

3P Hydrosystem 400

Instruction manual and installation instruction

Information for handling, inspection and maintenance

incl. guarantee card
for registration

Content:

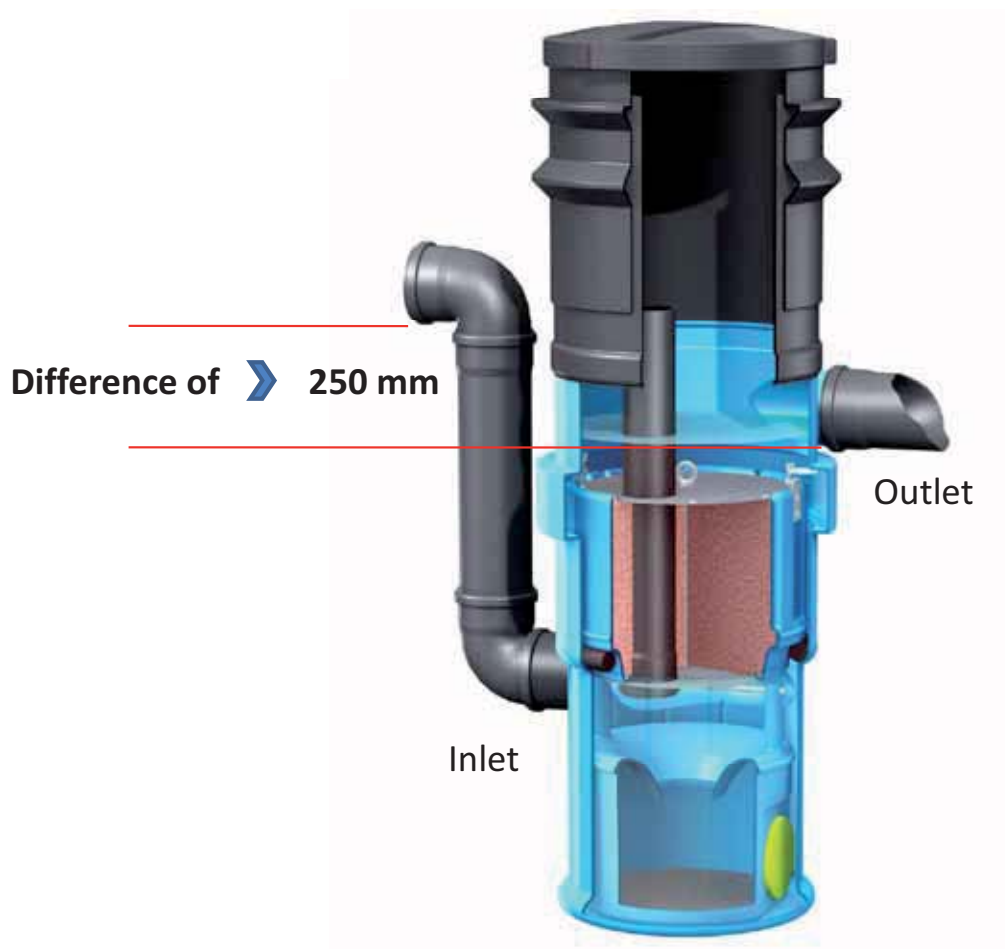
Important advice.....	03
Installation of a 3P Hydrosystem 400 with telescopic extension into the ground	04
Installation of a 3P Hydrosystem 400 into an existing soakaway	05
General information.....	06
Filter description	07
How it works	08
Installation situation	09
Product structure	10
Installation and maintenance instructions	11-15
Maintenance report	16

Is the guarantee card missing?

Please directly ask the producer for it to
register your product
(address on the back side)



ADVICE!



Please check the following before installation:

The filter has to be installed with a so called "fall" This means that the tube (inlet rainwater) is led down shortly before the shaft and can be connected as described with the lower connection.

Ideally if the distance from the base of the inlet pipe to the base of the outlet should have an invert difference of 250 mm or more.

Installation of a 3P Hydrosystems 400 with telescopic extension into the ground



1. Excavation of the pit:
The picture shows the later installation before a storage tank. Please create a plain and firm underground according to the corresponding heights. The inlet into the storage tank is the decisive height.



2. Connect the filter to the inlet of the storage tank, control the horizontal position.



3. Connect the inlet for the rainwater. It is most suitable to mount the so called "fall" before the filter. Therefore you have to install the bend 87° on the lower connection and connect pipe or pipes rainwater.



