

**BRAVOMAX-A**

Automatic self-cleaning filter with pressure differential item and motorized drain solenoid valve

Rev. 0 - 03/24

**CHARACTERISTICS**

Foreign bodies such as pebbles, rust flakes and other oxides, metal scraps which can damage the water system (pipes, valves, mixers, control items, etc.) are often present in the water.

The installation of a protection filter is the simplest and most effective alternative to avoid these problems.

BravoMAX-A is an automatic self-cleaning filter with pressure differential item, cartridge cleaning with brushing and dirt discharge, complete with pressure gauges for pressure detection. BravoMAX-A is designed to eliminate foreign bodies with a grain size greater than 150 microns.

BravoMAX-A filters water from the inside to the outside of the filter cartridge.

BravoMAX-A is an electronically controlled self-cleaning filter that starts washing the filter cartridge and discharging impurities from the bowl in a completely automatic manner depending on the degree of clogging of the cartridge and at settable time intervals. Thanks to its patented brushing and draining system, it guarantees effective and real cleaning of the filter cartridge, in addition to the discharge of impurities suspended in the water.

The washing cycle is automatically started by the control unit when the pressure drop through the filter cartridge reaches a set value or when a settable time interval has elapsed.

The washing cycle involves completely brushing the cartridge. The automatic opening of the drain valve (located at the bottom of the filter bowl) creates a high-speed tangential flow that removes the impurities accumulated in the filter bowl.

BravoMAX-A is made entirely of stainless steel. The cartridge is made of stainless steel welded onto an expanded support mesh. The particular structure of the cartridge makes it resistant to pressure shocks, thus reducing the problem of deformation and crushing.

BravoMAX-A is the ideal solution for the filtration of high-water flow rates.

The standard filtration rating of BravoMAX-A is 150 microns; different filtration degrees (100 and 200 microns) are available on request.

BravoMAX-A is supplied in the version with:

- long wash cycle
- settable washing interval: every 12 – 24 – 36 – 48 hours.



BravoMAX-A is provided with a button to launch an additional wash cycle at any time.

Water consumption for each wash cycle is approximately 6 liters (referring to a network pressure of 3 bar).

BravoMAX-A requires connection to the mains and powered at 220V/50Hz; it is equipped with an output signal (voltage-free clean contact) which can be used to manage, through an auxiliary electrical panel, utilities such as: pumps, solenoid valves, alarms, etc.

BravoMAX-A is provided with an automatic drain valve, connected directly to the filter circuit, 24 Vac power supply; when the filter performs the washing cycle, the valve opens and then closes at the end of the operation for a total of 40 seconds of complete cycle.

BravoMAX-A is available in the version with threaded and with flanged connections; it is equipped with front pressure gauges to monitor the pressure drop through the filter element and to be able to establish the degree of clogging more precisely. The filter is supplied with the water inlet on the left (considering the front view)

TECHNICAL DATA

Code		FT060E - FT160E	FT062E - FT162E	FT064E - FT164E	FT066E - FT166E
Model		BRX-A 30	BRX-A 40	BRX-A 50	BRX-A 54
Threaded or flanged in/out connections		1" ½ M - DN40	2" M - DN50	2" ½ M - DN65	3" M - DN80
Maximum flow rate	m ³ /h	30,0	40,0	49,6	54,0
Min./max. working pressure	bar	2,0 - 10			
Seals		EPDM			
Body and lid material		AISI304			
Support mesh material		AISI304			
Filter cloth		AISI304			
Degree of filtration	µm	Standard 150			
Washing interval	ore	12 - 24 - 36 - 48			
Washing duration - water consumption	sec - lt	19 - 6			
Min./max. water temperature	°C	5 - 30			
Min./max. ambient temperature	°C	5 - 40			
Power supply	V	230/18			

