



Rainwater Harvesting

INSTALLATION MANUAL

The Carat-S tank Garden Comfort system



1

GENERAL NOTES

1.1 Safety

The relevant accident prevention regulations must be observed during all work. Particularly when walking on the tanks, a 2nd person is required to secure the tank.

The relevant regulations and standards must additionally be taken into consideration during installation, assembly, servicing, repair, etc.

The system or individual parts of the system must be installed by qualified specialists.

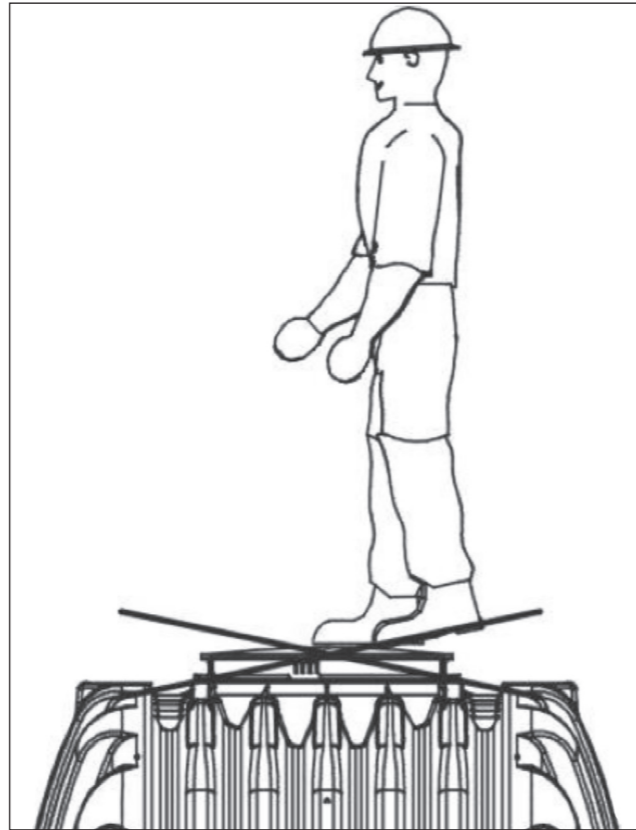
During all work on the system or parts of the system, the entire system must always be rendered inoperable and secured to prevent unauthorised reactivation.

Except in the event of work carried out in the tank, the cover of the tank must always be kept sealed, as this otherwise constitutes a maximum risk of accident. Only original GRAF covers or covers approved in writing by GRAF must be used.

GRAF offers an extensive range of accessories, all of which are designed to match each other and which can be extended to form complete systems. The use of accessories that have not been approved by GRAF results in the exclusion of the warranty/guarantee.

1.2 Identification obligation

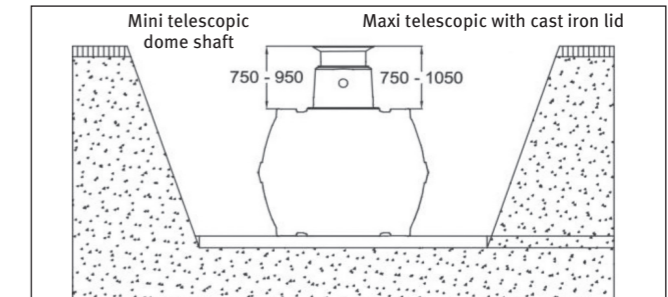
All service water pipes and outlets must be identified in writing with the words "Not drinking water" or in the form of images in order to avoid inadvertent connection with the drinking water mains even after a number of years. Mix-ups, e.g. by children, may still occur even in the case of correct identification. All service water extraction points must therefore be installed with valves with child-proof locks.



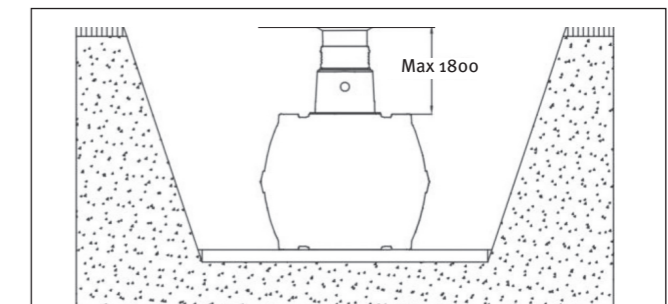
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INSTALLATION CONDITIONS

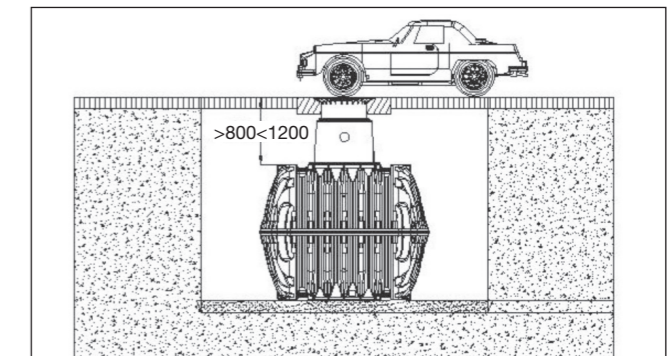
Coverage heights with telescopic dome shaft in green areas.



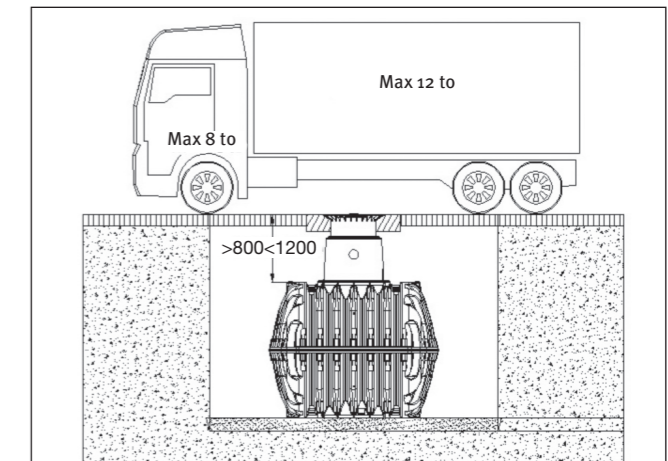
Maximum coverage heights with extensions and telescopic dome shaft.



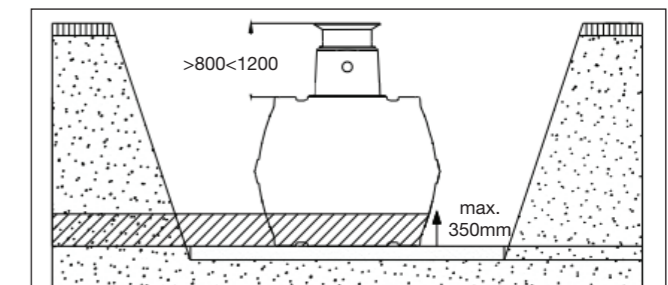
Covering heights with cast telescopic dome shaft (with class B cast cover) in areas with car traffic (load up to 3.5 t).



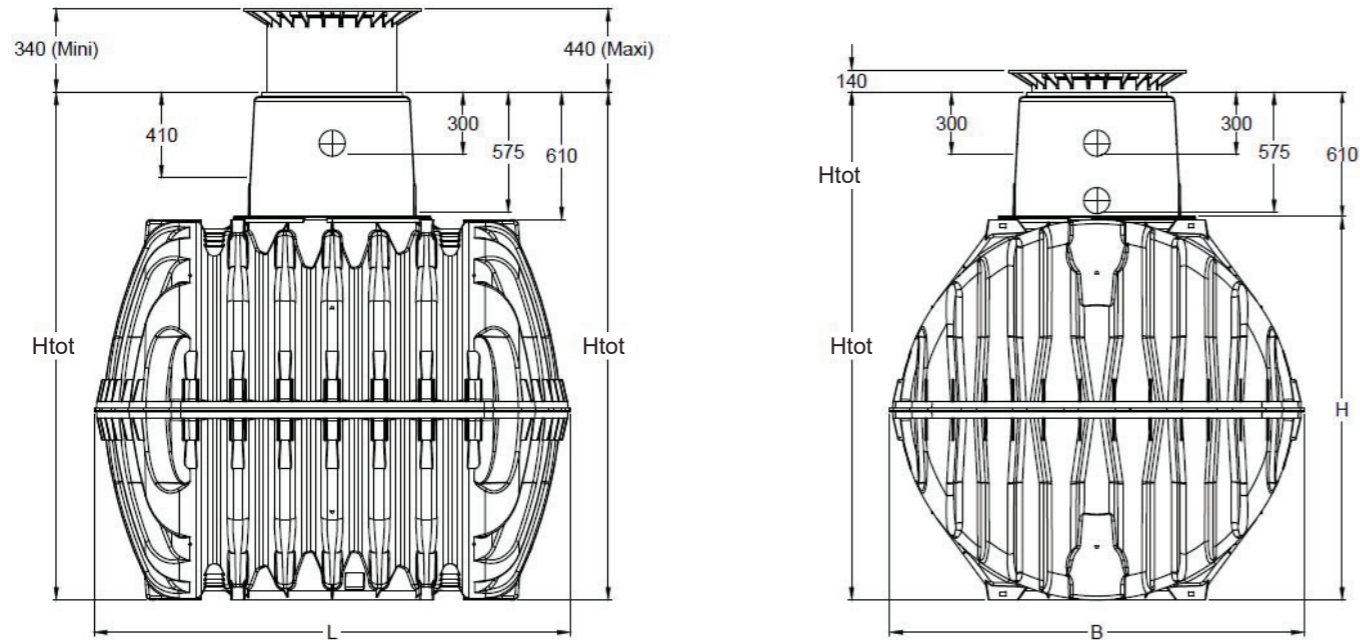
Coverage heights with Begu telescopic dome shaft (with cover class D – to be provided at construction site) in areas used by trucks with a max. weight of 12 to.



Coverage heights on installation in groundwater – the hatched area specifies the permissible immersion depth for the tanks.