4. A height difference of 680 mm between arriving rainpipes and the lower inlet to the filter would be ideal. In our example we accept a short-term back pressure into the existing line system.



5. After having checked all connections, the filter housing and pipes are covered up with sand.



6. Adjust the telescopic extension with lid on the required level with the aid of a water level and line the collar of the telescopic extension with sand or chips. Thus the pressure does not lie upon the Hydrosystem 400 and the tubes.

Installation of a 3P Hydrosystems 400 into an existing soakaway



1. Prepare the shaft for the installation. Please control the intake lines. Ensure that you have enough bends and pipes ready for the connection.



2. Please observe the corresponding protections while working in the shaft.



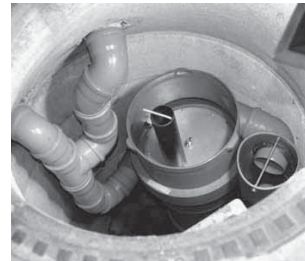
3. Fix the bracket, thus before determine the ideal pipe installation and height relations.



4. Put the filter housing on the bracket. Connect the tubes with the corresponding bends. **Tip:** For cutting remove the sealings from the bushings, then the tubes can be plugged in more easily. If everything is correct put in the sealings and connect the tubes with lubricant.



5. Check all tubes and connections. Adjust the tubes with pipe clamps, therefore having enough hold when removing the filter insert during a later maintenance. Eventually you have to lock the tubes with small screws made of stainless steel.



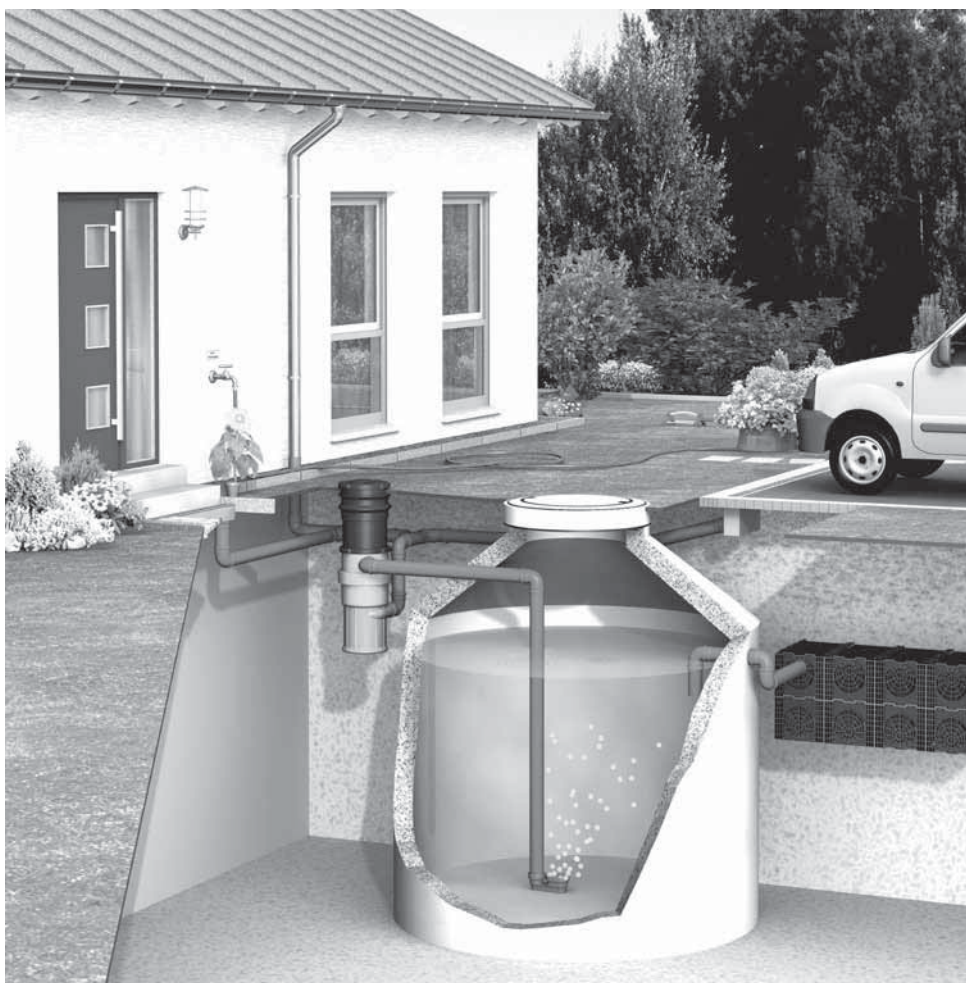
6. Our picture shows a ready installed Hydrosystem 400 inside a shaft. In this system was also installed a little oil barrier because of governmental demand for being secured in case of emergency. (This shaft lay in an underground parking).

