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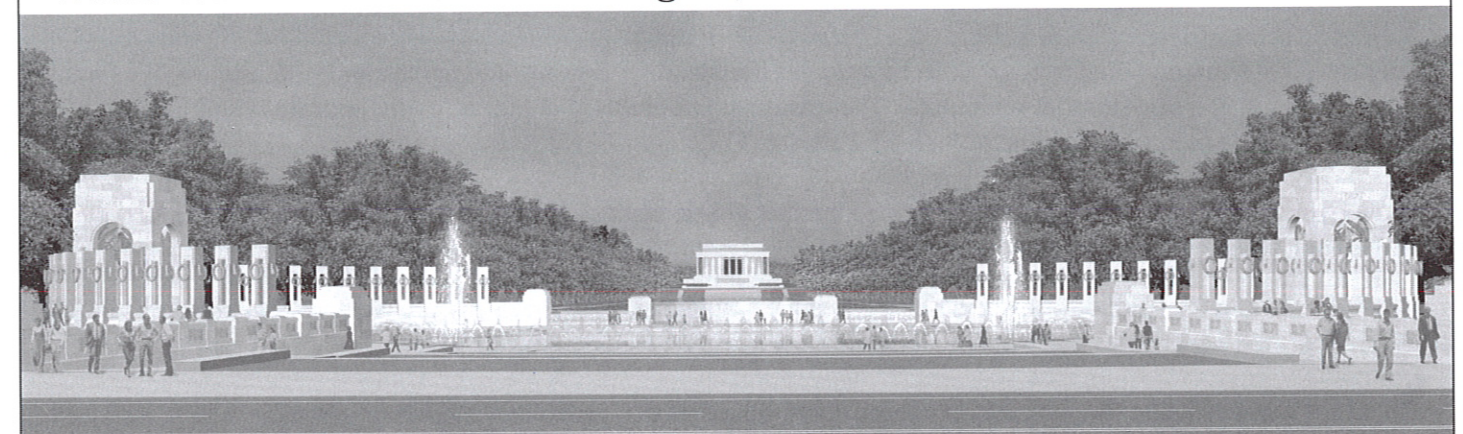
Jet News

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JANUARY 2002

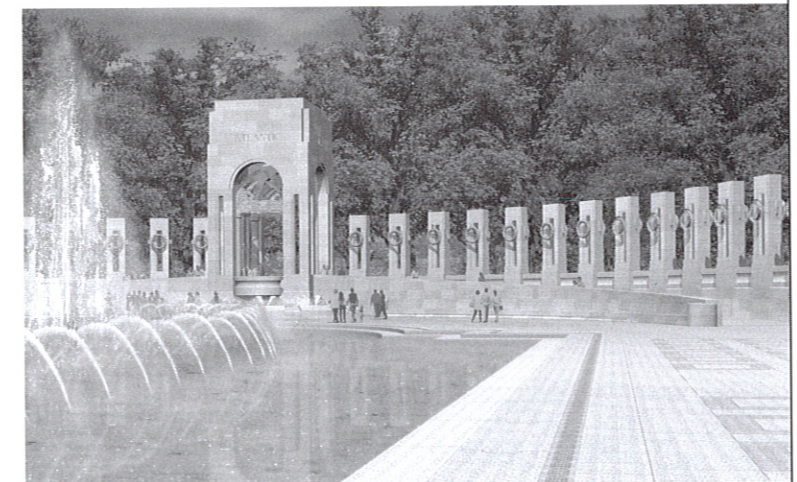
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World War II Memorial In Washington, D.C.



Construction began on the National World War II Memorial in August 2001 on the National Mall in Washington, D.C. The construction site is located between the Lincoln Memorial and the Washington Monument at the eastern end of the Reflecting Pool.

The Memorial Plaza and Rainbow Pool are the principal design features of the Memorial. Ceremonial steps and ramps lead into the plaza. A series of 24 bronze bas relief panels along the ceremonial entrance balustrades will depict America in the war years. Two 43-foot arches mark the north and south ends of the plaza. Inlaid on the floor of the arches will be the World War II victory medal surrounded with the words "Victory On Land," "Victory At Sea," and "Victory In The Air."



Each state and territory from that period and the District of Columbia will be represented by a 17-foot granite pillar (56 in all) inscribed with its name.

A common area on the Western side of the Memorial will contain a Freedom Wall with sculpted gold stars to commemorate the more than 400,000 Americans who died in the war. The Freedom Wall will contain one gold star for every 100 Americans who died in service to their country during the war.

