amiad® IRRIGATION

FILTOMAT

M100/ MG

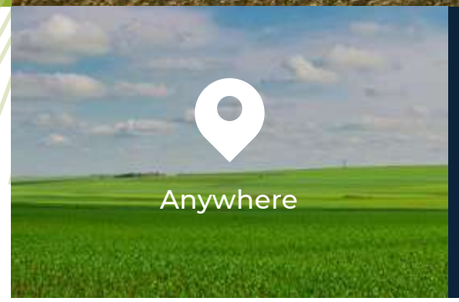
Self-cleaning
screen filter

amiad® WATER SYSTEMS

MASTERS OF FILTRATION

MASTERS OF FILTRATION

Any Crop



Anywhere

Any Water Source

Any Technology

Farming is our heritage. Filtration is our legacy.

At Amiad, our roots are in the land. As farmers, we learned at firsthand what our crops need to thrive. We understand that every water source is different, and how water quality can greatly affect crop yield.

The filter is the first vital link in the irrigation chain. It's there to protect irrigation systems from damage, while delivering the best quality water.

We develop filters that are able to cope with any water quality, in any geographical location.

We've spent years mastering filtration technology so we can offer a wide range of filters for every farmer's needs including screen, disc or media technology. Our fully automated filtration systems save time, manpower and costs.

Disc Technology

Screen Technology

Media Technology

We consider every challenge as an opportunity to work side by side with our customers to solve their problems. We'll go anywhere to ensure our filters perform as expected, 24/7, every day of the year.

When you want a high performance filter for your irrigation system, consult with Amiad. We focus on doing what we do best.

Amiad. Masters of Filtration.

FILTOMAT: 30 years of excellence.

The Filtration Process

1

Raw water flows through the filter inlet and to the coarse screen for removal of large debris and sediment.

Water then passes through the fine screen for removal of the remaining small particles.

2

3

A differential pressure switch (DPS) monitors the pressure caused by the accumulation of debris on the inner screen and initiates the self-cleaning process at 0.5 bar (7 psi).

The flush valve opens to the atmosphere to create a strong suction force at the scanner nozzles, effectively removing dirt particles from the screen.

4

5

Dirty backflush water is drained out via the drainage pipe.

After efficient cleaning, the DP returns to its original value, enabling the filter to operate continuously without downtime.

6

FILTOMAT FEATURES

Simple construction

Reliable and durable

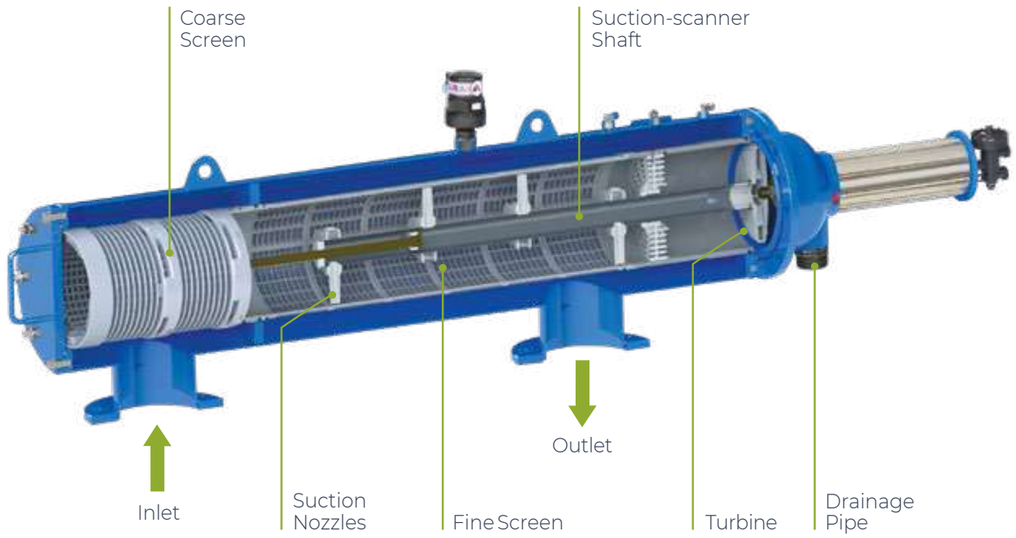
Easy maintenance - disassembles in only 5 parts