3 TECHNICAL DATA

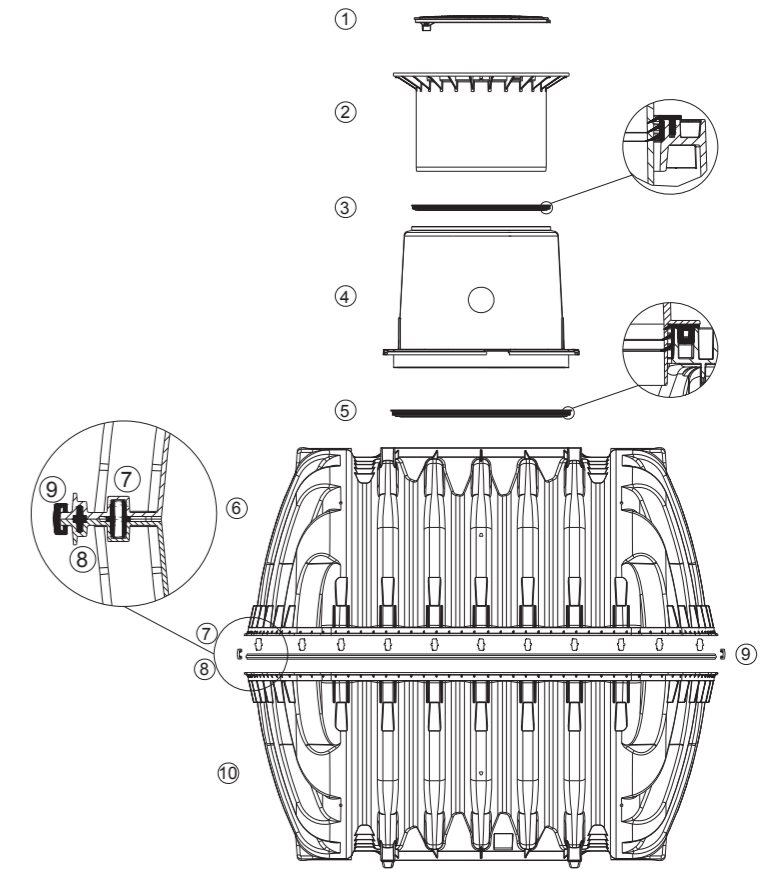


Tank	2700 litres 700 US-gallons	3750 litres 1000 US-gallons	4800 litres 1250 US-gallons	6500 litres 1700 US-gallons
Art. No.	372024	372025	372026	372027
Weight	120 kg	150 kg	185 kg	220 kg
L	2080 mm	2280 mm	2280 mm	2390 mm
W	1565 mm	1755 mm	1985 mm	2190 mm
H	1400 mm	1590 mm	1820 mm	2100 mm
Htot*	2010 mm	2200 mm	2430 mm	2710 mm

* Htot = total height

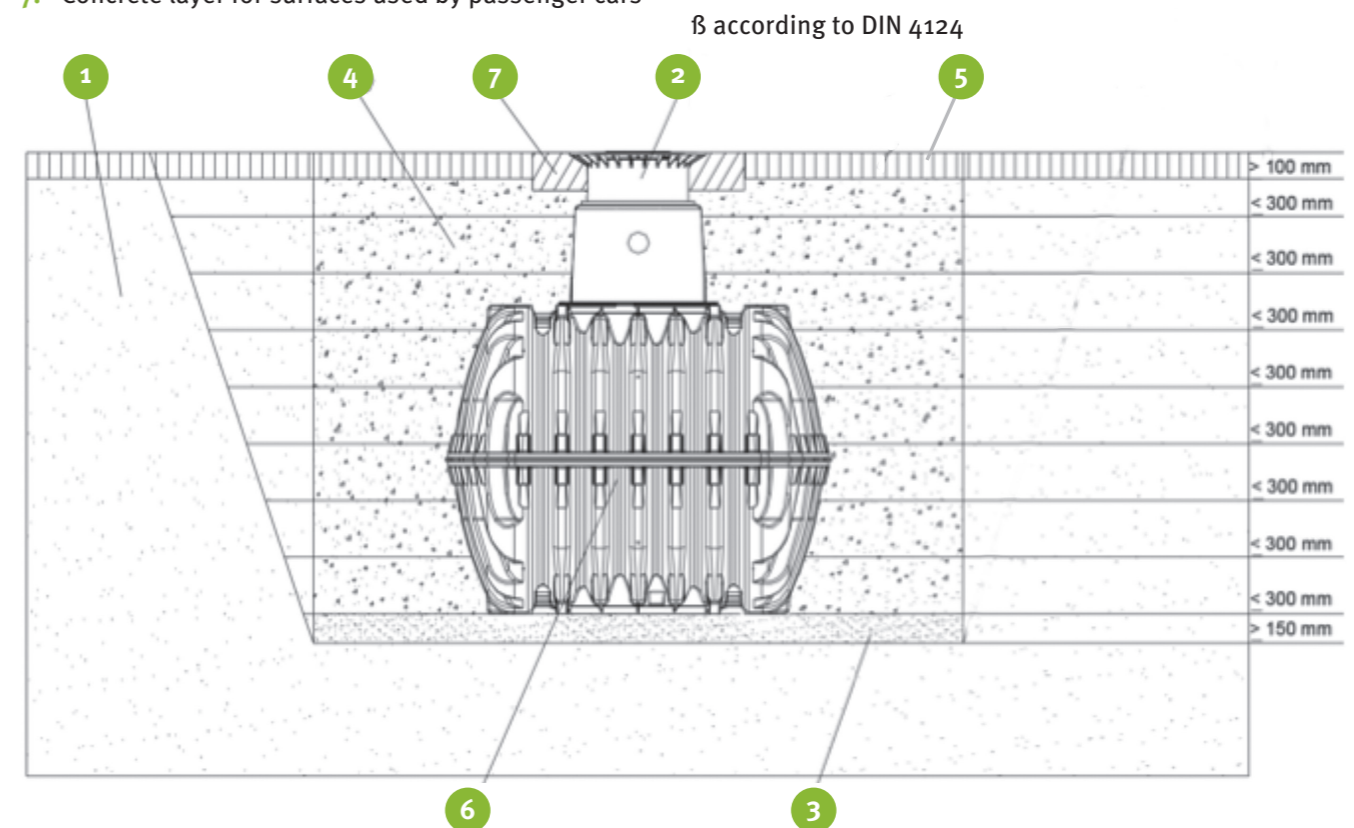
4 TANK STRUCTURE

1. Cover
2. Telescopic dome shaft (can be inclined by 5°)
3. Profile seal
4. Tank dome (can be rotated by 360°)
5. Tank – Tank dome seal
6. Upper half shell / Carat S underground tank
7. Centring pins
8. Profile seal
9. Quick connection
10. Lower half shell / Carat S underground tank



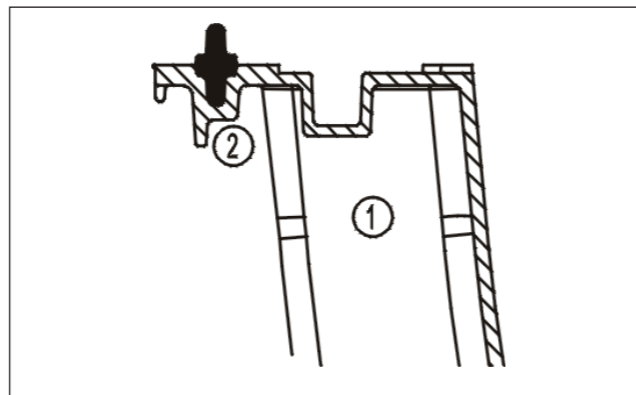
5 INSTALLATION & ASSEMBLY

1. Subsoil
2. Telescopic dome shaft
3. Compact foundation
4. Surrounding (round-grained gravel, maximum grain size 10 to 20mm)
5. Covering layer
6. Carat underground tank
7. Concrete layer for surfaces used by passenger cars

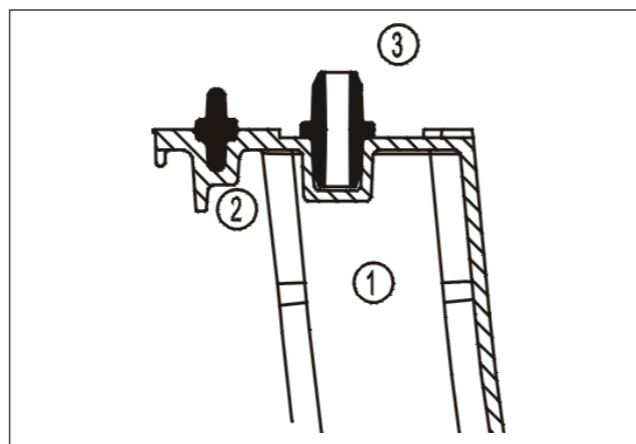


5.1 Tank assembly

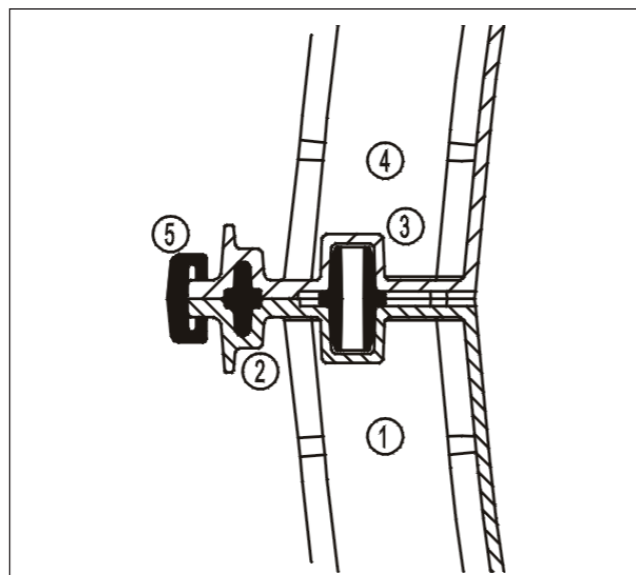
First insert the circumferential profile seal ② into the sealing groove in the lower half shell ①. Lightly coat the seal with the enclosed soft soap.



Then insert the centring pins ③ into the intended mountings around the circumference.



The upper half shell ④ is now positioned onto the lower half shell ① and the quick connectors ⑤ are installed. To do this, each 2nd quick connector is pre-adjusted in the 1st step and is secured with a hammer and a wooden support. The quick connectors engage in their end position. The remaining quick connectors are then installed.



Attention: When positioning the upper half shell, it must be ensured, under all circumstances, that the seal does not slip out of the groove.

5.2 Construction site

Under all circumstances, the following points must be clarified prior to installation:

- The structural suitability of the ground according to DIN 18196
- Maximum groundwater levels which occur and drainage capability of the subsoil
- Types of load which occur, e.g. traffic loads

An expert ground report should be requested from the local planning authority to determine the physical characteristics of the subsoil.

5.3 Trench

To ensure that sufficient space is available for working, the base area of the trench must exceed the dimensions of the tank by 500 mm on each side; the distance from solid constructions must be at least 1000 mm.