The historic waterworks of the Rainbow Pool will be restored and integrated into the Memorial. Semi-circle fountains at the base of the two Memorial Arches and waterfalls flanking the Freedom Wall will complement the waterworks in the Rainbow Pool.

*(Reprints of artist's rendering of the World War II Memorial appears courtesy of the
World War II Memorial Web Site: www.wwII memorial.com)*

Laminar Waterjet Sculpture



Waterworks™ International of Kankakee, Illinois, has used laminar flow technology to create glass-like rods of water that can be used in creating waterjet sculptures. These laminar jets are used in plazas, malls, walkways and gardens. Each laminar nozzle uses 10 gallons per minute of water.

Waterworks International has patented a lighted laminar nozzle that sends light through the stream like a fiber optic, splashing light whenever the stream is broken.

Through the magic of laminar flow technology, Bubble Fountains create sheets of pure water so thin that they look like giant shimmering soap bubbles. Each bubble fountain uses five gallons per minute of water.

Rainbow Tunnels lend a dramatic effect to entryways, plazas, malls, walkways, lobbies or gardens.



Photographs provided courtesy of Waterworks International, Kankakee, Illinois.



WJTAListServ Now Available To Members

Take advantage of prompt e-mail interaction with your colleagues!

WJTAListServ is an e-mail broadcast system developed by the WaterJet Technology Association (WJTA). WJTAListServ is designed to help you communicate and network with other WJTA members.

How does WJTAListServ work?

Forward your question, comment or request via e-mail to WJTAListServ. Your e-mail will be forwarded to other WJTAListServ participants who then

have an opportunity to respond. Everyone on the WJTAListServ receives the questions, comments and/or requests made by other participants. You are not required to submit questions and/or comments in order to participate in the WJTAListServ. WJTAListServ is a benefit of WJTA membership and is FREE to members in good standing.

