

Hydrodemolition Of Offshore Oil And Gas Facilities



Proserv cuts steel pipe and removes two- to five-inch-thick concrete pipe coatings.

Gulf coast oil service provider Proserv provides an essential service to the oil industry, in many cases under difficult and sometimes hazardous conditions. Highly trained and experienced crews dismantle offshore oil-drilling platforms, wells and pipelines. See article on page 2.

On the inside

Waterjet Technology Helps BP Cap Gulf Oil Leak	pg. 2
Waterjet 101 Presentation Highlights Benefits, Capabilities Of Precision Waterjet Cutting.....	pg. 4
Waterjet Contractor AK Services Faces Nation's Toughest Waterjet Challenges Head On	pg.4
Cleaning And Repairing Glenlee Power Station in Scotland.....	pg. 6
Tool Talk™ - Tube Cleaning.....	pg. 17
5-Axis Water Jet Cutting Technology	pg. 17
VE 900 Hose Catcher Safety Device	pg. 18

Hydrodemolition Of Offshore Oil And Gas Facilities

Customized hydrodemolition units handle projects on platforms and underwater

Dismantling decommissioned oil-drilling platforms, wells and pipelines requires precision demolition techniques. Gulf coast specialty oil service contractor Proserv Offshore, a unit of Norwegian-based Proserv Group, has become an industry leader in using high pressure water abrasive cutting technologies—also known as cold-cutting—to aid in the removal of a variety of oil and gas facilities. During the month of June 2009 alone, Proserv Offshore's Subsea & Marine Technology division, based in Houma, La., used waterblasting equipment along with abrasive to help dismantle 11 offshore platforms and wells.

"We're a side of the oil industry that doesn't get much attention," said Nick Speer, base operations supervisor for the Subsea & Marine Technology division, "but we provide an essential service under difficult and sometimes hazardous conditions. It can be just as satisfying to take something apart properly as it is to put something together."

The conditions are demanding and the weather often brutal and unpredictable, but the work gets done. Each three-man crew includes a supervisor, a pump system operator and an operations assistant. The company uses customized Jetstream X-series pump units and nozzles for all its hydrodemolition work. "We have highly trained and experienced crews, but it's important that they all have capable, efficient and reliable equipment to keep each project on track," Speer said.

"We designed our own modifications to the standard pump

units and worked with Jetstream of Houston on the engineering and manufacturing," Speer explained. "In a standard configuration, the pump unit is mounted on a wheeled trailer. We designed a skid-mounted version, using all stainless and galvanized steel, and heavier gauge steel for enhanced durability and corrosion-resistance. We also specified that the pressure capacities be machine-stamped on all appropriate components of the system as an additional safety feature."



Proserv Offshore's Subsea & Marine Technology division, based in Houma, La., uses waterblasting equipment along with abrasive to help dismantle offshore platforms and wells.

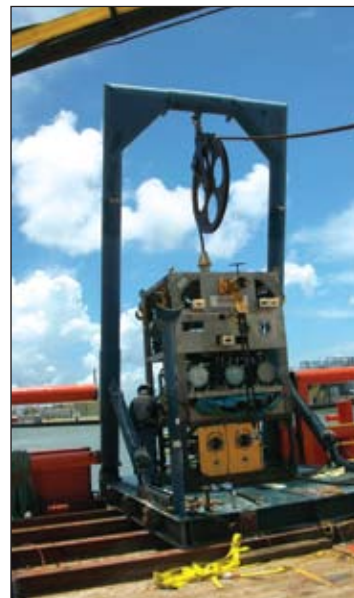
Although the waterblasting pumps are rated for up to 40,000 psi, Speer

(continued on page 14)

Waterjet Technology Helps BP Cap Gulf Oil Leak

Waterjet technology companies Jet Edge, Inc. and Chukar Waterjet, Inc. recently played a key role in helping BP stop the oil leak in the Gulf of Mexico. The companies provided ultra-high pressure waterjet equipment and application expertise to blast away hydrate ice crystals that had formed inside a containment cap at the spill site, clogging the containment system.

Jet Edge custom engineered a 36,000 psi waterjet intensifier pump that was dropped 5,000 feet into the Gulf to power a robot-operated waterjetting lance that blasted away the hydrates. To ensure the hydrate



Jet Edge waterjet system

(continued on page 16)

LEADING THE INDUSTRY

in the Development of New Waterblast Technologies!

We'll Be at the WJTA-IMCA Show • August 17-19, 2010 Houston, Texas

*Come See Our Live **WARTHOG**® and **Banshee**™ Demonstrations*

**At the
Show!**

**Booth
301**



**Surface Preparation • Rotary Shotgun Nozzles • Rigid Tube Lancing • Sewer Jetting
Pipe & Duct Cleaning • Vessel & Tank Cleaning • Down Hole Cleaning
Pressures up to 40,000 psi**



970-259-2869 • FAX: 970-259-2868 • 466 S. Skylane Dr. • Durango, CO 81303 USA

Email: sales@stoneagetools.com • 1-866-795-1586 (Toll Free in U.S.) • www.stoneagetools.com

Waterjet 101 Presentation Highlights Benefits, Capabilities Of Precision Waterjet Cutting

Learn how precision waterjet cutting technology can help increase your productivity, reduce costs and bring in new types of business during Jet Edge's "Waterjet 101 – Benefits and Capabilities of Precision Waterjet Cutting" presentation, 9:30 a.m. Thursday, Aug. 19, at the 2010 WJTA-IMCA Expo in Houston. The WJTA-IMCA Expo runs Aug. 17-19 at the George R. Brown Convention Center.

During Jet Edge's Waterjet 101 presentation, Jet Edge will provide an overview of the waterjet cutting

system, and will discuss the numerous benefits of waterjet cutting, including its ability to cut virtually any material, eliminate secondary finishing operations and reduce part machining time. The waterjet manufacturer also will discuss the benefits of waterjet cutting technology versus other cutting technologies, including laser, plasma and wire EDM. Its comparison will address cutting capabilities, capital investment costs and operating costs.

Following Jet Edge's presentation, participants can view live waterjet cutting demonstrations on Jet Edge's

Mid Rail Gantry waterjet system in Booth 637. The Mid Rail Gantry waterjet cutting machine is capable of cutting virtually any material. It is available in sizes 5-feet x 5-feet, 8-feet x 5-feet, and 21-feet x 5-feet, 8-feet x 13-feet, and 21-feet x 13-feet and 5-feet x 13-feet work envelopes.

For more information about Jet Edge waterjets, visit www.jetedge.com, e-mail sales@jetedge.com, call (800) JET-EDGE (538-3343) or (763) 497-8700.

Waterjet Contractor AK Services Faces Nation's Toughest Waterjet Challenges Head On

AK Services, a Boston-area contractor, has completed some of the nation's toughest and most historically and environmentally significant waterjet surface preparation and mobile cutting projects. Its impressive resume includes removing radioactive concrete from an infamous Hanford Site nuclear waste basin just 400 yards from the Columbia River in Washington state, repairing the Queen Elizabeth 2's (QE2) damaged hull after she ran aground near Martha's Vineyard, and rehabbing the leftfield seating steps at Boston's historic Fenway Park.

AK Services' other waterjetting feats include cutting 3,500 lineal feet of steel during a bridge construction project in California, waterjetting 90 percent of the road surface on Boston's Central Artery, and removing PCB-contaminated caulk from a pumping station situated directly over the city's drinking water supply.



AK Services uses waterjets to cut accesses into storage tanks.

AK Services entered the ultra-high pressure waterjet industry in 1992, a spinoff of the former Aqua Kleen which specialized in using high-pressure water to clean Navy vessel oil tanks during the Navy's 70s-era conversion from black oil fuel systems to cleaner distillate fuel systems.

AK Services first ultra-high pressure project involved blasting away 20,000 square feet of lead paint from a Coast Guard vessel's engine room and bilge while another crew simultaneously

removed the ship's engines for replacement. The project involved removing every speck of paint from tiny nooks and crannies and working in extremely confined spaces among numerous pipes and other obstacles.

AK Services President Patrick Canonica recalled how he immediately ordered his first Cummins diesel-powered Jet Edge ultra-high pressure waterjet intensifier pump

(continued on page 8)

WARTHOG® SEWER NOZZLES

Come See Our Live Demonstrations at the Show!

**Booth
301**

US Patents: 7,635,096
and 5,964,414

Six Models Available

For 2" - 36" Lines



New WARTHOG® Catalog
Hot off the Presses
and on the Web too!



Live WARTHOG Demos!
See first hand how
our centralizers
tackle larger lines!

**At the
Show!**



WARTHOG®

SEWER NOZZLES BY STONEAGE

For a Distributor Near You Click www.sewernozzles.com or Call 1-866-795-1586 (Toll Free in U.S.)
Email: sales@stoneagetools.com • 970-259-2869 • 466 S. Skyline Dr. • Durango, CO 81303 USA

Cleaning And Repainting Glenlee Power Station In Scotland

The 12MW Glenlee hydro-electric power station in Scotland is part of the 106.5MW Galloway Hydro-Electric power scheme, which was the first large scale integrated hydro-electricity supply complex in the UK when it was built and commissioned in the mid 1930s. A 60km long network of lochs, dams, tunnels, aqueducts, pipelines and rivers interconnect six power stations in a cascade system, which reuses the water several times for power generation. Each station reuses the water that has been discharged by the one above to generate electricity. A dam blocks the natural outflow of Loch Doon and acts as the main storage reservoir at the top of the scheme, which has a drop of 210m over its length.

