

Rainwater Harvesting Accessories

3P Filter Collector (Item Number: FILT-RAINWATERUNIVERSAL-1)

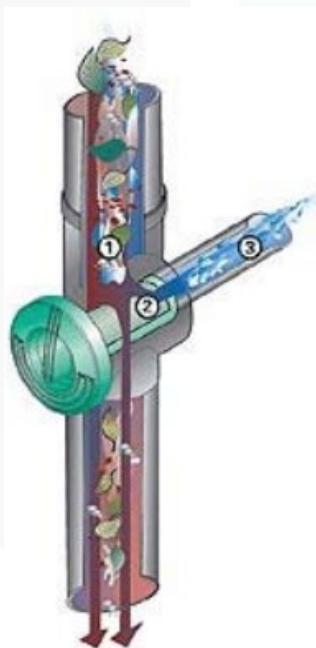
- Filters and collects rainwater for the best possible tank water quality.
- Removes leaves and so reduces risk of disease carry over. Eliminates sludge in your water butt, less algae, less pipe blockages and enables water to be pumped safely.
- The Filter Collector leads cleaned water to the storage tank, with high efficiency under normal rainfall, (85 to 95%). The Dirty Water and debris then continues on to the down pipe.
- Once the tank is full the filter acts as the overflow outlet.
- Fits all UK round down-pipes from 68 to 100mm, square 65 to 75mm (not just 65 square and 68mm round). With optional Universal Kit the unit fits non 3P butts.
- Filter is easily removed and cleaned without the need to demount the filter body from the down pipe, filter cartridge is easily pulled out to the side.
- Outlet adapter fits 75mm (3") 50mm (2") and 32mm (1 1/4") pipes or hose. Use 3P Universal Link Kit to fit to any tank or butt.
- Durable high quality plastic body, filter mesh made of stainless steel.



The Filter Collector with Universal Link Kit.



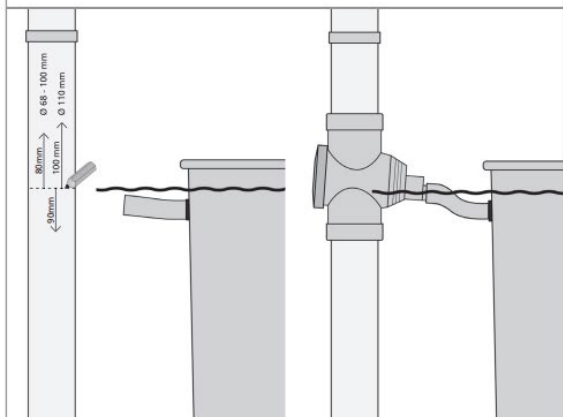
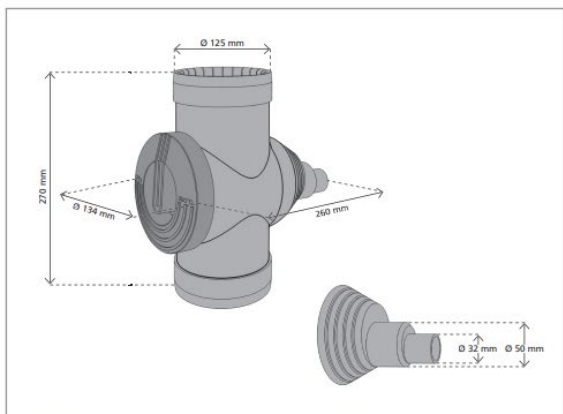
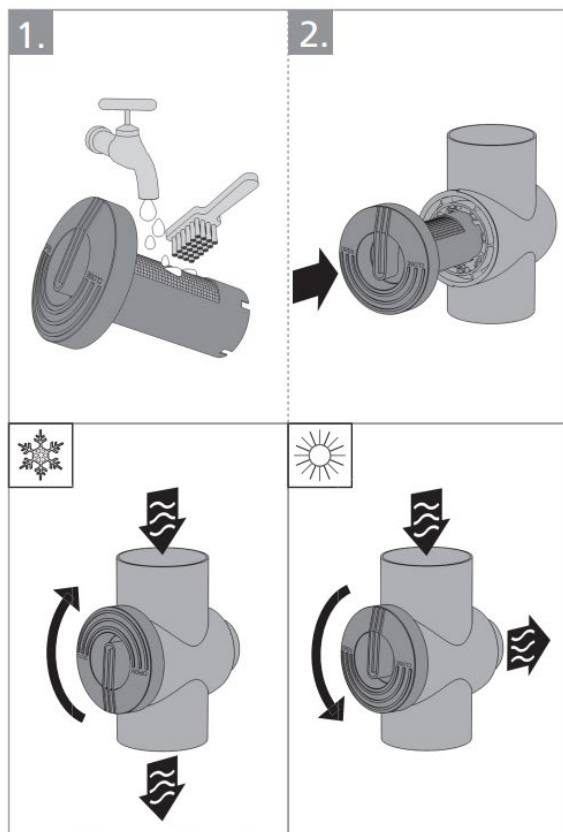
The Filter Collector push-fits into 3P Wall Tanks.



Filter Collector arrives in a retail box.

Filter Function

1. Rainwater is channelled from the filter entrance to the sieve cartridge.
2. Dirt is rinsed to the sides, and into the sewer.
3. Cleaned water is led through the Cartridge's outlet channel, into the tank

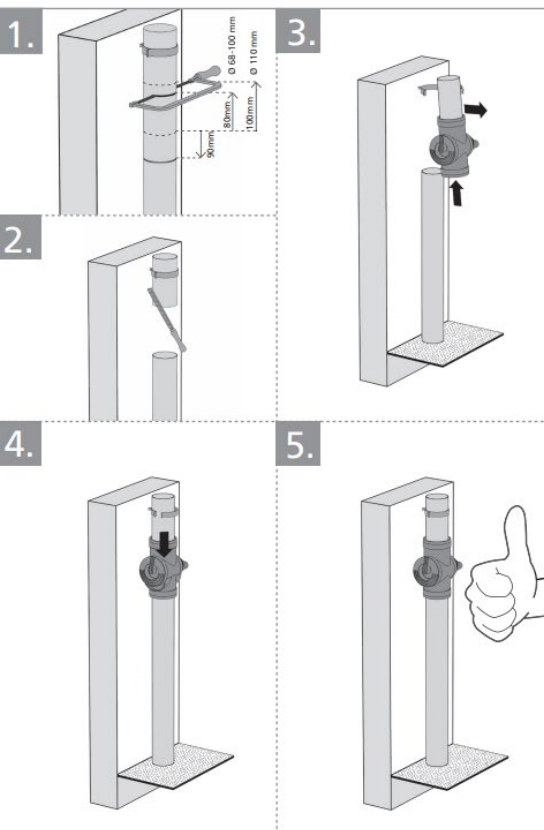
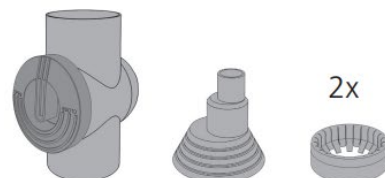


