

AQUAJET magazine

No. 1 2025

HYDRODEMOLITION NEWS

AQUA RAIL SYSTEMS

THE MULTI-MODULAR SYSTEM FOR ANY PROJECT

IN-HOUSE INSIGHTS

MEET THE CHIEF ENGINEER >>

BAUMA EXCLUSIVE

AQUAJET LAUNCHES NEW SERIES OF HYDRODEMOLITION ROBOTS

BEHIND THE BRAND

Dear Readers,

At Aquajet, innovation drives us forward as we continue to refine and expand the possibilities of hydrodemolition.

This year at Bauma, we are taking a bold step by launching not just one, but two brand-new robots—introducing a new era of power, precision, and versatility. In addition, we are proud to present the latest advancements with our Aqua Rail systems, pushing the boundaries of efficiency and adaptability.

As hydrodemolition projects grow in complexity, we remain committed to providing cutting-edge solutions that enhance safety, sustainability, and productivity. Our in-house development and engineering expertise allow us to stay ahead, delivering groundbreaking technology that meets the needs of tomorrow.

With the support of our global partners and customers, we are shaping the future of hydrodemolition together. We are not just following industry trends—we are setting them.

Thank you for joining us on this journey!

Best regards,



Roger Simonsson
CEO, Aquajet Systems AB

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SCAN ME

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One minute with...

Meet the brain behind most of Aquajet's innovations, our very own Design and Development Manager — Ronnie Hilmersson.

What's your role at Aquajet, and what does your day-to-day look like?

I'm the Design and development manager. My main task is "connecting the dots", to analyze and filter all ideas, wishes and impressions into something realistic that will work for a wide range of users.

How long have you worked at Aquajet?
Since 1999.

What's your favorite part of the job?

To be a part of the creation of new products all the way from the idea to the finalized product. To be a part of marketing the products and to see them being used - and abused - by skilled operators. It is very inspiring that our products are 100% developed and manufactured by us and that we have full control of how they will look like, function and feel. To be able to listen to feedback from the field and to come up with solutions that will improve the efficiency and the everyday life for our friends out there.

What's the most exciting project you've worked on?

One of the most exciting projects was the development of the Infinity system



that started with an intention to get less "pipe holes" in the cut surface. During the research for this project, several new side effects were discovered, for example a significant increase in efficiency. This project also involved a lot of technical engineering together with software to control it.

If you had to describe your job in three words, what would they be?

Challenging, devastating, wonderful.

Finally, if your job were a movie, what would the title be?

Ironman...

Aquajet **RELEASES** a brand new hydrodemolition robot series



“

After launching the Aqua Cutter 750V and our game-changing Infinity oscillation system, the natural next step was to offer a more compact version,” said Roger Simonsson, Managing Director of Aquajet. “Our customers asked for a smaller alternative without compromising on efficiency — so we delivered. The 450 series is perfect for projects where size and agility are crucial, but performance remains a top priority.

”

Aquajet is set to revolutionize the industry once again with the launch of not one, but two groundbreaking robots at this year’s Bauma exhibition. Introducing the Aqua Cutter 450A and Aqua Cutter 450V—compact, powerful, and highly versatile additions to Aquajet’s renowned lineup.

The new electric 450 series brings the power and innovation of Aquajet to a more compact, maneuverable design. As smaller siblings to the Aqua Cutter 750V, these models incorporate the advanced Evolution 3.0 control system, the patented Infinity oscillation system, and an array of other cutting-edge features. Despite their reduced size, they can handle reaction forces up to 1600N, making them highly effective in confined spaces without compromising performance.

Like all Aqua Cutter robots, the 450A and 450V efficiently clean and descale rebar without causing microfractures, ensuring structural integrity. They also deliver

exceptional reach in horizontal, vertical, and overhead applications, making them ideal for a wide range of hydrodemolition projects.

