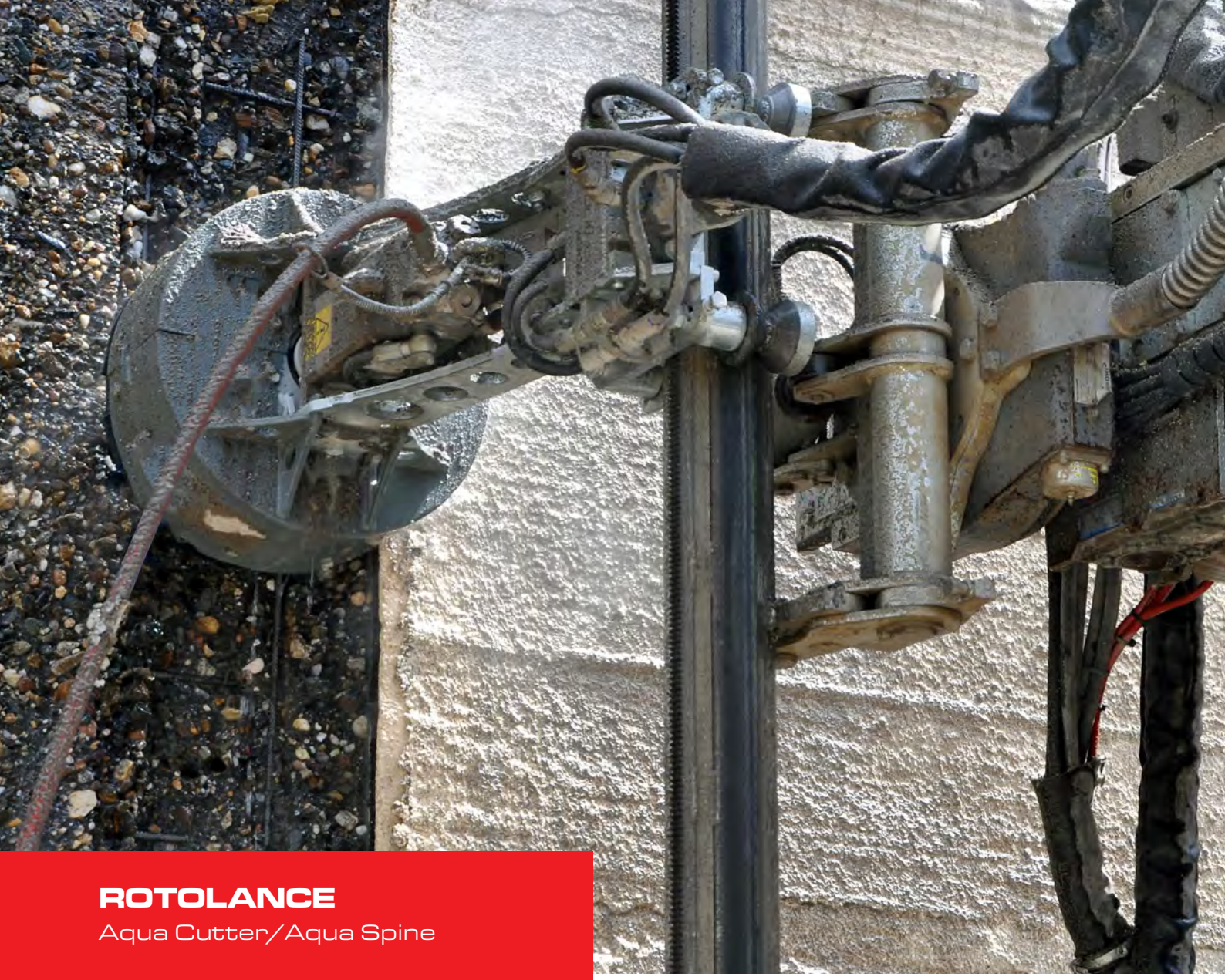
ROTOLANCE
Hydrodemolition robot accessories

Smoothing the path

AQUAJET®



ROTOLANCE
Aqua Cutter/Aqua Spine

Surface preparation tool

The Rotolance 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.