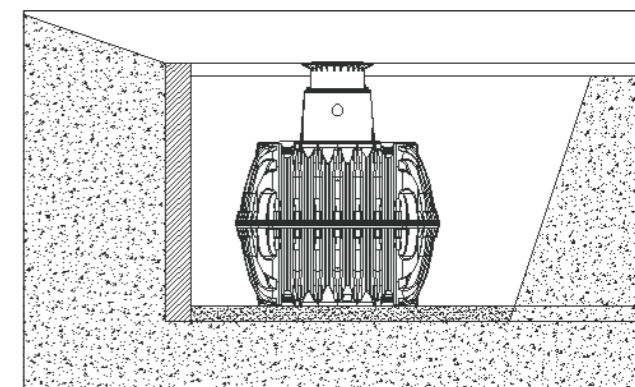
The trench embankment must be designed so that slippage or collapse of the embankment wall is not to be anticipated. The construction site must be horizontal and plane and must guarantee sufficient load-bearing capacity.

The depth of the trench must be dimensioned so that the max. earth coverage (see point 2 – installation conditions) above the tank is not exceeded. To use the system throughout the entire year, it is necessary to install the tank and those parts of the system which conduct water in the frost-free area. The frost-free depth is usually approx. 600 mm – 800 mm; precise information in this regard can be obtained from the responsible authority.

A layer of compacted, round-grain gravel (grain size 8/16, thickness approx. 150 - 200 mm) is applied as the foundation.

5.3.1 Slope, embankment, etc.

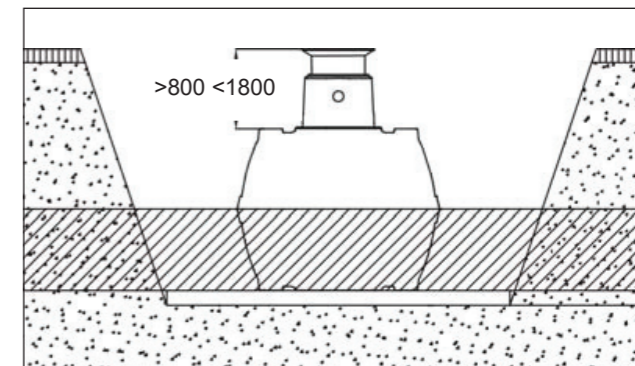
On installation of the tank in the immediate vicinity (<5 m) of a slope, earthen mound or slope, a statically calculated supporting wall must be erected to absorb the soil pressure. The wall must exceed the dimensions of the tank by at least 500 mm in all directions, and must be located at least 1000 mm away from the tank.



5.3.2 Groundwater and cohesive (water-impermeable) soils (e.g. clay soil)

If it is anticipated that the tanks will be immersed deeper into the groundwater than is shown in the adjacent figure, sufficient dissipation must be ensured. (See table for max. immersion depth).

Dissipation of the drainage water (e.g. via an annular drainage system) is recommended in the case of cohesive, water-impermeable soils.



Tank	2700 litres 700 US-gallons	3750 litres 1000 US-gallons	4800 litres 1250 US-gallons	6500 litres 1700 US-gallons
Immersion depth	700 mm	795 mm	910 mm	1050 mm

5 INSTALLATION & ASSEMBLY

5.3.3 Installation adjacent to surfaces used by vehicles

If the underground tanks are installed adjacent to surfaces which are used by vehicles heavier than passenger cars, the minimum distance away from these surfaces is at least the depth of the trench.

5.3.4 Connection of several tanks

Two or more tanks are connected via the assembly surfaces by means of GRAF special seals and basic pipes (to be provided at construction site).

The apertures must be drilled to the corresponding size using only the GRAF special crown bit. It must be ensured that the distance between the tanks is at least 600 mm. The pipes must project at least 200 mm into the tanks.

5.4 Insertion and filling

The tanks must be inserted, impact-free, into the prepared trench using suitable equipment. The tank is filled with 1/3 water before filling in the tank surrounding.

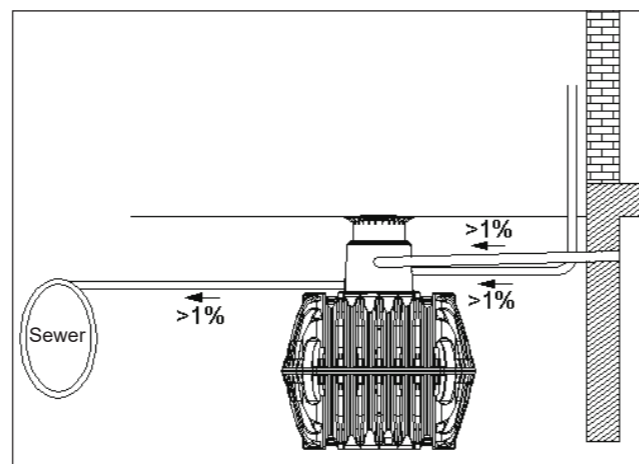
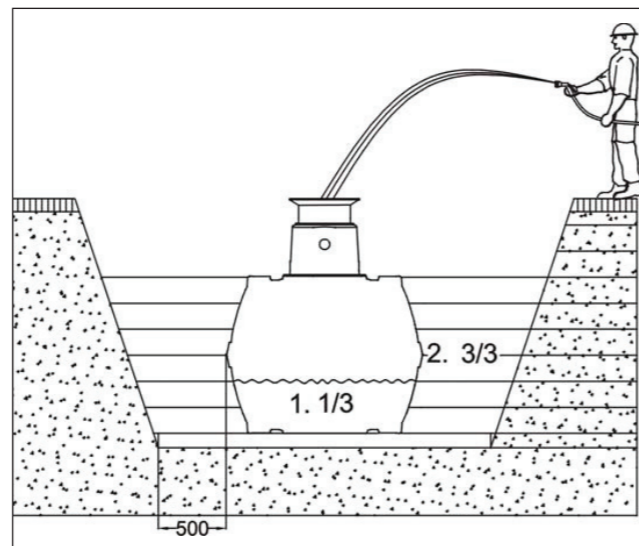
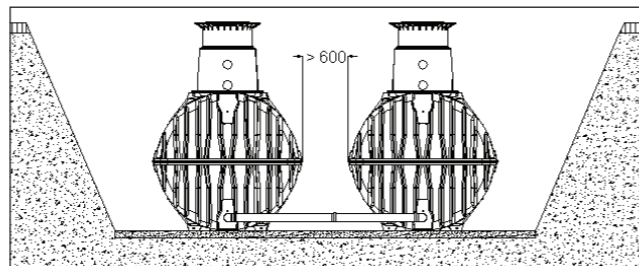
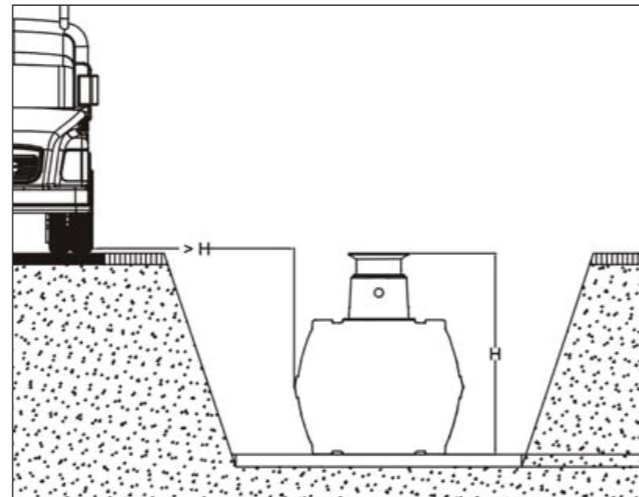
Afterwards the surrounding (roundgrain gravel, max. grain size 8/16) is then filled in layers of max. 30 cm steps and is compacted. The individual layers must be well-compacted (manuel tamper). Damage to the tank must be avoided during compaction. Mechanical compaction machines must not be used under any circumstances. The surrounding must be at least 500 mm wide.

5.5 Routing connections

All feed and overflow pipes must be routed with a decline of at least 1% in the direction of flow (possible, subsequent settling must be taken into consideration in this case). If the tank overflow is connected to a public sewer, this must be protected against reflux by means of a lifting station (mixed sewer) or reflux seal (pure rainwater sewer) according to DIN 1986.

All suction, pressure and control lines must be routed in an empty pipe, which must be routed as straight as possible, without bending, to the tank with a decline. Necessary bends must be formed using 30° moulded sections.

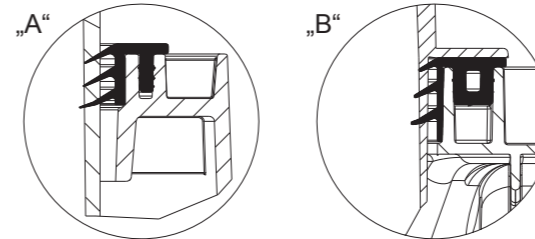
Important: The empty pipe must be connected to an aperture above the max. water level.



6 ASSEMBLING THE TANK DOME & TELESCOPIC DOME SHAFT

6.1 Assembling the tank dome

Prior to assembly, the enclosed seal is inserted into the tank domes' groove „B“. The tank dome is then aligned with the piping connections and is locked to the tank neck. It is essential to make sure that the upper seal „A“ is correctly installed.



6.2 Assembling the telescopic dome shaft

The telescopic dome shaft enables infinite adaptation of the tank to given site surfaces with earth coverage of between 750 mm and 950 mm (Mini telescopic dome shaft) or 750 mm and 1050 mm (Maxi telescopic dome shaft).

For assembly purposes, the enclosed profile seal (material EPDM) is inserted into the tank dome's sealing groove and is coated generously with soft soap (do not use mineral oil-based lubricants, as these attack the seal). The telescope is then greased, inserted and aligned with the surface of the site.

