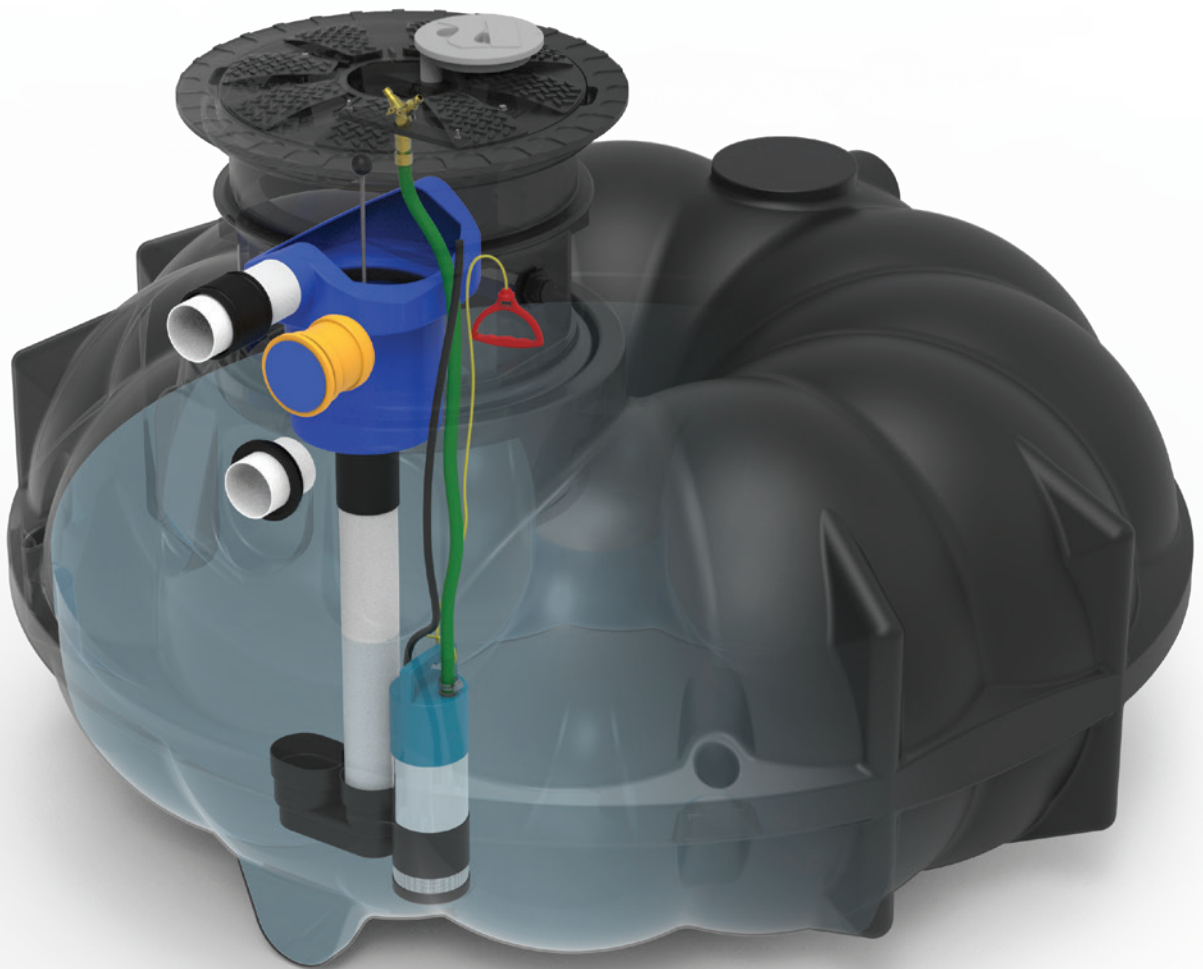


REWATEC™

Rainwater harvesters



Rainwater harvesters – Installation guide

With your purchase of a Rewatec rainwater harvester, you can enjoy a free and natural resource while helping to conserve precious drinking water. We thank you for your trust in us and commend you for choosing this environmentally responsible solution.

This guide has all the information you need to assemble and install your Rewatec rainwater harvester. For a list of installers trained by Premier Tech, contact our customer service team at **+1 800 632-6356**.

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1. General information

1.1 Safety regulations and best practices

The person in charge of installing the system must:

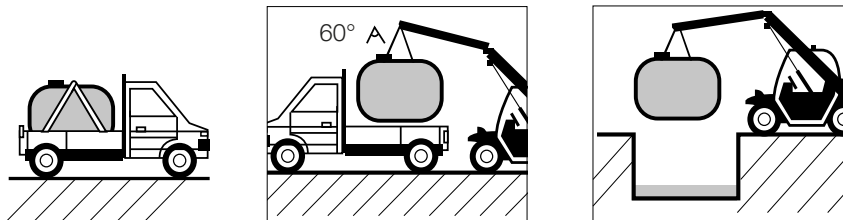
- select the most appropriate tank and accessories for the project's site characteristics and soil type;
- have all information required to transport, handle, install, use, and operate equipment according to the manufacturer's instructions;
- comply with applicable health and safety regulations at every stage of the installation; and
- use appropriate equipment.

