



SOLUTIONS



THE SUPERIOR METHOD FOR CONCRETE REPAIR AND REMOVAL

Hydrodemolition is an efficient, cost-effective, and safe method that utilizes high-pressure water to remove loose, deteriorated, and damaged concrete on roadways, bridges, tunnels, dams, parking structures, and power plants. High-pressure water blasting tools allow the concrete to be removed while maintaining structural integrity and preserving the rebar in the process. Hydrodemolition is a more productive and more precise concrete removal method for many repair applications compared to traditional jackhammering, rotomilling, and other percussive methods and leaves a highly bondable surface, ready for fresh concrete.

A LEADER IN WATER BLASTING SOLUTIONS

Jetstream of Houston provides a range of hydrodemolition solutions for partial or full-depth concrete removal, membrane removal, and concrete scarification. The durable and rugged tools and equipment provide an excellent bonding surface for repair material and new coating applications. Product offerings include a complete line of skid-and-trailer-mounted units, pumps, control guns, valves, hoses, replacement parts, nozzles, safety equipment, and PPE, as well as rentals of automated robotic hydrodemolition tools from the leading manufacturer AquaJet® Systems.

TO PROTECT AND PRESERVE

Hydrodemolition offers many advantages compared to traditional methods of concrete removal. It allows concrete to be removed to very precise depths and creates a uniform surface. It also preserves reinforcement bars and does not introduce impact and vibration into a structure the way using a jackhammer would. Environmental benefits include eliminating dust and noise pollution and recycling water for future projects.

- INCREASES PRODUCTIVITY
- REDUCES LABOR
- ELIMINATES SILICA DUST
- REMOVES INFERIOR CONCRETE
- COLLECTS AND RECYCLES WATER
- VERSATILE APPLICATIONS

- NO MICRO-FRACTURES
- MINIMIZES RISK OF INJURY
- LIMITED NOISE POLLUTION
- LEAVES REBAR CLEAN AND UNDAMAGED
- WASHES AWAY ENTRAINED CHLORIDES
- HIGH-QUALITY BONDING SURFACE

2 COMPANY OVERVIEW
HYDRODEMOLITION BENEFITS 3



HOW WORK GETS DONE

Jetstream's rugged high-pressure water blasting units have been trusted for over 45 years to handle the toughest jobs in the most challenging environments. Combining performance and reliability, with ease-of-use and simple maintenance; each system is designed to provide operators with the most productive and versatile water-blast systems on the market today.

Jetstream water blasters are available in a wide selection of standard models with nearly limitless options for customization to suit specific needs. All Jetstream water blasters employ UNx[™] Bareshaft Pump and Fluid End technology for superior performance, greater flexibility in the field, and reduced downtime and maintenance.

CUSTOM UNITS

In addition to our range of standard units and options, close collaboration between Jetstream solutions providers and engineers provide almost unlimited custom options to meet specialized needs. Common requests include:

- Custom trailers and skids
- Special control devices (pneumatic, electronic, hydraulic)
- Customizable to meet special plant requirements, Jetstream can build the perfect unit for any job

WATER BLASTING EQUIPMENT THAT'S EASY TO USE, CONVERT, AND RENT

With a comprehensive range of units available, Jetstream's rental program is designed to provide you with access to premium equipment on your terms. Renting is the most cost-effective way to acquire a piece of equipment without incurring all the hidden costs that are attached to the purchase of equipment. Renting also allows you to "try before you buy," and we offer a rent-to-own program that allows you to apply a portion of the water blast rental fees to your down payment. The bottom line is – if we have it, we rent it.

You can pick up the unit(s) you need, or we can deliver it right to your job site. Our rentals are ready to work the second they arrive at your job site and are backed up by our world-class customer support team and highly trained technicians who are committed to the success of your project.

PREPARING YOU TO SUCCEED

To ensure customer satisfaction, Jetstream has developed the Right Start program, a four-step plan designed to provide the owners and operators of new Jetstream waterblast units with the knowledge and support needed to feel familiar, confident, and satisfied with Jetstream equipment and personnel. Moreover, we offer a series of extensive water blast safety and skills training from our certified trainers designed to teach the latest in compliance, safety, and industry technologies. Training can be customized to fit your company's unique needs and conveniently held on-site or at our facilities.

