







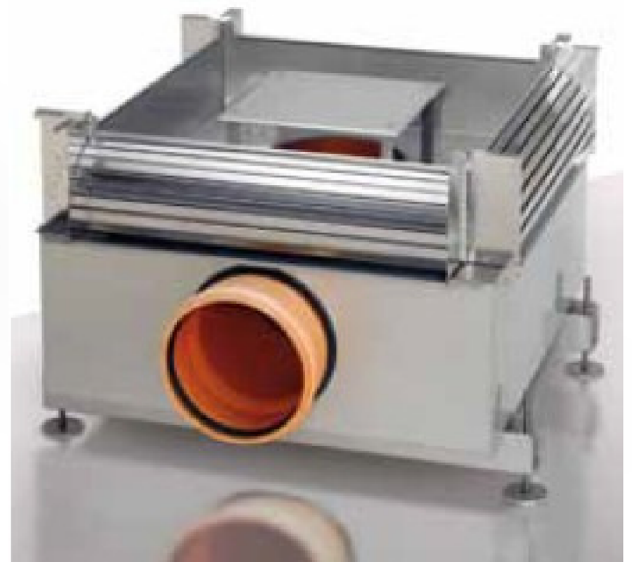
WaterflowControl

WFC-FS-VF12-FF

First Flush Diverter VF12 SS

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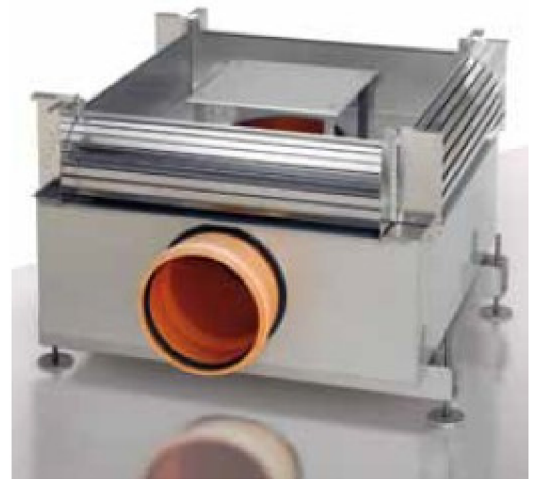


Model No: WFC-FS-VF12-FF Volume Filter VF12

For roof areas up to:	4500m ²
Rainwater Inlet diameter:	300mm
Outlet to storage tank:	200mm
Stormwater connection in manhole:	250mm
Height between rainwater inlet and outlet to tank:	32cm
316 S/S Filter easily removed for cleaning.	
Maximum TFR "Treatable Flow Rate"	40.00 L/s

Description

- Rainwater filter for larger roof areas. Filter for installation in concrete ring or other structural chamber (Ø 2000 or Ø 2500 mm). The filter can be delivered directly to site, or pre-fitted off-site.
- The proven WFC two-step Volume Filter cleaning system gives a high level of filtering efficiency, independent of flow rate. Due to the steep inclination of the two-step filter cartridge, the filtered-out debris is continuously washed away to sewer. The sewer outlet is installed within the chamber wall. The filtered-out material falls to the base of the chamber and is washed away during the next intense rainfall event.
- Connection capacity according to DIN 18481: 3933 m² roof area at rainfall intensity of 300 l/(sxha). A larger area can be connected using a bypass-installation.
- Maximum flow rate of filter sieve: 25 l/sec = 70,0 m³ clean water per hour.
Inlet rainwater: DN 300
Outlet to storage: DN 250
Outlet to Stormwater: DN 400
- Height difference between inlet and outlet: 600 mm, DN 300 KG elbows are supplied for mounting in concrete ring. The filter should be cleaned depending on the contamination loading 1 - 2 times during the year.