If the rainwater harvester will be used in the winter, we recommend that you insulate the tank and delivery pipes to avoid any risk of freezing. The use of a heating wire in the pipes is also possible.

System installation must comply with current regulations and industry best practices.

- Gutter and downpipe sections are defined in the current building code.
- To avoid confusion, indicate rainwater pipes and taps with a "non-potable water" label or image.
- For indoor use, a certified plumber must install a backflow prevention device (not included) in accordance with the current building code. It is the plumber's responsibility to choose the appropriate device.

1.1.1 Transport and handling



We recommend that you:

- secure the tank directly to the truck bed;
- unload the tank with appropriate handling means; and
- place the tank in the excavation with appropriate handling means.

1.2 Installation recommendations

1.2.1 Recommended distances

Respect the following distances when installing the rainwater harvester tank.

Reference Point	Distance
Residence	1.5 m (5')
Property line	1.5 m (5')
Top of an embankment	3 m (10')*
Tree	3 m (10')
Water supply line	1.5 m (5')
Marsh or pond	10 m (33')
Lake or watercourse	Outside the riparian buffer strip

*See section 1.2.2.

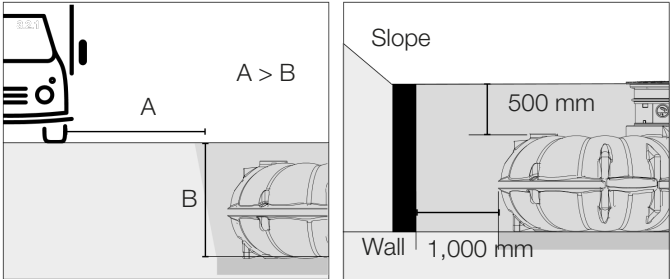
We recommend a minimum distance of 2 m between the rainwater harvester's infiltration well or trench and the residence's foundation drains. Check the regulations for rainwater infiltration in your municipality.

If the residence's wastewater is treated with an on-site septic system, especially a system that is not watertight, you must ensure that rainwater infiltration does not interfere with its operation. Calculations that include rising groundwater levels may be required in certain cases.

1.2.2 Heavy vehicles

If the tank is near a road used by heavy vehicles, the distance between the tank and the road (A) must be greater than the tank's depth (B).

If the tank is installed less than 3 m from a slope or embankment, erect a retaining wall at a distance of 1 m from the edge of the tank. The height of the retaining wall must exceed the height of the tank by at least 500 mm.



1.3 Tank preparation

Your Rewatec tank is designed to be buried. Aboveground installation is the sole responsibility of the system installer, who must backfill the periphery of the tank. The backfill must reach the mid-point of the tank's height.

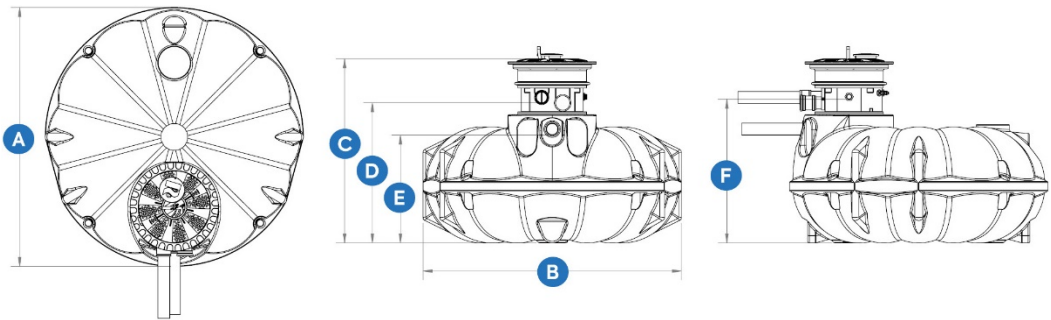
Tanks should not be placed in a building without backfill.

We stipulate the type of material to be used. See section 4.5 – Backfill.

