FILTOMAT® M300 SERIES

The most effective self-cleaning system on the market

- *Reliable supply of clean liquid*
- *Wide choice of screen/mesh sizes for variable dirt loads*
- *Fully automated remote operation*
- *Hydraulic operation; no external power source required*
- *Permanent screen media*
- *Compact lightweight design to meet site infrastructure*
- *Easy installation and maintenance*
- *Specially tailored filters available*

FILTOMAT®

How do the M300 filters work ?

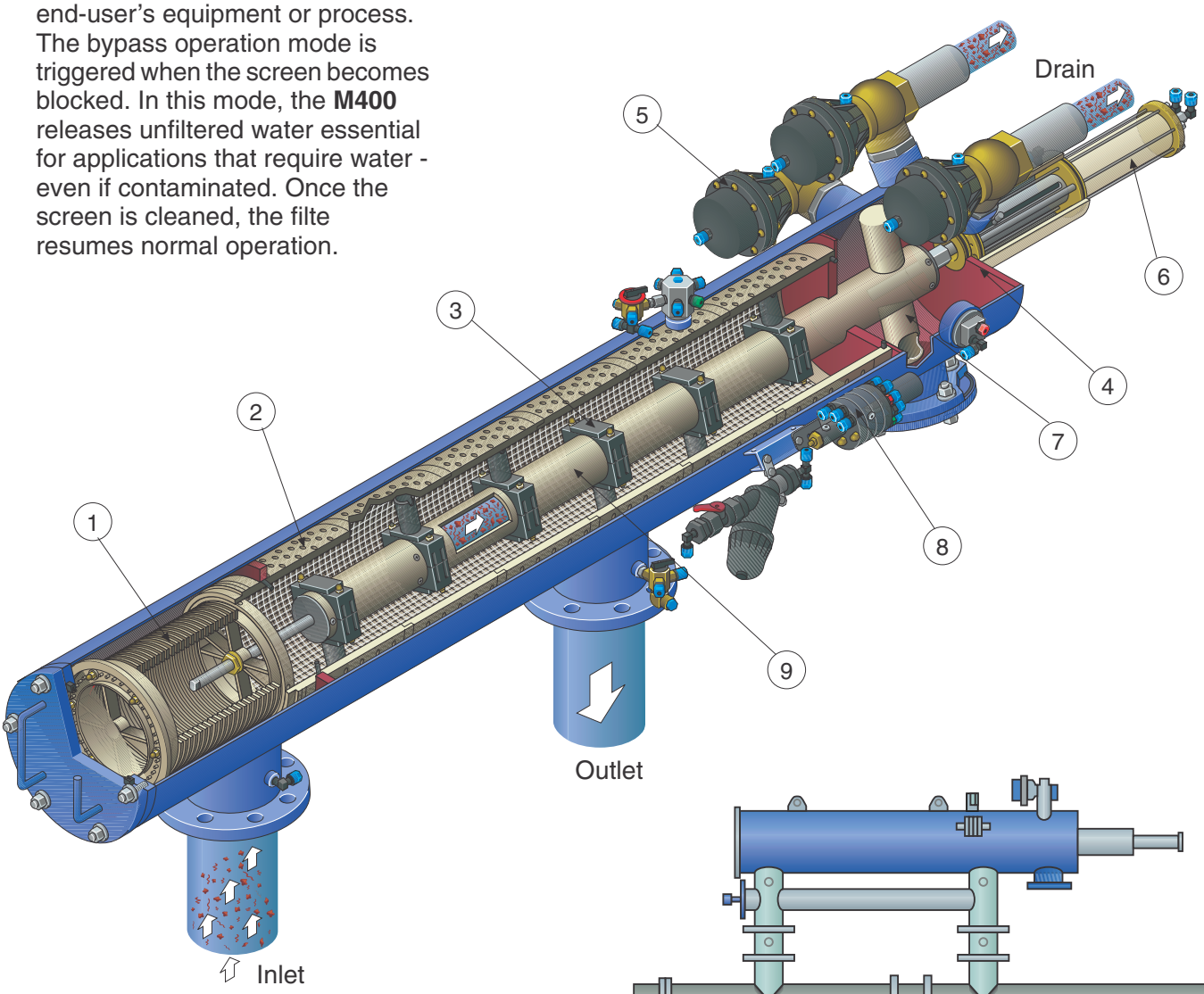
The **M300** series removes dirt particles as water flows through the coarse (1) and fine screens (2) to the outlet. The particles accumulate on the fine screen eventually increasing the pressure differential between its inner and outer surfaces. At a preset value, the rinse controller (8) activates the hydraulic valves (5) and piston (6). This results in the release a backflush stream that flows out of the hydraulic motor chamber (4) via the nozzles (3) to the drainage pipe.

