

datasheet

# dolphin cyclo-phin

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## Description

cyclo-phin filters are hydrocyclonic separators made of stainless steel.

Their design creates a vortex from the incoming flow, separating sand and other solids with a specific gravity greater than that of water ( $SG \geq 1$ ) from the raw water.

cyclo-phin filters have a very high removal efficiency, reaching up to 99% for solids  $75\mu\text{m}$  and larger, and 65% efficiency for solids at the lower limit of  $50\mu\text{m}$ .

These filters operate continuously without any moving mechanical parts, making them durable and cost-effective due to their virtually maintenance-free nature.

They are also equipped with inspectable covers for any unforeseen circumstances.

The separated solids accumulate in a storage tank at the bottom and are expelled through a manual valve located in the bottom cover.

Discharge of impurities can be automated with the appropriate Kit and timed using the Chrono Kit if needed.



## Filtration

Raw water enters the filter through the inlet connection (IN), initiating a descending vortex.

This vortex is further accelerated by the PVC cone, increasing the centrifugal force and enabling the separation of suspended solids from the water.

The filtered water then encounters the lower deflector and rises towards the center, where it is directed to the outlet (OUT).

Meanwhile, the suspended solids slide down the body walls towards the collection tank, from where they can be removed through the drain valve.



### Technical data

Maximum flow rate	190 m <sup>3</sup> /h
Nominal pressure [bar]	PN 10
Maximum temperature	60°C
Salinity	< 10000 ppm
pH range	3 - 9
Design standard	PED 2014/68/EU

### Materials

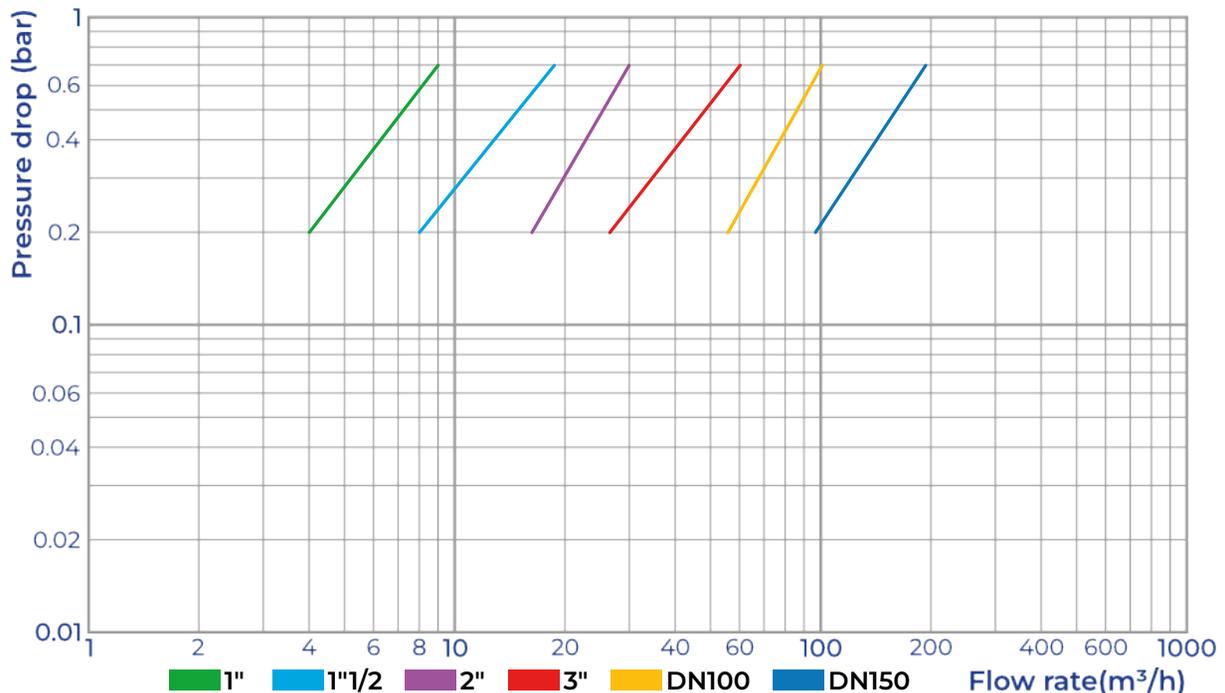
Housing	AISI 304 - AISI 316
Gaskets	EPDM <sup>(1)</sup>
Vent/drain valves	Nickel-plated brass - AISI 316
Accelerator cone	PVC
Surface finishing	Micro shot peening and passivation

