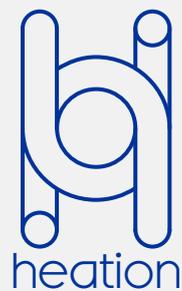


datasheet



# dolphin prime-phin



## Description

prime-phin is a stainless steel bag filter housing that protects closed circuit systems from circulating impurities.

Impurities, mainly consisting of sand particles and sludge, are retained by a large filter bag, reducing the need for cleaning operations.

Each filter is designed to accommodate neodymium magnetic candles, coated in stainless steel, ideal for the separation of ferrous impurities.

Thanks to the wide range of filter bags available, prime-phin effectively removes even the smallest impurities with minimal pressure losses.

It is also possible to add chemical cleaning additives to the water to be treated, using the upper valve located on the filter lid.



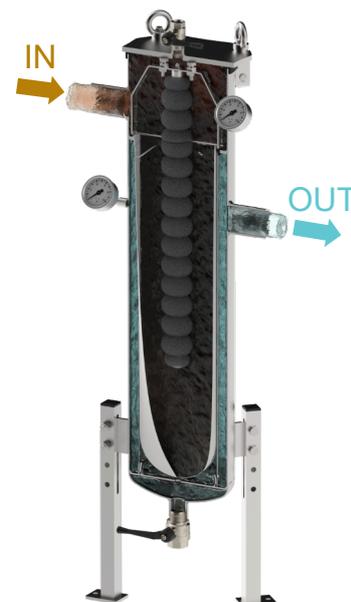
## Installation

It is recommended to install prime-phin in bypass on closed circuits; this precaution ensures that the systems are always protected without interruptions to the users during cleaning operations.

## Filtration

Raw water enters the filter housing through the inlet connection (IN), passes through the filter bag from the inside out, and exits filtered through the outlet connection (OUT).

Separated dirt particles remain trapped inside the filter bag, while ferrous impurities are retained by the magnets.



## Maintenance

The filter bag must be cleaned or replaced when the progressive accumulation of retained solids causes an excessive increase in pressure losses (> 0.7bar) visible from the pressure gauges with which the filter is equipped.

For maintenance, simply isolate the filter, empty it from the bottom valve, remove the lid by loosening the bolts with quick opening, and pull out the filter bag.

### Technical data

Maximum flow rate	70 m <sup>3</sup> /h
Nominal pressure [bar]	PN 10 - PN16(1)
Maximum temperature	90°C
Construction shape	Z
Salinity	< 10000 ppm
pH range	3 - 9
Design standard	PED 2014/68/EU

### Materials

Housing	AISI 304 - AISI 316
Filter bags	PET
Gaskets	EPDM <sup>(3)</sup>
Vent/Drain valve	Nickel-plated brass - AISI 316
Pressure gauges	AISI 304 - AISI 316
Surface finishing	Shot-peening and passivation

### Models and flow rates

Model	In/Out	Max flow rate* [m <sup>3</sup> /h]	Filtering surface [cm <sup>2</sup> ]	Drain	
PRPH 2" Z S2 <sup>(4)</sup>	2" BSPP	38	4'500	1" BSPP	Threaded
PRPH 3" Z S2 <sup>(4)</sup>	3" BSPP	70	4'500	1" BSPP	
PRPH DN50 Z S2	DN 50	38	4'500	1" BSPP	Flanged
PRPH DN80 Z S2	DN 80	70	4'500	1" BSPP	

\* Important: maximum flow rates refer to the filter housing only. During the design and selection phase, reference should be made to the flow rate of the filter bag.