Our Rotolance comes in four versions and is compatible with all Aqua Cutter robots, as well as the Aqua Spine. All can be used to prepare concrete in various applications such as roads, bridges, harbours, sewerage pipes and industrial service in the petrochemical industries. But also for cleaning or removal of paint, rust and rubber from ship hulls, storage tanks and much more.

Work safety
The Rotolance system helps to prevent injuries to the operator caused by hand held equipment. It also saves time and money, as it can operate around the clock. All movements are computer controlled in order to get perfect results every time.

Multiple versions
The Aqua Cutter 710 comes with three Rotolance options, capable of handling water pressure up to 1000 or 2500 bar (14,500 or 36,300 psi). The Aqua Cutter 750 also offers three versions for the same pressure range. The Rotolance LT, compatible with the Aqua Cutter 410, handles pressure up to 2500 bar (36 300 psi).


AQUAJET
750V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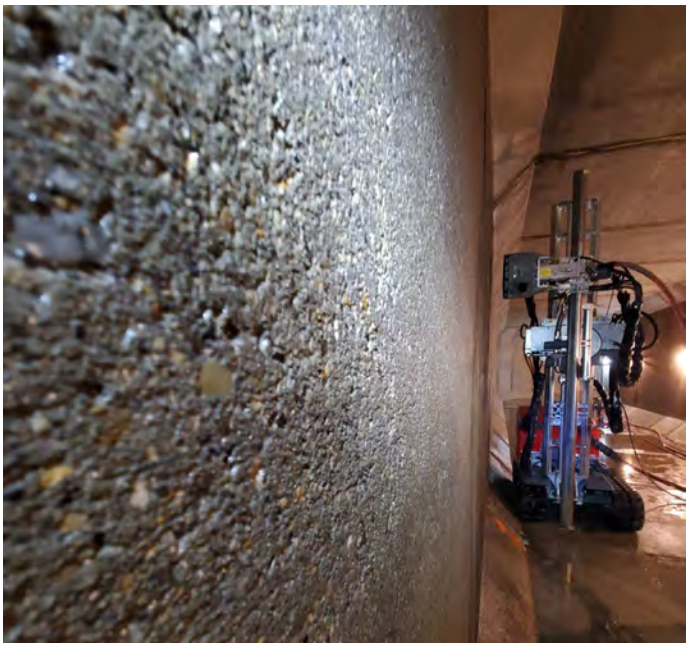


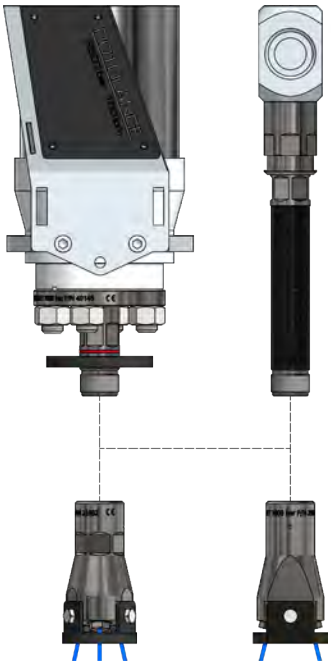
Divide the power

with the Dual, Triple and Cross nozzles

Optimize precision and efficiency with our cutting-edge nozzle innovations. The Dual and Triple nozzle heads are perfect for shallower removals, as they disperse the waterjet impact across multiple points, effectively extending the covered area. Meanwhile, the Cross nozzle intersects two water jets at a specific depth, canceling each other out to achieve exceptionally precise cuts. Ideal for hydrodemolition applications requiring precise and shallow removal at a specific depth.

Dual and triple nozzle heads work with lances, lance extensions and Rotolances. The dual and triple nozzle heads split the waterjet to impact the concrete at multiple points, allowing it to cover more surface area in each pass. This allows an operator who is working with a very powerful high-pressure pump, for example, to effectively execute a shallower removal (25.4 to 50.8 millimeters or 1 to 2 inches). Without the dual/triple nozzle, a contractor with a 500-600 horsepower pump would typically maximize speed and oscillation to avoid cutting too deeply. But this can compromise the quality of the result.

The cross nozzle configuration option is availabile for all Rotolance models. The cross nozzle intersects two water jets at a certain depth, canceling each other out to achieve a very precise cut. It's available with 30-, 60- and 100-millimeter (about 1-, 2- and 4-inch) removal depths as standard.



