



waterjetsupply.com

## Universal Minerals, Inc.

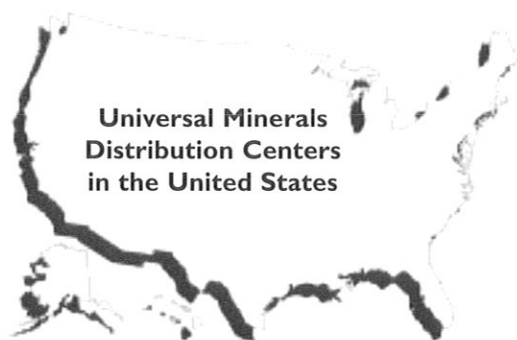
UMI's SHARPJET garnet is processed to exacting specifications, and is an excellent source of washed Almandite garnet. Our customers are very pleased with the performance of SHARPJET.

### PREMIUM WATER JET CUTTING GARNET

Available in these grit sizes:

Sharpjet

50    60    80    120    150



Universal Minerals  
Distribution Centers  
in the United States

- Phoenix, AZ
- Orlando, FL
- Tucson, AZ
- St. Paul, MN
- Baton Rouge, LA
- Worcester, MA
- Los Angeles, CA (Coming Soon)
- Houston, TX
- Detroit, MI
- Atlanta, GA
- Dallas, TX
- Albuquerque, NM
- Utica, NY
- Louisville, KY
- Chicago, IL
- Baltimore, MD
- Wichita, KS
- Philadelphia, PA

### WATER JET PARTS

UMI is an authorized stocking distributor for International Waterjet Parts, Inc (IWP). Our customers are extremely happy with the IWP product line. Now you can order abrasives, IWP parts, and various high pressure parts from our website.

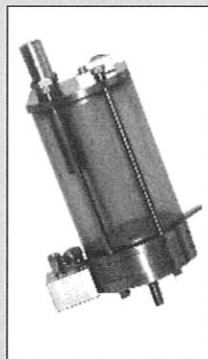
#### REPLACEMENT PARTS

Flow style                      Jet Edge style  
Ingersoll Rand style      Omax style

#### HIGH PRESSURE FITTINGS

#### ABRASIVE HOPPERS

Mini-Hopper      Bulk Abrasive Hoppers



Available in 6.5 cubic ft.  
(shown here)  
and 20 & 40 cubic ft.

**Pete Mitchell**  
Vice President of Sales  
Pager: 888.984.0325  
Fax: 972.259.3513  
Mobile: 214.695.1434  
email: pmitchell@  
universalminerals.com

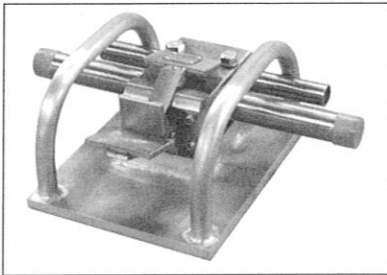
**Christa Olsen**  
Inside Sales Manager  
Phone: 520.748.0405 ext. 11  
Fax: 520.748.8503  
Mobile: 520.429.0262  
Toll Free: 800.528.7086 ext. 11  
email: christao@  
universalminerals.com

**Debbie Haro**  
Customer Sales & Service  
Phone: 520.748.0405 ext. 12  
Fax: 520.748.8503  
Toll Free: 800.528.7086 ext. 12  
email: debbieh@  
universalminerals.com

# New Equipment

## High-flow Foot Control Valve Enhances Safety

NLB Corp. has introduced a new high-pressure waterjet foot control valve designed for flows of up to 80 gpm (303 lpm). The FC10-800 is rated for pressures up to 10,000 psi (700 bar) and can be rebuilt in the field in under a minute.



High pressure waterjet foot control valve.

The FC10-800 features a unique pedal design that helps protect the operator in two ways. It includes a latch to prevent accidental actuation, and allows an operator to dump pressure almost instantly by rocking the pedal forward. Dump ports on both sides help the valve maintain stability when pressure is dumped. It is constructed exclusively of non-corrosive materials.

The FC10-800 also minimizes downtime, thanks to NLB's disposable cartridge seal, which can easily be removed and replaced in less than 60 seconds. The same quick-change cartridge is used in other NLB high-pressure foot control valves and lances, allowing users to minimize parts inventories.

NLB, a leader in high-pressure and ultra-high pressure waterjet technology, manufactures a full line of quality waterjetting systems and accessories for contractor and industrial uses. These include surface preparation, paint removal, tank cleaning, concrete hydrodemolition, concrete and pipe cutting, and more.