2. Tank and components

2.1 Rewatec tank

	Model		
	NEO-300	NEO-500	NEO-700
Effective volume	3,000 L (680 US gal)	5,000 L (1,135 US gal)	7,000 L (1,590 US gal)
Length (A)	2,337 mm (92")	3,400 mm (133")	3,370 mm (132")
Width (B)	2,337 mm (92")	2,320 mm (91")	2,350 mm (92")
Height (C)	1,661 mm (65")	1,723 mm (67")	1,938 mm (76")
Rainwater inlet height (D)	1,266 mm (49")	1,328 mm (52")	1,540 mm (60")
Overflow outlet height (E)	974 mm (38")	1,017 mm (40")	1,232 mm (48")
Pumped outlet height (F) <small>For indoor use only</small>	1,297 mm (51")	1,359 mm (53")	1,574 mm (62")
Access points	1		
Access diameter	510 mm (20")		



2.2 Components



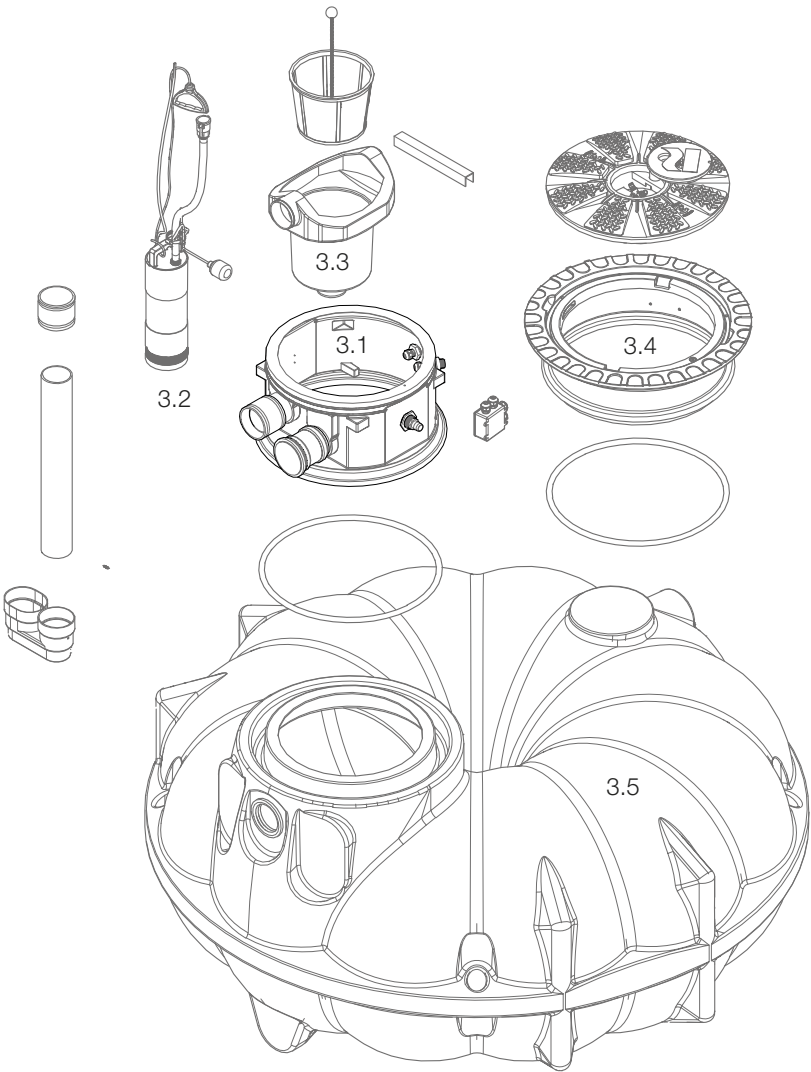
Components Provided	
1. Lid with water hose connection (two outlets)	11. Automatic submersible pump with 19 mm (3/4") threaded adapter
2. Rotomolded access	12. 1 x 30 m 12-2 electrical wire <i>or</i>
3. 3 x gasket	2 x 30 m 12-2 electrical wire*
4. Calming inlet	13. Pumped outlet adapter*
5. 19 mm (3/4") water hose	14. 2 x 100 mm (4") flexible adapter
6. Filtration unit shaft	15. Low-level float*
7. 600 mm cuttable riser	16. Electrical junction box
8. Filter basket with removal rod	17. 25 mm (1") threaded male adapter
9. Filter housing	18. Pump control handle
10. 110 mm (4-1/2") PVC pipe located in the tank	19. Solenoid valve panel*

* Included only in the kit for indoor and outdoor use.