Aquajet ceramic nozzles
Using Aquajet's acclaimed ceramic nozzles and seals, the Dual and Triple Nozzle Heads guarantee consistent and reliable performance, upholding the highest quality standards synonymous with the Aquajet brand.

Versatile performance in a compact package
The Dual and Triple Nozzle Heads from Aquajet are ideal for scenarios involving high-powered pumps to remove shallow areas. In contrast to a single nozzle setup, employing these nozzle heads eliminates the need for the robot to move at high speeds for optimal results or reduce pump power. The intentional design of the nozzle heads, being both compact and lightweight, ensures the robot can fully unleash its potential, delivering efficient and precise hydrodemolition in various applications.

Configurations with Rotolance

The Rotolance series offers a range of models, each available with three distinct nozzle configurations to cater to various hydrodemolition applications.

The Spraybar (Standard)
The Spraybar configuration is particularly effective for surface treatment, providing a removal capacity of up to 10-15 mm. It excels in tasks such as paint and rust removal, making it a versatile choice for diverse hydrodemolition projects.

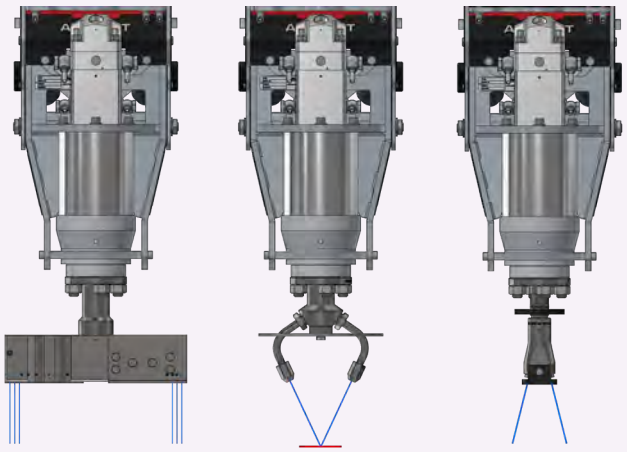
Cross Nozzle
The Cross Nozzle configuration stands out for its unique approach, employing two intersecting jets that cancel each other out at a specified depth. This design ensures tailored removal to an exact depth, with standard options available at 30 mm, 60 mm, and 100 mm. Depths in between can be achieved by adjusting the power head's height.

There are two primary scenarios for using the Cross nozzle head:

1. When a specific removal depth is mandated, and selective removal is undesired. The jets cancel at a specified depth, allowing for precise control.
2. When there's a risk of blow-through a structure, either due to proximity to the target depth or sensitivity in the surrounding environment.

Due to the jet's canceling characteristics, careful consideration is necessary for robot settings to avoid excessive power cancellation and optimize performance.

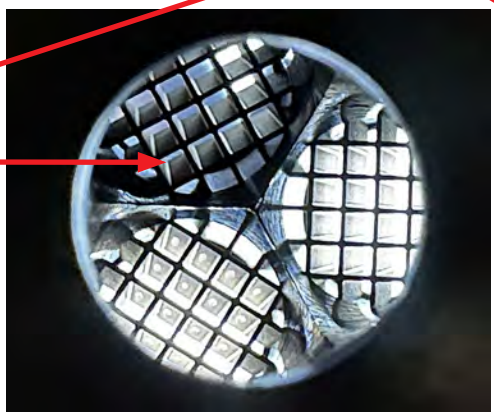
Dual and Triple Nozzles
For those requiring rotational hydrodemolition capabilities, the Dual/Triple Nozzle Head is the ideal choice. Also known as "Hydromilling," this configuration is specialized for shallow removal, covering a range from 10-50 mm. Its innovative design makes it a powerful tool for precision hydrodemolition projects.