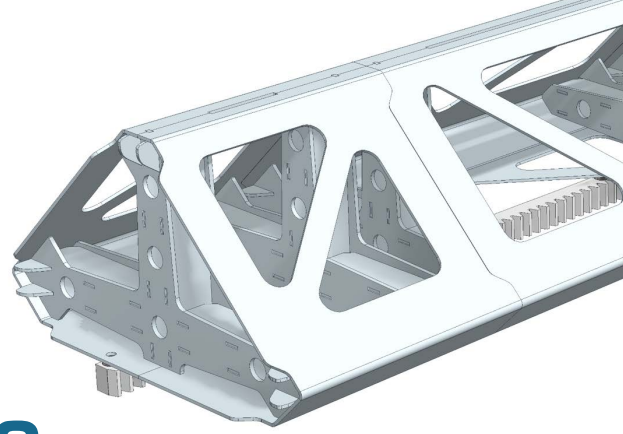
Meeting demand for compact power

Both robots in the 450 series are electric-powered, making them ideal for urban Hydrodemolition projects and other environments where zero emissions are required. They also feature a detachable Power Control Module (PCM), allowing the PCM and the robot’s tracked crawler to operate separately. This enables the PCM to remain in a safe location while the crawler — remotely controlled via radio —

navigates confined or hazardous spaces such as narrow tunnels or flooded sewer pipes.

Seamless compatibility

The 450 series is fully compatible with the Aqua Spine 3.0 solutions in Aquajet’s new Aqua Rail system, as well as a range of attachments and high-pressure pumps, including the Ecosilence. The robots also integrate seamlessly with Aquajet’s Ecoclear wastewater treatment system, a fully automated solution that allows on-site water treatment and recirculation, ensuring environmentally responsible operations.



AQUA RAIL SYSTEMS 3.0

A system built for flexibility and configurability

The Aqua Rail Systems 3.0 is more than just a rail—it's a multi-modular system designed to make it easier to deploy Hydrodemolition work in even the toughest environments.

It's a system designed for configurability, which allows contractors to purchase a system tailored specifically to their project needs, ensuring the right configuration for each job.

The Rail

The Aqua Spine rail is lightweight and easy to handle, weighing just 39 kg (86 lbs) per 2-meter section. Its modular design allows for infinitely long rail setups using traversable mounts and brackets. Assembly is simple, requiring just one M20x170 screw per section, and its puzzle-like design ensures strong and seamless connections.

When using the Ergo Climbers, they easily attach to various scaffolding setups. The system features traversable joints, allowing the climbers to move smoothly over both standard and curved scaffolding pipes

without obstruction. This design enables the construction of infinitely long frames, ensuring maximum flexibility. All components are specifically designed to integrate seamlessly with standard scaffolding pipes for a reliable and efficient setup.

Reaction forces

The system can handle different reaction forces, varying between 1000 - 3000 N, depending on the chosen robot or rail system configuration. Each setup ensures optimal performance based on project requirements and support system selection.

Compatibility

The Aqua Rail System 3.0 is highly flexible and can be configured to suit different projects. It is powered by a Power Control Unit, compatible with Aqua Cutter 3.0 models or the Ergo Controller. Choose between the Aqua Spine 3.0 or the Ergo Climber 3.0 as Rail system. Depending on the rail system, select a power head, such as the Infinity Power Head, Rotolance, Circular Power Head, or Ergo options. For

stability, combine Heavy, Light, or Scaffolding support systems to match the job site requirements.

Reusability and scalability

The true value of the Aqua Rail System lies in its reusability and scalability. If a future project requires different specifications, the system can be reconfigured or expanded with additional components. This flexibility reduces the need for entirely new setups, saving both time and resources, while keeping contractors prepared for any challenge that comes their way.

This is one of Aqua Rail Systems 3.0 strengths, the fact that the system can be powered by and built in multiple different ways and combinations. Contractors can easily change power source or adjust the support legs to exact heights or angles, ensuring stability and optimal positioning for their hydrodemolition project, regardless of the surface or environment.

Make it **YOUR** Aqua Rail

Easily mix and match components to create the perfect setup for your project.

1

Power options

To power the system you need a Power Control unit.

- Aqua Cutter 750V
- Aqua Cutter 450A
- Aqua Cutter 450V
- Aqua Cutter PCM 450
- Ergo Controller

2

Aqua Rail System 3.0

Depending on project, you need to choose the right Aqua Rail system:

- Aqua Spine 3.0
- Ergo Climber 3.0

3

Power Heads

Depending on which Aqua Rail system you've chosen, there's many Power Heads and solutions to choose from.

