Pittsburgh-based Sauereisen, a third-generation manufacturer of corrosion-resistant materials, was named Entrepreneur of the Year by Ernst & Young in the Family Business category in the Western Pennsylvania/West Virginia region.



J. Eric Sauereisen

SPIR STAR NAMES SALES REPRESENTATIVES

SPIR STAR named Keith Tierney and Carolina Sanchez sales representatives. They will assist in the development of the company's sales strategies and help maximize customer satisfaction and performance.

VACUUM TRUCK RENTALS OPENS OHIO LOCATION

Vacuum Truck Rentals opened a rental location in Marietta, Ohio. Chuck Cisler will manage the store. The rental center is the company's eighth location. Other stores are located in Deer Park, Texas; Geismar, La.; Richland, Miss.; Gaston, S.C.; Worcester, Mass.; Oakland, N.J.; and Merrillville, Ind.

NU FLOW EXPANDS SALES TEAM

Pipe lining company Nu Flow America added four account managers to its national sales team. Chris Diaz will serve the Southern California region, John Zimmerman will serve the Maryland area, Mike Geraci will serve the Virginia market and Gus DeCarlo will serve the Miami-Dade County, Fla., area.

WJTA - IMCA ELECTS BOARD MEMBERS

WJTA - IMCA elected seven new members to its board of directors. They include Fred D. Clark of IVS Hydro, Kay Doheny of Jack Doheny, Bill Gaff of Vacuum Truck Rentals, Mohamed Hashish of Flow International, Bill McClistler of Veolia Environmental Services, Gary Noto of Aquilex HydroChem and George A. Savanick, consultant. They join current board members Luis Garcia of CSM Supply, Kathy Krupp of The Dow Chemical Company, Larry Loper of High Pressure Equipment Co., Kerry Siggins of StoneAge and Forrest Shook of NLB Corp.

ELECTRO SCAN RECEIVES INNOVATION AWARD

Electro Scan was named recipient of the 2013 Innovation Technology Award by the Water Environment Federation (WEF). Electro Scan received the award for its ES-620 leak detection product, an add-on to existing television inspection trucks that locates and measures leaks in sewers not visible by high-resolution CCTV cameras.



THOMPSON PUMP RELOCATES MISSISSIPPI BRANCH

Thompson Pump & Manufacturing Co. relocated its southern Mississippi branch from Pass Christian to a larger facility in Biloxi. The 4,000-square-foot building is located on two acres near the I-10 corridor and is one of 21 Thompson branch offices nationwide.

INDUSTRY LEADER PASSES

Jim O'Brien, Sr., passed away Sept. 5 at the age of 82. O'Brien was an innovator who entered the industry in 1953 and founded Sewer Equipment Co. of America in 1972 with one employee (his wife) and one phone line. The Dixon, Ill.-based company is now headed by his son, Dan O'Brien.

GPS INSIGHT RECEIVES BEST IN BIZ AWARD

GPS Insight, provider of GPS fleet tracking software, was named a silver winner in the Enterprise Product of the Year category for the Best in Biz Awards 2013 International.

RAVEN HIRES VICE PRESIDENT, EXPANDS OPERATIONS

Raven Products named Mark J. D'Agostino vice president of sales and business development. Based in Westborough, Mass., the company is expanding distribution of its plumbing and heating supplies throughout the United States.

HI-VAC ADDS INSIDE SALES, REGIONAL MANAGERS

Hi-Vac Corp. named Brent Muskin inside sales manager and Dave Oman regional sales manager for contractor sales in the western United States. Muskin will oversee products sold through contractors (X-Vac and UltraVac) as well as industrial sales (Hi-Vac and UltraVac).



SEWER EQUIPMENT CO. OF AMERICA EXPANDS

Sewer Equipment Co. of America relocated its manufacturing operations to a 120,000-square-foot facility in Dixon, Ill. The new plant includes 12 overhead cranes with 15-ton ratings, paint facility, quality control test center, inventory center, engineering facilities and conference rooms. c

Follow Cleaner on



www.facebook.com/CleanerMag



twitter.com/CleanerMagazine

www.cleaner.com

FOR DRAIN AND PIPE CLEANING, INSPECTION
AND REHABILITATION PROFESSIONALS

THE CABLE CENTER 1-800-257-7209

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

24
HOUR
TURNAROUND

**FREE
DELIVERY
ON ALL RIDGID
CAMERA
KITS**

RIDGID's NEW CS10 Digital Recording Monitor

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



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

Meeting a CHALLENGE?

**Do you have a Tough
Job story to tell?**

Drop us a line at
editor@cleaner.com
and tell us about how you
met a serious jobsite
challenge to delight a
customer.

Cleaner

Irrigation fittings are for irrigating – NOT vacuum.
How many dollars are you spending **SUCKING AIR?**

Industry-proven, quality vacuum couplings from Bandlock will put money into your pockets.

4" to 12" Male Coupler 4" to 12" Female Coupler Steel Crown 4", 6" and 8" Press End Hazardous Material Profile Gaskets (Safety) Rubber Gaskets

6" and 8" Aluminum Weldon Aluminum & Steel Pipe

4" and 6" High Abrasive Bulk Nozzles Special "Y" Reducers BANDLOCK "Y" FITTINGS Close Tolerance Couplers And Fittings Bring "Safety" To Your Work Place.

EZ Lift Clamps Standard & International 4" to 12" Wet Valve, 6", 360° Injected Male and Female 4" to 12" End Plugs

Recognized as the #1 Relief Valve in the World

BANDLOCK AMESBURY GROUP MADE IN THE U.S.A.