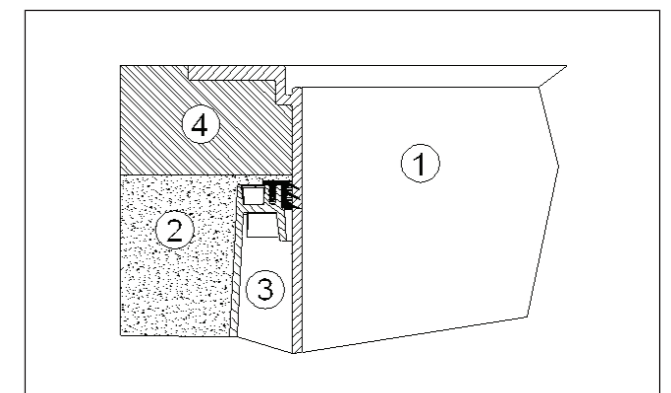
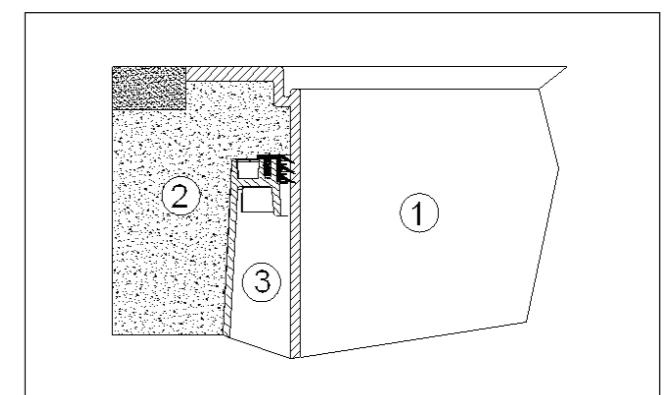
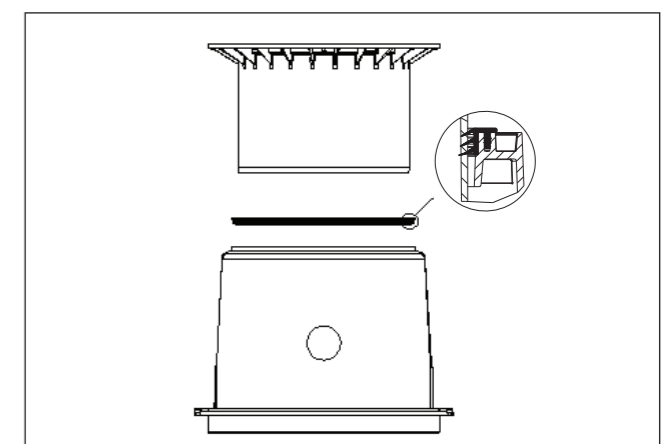
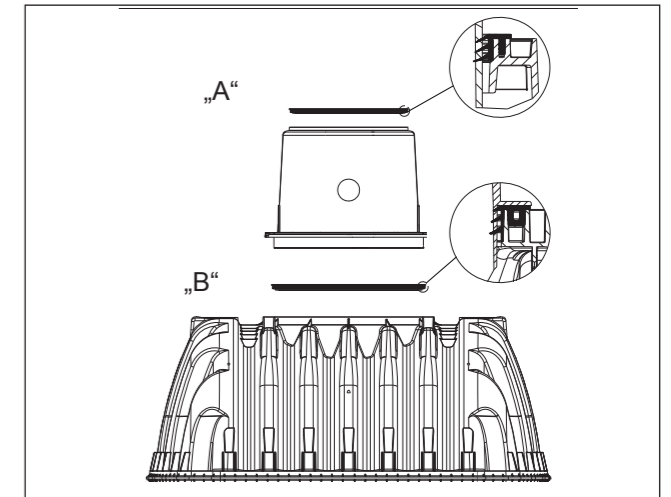
6.3 Telescopic dome shaft on which persons may walk

Important: To prevent loads from being transferred onto the tank, round-grain gravel ① (max. grain size 8/16) is filled in in layers around the telescope ② and is evenly compacted. Damage to the tank dome ③ and telescope must be avoided during this step. The cover is then positioned and is sealed to prevent entry by children. Tighten the threaded connection on the cover so tightly that it cannot be opened by a child!

6.4 Telescopic dome shaft over which passenger cars may drive

If the tank is installed under areas used by passenger cars, the collar area of the telescope ① (colour anthracite) must be supported with concrete ④ (load class B25 = 250 kg/m²). The layer of concrete to be installed must be at least 300 mm wide and approx. 200 mm high all around. The minimum coverage above the shoulder of the tank is at least 800 mm (max. 1050 mm with telescope, coverage up to max. 1800 mm possible with intermediate section).

Attention: It is essential to use the cast telescopic dome shaft (with class B cast cover).

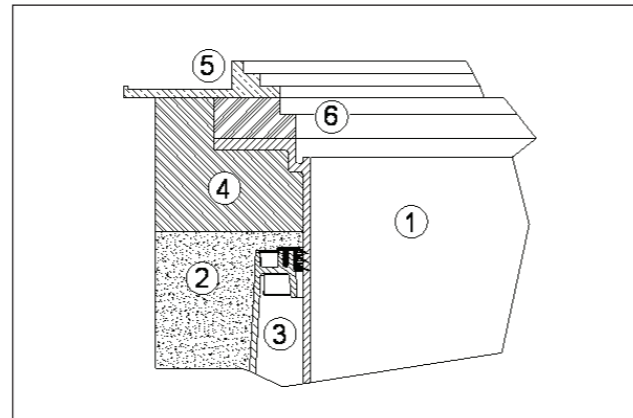


6 ASSEMBLING THE TANK DOME & TELESCOPIC DOME SHAFT

6.5 Truck telescopic dome shaft

On installation under areas used by trucks with a maximum weight of 12 t, the telescope ① is supported as described in point 6.4. The concrete rings ⑥ (Ø 600 mm) and a cast frame ⑤ with star-shaped load distribution for mounting the cast cover are then installed (observe earth coverage of at least 800 mm, max. 1800 mm). The cast frame must have a supporting area of approx. 1 m².

Attention: It is essential to use the truck telescope dome shaft (class D cover to be provided by customer).

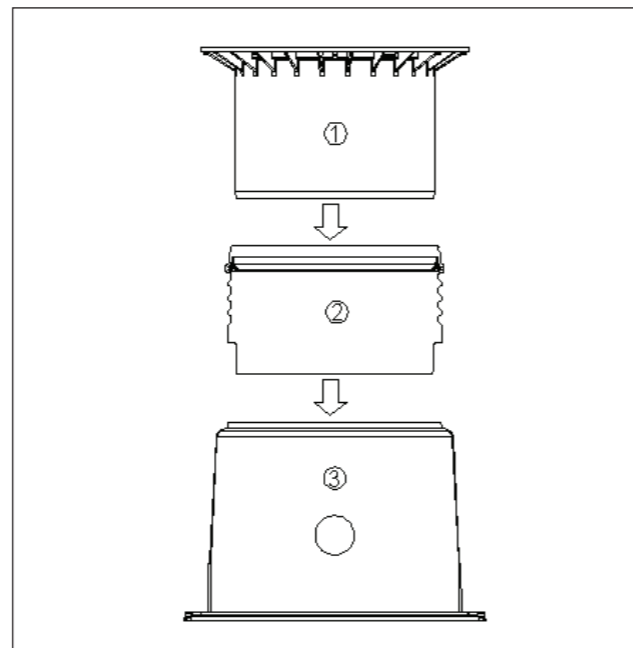


6.6 Assembling the extension

For larger coverage heights an extension is needed. To insert the extension into the tank dome, soft soap is needed. Into the highest groove of the extension the profile seal is inserted and greased generously. Afterwards push the telescopic dome shaft into the extension and adapt it to the planned area surface.

1 Extension = max. earth-cover 1800 mm (in each case in connection with the Maxi telescopic dome shaft)

- ① Telescopic dome shaft (can be inclined by 5°)
- ② Extension
- ③ Tank dome (can be rotated by 360°)



7 INSPECTION AND SERVICING

The entire system must be checked for leaks, cleanliness and stability at least every three months. The entire system should be serviced at intervals of approx. 5 years. In this case, all parts of the system must be cleaned and their function checked. Servicing should be carried out as follows:

- Drain the tank completely
- Clean surfaces and internal parts with water
- Remove all dirt from the tank
- Check that all internal parts are firmly seated.

8 GARDEN SUBMERGE SET INSTALLATION

8.1 Security

The relevant accident prevention regulations according to BGV C22 must be observed during all work. Particularly when walking on the tanks, a 2nd person is required to secure the tank.

The relevant regulations and standards must additionally be taken into consideration during installation, assembly, servicing, repair, etc. Relevant notes can be found in the corresponding sections of these instructions.

During all work on the system or parts of the system, the entire system must always be rendered inoperable and secured to prevent unauthorised reactivation.

GRAF offers an extensive range of accessories, all of which are designed to match each other and which can be extended to form complete systems. The use of other accessories may lead to impediments to the system's functional capability, therefore invalidating liability for resulting damage.

8.2 Identification obligation

The water in these systems is not suitable for consumption or personal hygiene.

All pipe work and outlets of the water systems are to be labelled with the words "Not drinking water" either in words or graphically (German norm DIN 1988 Part 2, paragraph 3.3.2.) so that after years of use, an accidental connection to the drinking water system is prevented. Even when correctly labelled it may possibly be mistaken, for example by children. For this reason, all the outlets of the systems process water must be fitted with child safe valves.