4 WATER BLAST UNITS 5



The X-Series diesel water blasters provide a powerful combination of high horsepower and versatility on a heavy-duty unit to deliver increased productivity and performance to various job sites. The sophisticated technology and simplistic design of the UNx[™] Fluid End system streamlines maintenance and allows for fast, in-the-field conversions. Operating pressures can be changed from 5,000 to 40,000 psi (350 to 2750 bar) in a matter of minutes.

KEY BENEFITS

- Guardian™ Waterblast Filtration System extends component life and increases uptime with built-in filtration
- Available as a skid or low profile trailer with balanced weight distribution for stable towing

PERFORMANCE SPECIFICATIONS

- Maximum Power: 400 hp (298 kW)
- Maximum Operating Pressure: 40,000 psi (2758 bar)
- Minimum Operating Pressure: 5,000 psi (350 bar)

COMMON CONFIGURATIONS

ENGINE/MOTOR MFG. (SPECIFY IF TIER 4 FINAL OR INTERIM)	MOTOR/ENG	SINE POWER	DIMENSIONS (L X W X H) (IN)	TOTAL WEIGHT (EMPTY)	
	hp	kW		lb	kg
John Deere 4.5L T4F (Skid)	415	309	211 x 97 x 91	10,150	4,604
John Deere 4.5L T4F (Trailer)	400	298	211 x 97 x 97.5	10,150	4,604
John Deere 9L T4F (Trailer)	326	243	211 x 97 x 86	8,685	3,939
Cummins QSB6.7 T4 (Trailer)	325	242	211 x 97 x 97.5	10,800	4,892
John Deere	173	129	197 x 90 x 98	7,150	3,243
Cummins QSL9	173	129	150 x 73 x 77	6,500	2,945

^{*}Weights and dimensions shown are for reference only and actuals will vary based on configuration.

**Standard on all X5200 series models and models equipped with 40,000 PSI fluid end.

TWINFORCE

The TwinForce[™] Series was engineered to outperform other high-flow units by providing a multi-functional product, utilizing two water blasting units on a single trailer. Like all Jetstream waterblast systems, the TwinForce™ Series is built around the UNx[™] Fluid End for unmatched versatility and simplified maintenance.

A TwinForce™ Unit can function as a large capacity 650 hp or 800 hp dual unit, a single 325 hp or 400 hp unit with the second unit as a back-up, or as two independent units running at different pressures. The versatility is endless and provides the flexibility to handle any application.

KEY BENEFITS

- Jetstream UNx™ Fluid End
- Operating pressure conversions can be performed within minutes
- Two complete units with three functional options
- Multiple flow rates for high capacity applications
- Dual 200 gpm filtration stainless steel filters (two for each unit)

PERFORMANCE SPECIFICATIONS

- Maximum Power: 800 hp (597 kW)
- Maximum Operating Pressure: 40,000 psi (2758 bar)
- Minimum Operating Pressure: 8,000 psi (551 bar)

ENGINE/MOTOR MFG. (SPECIFY IF TIER 4 FINAL OR INTERIM)	MOTOR/ENGINE POWER		DIMENSIONS (L X W X H) (IN)	TOTAL WEIGHT (EMPTY)	
	hp	kW		lb	kg
Cummins QSL9	415	309	391 x 101 x 108	27,755	12,589
John Deere 9L T4F	325	242	391 x 101 x 114	27,755	12,589



TWINFORCE 7 6 X SERIES

NOTE: John Deere and Cummins are trademarked and/or registered tradenames of their respective companies. Jetstream disclaims any and all rights to these marks.



CUTTING EDGE HYDRODEMOLITION

AquaJet Systems AB is a global leader in the design and manufacture of versatile hydrodemolition equipment. Their automated robots feature many design innovations including the EDS efficient cutting head, which keeps the set distance from the nozzle to the surface regardless of the selected lance angle for energy savings and optimized removal rates. One of the most important features is the patented ISC, Intelligent Sensing Control, which requires no electrical cables or sensors in the front, eliminating the risk of malfunction due to moisture. The operator's panel uses clear, simple symbols. Wireless remote control is standard for all models for increased operator safety.

