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Registered in England NO. 8473746

Your Rainwater harvesting system:

Property information pack

Rainwater harvesting: **Property information pack.**

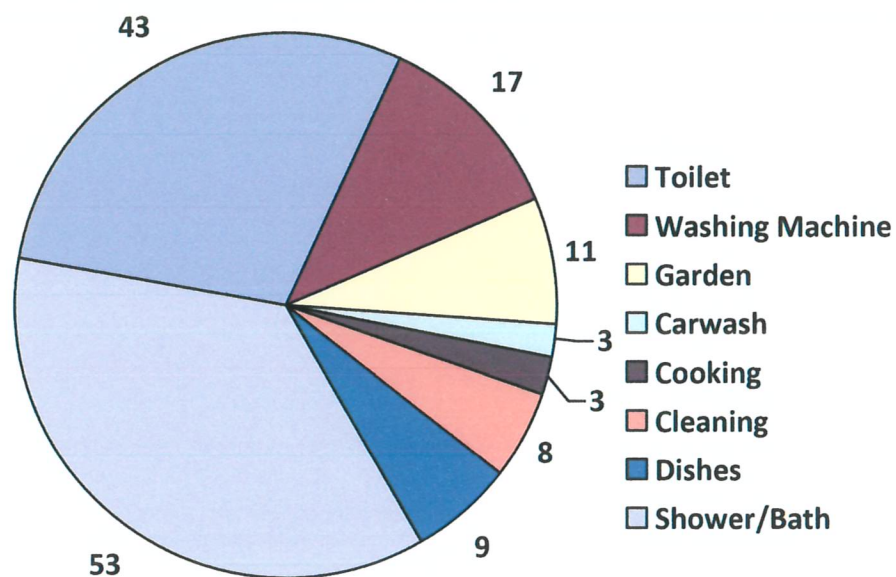
Pack contains;

- Benefits of Rainwater harvesting
- Description of rainwater harvesting system installed in property
- Basic workings of the specific rainwater harvesting system
- Maintenance of rainwater harvesting system components
- Product list and locations at property

Benefits of Rainwater harvesting (general overview):

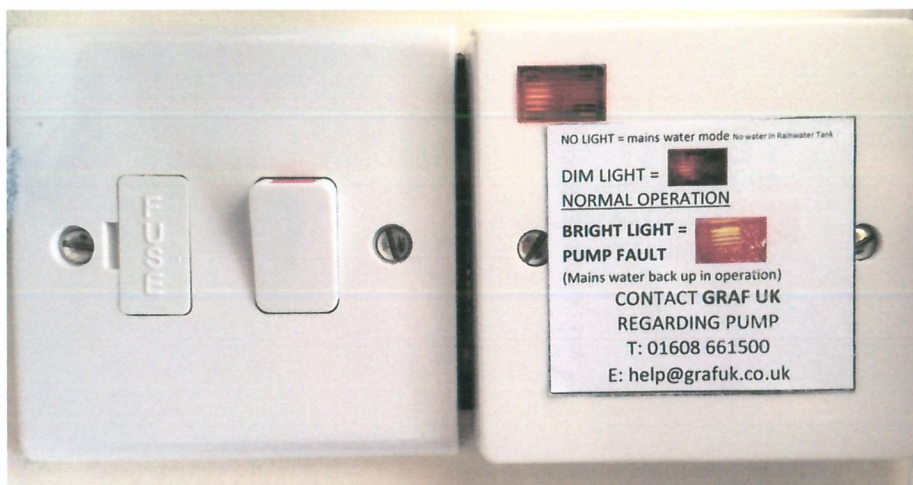
Valuable drinking water is too expensive for flushing toilets and irrigating gardens. Therefore, rainwater harvesting is not just sensible it also has ecological and economical advantages. The harvested rainwater can save up to 50% of potable water use in and around the home.

Average water usage per person per day = 150 litres, rainwater harvesting can save...
(It is possible to replace the top four categories listed below with rainwater)



Description of rainwater harvesting system (specific to property):

Your rainwater harvesting system includes an underground tank, a manhole cover lid for access to the tank and inspection, an internal filter positioned within the top of the underground tank that the downpipes connect to and a submersible pump situated inside the tank which pumps the harvested rainwater up to a header tank in your loft space within the home. The tank sizes vary according to the size of the roof area of the property, the number of people living in the property, the demand for the harvested rainwater i.e. what it is used for, and the amount of rainfall in the regional area dictating how much rainwater is available for collection and re-use. All rainwater harvesting systems are designed in accordance with the British Standard ref BS 8515:2009.



Within the mechanical service cupboard in your property alongside the switch which controls the power to the submersible pump inside your rainwater harvesting tank, there is a warning light. The status of this light is clearly described and illustrated on the above picture and as follows:

NO LIGHT = Mains water supply to header tank. (insufficient rainwater in underground tank)

DIM LIGHT = Rainwater supply to header tank.

BRIGHT LIGHT = PUMP FAULT (system will automatically switch to mains water supply).

In the event of a pump fault please contact Graf UK Ltd on 01605 661500 (or help@grafuk.co.uk) for further assistance.

The pumps are supplied with a 2 year warranty from date of purchase, within this time they can be replaced free of charge. After two years if the pump has to be replaced then this must be purchased as necessary. The operation of the rainwater harvesting system is all automatic. When your toilets are flushed they will be filled with water from the header tank. The water to fill the header tank comes from the rainwater tank first (if it is available) but is also backed up by mains water for when the rainwater has been used.

Basic workings of the specific rainwater harvesting system:

All of the rainfall that falls on to the roof of the property is collected via the guttering and downpipes. The downpipes feed the collected rainwater into the minimax filter. Here it is filtered through a stainless steel mesh filter, mesh width 0.35mm, this prevents any material (leaves, moss etc.) getting into the aboveground tank.

The filter is self-cleaning as when the water flows over the filter the clean rainwater flows through the filter mesh and is then directed to the aboveground tank, any materials that do not fit through the filter mesh will flow straight over the filter and out to the overflow. Once the water has been through the filter chamber it is collected in the aboveground tank. Now the water is in the tank it is ready for re-use back inside the property.

There is a submersible water pump inside the tank, submersed within the clean rainwater, which has a floating suction pipe connected to it. This floating suction pipe has a floating ball on the end of it keeping it floating on the surface of the water. Below the floating ball on the pipe is an opening covered by a fine mesh, this is where the water is drawn from by the pump to then be sent by direct pump pressure to the header tank within the loft in your home. The water from the tank is always drawn out at approximately six inches below the top water level where the water is at its cleanest.

Once the water is in the underground tank it is then pumped to the header tank in the loft of the home. From there it is gravity fed to the WC's within the home. It is all automatic whenever there is a demand for water i.e. when the toilet is flushed the harvested rainwater will be gravity fed to the toilets from the header tank and then the header tank is topped up by the pump inside the underground tank.

In periods without rainfall the water level inside the underground tank will drop. When the rainwater level is too low the pump will stop pumping harvested rainwater to the header tank. This in turn will result in the rainwater level in the header tank dropping. Inside the header tank there is a floating ball valve which controls the top-up of mains water into the header tank in periods with no rain. This means that the system maximises the use of all available rainwater and even when it has not rained for a long time and the tank is empty, the mains water back up operation is all automatic.

Maintenance of rainwater harvesting system components:

There is very little maintenance required for your rainwater harvesting system to work. However the British Standard BS 8515:2009 does recommend some procedures as follows.

System component	Operation	Notes	Frequency
Gutters/Downpipes	Inspection/ Maintenance	Check that there are no leaks or blockages due to build up of debris; clean the gutters if necessary	Annually
Filter	Inspection/ Maintenance	Check the condition of the filter and clean, if necessary	Annually
Storage Tank/Cistern	Inspection	Check that there are no leaks, that there has been no build up of debris and that the tank is stable and the cover is correctly fitted	Annually
	Maintenance	Drain down and clean the tank	Every 10 years
Pumps and Pump Control	Inspection/ Maintenance	Check that there are no leaks and that there has been no corrosion; carry out a test run; check the gas charge within the expansion vessel or shock arrestors	Annually
Back-up water supply	Inspection	Check that the back-up supply is functioning correctly, that there are no leaks and that the air gaps are maintained	Annually
Control Unit	Inspection/ Maintenance	Check that the unit is operating appropriately, including the alarm function where applicable	Annually
Water Level Gauge	Inspection	Check that the gauge indication responds correctly to the water level in the tank	Annually
Wiring	Inspection	Visually check that the wiring is electrically safe	Annually
Pipework	Inspection	Check that there are no leaks, that the pipes are watertight and that overflows are clear	Annually
Markings	Inspection	Check that warning notices and pipework identification are correct and in place	Annually
Support and Fixings	Inspection/ Maintenance	Adjust and tighten, where applicable	Annually

NB. These frequencies are recommended if no information is given by the manufacturer.

It is important for the cleanliness of the harvested rainwater that the guttering and downpipes are kept in good condition and ideally not blocked with leaves or moss. Also keep them free from leaks and splits in order to maximise the use of rainwater and save as much mains water costs as possible.

The tank has a guarantee for 5 years issued by the manufacturer. The manufacturer suggests that the tank should be emptied and cleaned out every six years. This will ensure that overtime the water will not discolour due to any build up inside the tank.