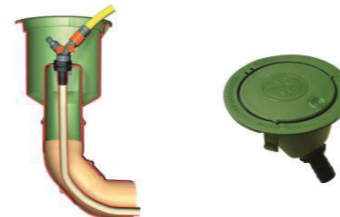
9 SCOPE OF SUPPLY MAIN COMPONENTS



Submerged and suction pump Integra INOX



Floating water extraction unit



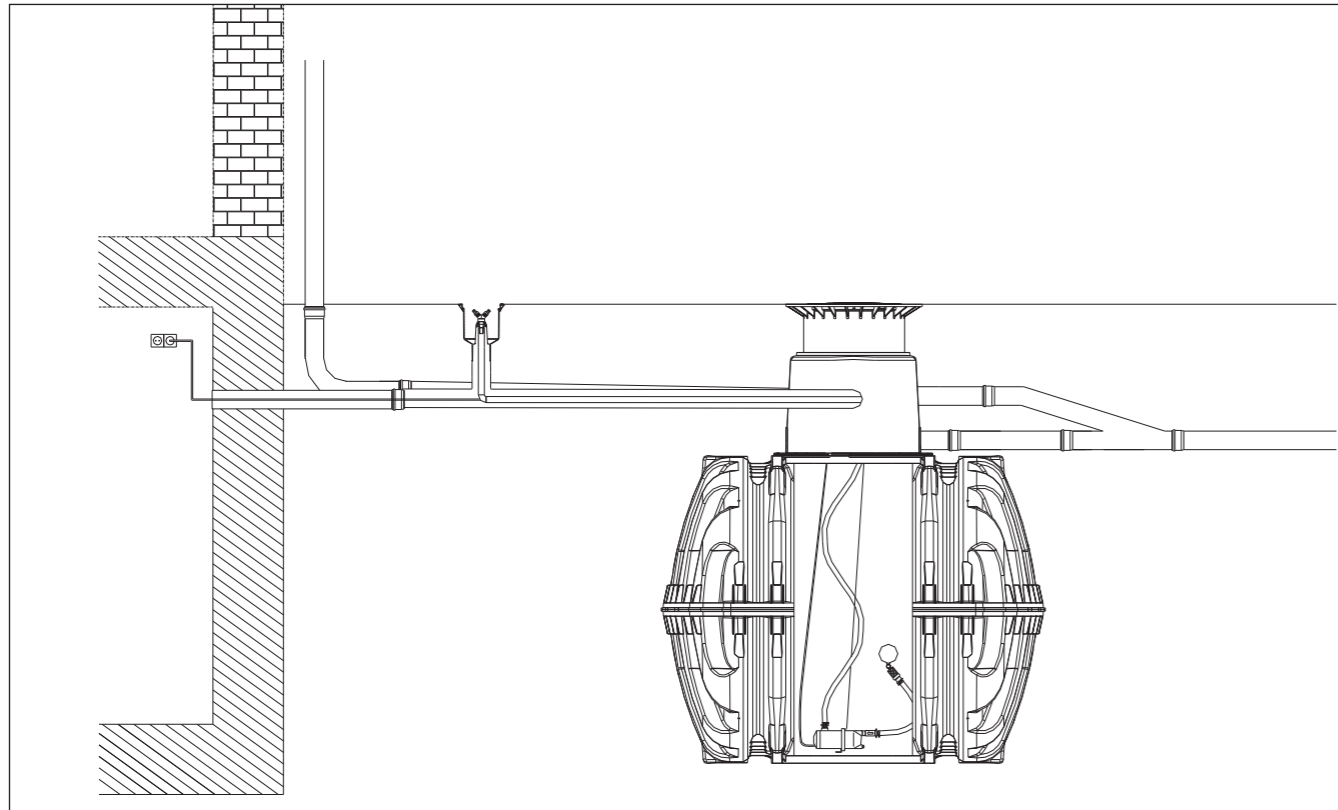
Water plug socket - Version Extern / Version Intern



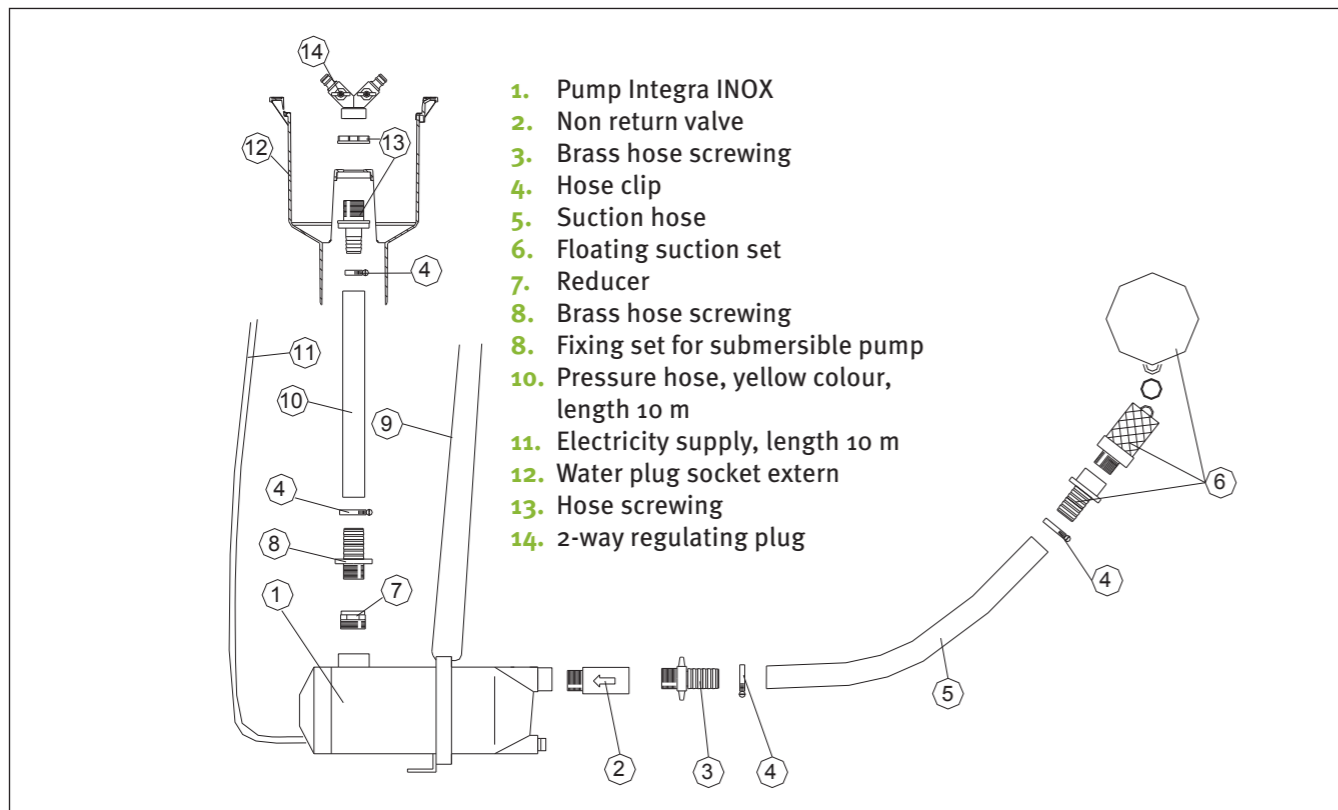
Pressure hose 10 m

10 INSTALLATION OF TECHNICAL PARTS

10.1 Rainwater storage tank Carat / Water plug socket external



Caution: The distance between the Water plug socket and the underground tank is limited by the pressure hose – length of the pressure hose is 10 m.



11 INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR THE GRAF UNIVERSAL-FILTER 3 EXTERNAL AND INTERNAL



The points described in these instructions must be observed under all circumstances. All warranty rights are invalidated in the event of non-observance. Separate installation instructions are enclosed in the transportation packaging for all additional articles purchased from GRAF.

The components must be checked for any damage prior to installation under all circumstances.

Missing instructions can be downloaded on www.graf.info or can be requested from GRAF.

11 GENERAL NOTES

11.1 Safety

The relevant accident prevention regulations according to BGV C22 must be observed during all work. Particularly when walking on the tanks, a 2nd person is required to secure the tank.

The relevant regulations and standards must additionally be taken into consideration during installation, assembly, servicing, repair, etc. Relevant notes can be found in the corresponding sections of these instructions. During all work on the system or parts of the system, the entire system must always be rendered inoperable and secured to prevent unauthorised reactivation.

The tank cover must always remain closed except when working in the tank, otherwise there exists a very high danger of accidents. The seating and condition of the cover must be checked on a regular basis.

GRAF offers an extensive range of accessories, all of which are designed to match each other and which can be extended to form complete systems. The use of other accessories may lead to impediments to the system's functional capability, therefore invalidating liability for resulting damage.

12 INSTALLATION CONDITIONS

12.1 Universal-Filter 3 pedestrian weight resistant

- The Filter with the green telescopic attachment and cover may only be installed in green areas that are not traversed by traffic.
- The amount of short-term load of the polyethylene cover is max. 150 kg, the long-term area load max. 50 kg
- The maximum installation depth to the filter bottom is 1050 mm.
- Roof areas provided with a pipe connection of DN 100 = 350 m² and for DN 150 = 500 m².

12.2 Universal-Filter 3 external for light traffic

- Through the use of the telescopic attachment (anthracite) and the cast iron cover Class B according to DIN EN 124 the filter may be installed in areas traversed by light traffic. Under no circumstances are the tanks to be installed in areas traversed by heavy goods vehicles or machinery (see point 5.3.2)
- The earth covering above the inlet supply pipe must be at least 450 mm; the maximum installation depth to the filter bottom is 1050 mm.
- Roof areas provided with a pipe connection of DN 100 = 350 m² and for DN 150 = 500 m².

12.3 Universal-Filter 3 internal DN100 / Universal-Filter 3 XL internal DN150

- The Filter is suitable for installation in a pilot shaft or in a cistern.
- The difference in height between the supply pipe and outlet is 275 mm
- The Filter may not be installed directly in the earth.
- Roof areas provided with a pipe connection of DN 100 = 350 m² and for DN 150 = 500 m².

13 TRANSPORT AND STORAGE

3.1 Transport

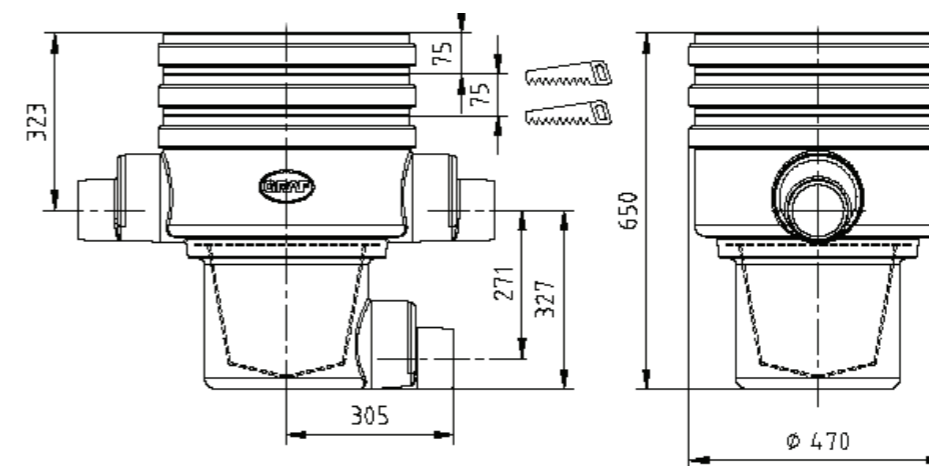
During the transport the filter must be well secured against slipping or falling. If the Filter is to be secured for transportation with webbing straps, it is to be ensured that the filter remains undamaged. Stress and excess loading caused by impact are to be avoided. Under no circumstances is the filter to be rolled or slid over the ground surface.