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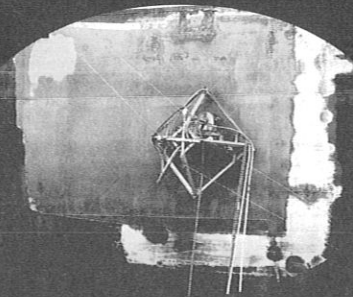
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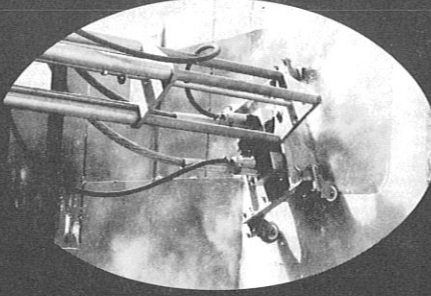
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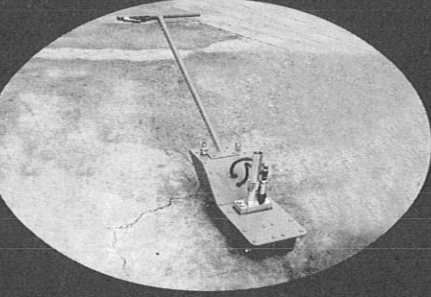
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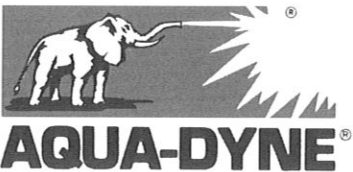
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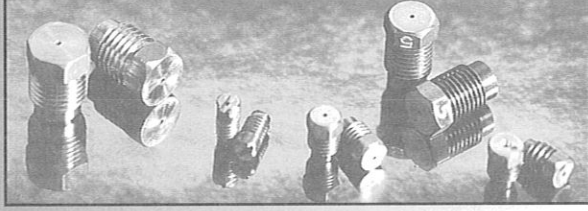
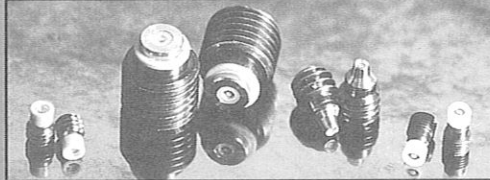
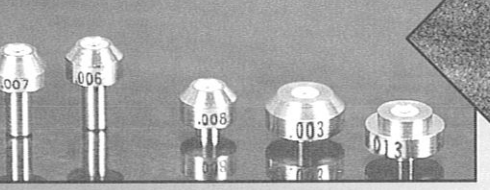
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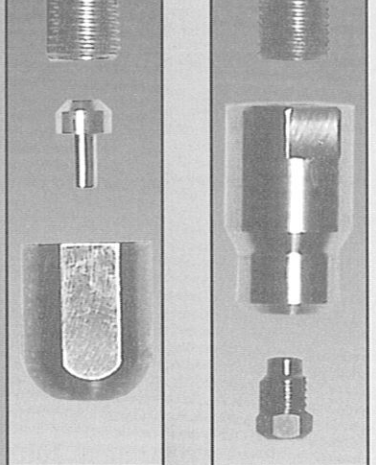
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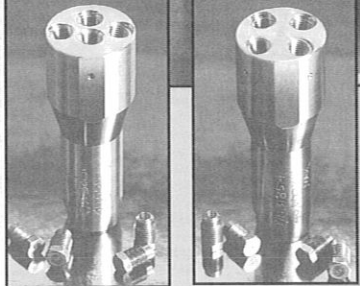
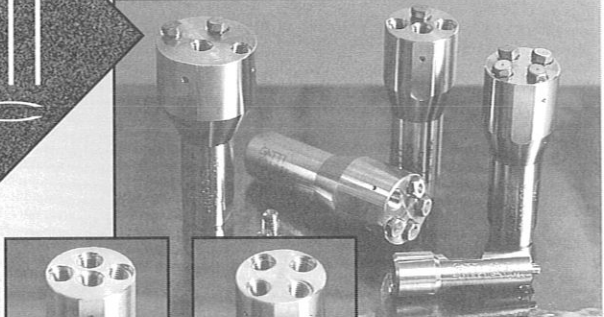
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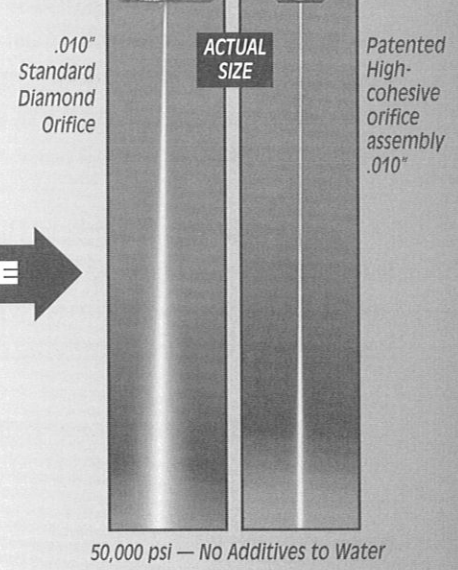
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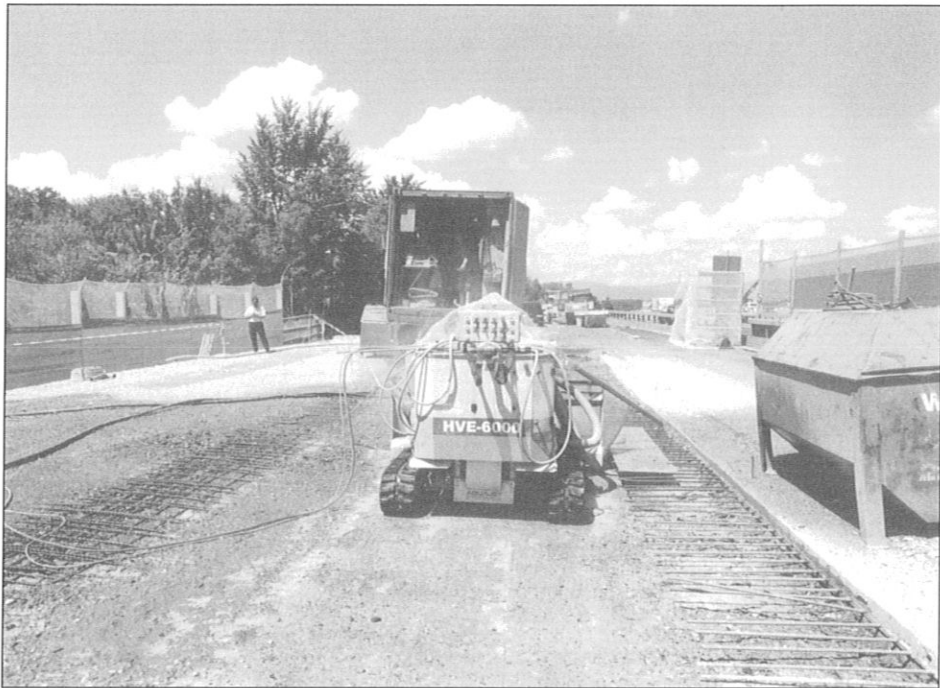
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Aquacutter Aids Zurich-Berne Highway Upgrade



An HVE6000 hydrodemolition robot from Aquajet Systems is playing a pivotal role in the upgrade of the Kirchberg Bridge on the Zurich-Berne A1 highway.

