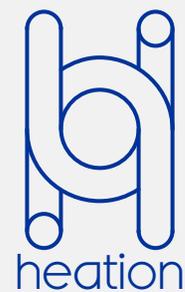


datasheet

dolphin aquarens



Description

aquarens filters are automatic mesh filters equipped with a hybrid cleaning system that combines powerful water jets with rotating brushes. This system allows for easy cleaning of the filter cartridge in just a few seconds, removing even the most challenging particles.

These robust filters require minimal maintenance due to their stainless steel construction.

aquarens filters are ideal for treating water with high concentrations of suspended solids and are suitable for the most complex industrial applications.

aquarens is available in L configuration; O configuration is available by request.

A wide range of FILTERKIT options, available in PES or 2LE versions, provides a filtration range from 700 µm to 25 µm.



Filtration

The liquid to be treated enters the filter through the inlet connection (IN).

Suspended solids are retained inside the cartridge, and the filtered liquid exits through the outlet connection (OUT).

Cleaning

As solids continuously accumulate inside the filter mesh, a pressure difference between the inlet and outlet develops, which can be monitored via the two installed gauges.

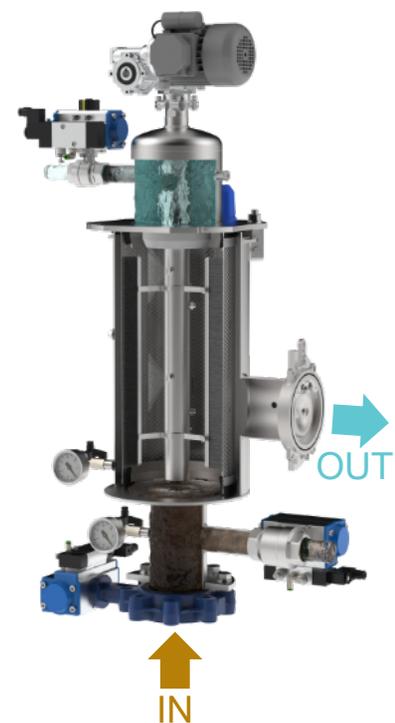
The filter element's cleaning process automatically activates when the preset pressure differential value between the inlet and outlet is reached, or at predetermined time intervals.

Both parameters can be controlled via the controller.

During the washing cycle, the filter's inlet valve closes while the drain valve opens.

Once the filter is emptied, the cleaning shaft begins to rotate, and the valve supplying water to the nozzles opens.

The pressurized water jets, produced by the nozzles and directed towards the inner surface of the filter element, combined with the robust brushes, remove the accumulated impurities, which are then expelled through the drain valve.



Technical data

Maximum flow rate	260 m ³ /h
Nominal pressure [bar]	PN 10 - PN16 ⁽¹⁾
Maximum temperature	80°C
Construction shape	L, O ⁽¹⁾
Salinity	< 10000 ppm
pH range	3 - 9
Design standard	PED 2014/68/EU

Materials

Housing	AISI 304 - AISI 316
Gaskets	EPDM ⁽²⁾
Drain valve	Nickel-plated brass - AISI 316
Inlet valve	AISI 316 disc and EPDM liner
Check valve	AISI 316
Pressure gauges	AISI 304 - AISI 316
Surface finishing	Shot-peening and passivation

Power supply and control

Power supply	230 Vac 50/60 Hz single-phase
Compressed air	6 bar
Electric motor	230 Vac 0.11 kW
Valves	24 Vac electro-pneumatic

Cleaning cycle

	SIZE 6	SIZE 8	SIZE 18	SIZE 30
Minimum flow rate during cleaning cycle	3 m ³ /h	4.5 m ³ /h	4.5 m ³ /h	8.5 m ³ /h
Minimum pressure during cleaning cycle	5 bar	5 bar	5 bar	5 bar
Water consumption for a complete cycle	30 L	44 L	54 L	94 L
Duration of cleaning cycle	60 sec	60 sec	60 sec	60 sec

Models and flow rates

Model	Construction shape	Size	In/Out	Maxflow rate ⁽³⁾ [m ³ /h]	Filtering surface [cm ²]
AQPH DN50 S6	L	6	DN 50	30	1'500
AQPH DN80 S8	L	8	DN 80	70	2'200
AQPH DN100 S8	L	8	DN 100	110	2'200
AQPH DN100 S18	L	18	DN 100	120	3'300
AQPH DN100 S30	L	30	DN 100	120	5'400
AQPH DN150 S30	L	30	DN 150	260	5'400

Flanged

1. On request

2. Certified for contact with drinking water according to the following European regulations : UBA, DVGW standard W-270, WRAS, and ACS.