3.2 Storage

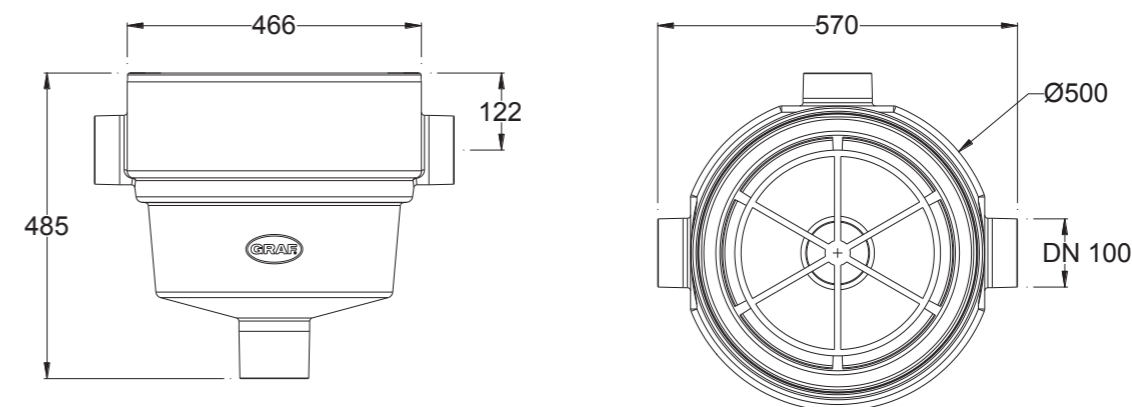
Any necessary temporary storage of the filter must be on an appropriate level surface without sharp objects. During the storage it is important to avoid damage caused by the surrounding environment or foreign objects.

14 TECHNICAL DATA

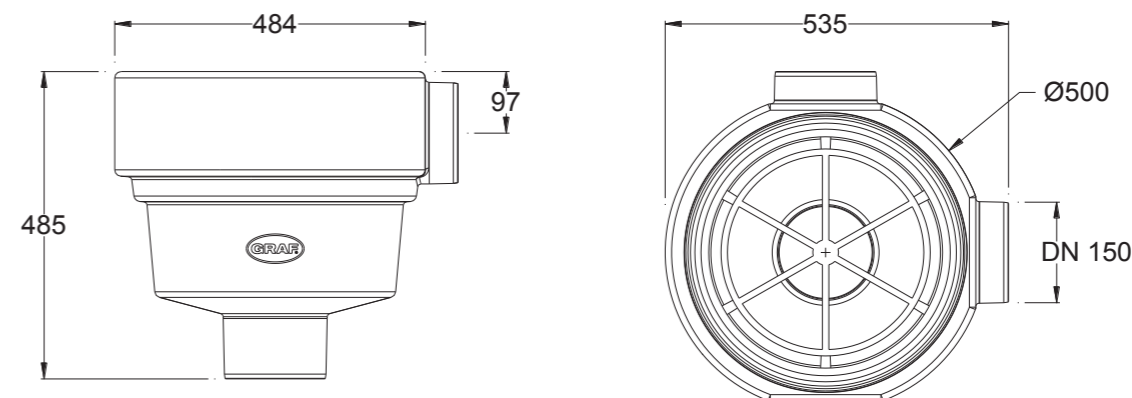
Universal-Filter 3 external



Universal-Filter 3 internal - Connection DN 100



Universal-Filter 3 XL internal - Connection DN 150



15.1 Preparation of the excavation

So that sufficient working room is available and the filter can be evenly embedded, the surface area of the excavation should exceed the filter dimensions on all sides by approximately 50 mm. The excavation slope is according to DIN 4124. The installation excavation must be level and smooth. The depth of the excavation must be measured so that the final installation depth of the filter bottom is a maximum 1050 mm. As an under surface for setting down, a layer of smooth sand with a grain size of 8/16 according to DIN 4226 – 1 and a layer depth of approximately 10 mm should be used.

Important: The setting down surface for the filter must be absolutely level to ensure an optional performance.

5.2 Placing in the excavation and laying the connections

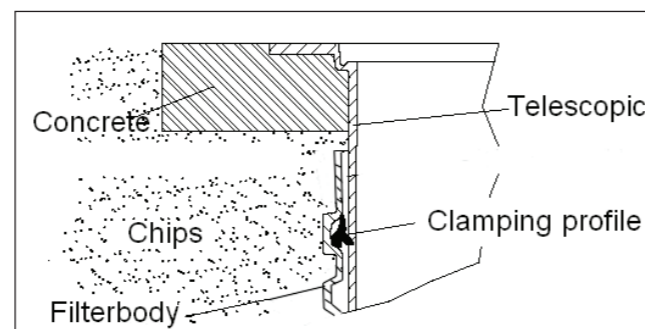
The filter is installed in the prepared excavation and is then connected to the relevant pipes etc. Attention, it is important to note that all the pipes to be installed must have a gradient of at least 1% in the flow direction without sagging or bending downward. An emergency run-off must also be connected so that a congestion or back surge may be avoided.

Important: DIN 1986 must be followed, therefore the diameter of the supply pipe = the diameter of the run-off pipe.

5.3 Telescope installation

5.3.1 Telescope pedestrian resistant

The telescope is pressed into the filter housing from above. For excavation depths < 930 mm the telescopic attachment and in some circumstances, the filter housing must be short-ened. It is important to pay attention that the inlet pipe is not obstructed in any way by the telescope when installed. Before pushing in the telescope the profiled sealing ring is placed in the housing's recess. The telescope and the sealing ring must be thoroughly coated with the lubricating soap included in the delivery (use no lubrication that is mineral oil based).



Attention: If the lubricating soap becomes dry and the telescope becomes difficult to move then there is the danger that the sealing ring will be forced out of its recess. Before filling, the sealing ring must be checked once again that it is seated correctly in position. The telescope must be sufficiently embedded and supported that no forces are transferred to the housing.

5.3.2 Telescope suitable for light traffic

The telescope is installed as in Point 5.3.1. To ensure the function in areas traversed by light traffic, the telescope must be embedded around the collar with lean mixed concrete. The concrete encasement must be uninterrupted, 20 cm wide and approximately 30 cm deep.

Attention: It is important to use the cast steel cover. Transport vehicle weight of heavy goods vehicles and machinery is not permitted. The telescope must be sufficiently embedded and supported that no forces are transferred to the housing.

5.4 Filling

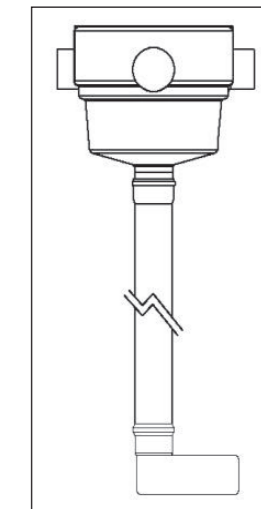
Important: Before and during the filling, the horizontal position of the filter must be checked. The length-wise embedding of the filter is with smooth sand with a grain size of 8/16 according to DIN 4226 – 1 with a width of approximately 30 cm. Each layer is to be of no more than 30 cm and must be tamped down lightly with a compacting machine or hand held tamper. Care must be taken during the embedding to ensure the filter is not damaged. To ensure that no forces are applied to the filter housing, the telescope must be well embedded and compacted. (For areas traversed by light traffic see point 5.3.2) Finally, the cover is set in place and secured so that it is child proof (point 1.1 must be followed). The screws holding down the cover are to be made so tight that they can not be removed and the cover opened by a child!

16.1 Filter preparation

Before the installation in the tank, the filter must be prepared as shown in the adjacent depiction. Length of the HT/canalisation pipe – connections (completed on site) from the filter to the inflow pot:

Carat volume (liter)	Universal-Filter 3 Connection DN 100*	Universal-Filter 3 XL Connection DN 150*
2700	1274 mm	1308 mm
3750	1454 mm	1498 mm
4800	1684 mm	1728 mm
6500	1974 mm	2008 mm
8500	1957 mm	1991 mm
10000	2157 mm	2191 mm
from 16000	2417 mm	2451 mm

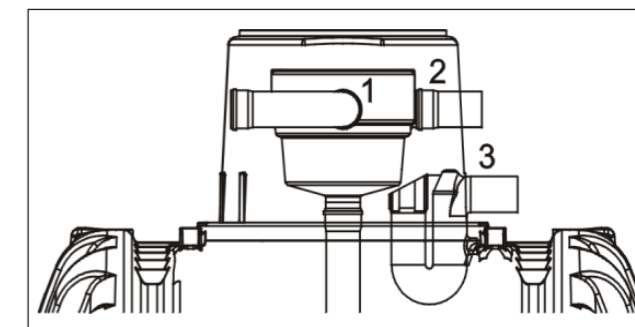
* (+ / - 10 mm)



16.2 Preparation on the tank

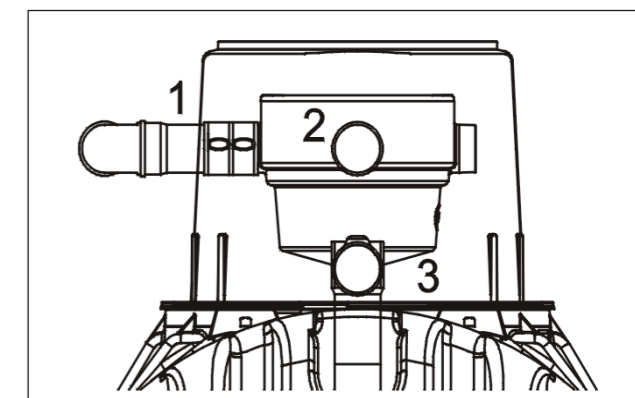
The siphon is installed in the lowest seal (3) of the tank dome. The inlet pipe is mounted on the side opening (1) the pipe is inserted from the outside. The emergency overflow (2) is installed above the siphon (3) and is installed by pushing through from the inside.

Important: The sealing ring from the HT – pipe coupling of the emergency overflow (2) must be removed.



6.3 Installing the Filter

The fixing collar is pushed over the inlet pipe that is mounted on the tanks' dome. Finally the prepared filter assembly is placed into the tank dome from above then connected with the emergency overflow and inlet pipe using the fixing collar. In this case it is a butt joint that requires no collar.



6.4 Assembly of the extraction mechanism

Remove the seal from the filter basket and push the metal angle of the lift out mechanism over the rim as shown in the picture.

Finally place the seal over the rim and pull back the metal angle.