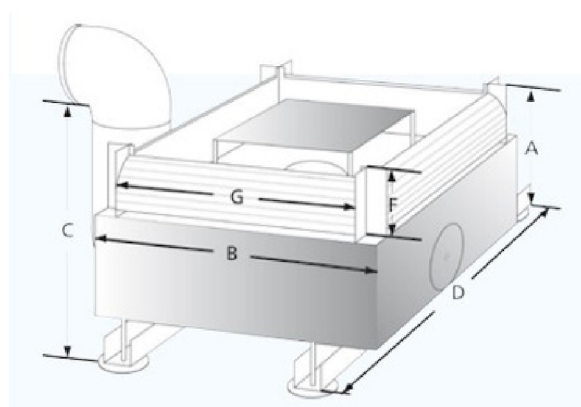


How It Works

1. The incoming rainwater is backed up and is then equally distributed across the cascades = principle of overflow.
2. Pre cleaning through the cascades, coarse dirt particles are led across the primary filter cascades directly to the sewer.
3. Pre-filtered water then flows over the secondary filter sieve (Mesh size 0,390 x 0,980 mm), due to the special mesh structure of the sieve, any dirt is led directly into the sewer, therefore low maintenance intervals.
4. Cleaned water is led into the cistern.
5. Dirt goes to the sewer.

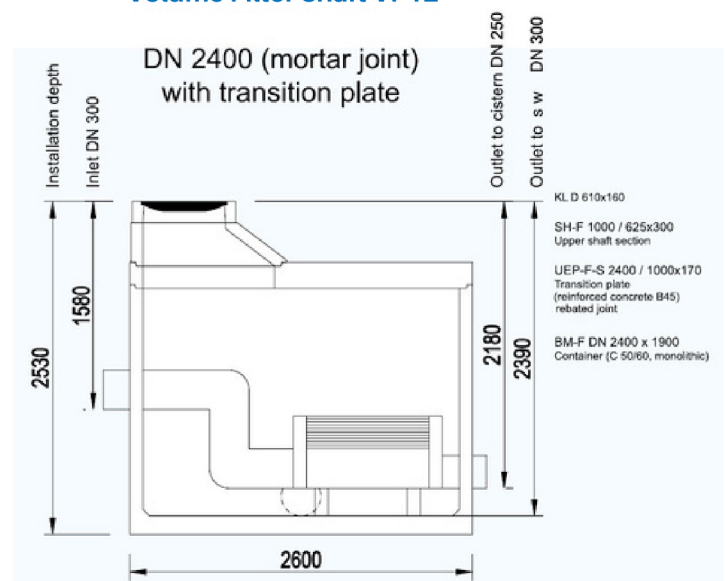


Filter according to DIN 1989-2, Typ C	
Inlet rainwater:	DN300
Outlet to storage:	DN250
Outlet to stormwater:	DN300
Height difference between inlet and outlet:	300 mm (centre)
Filter body material:	stainless steel 4016 mesh
Filter material:	Stainless steel 1.4301
Mesh size:	0.390 x 0.980 mm
Dimensions:	1200 x 1300 x 800 mm (Dimension: C = 780 + foot adjustment 200 mm)
Weight:	39.5 kg

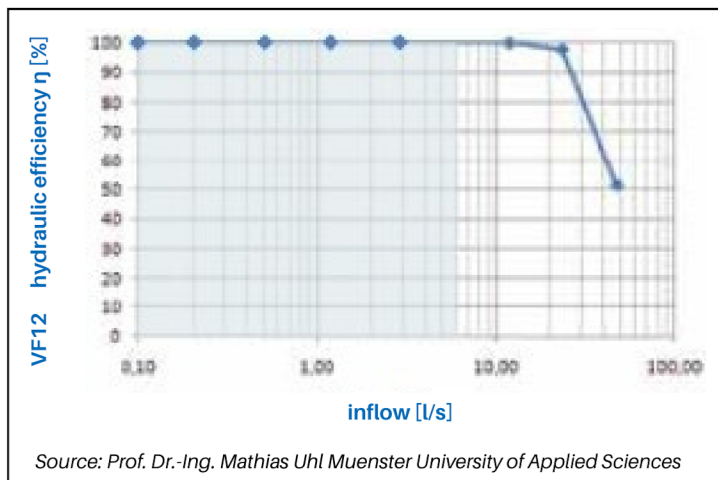
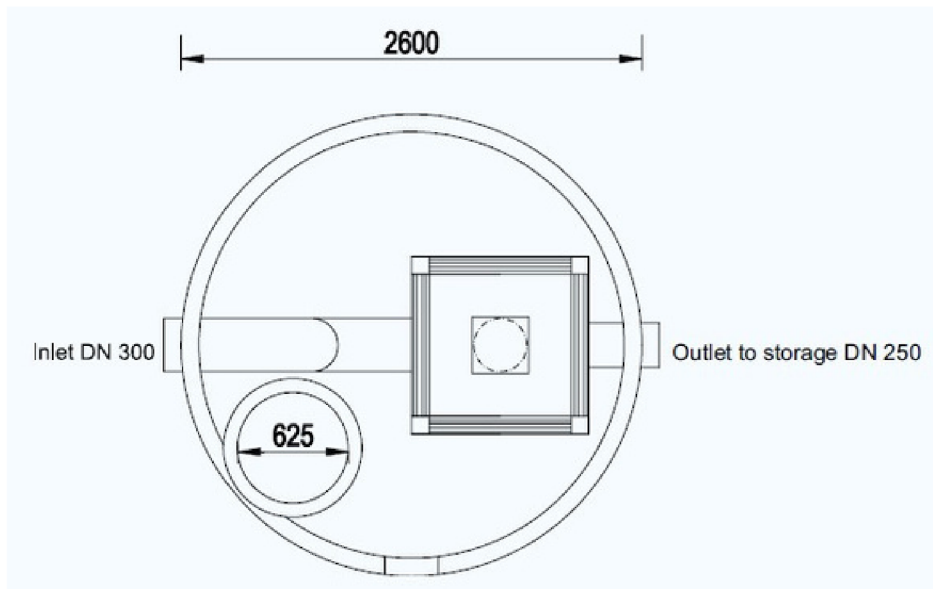