This stream causes a pressure drop in the motor chamber that creates the suction effect of the nozzles (5) for spot cleaning the fine screen's inner surface directly in front of the openings of each nozzle. The helical movement of the dirt collector assembly (9) ensures that the suction nozzles sweep the entire inner surface of the fine screen as follows:

- The backflush water flows through the dirt collector pipe, via the hydraulic motor (7) to the hydraulic valves (5). This causes the dirt collector assembly (9) to spin. The first stroke begins when the pressure-drop in the motor chamber (4) and drainage from the piston drive the spinning dirt collector assembly toward the piston.
- When the first stroke is completed, the dirt collector (9) moves toward the filter cover returning to its original position.

How the M400 bypass feature works

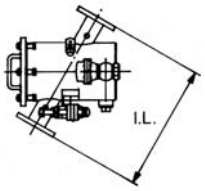
The cost-effective built-in bypass feature of the **M400** filter ensures the constant supply of water to the end-user's equipment or process. The bypass operation mode is triggered when the screen becomes blocked. In this mode, the **M400** releases unfiltered water essential for applications that require water - even if contaminated. Once the screen is cleaned, the filte resumes normal operation.



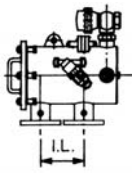
The M400 bypass feature

Technical specifications *FILTOMAT*® M300

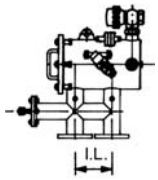
IN-LINE



ON-LINE

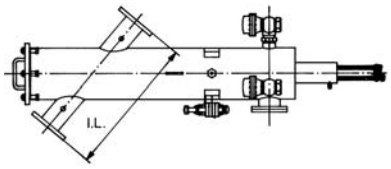


BY-PASS

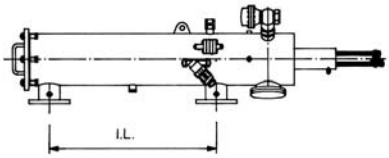


Model	Flow (m^3/h)	I.L.* (mm)	Screen Area (cm^2)			Weight, (kg)		Model	Flow (m^3/h)	I.L.* (mm)	Screen Area (cm^2)			Weight, (kg)		Model	Flow (m^3/h)	I.L.** (mm)	Screen Area (cm^2)			Weight, (kg)	
			4-layer	Flat	Zig-Zag	Empty	Full				4-layer	Flat	Zig-Zag	Empty	Full				4-layer	Flat	Zig-Zag	Empty	Full
M302L**	25	580	528	406	1230	40	60	M302LP**	25	150	528	406	1230	40	60	M403P	25	205	528	406	1230	70	95
M303	40	604	528	406	1230	46	71	M303P	40	205	528	406	1230	46	71	M404P	40	300	950	766	2310	80	115
M304	80	748	950	766	2310	60	95	M304P	80	300	950	766	2310	60	95								

