TIMEX
Filtration & Water Systems

# SVF Filters

| flow rates | filtration degrees | water for cleaning | minimum operating pressure |
|---|---|---|---|
| up to **7200 m³/h** (32000 US gpm) | **800-10** micron | less than **1**% of the total flow | **2** bar (30 psi) |

## The largest automatic self-cleaning filter for fine filtration

### features:

- Large filtration area, reliable operating mechanism and simple construction make the SVF filter the ideal solution for filtration of high-flow and poor quality water to very fine filtration degrees
- Automatic flushing according to pressure differential and/or according to time
- No interruption of downstream flow during flushing
- Robust and reliable Self-Cleaning mechanism even on marginal operation conditions
- Minimal volume of reject water allows excellent operation in continuous flush mode
- Applications: Water supply systems, Irrigation systems, Cooling Water, Waste Water Treatment, Industrial Pre-Filtration, etc.
- Industries: manufacturing, mining, water and waste water treatment plant, turf and agriculture, etc.

## Technical Specifications

| Filter Type | SVF 10.000 | SVF 15.000 | Mega SVF 40.000 | Mega SVF 60.000 |
|---|---|---|---|---|
| **General Data** | | | | |
| Maximum flow rate* | 1200 m³/h (5300 US gpm) | 1800 m³/h (8000 US gpm) | 4800 m³/h (21100 US gpm) | 7200 m³/h (32000 US gpm) |
| Inlet/Outlet diameter | 8”-16” (200 -400 mm) | 16”-20” (400 - 500 mm) | 16”-24” (400 - 600 mm) | 20”-36” (500-900 mm) |
| Standard filtration degrees | Weave Wire Screen 800, 500, 300, 200, 130, 100, 80,50, 25,10 micron | | | |
| Min. working pressure | 2 bar (30 psi) Can be lower if pressure is increased for flushing | | | |
| Max. working pressure | 10 bar (145 psi) 16 bar (232 psi) upon request | | | |
| Max. working temperature | 60°C (140 °F) | | | |
| Electrical Supply | 3 phase, 220/380/440 VAC 50/60 Hz | | | |
| Weight (empty On-line models) | 490 kg (1080 lb) | 684 kg (1508 lb) | 2250 kg (4960 lb) | 6200 kg (13670 lb) |

* Consult manufacturer for optimum flow depending on filtration degree & water quality

| **Flushing Data** | | | | |
|---|---|---|---|---|
| Minimum flow for flushing (at 2 bar - 30 psi) | 50 m³/h (220 US gpm) | 50 m³/h (220 US gpm) | 50 or 200 m³/h (220 or 880 US gpm)* | 50 or 200 m³/h * (220 or x 880 US gpm) * |
| Reject water volume per flush cycle | 420 liter (111 US gallon) | 500 liter (132 US gallon) | 1680 liter (444 US gallon) | 2000 liter (528 US gallon) |
| Flushing cycle time | 30 seconds | 36 seconds | 30 - 120 seconds* | 144 - 36 seconds* |
| Exhaust valve | 3” 80 mm | 3” 80 mm | 4 units of 3” 4 units of 80 mm | 4 units of 3” 4 units of 80 mm |
| Flushing criteria | Differential pressure of 0.5 bar (7 psi), time intervals and manual operation | | | |

* One by one or all four screens simultaneously

| **Screen Data** | | | | |
|---|---|---|---|---|
| Filter area | 10000 cm² | 15000 cm² | 40000 cm² | 60000 cm² |
| Screen types | Four-layer Weave Wire stainless steel 316L | | | |

| **Control and Electricity** | | | | |
|---|---|---|---|---|
| Rated operation voltage | 3 faz, 220/380/440 VAC 50/60 Hz | | | |
| Electric motor 20 / 24 Gear output RPM | ½ HP | ½ HP | 4 x ½ HP | 4 x ½ HP |
| Current consumption | 1,5 A | 1,5 A | 5 A | 5 A |
| Control voltage | 24 VAC | | | |

| **Construction Materials*** | |
|---|---|
| Filter housing and lid | Epoxy-coated carbon steel 37-2 |
| Cleaning mechanism | Stainless steel 316L, Acetal |
| Exhaust valve | Epoxy-coated cast iron, Natural rubber |
| Seals | Synthetic rubber, Teflon |
| Control | Aluminum, Brass, Stainless steel, PVC, Nylon |

* Timex offers a variety of construction materials and screens. Please consult us for specifications

## How does SVF filters work

### General

The Timex SVF Series are sophisticated, yet easy-to-operate, automatic filters, with an electric self-cleaning mechanism.
The “SVF” filters range in flow-rates of up to 7200 m³/h (32000 US gpm), with screens designed ranging from 800-10 micron filtration degree. Inlet/Outlet flanges are available from 8”-36” diameter.