Glenlee is the fifth of the six power stations in the interlinking renewable energy scheme that covers a large area of Galloway and South Ayrshire. Water for Glenlee Power Station gathers in Loch Clatteringshaws and flows through a 6km long tunnel to a portal control valve above the power station. From here water plunges 125m down the hillside through a 570m long steel penstock of varying diameter to the station's twin 6MW turbines and out of tailrace valves and into a spillway, for discharge into the River Dee. From here the discharged water combines with natural river flows to the downstream Loch Ken, which acts as the reservoir for the last power station in the scheme at Tongland.



The 12MW Glenlee hydro-electric power station is part of the 106.5MW Galloway Hydro-Electric power scheme commissioned in the mid 1930s.



Water plunges 125m down the hillside through a 570m long steel penstock of varying diameter to Glenlee power station's twin 6MW turbines.

Outflow from Tongland Power Station rejoins the lower reaches of the River Dee and flows into the Solway Firth at Kirkcudbright Bay.

The Glenlee penstock was in need of cleaning and repainting and power station operator Scottish Power Generation Ltd awarded a contract for its refurbishment to the specialist contractor Concrete Repairs Ltd. (CRL) based in Falkirk. The flange bolted steel pipeline had not been cleaned and painted internally for over 70 years, since it was installed in the 1930s. CRL believed the internal cleaning and paint removal could be done with high-pressure water jetting and contacted N.E.T. Waterjet Ltd, a

contractor based in Meigle, Perthshire, specializing in ultra high pressure water technology and diamond drilling and sawing.

"I believed it was initially feasible to use hand held high-pressure water jetting lances in the penstock's varying diameters and gradients to remove the old paint coating and peat lying in the bottom, but there was a risk for the operators," says N.E.T. managing director Tom Wallace. "So I looked at the possibility of adapting a robot, normally used for the hydrodemolition of concrete, and contacted Castellan, the UK agent for Conjet hydrodemolition equipment in Sweden. Castellan's managing director Colin Jailler arranged for me to visit the Conjet factory and as soon as I saw the compact 324 Robot I knew it would work, using the optional Hammelmann blast or rotor head instead of the normal concrete hydrodemolition lance. CRL accepted my price and I ordered a Conjet 324 Robot from Castellan and it arrived on site in May."



Tom Wallace: "As soon as I saw the compact Conjet 324 Robot I knew it would work on the Glenlee project."

N.E.T. used its new Conjet 324, with optional rotor head, to remove the build up of debris, old paint coating up to 4mm thick and unexpected original mill scale, back to a clean and smooth metal surface. The company had

(continued on page 10)



Discover a world of solutions.

And open a new universe of opportunity.

Four brands. One total solution. That's the advantage of Federal Signal Environmental Solutions Group. Because you can rely on one industry-wide partner to help broaden the scope of your business, maximize efficiency, and make more money. From unmatched product innovation to world-class training and refurbishment, you'll find the solutions you need from the brands you can trust.



VACTOR
Subsidiary of Federal Signal Corporation

www.vactor.com
815.672.3171



GUZZLER
Subsidiary of Federal Signal Corporation

www.guzzler.com
815.672.3171



Jetstream
Subsidiary of Federal Signal Corporation

www.waterblast.com
800.231.8192



SOLUTIONS
TRAINING • RENTALS • PARTS • SERVICE

www.fssolutionsgroup.com
800.822.8785

 **FEDERAL SIGNAL**
Environmental Solutions

Waterjet Contractor AK Services Faces Nation's Toughest Waterjet Challenges Head On, from page 4

after winning the Coast Guard bid because waterjet was the only way to safely remove the lead paint with the engine crew present.

"Had they sandblasted it, they would have had to shut it down and cocoon it and create a hazardous work area," Canonica said. "With waterjet, the big advantage is you don't have to provide containment because it puts the lead into an aqueous state."

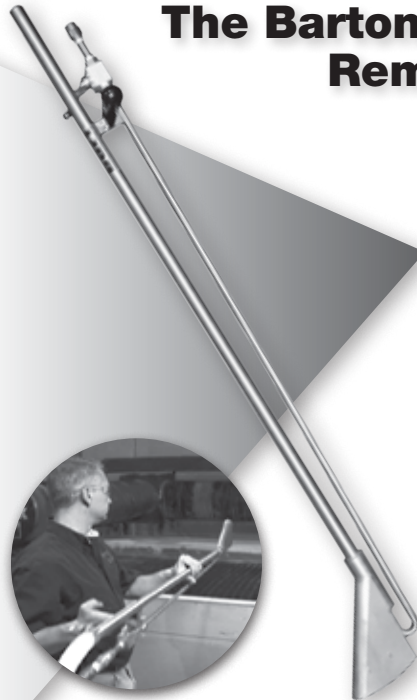
By the end of the lead abatement project, AK Services had three Jet Edge diesel-powered waterjet intensifier pumps, and has since amassed an armada of waterjet pumps and waterjet cutting, surface preparation and hydro lasing systems that includes 12 Jet Edge intensifier pumps. In addition to lead and other hazardous material abatement, AK Services now provides a wide variety of mobile waterjet services, including surface preparation, coating removal, waterjet cutting, hydro lasing and hydrodemolition. It works in pressures ranging from 17,000-psi 80-gpm high-volume for hydrodemolition to 55,000-psi 4-gpm for waterjet cutting.

The company liked its Jet Edge equipment so much, it even became a Jet Edge distributor.

"Our Jet Edge pumps keep running and running," Canonica said. "They are 30 years old and they run in top condition. They are contractor-friendly, reliable and easy to maintain. The key is keeping the hydraulic oil clean. We have 9,000 hours on one of our Jet Edge's

BARTON

Introducing BART - The Barton Abrasive Removal Tool



BART is the first truly convenient, cost-effective and totally portable abrasive removal system available to the waterjet industry. ***The BART system achieves removal rates of over 2000 lbs./hr.***

US and Foreign Patents Pending.

- Simple
- Convenient
- Effective

See a demo video at
www.barton.com/BART

Barton

USA/Canada 800.741.7756
Phone 518.798.5462
Fax 518.798.5728
info@barton.com

bart
BARTON ABRASIVE REMOVAL TOOL

www.barton.com

Cummins engines. It is a terrific engine."

Saved from the Crash by a Crash

AK Services' rise to the top of the waterjet industry did not come without its fair share of obstacles. Just as the company's business began to take off, Boston's shipyard industry came to

a screeching halt, almost killing the young company, but fate intervened and several uncharted rocks off of Martha's Vineyard became the company's savior.

In August 1992, the QE2 was just returning from a Nova Scotia cruise when she ran aground south

(continued on page 11)

TOUGH JOBS TOUGHHER TOOLS

ONE CALL

1-800-231-3628

For all your water jetting needs.
ALL of them.



GD

GARDNER DENVER™
WATER JETTING SYSTEMS, INC.

(1) 281-448-5800 **Phone**
(1) 281-448-7500 **Fax**
(1) 800-231-3628 **Toll-free U.S. & Canada**

www.waterjetting.com

Cleaning And Repainting Glenlee Power Station In Scotland, from page 6

about 4,200m² to clean from the inner surface of the penstock in diameters from top to bottom of 3m, 2.7m, 2.4m and twin 1.8m and on varying gradients from 1:100 up to the steepest 18 degrees.

CRL removed the flange bolted expansion joints and butterfly valves in the penstock to provide N.E.T. access at several points for the Conjet 324, which was supplied with water at a pressure of 2,500 bar and flow of 25 litres/min from one of N.E.T.'s existing 250kW Hammelmann 120 high-pressure pumps. "We are working a single shift seven days a week and averaging to clean about 200m²/shift, but our best has been 320m²/shift," says Tom Wallace. "The surface of the pipe actually gets cleaned twice as the 180mm diameter blast head is rotated full circle round the inner circumference of the pipe, then advanced 90mm by the Robot and then rotated back in the opposite direction. The sequence is repeated continuously. The Conjet Robot has been superb and worked very well and is a lot safer and about three times faster than using hand lancing. There is no fatigue for the operator and the Robot provides consistent speed and removal. It is also possible to quickly and easily change or adjust the blast head settings and forward step speed to suit the adhesion of the old paint coating."

There is no dust from the paint removal and the waste water and debris from the Conjet Robot cleaning process flows down the penstock and is collected by CRL in a sump in the turbine house. It is then pumped into tankers for off site environmental treatment and disposal. "I am very impressed with the cleaning process and the Robot, which is doing a great job. I am also surprised at how quick it is at taking off the old coating back to the bare metal," says CRL site

manager Fran Allan. CRL is following on spraying on a two coat glass flake epoxy coating from a purpose made gantry that will travel down the inside of the pipe.

