



**BRUSH Y**

Manual cleaning filter with brushes for drinking and industrial water

Rev. 0 - 03/24



**CHARACTERISTICS**

There are various technological sectors where the filtration of significant quantities of water is required in order to remove suspended solids, coarse bodies and sand which could cause problems for hydraulic systems (valves, pumps, equipment). This need becomes particularly pressing when the sources of water supply are: rivers, lakes, canals, wells.

In all these cases, the use of filters from the BRUSH Y series becomes the ideal solution. These are semi-automatic filters with internal brushes that allow cleaning of the filter element made up of a polyester mesh supported by a steel structure. The main application sectors of the BRUSH Y series filters are: agriculture and irrigation, supply of evaporative towers, supplies of power plants for the production of hot water and steam, industrial applications in general. If there are significant quantities of sand in the water, BRUSH Y filters can be used as protection downstream of VORTEX series centrifugal separators.

BRUSH Y is a semi-automatic cleaning separator filter with stainless steel body. The filter is provided with internal rotating brushes that can be operated manually via an external lever, which allow the filter mesh to be cleaned without dismantling it. They are an intermediate solution between manual mesh filters and automatic self-cleaning mesh filters. For its best use, the BRUSH Y filter requires an inlet pressure of at least 2 bar, thus ensuring reduced time and water consumption during the cleaning phase, during which the outgoing flow must be manually interrupted.

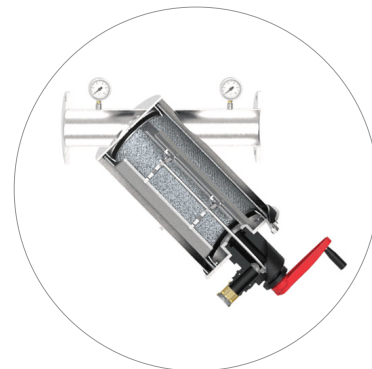
The internal cartridge is available with polyester filter fabric fitted inside a mesh support in AISI 316 stainless steel or completely in AISI 316 stainless steel; these solutions offer a very wide filtration range from 800 to 25 µm.

The standard supply includes 2 pressure gauges for monitoring pressure drops, thus emptying valve and AISI316 tubular item with polyester mesh with 120 µm filtration degree.

The range of filters is available with connections from 2" up to DN150, being able to process flow rates from 40 m3/h up to 300 m3/h. The filtration degrees available are:

Polyester cartridge and AISI316 support: 25/53/80/120/200/400/580/810 µm.

Cartridge and support in AISI316: 110/200/400/800 µm



**MAX. PRESSURE**  
10 bar

**FILTRATION RATING**  
25-800 µ

**MAX FLOW RATE**  
40-300 m<sup>3</sup>/h

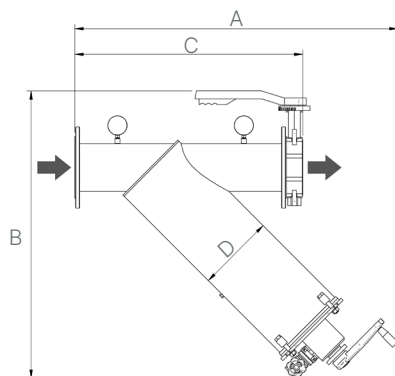
## TECHNICAL DATA

Code		BRSH0010	BRSH0020	BRSH0030	BRSH0040	BRSH0050	BRSH0060
<b>Model</b>		<b>BRUSH Y/10A</b>	<b>BRUSH Y/10A</b>	<b>BRUSH Y/20</b>	<b>BRUSH Y/35</b>	<b>BRUSH Y/35</b>	<b>BRUSH Y/40P</b>
<b>In/Out connections</b>		2"	3"	DN100	DN100	DN150	DN150
<b>Drain connections</b>		1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2
<b>Maximum flow rate</b>	m <sup>3</sup> /h	40	60	120	130	230	250
<b>Filtering area</b>	cm <sup>2</sup>	1500	1500	2200	3300	3300	5400
<b>Min./max. fluid temperature to be treated</b>	°C	50 - 60					
<b>Min./max. working pressure</b>	bar	1,5 - 10					
<b>Seals</b>		EPDM					
<b>Body and lid material</b>		AISI304 (AISI316 on request)					
<b>Support mesh material</b>		AISI316					
<b>Filter sock</b>		Polyester or AISI316					
<b>Filtration rating</b>	µm	Standard 120					
<b>Salinity and acidity</b>		< 10.000 ppm TDS, pH 3 ÷ 9					

\* The flow rates refer to filters with 120 µm filter mesh and water at 20 °C with NTU < 1.