One of Switzerland's busiest roads, the Zurich-Berne highway is currently being upgraded to accommodate trucks up to a weight limit of 40t. Under recent Swiss government legislation, the previous weight limit of 28t has now been raised bringing the country into line with the rest of Western Europe. Under the new legislation, a vast array of bridges are currently undergoing renovation and upgrading work so as to accommodate heavier trucks.

The 400m-long Kirchberg Bridge is located approximately 30km northeast of Berne and carries a four-lane highway over a fast moving river.

Local contractor Pial is utilizing an

Aquacutter HVE6000 from Aquajet Systems to remove damaged concrete from the bridge's parapet and deck. As well as the need to strengthen the bridge, the concrete structure had also been corroded by the use of de-icing salts during winter.

Because the highway is so busy, a temporary steel bridge has been erected adjacent to the concrete structure. This carries two lanes of traffic while work is being undertaken and negates any traffic congestion.

The entire project began in 1999. Two lanes are complete, and the final two lanes are due for completion in January 2002.

The bridge's 15cm-wide and 40 cm-deep parapet was completely removed by the Aquacutter robot leaving the exposed reinforcement in place and cleaned of any residue. This was in preparation for a thicker

and stronger parapet to be poured on-site.

On the bridge deck, the HVE6000 robot is removing concrete to a depth of 3cm. Once this has been completed, the deck will be completed with a new waterproofing epoxy membrane and a new asphalt base and wearing course. Overall the bridge deck will increase by 20 cm to accommodate extra weight.

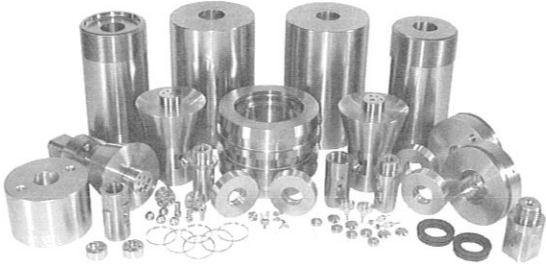

The robot is supplied with 100litre/min of water from a high-pressure water pump working at 1200bar.

A spokesman for Pial commented that the Aquacutter is removing approximately 35m² per hour. Without the robot this work rate wouldn't be possible and the project would not be completed in the planned schedule.

Local Aquajet Systems representative Atumat supplied the HVE6000 unit.

Stefan Hilmersson of Aquajet Systems is a WJTA individual member. For more information, visit www.aquajet.se, e-mail: aquajet@aquajet.se, call +46(0)383 508 01, fax: +46(0)383 507 3, or write: Aquajet Systems AB Brunnsvägeen, SE-570 15 Holsbybrunn, Sweden.

Photograph provided courtesy of Aquajet Systems.



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Following is the text of an e-mail received from WJTA member Libor M. Hlavac of the Czech Republic.

Many greetings to you from Ostrava, Czech Republic.

I would like to inform you about a very cheerful event in our family. The third son has been born to us on the 27th of August, so we have seven children now (four girls and three boys). I am sending to you a photo of my wife and son Christian Michael when he was one month old.

I wanted to inform you earlier but after his birth we were all very busy. Later on, after the events in your country on the 11th of September, I did not know what to write to you. You know, we do not know your language so good to be able to express



Mrs. Hlavac and son Christian.

our feelings. Nevertheless, these events changed also our lives. Many of my friends and I were deeply hit by the news, and we could not believe it. Then we breathlessly followed up information from your country, among them the live transmission of your President speaking to the Congress. Even though we are not Americans we heard him with a real pride. You must be very proud of him. We would like you to know that we feel with you very much indeed because your country was, and still is, for us (long years suffering under the domination of the Communist Party and the Soviet Union) the symbol of freedom and democracy. For me, moreover, it is a country of many "friends" because I am fond of country music and westerns.

