



VACUUM Y

Manual cleaning filter with suction skids 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, including those of a colloidal nature (silt, sand, etc.) 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 VACUUM Y series becomes the ideal solution.

VACUUM Y filters are Y-shaped filters with filter cartridge and mechanism with special suction skids which guarantee effective cleaning of the filter element with reduced water consumption and without flow interruption. The water to be treated supplies the filter through the inlet connection, passes through the filter element from the inside to the outside and flows to the outlet connection.

Suspended solids and silt remain retained in the internal part of the filter element. During the filtration phase, the drain connection remains closed.

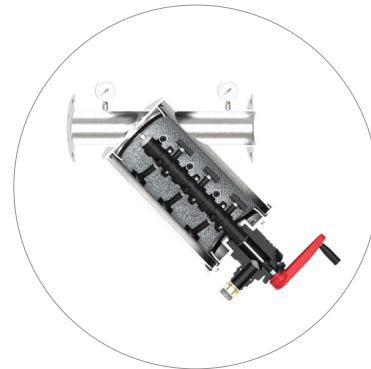
The VACUUM Y filters are equipped with flexible suction pads that allow cleaning of the filter mesh by generating the venturi tube principle by sucking the dirt from the mesh without dismantling the filter.

The filter body and support cartridge are made of AISI 304 stainless steel. The cartridge support is made of AISI 316 stainless steel, the filter mesh can be made of polyester or AISI 316 stainless steel (for the most critical situations), the suction pads are in nylon and their number varies depending on the length of the filter body/cartridge.

The filter is composed of two pressure gauges for monitoring pressure drops, 1 chromed brass ball drain valve, a master brass gate valve, and an AISI 316 tubular with polyester mesh with a 120 micron filtration degree (Standard supply).

According to treatment needs, cartridges with polyester mesh are available, filtration degrees: 25, 53, 80, 120, 200, 400, 580, 810, 1000 and 2000; or cartridge with AISI 316 stainless steel mesh, available filtration degrees: 55, 120, 200, 400 and 800. Specify the micronage and type of cartridge required in the order; the purchase price remains unchanged).

For effective cleaning of the cartridge using suction pads, a minimum pressure of 2 bar is required, furthermore during the cleaning phase the filter continues to supply water. If



the inlet pressure is less than 2 bar, it will be necessary to install a master valve to close the outlet and adjust its partial closure, until the required value is reached, during the cleaning cycle.

The cleaning of the filter cartridge occurs via the 'Suction scanning' principle consisting of telescopic suction pads; these work adhering to the internal surface of the filter cartridge, sucking away all the suspended solids and silt that have deposited there and expelling them from the previously opened drain. When a pressure difference greater than 0.7 bar is detected by the INLET/OUTLET pressure gauges, it is recommended to carry out a manual cleaning cycle. By opening the drain valve and slowly rotating the knob clockwise, you must make at least 5 complete rotations (20 seconds), at the end close the drain valve. The cleaning of the cartridge occurs without interrupting the filtration cycle.

