FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

www.g

-> DIOTE

AUGUST 2015

# AVISIONOF THE FULLINE

TEXAS CONTRACTOR RETOOLS AND REFOCUSES HIS BUSINESS TO TAKE ADVANTAGE OF THE GROWING PIPE BURSTING MARKET **PAGE 34** 

> MONEY MACHINES Trailer jetter opens pipes, and new markets

> > TECH PERSPECTIVE The hierarchy of waterblasting safety

> > > SAFETY FIRST Limit the worry in work zones

## TAKE CLOGGED Typhoon<sup>™</sup> gives you big cleaning power.

General's Typhoon trailer jet blows away blockages in big lines and long runs. 12 gallons of water storm down the drain at a powerful 2500 psi to blast lines clear of grease, sediment, ice, and debris.

- Durable 690 cc Honda engine powers the 2500 psi,12 gpm pump with Vibra-pulse<sup>®</sup>.
- Secure 200 gallon holding tank carries enough water to handle remote applications where water is limited.
- 400 ft. capacity jet hose reel with electric rewind and variable speed controller.
- Key engine controls, including hour meter, mounted in lockable tool box with slide action doors.
- Easily maneuverable, heavy-duty trailer with splash guard to protect pump and engine from road debris.
- Standard safety equipment: Electric brakes, safety strobe light, rear fold down stabilizer jacks, retractable guide arm, and anti-freeze system.
- Patented, high performance nozzles for significantly increased thrust, pulling power, and cleaning power without increasing water flow or pressure.

See the Typhoon in action, visit drainbrain.com/jets, or call the Drain Brains® for more information at 800-245-6200.



www.drainbrain.com/jets



The toughest tools down the line.™



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

## ONE OF THE LATEST VAC•CON TRUCKS

## THESE two trucks are 65000 OTHERS STILL Junious

WORLDWIDE

## Each truck is supported by our robust dealer network, customer service and comprehensive on-line training.

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

## VAC-CON COM/worldwide

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



A HOLDEN CINDUSTRIES Company



ANTER STREET

HIGH PERFORMANCE. LESS MAINTENANCE. LONGER LIFE.

THE NEWEST TOOL IN THE WARTHOG MAGNUM SERIES

NOW FOR 6-18 INCH PIPES!

Operates Ionger between maintenance intervals Effectively handles dirty or recycled water Highest quality carbide nozzles Quick, easy field maintenance and head changes Streamlined body moves easily through pipe bends Long life centralizer with individually repleacable fins

## **TOOL OVERVIEW:**

- Pressure ..... Up to 8000 psi (550 bar)
- Flow...... 16-50 gpm (60-190 l/min)
- Pipe Size..... 6–18 in. (150–450 mm)
- Inlet ...... 1/2" or 3/4" NPT/BSPP





## underground understood







## preferred build-outs

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

new

new

nem

new

## crawlers

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

## pan/tilt push camera

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

## video nozzle

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

## advanced capability

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

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





www.envirosight.com • 973.252.6700

inspection technology - asset strategies

## CONTENTS

## AUGUST 2015



## features

18 Profile: From the Inside Out

Former municipal wastewater worker strikes out on his own and builds a successful sewer cleaning company. By Marian Bond

- **34 Profile: A Vision of the Future** Texas contractor retools and refocuses his business to take advantage of the growing pipe bursting market. By Ken Wysocky
- 54 Waterblasting/Waterjetting Directory



## **ON THE COVER:**

No-DigTec owner John Newell learned about pipe bursting in 1999, and he immediately knew it was the future of his business. Today, No-DigTec is the largest pipe bursting contractor in north Texas and one of a handful of firms nationwide that has the expertise and equipment to burst large-diameter pipes. (Photography by Jimmy Alford)





## departments

12 From the Editor: It's About People

Stories reflect the life and opportunity this industry provides. By Luke Laggis

- 14 @cleaner.com Be sure to check out our exclusive online content.
- 26 Money Machines: Small But Strong Mississippi drain cleaner opens up clogs — and new markets — with compact but powerful trailer jetter. By Ken Wysocky
- **30** Tech Perspective: The Hierarchy of Waterblasting Safety When it comes to waterblasting safety, PPE should be your last line of defense. By Doug Day
- 44 WWETT Spotlight: Solar Protection Kuriyama's new polyurethane material-handling hose features UV resistance. By Craig Mandli
- 50 Money Manager: Solving the Cash Flow Conundrum Develop sound strategies to help your income stay ahead of your outgo. By Erik Gunn
- 62 Product Focus: Waterblasting and Waterjet Cleaning and Accessories By Craig Mandli
- 76 Case Study: Waterblasting and Waterjet Cleaning and Accessories By Craig Mandli
- 80 Safety First: Limit the Worry in Work Zones Traffic control guidelines provide a clear plan to keep workers safe on the road. By Doug Day
- 82 Industry News
- 84 Product News

Product Spotlight: Portable leak detection amplifier works as ground microphone. By Ed Wodalski

## COMING IN SEPTEMBER 2015

#### **ISSUE FOCUS:**

#### **Mainline Sewer Inspection**

- MONEY MACHINES: General Pipe jetter proves its versatility
- PROFILE: O'Connor Plumbing, Germantown, Maryland
- WWETT SPOTLIGHT: RootX eases application

## ZERO DOWN. NO PAYMENTS FOR 90-DAYS. Total Cost \$112.401.35

ONLY \$2,313 PER MONTH

60 Months / 6.9% APR



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

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

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

- UPC LISTING (UNIFORM PLUMBING CODE)
- ICC-ES PMG LISTING

September 15th - 17th FLORIDA

- IRC LISTING (INTERNATIONAL RESIDENTIAL CODE)
- IPC LISTING (INTERNATIONAL PLUMBING CODE)
- IAPMO CLASSIFIED MARKING
- NSF / ANSI STANDARD 14 CERTIFICATION AND OUALITY ASSURANCE PROGRAM
- MEETS ASTM F-1216 SPECIFICATIONS



August 19th CALIFORNIA October 13th - 15th FLORIDA

🖈 MADE IN AMERICA 🖈

CALIFORNIA DISTRIBUTION FACILITY 1424 North Batavia

Orange, California 92867 1-714-744-8446 Office

November 10th - 12th FLORIDA

## PERMA-LINER\* INDUSTRIES, LLC.

**U.S. CORPORATE HEADQUARTERS** 13000 Automobile Boulevard, Suite 300

Clearwater, Florida 33762 1-727-507-9749 International 1-866-336-2568 Toll Free

## www.perma-liner.com

September 23rd CHICAGO

December 8th - 10th FLORIDA

LIVE DEMOS AUGUST 191

CALIFORNIA DISTRIBUTION FACILITY

**ILLINOIS** DISTRIBUTION FACILITY

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





250 N. Main St. Jacobus, PA 17407 USA

Serving the industry for over **25 years** 



www.trytek.com

FOR DRAIN AND PIPE CLEANING, INSPECTION AND REHABILITATION PROFESSIONALS

Published monthly by COLE Publishing, Inc.

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

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

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

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

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

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

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



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 jeffl@ colepublishing.com. To order back issues, call Nicole at 800-257-7222 (715-546-3346) or email nicole@colepublishing.com.

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

#### © 2015 COLE Publishing Inc.

relined pipes

> Access pipe systems

elbows in 3" pipe

through clean-out ports or rooftop vents

> Navigate standard 90 degree

> Includes 100' of hose reach

No part may be reproduced without permission of the publisher.

f

y

You

in

GET SOCIAL WITH Cleaner

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



## WATER & WASTEWATER EQUIPMENT, TREATMENT & TRANSPORT SHOW

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

Indiana Convention Center WWW.WWETTSHOW.COM

# INSPECT REPORT DONE.

CREATE AND DELIVER DETAILED INSPECTION REPORTS ON THE JOB WITH THE RIDGID® CS65 DIGITAL REPORTING MONITOR.

IDGID

RIDGID

DUAL USB DRIVES

FULLY INTEGRATED Keyboard

1TB INTERNAL Hard Drive

\* SEE HOW IT WORKS OR REQUEST A FREE ONSITE DEMO AT RIDGID.COM/CS | 800.769.7743 \*







## **ADVERTISER INDEX - August 2015**

Α
A.R. North America, Inc52
Advanced Infrastructure Technologies12
ALLAN J. COLEMAN
Allan J. Coleman Co 23, 85
AMAZING MACHINERY
Amazing Machinery, Inc67
ARIES
Aries Industries, Inc63 Arthur Products Co
<b>C</b>
Cable Center, The 41, 60
CAM
X
Cam Spray78
FAT
Cat Pumps27
Central Oklahoma Winnelson47
Check-All Mfg. Co42
Root Rat.
Chempure Products Corp87
CIERCE Inc.
CIPP Services, LLC11
shith the
Coast Manufacturing
COXREELS
"The Stereau of the Industry"
CUES29
D
ORAINCABLES direct
Draincables Direct
Curacable, Manufacturing Company
Duracable Manufacturing Co15
E
Easy CAM
EasyCAM
Electric Eel
Electric Eel Mfg42
Envirosight
Envirosight, LLC5
enz 🐠 usa inc.
Enz USA, Inc28
F
Colutions

E Solutions	
F. S. Solutions	33,78
Forbest Products Co	58

G	
CapVax.	INTUSTRIES, MA
GapVax, Inc95	Perma-Liner Indust Petersen Products (
General Pipe Cleaners	
Giant Industries	Petrofield Industries
GORLITZ STREAM INC.	PICOTE
Gorlitz Sewer & Drain, Inc	Picote Solutions
Guzzler Manufacturing25	Pipeline Analytics
н	Pipeline Analytics
Hammelmann Corp	PIPELOGIX
	PipeLogix, Inc
HammerHead Trenchless Equipment45	Piranha Hose Produ
Hannay Reels	<b></b> _
Hannay Reels	PrimeLine Products
Hi-Vac Corporation	Pulsar 2000
	Pulsar 2000, Inc
<u>Jetstream <sub>X</sub></u>	
Jetstream of Houston	Quik-Lining System
V	
K	THE SINGLE/SOLUTION
Ken-Way Corporation	R.S. Technical Servi
	IBAK
L	RapidView IBAK No
<b>Lansas</b> Products	Ratech Electronics,
LaPlace Equipment Co	
<b>.</b>	Reelcraft Industries
M2D	RIDGID.
Milwaukee Rubber Products, Inc	RYCOM Instrument:
Mongoose Jetters by Sewer Equipment65	
MyTana	goour
MyTana Mfg. Company, Inc77	Scooter Video Sewer Equipment C
Ν	SouthLAND:
N NLB Corp.	Southland Tool Mfg
NLB Corp 17, 48, 71	SPARTAN
NozzTeq	Spartan Tool, LLC
NozzTeq, Inc83	StoneAge, Inc
0	
Ocean@uip LLC	TIT TOOLS
Oceanquip Cables, LLC83 Olvidium, Inc76	T&I Tools Inc
orviorum, me	T&T Tools, Inc

P USTRIES	Trenchless Solutions, Inc60
erma-Liner Industries, LLC7	TRY TEK Machine Works, Inc
etersen Products Co	TST Sweden AB47
	IST SWEETING
etrofield Industries	U
PICOTE PICOTE	ultraSHORE PRODUCTS
	Ultra Shore42
cote Solutions83	US JETTING, LLC43
Pipeline Analytics	V
peline Analytics16	
PELOGIX	Vac-Con, Inc
peLogix, Inc52	Vacall-Gradall Industries81
ranha Hose Products46	VARCO
	VARCo24
meLine Products, Inc	
Pulsar 2000 Line Tracer	Vivax-Metrotech Corp
// Line Tracer JIsar 2000, Inc24	V 51 NETILAIS
	W
Q	WATER
uik-Lining Systems, Inc71	Water Cannon, Inc. – MWBE94
R	Westmoor Ltd
Stranka service na cycarland SINGLE/SOLUTION	WJTA-IMCA61
S. Technical Services, Inc	Woma Corporation60
IBAK	Marketplace 88
apidView IBAK North America	Classifieds
atech Electronics, Ltd16	
REELCRAFT	
RIDGID	· E-ZINE · E-ZINE · E-ZINE
DGID9	Have you seen the
YCOM Instruments, Inc46	Cleaner
S	E-Zine?
cooter Video	
ewer Equipment Co. of Nevada	Cleaner
OUTHLAND OOL Mes. Isc	
buthland Tool Mfg., Inc	
PARTAN	
partan Tool, LLC96	
<b>StoneAge</b> oneAge, Inc4	B-ZII - B-ZIII - B-ZIIII - B-ZIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII - B-ZIIII
т	
TTOOLS	Go to <b>cleaner.com</b> to view the e-zine.

.....32

E-ZINE · E-ZINE · E-ZINE · E

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



## It's About People

Stories reflect the life and opportunity this industry provides

## By Luke Laggis

often use this space to talk about the people of this industry. There are so many family businesses, so many second-, third- and fourth-generation plumbers and drain cleaners. It gives the whole industry a family culture, and I appreciate that.

I was talking to a third-generation plumber the other day. He owns a plumbing and drain cleaning operation in Philadelphia and was one of the first contractors I got to know after I started at *Cleaner*. I see him every year at the WWETT Show, and he calls every once in a while just to see how things are going and talk about the industry. He pointed out that I probably have longtime friends who don't call, but I've met people from all over who've dedicated their lives to this industry and who do call, just to talk or offer ideas or thank me for a story.



One of those conversations led to the profile on Wisler Sanon and All Service Plus in last month's issue. Sanon came to the United States from Haiti in 1992. As an adult, he spent 10 years working for several plumbing and drain cleaning companies before deciding to open his own business in 2012. He now employs five people and serves Philadelphia and all of New Jersey. And he says he couldn't do it without the help of his wife and son.

Family is also an important part of Dave Sigfrids' business. Sigfrids, the owner of Great Lakes Pipe Service in Superior, Wisconsin, worked for the City of Superior's wastewater department for 20 years before putting his knowledge and experience to work on the private side.

Great Lakes, profiled in this issue, specializes in cleaning and inspecting municipal sewer lines. Today, Sigfrids' two sons, Dave Jr. and Dylan, play important roles with the company, which has been built around a culture of service and commitment. He's established good relationships with his clients and considers them friends. He says being a small, personal company is important because his customers know they can talk to him or one of his sons when they need help.

In next month's issue, you'll be able to read about O'Connor Plumbing & Heating in Germantown, Maryland, another multi-generational company. O'Connor, which has been in business for 65 years, added a drain cleaning division about three years ago. Today, the division runs nine service trucks, employs 17 people and contributes about 33 percent of the company's total gross revenue.

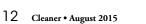
The story is a great example of the opportunity this industry provides, as well as how viable the traditional family business still is in this industry. Both of those things are pretty cool, and for me, they're a big part of what make it interesting to cover the industry.

You can read about products in a lot of places, but we tell your stories and help you write the next chapters. That's rewarding.

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

## HAVE YOU SOLVED A TOUGH PIPE REHAB PROJECT WITH A CREATIVE SOLUTION?

Share your story with 27,000 other professionals. Send a note to editor@cleaner.com or call 800-257-7222





# Blast More



## Introducing Jetstream's 650hp TwinForce<sup>™</sup> and 600hp 6000 Series Water Blasters

Our two new high flow, high horsepower water blasters pack a punch with up to 650 HP and have the power and reliability to make your job easier. They also come with the Jetstream<sup>®</sup> RightStart<sup>®</sup> training program as well as nationwide service support, parts and accessory availability, and water blasting application expertise - so you can focus on your business and increasing productivity.

To learn about how Jetstream can improve your productivity, call 800-231-8192 or visit www.waterblast.com.





A proud member of the Federal Signal Family. © 2015 Federal Signal Corporation www.waterblast.com 1.800.231.8192 Jetstream® TwinForce™ and RightStart® are registered trademarks of Jetstream of Houston, LLP.

# **@Cleaner.com**

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



## BOOST YOUR BOTTOM LINE **Plumbing Services Provide Added Opportunity**

You don't need to be a master plumber, but having one on staff might be something to consider if you're a drain cleaner who routinely puts money into the pockets of subcontractors. Companies like Pacific Drain & Plumbing recognized the opportunity and have reaped the benefits. Learn how this leap can complement the services you already offer and make vou more profitable. >>cleaner.com/featured

## **OVERHEARD ONLINE**

If Customers want to know what to expect for their bottom line. cost-effectiveness and productivity.

- Success Starts With Focus on Customers >>cleaner.com/featured

## HOT TOPIC Warning: Heat Can Kill

Sewer and drain cleaning poses many inherent safety risks, but there is one that is easily overlooked. As NFL All-Pro lineman Korey Stringer who died from heat stroke in 2001. Football teams now follow rules and procedures to help get players acclimated to the heat. The league >>cleaner.com/featured

# LESSONS LEARNED

## **3 Tips for Growing Your Drain Cleaning Business**

The fear of growing your company too fast is a legitimate concern that any small business owner eveing expansion can relate to. Perhaps you've considered offering a new service or adding more technicians to cover a larger footprint. If so, take the advice of veteran contractors who've faced the uncertainty, took on calculated risks, and succeeded through growth. >>cleaner.com/featured

## **Emails and Alerts**

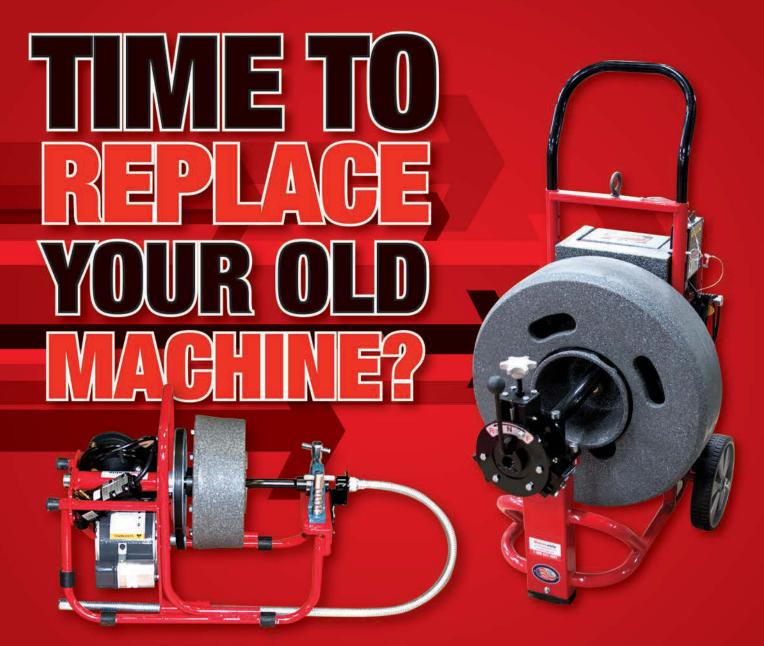


Visit Cleaner.com and sian up for newsletters and alerts. Get exclusive content delivered right to your inbox and you'll stay in the loop on topics important to you!

## Join the Discussion

Find us on Facebook at facebook.com/CleanerMag or

Twitter at twitter.com/CleanerMagazine



## GET 25% OFF + FREE SHIPPING

Call Duracable Manufacturing for details. Offer valid 8/3/15 - 8/27/15. Cannot be used with any other offer. Must mention promo# 487.





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

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





## Demand More from Your Data.





## **Contractor Solutions**

## NLB 225 Series: the most flexibility yet in a convertible water jet unit





With a simple conversion you can use the same pump unit for many different jobs.

225 Series up to 350 hp

## Choose from 42 combinations of pressure, flow and horsepower

If you need one water jet pump unit to handle many different jobs, you can't beat the NLB 225 Series. Its eight convertible models cover a pressure range from 4,000 to 40,000 psi, with flows from 6 to 82 gpm. You also get a choice of diesel engines: 200, 235, 275, 300, or 350 hp.

Built on the same platform as the NLB 125, 325, 605, and 1005 Series, these workhorse units have all the same advantages: reliability, fast conversion, easy maintenance, and low operating costs.

With the NLB 225 Series, you can be more versatile — and more productive. For details, visit <u>www.nlbcorp.com</u>, or call at **1-800-441-5059**.





The Leader in High-Pressure Water Jet Technology

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

# FROM THE

FORMER MUNICIPAL WASTEWATER WORKER STRIKES OUT ON HIS OWN AND BUILDS A SUCCESSFUL SEWER CLEANING COMPANY

PROFILE

OPPOSITE PAGE: Great Lakes Pipe Service owner Dave Sigfrids keeps a handle on the jetter hose while cleaning out a stormwater line along the shore of Lake Superior in Duluth, Minnesota.

>> **RIGHT:** Dave Sigfrids Jr. (left) and his brother, Dylan, work on clearing a storm sewer near the Arial Lift Bridge in Duluth, Minnesota, with a Vactor 2110 combination truck.

> fter 20 years working for the City of Superior, Wisconsin, Dave Sigfrids was faced with an important

decision about his future, and as it turned out, the future of two of his sons.

Sigfrids worked his way up through the city's wastewater department, starting as a catch basin cleaner and eventually earning a position as foreman, running numerous crews. He hoped

his service and experience would one day lead to a management position, but when the opportunity arose, he was passed over for someone with a college degree. Sigfrids was tasked with training the new person, which didn't sit well with him, so he handed in his resignation.

