

# Rotoscan Filters II

Automatic self cleaning filters

## INDUSTRIAL FILTRATION

### SELF CLEANING ROTOSCAN FILTERS

The self cleaning Rotoscan II screen filters are made out of Stainless Steel 316 for ruggedness and corrosion protection in any operating condition. They are available in Duplex SAF 2205 for sea water application.

Raw water passes through a safety 3000 µm strainer (from the outside to the inside) before to be filtered. The filtration process is carried out by the passage of raw water through a cylindrical cartridge composed of a PVC casing with external radial slots. Inside this cartridge, are located :

- A wide mesh serving as spacer
- A polyester filter element
- A PVC inner casing with radial slots serving as suction windows during the cleaning process.

The raw water runs through the screen and retains inside the impurities larger than the selected filtration rate.

A motorized scanner with suction nozzles rotates periodically and clears out the retained impurities from the mesh and evacuates them outside.

The suction nozzles are mounted on synthetic springs to better bond to the surface to be cleaned.

The filter is controlled as standard by an electronic box. Wash cycles can be initialized, either by means of a timer or according to a pressure drop.

Screen cleaning is performed in continuous operation without interruption of service (this requires a sufficient filter feed rate to ensure washing and production simultaneously).

The basic instrumentation fitted to a filter consists of 3 manometers and 1 pressure transmitters (raw water inlet, filtered water outlet)

The filters can be delivered without electronic box for integration and control by a centralized automaton..

Two versions are available for vertical and horizontal mounting.



ROTOSCAN H



ROTOSCAN V



Control cabinet



Filter cartridge with scanner

## APPLICATIONS

The Rotoscan range is recommended in the following filtration applications :

- Borehole water : geothermal applications, irrigation.
- Industrial water coming from waste water treatment plants.
- Protection of membrane systems.
- Seawater : heat pumps, hatchery.
- Any industrial filtration application.

# Filtres Rotoscan II

## CHARACTERISTICS

Model	Filtration area	In / Out	Drain (cleaning)	Maximum flow rate	Cleaning flow rate
	cm <sup>2</sup>	Diameter	Diameter	m <sup>3</sup> /h (1)	m <sup>3</sup> /h
RTS II 1000	1000	2"-3"	1"	20-30	2
RTS II 1500	1500	2"-3"	1"	20-34	3
RTS II 3000	3000	3"-DN100-DN150	1,5"	34-50-110	4
RTS II 4500	4500	DN100-DN150	1,5"	50-115	7
RTS II 6000	6000	DN100-DN150-DN200	1,5"	50-115-238	9

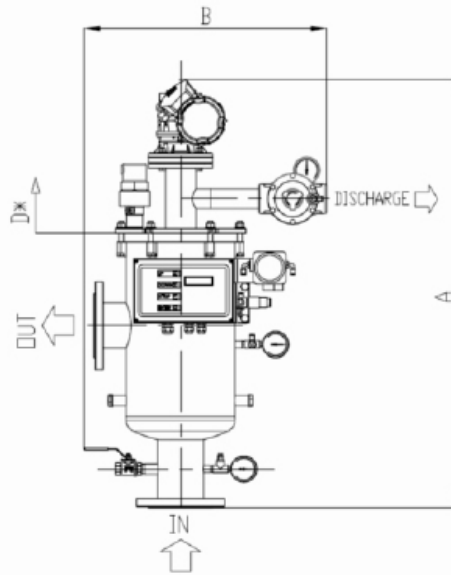
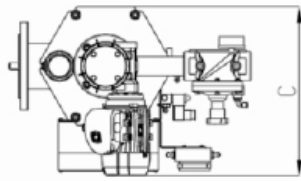
## OPERATING RANGE