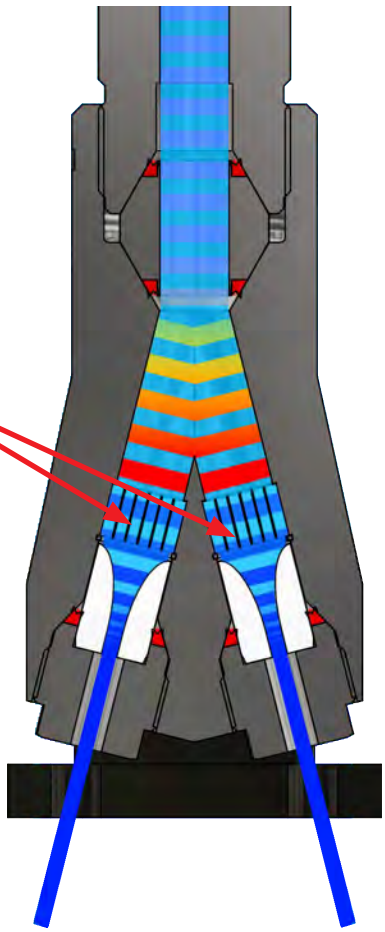


Smooth water flow technology

The Dual and Triple Nozzle Heads features our unique LFD® (Laminar Flow Director) concept. The innovative LFD® design effectively eradicates turbulence right before water enters the nozzles, ensuring operational efficiency comparable to using two or three separate lances.

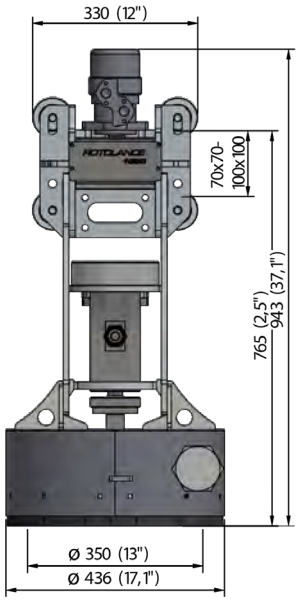
Traditional setups experience turbulence when the flow of water changes direction or passes through diameter variations, disrupting the water jet's flow through the orifice and diminishing its effectiveness. The LFD® design mitigates this issue, maintaining a smooth flow and optimizing the water jet's performance.



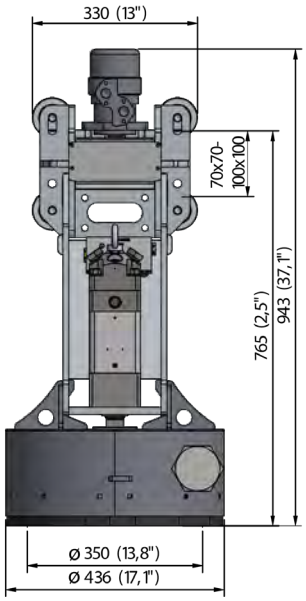


Facts	Rotolance 1000 (710/750)	Rotolance 2500 (710/750)	Rotolance 2500 XL (710/750)	Rotolance 2500 LT (410)
Working diameter	360 mm (14,1”)	350 mm (13,8”)	350 mm (13,8”)	215 mm (8,4”)
Max. water pressure	1000 bar (14 500 psi)	2500 bar (36 300 psi)	2500 bar (36 300 psi)	2500 bar (36 300 psi)
Max. water flow	240 l/min (63,4 gpm)	65 l/min (17,2 gpm)	150 l/min (39,6 gpm)	65 l/min (17,2 gpm)
Rotation speed	0-800 rpm (hydraulic)	0-1000 rpm (hydraulic)	0-1000 rpm (hydraulic)	0-1000 rpm (hydraulic)
Max. hyd. pressure	120 bar (1740 psi)	120 bar (1740 psi)	120 bar (1740 psi)	120 bar (1740 psi)
Max. hyd. flow	20 l/min (10,5 gpm)	20 l/min (10,5 gpm)	20 l/min (10,5 gpm)	20 l/min (10,5 gpm)
HP hose connections	M36x2 DKO	M30x2 Gland	M30x2 Gland	M30x2 Gland
Max. nos. of nozzles	4	20	20	20
Vacuum connections	2×2,5” BSP	2×2,5” BSP	2×2,5” BSP	2×2,5” BSP
Weight	110 kg (242 lb) (710) 108 kg (238 lb) (750)	110 kg (242 lb) (710) 114 kg (251 lb) (750)	135 kg (298 lb) (710) 142 kg (313 lb) (750)	95 kg (209 lb)