CRL is also repainting the outside of the pipe with a highways bridge specification four-coat epoxy paint system. CRL started on site in February and is on schedule to allow Scottish Power Generation to bring Glenlee Power Station back on stream in autumn 2010.

N.E.T.'s first use of a Conjet Robot has gone extremely well and the company believes there are considerable opportunities on other similar projects. "This is the first time I've used a Conjet Robot and can foresee a lot of further opportunities with the 324, mainly working in concrete and steel pipes and tunnels up to about 4m diameter," says Tom Wallace.

For more information, visit www.conjet.com, email: Lars.nilsson@conjet.com or call +46-(0) 8-5565-2240. ■



N.E.T. had to clean about 4,200m² from the inner surface of the 1.8m to 3m diameter penstock with its Conjet 324 Robot working on gradients up to 18°.



Conjet 324 Robot with optional rotor head.

Comments Solicited On Improvements To Recommended Practices

Comments are solicited regarding improvements to the WJTA-IMCA publications, *Recommended Practices for the Use of Manually Operated High Pressure Waterjetting Equipment* and *Recommended Practices for the Use of Industrial Vacuum Equipment*. While both publications are reviewed periodically at the WJTA-IMCA conferences and throughout the year, your comments and suggestions for improving the publications are invited and welcome anytime.

The *Recommended Practices for the Use of Manually Operated High Pressure Waterjetting Equipment* is currently under review and being revised.

Please address your comments and suggestions to: WJTA-IMCA, 906 Olive Street, Suite 1200, St. Louis, MO 63101-1448, phone: (314)241-1445, fax: (314) 241-1449, email: wjta-imca@wjta.org. Please specify which publication you are commenting on.

of Cuttyhunk Island near Martha's Vineyard, severely damaging her hull. The shipyard hired AK Services to waterjet the toxic inorganic tin surface from the ship's hull because it was deemed the safest method for its removal.

"The bottom looked like a claw had ripped it apart," Canonica recalled. "We had to take it down to bare steel and then the shipyard welded plates to fix it. We also cleaned the oil tanks. It was a true rescue mission for our young company."

AK Services branched out from the shipyard industry, taking on more and more challenging construction industry projects as its reputation gradually spread across the country.

In 2003, bridge contractor Kiewit found itself in a major bind as stubborn bedrock mangled 13 of the steel footing pilings it was driving during construction of the 1.7-mile northbound Benecia Bridge, which spans the Carquinez Strait linking Benecia and Martinez, Calif.

Kiewit hired AK Services to cut out the damaged pilings to make way for replacements. (See photos in far right column.) This dangerous project required AK Services' workers to be lowered in a basket down a 12-foot diameter caisson 150 feet below sea level. They used waterjet cutting bugs (portable waterjet cutters) on tracks held in place with suction cups to cut the 3-inch thick steel at an angle, resulting in an actual cut of 4 1/2 inches. AK Services ran two shifts for nine months, cutting a total of 3,500 lineal feet of steel.

Hanford Site Radiation Cleanup

AK Services has played an important role in the massive environmental cleanup project at the U.S. Department of Energy's Hanford Site in southeastern Washington.

Once home to nine nuclear reactors that produced plutonium for the Manhattan Project and for the nation's Cold War nuclear arsenal, the Hanford Site is considered the most contaminated nuclear site in the U.S., and is the site of the nation's largest environmental cleanup project.

In 2009, the Department of Energy celebrated the removal of the site's notorious K Basin East Fuel Pool, a 120 feet L x 45 feet W x 20 feet D 1.2-million-gallon basin which was used to store 1,100 tons of highly radioactive spent nuclear fuel and radioactive sludge just 400 yards from the Columbia River. The radioactive

(continued on page 12)



Only One Of The Best SMT Diamond Orifices



800 hours* of usage is guaranteed, as long as it is properly used.

*We even have a customer that has used over 1,000 hours

SMT Shinhan Micron Tech

www.smttool.com
admin@smttool.com

Waterjet Contractor AK Services Faces Nation's Toughest Waterjet Challenges Head On, from page 11

waste was stored under 20 feet of water, and the basin's concrete walls and floor had absorbed radioactivity from the water. The Department of Energy's contractor determined that waterblasting with an underwater ultra-high pressure waterjet system would be the most effective and safest way to remove the contaminated concrete without exposing the radiation to air.

The contractor enlisted the help of AK Services, who partnered with S.A.Robotics of Colorado to develop an underwater waterblasting robotic arm to blast away the radioactive concrete surface. The robotic system used 34,000 psi waterjets to remove 7/8 inch of the pool's concrete surface, which housed 98% of the radiation. The work was performed under vacuum, and the contaminated concrete was sucked out as it was blasted away.

In another Hanford Site project, AK Services cut several 2-foot diameter vent holes into buried tanks that are holding radioactive waste from the Manhattan Project. This challenging project required them to cut through a carbon steel shell surrounded by reinforced concrete (total cut 18 inches thick) with a 55,000 psi abrasivejet. The government required them to use slower-cutting sand for abrasive rather than garnet because sand is natural to Hanford's desert setting.

AK Services Principal Owner Carl Franson noted that the company is currently working on yet another challenging project at the Hanford Site, cutting holes into 18-inch thick concrete tanks that also hold radioactive waste from the



NLB accessories feature long-life, quick-change seals

If you're changing water jet seals every 40 hours, the cost of replacements adds up fast. But most NLB lances and foot controls (and other accessories: 19 in all) have a cartridge seal that typically lasts 280 hours. That can save you over \$900 a year.

The change itself takes only 60 seconds — just unscrew the cartridge and screw in a new one. You'll also like our patented instant pressure dump and a host of operator-friendly features.

For productivity that quickly pays for itself, choose NLB water jet accessories. Call 1-877-NLB-7988 or visit www.nlbcorp.com.

NLB. The Leader in Water Jet Productivity.



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

Manhattan Project so that the waste can be removed and vitrified for safe storage.

"The tanks have were built with a very small access riser and we are cutting a 55-inch diameter hole in the tank top to allow installation of a robotic arm to remove and transfer the waste to a vitrification plant

that is under construction," Franson explained. "We are using Jet Edge's high-flow Permalign® cutting head powered by a Jet Edge diesel intensifier pump, and cutting at 48,000 psi. We are in the process of designing and building a specialty motion device for the project since the standard units are not compatible with the job."

(continued on page 15)



Are you tired of slow production?
Looking to get more return on your equipment investment?

PROBLEM SOLVED.

GATTI ORIFICES OUTLAST
AND OUTPERFORM ANY OTHER
ORIFICE ON THE MARKET.

Maximize your waterjet productivity.
Choose to use GATTI sapphire orifice
assemblies in your waterjet system.



524 Tindall Avenue • Trenton, NJ 08610
609-396-1577 • 877-AMGATTI • Fax : 609-695-4339

www.gattiam.com

- GATTI nozzle designs are recognized as the industry standard
- Our core business is manufacturing waterjet orifice assemblies and has been for over 30 years
- We are specialists in sapphire processing
- Same day shipping, excellent service, unmistakable quality



CALL TODAY
And We Will Ship You
FREE Samples To Try In
Your Own System!

Hydrodemolition Of Offshore Oil And Gas Facilities, from page 2

said Proserv typically operates the units at 10,000 to 15,000 psi. This provides sufficient power for cutting steel pipe and for removing two- to five-inch-thick concrete pipe coatings. Proserv injects abrasive slurry into the water stream beyond the pump for additional cutting power. "There's not much we can't cut with it," commented Speer.

Water abrasive effective at depths beyond 600 feet

Speer said Proserv has used the water abrasive technique successfully in water as deep as 1,700 feet. For underwater applications, the company uses either divers or remote-operated vehicles (ROVs) to deploy the hydrodemolition tools that carry the hose and nozzle.

"The power and accuracy of the waterblasting system is amazing at various depths even beyond 600 feet," Speer said. "It's a technology that has become central to our overall capabilities."

Speer gave the Jetstream waterblasting systems high marks for reliability and serviceability. "Since we switched to Jetstream in 2006, we've been happy with their consistent performance and reliability," he said. "They require only about one-fifth the amount of maintenance of our previous models, and they're much easier and quicker to service. We expect to get 10 years of service from these units."

For more information about Jetstream of Houston, LLP, a division of Federal Signal Corporation's (NYSE:FSS) Environmental Solutions Group, visit www.waterblast.com or call (713) 462-7000.

Photographs provided courtesy of Proserv Offshore. ■



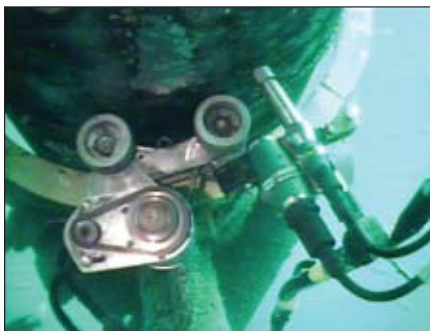
Dismantling decommissioned oil-drilling platforms, wells and pipelines requires precision demolition techniques including high pressure water abrasive cutting.



Proserv Offshore has become an industry leader in using high pressure water abrasive cutting technologies to aid in the removal of a variety of oil and gas facilities. The company uses customized Jetstream X-series pump units and nozzles for all its hydro-demolition work.