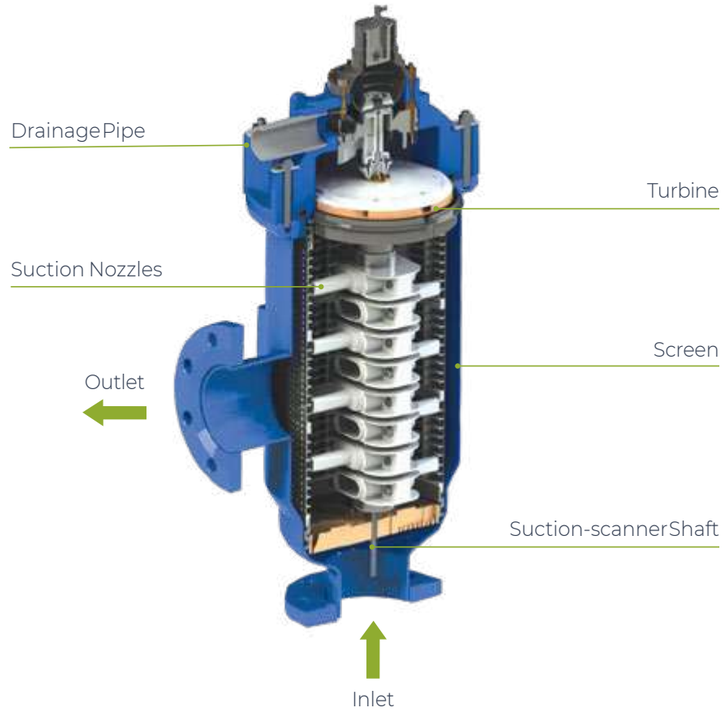
Automatic flushing according to pressure differential or set time

Specifically designed for agricultural filtration needs

No interruption of downstream flow during flushing

FILTOMAT:
An Inside Look





Filtomat M100 Models

Available as a stand alone or as filter bank assembly, with a single ADI-P electronic control system.

M102C/M103C: ≤ 40 m³/h (176 gpm)

M103CL/M104C: ≤ 80 m³/h (350 gpm)

M104CL: ≤ 100 m³/h (440 gpm)

M104LPN/M106LP: ≤ 180 m³/h (793 gpm)

M104XLP/M106XLP/M108LP/M110P: ≤ 400 m³/h (1,760 gpm)

Filtomat MG Models

Modular configuration, available as a stand alone or as filter bank assembly, with a single ADI-P electronic control system.

Delivered fully assembled and requiring a single connection to the inlet, outlet and drain.

MG110 (2 x 108LP): ≤ 400 m³/h (1,760 gpm)

MG112 (3 x 108LP): ≤ 600 m³/h (2,640 gpm)

MG114 (4 x 108LP): ≤ 800 m³/h (3,520 gpm)

ADI-P:
the control is in your hands

The ADI-P Controller

The ADI-P Controller operates the automated processes that flush your Filtomat filters, allowing you to control and monitor them easily and conveniently.

- Suitable for low pressure (1.5-10 bar)
- Single or dual solenoid configuration
- Provides detailed filtration performance data
- Communication within **Bluetooth®** technology range
- Offline information storage available

The ADI-P App

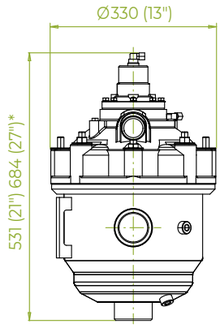
Access your site's filtration performance data directly from the ADI-P app.
Here are some of the data that you can access via the ADI-P app:

- Flush logs
- Flush frequency
- Current DP
- Current outlet and inlet pressure
- Flush quality - measuring DP on the filter before and after flush cycle
- Malfunctions with descriptions of each event
- Battery status and low battery alerts

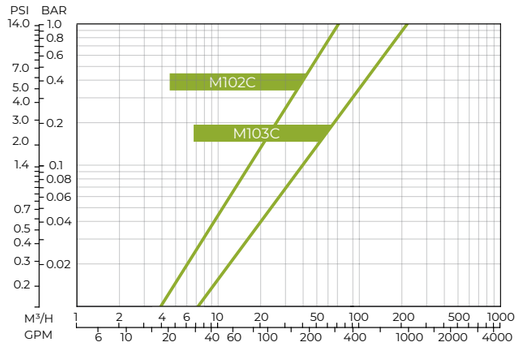
M100 Models

M102C / M103C

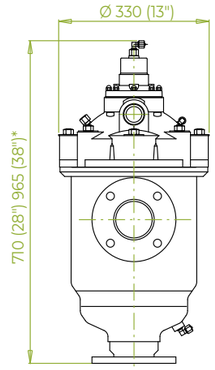
Typical Dimensional Drawing
mm (inch)

