

## **Mechanical filtration**

Sheet P.7

MC

Multi-cartridge filter for drinking and industrial water

Rev. 1 - 06/24



Foreign bodies such as pebbles, rust flakes and other oxides, metal scraps which can damage systems and equipment are often present in the water. The installation of a protection filter is the simplest and most effective alternative to avoid these problems.

MC containers are designed for the filtration of medium and high flow rates to protect reverse osmosis systems, UV ray sterilizers, ultrafiltration systems, filtration for the treatment of primary water and industrial process water in general.

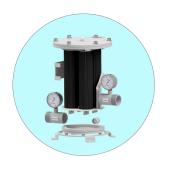
MC is a multi-cartridge container in S235JR type carbon steel with trataphoresis treatment and RAL9003 food-grade paint designed for the filtration of medium and high flow rates with simple management.

MC can accommodate both disposable (melt-blown polypropylene) and washable (nylon mesh) cartridges. The threaded water inlet and outlet connections are arranged laterally and equipped with a ¼" threaded connection for the installation of pressure gauges for monitoring pressure drops. The filter is complete with a 1/8" air vent valve to facilitate deaeration operations following opening the filter for maintenance.

The MC containers can accommodate the following types of cartridges:

- melt-blown extruded polypropylene with filtration Degree of 10-20-50  $\mu m$ ;
- in washable nylon mesh with degree of filtration of 80 μm.







#### **TECHNICAL DATA**

Code		WT0000900	WT0000901	WT0000902
Model		MC 10	MC 20	MC 30
In/Out connections		1″ 1⁄2	1″ 1⁄2	2"
Drain connections		1" ½		
Min./max. temperature	°C	4 - 60		
Min./max. working pressure	bar	1,5 - 8,0		
Seals		EPDM		
Body and lid material		AISI304		
Cartridge inlet height	inches	9" 3/4	20"	40"







# TECHNICAL DATA - Max. water flow rate at 20°C and pressure difference of 0.15 bar

# MC multi-cartridge filter with PP polypropylene cartridges

Filter model	Q.ty of filter cartridges	Micron	Filter complete with cartridges Flow rate m <sup>3</sup> /h
		10	6,0
MC 10	n° 4	20	7,6
		50	8,4
		10	9,2
MC 20	n° 4	20	10,0
		50	10,8
		10	18,4
MC 30	n° 4	20	20,0
		50	21,6

# MC multi-cartridge filter with Nylon cartridges

Filter model	Q.ty of filter cartridges	Micron	Filter complete with cartridges Flow rate m³/h
MC 10	n° 4	80	14,0
MC 20	n° 4*	80	28,0

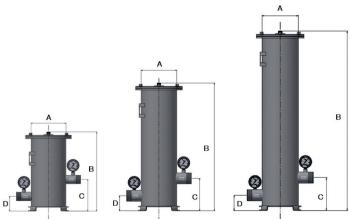
<sup>\*</sup> A filter element is made up of #2 H 9" 3/4 cartridges Nylon cartridges cannot be handled in the MC 30 multi-cartridge filter

#### ATTENTION:

If the required flow rate is greater than that indicated in the table,

it is possible to adopt two or more MC multi-cartridge filters with parallel configuration.





0 - 1 -	Α	В	С	D	Weight
Code	mm	mm	mm	mm	Kg
WT0000900	193,7	443	177	82	23,8
WT0000901	193,7	698	177	82	30,8
WT0000902	193,7	1218	177	82	37,6

# EQUIPMENTANDSUPPLYSPECIFICATIONS

MC is supplied without filter cartridges (to be ordered separately); complete with user and maintenance manual in Italian (including declaration of conformity).

Shipping managed on pallets.



**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.

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



# OPTIONAL ACCESSORIES

#### • POLYPROPYLENE CARTRIDGES

Cartridges in melt-blown extruded polypropylene with rigid internal polypropylene support, double opened end (DOE) version.

Efficiency: 95 %

The cartridges cannot be heat sanitized.

Maximum bearable pressure difference

at 20°C from the cartridges: 2 bar.

Maximum pressure difference suggested for

the replacement: 1 bar.

Other filtration levels are also available on request: 1, 3, 5, 30, 75, 90  $\mu m$ .

COD. WT0006200	9" ¾ - 10 µ
COD. WT0006201	9" ¾ - 20 µ
COD. WT0006202	9" ¾ - 50 µ
COD. WT0006203	20" - 10 μ
COD. WT0006204	20" - 20 μ
COD. WT0006205	20" - 50 μ
COD. WT0006206	40" - 10 μ
COD. WT0006207	40" - 20 μ
COD. WT0006208	40" - 50 μ



# PRECAUTIONS AND WARNINGS

In the case of filters or connecting pipes made of AISI 304 or AISI 316 stainless steel, see the Technical Dept. in advance to verify compatibility with the chloride content of the water to be treated.



The MC container, made up of a cylindrical shell and a closing lid, has been designed for easy and safe maintenance: by acting on four knobs, you can directly access the cartridge compartment. The lid is attached to the shell by a sturdy hinge which avoids tiring and dangerous handling operations. The presence of guide rods (in carbon steel) makes the operation of replacing the filter cartridges simple and quick. During operation, the cartridges will tend to clog leading to an increase in pressure drops. Once the maximum allowable pressure drop value has been reached, it is necessary to replace or clean the cartridges.

#### NYLON MESH CARTRIDGES



Washable monofilament nylon mesh cartridges complete with flat PVC gaskets, double opened end (DOE) version.

Efficiency: 75 %

The cartridges cannot be heat sanitized. Maximum bearable pressure difference

at 20°C from the cartridges: 2 bar.

Maximum pressure difference suggested for

the replacement: 1 bar.

The 20" model is composed of n. 2 elements 9"3/4.

Nylon cartridges cannot be handled in the MC 30 multicartridge filter

COD. WT0006250  $9^{"3}$ 4 - 80  $\mu$  COD. WT0006251  $20^{"}$  - 80  $\mu$ 



MC must be installed upstream of the circuit to be protected. Install an adequate valve system that allows exclusion in the event of maintenance or malfunction without preventing water supply (by-pass).

MC is equipped with two  $\frac{1}{2}$ " fittings in correspondence with the cartridge compartment and the filtered water compartment for the installation of manual or automatic drain and/or sample valves (not supplied). Install in a room with a floor drain. Respect all the instructions given in the Use and Maintenance Manual.

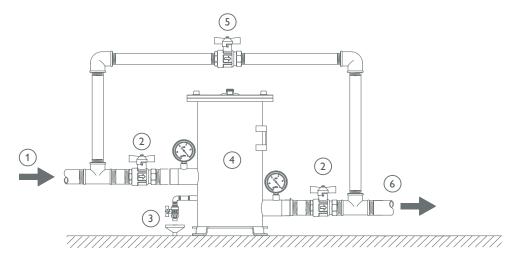
Carry out the installation in compliance with current regulations.

The filters are not equipped with anti-flooding devices capable of detecting and intervening in the event of breakages or blockages of the device and, therefore, avoiding possible flooding or uncontrolled water consumption.

If necessary, provide these devices separately. Since the installation methods depend on the actual conditions of use (characteristics of the water, type of use), the most suitable system solution will be proposed during the offer phase.

For clarifications, contact the Water Treatment Technical Industry Dept.

#### INDICATIVE INSTALLATION DIAGRAM



1. Raw water inlet; 2. Shut-off valve; 3. Drain; 4. MC filter; 5. By-pass valve; 6. Filtered water outlet.



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 wooden crates
- 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