Proserv uses customized X-series pump units and nozzles for hits hydrodemolition work. The company worked with Jetstream on the engineering and manufacturing of the modified design.



Cutting steel pipe and removing two- to five-inch-thick concrete pipe coatings underwater.

(pictures continued on page 25)

2011 WJTA-IMCA Conference and Expo
September 19-21, 2011

Announcement and Call for Papers

See information enclosed with this newsletter

Hazardous material removal has become one of the company's main services because waterjet provides a safer and more environmentally friendly method for removing hazardous materials than traditional methods. In fact, when Boston's water authority needed to have PCB-contaminated caulk removed from a pumping station, they hired AK Services.

Working under constant Environmental Protection Agency (EPA) supervision, AK Services used two specially engineered waterjet crawlers to blast away and simultaneously vacuum the contaminated caulk, which was filtered out and properly disposed.

"This was in a pumping station over our drinking water supply so there was no room for error," Canonica said. "The caulking was still resilient even after 50 years, but the waterjet shredded it. The EPA was very pleased with the procedure."

AK Services also has provided emergency waterjet cutting services to the petroleum industry, noted Pat Hickey, an NFPA Certified Marine Chemist and principal owner of AK Services. When a large petroleum distributor had a tank full of gasoline develop a leak in the floor, they contacted AK Services because they could safely cut holes in the floor to allow for the removal of contaminated sand under the tank.

"The tank was sitting on a 2-foot bed of sand, which was surrounded with concrete," Hickey recalled. "This sand became saturated in gasoline and they needed access through

the floor of the tank in order to remove the contaminated sand. The combustible gas indicator had readings of over 100% of the lower explosive limit (LEL) in the area under the tank floor. A.K. used the abrasive jet cutting process to safely cut six holes, 3 inches in diameter in the 3/8-inch thick floor of the tank. One of the many advantages to this process is that it is not hot work and can be performed in atmospheres where conventional 'hot work' processes can not be employed."

Freeways and Fenway

Concrete preparation has become AK Services' largest source of business as waterjet has become the favorable method for coating removal.

"The coatings are so sophisticated

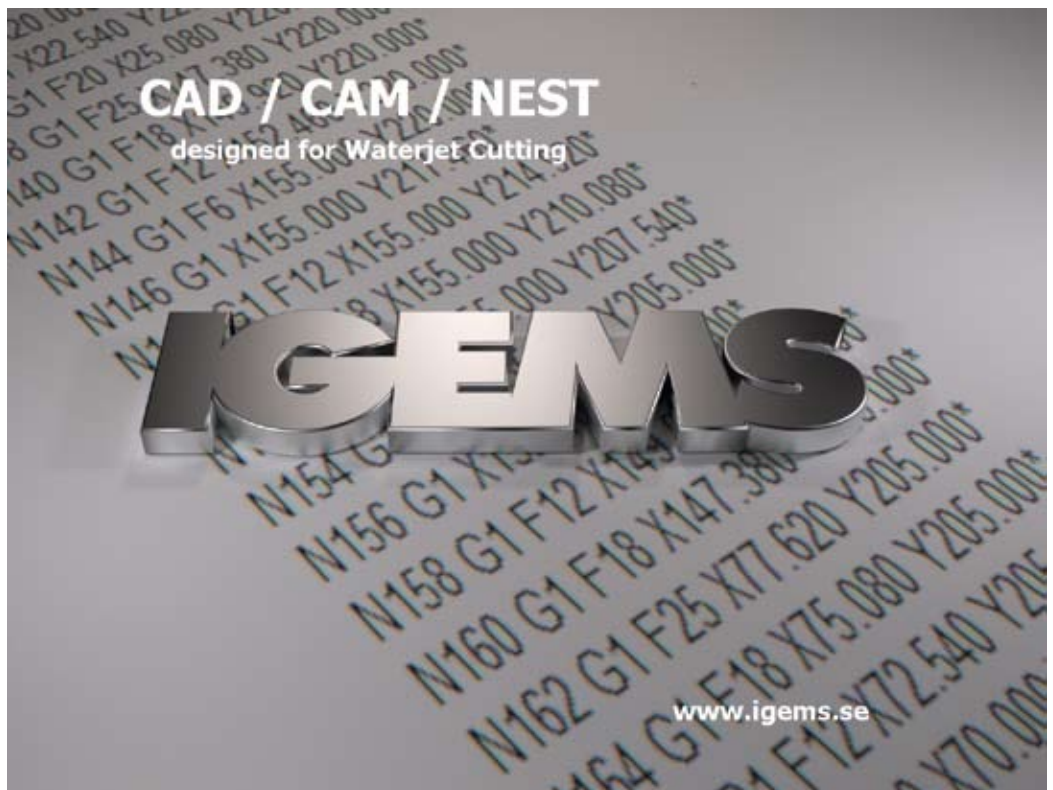


Gasoline tank cut with an abrasive jet.

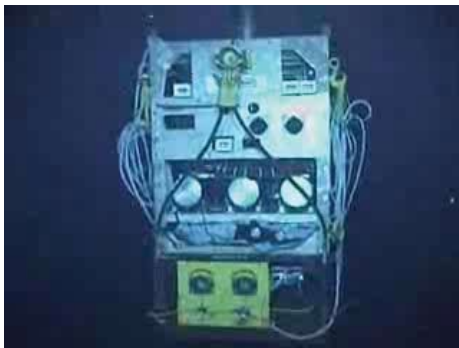
and hard that you can't sandblast them," Canonica explained. "The waterjet just pulverizes them and it purges the chlorides from road salt out of the concrete, while sandblasting lets the chlorides work their way back out and damage the new coatings."

AK Services also has demonstrated that waterjet is one of the most

(continued on page 18)



Waterjet Technology Helps BP Cap Gulf Oil Leak, from page 2



Intensifier skid under water.



Close up of robot holding lance.



Lance blasting hydrates.



Close up of lance blasting hydrates.

remediation project's success, Jet Edge utilized advanced filtration and ultra-high pressure seal technology capable of withstanding the harsh undersea environment. The system was designed to blast with sea water or liquefied gas. As a result, Jet Edge developed the first-known waterjet system capable of operating in water depths in excess of 5,000 feet, opening a new frontier for waterjet technology.

Chukar Waterjet provided onsite applications engineering services throughout the project, working with a subsea technology company, an

offshore logistics and supply company, an offshore transportation company, BP, and an independent safety group to ensure successful completion of the project.

For more information about Jet Edge water jet systems, visit www.jetedge.com or call (800)JET-EDGE (538-3343).

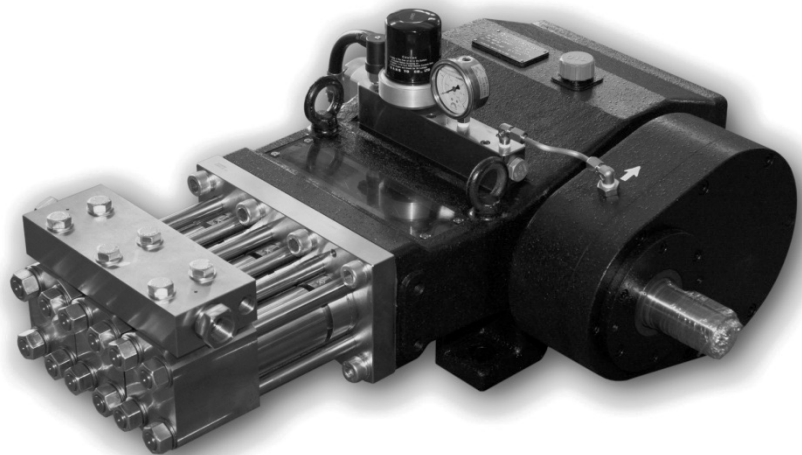
For more information about Chukar Waterjet, visit www.chukarwaterjet.com, or call (888) 497-8749 or (763) 497-8749.

WJTA-IMCAlserv - A Free Service To WJTA-IMCA Members

The **WJTA-IMCAlserv** enables you to take advantage of prompt email interaction with your colleagues. **WJTA-IMCAlserv** is a **FREE** email broadcast system developed by WJTA-IMCA to help you communicate and network with other waterjet and industrial cleaning and vacuuming professionals.

Participation is limited to WJTA-IMCA members in good standing. You must sign up in order to participate. To sign up for the **WJTA-IMCAlserv**, contact Beth at the WJTA-IMCA office by email: wjta-imca@wjta.org, phone: 314-241-1445, or fax: 314-241-1449.

Direct Drive Pumps • 40K-50K PSI • 30-300 HP



OH Precision/QualJet

www.qualjet.com • info@qualjet.com

USA/Canada 866-782-5538 • Fax 425-378-7776

5-Axis Water Jet Cutting Technology

Water jet manufacturer Jet Edge, Inc., is now offering 5 axis waterjet cutting technology with Intelligent Kerf Compensation (IKC).

Available on select Jet Edge 5 axis waterjet cutting systems, the innovative IKC 5 Axis waterjet cutting head is capable of making inclined cuts and controlling kerf to ensure optimal part quality. The IKC's capabilities include 600° rotation, a maximum angle of +/- 60°, and dynamic precision from +/-0.2 to +/-0.5 mm/m, depending on the tilt of head.