- Infinity Power Head 750
- Infinity Power Head 450
- Rotolance 3.0
- Circular Power Head
- Ergo Power Head
- Ergo Rotolance

4

Support Systems

Choosing the right Support System comes down to the reaction force and what other equipment you've chosen. But all Support Systems can be combined.

- Support System Heavy
- Support System Light
- Support System Scaffolding

How the Aqua Rail System can work for you

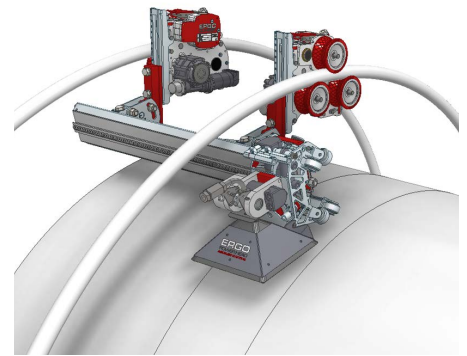
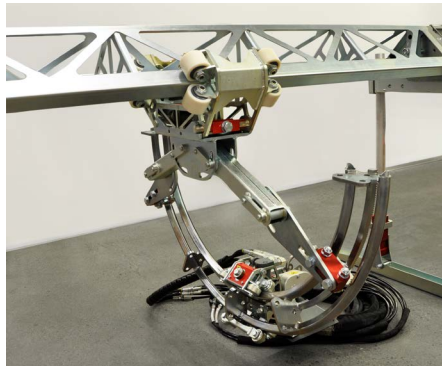
The Aqua Rail Systems 3.0 is a complete multi-modular solution and the different setups and combinations possible are basically endless.

Flat surface setups

Hydrodemolition work on flat surfaces, such as a wall, roof, under a bridge or similar, can easily be done with either the Aqua Spine or Ergo climber solution. It all depends on what type of flat surface work has to be done.

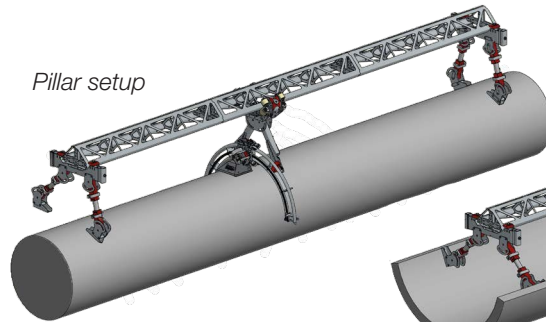
Circular or curved setups

For circular hydrodemolition projects, such as pillars and tunnels, there are several setup options. You can use the Aqua Spine or Ergo Climbers as a base, combined with the Circular Power Head for pillars and columns or a Centralizer, which is specifically designed for work inside pipes and tunnels. For curved or circular surfaces, a curved roller beam or curved scaffolding pipes provide additional flexibility, ensuring precise and efficient operation.

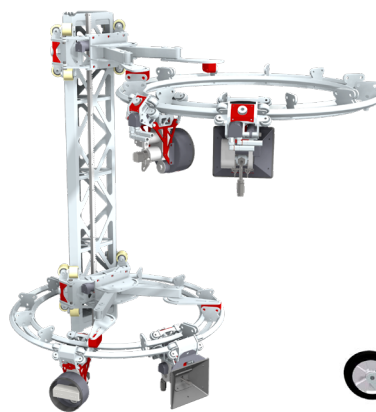
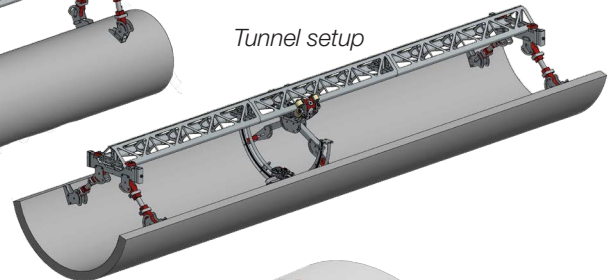


For circular Hydrodemolition, such as pillars and tunnels, the Aqua Spine 3.0 with a curved roller beam makes usually challenging applications seamless. Or why not use the Ergo Climbers on curved scaffolding pipes?