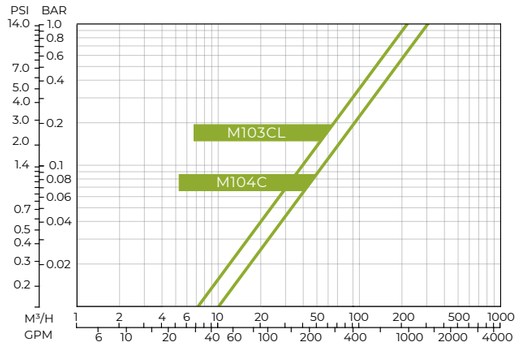


Head Loss Graph (in clean water)

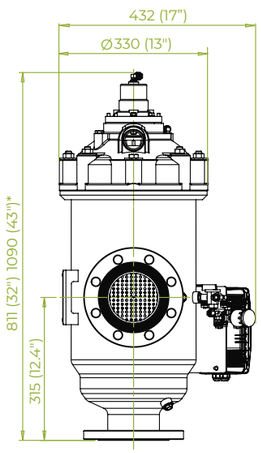


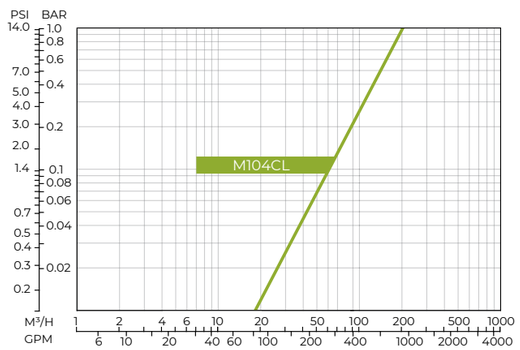
M103CL / M104C





M104CL





*Approx. length required for maintenance

Technical Specifications - M100 Models

Filter Model	M102C / M103C	M103CL / M104C	M104CL
General Data			
Maximum flow rate*	40 m³/h (175 gpm)	80 m³/h (350 gpm)	100 m³/h (440 gpm)
Inlet/Outlet diameter	2" (50 mm) 3" (80 mm)	3" (80 mm) 4" (100 mm)	4" 100 (mm)
Standard filtration degrees	500, 300, 200, 130, 100, 80 micron		
Minimum working pressure	2 bar (30 psi) For lower pressure please consult Amiad		
Maximum working pressure	8 bar (116 psi)		
Maximum working temperature	55°C (131°F)		
Weight [empty]	2" 22 kg (48.5 lb) 3" 25 kg (55 lb)	3" 30 kg (66 lb) 4" 35 kg (77 lb)	4" 50 kg (110 lb)

* Consult Amiad for optimum flow depending on filtration degree and water quality.

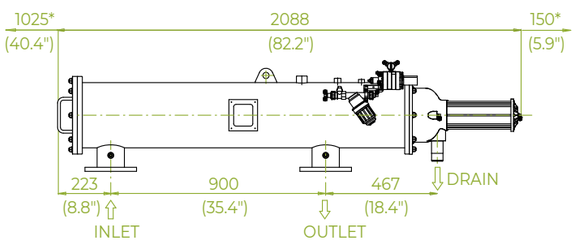
Flushing Data			
Minimum flow for flushing (at 2 bar - 30 psi)	15 m³/h (66 gpm)	20 m³/h (88 gpm)	22 m³/h (97 gpm)
Reject water volume per flush cycle (at 2 bar - 30 psi)	15 liter (4 gallon)	20 liter (5.2 gallon)	28 liter (7.3 gallon)
Flushing cycle time	10 seconds		
Exhaust valve	1.5" (40 mm)		
Flushing criteria	Differential pressure of 0.5 bar (7 psi), time intervals or manual operation		
Screen Data			
Total filtration area	1,300 cm² (202 in²)	2,120 cm² (329 in²)	3,000 cm² (465 in²)
Net filtration area	750 cm² (116 in²)	1,500 cm² (232 in²)	2,250 cm² (349 in²)
Screen types	Molded weavewire stainless steel 316L		
Construction Materials			
Filter housing	Epoxy-coated carbon steel 37-2 (stainless steel 316L on request)		
Filter lid	High density polypropylene, epoxy coated carbon steel 37-2 (stainless steel 316L on request)		
Cleaning mechanism	PVC and stainless steel 316L		
Exhaust valve	Brass, stainless steel 316L, BUNA-N		
Seals	BUNA-N		
Command tubing	PE (polyethylene)		

