



TURBONET Y

Automatic 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 TURBONET Y series becomes the ideal solution.

These are automatic filters provided with differential pressure control capable of cleaning themselves independently thanks to rotating brushes and without the need to interrupt filtration. The main application sectors of the TURBONET 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, TURBONET Y filters can be used as protection downstream of VORTEX series centrifugal separators.

TURBONET Y is a self-cleaning separator filter with stainless steel body. The filter is equipped with automatically operated internal brushes placed on a rotating shaft driven by an electric motor, which allow the filter mesh to be cleaned without dismantling it. For its best use, the TURBONET Y filter requires an inlet pressure of at least 2 bar, thus ensuring reduced times and water consumption during the cleaning phase, during which the outgoing flow is automatically interrupted.

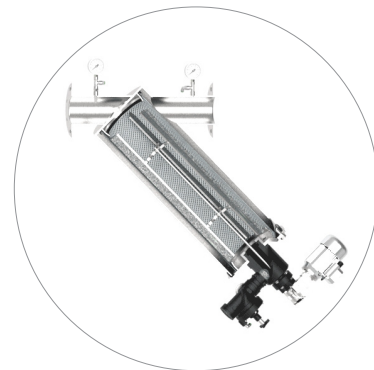
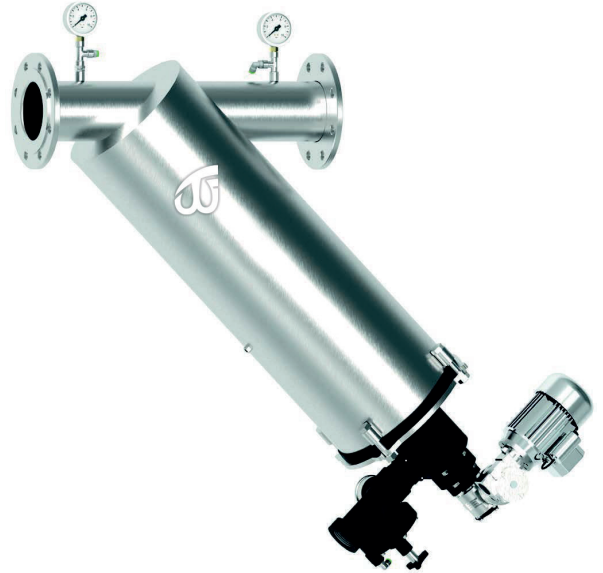
The internal filter cartridge is made up of a tubular AISI 316 mesh onto which a polyester sock can be inserted or an AISI 316 mesh can be secured; these solutions offer a very wide filtration range from 800 to 25 µm.

The standard supply includes an automation group, #2 pressure gauges for monitoring pressure drops, emptying valve and AISI316 tubular item with polyester mesh and 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 m³/h

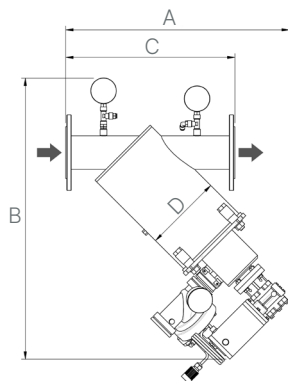
TECHNICAL DATA

Code		TRBNTI0010	TRBNTI0020	TRBNTI0030	TRBNTI0040	TRBNTI0050	TRBNTI0060
Model		TURBONET Y/10A	TURBONET Y/10A	TURBONET Y/20	TURBONET Y/35	TURBONET Y/35	TURBONET Y/40P
In/Out connections		2"	3"	DN100	DN100	DN150	DN150
Drain connections		1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2
Maximum flow rate*	m ³ /h	30	60	120	130	230	250
Filtering area	cm ²	1500	1500	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	m ³ /h	5	5	7	7	7	11
Filter drain flow rate	L	18	18	25	25	25	45
Cleaning cycle time	sec	6 - 15					
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
TRBNTI0010	720	725	400	206	23,0
TRBNTI0020	745	740	450	206	24,0
TRBNTI0030	900	860	550	206	34,0
TRBNTI0040	900	860	600	273	40,0
TRBNTI0050	970	890	745	273	47,0
TRBNTI0060	1190	1110	745	273	56,0



EQUIPMENT AND SUPPLY SPECIFICATIONS

TURBONET 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 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. The cleaning cycle of the filter element is automatically controlled when a pre-established pressure difference between inlet and outlet is reached

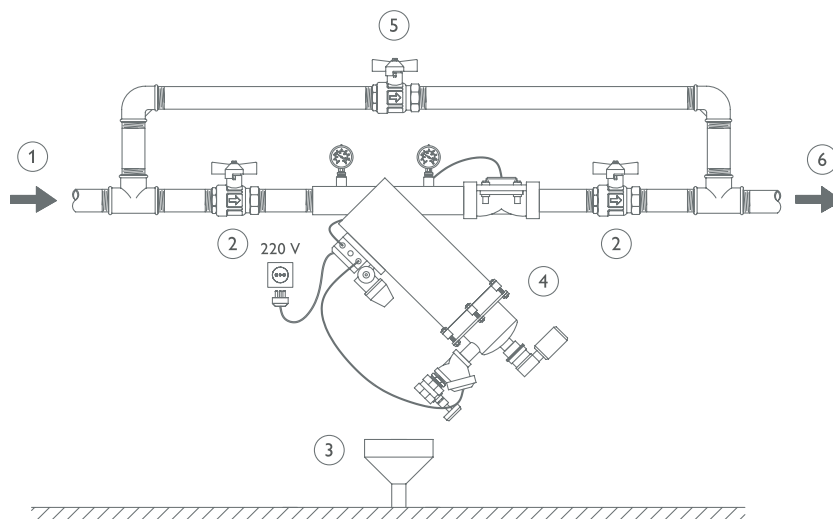
(recommended $\Delta P = 0.8$ bar) or at pre-established time intervals. The TURBONET Y filters are not equipped with an anti-flooding device capable of detecting and intervening in the event of breakages or blockages of the device and, therefore, avoiding possible flooding or uncontrolled water consumption. Periodically check the correct operation of the filter..



INSTALLATION

L'installazione del filtro deve essere eseguita esclusivamente da personale qualificato nel pieno rispetto delle normative vigenti. Il filtro deve essere installato a monte del circuito da proteggere. Installare un adeguato sistema di valvole che consenta di escludere il filtro in caso di malfunzionamento senza impedire l'erogazione dell'acqua (by-pass). Prevedere un adeguato scarico a vista sotto il filtro. È consigliabile l'installazione di rubinetti preleva campione a monte e a valle del filtro. Rispettare tutte le indicazioni riportate nel Manuale di Uso e Manutenzione.

INDICATIVE INSTALLATION DIAGRAM



1. Raw water inlet; 2. Shut-off valve; 3. Drain, 4. TURBONET Y 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