Download Catalog From Our Web Site!
www.bandlockcouplers.com **1-800-659-2978**
Superior "Quick" Connect Vacuum And Pressure Couplings And Accessories

Automated tube lancing system increases productivity, safety

BY ED WODALSKI

The Sabertooth SRT-100 automated tube lancing system from StoneAge offers a safer, more productive alternative to hand-held flex lancing when cleaning on-site tube bundles. By moving the operator away from high-pressure water, the remotely operated system provides greater visibility and increased safety.

“It’s hands-free,” says Bill Shires, director of marketing and business development for StoneAge. “Basically, all of the operating parameters are adjustable and controlled in a very safe manner.”

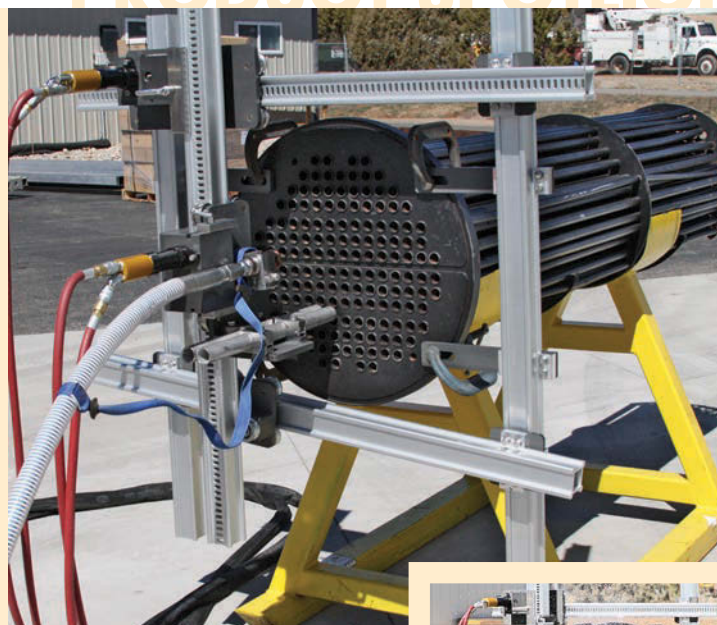
The adjustable autostroke feature, which is unique to the system, recognizes when a high-speed Banshee rotary cleaning nozzle (BN18 or BN24) has reached a blockage, automatically retracting the hose to prevent binding and ensure continuous cleaning.

“This machine senses the pressure being applied to the nose of the tool against the debris in the tube,” he says. “It’s like a pecking motion to get through those tough deposits.”

Another key feature of the cleaning system is the self-contained dual-hose, air-powered reel that holds up to 66 feet of flex hose and delivers up to 52 feet of usable stroke. “The hoses are no longer laid out across the heat exchanger face or across the work area, becoming a tripping hazard,” Shires says. Hoses also are protected against damage from friction.

Mounted on a cart with locking castors, the 550-pound system, which delivers up to 22,000 psi, 40 gpm and has a feed rate of 0.3 to 1.2 feet per second, can be disassembled to fit through 24-inch manways for one-person operation.

“Typically, for a long time in the industry, it was one guy sitting on a bucket with a foot on a dump valve and another guy feeding hoses in and out one at a time; you’d have three or four guys on a heat exchanger face and another guy outside with pump operators standing



down below,” Shires says. “What this machine does is reduce the labor rate and increase productivity by having the hoses clean in both directions.”

The system, which has a 3/4-inch MP inlet connection and requires a 78 cfm air supply at 100 psi, can clean tubes from 0.87 to 2 inches in diameter with 1.32- to 2.23-inch pitch. The vertical and horizontal positioner window is adjustable up to 15 feet. Splash tubes guide the lance tips into the orifices, minimizing exposure. Exterior bundle faces can be safely cleaned using the Barracuda/Spitfire remote shotgun mounting bracket. 866/795-1586; www.stoneagetools.com.



MOXA HD DOME CAMERA

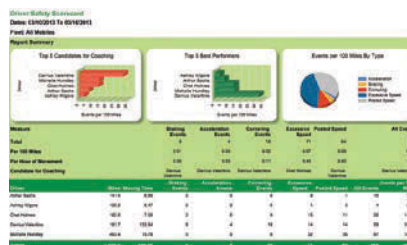
The VPort P26A-1MP-T fixed-dome high-definition IP camera from Moxa Americas is engineered for harsh environments. Designed to operate in -40 to 167 degrees F, features include high EMI/surge protection, IK10 vandal-proof dome cover, metal housing and IP66-rated rain and dust protection. The camera has a built-in dehumidified membrane for diffusing moisture, preventing fogging, icing or overheating. 714/528-6777; www.moxa.com.

HEMCO EMERGENCY SHOWER

The emergency shower from HEMCO is designed to protect individuals working with hazardous chemicals. The showers are constructed of one-piece fiberglass composite and come fully assembled and ready for installation to water supply and waste systems. The unit includes a pull-rod activated shower



and push-handle eye/face wash for immediate drenching of personnel who have been exposed to harmful chemicals. Options include grab bars, hand-held body wash and curtains. The unit is ANSI and OSHA compliant. 800/779-4362; www.hemcocorp.com.



NEXTRAQ FLEET SAFE DRIVING PACKAGE

The complete safe driving software package from NexTraQ includes NexTraQ DriveGuard, online driver education courses and driver safety scorecard report. DriveGuard eliminates the temptation to text, make phone calls or surf the Web while

driving. The scorecard provides metrics and information on driver behaviors to identify dangerous habits. 800/358-6178; www.nextraq.com.