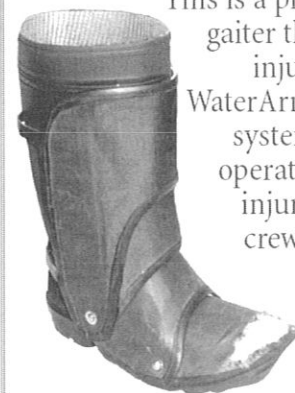
With very kind regards,
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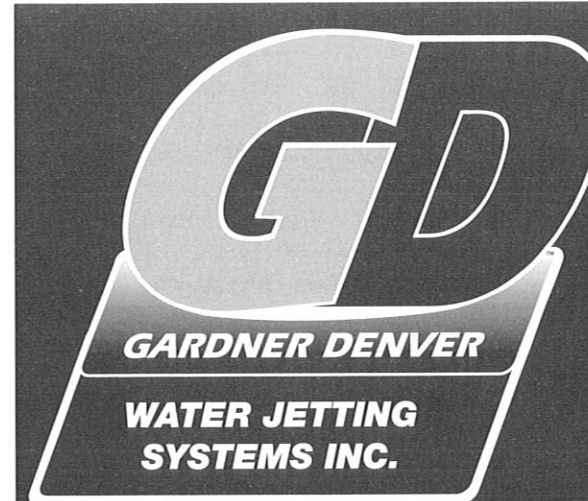
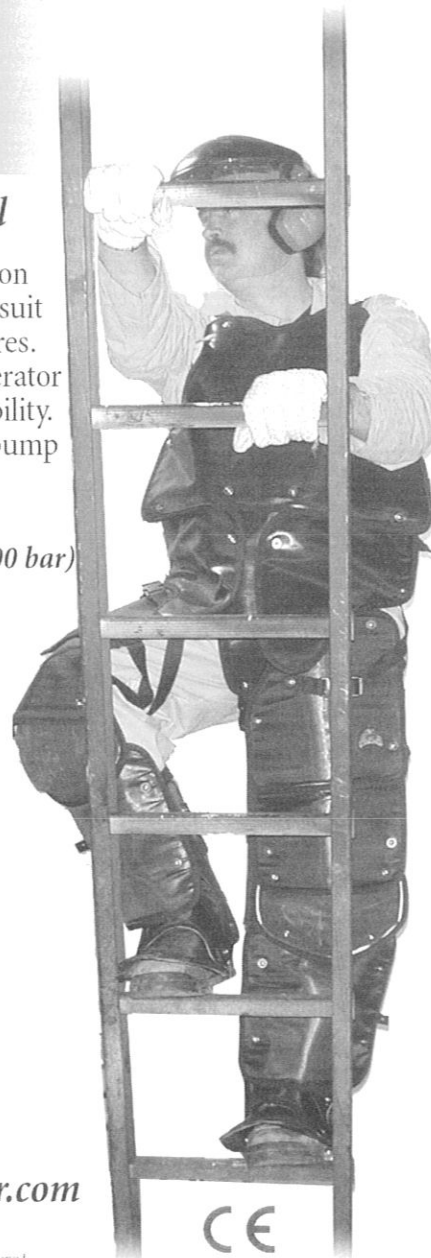


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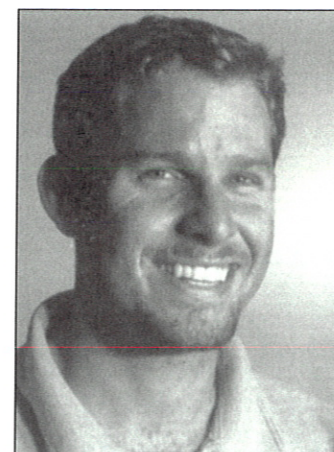
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Member News



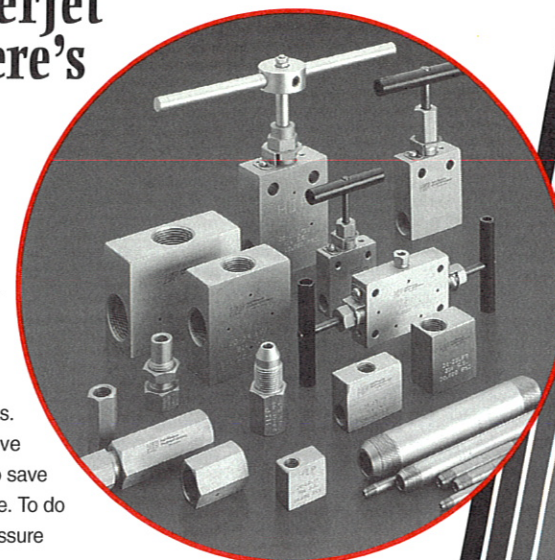
Keith Lemmer of WARDJet, Inc., Kent, Ohio, is now fully responsible for all aspects of the manufacture of the WARD (Waterjet Abrasive Recycling Dispenser), a machine that automatically removes the abrasive from a waterjet tank,

and then washes, screens, sorts and dries only the good reusable garnet abrasive, all in less than three minutes.