Filtersammler FS

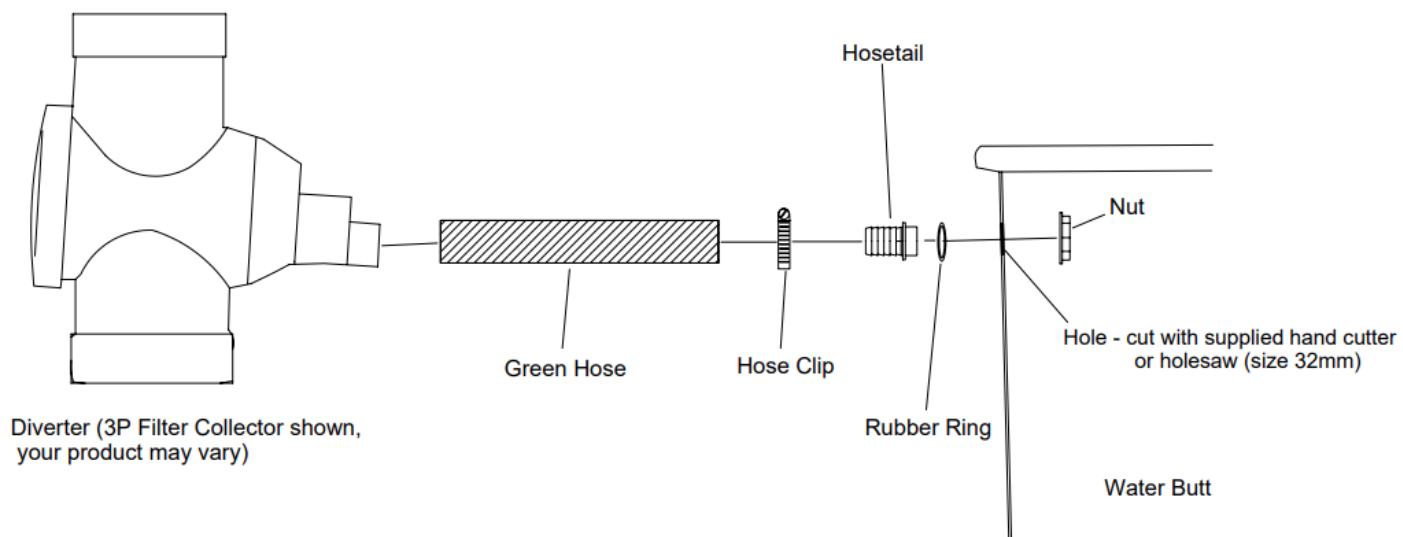
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|----------------------|-----------------------|
| GB Filter Collector | F Collecteur Filtrant |
| NL Tuinfilter | S Filtersamlare |
| I Filtro Collettore | E Filtro Collector |
| P Colector Filtrante | |



2000810 braun
2000820 grau



Assembly Diagram 3P Universal Fitting Kit for Rainwater Diverter



3P Garden Filter (Item Number: TE-FILTER-11)

Description:

Garden Filter with optional locking lid, for direct installation in the ground before the rainwater tank.

This filter is highly suitable for garden watering systems and for sites in which the rainwater has to be infiltrated. This filter is ideal where no connection with a sewer is possible, or where water is infiltrated.

Also available with a telescopic extension tube.

All inlets and outlets at DN 100 (110mm OD), one inlet can also be used as an emergency overflow.

The cleaned rainwater flows through the bottom connection into the rainwater tank. A calmed inlet can be installed there.

Connection capacity for roof areas up to 200 m².

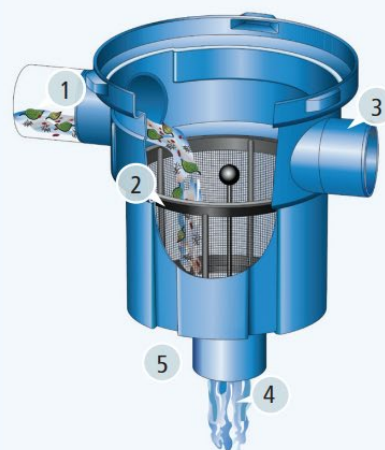
The cleaned water can be used for garden watering.

The filter should be cleaned several times during the year, depending on the solids loading.



How it works:

1. Rainwater flows into the filter basket.
2. The dirt is retained in the dirt collecting basket. The basket has to be cleaned if necessary.
3. One inlet DN 100 (110mm OD) can also be used as an emergency overflow.
4. Cleaned water flows through the bottom outlet DN 100 (110mm OD) into the rainwater tank.
5. Use of a calmed inlet is possible.



Technical Data:

Filter according to DIN 1989-2, Typ B
Connection inlet: DN 110 (110mm OD)
Outlet into rainwater tank: DN 110 (110mm OD)
Emergency overflow or additional inlet:
DN 110 (110mm OD)

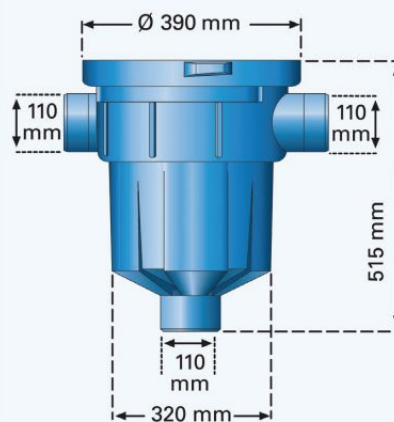
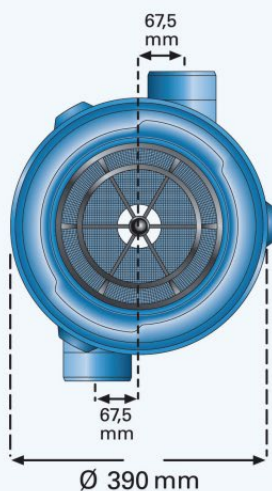
Connection capacity for roof areas up to 200 m².

Housing material: Polyethylene

Material filter basket: Polyethylene
Ø 305 x 288 x 245 mm

Mesh size: 1mm

Weight: 2.2 kg



Example 1:

Installation directly in a rainwater tank made of plastic.



Example 2:

Installation directly in a rainwater tank made of concrete.



Filter for installation in tanks or directly in the ground before the tank.
Inlet rainwater 2 x DN 100 (110mm OD). Outlet into rainwater tank DN 100 (110mm OD).
Filter insert plastic basket, mesh size 1 mm, with removal handle.
Connection capacity for roof areas up to 200 m².