No Matter How You SPELL IT...

we're there to help you get the job done.

Data collection solutions for mainline,
lateral, manhole and grout inspections.

Call today to learn about our products
and the industry's best after-sales
support program for pipe survey pros.

866.299.3150
www.pipelogix.com

PIPELOGIX
CAPTURE. ANALYZE. COLLABORATE.



Our Business Partners:

COXREELS LARGE-CAPACITY STORAGE REELS

Large-capacity reels from Coxreels are built without swivels and risers for storage purposes and feature heavy-duty spun and ribbed discs with rolled edges for added strength and safety. The reels are designed to store and maintain long lengths of various materials, including collapsible hose, power cord, cable rope, wire, tape and chain. Models are available in various lengths and outlet sizes. **800/269-7335; www.coxreels.com.**



RAVEN COPPER MANIFOLD ASSEMBLY

The 1 1/2-inch Navien CH series copper manifold assembly from Raven Products features left-hand orientation to keep boiler piping clear of domestic water connections, 1-inch CTS primary piping, boiler installation service valve with purge feature, Union boiler connections with tapping for 3/4-inch PRV and optional 3/4-inch FE purge/utility connection. **888/467-2836; www.ravenproducts.us.**



REELCRAFT STATIC DISCHARGE REEL

The GHC3100 N industrial-duty static discharge reel from Reelcraft Industries stores up to 100 feet of high-visibility orange nylon jacketed cable. The manual rewind reel, when properly clamped to a ground, dissipates static electrical buildup, reducing the chance of sparking. **800/444-3134; www.reelcraft.com.**

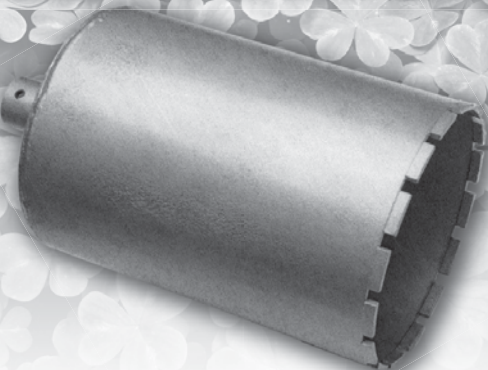


GENERAL PIPE CLEANERS PIPE-FREEZING REPAIR KIT

The Cold-Shot pipe freezing kit from General Pipe Cleaners enables repairs to be made on operating water systems without draining water lines, sprinkler systems or hot-water systems before cutting pipe or tubing. Carbon dioxide in dip-tube cylinders freezes liquids in steel, copper, cast-iron, aluminum or plastic pipes, 1/8 through 2 inches in diameter. The kit includes 10 sets of freeze heads, two high-pressure spiral hoses with injectors, rubber gloves, goggles and carrying case. **800/245-6200; www.drainbrain.com. c**



DIAMOND TAP/LATERAL CUTTERS



Ideal For Cutting Cast Iron/Clay Taps In Sewer Lines

Part #	Size	Cost
DCD6	6"	\$1200
DCD8	8"	\$1500
DCD10	10"	\$1975
DCD12	12"	\$2500
DCD15	15"	\$3200
DCD18	18"	Special Order

Add A Cloverleaf Hydraulic Motor & Skids



"Pipe/Sewer Cleaning & Maintenance Equipment for Jetters & Jet/Vacs"

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

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



Have you seen the
Cleaner
E-Zine?

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



Scan the code with
your smartphone.

Cleaner Marketplace Advertising

Water Jets for rent



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

NLB Corp. 1-877-NLB-7996
www.nlbcorp.com

Out With The OLD... In With The NEW!

Replace Water Services in Less time for Less Money!



Split or Pull Out Copper, Galvanized and Plastic Pipe. **THINK TRENCHLESS!**

Factory Direct SPECIALS On Now!

Call us toll free: 1-888-737-3668
Or visit us at: www.footagetools.com

Footage TOOLS Tools ready for work!

CONFINED SPACE ENTRY PACKAGE ONLY \$2,995

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

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

MTECH 800.362.0240
www.mtechcompany.com



IF YOU LET US REPAIR YOUR CAMERA, YOU WILL HAVE A CLEAR VIEW OF THE 'GATOR IN THE SEWER

- > We service push rod reels, cameras and command modules. We repair most brands.
- > We are an authorized service center for General Wire, Ratchek, Vision and Ridgid.
- > We understand when your equipment is broken, you are losing Big Bucks! We give fast and quality service.
- > Your equipment is very expensive and we would be happy to supply references on our quality work. Just call Terry or Stan!

Electronic Repair Co. • 205-836-0454 • servicewithasmile.com

Waterblaster Rentals & Sales

Houston, Texas



Boatman Industries

1K to 50K psi
60 hp to 1000 hp
Waterblasters & Accessories
Used Equipment Sales

713-641-6006
www.boatmanind.com

Advanced Work Horse
Advanced Workhorse nozzles utilize conical ceramic inserts to *Maximize Your Horsepower!*

Available through Vacall Toll Free 800-445-4752 or vacallindustries.com

THE "ORIGINAL" LIQUID SMOKE

Turbo Fog M45:

- Versatile
- Light Weight
- Compact
- Creates Dense Smoke

TURBO-FOG
Since 1977

www.turbo-fog.com • 1-800-394-0678

ERICKSON Tank & Pump

WE TAKE TRADES

509.785.2955
CALL FOR UPDATED LIST OF EQUIPMENT
WWW.ERICKSONTANK.COM

Masport
PUMPS & QUALITY COMPONENTS

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

NEW!