Keith has a Mechanical Engineering Degree, and he has worked on abrasive recycling systems for foundries in the past. Contact Keith at klemmer@richel.com, or visit www.wardjet.com, or call (330)677-9100 or fax: (330)677-9121.

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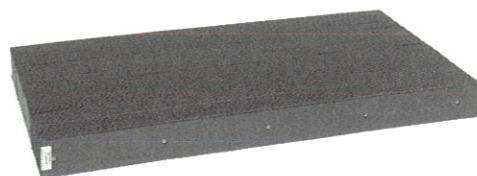


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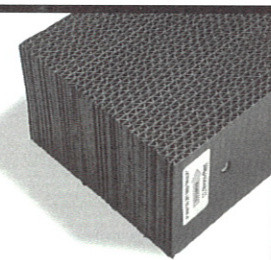
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- Corrugated flute design prevents small parts from falling through brick and into the holding tank.
- AccuBrick™ is designed for abrasive or straight water jet cutting.
- Corrosion-free cutting surface is made from high density polyethylene (HDPE) for long-lasting performance and reduced noise.



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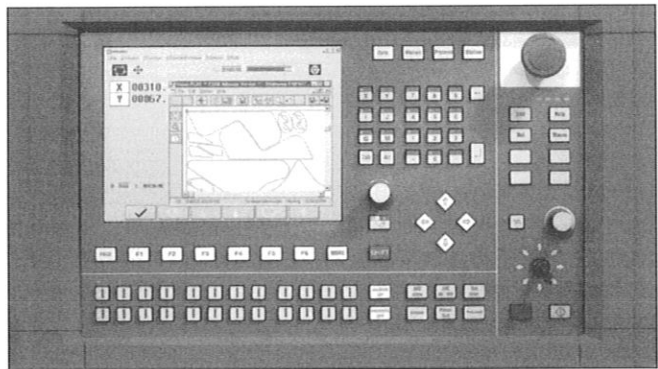
ESAB Introduces Software For 2D Cutting Machines

ESAB Cutting Systems has introduced Vision Plus, an integrated software package designed specifically for cutting machines. Designed by ESAB, the software was first introduced in Europe and has been proven in many installations throughout the world.

The Windows™-based programming package offers DXF File Conversion right on ESAB's Vision PC and NT Controls, simple set-up and full process control, part programming with an integrated CAD package and a Standard Shapes package. The Vision Plus Software will run directly on ESAB's Windows-based CNC control and can be set up specifically for each individual process or machine. Vision Plus is now standard on Vision PC and NT controls.

An intuitive, user-friendly graphic interface, customized functions and automatic processes make programming easy. Vision Plus software allows users to set up and run DXF files for multiple processes or multiple heads right on the CNC control without waiting for changes from engineering or programming departments.

Vision Plus includes a CAD package specifically designed for 2D drawing, so it is easier to learn than standard 3D programs. Vision Plus also includes a Standard Shapes library that can be used in the Vision Plus layout program or nested with other parts. Nesting is made easy with the many different options of bumping, rotating, copying and mirror functions.



Nesting for multiple torch heads can be done by simply selecting the number of heads used.

The Vision Plus software supports straight or bevel cutting with oxyfuel, plasma, waterjet and laser, plus all current marking devices in numerous combinations. Users can cut an interior geometry with waterjet, laser or Precision Plasma, then switch to plasma for the outside perimeter cut by simply selecting a few icons. Because ESAB holds patents on many multi-process systems, the company has integrated its technical knowledge into

the Vision Plus software program multiple processes in the same file. Vision Plus also supports and simplifies bevel cutting for laser, plasma or oxyfuel beveling, allowing bevel parts to be programmed and posted in seconds. The software automatically programs the corner routines and tilt and rotate commands.

When used with ESAB's Vision CNC and ESAB's exclusive programmable cutting parameters (SDP files), Vision Plus facilitates fast, easy set up. For example, with plasma, all process parameters — gas and water flows, pierce time, speed, kerf, height, control, cutting amperage, etc. — are stored in the CNC, along with optimum settings for different materials and thicknesses. This feature eliminates guesswork and ensures consistent cutting results even with changing operators.

For more information, visit www.esabcutting.com or call (843)664-4394.



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FLOW Introduces Revolutionary Waterjet Cutting Process

Flow International Corporation has introduced a revolutionary new waterjet cutting process that can cut parts up to 300 percent faster than traditional waterjet cutting machines.

