

IB & B SERVICE

TECHNICAL EQUIPMENTS FOR WASTE WATER TREATMENT PLANTS



N°SC 13-3326
SISTEMA CERTIFICATO
UNI EN ISO9001:2008



EFFLUENT WATER MICROFILTRATION

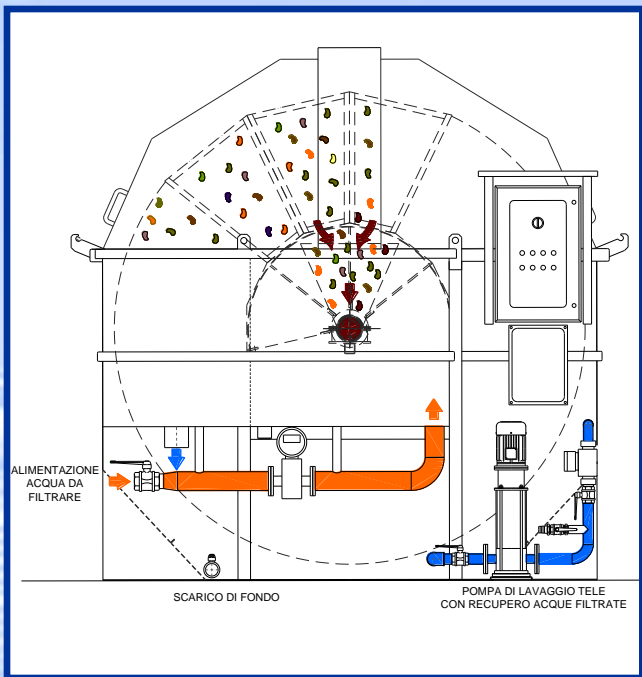
DISCFILTER

MCF

MCF



- The discfilter MCF is a micro-screen for the polishing of effluent water or filtration of process water by woven filter media.
- MCF is a compact equipments, easy to be installed, that offer large filtration area with small footprint.
- Flow capacity up to 1200 m³/h per filter.
- Modular design with 2 to 20 discs for machine
- Filter clothes opening from 6 to 100 µm
- Automatic backwash, controlled by level switches, with filtered water. Return water less than 2% of the total incoming flow.
- Two version available:
 - MCF - C with stainless steel tank for installation on the floor.
 - MCF - T for installation in concrete basin or channel.
- The structure of the MCF is an standard fabricated of 304 or 316L stainless steel.
- Completely enclosed equipment without noisy and aerosols
- Filter media easy to change
- Low maintenance cost
- Low energy consumption



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Each disc is made of 28 panels. The panels are mounted on the central influent drum to form the circular disc. The number of discs assembled on the drum range from 1 to 20, depending on the scale of the installation.

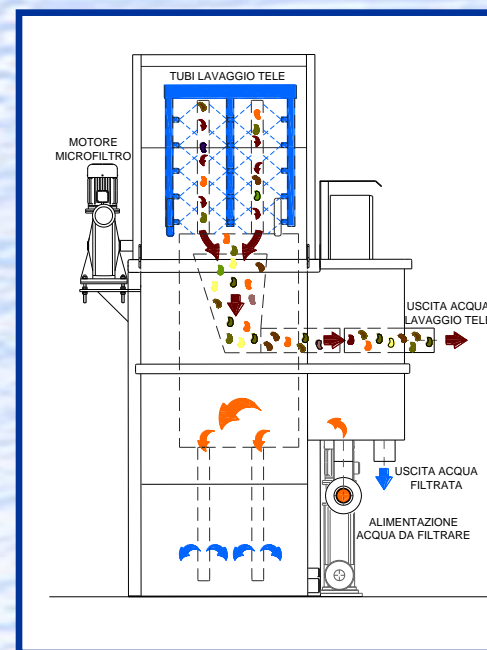
During the operation, the drum is stopped and 60% submerged. The influent flows through opening in the central drum, into each media panel and then flows through the filter media as clean filtrate. This inside/out flow provide to capture solids on the inside part of the panel and makes this solids easy to remove during the backwash cycles.

As the solids catch on the inside of the filter media impeding the flow of water through the discs, the water level inside the disc begin to rise, triggering a level to start the rotation and backwash cycle begins.

High pressure wash water backs the solids off the filter media and into the solids collection trough.

As soon as the level inside the tank is lower than the level switch, the disc and the wash pump stops and the machine operate in static filtration.

The filtrate water is used for the rinse of the panels with a submerged high pressure pump installed inside the tank.





