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3P Volume Filter VF2, VF3, VF4, VF6

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Manual

- Art. Nr. 1000700 Volume Filter VF2
- Art. Nr. 1300350 Volume Filter VF3
- Art. Nr 1000850 Volume Filter VF4
- Art. Nr. 1000900 Volume Filter VF6

Please read all the following information, which contains important instructions for the use and maintenance of the 3P Volume Filters VF2, VF3, VF4 and VF6

Contents **Page**

VF2: Art-no 1000600 For roof areas up to 13,000 ft². Rainwater inlet at 8". Outlet storage tank a 6". Outlet connection in the manhole at 8". Height difference between rainwater inlet and outlet to tank just 12.5". Lamella unit with integral fine filter easily removed for cleaning.

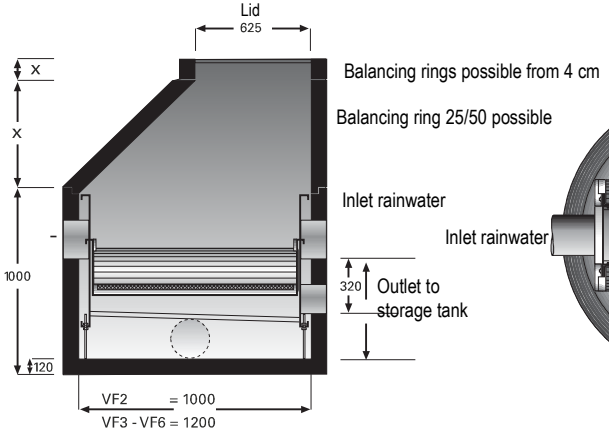
VF3: Art-no 1300350 For roof areas up to 16,000 ft². Rainwater inlet 2 x 8". Outlet to storage tank at 6". Sewer connection in the manhole at 8". Height difference between rainwater inlet and outlet to tank just 12.5". Lamella unit with integral fine filter easily removed for cleaning.

VF4:Art-no 1000850 For roof areas up to 25,000 ft². Rainwater inlet 2 x 10". Outlet to storage tank at 6". Sewer connection in the manhole at 10". Height difference between rainwater inlet and outlet to tank just 12.5". Lamella unit with integral fine filter easily removed for cleaning.

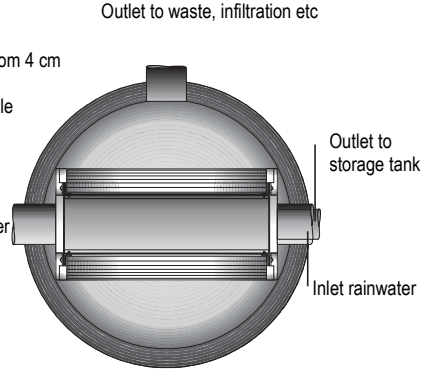
VF6 : Art-no 1000900 For roof areas up to 32,000 ft² . Rainwater inlet 2 x 10". Outlet to storage tank at 8". Sewer connection in the manhole at 10". Height difference between rainwater inlet and outlet to tank just 12.5". Lamella unit with integral fine filter easily removed for cleaning.

Technical data:
Rainwater Filters for installation within concrete or PE manhole chambers, or within tank turrets.

Example Side view



Overview



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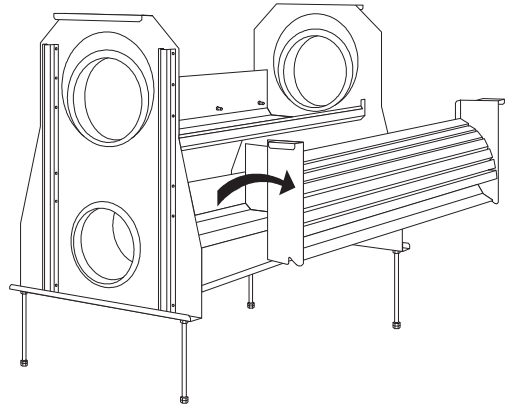
Cleaning the filter:
Monitor the filter regularly, clean if necessary.

