AQUA CUTTER 410V
Hydrodemolition robot

Small and aiming for the top



AQUAJET

Aqua Cutter 410V

HYDRODEMOLITION ROBOT



The sky's the limit

The AQUA CUTTER 410V is small, compact and suitable for all kinds of operations. With our innovative design the operator has the freedom to reach all horizontal, vertical and overhead areas up to 4 meters (13,1 ft) without support.

The Aqua Cutter 410V is specially designed for confined space applications and to replace hand lance work. Its small size and low weight allow the robot to easily pass through narrow passages, such as door frames or operate from scaffoldings.

Our unique 3D positioning system can perform wonders. The front power head gives the operator full freedom to efficiently reach all areas. One example is vertical operations along or against the surface. Due to the compact design the Aqua Cutter 410V can be operated in tight and confined areas, with retained mobility. For vertical and overhead operations the 410V has a steel mast constructed in sections. The mast can operate at heights up to 4 meters without support, and even more with support.

Two in one

The Power Control Module (PCM) can be disconnected from the tracked crawler. This allows you 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 PCM is connected to the crawler by a cord, ensuring complete control of the robot in horizontal, vertical and overhead operations.

Read more about this machine at www.aquajet.se







Features and benefits

HYDRODEMOLITION ROBOT

Disconnectable PCM (AQUA CUTTER 410)
The Power Control Module (PCM) can be disconnected from the tracked crawler and operated with a radio remote control. Perfect for tight and inhospitable environments, such as small tunnels and flooded sewer pipes. It can also be connected to an AQUA SPINE or AQUA FRAME.

EDS – Equal Distance System (AQUA CUTTER 410/710)
All of our Aqua Cutter robots feature our patented EDS system, short for Equal Distance System. The EDS keeps a preset distance from the nozzle to the concrete surface, regardless of the attack angle of the water jet. This is a major advantage. Standard systems without EDS make the water jet lose a lot of power before it hits the concrete.

Nozzles (AQUA CUTTER 410/710)
At Aquajet we use unique ceramic nozzles that are specially designed for highly demanding operations and all kinds of Hydrodemolition applications. The lifespan of an Aquajet ceramic nozzle is up to 300-350 hours, depending on the water quality, almost ten times longer than traditional steel nozzles. In terms of efficiency, our nozzles are unbeatable.

Tower and 3d positioning system (AQUA CUTTER 410V/710V)
The easy-to-extend tower system on all V models of our robots has proved its versatility and the multi axis 3D positioning system of the cutting head, gives the ability to operate on all surfaces. The 710 robot's standard reach is 7 meters (23 ft), and can be extended further.

Super lance (AQUA CUTTER 410/710)
One single system, one standard, all the way up to 3000 bar. Same threads, same seals, and with multiple fittings for different hoses.

Removal in corners (AQUA CUTTER 410/710)
How do you reach corner areas where the wall and floor meet? Usually you need some kind of handheld trimming equipment. We have solved this problem in an ingenious way. With our robots you'll finish the job with only one overpass thanks to unique lance control and the EDS system. No hand lances. No adjustments. Just perfect results.

Geometrical shapes (AQUA CUTTER 410/710)
All products with the Evolution control system have the ability to cut geometrical shapes, such as circles, triangles, squares and rhomboids. You can program your shape of choice on the display or draw on the surface and use the robot's teach-in system. Speed zones and 3D zones can be combined with geometrical shapes. For example, you can create a circle with an inclined bottom or a rhomboid on several levels.

Speed zones / 3D zones (AQUA CUTTER 410/710)
Use of speed zones enhances the possibility of even more accurate removal, and removal of different depths in the same overpass. These zones can also be used to control the lance angle and oscillation. The 3D zones work like our patented shape function; cuts a figure but in depth. You can use them for removal of complex structures and uneven concrete. They also have the ability to create geometrical shapes.

ISC - intelligent sensing control (AQUA CUTTER 410/710)
Intelligent Sensing Control, ISC, uses intelligent software that operates via closed loop systems that continuously memorize the movements of the water jet. It also monitors the process from the operator's settings. The system is standard on all Aqua Cutter robots as well as the PCU units, used for controlling the Aqua Spine and Aqua Frame.

Smart lance control (AQUA CUTTER 410/710)
All Aqua Cutter robots with the Evolution control system have the patented Smart lance software. With the software you get access to advantages that no other robot offers. The smart lance control automatically calculates and coordinates the complete operating process and optimizes the removal from the operator's selection. All you have to do is set a few parameters.

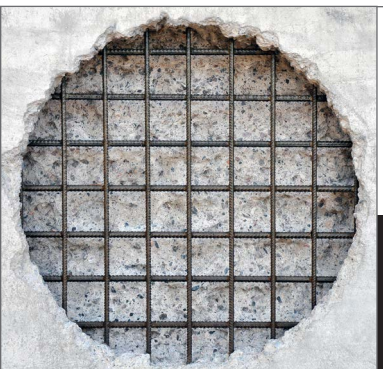
The pattern of the oscillation can be changed in different steps and wavelengths. You can also set a fixed wavelength. Program for multiple oscillation patterns, lance angles and removal depths in the same overpass. All movements are precise and smooth. In other words – better lance control and increased lifetime of mechanical parts.

Robot inside power pack (AQUA CUTTER 410/710)
All our 410 and 710 robots fit into our 23 ft Power Packs. All in one package ready to go to the worksite and no need for an extra trailer. This is a key point for quick set-up on the worksite. The robot is also protected from unauthorized intrusion into the Power Pack during the night.

