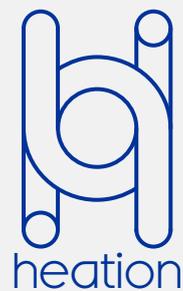


datasheet

dolphin optimum



Description

optimum static stainless steel filters are available in three construction shapes: Y, L, and O, to meet various installation needs.

These filters are ideal for protecting closed systems and filtering process water with low concentrations of suspended solids.

FILTERKITs come in PES or 2LE versions and offer a wide range of filtration grades, from 3000 µm to 25 µm.

optimum filters feature the QUICK BOLTS tilting bolt system, allowing for faster maintenance with reduced disassembly times compared to traditional systems.

This system enables the cover to be opened without fully unscrewing the tightening nuts.

Additionally, an anti-cutting stop helps extend the life of the gaskets.

The gaskets in optimum filters are made of EPDM, certified for contact with drinking water according to stringent European regulations and directives, including UBA, DVGW standard W-270, WRAS, and ACS.

Filtration

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

Suspended solids are retained inside the cartridge, while the filtered liquid flows out through the outlet connection (OUT).

Cleaning

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

Manual cleaning of the filtering element is required when the pressure differential between the inlet and outlet gauges exceeds 0.8-1 bar.

To clean or replace the filtering element, isolate the filter from the system, empty it, and then open the cover to remove the FILTERKIT.



Technical data

Maximum flow rate	550 m ³ /h
Nominal pressure [bar]	PN 10 - PN 16 ⁽¹⁾
Maximum temperature	90°C
Construction shape	Y, L, O
Salinity	< 10000 ppm
pH range	3 - 9
Design standard	PED 2014/68/EU

Materials

Housing	AISI 304 - AISI 316
Gaskets	EPDM ⁽²⁾
Vent/drain valves	Nickel-plated brass - AISI 316
Pressure gauges	AISI 304 - AISI 316
Surface finishing	Micro shot peening and passivation

Models and flow rates

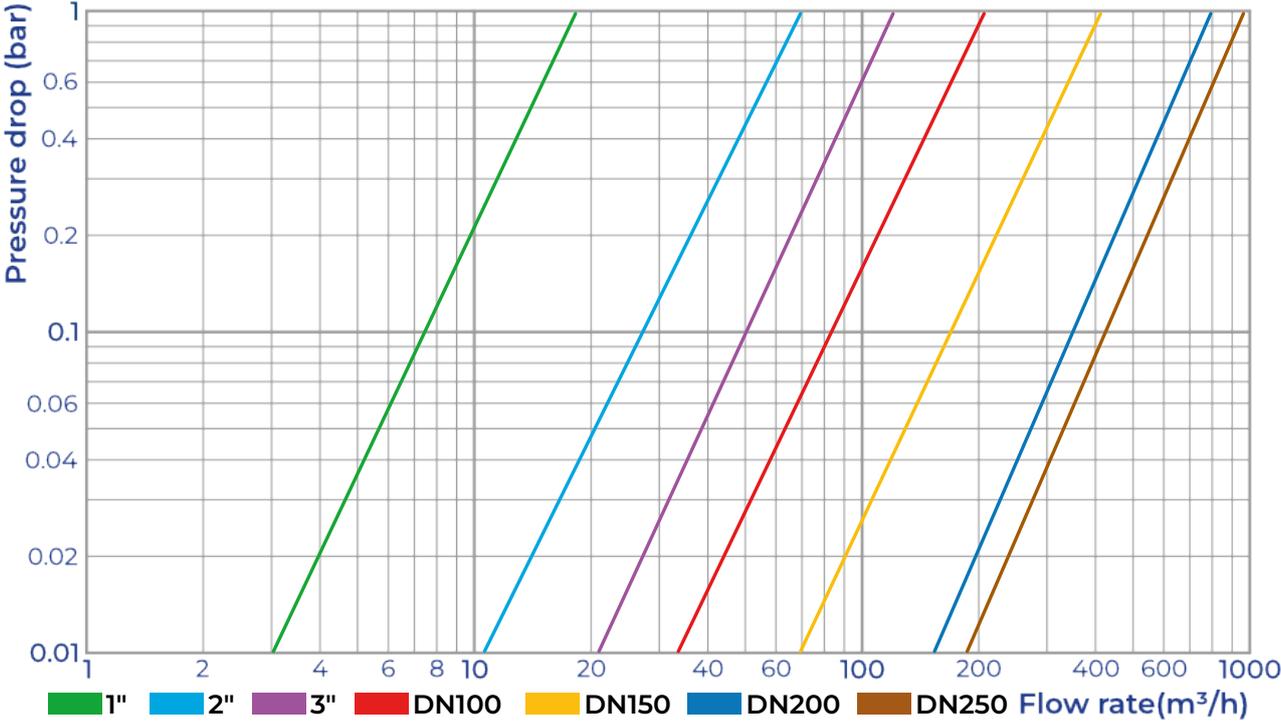
Model	Construction shape	Size	In/Out	Max flow rate ⁽³⁾ [m ³ /h]	Filtering surface [cm ²]	
OPH 1" S1	Y	1	1" BSPP	10	600	Threaded
OPH 2" S6	Y, L	6	3" BSPP	30	1'500	
OPH 3" S6	Y, L	6	3" BSPP	60	1'500	
OPH 3" S8	Y, L	8	3" BSPP	70	2'200	
OPH DN50 S6	Y, L	6	DN 50	30	1'500	Flanged
OPH DN80 S6	Y, L, O	6	DN 80	60	1'500	
OPH DN100 S6	Y, L, O	6	DN 100	100	1'500	
OPH DN80 S8	Y, L, O	8	DN 80	70	2'200	
OPH DN100 S8	Y, L, O	8	DN 100	110	2'200	
OPH DN100 S18	Y, L, O	18	DN 100	120	3'300	
OPH DN150 S18	Y, L, O	18	DN 150	240	3'300	
OPH DN100 S30	Y, L, O	30	DN 100	120	5'400	
OPH DN150 S30	Y, L, O	30	DN 150	260	5'400	
OPH DN200 S30	L, O	30	DN 200	400	5'400	
OPH DN150 S50	Y, L, O	50	DN 150	260	7'400	
OPH DN200 S50	Y, L, O	50	DN 200	450	7'400	
OPH DN250 S50	L, O	50	DN 250	550	7'400	
OPH 2" S6 GR	Y, L	6	2"	30	1'500	
OPH 3" S6 GR	Y, L	6	3"	60	1'500	
OPH 4" S6 GR	Y, L	6	4"	100	1'500	
OPH 3" S8 GR	Y, L	8	3"	70	2'200	
OPH 4" S8 GR	Y, L	8	4"	110	2'200	
OPH 4" S18 GR	Y, L	18	4"	120	3'300	
OPH 6" S18 GR	Y, L	18	6"	240	3'300	
OPH 4" S30 GR	Y, L	30	4"	120	5'400	
OPH 6" S30 GR	Y, L	30	6"	260	5'400	