Removal of lamella filter unit



Maintenance advice:
Once a year flush out the sump and manhole with a hose. The sump can be emptied through a little orifice in the sump floor if absolutely necessary. Therefore the inlet to the tank should be sealed temporarily or drained to the chamber floor.

The lamella unit can be cleaned with a high pressure cleaner, but take care not to hold any lance too close to the delicate mesh, lest it damage the mesh itself.

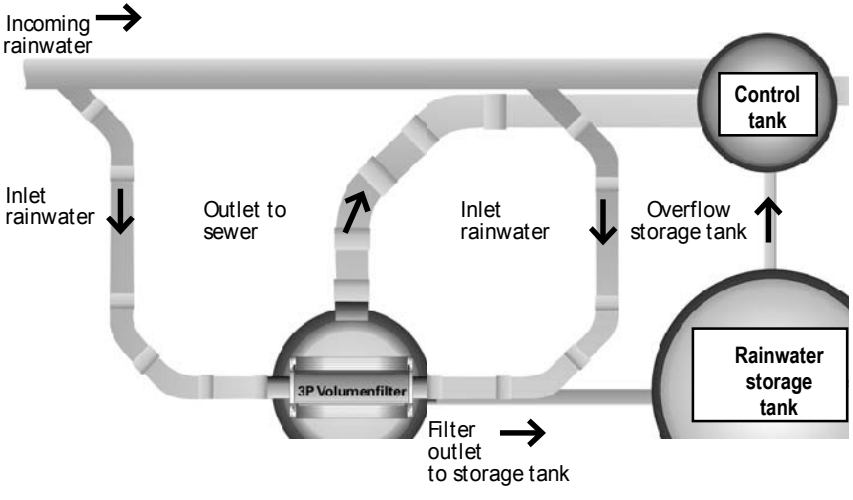
Installation advice:

We recommend you remove the filter mesh unit(s) before installation and store safely. Install the 4 threaded bolt feet, length c. 10", and lower the filter into the manhole.

Now push the connection pipe (and seals) through the manhole wall into the corresponding sealing rings of the filter. Small height differences are then accommodated using the the adjustable feet (threaded bolts).

Check, with a spirit level, that water will be level in the filter's receiving sump for optimal performance.

We also recommend covering the filter during installation to keep it clean (during any setting of concrete rings and lid etc.)



Optimal installation situation:

Bypass and inlet feed to both sides of filter. High security due to bypass installation, because of this you can connect the filter to larger roof areas. Higher efficiency is obtained if you use inlets on both sides of the filter.

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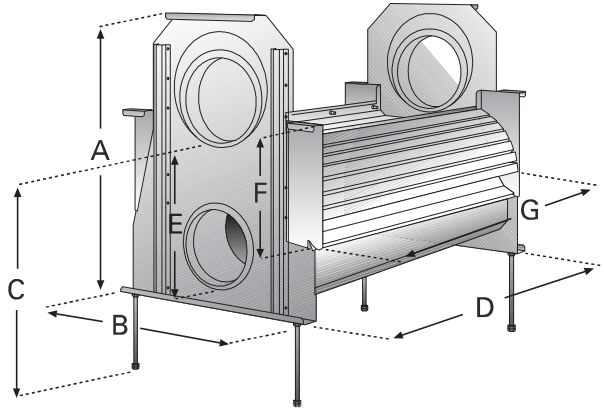


Filter	Inlet Rainwater	Outlet to sewer	Outlet to storage tank	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	Mesh size	Min Ø manhole	Maximum Roof Area
VF2	1 x 8"	1 x 8"	1 x 6"	26.4	21.3	20.7	15.4	12.8	10.8	12.6	0.4 x 1 mm	39.4"	13,000 ft²
VF3	2 x 8"	1 x 8"	1 x 6"	26.4	21.3	20.7	38.6	12.8	10.8	34.6	0.4 x 1 mm	47.2"	16,000 ft²
VF4	2 x 10"	1 x 10"	1 x 6"	26.4	21.3	22.6	38.6	12.8	10.8	34.6	0.4 x 1 mm	47.2"	25,000 ft²
VF6	2 x 10"	1 x 10"	1 x 8"	26.4	21.3	22.6	38.6	12.8	10.8	34.6	0.4 x 1 mm	47.2"	32,000 ft²


