PRODUCT INFORMATION

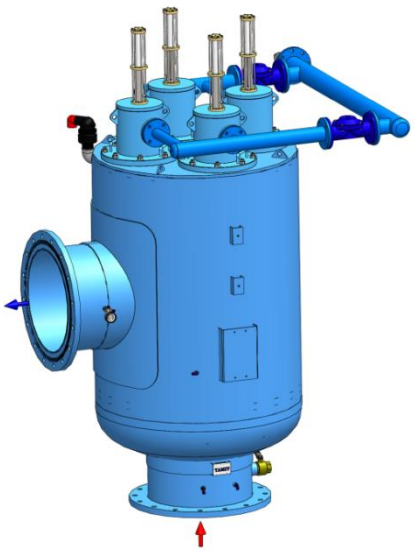
Application:

The automatic self-cleaning suction hydraulic types, specially designed for very high flows – up to 14,000 m³/h (61,600 gpm) combine the advantages of high quality filtration from different water sources (sewage, reservoirs, rivers, lakes, etc.), with a self-cleaning feature, offering the customer a continuous water supply.
The filter is comprised of one or several filtering elements in one body, enabling the user to enjoy the advantages of a sophisticated automatic filter for high flows in a single body, saving footprint and the need for a battery of filters. The filter uses the water pressure for the self-cleaning process, eliminating the need for a power supply.
The filters are designed for use in a wide range of industrial, municipal and irrigation applications.

Standard Characteristics:

- Inlet/outlet parallel, on an axis of 90° or 180°.
- The filters are electrostatically coated with polyester or epoxy coating at a thickness of 150-200 µm and oven cured.
- Filters are supplied with a stainless steel screen on PVC support, available in varying micron sizes as needed: 80-3000 µm. (for additional screen options, please contact YAMIT).
- Maximum recommended working pressure: up to 10 bar (145 psi).
- Minimum operating working pressure during flushing: 2 bar (29 psi).
- Maximum water temperature: 65°C (149°F)
- Clean screen pressure loss: <0.1 bar (1.45 psi).
- Minimum flushing flow (3" valve) : 50 m³/h ,220 gpm
- Filters vessel diameter: 970-1400 mm (38"-56").

A time basis backup (preset by the customer), guarantees that the flushing cycle will occur even if the head loss has not reached the preset value.



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Filtration

Water enters the filter through the “inlet” and passes through the coarse screen, that functions as a “first stop” for rough particles. Water then reaches the fine screen, which further purifies the flow by separating smaller particles from the water. As more water flows through, impurities build up on the fine screen. As impurities on the screen accumulate, a pressure imbalance is built up between the internal section of the fine screen and its external section.

Self-cleaning process - "Flushing“

When the difference in pressure (DP) reaches the preset value on the differential pressure indicator, the following events happen while the water continues to flow to the system units: the flushing valve opens, pressure is released fro the hydraulic piston, and water flows outside; pressure in the hydraulic motor chamber and the dirt collector is significantly lowered, and the dirt collector nozzles begin a suction process; the water flows through the hydraulic motor which rotates the dirt collector around its axis; the pressure released from the piston and the high pressure inside the filter cause linear movement of the dirt collector; the combination of the linear movement and rotation significantly clean the whole internal screen surface.

The flushing process takes 10 seconds. The flushing valve closes at the end of the cycle and the increased water pressure returns the hydraulic piston to its initial position. The filter is now ready for the next cycle while clean and filtered water flows through the “Outlet”. During the whole process water supply is uninterrupted.

Each Mega filter contains 2 or more screens in one filter body.

The flushing process can be programmed (on request) to work either each screen separately or in pairs.