Required equipment not provided:

- 100 mm (4") BNQ PVC pipes
- PVC glue
- thread seal tape
- water-based lubricant
- 13 mm combination wrench
- nut driver
- drill/driver with a square bit
- 100 lb, 25 mm (1") polyethylene pipe (for indoor use)
- manual tamping rammer

3. Assembly steps



Step	Description
3.1	Filtration unit shaft
3.2	Pump
3.3	Filter housing and calming inlet
3.4	Rotomolded access
3.5	Tank handling

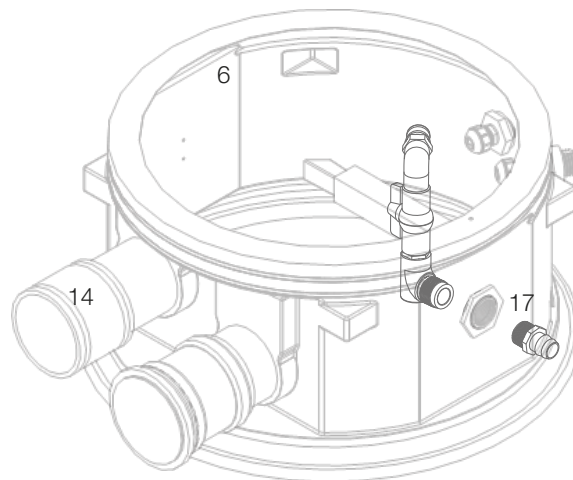
3.1 Filtration unit shaft

3.1.1 Rainwater inlet assembly

Insert the flexible adapter (14) into the upper inlet of the filtration unit shaft (6). Firmly tighten the metal collar.

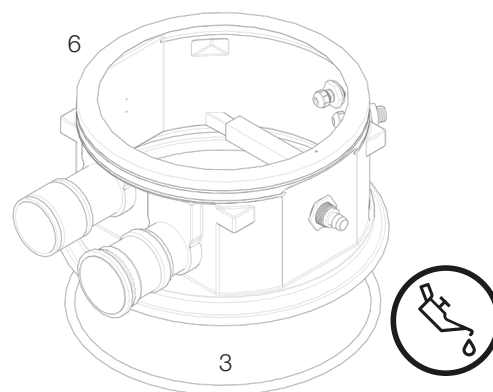
3.1.2 Lateral outlet assembly (indoor use only)

Apply thread seal tape to the threads on the male adapter (17). On the outside of the filtration unit shaft (6), screw the threaded male adapter into the central bulkhead fitting.



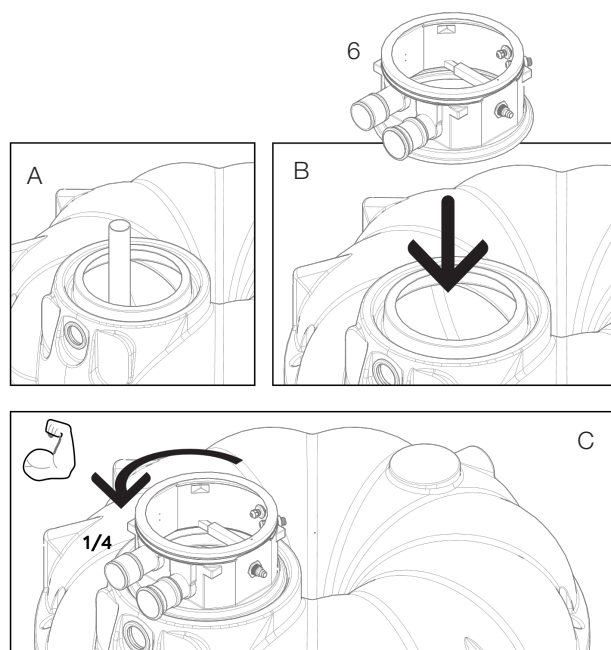
3.1.3 Gasket assembly

Cut the fastener that connects the gasket (3) to the filtration unit shaft (6). Turn the shaft over and insert the gasket into the groove. Generously lubricate the gasket with a water-based lubricant.



3.1.4 Filtration unit shaft assembly on the tank

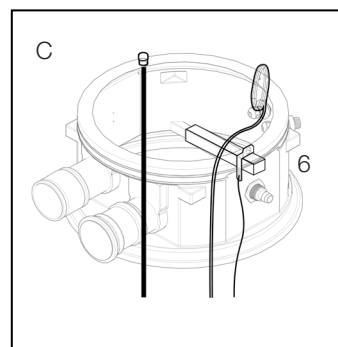
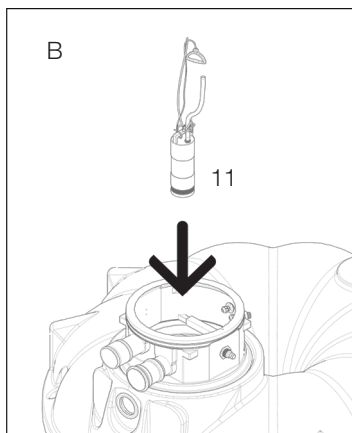
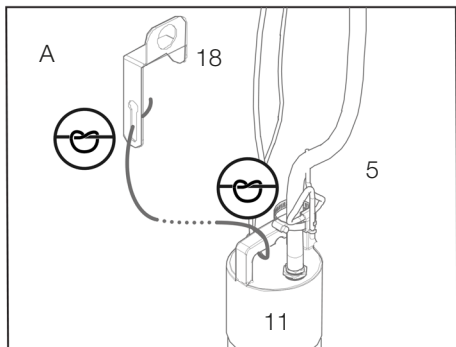
- Remove the PVC pipe from the tank.
- Place the filtration unit shaft (6) on the tank opening.
- Make a 1/4 counter-clockwise turn and press hard on the filtration unit shaft (6) until you hear a click. Align the upper outlets with the tank's overflow outlet.