He was on his own after two decades with the city and needed work. He knew the sewer business, so he picked up a 1979 Vactor 810, secured some business with local municipalities and started Great Lakes Pipe Service.

"People will comment, 'I've lived here 60 years and never had a problem.' I ask, does your car last 60 years? It wears out." Dave Sigfrids "I was making enough money to move forward and start a building process," he says. "That was in 1999. I was cleaning and televising sewer systems. I had an Electric Eel machine and a small push camera from UEMSI. I was concentrating on municipal work and commercial. Residential was not on the

agenda. I figured I could not do all and offer the performance I wanted to give."

Sigfrids knew he needed a newer Vactor truck, but that was a big expenditure that would take awhile to secure. Over time, he brought on a few employees, made solid contacts and began to grow. He could see the way forward, particularly when his son, Dave Jr., joined the firm in 2006. Six years later, another son, Dylan, came on board.

Great Lakes remains focused on sewer cleaning and inspection, services he and his sons know well. The company also handles lift station maintenance and repair, coordinating with another contractor that repairs and installs lift station pumps. Once the contractor lifts the pumps out, Sigfrids does the cleaning, and then everything can be reinstalled and returned to service.



profile	GREAT LAKES PIPE SERVICE, SUPERIOR, WISCONSIN, SERVING 100-MILE RADIUS
ų,	OWNER: Dave Sigfrids
2 C	SERVICES: Pipeline video inspection, cleaning, root removal, cleaning lift stations
	CUSTOMER BASE: Municipalities, commercial
	EMPLOYEES: 4
	ASSOCIATIONS: NASSCO

#### **GETTING ESTABLISHED**

Sigfrids has built his company around a culture of service and commitment. The customer base is 90 percent municipal and 10 percent commercial, and he's established good relationships with his clients.

"We are pretty close knit. We're friends, and that is important," Sigfrids says. "We get calls from clients and it's helpful that we know their systems. We have their maps. Someone can call from one of these cities or towns and give us an address where there is a problem, and we can check the map and know exactly where the backup is.

"We are dealing with some clay sewer systems that are 100 years old. People don't always understand that even though the ground is frozen, trees grow just as far down as they grow up. These trees sense the water inside the pipes. Being clay tile, they are not completely sealed and those roots grow right inside the pipes. This is a major issue, particularly with those old clay pipes.

"Basically what we do is clean it, televise it, give them the data and offer suggestions as to how to get it fixed, and we give some recommendations



as to companies they can go to for the repair. ... We have clients who have lines going under major thoroughfares, but they do not have the money or financing to do rehab or dig the pipe up. These are the customers who come to us annually to run the root cutter through and keep the system running."

The bottom line, Sigfrids says, is they have to maintain the old sewer systems. "Some people do not understand that the sewer system is basically a mechanical device, and every mechanical device will fail eventually. Everything has a life expectancy, and certainly that is so with a sewer system. Over the years, they simply deteriorate, because water is abrasive, and then we have the roots. The system ages and falls apart.

"People will comment, 'I've lived here 60 years and never had a problem.' I ask, does your car last 60 years? It wears out."

"In all of these areas we are involved with, I have trained my sons to be thorough. Not to be in a hurry — to always do it right." Dave Sigfrids

Great Lakes Pipe Service has preventive maintenance contracts with some municipalities, where they will inspect and clean a portion of the sewer system on an annual rotation. Sigfrids says it is all about maintaining and taking care of these old systems.

"Once they start finding failed pipe, they are dealing with I&I problems," he says. "There is a lot of that going on. Every time there is a rain event, the pipes leak and every gallon of water that goes through the sewage plant costs money to be treated. We see a lot of that. But the main purpose is maintenance."

He points out that sewer rodding and root cutting with high-pressure water are essential to the program. And they have an array of high-tech tools, including rotating nozzles, saw blades and chain flails — all to cut out roots. He says it's important to spend the money on these nozzles because they are a critical part of the business.

Sigfrids is also frequently called on



**ABOVE:** Dylan Sigfrids (right) of Great Lakes Pipe Service tosses a Tiger Tail to his dad as they set up to jet a stormwater line along the shore of Lake Superior in Duluth, Minnesota.

**BELOW:** Dylan Sigfrids (left) and Dave Sigfrids Jr. of Great Lakes Pipe Service clean a jetter nozzle on the job site.



by other full service providers who are too busy to handle jobs in the Great Lakes' immediate area.

"They sometimes are just unable to come all this way and they'll ask if we can run a camera for them, so we end up subcontracting. They know they can depend on us, and we in turn call on them for some services we do not provide. That would include lining and pipe bursting. All underground repairs. They are also people we can go to for advice in some instances."

When the call comes for inspection services, he and his crew turn to one of two units: a 2008 UEMSI pan and tilt camera system in a 1990 GMC panel van, or a UEMSI Predator Advantage mini mainline-inspection system for 6- to 36-inch lines. The latter is set up in a Haulmark single-axle trailer that can be pulled with their four-by-four recreational vehicle to reach remote locations inaccessible with a full-size truck.

# Built to withstand the toughest handlers

rugged, dependable, powerful CCTV inspection technology

cameras | tractors | vehicles | systems 3800.767.1974 ①www.rstechserv.com



www.cleaner.com • Since 1985 August 2015 21

THE SINGLE / SOLUTION



Big equipment includes a 2002 Vactor 2110 jet/vac truck and a smaller 1992 Guzzler unit.

The company's stable of equipment also includes an older trailer jetter (2,000 psi/35 gpm) and a 1999 Landa steamer mini-jet (3,000 psi/15 gpm) with 300 feet of 5/8-inch hose. For nozzles, Sigfrids turns to Enz, KEG and NozzTeq.

"People can pick up the phone and get me or my sons, particularly if there is an emergency. They know whom they are talking to. That's important to me."

Dave Sigfrids

Great Lakes serves some commercial customers such as shopping malls and food processors, with whom they generally have maintenance agreements in place. The company also inspects new sewer systems that must be certified before the municipalities will take control.

"In all of these areas we are involved with, I have trained my sons to be thorough. Not to be in a hurry — to always do it right," Sigfrids says. All three are PACP certified through NASSCO.

#### **KEEPING IT PERSONAL**

Sigfrids recalls those earlier days in business for himself and the immediate realization that he couldn't just check out on the clock, because it was a 24/7 responsibility.

"Initially I had business cards made up, knocked on many doors. I explained my position and what I had been doing for years, and asked people to give me a chance. I gave demonstrations with my equipment — how I worked and how the equipment worked.

Great Lakes Pipe Services now operates out of a 1,600-square-foot facility



CEFT: Great Lakes Pipe Service is an extension of family for the Sigfrids – Dave Jr., Dave, and Dylan (from left).

**ABOVE:** Dave Sigfrids sets up his UEMSI Track Jr. camera and crawler prior to inspecting a sewer line in Superior, Wisconsin.

with a small office and room to keep the equipment indoors during winter.

"I have been experimenting with an RV antifreeze and leaving equipment outside. This works with the Guzzler, but the Vactor needs to be stored in the heated shop."

When temperatures drop well below zero during stretches of winter, they focus on equipment maintenance. His trailer rodder runs on water, and since his building never goes below 50 degrees, the equipment is always ready. He can go on a job site and unclog a sewer, turn around and drive right back to the barn and everyone is happy. Later during warmer weather, he'll go back to clean and inspect for problems.

With a small crew, good scheduling is important. There is always someone at the main office, usually Sigfrids himself, while his sons are out on the road. There can be several small communities on a single route, so they'll take the big truck and move from one to the next. The operator can opt to stay in a motel or return to home base, depending on where they are.

"We remain a small, personal company," he says. "People can pick up the phone and get me or my sons, particularly if there is an emergency. They know whom they are talking to. That's important to me. They are friends. I trust them and they trust me. If there is a question about an invoice, they can get an answer right away. We can take care of it." **c** 

## more info

Electric Eel Mfg. 800/833-1212 www.electriceel.com (See ad page 42)

Enz USA, Inc. 877/369-8721 www.enzusainc.com (See ad page 28)

Guzzler Manufacturing 800/627-3171 www.guzzler.com (See ad page 25)

KEG Kanalreinigungstechnik GmbH www.keg-pipe.com NozzTeq, Inc. 866/620-5915 www.nozzteq.com (See ad page 83)

UEMSI 800/666-0766 www.uemsi.com

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

## ALLAN J. COLEMAN **Call us today!** 773-728-2400 **SINCE 1905**

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

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

## **SR-24 Line Locator** with Bluetooth® and GPS

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

## **SeekTech®** SR-20

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



## **NaviTrack<sup>®</sup> Scout**<sup>®</sup> Scout is designed to solve

demanding remote transmitter (sonde) locates using multidirectional locating technology.

## SeeSnake<sup>®</sup> 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
  - Davlight viewable display for a crisp, clear in-pipe image
  - SeeSnake HQ Software to edit, archive, and deliver reports via print, DVD, or online
- On-screen keyboard for basic titling and text entry • CS6 will dock in the RM-200 Max or
  - operate as a stand alone monitor

## **CS**65 Digital Reporting Monitor

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

## **SeeSnake<sup>®</sup>** MAX rM200 **Camera System**

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

Authorized SeeSnake **Repair Center** THE BEST SERVICE AND FAST TURN AROUND!

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

## SeeSnake<sup>®</sup> Mini Camera Reel

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





•	ORDER TOLL FREE 866-872-1224
	SHOP 24 HOURS A DAY 7 DAYS A WEEK ONLINE AT WWW.VARCOPUMPER.COM

NEW

VARCO

JETTERFLEX

PREMIUM

PIRHANA

SEWER HOSE

**PayPal**<sup>®</sup>

IOUID WASTI

HOSE & ACCESSORIES

## VARCO LATERAL LINE / WATER JETTER HOSE VARCO Branded and MADE IN THE USA;

VARCO DIdilueu dilu MADE IN THE USA;

- We get it for cheaper, so we can sell it for cheaper.
- Lateral line hose has become the standard for the septic industry.
- Polyether-urethane cover provides exceptional cut, abrasion and fungus resistance.

• Sizes from 1/8" up to 1", Working pressures up to 4800psi.

	PREMIUM PIRHANA SEWER HOSE							
	DESCRIPTION	<u>500 ft</u>	<u>600 ft</u>					
<u>3⁄4"</u>	Premium Pirhana Orange 2500psi	\$1,095.00	\$1,314.00					
<u>1"</u>	Premium Pirhana Orange 2500psi	\$1 <mark>,285.00</mark>	\$1,540.00					
<u>3⁄4"</u>	Premium Pirhana Blue 3000psi	\$1 <mark>,154.00</mark>	\$1,385.00					
<u>1"</u>	Premium Pirhana Blue 3000psi	\$1 <mark>,485.00</mark>	\$1,780.00					

## **NEW VARCO JETTERFLEX LATERAL LINE / JETTER HOSE**

4000 psi rated • Safety Green - Pressure Tested • Precoupled assemblies MXM pipe thread fittings							*3/16" ON CLOSEOUT SPECIAL - SAVE 25%						
	<u>50'</u>	<u>75'</u>	<u>100'</u>	<u>150'</u>	<u>200'</u>	<u>250'</u>	<u>300'</u>	<u> </u>	<u>400'</u>	<u>450'</u>	<u>500'</u>	<u>550'</u>	<u>600'</u>
<u>1⁄8"</u>	\$15.28	\$21.25	\$ <mark>26.3</mark> 8	\$37.49	\$48.60	\$56.74	\$66.88	\$77.02	\$87.15	\$97.31	\$107.45	\$117.58	\$127.72
<u>3/16"*</u>	\$21.23	\$26.95	\$33.60	\$44.89	\$56.84	\$68.80	\$80.75	\$92.71	\$104.66	\$116.63	\$128.58	\$140.54	\$152.50
<u>1⁄4"</u>	\$29.85	-	\$55.85	\$81.82	\$107.77	\$126.38	\$150.52	\$174 <b>.65</b>	\$198.77	\$222.89	\$247.02	\$271.15	\$295 <b>.</b> 28
<u>3⁄8"</u>	\$62.08	\$91 <b>.</b> 28	\$105.54	\$151.12	\$215 <b>.06</b>	\$259.57	\$304.05	\$347.48	\$382 <b>.0</b> 9	\$425.75	\$469.43	\$513.11	\$556.77
<u>1⁄2"</u>	-	-	\$186.69	-	\$353.97	-	\$505.85	-	\$660.02	-	\$815 <b>.</b> 97	-	\$972 <b>.</b> 66

WISA

**SOURCE KEY** 

8C15

Reel- For No Extra Charge! No

**Comes on Plastic** 

Cardboard to Get Wet!

Patent

Smaller sizes and lengths

do not come on reel check with your customer service rep for details.

> Locate Lines Locate Water Leaks Training Video

Line Tracer

It's a jumble out there.

www.Pulsar2000.com

MasterCard V/SA'

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

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

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

you want to learn more about the Pulsar 2000 and our leak locating equipment, please call **1-888-752-5463** or e-mail **jsmll@aol.com** 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.

# <text>

CIERE



SERVICE

GUZZLER

用:

TRAINING

PERTISE

ARTS

Guzzler is a registered trademark of Guzzler Manufacturing. ©2015 All Rights Reserved.

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

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

Guzzler products are serviced and supported by FS Solutions™

## **Small But Strong**

Mississippi drain cleaner opens up clogs - and new markets - with compact but powerful trailer jetter

## By Ken Wysocky

here aren't just two words in the English language that can define versatility, power, profitability, efficiency and great customer service. But in Mickey Wright's world, two such words exist: Spartan Soldier.

"We've been in business for 32 years, and we've had the Soldier water jetter for two of those years, and I don't know how we survived all those years without it," says Wright, general manager of Mitch Wright Plumbing, Heating & Air in Southaven, Mississippi, located south of Memphis, Tennessee. His father, Mitch, founded the company in 1983. "The possibilities of what you can do with it are endless.

"We've cleaned everything from 10-inch-diameter lines at a grocery store down to 2-inch residential drainlines for washing machines," he adds. "How do you beat that?"

Made by Spartan Tool, the Soldier is compact (10 1/2 feet long by 4 3/4 feet wide by almost 5 feet tall) but powerful (generates 12 gpm at 3,000 psi). It comes with 250 feet of 3/8-inch hose, 100 feet of 5/8-inch hose and 75 feet of 1/4-inch trap-cleaning hose; a 200-gallon water tank with integrated baffles; a triplex ceramic plunger pump; a 180-degree pivoting hose reel with variable-speed power rewind; a 27 hp twincylinder, water-cooled engine; and a noise-reducing cowling. It weighs 1,720 pounds empty.

Wright loves the combination of a smaller, more maneuverable unit that's still powerful enough to

handle tough clogs that typically would require a larger, more unwieldy jetter. The size factor frequently comes into play because most of the company's business is residential work, he notes.

"It's really easy for us to get the machine where we need it," Wright says of the unit, which is towed by a Ford E-350 outfitted with a KUV utility body made by the Knapheide Manufacturing Co. "We can fit it into a (street) parking spot or in a carport. I've even driven it inside a warehouse. If you can get a vehicle inside a building, I can get the jetter in there, too. It's much easier than towing around a big tandem-axle trailer."

Before the company bought the Soldier, it relied mainly on a Spartan 1065 cable drain cleaning machine; it also owns three RIDGID K-400 drum machines, plus a SparVision pipeline inspection camera made by Spartan. But the Wrights wanted to open up new markets by offering more drain cleaning services, and the Soldier enabled them to do just that.



Technician Ronnie Baldwin cleans a residential lateral line with a trailer-mounted Spartan Soldier jetter. The machine has quickly become a significant profit generator for Mitch Wright Plumbing, Heating & Air in Southaven, Mississippi.

FUNCTION: Cleaning drainlines

COST: About \$20,000

nachines

"This machine offers our clients better service," Wright explains. "Sometimes a cable machine can't get through a clog, but the Soldier goes right through it."

In addition, by cleaning a line and then televising it, crews can spot

OWNER: Mitch Wright Plumbing, Heating & Air, Southaven, Mississippi

towed by a Ford E-350 with a Knapheide KUV truck body

200-gallon water tank with integrated baffles; 180-degree

pivoting hose reel with variable-speed power rewind; 27 hp

twin-cylinder, water-cooled engine; noise-reducing cowling

MACHINE: Soldier trailer-mounted water jetter from Spartan Tool LLC,

FEATURES: Triplex ceramic plunger pump (12 gpm at 3,000 psi);

more serious problems. That, in turn, can lead to larger repair jobs, which the company also performs; that produces additional revenue the company would have foregone before, Wright says.

"We just had a customer with a cast iron pipe for a washing machine

line," Wright notes. "Another company had cleared it with a cable drain cleaner, but it still was clogging up. We cleaned the line and removed some debris, which revealed that the bottom of the pipe was rusted out. So there's a big difference between clearing a line and cleaning a line.

"A typical line repair runs around \$5,000 to \$8,000," he adds. "This particular one cost about \$6,800." By generating additional jobs, Wright says the Soldier paid for itself after just one year in operation.

"We charge \$650 for a jetting job," he explains. "Sometimes that's more than the customer wants to pay, but it helps to be able to provide them with different options, such as opening a line with a cable machine versus actually cleaning it with a jetter, so it's like new again. When you have options, it eases the shock of a \$650 charge." To offset the sticker shock, Wright Plumbing also offers a one-year warranty on jetting jobs; if the line clogs within a year, the company will clear it for free. "That makes it easier to swallow the higher charge," he says.

Wright also lauds other productivity-enhancing features, such as a pivoting hose reel that provides full access to drain locations, even if the driver can't align the trailer exactly with a drain, and electronically controlled pump pulsation to force the nozzle head through tight turns and stubborn clogs.

"The baffled water tank is a big deal to me, too," he notes. "You don't have that weight shifting to the outside on turns. And I also like the unit's built-in fill hose. If we're jetting and run low on water, it's nice to be able to just pull out the hose and refill the tank and keep jetting at the same time. I don't have to take time to look around for a hose and then connect it to the water tank."

The noise-reducing engine shroud is also a big plus, especially for a company that does most of its work in quiet residential neighborhoods. "You still can hear the engine running, but it's not that loud — I've heard pressure washers louder than the Soldier," he says. "And the engine shroud gives us room to put our name on the jetter."

Like many contractors, the Wrights thought long and hard about spending roughly \$20,000 on a larger jetter like the Soldier. But in the end, it turned out to be a profitable decision — call it spending money to make money.

"I can understand how guys feel like that," Wright says. "We were there ourselves  $\dots$  we were scared about spending that much. But I'm so thankful we just decided to do it." **c** 



#### **Every Minute Counts**

Getting the job done on time is a big plus — and that goes beyond controlling costs. Meeting schedules keeps customers and crews happy. To pull this off, you need equipment that is ready to go any time and in any weather. That's why leading jetting OEMs and hydroexcavators trust Cat Pumps to get the job done.

#### The Perfect Pump for Your Application

Cat Pumps has the best fit for your application, with direct and hydraulic drive models covering flows to 75 gpm and pressures to 10,000 psi. Every pump is built to Cat Pumps industry-recognized high-quality standards.



The new 3570 is rated at 30 gpm to 3000 psi. Drive options include direct/hydraulic and gas/diesel engine.

Every minute counts! Cat Pumps stocks all service parts and pumps for off-the-shelf delivery.

Contact us for more information.

www.catpumps.com | (763) 780-5440



The Pumps with Nine Lives

# Tame your pipes with The Bulldog Antiblast!



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

CALL

**1877 ENZUSA1** 

ORNAD INDUSTRIES Oil & Gas Municipal Utilities Construction PETROFIELD Applications NDUSTRIES Safe Exposure of Utility Lines Line and Pipe Excavation Equipment Cleaning Shoring Trenching Keyhole Excavation FEATURES 0-3000 psi Wand Pressure Incredible Vacuum Power Wireless Remote Control 26 ft. Boom with 342° Radius Hydraulic Powered Mud Sweep Positive Displacement Blowers Centralized Grease Manifold Divided Tank for Debris and Water THE WORLD'S BEST HYDROVAC sales@petrofield.com 1.877.340.8141 www.tornadotrucks.com

## THE BEST TOOLS FOR LATERAL SERVICE INSPECTION

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

- Inspects lateral services with or against the flow! Navigate through multiple "wyes", bends, and sweeps in 6" - 36" lines!
- Self-leveling camera, 360 degree continuous pan and tilt, automatic self-leveling
- Built-in wiper system keeps the camera lens clean
- Built-in multi-frequency sonde transmitter

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

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



Contact CUES for a discussion & demonstration! 800.327.7791 www.cuesinc.com salesinfo@cuesinc.com









CUES proudly offers custom truck-mounted systems for all of your TV inspection and rehabilitation needs!

TV Mainline/Lateral Inspection Trucks

Equipment can be ergonomically mounted to inspect 6" through 200" mainlines and 3" through 8" lateral services with optional equipment to inspect 3" through 8" lateral services with access from the mainline or a clean-out.

## The Hierarchy of Waterblasting Safety

When it comes to waterblasting safety, PPE should be your last line of defense

By Doug Day

aterblasting is dangerous work with several inherent risks. The best way to keep workers safe is to put as many obstacles as possible between the danger and the worker, according to Gary Toothe, training manager for Federal Signal's Environmental Solutions Group. He calls it the hierarchy of safety.