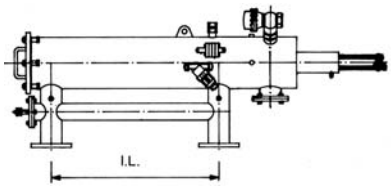
IN-LINE



ON-LINE



BY-PASS



Model	Flow (m^3/h)	I.L.* (mm)	Screen Area (cm^2)			Weight, (kg)		Model	Flow (m^3/h)	I.L.* (mm)	Screen Area (cm^2)			Weight, (kg)		Model	Flow (m^3/h)	I.L.* (mm)	Screen Area (cm^2)			Weight, (kg)	
			4-layer	Flat	Zig-Zag	Empty	Full				4-layer	Flat	Zig-Zag	Empty	Full				4-layer	Flat	Zig-Zag	Empty	Full
M302LE	25	564	2259	1532	4600	80	140	M302LPE	25	450	2259	1532	4600	80	140	M403LP	40	450	2259	1532	4600	100	160
M303L	40	604	2259	1532	4600	90	150	M303LP	40	450	2259	1532	4600	95	155	M404LPE	40	450	2259	1532	4600	100	160
M303LE	40	604	2259	1532	4600	90	150	M303LPE	40	450	2259	1532	4600	93	153	M404LP	80	900	4878	3065	9000	125	205
M304L	80	748	4878	3065	9000	104	184	M304LP	80	900	4878	3065	9000	100	180	M404LPE	80	450	2259	1532	4600	110	190
M304LE	80	748	2259	1532	4600	93	153	M304LPE	80	450	2259	1532	4600	92	152	M406P	150	450	2259	1532	4600	125	205
M306	150	910	2259	1532	4600	109	189	M306P	150	450	2259	1532	4600	108	188	M406PE	150	450	2259	1532	4600	125	205
M306E	150	910	2259	1532	4600	110	200	M306PE	150	450	2259	1532	4600	108	198	M406LP	150	900	4878	3065	9000	150	275
M306L	150	910	4878	3065	9000	130	253	M306LP	150	900	4878	3065	9000	127	250	M406XLP	120	900	7477	4598	13500	155	265
M308	300	1176	4878	3065	9000	152	292	M306XLP	120	900	7477	4698	13500	142	252	M408P	300	900	4878	3065	9000	170	310
M310	400	1340	6723	4084	12300	254	494	M308P	300	900	4878	3065	9000	144	284	M408LP	300	900	7477	4598	13500	190	370
M310L	400	1340	1085	6127	18300	280	560	M308LP	300	900	7477	4598	13500	160	340	M410P	400	1100	6723	4084	12300	390	630
M312	600	1450	1085	6127	18300	300	640	M310P	400	1100	6723	4084	12300	260	500	M410LP	400	1100	1085	6127	18300	405	660
M314	900	1532	11794	6888	20500	435	865	M310LP	400	1100	1085	6127	18300	268	548	M412P	600	1100	1085	6127	18300	440	780
								M312P	600	1100	1085	6127	18300	291	631	M414P	900	1270	11794	6888	20500	470	900
								M314P	900	1270	11794	6888	20500	315	745	M416P	1100	1270	11794	6888	20500	590	1040
								M316P	1100	1270	11794	6888	20500	435	885								

Specifications for all models:

Working pressure: 10 bar gauge max.
(16 bar gauge max. option).

Pressure during rinse cycle: 2 bar gauge min.;
3.5 bar gauge min. for E models

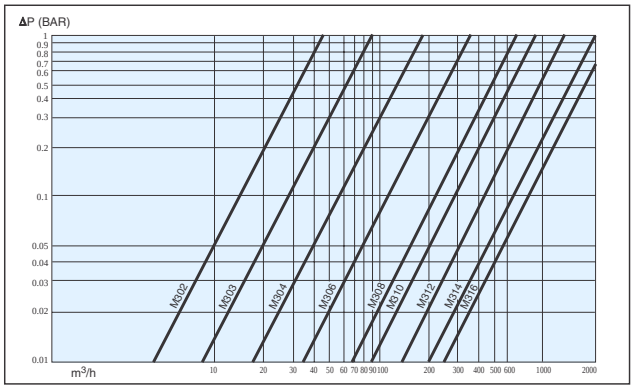
Working temperature: 65°C max.

Rinse cycle duration: Pistonless model 3 to 5 sec.
Piston model 10 to 15 sec.

* I.L. - Installation length.

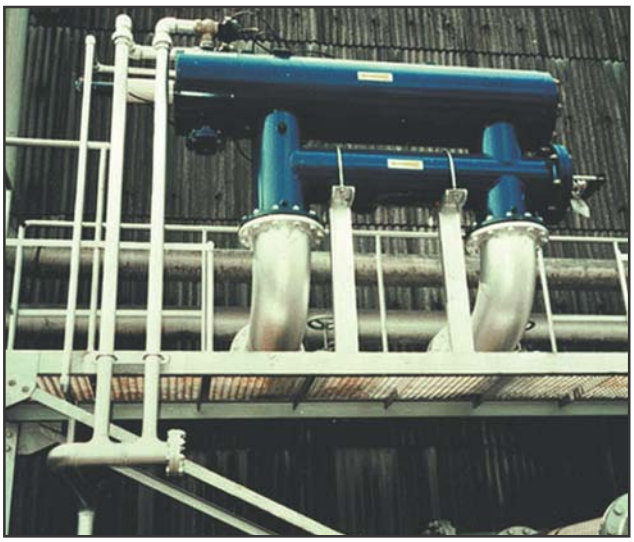
** M302L and M302LP are 2" BSP or 2" NPT threaded inlet/outlet.

Pressure losses for various flow capacities



Note: The pressure losses for the M400 series is identical to the data provided in the graph above.

Typical applications



M406LP by-pass filter - Japan.

M303L in-line side stream filtration for cooling tower at petro chemical plant - Israel.

M314P St/St in-take water at paper mill - Finland.

M304LP for thick juice sugar mill - Sweden.

TÜV CERT EN ISO 9001 041000435

The Standards Institution of Israel SI ISO 9001 Quality Assured Firm

AMIAD products undergo constant monitoring for quality control.
The manufacturer reserves the right to incorporate changes and improvements in the product without prior notice.

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amiad filtration systems

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