The pump and the 'in-line' filter is self-cleaning but it is advised that a visual check be made annually and if required a simple rinse wash. This should be carried out by a qualified professional (i.e. GRAF, or a qualified plumber) as the filter is located in the underground tank and accessed by removing the Green manhole cover located externally.

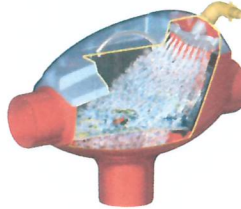
Product list and locations at the property:

GRAF Flat Platin Tank (390000)– outside property

Manhole Cover (371010) – lid on top of the tank outside the property



Minimax Pro Internal Filter (340093) – situated inside the top of the Platin underground tank



Integra Inox (354018) - submersible pump with floating extraction hose – located within underground tank



20 Gallon Header Tank with Drip Tray (H/TANK20G) – storage tank with valves – located within loft space of home



WARRANTY CERTIFICATE

Otto Graf GmbH
Kunststofferzeugnisse



Dear Sir or Madam,

Congratulations on the purchase of a quality product from Otto Graf GmbH.
Herewith we confirm a 15 years' warranty on the

GRAF flat tank Platin



Warranty clause

Above mentioned 15 years' warranty only refers to the underground tanks and not to individual parts or accessories, even if included in the package price.

Within the warranty period we offer free material replacement, further indemnifications are excluded. In order to grant warranty services we require correct handling, assembly and installation according to the installation manual. The warranty is only valid with the proof of purchase. Please also refer to our general business conditions.

Teningen, May 2016

Otto GRAF GmbH
Carl-Zeiss-Str. 2-6
79331 Teningen
Germany
www.graf.info

Installation and maintenance instructions for PLATIN Rainwater Underground Tank

1500 L	Order No. 390000
3000 L	Order No. 390001
5000 L	Order No. 390002
7500 L	Order No. 390005



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 tank must be checked for any damage prior to insertion into the trench under all circumstances.

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

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1. General notes

1.1 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.

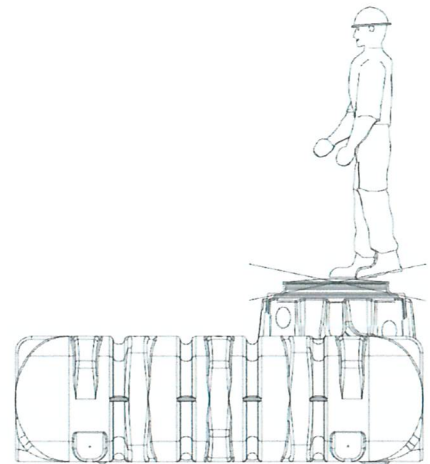
The relevant regulations and standards must additionally be taken into consideration during installation, assembly, servicing, repair, etc. Relevant notes can be found in the corresponding sections of these instructions.

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.

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. The rain protection installed on delivery is merely transportation packaging. It cannot be walked on and is not child-proof; it must be replaced with a suitable cover immediately following delivery (telescopic dome shaft with corresponding cover)!

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 other accessories may lead to impediments to the system's functional capability, therefore invalidating liability for resulting damage.

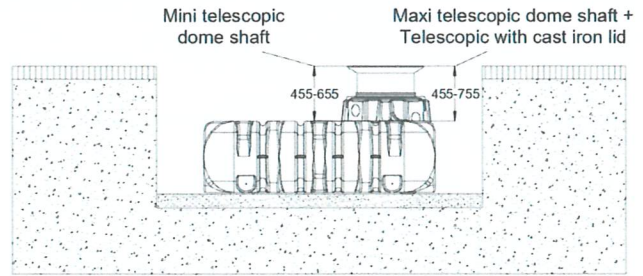


1.2 Identification obligation

All service water pipes and outlets must be identified in writing with the words "**Not drinking water**" or in the form of images (DIN 1988 Part 2, Para. 3.3.2.) 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**.

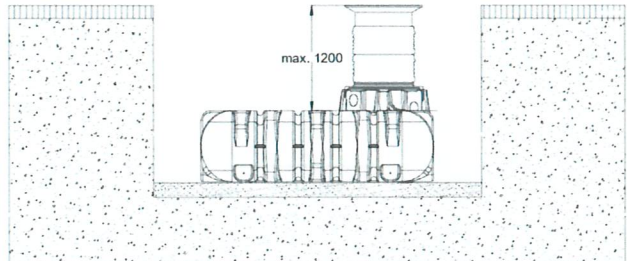
2. Installation conditions

Coverage heights with telescopic dome shaft in green areas.



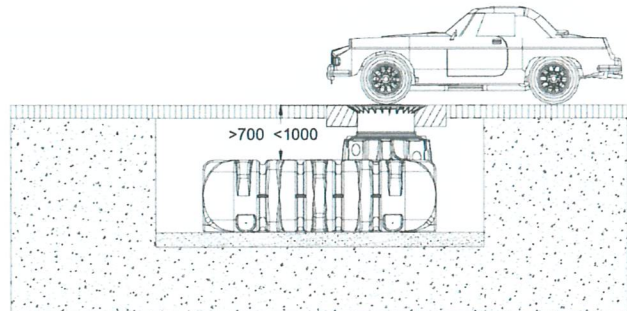
Maximum coverage heights with intermediate section and telescopic dome shaft.

(in green areas only – not under areas used by passenger cars)



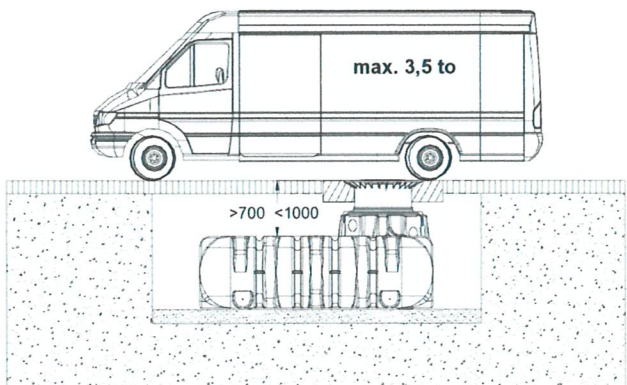
Coverage heights with cast telescopic dome shaft (class B) in areas used by passenger cars.

(without groundwater and stratum water)



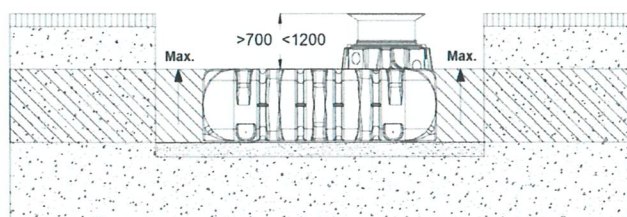
Coverage heights with cast telescopic dome shaft with cast iron lid or Begu (with cover class B respectively D - to be provided at construction site). Maximum load of the area used by passenger cars 3,5 to.

(without groundwater and stratum water)

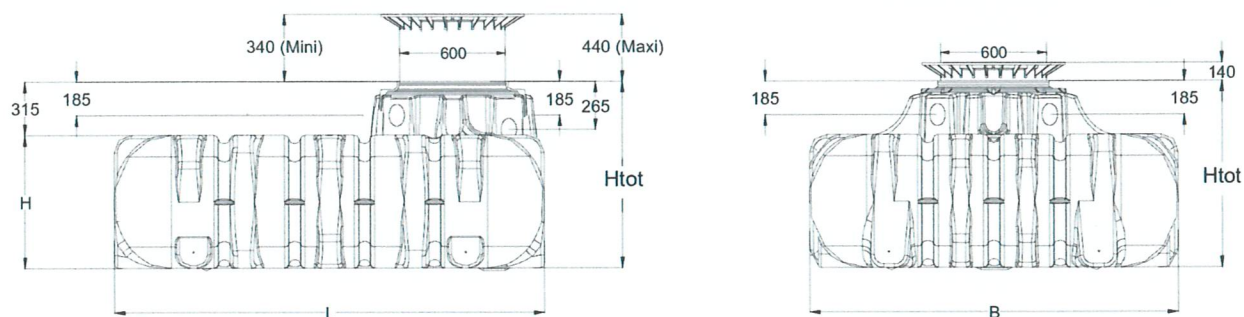


Coverage heights on installation in groundwater – the hatched area specifies the permissible immersion depth for the tank.