AQUA CUTTER 710H

FOR HORIZONTAL OPERATIONS

The 710H model is suitable for efficient concrete removal on all horizontal slab areas, where the front powerhead can move sideways to pass obstacles as well as tilt sideways to compensate for surface inclinations. To ensure removal of concrete in corners, the front power head has removable side covers. The front powerhead can be hydraulically tilted 90-degree upwards for easy inspection of the worked area. The robotic tool can selectively remove concrete to a pre-set level.

The 710H can operate with most accessories, including wireless radio control, Rotolance 400 to 2500, the single or double nozzle lance system, and the 13 ft (4 m) operation-wide system.



AQUA CUTTER 710V

FOR HORIZONTAL, VERTICAL OR OVERHEAD

The 710V robot is an extremely versatile hydrodemolition unit suitable for operations that require horizontal, vertical, or overhead concrete work. The flexibility allows the unique 3-D positioning of the front powerhead to give the operator full freedom to efficiently reach all areas, such as vertical operations along the surface, horizontal areas against the surface, or in confined areas due to its compact and maneuverable design. The removable side covers on the front ensure concrete removal into corners.

The vertical and overhead operation height is controlled by a hydraulically powered steel mast that raises in sections. Therefore, the robot does not carry any towers or protruding arms. The mast can operate at heights up 7 meters without support, and even more with support.

The 710V can operate with most accessories, including wireless radio control, Rotolance 400 to 2500, the single or double nozzle lance system, and the 13 ft (4 m) operation-wide system.



SMALL BUT MIGHTY

HYDRODEMOLITION ROBOTS FOR TUNNEL OPERATIONS

THE AQUA CUTTER 410 IS SPECIALLY DESIGNED FOR APPLICATIONS IN CONFINED AREAS AND TO REPLACE HAND LANCE WORK. ITS SMALL SIZE AND LOW WEIGHT ALLOW THE ROBOT TO EASILY PASS THROUGH NARROW PASSAGES, SUCH AS DOORFRAMES OR OPERATE FROM SCAFFOLDINGS. IT'S SMALL, COMPACT AND SUITABLE FOR ALL KINDS OF OPERATIONS. IN OTHER WORDS, YOU'LL GET PERFECT RESULTS EVERY TIME, WHEREVER YOU WORK, ESPECIALLY IN TIGHT SPACES.

AQUA CUTTER 410V

THE SKY'S THE LIMIT

The 410V is the world's most smallest and most flexible hydrodemolition robot, offering increased versatility for working in confined areas such as concrete sewer pipes. Equipped with the tunnel kit, this is ideal for applications such as the rehabilitation of concrete or steel sewer pipes in urban locations, small tunnels, and inside buildings with restricted space. The tunnel kit's advantages include automatic detection and adjustment of the distance to the tunnel surface, making it easy to operate in uneven or oval-shaped tunnels. The 410V is programmable to operate from a selected "zero point" and 0-360 degrees on the circumference.

TWO IN ONE

The Power Control Module (PCM) can be disconnected from the tracked crawler. This allows operators to drive the crawler into tight and inhospitable environments, such as small tunnels and flooded sewer pipes. You can operate the crawler from a safe distance by radio remote control. In such situations, the PCN is connected to the crawler by a cord, ensuring complete control of the robot in horizontal, vertical, and overhead operations.



AQUA GUTTER 410A

THE SMALL GIANT

MEET THE WORLD'S SMALLEST STANDARD MANUFACTURED ROBOT FOR HYDRODEMOLITION AND INDUSTRIAL CLEANING - THE AQUA CUTTER 410A

The AQUA CUTTER 410A features a hydraulic and articulated arm, with two rotating joints and three extensions, which can reach as far as 9.8 ft (3 m). This makes the robot agile, powerful, and very easy to position. The 5 ft (1.5 m) front shroud is rubber lined for noise reduction and to function as a splash guard. It has removable side covers for better access in corners (between horizontal and vertical surfaces). The 410A can operate with several tools, including multiple nozzle UHP rotors. Another tool is a single nozzle lance featuring an adjustable lance angle with high-performance oscillation and an easy adjustable pendulum, to ensure an



PAVING THE WAY FOR THE NEW ERA OF HYDRODEMOLITION EQUIPMENT

Despite its small stature, the Aqua Cutter 410A comes in two models - Classic and Evolution. The Evolution is packed with innovation and design to create a more precise and safe hydrodemolition experience. The Evolution models feature:

