

WATER TREATMENT

ECOCLEAR®

ENVIRONMENTAL PROTECTION



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THE AQUAJET WAY

Introducing the Aquajet EcoClear®, powered by Siltbuster Ltd. The EcoClear® is a water filtration system that has been designed and developed to work specifically with our Aqua Cutter robots. With the EcoClear® you have full control of the pH levels and what turbidity (mg particles/liter) you have in the water.

The EcoClear® complements the Aqua Cutter range perfectly, capable of handling a flow rate of up to 20m³/hour without the need of an extra water reservoir. With our RECO control system you are able to control the full process.

Elevated alkaline pH levels can be neutralized down to pH 6-9 and the turbidity in the water reduced to 20-25 mg particles/liter, with no filter systems needed, which leaves the water suitable for safe discharge back into the environment.

THE PROCESS

We treat the water in different chambers in the EcoClear® unit, working with flocculation technology to take out maximum of sludge from the water. The whole process and measurements of the water can be seen continuously online, so you always know exactly what is going on.

The Aquajet water treatment unit, EcoClear®, is operator friendly and take care of all size and weight of particles compare to other methods. It gives you full control of the outgoing water and will get a water quality ready to be released into the environment without causing any pollution.



HOW THE ECOCLEAR® WORKS

#1 INLET CHAMBER AND FLOCCULATION

Blast water is pumped into the inlet chamber and mixed with flocculant to improve the settlement characteristics.

#2 PH ADJUSTMENT

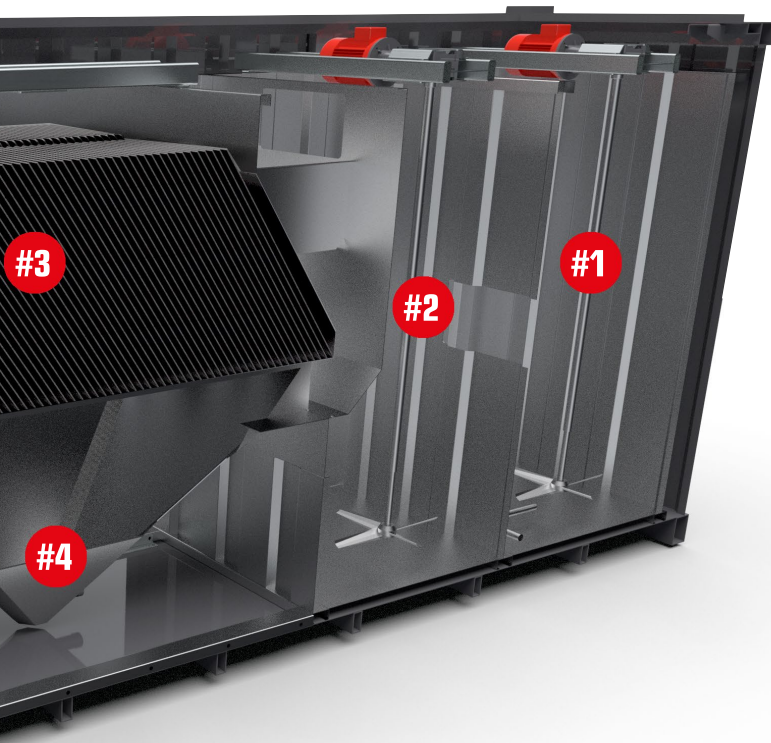
Carbon Dioxide is automatically introduced via an internal diffuser to create microfine bubbles to reduce the pH of the blast water.

#3 INTEGRATED LAMELLA CLARIFIER

Flocculated blast water passes through the clarifier where the suspended solids settle, leaving solid free water.



FEATURES AND BENEFITS



//AUTOMATED PH ADJUSTMENT

The system incorporates a digital pH controller and probe designed to monitor the incoming pH level of the hydrodemolition blast water, automatically neutralising the water to pH 7 should an alkaline pH be detected.

// FLOW PROPORTIONAL CHEMICAL DOSING

An automatic magnetic flowmeter connected to digital dosing pumps ensure the correct dosage of chemicals are introduced within integrated reaction tanks to improve the settlement characteristics of suspended solids.

// INSULATED CHEMICAL STORAGE

A frost protected bunded chemical spill stand contains any accidental leakages, removing the risk of chemicals escaping.

// FOLDING ROOF AND INTEGRATED WALKWAY

The units folding roof provides access for operators to inspect the system whilst ensuring operators to work safely at height.