Get it ALL in one convenient eBook!

www.cole-mart.com/cleaner

Cleaner magazine is written solely for professionals who service residential and commercial drain and sewer maintenance, cleaning and repair business along with industrial high pressure cleaning contractors.

Jetter Hose

Parker-Piranha-Aeroquip

- 1/8" - 4000, 5000 psi
- 1/4" - 5000 psi
- 3/8" - 4000, 5000 psi
- 1/2" - 3000, 4000, 5000 psi
- 5/8" - 4000 psi
- 3/4" - 2500, 3000 psi
- 1"-1-1/4" - 2500, 3000 psi

Call for Price & Delivery

Nozzles, Root Cutters, Clamps, Swivel Joints, Ball Valves, Hose Guides, etc.

MasterCard
VISA

Call for Catalog & Prices
Cloverleaf TOOL CO. 800.365.6583

www.cloverleaftool.com

It's A Bag Full!

cleaner.com

- > Classifieds
- > E-zines
- > Product Categories

T&T Tools, Inc.
800.521.6893



CALL for a FREE Catalog
 Many styles Available

Insulated Soil Probes (for locating)

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

www.mightyprobe.com



Cua Claws

A Simple Solution for Slippery PVC Pipe -
The Right Wheels
 We now resurface all makes of steel transport wheels

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

Over 25 years of building quality equipment

HotJetusa®
 DRAIN LINE JETTING EQUIPMENT

Most Versatile Jetter On The Market!

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

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

Fully loaded! Call for details!

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

DYNAMIC REPAIRS

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

New & Refurbished Inspection Equipment For Sale

Rental Equipment Available
 Daily & Weekly Rates

Ask About Our 48-Hr. Turn Around Time

INSPECTION CAMERAS ARE OUR ONLY BUSINESS!

973-478-0893

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

Trailer Jetters
 Gas or Diesel



More Power per GPM!

AmericanJetter.com
866-9HI-FLOW

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

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

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

Pipe Genies Work Anywhere!
 The Most Compact Systems Available!

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



www.TrenchlessAmerica.com
 Toll Free 1 877 411 7473

NEW & AFFORDABLE

AQUA SAFE SUIT



- UHP Protection
- Comfortable & Flexible

by: **CESCO**

Hose Shrouds

- Operator Protection Against Sudden Hose Leak Failure
- UHP Protective Fabric
- 48" Long Abrasion Sleeve
- Fits All Manufacturers
- Easy Installation

chris@aquamiser.com
1-800-394-4987

Superior® SMOKE for Sewer Testing

Fast • Inexpensive • Easy

MADE IN THE USA

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

Choose Candles or Fluid

800-945-TEST
www.SuperiorSignal.com

WWW.PUMPERSHOW.COM

PUMPER & CLEANER ENVIRONMENTAL EXPO INTERNATIONAL

Indianapolis
 FEBRUARY 24-27 2014
 INDIANA CONVENTION CENTER

REGISTER TODAY!

The Amazing

ARCTIC BLASTER
 Thawing Device

>Thaws pipes above & below ground
 >Use on plastic, copper or ABS
 >Perfect for roof drains

ARCTIC BLASTERS INC.
 SUNDRE, ALBERTA
 PH: 403.638.3934

DYE TRACERS

Solutions for:

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

BRIGHT DYES
 Division of Kingscote Chemicals

www.brightdyes.com • 1-800-394-0678

BUSINESSES

WWW.ROOTERMAN.COM. Franchises available with low flat fee. New concept. Visit website or call **1-800-700-8062 x26.** (CBM)

Routes now available for the first time. We are looking for motivated owners who are looking to build a business. Includes company leads and complete office support as well as training. An owner operator can earn \$2,000+ per week. Plumbing or mechanical background is helpful. 30K for new territories or 129K for established territory. Contact Bill at 516-785-6600. (C03)

Existing Valu-Rooter Franchise for sale in Northeast Ohio. Room for growth with great potential. Call 440-309-5024 (C11)

CATCH BASIN CLEANER

2005 AquaTech CB-10 combination sewer cleaning truck: 624 Roots PD vacuum blower, General pump 35gpm @ 2,000psi, 10-yard debris body. Mounted on a 2005 Sterling chassis, 28,153 miles. Sold as is - No warranty. www.khtrucks.com 972-938-1905. (C11)

COMPUTER SOFTWARE

FreeServiceReminderSoftware.com, FreeServiceDispatchSoftware.com, FreeRouteManagementSoftware.com. (C11)

DEWATERING

4" Dia-Disk Double Diaphragm Pump: 5hp electric motor. Cost new - \$17,000. Completely rebuilt. Variable flow, 0-200gpm, low-stroke - won't shear polymer. PRICE \$7,500. Pictures are available upon request. Please call 910-738-5311. (CBM)

DRAIN/SEWER CLEANING EQUIPMENT



2009 Sterling Vac-Con VPD3616LHAEN S/N: 09085083. Bean jetting pump. Roots 824 RCS blower. 16-yard debris tank. ISX Cummins diesel. Push-button automatic. 54,587 miles. 66,000 GVW. Hendrickson spring.