Pillar setup



Tunnel setup



The Circular Power Head, designed for work on pillars or similar, easily attached to the Aqua Spine system and comes in different ring sizes. The Power Head can be mounted both on the inside and outside of the ring.



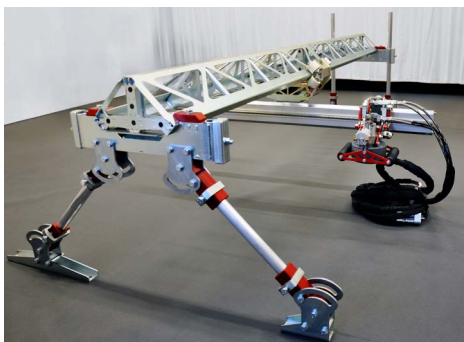
A pipe setup with an Ergo combination.



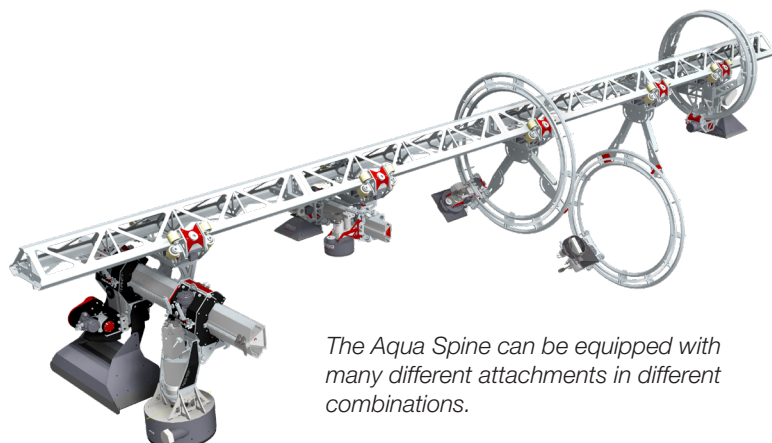
The Aqua Centralizer, designed for work in tunnels or pipes. Compatible with different types of power sources and Power Heads.



The Support System Heavy features parts that can handle greater reaction force. In this case with an Aqua Cutter 750V roller beam and Rotolance.



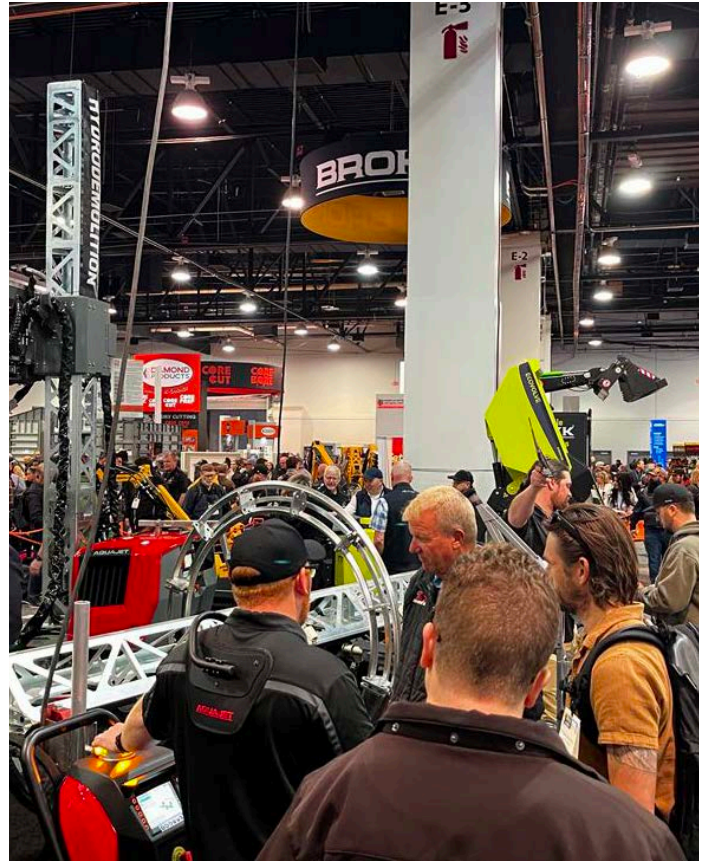
The new Aqua Spine 3.0 with the Support system Light, in this case with an Ergo Rotolance Power head. The support legs are adjustable and easily attached to any surface.