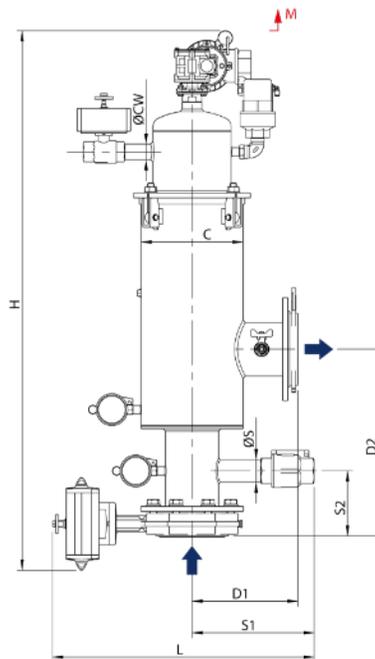
3. Flow rates calculated with a filtration degree of 120µm and clean water (NTU < 1) at a temperature of 20°C

Dimensions

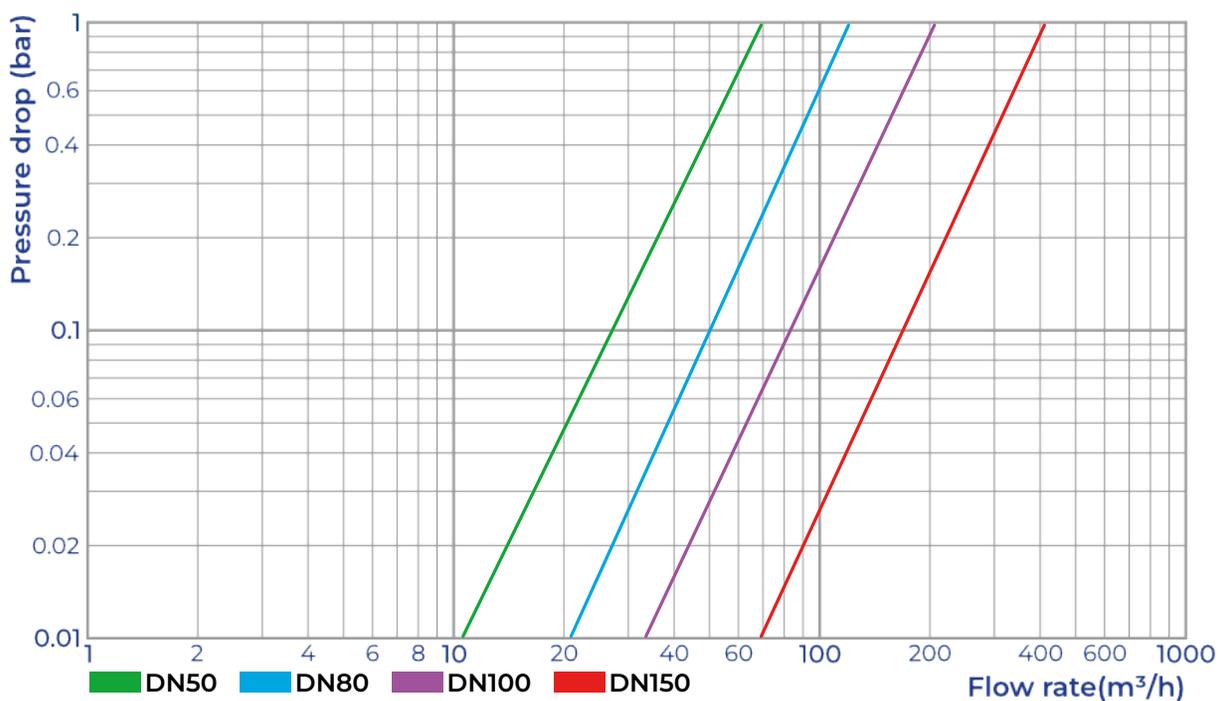
L Shape

Model	D1 [mm]	D2 [mm]	L [mm]	H [mm]	C [mm]	S1 [mm]	S2 [mm]	W1 [mm]	W2 [mm]	∅ W	∅ S	M* [mm]	Weight [Kg]
AQPH DN50 L6	210	365	892	478	219	211	125	223	632	1" BSPP	1" BSPP	500	40
AQPH DN80 L8	229	396	1077	504	219	280	142	223	818	1" BSPP	1 1/2" BSPP	700	55
AQPH DN100 L8	231	402	1082	531	219	293	150	223	824	1" BSPP	1 1/2" BSPP	700	59
AQPH DN100 L18	270	402	1115	570	273	293	150	222	824	1" BSPP	1 1/2" BSPP	700	67
AQPH DN100 L30	270	402	1421	570	273	293	150	222	1130	1" BSPP	1 1/2" BSPP	1000	74
AQPH DN150 L30	281	406	1425	636	273	320	154	222	1134	1" BSPP	1 1/2" BSPP	1000	82

* M = minimum space required for maintenance



Head loss



Filtering elements

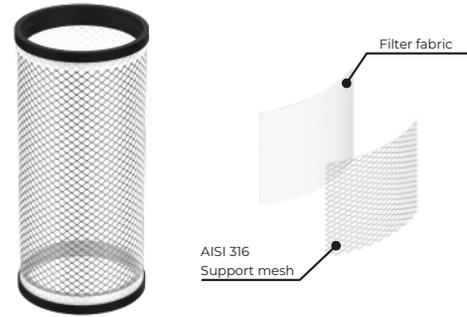
PES filter kit

This filter cartridge consists of a stainless steel AISI 316 mesh cylinder supporting a layer of polyester (PES) filter fabric.

This design offers a wide range of filtration grades and easy maintenance.

Available filtration degrees:

700 - 500* - 400 - 200 - 120 - 80 - 53 - 25 microns



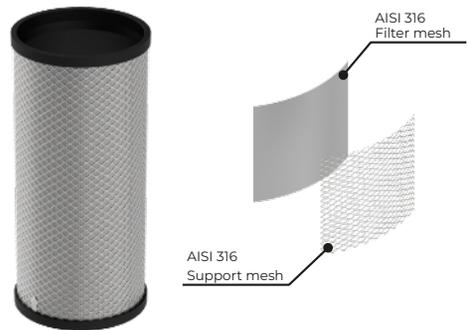
