

AQUA HD

Separation & Filtration Systems

AQUA HD SURFACE AND PROCESS WATER SUSPENDED PARTICLES SEPARATION

Turbidity, the 'cloudiness' of a fluid, is a crucial parameter in determining water quality. Cloudiness is caused by solids, usually invisible to the naked eye, and particles heavy and large enough to settle. Smaller particles will settle either very slowly, or not at all, and it is these suspended or colloidal solids that cause the water to appear hazy, or turbid, in appearance.

AQUA HD'S SOLUTION

To reduce turbidity, AQUA HD has the knowledge to design and manufacture a separation unit, which can easily treat turbidities of up to 1000 NTU. AQ-HD technology can separate particles and flocs without physical barriers or moving parts. It uses low energy and scales easily to handle any flow requirement with little impact on the available footprint.

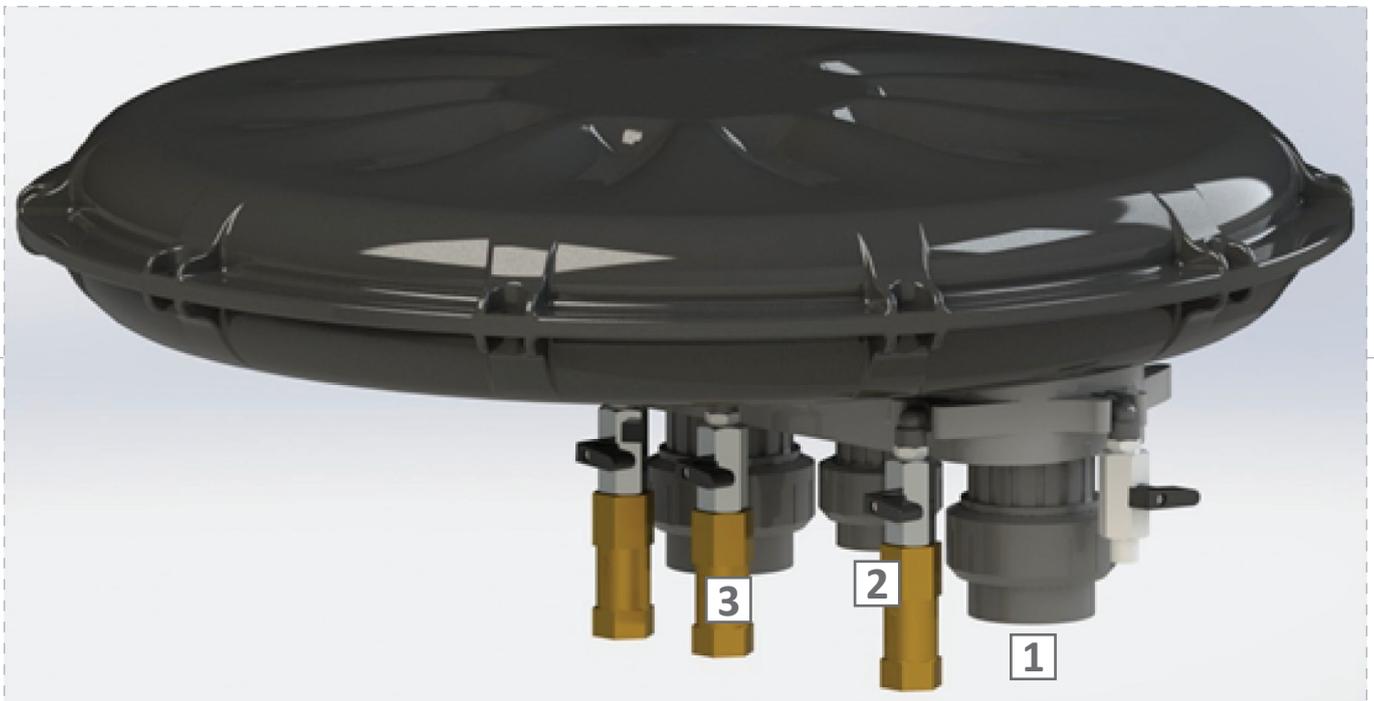
Aqua HD's technology utilizes the natural physical mechanisms of centripetal and gravitational forces to separate the particles. The system can be customized to a particular situation by using a complex mathematical model which takes into consideration an analysis of the feed water

to create the exact flow that is required to produce optimized particle separation. Through this technology, AQ-HD solution can remove a wide range of organic and inorganic suspended solids and can even remove particles as small as 0.7 microns.