Accessories 1:

3P Telescopic Extension for 3P Garden Filter

Art.-Nr. 1000560



Accessories 2:

Locking lid for 3P Garden Filter

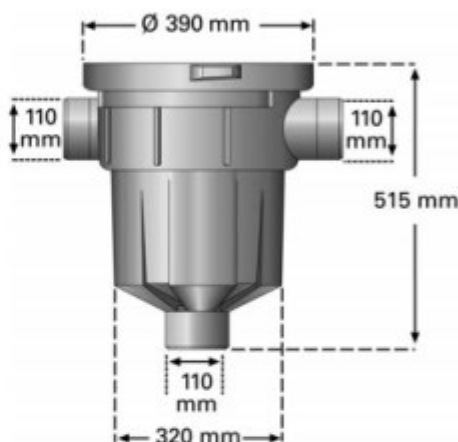
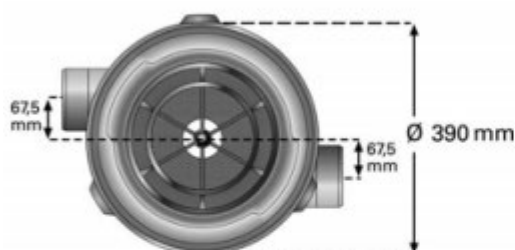
Art.-Nr. 1000510



3P Garden Filter - Installation Instructions

Please read carefully the instructions for installation and handling of your rainwater filter, the 3P Garden Filter GF, and follow the advice.

1. Technical data



2. Installation advice

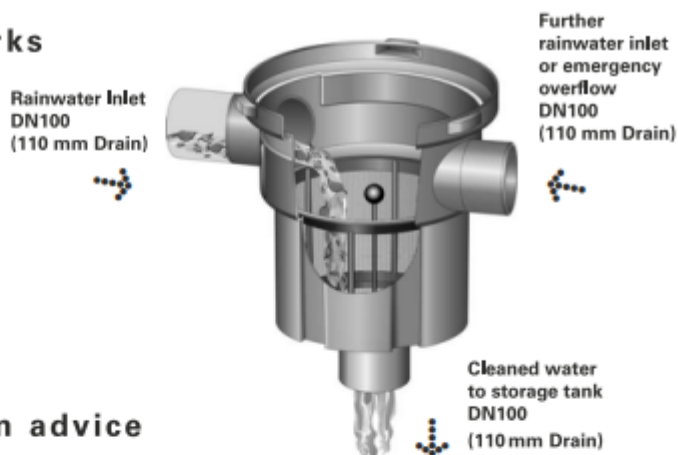
Installation in rainwater tank



Installation in soakaway shaft or infiltration system



3. How it works



4. Installation advice

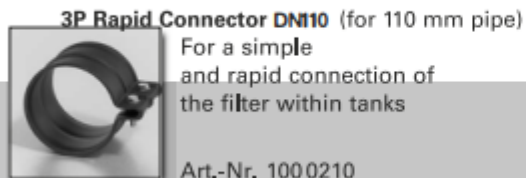
4.1 Installation in a rainwater tank

- Set up the inlet with pipe and connector, or pipe socket. – Connect the filter overflow with pipe socket, or with the 3P Rapid Connector onto the overflow of the tank
- Connect the filter outlet to the tank inlet pipe (vertical pipe) with DN100 pipe and a 3P Calmed Inlet.

The 3P Calmed Inlet supports the Filter in the tank.
No other support is necessary.

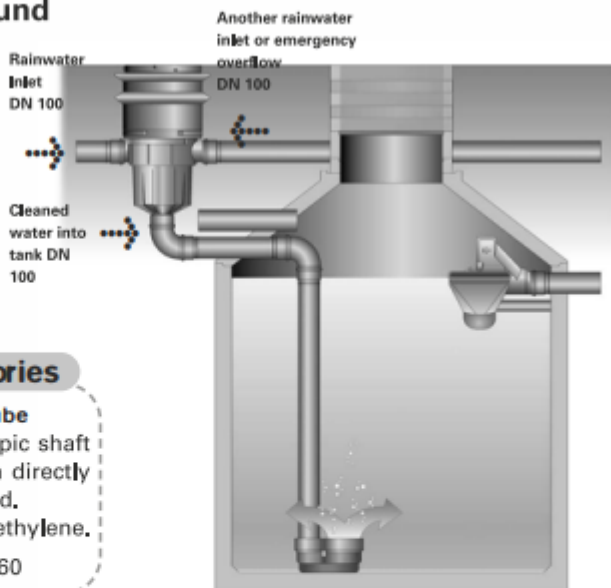


Recommended Accessories



4.2 Installation in the ground

You can also install the 3P Garden Fiter GF directly in the ground in advance of the tank



Recommended Accessories

3P Telescopic Extension Tube



Plastic telescopic shaft for installation directly into the ground.
Material: Polyethylene.
Art.-Nr. 1000560

5. Maintenance advice

Regularly monitor the filter insert, and as necessary remove this insert and clean sieve with water and brush.

6. Guarantee

3P Technik Filtersysteme GmbH offers this product with the guarantee regulated by law (from date of purchase)

3P Volume Filter VF1 combi (Item Number: FILT-RWH-4)

Description:

Rainwater filter for installation within rainwater tanks or before the tank in the ground.

The VF1 Combi has the cleaned water outlet at the bottom of the filter. This position makes installing the Combi inside tanks very practical, and gives a high degree of flexibility as to the angle and direction of the cleaned water outlet pipe when the Combi is used before the tank.

The VF1 Combi can also be fitted directly to the top surface of the rainwater tank, and act as a second turret, using a seal we can provide.

Connection capacity for roof areas up to 450 m².

Height difference between inlet and outlet 300 mm.

The cleaned water can be used in washing machines, toilet flushing and garden watering, in homes, in commerce, in public buildings and in industry.

The filter should be cleaned 1 - 2 times per year, depending on the contamination.



How it works:

1. As water flows through the inlet the level builds up and is equally distributed across the cascade.

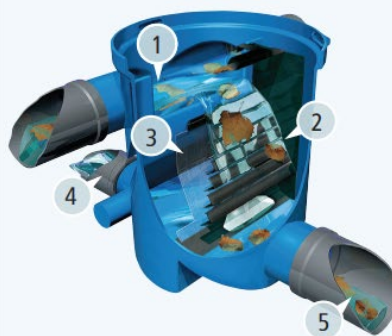
2. The largest dirt particles flow over the primary filter cascades directly to the sewer.

3. The pre-filtered water then flows over the secondary filter sieve (mesh size 0.65 mm). Due to the special mesh structure of the sieve, any dirt washes directly into the sewer which means the filter is self cleaning, with very low maintenance.