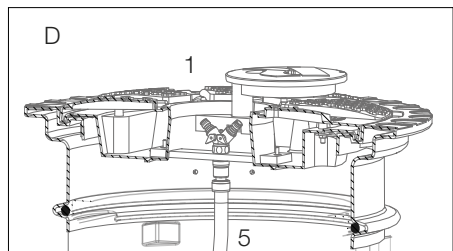
3.2 Pump

3.2.1 Outdoor use

- A. Pass one end of the cord through the pump handle and knot it. Pass the other end of the cord through the groove on the control handle (18) and make a knot on the other side. Connect the water hose (5) to the automatic submersible pump (11). Firmly tighten the metal collars.
- B. Lower the automatic submersible pump (11) into the tank until it rests on the base. Keep the pump's hose and electrical connection cable outside the tank.
- C. Place the cord hook on the aluminum bar and position it on the right side of the filtration unit shaft (6).



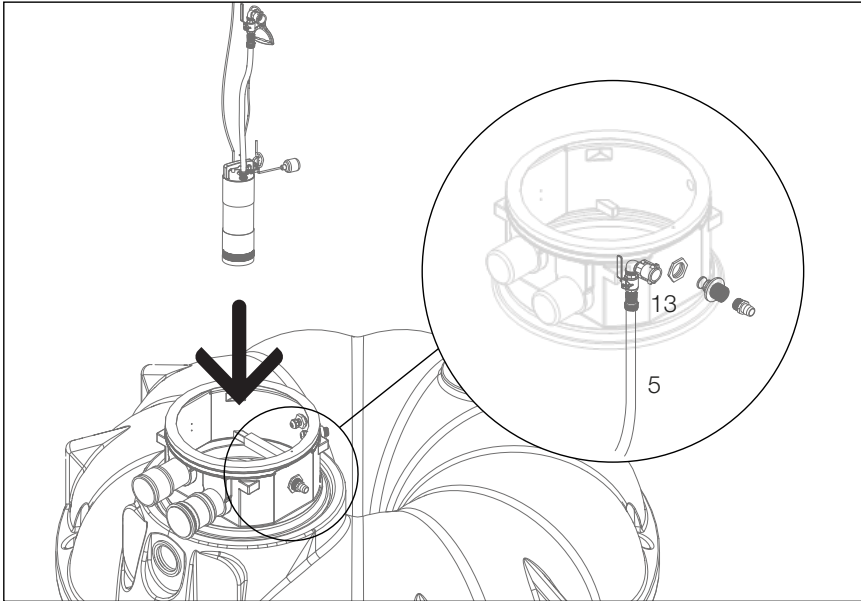
- D. Connect the water hose (5) under the lid (1). Leave approximately 20 to 30 cm of slack in the water hose so that the lid can be freely removed when needed. You may have to cut the water hose to different lengths depending on the tank model.



3.2.2 Indoor and outdoor use

Perform steps A to C in section 3.2.1.

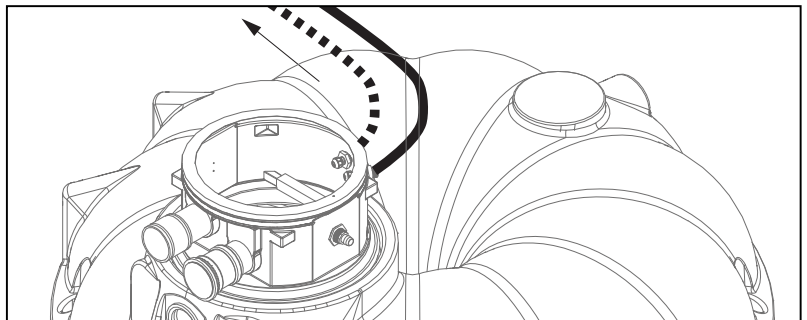
Connect the water hose (5) to the pumped outlet adapter (13). Leave approximately 10 cm of slack in the water hose so that the adapter can be freely removed when needed.