VF4 Installation


VF6 Installation

How it works:

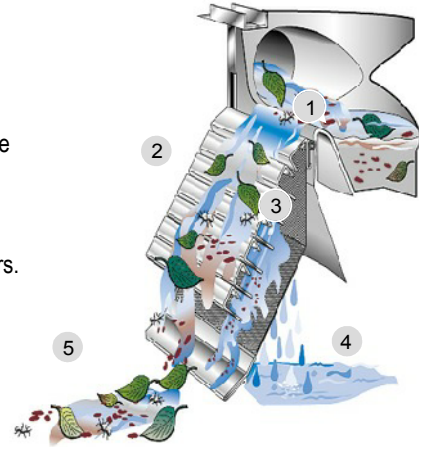
1. As rainwater arrives the water level builds up, and flows evenly across the filter sump lip. This 'weiring over' ensures water is distributed evenly across the whole width of the highly self cleaning filter cascade.

2. Pre cleaning through the cascades. Larger dirt particles are washed across the cascades directly to the sewer.

3. Pre filtered water then flows over the secondary mesh filter. Due to the innovative structure of the 3P sieve mesh, any dirt is washed directly to waste which means the filter is highly self cleaning and low maintenance. Debris cannot sit on 3P Filters.

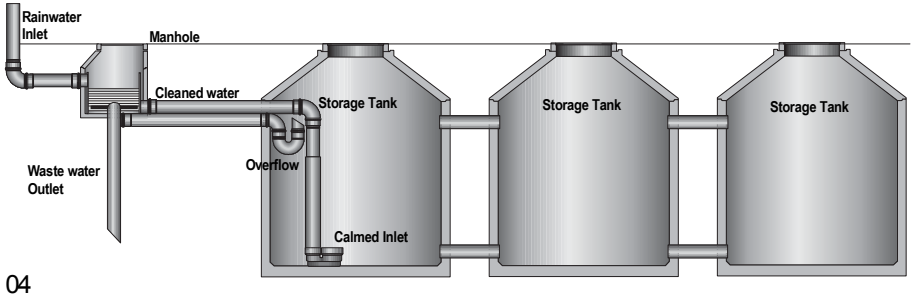
4. The filtered water flows through a 6"/8" outlet into the storage tank.

5. Dirt passes through to the sewer.



Usage

3P Volume Filters VF2, VF3, VF4, VF6 for installation in buildings with large roof areas.



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Installation guide:

Manhole: Chamber diameter 39.4" or 47.2".

We recommend installing the filter in its working location. From experience in the "real world" we recommend use of short connection pipe lengths (rocker pipes) to any manhole chamber, pushed in from the outside through the chamber wall inlets into the corresponding connections of the filter. This will help to minimise the risk of the connecting pipes or seals being displaced during the subsequent construction process. (settlement etc.)

When connected up at a construction site please make ensure that all seals are set correctly. The pipe should not project into the filter more than 5 cm. The filter should be installed perpendicular and horizontal. There are adjustable feet to accommodate small height differences. The manhole itself should be set level. The manhole chamber base should ideally have a gradient of approximately 5% or more towards the outlet to waste or to sewer. This ensures any sediment is more easily rinsed away.

We recommend that the distance between the base of the manhole floor and the lower sump in the filter should be at least as big as the diameter of the filter rainwater inlet pipe. However, this is not absolutely necessary.

You can adjust this distance with the help of the adjustable feet (the threaded bars). You may wish to have your installer/drainage contractor prepare the manhole chamber according to the following dimensions. The diameter of the chamber wall orifices will depend on the selected seals for the pipes.

Outlet to waste:
Base of outlet pipe = base of manhole floor

Outlet to storage tank:
Invert of outlet pipe = x cm above floor of manhole chamber (see Table on pg 3 for data)

2x inlet rainwater:
Invert of 2 No inlet pipes = 12.6" from invert of pipe outlet to storage tank, which is therefore ideally 22.4" from base (floor) of chamber.