- UNLIMITED FREE SETTING OF PROGRAMS, ALL PARAMETERS ARE EASILY SELECTED AND ADJUSTED ON THE TFT GRAPHIC COLOR DISPLAY
- PROGRAMMING FOR DIFFERENT REMOVAL DEPTHS IN THE SAME OVERPASS
- ABILITY TO PERFORM GEOMETRICAL PATCHES SUCH AS CIRCLES, PARALLELOGRAMS, SQUARES AND TRIANGLES
- THE OPERATOR CAN SAVE THE PROGRAM SETTINGS AND VIEW PRODUCTION DATA
- CALCULATES AND DISPLAYS THE REMOVAL AREA IN SQUARE FT/HOUR FROM THE CURRENT SETTINGS, AND VERIFY THE ACTUAL REMOVED AREA

10 AQUA CUTTER ROBOTS 11

TOOLS AND ACCESSORIES

EVERYTHING YOU NEED TO SUCCEED

Jetstream offers a range of water blasting units suited for hydrodemolition applications. This, coupled with our range of hydrodemolition tools and accessories, ensures you are equipped with the complete package.



ROTOLANCE 2500

The Rotolance attachment is a powerful tool for cleaning, light removal and preparatory work to roughening concrete surfaces. It removes rubber coatings, paint and various kinds of layers such as rust and plastic – without vibrations and dust pollutions. The device comes in two models, the Rotolance 1000 and the Rotolance 2500, both of which can cover a surface diameter up to 14 inches wide.

KEY FEATURES:

- · Computer-controlled movements
- Operates with 2 or 4 nozzles
- Full working width in the powerhead
- · Gradually adjusting the rotation speed
- Replaceable wear shiled to protect the rotor
- Leaves a superior rough bonding surface for new a coating

DURASAFE™ HAND GUN

Durasafe[™] 20,000 psi hand-operated dump-style control guns allow the operator to have complete control of the pressure at all times. Designed with safety, comfort, and simplicity in mind, they are used for a variety of concrete prep, scarification, and hydrodemolition applications.

KEY FEATURES:

- 30 second field-replaceable cartridge for minimal downtime
- · 48-inch (1219 mm) distance from primary trigger to end of barrel to ensure operator safety (custom lengths available)
- · Optionally equipped with fully adjustable body pad for maximum operator comfort in any position



FXG2 TORNADO GUN

The Jetstream FXG2 Tornado gun provides the maximum level of productivity and safety in high-pressure applications up to 40,000 psi (2757 bar). The air-powered rotation of the barrel allows the nozzle to spin to maintain maximum cleaning power for prepping concrete and other large surfaces for re-facing.

KEY FEATURES:

- Four FX nozzle head options available for fine tuning the blast for various applications
- UHPxD tetraCORE[™] diamond nozzles provide up to 10 times longer life than sapphire nozzles
- The barrel is supported with three greaseless bushings for smoother running without maintenance

DECK BLASTER

The Jetstream deck blaster efficiently scarifies concrete and asphalt. The self-powered rotation and drive provide consistent and effective operation from 15,000 psi (1034 bar) to 40,000 psi (2750 bar). It has a minimum 14-inch (350 mm) cleaning path with an 8 nozzle jet head. Deck blasters are available with or without direct vacuuming capabilities.

KEY FEATURES:

- Lightweight, easy-to-transport tool that easily connects to any 40,000 psi (2750 bar)
- Capable of cleaning 500 1,500 square feet/hr (46.5 139.4 square meters/hr) with simultaneous vacuum recovery (requires 800 cfm)
- Supports blasting widths from 6" (15.2 cm) to 14" (35.5 cm)

ORBI-JET™ X22

The Jetstream Orbi-Jet[™] self-rotating nozzle utilizes up to four jets to clean, remove thick, hard-to-remove materials, and prepare large surface areas for the application of a new coating. The surface cleaning nozzle rotates in multiple 360-degree patterns to provide maximum surface coverage and superior cleaning.

KEY FEATURES:

- Rated up to 22,000 psi
- Each of the four jets follow a different cleaning path to provide greater surface coverage and less streaking than a fan-tip or single straight nozzle
- Rebuilt kit allows for easy overhaul of wear components in minutes by using just two field wrenches

MAG-JET™ X40

The Jetstream MagJet[™] X40 is a rugged, self-powered, rotating tool utilizing up to four straight-pattern, hard-hitting, replaceable sapphire nozzles, rated up to 43,500 psi. The tool rotates in a 360° pattern to provide maximum surface coverage and superior cleaning.