### The Filtering Process

Raw water enters from the filter inlet (1) and passes through the screen (2). Clean water flows through the filter outlet (3). The gradual dirt buildup on the inner screen surface causes a filter cake to develop, with a corresponding increase in the pressure differential across the screen. A pressure differential switch (4) senses the pressure differential and when it reaches a pre-set value, the cleaning process begins.

### The Self Cleaning Process

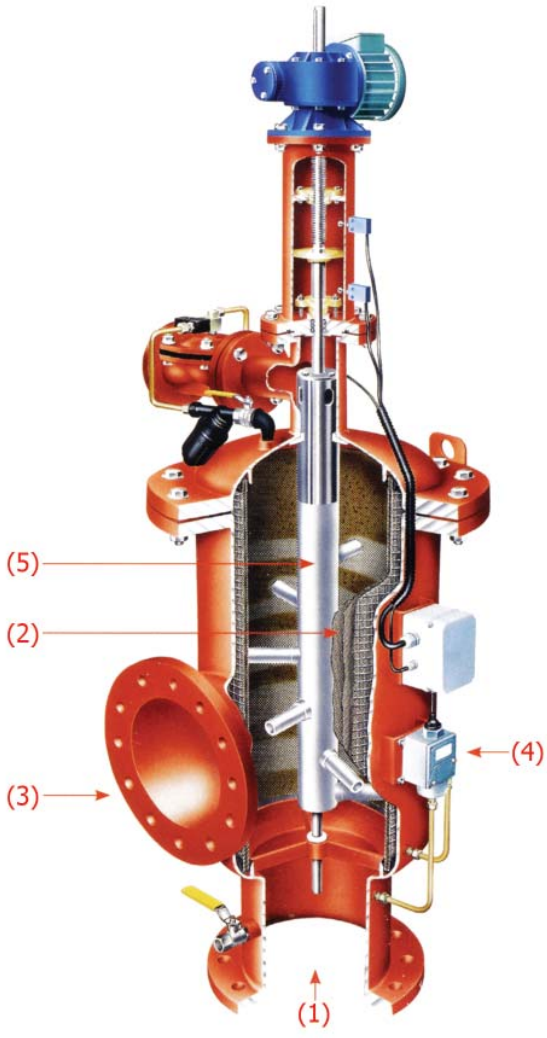
Cleaning of the filter is carried out by the suction scanner (5) which spirals across the screen, the open exhaust valves creates a high velocity suction stream at the nozzle tip which “vacuums” the filter cake from the screen. During the self-cleaning process, which takes approximately 30 seconds, filtered water continues to flow downstream.

### The Control System

The “SVF” operation and cleaning cycle is controlled and monitored by a Programmable Logic Control (PLC).
The PLC allows maximum flexibility in control options and has many features that can be incorporated per customer’s needs. During the self-cleaning cycle the PLC controls a solenoid that operates the exhaust valve by means of a hydraulic command or compressed air.

The self-cleaning cycle begins under any one of the following conditions:
1. Receiving a signal from the Pressure Differential Switch
2. Time interval parameter set at the control board
3. Manual Start

The control board also provides:
- Optional continuous flush mode
- Flush cycles counter
- Alarm output - may be used to open a bypass, shut-off a pump, etc.

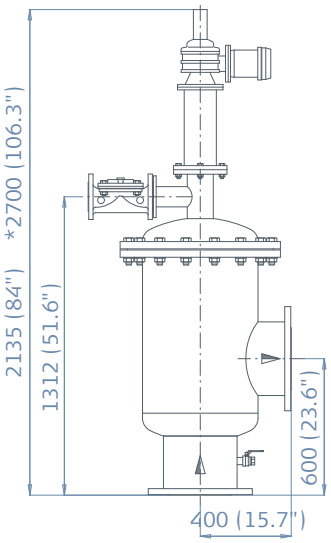



### “SVF” Models

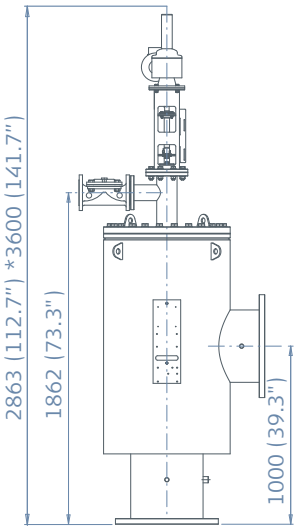
Timex’s “SVF” product-line consists of the following models:
- SVF-10000 for up to 1200 m³/h (5300 US gpm)
- SVF-15000 for up to 1800 m³/h (8000 US gpm)
- Mega SVF 40000 which consists of four SVF-10000 screen elements for up to 4800 m³/h (21100 US gpm)
- Mega SVF 60000 which consists of four SVF-15000 screenelements for up to 7200 m³/h (32000 US gpm)