972-938-1905 TX
khtrucks.com

C11

2003 Sterling B-10 Aquatech. General jetting pump 83gpm @ 2,000psi. Roots 624 PD blower. Cat diesel, 83,998 miles, auto transmission, Hendrickson spring, 10-yard debris tank. www.khtrucks.com 972-938-1905. (C11)

Used and rebuilt cable machines in stock: RIDGID K-7500, K-40, K-60, K-1500, Roto-Rooter #55, WXL #C, Spartan #1064, #300, #100, Electric Eel model #C machines. The Cable Center: 800-257-7209. (CBM)

General Wire models J-3055, J-3080, and J-2000; Spartan #717; Electric Eel gas jetters. The Cable Center: 800-257-7209(CBM)

2006 Sterling Vac-Con V390LHAD: 3-stage fan, 9-yard debris tank, Triplex pump. Cat diesel, Push-button auto. 41,000 GVW. www.khtrucks.com 972-938-1905. (C11)

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 2014 Peterbilt 348 cab and chassis. (Stock #13577A-D) www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648). (CBM)

JETTERS-TRAILER



Xtreme Flow Hot/Cold Jetter! Model #HJ2TA8536, tandem axle trailer, 35 hp Vanguard 8.5 gpm @ 3,600 psi, 325-gallon water tank, 300' hose, General Pump. List \$34,995. On sale for \$29,995. Fully loaded!

800-213-3272
www.hotjetusa.com

CBM

2003 O'Brien Jetter 3515 - 3,500psi @ 15gpm. 350-gallon tank, 133 hours, 49hp Kubota Giant pump. 435' 1/2" Piranha hose, extra nozzles, wireless. O'Brien Root Cutter OBJ-1468. Always stored in heated shop, not used in winter. \$15,000 OBO. Mark/Minnesota 218-643-5262 (C11)

1999 O'Brien Trailer Jet with 165 original hrs. 4-cylinder diesel engine, 800-gallon plastic water tanks, Myers 65gpm 2000psi pump, 500 feet of new jet hose, new white paint. Pictures at www.empireequip.com \$23,500. 714-639-8352 (CBM)

JETTERS-TRUCK

Jetter reel off of Vactor 2100. Newer hose. Make offer. Contact dhauck@jmfunderground.com or call 717-697-4029 (C11)



2009 Ford F-550 PipeHunter: 6.4-liter Powerstroke, auto trans, 73,130 miles. Giant pump 29gpm @ 3,000psi. 3/4" jetting hose. 700-gallon Polly water tank. \$40,000

972-938-1905 TX
khtrucks.com

C11



2009 Ford F-550 PipeHunter 7844TMV. 700-gallon Polly water tank. 1/2" jet hose. Giant jet pump 14.2gpm @ 4,000psi. Tuthill blower. John Deere rear engine. 294 hrs. 139,878 miles.

972-938-1905 TX
khtrucks.com

C11

2001 Sreco water jet on an International 4900 tandem axle. 100gpm, 2,000psi pump. 3,000-gallon water tank. 600 feet of jet hose. Was a city-owned unit. Price \$57,500. www.empireequip.com 714-639-8352. (CBM)

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

2008 Ford F750 PipeHunter jetter truck. Giant pump 47.5gpm @ 3,000psi, 1,600-gallon Polly water tank. 1/2" & 3/4" jet hose. Cat C-7 350hp. 67,692 miles. Push-button auto, 33,000 GVW. \$39,500. www.khtrucks.com 972-938-1905. (C11)

PIT SHOT LINER

Complete CIPP Kit

Tropical

No Sweat System!
For those working in 90°F and above. Specially retarded resin to give up to 3 hours working time.

Includes Pre-Measured Resin, Cal Tube & Liner.
Kit available for 40' to 164' run lengths. Fully illustrated instructions included.

866 535 3694 | www.gadmon.com CIPP THAT FITS!

CLEAN OUT PATCH

CIPP Patch Kit

Standard

Save \$\$\$ on our Jumbo Kit
The only patch solution available in convenient kit form but sold at discount bulk pricing!

Includes Pre-Measured Resin, Cal Tube & Liner.
Kit available for 2' to 40' lengths. Fully illustrated instructions included.

866 535 3694 | www.gadmon.com CIPP THAT FITS!

2006 GMC TC6500 cab and chassis with Pipe Hunter trunk mounted jetting unit, 3,000 psi @ 50 gpm with a 1,000-gallon water tank, rear mounted hose reel with Jet Eye Camera System, **6,800 original miles, like new. \$89,000 sale price.** (Stock #13234V) www.VacuumSalesInc.com, (888) **VAC-UNIT (822-8648)**. (CBM)

JET VACS



1991 Ford Vactor 2110 Chassis L9000 Allison trans. L10 Cummins. 20,000 original miles. 80gpm at 2,500psi. 6-cylinder Cummins rear two-stage fan. 540 hours. 70mph road speed. **READY TO WORK**\$38,000

203-598-0725 CT C11



Vactor 2112, 2004 Sterling: PD blower, cyclone, CAT C12, Eaton 10-speed, 1,000-ft. reel. Recent pump overhaul. \$110,000

713-725-9047, TX
mark@cleanserveinc.com C11

2007 International 7400/Vac-Con: 26,000 miles (4,500 hrs.), 11-yd/1,900 gallon, 315hp with Deutz aux. motor (3,030 hrs.), 50gpm at 3,000psi Giant pump, 827 Roots blower. Telescoping boom with 8" vacuum system, cold weather features, front bumper pump-off, driveline retarder and all the options for a loaded, ex-city unit. 801-518-5356 (C12)



1999 Vactor Model 2110: Freightliner FL80 chassis with Cat engine, 18K front, 23K rear, Road Ranger transmission, John Deere auxiliary engine, single fan, extendable boom, 80gpm Rodder pump, 1" hose, aluminum tool boxes, boom lights, air-purge system, etc..... \$65,000