4. Cleaned water flows to storage, through the Combi's bottom outlet.

5. Dirt passes to waste.

* Illustration is of a standard VF1. The Combi has it's clean water (No. 4) outlet vertically downwards.



Technical Data:

Filter according to DIN 1989-2, Typ C

Connection inlet: 2 x DN 100 (110mm OD)
Outlet into tank: DN 100 (110mm OD)
Outlet into sewer: DN 100 (110mm OD)

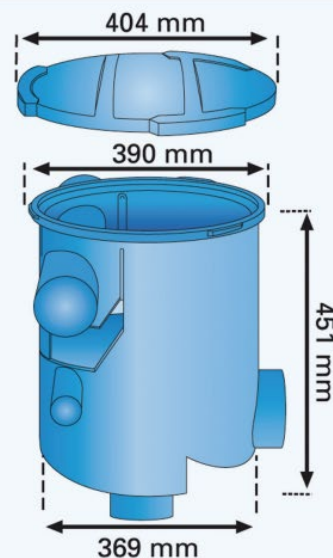
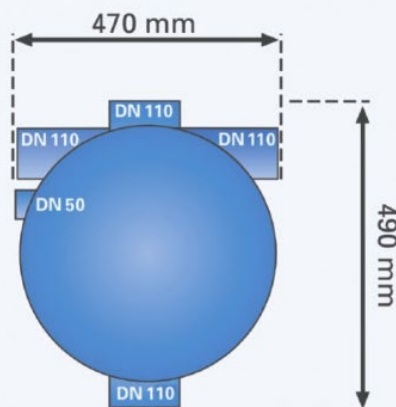
Height difference between rainwater inlet and outlet 300 mm.

Housing material: Polyethylene

Filter cartridge: Stainless steel 1.4301
Mesh size: 0,65 mm

Material Cascade insert: Polyethylene

Weight: 6,2 kg



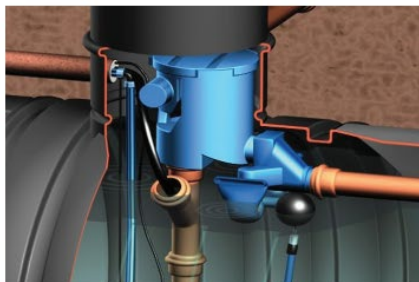
Example 1:

3P Volume Filter VF1 Combi, with optional telescopic extension, on top of a plastic tank.



Example 2:

3P Volume Filter VF1 combi installed inside the manhole pit of a plastic tank. Special installation with Overflow Siphon Mono.



Example 3:

Installation inside the manhole with a 3P Rapid connection.



3P Volume Filter VF1 combi

Filter for installation in tanks

Inlet rainwater 2 x DN 100 (110mm OD), Outlet into tank DN 100 (110mm OD), Outlet into sewer DN 100 (110mm OD).

Height difference between rainwater inlet and outlet 300 mm.

Connection capacity according to DIN 1986 for roof areas up to 450 m².

Telescopic extension for 3P Volume Filter VF1

Plastic (PE) shaft for the installation of the 3P Volume Filter VF1.

Telescopic extension can be directly connected with the 3P Volume Filter VF1 with a bayonet fitting.

3P Removal Handle for VF1

For filter removal in deeper installations.

Accessories 1:

3P Telescopic extension Art.-Nr. 1000560
Plastic shaft for the installation directly into the ground. Material Polyethylene.



Accessories 2:

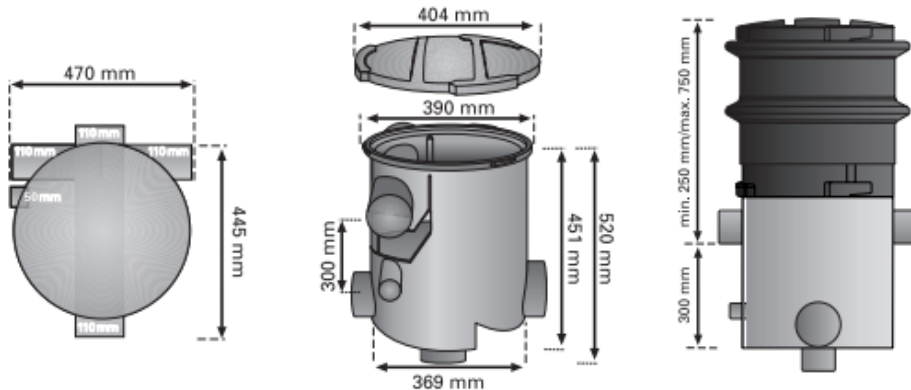
Removal Handle Art.-Nr. 1000550
For filter removal in deeper installations.
Length: 50 cm
Material: Stainless steel



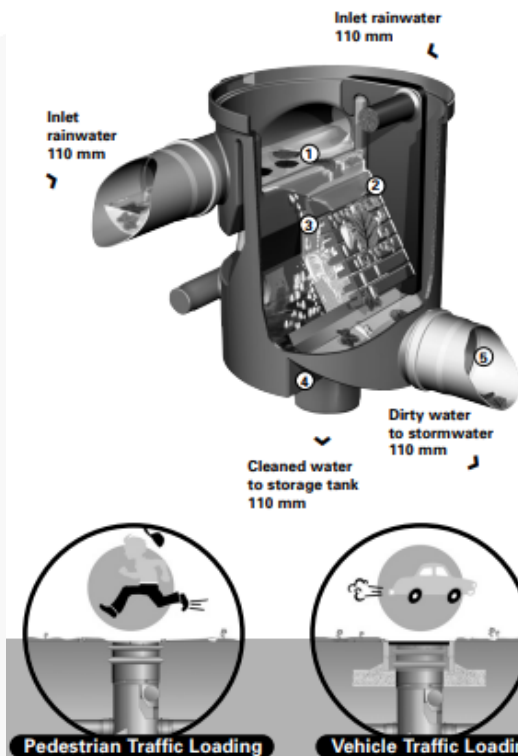
Installation Instructions - 3P Volume Filter VF1 combi

Thank you for selecting a 3P filter. This filter has been designed to provide years of trouble free service. Please familiarise yourself with these instructions to ensure correct and reliable operation.

1. Technical data



2. How it works



- ① As water arrives the level builds up and is equally distributed across the cascade
- ② Pre cleaning through the cascades. Largest dirt particles are led across the primary filter cascades directly to the stormwater.
- ③ Pre filtered water then flows over the secondary filter sieve (mesh size 0.65 mm). Due to the special mesh structure of the sieve, any dirt washes directly into the stormwater. Very low maintenance.
- ④ Cleaned water flows to storage.
- ⑤ Dirt goes to the stormwater.