- A 780 mm
- B 1070 mm
- C 780 mm
- D 1200 mm
- E 600 mm
- F 275 mm
- G 880 mm

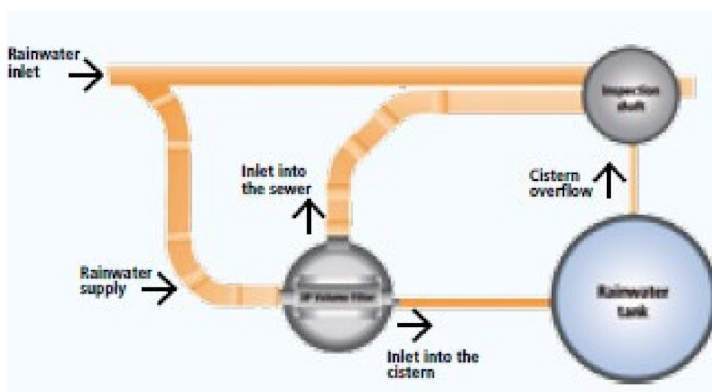
Volume Filter Shaft VF12



Example: Installation of the filter in a pilot shaft



Diameter of tube	Maximum flow rate	Connectable area max. 200 l/(sxha)	Connectable area max. 300 l/(sxha)
DN	l/s	m ²	m ²
300	118	5800	3933



Optimal Installation:

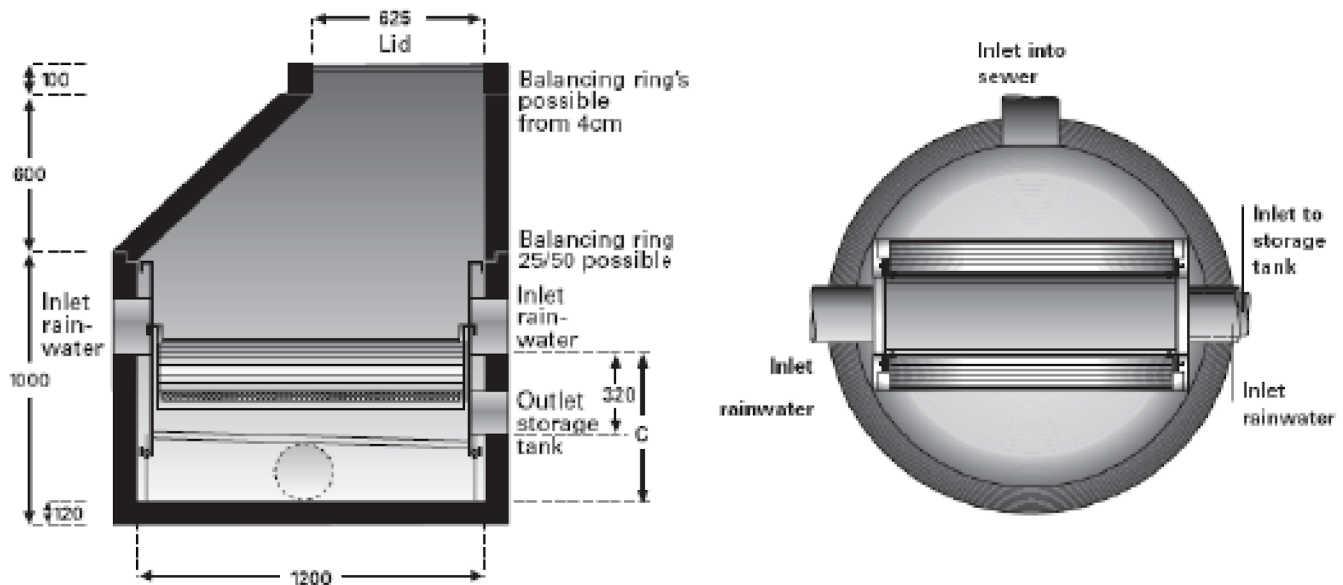
As shown to the left, with feeding-in and bypass installation. High security because of bypass installation, therefore larger roof areas can be connected.