// WATER QUALITY MONITORING & LOGGING

Optical turbidity sensors and pH probes continuously monitor and record the quality of the water, ensuring only clean water is discharged. If the water exceeds its required limit, the feed pump automatically shuts down to prevent dirty water escaping.

#4 SLUDGE STORAGE HOPPER

Settled solids are contained within the storage hopper which are pumped out of the unit via an integrated pump.

#5 SECONDARY PH ADJUSTMENT

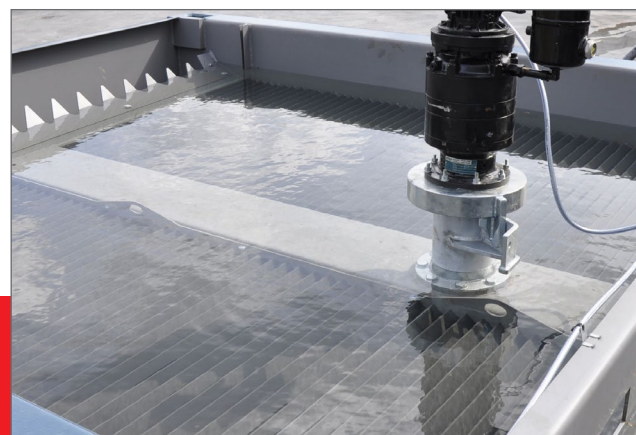
Typically a second pH adjustment stage is used to optimise the pH adjustment.

#6 TREATED WATER MONITORING TANK

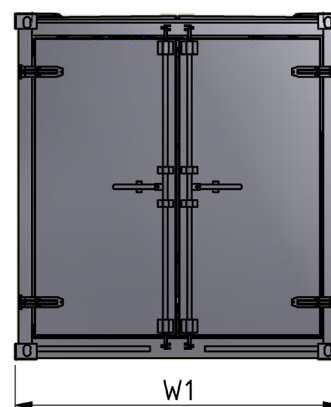
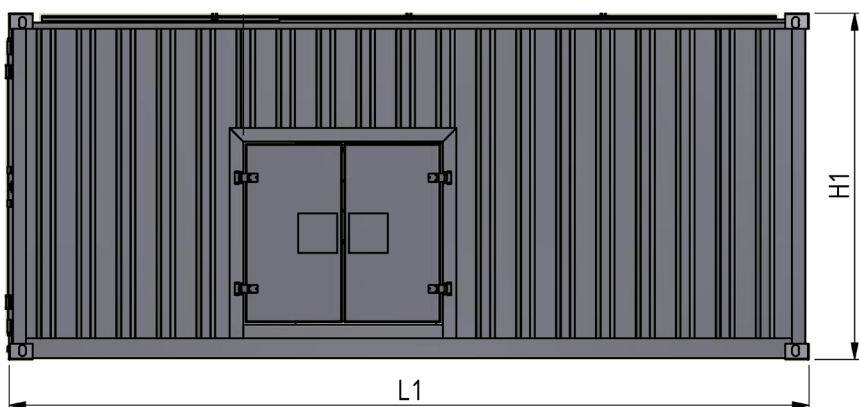
Treated water is continually monitored to ensure it achieves the user set pH level before being discharged.

► Read more at

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SPECIFICATIONS



// TECHNICAL DATA EVOLUTION

Length (L1)	6,058 m (ISO 20')
Width (W1)	2,438 m (ISO 8')
Height (H1)	2,591 m (ISO 8,5')
Capacity	20 m ³ /hour
pH outgoing water	6-9
Turbidity outgoing water	20-25 mg particles/liter
pH adjusters	Carbondioxide
Carbondioxide consumption	0,2-0,6 kg/m ³
Poly aluminium chloride consumption	10-30 g/m ³
Flocculant consumption	1,5-3 g/m ³
Drive source	Electric

// EXAMPLES OF APPLICATIONS

Roads	Nuclear plants
Pillars/Piles	Diaphragm walls
Airports	Parking garages
Berth/Piers	Buildings/structures
Bridges	Hydropower plants
Tunnels	Petrochemical plants
Chimneys	Waste water plants
Ship cleaning	Industrial cleaning

// COMPATIBLE PRODUCTS

Power Pack 700
Power Pack 400
Power Pack 250
Aqua Cutter 710
Aqua Cutter 410



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