"If an accident is going to happen, it has to make it through all my layers of safety instead of just one," says Toothe. After all, there is usually a confluence of conditions that happens at just the right time that turns an event into an accident or a close call into an injury. "You want to put in as many safety components as possible, all working together. The higher up you are on the hierarchy, the safer you are."

## THE HIERARCHY OF SAFETY

#### 1. Elimination or substitution

Waterblasting is not always the best answer. There may be alternatives that are safer, such as chemical cleaning or the new robotic systems. "A lot of people are coming out with automated waterblasting systems that eliminate the human element," he says, noting that Dow Chemical now requires hands-

"You want to put in as many safety components as possible, all working together. The higher up you are on the hierarchy, the safer you are." Gary Toothe free waterblasting and BASF will require it later this year.

#### 2. Engineering controls

Anti-withdrawal and antireversal devices, trigger locks and rupture discs serve as mechanical barriers from the risk. "Engineering controls take the danger out of the system and don't rely on the individual," Toothe says. But they can be bypassed or disabled. "Nothing is foolproof to a sufficiently talented fool."

Even when properly used, such controls still may not be

enough. "I know of an incident where a guy was cleaning hardened polymer out of a line," Toothe says. "He had the valve properly locked out, but unbeknownst to him, the valve was leaking. When he broke through the hardened polymer he got to the really hot polymer and there was a steam explosion." The worker suffered third-degree burns down his back from steam and molten plastic. That's why Toothe recommends going beyond lockout/tagout requirements and using best practices like double blocked (lockout the valve and the next one upstream), block and bleed (lockout both valves and bleed whatever is left in the line), or blind (a metal sheet that physically blocks flow through the pipe).

#### 3. Warnings

"Pressure-relief devices and pressure gauges provide a warning and allow reaction time to fix the problem," Toothe says. "Proper barricades and permits warn you about the dangers so you can react and prevent danger."

Toothe stresses that there is no set distance for barricades. "The proper distance is where the water no longer presents a danger. You have to calculate pressure and flow to see where that is. If I can't use distance for a proper barricade, I have to put up a barrier to make sure the energized water or any debris doesn't exit the area."

#### 4. Training and administrative controls

"Training for both knowledge and skills is absolutely required before anyone puts something that can kill them into their hands," Toothe says.

Additionally, administrative controls such as company policies and the WaterJet Technology Association recommended practices empower workers to take charge of their own safety.

## 5. Personal protective equipment (PPE)

Protective suits, safety shrouds and body protection serve as a temporary obstruction between the worker and the hazard. While readily available and cost-effective, PPE won't always prevent injury. "It should never be your first line of defense," Toothe says. "It does not eliminate the danger."

Safety, he stresses, is a team sport. "Everybody has to be involved in creating standard operating procedures, hazard analysis, checklists, understanding the permits and doing the pre-operational equipment inspections. They are the ones at risk if they don't." **c** 









## 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

## Parts, Parts, & More Parts



When you need parts in a hurry there is one source to remember – FS SOLUTIONS<sup>®</sup>. FS Solutions centers stock thousands of parts for all makes and models of vacuum trucks, waterblasting equipment and hydro-excavators. And FS SOLUTIONS is the authorized genuine OEM parts distributor for JETSTREAM<sup>®</sup>, GUZZLER<sup>®</sup>, and VACTOR<sup>®</sup> HXX<sup>®</sup>.

Parts are available at nationwide locations for pick up or quick shipment.



A proud member of the Federal Signal Family. FS Solutions® Vactor® HXX® Jetstream® and Guzzler® are registered trademarks of Federal Signal.



www.fssolutionsgroup.com 1.800.822.8785 © 2015 Federal Signal Corporation



n M

TEXAS CONTRACTOR RETOOLS AND REFOCUSES HIS BUSINESS TO TAKE ADVANTAGE OF THE GROWING PIPE BURSTING MARKET

COVER STORY

IN 1999, VETERAN UNDERGROUND UTILITY AND SITE-PREP CONTRACTOR JOHN NEWELL CLEARLY SAW HIS BUSINESS FUTURE LYING ALONG A BUSY ROADWAY IN HOUSTON.

"I happened to be driving past a sewer line replacement job and saw a very long piece of pipe on the ground," recalls Newell, the owner of No-DigTec, based in Dallas. "I was so curious about what was going on that I had to pull over and find out. I couldn't figure out what in the world they were doing with such a long piece of pipe.

"I talked to the contractor and he told me about pipe bursting," he continues. "I thought to myself, 'Wow – this is the future.' At the time, I was seeing (horizontal) boring rigs everywhere, putting in fiber-optic lines, and I knew that eventually it just wouldn't be economically feasible to do open-cut utility installations, because all those dry utility lines would be in the way. That's what prompted me to get into pipe bursting."

The chance encounter turned out well for Newell. Today, No-DigTec is the largest pipe bursting contractor in north Texas and one of a handful of firms nationwide that has the expertise and equipment to burst large-diameter pipes (generally defined as 24 inches and larger). Moreover, since Newell founded the company in 2000, No-DigTec has invested about \$3 million in equipment, employs about 25 people and will gross about \$10 million in revenue for 2015.

"Like I tell people, every now and then in life opportunity knocks on the door," the folksy, plainspoken Newell says. "You have to at least open the door and greet it to see if it's something you want to take advantage of. Lots of opportunities exist if people just stop and look around. It turned into a pretty good little thing for us."

Along with the financial success, Newell has become a recognized expert in the field.

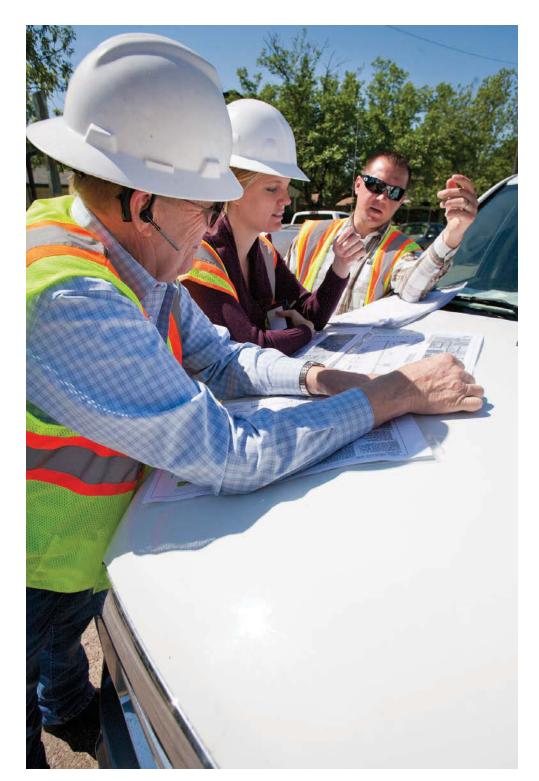
The No-DigTec crew positions new 8-inch fusible PVC pipe along the installation path for a municipal pipe bursting project

lesquite, Texas

His company has worked with HammerHead (a brand owned by Charles Machine Works) to test new trenchless equipment. He also periodically serves on expert panels at trenchless technology trade shows, sits on the board of directors of the Underground Construction Technology Association and lectures seniors in the engineering program once every semester at the University of Texas at Arlington. Not bad for a guy who 15 years ago didn't know a bursting hammer from an expander head and whose company generated only several hundred thousand dollars in gross revenue in its first year of operation.



As new pipe replaces old, Cruz Sanchez hands Juan Rojo rods used to pull the hydraulic bursting head through the line.





LEFT: No-DigTec owner John Newell goes over plans with City of Mesquite engineer Christina Hickey and inspector Steven Winn.

**ABOVE:** Crew member Oscar Gutierrez stows rods as new pipe is pulled into place on a municipal pipe bursting job.

"At the time, I was seeing (horizontal) boring rigs everywhere, putting in fiber-optic lines, and I knew that eventually it just wouldn't be economically feasible to do open-cut utility installations, because all those dry utility lines would be in the way. That's what prompted me to get into pipe bursting." John Newell

	NO-DIGTEC LLC, DALLAS, TEXAS
	OWNER: John Newell
	FOUNDED: 2000
file	EMPLOYEES: 25
6	SPECIALTIES: Pipe bursting water and sewer lines
	SERVICE AREA: North Texas and southern Oklahoma
	WEBSITE: www.pipeburster.com
	PROFESSIONAL AFFILIATIONS: Underground Construction Technology Association, National Utility Contractors Association, International Pipe Bursting Association

"I'm self-taught and knowledgeable about pipe bursting," he says. "And I believe I should share that knowledge with all those young engineers. They can take this technology and refine it — take it to the next level. This is an industry that's just getting started and has a bright future ahead of it."

#### **POWERFUL TECHNOLOGY**

Pipe bursting technology was developed in England during the 1980s. In essence, it involves pulling — under extremely high pressure — a conicalshaped device called an expander head (also referred to as a bursting head) through the pipe that's being replaced.

A length of pipe — typically sections of high-density polyethylene (HDPE) pipe that are fused together — gets connected to the rear of the

expander head. Because the back end of the expander head is larger than the host pipe, it fractures the pipe as it's pulled through, clearing a path for the new HDPE pipe following behind it. With the right equipment and soil conditions, almost any kind of pipe — from clay and cast iron to concrete and malleable steel — can be burst, Newell says.

No-DigTec does both pneumatic and static pipe bursting. The former method is used primarily for replacing gravity-fed pipes, and the latter mainly for replacing pressurized pipes. Pneumatic bursting relies on a percussion hammer action to help the expander head break the host pipe. A winch located at ground level maintains constant tension on the bursting head via a thick metal cable. In static pipe bursting, a downhole unit pulls the expander head through the host pipe with series of interconnected rods.

Pipe bursting offers many advantages compared to open-cut installations.

First and foremost, the new pipe follows the path of the host pipe, so there's rarely a problem with hitting other kinds of lines. Other advantages include:

- About 85 percent less excavation required (the process still requires some excavation — an insertion pit on one end and a receiving pit on the other, plus pits for service reconnections).
- Significantly faster and more cost-effective installations.
- Minimal chance of damage to landscapes and things such as trees, patios, buildings and so forth.
- The ability to upsize pipes for additional flow capacity, sometimes up to five times larger than the host pipe's diameter.
- No long-term lane/road closures.



No-DigTec workers operate a HammerHead hydraulic pipe bursting unit in the receiving pit, pulling in 5,000 feet of new 8-inch PVC pipe.

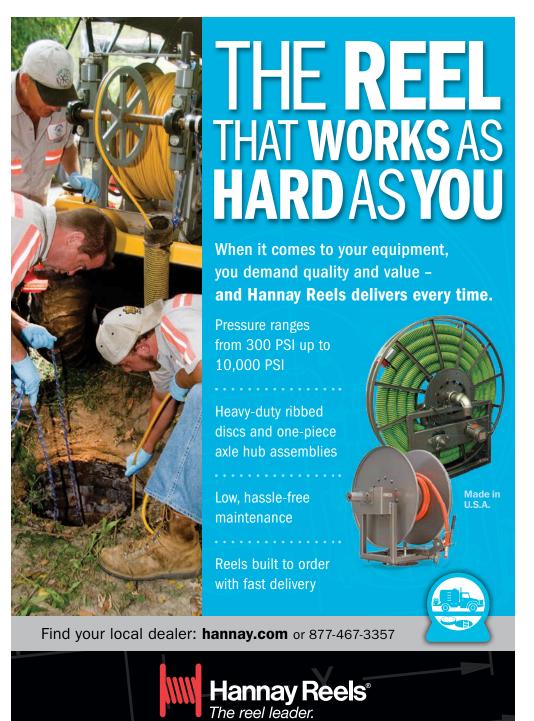
• Less carbon dioxide emissions from excavation equipment and hauling materials.

#### **BIG MARKET POTENTIAL**

Newell didn't do any formal market research when he founded No-DigTec. What he did know, however, was that a lot of water and sewer infrastructure installed between the turn of the century and the post-World War II years is reaching the end of its useful life span.

"I just knew it was coming," he explains. "And you can imagine all the stuff — fiber-optic lines and such — that they've put on top of those utility lines since then."

Originally, No-DigTec focused on residential and commercial work because it dovetailed well with a plumbing outfit Newell operated at the time.



#### EMERGENCY SITUATION: HOSPITAL NEEDED NEW SEWER LINE STAT

In fall 2003, No-DigTec tackled an unusually challenging job: replacing 200 feet of a collapsed 6-inch sewer line running underneath the Children's Medical Center of Dallas.

The main challenge was accessibility; the hospital's central outdoor courtyard offered the best access to the collapsed line, but its tight, narrow confines made it impossible to bring in conventional heavy equipment – except by helicopter, which wasn't an option because of the intense noise it would generate. Fortunately, crews were able to hand-carry No-DigTec's lightweight, collapsible and portable equipment into the courtyard.

But the project took on added drama because in one month (Oct. 12, to be exact), craniofacial surgeons at the hospital were scheduled to separate conjoined 2-year-old Egyptian twins Ahmed and Mohamed Ibrahim. The high-profile operation was attracting worldwide attention, and a press conference to update a large media contingent was going to be held in the same courtyard where the work was occurring.

The short timeline required No-DigTec crews to work around the clock for weeks. Crews first removed the courtyard landscaping, then hand-dug two 20-foot-deep pits in heavily compacted soil because there was no way to bring in excavation equipment. Furthermore, the pits required shoring, which took even more time. And because there was no room for an excavator, workers had to instead build a gantry to hold a 1-ton electric lift that removed soil from the pit as workers dug deeper and deeper.

"It was a very labor-intensive process," says John Newell, the owner of the Dallas-based company. "On a stress scale from one to 10, this job was every bit an eight or a nine. There was nothing easy about it. But we got it done."

No-DigTec used a static pipe bursting system that was lowered into the pit via the electric lift. The static system was used because it can punch a length of interconnected metal rods through collapsed lines. Then those rods get connected to an expander head on the other end of the project. The rig then uses the rods to pull the expander head – with the new pipe connected to it – back through the space vacated by the fractured host pipe.

The project took three weeks to complete, and workers finished about one week before the 34-hour-long surgery took place, Newell says. Both operations were a complete success.

But the company gradually switched over to commercial work — replacing lines at malls, high-rise buildings and industrial complexes, for example — before it settled on the municipal market.

As for marketing, Newell says he did very little except for cold-calling during the company's early years. "Once you explain the technology and show that it involves 85 percent less excavation, can save them a little money and get the job done faster, the work kind of sells itself," he notes. "If you sell your services with confidence and knowledge, they'll give you a chance. I don't call on people anymore — the phone just rings. We've got a good reputation — especially for clean, efficient work sites — that has spread by word-of-mouth"

The majority of No-DigTec's work centers on not only replacing damaged lines, but upsizing them as well. More and more municipalities are converting to 8-inch-diameter pipes as the standard for water and sewer lines instead of 6-inch lines, Newell says.

# **BANGERSON BY VANDERLANS AND SONS, INC.**

High & Low Pressure Joint Tester



"Smart Box™" Line Acceptance Test Kit

> "Super Vac™" Manhole Vacuum Testing



Vacuum Test Plate with Protective Cover

#### **COMPETITORS EMERGE**

As more and more engineers see the advantages of pipe bursting and specify bursting instead of open-cut methods, demand for No-DigTec's services has increased. That, in turn, has drawn more competitors into the market. However, several things help his company maintain a competitive advantage, Newell notes.

First of all, many project contracts require that contractors have pipe burst a certain amount of linear feet of line; this makes it tougher for inexperienced companies to break in. Moreover, a typical bursting rig setup can cost north of \$150,000, which erects somewhat of a barrier to market entry. And last, No-DigTec has been in the business long enough to give customers confidence in its ability to do the job, Newell says.

"Bursting looks easy, but there are lots of tricks of the trade you learn only by experience," he observes. "For instance, there are things you can do to minimize the chances of your hammer stalling during critical bursts, like under roads and highways. If it

ansas



## lansas.

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

High Pressure Plugs ~ to 150 PSI

ansa

lansas

DN 220 PS1 PRESS. 150

Multi-Size Domeheads™ Front and Back Plugs

**Custom Designs Are Always™ Available** 

VANDERLANS AND SONS, INC. California 1-800-452-4902 Atlanta 1-770-509-9309 Chicago 1-800-452-4902 Houston 1-832-804-6932 www.lansas.com



AR™ Plugs



"Like I tell people, every now and then in life opportunity knocks on the door. You have to at least open the door and greet it to see if it's something you want to take advantage of." John Newell

does stall, they're not going to close down a highway so you can dig it out, so you'll have to get another line under the highway. So a \$200,000 job could turn into a \$1.5 million liability because you didn't have the experience to set it up right.

"You really have to plan ahead," he adds. "Sometimes, for instance, you have to disrupt traffic because there's no other space to lay out, say, 500 feet of pipe. Again, it looks easy, but there's so much more to it in terms of planning."

#### **EQUIPMENT DRIVES PRODUCTIVITY**

In the past, No-DigTec has burst around 30,000 feet of pipe a year, Newell says. This year, the company could do as much as 50,000 feet. To accomplish that kind of production, No-DigTec has acquired a large fleet of vehicles and equipment aimed at boosting efficiency and customer satisfaction. The company's machines include five static and six pneumatic pipe bursting rigs made by HammerHead; three HammerHead winches (one 20-ton winch and two 12-ton units); three air compressors made by Sullair (a division of Accudyne Industries) used to power pneumatic hammers; five HammerHead hydraulic power packs that supply power to the static rigs; and three HDPE pipe fusion machines made by McElroy Manufacturing.

In addition, the company owns two tandem-axle dump trucks made by Mack and International (a brand owned by Navistar); eight excavators built by Takeuchi Manufacturing; three backhoes and two skid-steers made by New Holland (a brand owned by CNH Industrial America); six 1-ton flatbed trucks made by Chevrolet, Ford and Dodge; and three pickup trucks made by Dodge and Chevrolet.

The company also relies on a trailer-mounted water jetter made by US Jetting (18 gpm at 4,000 psi) used to cut roots from and clean debris

#### Newell (left) looks on as his employees complete a pipe bursting job in the City of Mesquite, Texas.

in pipelines; an SPV800 trailer-mounted hydroexcavator built by VACMASTERS (a brand owned by Barone) used for potholing to spot gas and telephone lines or excavating around existing utility lines; 16 assorted trailers made by Interstate Trailers, Belshe Trailers, AmeraTrail and Ranch King Trailers; one International 2-ton utility truck; and six pipeline-inspection push-camera systems made by HammerHead, RIDGID and Vivax-Metrotech.

#### **BRIGHT OUTLOOK**

Looking ahead, Newell envisions continued growth driven by aging water, sewer and gas infrastructure and increasing acceptance of pipe bursting as an alternative to open-cut pipeline replacements. How much infrastructure needs replacing just in the metropolitan Dallas area alone? "If I gave a number, it would be just a guess," Newell says. "But it's a bunch. Let's just say I'm not worried about job security."

On a microlevel, Newell hopes to one day tie a local record for the large-diameter burst: a 2,234-linear-foot pull of a 42-inch pipe. "I would at least like do that much or more so I can get some bragging rights," he says.

But until then, Newell says his company will continue to thrive as long as it follows his simple business model: Do professional, quality work; stand behind the work that you do; and charge a fair price. "As long as you do those things, customers will keep coming back," he says. "It's worked for me." **c** 

#### more info

AmeraTrail Trailers 407/892-1100 www.ameratrail.com

Belshe Trailers 405/273-1690 www.belshetrailers.com

HammerHead Trenchless Equipment 800/331-6653 www.hammerheadtrenchless.com (See ad page 45)

Interstate Trailers 800/433-5384 www.interstatetrailers.com

McElroy Manufacturing, Inc. 918/836-8611 www.mcelroy.com/fusion

New Holland Construction 630/260-4000 www.newhollandconstruction.com Ranch King Trailers 979/865-5467 www.ranchkingtexas.com

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

Sullair 219/879-5451 www.sullair.com

Takeuchi Mfg. 706/693-3600 www.takeuchi-us.com

US Jetting, LLC 800/538-8464 www.usjetting.com (See ad page 43)

VACMASTERS 800/466-7825 www.vacmasters.com

Vivax-Metrotech Corp. 800/446-3392 www.vivax-metrotech.com (See ad page 48)

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



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





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

## THE ELECTRIC EEL® MODEL C DRAIN & SEWER CLEANER...

### **BEATS TH** E **TRIED & TRUE, BETTER THAN NEW**

#### **This Powerful Sectional Drain Cleaner Outperforms Drum-Style Machines**

- Redesigned Quick-Connect Snap-Lock Cable Couplings
- No Down Time From Broken or Kinked Cables
- 8' & 10' Sectional Cables • Easy Transport By One Person
- Lower Maintenance and Much More
- All For \$100's Less!
- More Power and Twice the RPMs
- Less Cable and Tool Breakage
- Don't Miss A Beat... **Call Today!**
- 1-800-833-1212 www.electriceel.com DRAIN CLEANING TOOLS FOR PROFESSIONALS



Cleans 3"-10" diameter lines up to 200 ft.