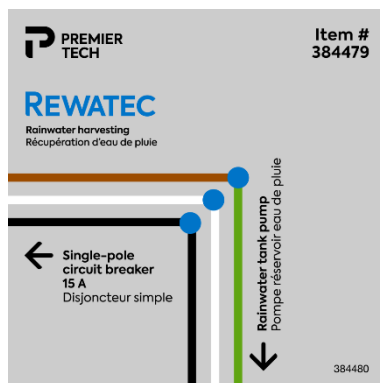
3.2.3 Electrical connections

A certified electrician must install all electrical connections.

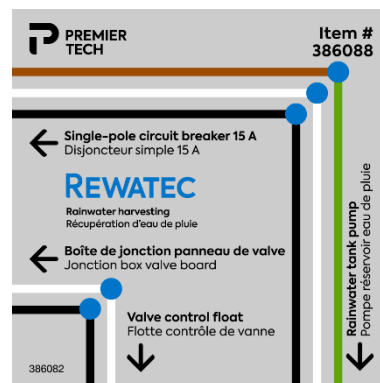
Attach the electrical junction box (16) to the aluminum bar. Make the connections according to the diagrams provided on the junction box. Use the electrical wire (12) provided.



Connect the power cable to the residence's electrical panel on an independent 15 A circuit breaker. For an indoor and outdoor kit, connect the second electrical wire to the solenoid valve panel (19) junction box.



Outdoor



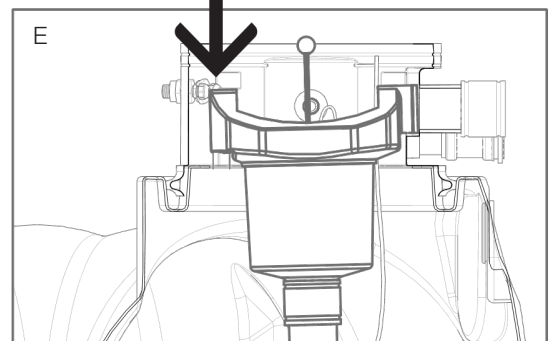
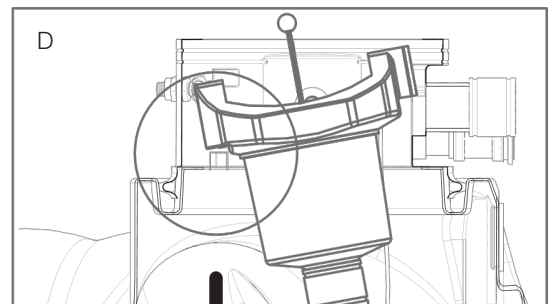
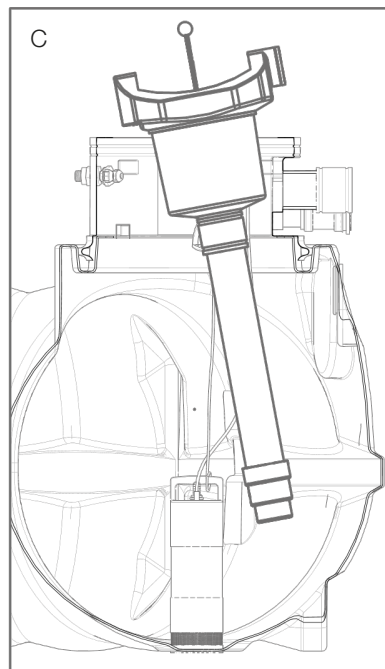
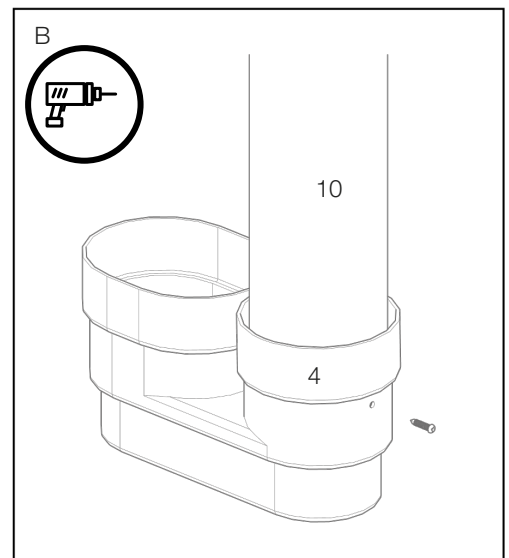
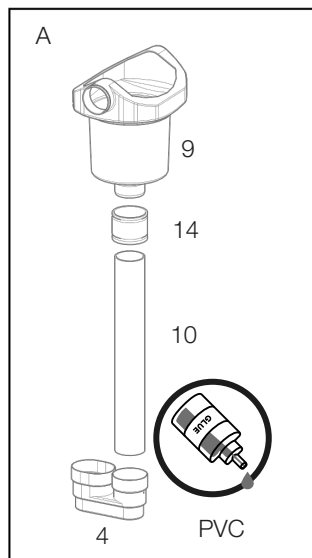
Indoor/outdoor

3.3 Filter housing and calming inlet

3.3.1 Filtration system installation in the tank

- A. Connect one end of the PVC pipe (10) to the filter housing (9) using the flexible adapter (14). Firmly tighten with metal collars on both sides. Insert the other end of the PVC pipe into the calming inlet (4) and apply PVC glue.
- B. Secure the calming inlet (4) to the PVC pipe (10) using the screw provided. Position the calming inlet at 90° in relation to the rainwater inlet in the filter housing.

