

## 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 3P 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.

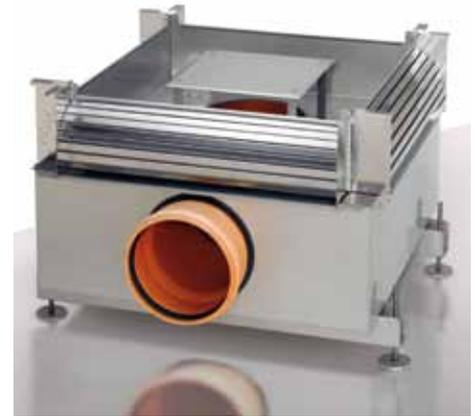
Connection capacity according to DIN 18481: 3933 m<sup>2</sup> roof area at rainfall intensity of 300 l/(sxha). A larger area can be connected using a bypass-installation.

Maximum flow rate of filter sieve: 18 l/sec = 64,8 m<sup>3</sup> clean water per hour.

Inlet rainwater: DN 300  
 Outlet to storage: DN 250  
 Outlet to sewer: DN 300

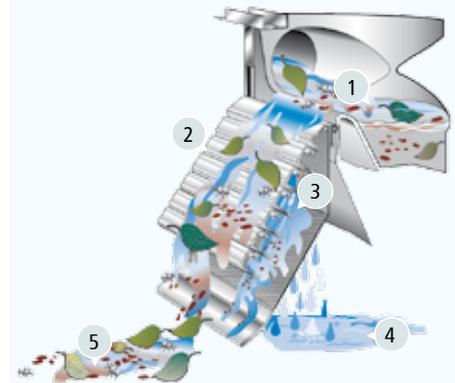
Height difference between inlet and outlet: 600 mm, DN 300 KG elbows are supplied for mounting in concrete ring.

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



## Technical Data:

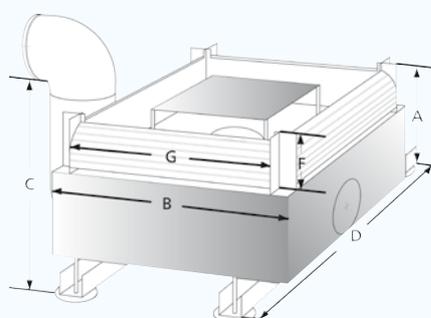
Filter according to DIN 1989-2, Typ C

Inlet rainwater: 1 x DN 300  
 Outlet to storage: DN 250  
 Outlet to sewer: DN 300

Height difference between inlet and outlet: 320 mm (center)

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)

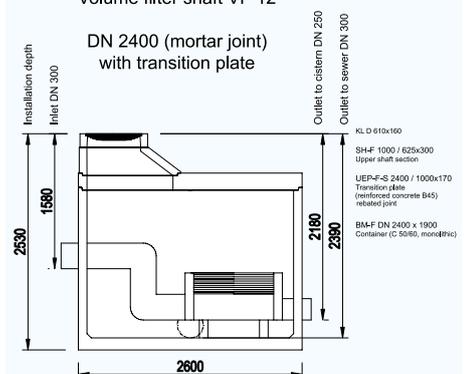
Weight: 39,5 kg



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

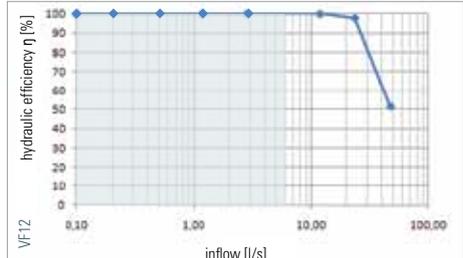
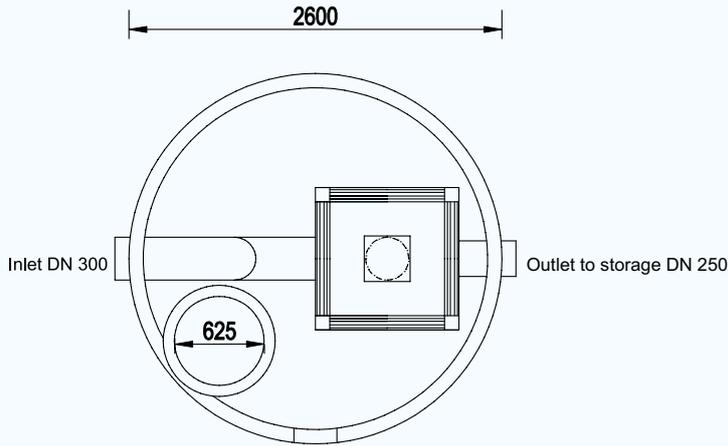
## Volume filter shaft VF 12

DN 2400 (mortar joint)  
 with transition plate



**Example:**

Installation of the filter in a pilot shaft



Source: Prof. Dr.-Ing. Mathias Uhl Muenster University of Applied Sciences

80% of the average intensity of rainfall in Germany is under 15 l/(s·ha), resulting a volume flow rate of 5,9 l/s with a roof area of 3933 m².

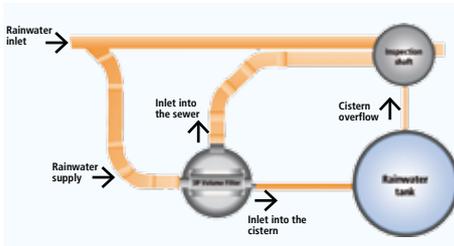
Diameter of tube	maximum flow rate	connectable area max. 200 l/(s·ha)	connectable area max. 300 l/(s·ha)
DN	l/s	m²	m²
300	118	5800	3933

**Text for invitation of tenders:**

Pos.	Quantity	Article	Price in €
1.1	_____	3P Volume Filter VF12 Rainwater filter according to DIN 1986: for roof areas up to 3933 m² at rainfall intensity of 300 l/(s·ha) Filter for installation in concrete ring (Ø 2000 mm or Ø 2500 mm) Fins unit with fine filter can be removed easily Material: stainless steel	_____
1.2	_____	Concrete shaft for 3P Volume Filter VF12 including installation of the Volume Filter VF12 Inner diameter 1200 mm, Height 75 cm, Conus Ø 100 / 60-60 h with Goebel lid resilient up to 5 t Shaft has to be equipped with 4 KG-bushings and Forsheda Seals Inlet rainwater: 1x DN 300, Outlet to storage: DN 250, Outlet to sewer: DN 300 The bottom of the shaft should have a diagonal decline (5 cm) to the channel interface	_____

**Optimal installation:**

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



Packing unit  
3P Volume Filter VF12:  
Pallette: 1 piece