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

Head loss

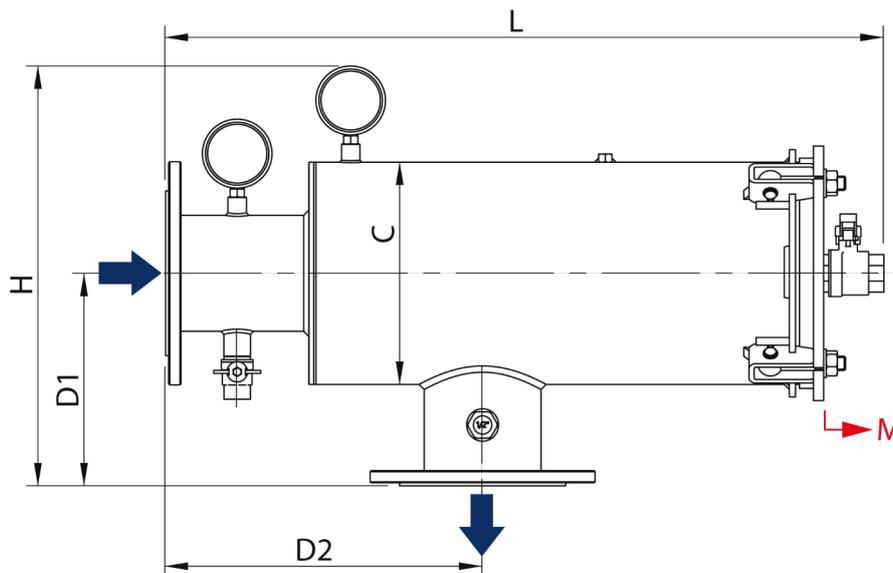


Dimensions

L Shape

Model	D1 [mm]	D2 [mm]	L [mm]	H [mm]	C [mm]	M* [mm]	Weight [Kg]
OPH 2" L 6	190	310	610	394	219	500	17
OPH 3" L 6	190	310	610	394	219	500	18
OPH DN80 L 6	210	310	610	414	219	500	22
OPH DN100 L 6	210	310	610	414	219	500	23
OPH 3" L 8	190	310	764	401	219	700	21
OPH DN80 L 8	210	310	764	414	219	700	25
OPH DN100 L 8	210	310	764	414	219	700	26
OPH DN100 L 18	247	350	807	478	273	700	33
OPH DN150 L 18	247	350	807	478	273	700	38
OPH DN100 L 30	247	350	1113	478	273	1000	41
OPH DN150 L 30	247	350	1113	478	273	1000	45
OPH DN200 L 30	267	350	1113	498	273	1000	51
OPH DN150 L 50	292	354	1194	549	323	1100	70
OPH DN200 L 50	302	354	1194	559	323	1100	75
OPH DN250 L 50	302	484	1194	559	323	1100	80

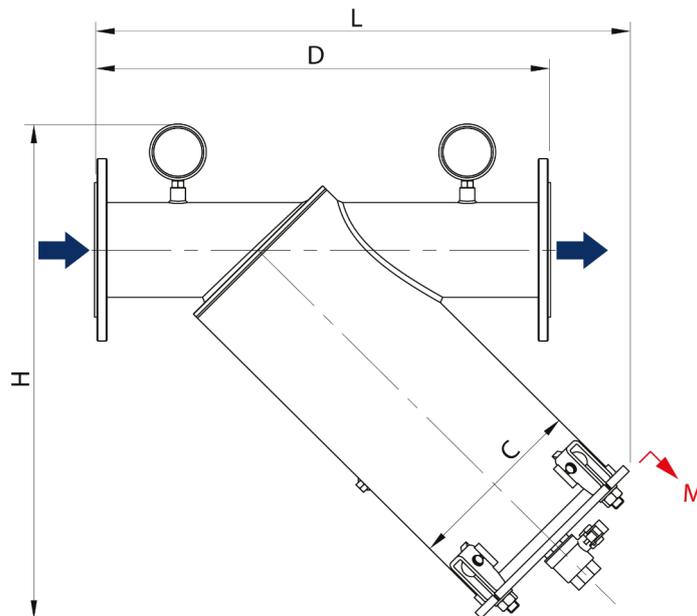
* M = minimum space required for maintenance



Y Shape

Model	D [mm]	L [mm]	H [mm]	C [mm]	M* [mm]	Weight [Kg]
OPH 1" Y 1	293	370	390	114	500	8
OPH 2" Y 6	412	465	461	219	500	17
OPH 3" Y 6	464	491	475	219	500	18