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The frames of the filter cloths are made of stainless steel and easily replaceable. They consist of a strong trapezoidal panel fixed on the drum with a special clips that allows to obtain a wide filtration area.

The microfilter MCF uses filtered water to clean the clothes, with a savings in the use of industrial waters.

The microfilter is approximately 60% submerged and the head loss across the panel is between 20 and 250 mm with maximum head loss in operation 300 mm.

These frames are arranged radially on the drum to form the individual wheels that develop a diameter of 2200 mm.

MCF is provided with it own electrical control panel

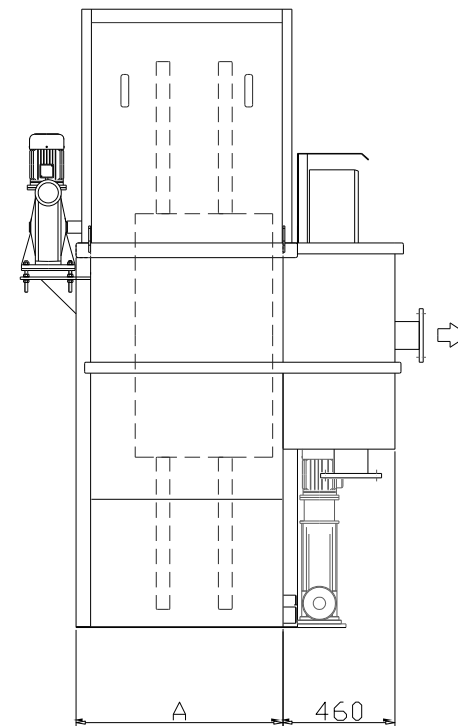
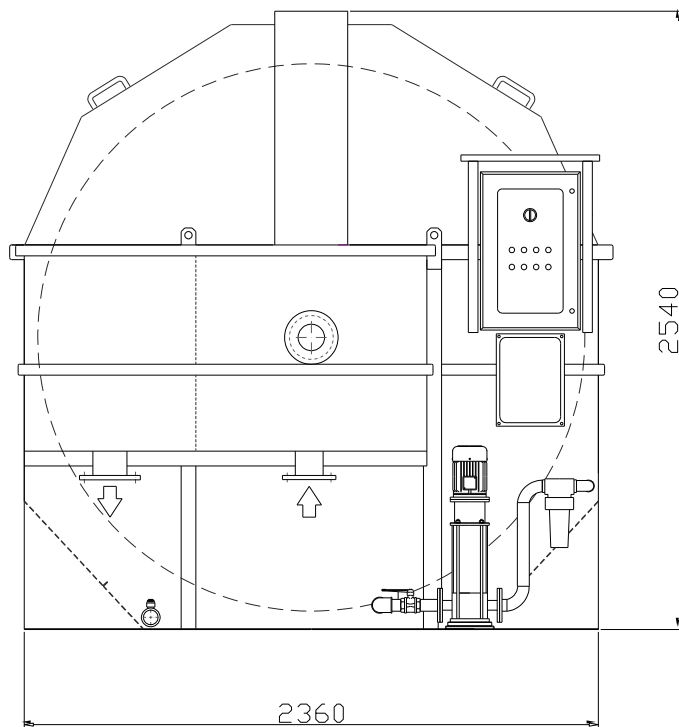
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Main characteristics

- Full construction in stainless steel AISI 304 or AISI 316
- Available for installation in stainless steel tank or in concrete channel depending to the customer needed
- Filtration net in PES or stainless steel AISI 316 with filtration opening from 6 to 100 micron.
- Model from 2 to 20 filtration discs
- Automatic washing system for the cleaning of the panels with filtered water
- Automatic chemical cleaning system for CIP (clean in place) to remove biological growth or scaling

MCF model	2.22	3.22	4.22	5.22	6.22	7.22	8.22	9.22	10.22	11.22	12.22	13.22	14.22	15.22	16.22	17.22	18.22	19.22	20.22
Number of discs	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Total filtration area mq	12,4	18,6	24,8	31	37,2	43,4	49,6	55,8	62	68,2	74,4	80,6	86,8	93	99,2	105,4	111,6	117,8	124
Backwash water flow at 8 bar lt/s	0,98	1,46	1,95	2,43	2,92	3,40	3,89	4,38	4,86	5,35	5,84	6,32	6,81	7,30	7,78	8,30	8,75	9,25	9,80
Drum installed power kW	0,75	0,75	0,75	0,75	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,5	1,5	1,5	1,5	1,5
Wash pump power kW	3	3	3	4	4	4	5,5	5,5	7,5	7,5	7,5	7,5	11	11	11	11	11	11	11