THE SOURCE.

Check-All Valve<sup>®</sup> – the original equipment manufacturer of the 3" inlet (29384D) and 2" discharge (29385) Vactor **Rodder Pump check valves** – now offers these industry leading check valves directly to consumers. These check valves are neither copied nor remanufactured. They're the real thing that has been used for decades in Vactor sewer cleaning trucks. So go original and get it direct.



## Call 515-224-2301

Manufactured in West Des Moines, Iowa, USA sales@checkall.com • www.checkall.com







Roll Your Own. **Optional wheel kit.**  Stacks easily with 2' & 4' high panels.

Redesigned Quick-**Connect** snap-lock cable coupling allows

cables to connect easier and quicker than ever. Now standard on all Electric Eel® sectional

dual cables, regular and heavy duty, and totally compatible with all

cables currently in use.

PATENT PENDING

This is What Aluminum Shoring Was Meant to be!



As light as 130lbs.



42 Cleaner • August 2015

Get me a Check-All®. 🥠

# Ready, Set, Jet

USIE

Winter Jetting With Enclosed & Insulated Trailer Units

Low-Profile Unit

> 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

vailable Models

4,000 PSI @ 18 GPM

5,000 PSI @ 18 GPM

6,000 PSI @ 18 GPM

- Secure Front Storage Area
- Insulated Trailer

USTETTING.

- Laminated Walls & Ceiling
- Up to 800' Of Jetting Hose



## **Solar Protection**

Kuriyama's new polyurethane material-handling hose features UV resistance

#### By Craig Mandli

aterial-handling hose needs durability to pump abrasive liquids and toughness to withstand prolonged use in harsh environments, including snow, ice and rain. But hoses used outdoors for prolonged periods of time are also subject to damaging heat and UV light.

That's why a new hose introduced by Kuriyama of America at the 2015 Water & Wastewater Equipment, Treatment & Transport (WWETT) Show makes so much sense. Tigerflex Solarguard Amphibian AMPH-SLR Series heavy-duty polyurethane-lined wet or dry materialhandling hoses are specially constructed to resist this type of damage.

"We actually use a special compound that contains a double dose of UV stabilizers that reflect the damaging UV photons away from the hose," says John Kohls, national sales manager for Kuriyama of America. "We first found success using this material for hoses in the methane gas industry, then decided to transfer it to the hydrovac and pumper truck market."

Solarguard hoses are made from a reflective yellow pigment that reduces heat absorption. They can remain up to 10 degrees F cooler than darker-colored hoses, further protecting the hose and extending the service life. Tests commissioned by Kuriyama showed a 3 percent reduction in hose material strength after prolonged UV exposure, whereas the company's standard PVC hoses showed over 40 percent strength loss over the same period.

"We knew from the testing that this was going to be a success," says Kohls. "The Solarguard hose does cost a little more than our traditional polyurethane hose, but it's going to last twice as long."

Solarguard Amphibian AMPH-SLR Series hoses are ideal for hydroexcavation, industrial vacuum equipment, material handling (including heavy-duty abrasives), sewer truck boom hose and slurry handling. It has a durable PVC cover with polyurethane liner and PVC helix and is rated for use in temperatures from -4 to 150 degrees F. A multi-strand grounding wire built into 6- and 8-inch hose helps prevent the buildup of static electricity for added safety and to help keep material flowing smoothly. Kuriyama began selling the hose in December 2014 in a limited capacity before officially launching the product to the wastewater industry at the WWETT Show.

"The feedback we've received from those using Solarguard hose in the field has been excellent," says Kohls. "Our big goal having it at the WWETT Show



Kuriyama of America national sales manager John Kohls (right) discusses Tigerflex Amphibian polyurethane hoses with a 2015 WWETT Show attendee. The yellow hose in the middle is Kuriyama's new Tigerflex Solarguard Amphibian AMPH-SLR Series hose, which is designed to resist damaging UV photons. (Photo by Craig Mandli)

is to educate potential consumers on the strong value it provides, despite the little bit higher cost."

Kohls says the feedback he and the rest of the on-floor Kuriyama staff received regarding the Solarguard hose was overwhelmingly positive. He pointed out that the company came into the show with high expectations, and it was apparent almost immediately those would be surpassed.

"This product solves a big problem that a lot of contractors in the field were dealing with and told us about in previous years," Kohls says. "Attending this show gives our staff a great opportunity to gather that feedback from different portions of the market and use it to make better products. That's why we're excited to be here." **847**/755-0360; www.kuriyama.com. **c** 

## TRENCHLESS is a puzzle we solve daily

RALINER

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

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

800.331.6653 HEAD ON OVER TO WWW.HYDRALINER.COM TO LEARN MORE ABOUT HAMMERHEAD'S COMPLETE TRENCHLESS LINE-UP.

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



AMIRANIAS



## 24/7 Support / Free Training



Cured in Place Pipe - Quik Shot 3"-8" - Ambient, Lateral Lining Steam Cu - Try Tek CWP 6"-18" - Epoxy, Mainline Lining Polyes

- Ambient, Hot Water or Steam Cure Available - Epoxy, Silicate, or Polyester Resins



NozzTeq Sewer Cleaning Nozzles & Root Cutters -Lumberjack -Predator Series



Cherne PipeLine Plugs & Testing Equipment - Test Balls/Muni-Balls - Air Testing - Smoke Testing



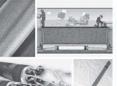
Trelleborg/NPC Pipe Seals - Internal Joint Seals - Liner End Seals - External Joint Seals - Chimney Seals



www.PrimeLineProducts.com 877-409-7888 407-772-8131



Try Tek Robotic Cutters - Trydent 80 Cutter 3-6" Lines - Legacy Cutter 6-15"

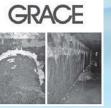




PrimeLiner Sectional Lining Equipment & Supplies - Materials sold in - Pipe Repair Kits Bulk available



Epoxytec Manhole/ Wetwell Rehabilitation - DIY Products - CPP - Uroflex



DeNeef Chemical Grouting - Mainline Grouting - Wellpoint Grouting - Sealing underground Structures







- 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

**RYGUM instruments, inc.** www.rycominstruments.com



SeeSnake® MAX rM200

**Camera System** 

5037 NW 10th

microDrain Reel

**TOLL FREE:** 

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

Jim: 405-205-3974

Oklahoma City, OK 73127 www.centralwinnelson.com

#### Water Jet Solutions

## For big jobs or new jobs, rent from NLB!

If you're passing up jobs that demand more water jet equipment than you own, rent from NLB. Our branch locations have pump units and accessories for everyday and specialty applications.

Renting doesn't tie up capital and lets you "try before you buy." And NLB provides training, spare parts and expert advice, as well as delivery and rent-to-purchase options.

If you're looking for a cost-effective way to grow your business, talk to NLB about water jet rentals. Call your local branch today, or **800-441-5059**.



VIVAX

The Leader in High-Pressure Water Jet Technology

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



## METROTECH VCam-5 Inspection Camera

- 8" Daylight Readable LCD
- Wi-fi and RS232 Interface
- Stainless Steel Construction
- Locatable Pushrod and Sonde
- Self-Leveling Color Camera Heads
- Internal Li-ion Rechargeable Battery

#### **Training Provided Free of Charge**

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

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

ra Toll Free: +1-800-446-3392 Tel: +1-408-734-1400

Fax: +1-408-734-1415 Email: sales@vxmt.com

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

## SOLUTIONS TO SEWER CLEANING THROUGH: • CONCEPT • DESIGN • PRODUCTION

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

> 1430 N. Hundley St Anaheim, CA 92806

ph: 714.632.8198 fax: 714.632.8228



www.SouthlandTool.com

#### MONEY MANAGER

## Solving the Cash Flow Conundrum



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

Develop sound strategies to help your income stay ahead of your outgo

#### By Erik Gunn

ere's a one-question quiz: When it comes to money, what do you need to ensure business success? Sales? That's where it all starts. Profits? Without something left after you've paid for what you're selling, you won't be able to go the distance.

But don't forget one other component of the sales-and-profits relationship: cash flow.

Your business will fail quickly without sales. It will fail in the long run if you can't someday turn a profit. But without good cash flow, you will get choked off from sales *and* profits.

Cash flow is, very simply, how fast money comes in so you can pay your bills and invest in your business for the long term. The faster it comes in, the sooner you can pay what you owe and, better still, build up a cushion for slow periods. The slower your customers pay, the harder it can be to keep up with suppliers — and before you know it, you're circling the drain to bankruptcy or business collapse.

#### Track your cash and look ahead

So how do you improve cash flow?

First, you have to know what's really going on.

Tiffany C. Wright operates The Resourceful CEO, based in Atlanta. The company (www.theresourcefulceo.com) helps small and medium-sized businesses and their owners realize their profit, cash flow and financing objectives. She recommends a spreadsheet that projects your cash flow three months out.

Each week track the cash coming in (paid accounts receivable, cash and credit card sales) and going out (payments against your own accounts payable, utilities, rent, maintenance costs and installment payments, such as your quarterly income tax payments).

And each week, update the information and total each side of the ledger: money in, money out.

"Below the weekly sum, I run a cumulative, running total of all the weeks," Wright says. "If the running total is negative, that's a huge problem that needs to be addressed."

Even if you're in good shape, though, the practice of closely projecting your income and expenses can give you a heads-up to potential speed bumps: a looming shortfall when there's a seasonal downturn, or a big bill due in coming weeks.

#### Buy time, but be prudent

To address an immediate crunch, look at your own bills. "Companies can push out payables in weeks where cash flow is tight," Wright says. Do you pay a bill as soon as it arrives, even though it has a net-30-day term? "Wait until the 27th day to put the check in the mail."

Assuming your own credit card bills are under control, look at paying a bill with your credit card, she adds. "That provides another 30 days to generate the cash to cover the charge."

Both are valuable tips, but these are emergency strategies to be deployed sparingly. Poor cash flow is one of those problems that will be made worse if you use stopgap solutions carelessly. Consistently early payments may qualify you for money-saving discounts (and consistently late ones are likely to draw penalties). And if you have to borrow against future profits to pay past debts — well, it should be easy to see where that leads.

So when kicking a problem down the road, make a point of picking it back up and solving it with a more sustainable remedy ASAP.

#### Reward early-paying customers

For the other side of the balance sheet — income — your solutions will demand foresight and require you to "train" your customers. Put time limits on the bills you send and enforce them. Consider a discount for especially prompt payment.

For longer-running projects, you might require a deposit or partial prepayment. You could set those as general rules for all customers or implement them only for chronically late payers.

Enabling customers to pay by credit card puts cash in your hands a lot faster than waiting for the customer to send you a check. Wright points out that you can offer your business customers that option, not just residential consumers.

#### Pay attention to the seasons

Cash flow that shifts with the season can be at least somewhat predictable. Use that knowledge to help yourself.

"A contractor needs to generate enough profits during 'good months' to carry the operation annually," says Jim Herst, CEO of Perceptive Selling Initiative Inc. in Highland Park, Illinois. And don't stop there.

If you can, Herst says, schedule your work over time so you can invoice more consistently. Develop alternative services — even a second business for the slow months to keep money coming in. (Think of the lawn-mowing and landscaping guy who plows snow in the winter.)

If your business allows for it, make sales calls during downtime and get contracts for future work with a prepayment discount. "It can be a godsend," says Herst.

#### Talk it over - and get help with that

Another approach to cash flow troubles is negotiation. That doesn't mean just calling up your creditors and begging them to spread out your payment.

Cash flow is really about timing, and sometimes outside eyes can help







Profit.

🔍 Ideas to Boost Profits

Network.

🔍 10,000 Attendees from 53 Countries

Learn.

🔍 Over 80 Educational Sessions



www.wwettshow.com | 866.933.2653



you see the possibilities more easily. "A negotiation consultant can help the business owner find the best opportunities to improve their cash flow and create strategies that will be efficient so that they can take action even under time constraints," says Devon Smiley, a negotiation consultant in Montreal, Canada.

Smiley identifies several points in the cycle of jobs-revenues-bills-profits in which you can work out timing arrangements to serve your needs better.

- Seek payment schedules with your suppliers that mesh with your cash flow patterns: early payment incentives, terms of 60 days or longer, or other safety valves against the seasonal slump.
- Help customers smooth their own payments so some of that cash reaches you during your own slow times, Smiley says. You'll help your customer as well as yourself.
- Rethink inventory management; too much money tied up in inventory when business is slow "can be a trigger for cash flow woes," says Smiley. Look at last year's drawdown and approach your purchasing more conservatively for next year. Arrange with suppliers to be able to return unused materials at the end of a season for "a cash flow boost as business gets quiet," she adds.
- Seek a line of credit from your financial institution, where interest is charged only when a withdrawal is made. The rates will be cheaper than a credit card, and, used carefully, can be a good safety net.

Each of those points requires negotiation to accomplish, but they allow you to do more than just react — you can plan ahead.

"Ahead of the quiet season, you can negotiate payment terms with vendors and include them in your contracts," Smiley says. "This allows both you and them stability and confidence throughout the year." If you know certain months will be good cash flow months, perhaps you can get a specific payment deadline date that matches your own cash flow instead of just accepting 15- or 30-day terms.

Client terms are another opportunity to plan ahead. Create discounts for early payments to boost slow-season revenue. Devise installment plans.

"A great example of this is signing a contract at the end of one season to complete work at the beginning of the next season, and accepting installment payments during the months in between," Smiley says

Negotiation is a skill at which some of us excel more readily than others. If you're not so good at it, a coach may be able to teach you more effective approaches to ask for what you need.

"Saving on the time, energy and frustration of negotiation helps the small-business owner focus on what they do best — helping their customers," Smiley says.

If you manage the cash flow conundrum, think how much more you'll be able to do for your clients — and improve your cash flow in the process. c

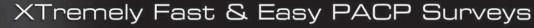
What you learn on these pages could be worth

It's all yours for FREE!

Subscribe/Renew today ~ www.cleaner.com ~ 800/257-7222

,000s.





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

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

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



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

PACP SURVEY SOFTWARE



YOUR ONE-STOP CERTIFIED REPAIR & SUPPLY LOCATION



- REPARCENCE • RIDGID FACTORY TRAINED & CERTIFIED REPAIR SHOP • EXPEDITED SERVICE
  - EXPEDITED SERVICE AVAILABLE
  - MACHINE & CAMERA REPAIR

<image><section-header>

## DRAINCABLES.COM 800.421.4580 CALL TODAY!

Cleaner														
WAT	ERBLASTIN	G		V		A	Γ	E			ŀ			NG
	<u>CTORY 2015</u>	Jetter Manufacturer	Jetter Distributor	<b>PRESSURE RANGE</b>	Under 3,000 PSI	3,000 to 6,000 PSI	6,000 to 40,000 + PSI	TRANSPORT METHOD	Hand Portable	Truck/Trailer	Stationary	Pump Manufacturer	Pump Distributor	Waterblasting/ Waterjet Accessories & Equipment
All Jetting Technologies, Inc. See ad page 89	ALL JETTING TECHNOLOGIES, INC. 2740 SW Martin Davids Blvd., Palm City, FL 34990 772-286-1218 • (f) 772-286-0069 www.alljetting.com • info@alljetting.com						~						~	4
See ads pages 23, 85	ALLAN J. COLEMAN CO. 5725 N Ravenswood Ave., Chicago, IL 60660 773-728-2400 • (f) 773-728-2499 www.allanjcoleman.com • info@allanjcoleman.com		~		•	~			~	~				4
See ad page 67	AMAZING MACHINERY, INC. 3807 Old Tasso Rd., Cleveland, TN 37312 800-504-7435 • 423-790-1600 • (f) 800-504-7436 www.amazingmachinery.com • info@amazingmachinery.com	~	~		~	~			~	۷	~		~	4
See ad page 88	AMERICAN JETTER 6908 Pine Grove Rd., Knoxville, TN 37914 866-944-3569 • 865-524-4647 • (f) 865-247-5105 www.americanjetter.com • andy@americanjetter.com	~				~			~	~	~			
See ad page 57	ARTHUR PRODUCTS CO. 1140 Industrial Pkwy, Medina, OH 44256 800-322-0510 • 330-725-4905 • (f) 330-722-2698 www.arthurproducts.com • apc@apclsq.com													~
See ad page 89	BOATMAN INDUSTRIES, INC. 7355 Airport Blvd., Houston, TX 77061 713-641-6006 • (f) 713-644-9395 www.boatmanind.com • info@boatmanind.com		~			~	۷			~			•	4
See ad page 78	<b>CAM SPRAY</b> 520 Brooks Rd., Iowa Falls, IA 50126 800-648-5011 • 641-648-5011 • (f) 641-648-5013 www.camspray.com • sales@camspray.com	~			~	~			~	~	~			
See ad page 47	<b>CENTRAL OKLAHOMA WINNELSON</b> 5037 NW 10th St., Oklahoma City, OK 73127 888-947-8761 • 405-947-8761 • (f) 405-947-1934 www.centralwinnelson.com • krjones@winnelson.com		~		~				~				4	
See ad page 87	CHEMPURE PRODUCTS CORP. 148 Canal St., Bolivar, OH 44612 800-288-7873 • 330-874-4300 • (f) 330-874-4448 www.rootrat.net • lloyd@chempure.com	4			•	~			~	~			~	~
See ad page 57	<b>COXREELS</b> 5865 S Ash Ave., Tempe, AZ 85283 800-269-7335 • 480-820-6396 • (f) 480-820-5132 www.coxreelscom • info@coxreels.com													4
See ad page 53	DRAINCABLES DIRECT 1703 Toll Gate Dr., Maumee, OH 43537 800-421-4580 www.draincables.com • sales@draincables.com		~		~	~			~					~
Puracable Manufacturing Company See ad page 15	DURACABLE MANUFACTURING 300 Ashworth Rd., West Des Moines, IA 50265 877-244-0556 • (f) 515-223-4220 www.duracable.com • sales@duracable.com		~		~				~					

listing in the Wa any questions, ple	he companies you contact that you saw their aterblasting/Waterjet Directory. If you have ase contact COLE Publishing at 800-257-7222 6. You can also find us at www.cleaner.com.	Jetter Manufacturer	Jetter Distributor	PRESSURE RANGE	Under 3,000 PSI	3,000 to 6,000 PSI	6,000 to 40,000 + PSI	TRANSPORT METHOD	Hand Portable	Truck/Trailer	Stationary	Pump Manufacturer	Pump Distributor	Waterblasting/ Waterjet Accessories & Equipment
PRESSURE SYSTEMS LTD.	EASY KLEEN PRESSURE SYSTEMS LTD. 41 Earnhardt Rd., Sussex Corner, NB E4E 6A1 Canada 800-315-5533 • 506-433-3393 • (f) 506-433-2443 www.easykleen.com • sales@easykleen.com	~			~	•				•	~		<b>v</b>	~
See ad page 42	<b>ELECTRIC EEL MFG.</b> 501 W Leffel Ln., Springfield, OH 45501 800-833-1212 • 937-323-4644 • (f) 937-323-3767 www.electriceel.com • info@electriceel.com	~			4				•					
	GARDNER DENVER WATER JETTING SYSTEMS 12300 N Houston Rosslyn Rd., Houston, TX 77086 800-231-3628 • 832-327-2424 • (f) 281-448-7500 www.waterjetting.com • john.snyder@gardnerdenver.com	~					~			~	~	4		<b>v</b>
<b>Beneral</b> PIPE CLEANERS See ad page 2	GENERAL PIPE CLEANERS 1101 Thompson Ave., McKees Rocks, PA 15136 800-245-6200 • 412-771-6300 www.drainbrain.com • info@drainbrain.com	~			4	~			~	~				
See ad page 58	<b>GIANT INDUSTRIES, INC.</b> 900 N Westwood Ave., Toledo, OH 43607 800-633-4565 • 419-531-4600 • (f) 419-531-6836 www.giantindustries.com • sales@giantpumps.com	~			~	~	~		~	~	~	~	~	~
See ad page 31	<b>GORLITZ SEWER &amp; DRAIN, INC.</b> 10132 Norwalk Blvd., Santa Fe Springs, CA 90670 562-944-3060 • (f) 562-944-7630 www.gorlitz.com • sales@gorlitz.com	~	~		~	~			~					V
HAMMELMANN <sup>®</sup> See ad page 69	HAMMELMANN 436 Southpointe Dr., Miamisburg, OH 45342 800-786-4935 www.hammelmann.com • mail@hammelmann.com													~
See ad page 37	HANNAY REELS 553 State Rte. 143, Westerlo, NY 12193 877-467-3357 • 518-797-3791 • (f) 518-797-3259 www.hannay.com • catalogs@hannay.com													~
See ad page 75	HI-VAC CORPORATION 117 Industry Rd., Marietta, 0H 45750 800-752-2400 • 740-374-2306 • (f) 740-374-5447 www.hi-vac.com • sales@hi-vac.com	~			~				~	~	~			
HOLJELUSA See ad page 88	HOT JET USA 14717 Heritage Crest Way, Riverton, UT 84065 800-213-3272 • 801-545-0777 • 801-545-9132 www.hotjetusa.com • sales@hotjetusa.com	~				۷			~	4	۷			
See ads pages 13, 59	JETSTREAM OF HOUSTON 5905 Thomas Rd., Houston, TX 77041 800-231-8192 • 832-590-1300 • (f) 832-590-1304 www.waterblast.com • sales@waterblast.com													<b>v</b>
See ad page 76	KEN-WAY CORPORATION 930 Roberts Rd., Sparta, WI 54656 800-533-0551 • 608-269-3752 • (f) 608-269-8129 www.ken-way.com • ken-way.corp@centurytel.net		~		~				~					
See ad page 82	LAPLACE EQUIPMENT COMPANY 167 Jaubert Ln., LaPlace, LA 70068 985-652-5210 • (f) 985-652-4252 www.h2oblast.com • sales@h2oblast.com						~							<b>v</b>