## OVERALL DIMENSIONS



Code	A	B	C	D	Weight
	mm	mm	mm	mm	Kg
BRSH0010	665	675	400	206	18,0
BRSH0020	690	690	450	206	19,0
BRSH0030	840	810	555	206	30,0
BRSH0040	870	810	600	273	37,0
BRSH0050	940	835	745	273	43,0
BRSH0060	1155	1055	745	273	55,0



## EQUIPMENT AND SUPPLY SPECIFICATIONS

BRUSH Y is supplied complete with filter cartridge; instruction - maintenance manual in Italian (including declaration of conformity).

Shipping managed on pallets.



## REFERENCE STANDARDS

**Art. 4 Par. 3** of Directive 2014/68/EU (PED).



## PRECAUTIONS AND WARNINGS

It is necessary to protect the filter from the direct action of the sun and away from frost. Do not expose to temperatures above 80°C. Do not exceed the maximum working pressure indicated. If the supply pressure is higher, install a pressure reducer upstream of the filter. Periodically check the correct operation of the filter. The weight of the hydraulic connections and the filter must be supported with special structures so as not to stress the connections. Make sure that the filter is mounted in such a way as to have sufficient space around it for maintenance operations.



## MAINTENANCE

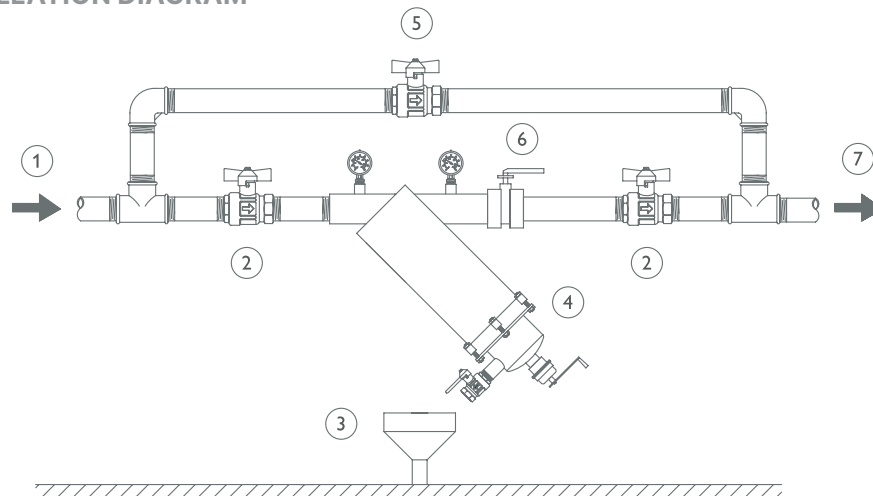
The solids suspended in the liquid to be filtered accumulate in the internal wall of the filtering element, thus causing its progressive clogging. When the pressure difference between the inlet and outlet of the filter reaches the limit value of  $\Delta P = 0.7$  bar, it is advisable to carry out a cleaning cycle of the filter element. The BRUSH Y filters are not equipped with an anti-flooding device capable of detecting and intervening in the event of breakages or blockages of the device and, therefore, avoiding possible flooding



## INSTALLAZIONE

The installation of the filter must be carried out exclusively by qualified personnel in full compliance with current regulations. The filter must be installed upstream of the circuit to be protected. Install an adequate valve system that allows you to exclude the filter in the event of a malfunction without preventing the water supply (by-pass). Provide an adequate visible drain under the filter. It is advisable to install sampling taps upstream and downstream of the filter. Respect all the instructions given in the Use and Maintenance Manual.

## INDICATIVE INSTALLATION DIAGRAM



1. Raw water inlet; 2. Shut-off valve; 3. Drain; 4. BRUSH Y filter; 5. By-pass valve; 6. Manual backwash valve; 7. Filtered water outlet.



## SPARE PARTS

Spare parts for the equipment are available on request in the dedicated price list.

## AVERAGE DELIVERY TIMES

2-3 weeks

## GENERAL EXCLUSIONS

- Special dedicated packaging, where required
- Equipment start-up and final testing: management not necessary by an Authorized Assistance Center See the manual for correct installation of the product
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- Lifting and handling means
- Hydraulic and electrical connections to our plant and to our utilities
- Masonry, carpentry and foundation works
- Chemical analyses
- Structural calculations
- Anything not expressly mentioned in the offer