For more information about Jet Edge waterjet systems, visit www.jetedge.com or call (800)JET-EDGE (538-3343).



TOOL TALK™ - Tube Cleaning

Feed Rate

When using rotary nozzles it is important to control the feed rate so as to keep the nozzle from hitting bottom and jamming. A jammed nozzle stops turning and losing its effectiveness. Pushing too fast can also cause hydraulic-ing when cuttings compact behind the jet head and pressure forces the tool out of the tube. A good operator will learn to feel and listen to keep the nozzle working.

Reprinted with permission from *StoneAge Waterblast Tools Eblast*, June 2010. For more information, visit www.stoneagetools.com or call (970)259-2869.

WWW.IWPWATERJET.COM

Better Parts - Better Pricing



VISIT OUR WEB SITE WITH OVER 400 PRODUCTS, INSTALLATION PROCEDURES, EXPLODED VIEWS AND SERVICES

- PARTS FOR ALL MAKES OF MACHINES
- SAME DAY SERVICE
- UNSURPASSED QUALITY
- VALUE PRICING
- SATISFACTION GUARANTEE

ADDITIONAL 5% DISCOUNT ON PARTS ORDERS FROM OUR WEB SITE

INTERNATIONAL WATERJET PARTS INC.
A Division of WGI

1299 A STREET SE
EPHRATA WASHINGTON 98823

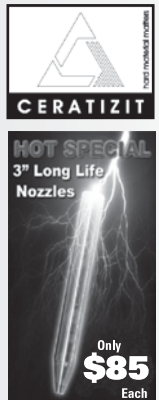


Phone: 509-754-3284
Toll Free: 866-302-3284
Fax: 509-754-3292
Toll Free: 866-883-3292
Email: iwp@iwpwaterjet.com

Additional 5% discount on parts orders from our web site.

We offer Ceratizit brand nozzles to fit most cutting heads.

Don't settle for less when you can have the best!!!!



**WANT TO CUT YOUR GARNET USAGE UP TO 30%?
CALL US TO ASK US HOW.**

effective ways to prepare road surfaces for placement of Latex Modified Concrete (LMC) wear surfaces. When the LMC wear surface on Boston's Central Artery delaminated within a year of its initial installation and had to be replaced, the project specifications originally called for preparing the surface with shot blasting, but Boston had very rainy summer that year and the steel shot was rusting on the roadway. AK Services was called in to prepare the road surface with waterjet because they could blast rain or shine. They built a custom 6-foot wide robotic waterjet system with two 6-foot arms and equipped it with waterjet spray bars from a Jet Edge Deckblaster system. They used this system to prepare the road surface for LMC on 90 percent of Boston's Central Artery, the Logan Bridge and the Ted Williams Tunnel.

The system not only prepared the surface, but it also removed any grease and oil that had leaked from the construction equipment and purged road salt chlorides from the concrete, improving the adherence of the new LMC. It did this without kicking up hazardous silica dust and, unlike shot blast, did not leave any rust stains following a rain shower.

"The highway department found that the surface had 12 times greater adherence with UHP than with shot blast," Canonica said.

In the winter of 2009/2010, the Boston Red Sox hired AK Services to remove 1-2 inches from the Fenway Park's leftfield seating steps so they could be leveled and resurfaced as part of the stadium's 2012 centennial renovation.

With only five weeks lead time, AK Services retrofitted a Jet Edge Deckblaster with a computer, spray bar and shroud so it could maneuver the lawnmower-like system along the

narrow steps. With a 12-man crew and three souped-up Deckblasters, the company blasted away 8,500 square feet of surface. They strategically stationed their diesel-powered waterjet pumps under the seating area to keep the steps warm enough to prevent freezing.

This can-do attitude and resourcefulness, combined with its willingness to specially engineer equipment, has helped AK Services build a thriving business that has grown primarily by word of mouth.

"You build on your reputation," Canonica said. "As we have successfully completed projects, the word has travelled."

For more information, visit AK Services, Inc. at www.akservices.com or call (617) 884-9252 or (800) 356-0349. Visit Jet Edge, Inc. at www.jetedge.com, email: sales@jetedge.com, or call (763) 497-8700 or (800) JET-EDGE (538-3343).

Photographs provided courtesy of AK Services, Inc. ■

VE 900 Hose Catcher Safety Device

StoneAge, Inc., has introduced the VE 900, a vital part of improving safety for flexible high pressure hose operations. This design is simple to operate in both the vertical and horizontal directions. The assembly can be attached to the tube face in various positions and offers a variety of hose collets to make this unit adaptable to different cleaning applications. The unit positions the flex lance manually from tube to tube and locks in place when the handles are released.

StoneAge also has available the VE 70000 which can adapt to both horizontal and vertical exchangers. The VE 70000 offers a wide range of expansion to accommodate different tube sheet sizes, and is made of stainless steel. Different sized collars are stored in the extension arm for quick access and two ergonomic handles lock the unit in place. The adapter plate offers the ability to be attached to multiple situations and by removing the arms can be used as a back out preventer plate for flanged pipes.

For more information, visit www.stoneagetools.com or call (970) 259-2869.



Rotating Line Moles Expand Pipe Cleaning Options

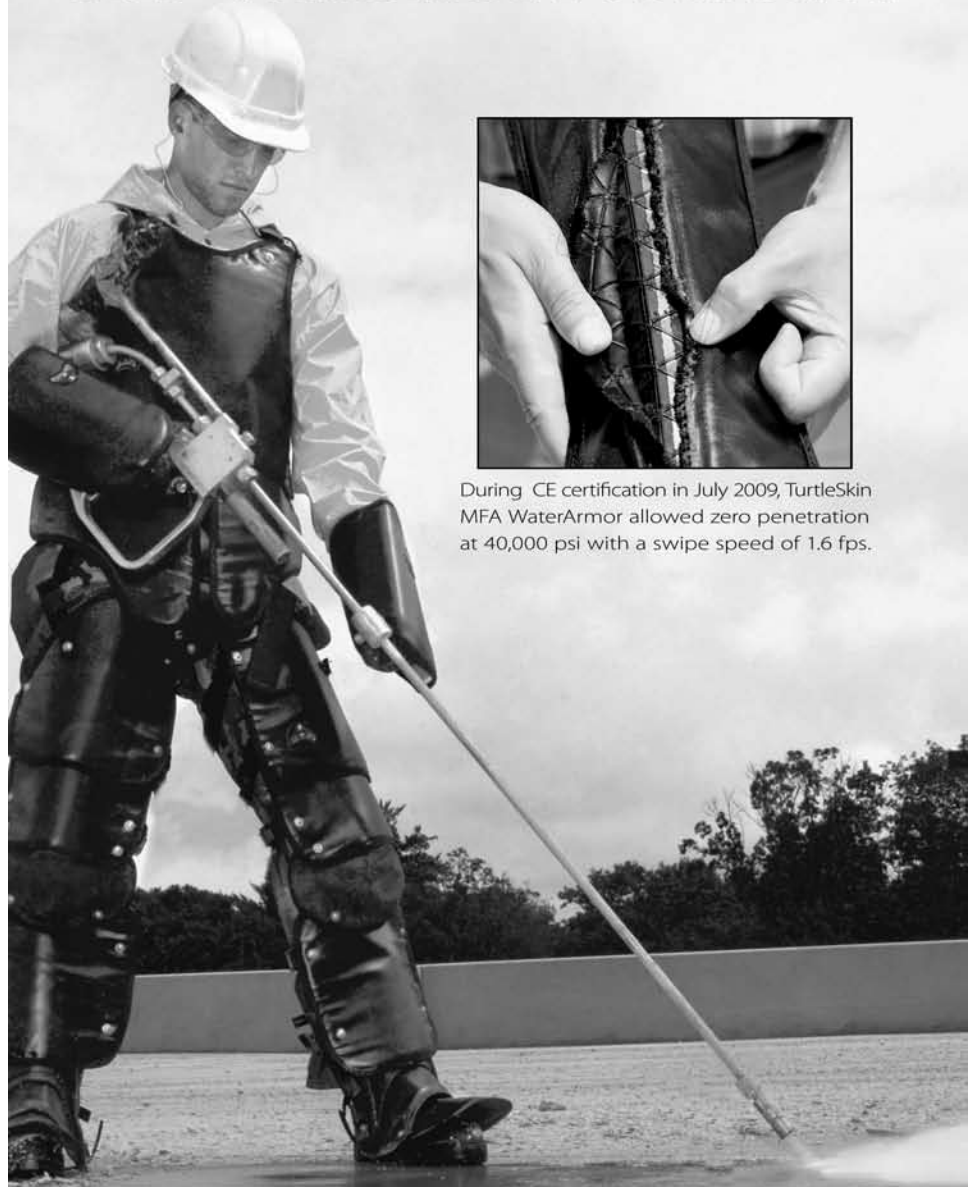


A new family of Rotating Line Moles (RLM) from NLB gives users more than 40 choices to clean pipes and tubes with high-pressure water. Designed for tubes with diameters from 0.5 inches to 1.5 inches (1.27 cm to 3.81 cm), they feature operating pressures of 10,000 psi or 20,000 psi (700 bar or 1,400 bar). A variety of flows and nozzle patterns lets users create the most effective rotating action for their specific applications.