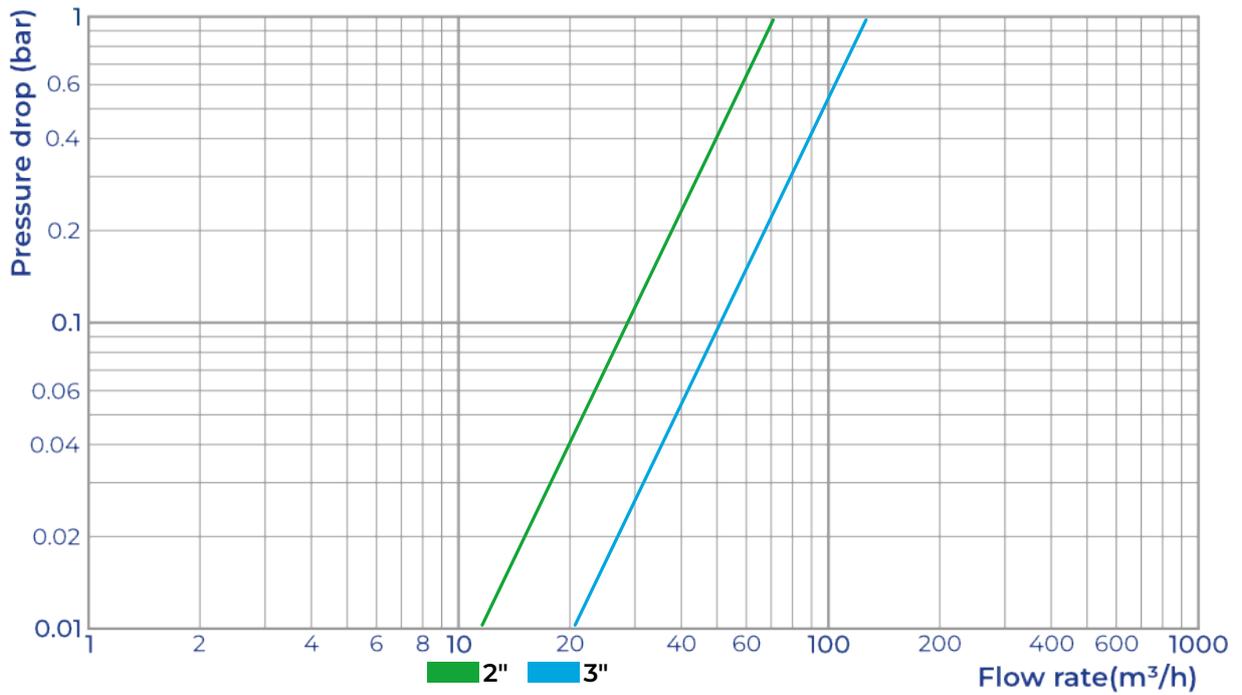
### Filter bags

Model	Max flow rate <sup>(5)</sup> [m <sup>3</sup> /h]	Filtering surface[cm <sup>2</sup> ]	Ø [mm]	Length [mm]
BAG FELT PES SIZE 02 1 µm	16	4'500	178	810
BAG FELT PES SIZE 02 5 µm	22	4'500	178	810
BAG FELT PES SIZE 02 10 µm	36	4'500	178	810
BAG FELT PES SIZE 02 25 µm	45	4'500	178	810
BAG FELT PES SIZE 02 50 µm	51	4'500	178	810
BAG FELT PES SIZE 02 100 µm	62	4'500	178	810
BAG FELT PES SIZE 02 200 µm	70	4'500	178	810



1. On request
2. Other construction shapes available on request
3. Certified for contact with drinking water according to the following European standards: UBA, DVGW standard W-270, WRAS, and ACS
4. Also available in the version with grooved connections
5. Flow rates calculated with clean water (NTU < 1) at a temperature of 20°C

### Head loss

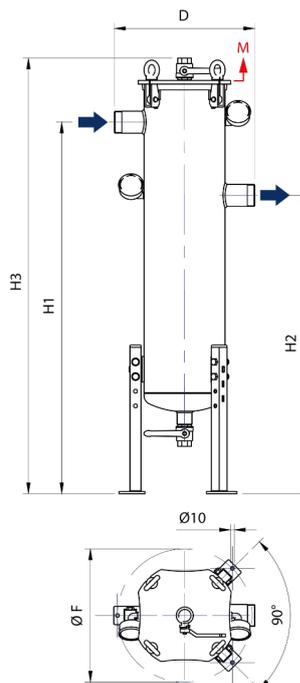


### Dimensions

Z Shape

Model	H1	H2	H3	D	M*	Ø	ØF	Weight [Kg]
PRPH 2" Z S2	1015	815	1220	379	850	2"	364	32
PRPH 3" Z S2	1015	815	1220	379	850	3"	364	32
PRPH DN50 Z S2	1015	815	1220	379	850	DN50	364	32
PRPH DN80 Z S2	1015	815	1220	379	850	DN80	364	33

\* M = minimum space required for maintenance



## Accessories

### Automatic vent valve

The air vent valve automatically removes air trapped in the system, preventing corrosion, pump cavitation, and noise caused by imperfect fluid circulation.

Swivelling air vent valve	
Nominal pressure	10 bar
Max. Discharge pressure	10 bar
Max. Working temperature	110°C

### Neodymium magnetic rod

Neodymium magnets trap ferrous particles in the water system. This is very beneficial for systems prone to corrosion.

### Differential pressure kit

Detects the pressure difference between the inlet and outlet and activates an electrical contact upon reaching a pre-set  $\Delta P$  value.

Max pressure	17 bar
$\Delta P$ range	0.3 - 2 bar
Max. temperature	60°C

## Spare Parts

Description	Material
Body gasket $\varnothing 219.1$	EPDM
Body gasket $\varnothing 219.1$	NBR
Support mesh, size 02	AISI 316
Pressure gauge 0-10 bar G1/4" $\varnothing 63$	AISI 304
Pressure gauge 0-10 bar G1/4" $\varnothing 63$	AISI 316



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