The Aqua Spine can be equipped with many different attachments in different combinations.

AQUAJET AT WOC

Aqua Rail System 3.0 - first new launch of the year



This past January, Aquajet proudly attended the World of Concrete exhibition in Las Vegas, one of the industry's most premier events for construction and concrete professionals. It was an exciting opportunity for us to engage with industry professionals, showcase our latest innovations, and, most importantly, launch the **Aqua Rail System 3.0**.

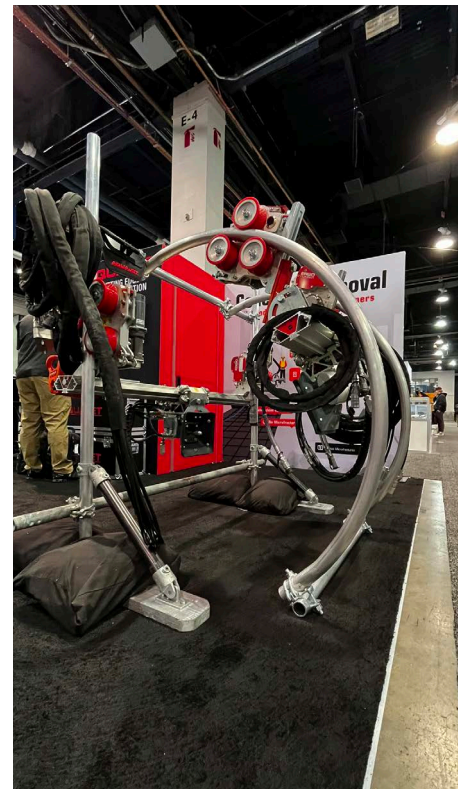
This was the first time we introduced the system to the public, and the response exceeded our expectations. Many professionals immediately recognized its potential, sharing how it could have significantly improved their past projects by helping them work **smarter, faster, and safer**. The overwhelming interest and feedback confirmed that this system is set to make a real impact in the hydrodemolition industry.

We are especially pleased that so many professionals recognize the true value of the Aqua Rail System 3.0—not just as a rail system, but as a **fully modular and scalable solution**. Designed for maxi-

mum flexibility, it enables customers to take on **more complex projects** without sacrificing efficiency. Its adaptability allows for **seamless reconfiguration**, ensuring long-term usability across different tasks while **optimizing both time and costs**. We believe this versatility will be highly valued by contractors looking for smarter, more efficient ways to tackle demanding hydrodemolition projects.

Following its successful debut in Las Vegas, we are now preparing for the next big event—the **Bauma Exhibition** this April. We are excited to bring the Aqua Rail System 3.0 to the European market and look forward to the conversations, insights, and opportunities that will arise from showcasing this groundbreaking innovation.

Stay tuned as we continue to drive progress in hydrodemolition technology, delivering solutions that redefine efficiency, adaptability, and performance.





Aquajet is ready for **BAUMA 2025**

The wait is almost over—Bauma 2025 is here, and we're more than ready to welcome visitors to our stand! After months of preparation, we're excited to showcase our latest innovations and see the industry's reaction to the all-new Aqua Cutter 450 series and the Aqua Rail System, now making its European debut.

There's nothing like experiencing our equipment up close, and we can't wait to connect with professionals from across the industry. Whether you're already familiar

with hydrodemolition or just discovering its potential, our team is here to share insights, answer questions, and demonstrate the power of our technology.

Join us in **hall A1, booth 325**—we're just waiting for the doors to open, and we hope to see you there!

Please visit our website for more information, and make sure to follow us on social media for the latest updates.

www.aquajet.se
or simply scan the qr code.