For more information, visit [www.nlbcorp.com](http://www.nlbcorp.com), or contact NLB Corp., 29830 Beck Road, Wixom, Michigan 48393-2824, phone: (248)624-5555, fax: (248)624-0908.

## WOMA Large Scale Tube Bundle Cleaner

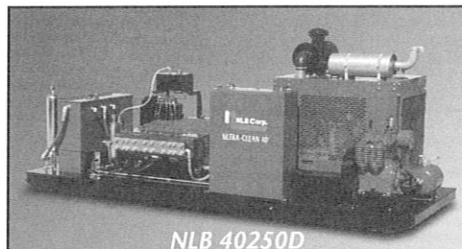
WOMA recently supplied one of its large-scale tube bundle cleaning systems. The system is designed to

clean large sized tube bundles and features five parallel high-pressure water lances for simultaneous cleaning. The system is mobile, of robust construction and easy to operate. All functions are hydraulically driven.

Advantages of the system include:

- High production rates
- Extremely safe in operation
- Low manpower requirements
- Semi-automatic operation

(New Equipment continued on page 13)



NLB 40250D



NLB 4030D

**Contractors around the world  
tell us our UHP pumps  
are the most reliable.**



NLB 40201D



NLB 4075D

ULTRA-CLEAN 40® pumps from NLB set the standard — ask anybody who uses one.

Even at 40,000 psi (2,800 bar), NLB's proven pump design minimizes wear, to keep your operating costs low. Choose from flows of 1 to 10 gpm (3.8-38 lpm), and engines of 30 to 250 hp (22-186 kw).

Connect an ULTRA-CLEAN 40®

pump to NLB's HydroPrep™ system, and watch your surface preparation (automated or manual) productivity improve. You can buy, lease or rent. And like our pumps, NLB's quality, warranty, training, and service are second to none.

Want to get the most for your money? Call NLB today, toll-free: **1-877-NLB-7989.**



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New Jersey: (856) 423-2211, Louisiana: (225) 622-1666  
e-mail: [nlbmktg@nlbusa.com](mailto:nlbmktg@nlbusa.com), website: [www.nlbcorp.com](http://www.nlbcorp.com)

# 2003 WJTA American Waterjet Conference

August 17-19, 2003

Adams Mark Hotel • Houston, Texas, USA

## Announcement and Call for Papers

Impressive progress and a fast-growing understanding of the diversified applications of waterjet technology are generating a growing excitement in the industry. New techniques and applications are being developed and current ones are being improved. Waterjet technology, now being used in nearly all types of industry — manufacturing, mining, construction, concrete, stone, aerospace, engineering, process, and medical industries — continues to expand at a rapid pace.

The **2003 WJTA American Waterjet Conference** will focus, from a practical and scientific viewpoint, on the most up-to-date industry advances in waterjetting equipment, techniques, and applications. The areas to be addressed include, but are not limited to:

- Abrasives, Water, and the Environment
- Advanced Industrial Applications
- Advances In High Pressure Technology
- Automotive and Aerospace Applications
- Cleaning and Coating Removal
- Components and Systems
- Construction and Non-Manufacturing Applications
- Contractor Applications and Processes
- Demilitarization, including Removal of Land Mines (demining)
- Drilling Applications
- Excavation, Tunneling, and Mining Applications
- High Pressure Equipment and Systems
- Jet Mechanics
- Jet-Material Interaction
- Manufacturing Processes
- Market and Future Needs
- Novel Jets and Applications
- Process Modeling and Control Studies
- Rock Cutting
- Safety, Training, and Environmental Protection

Commercial and academic authors are encouraged to submit titles and abstracts for consideration. To submit an abstract(s), please complete the abstract submission form on the back of this sheet, attach a copy of your abstract(s), and forward to the attention of the Conference Coordinator at the WaterJet Technology Association. **The deadline date for submission of abstracts is December 31, 2002.**

An Abstract Review Committee consisting of six referees will review the abstracts. Authors will be advised by **February 28, 2003**, regarding the decision of the Abstract Review Committee.

The 2003 WJTA American Waterjet Conference is organized by the **WaterJet Technology Association** and is endorsed by the **International Society of Water Jet Technology**. The WaterJet Technology Association looks forward to providing this forum and to your involvement and participation.

