

Self-Cleaning Vortex 200

In-line Self Cleaning Equipment with disc filtering elements and 2" (Series 200) or 3" (Series 300) valves.

High density polyethylene manifolds. Easy to install. Maximum resistance and durability.

Max. Flow: 256 m³/h



Modular configurations can be designed to customer preference or space availability. Automation available in 120 V, 220 V or 12 V. Design solutions also available for high or low pressure and sea water/saline water. Compressed air can be used for backwashing.

ADVANTAGES

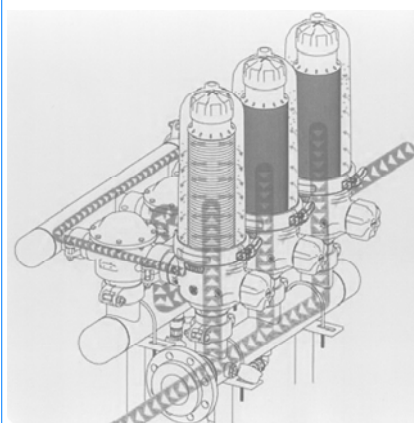
- **Disc Filtration. Maximum safety:** Its patented design and high quality materials used in manufacturing guarantee an extended life with high resistance.
- **Vortex 200 System:** Vortex 200 created Centrifugal Action optimizes the filtration performance and reduces backwash frequency and maintenance.
- **Self-cleaning filtering element:** Backwashing uses minimal water maintaining an efficient cleaning action. Large filtering surface. Envirogen filtration units available from 5 to 500 micron.



TECHNOLOGY

ENVIROGEN Vortex 200 backwashes one station at a time. Remaining elements continue filtering.

Filtration Stage: The Vortex generates a centrifugal helical effect upon entry into the filter, this moves the particles away from the discs. The water then passes efficiently through the depth of the uniquely designed discs.



Backwashing stage: The clean water from the auxiliary filter is introduced from the reverse direction through the filtering element. This decompresses the stack discs, allowing the discs to separate and back wash efficiently. The solids are expelled from the discs and evacuate through the back wash manifold. The filtration process then restarts with the compression of the discs. The back wash is controlled by two valves and a controller, which integrate the filtration equipment.

- **Modularity, Versatility, Compatibility:** The system permits a wide range of flows and configurations using a minimal number of components.
- **Compact assembled systems for easy transportation and installation.**
- **Manufactured in plastic materials.**
- **Low Maintenance.** No tools required. Maximum wear resistance of high quality moving parts.
- **Water and energy saving.**

Filtration Maximum flow filter

Vortex 200 Automatic filter filtering surface 1482 cm²

Quality of water	micron	200	130	130 100	50	20
GOOD	m ³ /h	36	32	24	17	9
AVERAGE	m ³ /h	32	30	20	14	7
POOR	m ³ /h	26	24	18	10	5
VERY POOR	m ³ /h	15	14	12	7	3

BACKFLUSHING

	200 - 130 micron	100 micron	50-20 micron
Minimum backflushing pressure per filter	2.8 bar	3.5 bar	4 bar
Minimum backflushing flow per filter	2.5 l/s	3.1 l/s	3.3 l/s

HOW TO CHOOSE VORTIX AUTOMATIC EQUIPMENT

1. Determine the required filtration grade (micron).

$$\text{Number of filter} = \frac{\text{Flow to filter in the installation}}{\text{Max. Flow per filter}}$$

2. Establish the quality of the water.
3. Calculate according to the following equativo, the number of filters required with the selected SERIES.

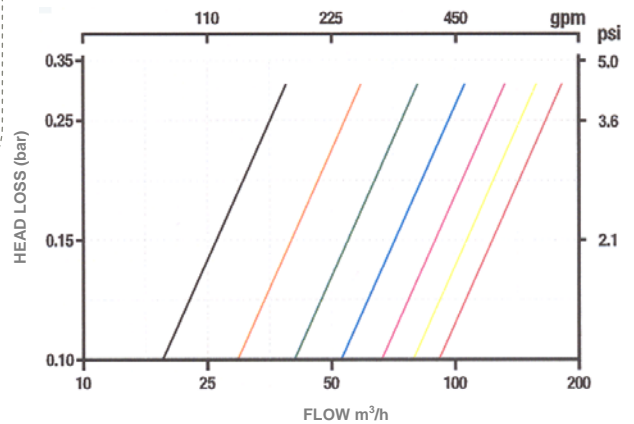
NOTE: The flow rate given by the filter conditions determines the frequency of the backwashing

MATERIAL

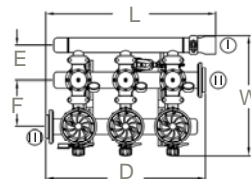
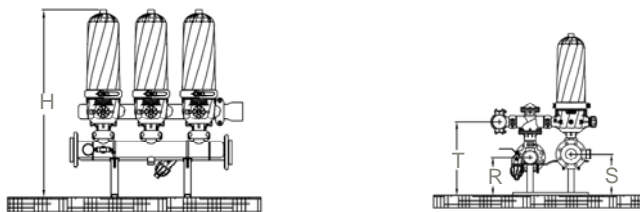
Manifold	High Density Polyethylene
Housing	Polyamide reinforced with fiberglass
Filtering element	PP grooved discs
Sealing element	NBR

- pH>4 • Maximum pressure 10 bar / 145 psi
- Maximum temperature 60°C / 140 F

Automatic HEAD LOSS 130 micron



SERIES 200 — 202 — 203 — 204 — 205 — 206 — 207 — 208



- I Drainage manifold
- II Inlet manifold
- III Outlet manifold

Model	Specifications				Dimensions (mm)																	
	N. Filters	Manifold	Filtering Surface (cm ²)	(in ²)	F mm	F in	E mm	E in	D mm	D in	L mm	L in	W mm	W in	R mm	R in	T mm	T in	S mm	S in	H mm	H in
VORTIX 202 / 3FX	2"x 2	3"- 90	2984	463	272	11	204	8	575	23	698	27	700	28	491	19	257	10	272	11	1080	43
VORTIX 203 / 4FX	2"x 3	4"-110	4476	694	272	11	204	8	830	33	945	37	700	28	511	20	267	11	281	11	1100	43
VORTIX 204 / 6FX	2"x 4	6"-160	5968	925	272	11	204	8	1065	42	1220	48	700	28	561	22	292	12	307	12	1150	45
VORTIX 205 / 6FX	2"x 5	6"-160	7460	1156	272	11	204	8	1420	56	1542	61	700	28	561	22	292	12	307	12	1150	45
VORTIX 206 / 6FX	2"x 6	6"-160	8952	1388	272	11	204	8	1695	67	1817	72	700	28	561	22	292	12	307	12	1150	45
VORTIX 207 / 6FX	2"x 7	6"-160	10444	1619	272	11	204	8	1970	78	2104	83	700	28	561	22	292	12	307	12	1150	45
VORTIX 208 / 8FX	2"x 8	8"-200	11936	1850	272	11	204	8	2245	88	2411	95	700	28	601	24	312	12	327	13	1190	47

Dimensions of the models with grooved connection. Available in flange connection. Drainage Manifold includes PVG connection. Other configurations in info.it@envirogen.com

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