MAX PRESSURE
10 bar

FILTRAZION RATING
25-2000 µ

MAX FLOW RATE
30-300 m³/h

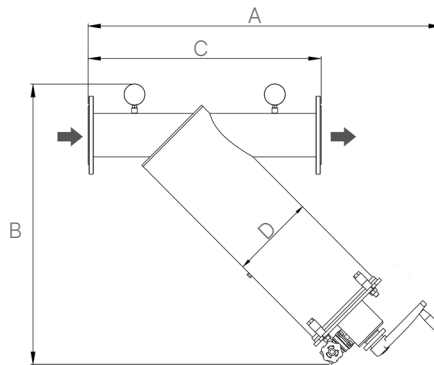
TECHNICAL DATA

Code		VACUM0010	VACUM0020	VACUM0030	VACUM0040	VACUM0050	VACUM0060
Model		VACUUM Y/10A	VACUUM Y/10A	VACUUM Y/20	VACUUM Y/35	VACUUM Y/35	VACUUM Y/40P
In/Out connections		2"	3"	DN100	DN100	DN150	DN150
Drain connections		1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2
Maximum flow rate	m ³ /h	30	80	130	140	250	300
Filtering area	cm ²	1500	1500	2200	3300	3000	5400
Min./max. fluid temperature to be treated	°C	5 - 60					
Min./max. working pressure	bar	2,0 - 10					
Pressure drop at nominal flow rate	bar	0,2					
Minimum cleaning cycle flow	m ³ /h	6	6	9	9	9	15
Filter drain flow rate	L	15	15	25	25	25	66
Cleaning cycle time	sec	8 - 16					
Seals		EPDM					
Body and lid material		AISI304					
Support mesh material		AISI316					
Filter sock		Polyester or AISI316					
Degree of filtration	µm	Standard 120					
Salinity and acidity		< 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
VACUM0010	660	570	395	206	18,0
VACUM0020	685	580	450	206	19,0
VACUM0030	840	700	555	206	28,0
VACUM0040	870	705	600	273	37,0
VACUM0050	940	730	745	273	43,0
VACUM0060	1155	950	745	273	52,0



EQUIPMENT AND SUPPLY SPECIFICATIONS

VACUUM 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 sunlight and away from frost. 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 operation of the filter.



INSTALLATION

Carry out the installation in compliance with local regulations in force. The installation must be carried out in hygienically suitable places and in compliance with the provisions set out in Decree of the Ministry of Economic Development No. 37 of 22 January 2008, including those relating to final testing and maintenance.

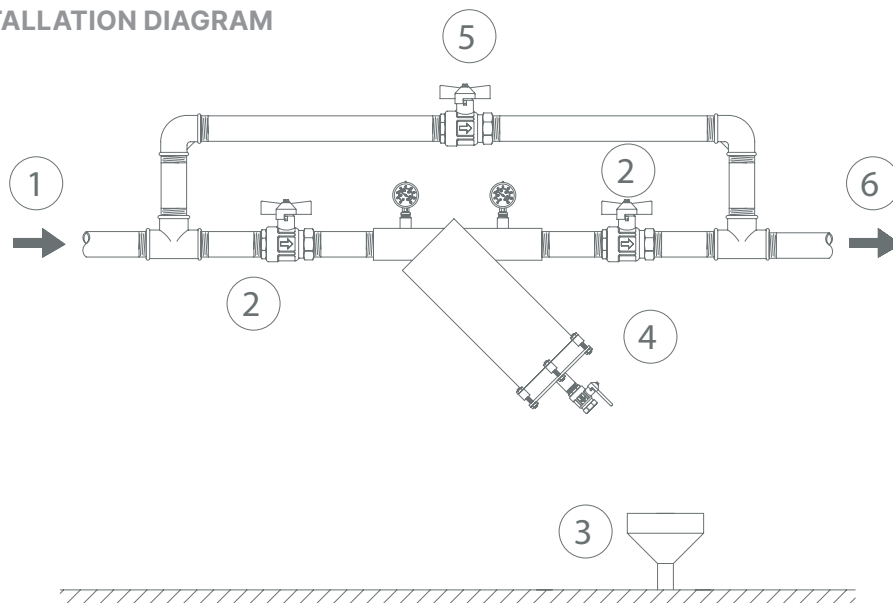
The filter must be installed upstream of the circuit to be protected. Install a by-pass and a visible drain under the filter. Respect all the instructions given in the Use and Maintenance Manual.



MAINTENANCE

The VACUUM Y series filters must be monitored as they are manual filters; the pressure drop value indicates the need to perform a washing cycle. The filters are not provided with anti-flooding systems capable of detecting and intervening in the event of breakages or blockages of the device and, therefore, avoiding possible flooding or uncontrolled water consumption. Cleaning the filter must be performed manually when the pressure difference between inlet and outlet is excessive. Cleaning does not require interrupting the in-line flow (closing the outlet connection).

INDICATIVE INSTALLATION DIAGRAM



1. Raw water inlet; 2. Shut-off valve; 3. Drain; 4. Filter; 5. By-pass valve; 6. 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
- 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