Dynamic Waterjet™ featuring Active Tolerance Control™ consists of patented software models that control a small, articulated "wrist" cutting head to automatically adjust cutting angles for specific accuracy and part tolerance requirements. With the Dynamic Waterjet, manufacturers will be able to cut parts faster, eliminate taper, and produce higher quality parts with significantly better accuracy.

"With our latest technology breakthrough, FLOW has elevated the waterjet process and moved it into an entirely new realm," said Ron Tarrant, chairman, president and CEO of Flow International. "Dynamic Waterjet produces superior part quality and tolerance and eliminates the need for

secondary processing."

Dynamic Waterjet will help manufacturers: **(1) Reduce cycle time.** Whether cutting metal, stone, or composite parts ranging from 0.050" to more than 6" thick, the Dynamic Waterjet improves cut speeds and finished part tolerances by automatically tilting the waterjet cutting head as necessary; and **(2) Improve cut-part tolerances.** Manufacturers can improve material utilization with less material waste since dimensions on parts cut with Dynamic Waterjet are far more precise than parts cut with conventional waterjet machines and other processes. As a result, the Dynamic Waterjet makes it possible to produce highly accurate parts with no secondary processing.

"Now more than ever, the manufacturing industry demands cost-effective methods for parts production," Tarrant said. "Despite the downturn of the

U.S. manufacturing sector, FLOW continues to grow through aggressive development of products designed to help our customers be more competitive by improving their productivity." Tarrant continued, "Our customers tell us that because of the significance of this technological breakthrough, in order for them to remain competitive, Dynamic Waterjet will need to be part of their future."

FLOW Beta customers already have realized benefits of Dynamic Waterjet. "The Dynamic Waterjet improves the quality of parts I deliver to my customers, opening up new markets for waterjet-cut parts without increasing my hourly operating costs," said Jack Budd.

FLOW is a WJTA corporate member. For more information, visit flowcorp.com, call: 253-850-3500, fax: 253-813-3285, or write: FLOW, 23500 64th Ave. South, Kent, WA 98032-2618.

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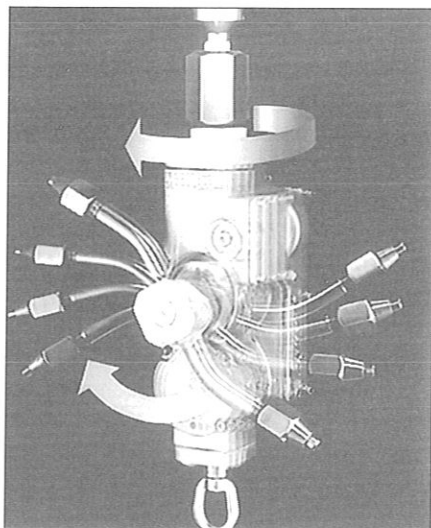
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NLB Corp. Introduces New 20,000 PSI Waterjet Head



A new, self-rotating waterjet head from NLB Corp. operates at higher pressures than previous models (up to 20,000 psi, or 1,400 bar), and reduces tank cleaning time by hours. The NLB 3750-40-20K has a flow rate of 13 to 40 gpm (49.3 to 151.5 lpm).

All NLB 3-D heads feature two high-velocity waterjets, mounted on a rotating head. The flow of high-pressure water causes the waterjets to spin vertically and the head to spin horizontally, resulting in complete three-dimensional coverage of the tank interior. In large vessels, the head is generally attached to a telescoping lance, so that no personnel need to enter the tank.

NLB offers a wide range of lances, heads and high-pressure pumps, to remove everything from paint and chemicals to hardened coke. NLB's other 3-D heads are rated to 8,000 psi and 13,000 psi (550 and 900 bar). Rotation speeds are variable, to suit the application. Most heads are available in bronze, stainless steel or lightweight aluminum.

One NLB customer using the new 3750-40-20K head is now removing urethane from reactors in half the

time. A job that took 10 hours at 10,000 psi (700 bar), including touch-up with a hand lance, is now done in just five hours, and no manual touch-up is necessary.

NLB is a WJTA corporate member. For more information, visit www.nlbcorp.com, call (248)624-5555, fax: (248)624-0908, or write: NLB Corp., 29830 Beck Road, Wixom, MI 48393-2824.

NLB Opens Branch Office In Louisiana

NLB Corp. has opened a branch office near Baton Rouge, Louisiana, to better serve customers in the southeastern United States. The facility rents and sells NLB waterjet pumps and accessories (high-pressure and ultra-high pressure), and provides qualified service and application advice.