Filtration degree: 80-3000 µm

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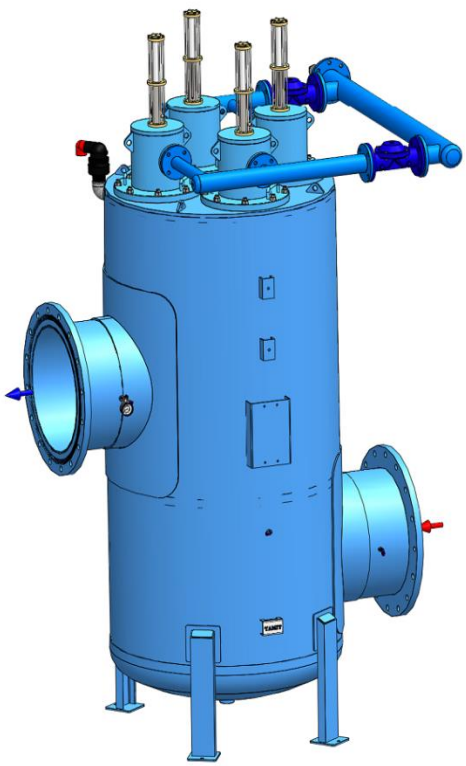
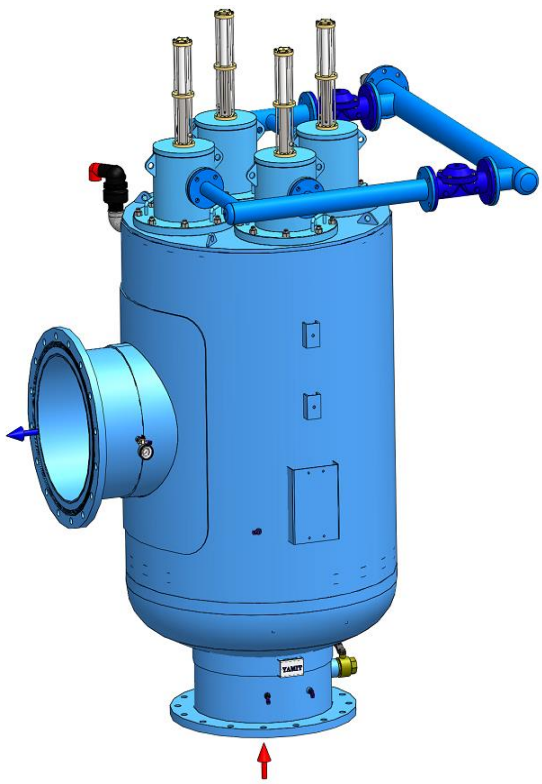
Technical Data

	Model	ØD (mm)	(in)	No. of Screens	Screen Area (cm^2)	(in)	Max. Flow Rate (m^3/h)	(in)	Flushing volume (m^3)	(gal)
In-Line	MGH3818IF	970	38	2	25911	4146	1300	5720	0.139	36.7
	MGH4320IF	1100	43	2	33862	5418	1690	7436	0.139	36.7
	MGH4824IF	1200	48	4	43549	6968	2180	9592	0.278	73.4
	MGH4824IF	1200	48	4	51821	8291	2590	11396	0.278	73.4
	MGH4826IF	1200	48	4	60094	9615	3000	13200	0.278	73.4
	MGH5626IF	1400	56	4	56914	9106	2850	12540	0.278	73.4
	MGH5628IF	1400	56	4	67725	10836	3390	14916	0.278	73.4
	MGH5630IF	1400	56	4	78536	12566	3930	17292	0.278	73.4
On-Line	MGH3818AF	970	38	2	25911	4146	1300	5720	0.139	36.7
	MGH4320AF	1100	43	2	33862	5418	1690	7436	0.139	36.7
	MGH4824AF	1200	48	4	43549	6968	2180	9592	0.278	73.4
	MGH4824AF	1200	48	4	51821	8291	2590	11396	0.278	73.4
	MGH4826AF	1200	48	4	60094	9615	3000	13200	0.278	73.4
	MGH5626AF	1400	56	4	56914	9106	2850	12540	0.278	73.4
	MGH5628AF	1400	56	4	67725	10836	3390	14916	0.278	73.4
	MGH5630AF	1400	56	4	78536	12566	3930	17292	0.278	73.4



In-line



On-line

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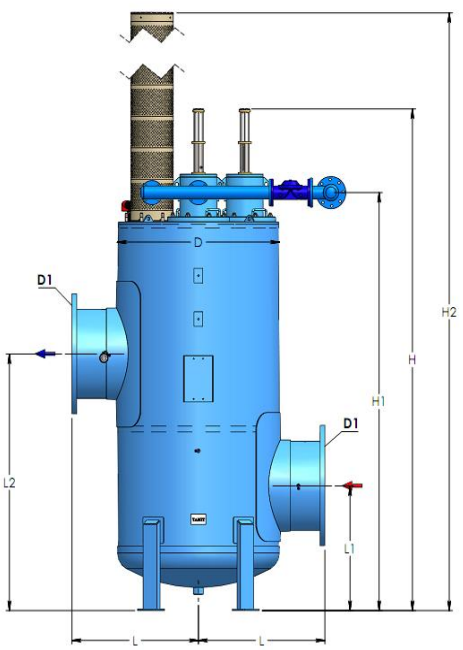
IN-LINE