General Information

Location of the system	
Description of the object	
Street	
Postal code, city	
Telephone, Fax	
Operator of the system	
Company/Community/City	
Street	
Postal code, city	
Responsible person	
Telephone, Fax	
Execution of construction work	
Company	
Street	
Postal Code, city	
Responsible person	
Telephone, Fax	
Details	
Kind of connected areas	
Date of installation	
Date of beginning of operation	
Number of filter shafts	

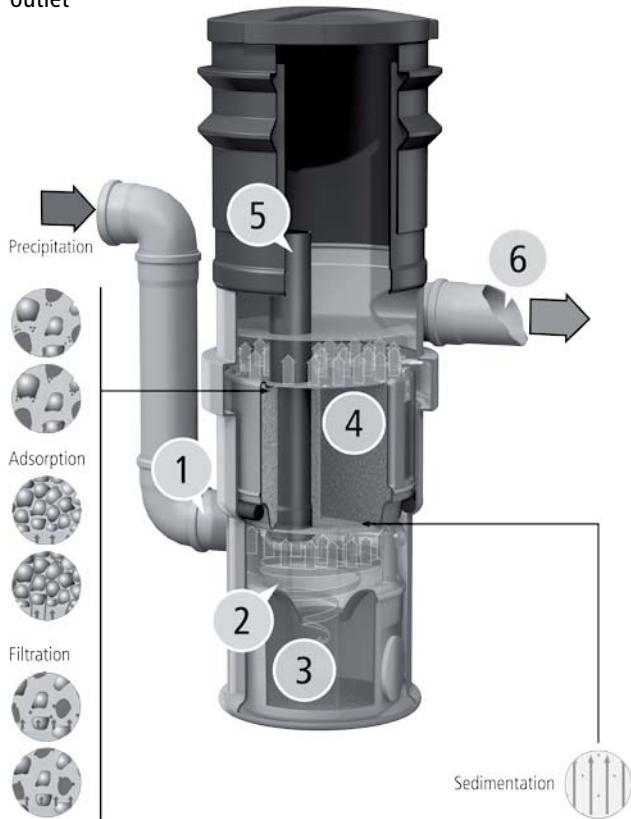
Description of the filter

Filter system for the cleaning of charged rainwater of roof areas, metal roofs, parking and street areas and special areas. For each application area exist different filter types.



How it works:

1. The rainwater from the connected area is fed into the basal section of the filter housing.
2. The hydrodynamic separator converts turbulent waters into a radial laminar flow pattern, generating particle sedimentation, particularly of the sand fraction.
3. This takes place over an inlet to the lower section of the filter shaft. The sediment is retained in a silt trap chamber below the separator. The silt trap can be withdrawn for cleaning, and has an integral cleaning port to the side to ease dirt removal.
4. In the central section of the filter housing the filter element is situated. It filters out the fine materials in an up-flow process and dissolved materials are precipitated and adsorbed. When exhausted the filter can be exchanged easily.
5. Overflow and emergency water outlet
6. Outlet cleaned water



Installation

The filter shafts are installed directly into the ground or in existing shaft systems.

3P Hydrosystem 400 directly in the ground within an infiltration shaft.



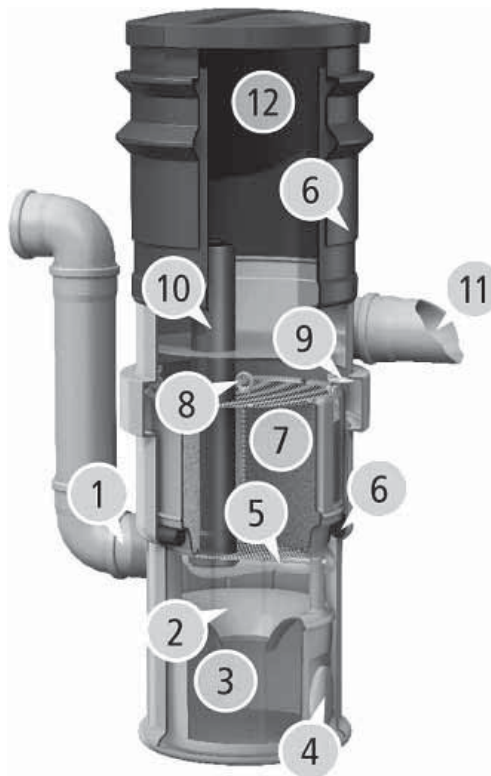
3P Hydrosystem directly in the ground before a cistern.