Vehicle Traffic Loading

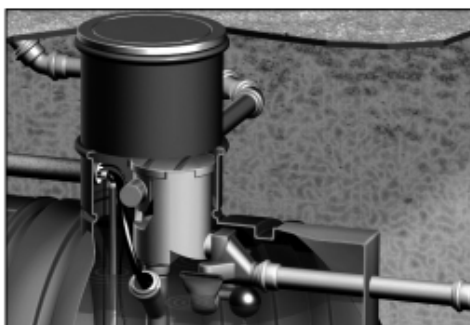
Where vehicle loading is required the filter should be installed beneath a suitable cover to an appropriate highway specification.

Pedestrian Traffic Loading

For pedestrian loading only, the standard filter lid is suitable.

3. Installation advice

Installation in the tank



Installation at the top of the tank
with telescopic extension



4. Installation

3P Volume Filter VF1

- Connections to the 3P Volume Filter VF1 can be made with universal connectors.
- Rainwater enters through the upper Inlets, at 110 mm. For roof areas up to 270 m² connect from either right or left.
- For roof areas above 270 m² we recommend you connect from both sides, in order to obtain the maximum filter efficiency.
- Saw off 1 cm from the outside of the selected Inlet(s).
- Cleaned water is led via the outlet ④ at 110 mm to the storage tank.
- Dirty water goes via the outlet ⑤ at 110 mm to waste.
- Install the 3P Volume Filter VF1 horizontally on a level stable surface. For deeper installations the 3P Telescopic Extension can be used to reach ground level.



Installation of the Telescopic Extension

- Lift the lid off the 3P VF1 and lock the lower part of the 3P Telescopic Extension tube, using the bayonet socket fitting, onto the 3P Volume Filter VF1. It has to be fully engaged.
- The upper surface of the upper ring collar to the upper section of the Telescopic Tube can be fitted flush at ground level. This leaves the VF1 lid just proud of the ground surface for easy removal and access.
- Push the upper section of the 3P Telescopic Extension on to the lower part until you reach the required height.
- If the final required height is lower than the minimum with the two pieces, simply cut by sawing the upper or the lower part with a fret saw to the required height.
- If the final required height is higher than the maximum you can use a second Telescopic Extension on top.
- Next, back fill the tube surround with gravel or stone chippings. Compress the back fill below the upper collar of the upper extension section, so that the collars take the loading, and not the VF1 below.
- If installed in a block built inspection chamber there may be no need for the Telescopic Extension Tube, or it can be fitted to the base of an inspection chamber floor.

5. Maintenance advice

The filter requires cleaning regularly. If it is not raining unscrew the lid of the housing and clean with a water jet the tray and the filter element. Then remove the filter element. Using a 3 mm Allen key undo the screws retaining the filter mesh. Rinse the filter mesh with water. Clean with mild detergent and a stiff brush, both sides to help dissolve any fatty deposits or hydrocarbon build up. Rinse it again. Do not use a metal brush which may damage the filter mesh. You may also put the filter mesh into a dishwasher. After cleaning examine the filter by holding up against the light and inspect for any blocked holes in the filter mesh. If the filter is clean put the filter mesh back and re-fix in position.



Insert the filter element into the housing.

6. Accessories

3P Removal Handle



3P Removal Handle
Art.-Nr. 1000550
Ideal for removal
of the 3P Filters
from deeper installations.
Remains in position.
Length: 500 mm.

3P Telescopic Extension



3P Telescopic Extension
Art.-Nr. 1000560
Plastic telescopic shaft
for installation directly
into the ground.
Material: Polyethylene.

7. Guarantee

3P Technik Filtersysteme GmbH offers this product the guarantee required by law (from date of purchase).

3P Twin Filter (Item Number: TE-FILTER-10)

Description:

A rainwater filter for large roof areas.

The 3P Twinfilter can be installed in chambers underground, or directly on the wall where kept frost free.

Usually installed in standard 1000mm manholes. The filter could also be pre-installed in chambers prior to delivery to site.

Through its 2 step cleaning process it has high efficiency independent of flow rates. Due to the steeply inclined filter insert, dirt is continually washed to the waste water outlet. The clean water passes into a small collecting sump, from where it is led to the storage tank.

The 3P two step filtration is a tried and tested, proven technology.

Recommended connectable roof area is 700-800m². By using a by-pass installation configuration it would be possible to connect to larger roof areas.

Rainwater Inlets: 2 No. DN 100/ DN 150

Outlets to tank: 2 No. DN 100/ DN 150

Outlets to waste: 2 No.x DN 100/ DN 150

We recommend maintenance checks 1 to 2 times a year.

If using above ground we strongly recommend using the 3P Stainless Steel Wall Brackets (1000655 to ensure the filter is positioned horizontally.



Operating principles:

1. Incoming rainwater collects in the inlet weir sump, from which it must weir over onto the 2 filter units (overflow principle). The filter must be positioned horizontally.

2. Cleaning takes place over the two cascades. Larger dirt particles are washed directly to waste off the primary cascade.

3. Pre-cleaned water then flows over the finer secondary sieve unit (at 0.65mm). Because of the specialist filter structure, fine dirt is rinsed to waste, and washes out of the waste outlets.

4. The filtered water collects in the central sump and passes via both clean water outlets to the collection tank.

5. The dirt that has been filtered out is washed to waste via the two outlets.



Technical data:

Rainwater Inlets: 2 No. DN 100/ DN 150.

Outlets to tank: 2 No. DN 100/ DN 150.

Outlets to waste: 2 No.x DN 100/ DN 150.

Height difference between inlet invert and inverts of:

a. Outlet to rainwater tank: 350 mm.

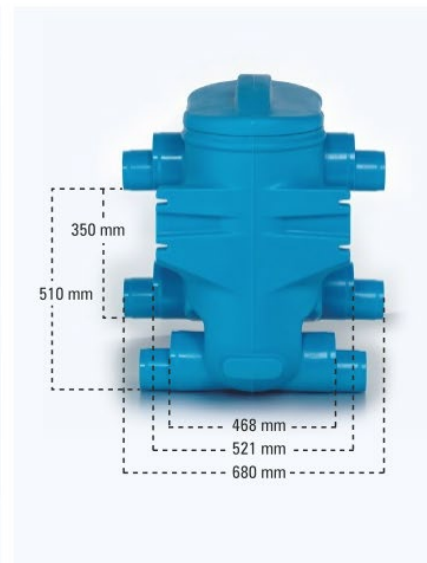
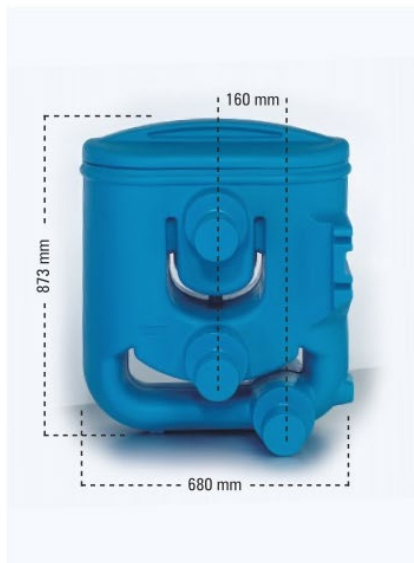
b. Outlet to waste: 510 mm.