## Authors - Please Note

- Papers must be original. Papers must not have been published elsewhere or be pending publication.
- A nonrefundable publication fee of \$460 is required. **This publication fee will be waived if at least one author registers (Full or Combo) for the WJTA Conference.** Also, one registration is good for multiple papers. The deadline date for receipt of your final paper will be **April 18, 2003**. The publication fee or payment for a Full or Combo registration is due no later than **June 2, 2003**. Your paper will not be included in the *Proceedings* if the publication fee or registration fee is not paid by this date.
- Papers and presentations must be in English. Papers should be no longer than 15 printed pages. A "Paper Guide" containing directions for submitting papers will be forwarded to you after your abstract is accepted. Papers that do not follow the "Guide" will be returned to the author(s) for correction(s) or charged a fee for revisions made by the WaterJet Technology Association office.
- Papers should be free of commercialism.
- Papers should be submitted as a Word file and a PDF file. If an author cannot produce a PDF file, a fee may be charged to convert a Word file to a PDF file if the Word file requires significant reworking (e.g., page breaks, pictures moving).

## 2003 WJTA Conference Committee

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## 2003 WJTA American Waterjet Conference

August 17\*-19, 2003 • Adams Mark Hotel • Houston, Texas

### Abstract Submission Form

For each paper to be submitted for consideration, please complete this form, **attach a copy of the abstract**, and mail or fax to WJTA by **December 31, 2002**. Authors will be advised by **February 28, 2003**, regarding the decision of the Abstract Review Committee. Please mail or fax this form even if you email your abstract.

#### Paper Information

Paper Title \_\_\_\_\_

Authors \_\_\_\_\_

(First Name) (Surname/Family Name)

#### Contact Person

(Please print or type)

Name \_\_\_\_\_

(First Name)

(Surname/Family Name)

Position/Title \_\_\_\_\_

Company/Organization \_\_\_\_\_

Street Address \_\_\_\_\_

City, Province \_\_\_\_\_

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Zip/Postal Code \_\_\_\_\_

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Fax \_\_\_\_\_

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Please check the category that best describes the topic of your paper. ☐ Applications ☐ Research ☐ Contractor

Key words (Check the boxes under the different categories that apply to your paper):

#### Type of Study

- ☐ Modeling (theoretical)
- ☐ Experimental study
- ☐ Hardware development
- ☐ Contractor case study
- ☐ Manufacturing case study
- ☐ Software development
- ☐ Economic analysis
- ☐ Legal
- ☐ Other \_\_\_\_\_

#### Process

- ☐ Cutting
- ☐ Drilling
- ☐ Surface preparation
- ☐ Cleaning
- ☐ Stripping
- ☐ Safety
- ☐ Milling
- ☐ Jet-assisted
- ☐ Other \_\_\_\_\_

#### Related Industry

- ☐ Generic
- ☐ Shipyard
- ☐ Mining
- ☐ Construction
- ☐ Aerospace/Aircraft
- ☐ Automotive
- ☐ Oil/Gas/Refinery
- ☐ Quarrying
- ☐ Other \_\_\_\_\_

#### Jets

- ☐ Waterjet
- ☐ Abrasive-waterjet
- ☐ Abrasive suspension jet
- ☐ Pulsed
- ☐ Cavitation
- ☐ Polymer Jets
- ☐ Other \_\_\_\_\_

#### Material

- ☐ Metal
- ☐ Rock
- ☐ Glass
- ☐ Ceramic
- ☐ Composite
- ☐ Concrete
- ☐ Other \_\_\_\_\_

#### Environment

- ☐ Field work
- ☐ Factory work
- ☐ Submerged
- ☐ Nuclear
- ☐ Demilitarization
- ☐ Offshore
- ☐ Other \_\_\_\_\_

\*August 17 is reserved for the Waterjet Short Courses on Field and Factory Applications and the Surface Preparation Course.

Mail completed form and abstract, **NO LATER THAN DECEMBER 31, 2002**, to: Conference Coordinator, 2003 WJTA American Waterjet Conference, WaterJet Technology Association, 917 Locust Street, Suite 1100, St. Louis, MO 63101-1419, USA, telephone: (314)241-1445, fax: (314)241-1449, email: [wjta@wjta.org](mailto:wjta@wjta.org), web site: [www.wjta.org](http://www.wjta.org)