## Cleaner WATERBLASTING/

WATER WATER	BLASTING/ JETTING DIRECTORY 2015	Jetter Manufacturer	Jetter Distributor	PRESSURE RANGE	Under 3,000 PSI	3,000 to 6,000 PSI	6,000 to 40,000 + PSI	TRANSPORT METHOD	Hand Portable	Truck/Trailer	Stationary	Pump Manufacturer	Pump Distributor	Waterblasting/ Waterjet Accessories & Equipment
See ad page 65	MONGOOSE JETTERS BY SEWER EQUIPMENT 1590 Dutch Rd., Dixon, IL 61021 800-323-1604 • 815-835-5566 • (f) 815-284-5600 www.mongoosejetters.com • sales@mongoosejetters.com	~	~		~	~				~	~		~	~
See ad page 88	MTECH COMPANY 7401 First Pl., Cleveland, OH 44146 800-362-0240 • 440-646-0996 • (f) 440-646-9953 www.mtechcompany.com • sales@mtechcompany.com		~		~					~			~	~
<b>MyTona</b> See ad page 77	MYTANA MANUFACTURING COMPANY, INC. 746 Selby Ave., St. Paul, MN 55104 800-328-8170 • 651-222-1738 • (f) 651-222-1739 www.mytana.com • mytana@mytana.com	4			~				~					~
See ad page 83	NOZZTEQ, INC. 1497 Main St., Unit 354, Dunedin, FL 34698 866-620-5915 • 603-413-6583 • (f) 603-413-6744 www.nozzteq.com • info@nozzteq.com		~		~	•	۷		~		•			~
See ads pages 17, 48, 71,88	NLB CORP. 29830 Beck Rd., Wixom, MI 48393 877-652-7988 •248-624-5555 • (f) 248-624-0908 www.nlbcorp.com • nlbmktg@nlbusa.com	~					~		~	~	~	~		<i>v</i>
See ad page 46	PIRANHA HOSE PRODUCTS 2500 Weigel St., Cadillac, MI 49601 800-250-5132 • 231-779-4390 • (f) 231-779-4399 www.piranhahose.com • khankins@piranhahose.com					~								<b>v</b>
See ad page 8	REELCRAFT INDUSTRIES, INC. 2842 E Business Hwy. 30, Columbia City, IN 46725 800-444-3134 • 260-248-8188 • (f) 260-248-2605 www.reelcraft.com • reelcraft@reelcraft.com													~
See ad page 9	RIDGID <sup>®</sup> 400 Clark St., Elyria, OH 44035 800-769-7743 • 440-323-5581 • (f) 440-329-4862 www.ridgid.com • RIDGIDinfo@emerson.com	4			~				~					~
See ad page 49	SOUTHLAND TOOL MFG. INC. 1430 N Hundley St., Anaheim, CA 92806 714-632-8198 www.southlandtool.com • david@southlandtool.com													~
See ad page 96	SPARTAN TOOL LLC 1506 W Division St., Mendota, IL 61342 800-435-3866 • 815-539-7411 • (f) 888-876-2371 www.spartantool.com • customerservice@spartantool.com	~	~		~	•			~	~	•			~
See ad page 4	<b>STONEAGE, INC.</b> 466 S Skylane Dr., Durango, CO 81303 866-795-1586 • 970-2559-2869 • (f) 970-259-2868 www.stoneagetoos.com • sales@stoneagetools.com						~							~
See ads pages 41,60	<b>THE CABLE CENTER</b> 8318 Olive Blvd., St. Louis, MO 63132 800-257-7209 • 314-993-3099 • (f) 314-432-8024 www.thecablecenterinc.com • thecablecenterinc@gmail.com		~		~	~	~		~	~	~		~	
	TRIPLE R SPECIALTY 6925 W Beaver St., Jacksonville, FL 32254 800-356-9661 • 904-786-1826 • (f) 904-786-0911 www.triplerspecialty.com • ram@triplerspecialty.com	~	~		~	~			~	4			~	~

WATERBI WATERJE	LASTING/ TTING DIRECTORY 2015	Jetter Manufacturer	Jetter Distributor	PRESSURERANGE	Under 3,000 PSI	3,000 to 6,000 PSI	6,000 to 40,000 + PSI	TRANSPORT METHOD	Hand Portable	Truck/Trailer	Stationary	Pump Manufacturer	Pump Distributor	Waterblasting/ Waterjet Accessories & Equipment
<b>TST</b> See ad page 47	TST SWEDEN AB Prastgatan 12, Kinna, 51154 SWEDEN +46 320 20 5871 www.tst-sweden.com • magnus@tst-sweden.com													~
See ad page 3	VAC-CON, INC. 969 Hall Park Rd., Green Cove Springs, FL 32043 855-336-2962 www.vac-con.com • vns@vac-con.com	~								~				
	VACTOR MANUFACTURING 1621 S Illinois St., Streator, IL 61364 800-627-3171 • 815-672-3171 • (f) 815-672-2779 www.waterblast.com • sales@vactor.com	~												
See ads pages 88,94	WATER CANNON, INC. 4044 W Lake Mary Blvd., Unit 104-424, Lake Mary, FL 32746 800-333-9274 • (f) 888-928-9274 www.watercannon.com • sales@watercannon.com	~			~	~			~	~	~		~	~
See ad page 60	WOMA CORPORATION 95 Newfield Ave., Ste. K, Edison, NJ 08837 800-258-5530 • 732-417-0010 • (f) 732-417-0015 www.womacorp.com • womacorp@frontier.com	4					~			~	~	~		~





#### When Quality Matters



#### FORBEST INSPECTION CAMERA SYSTEMS 111147

#### WHY BUY FORBEST

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

#### Economic Color Sewer/ Drain Camera

FB-PIC3188/3188D

- Specs: 65FT/100FT/130FT Cable & Reel
- Waterproof Color Camera Head
- 7" LCD Monitor w/ or w/o DVR & MIC
- Aluminium Case

#### Layflat Pipe Inspection Camera FB-PIC3588A/3588BT

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

- Pan-Tilt 360°/180° Camera System FB-PIC3688B NEW Specs:
- 400FT Cable & Reel w/Meter Counter Pan-Tilt 360°/180° Color Waterproof
- Camera Head w/Manual Zooming
- 7"/10" I CD Monitor w/DVR & MIC
- Recording with USB Flash Drive & SD Card Crawler for easier push Starting at \$4,990

#### **Portable Color Sewer/Drain Camera** FB-PIC3188A/3188DN

- Specs: 65FT/100FT/130FT Cable & Reel
- Color Camera Head
- 7" I CD Monitor w or w/o DVR & MIC
- Heavy Duty Waterproof Case



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

#### **Mid-Range Pipe Inspection Camera**

- FB-PIC3388UT/3388MT 200FT Cable & Reel w or w/o Meter Counter
- Self Leveling Camera Head w/Built-in
- 512HZ Sonde Transmitter
- 10" LCD Monitor w/DVR & MIC • Recording with USB Flash Drive or SD Card
- Heavy Duty Waterproof Case
- · Crawler for easier push



#### 512HZ Locator

- FB-R2012 Specs: NEW Frequency: 512HZ
- Operation Mode: NORM/NOISE CONTROL
- Power Supply: 6\*AA
- Current: < 55mA
- Sensitivity: NEAR/FAR
- Continuous Adjustable
- Output Intensity: LCD 15 Levels · Retractable Poles for Easy Use

#### Luxury Portable Sewer/Drain Camera FB-PIC4188M/4188H

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

#### Long Range Pipe Inspection Camera

- FB-PIC3288T/3488T 300FT/400FT Cable & Reel w/Meter Counter
- Self Leveling Camera Head w/ Built-in
- 512HZ Sonde Transmitter
- 10" LCD Monitor w/DVR & MIC
- · Recording with USB Flash Drive or SD Card
- Heavy Duty Waterproof Case Crawler for easier push



#### Select an application:





## It's (almost) that easy.

#### No matter the application, Jetstream's automated solutions make water blasting easier and safer than ever.

Jetstream of Houston has partnered with the best in the industry to become your "Automation Depot". Only Jetstream covers all of your automated cleaning needs – innovative tools, robots and accessories, parts, and on-site application and safety training provided by an automation expert. No matter what the application, Jetstream gives you everything you need to get up and running (and stay that way). Rent, own, or rent-to-own so you can try before you buy. It's that easy.

To learn about how we can Jetstreamline<sup>™</sup> your business, call 800-231-8192 or visit www.waterblast.com.



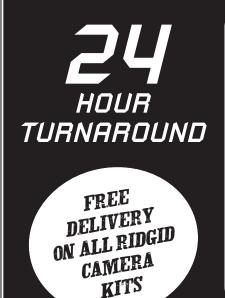
A proud member of the Federal Signal Family. © 2015 Federal Signal. Jetstream<sup>®</sup> Vactor<sup>®</sup> HXX<sup>®</sup> Guzzler<sup>®</sup> FS Solutions<sup>®</sup> and JetStreamline<sup>™</sup> are registered trademarks of Federal Signal.



www.waterblast.com 1.800.231.8192

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

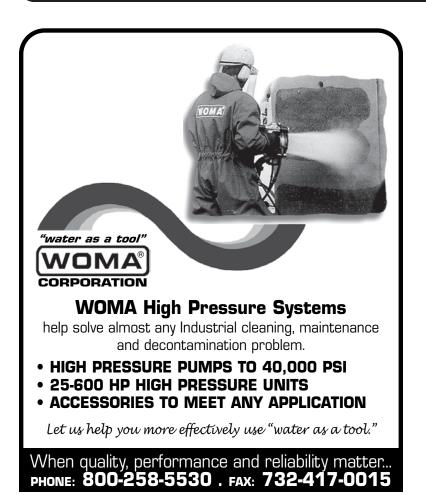
MIDWEST'S LARGEST FACTORY AUTHORIZED REPAIR CENTER FOR GATORCAM, GEN-EYE & SEESNAKE



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

- USB Thumh 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 •



#### AVOID HIGH START UP COSTS...RENT!

CALL FOR SPECIAL

PRICING ON ALL CAMERA KITS!

**CIPP EQUIPMENT & MATERIALS** SALES | RENTALS | TRAINING

- Shooters
- Packers Cutters Trailers
  - Materials
- Training Boilers
- Refrigerated Delivery





We travel coast to coast for training and labor support!



WATERJET TECHNOLOGY ASSOCIATION AND INDUSTRIAL & MUNICIPAL CLEANING ASSOCIATION

## Plan to Attend the world's premier waterjet and industrial cleaning event







### **November 2-4, 2015 New Orleans** Find out more at www.wjtaimca2015.com or contact the WJTA-IMCA office by email: wjta-imca@wjta.org or telephone: (314)241-1445.

**Connect with us on social media:** twitter.com/wjtaimca I facebook.com/wjtaimca I linkedin.com/company/wjta-imca

#### PRODUCT FOCUS

## Waterblasting and Waterjet Cleaning and Accessories

By Craig Mandli

Waterblasters and jetting systems enable the use of highpressure water for cleaning pipes and tanks. The jetters, pressure washers, accessories and related equipment highlighted below are all designed to help you complete your next job safely and efficiently.

#### HOSE

#### ALL JETTING TECHNOLOGIES PARKER HANNIFIN HOSE

**Parker Hannifin** high- and ultra-highpressure waterjetting hoses, distributed by **All Jetting Technologies**, are available in working pressures of 20,000 to 55,000 psi. Hoses are assembled to order with choice of covers and fittings, including PVC covers and the Burst



All Jetting Technologies

Shield Cover. End fittings include type "M" female swivel and the high-pressure tube nipple. Hose couplers are available in male-to-male, female-to-female and male-to-female fittings. UHP straight and reducer couplings are also available. Hose collars and glands are provided with couplers unless otherwise specified. **772/286-1218; www.alljetting.com**.

#### HBD/THERMOID HERCULES II

Hercules II high working pressure multipurpose air and water hose from HBD/ Thermoid offers 500 pounds of working pressure at a 4-to-1 safety factor. It has excellent abrasion and oil resistance, and is



highly flexible and easy to handle. It offers concentricity of the I.D. and O.D. for ease of assembly and better fitting retention. It is non-conductive and MSHA approved, and available in a wide range of sizes up to 2-inch I.D. **800/543-8070**; www.hbdthermoid.com.

#### PIRANHA HOSE PRODUCTS SLITHER

**Slither** high-pressure thermoplastic sewer cleaning hose from **Piranha Hose Products** is available with an optional polyether-urethane cover that is ultra slippery, allowing the hose



to maneuver around and through difficult sewer bends encountered in

residential and industrial sewer cleaning applications. This ultra slick cover is also available for any sewer hoses Piranha manufactures. **800/250-5132**; **www.piranhahose.com**.

#### **HOSE REELS**

#### **COXREELS T SERIES**

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



COXREELS

#### HANNAY REELS VAC SERIES

VAC Series reels for vacuum/suction applications from Hannay Reels organize longer lengths of largediameter vacuum hose to help prevent kinks, cracks and damage from constant dragging, extending the life of the hose. They are designed for 2- through 4-inch vacuum hose and have heavy-duty steel construction, a 90-degree ball bearing swivel joint with female NPT threads, and an electric motor rewind, with air, hydraulic or crank rewind options available. They are built to



unique customer specs in about a week. 518/797-3791; www.hannay.com.

#### **REELCRAFT TURF CARE TRAILER**

The professional **Turf Care Trailer** from **Reelcraft** is designed for maintenance applications requiring up to 100 feet of 1-inch I.D. hose and readily adapts to indoor or outdoor applications. Series 37000 hose reels are designed to fit on the trailer and are shipped completely assembled, ready to install. The reel design helps to eliminate bearing misalignment and provides



better performance in demanding applications. The trailer wheelbase matches typical work vehicles, and the wheels are mounted inside the bed to prevent snagging of trees and shrubs. An extra-long 32-inch trailer tongue allows for sharp turns and is easier to back up. **800/444-3134; www.reelcraft.com**.

#### **INDUSTRIAL VACUUM TRUCKS**

#### GAPVAX HV56

The **HV56** from **GapVax** has a 15-cubicyard debris body and water tank options ranging from 350 to 1,200 gallons. Its PD vacuum pump is rated at 3,500 cfm and 28 inches Hg. Its filter design prolongs the life of



the filter bags and eliminates the threat of material entering the vacuum pump. The tailgate is fully opening with a field-adjustable hinge and four fail-safe, individually adjustable locks ensuring a complete seal. Options include a cold-CONTINUED >>>

#### INDUSTRY'S ONLY MAINLINE IN-THE-PIPE LENS CLEANING SYSTEM

Models PE3410 and PE3510 cameras are compatible with all Aries tractors and most multi-conductor CCTV systems.

Get the job done faster in the harshest conditions with WiperCam mainline inspection cameras from Aries Industries.

Maintenance-free cameras with field-replaceable wipers mean more time in the pipe for higher productivity. The clean camera lens ensures clear vision for fast, accurate assessments. Models PE3410 and PE3510 give you these advantages:

- 40x zoom capability with multi-axial head rotation
- High-intensity LED arrays to capture fine details
- Corrosion-resistant materials for long life

WiperCam cameras keep you running at full speed. Contact Aries today at (800) 234-7205 to learn more.

0



INDUSTRIES, INC.

See what you're missing.

www.ariesindustries.com (800) 234-7205 weather package, sludge pump, auger system, body pressurization system, wireless remotes, high rail package, washdown system and stainless steel body. 888/442-7829; www.gapvax.com.

#### **KEITH HUBER CORPORATION DOMINATOR**

The Dominator vacuum truck from Keith Huber Corporation has a 3,300-gallon-capacity steel tank with 5/16-inch shell, a 20-inch top



Keith Huber Corporation

manway, hydraulic tank lift and full-opening rear door, a PTO-driven hydraulic vacuum/pressure system, a liquid-cooled high-performance pump, full-length hose trays, a 4-inch inlet with internal standpipe for easy decanting, a 6-inch discharge valve for direct pressurized or gravity unloading, rear work lights and LED running lights, and a backup alarm and grounding reel. Options include multiple compartments, ASME/DOT 412 certification, stainless steel tank with wetted stainless parts, high-pressure jetting systems with integral water compartment, an auxiliary transfer pump and a top-mounted hydraulic 4-inch boom. 800/334-8237; www.keithhuber.com.

#### PAC-MAC VP SERIES

The VP Series service truck from Pac-Mac, a division of Hol-Mac Corporation, comes with a 2,500-gallon tank with 66inch O.D. and 156-inch shell length (also available in 1,500, 3,000, 3,500, 4,200, 4,500 and 5,000 gallons), a 1/4-inch-



thick shell and 5/16-inch nominal thickness heads, right-angle drive pump system, 20-inch rear and top manways, manway ladder with safety tread, bolt-on baffles and hose trays with drains, rear hose hooks, 4-inch intake and 6-inch discharge, and a premium two-component epoxy primer-sealer and polyurethane topcoat in solid and metallic colors. Options include a hydraulic-drive jetting system, 36-inch rear manway, multiple toolboxes, bedliner applied to hose trays and tank, a chemical-resistant two-part epoxy interior liner, safety beacon, rear sump and stainless steel float level indicator. 800/844-3019; www.e-pac-mac.com.

#### PRESVAC POWERVAC SUCK N DUMP

The Powervac Suck N Dump PD blower wet/dry vacuum loader from Presvac operates as an air mover for dry applications or can be used at full vacuum and extreme recovery rates for tough liquid, sludge



and slurry jobs. The material knockout feature in the debris tank minimizes carryover. Heavy-duty modular filtration is configured to blower size and application to provide blower protection and minimal maintenance. Blower options include Hibon, Roots or Robuschi, with full vacuum and 3,500 to 6,600 cfm. It has modular filtration optimized for cfm rating and application, along with 12-inch cyclone and baghouse dump chutes. Heavy-duty springtensioned bolts allow for adjustment to maintain leakproof sealing. The dump chute doors open with the debris tank door. Options include stainless steel dump chutes, a boom, pressure off-load, water pump, soundproofing and heated valves. 800/387-7763; www.presvac.com.

#### VAC-CON INDUSTRIAL VACUUM LOADER

The industrial vacuum loader from Vac-Con has a filtration system to handle lightweight, dry material. It has efficient airflow with options like Hi-Dump and the Automatic Material Return System available. Single-mode machines can recover wet or dry material with up to 28 inches Hg. The



positive-displacement blowers are capable of pulling material as much as 700 feet. It is available with a hydroexcavation package that adds a powerful, highpressure water system that works together with the vacuum system to effectively excavate around sensitive underground utilities, locate underground systems and excavate in areas with limited access. 855/336-2962; www.vac-con.com.

#### VACTOR 2100 PLUS

The Vactor 2100 Plus sewer cleaner from Vactor Manufacturing has a singleengine, dual-stage fan configuration and a 10-foot telescopic boom configuration, and an easy-load, fast-dump debris body, Modul-



Flex design system, and multistage blower filtration system. The single-engine design takes advantage of the unused power available in the chassis engine. A closed-loop hydrostatic drive system powers the fan vacuum. The controls have components designed to give the operator power only when and where they need it, all while offering a simple interface. The front operator control panel has two selector switches for the fan drive – fan on/off and fan mode (low/medium/ high). The 10-foot telescoping boom (tube-within-tube, box beam-within-box beam) retracts a minimum of 10 feet without affecting the vertical position of the pickup tubes while enhancing reach and productivity. 815/672-3171; www.vactor.com.

#### **NOZZLES**

#### **ARTHUR PRODUCTS CNT-R-KUT CENTERING DEVICE**

The Cnt-r-KUT Centering Device from Arthur Products allows itself to conform to unfortunate line situations. It is available in a three- or six-vein aerospace elastomer, flexible enough to conform to damaged or deformed lines, and can be easily trimmed in the field



to fit virtually any line from 2 to 8 inches in diameter. Just attach a 3/8- or 1/2-inch NPT hose to one end and a 3/8- or 1/2-inch NPT nozzle to the other end to operate. 800/322-0510; www.arthurproducts.com.

#### **ENVIROSIGHT JETSCAN MINI**

Deployed in pipes 6 to 10 inches in diameter, the JetScan Mini video nozzle from Envirosight gives sewer cleaning crews the visual feedback they need to select the proper tools, troubleshoot backups, identify buried safety hazards and document successful cleaning. It captures HD



video footage from underground pipes for offline tablet viewing, recording up to eight hours of 720p HD MPEG video to an onboard 32 GB SDHC memory CONTINUED >>



Designed by Built for Jour.