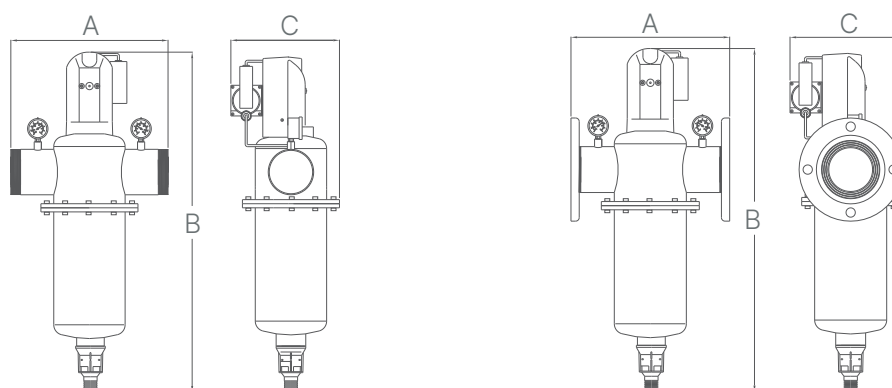
HIGHER FLOW RATES

For flow rates above 54 m³/h, we recommend installing two BravoMAX-A filters IN PARALLEL;

The installation of two filters in parallel guarantees greater flexibility and continuity of supply of treated water even in the event of faults and/or malfunctions

Below the diagram shows the flow rate m³/h (ΔP=0.5 bar) referring to two filters:

Code	Connections	Flow rate m ³ /h (ΔP=0,5 bar)
FT060E - FT160E	1"½ - DN40	54 - 60
FT062E - FT162E	2" - DN50	60 - 80
FT064E - FT164E	2"½ - DN65	80 - 100
FT066E - FT166E	3" - DN80	100 - 108


OVERALL DIMENSIONS


Code	A	B	C	Weight	
	mm	mm	mm	threaded model Kg	flanged model Kg
FT060E - FT160E	310	640	220	7,2	8,2
FT062E - FT162E	310	640	220	7,5	8,5
FT064E - FT164E	310	700	220	10,0	11,0
FT066E - FT166E	310	700	220	13,0	14,0



EQUIPMENT AND SUPPLY SPECIFICATIONS

BRAVOMAX-A is supplied complete with filter cartridge, #2 glycerin pressure gauges, power supply UNIT, #2 flanges (for flanged models); instruction - maintenance manual in Italian (including declaration of conformity).

Shipping managed in wooden crate.



OPTIONAL ACCESSORIES

• CONTROL PANEL



Auxiliary control panel capable of managing up to two 24 Vac utilities (backwash pumps, solenoid valves, alarms, etc.) possibly necessary for managing the filter or system. The panel is powered by 220 V with an internal transformer.

COD. 23022030

• SOLENOID VALVE



N.O. solenoid valves in 24 Vac from 3/4" up to 2" which can be managed directly from the control panel.

COD. EV004 - attacchi 1" 1/2

COD. EV005 - attacchi 2"



REFERENCE STANDARDS

Ministerial Decree No. 174/2004: Regulation concerning materials and objects that can be used in fixed systems for the collection, treatment, supply and distribution of water intended for human consumption.

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.



PRECAUTIONS AND WARNINGS

Attention! This equipment requires regular periodic maintenance in order to guarantee the drinkability requirements of the treated water and maintain the improvements as declared by the manufacturer.

Protect from frost and bad weather by avoiding contact with solvents and chemical products in general.

BravoMAX-A can only treat water that meets the requirements prescribed by Legislative Decree No. 31/01, as amended. See the Performance and Technical Data paragraph for the operating limit values. Observe what is stated in the Instructions for Use and Maintenance Manual.

The cleaning and self-cleaning filters are protection filters. They are, therefore, not suitable for filtering water containing silt, large quantities of sand and/or suspended material. In these cases, it is necessary to resort to other filtration systems.



MAINTENANCE

The filter requires carrying out the periodic washing operation which is automatically managed by the circuit. BravoMAX-A must be part of the periodic sanitization plan of the system (planned by whoever manufactured the system). Therefore, every time the system or part of it is sanitized, it is also necessary to sanitize BravoMAX-A. For correct management of BravoMAX-A, it is advisable to carry out at least two annual checks.