Scaling up can be achieved by creating modules. These are assembled with multiple pipes in parallel, a common inlet raw water distributor, and common treated water and concentrate outlet collectors. Depending on the application, modules can then be combined into compact stacks to achieve the required water quality. By cascading several AQ-HD in series, a higher concentration can be obtained.

HOW IT WORKS

- Water enters through the collective manifold (1) and divides equally between the separation units, where the particles are separated out. The amount of water received by each unit is determined by how many there are and by the overall flow.
- The separated particles are then collected in a particle trap that leads to the outlet point (2).
- The treated water is directed to another outlet point (3).



CONTROL

The system's flow and pressure are controlled and managed by a control board.

BACKWASH

The cleaning process is based on a defined program using water and compressed air. This achieves effective backwash cleaning and also savings in the amount of water used.

AQ-HD MODELS

Models	Minimum flow rate	Maximum flow rate
AQ-500-1 AQ-1500-1	500 L/h 1500 L/h	10,000 L/h 20,000 L/h
AQ-500-2 AQ-1500-2	10,000 L/h 20,000 L/h	20,000 L/h 40,000 L/h
AQ-500-3 AQ-1500-3	20,000 L/h 40,000 L/h	30,000 L/h 60,000 L/h
AQ-500-4 AQ-1500-4	30,000 L/h 60,000 L/h	40,000 L/h 80,000 L/h
AQ-500-5 AQ-1500-5	40,000 L/h 80,000 L/h	50,000 L/h 100,000 L/h

* Modules can be combined to achieve any required flow rate.

TECHNICAL SPECIFICATIONS

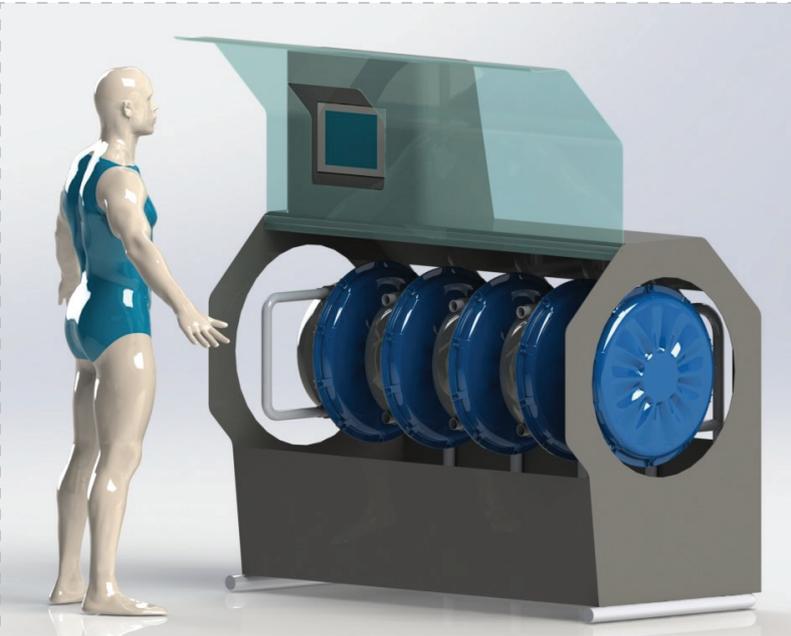
	AQ-501 AQ-1501	AQ-502 AQ-1502	AQ-503 AQ-1503	AQ-504 AQ-1504	AQ-505 AQ-1505
Inlet/Outlet diameter	2"	3"	4"	5"	6"
Min. working pressure	0,8 Bar				
Max. working pressure	1,4 Bar				
Max. temperature	60 °C				
Weight [empty]	40 Kg	80 Kg	120 Kg	160 Kg	200 Kg

CONTROL AND ELECTRICITY

Feed operation voltage	115 - 480 VAC, 1 or 3 PH, 50 or 60 Hz
Control voltage	24 VAC or 12 AVC

CONSTRUCTION MATERIALS

Housing	ABS
Separation unit	PVC , ACRYLIC, PE



THE SOLUTION IS DESIGNED AS A 'PLUG AND PLAY' SYSTEM

APPLY AQ-HD IN YOUR WATER TREATMENT SYSTEMS

AQUA-HD can help commercial partners who are interested in applying the AQ-HD technology in their water treatment facilities.

Contact Business Development:
info@aquahd.net

NO MOVING PARTS



CONTROLLING DRAG AND CENTRIFUGAL FORCES

NO FILTER ELEMENTS (SCREEN OR DISK)



VERY SMALL FOOTPRINT