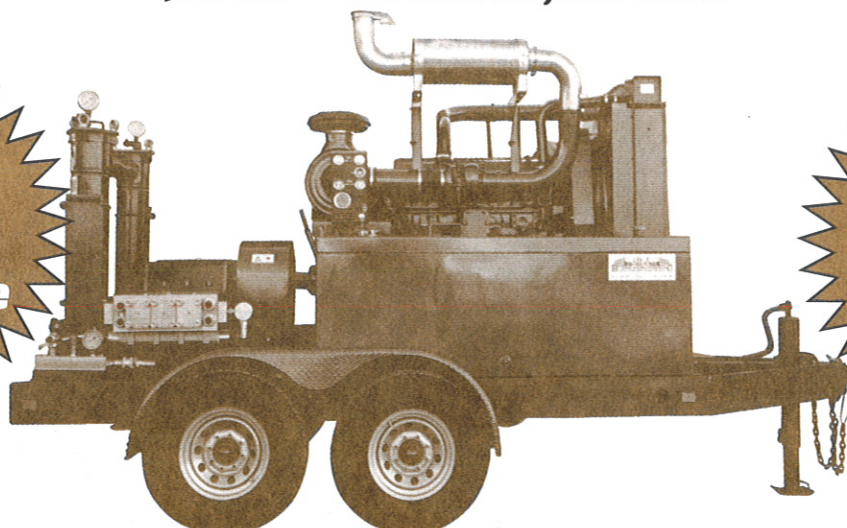




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Available**



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Designs?  
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Problem!**

### **BEST WARRANTY AVAILABLE**

**3 YEARS/ 3000 HOURS • 1000 HOURS ON WEAR ITEMS**

### **TOW WITH ANY 1-TON**

**NO SPECIAL VEHICLES NEEDED**

### **LOW COST MOBILIZATION**

**BETWEEN BRANCHES & JOB SITES**

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#### **PLUNGER**

1.024 IN  
1.102 IN  
1.181 IN  
1.378 IN  
1.575 IN  
1.772 IN  
1.969 IN  
2.165 IN

#### **PRESSURE**

20,000 PSI  
17,271 PSI  
15,045 PSI  
11,053 PSI  
8,463 PSI  
6,687 PSI  
5,416 PSI  
4,476 PSI

#### **FLOW RATE**

28.45 GPM  
33.00 GPM  
37.88 GPM  
51.56 GPM  
67.34 GPM  
85.23 GPM  
105.22 GPM  
127.32 GPM

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14706 Park Alameda • Houston, Texas • 77047

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[www.hydroengineeringinc.com](http://www.hydroengineeringinc.com)    [info@hydroengineeringinc.com](mailto:info@hydroengineeringinc.com)



Some of the technical advantages of purchasing your UHP unit from Hydro-Engineering Inc. are: we offer the best warranties, the fastest deliveries, and the best after-sales support in the industry.

## Warranty

**Completed Bare-shaft Pump:** 3-years, or 3,000 hours, less wear items. That is 300% longer than any available warranty in the industry.

**Wear items:** 500-hour guarantee on all wear items in our fluid end. That includes, but is not limited to, the packing, plungers, valves, support rings, etc. There is no other water-jetting manufacturer that will extend this warranty to you in writing. In fact, no other manufacturer will guarantee any wear items at all in their fluid ends. You can expect between 5 and 250 hours of life on these same wear parts with any other manufacturer. What does this mean to you? You can expect our operating cost to be at least 50% less than that of any other manufacturer, at 40,000 PSI.

**Engine:** 2-years or 2,000 hours.

## Fastest Delivery

**Pumps:** Stock to 3-weeks.

**Units:** 2-6 weeks.

**Accessories and spares:** 1-year spare parts kit guaranteed at HEI-Houston, and 250 spare part-stock-inning offices around the world, for additional support.

## Service and Support

**Before the sale:** Enjoy the use of a similar unit prior to making your final decision to purchase. In other words, take our unit and use it for a full two weeks. If you decide to

make a purchase, there will be no charge. If you decide not to make a purchase of a new machine, you simply pay for the freight and wear items... No questions asked!

**During the sale:** In the unlikely event that HEI is unable to deliver your new unit when promised, you will enjoy the free use of one of our demonstration units until such time as your new unit arrives...Guaranteed!

**After the sale:** HEI guarantees that a full years worth of spare parts will remain in our stock at all times, insuring your continued operation. Further, if you experience any down-time during the warranty period, and we cannot solve your problem via phone or technician visit, HEI will mobilize a demo unit, free of charge, to your job location, until such time as we can determine and remedy the cause of your down-time.



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WATER-JETTING APPLICATIONS SPECIALISTS  
ULTRA-HIGH PRESSURE WATER JETTING EQUIPMENT

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**WE OFFER WHAT NO ONE ELSE CAN!**  
**40,000 PSI to 26 GPM**  
**BEST WARRANTY IN THE BUSINESS!**  
**2 YEARS OR 2000 HOURS**  
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**500 HOURS GUARANTEED**  
**ON ALL FLUID END WEAR ITEMS**

**180M-40 40K PSI at 7 GPM**  
**325M-40 40K PSI at 13 GPM**  
**Pumps and Units Available with Pressures to 40,000 PSI, Flow Rates to 520 GPM, Rated for up to 1,200 HP**

**Air Rotary Guns** **VacuJet-40HM** **VacuCrawler-40** **VacuJet-40HH**  
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