



Micron Filtration Limited

www.micronfiltration.co.uk

## Self Cleaning Screen Filter - Plastic Type

Flow Rate	Filtration Degree	Water For Cleaning	Min. Operating Pressure
up to 25 m <sup>3</sup> /h	130 micron	less than 1% of the total flow	1.5 bar (22 psi)

### Self Cleaning Screen Filter for a large variety of applications



#### Features:

- Unique Electric drive mechanisms
- Automatic flushing according to pressure differential and/or according to time
- Option for continuous flushing
- Low power consumption
- No interruption of downstream flow during flushing
- Electronically-monitored cleaning with flexible control options
- Applications: Water supply systems, cooling water, waste water treatment

## How the Filter Works

### General

This filter consists of easy-to-operate 2” automatic filter module constructed of high quality plastic and driven by an electrical or electronic self-cleaning mechanism. The filter is supplied complete with a 130 micron screen. Other screens are available to cover a range of 10 to 500 micron with flow rates of up to 25 m<sup>3</sup>/h.

### The Filtering Process

The water enters the inner area of the screen-cylinder (1) through the filter’s Inlet Pipe (2) and flows throughout the screen-mesh to the filter’s Outlet Pipe (3). The dirt particles are trapped on the inner screen surface and form a “filtration cake” that causes a differential pressure across the screen.

### The Self-Cleaning Process

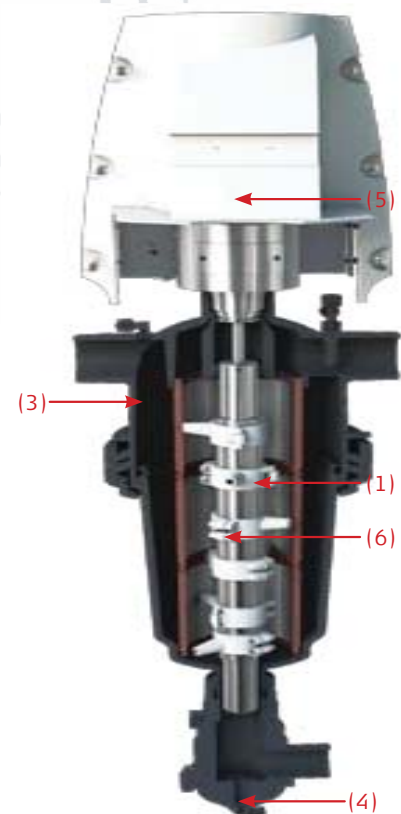
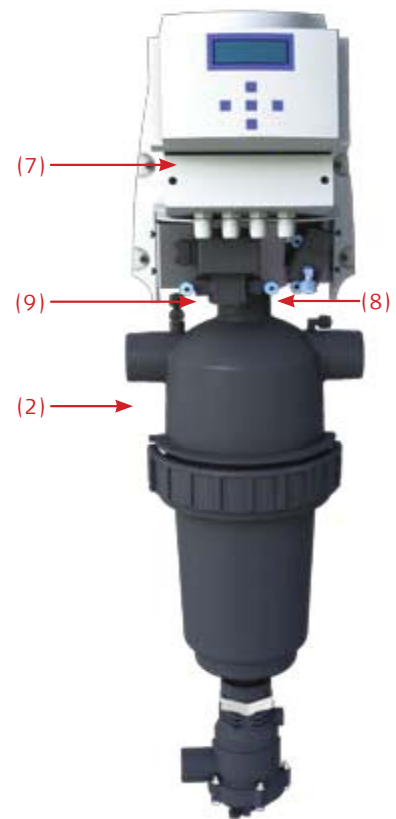
During the self-cleaning process, while filtered water continues to flow, the filter’s Exhaust Valve (4) is opened and the Drive Unit (5) spirals the Suction Scanner (6) back and forth. The spiral rotation of the suction scanner nozzles across the inner surface of the screen “vacuums” the filtration cake out the exhaust valve.