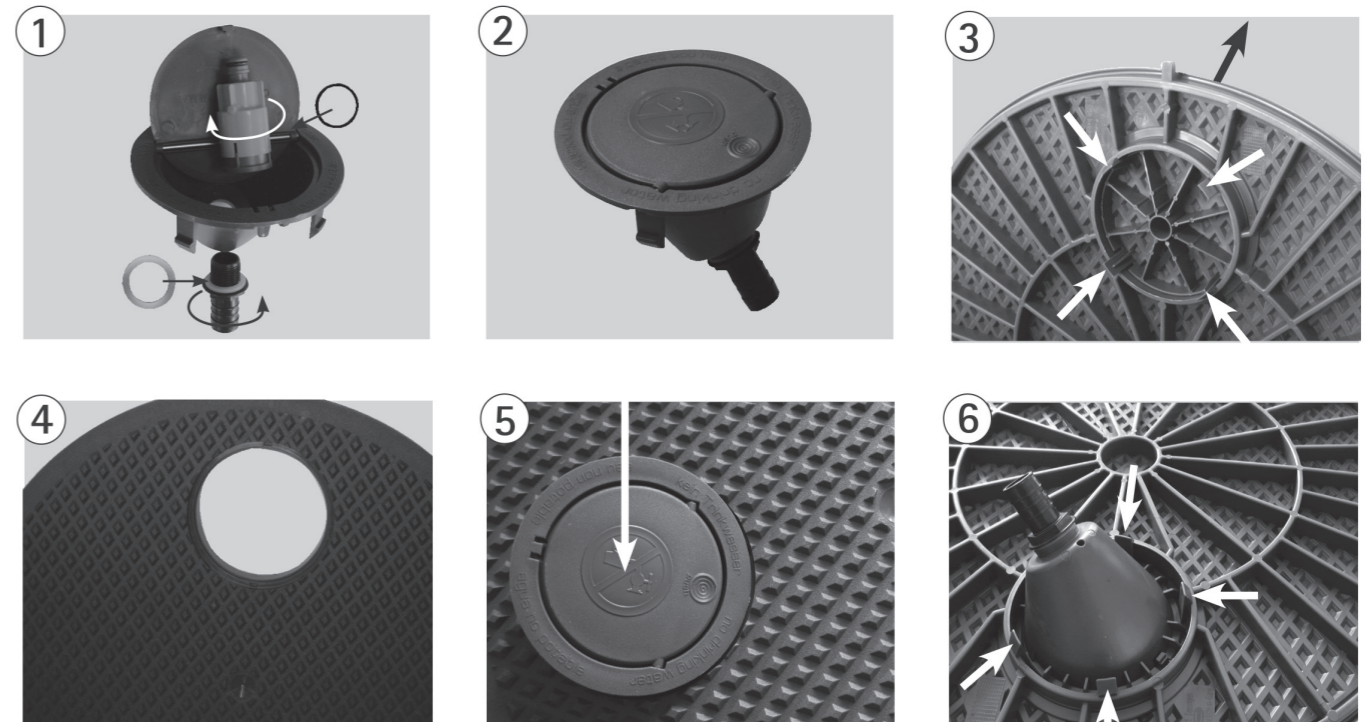
17 COMMISSIONING & SERVICE

Before commissioning and at every inspection, the lifting out mechanism must be positioned at 90° to the inlet so that no large objects such as leaves and twigs can catch on the handle. The straining filter is re-moved for cleaning and the basket must be thoroughly cleaned with water until all the pores are open. It is advised to clean every 4 to 5 weeks (more often in autumn due to more leaves and twigs) or according to requirements.

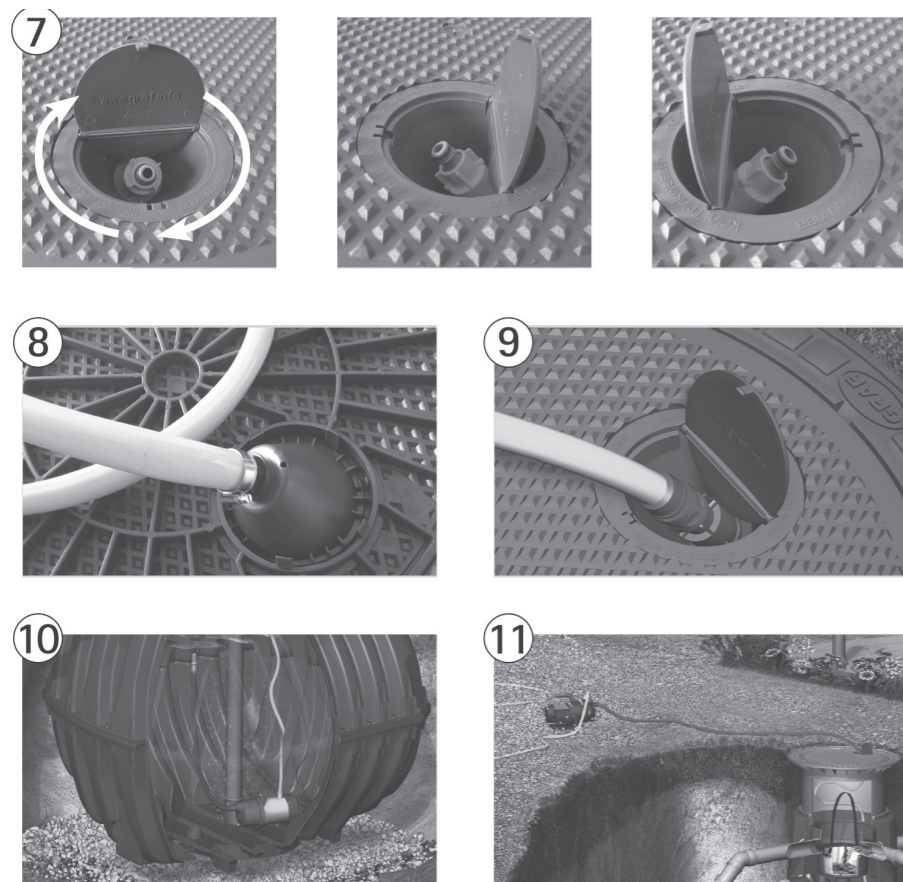
The filter strainer basket must be lightly pressed into place taking care that the seal sits precisely after every cleaning.

At the occasion of each inspection, the overflow siphon must be checked and flushed in necessary.

18 INSTALLATION OF INTERNAL HOSE CONNECTION BOX



18 INSTALLATION OF INTERNAL HOSE CONNECTION BOX



19 INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR GRAF UNIVERSAL INTERNAL FITTED FILTER STRAINER

**Universal internal fitted filter strainer with DN 100 inlet ring
Order No. 330299**

**Filter Package 2
Order No. 342026**



The points described in these instructions must be observed under all circumstances. All warranty rights are invalidated in the event of non-observance. Separate installation instructions are enclosed in the transportation packaging for all additional articles purchased from GRAF.

Missing instructions must be requested from us immediately.

The components must be checked for any damage prior to installation under all circumstances.

Missing instructions can be downloaded on www.graf.info or can be requested from GRAF.

20 GENERAL NOTES

20.1 Security

The relevant accident prevention regulations according to BGV C22 must be observed during all work. Particularly when walking on the tanks, a 2nd person is required to secure the tank.

The relevant regulations and standards must additionally be taken into consideration during installation, assembly, servicing, repair, etc. Relevant notes can be found in the corresponding sections of these instructions.

The system or individual parts of the system must be installed by qualified specialists.

During all work on the system or parts of the system, the entire system must always be rendered inoperable and secured to prevent unauthorised reactivation.

The tank cover must always remain closed except when working in the tank, otherwise there exists a very high danger of accidents. The seating and condition of the cover must be checked on a regular basis.

GRAF offers an extensive range of accessories, all of which are designed to match each other and which can be extended to form complete systems. The use of other accessories may lead to impediments to the system's functional capability, therefore invalidating liability for resulting damage.

21 INSTALLATION CONDITIONS

21.1 Universal internal fitted filter strainer

- The filter is suited to installation in a pilot shaft or cistern.
- The difference in height between inlet and outlet is around 100 mm.
- The filter must not be installed in the ground itself.
- The filter is suited to roof surfaces of up to around 200 m²

21.2 Transport

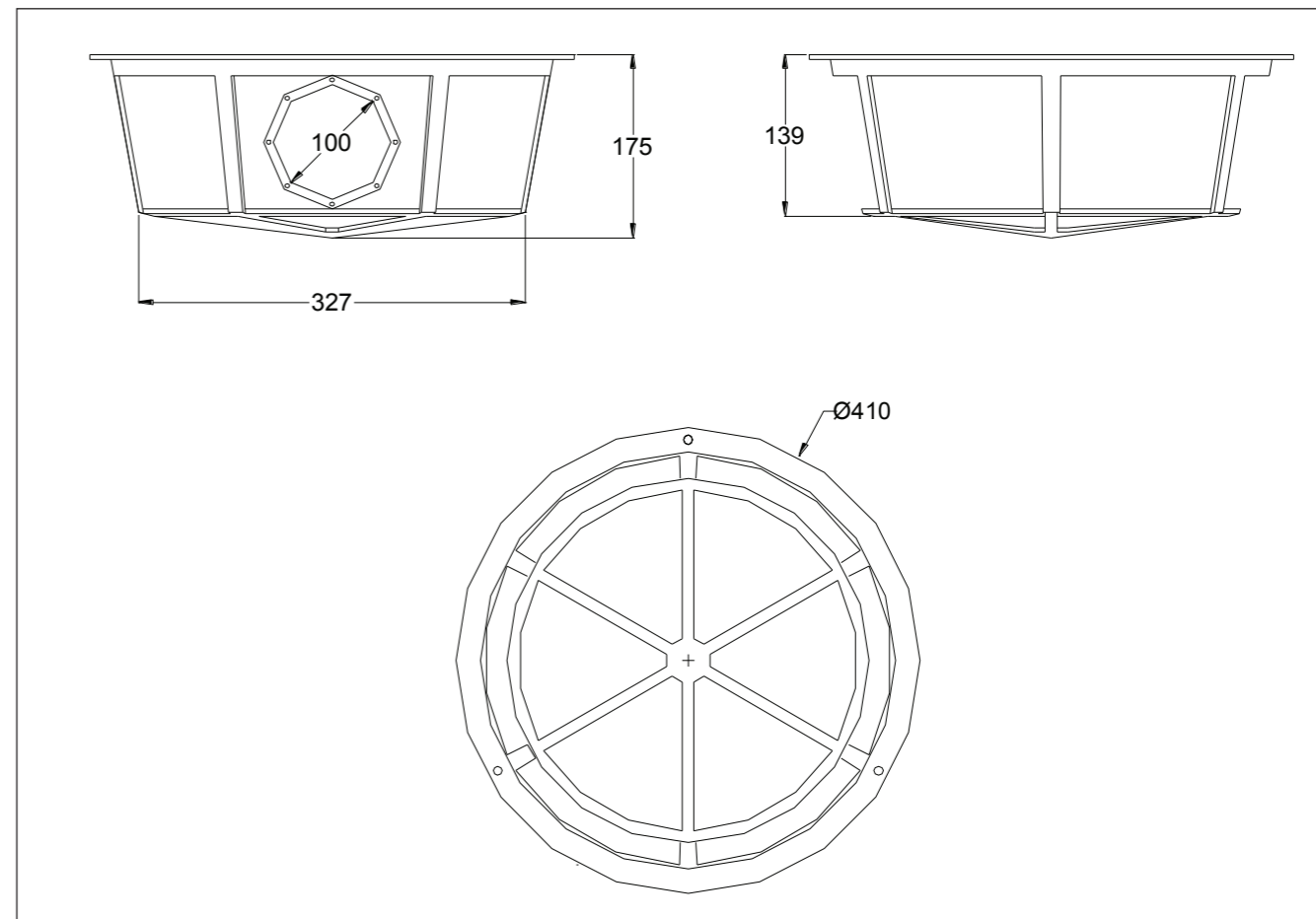
During the transport the filter must be well secured against slipping or falling. If the Filter is to be secured for transportation with webbing straps, it is to be ensured that the filter remains undamaged.