(not under areas used by passenger cars)



3. Technical data



Tank	1500 L	3000 L	5000 L	7500 L
Art. No.	390000	390001	390002	390005
Weight	82 kg	180 kg	250 kg	360 kg
L	2100 mm	2450 mm	2890 mm	3600 mm
W	1250 mm	2100 mm	2300 mm	2250 mm
H	700 mm	735 mm	950 mm	1250 mm
Htot*	1015 mm	1050 mm	1265 mm	1565 mm

* Htot = total height

4. Tank structure

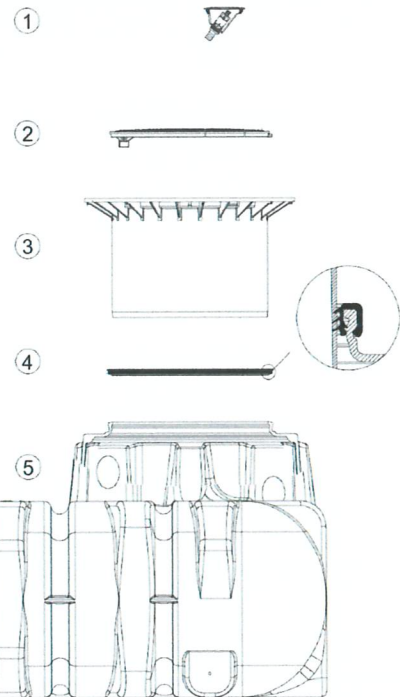
① Water connector box internal (optional)

② PE cover for telescopic dome shaft

③ Telescopic dome shaft (can be inclined by 5°)

④ Profile seal

⑤ Tank dome



5. Installation and assembly

① Subsoil

② Telescopic dome shaft

③ Compacted foundation

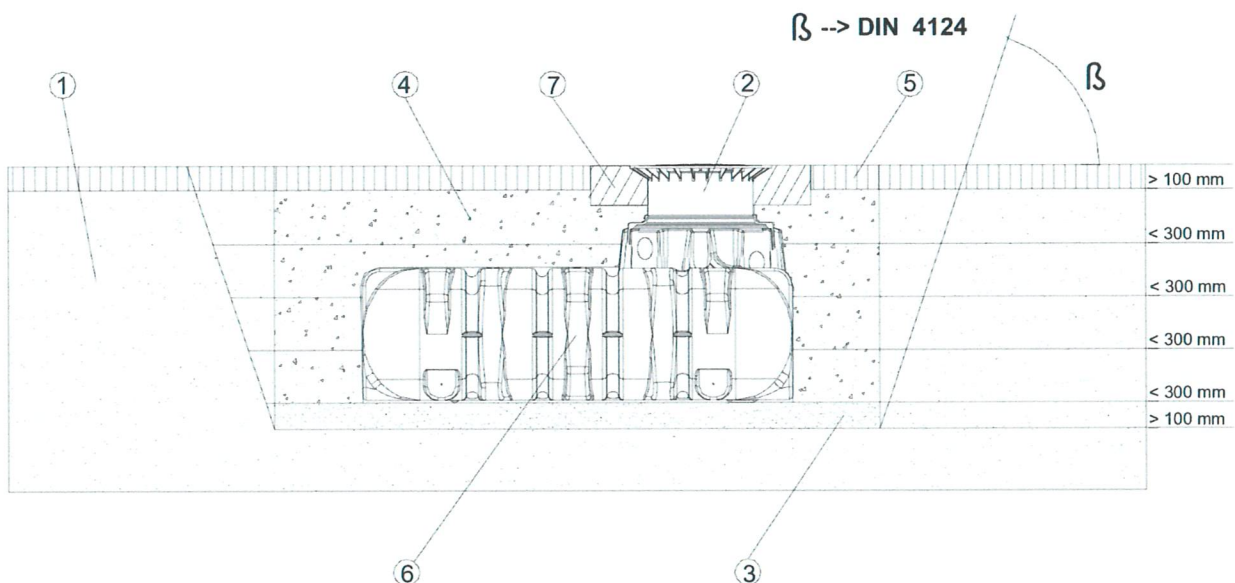
④ Surrounding (round-grained gravel, max. grain size 8/16)

⑤ Covering layer

⑥ PLATIN Rainwater Underground Tank

⑦ Concrete layer for surfaces used by passenger cars

β --> DIN 4124 from 1250 mm depth of the trench



5. Installation and assembly

5.1 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.

5.2 Trench

To ensure that sufficient space is available for working, the base area of the trench must exceed the dimensions of the tank by > 100 mm on each side; the distance from solid constructions must be at least 1000 mm.

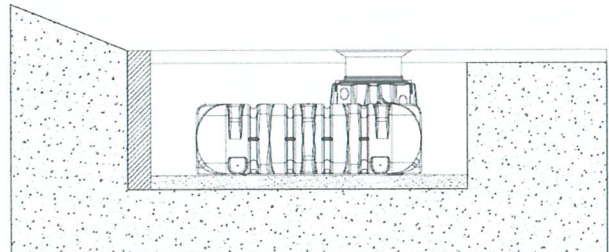
If the depth of the trench is > 1250 mm an embankment must be designed according to DIN 4124. The construction site must be horizontal and plane and must guarantee sufficient load-bearing capacity.

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. 100 - 150 mm) is applied as the foundation.

5.2.1 Slope, embankment, etc.

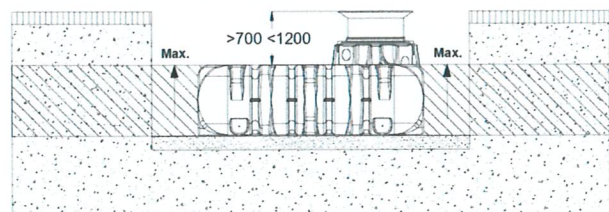
On installation of the tank in the immediate vicinity (< 5 m) of a slope, earthen mound or slope, a statically calculated supporting wall must be erected to absorb the soil pressure. The wall must exceed the dimensions of the tank by at least 500 mm in all directions, and must be located at least 1000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



5.2.2 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).

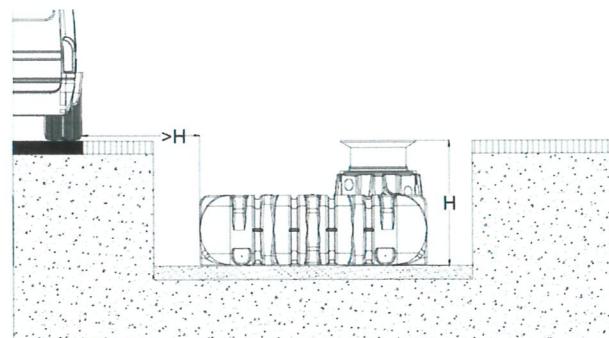
Dissipation of the drainage water (e.g. via an annular drainage system) is recommended in the case of cohesive, water-impermeable soils.



Tank	1500 L	3000 L	5000 L	7500 L
max. immersion depth	700 mm	735 mm	950 mm	1250 mm

5.2.3 Installation adjacent to surfaces used by vehicles

If the underground tanks are installed adjacent to surfaces which are used by heavy vehicles weighing over 3,5 t, the minimum distance away from these surfaces is at least the depth of the trench.

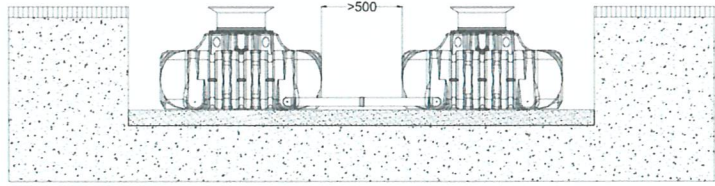


5. Installation and assembly

5.2.4 Connection of several tanks

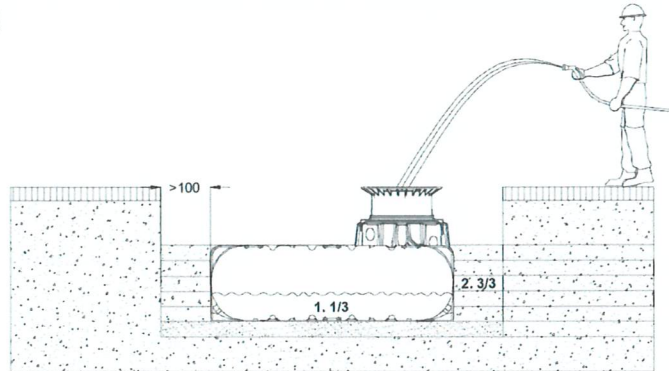
Two or more tanks are connected via the assembly surfaces by means of GRAF special seals and basic pipes (to be provided at construction site).

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 500 mm. The pipes must pro



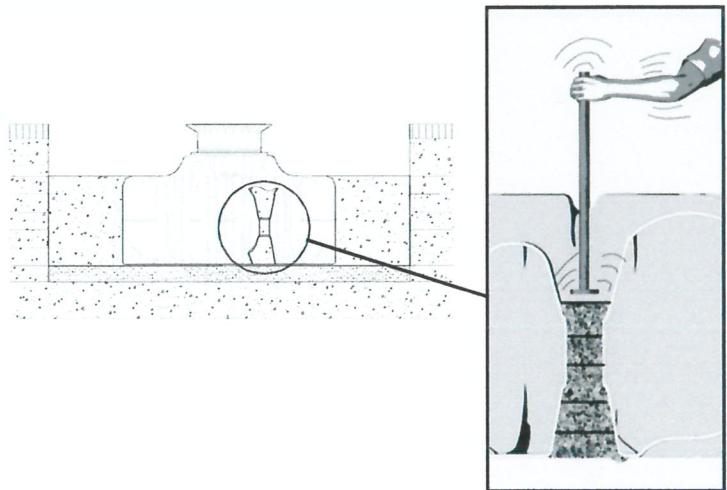
5.3 Insertion and filling

The tanks must be inserted, impact-free, into the prepared trench using suitable equipment. To avoid deformities, the tank is filled 1/3 with 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 as well as the medial support column 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 towards the trench must be at least 100 mm wide.