OPH DN80 Y 6	487	490	475	219	500	22
OPH DN100 Y 6	547	532	488	219	500	24
OPH 3" Y 8	464	600	584	219	700	21
OPH DN80 Y 8	487	600	584	219	700	25
OPH DN100 Y 8	547	641	597	219	700	26
OPH DN100 Y 18	585	663	619	273	700	33
OPH DN150 Y 18	661	686	646	273	700	38
OPH DN100 Y 30	585	880	837	273	1000	40
OPH DN150 Y 30	661	902	862	273	1000	46
OPH DN150 Y 50	702	1010	963	323	1000	70
OPH DN200 Y 50	941	1255	1169	323	1000	84

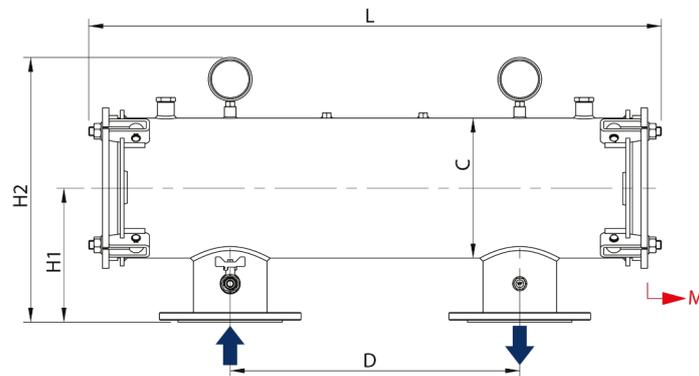
* M = minimum space required for maintenance



O Shape

Model	D1 [mm]	L [mm]	H1 [mm]	H2 [mm]	C [mm]	M* [mm]	Weight [Kg]
OPH DN80 O 6	450	890	210	415	219	500	36
OPH DN100 O 6	450	890	210	415	219	500	37
OPH DN80 O 8	450	890	210	415	219	700	37
OPH DN100 O 8	450	890	210	415	219	700	38
OPH DN100 O 18	640	1352	246	479	273	700	58
OPH DN150 O 18	640	1352	246	479	273	700	62
OPH DN100 O 30	640	1352	246	479	273	1000	59
OPH DN150 O 30	640	1352	246	479	273	1000	64
OPH DN200 O 30	640	1352	246	499	273	1000	69
OPH DN150 O 50	800	1489	292	550	323	1000	80
OPH DN200 O 50	800	1489	302	560	323	1000	85
OPH DN250 O 50	800	1489	302	560	323	1000	91