**Strong Frame** Made from tubular steel for superior durability

## **MONGOOSE MODEL184**

Other units and configurations can be found on mongoosejetters.com

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

#### "SERIOUS MACHINES FOR A SERIOUS BUSINESS"

Contact Mongoose Jetters and find out how we can get you into the perfect machine for your business!

## 877.735.4640

card. The card is easily removed to view video on an iPad or other SDHCcompatible device. Twin high-output LED lamps ensure bright, vivid footage and rechargeable lithium-ion batteries provide up to four hours of continuous operation. It is available as a complete system, or the stand-alone 6-inch nozzle can be purchased separately for use with an existing JetScan. **866/936-8476**; www.envirosight.com.

#### ENZ USA GOLDEN JET BULLDOG

The **Golden Jet Bulldog** rotating nozzle from **Enz USA** can operate with both recycled water and freshwater. An integrated oil-free braking system results in a low wear-and-tear operation, and in controlled numbers of rotation, creating efficient and economic pipe cleaning. It



makes for easy cleaning of root intrusions, grease, solids and heavy debris. It is available in 1/2- to 1 1/4-inch connecting threads. It is effective on pipe sizes ranging from 2.5 to 24 inches. **877/369-8721; www.enzusainc.com**.

#### HAMMELMANN CORP. 2.5D

The **2.5D** automatic tank cleaner from **Hammelmann Corp.** removes deposits, including hardened materials from tank internal walls, at pressures up to 23,150 psi and flows exceeding 200 gpm for efficient cleaning in long vessels and towers. The swing angle of the nozzle holder is adjustable to 35 or 83 degrees. The swing angle of the tank-cleaning unit



around its axis is optionally set at 36 or 81 degrees. It operates using highpressure water, rotating the nozzle arms due to the reaction force of the water jets emitting from the nozzles. This motion is transferred via a built-in drive and reduction gear, which in turn rotates the cleaner around its vertical axis. By rotating in two axes, the water jets can reach all parts of the tank interior. The rotation speed is controlled by an adjustable induction brake magnet. **800/783-4935; www.hammelmann.com.** 

#### NOZZTEQ HAMMERHEAD

The **Hammerhead** sewer nozzle from **NozzTeq** is a NASSCO Tier III nozzle with internal conduits and spray angles that produce efficient, maximally powerful jetting streams at the nozzle end of the hose using relatively low truck-supplied water pressures. Crews NozzTeq

can clean more pipe with fewer passes, while generating less wear and tear on trucks and using less fuel. The water conduits preserve laminar water flows from the truck to final jet stream, so water pressure is never compromised by turbulence. Tightly focused jet streams are deployed at precisely calculated angles that move out debris efficiently. It is made of low-carbon stainless steel with styrene butadiene rubber covers that protect the conduits and jets. The jets can be switched as needed to accommodate water flows from 5 to 80 gpm. **866/620-5915; www.nozzteq.com.** 

#### RIDGID ROOT RANGER ROOT CUTTING NOZZLE

The **Root Ranger** root cutting nozzle from **RIDGID** clears obstructions from blocked drains. It can be used to cut through tough grease and sludge buildup, as well as stubborn tree roots. The single



rear-facing turbo jet produces a powerful, concentrated stream of water that can be used to easily shear root obstructions clear from the drain wall. The specially engineered head allows it to push its way through tough blockages, while the rear-facing turbo jet scours the drain clean and flushes away debris. It is compatible with the RIDGID KJ-3100 Jetter, which provides 3,000 psi actual working pressure to handle large commercial and industrial drain cleaning applications. It propels a highly flexible and lightweight hose through 2- to 10-inch lines, blasting through sludge, soap, grease and sediment blockages. **800/769-7743; www.ridgid.com**.

#### SOUTHLAND TOOL SAFETY SHUTTER VACUUM NOZZLE

The **Safety Shutter Vacuum Nozzle** from **Southland Tool** puts the vacuum control into the hands of the operator at the end of the hose. It is designed to instantly release vacuum with the push of a lever. A detachable tripod design lets it stand on its own, granting hands-free operation. The shutter design allows the operator to regulate airflow as needed. It is designed for 4- and 6-inch flex hose. **714/632-8198; www.southlandtool.com**.



#### USB – SEWER EQUIPMENT CORPORATION ONE-PIECE NOZZLE

One-piece stainless steel cleaning nozzles from **USB – Sewer Equipment Corporation** are neither bonded nor screwed together, enhancing strength and reducing the chances of failure under pressure. Their advanced optimized 3-D hydromechanics, located in the lower part of the



chamber, eliminate pressure in the upper portion of the nozzle and prevent explosion in a sewer line or manhole. The water coming from a pressurized hose is immediately guided directly into channels and smoothly directed into one-piece ceramic nozzle inserts, which do not require winglets or flow straighteners, because of the hydromechanics in and out of the chamber. The result is a highly efficient jet pattern. **866/408-2814; www.usbsec.com**.

#### WOMA CORPORATION TANKMASTER 3-D

TankMaster 3-D tank cleaning heads from Woma Corporation have an impact protection cage and work with operating pressures up to 21,750 psi and with water flow rates from 52 to 158 gpm. An easily adjustable braking system allows the operator full rotation speed control for optimized cleaning performance. Hardened gears combined with a slip clutch make them long-life nozzles. They are available with a variety of rotors and arm extensions, allowing a large range of container sizes that can be cleaned. 800/258-5530; www.womacorp.com.



CONTINUED >>



### Viztrac<sup>®</sup> AM100-100



### J/E4040HA-CKIT2

ONLY **1495**.00

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

-00

FREE Freight

## 6 Months, No Interest!

**BUY BOTH** 

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



FREE Freight

Complete Details At www.AmazingMachinery.com **1-800-504-7435** 3807 Old Tasso Rd. • Cleveland, TN 37312

#### **PORTABLE TRUCK/TRAILER JETTERS**

#### **AMAZING MACHINERY** J/VB9030HGEA390-AM

The J/VB9030HGEA390-AM portable cart jetter from Amazing Machinery is powered by a commercial-grade Honda GX 690 twin-cylinder air-cooled four-stroke engine. It features low-oil shutdown and electric start. The General pump produces 3,000 psi at 9 gpm. It is plumbed with



Amazing Machinery

the bypass back to the customer's water tank and a thermal-relief valve to prevent overheating. It is mounted on an aircraft-grade aluminum frame with oversized pneumatic tires. It comes with 200 feet of low-friction jetter hose, three nozzles and a foot pedal for easier start/stop of the jetting process. The wheeled hose reel gives you the option of jetting inside or outside drains with the machine operating safely outside. It is designed to clean 4- to 12-inch pipes. 800/504-7435; www.amazingmachinery.com.

#### **AMERICAN JETTER** COMPACT VAN JETTER

Compact van jetters from American Jetter have a skid footprint as small as 24 by 36 inches, while offering room for a camera and tools. Water tank footprints are as small as 24 by 24 inches, making it easy to have a fully operational jetter inside a van using minimum space. A full speed-

control reel mounted above the engine and near the rear door maximizes operator comfort. A flexible mount-anywhere exhaust system allows exhaust to be run through the floor or other areas, reducing engine noise. Kohler engines up to 80 hp power low-water shut-off pumps from 7 to 20 gpm up to 5,000 psi. A wireless remote option allows for water on/off and engine shutdown. 866/944-3569; www.americanjetter.com.

#### BULLFROG INDUSTRIES **CRAP SHOOTER 2**

The Crap Shooter 2 "The Deuce" portable suitcase jetter from BullFrog Industries comes ready to use right out of the box. It offers 2,000 psi and 1.76 gpm and only draws 14.5 amps. It comes with two heavy-duty nozzles and a tip



American Jetter

cleaner, 25-foot power cord with two-prong GFCI plug, two faucet adapters, 25-foot feed hose and 75-foot high-pressure jetter hose. 303/338-0805; www.bullfrogind.com.

#### CAM SPRAY MODEL TM2712H

The truck-mounted TM2712H jetter from Cam Spray can be mounted on a flatbed truck, in an enclosed or open trailer, or in a truck box, and easily removed with a forklift. Models are available in 11.5 gpm at 2,700 psi, 8 gpm at 3,800 psi or 7 gpm at 4,000 psi. It is powered by a 690 cc Honda engine and can jet up to 8-inch lines, and clean up with the



accessory pressure wash gun, hose and wand. It comes with 400 feet of hose, a DC-powered reel with a 2-to-1 drive system and foot control switch, 300-gallon water tank with low-water shutdown, powder-coated frame, washdown gun and hose, and four-nozzle set. 800/648-5011; www.camspray.com.

#### **ELECTRIC EEL EEL JET EJ3000**

The Eel Jet EJ3000 high-pressure jetter from Electric Eel cleans 2- to 8-inch-diameter drainlines up to 300 feet. Its steel nozzles will penetrate and clean pipe walls with a variety of spray angles. It offers 3,000 psi at 4.7 gpm, a 13 hp overhead valve engine for smooth, quiet running and dependable operation, optional electric start, a 2-to-1 gear-reduced triplex pump with pulsation for longer life, a 300-foot-capacity hose reel, a throttle-back control that automatically



adjusts engine speed, and a low-tone muffler for quiet operation. It is compatible with either 1/4- or 3/8-inch jetter hose. The unit comes with 12-inch pneumatic tires for easy maneuverability on a rugged steel base with a front bar for motor protection. 800/833-1212; www.electriceel.com.

#### **GENERAL PIPE CLEANERS TYPHOON**

The Typhoon trailer jet from General Pipe Cleaners delivers 12 gpm at 2,500 psi to blast lines clean of grease, sediment and debris. A 200-gallon holding tank carries enough water to handle remote applications



where access to water is limited. It has electric brakes, a safety strobe light, safety cones, rear fold-down stabilizer jacks, retractable hose guide arm and an antifreeze system. Its 24 hp Honda engine with electric start and 7-gallon fuel tank ensures extended performance on stubborn stoppages. On-demand Vibra-pulse helps slide the nozzle around tight bends and propel the hose down long lines. Two hose reels — a jet hose reel with 400 feet of 1/2-inch hose and variable-speed electric rewind, and a water supply hose reel carrying 150 feet of 3/4-inch hose — are mounted at the rear of the unit next to the pressure gauge and output valve. Engine controls, including an hour meter, are mounted within easy reach in the lockable toolbox with slide action doors just below the reels. 800/245-6200; www.drainbrain.com.

#### HI-VAC O'BRIEN 7000

The O'Brien 7000 Series trailer-mounted jetter from Hi-Vac Corporation comes with water tanks with a sediment pump for easier cleaning and longer life, as well as 15 percent more water capacity. The trailer has the muffler and air cleaner mounted inside the enclosure



for improved sight lines, electric reel control for smoother rotation and easier operation, and hydraulic and water gauges mounted in the main control panel for easier viewing. 800/752-2400; www.hi-vac.com.

#### **MONGOOSE JETTERS MODEL 184**

The Mongoose Model 184 jetter from Mongoose Jetters by Sewer Equipment has a tubular steel frame, corrosion-resistant prepainted sub assemblies, updated controls, a strong hose reel, high-quality diesel engine and a run-dry pump. 877/735-4640; www.mongoosejetters.com.



CONTINUED >>

## HYDROBLASTING MADE SIMPLER AND SAFER

Tired of replacing blown packing? Constantly lapping or replacing valves. Replacing blown rupture discs? Having to work on your pump in the field? Welcome to Hammelmann, a pump and accessories manufacturer for over 60 years. We offer the easiest to use, environmentally friendly and most reliable pump on the market up to 1500 HP.

#### Simple

Hammelmann's exclusive ES 2 controller allows for a single individual to operate one or multiple pumps wirelessly while removing them from dangerous components making automation truly automated.



Based on SDM technology the ES 2 controls the complete high pressure pump unit.

The ES-2 controls diesel engine driven units or electrically powered units that are outfitted with a frequency converter. It constantly monitors and regulates system functions while collecting data from the various diagnostic functions.

Actual status data from the diesel engine is transmitted via CAN-Bus to the ES 2. All possible engine malfunctions appear as a fault code in the display with the most critical enhanced by clear text announcements.

#### **Rental locations**



Dayton / Miamisburg Hammelmann Corporation - Headquarters 436 Southpointe Drive, Miamisburg Ohio 45342 Toll Free 1-800-783-4935

#### Safe

Hammelmann pumps are fully contained. No water or oil to the ground from leaking packing lubricators or blown packing.



- 1 High pressure loaded components encapsulated
- 2 Friction free plunger sealing, no packing
- 3 Hermetic seal by bellows
- 4 No uncontrolled leakage



Houston / La Porte Hammelmann Corporation 402 HWY 146 South, La Porte Texas 77571 Toll Free 1-866-317-8677

#### To rent

Hammelmann offers rental equipment for every job which includes pumps up to 1500 hp and pressures up to 55,000 psi.

Water tools



3-D Tankcleaner, Aquablast surface cleaner, high pressure water blasting guns, 3-D Pipecleaner, hose rotating systems, abrasive cutting systems.

#### High pressure units



Power ratings: Operating pressures: Flow rates:

up to 1500 hp up to 55,000 psi up to 788 gpm



Baton Rouge Hammelmann Corporation 37310 Commerce Lane, Prairieville Louisiana 70769 Phone 225 384 54537



www.hammelmann.us

#### mail@hammelmann.com

#### MYTANA MV80 JET PRO CART

The MV80 Jet Pro Cart from MyTana Mfg. Company is powered by a 24 hp Honda engine and delivers 8 gpm at 3,000 psi. It has a compact steel cart and easyto-use controls for the pressure unloader and pulseable valves. The 12-gallon water tank is set up for continuous resupply from



MyTana Mfg. Company

a garden hose. The unit comes with 250 feet of 3/8-inch thermoplastic jetter hose and a set of nozzles for penetrating, cornering and blind thrust. The hose cart has two reels, one for the 3/8-inch hose and one for a 50-foot jumper hose useful for remote jetting. 800/328-8170; www.mytana.com.

#### NLB CORP. ULTRAGREEN

UltraGreen high-pressure waterjet pump units from NLB Corp. have environmentally friendly Tier 4F engines that comply with the latest EPA emissions regulations and can reduce operating costs. The engines reduce emissions, improve fuel efficiency and increase torque,



making it practical for pump units with smaller engines to handle bigger jobs. UltraGreen packages are available on many convertible pump units, which are simple to maintain and fast to convert to pressures up to 40,000 psi. Units are trailer-mounted for easy towing. 248/624-5555; www.nlbcorp.com.

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

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



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

#### **ROM BV SMARTCOMBI**

The SmartCombi compact, lightweight combined high-pressure vacuum pickup unit from ROM by is easily mountable on a 3.5to 4.6-ton chassis, twin-axle trailer or openbody truck. The durable design is compact and maneuverable, making it ideal for use in urban and parking areas. The combined highpressure and vacuum drain and sewer cleaning



unit is designed for suction and jetting activities. It is ideally suitable for clearing and cleaning house connections and municipal sewers, and the draining of flooded basements and grease traps. It comes with a Speck highpressure pump. The vacuum system can be used with a thrust jetter or a vacuum pump. **www.rombv.com**.

#### **SPARTAN TOOL MODEL 740**

The Model 740 hybrid hydrojetter from Spartan Tool offers 4,000 psi of jetting power at a 12 gpm flow on a wide-track chassis towable by any vehicle. It is available in either a traditional gasoline-powered configuration or in a hybrid version that runs on liquid propane.

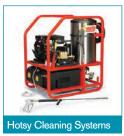


The LP version offers 4,000 psi of jetting power wherever needed, even inside food processing plants and other air-quality-conscious locales. It is also ideal for areas that experience ozone action days or other local emission restrictions. It comes with 350 feet of hose and a 40 hp electric-start engine. It is available in a skid-mounted version for installation into an existing van or trailer. 800/435-3866; www.spartantool.com.

#### PRESSURE WASHERS

#### HOTSY CLEANING SYSTEMS 1200 SERIES

The 1200 Series hot-water pressure washer from Hotsy Cleaning Systems delivers up to 6 gpm and 4,000 psi. Models come with either a Honda or Briggs gas engine with electric start. Five models come with a 2,000-watt generator. An upright, oilfired burner with stainless steel coil skin is efficient and maintains constant hot water using diesel fuel, kerosene or home-heating oil. The self-contained



units are easily adaptable to trailer-mounted systems for mobile cleaning. All come with the Hotsy triplex pump with ETL safety certification, a standard flow switch and 50-foot hose. 800/525-1976; www.hotsy.com.

#### WATER CANNON HOT-WATER DIESEL-SKID PRESSURE WASHER

The hot-water diesel-powered skid pressure washer from Water Cannon is powered by a Kubota Z602B1 or DH1005B1 engine. It offers up to 8 gpm at 4,000 psi and comes with a General or Annovi Reverberi pump. A 12 VDC diesel-fired burner, 15-gallon poly diesel fuel tank, 40 amp charging system and battery box make it



wholly self-contained. Beckett burners deliver 210 degree F max temperature, and a Schedule 80 coil with a molded combustion chamber offers access to hot water within seconds. A 3VX belt system with four belts, which are laser-aligned and factory tested, delivers balanced power transfer for complete control. Engine and pump oil drains enable simple maintenance. It has a safety pressure-relief valve and thermo-sensor that prevents overheating in bypass mode. 800/333-9274; www.watercannon.com. CONTINUED >>

## ////// CI FANFR CO



#### Pipe & Tube Cleaning Solutions

## Over 200 tube cleaning nozzles, available NOW from NLB

What's better than a huge selection? A huge selection with same-day availability. NLB has tube and pipe nozzles in 5 popular styles, with drill patterns that give you over 200 choices. All attach easily to flex lances, rigid lances or semi-automated Saflex<sup>™</sup> units. We offer:

- standard, button, multi-row, evaporator, or rodder nozzles
- custom drill patterns
- Ieft-hand or right-hand threads

For the nozzle you need, when you need it, call **800-441-5059**. Or download our catalog at <u>http://www.nlbcorp.com/products/</u> accessories/nozzles/pipe-tube/.





The Leader in High-Pressure Water Jet Technology

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



The Final Step in Root Remediation

When your cleaning efforts in a sewer lateral make you fear collapse, it's time to think about a more perma-nent fix to the problem. Consider rebuilding the sewer lateral without digging up the pipe.

Benefits: • Lower Impact Costs



- Little or no excavation to install
- As strong as installing a new pipe
- Can line through missing sections of pipe
- Fast installation from start to finish
- Creates a new pipe from the building to the sewer main

Quik Lining Systems offers the most advanced system for installing these liners.

Олік-Uning Systems 605-695-6778 Jонк@фиксімб.com • www.quikcining.com

#### SAFETY EQUIPMENT

#### **CESTUSLINE DEEP III SONIC-10**

**Deep III Sonic-10** work gloves from **Cestusline** have a 3-D grip terrain with 10 peak zones that create angles for maximizing grip control on wet, oily or dry surfaces. Zones of dense, miniature bristles are located strategically on the palm, fingers and thumb to optimize grip in areas

Black Nitrile Disposable Gloves from Galeton protect hands from abrasion, oils and grease. They are

8 mil thick and built to withstand tough jobs without

sacrificing dexterity. They have textured fingertips, and

their 11.75-inch length provides additional wrist coverage.

The latex-free nitrile construction makes them ideal for

that affect grip control. The 3-D landscape has liquid-channeling properties that aid in grip control on wet surfaces. The gloves can help reduce hand fatigue, as wet hoses and lines are more easily controlled. **503/894-8549**; www.cestusline.com.

#### GALETON BLACK NITRILE DISPOSABLE GLOVES



## Ø

Galeton

those who are allergic to latex. They are available in size small to 2XL, and come 50 gloves per box. **800/221-0570**; www.galeton.com.

#### SONETICS WIRELESS HEADSETS

**Sonetics** offers wireless headsets and team communication systems for challenging environments. They allow companies to optimize teamwork with hands-free communication, improving safety while protecting hearing, along with training, supervising and auditing employees in real time. **800/833-4558; www.soneticscorp.com.** 



#### SVE PORTABLE ROADWAY SYSTEMS TRAKMAT

TRAKMAT ground protection cover mats from SVE Portable Roadway Systems are designed to move large vehicles over lawns, sidewalks and driveways without causing damage. The mats are easy to handle and provide longevity, strength and safety. The traction surface SVE

helps keep the mat in place and prevents vehicle slippage. The lightweight mats with hand cutouts are easy to lift, load and unload. They can be used to build roadways with additional accessories, like two- or four-way urethane connectors, and provide an easy access road to remote locations. **800/762-8267; www.trakmat.com**.

#### TST SWEDEN AB HOSE PROTECTION/SHROUD

The Hose Protection/Shroud protective cover from TST Sweden AB protects the operator when waterblast guns are held near vital parts of the body or when hoses break, often near couplings and connections like on the gun. It provides effective protection and has been tested for 7,500 psi. An adjustable strap holds the protective covering securely in place. The covering is smooth and flexible. It is 2.6 feet long, with a diameter of 1.6 inches and weight of 0.45 pounds. www.tst-sweden.com.