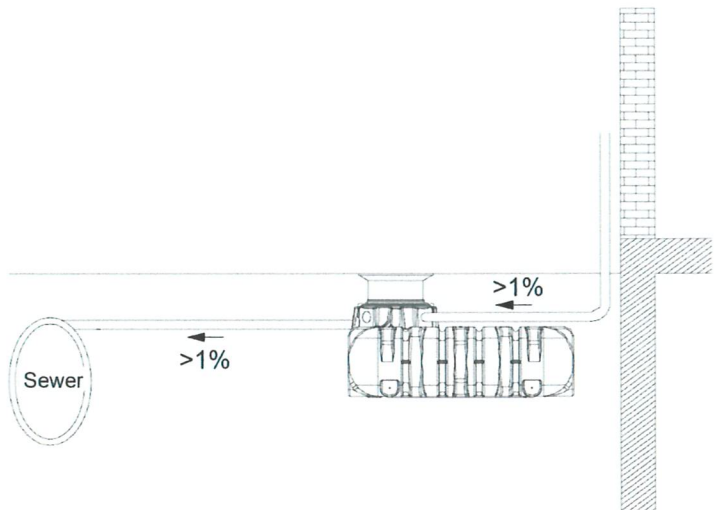


5.4 Routing connections

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.

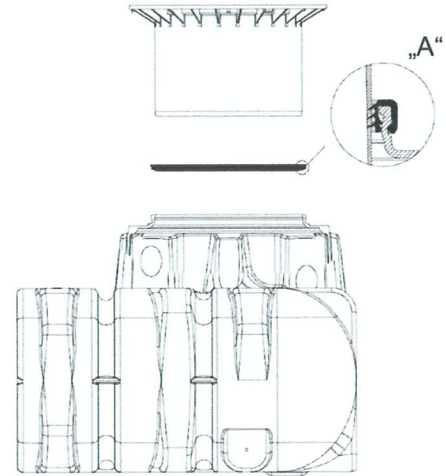
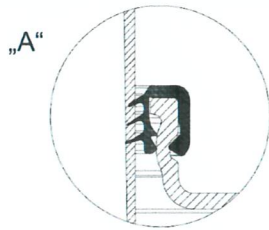


6. Assembling the and telescopic dome shaft

6.1 Assembling the telescopic dome shaft

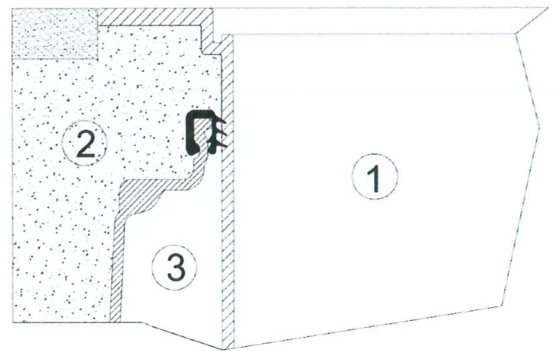
The telescopic dome shaft enables infinite adaptation of the tank to given site surfaces with earth coverage of between 455 mm and 655 mm (Mini telescopic dome shaft) or 455 mm and 755 mm (Maxi telescopic dome shaft).

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.



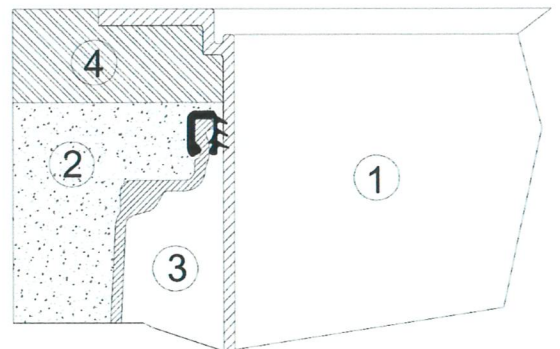
6.2 Telescopic dome shaft on which persons may walk

Important: To prevent loads from being transferred onto the tank, round-grain gravel ② (max. grain size 8/16) is filled in in layers around the telescope ① 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!**



6.3 Telescopic dome shaft over which passenger cars may drive

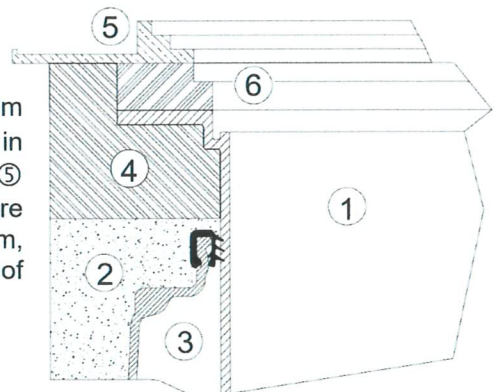
If the tank is installed under areas used by passenger cars, the collar area of the telescope ① (colour anthracite) must be supported with concrete ④ (load class B25 = 250 kg/m²). The layer of concrete to be installed must be at least 300 mm wide and approx. 200 mm high all around. The permitted coverage above the shoulder of the tank is min. **700 mm** and max. **1000 mm**. There are different possibilities for lengthening the tank dome (315 mm): telescopic dome shaft with cast iron lid or Begu (max. effective length 440 mm) as well as the Adapter (max. effective length 300 mm).



Attention: Use the cast cover under all circumstances.

6.4 BEGU 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 6.3. 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 700 mm, max. 1200 mm). The cast frame must have a supporting area of approx. 1 m².



7. Assembly of the adapter

7.1 Assembling the adapter

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

1 Adapter = max. earth-cover 955 mm respectively 1055 mm

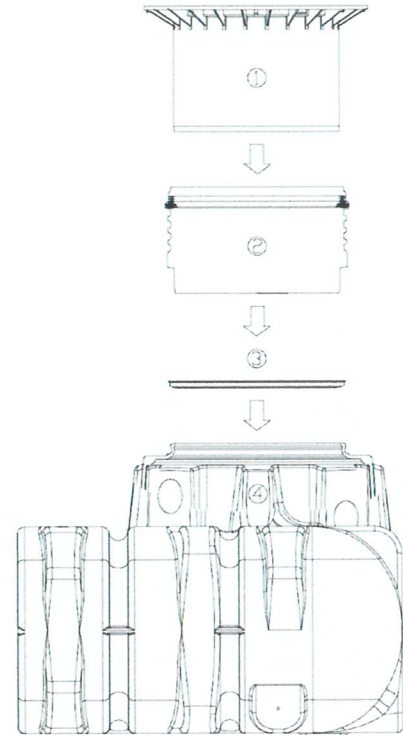
(in connection with Mini respectively Maxi telescopic dome shaft)

① Telescopic dome shaft (can be inclined by 5°)

② Adapter

③ Profile seal

④ Tank dome Platin



8. 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.

Instruction for installation and maintenance GRAF MINIMAX-PRO Filter internal

MINIMAX-PRO Filter internal

with curved / straight outlet

Order No. 340093

Platin Package 3
Order No. 342038

Carat Package
Order No. 340119



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.

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1. General notes

1.1 Safety

A second person is required for health & safety, in particular when entering 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 entire system must always be taken out of action & secured against being switched on again whilst work, repair or maintenance is carried out on parts of the system or the system.

Except when working in the tank; the tank cover must always be kept closed due to acute danger of accident.

GRAF offers an extensive range of genuine parts & accessories, all of which are designed to ensure the system performs as specified. The use of non-genuine Grafparts or accessories may lead to the system's functional capability or failure, therefore invalidating Warranties & Guarantees and liability for resulting damage.