You will find further installation instructions in the special assembly instruction which is delivered with the product.

Product structure

1. Inlet rainwater
2. Separator
3. Collecting basin for sedimentation particles
4. Inlet for cleaning
5. Grip: removal of collecting basin
6. Sealing (Ø 30 mm)
7. Filter element with substrate and cover made of stainless steel
8. Ear for removal of the filter element
9. Locking buoyancy control system (2 pieces)
10. Overflow / Bypass pipe
11. Outlet to rainwater tank and or soakaway system
12. Telescopic extension



Installation and maintenance instructions

Hydrosystem 400

Because of the pollutants and harmful substances within the rainwater run-off equipments for cleaning rainwater have to be controlled and cleaned in regular intervals like all these kinds of equipment.

Regular maintenance work

- You have to empty the silt trap under the filter in intervals between a quarter and half a year. These intervals can vary according to untypical low or high solids flux in the rain flow. This is pointed out in the first few operating years. An obvious indication therefore is a frequent working of the overflow, this is generating a clouding of the water.
- For the cleaning you first have to take the filter element out of the shaft. The silt trap can be removed and emptied into the residual waste. After that you can put in the silt trap once again. You can find a detailed description of this process in the service notes.

Changing of the filter unit

- After a period of 2 – 5 years the filter has to be changed.
New filters can be ordered at 3P Technik Filtersysteme GmbH in exchange.
On reorders 3P Technik assumes the professional disposal or the recycling of the filter material.

Advice: The maintenance work shall be made always during longer dry periods so the mud is better sedimented and there is no danger that polluted water is getting into the system that is following.

The water out of the shaft can only be led into a sewer, a combined sewer or a lawn area. It must not get into water, a rainwater channel, a cistern or in an underground french drains. It is best to put the filter for cleaning on a lawn, if there is no wastewater outlet.

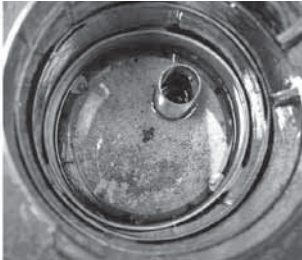
Tip: If there is no submersible pump available for emptying the water in the shaft, the silt trap can be used for emptying the filter shaft.

Maintenance instructions

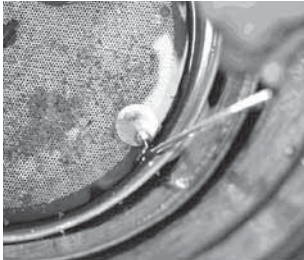
Removing filter



1. View of the lid of the filter which has to be opened at first.



2. View of the filter, the negative buoyancy are fixed.



3. Turn one of the negative buoyancy with the tool inwards.



4. Turn the second one inwards.



5. Hook the clamp of the tool in the middle ear.



6. Lift the filter out of the shaft and let it drain.

Pumping out water



1. View of the shaft without filter.



2. Let the submersible pump into the shaft.

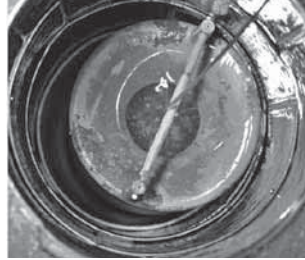


3. Switch on the pump and pump out the water as much as possible.

Taking out silt trap



1. Hook in the silt trap with the clamp of the tool.



2. Pull out the silt trap with the tool.



3. Remove the grommet with the tool.

Pumping out and flushing



1. View of the shaft after lifting out the silt trap.



2. Let the submersible pump down in the shaft once again.



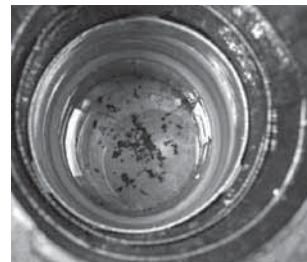
3. Switch on the pump and pump out the water.



