



ROTOR Y

Automatic 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 ROTOR Y series becomes the ideal solution.

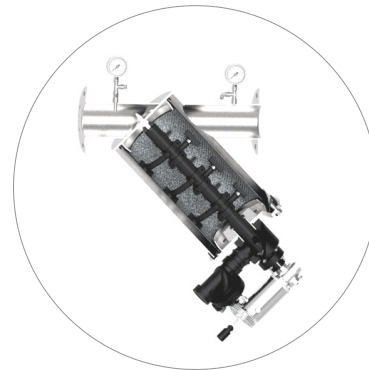
ROTOR Y filters are Y-shaped filters with filter cartridge and automatic mechanism with special suction skids which guarantee effective cleaning of the filter element with reduced water consumption and without flow interruption. The water to be treated supplies the filter through the inlet connection, 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 ROTOR Y automatic filters are provided with flexible suction skids that allow cleaning of the filter mesh. The filter body is made of AISI 304 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 skids are made of nylon and their number varies depending on the length of the filter body/ cartridge. The filter is composed of a control (separate) panel for cleaning with the "delta time" function, differential pressure gauge, two pressure gauges for monitoring pressure drops, a 1" 1/2 PVC drain hydrovalve connected to the suction skids through the central shaft for discharging dirt during the washing phase, an automatic movement system complete with gear motor. The supply of the ROTOR Y automatic filter includes the choice of the type of filter cartridge based on the treatment needs.

Cartridge with polyester mesh; available filtration degrees: 25, 53, 80, 120, 200, 400, 580, 810, 1000 and 2000.

Cartridge with AISI 316 stainless steel mesh; available filtration degrees: 55, 120, 200, 400 and 800. For effective cleaning of the cartridge using suction skids, 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 closing outlet master valve and adjust its partial closure until it reaches the required value, during the cleaning cycle.



The automatic cleaning of the filter cartridge occurs via the 'Suction scanning' principle consisting of telescopic suction skids; this 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, again automatically, from the drain. When a pressure difference greater than 0.8 bar occurs or when the set washing time comes into operation, the ROTOR Y filter automatically carries out a cartridge cleaning cycle. You can set the times of your choice for the washing cycles, according to your needs. The cleaning of the cartridge occurs without interrupting the filtration cycle.

MAX PRESSURE 10 bar

FILTRAZION RATING 25-2000 μ

MAX FLOW RATE 30-250 m³/h

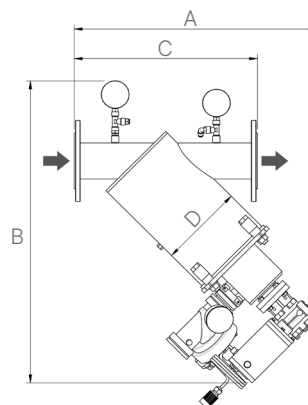
TECHNICAL DATA

Code		ROTOR0010	ROTOR0020	ROTOR0025	ROTOR0030	ROTOR0040	ROTOR0050	ROTOR0060
Model		ROTOR Y/10A	ROTOR Y/10A	ROTOR Y/20	ROTOR Y/20	ROTOR Y/35	ROTOR Y/35	ROTOR Y/40P
In/Out connections		2"	3"	DN80	DN100	DN100	DN150	DN150
Drain		1"	1"	1" ½	1" ½	1" ½	1" ½	1" ½
Maximum flow rate*	m ³ /h	30	60	60	120	130	230	250
Filtering area	cm ²	1500	1500	2200	2200	3300	3300	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		6	6	9	9	9	9	15
Filter drain flow rate	L	15	15	25	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						
Power supply		230 Vac - 50/60 Hz						

* 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
ROTOR0010	720	730	400	206	22,0
ROTOR0020	745	740	450	206	23,0
ROTOR0025	860	850	450	206	31,0
ROTOR0030	900	860	550	206	33,0
ROTOR0040	900	864	600	273	41,0
ROTOR0050	970	890	745	273	47,0
ROTOR0060	1045	1160	745	273	57,0



EQUIPMENT AND SUPPLY SPECIFICATIONS

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

Shipping managed on pallets.



REFERENCE STANDARDS

Directive 2014/30/UE: concerning the approximation of the laws of the Member States relating to electromagnetic compatibility.

Directive 2014/35/UE: concerning the approximation of the laws of the Member States relating to electrical equipment intended for use within certain voltage limits.

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.

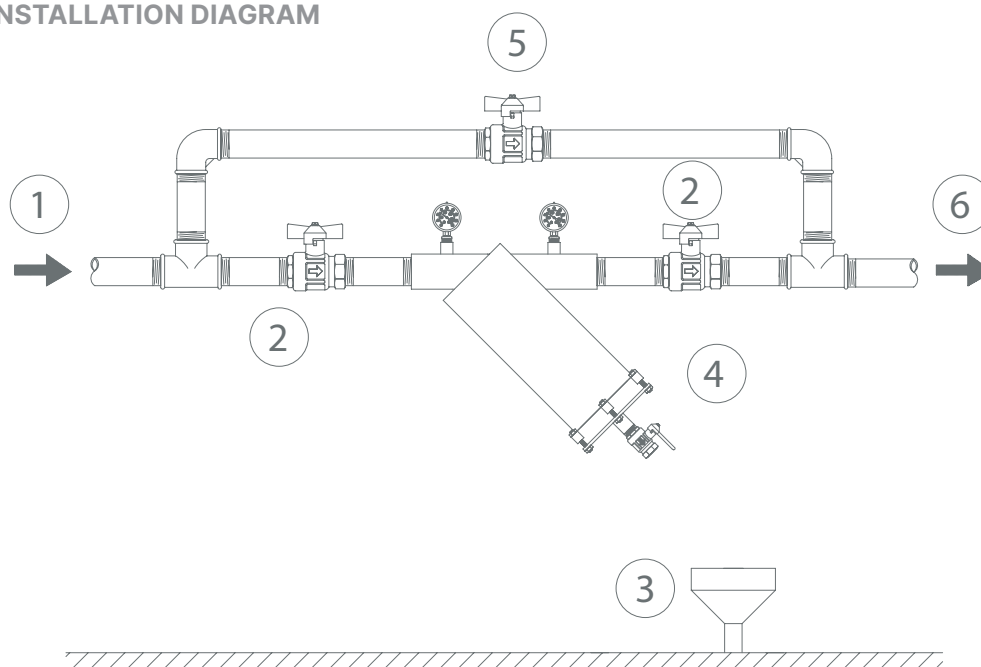
The filter must be installed upstream of the circuit to be protected. Install a by-pass and a visible drain under the filter. Respect all the instructions given in the Use and Maintenance Manual.



MAINTENANCE

The ROTOR Y series filters must be monitored as they are automatic filters; the pressure drop value indicates the need to perform a washing cycle. The filters are not equipped 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 does not require interrupting the in-line flow (closing the outlet connection).

INDICATIVE INSTALLATION DIAGRAM



1. Ingresso acqua grezza; 2. Valvola di intercettazione; 3. Scarico; 4. Filtro; 5. Valvola by-pass; 6. Uscita acqua filtrata.



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