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Event schedule

Bauma

April 7-13, 2025

Munich, Germany

Demo Day

May 20, 2025

Manila, Philippines

WJA Trade show

September 11, 2025

StoneX Stadium, London

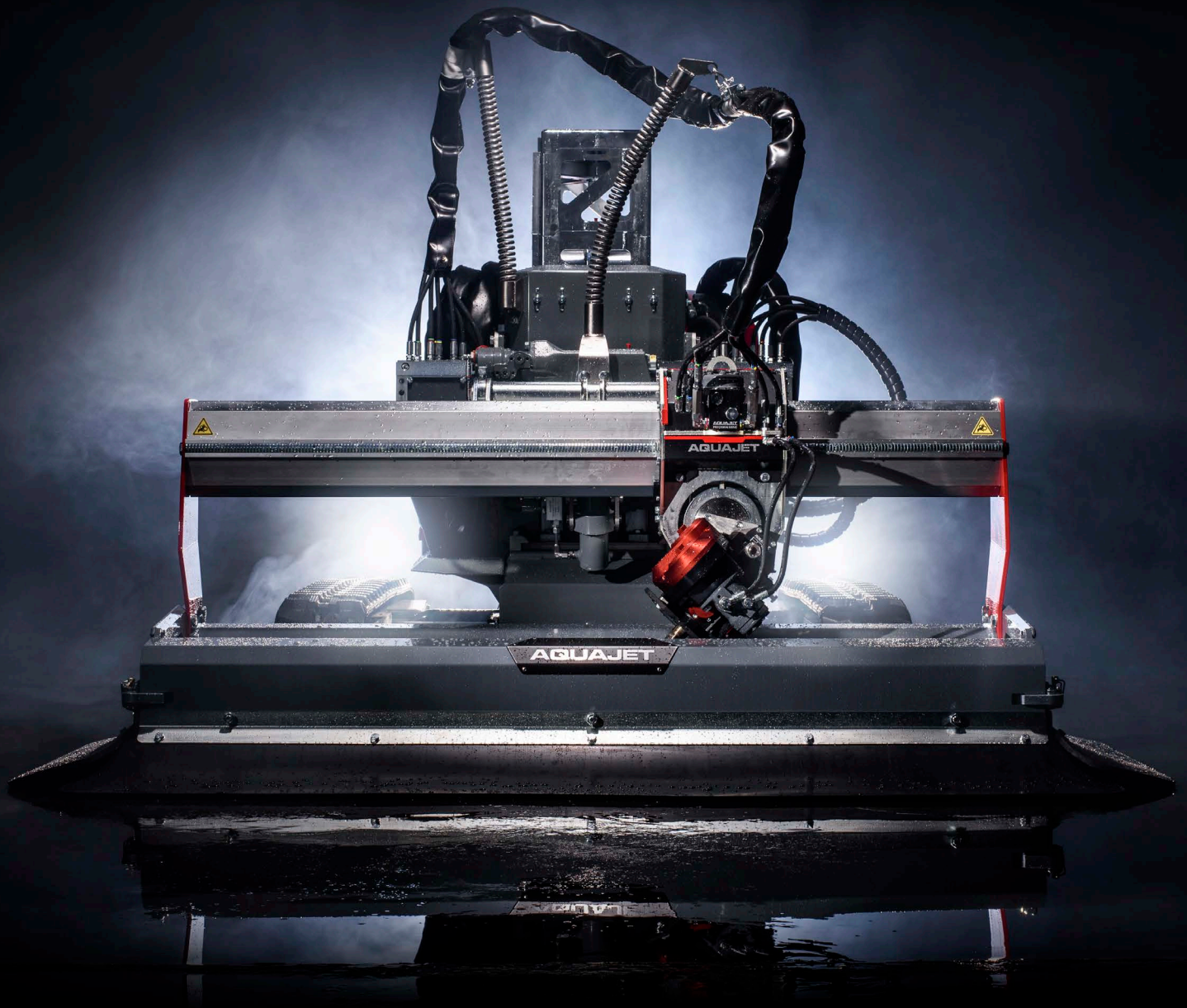
WJTA Conference & Expo

November 5-7, 2025

New Orleans, USA

Want to learn more about AquaJet and our products?

SCAN THE QR CODE,
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