RLM nozzles polish the I.D. of tubes and pipes as they clear them of hard deposits, even around bends. They come with left-hand or right-hand threads, and wrench flats for easy attachment to a flex lance or rigid lance. A self-lubricating action minimizes wear, but parts can be replaced in the field in less than five minutes with a simple rebuild kit.

For more information, visit www.nlbcorp.com or call (248)624-5555.

NEW TurtleSkin MFA WaterArmor UHP WaterJet Protection



During CE certification in July 2009, TurtleSkin MFA WaterArmor allowed zero penetration at 40,000 psi with a swipe speed of 1.6 fps.

What's the difference?

New Technology. Increased Protection. New TurtleSkin MFA WaterArmor is engineered from a new lightweight composite material that has a higher level of resistance from exposure to UHP water jet swipes.

turtleskin.com



888.477.4675

Ground Hog® Removes Paint And Coatings From Horizontal Surfaces

The Ground Hog® is a multi-tasking stand behind machine designed to remove paint and coatings from horizontal surfaces using a hydraulically-driven motor. This highly acclaimed unit utilizes 40,000 psi of ultra-high pressure (UHP) water and can be used on virtually any surface, making it the perfect tool for surface preparation. The Ground Hog features a full vacuum recovery option that contains the debris and water within the unit; no extra pull-behinds and no additional cleanup. Simply run the machine over the unwanted lines, paint, coating, etc. The UHP gets to work immediately, eliminating the top coating, but unlike air and sandblasters, the original underlying material stays intact – no ruts or dented surfaces! This allows new



surface application (like paint) to be applied just minutes after completion. The 13-horse-power engine works

quickly and efficiently with highly adjustable speed controls, allowing users to customize the R.P.M. and output to any surface. The unit can be used from up to 125 feet away from the hydraulic power pack, which manages the hydraulics and the high pressure water.

Running a successful business for nearly forty years, twenty of those including water-jetting services, Riverbank Interiors founder Steve Glenn understands the impact that equipment has on a project. Glenn has made a point of keeping solid machinery as staples on his job sites.

(continued on page 21)

Commercial - Industrial Cleaning

Pressure-washing, Waterblasting and UHP Jetting

The environmental cleaning and restoration criterion

Thrive and succeed applying pressure-washing, hydro-blast and UHP jetting application technologies. The first on hand available business model designed to retain and safeguard the contractor's know-how and expertise within a customer's specific plant area or production environment.

Based on actual bid and job reports, 25 industrial sectors are introduced presenting contacts, resources and applicable safety requirements. This is supported by 200 plus industry-job specific websites.

Manuals accompanied digitized version significantly supports entrepreneurs' ability to streamline in-house and job sites operational start-up effort to current technical and business standards.

Providing in writing and pictorial record more than 450 plus pressure washing and hydro-blast application procedures; services-sales, plant maintenance, commercial-industrial buyers and entrepreneurs can equally be informed as to all necessary technical application aspects and procedures. Recognizing safety requirements, hydro-tooling and job specific operations, the expandable business model negates the technical and proprietary knowledge migration from its administrative source.



www.ipacconsulting.com

**Now a WJTA-IMCA
member discount is
available.**

Inquire to IPac, telephone: 773-255-8647, email: info@ipacconsulting.com,
mail: IPac, PO Box 711203, Salt Lake City, UT 84171-1203

Ground Hog® Removes Paint And Coatings From Horizontal Surfaces,

from page 20

“It’s the reliability and peace of mind,” said Steve Glenn. “I personally work in the field every day with my guys. I’ll go out there and start the job and let them take over,” he says. “With the Ground Hog I just know there won’t be problems.”

Using the Ground Hog daily for the past 16 months, Glenn can personally vouch for what it means to Riverbank Interior’s bottom line. Glenn estimates \$20,000 in annual savings from time-loss prevention and minimal replacement part purchases, directly attributed to use of the Ground Hog. “It’s lightweight, easy to maneuver, and the rotor is really user-friendly; I’ve got over 2000 hours on it, and not had it go out once,” Glenn explains.

Ground Hog’s hydraulic system offers a competitive advantage over other machines, both in terms of efficacy and simplicity. “The hydraulic machine means no air hoses, more efficiency, and as much or as little R.P.M. as I need,” Glenn tells us about the unit’s adjustability. “We do a lot of interiors – schools, hospitals, asbestos removal – and it’s important for us to have control over how much concrete is removed.” Removing asbestos and other coatings from multiple surfaces like walls, ceilings, and floors used to involve Glenn employing multiple machines and technicians. But Ground Hog’s superior flexibility and performance allows him to customize the machine’s capabilities to any surface,

— For Sale —

Two International Trucks with Guzzler Liquid Ring Ace Vacuum Equipment



Two International Trucks with Guzzler Liquid Ring Ace vacuum equipment for sale. Truck bodies are 1998 and 1999. Both have CAT C-10305HP@2100RPM engines, Fuller 13210C 10Speed Transmissions w/OD, Intl I180S 18K front axle and Eaton 08454P 45K Tandem rear axle. Guzzler equipment is new/refurbished directly from Guzzler in August, 2009. Located in Phoenix, Arizona.

Price for the 1998 is \$122,000.00

Price for the 1999 is \$133,000.00

**Please call 602-678-0851,
877-207-2774 or 602-531-0942.**

increasing work production with limited expense.

Ground Hog’s superiority lies in its versatile and contractor-supportive attributes. Its user-friendly speed variation and hydraulic operating system both allow for more portability

and time-efficiency over competitive equipment.

For more information about Ground Hog and Waterblasting Technologies, visit www.waterblastingtechnologies.com, or call (877) 464-7623.

Barton Appoints Tom Riggs Regional Sales Manager

Barton Mines Company has appointed Tom Riggs as regional sales manager for the central region. Tom replaces Scott Trom, who has been promoted to market manager for the Blast Media Division. The central region territory includes AK, CO, IA, KS, MI, MA, ND, NE, NM, OK, SD.



Tom Riggs

As regional sales manager, Tom will educate the waterjet and blast media markets in the value of Barton garnet abrasives and will work to maximize customer satisfaction.

Tom has extensive experience in industries where garnet abrasives are used. He has more than 18 years of experience working with metal forming and fabrication equipment including waterjet systems.

For more information, visit www.barton.com or contact Barton Mines Company by e-mail at info@barton.com or telephone: 800-741-7756.

Jet Edge Releases New Precision Waterjet Intensifier Pumps Brochure

Waterjet manufacturer Jet Edge, Inc., recently released a new brochure highlighting its precision waterjet intensifier pumps.

The brochure features Jet Edge's precision waterjet intensifier pumps, which are available in a wide range of sizes from 30-200hp and capable of producing pressures from 60,000-90,000psi and flow rates of 0.65-4 gpm for waterjet cutting and surface preparation applications. Jet Edge's waterjet intensifier pumps feature a reliable tie-rod design. This design eliminates threads on the high-pressure cylinders, end caps, and hydraulic cylinders, reducing the likelihood of cracking, and increases component life. Matched-metal components prevent galling of hydraulic components.

Hydraulic accumulators are standard on all Jet Edge waterjet pumps. This provides smoother hydraulic pressure, reduces spikes and prolongs hydraulic pump life. Hydraulic fluid is cooled and filtered, and a rugged hydraulic



center section incorporates high-duty cycle-rated piston seal and wear rings. Jet Edge's hydraulic systems have a 4,000-hour warranty.

Jet Edge waterjet pumps also feature CE/TUV design-approved attenuators which smooth pressure fluctuations and deliver a constant and steady stream of ultra-high pressure water to the cutting tool, ensuring optimal cut quality.

View the brochure as a PDF at www.jetedge.com or request a copy by email: sales@jetedge.com or telephone: (800) JET-EDGE (538-3343).

Whirlybird by Terydon, Inc.

For years, the Whirlybird has been a signature product designed by Terydon, Inc. Now, it is not only a centralizer, but a pipe/duct cleaner. The Whirlybird has 10-50,000 psi capabilities with variable options for user ease and precision. Costly set-up time is minimized and its robust construction limits replacement parts and unnecessary fees.

The Whirlybird may be self-propelled as needed, enabling it to enter tubes/ducts without a rope. Other system options include a camera, medium pressure and UHP swivels, and flex or rigid lancing. The assembly centers the adjustable diameter spinning nozzle head in the tube or stack to achieve uniform cleaning and thus, eliminate rubbing of the nozzle and tube wall. A quick release or fine adjust/tension screw is used to easily open or close the unit while inside the pipe. In addition, the Whirlybird is able to expand and contract in response to large and small diameters, respectively, maximizing user capabilities.

For more information, visit www.terydon.com or call (330)879-2448.



StoneAge Named 2010 Colorado Company To Watch

StoneAge, Inc., Durango, CO, was named 2010 winner of the Colorado Companies to Watch Award. StoneAge, a WJTA corporate member, was chosen from among 250 nominees and 110 finalists.