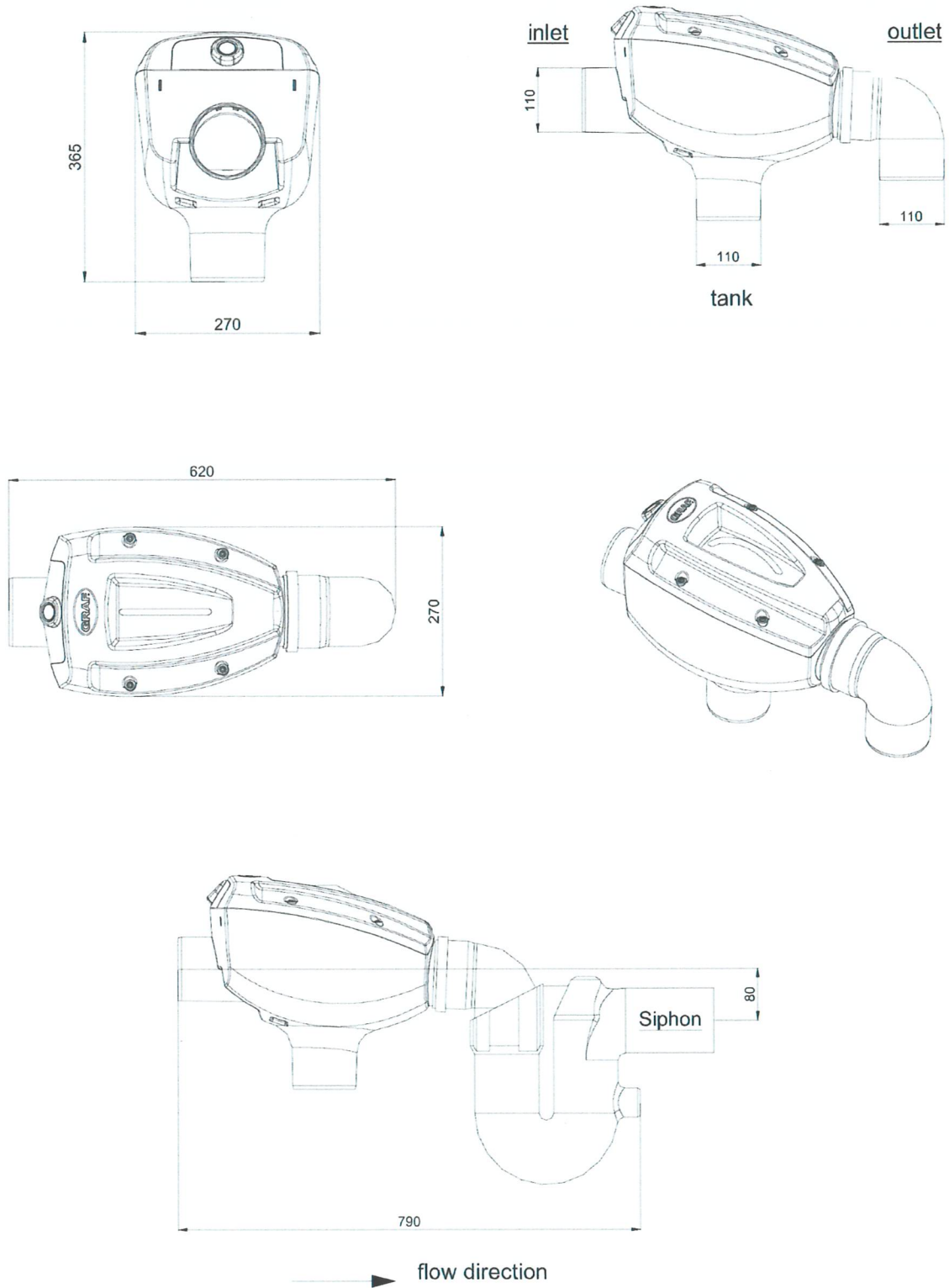
2. Installation conditions

2.1 MINIMAX-PRO Filter internal

- The MINIMAX-PRO Filter is suitable for installation in a manhole or a underground tank.
- The difference in height between inlet and outlet is around 10 mm with a straight outlet and 80 mm with a curved outlet.
- The filter is suitable for roof areas up to 350 m².
- The mesh width of the sieve insert is 0.35 mm.

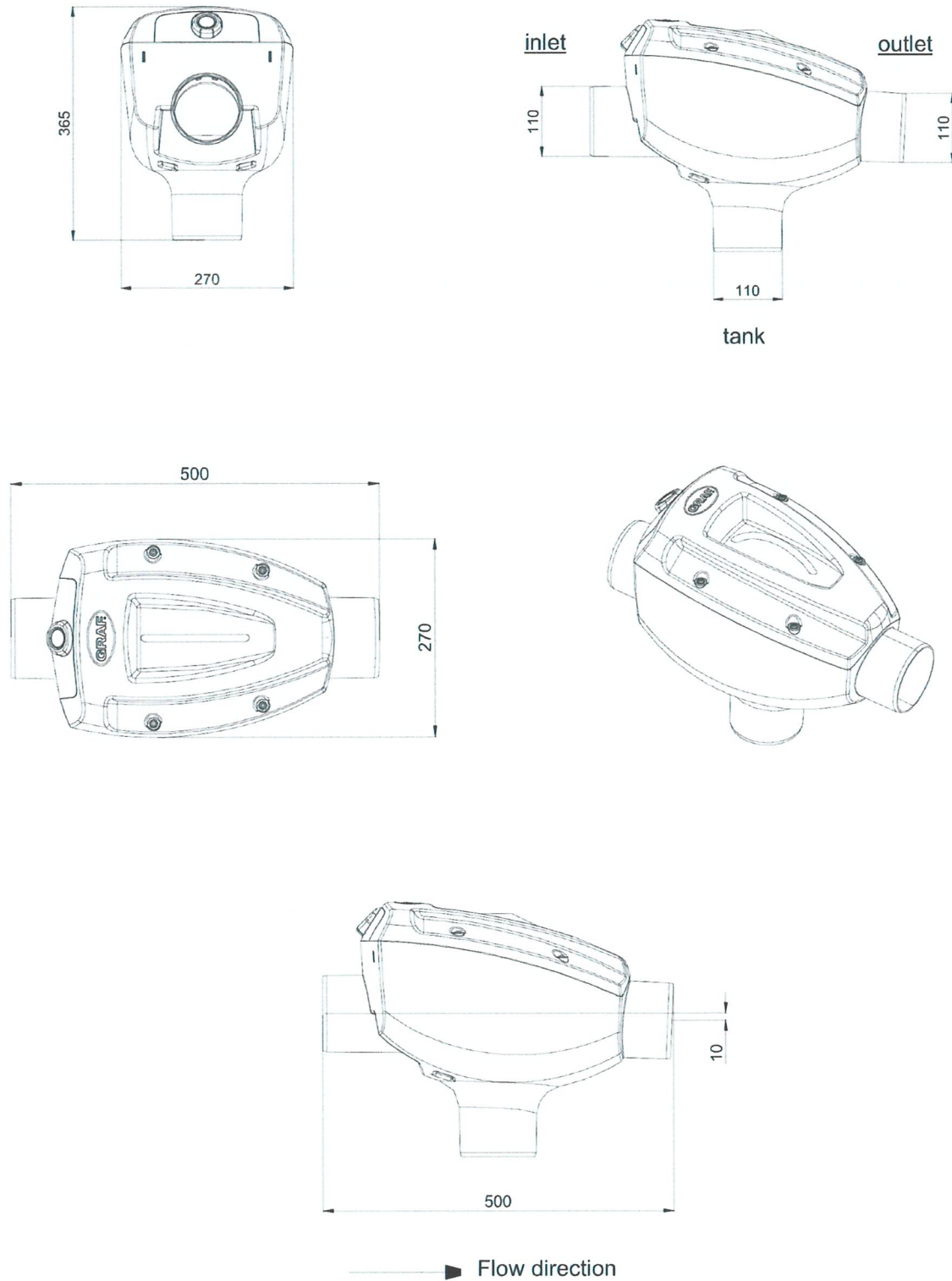
3. Technical data

3.1 Dimensions with curved outlet



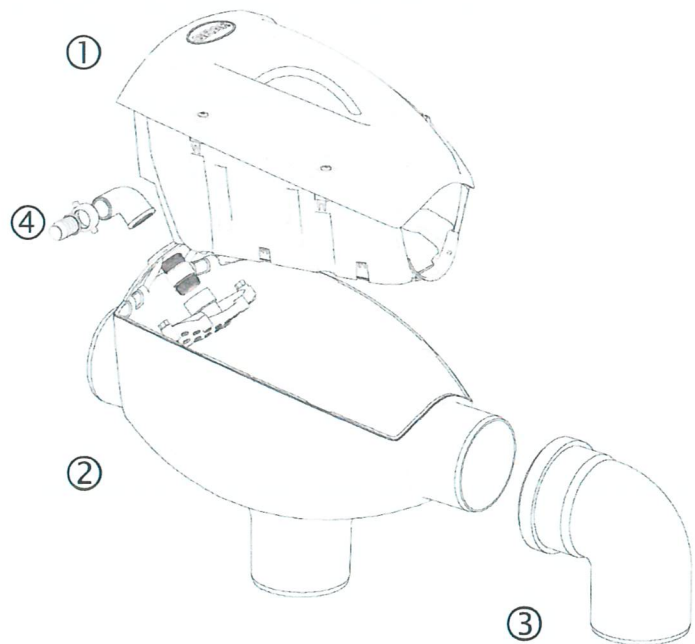
3. Technical data

3.2 Dimensions with straight outlet



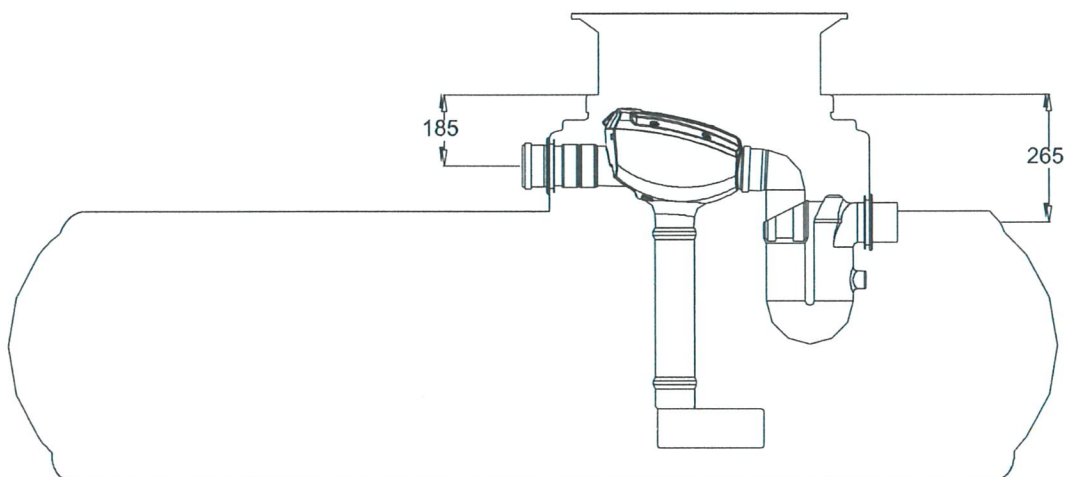
4. Assembly

- ① Clear transparent cover/
Filter insert
- ② Housing including nozzle holder
- ③ Outlet bend 87°
- ④ Optional cleaning unit
(340040)