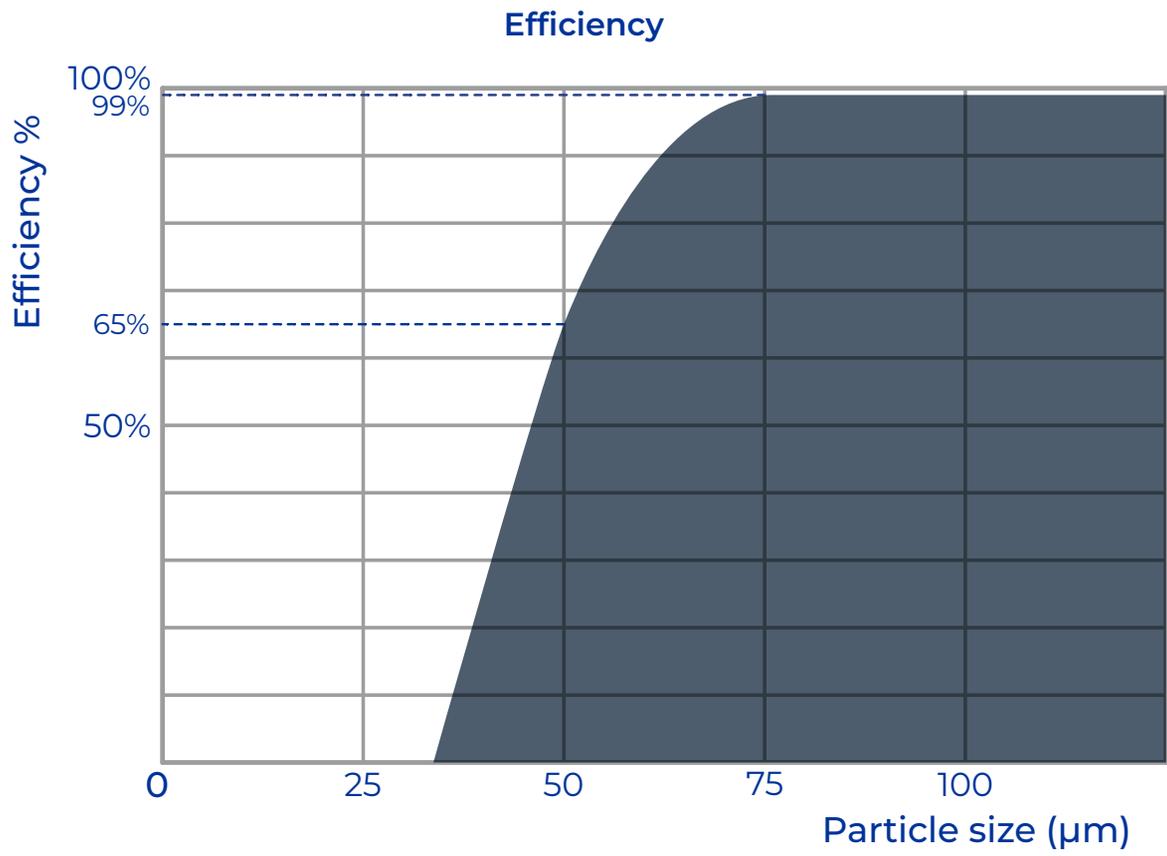
### Models and flow rates

Model	In/Out	Minimum flow rate [m <sup>3</sup> /h]	Maximum flow rate [m <sup>3</sup> /h]	Drain	
CYPH 1"	1" BSPP	4	9	1" BSPP	Threaded
CYPH 1" ½	1" ½ BSPP	8	18	1" BSPP	
CYPH 2"	2" BSPP	15	30	1" BSPP	
CYPH 3"	3" BSPP	25	60	1" BSPP	
CYPH DN100	DN 100	54	105	1" ½ BSPP	Flanged
CYPH DN150	DN 150	95	190	1" ½ BSPP	

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

### Head loss

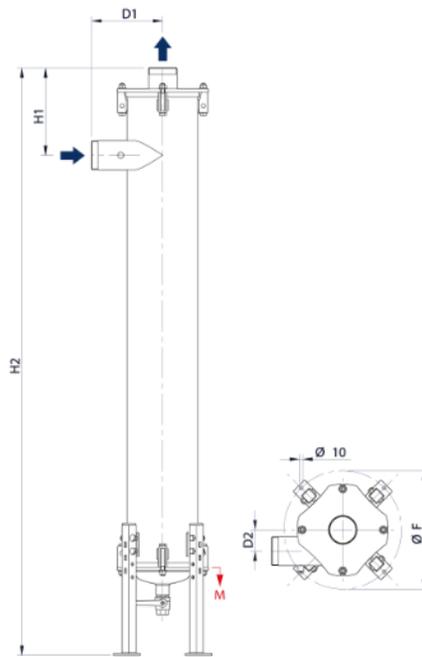




### Dimensions

Model	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	M* [mm]	ØF	Weight [Kg]
CYPH 1"	120	40	144	1074	220	259	17
CYPH 1"½	150	45	194	1298	260	285	23
CYPH 2"	190	54	208	1454	260	314	31
CYPH 3"	220	65	268	1804	260	365	52
CYPH DN100	300	79	318	2118	290	440	84
CYPH DN150	350	78	335	2303	330	530	105

\* M = minimum space required for maintenance



## Accessories

### Pneumatic Drain Kit

A recommended alternative to the manual drain valve is the automatic butterfly valve with a pneumatic actuator.

This kit comes with a convenient L-shaped manifold that shifts the drain forward and away from its original position located beneath the filter.

Valve body	Ductile iron
Disc	AISI 316
Liner	EPDM
Power supply	230 Vac
Requires compressed air	6bar
Namur Solenoid Valve included	