Material: Housing and Primary Cascade: Polyethylene.

Material: Filter Unit: Stainless Steel 1.4301

Mesh Size: 0.65 mm.

Weight: 16 kg.



Installation example

Schematic of a 3P Twinfilter installed in a concrete chamber, underground.



Optional Wall Brackets (1000655)

Stainless Steel Wall Mounting Brackets for the Twin Filter.



Filter from Polyethylene for installation in chambers (Ø 1000 mm).

Inlet Rainwater, use either 1 or 2 x DN 100/ DN 150.

Outlet to storage tank, use either 1 or 2 x DN 100/ DN 150.

Outlet to waste, use either 1 or 2 x DN 100/ DN 150.

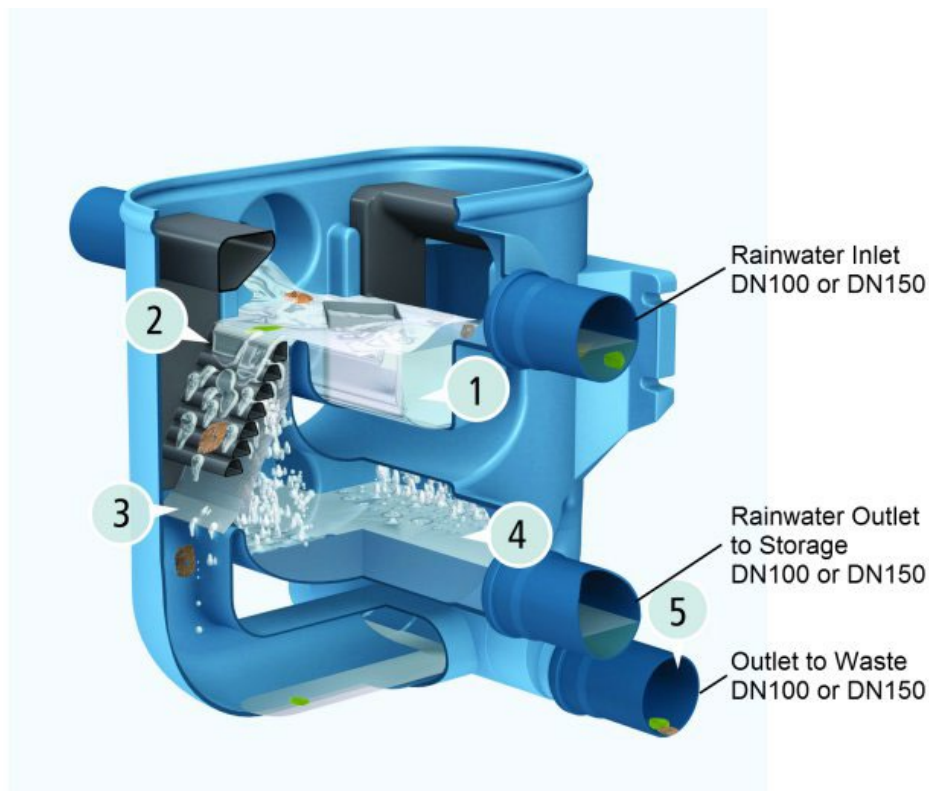
Height difference between inlet invert and Outlet to storage tank 350 mm.

Height difference between inlet invert and Outlet to waste 510 mm.

Filter unit with integral fine filter 0.65 mm, Material Filter sieve: Stainless Steel.

Safe hydraulic capacity connected to 850 m² with a design rainfall intensity of 300 l/(s·ha).

How it Works - 3P Twin Filter



- 1: Rainwater collects in the inlet weir sump.
- 2: Larger dirt particles are washed directly to waste off the primary cascade.
- 3: Pre-cleaned water flows over the finer secondary Stainless Steel Filter.
- 4: The filtered water collects in the central sump and flows into the storage tank.
- 5: Dirt flows to Waste.

Note: The Connection Points are repeated on the other side of the Unit too.

Installation Instructions - 3P Twin Filter



Installation Instructions 3P Twin Filter

The connected area is a function of the local rainfall intensity and amounts for each country/area.

The 3P Twin Filter can be installed below ground in a chamber or above ground in frost-free regions mounted on a wall.

Connections

Rainwater supply
2 x DN110/DN150

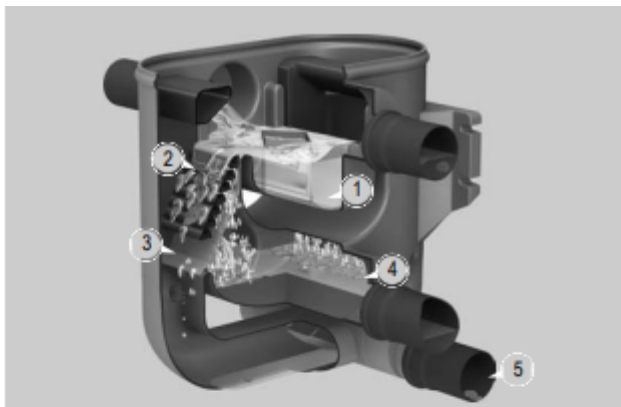
Rainwater reservoir supply
2 x DN110/DN150

Dirty water connection
2 x DN110/DN150



IMPORTANT INFORMATION

The filter unit must be installed horizontally in order to function correctly. If the filter is tilted to the sides or to the front/back, water will not pass evenly over both filters equally.



The 3P Twin Filter can be installed in an underground chamber or outside in frost-free regions directly on a wall.

Due to its 2-stage cleaning principle, it has a high degree of efficiency independent of the volume of flow.

The filtered-out dirt is continuously flushed to waste due to the steep inclination of the filter inserts.

The clean water is collected in a sump and directed to the storage reservoir.

Functioning principles

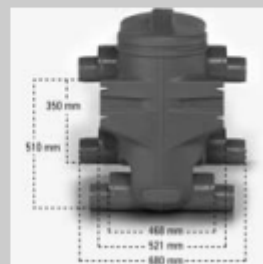
1. Incoming rainwater is collected in the Inlet Sump and evenly directed over both sides via the cascades = weir over principle.
2. Pre-cleaning over the cascade slats. Coarse dirt is directed straight to the waste system over the cascades.
3. Pre-cleaned water is then guided to the filter mesh screens (mesh size is 0.65mm). The dirt passes to waste via the bottom connections off the special woven mesh structure and the steep inclination of the mesh.
4. The cleaned water is collected in the central sump and directed to the rainwater storage tank via one or both Connections.
5. The filtered-out dirt is flushed to waste via the shaft or pipe outlet.
6. The outlet to waste must be at least as big as the inlet.