Position the filtration system in the tank according to steps C to E below.

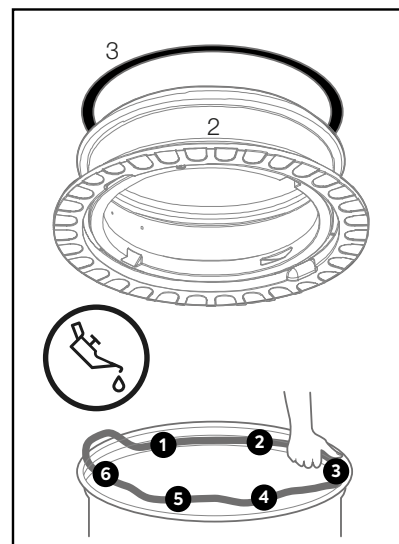


3.4 Rotomolded access

3.4.1 Gasket placement

Turn the rotomolded access (2) over and insert the gasket (3) into the groove.

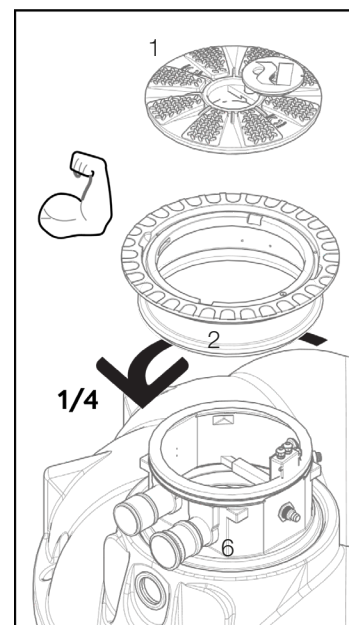
Secure the gasket at six points in the groove and continue around the periphery of the access. Generously lubricate the gasket with a water-based lubricant.



3.4.2 Access installation on the filtration unit shaft

Press hard on the rotomolded access (2) to seat it on the filtration unit shaft (6). Make a 1/4 counter-clockwise turn.

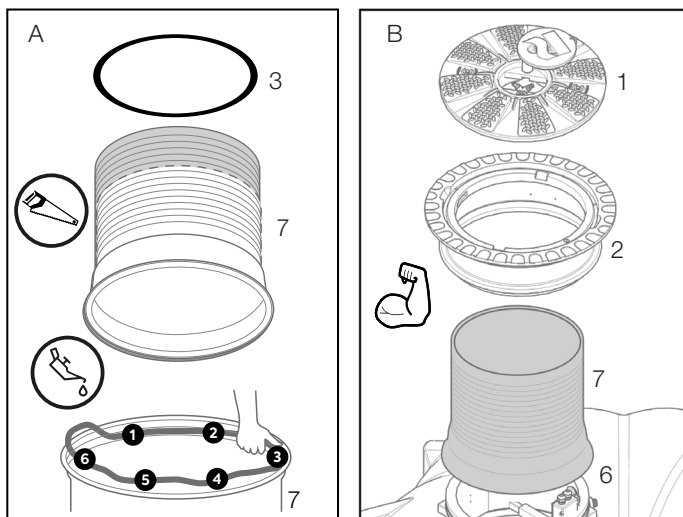
Put the lid (1) into place and secure it.



3.4.3 Cuttable riser installation

If needed, you can add a 600 mm (24") cuttable riser between the rotomolded access and the filtration unit shaft. You can adjust the cuttable riser based on the site's excavation conditions. Only one 600 mm (24") cuttable riser is allowed.

- A. Turn the cuttable riser (7) over and cut it to the appropriate height. Insert the gasket (3) into the groove. Secure the gasket at six points in the groove and continue around the periphery of the riser. Generously lubricate the gasket with a water-based lubricant.
- B. Press hard on the cuttable riser (7) to seat it on the filtration unit shaft (6). Make a 1/4 counter-clockwise turn. Put the rotomolded access (2) into place and secure the lid (1).

