FILTOMAT M100/ MG
Self-cleaning screen filter
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.

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

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).

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

5. Dirty backflush water is drained out via the drainage pipe.

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

**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

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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)

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)
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.

- Flush logs
- Flush frequency
- Current DP
- Current outlet and inlet pressure

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 quality - measuring DP on the filter before and after flush cycle
- Malfunctions with descriptions of each event
- Battery status and low battery alerts

ADI-P: the control is in your hands
General Data

Maximum flow rate
- M102C / M103C: 40 m³/h (175 gpm)
- M103CL / M104C: 80 m³/h (350 gpm)
- M104CL: 100 m³/h (440 gpm)

Inlet/Outlet diameter
- M102C / M103C: 2" (50 mm)
- M103CL / M104C: 3" (80 mm)
- M104CL: 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)
- M102C / M103C: 22 kg (48.5 lb)
- M103CL / M104C: 30 kg (66 lb)
- M104CL: 35 kg (77 lb)

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

Flushing Data

Minimum flow for flushing
(at 2 bar - 30 psi)
- M102C / M103C: 15 m³/h (66 gpm)
- M103CL / M104C: 20 m³/h (88 gpm)
- M104CL: 22 m³/h (97 gpm)

Reject water volume per flush cycle
(at 2 bar - 30 psi)
- M102C / M103C: 15 liter (4 gallon)
- M103CL / M104C: 20 liter (5.2 gallon)
- M104CL: 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
- M102C / M103C: 1,300 cm² (205 in²)
- M103CL / M104C: 2,120 cm² (329 in²)
- M104CL: 3,000 cm² (465 in²)

Net filtration area
- M102C / M103C: 750 cm² (116 in²)
- M103CL / M104C: 1,500 cm² (232 in²)
- M104CL: 2,250 cm² (340 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)

* Approx. length required for maintenance
M100 Models

Technical Specifications - M100 Models

<table>
<thead>
<tr>
<th>Filter Model</th>
<th>M104LPN / M106LP</th>
<th>M104XLP / M106XLP / M108LP / M110P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum flow rate*</td>
<td>180 m³/h (793 gpm)</td>
<td>400 m³/h (1760 gpm)</td>
</tr>
<tr>
<td>Inlet/Outlet diameter</td>
<td>4&quot; (100 mm)</td>
<td>6&quot; (150 mm)</td>
</tr>
<tr>
<td></td>
<td>4&quot; (100 mm)</td>
<td>6&quot; (150 mm)</td>
</tr>
<tr>
<td></td>
<td>8&quot; (200 mm)</td>
<td>10&quot; (250 mm)</td>
</tr>
<tr>
<td>Standard filtration degrees</td>
<td>500, 300, 200, 130, 100, 80 micron</td>
<td></td>
</tr>
<tr>
<td>Minimum working pressure</td>
<td>2 bar (30 psi)</td>
<td>For lower pressure please consult Amiad</td>
</tr>
<tr>
<td>Maximum working pressure</td>
<td>10 bar (150 psi)</td>
<td></td>
</tr>
<tr>
<td>Maximum working temperature</td>
<td>55°C (131°F)</td>
<td></td>
</tr>
<tr>
<td>Weight (empty)</td>
<td>4&quot;  90 kg (198 lb)</td>
<td>4&quot; 110 kg (242.5 lb)</td>
</tr>
<tr>
<td></td>
<td>6&quot;  115 kg (253.5 lb)</td>
<td>6&quot; 120 kg (264.5 lb)</td>
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<td></td>
<td>8&quot;  140 kg (308.6 lb)</td>
<td>8&quot; 140 kg (308.6 lb)</td>
</tr>
<tr>
<td></td>
<td>10&quot; 158 kg (348 lb)</td>
<td>10&quot; 158 kg (348 lb)</td>
</tr>
<tr>
<td>* Consult Amiad for optimum flow depending on filtration degree and water quality.</td>
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</tr>
<tr>
<td><strong>Flushing Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum flow for flushing (at 2 bar - 30 psi)</td>
<td>26 m³/h (114 gpm)</td>
<td>30 m³/h (132 gpm)</td>
</tr>
<tr>
<td>Reject water volume per flush cycle (at 2 bar - 30 psi)</td>
<td>125 liter (33 gallon)</td>
<td>150 liter (40 gallon)</td>
</tr>
<tr>
<td>Flushing cycle time</td>
<td>15 seconds</td>
<td></td>
</tr>
<tr>
<td>Exhaust valve</td>
<td>1.5&quot; (40 mm)</td>
<td></td>
</tr>
<tr>
<td>Flushing criteria</td>
<td>Differential pressure of 0.5 bar (7 psi), time intervals or manual operation</td>
<td></td>
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<tr>
<td><strong>Screen Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total filtration area</td>
<td>6,150 cm² (953 in²)</td>
<td>8,890 cm² (1,378 in²)</td>
</tr>
<tr>
<td>Net filtration area</td>
<td>4,500 cm² (698 in²)</td>
<td>6,800 cm² (1,054 in²)</td>
</tr>
<tr>
<td>Screen types</td>
<td>Molded weavewire stainless steel 316L</td>
<td></td>
</tr>
<tr>
<td><strong>Construction Materials</strong></td>
<td>Epoxy-coated carbon steel 37-2 (stainless steel 316L on request)</td>
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</tr>
<tr>
<td>Filter lid</td>
<td>High density polypropylene, epoxy coated carbon steel 37-2 (stainless steel 316L on request)</td>
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</tr>
<tr>
<td>Cleaning mechanism</td>
<td>PVC and stainless steel 316L</td>
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</tr>
<tr>
<td>Exhaust valve</td>
<td>Brass, stainless steel 316L, BUNA-N</td>
<td></td>
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<tr>
<td>Seals</td>
<td>BUNA-N</td>
<td></td>
</tr>
<tr>
<td>Command tubing</td>
<td>PE (polyethylene)</td>
<td></td>
</tr>
</tbody>
</table>
Head Loss Graph (in clean water)