Position of the connections



Rainwater supply connection to Reservoir connection:
Height difference: 350mm (directly underneath one another)

Rainwater supply connection to Waste connection:
Height difference: 510mm (offset by 160mm)



Connections for above and below ground installation can be optionally DN110 or DN150 and either on one or both sides.

Installation general instructions

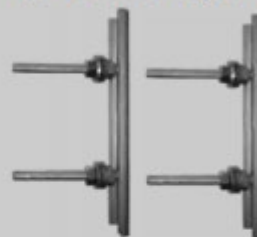
Select the required openings for the supply and drain lines. In doing so, observe the following points:

1. Determine the diameters of the connected pipework, check twice and then saw off the appropriate blank ends.
2. When installing the pipes, pay attention to the height differences and position of the connections, see panel on opposite page. At least a 2m "flat" pipe run is recommended to the inlet.
3. The filter **MUST** be installed horizontally to ensure perfect functioning.

Note: only one of each type of connection point is being utilised in this installation



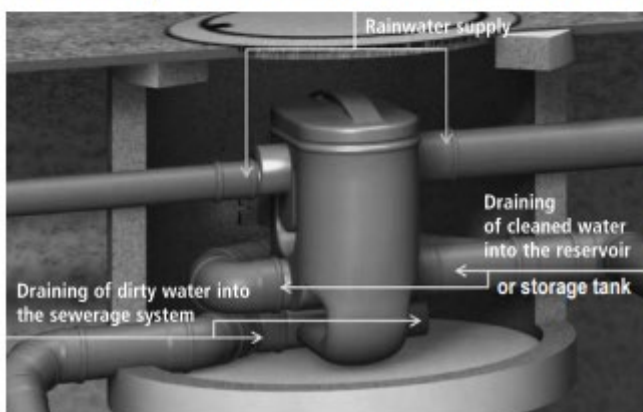
Installation above ground



Wall mounting brackets
item no 1000655

The wall mounting brackets for the Twin Filter (item no 1000655) are strongly recommended for wall installation. The stainless steel brackets are fastened to the wall at the desired height and can be used for fine adjustments.

Push the filter rear side first into the recesses provided and fix using the supplied washers and nuts. Adjust the brackets to **ensure filter sits horizontally** for optimal functioning.



Installation below ground

DO NOT install directly in the ground. Standard concrete shafts with a diameter of 1000mm can be used. Seal off the openings in the concrete shaft either with seals or wall foam or concrete. Pay particular attention to soil compression around the pipes to ensure no ground settlement.

The Filter Inserts must be easy to remove and re-install.



Cleaning and Maintenance

Cleaning:

Spray the inside of the filter with water, clean the sump. Remove the filter inserts and rinse with water.

High-pressure cleaners may also be used with care.

Afterwards unscrew the filter mesh with an allen key (hex key).

To degrease the mesh fabric (pollen, heating oils etc) the mesh can be thoroughly cleaned using a mild detergent and a brush.

Rinse well, re-insert the mesh with allen key. Replace the cascade inserts into the filter housing.

Push down fully until refusal.

Maintenance Frequency

In the first year, check the filter every three months or so to obtain an idea of the degree of contamination.

Subsequently clean as required, at least twice a year is recommended.

3P Overflow Siphon Uno (Item Number: TE-OVERFLOW-1)

Description:

3P Overflow Siphon Uno with DN100 (110mm OD) back-nut for connection to tank wall.

Ideal for installation through plastic walled tanks.

Any floating materials are skimmed off via the chamfered slots as the tank overflows.

Technical Data:

Dimensions:
540 x 160 x 270 mm

Material: Polyethylene

Connector: DN100 (110mm OD) back-nut with O-Ring

Weight: 1.1 kg

Packing unit:

Carton 1150x790x1065 mm: 36 pieces
Pallet: 72 pieces

3P Overflow Siphon Uno

Art.-Nr. 4000260



3P Calmed Inlet (Item Number: TE-CALMEDINLET-1)

Description:

3P Calmed Inlet DN 110/ DN 125

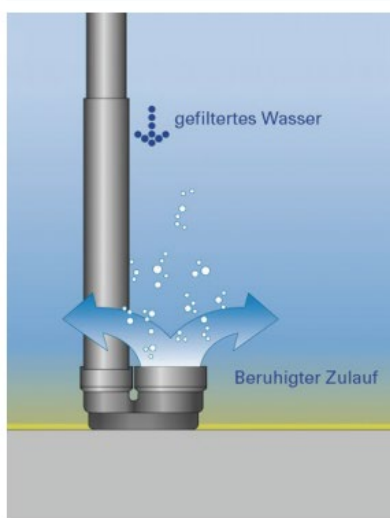
Provides a calmed inlet for rainwater entering the storage tank. Prevents disturbance of settled sedimentation layer and supplies the lower part of the water with oxygen so that the water remains fresh.

Made of Polyethylene.

The Calmed Inlet represents the second cleaning step in the rainwater tank.

3P Calmed Inlet DN 110/ DN 125

Art.-Nr. 4000100



Technical Data:

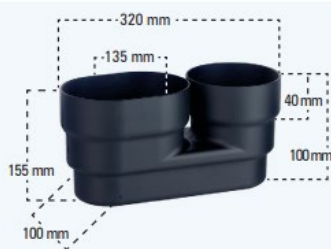
Connection pipe sizes
DN 110 and DN 125.

Weight: 0.5 kg

Packing unit:

Carton 790x575x700 mm: 36 pieces
Pallet: 216 pieces

EAN:



Installation Instructions - 3P Overflow Siphon & 3P Calmed Inlet



Installation Instructions 3P Uno Siphon

For plastic tanks

Overflow Siphon with odour trap (u-bend).

Filters (siphons off) particles that are finer than your filter mesh and lighter than water, like pollen and oils, that float to the top of the stored water.

The Uno Overflow Siphon is installed at the high water level in your tank and has a short horizontal slot in it's design so that the light particles fall into it when the water reaches that height.

It is self-cleaning as it acts as an overflow too - any excess rainwater will flow out of the tank at this point too and back down your downpipe or to Waste.

Connection

1 x DN100 (110mm OD)
Screw -threaded connector with back-nut and O-Ring.