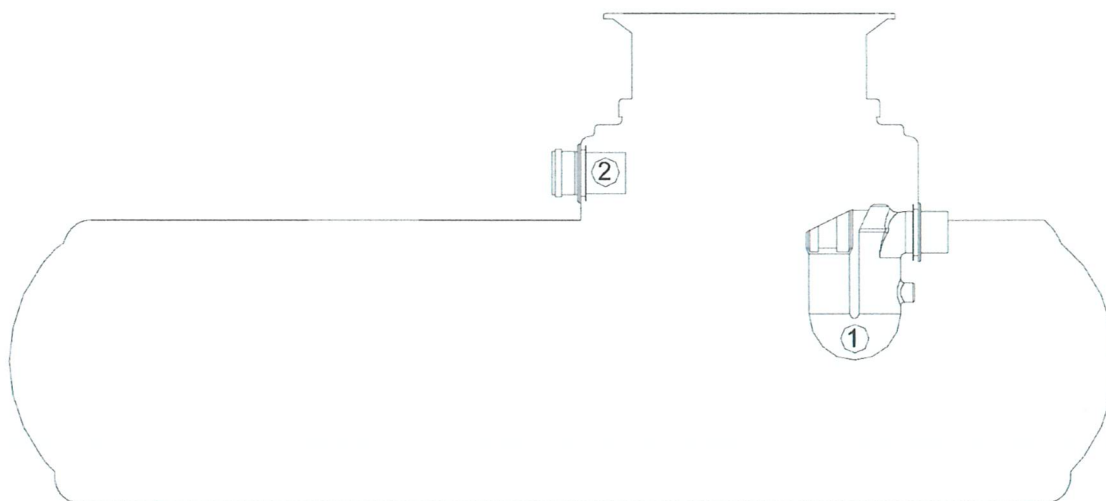
5. Installation and assembly

5.1 Overview Platin tank / Filter with curved outlet



5. Installation and assembly

5.2 Installation of inflow pipe and overflow siphon



- ① Insert the overflow siphon in the lower seal till block.
- ② Insert the inflow pipe DN100 from outside.

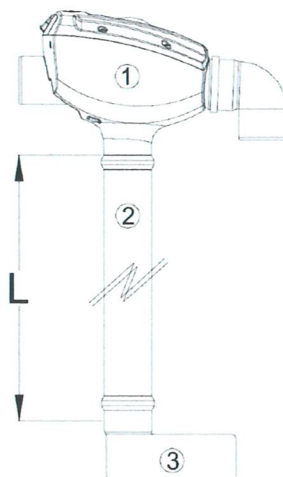
5.3 Preparation filter for installation

Connect the filter body ① with a PVC pipe DN 100 ② (on site) with the inflow Calming Foot ③ (contained in filter package 342038).

Secure or connections with Self Tapping screws to prevent connections separating.

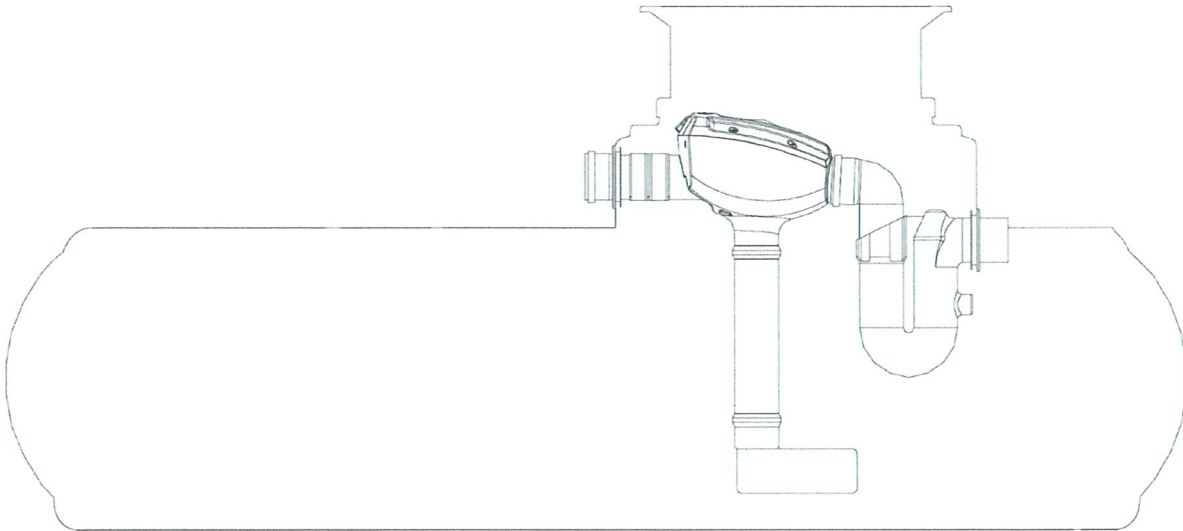
Platin tank	1500 L	3000 L	5000 L	7500 L
[L]	470 mm*	500 mm*	675 mm*	1075 mm*

* (+/- 10 mm)



5. Installation and assembly

5.4 Insert the filter into the tank

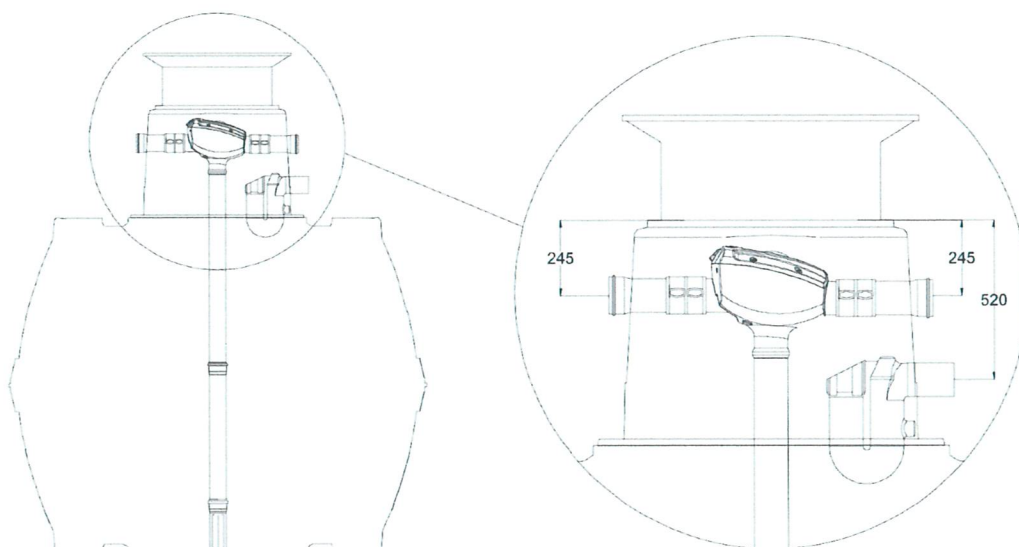


Insert the filter, prepared with the inflow Calming foot, in the tank.

Slide the outlet bend of the filter into the overflow siphon from above, align the supply pipe flush with the filter and then fix with the quick-connection sleeve (included in filter package 342038).

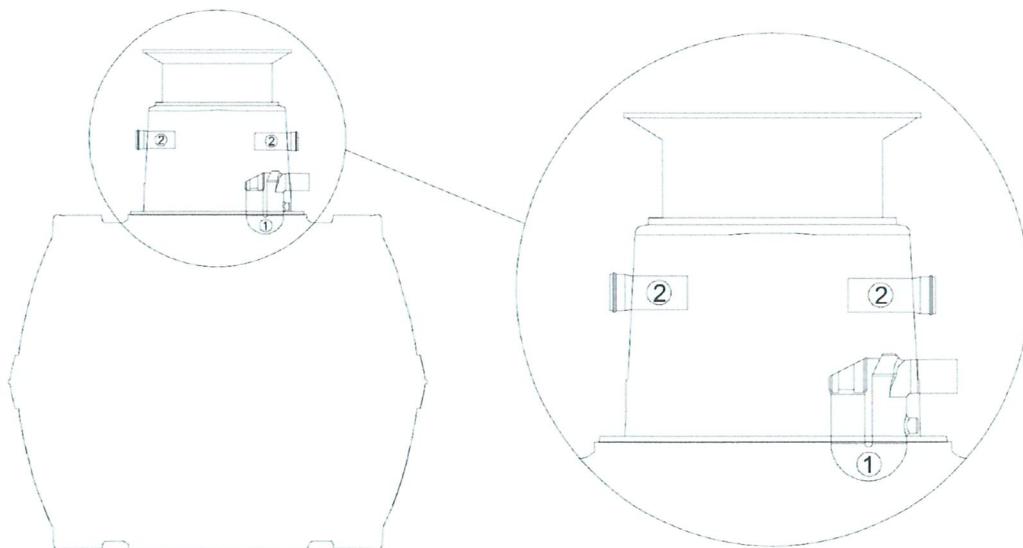
5. Installation and assembly

5.5 Overview of Carat tank / filter with straight outlet



5. Installation and assembly

5.6 Installation of inflow pipe and overflow siphon



- ① Insert the overflow siphon in the lower seal till block.
- ② Insert the inflow pipe DN100 from outside.