M100 Models

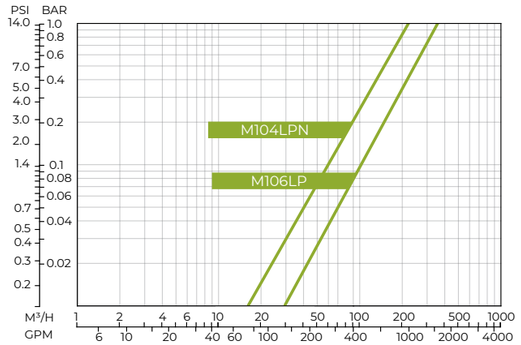
M104LPN / M106LP

Typical Dimensional Drawing

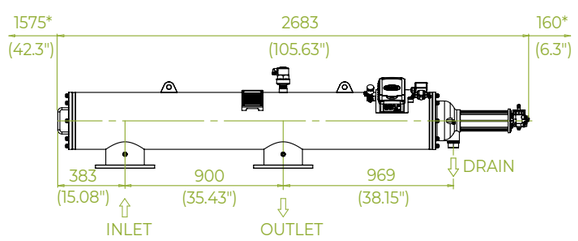
mm (inch)

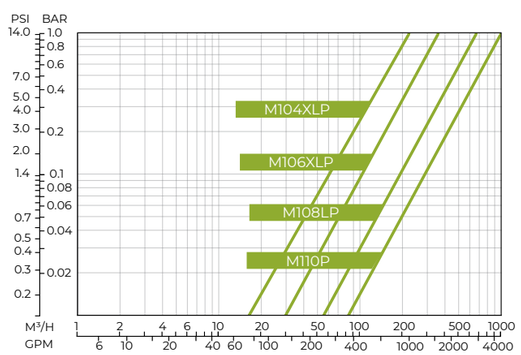


Head Loss Graph (in clean water)



M104XLP / M106XLP / M108LP / M110P





*Approx. length required for maintenance

Technical Specifications - M100 Models

Filter Model	M104LPN / M106LP	M104XLP / M106XLP / M108LP / M110P
General Data		
Maximum flow rate*	180 m³/h (793 gpm)	400 m³/h (1,760 gpm)
Inlet/Outlet diameter	4" (100 mm) 6" (150 mm)	4" (100 mm) 6" (150 mm) 8" (200 mm) 10" (250 mm)
Standard filtration degrees	500, 300, 200, 130, 100, 80 micron	
Minimum working pressure	2 bar (30 psi) For lower pressure please consult Amiad	
Maximum working pressure	10 bar (150 psi)	
Maximum working temperature	55°C (131°F)	
Weight [empty]	4" 90 kg (198 lb) 6" 115 kg (253.5 lb)	4" 110 kg (242.5 lb) 6" 120 kg (264.5 lb) 8" 140 kg (308.6 lb) 10" 158 kg (348 lb)

* Consult Amiad for optimum flow depending on filtration degree and water quality.

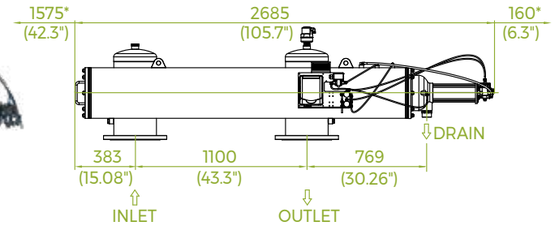
Flushing Data		
Minimum flow for flushing (at 2 bar - 30 psi)	26 m³/h (114 gpm)	30 m³/h (132 gpm)
Reject water volume per flush cycle (at 2 bar - 30 psi)	125 liter (33 gallon)	150 liter (40 gallon)
Flushing cycle time	15 seconds	
Exhaust valve	1.5" (40 mm)	
Flushing criteria	Differential pressure of 0.5 bar (7 psi), time intervals or manual operation	
Screen Data		
Total filtration area	6,150 cm² (953 in²)	8,890 cm² (1,378 in²)
Net filtration area	4,500 cm² (698 in²)	6,800 cm² (1,054 in²)
Screen types	Molded weavewire stainless steel 316L	
Construction Materials		
Filter housing	Epoxy-coated carbon steel 37-2 (stainless steel 316L on request)	
Filter lid	High density polypropylene, epoxy coated carbon steel 37-2 (stainless steel 316L on request)	
Cleaning mechanism	PVC and stainless steel 316L	
Exhaust valve	Brass, stainless steel 316L, BUNA-N	
Seals	BUNA-N	
Command tubing	PE (polyethylene)	