Dimensions

660 x 190 x 270mm

Weight

1.1kg

Material

Polyethylene

Installation instructions

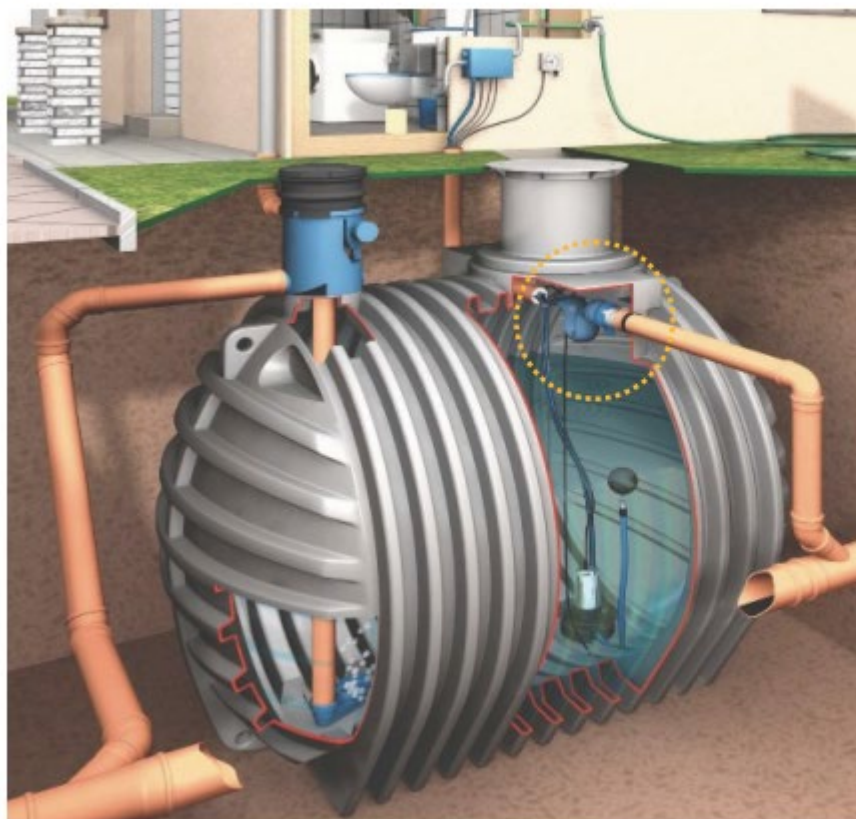
1. The Uno Overflow Siphon is installed at the high water level in your tank and has a short horizontal slot in its design so that light particles (like pollen and oils) fall into it when the water reaches that height.
2. Drill a hole * mm diameter in the straight vertical side of the plastic storage tank.
3. Push the shaft of the Uno through the hole with the O-Ring on the *side
4. Tighten the back-nut.

Alternatively

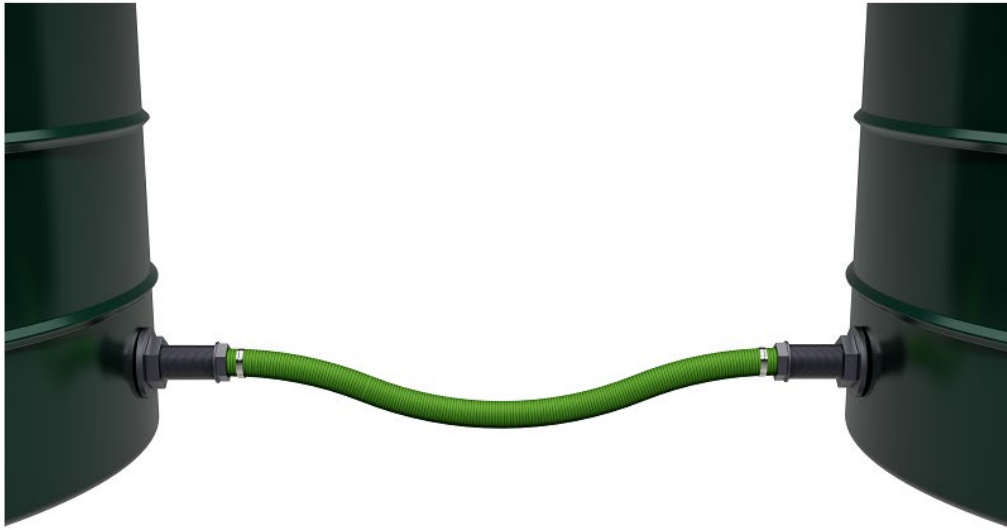


Cleaning and Maintenance

The Uno Overflow is self-cleaning as it acts as an overflow too - any excess rainwater will flow out of the tank at this point too and back down your downpipe or to Waste.

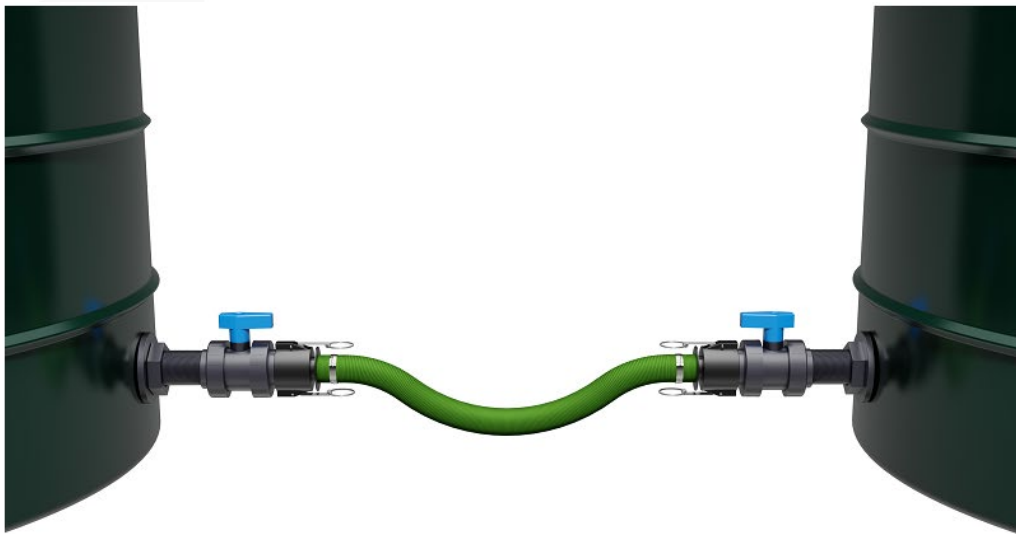


Tank Linking Kit – No Valves



- 2x Tank Connectors PVC
- 2x Female thread hose tail PVC
- 1x Green Medium Braided Hose PVC (1 Metre)
- 2x Stainless Steel Clamps

Tank Linking Kit – With Valves



- 2x Tank Connectors PVC
- 2x Female thread hose tail PVC
- 1x Green Medium Braided Hose PVC (1 Metre)
- 2x Stainless Steel Clamps
- 2x Isolation Valves PVC