4. Please flush the shaft from above with water.



5. Pump out the water once again.



6. Please repeat this process until the shaft is clean.

Maintenance instructions

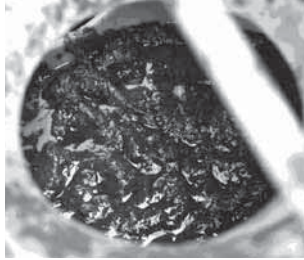
Cleaning of the silt trap



1. Put the silt trap above the drain of the sewage, no drain of rainwater!



2. Open the lid of the silt trap carefully. Attention: water comes out rapidly!



3. Empty the mud of the bucket into the residual waste.



4. Clean the silt trap from the outside with a jet of water.

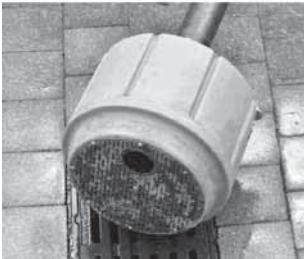


5. Clean the silt trap inside with a jet of water.



6. Clean up the grommet with water.

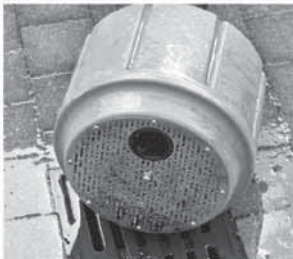
Flushing the filter element



1. Put the filter element above the sewage.



2. Flush the lower side of the filter with a jet of water.



3. The lower side of the filter element must be completely clean.



4. Put the filter above the gully and flush it with water from above.



5. Flush the lower angle of the filter element with water.



6. Check with your hand that no pollution is left on the angle.

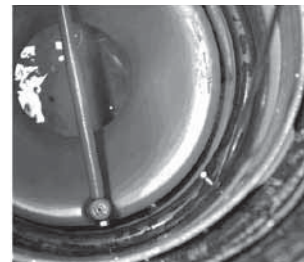
Insert bucket and filter



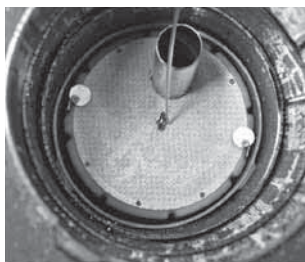
1. Re-insert the silt trap and the grommet with the tool.



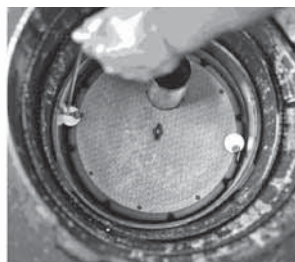
2. Pull down the silt trap.



3. Press the grommet with the tool on the edge.



4. Lowering the filter element with the tool into the shaft.



5. Turn the negative buoyancy to the outside, then the second one.



6. Control the lockings.

Maintenance printout

Please use as master

Maintenance interval	Actual state/ Observation	Maintenance work	Name and signature of assayer
Date:		<input type="checkbox"/> Visual inspection of the interior of Interior of the shaft <input type="checkbox"/> Control of the filter of visual external damages <input type="checkbox"/> Filter element cleaned <input type="checkbox"/> Mud Bucket emptied	
Date:		<input type="checkbox"/> Visual inspection of the interior of Interior of the shaft <input type="checkbox"/> Control of the filter of visual external damages <input type="checkbox"/> Filter element cleaned <input type="checkbox"/> Mud Bucket emptied	
Date:		<input type="checkbox"/> Visual inspection of the interior of Interior of the shaft <input type="checkbox"/> Control of the filter of visual external damages <input type="checkbox"/> Filter element cleaned <input type="checkbox"/> Mud Bucket emptied	
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 73072 Donzdorf
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 hydrosystem@3ptechnik.de
 www.3ptechnik.de

Sender:

Company/name

Street

Postal code/city

Telephone

E-Mail

Installation of the system (date)

YOUR ADVANTAGES AFTER THE REGISTRATION OF YOUR FILTER SYSTEM:

- ✓ We inform you about all legal changes and adapt the system to the actual state.
- ✓ You will be informed if there is a maintenance to be made or if a filter has to be exchanged.
- ✓ You always have a filter which complies to the legal specifications.

3P Technik Filtersysteme GmbH
Öschstr. 14
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Germany

Guarantee card for the plant operator

With the buying of a filter system for rainwater you are active protecting our waters and helping us to save our potable water for the next generations.

According to § 7a of the German Federal Water Act a permission for sewage disposal of rainwater can only be given if „the contamination of this sewage is so small like it is possible by compliance with each process in accordance with the state of the technology.“

So that your new filter system can comply with this requirements it is important that your system is registered. So we can assure that your system always meets with the state of the technology and that it can the maintenance can be made regularly.

**ATTENTION: without registration no guarantee.
The guarantee card has to be returned to the manufacturer.**