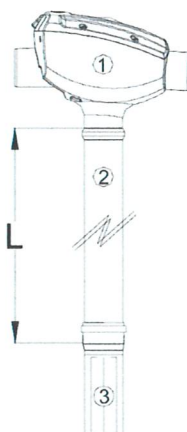
5.7 Preparation filter for installation

Connect the filter body ① with a PVC pipe DN 100 ② (on site) with the inflow Calming Foot ③ (contained in filter package 340119).

Fix all junctions with screws (against shift of pipes).

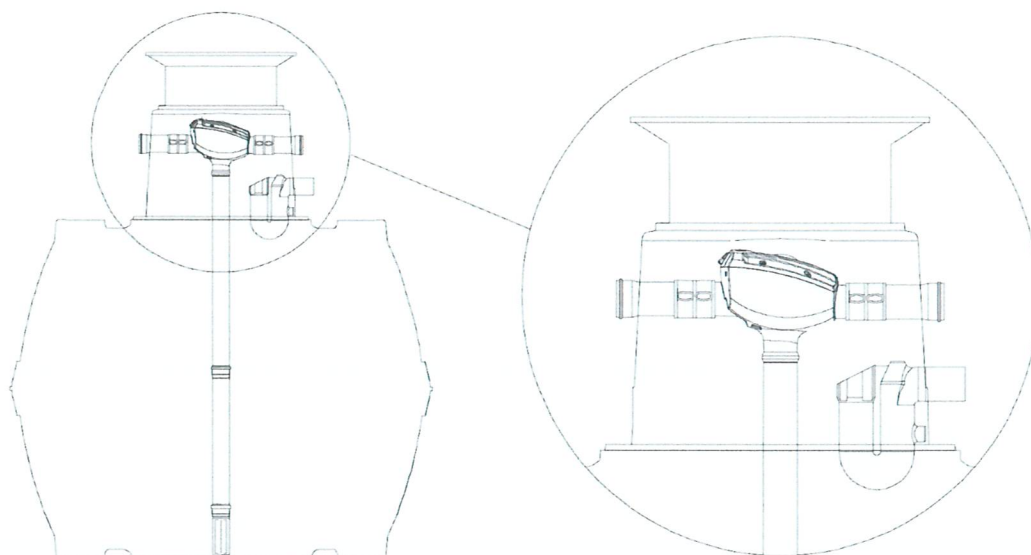
Carat tank	2700 L	3750 L	4800 L	6500 L	8500L	10000 L
[L]	1190 mm*	1380 mm*	1610 mm*	1890 mm*	1790 mm*	1990 mm*

* (+/- 10 mm)



5. Installation and assembly

5.8 Insert the filter into the tank



Insert the filter, prepared with the inflow Calming Foot, in the tank.

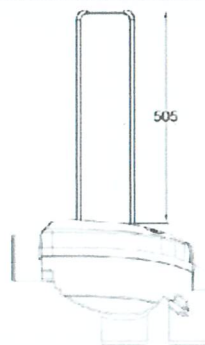
Align the supply and drain pipes flush with the filter and then fix with the two quick-connection sleeves (included in filter package 340119).

Rodent guards should never be installed in the Filter outlet as this could cause dirt to enter the drain and block the pipe.

6. Accessory

Handle XL for MINIMAX – PRO Filter

Order No. 330220



7. Maintenance

Depending on the dirtiness of the roof surface water the sieve has to be cleaned several times a year. Remove the transparent cover from the filter body. The sieve and the cover is one unit. Removing and cleaning is unproblematic.

STEELPUMPS

EVOLUTION

Code **X-AJE P**

Self-priming Jet centrifugal pump with electronic system

PLUS

UP/Down technology for submersed, surface or underground installation
Automatic system of water supply; dry-running protection
Antiblocking system every 72 hours of pump inactivity
Protection rating IP 68

MATERIALS

Motor body: Aisi 304
Technopolymer flange and pump body
Shaft: Aisi 420
Diffuser, Impeller and Venturi Jet: Noryl
Rear cap: Polypropilene
Basis: Aisi 304
Mechanical seal: Graphite ceramics
Mechanical seal lubricated by a special oil chamber
A2 Stainless steel bolts
NBR70 O-ring
H07RN-F Electric cable 10m length with Schuko plug
Tropicalized circuit board in compliance with the RoHS directive

ELECTRICAL FEATURES

Code	P2 Nom.		3~ 50Hz Amp.		1~ 50Hz Amp.	Cap. μ F
	kW	HP	230V	400V	230 V	
X-AJE 80P	0.60	0.8	2.2	1.5	4.5	16
X-AJE 100P	0.75	1	3	1.9	5.3	16
X-AJE 120P	0.90	1.2	3.6	2.3	6.3	18

Class F insulated motor S1 Motor Service Factor

HYDRAULIC FEATURES

Code	Q (l/min) FLOW						
	0	10	20	30	40	50	60
	H HYDRAULIC HEAD						
	m						
X-AJE 80P	40	33	30	24	20	15	
X-AJE 100P	47	40	35	30	25	20	5
X-AJE 120P	49	43	38	32	30	24	8

CHARACTERISTICS AND INSTALLATION

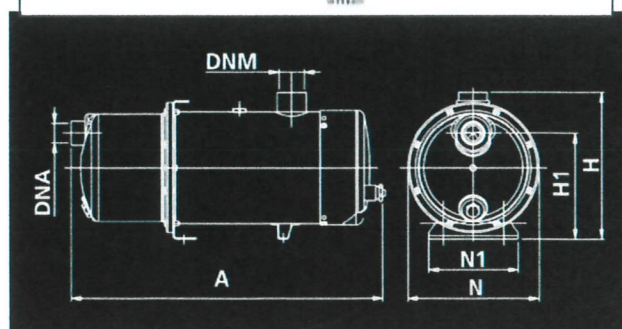
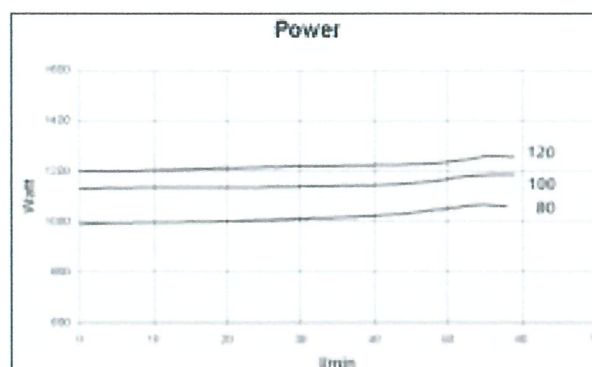
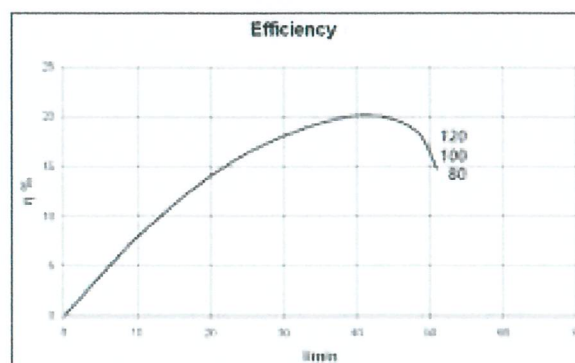
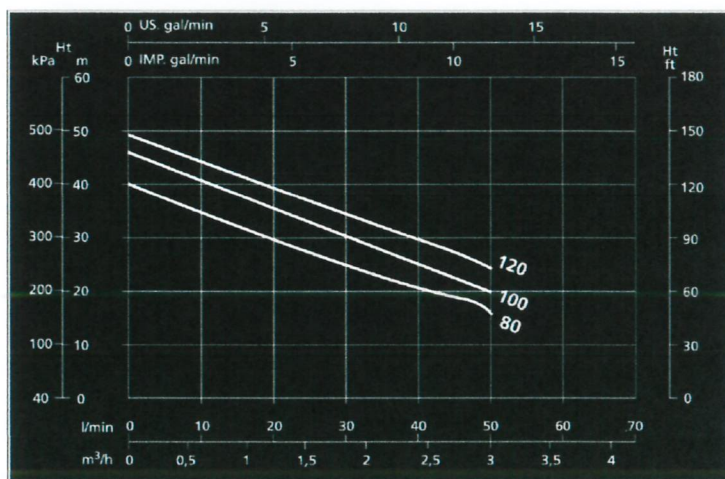
Drained liquid	Clean water
Liquid temperature range	+2°C ÷ +37°C
Air temperature	max +45°C
Maximum depth	max 5 m
Calibrating pressure rate switch	1.5 bar

MEASUREMENTS

Code	Measures							Weight kg
	A	N	H	H1	N1	DNM	DNA	
X-AJE 80P	447	200	226	163	136	1"1/4	1"	11.5
X-AJE 100P	477	200	226	163	136	1"1/4	1"	12
X-AJE 120P	477	200	226	163	136	1"1/4	1"	13