KEY FEATURES:

- Rated up to 43,500 psi
- Multiple head assemblies are available so that the desired rotation speed can be maintained across a wide range of flow rates
- Rebuild kit allows five minute complete overhaul of wear components right in the field







12 TOOLS AND ACCESSORIES 13

WATER BLASTING PROTECTION

ADVANCED PROTECTIVE EQUIPMENT FOR WATERJETTING

Jetstream understands the importance of conducting a safe environment when working in any high pressure waterblasting application. From personal protective equipment (PPE) to caution tape and signage, Jetstream provides a complete line of safety products to ensure a well protected jobsite and operator safety.



TST® WATERJET PROTECTION

Jetstream is a proud distributor of TST Sweden, a leading manufacture of protective clothing for water blasting up to 43,500 psi. Their products are made with lightweight and flexible Dyneema® – the world's strongest fiber – for maximum protection without compromising comfort and quality. TST products range includes the popular Gamma kit, Delta Kit, Sigma kit as well as Jacket, Trousers, Apron, Hand Protections, Gaiters, Shroud, and Curtain.



TST JACKET

The TST Jacket with Hand Protection provides full chest protection as well as areas around the neck and shoulders. Ideally combined with Trousers and Gaitors for maximum protection.

- Includes integrated Hand Protection
- · Optional regulated ventilation
- Proven protection up to 43,500 psi



TST TROUSERS 20/30

The Trousers are fitted with full front protection up to the waist. The zips on the outside of the legs are protected by a sealing flap and a hook&loops flap. Wide, adjustable braces in stretch material. Elastic part in the rear waist and a belt which helps to distribute weight and improves the comfort.

- Available with Ventilation
- Proven protection up to 43,500 psi

SAFETY ACCESSORIES



GAITORS 20/30

The Gaiters are to be worn outside of the operators regular protective boots. The entire area round the leg and the foot is protected. Three clips and hooks and loops in the rear, and an easily adjustable strap under the sole, ensures that the Gaiters stay in place.

- · Come only in 20/30 protection level
- Made of either aluminum or Dyneema

SONETICS® APEX WIRELESS HEADSET

Sonetics APEX wireless headsets connects you to team members in full-duplex conversation, just like a conference call. No delays, no buttons to push and no clipping or interference.

- · Multi-channel capability lets multiple teams operate simultaneously in the same work area
- Noise cancelling and auto-leveling microphones ensure you are heard clearly as you move from low- to high-noise areas
- Stereo Listen-Through situational awareness lets you hear your surroundings and have face-to-face conversations while protected from dangerous noise levels
- Sonetics® Charging Case available for 5-Users or 10-Users





12 SAFETY APPAREL SAFETY ACCESSORIES 13



Streator, IL (815) 672-6028

Toledo, OH (888) 415-7368

New Brunswick, NJ (732) 448-7830

Highland, IN (219) 924-3180

Lexington, SC (803) 996-0741

Leeds, AL (800) 822-8785

Williston, ND (701) 572-7421

La Porte, TX (281) 674-8668

Gonzales, LA (225) 647-0660

Midland, TX (432) 563-4450

Salt Lake City, UT (801) 808-4590

Long Beach, CA (866) 515-9891

Lakewood, WA (253) 584-0653

JETSTREAM OF HOUSTON

5905 THOMAS ROAD HOUSTON, TEXAS 77041

(832) 590-1300

(800) 231-8192

Jetstream has the most comprehensive products, service, rental, and training in the industry. Whether you are looking to purchase or rent water blasting equipment, or if you need service and support for your existing equipment, we've got you covered with the most experienced and customer-focused team in the industry.

In the United States, our products are serviced by FS Solutions. With 13 convenient locations, FS Solutions provides high-performance parts and accessories, Jetstream rentals, repair and rebuild, and safety training services. In Canada, Joe Johnson Equipment (JJE) is there to handle your every need.

Jetstream is a subsidiary of Federal Signal Corporation and has the financial strength, backing, and network of distributors around the world to support any customer.