INSTALLAZIONE

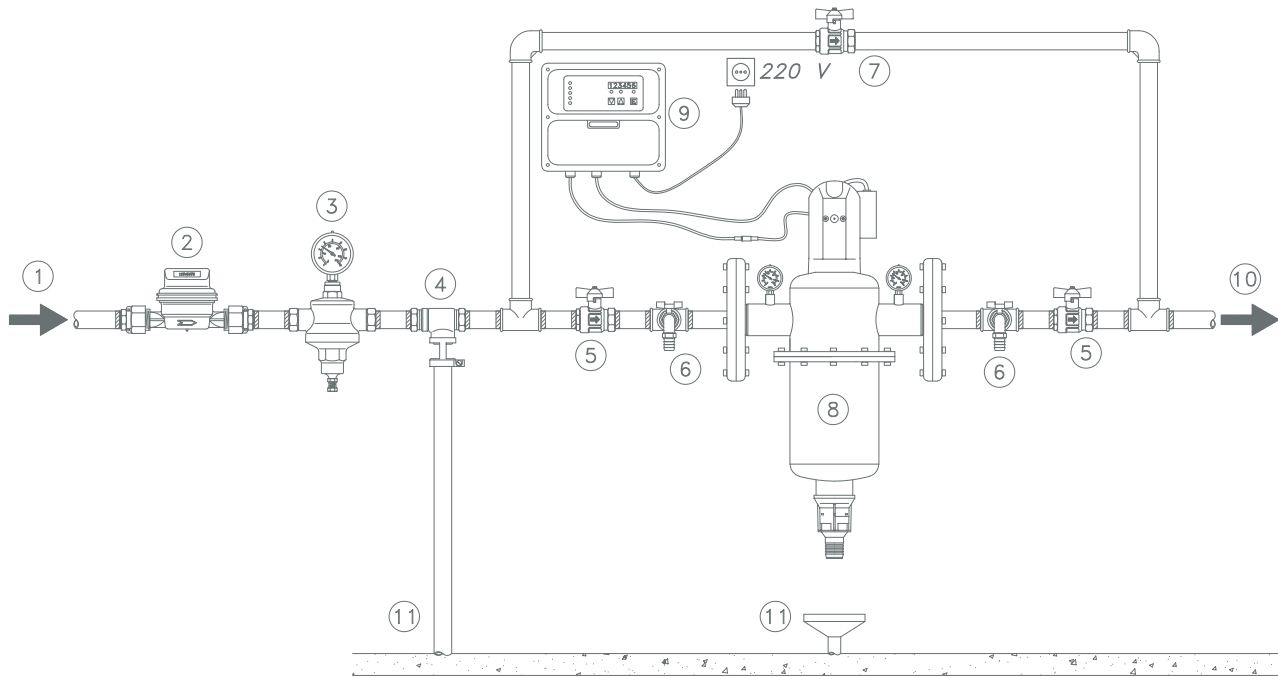
Carry out the installation in compliance with local regulations in force. The installation must be carried out in hygienically suitable places and in compliance with the provisions set out in Decree of the Ministry of Economic Development No. 37 of 22 January 2008, including those relating to final testing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

BravoMAX-A must be installed on the cold-water pipe at the inlet of the system, immediately downstream of the general meter and, in any case, upstream of the system to be protected. BravoMAX-A must be equipped with an adequate by-pass system that allows it to be excluded if necessary. Provide an exposed drain sized to correctly receive and dispose of the water coming from the filter during the washing phase.

BravoMAX-A is not equipped with an anti-flooding system.

Perform a visual inspection of the system on a regular basis. Before carrying out the installation, see the Assembly and Installation Manual supplied with the equipment.

INDICATIVE INSTALLATION DIAGRAM



1. Raw water inlet; 2. General meter; 3. Pressure reducer (if any); 4. Disconnector (if any); 5. Shut-off valve; 6. Sample tap; 7. By-pass valve; 8. Filter; 9. Electric panel; 10. Treated water outlet; 11. Drain.

SPARE PARTS

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

AVERAGE DELIVERY TIMES

2 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