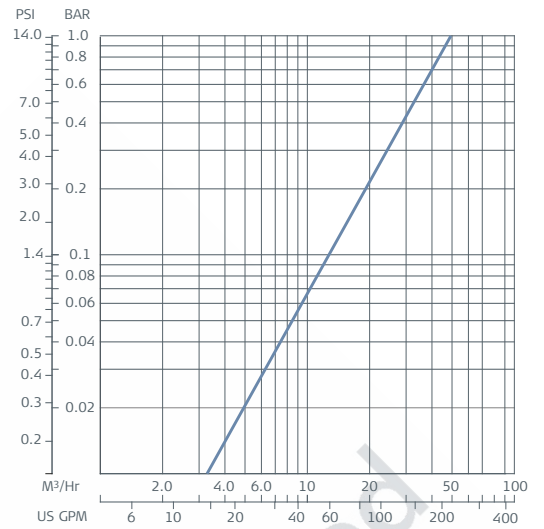
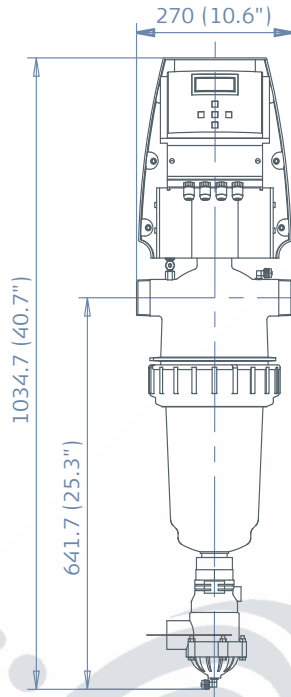
### The Control System

The control system consists of: An Electronic Flushing Controller (7), a 3-way Solenoid Valve (8) that controls the filter’s exhaust valve and a Pressure Differential Switch (9) that senses the pressure differential across the screen and sends a signal to the controller when it reaches a pre-set value (usually 0.5 bar/7 psi).

The controller begins a self-cleaning cycle under any of the following conditions:

1. Receiving a signal from the Pressure Differential Switch
2. Time interval parameter set at the controller by the user
3. Manual Start function at the controller’s keyboard





**Dimensions In mm (inch)**  
\*Approx. length required for maintenance

## Technical Specifications

General Data			
Maximum flow rate*		25 m <sup>3</sup> /h	
Inlet/Outlet diameter		2"/50 mm	
Standard filtration degrees	500, 300, 200, 130, 100, 80, 50, 25, 10 micron		
Min. working pressure	1.5 bar (22 psi) Can be lower if pressure is increased for flushing		
Max. working pressure	8 bar (116 psi)		
Max. working temperature	60°C (140 °F)		
Electrical Supply	110/220 VAC		
Weight (empty)		12.4 kg (27.3 lb)	

\* Consult Micron Filtration Limited for optimum flow depending on filtration degree & water quality.

<b>Flushing Data</b>			
Minimum flow for flushing (at 1.5 bar - 22 psi)		5.7 m <sup>3</sup> /h	
Reject water volume per flush cycle		25 litres	
Flushing cycle time	16 seconds		
Exhaust valve	40 mm (1½")		
Flushing criteria	Differential pressure of 0.5 bar (7psi), time intervals and manual operation		

<b>Screen Data</b>			
Filter area		750 cm <sup>2</sup> (116 in <sup>2</sup> )	
Screen types	St. St. 316 weave wire screen with Polycarbonate construction, SMO-254		

<b>Control and Electricity</b>			
Rated operation voltage	220 V or Single phase 110 V upon request		
Electric motor	15 Watt 50 / 60 Hz, Gear output 48 / 58 R.P.M.		
Current consumption	0.18 A		
Control voltage	Electric - 24 VAC		

<b>Construction Materials</b>	
Filter housing and lid	PA+GF
Cleaning mechanism	PVC, Delarin
Exhaust valve	Plastic, Natural rubber
Seals	NBR
Control	Brass, Stainless steel, PE, PP



Micron Filtration Limited  
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**Micron Filtration Limited**  
13 Laburnum House  
St Helens  
WA11 9DZ

Office No: 01744 757735  
Mobile: 07713871893  
E-Mail: sales@micronfiltration.co.uk