* M = minimum space required for maintenance



Filtering elements

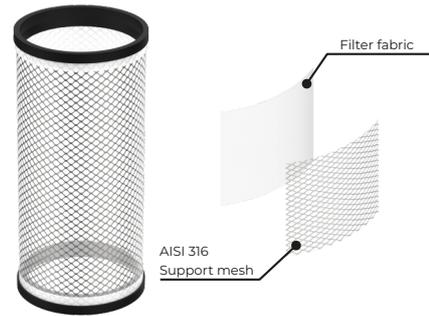
PES filter kit

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



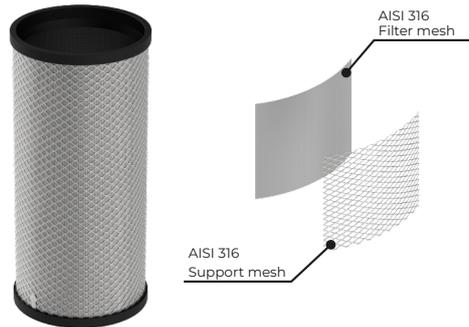
2LE filter kit

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 microns

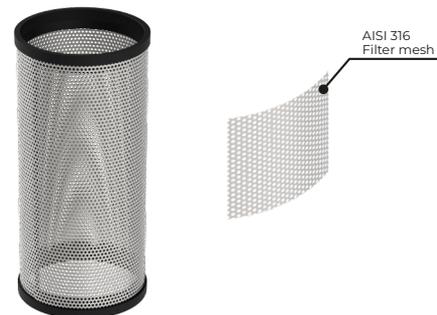


1LE filter kit

Made entirely of AISI 316 perforated stainless steel, this single-layer filter element offers exceptional resistance to the most challenging operating conditions, including extremely low or high temperatures, abrasive materials, and exposure to chemicals.

Available filtration degrees:

3000 - 2000* - 1000* microns



* On request

Configurations/Availability

Filtration degree [µm]	PES filter kit	2LE filter kit	1LE filter kit
25	✓	X	X
40	X	✓ (only available for size 1 and 6)	X
53	✓	X	X
80	✓	X	X
110	X	✓	X
120	✓	X	X
200	✓	✓ (not available for size 1)	X
400	✓	X	X
580	✓	X	X
810	✓	X	X
1000	X	X	✓
2000	X	X	✓
3000	X	X	✓

Accessories

Differential Pressure Kit

Enables monitoring of the pressure difference between the filter's inlet and outlet. By doing so, it allows the connection of an alarm that activates when the ΔP reaches the preset value, alerting maintenance personnel that the filter requires cleaning.

Max pressure	17 bar
ΔP range	0,3-2 bar
Max temperature	60°C

Neodymium Magnetic Rod

The kit includes neodymium magnetic rods coated in AISI 304 stainless steel.

These rods attract and retain even the smallest suspended ferrous particles from the filtered liquid, making them easy to remove during regular filter maintenance.

Description	Magnet size 6	Magnet size 8-18	Magnet size 30
Length	300mm	450mm	600mm
Magnetic Flux Density	9000 Gauss		
Material	Neodymium + AISI 304 coating		
Compatibility	Size 6	Size 8-18	Size 30

Eyebolts kit

Standard nuts can be replaced with stainless steel eyebolts, which are more practical as they do not require special wrenches for rotation.

Eyebolts	4
Material	A4
Compatibility	All models

Spare Parts

Description	Material	Compatibility
Body gasket $\varnothing 114.3$	EPDM	Size 1
Filter kit – gasket kit $\varnothing 70$, (2pcs)	EPDM	Size 1
Body gasket $\varnothing 219.1$	EPDM	Size 6 - Size 8
Filter kit – gasket kit $\varnothing 145$, (2pcs)	EPDM	Size 6 - Size 8
Body gasket $\varnothing 273$	EPDM	Size 18 - Size 30
Filter kit – gasket kit $\varnothing 218$, (2pcs)	EPDM	Size 18 - Size 30
Pressure gauge 0-10 bar G1/4" $\varnothing 63$	AISI 304	All models
Pressure gauge 0-10 bar G1/4" $\varnothing 63$	AISI 316	All models



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