Stress and excess loading caused by impact are to be avoided. Under no circumstances is the filter to be rolled or slid over the ground surface.

21.3 Storage

Any necessary temporary storage of the filter must be on an appropriate level surface without sharp objects. During the storage it is important to avoid damage caused by the surrounding environment or foreign objects.

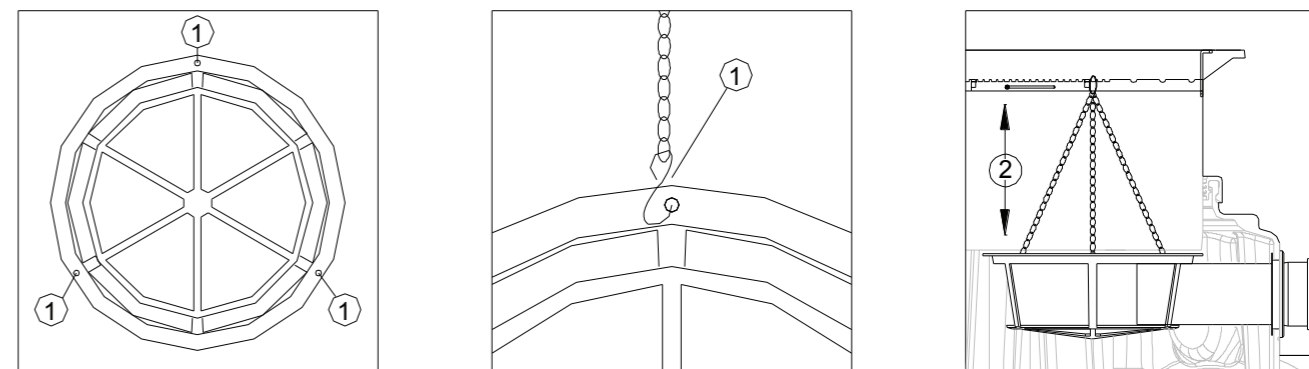
22 TECHNICAL DATA



23 INSTALLATION & ASSEMBLY UNIVERSAL INTERNAL FITTED FILTER STRAINER

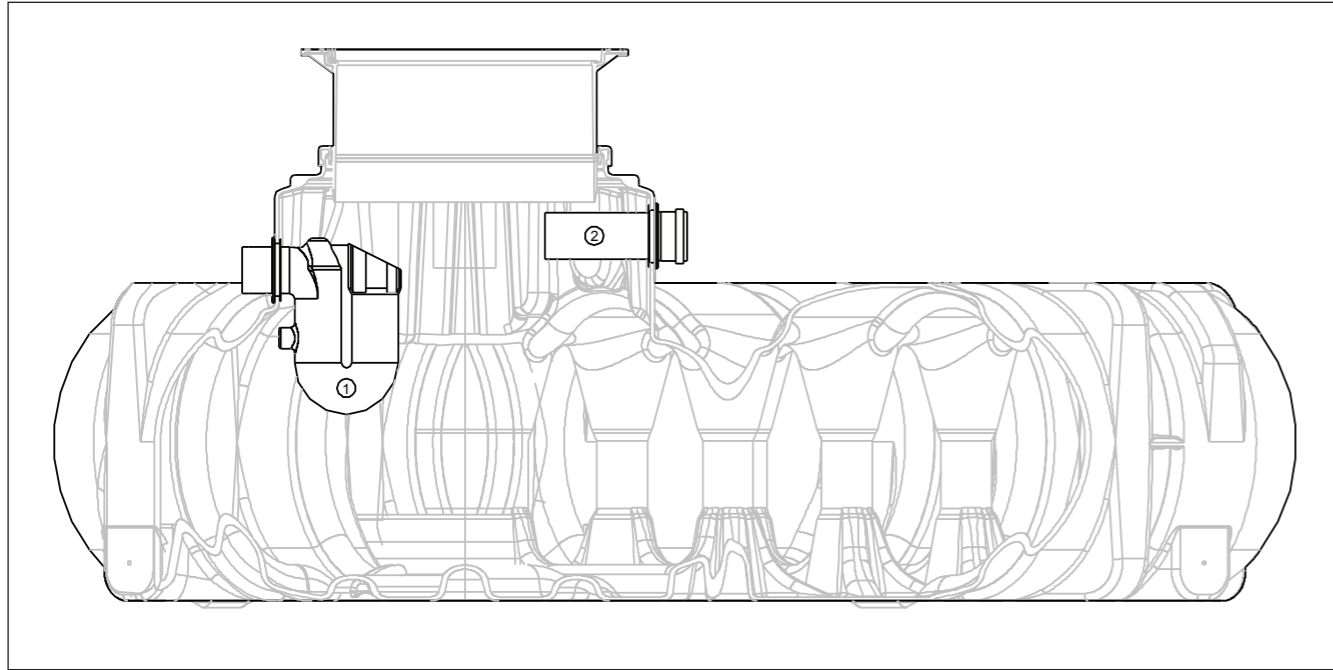
23.1 Preparations on the filter

Before being installed in the tank, the enclosed chain suspension ② must be secured to the filter strainer using the three S-shaped hooks supplied ① and shortened to the assembly length required. (See illustrations below)

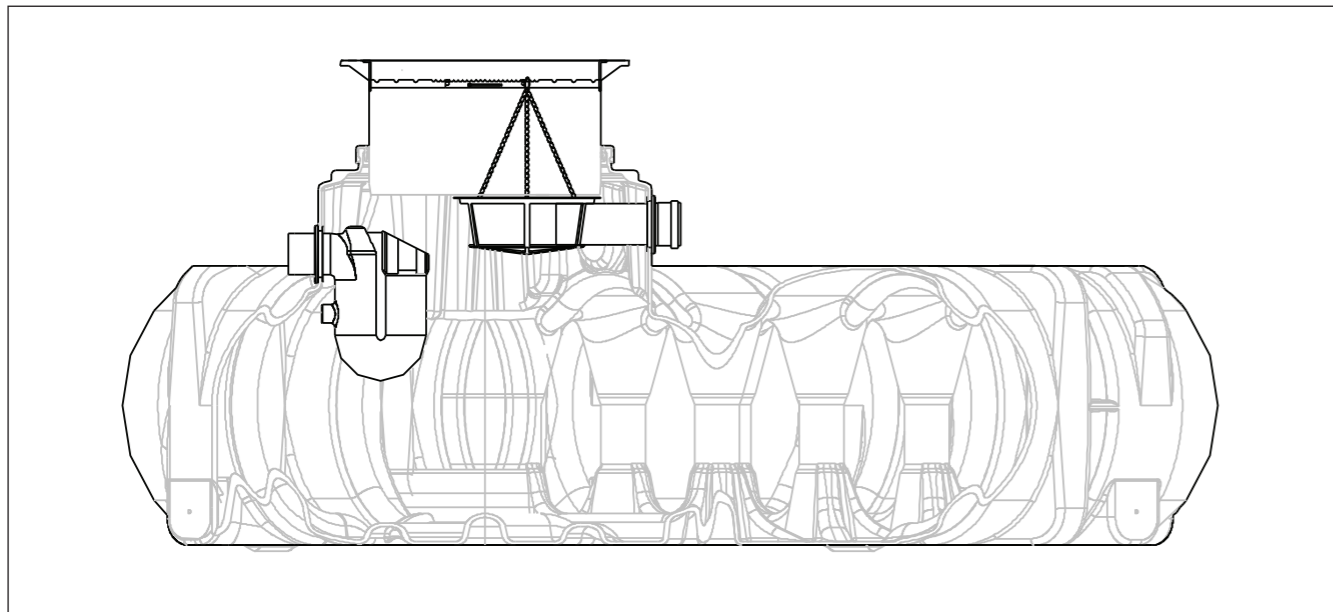


23.2 Preparations on the tank

The overflow siphon ① is inserted (passing from the inside out) in the bottommost tank dome seal. The DN 100 supply pipe ② (provided by the customer) is fitted to one of the top holes, this involves guiding in the pipe (working from the outside in) which must protrude at least around 100 mm into the filter strainer.

**23.3 Inserting the filter**

The stainless steel cross bar supplied ① is set to the diameter of the telescopic dome shaft (min. 570 mm / max. 690). The prepared filter ③ is then guided through the tank dome from above, slid onto the supply pipe, which is protruding at least 100 mm, and fitted in the cross bar using the previously adjusted chain suspension ②.



The strainer insert is removed for cleaning. During this process the strainer is rinsed thoroughly with water until all pores are open. We would recommend cleaning every 4 - 5 weeks depending on dirt levels (more frequently in autumn when the number of leaves present increases greatly).

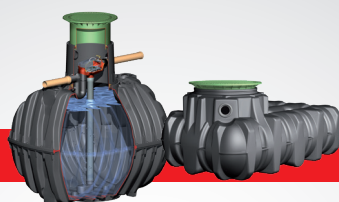
After cleaning the filter strainer must always be refitted correctly or installed and fixed correctly using the chain suspension. The overflow siphon should also be checked during maintenance and rinsed if necessary.

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Lined writing area for page 25.



RAINWATER HARVESTING



STORMWATER MANAGEMENT



WATER BUTTS & COMPOSTERS



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