

Description

aquarens is a self-cleaning mesh filter which thanks to its powerful pressurized water jets can efficiently clean the filtering element in a short time and with reduced water consumption.

The vessel and cleaning system are constructed mainly from stainless steel, making the filter highly durable and requiring minimal maintenance.

aquarens is particularly well suited to treat fluids loaded with a medium-high amount of suspended solids, even colloidal.

To accommodate various installation configurations, the filter is offered in two different design shapes, Y and L.



Design data

Flow rate	Up to 260 m3/h
Design pressure [bar]	PN10 (PN16 available)
Design temperature [°C]	80
Salinity [TDS]	<10.000 ppm
pH Range	3 - 9
Design Code	- PED 68/2014/EU - Machinery Directive 42/2006/CE - LVD Directive 35/2014/EU

Material data

Filter housing	AISI 304/316L
Gasket	EPDM*
Filter bag	PES
Drain/Vent valve	Cast Iron body with AISI 316L lens Nickel-plated brass/AISI 316L
Pressure Gauges	AISI 304/316L
Surface finish	Micro shot Peening and Passivation

* Certified for the following European Drinking Water regulations: UBA, DVGW-standard W-270, WRAS och ACS.

Power Supply

Electric Voltage	230 VAC 50/60 Hz Single Phase
Compressed Air	6 bar
Clean water supply	5-6 bar

Actuation

Electric motor	230 VAC 0.11 kW
Solenoid Valve	Electropneumatic 24 VDC

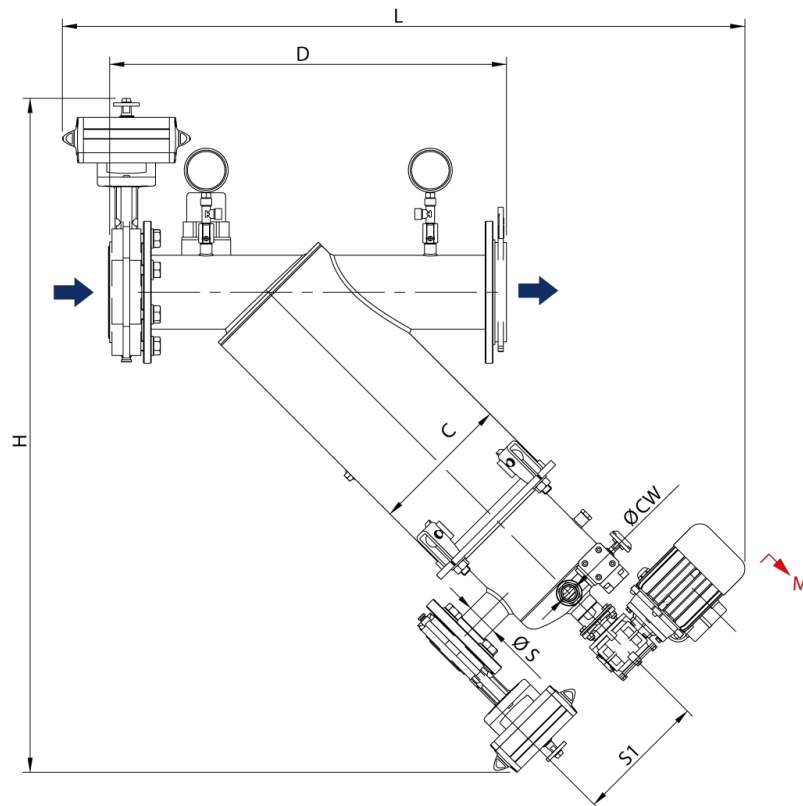
Controller

Power Supply	230 VAC 50/60 Hz Single Phase
Protection Class	IP65
Material	ABS
Input	2 digital (Pause, DP), 3 analogic (Pressure)
Output	4 SPDT 16A 250VAC, 4 SPST 1A 24VDC, 1 SPST (alarm)
Cleaning cycle management	Differential Pressure (0,6-0,8bar), Pre-set time intervals, Manual

Cleaning Cycle

		Size 6	Size 8	Size 18	Size 30
Min. cleaning flow rate	m3/h	3	4,5	4,5	8,5
Min pressure	bar	5	5	5	5
Water consumption	L	30	44	52	94
Cleaning cycle time	s	60	60	60	60