Interactive graphic display (AQUA CUTTER 410/710)
The AQUA CUTTER evolution 2.0 control system features highly computerized robotic management for all advanced operations. The display is interactive and shows with graphics how the settings will affect operation. The system can be set to basic mode for normal operation and fast set-up or advanced mode for the most demanding tasks. It also enables you to program geometrical figures such as circles, triangles, squares and rhomboids. You can operate at different depths in the same overpass.

Oscillation system (AQUA CUTTER 410/710)
The stroke can be changed in a minute to adapt to the scope of the work. A shallow cut requires a longer stroke and a deep cut needs a short stroke. This allows you to get a higher removal rate and better cut results in all situations.

Radio remote control (AQUA CUTTER 410/710)
A radio remote control allows you to operate the AQUA CUTTER robot from a safe distance, wireless or with a hard wire. That's up to you and the operation at hand.

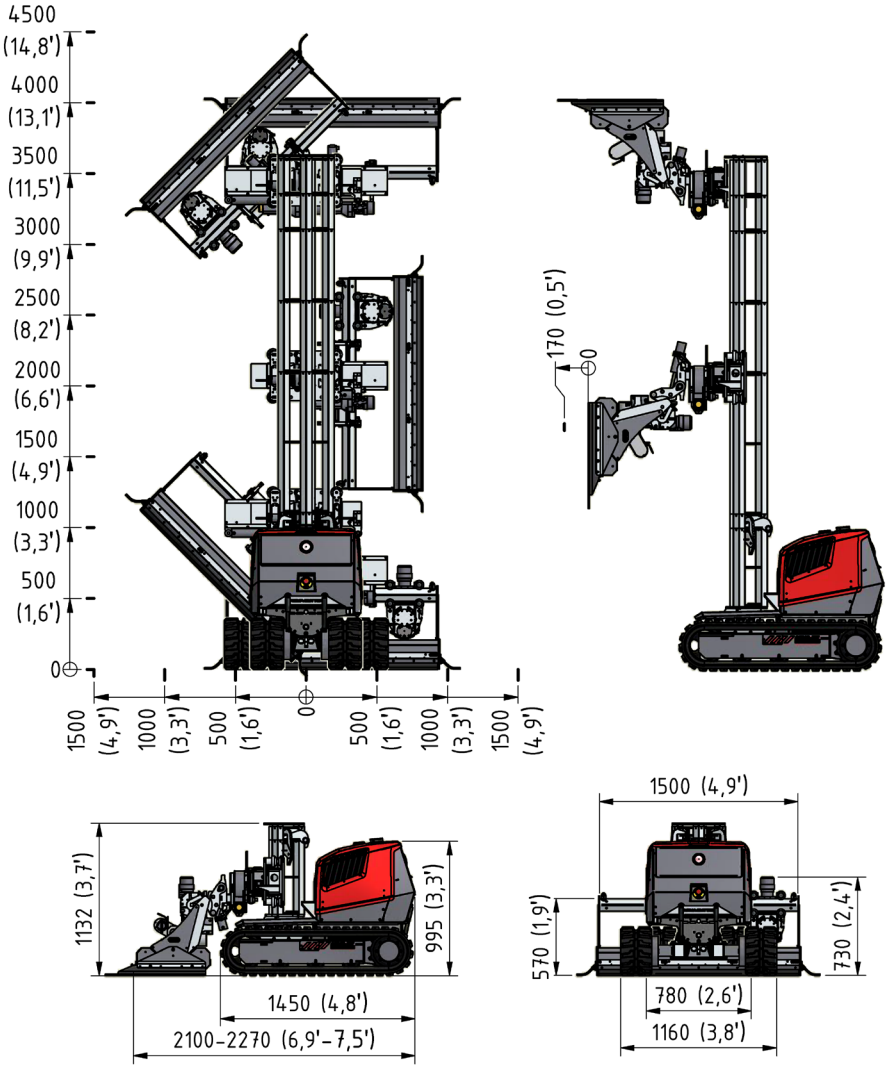




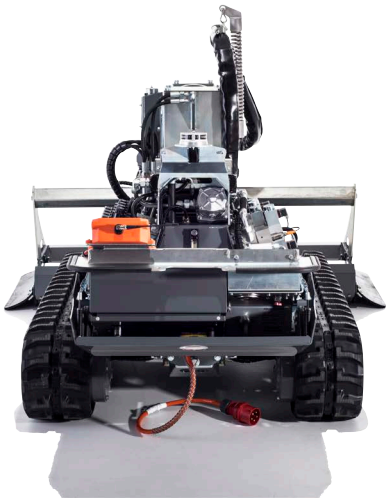


Aqua Cutter 410V

FACTS



Total weight	1250 kg (2756 lb)
Length	2,1-2,27 m (6,9-7,4 ft)
Min. width	0,78 m (2,6 ft)
Track width	0,78-1,16 m (2,6-3,8 ft)
Min. height	0,99 m (3,2 ft)
Operating height	4 m (13,1 ft)
Side reach	0,95 m (3,1 ft)
Lance angle	±45°
Working width	0-1,7 m (0-5,6 ft)
Working width extended	0-3,2 m (0-10,5 ft)
Drive source	Electric motor 3 phase 5,5 kW 400 VAC 16A (other on request)



Easy service

The innovative design provides unrivalled ease of access for all maintenance jobs. This means less downtime for maintenance and more time for actual work.

Pop the hood

The foldable back cover of our Aqua Cutter 410 robots offers total access for both daily maintenance, such as checking oil levels, and regular service jobs, such as oil and filter changes.

AQS007E 1903

Call us: + 46 383 508 01
E-mail us: aquajet@aquajet.se
Visit us: Brunnsvägen 15, SE-574 53 Holsbybrunn, SWEDEN
www.aquajet.se

AQUAJET