**Technical Specifications - MG Models**

<table>
<thead>
<tr>
<th>Filter Model</th>
<th>MG110</th>
<th>MG112</th>
<th>MG114</th>
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</thead>
<tbody>
<tr>
<td><strong>General Data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum flow rate*</td>
<td>400 m³/h (1,760 gpm)</td>
<td>600 m³/h (2,640 gpm)</td>
<td>800 m³/h (3,520 gpm)</td>
</tr>
<tr>
<td>Inlet/Outlet diameter</td>
<td>10” (250 mm)</td>
<td>12” (300 mm)</td>
<td>14” (350 mm)</td>
</tr>
<tr>
<td>Standard filtration degrees</td>
<td>50, 200, 200, 130, 100, 80 micron</td>
<td>50, 200, 200, 130, 100, 80 micron</td>
<td>50, 200, 200, 130, 100, 80 micron</td>
</tr>
<tr>
<td>Minimum working pressure</td>
<td>2 bar (30 psi)</td>
<td>For lower pressure please consult Amiad</td>
<td></td>
</tr>
<tr>
<td>Maximum working pressure</td>
<td>10 bar (150 psi)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum working temperature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight [empty]</td>
<td>325 kg (717 lb)</td>
<td>480 kg (1,054 lb)</td>
<td>723 kg (1,590 lb)</td>
</tr>
<tr>
<td>* Consult Amiad for optimum flow depending on filtration degree and water quality.</td>
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</tr>
</tbody>
</table>

**flushing Data**

| Minimum flow for flushing (at 2 bar - 30 psi) | 30 m³/h (132 gpm) | 30 m³/h (132 gpm) | 600 m³/h (2,640 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 (4,334 in²) | 35,560 cm² (5,512 in²) |
| Net filtration area | 13,660 cm² (2,088 in²) | 20,400 cm² (3,262 in²) | 27,200 cm² (4,276 in²) |
| Screen types | Molded weavewire, stainless steel 316L | | |