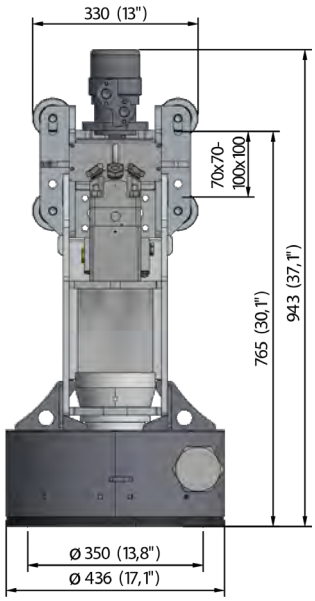
Rotolance 1000
Aqua Cutter 710



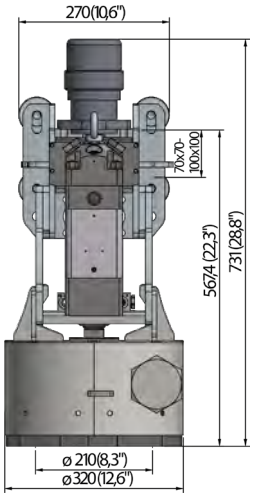
Rotolance 2500
Aqua Cutter 710



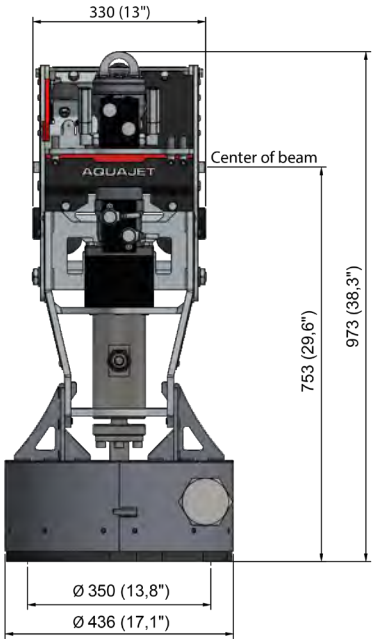
Rotolance 2500 XL
Aqua Cutter 710



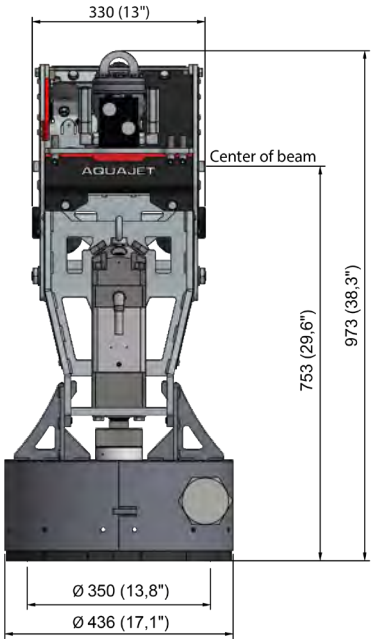
Rotolance 2500 LT
Aqua Cutter 410



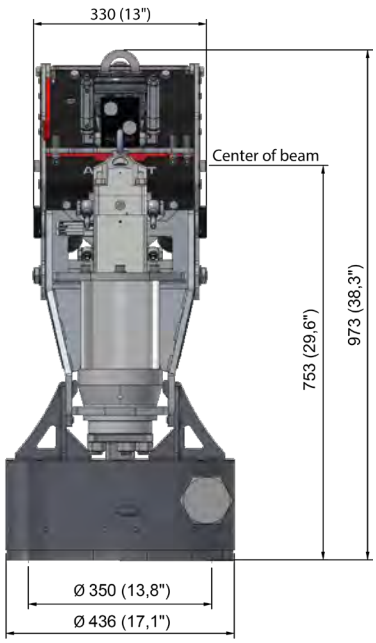
Rotolance 1000
Aqua Cutter 750



Rotolance 2500
Aqua Cutter 750



Rotolance 2500 XL
Aqua Cutter 750



Aquajet Systems AB
Brunnsvägen 15, SE-574 53 Holsbybrunn, SWEDEN
+ 46 383 508 01 | aquajet@aquajet.se | www.aquajet.se

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