- Maximum recommended working pressure drop: 0.3 to 0.5 bar (0.8 bar max).
- Water consumption for a 15 second wash: 8.33 to 37.5 liters depending on the model of filter.
- Maximum pressure drop for the filter screen (destruction of the filtering element): 4.5 bar between the inlet pressure and the outlet pressure (filtered water) or between the outlet pressure (filtered water) and drain (wash water).
- Average recovery rate: 97% (the average consumption of washing water is 3%).
- Maximum operating pressure: 10.0 bar - Serving temperature: +1 ÷ +50°C
- Power supply: 400 V - 50 Hz
- Dynamic pressure downstream of the filter during washing minimum 0.5 bar (recommended 1.0 bar)
- Degrees of filtration: 500, 300, 200, 125, 80, 50, and 25 µm with standard filtering elements.
- Washing time: 15 seconds.
- Rotation speed :
  - 27.0 rpm for RTSII 1000
  - 13.5 rpm for the others
- Maximum suspended solids concentration :
  - 100 g / m<sup>3</sup> for 500 to 80 µm filtering elements - 50 g/m<sup>3</sup> for 50 to 25 µm filtering elements - 25 g/m<sup>3</sup> for 25 filtering elements

Filtration rate (µm)	500	300	200	125	80	50	25
<b>Maximum suspended solids (mg/l)</b>	100	100	100	100	50	50	25
Maximum rates (m3/h)							
RTS II 1000-50	20	20	20	20	20	20	13
RTS II 1000-80	30	30	30	30	30	26	13
RTS II 1500-50	20	20	20	20	20	20	19
RTS II 1500-80	34	34	34	34	34	34	19
RTS II 3000-80	34	34	34	34	34	34	34
RTS II 3000-100	50	50	50	50	50	50	34
RTS II 3000-150	110	110	110	110	110	75	34
RTS II 4500-100	50	50	50	50	50	50	50
RTS II 4500-150	115	115	115	115	115	115	57
RTS II 6000-100	50	50	50	50	50	50	50
RTS II 6000-150	115	115	115	115	115	115	68
RTS II 6000-200	235	235	235	235	222	156	68

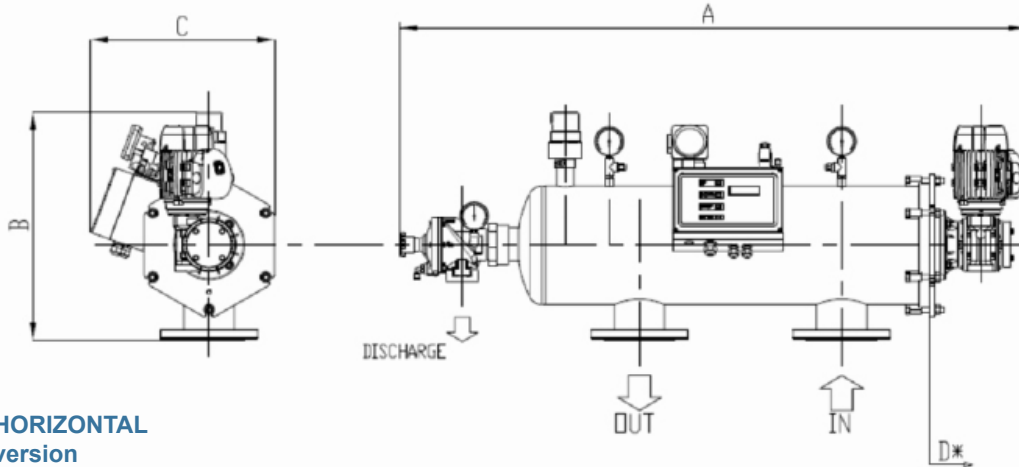
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## DIMENSIONS



### VERTICAL version

Model	A mm	B mm	C mm	D mm	Kg empty	Kg full
RTS II 1000	757	470	327	450	28	36
RTS II 1500	903	485	327	600	34	45
RTS II 3000	1071	607	423	640	51	83
RTS II 4500	1309	635	423	885	62	106
RTS II 6000	1755	706	516	1130	75	133



### HORIZONTAL version

Model	A mm	B mm	C mm	D mm	Kg empty	Kg full
RTS II 1000	900	415	330	450	30	38
RTS II 1500	1045	415	330	600	37	50
RTS II 3000	1430	540	410	640	55	91
RTS II 4500	1675	540	410	885	67	81
RTS II 6000	1920	540	430	1130	814	145