2LE filter kit

This filter cartridge is made entirely of AISI 316 stainless steel, consisting of a filter mesh welded to an outer support.

This filtering element provides greater resistance compared to polyester and is recommended for more challenging operating conditions, such as the presence of abrasive suspended solids, aggressive chemicals, or high temperatures.

Available filtration degrees:

400* - 200* - 110 - 40 micron



* On request

Configurations/Availability

Filtration degree [µm]	PES filter kit	2LE filter kit
25	✓	X
40	X	✓ (only available for size 1 and 6)
53	✓	X
80	✓	X
110	X	✓
120	✓	X
200	✓	✓ (not available for size 1)
400	✓	X
580	✓	X
810	✓	X

Accessories

Automation Unit

Filter's automation system consists of:

Electronic controller 4EV 230Vac

Pneumatic drain valve

Pressure transmitters

Namur solenoid valve

Requires compressed air

Spare Parts

Description	Material	Compatibility
Body gasket Ø219.1	EPDM	Size 6 - Size 8
Filterkit Gasket Kit Ø145, (2pcs)	EPDM	Size 6 - Size 8
Body gasket Ø273	EPDM	Size 18 - Size 30
Filterkit Gasket Kit Ø218, (2pcs)	EPDM	Size 18 - Size 30
Pressure gauge 0-10 bar G1/4" Ø63	AISI 304	All models
Pressure gauge 0-10 bar G1/4" Ø63	AISI 316	All models



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