Nominees must be a second-stage company, typically past the startup phase, and face growth challenges rather than survival issues. Companies must be privately held, employ six to 99 full-time workers, have between \$750,000 and \$50 million in annual revenue or working capital and demonstrate the intent and capacity to grow.

The award is presented by M3 Insurance and developed by the Edward Lowe Foundation.



From left, Kerry Petranek, CEO StoneAge; John Wolgamott, president StoneAge; Ed Morlan, executive director Region 9 Economic Development District, Durango, CO; and Mike Burns, president Alpine Bank, Durango, CO.)

WJTA Administration

Chairman of the Board
Bill Gaff
(815)673-3835

President/Jet News Editor
George A. Savanick, Ph.D.
(952)432-7594

Vice-President
Pat DeBusk
(281)680-0660

Treasurer
Larry Loper
(800)289-7447

Secretary
Paul Webster
(281)566-4509

2009-2011 Directors

Greg Galecki, Ph.D.
(573)341-4938

Gary Noto
(713)307-2145

Mohamed Hashish, Ph.D.
(253)850-3500

Forrest Shook
(248)624-5555

Hugh B. Miller, Ph.D.
(303)273-3558

B.T. Steadman
(601)933-4650

John Wolgamott
(970)259-2869

Emeritus Members

Andrew F. Conn, Ph.D.
(410)532-3452

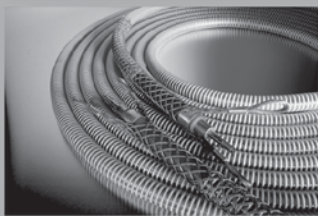
Thomas J. Labus
(262)245-9702

Thomas J. Kim, Ph.D.
(401)874-5991

Fun-Den Wang, Ph.D.
(303)279-9415

Association Managers

Mark S. Birenbaum, Ph.D. • Kenneth C. Carroll
(314)241-1445



Hose

Up to 1" inner diameter & 46,000 psi working pressure



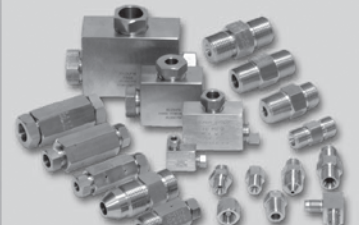
Valves

Needle valves, ball valves & check valves up to 60,000 psi working pressure



Quick Disconnects

Up to 30,000 psi working pressure



Fittings & Adapters

316SS, up to 60,000 psi working pressure

SPIR STAR®

Your Complete Source

Please contact your SPIR STAR representative for more information
10002 Sam Houston Center Drive • Houston, TX 77064 • www.spistar.com • ISO 9001:2008 Certified
Toll Free: (800) 890-7827 • Fax: (888) 893-1255 • Phone: (281) 664-7800 • Fax: (281) 664-7850

© 2010 SPIR STAR

Federal Signal Appoints VP, GM For Vactor And Guzzler

Federal Signal Environmental Solutions Group has appointed Sam Miceli as vice president and general manager for its Guzzler Manufacturing and Vactor Manufacturing subsidiaries, effective immediately. In this role, Miceli is primarily responsible for overseeing and cultivating the business



Sam Miceli

strategies and growth initiatives for both companies. He will report directly to Mark Weber, president of Federal Signal Environmental Solutions Group.

Miceli most recently served as the plant manager for the 235,000-square-foot Guzzler/Vactor facility located in Streator, Ill. He began his career with the Federal Signal Environmental Solutions group in 1993 at the Elgin Sweeper subsidiary in Elgin, Ill., and has held various progressive manufacturing management positions within the organization over the years. He holds a Masters of Business Administration from Bradley University and a Bachelors of Science in Industrial Engineering from the University of Illinois.

“Sam’s industry knowledge, strategic and operational experience, focus and energy have been instrumental to our group’s success over the years,” Weber said. “Under Sam’s leadership, Guzzler and Vactor will continue to focus on delivering the highest performance

For over 38 years, KMT Aqua-Dyne has been supplying water blasting equipment to the water jetting industry.

KMT Aqua-Dyne can provide a total solution for any industrial cleaning or surface preparation needs.

Join the thousands of customers worldwide who come to depend on KMT Aqua-Dyne to do the job right!

Water Blasting Dump Gun used for cleaning & surface preparation

BLASTMAX™

BLASTMAX™ is Our Most Popular & Versatile Pumping Unit for Industrial Cleaning, Surface Preparation & Petro-Chemical!

KMT Aqua-Dyne
aqua-dyne.com
713 864 6929

Water-blasting Rotary Gun used for ship cleaning

KMT Aqua-Dyne

and most reliable environmental solutions to our customers worldwide.”

“I look forward to working in my new capacity to help Guzzler and Vactor achieve ongoing success in their markets,” Miceli said.

For more information about Vactor and Guzzler, visit www.fsesc.com.

The *Jet News* is published by the WaterJet Technology Association (WJTA)-Industrial & Municipal Cleaning Association (IMCA) and is a benefit of membership in the Association.

©2010 *Jet News*. All rights reserved. Reproduction in any form forbidden without express permission.

PaR Systems, Inc. Appoints Managing Director in Europe

PaR Systems, Inc. has appointed Tony White managing director, Europe, to provide senior leadership in the support of their global customers and to accelerate its growth in Europe. PaR's commitment to this growth is demonstrated by the recent opening of their sales office near the Sellafield Nuclear Reprocessing Facility in Cumbria, United Kingdom, and the receipt of a large order for an automated crane system in support of cleanup efforts at the Chernobyl Nuclear Power Plant.

Tony joins PaR Systems with significant experience in vice president and general management roles and has a proven track record of sales, profit, and market share growth across different industries throughout the world. His experience includes financial, leadership, and general business management positions within Motorola, British Steel, Marconi Underwater Weapons, and most recently an AECOM (formerly Tyco) business involved in large and complex projects. Tony is a dynamic leader with extensive operational experience in Europe, the Middle East, and USA, as well as experience in leading and implementing growth strategies and profit improvement programs. He was recently appointed Visiting Professor of Organization and Management at Sheffield Hallam University in Sheffield, UK.

As managing director, Europe, Tony will be responsible for establishing PaR Systems' European organization and its infrastructure in order to develop new business that ensures sustained high growth while preserving PaR's excellence in project management, engineering, manufacturing, and service to successfully support customers' goals. PaR is confident that Tony will provide leadership in Europe that is consistent with the company's core values of integrity, honesty, open communications, customer focus, and employee development.

For more information on PaR Systems and its companies visit www.par.com or call (651) 484-7261.

NEED IT? RENT IT!

AIR MACHINES • LIQUID VACS • ROLL-OFFS • LIQUID RINGS
NATIONWIDE • 24 HOURS A DAY • 7 DAYS A WEEK



1-888-955-2087

www.vactruckrental.com

**VACUUM
TRUCK
RENTALS**

Hydrodemolition Of Offshore Oil And Gas Facilities, from page 14



Jetstream mobile waterblast unit.

Proserv has used the water abrasive technique successfully in water as deep as 1700 feet. For underwater applications, the company uses either divers or remote-operated vehicles (ROVs) to deploy the hydro-demolition tools that carry the hose and nozzle.



WJTA-IMCA Welcomes New Members

Corporate

Al Ghaith Trading & Industrial Services Company

Raid Al Qaisi
Hasif Tailakandi Puthiyapura
 Al Adel Street, Al Hilal Area
 Doha 22879
 Qatar
 Fax: (974)4649024
 Phone: (974)4649190

Derc Salotech

Paul Bekkers
Arco den Hollander
Gerard Verberne
 PO Box 1589
 Oud-Beijerland
 Netherlands
 Phone: [31](186)617336
 Fax: [31](186)617134

DOSATRON (UTC Group)

Joel vanden Bosch
 Rue Pascal BP 6
 33370
 Tresses Bordeaux 33370
 France
 Phone: [33](05) 57 97 11 11

HYDROCUT

Antonis Zannis, Ing.
 27th km of National Road
 Athens-Lamia
 Afidnes 19014
 Greece
 Phone: [30](229)5029050
 Fax: [30](229)5029051

PWP Global

Barry Ward
Jeanette George
 2951 Marina Bay Drive, 130-134
 League City, Texas 77573
 Phone: (281)919-8847
 Fax: (281)596-4353

TST Sweden

Robert Larsson
 Prastgatan 12
 Kinna 51154
 Sweden
 Phone: [46](320)205880
 Fax: [46](320)205888

Zebra Environmental Inc.