### Electric Drain Kit

An alternative option to replace the manual drain valve is to install an automatic butterfly valve with an electric actuator.

This kit includes an L-shaped manifold that facilitates moving the drain away from its original location under the filter and towards the front.

Valve body	Ductile iron
Disc	AISI 316
Liner	EPDM
Power supply	230 Vac

### Timer Kit

cyclo-phin filters can be fitted with a Timer Kit, which allows for the automatic opening and closing of the drain valves based on adjustable time intervals.

Material	ABS
Protection class	IP65
Power supply	230Vac - 50/60Hz - 15VA
Solenoid valve Output	24Vac - N.O/N.C

### Electric controller

An electronic controller is available for automatic drain kits that can be used to open and close the valve at specific time intervals.

This controller has the ability to manage multiple parallel units simultaneously.

Material	ABS
Protection class	IP66/EN60529
Power supply	230Vac - 50/60Hz - 150W
Solenoid valve Output	24Vac - N.O/N.C

## Spare Parts

Description	Material	Compatibility
Body gasket Ø 114.3	EPDM	CYPH 1"
Body gasket Ø 139.7	EPDM	CYPH 1"1/2
Body gasket Ø168.3	EPDM	CYPH 2"
Body gasket Ø219.1	EPDM	CYPH 3"
Body gasket Ø273	EPDM	CYPH DN100
Body gasket Ø273	EPDM	CYPH DN150



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