MG Models

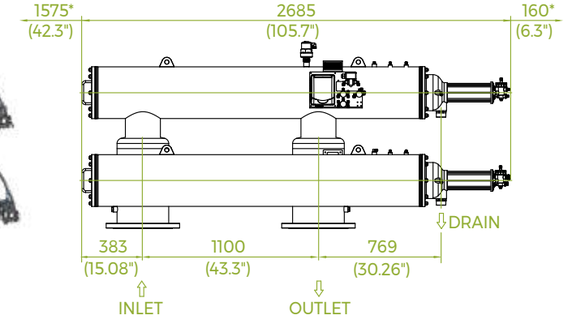
MG110

Typical Dimensional Drawing

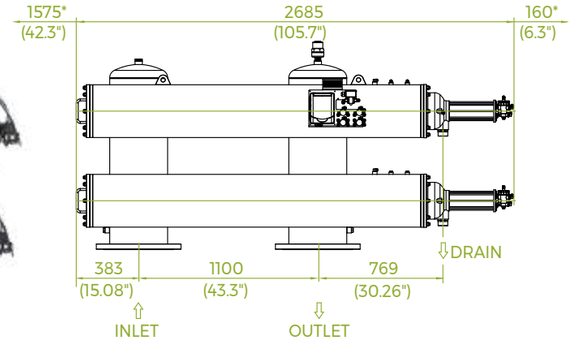
mm (inch)



MG112

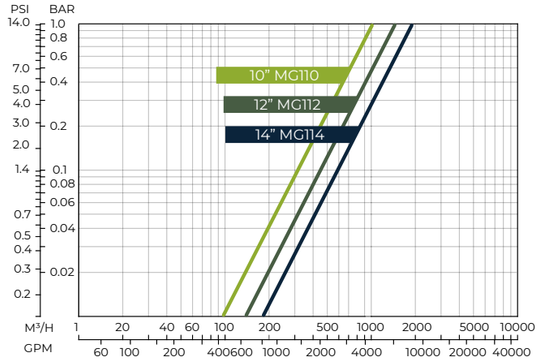


MG114



*Approx. length required for maintenance

Head Loss Graph (in clean water)



Technical Specifications - MG Models

Filter Model	MG110	MG112	MG114
General Data			
Maximum flow rate*	400 m³/h (1,760 gpm)	600 m³/h (2,640 gpm)	800 m³/h (3,520 gpm)
Inlet/Outlet diameter	10" (250 mm)	12" (300 mm)	14" (350 mm)
Standard filtration degrees	500, 300, 200, 130, 100, 80 micron		
Minimum working pressure	2 bar (30 psi) For lower pressure please consult Amiad		
Maximum working pressure	10 bar (150 psi)		
Maximum working temperature	55°C (131°F)		
Weight [empty]	325 kg (717 lb)	480 kg (1,054 lb)	723 kg (1,590 lb)

* Consult Amiad for optimum flow depending on filtration degree and water quality.

Flushing Data			
Minimum flow for flushing (at 2 bar - 30 psi)	30 m³/h (132 gpm)		
Reject water volume per flush cycle (at 2 bar - 30 psi)	300 liter (80 gallon)	450 liter (120 gallon)	600 liter (160 gallon)
Flushing cycle time	30 seconds	45 seconds	60 seconds
Exhaust valve	1.5" (40mm)		
Flushing criteria	Differential pressure of 0.5 bar (7 psi), time intervals or manual operation		

Screen Data			
Total filtration area	17,780 cm² (2,756 in²)	26,670 cm² (4,134 in²)	35,560 cm² (5,512 in²)
Net filtration area	13,600 cm² (2,108 in²)	20,400 cm² (3,162 in²)	27,200 cm² (4,216 in²)
Screen types	Molded weavewire, stainless steel 316L		

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910101-000392/01.2020