## SVF 10000

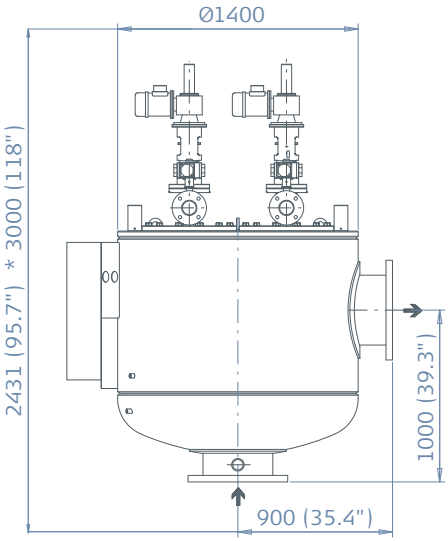
### on-line




## SVF 15000

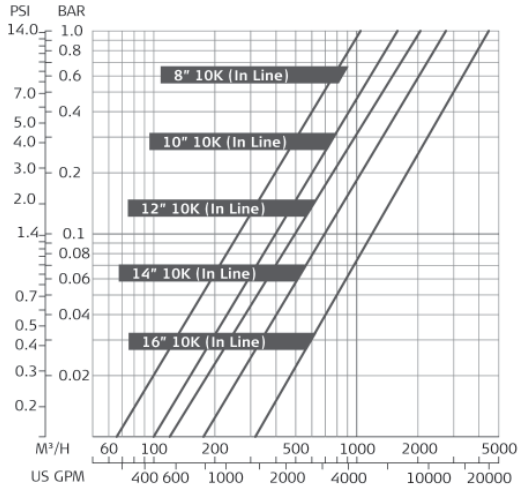


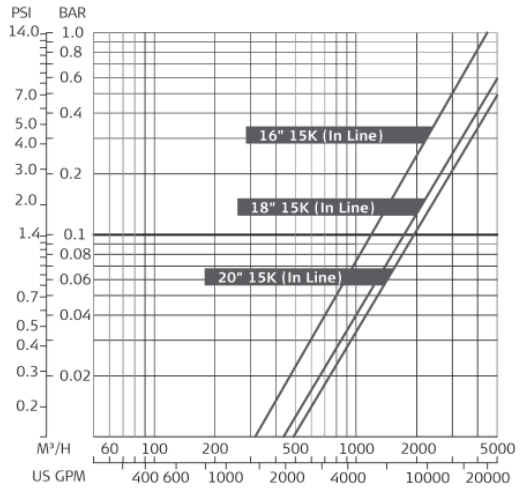

## Mega SVF 40000

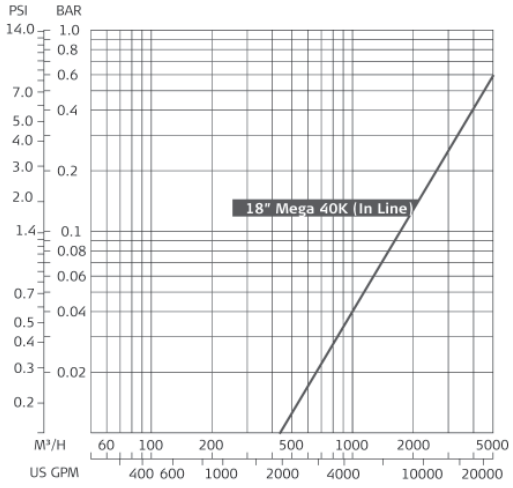



**Dim. In mm (inch)**
*Approx. length required for maintenance

## Pressure Loss Graphs



## industry
Automotive, Aviation, Ballast treatment, Electronics, Food & Beverage; Mining, Oil & Gas, Petrochemical, Power Generation, Pulp & Paper

## municipal
Potable Water, Waste Water, Desalination, Brackish Water, High rise buildings, Pre-filtration to Membranes

## irrigation
Agriculture, Golf & Turf, Green Houses

## aquaculture
Fish Farming, Recirculating Aquaculture Systems (RAS), Fish Processing Industry


**Factory & Head Office**

ASO 2 OSB, 2036. Street No : 12
Sincan / ANKARA / TURKEY

Tel: +90 312 815 52 46-47

Fax: +90 312 815 52 48

E-mail: info@timex.com.tr

www.timex.com.tr


TIMEX
Filtration & Water Systems