NLB, based in Wixom, Michigan, now has four regional offices: in Michigan, New Jersey, Texas, and Louisiana.

The new branch is the first to have a showroom where customers can browse in comfort and inspect nozzles, lances, rotating SPIN JET® heads, and other accessories. The new branch is located two miles north of US 61, at 14302 Highway 44 North, Gonzalez, Louisiana 70737, phone: (225)622-1666, fax: (225)622-7366.

For more information, visit www.nlbcorp.com.

The *Jet News* is published by the WaterJet Technology Association (WJTA) and is a benefit of membership in the Association.

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Calendar of Events

January 28-February 4, 2002

Power Washers of North America (PWNA) 10th Anniversary Meeting and Exposition, Wyndham Miami-Biscayne Bay Hotel, Miami, Florida. Visit www.pwna.org or call (301)941-1064.

February 28-March 2, 2002

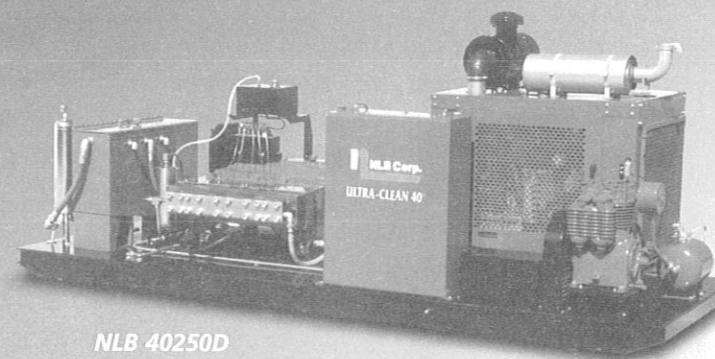
Pumper and Cleaner Environmental Expo, Opryland Hotel and Convention Center, Nashville, Tennessee. Visit www.pumpershow.com, e-mail to: questions@pumpershow.com, call (800)257-7222 or (715)546-3346, or fax to: (715)546-3786.

October 16-18, 2002

BHR Group 16th International Conference on Waterjetting: New Developments, Applications, Technologies, Centre de Congres, Aix-en-Provence, France. Technical papers and case studies are invited for presentation on all aspects of waterjetting in a variety of areas. Contact Emma Abson, Conference Organizer, BHR Group Limited, The Fluid Engineering Centre, Cranfield, Bedfordshire MK43 0AJ, UK, phone [44](0)1234-750422, fax: [44](0)1234 750074, e-mail: eabson@bhrgroup.com, web: www.bhrgroup.com

November 3-7, 2002

SSPC 2002, the Industrial Protective Coatings Conference and Exhibit sponsored by The Society for Protective Coatings, Tampa Convention Center, Tampa, Florida. Visit www.sspc.org, call 412-281-2331 or write 4024th Street, 6th Floor, Pittsburgh, PA 15222-4656.

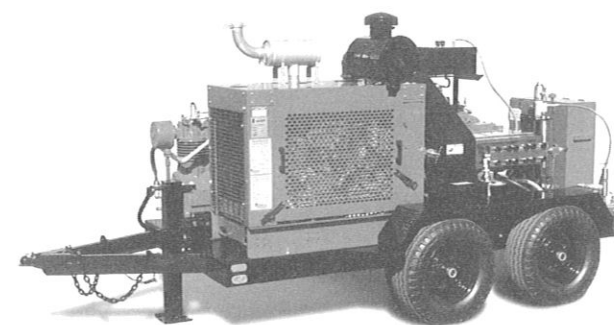


NLB 40250D
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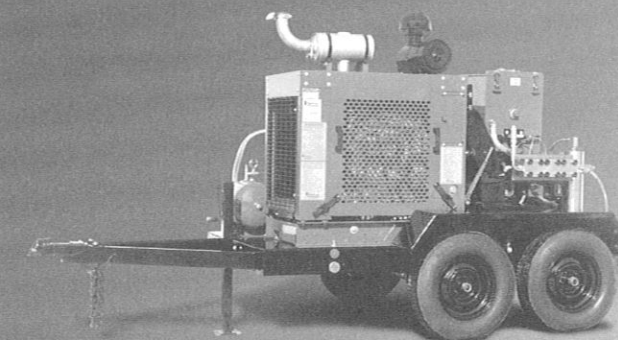


NLB 4030D
40,000 psi (2,800 bar), 1.5 gpm (5.7 lpm)

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NLB 40201D
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NLB 4075D
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(22-186 kw), all available with diesel or electric power.

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