914-739-3300, NY C11

1994 Vactor 2100 on Ford LN9000. 500 feet of 1-inch hose, single-stage fan, dually. Works daily. \$40,000. E-mail greatlakespipelineservices@gmail.com (C11)

1997 Vac-Con, Ford Louisville with Allison auto., 132,000 miles, tandem, 12-yard debris, 1,200-gallon water, 5-piston pump @ 2,000 psi, extendable boom, hydro-excavating, ex-city unit. \$35,000 OBO. 717-554-1715 (C11)

1986 Vactor Model 810: Ford L8000 diesel, single axle, 92,000 miles. Ford gas secondary motor. New tires. Both motors run great. \$15,000. Call 301-790-2313 (C12)

2002 Vactor Model 2110PD on an International 7400. 61,650 miles. 80gpm, 2,500psi. Roots 824 blower. 600 feet of new jet hose. Was a city-owned unit. Price \$120,000. Pictures at www.empireequip.com. 714-639-8352. (CBM)

2007 Vactor Model 2112 on a Sterling LT7500. 50,876 miles. Two-stage fan. 65gpm, 2000psi pump. Was a city-owned unit. Price \$157,500. Pictures at www.empireequip.com. 714-639-8352. (CBM)

1995 L8000 Vac-Con including 3-stage fan, 80gpm water pump, 12-yard debris tank. Muni trade - Everything works. Asking \$18,000. Contact Dave @ 262-951-8979. (C11)

1998 Vac Con V390SHA 1998 International Vac Con with 21,519 miles, 43,000 GVW. 98 International engine, John Deere pony motor with only 753 hours. Three-stage fan unit, 9-yard debris tank. 1,000-gallon fresh water. 600 feet of 1" jet hose and an 80gpm @ 2,500psi. Jeff Brooks 317-258-4900 (C11)

2003 Vactor 2110PD on a Sterling LT7500. Pump 80 gpm, 2,500 psi. Roots 824 blower. 1,500 gallon water capacity. New paint. Was a city-owned unit. Pictures at www.empireequip.com. Price \$129,900. 714-639-8352. (CBM)

Pre-owned 2002 Sterling LT 9500 cab and chassis with a Clean Earth Safe Jet Vac 1015 Combo Unit. (Stock #3876C) www.VacuumSalesInc.com, (888) **VAC-UNIT (822-8648)**. (CBM)

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

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. (CBM)

NOZZLES

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

PARTS & COMPONENTS

US Jetting provides aftermarket rebuilding services and **replacement parts for Harben® pumps**. Low prices, fast response. Why pay more? Call today. 1-800-538-8464, ext 25 or 18. (CBM)

PIPELINE REHABILITATION

Complete wet-out set up for CIPP. Includes conveyor, roller tables, scale and two 40,000lb. tanks. Email for photos. Make offer. Contact dhauck@jmfunderground.com (C11)

Complete Lining System (3", 4", 6", 8") - Inversion gun, rollers, etc. Hot water boiler system & ambient cure system. Great start-up kit, used regularly. \$29,000. Please contact Kevin: 303-591-3191 (C11)

SECTIONAL POINT REPAIR EQUIPMENT: One 6"-10"x10'L: \$950. One 8"-12"x8'L: \$980. One 12"x18"x10'L: \$1,425. One 18"-24"x8'L: \$1,650. Two rope reels w/500': \$250 per reel. One air tank w/gauges: \$225. All the equipment is in good shape. Will sell separate or all together. 843-556-8217 or awilson@prolatersc.com. Ask for Allen. (C12)

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

PIT SHOT LINER Complete CIPP Kit

Hot Water
Productivity Booster
Fill line up just once with hot water at 100°F for a near instant cure. Say goodbye to recirculation headaches!
Includes Pre-Measured Resin, Col Tube & Liner.
Kit available for 40' to 164' run lengths. Fully illustrated instructions included.

GADMON INDUSTRIES

866 535 3694 | www.gadmon.com CIPP THAT FITS!

PIT SHOT LINER Complete CIPP Kit

Transition
One Size Fits All
Reduce offcut waste!
This kit's liner can expand to diameters within a 4-6" range.
Includes Pre-Measured Resin, Col Tube & Liner.
Kit available for 40' to 164' run lengths. Fully illustrated instructions included.

GADMON INDUSTRIES

866 535 3694 | www.gadmon.com CIPP THAT FITS!

PIPELINE REHABILITATION

Bowman Generation 2 Reinstatement Cutter-New/never used with joystick control, 1,000 ft. of control cable, 500 ft. of continuous air hose. Paid \$28,500, will sell for \$19,500. For photos visit IndustrialWasteRecovery.com. Call 616-719-5595 (C12)

POSITIONS AVAILABLE

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

SALES POSITION: Manufacturer of high-end sewer nozzles seeks representative for East Coast Region - Virginia to Maine. Easy to sell with good demo. MUST love to travel. Salary plus commission, vehicle, etc. Send resume to resume@nozzteq.com or call 866-620-5915. (CBM)

Extremely busy underground utility contractor is in need of qualified individuals to join our team. We have multiple projects in the Southeast; including Florida, North Carolina and South Carolina. We specialize in manhole, lift station & sewer rehabilitation, protective coatings, and pipe cleaning, televising & laser profiling. We offer competitive pay based upon experience. Applicants must have a valid driver's license, a minimum of 3 years' experience in the field they are applying for and be willing to travel. Lodging and per diem are provided when working out of town. This is a great opportunity for the right individuals to join a rapidly growing company with room for advancement. DFWP, EOE Positions available include: - Manhole Rehab Technicians - Vac Truck Driver / Operators (Must have a clean and valid CDL License) - CCTV Operators - Laborers. Please fax your resume to 813-626-0777 or you may email it to shilson@vac-vision.com (C11)