#### WATER PUMPS

#### CAT PUMPS MODEL 3550

The **Model 3550** high-pressure plunger pump from **Cat Pumps** is rated to 10 gpm at 6,000 psi. It is suited for equipment operating in high-duty cycle applications in remote or mobile applications, such as hydroexcavating, jetting, blasting and hydrostatic testing. It can be direct-driven hydraulically or pulley-driven



Cat Pumps

from a motor or engine. Its V-packings and low-pressure seals are completely lubricated and cooled, increasing service life. Hard-chrome-plated forged brass inlet/discharge block manifolds offer strength and fluid compatibility. The wet end is easily serviced without entering the crankcase. **763/780-5440; www.catpumps.com**.

#### **GIANT INDUSTRIES K80000-5G**

The **K80000-5G** compact quintuplex pump series from **Giant Industries** is capable of producing 31 gpm at 50,000 psi with 1,072 input hp. Designed for either electric motor or diesel engine power input, the pump allows for direct-drive operation, eliminating space-



consuming belts and pulleys. Standard options are force-fed lubrication, an oilcooling system and easy-to-change valves and seals. The series has a flow range up to 920 gpm. **800/633-4565; www.giantpumps.com.** 

#### GORMAN-RUPP COMPANY PRIME AIRE PLUS "PAH"

The **Prime Aire Plus "PAH**" line of primingassisted centrifugal pumps from **Gorman-Rupp Company** are available in sizes from 3 through 16 inches, heads to 575 feet, and flows to 15,000 gpm. Models are available for clear-liquid highpressure applications and can be coupled to flex



Gorman Rupp

Tier III- or IT4-compliant engines or premium efficiency electric motors. They employ the same venturi/compressor priming system as the Prime Aire line. The compressor is integral on the engine version and a shelf-mount design on the electric units. Benefits include increased head and flow and enhanced maintenance features including externally adjustable running clearances, a ductile iron body and impeller, two lip seals and atmospheric vent to ensure bearing protection, and oil-lubricated versus grease-lubricated bearings. **419/755-1011; www.grpumps.com**.

#### JETSTREAM 6000 SERIES

The **6000 Series** 600 hp bareshaft pump from **Jetstream of Houston** is a flexible, easily configurable unit that offers ease of operation and maintenance. An engine-driven charge pump ensures the UNx fluid end receives water at the correct pressure, regardless of the supply conditions. **800/231-8192; www.waterblast.com**.



Jetstream of Houston

CONTINUED >>

## YOU ARE INVITED September 16th-17th, Rochester, Indiana

#### REGISTER FREE at: www.rapidview.com

## FREE TECHNICAL TRAINING BOTH DAYS OF EVENT!

#### OUR MOST POPULAR SESSIONS!

Want to learn how to troubleshoot, maintain and repair our pipeline inspection equipment?

This year we are offering two full days of FREE technical training! Courses will include sections on all system components including cameras, tractors, lateral launch systems (LISY), and PANORAMO systems!

#### HANDS ON LABS

We will also have hands-on practice sessions for common repairs and cable reterminations with our factory technicians.

## **FOOD & ENTERTAINMENT**

The amazingly talented Michael Carbonaro will be joining us for an exclusive show during this year's SeptemberFest at 1:00PM on September 17th. We hope you can join us!

> Star of "The Carbonaro Effect" on

Free Training, Food and Fun!

PECIAL EVENT

Michael Carbonaro

ACTOR - MAGICIAN - IMPROV ARTIST

September 17th, Rochester, Indiana

Rapid



## **OPERATION & STRATEGY SESSIONS**

#### **PRODUCT WORKSHOPS AND LIVE DEMOS**

You have many choices when it comes to inspection equipment. We have the expertise and equipment to help you succeed. Throughout these sessions you can learn more about pipeline inspection equipment, its capabilities, limitations and features. This is a perfect time to explore the entire product line and receive expert guidance from our experienced staff.

#### PANEL DISCUSSIONS

We all have challenges when it comes to meeting our goals. Who better to help than your peers? In our panel discussion series contractors and cities tackle some of these challenges and help each other become more successful.

## REGISTER NOW! www.rapidview.com or call 800-656-4225 TODAY!

1828 W. Olson Rd. Rochester, IN 46975 | 800-656-4225 | www.rapidview.com

#### MORO USA PLUNGER PUMP

Plunger pumps from Moro USA are highpressure triplex water pumps that produce a smooth liquid flow up to a standard maximum water temperature of 140 degrees (with higher temperature ratings available). The double projection drive shaft can be operated by pulley,

flexible joint or cardan shaft. The pump includes ceramic plungers, double pressure packings, vertical-fitted valves, water spill venting and oil-bath mechanical parts with splash lubrication. They are available with a maximum flow rate of 128 gpm and maximum pressure of 22,000 psi. Versions include stainless steel or aluminum-bronze fluid ends designed for pumping corrosive liquids. 800/383-6304; www.morousa.com.

#### **THOMPSON PUMP HIGH-PRESSURE JET PUMP**

High-pressure jet pumps from Thompson Pump are useful for multiple high-pressure applications. These durable fast-action pumps, constructed of heavy-duty cast iron, deliver punch at the end of the hose and provide flows to 1,600 gpm, heads to 440 feet and pressures over 200 psi. 800/767-7310; www.thompsonpump.com.

#### **US JETTING** RUN-DRY PLUNGER PUMP

Heavy-duty run-dry plunger pumps from US Jetting have simple engineering that makes them easy to service and maintain. The triplex design delivers high efficiency and long seal life. Highpressure low-volume units are available, along with units for when high volume and low pressure are required. 800/538-8464; www.usjetting.com.

#### WATERBLASTERS/ WATERBLASTING ACCESSORIES

#### DYNABLAST CAB420FLS-12V

The CAB420FLS-12V hydrovac hot-water heater module from Dynablast produces 420,000 Btus, making it ideal for colder climates and improved digging in clay-filled areas. The compact 24- by 24-inch unit provides efficiency with a heat rise of 140 degrees F at 5 gpm (to an output of







Thompson Pump

US Jetting

190 degrees F), and the reversible door design provides multiple installation options for a variety of truck configurations. It runs clean and is ETL approved. It has two service access panels and two momentary override controls that increase the serviceability, resulting in decreased downtime. It is built out of 14-gauge steel and polyester powder coated with an aluminum cap. 888/881-6667; www.dynablast.ca.

#### EASY KLEEN PRESSURE SYSTEMS BULL MOOSE SERIES

The Bull Moose Series diesel-driven industrial hot-water high-pressure cleaning systems from Easy Kleen Pressure Systems are available in pressures from 4 to 10 gpm at 3,200 to 8,000 psi. They are powered by 6.8/26 or 58 hp Kohler or Kubota diesel engines, with General or



Cat pumps, belt or gearbox drive systems and 12- or 120-volt oil-fired burners. The heating coils are constructed of Schedule 80 or 160 (depending on the model) elliptically wound pipe and concealed in a stainless steel housing. They have a 150 degree F heat rise and a 200 degree F outlet temperature. The fully welded powder-coated steel frame is designed to be trailer mounted for extreme conditions. Gasoline-driven units are also available. 800/315-5533; www.easykleen.com.

#### **PSI PRESSURE SYSTEMS** NX NEXT GENERATION

The NX Next Generation high-pressure waterblasting system from PSI Pressure Systems has an SWS conversion system, allowing it to operate at 8,000 to 40,000 psi without changing or removing the discharge manifold, or rupture disc assemblies or



pressure gauges. With pressure-specific connections in the fluid end and discharge manifold, the line is safe, prohibiting operators from accidentally over-pressurizing the pumps or blast hose. It is available with 365, 600 and 800 hp power systems, providing operational flexibility. 281/420-5055; www.psipressuresystems.com.

#### SUPER PRODUCTS SUPER TUBE DIGGING TUBES

Aluminum Super Tube digging tubes from Super Products are ideal for hydroexcavators and sewer cleaners used on challenging job sites. They are constructed of thick, high-strength, heat-treated alloy, making them less prone to denting during handling and severe use. Available in 6and 8-inch diameters and a variety of lengths up to 20 feet, they have custom cast ends that enable them to be easily interchangeable with other Super Tubes. 800/837-9711;



www.superproductsllc.com. c



OPERATOR-FRIENDLY
 SIMPLE MAINTENANCE

CLO

1

VERSATILEEASY OPERATION

6 0

MAXIMUM EFFICIENCY
 GLOBAL SALES & SUPPORT

Xine

Č.

1:1:

.

¥

21

-

\* 2

11



800.752.2400 = 740.374.2306 = www.X-Vac.com



## FOAM APPLICATOR



Originally designed in 1975 by Gerald J. Vanderlans for Fred Horn of Airrigation Eng. Co., Inc. The foam applicator is an integral part of the application of herbicidal foam used for the treatment of root intrusion in sewer lines. PATENT #3874926

#### VANDERLANS & SONS, INC. LODI, CALIFORNIA

(800) 452-4908 • (209) 334-4115 • www.lansas.com



#### CASE STUDY -

## Waterblasting and Waterjet Cleaning and Accessories

By Craig Mandli

## Controlled-rotation jetting nozzle effective in opening pipe at treatment facility

#### PROBLEM

Rodney King, proprietor of Hydro-Mole mechanical cleaning company specializing in coil cleaning, hydrojetting and CCTV pipe inspections, recently received a call from the nearby City of Hurst, Illinois, about a blocked pipe at its sewer treatment facility. Prior to arriving at the site, King was informed by the



sewer treatment plant operator that the treatment ponds were overflowing due to the apparent blockage. Two jet trucks from other neighboring municipalities were already on the scene but had been unsuccessful in opening the pipe.

#### SOLUTION

"Upon setting up, I selected our WH-1/2 nozzle," King recalls. The **Warthog WH-1/2** from **StoneAge** is a controlled-rotation jetting nozzle for 6- to 18inch lines most commonly used with small-capacity combination trucks and large trailer jetters. It maximizes cleaning power into as few jets as possible to efficiently penetrate blockages, cut roots and clean walls.

#### RESULT

"After running our machine for five minutes, the pipe began to flow," King says. "The 10-foot manhole that we were jetting from started overflowing within 45 seconds." **866/795-1586; www.sewernozzles.com**.





#### The MV80 Jet Pro Cart

The largest portable jetter available in the industry.

- Delivers 8 GPM at 3000 PSI and is powered by a 24 HP Honda engine.
- Controls for the pressure un-loader and pulse-able valves are easy to use.
- 250' of 3/8" thermoplastic jetter hose and handy hose cart with 50' jumper hose useful for remote jetting.

#### M30 MaxBlast

Portable jetter useful for jetting main lines, drain lines, and rejuvenating drain fields.

- Effective on grease, sand, food, paper products, and other soft obstructions.
- 4.5 GPM at 3000 PSI at the nozzle.
- · Jet indoors while engine remains outside.

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



## 1.800.328.8170 www.MyTana.com

Made in the U.S.A.

Request your FREE, FULL LINE catalog today! 1.800.328.8170



CABLE MACHINES - JETTERS - PUSH CAMERAS FOR MAIN LINES AND DRAIN LINES • LOCATORS • RELATED PARTS • ACCESSORIES Factory Direct Customer Service Competent • Polite • Clear (M-F 7am - 5pm CST)



## Quality Used Trucks Available for Immediate Delivery



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

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



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

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

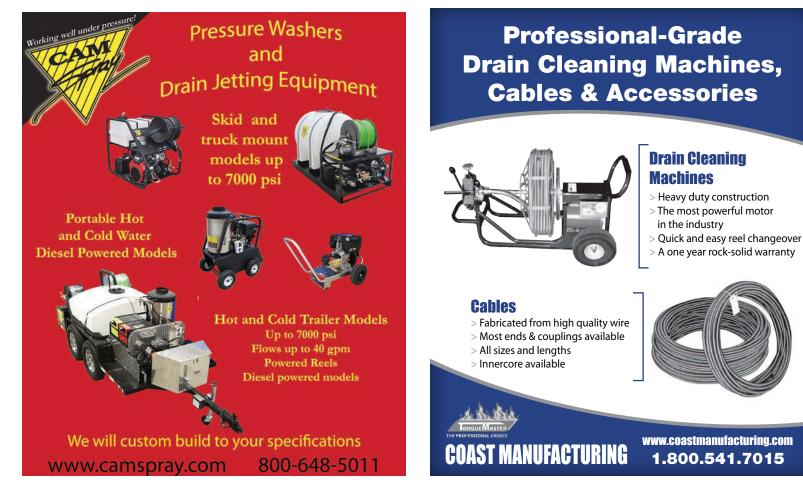


#### 2009 Int. 7600 with 2010 Vactor HXX | Truck ID #72091

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

©2015 FS Solutions Group

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





Tired Of Squinting At A Tiny Monitor? ED Get An **Attaché** Hi-Def With A Monitor

SHI'N



SCOOTERS ARE EASY TO USE, TOUGH AND DEPENDABLE. COOTERS ARE THE SHOP WITHOUT ONE.

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!

**DVD** Recorders

15" Color Monitor

Storage

TE F

800.772.61 www.tvinspection.com



## Limit the Worry in Work Zones

Traffic control guidelines provide a clear plan to keep workers safe on the road

#### By Doug Day

ou may not spend as much time working in roadways as a highway construction worker, but work zones on streets and roadways are still dangerous places. There are many strategies that can help prevent workers and equipment being struck by passing cars.

The risks for highway construction workers are a bit different, of course. About half of the fatalities involve construction equipment rather than passing traffic. But there is a lot to be learned from an industry that strives to prevent the 100 deaths and 20,000 injuries that occur in work zones on the nation's roads every year.

Because there are no published standards or regulations, the U.S. Department of Transportation developed *Utility Work Zone Traffic Control Guidelines* to help those working in temporary traffic work zones. The guidelines are intended for utility work, such as electric supply, gas, telephone, cable, sewer cleaning, grass cutting, tree trimming and landscaping work located in or around public thoroughfares, according to the DOT.

The dangers in these work zones vary, depending on such factors as:

- Traffic volume
- Travel speed
- Distance of the work area from the travel lanes
- Work duration
- Sight distance and work area visibility

#### **BEST PRACTICES**

Orange is the universal color for traffic work zones, and drivers have grown to recognize warning devices such as cones, signs, barricades, drums and oscillating lights on vehicles. Whatever is used, the work zone should be conspicuous to the driver and provide ample advance warning.

In the work zone itself, equipment and vehicles provide further warning



for motorists and serve as an important barrier between the traffic and the workers. White is best for visibility, though orange trucks may be most obvious to drivers as being part of the work zone.

Amber lights are used by all state road agencies, and the DOT's guidelines say amber is the desired color to indicate temporary work zones. While adding blue and red lights has been shown to be more effective in getting drivers to slow down, several states do not allow blue and red lights for nonemergency vehicles.

Arrows and flashing lights are more effective than rotating lights, according to the DOT. Arrow panels are recommended when work occupies a traffic lane.

Vehicle markings have been shown to increase visibility during the day and at night. "A rear-end marking treatment using black diagonal stripes mounted on an orange background has been shown to be most effective, followed by a pattern of alternative orange and white reflectorized blocks along the perimeter of the back of the truck," according to DOT's guidelines.

If the vehicle is parked on the shoulder, advance warning signs are necessary to make sure drivers are aware — from 100 feet in low-speed urban areas to 500 feet in rural locations. The document includes many examples of traffic control plans for various conditions, including effective placement of warning signs, vehicles and traffic tapering devices such as cones and barrels.

Travel lanes require at least 10 feet, though 9 feet is OK for low-volume traffic areas such as streets in residential areas. Parking workers' personal vehicles across the street only serves to further restrict traffic and increase the chance of an accident, so they should park far enough away as to not add to the problem.

Workers should wear Class 2 or 3 high-visibility garments along with orange hard hats. As with all safety matters, training is critical to ensure workers understand the risks and how to minimize them.

The Utility Work Zone Traffic Control Guidelines can be accessed at www. workzonesafety.org. Training material, developed as part of the Federal Highway Administration's Work Zone Safety Grant Program, is also available at www.workzonesafety.org. **C** 





# ROYAL FLUSH

When it comes to the winning hand among jet/ vac combo sewer cleaners, Vacall is the only brand that has the deck stacked. In fact, our AllJetVac models totally trump the competition with these five features, in addition to our highly productive vacuum and jetting forces.

LEARN MORE AND REQUEST A DEMO VACALL.COM / AJV 800-382-8302

# THE VACALL AII JETVAL

Does your sewer cleaner have...

- Standard CAN bus Smart Controls
- Lifetime warranty on debris body
- Lifetime warranty on aluminum
- water tank
- Easy-to-operate system

VACALL

VACALL GRADALL A -----

Single-engine cost savings



#### VARCo adds vacuum pump repairs, rebuilds

VARCo, supplier of hose, valves, vacuum pumps, restroom chemicals and vacuum truck components for the liquid waste industry, has added vacuum pump repairs and rebuilds.

#### Benjamin Franklin Plumbing, Mister Sparky partner with TV personality

Benjamin Franklin Plumbing and Mister Sparky Electric, part of the Direct Energy family of brands, have partnered with Mike Rowe, creator and executive producer of CNN's *Somebody's Gotta Do It* and Discovery Channel's *Dirty Jobs*. The brands will donate \$100,000 in scholarships to the mikeroweWORKS Foundation and work with Rowe to promote the skilled trade industry. As part of the partnership, Rowe will appear in several commercials alongside technicians from each of the brands.

#### Advanced Pressure Systems expands offices

Advanced Pressure Systems broke ground this spring on an addition to its office and manufacturing complex in Tomball, Texas. The expansion will add 35,000 square feet to the facility. Construction is scheduled for completion this fall.



#### Isuzu achieves production milestone

Isuzu Commercial Truck achieved a production milestone in April when the 20,000th gaspowered, low-cab-forward truck rolled off the assembly line.

#### HammerHead names interim president

HammerHead Trenchless Equipment named Rick Johnson, CEO of Charles Machine Works, interim president. He replaces Brian Metcalf as HammerHead president and CEO.

#### RapidView names director of customer care

RapidView named Wade Langley director of customer care. He will be responsible for all sales service, support and logistics throughout North America.



#### Wade Langley

## Trelleborg receives innovation award, restructures business

Trelleborg Pipe Seals advanced engineering and materials operation received the Innovational Award at the Chemicals Northwest Awards in Manchester, England. The company was recognized for diversifying from its original beginnings as an engineering-based organization to a chemical processor of composite materials. Trelleborg also restructured its business, consolidating all products under pipe seals and pipe rehabilitation.

#### **Ring-O-Matic names CEO**

Ring-O-Matic, an Iowa-based manufacturer of vacuum excavators, named Brian Metcalf chief executive officer. A native of Pella, Iowa, Metcalf will be responsible for developing a sustainable strategic growth plan for the company as well as its complement of related support products.



rian Metcalf

#### Fall conference

The WJTA-IMCA will be holding its annual Conference & Expo coming up this fall. The event will be held at the Ernest N. Morial Convention Center in New Orleans Nov. 2-4. Visit www.wjta.org for more information.







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

Maxi Miller & Twister Liner Remover = Easy & efficient removal of collapsed liner





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



#### **PRODUCT NEWS**

#### **PRODUCT SPOTLIGHT**

#### Portable leak detection amplifier works as ground microphone

By Ed Wodalski

The portable S30 Surveyor leak detection amplifier from Fluid Conservation Systems can be used as a contact sensor at distribution access points as well as a ground microphone. The 1.8-pound system works with any size pressurized metal or plastic pipe. Features include an analog meter, aviator-quality stereo headphones, collapsible probe, sensor and Pelican storage case. The meter has a backlit screen for use in dark locations and night work. The on/off push-button can be operated while wearing gloves.

The AX80 sensor attaches to the amplifier via a 10-foot cable and fire hydrant, water meter service, shut-off valve or mainline valve. When the S30 is turned on, the console amplifies the sound so the user can hear the leak in the pipe. Volume is adjustable for improved results in high-noise areas.

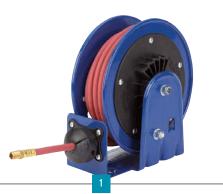
The analog meter indicates noise intensity. By listening at several points, the operator can localize the leak.

4-inch-wide, The 7.5-inch-long amplifier operates on two 9-volt batteries and has a frequency response of 30 Hz to 5 kHz (-3dB).

"It's got really good range high end to low end," says Doug Sangermano, customer support manager for Fluid Conservation Systems. "It's a very sensitive device and very clean. You don't hear a lot of hissing. It's a simple device to use essentially you push a button and listen."

A 3-inch circular aluminum surface sounding plate attaches to the sensor, enabling the leak detector to be used as a ground microphone. 800/531-5465; www.fluidconservation.com.







#### **COXREELS LG SERIES HOSE REEL**

The Little Giant Series hose reel from Coxreels is designed for tubing and air/water applications. Made for commercial and industrial settings where space is limited, the reel weighs 9 to 13 pounds, depending on model, and is 10 5/8 inches tall. The reel has a continuous radius grommet design made from bearing-grade, FDA-compliant CoxComposite that does not pinch or catch the hose during operation. Other features include low pull tension to reduce the chance of stretching the hose and a noncorrosive CoxComposite ratchet hub with self-lubricating bronze bearings for smooth rotation. 800/269-7335; www.coxreels.com.