Mike Milchuck
David Tedder
 P.O. Box 357
 High Point, North Carolina 27261
 Phone: (841)336-5276
 Fax: (336)841-5509

Corporate Individual

Bradley Schwartz

1829 230th Avenue NE
 Sammamish, WA 98074
 Email: baschwartz@msn.com
 Fax: (866)282-8696

Individuals

David Boyer

UHP Projects
 4811 Mercantile Drive
 Newport News, VA 23607
 Phone: (757)928-1890
 Email: m.boyer@uhpprojects.com

Andrew DeBusk

DeBusk Industrial Services
 Group
 3727 Georgetown
 Houston, TX 77005
 Email: adebusk@att.net
 Phone: (713)592-9561

Robert C. Frankish

844 Blackfeet Terrace
 Macedonia, OH 44056
 Email: rfrankish@yahoo.com
 Phone: (234)542-7341

Geoffrey Ling

Hypertherm
 PO Box 5010
 Hanover, NH 3755
 Email: geoff.ling@hypertherm.com
 Phone: (603)653-7129

Roderick Mills

Southey Contracting (Pty) Ltd.
 PO Box 36597
 Chempet
 Montague Gardens
 Cape Town 7442
 South Africa
 Phone: [27](21)552-6020
 Fax: [27](21)552-6024
 Email: rmills@southey.co.za

Pung Woo Shin

PT Panca Lima Sakti
 JL Senayan No. 55
 Senopati, Block S. Keb -Baru
 Jakarta Selatan 12180
 Indonesia
 Email: panca5@cbn.net.id
 Fax: [62](21)723-4277

2010 WJTA-IMCA Expo

August 17-19, 2010

George R. Brown Convention Center, Houston, Texas

Sponsors

• Platinum Sponsor

StoneAge, Inc.

• Gold Sponsor

Veolia Environmental Services

• Silver Sponsor

High Pressure Equipment Company

Parker Hannifin - EPD

TurtleSkin WaterArmor by Warwick

• Bronze Sponsor

GMA Garnet (USA) Corporation

Gardner Denver Water Jetting Systems

Peinemann Equipment

Terydon, Inc.

Index of Advertisers

A.M. Gatti, Inc.....	www.gattiam.com	pg. 13
Barton Mines Company, LLC.....	www.barton.com.....	pg. 8
Gardner Denver Water Jetting Systems, Inc.	www.waterjetting.com	pg. 9
Federal Signal Environmental Solutions	www.fsescg.com	pg. 7
High Pressure Equipment Co.	www.highpressure.com	OBC
IGEMS Software.....	www.igems.se	pg. 15
IPAC	www.ipacconsulting.com	pg. 20
International Waterjet Parts, Inc.	www.iwpwaterjet.com.....	pg. 17
KMT Aqua-Dyne, L.P.	www.aqua-dyne.com.....	pg. 24
MaxPro Technologies	www.maxprotech.com	Insert
NLB Corp.....	www.nlbcorp.com	pg. 12
QualJet LLC.....	www.qualjet.com	pg. 16
S.M.T.	www.smttool.com	pg. 11
SPIR STAR.....	www.spistarvalves.com.....	pg. 23
StoneAge, Inc.	www.stoneagetools.com	pg. 3 & 5
TurtleSkin WaterArmor by Warwick Mills.....	www.turtleskin.com	pg. 19
Vacuum Truck Rentals, LLC	www.vactruckrental.com	pg. 25

WJTA-IMCA Order Form for Publications/Products

7-10

Name _____ Member # _____
 Company _____
 Address _____
 City _____ State _____
 Country _____ Postal Code _____
 Phone # [] () _____ Fax # [] () _____
 Email _____
 (to receive shipping confirmation)

Billing Address (if different from above):

Address _____
 City _____ State _____
 Country _____ Postal Code _____

Payment Method

☐ Check or Money Order to WJTA
 (U.S. DOLLARS ONLY)
☐ PO # _____ (Enclose PO)
☐ Please charge my ☐ MC ☐ VISA
☐ AMEX ☐ Discover
 Credit Card # _____
 Exp. Date _____ CVC _____
 Card verification code _____
 Print name as it appears on card _____
 Cardholder's signature _____

WAYS TO ORDER

Online: Go to www.wjta.org and click on "Online Store."

Phone: Call (314)241-1445 and have your credit card information ready.

Fax: Fill out the order form with your credit card information and fax to our 24-hour fax number at: (314)241-1449.

Mail: Fill out the order form and mail with applicable payment to: WJTA-IMCA, 906 Olive Street, Ste. 1200, St. Louis, MO 63101-1448.

Shipping and Handling Charges are calculated on a per pound basis that is based on shipping by FedEx Express Saver within the United States or United States Postal Service International Priority Mail for international destinations. When ordering online at www.wjta.org the shipping is calculated automatically. If ordering by fax, phone or mail, contact the WJTA-IMCA office for a shipping and handling total.

		WJTA-IMCA Member Price	Non Member Price	
____ Proceedings CD of The 2009 American WJTA Conference And Expo.....	@	\$ 109.00	\$ 129.00	= \$ _____
____ Proceedings CD of The 2007 American WJTA Conference And Expo.....	@	\$ 49.00	\$ 69.00	= \$ _____
____ SPECIAL OFFER - Proceedings CDs of The 2005, 2003, and 2001 WJTA American Waterjet Conferences	@	\$ 19.95	\$ 29.95	= \$ _____
____ Proceedings CD of The 2005 WJTA American Waterjet Conference	@	\$ 10.00	\$ 15.00	= \$ _____
____ Proceedings CD of The 2003 WJTA American Waterjet Conference	@	\$ 10.00	\$ 15.00	= \$ _____
____ Proceedings CD of The 2001 WJTA American Waterjet Conference	@	\$ 10.00	\$ 15.00	= \$ _____
____ An Overview of Waterjet Fundamentals And Applications, Fifth Edition (2001)	@	\$ 55.00	\$ 70.00	= \$ _____
____ An Overview of Waterjet Fundamentals And Applications (8/17/03 PowerPoint presentations in printed format).....	@	\$ 30.00	\$ 35.00	= \$ _____
____ Waterjet Technology: Basics and Beyond (8/21/05 PowerPoint presentations in printed format)	@	\$ 20.00	\$ 25.00	= \$ _____
____ Waterjet Technology: Basics and Beyond (8/19/07 PowerPoint presentations in printed format)	@	\$ 20.00	\$ 25.00	= \$ _____
____ Waterjet Technology: Basics and Beyond (8/18/09 PowerPoint presentations in printed format)	@	\$ 20.00	\$ 25.00	= \$ _____
____ Industrial Vacuum Equipment Seminar (8/18/09 PowerPoint presentations in printed format)	@	\$ 20.00	\$ 25.00	= \$ _____

☐ Waterjet Equipment Recommended Practices. *Specify:* ☐ English Edition or ☐ Spanish Edition

☐ Vacuum Equipment Recommended Practices. *Specify:* ☐ English Edition or ☐ Spanish Edition

Prices below are for Waterjet and Vacuum Equipment Recommended Practices

1 - 10 copies _____ # of copies	x	\$ 7.00 ea.	\$ 12.00 ea.	= \$ _____
11 - 99 copies _____ # of copies	x	\$ 6.00 ea.	\$ 10.00 ea.	= \$ _____
100 or more copies _____ # of copies	x	\$ 5.00 ea.	\$ 8.00 ea.	= \$ _____

☐ Waterjet Equipment Recommended Practices Video. *Specify:* ☐ VHS Video or ☐ DVD

☐ Vacuum Equipment Recommended Practices Video. *Specify:* ☐ VHS Video or ☐ DVD

Prices below are for Waterjet and Vacuum Equipment Recommended Practices Videos

1 - 4 copies _____ # of copies	x	\$ 49.95 ea.	\$ 99.95 ea.	= \$ _____
5 - 10 copies _____ # of copies	x	\$ 39.95 ea.	\$ 89.95 ea.	= \$ _____
11 or more copies _____ # of copies	x	\$ 29.95 ea.	\$ 79.95 ea.	= \$ _____

Baseball Cap	_____ # of caps.....	x	\$ 7.95 ea.	\$ 7.95 ea.	= \$ _____
Executive Organizer	_____ # of organizers	x	\$ 10.00 ea.	\$ 10.00 ea.	= \$ _____
Navy Blue Polo Shirt	Size _____ (S, M, L, XL, 2X) _____ # of shirts.....	x	\$ 33.00 ea.	\$ 38.00 ea.	= \$ _____

Medical Alert Cards *Specify:* ☐ English ☐ Spanish

1-10 cards	_____ # of cards.....	x	.30 ea.	.50 ea.	= \$ _____
11-99 cards	_____ # of cards.....	x	.25 ea.	.45 ea.	= \$ _____
100-249 cards	_____ # of cards.....	x	.20 ea.	.40 ea.	= \$ _____
250 or more cards	_____ # of cards.....	x	.17 ea.	.35 ea.	= \$ _____

TOTAL ENCLOSED \$

Count on HiP for Reliable High Pressure Flow Control

HiP... Our Name is High Pressure

**Call 800-289-7447 or visit
www.highpressure.com**



High Pressure Valves

Six valve patterns in six pressure classes (up to 150,000 psi) for reliable and flexible shut-off

High Pressure Fittings

Complete range of elbows, tees and crosses for all pressure classes and tubing connections

Air Operated Valves

Five lines of air operators accommodate remote operation of high pressure valves up to 100,000 psi

High Pressure Tubing

Tubing is cold drawn, seamless 316 S/S and supplied in 1/8 hard conditioned (not annealed)

Specialty Valves

Ball, high temperature, micro-metering, relief, pipe connection and male bottom connection valves. Special materials available.