SAERTEX multiCom is looking for someone with trenchless technology experience to assist in sales and marketing and training from our Huntersville, NC office. Requirements include travel and good communication skills and knowledge of underground rehabilitation methods. Contact our human resource department at 704-584-4054 (C11)

Technical Sales Position: Environmental Sales Distribution Firm has a need for a technical sales representative to cover the Southeast US. This person would call on municipalities, plumbing companies and general contractors involved in sewer collection system maintenance and rehabilitation. Industry experience preferred. Competitive salary. Fax or email resume to: Fax: 407-786-8131; Email: andy@prime-line.net (C11)

PUMPS

Two (2) 4" Thompson Double Diaphragm Pumps: 5hp electric motor, single phase. Cost new - \$9,000 each. Will sell both for \$5,000 or sell individually for \$3,000 each. Pictures are available upon request. Please call 910-738-5311. (CBM)

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

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

New, never used Myers D65-20 water pump. List price: \$17,992. Sell for \$9,750. New Rockford power take-off part number 4-11182 - \$700. 714-381-4141. (CBM)

PUMPS-VACUUM

Mud Sucker - Like new. \$20,000. Air Deutz and 500 Fruitland pump - both 150 hrs. 300-gallon tank. H.D. trailer, new tires. Located Ft. Lauderdale, FL. Call for picture by email 954-525-5904. (C11)

RENTAL EQUIPMENT

Liquid vacs, wet/dry industrial vacs, combination jetter/vacs, vacuum street sweeper & catch basin cleaner, truck & trailer mounted jettors. 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)

www.servicewithasmile.com **Sewer Cam Reel and Camera Repair: Authorized for General Wire, Ratech, Vision & Ridgid. Quality service on all brands. Need more info? Just call Terry or Stan. Electronic Repair Co., Birmingham, AL 35206. 205-836-0454; email: part@servicewithasmile.com.** (CBM)

STREET SWEEPERS

2007 Tymo DST-4: Gutter broom drop down, dual-tilt hopper, deluge steel and poly brooms. Kubota 350 hrs. Isuzu NQR 10,000 miles. 17,950 GWW. Load sensor. 6-cyl. engine, automatic trans., A/C, foam-filled tires. \$80,000. Jeff 317-258-4900. (C12)

TOOLS

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

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

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

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

TRAILERS-VACUUM/TANKER

4,000-gallon Lely Self-Contained Vac/Press Tanker: Isuzu motor, Fruitland RCF 500 vacuum pump, Evans tri-axle trailer with aluminum wheels. Excellent condition - \$27,500. Pictures are available upon request. Please call 910-738-5311. (CBM)

TV INSPECTION

2003 Ford F350 V-10 sewer line inspection truck with Aries equipment. Two cameras. 972-938-1905. www.khtrucks.com (C11)

Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner



What you learn on these pages could be worth **\$1,000s.** It's all yours for **FREE!**

Some **25,000** of your industry peers welcome *Cleaner* every month for the value it brings to their business. Each issue shows you:

- > New tools to help you win jobs and earn more profit.
- > Ways to save on office expenses, supplies, advertising, taxes.
- > Money-saving deals on equipment.
- > And much more.

Best of all, you'll learn from other successful business owners - how they did it, and how you can, too.

Don't miss an issue - subscribe today!

800.257.7222 or www.cleaner.com



Three (3) used sewer, camera/pipe inspection vans in Colorado Springs, CO. All former city units. Fully operational when sold to us. All rust-free units with generators and rooftop air. We are selling **ONLY COMPLETE UNITS. NO PARTS OR CAMERA SALES.** 91-20: GMC Aries equipment, 15,000 miles, \$20,000. 98-48: GMC CUES equipment, 73,000 miles, \$30,000. 03-21: Ford RST equipment, 42,000 miles, \$40,000. Please call Dustin for additional information and LOTS of pictures.

719-494-4927 CO C12

CUES Equipment for Sale: CUES Pipe Ranger, OZ2 camera with desk controller. Mudmaster with lift, Mudmaster power supply. CUES Lamp 1 lateral launcher complete - 2 available. CUES double data. CUES Pro Data. 2000 CUES E-350 Gas 14-foot box, Aerocap, Cobra Data. CUES TV Seal truck diesel - 11K miles. City-owned. Contact Alan Grant, Cobra Technologies 800-443-3761. (C11)

Vivax inspection system for sale. Two (2) - 1.3" self-leveling camera heads with 512hz/640hz/33khz integral sonde transmitters. Digital mpeg4 recording capabilities. 60gb internal hard drive with SD card slot. 200' 13mm heavy-duty push rod in stainless steel reel assembly. Text entry keyboard with microphone, video in/out ports. 8" TFT LCD display for sale. \$5,100. 801-266-8041 (C01)

Miscellaneous RST Inspection Equipment: Mainline cable reel; Mainline controller; Standard mainline transporter. OE II cameras and other misc. items. Call for list: Jason 317-557-4993 or Jeff 317-258-4900 (C12)

ENVIROSIGHT Inspection System: 1998 Rovver 125 crawler, RC90, extra wheels, auxiliary lights, pan/tilt camera and riser. Mounted on 1990 Chevrolet van, V8 engine with 22,000 miles. Includes built-in office/work area. Call 800-832-6417 or visit www.macqueeneq.com for photos. (C11)