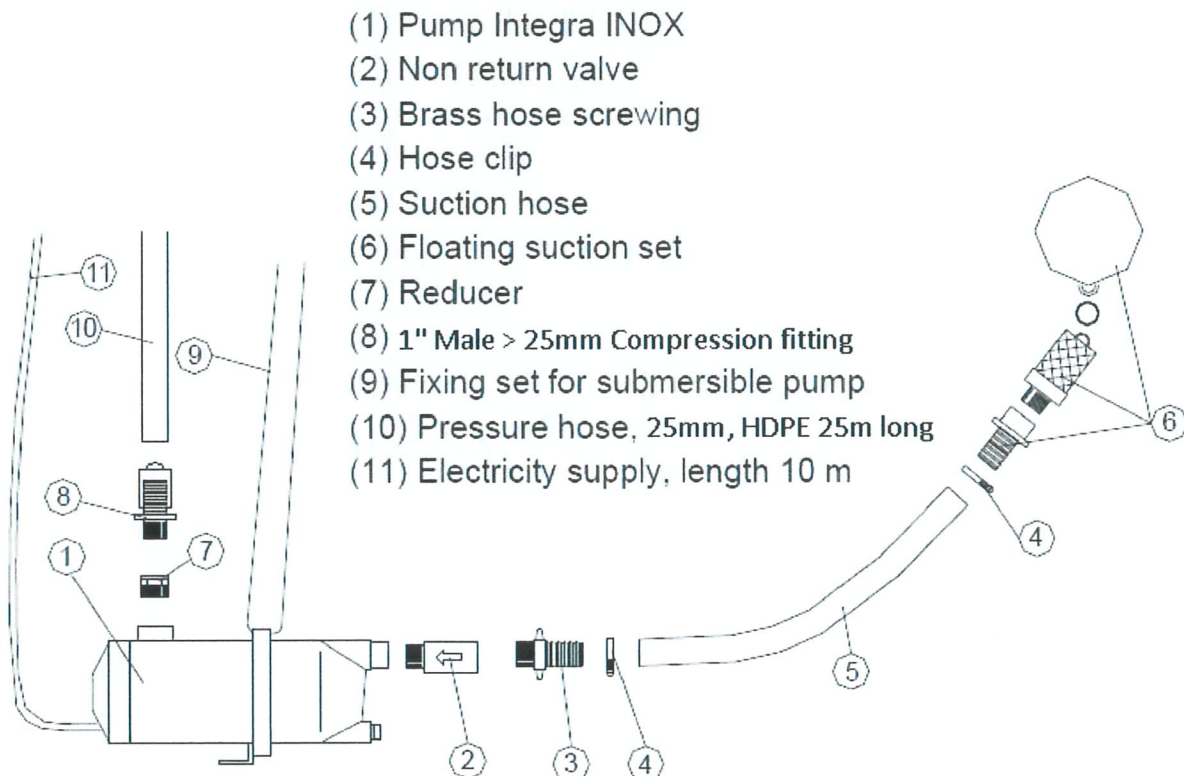
CE



Integra Inox Installation Instructions

Please see the details below for installing a mains water backup unit with a submersible pump:

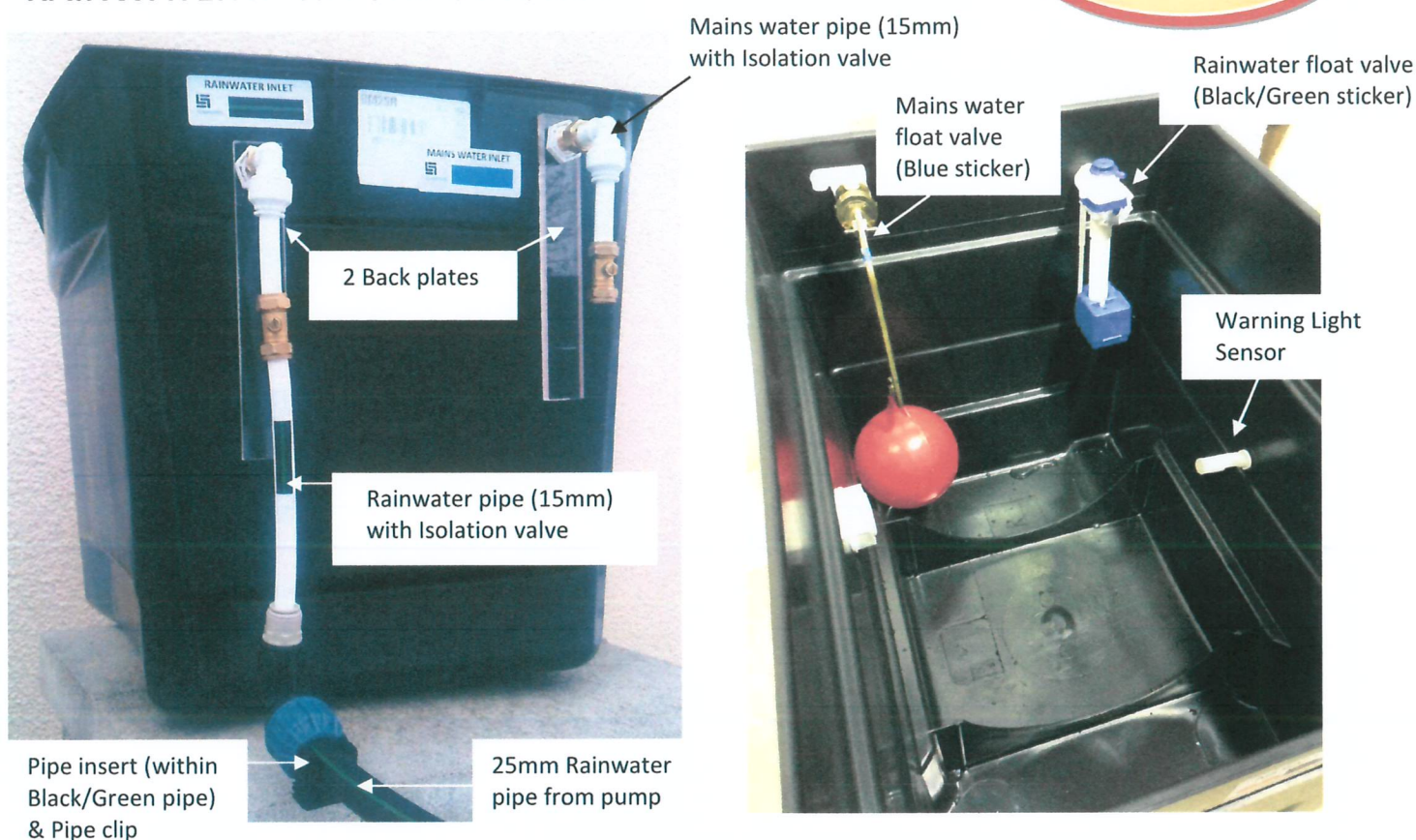
- When installing a submersible pump with the RWH b/g ridged pipe you will require the following fittings;
 1. 25mm > 25mm elbow.
 2. 1 1/4" Male > 1" Female Reducer.
 3. 1" Male > 25mm Compression fitting.
- The RWH b/g ridged pipe which enters the tank through the 100mm underground pipe is cut to leave about 30mm-50mm within the dome.
- The 25mm > 25mm elbow fits on to the end of this pipe dropping down into the tank.
- The 1" Male > 25mm Compression fitting connects to the submersible pump via the 1 1/4" Male > 1" Female Reducer with a length of RWH b/g ridged pipe attached.
- The mains plug on the submersible pump should then be fed through the 100mm underground pipe back into the property (please note that the mains plug cable is **10 meters** long). Should the tank be located further away than 10 metres then a 3 core electrical cable should be run from the property to the tank where a socket (with water proof casing) should be installed. The submersible pump plug can then be connected safely and securely.
- The pump is dropped into the tank (floating intake attached) and connected to the 25mm -> 25mm elbow. This allows for the pump to be retrieved from the tank if this is a future requirement.
- The RWH b/g ridge pipe which has been fed through the underground pipe into the property connects directly on to the pipe which feeds the WC facilities. This should be done with a 25mm compression -> 15mm Speedfit Push fitting (or a similar alternative).
- The mains water backup unit should be installed within the property or a closed space.



- The mains water inlet pipe should be connected up with 15mm Speedfit pipe or a similar alternative which runs through the rest of the property.
- The mains water outlet pipe (22mm waste pipe or a similar alternative) should be fed from the property back to the tank in the 100mm underground pipe. This supplies mains water to the rainwater harvesting tank should the level instead the tank drop below a certain height.
- The float switch cable also needs to run through the underground pipe from the property to the tank. The float switch box is then tied to the bottom of the tank, usually onto the vertical calmed inlet pipe; 1-2 feet from the base of the tank. Care needs to be taken to provide room for the box to be able to tilt up and down so the system functions correctly.

The fittings in the above description should have been sent out with the original order. If you do not have these I can make arrangements for them to be sent to you.

HEADER TANK ASSEMBLY INSTRUCTIONS FOR RAINWATER HARVESTING SYSTEM



Fittings supplied

- Rainwater pipe (15mm) with Isolation valve
- Mains water pipe (15mm) with Isolation valve
- Mains water float valve
- Rainwater float valve
- Overflow Tank Connector (32mm)
- Level Sensor
- Rainwater outlet Tank connector
- Rainwater outlet pipe (22mm) with Isolation valve
- 2 Back plates
- Pipe insert
- Pipe clip

**N.B. Float valves must be fitted as shown to ensure that the system conforms to British standards.
All connections should be checked when commissioning.**

Rainwater outlet pipe (22mm) with Isolation valve

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