#### **RIDGID TRANSPORTABLE PIPE BEVELLER**

Z The B-500 transportable pipe beveller from RIDGID produces a consistent, high-quality bevel in less than two minutes without flames or sparks, replacing traditional beveling such as grinding. The unit mounts to the end of pipes 4 inches or greater in diameter with a maximum wall thickness of a 1/2-inch, as well as flat plates up to 1/2-inch thick. Interchangeable heads allow bevels to be cut accurately at 30 degrees, 37.5 degrees or 45 degrees. Features include speed monitoring with LED indicators that assist the operator in keeping the beveller moving at an optimal pace. 800/769-7743; www.ridgid.com.

#### ALLAN J. COLEMAN **Call us today!** 773-728-2400 **SINCE 1905**

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

CALL FOR

SPECI

## Warthog<sup>®</sup> Nozzles



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

GVISION

This ruggedized monitor records

onto flash drives, hard drives, and an iPhone®, iPad®, or iPod

Touch<sup>®</sup>. Connect to the A/V in/

and other compatible recorders.

**Special pricing on all General jetters**, cameras and machines JM-2900

JM-1450

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

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



Visit www.eplsolutions.net for more details.



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



JetCam Adapter

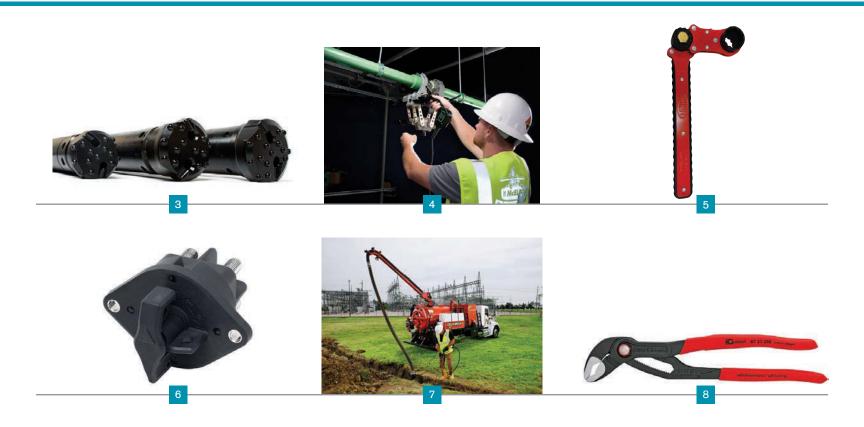
JetSonde Carriers - P-Trap Cable Sonde Carriers

JetSonde Nozzle

Jetter Hose

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

**OLDEST NAME IN THE BUSINESS** – Over 100 YEARS O PHCC MEMBER



#### **3** HAMMERHEAD PNEUMATIC PERCUSSION DRILLING SYSTEM

The Roughneck R600 pneumatic percussion drilling system from HammerHead Trenchless Equipment is designed for drilling solid rock with bit diameters of 7.25 to 8 inches. The R600 joins model R400, designed for 5.25-inch straight and offset bits, and the R500 for straight and offset bits to 6.25 inches in diameter. Capable of penetration rates of 150 fph, the hammers have a heavy-duty, high-flow housing, pullback kit, control station/oiler and drill conversion kit. **800/331-6653; www.hammerheadtrenchless.com**.

#### MCELROY SOCKET FUSION TOOL

**4** The Spider 125 socket fusion tool with universal clamping from McElroy Manufacturing is designed for installations using 63 mm to 125 mm PP pipe in overhead, vertical and tight workspaces. Universal clamping accommodates any size pipe or coupling, eliminating the need for inserts. The 15-pound tool comes with a carrying case and full assortment of heaters and heat adapters. **918/836-8611; www.mcelroy.com/fusion**.

#### REED DUAL SOCKET, ADJUSTABLE WRENCH

The L2N1ADJ dual socket, adjustable ratchet wrench from Reed Manufacturing enables workers to access nuts in tight locations. The two back-to-back socket sizes (1 1/4 and 1 1/16) feature a 12-point design that helps the sockets grip and hold. Loosening the large wing nut swings the socket head from side to side. Flipping the socket head by disassembling the wing nut and bolt makes it possible to use either socket opening. Weighing 2.3 pounds, the wrench has a torque rating of 200 ft-lbs. **800/666-3691; www.reedmfgco.com**.

#### PEERLESS BATTERY DISCONNECT SWITCH

• The TR Series battery disconnect switch, from Littlefuse Commercial Vehicle Products and distributed by Peerless Electronics, cuts all battery power from vehicle electrical systems for applications needing two-circuit switching or both positive and negative. The dual-pole, 500 amp continuous current rated master disconnect switch features an ingress rating IP67 and IP69K, enabling it to be mounted in exposed areas. The switch has a maximum operating voltage of 48 VDC. **800/285-2121; www.peerlesselectronics.com**.

#### DITCH WITCH TRUCK VACUUM EXCAVATOR

The FXT60 truck vacuum excavator from Ditch Witch is available on a Class 6 or 7 single-axle or Class 8 tandem-axle truck. The vacuum excavator is mounted directly to the frame rails, enabling system components to flex independently of the truck. Equipped with a 74 hp Deutz diesel engine, the FXT60 offers 1,027 cfm and a high-pressure water system with a 5.5 gpm, 3,000 psi water pump. Options include a hydraulic boom that extends to 14 feet and a choice of tank configurations: 500-gallon spoils with 200-gallon water or 800-gallon spoils and two 200-gallon saddle-style water tanks. **800/654-6481; www.ditchwitch.com.** 

#### 8 KNIPEX TOOLS WATER PUMP PLIERS

• The 10-inch Cobra QuickSet water pump pliers from Knipex Tools feature a slide and lock push-button system for repetitive use. The lower jaw slides up to the object and provides a precise fit with a squeeze of the handle. The pliers, made from high-alloy German chrome vanadium steel, have a 2-inch gripping capacity and feature a pinch guard to protect hands and fingers. The hex-shaped gripping surface with hardened teeth (61 HRC) can fit around any round, square, hex or flat object. **847/398-8520**; **www.knipex-tools.com. c** 



Visa, Mastercard, Discover, AmEx Accepted

www.rootrat.net

#### MARKETPLACE ADVERTISING



#### MARKETPLACE ADVERTISING



www.cleaner.com • Since 1985 August 2015 89

truck mounted, large

basin cleaner unit

## classifieds

see photos in color at www.cleaner.com 🦯

#### **BUSINESSES**

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

Fully-equipped Long Island, NY cesspool cleaning company for sale. Established 50+ years serving Nassau & Suffolk Counties with excellent reputation and high-repeat customer base. 516-993-0446 (C09)

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

#### **CATCH BASIN CLEANERS**



**2001 Vactor 2100 Series:** Freightliner tandem, ex-municipal truck. 2,000-gallon water, 6-yard debris, dual fans, Hydroexcavating package, Multi-flow water option. Front reel w/600' HP flush hose. Fully serviced/detailed and ready to work. ...... \$70,000 OBO. Will deliver.

866-744-9921 <sub>C10</sub> info@kendrickequipment.com

#### **COMPUTER SOFTWARE**

FreeServiceReminderSoftware.com, FreeServiceDispatchSoftware.com, FreeRouteManagementSoftware.com. (C08)

#### DRAIN/SEWER CLEANING EQUIPMENT

2007 Vactor with Sterling LT7501: 16" PD blower, 1,500 gallons of H20, 80gpm @ 2,000psi, multi flow, remote pendant control, level wind guide, lube manifold, flat rear door w/hydraulic locks, debris body flush out, cyclonic separator, fold-down pipe racks curb and street side, low-water alarm w/light, air purge, 8' hydraulic telescoping boom w/joystick, accumulator, handgun hose reel, boom work lights, rear arrow board. \$179,000. Call 704-289-6488 or kevin@pweasi.com (C09)



**2006 Sterling Camel Hydrovac:** Automatic, 10-wheeler, 41,289 miles. 80gpm, 600' of new 1" hose, new water tank, 1,500 gallons. Front reel, hose press, excavation wand. One owner. Sacramento, CA. .....\$135,000

Carroll 916-747-3819

C08





**2001 Vactor 2100** mounted on a Sterling LT9501: 375hp, 15-yd. hopper, debris body flush out, cyclonic separator, fold-down pipe racks street & curb side, splash shield, 1,300-gallon water, 80gpm @ 2500psi, accumulator, multiflow, rodder pump ball valve drains..... \$150,000

Call 704-289-6488 or kevin@pweasi.com

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

If you are using an **800 number** in your ad, be sure it can be used in all areas nationwide.

#### HAZARDOUS WASTE UNITS

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

#### **JETTERS-TRAILER**



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

800-213-3272 www.hotjetusa.com

CBM

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

2000 John Bean Trailer Jet: 35gpm @ 2,000psi. 400-gallon tank, 400' new hose. \$11,000 OB0. 231-325-0052 or 734-365-4035. (CBM)

2005 MyTana skid-mounted jetter: Honda 24hp, V-Twin electric-start engine, 8gpm @ 3,000psi with a 12-gallon float tank. Excellent condition. Fits nice in back of a van. \$2,500. Dan 920-585-9924. WI (C09)

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

#### **JETTERS-TRUCK**

1998 Super Products Jetter, Ford F-Series, Cummins 285hp, 2-year-old FMC Bean pump 60gpm @ 2,000psi, 1,200-gallon water tank, 52,000 miles, 6,700 hours. Municipalowned. Runs great. Pictures available. Asking \$40,000. Call Brian @ 303-898-9475 (C08)

1995 Ford F800: 64,000 miles, Vac-Con, 60gpm 2,000psi. 1" hose on hydraulicdriven reel. John Deere engine, 1,600-gallon water tank. \$13,000. 218-750-3394 (C08)



**1998 Camel CJ1600** jet truck: 6,712 hours, 52,021 miles. New water tank in 2013, new water pump in 2012. 50gpm/3,000psi. 3/4" x 600' sewer hose. Ex-city unit.

Call 303-562-6022, CO CO8



**2002 Sterling Jetter Truck,** Vactor Ram Model V60158, 1,500-gallon stainless tank, 2,500psi pump, 66,623 miles, 1,761 hours. Municipal truck. ..\$33,975

814-696-4343, PA

C08



**1993 GMC 1-ton Jetter:** 35gpm FMC pump, 3/4" hose, 500-gallon plastic tank. .....\$14,500 0B0 Other jet trucks and trailers available. **608-835-7767, WI** 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)





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

C08



1990 International Vac-Con jet vac: 6-speed Allison, 12-cubic-yard debris. 1,500-gallon tank w/washout. 60gpm. 600ft. hose, Extendable boom. \$39,900 559-264-4601, CA C09



2001 Vac-Con jet vac combo: CAT 3126 engine, Roots 824 PD blower, Allison automatic, 55,000 miles. 600 ft. 1" hose, 2,000psi @ 80gpm, 1,300-gallon water tanks, 12-yd. debris tank. Cummins 4BT rear engine, rear strobes, arrow board on rear. Debris body flush system. 8" telescoping boom. Truck engine over hauled summer of 2014 and newer PD installed fall of 2014. Excellent condition. ..... \$80,000 OB0

> Kyle 515-360-8582, IA kyle@accujetiowa.com C08



2005 Vac-Con VPD4211LHA/1300 on International 7400 with DT466 engine. Allison auto transmission, 87,300 miles. Deutz 138hp rear engine, long telescopic boom, hydrostatic drive, articulating 600' x 1" hose reel. 1,300-gallon water tanks, 11-yard debris tank, 80gpm @ 2,000psi and Roots 827PD blower. \$90,000 OBO

Mark 708-475-7100, IL CBM

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

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



2,117 blower hours. 12-yard tank and hydroexcavation package. 80gpm. 1" hose. PD 18" blower. .....\$160,000 Dave 916-442-5400, CA C08



2002 IHC Diesel Vactor 2100 Sewer Combo: 85,000 Original Miles, IHC DT-530, 275hp Diesel, Allison Auto Transmission. 10-Cubic-Yard Vacuum Dump, 1.500-Gallon Water Tank, PD Blower, **RELEASED FROM LOCAL MUNICIPALITY.** Stock# 14754-49 ..... \$139,500

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

C08



2002 Volvo VHD with Vactor HXX. 5-axle, 18-speed. 15-yard barrel, 18" blower. Hydroexcavation package with 1,000-gallon water tanks. E-mail for more information ......\$70,000 jjohnson@bravonw.com C08

1999 International Vac-Con: 11-yard, 3-stage fan, low hours. Super clean, workready unit. Ex-city owned. 50k miles. \$44,900. 800-627-0778 (CO8)

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



2007 International 5-axle with Guzzler NX. 18-yard barrel, 27" blower, hydroexcavation package. E-mail for more information ......\$150,000

jjohnson@bravonw.com C08



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

800-672-6010 ext.115, C0 C09



lons, PD blower, 80qpm pump. GMC chassis, tandem axle, CAT 275hp. Easily convertible to B-10 (10-yd/1,000 gallons). Ex-municipal, Excellent condition. www.internationallinkllc.com 856-599-4838, PA C10

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

1988 Ford 810 Vactor: Good running. Ford diesel, Cummins rear engine, two-stage fans, new tires. Stainless steel water pump, 450' hose. \$25,000 OBO. Call 561-310-4011. (C08)



2002 Vac-Con International PD 4211 LHAN chassis, 1,300-gallon/14-yard. 81,000 miles. 9,000 hours. PD Roots blower. New radiator, transmission, PTO/ splitter. Southern municipal unit. Rustfree, runs and looks great! ....\$115,000 C09

616-458-3993. MI

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

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

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

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

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

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

#### **LEASE/FINANCING**

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

#### LOCATORS

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

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

#### **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**



Units, nozzles, hoses, accessories and safety gear. From High Flow 65 GPM Units to High Pressure 6,000 PSI Units and everything in between. The best products and the best advice in the business.

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

#### PIPELINE REHABILITATION

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

#### **POSITIONS AVAILABLE**

Looking for experienced operators & technicians in Florida. Florida-based sewer, wastewater treatment & pipe cleaning company looking for experienced operators and technicians. Travel, clean CDL license, drug-free workplace. Competitive pay based on experience. Please call 407-809-5556 x102. (C08)



Extremely busy underground utility contractor is in need of gualified individuals to join our team. We have multiple projects in the Southeast: including Florida, Georgia, Tennessee, North Carolina and South Carolina. We specialize in manhole, lift station & sewer rehabilitation, protective coatings, pipe cleaning, and televising & laser profiling. We offer competitive pay based upon experience. Applicants must have a valid driver's license 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) - CCTV Operators. Please email your resume to jobs@vac-vision.com (C08)

CCTV Operator needed for new CUES truck just added to our fleet. Competitive wage, good benefits and travel pay for out-of-area work. Position located in Western Minnesota. In business since 1956. This is a great opportunity for the right person. Position to start immediately. EOE/Affirmative Action Employer, veterans, minorities and persons with disabilities encouraged to apply. To apply contact www.quamconstruction.com 320-235-3344 (C08)

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

Florida-based sewer rehab company looking for experienced CCTV/Laser Profile & Vac Truck Operator with a clean Class A or B, CDL drivers license to operate and maintain a combination high-pressure water, vacuum sewer and storm drain cleaner truck. Long hours, some weekends and overnight travel. Competitive pay, benefits and 401K. Starting base pay will depend on experience. Call 386-409-5446 or email AmericanInLine@cfl.rr.com (C09)

Elite Pipeline Services Inc. is looking to hire qualified CIPP (Cured In Place Piping) technicians. Hiring criteria: 1. Five years of experience operating jet/vac combo trucks in the municipal, industrial and commercial industry. 2. Five years of experience in small and large diameter CIPP installations. 3. CDL preferred but not necessary. 4. Able to travel across the country. 5. Able to pass drug, alcohol and background checks. To apply, please mail or email your resume to one of the following: Elite Pipeline Services, 5220 Edgewater Drive, Allendale, MI 49401 or egoeree@elitepipeline.com. After review of your resume, you will receive the EPS Employment Application to complete. Thank you! (C08)

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

#### **PRESSURE WASHERS**

Jetstream/Hydro Lance - Unit meets/exceeds 10,000 psi. Flow is 12 gallons/min. Built-in bypass to 50-gallon tank. Recirculating water tank w/300-gallon capacity. Unit is hydro lancer/pressure tester and power washer. Call 303-720-4502 for more info. (C08)

#### PUMPS

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

#### **RENTAL EQUIPMENT**

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

#### **SERVICE/REPAIR**

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

#### TOOLS

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

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

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)

#### **TV INSPECTION**



**1999 Ford E450** Hi-Cube CUES TV truck Reduced!! \$25,000 OB0. If interested, please call for more info and photos. **904-284-2141, FL** COB



2004 CUES Inspection Van, GMC 3500 chassis. Includes transporter, camera, fairly new 1,000 ft cable, Visual Pipes software and new generator. ....\$10,000 Call Brig 480-620-2517, AZ co9



**1999 F550 CUES TV inspection van:** 1-year-old Cobra camera and crawler. Granite software. Storm tractor. Truck has 184,000 original miles. Jasper engine installed one year ago. New engine has less than 20,000 miles. Truck painted one year ago. Very well maintained. Service records available upon request. Truck is ready to work. ...... Asking \$58,000 OB0 **267-249-3774. PA** cos

1997 Ford E350 TV Van, 213,000 miles. Flexidata Software version 6.3.3 and Cobra Technologies Video Capture system including one tractor and two cameras. Batterypowered with Pro Sine 2500 inverter. 720-732-4805. \$27,000 OB0. (C08)



**Envirosight Supervision Inspection** Van, 3 years old, 140 crawler, SVA 350 reel approx. 1,000' cable, PTZ camera, POSM software, 02 Ford E450 van, 6,500-watt generator. ..... \$55,000 OB0 Call 317-773-7996. IN C09



2002 Ford E450 CUES camera van: Night Owl Series camera, approximately 1,500 ft. of cable, 56k miles, Stock#02-99. \$37.950. 2000 Workhorse CUES camera van: Night Owl Series camera, approximately 1,500 ft. of cable, CUES multi-grout chemical pumping system. 500 ft. of Quad-Line chemical/air/water hose, 18k miles, Stock#00-99. \$42,950. For more pictures and info please visit

www.letsrollautoandequipment.net or call 719-494-4927, CO C08



2004 UEMSI Main Line TV System, track transporter, 1,000' reel, pan/tilt camera, computer & software, trailer with a/c, generator & air compressor. \$29,950 C10

334-693-9507, AL

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



2005 Ford E350 TV Van: Diesel, Granite XP Software, 42,900 miles, H&A, beacons, arrow board, RST Omni III camera and tractor. Mini camera reel & self-leveling color camera, air compressor.....\$60,000

Carroll 916-747-3819, CA CO8



tractor. New tractor motor. Mini camera reel with color camera. ...... \$50,000 Carroll 916-747-3819, CA CO8

2000 Ford E350 CUES Prodata 2000 inspection van: 72.000 miles, roof air. 7kw Onan. TV & video monitor, camera, reel and cable & much more, Government retired, \$26,999 OBO. www.shumatetruckcenter.com 813-877-6638 (C08)

1999 Workhorse CUES TV Inspection/Grout Truck: Rebuilt diesel generator, new 1,200' TV cable, over 20 packers. Very good working unit. \$45,000. Call 518-337-9420. (C08)

2003 RST sewer inspection van; Ford Super Duty F350. Gas engine, 148,000 miles. Cold a/c. Clean. RST Equipment, camera and tractor. 1,100' single conductor cable and reel. Rack-mounted components, data display unit included. 2 extra cameras, Honda gas generator. \$12,500. Located in Dallas, TX. Pictures available upon request. Clean title. 281-770-6714. (C08)

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

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)

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

#### WANTED

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

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

#### WATERBLASTING



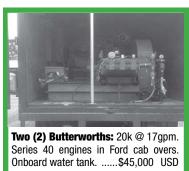
Like new 2006 NLB bundle blaster: 34 hrs., Isuzu engine, powered rollers. Doghouse with a/c. Perfect condition. ..... \$155,000 USD 250-203-4742, BC C09



Butterworth high-pressure pump: 20k @ 17gpm, on trailer with new filter. Series 40 engine 235hp...\$35,000 USD 250-203-4742, BC C09

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

#### WATERBLASTING



250-203-4742, BC

C09

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

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



#### 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



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



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

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

Orlando | Phoenix | Minneapolis | Hattiesburg | Melbourne | Toronto | Bogota International: 1-321-800-5763 Water Cannon is proud to be a MWBE



GapVax, Inc. gives you custom-built, quality equipment that outlasts. A durable and reliable powerhouse that gets the job done. User friendly, easy to maintain, and versatile....these are just a handful of reasons why you will

## 888-442-7829 JOHNSTOWN, PA

281-884-8658 DEER PARK, TX

## THE WARRIOR. THE SOLDIER. NOW REPORTING FOR DUTY.





Introducing the industry's sleekest, quietest trailer jets ever. Spartan's fully enclosed, 4,000 PSI Warrior and stealthy 3,000 PSI Soldier feature exclusive soundproofing technology for engine noise below OSHA's strict standard for mandatory hearing protection. What's more, both come packed with all the power and performance you expect from the most trusted name in the business. Spartan. Innovation comes standard.



**Pop the hood:** Uncover all the hard-hitting features and specs at spartantool.com