Dimensions Y shape



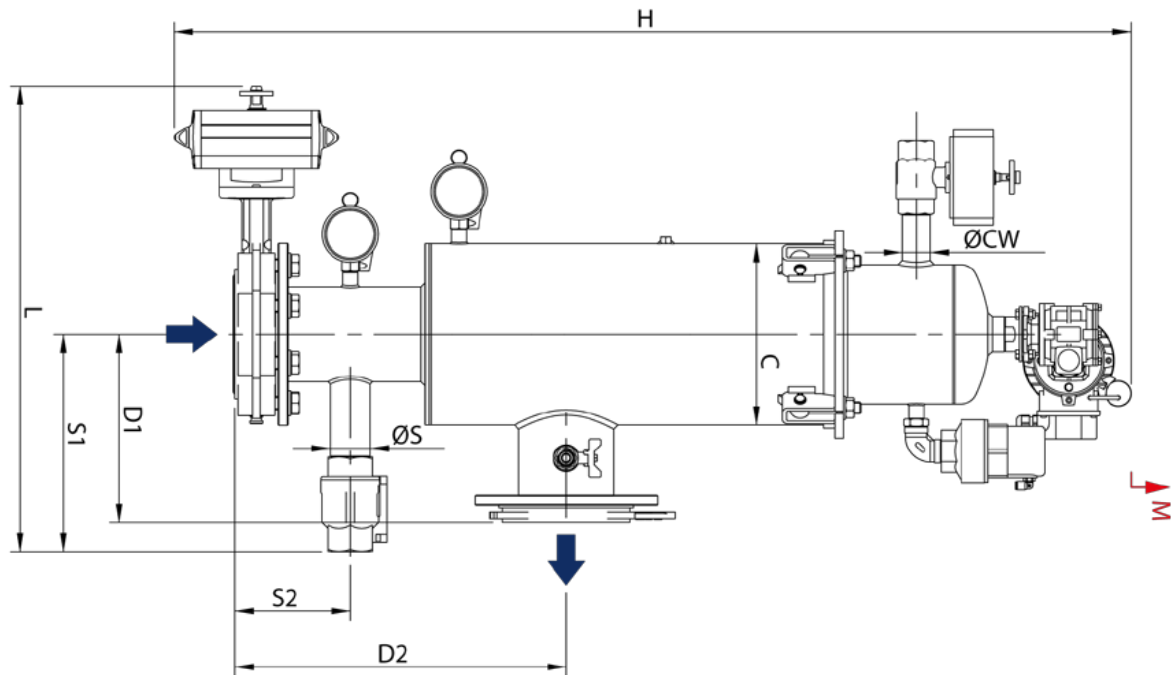
Model	Size	In/Out	Max Flow rate* [m3/h]	F.S.** [cm2]	D [mm]	L [mm]	H [mm]	C [mm]	S1 [mm]	ØS [mm]	ØCW [mm]	M*** [mm]	W [Kg]
AQPH 50 Y 6	6	DN50	30	1500	540	900	887	219	204	1" ½ BSPP	¾ BSPP	500	45
AQPH 80 Y 8	8	DN80	70	2200	548	1009	953	219	204	1" ½ BSPP	¾ BSPP	700	51
AQPH 100 Y 8	8	DN100	110	2200	617	1056	1043	219	204	1" ½ BSPP	¾ BSPP	700	55
AQPH 100 Y 18	18	DN100	120	3300	655	1056	1043	273	204	1" ½ BSPP	¾ BSPP	700	61
AQPH 100 Y 30	30	DN100	120	5400	655	1272	1259	273	204	1" ½ BSPP	¾ BSPP	1000	70
AQPH 150 Y 30	30	DN150	260	5400	737	1329	1300	273	204	1" ½ BSPP	¾ BSPP	1000	82

*Max flow rates are calculated based on clean water with a filtration degree of 120µm. With the same In/Out connection and the same MAX flow rate, the larger filter will require less cleaning than the smaller one.

**F.S. = Filtering surface

***M = Minimum free space required for maintenance.

Dimensions L shape



Model	Size	In/Out	Max Flow rate* [m3/h]	F.S.** [cm2]	D1 [mm]	D2 [mm]	L [mm]	H [mm]	C [mm]	S1 [mm]	S2 [mm]	ØS [mm]	ØCW [mm]	M*** [mm]	W [Kg]
AQPH 50 L 6	6	DN50	30	1500	210	358	497	949	219	230	118	1" BSPP	1" BSPP	500	39
AQPH 80 L 8	8	DN80	70	2200	225	356	523	1107	219	234	116	1" BSPP	1" BSPP	700	45
AQPH 100 L 8	8	DN100	110	2200	228	402	562	1152	219	228	142	1" ½ BSPP	1" BSPP	700	50
AQPH 100 L 18	18	DN100	120	3300	264	402	564	1152	273	262	142	1" ½ BSPP	1" BSPP	700	57
AQPH 100 L 30	30	DN100	120	5400	264	402	564	1458	273	262	142	1" ½ BSPP	1" BSPP	1000	66
AQPH 150 L 30	30	DN150	260	5400	266	406	621	1492	273	279	146	1" ½ BSPP	1" BSPP	1000	77

*Max flow rates are calculated based on clean water with a filtration degree of 120µm. With the same In/Out connection and the same MAX flow rate, the larger filter will require less cleaning than the smaller one.

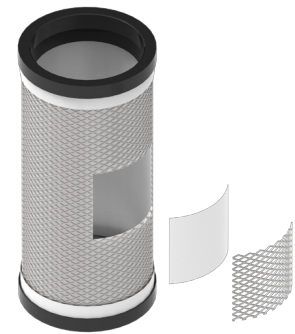
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Filtering Elements

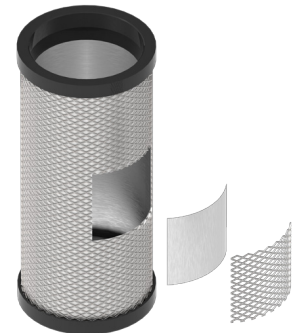
PES Filterkit:

This filter features an AISI 316 Stainless Steel cylinder that houses a polyester (PES) filter tissue. With a range of filtering options available, starting from 25µm up to 810µm, the customer has the flexibility to select the perfect filtration degree to meet their specific needs.



2LAY Filterkit:

This filter features a double layer AISI 316 stainless steel mesh and shows exceptional resistance which makes it an excellent alternative to PES Filterkit in harsh operating conditions, particularly when dealing with liquids containing sharp suspended solids.



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

Accessories

Automation Unit

Filter's automation system consists of:

- Electronic Controller 4EV 230VAC
- Pneumatic Drain Valve
- Pressure transmitters
- Namur Solenoid Valve



Spare Parts

Description	Material	Compatibility
Body gasket Ø 219.1	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