	Model	ØD (mm)	(in)	ØD1 (mm)	L (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)
In-Line	MGH3818IF	970	38	450	735	730	1380	3050	2615	3900
	MGH4320IF	1100	43	500	800	815	1620	3190	2755	4040
	MGH4824IF	1200	48	600	935	940	1890	3075	2640	3710
	MGH4824IF	1200	48	600	935	940	1890	3340	2905	4190
	MGH4826IF	1200	48	650	935	940	1890	3605	3170	4670
	MGH5626IF	1400	56	650	1000	1015	2070	3200	2765	3835
	MGH5628IF	1400	56	700	1000	1015	2070	3465	3030	4315
	MGH5630IF	1400	56	750	1000	1015	2070	3730	3295	4795

	Model	ØD (mm)	(in)	ØD1 (in)	L (in)	L1 (in)	L2 (in)	H (in)	H1 (in)	H2 (in)
In-Line	MGH3818IF	970	38	18	28.9	28.7	54.3	120.1	103.0	153.5
	MGH4320IF	1100	43	20	31.5	32.1	63.8	125.6	108.5	159.1
	MGH4824IF	1200	48	24	36.8	37.0	74.4	121.1	103.9	146.1
	MGH4824IF	1200	48	24	36.8	37.0	74.4	131.5	114.4	165.0
	MGH4826IF	1200	48	26	36.8	37.0	74.4	141.9	124.8	183.9
	MGH5626IF	1400	56	26	39.4	40.0	81.5	126.0	108.9	151.0
	MGH5628IF	1400	56	28	39.4	40.0	81.5	136.4	119.3	169.9
	MGH5630IF	1400	56	30	39.4	40.0	81.5	146.9	129.7	188.8



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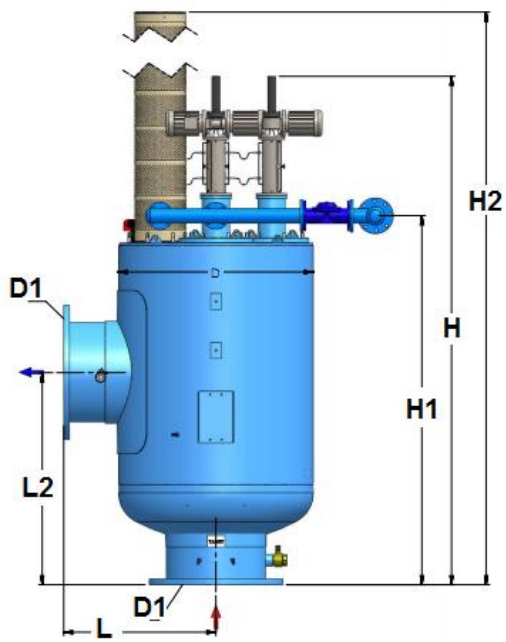
ON-LINE

	Model	ØD (mm)	(in)	ØD1* (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)
On-Line	MGH3818AF	970	38	450	735	1300	2635	2200	3485
	MGH4320AF	1100	43	500	800	1300	2735	2300	3585
	MGH4824AF	1200	48	600	900	1300	2550	2115	3185
	MGH4824AF	1200	48	600	900	1300	2765	2330	3615
	MGH4826AF	1200	48	650	900	1300	2980	2545	4045
	MGH5626AF	1400	56	650	1000	1300	2570	2135	3205
	MGH5628AF	1400	56	700	1000	1300	2785	2350	3635
	MGH5630AF	1400	56	750	1000	1300	3000	2565	4065

	Model	ØD (mm)	(in)	ØD1* (in)	L (in)	L2 (in)	H (in)	H1 (in)	H2 (in)
On-Line	MGH3818AF	970	38	18	28.9	51.2	103.7	86.6	137.2
	MGH4320AF	1100	43	20	31.5	51.2	107.7	90.6	141.1
	MGH4824AF	1200	48	24	36.8	51.2	100.4	83.3	125.4
	MGH4824AF	1200	48	24	36.8	51.2	108.9	91.7	142.3
	MGH4826AF	1200	48	26	36.8	51.2	117.3	100.2	159.3
	MGH5626AF	1400	56	26	39.4	51.2	101.2	84.1	126.2
	MGH5628AF	1400	56	28	39.4	51.2	109.6	92.5	143.1
	MGH5630AF	1400	56	30	39.4	51.2	118.1	101.0	160.0



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