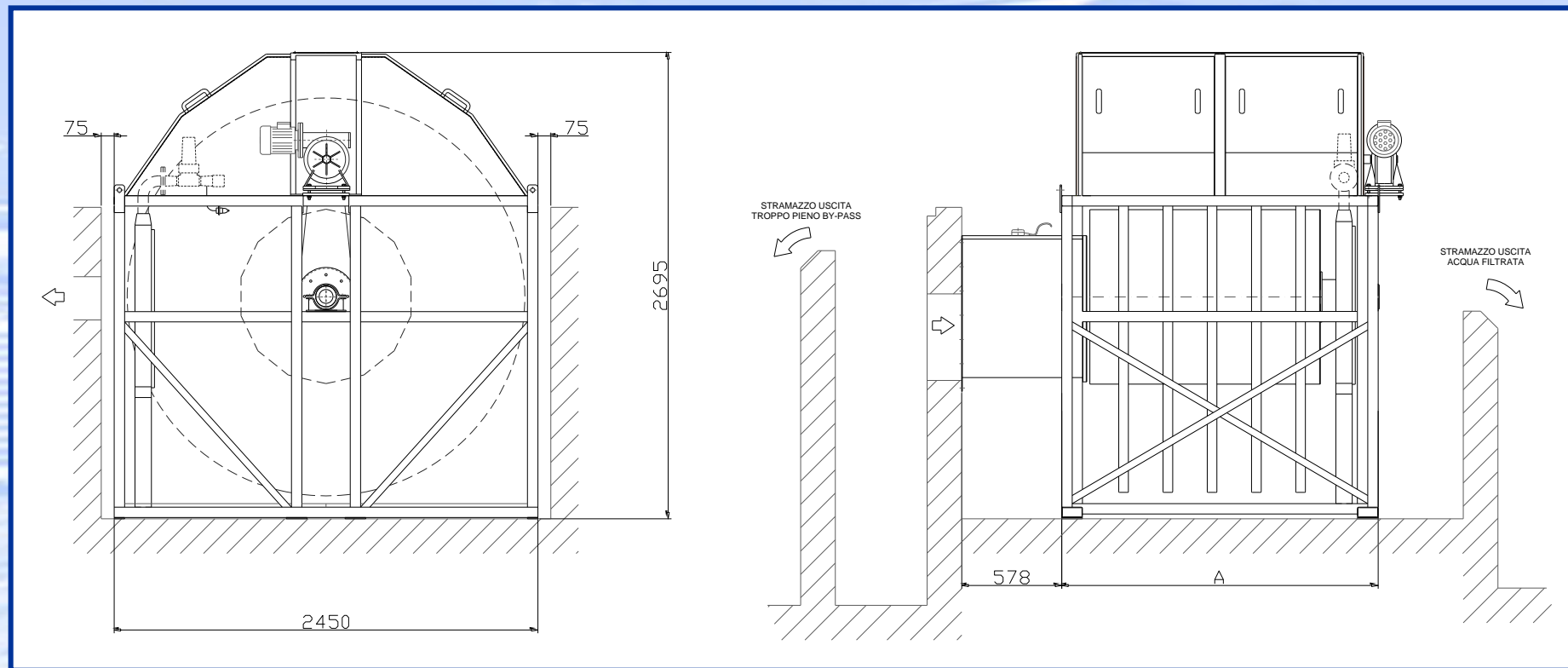
Stainless steel tank MCF model “C”



MCF	2.22	3.22	4.22	5.22	6.22	7.22	8.22	9.22	10.22	11.22	12.22	13.22	14.22	15.22	16.22	17.22	18.22	19.22	20.22
A	910	1170	1430	1680	1940	2200	2450	2710	2960	3215	3470	3730	3990	4240	4500	4750	5010	5270	5518

Technical data are not binding, the company reserves the right to make changes or improvements without notice.

Channel installation MCF model “T”



MCF	2.22	3.22	4.22	5.22	6.22	7.22	8.22	9.22	10.22	11.22	12.22	13.22	14.22	15.22	16.22	17.22	18.22	19.22	20.22
A	1070	1320	1580	1840	2090	2350	2600	2860	3110	3370	3630	3880	4140	4390	4650	4910	5160	5420	5670

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Applications

- Micro filtration of municipal waste water
- Micro filtration of industrial waste water
- Micro filtration of process water
- Microfiltration of intake water for drinking





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