1999 Ford E350 7.3L Diesel/48K miles and PowerTech 7KW Diesel generator (4,458 hrs). Currently with CUES equipment. 1999 GMC 3500 4X4/21K miles and Onan generator (2,190 hrs). Currently set up with single conductor Aries/RST equipment. Both units were owned by municipalities and are in great condition. Lots of spare camera equipment available. For info email: monty@rckyms.com (C11)

UEMSI Camera system with tractor. Pan/Tilt. Honda generator. Quigley 4x4. A/C equipped. 52,974 miles. Good condition. Ready to work. \$27,500. Call Bill: 606-682-1690. (C11)

MAINLINER Buying & Selling Used Equipment. CANADA & USA PEARPOINT MAINLINE EQUIPMENT ONLY. Will buy complete Pearpoint trucks. Will buy your old system. Do you need used parts? 399, 599 Reels; 420, 448 Tractors; 494 Digital and Zoom 420 light heads. Call: 1-800-265-4298 or mainliner2075@hotmail.com (C03)

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)

CUES K2 SYSTEM: Steerable Compact Pipe Ranger (CPR), OZ3 camera, 1000' gold cable, auto cable reel, CPU, CCU, wireless controllers, six different wheel sets, two different wheel spacer sets, tool and manual. Like new (app. 40 hours) at 20% off list. Call 866-936-8476 or emailoffice@envirosight.com. (CBM)

1998 CUES Mainline TV System: GMC Savanna 3500, CUES with Pro-Data on-screen titler, Honda generator, Sony combo DVD/VHS, 1,700' of M/C cable, pan & tilt camera with shorty transporter. \$29,500. 608-835-7767, WI. (CBM)

VACUUM EQUIPMENT

2004 Vac-Con VPD3690LHA: Roots 824 blower, Bean 80gpm @ 2,000psi jet pump. 9-yard debris tank, 1" jet hose. Cat diesel, push-button auto transmission, 41,000 GVW. www.khtrucks.com 972-938-1905. (C11)

2003 Ford F350 V-10 sewer line inspection truck with Aries equipment. Two cameras. 972-938-1905. www.khtrucks.com (C11)

2002 International Guzzler Classic vacuum truck. Roots blower. 1,942 hours. 30,422 miles. Cat Diesel. Hendrickson spring. 64,000 GVW. www.khtrucks.com 972-938-1905. (C11)

1998 Keith Huber King Vac Liquid Ring Vacuum Truck, wet/dry vacuum capability, full-open rear door, tank hoist, 9,450 hours. Mounted on a 1998 Mack RD690S chassis, 5-speed Maxitorque transmission, Camelback suspension, Mack 300 HP diesel engine, A/C, 60,000 GVW. www.khtrucks.com 972-938-1905 (C11)

VACUUM LOADERS

2010 Vacall ATR1213, 12-yard debris body, 1,300 U.S. gallon water, Hydroexcavation machine mounted on a 2009 Sterling LT-9513 with a Hibon SIAV 8702 tri-lobe blower - 5,300 cfm. (Stock #2151V) www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648). (CBM)



2005 Ford F650: CAT C-7 (210hp); 6-speed; A/C; 26K GVW. Vacmaster VNDS4000 vacuum excavator; JD diesel (155hp); D+W blower; Boss air comp; 450-gallon Spoil tank w/hyd. dump. Stock# 8364; 67,865 miles. \$79,500

800-520-4704 PA C11

2013 Western Star cab and chassis, Power Vac 5300, 3,250 U.S. gallon, carbon steel DOT 407/412 regulations vacuum tanker with a Hibon PD blower, 5300 SCFM with vacuum to 28" mercury. Dump Type with full open rear door, and a Presvac PVB 750 vacuum-pressure pump. (Stock #13518V) www.VacuumSalesInc.com, (888) VAC-UNIT (822-8648). (CBM)

WANTED

I'll buy your sewer cleaner, running or not. Any brand, any make. Phone 305-509-0467. Email: info@trucksofmiami.com. (C12)

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

WATERBLASTING

Gardner Denver T-375M: Bare Shaft pump. Gardner Denver T450M Bare Shaft pump NLB 20-200: 12 gpm @ 20,000 psi. Gardner Denver LC-1500: 390 gpm max, 15,000 psi max. NLB 36-200 6 gpm @ 36,000 psi. HT-150S 25 gpm max 10,000 psi max, Shell Side Machine, Wheatley 165: 30 gpm @ 10,000 psi, Wheatley 165: 17 gpm @ 20,000 psi. Wheatley 125 with aluminum bronze fluid end. Boatman Ind. 713-641-6006. View @ www.boatmanind.com. (CBM)

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

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

SOLD

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



Scan the code with your smartphone.



Pressure Washers, Replacement Engines, Pumps, Parts & Accessories



WaterCannon.com

30
YEARS OF SERVICE

1.800.333.WASH (9274)



Industry Trained Staff

available from 8:30 a.m. to 9:00 p.m. weekdays E.S.T.

Orlando | Phoenix | Minneapolis | Hattiesburg | Melbourne | Toronto | Bogota
International: 1-321-800-5763 ext.115

888-442-7829



WWW.GAPVAX.COM



RUGGED
RELIABLE

VERSATILE
CUSTOM BUILT

LET US PUT YOU IN THE
DRIVER'S SEAT

TO SUCCESS!

PARTSEXPRESS

Nov. 13-14
David L. Lawrence Convention Center
Pittsburgh, PA

DEVELOPING UNCONVENTIONALS



A SIGHT TO BEHOLD.



SPARTAN
FOR TOUGH CUSTOMERS.
SINCE 1943

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.**

CONTACT US TODAY | 800.435.3866 | SPARTANTOOL.COM