Installation Guide

We recommend installing the filter in its working position. From experience in the "real world" we recommend use of short connection pipe lengths 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 the seals being displaced during the subsequent construction process. (settlement etc.)

When connected directly at the building site please make sure that all seals are set correctly. The pipes should not project into the filter more than 5 cm.

Manhole: Chamber diameter 100/200cm



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 sewer outlet. This ensures any sediment is more easily rinsed away.

We strongly recommend that the distance between the manhole floor and the lower sump in the filter should be at least as big as the filter inlet diameter.

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 conditions. The diameter of the chamber walls orifices will depend on the selected seals for the pipes.

Outlet to waste:

Base of outlet pipe = base of manhole

Inlet to storage tank

Base of the inlet pipe = x cm
(s. dates of the filter p. 4)
above base of manhole

2 x inlets rainwater:

Base of 2 No inlet pipes = 32cm from base of outlet to storage tank,
which is therefore 57cm from base (floor) of chamber

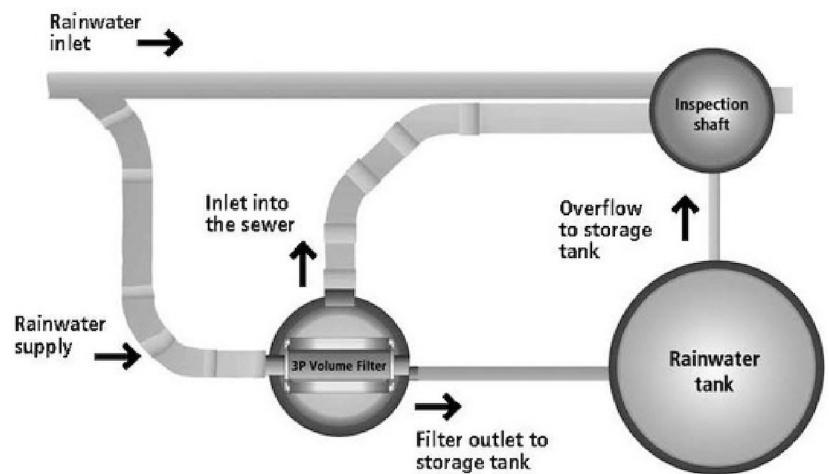
Installation Guide

- We recommend you remove the filter mesh unit before installation.
- Install the threaded bolts, length c. 25cm, and place the filter in the manhole.
- Now push the connection pipe (and sleeve pieces respectively) through the manhole wall into the corresponding sealing rings of the filter.
- Small height differences are then adjusted using the adjustable feet (threaded bolts).
- Check, with a spirit level, that water will be level in the filter's receiving sump for optimal performance.
- Replace the lamella filter mesh unit.

We also recommend covering the filter during installing 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 to larger roof areas.
- Higher efficiency through inlet feed from both sides of filter.



Cleaning the S/S Filter Screen

Monitor the filter regularly, clean if necessary.

1. 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. Therefore, the inlet to the tank should be sealed temporarily.
2. 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.