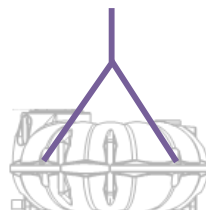
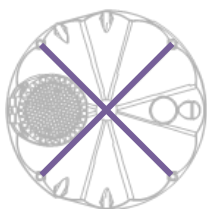


3.5 Tank handling

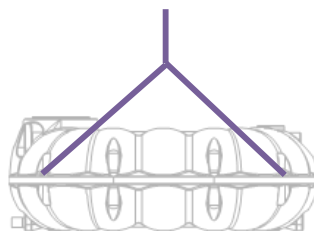
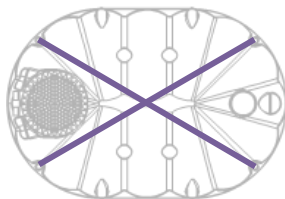
Use only the handling slings that we provide.

3.5.1 Sling position according to model type

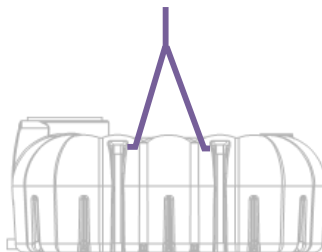
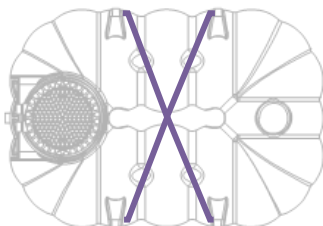
NEO-300



NEO-500



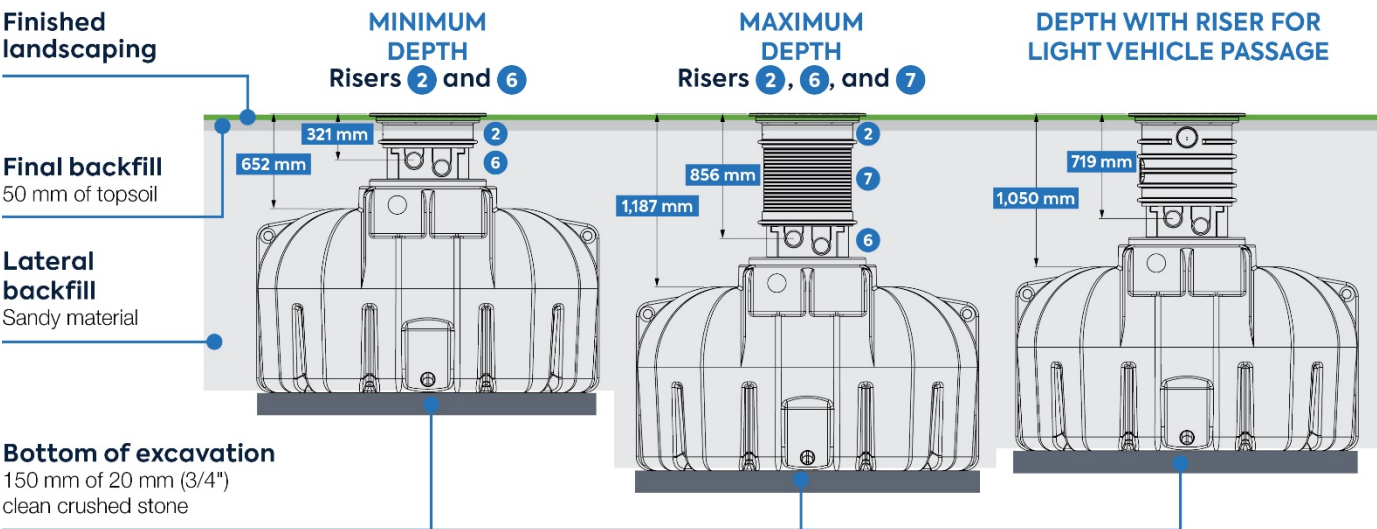
NEO-700



4. Assembled product installation

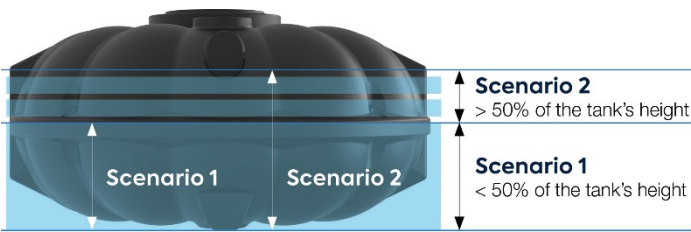
4.1 Possible installation depths

Rewatec tanks can be installed at different depths. A 600 mm (24") cuttable riser (7) is provided with each system so that you can adjust the depth of the tank according to the site's topography. The following diagram shows the options available for installation depth.



4.2 Installation in groundwater

Rewatec rainwater harvesters can be installed in different groundwater conditions. Groundwater is allowed up to the invert level of the overflow outlet pipe, as shown in the table below. The following diagrams describe our recommendations for each possibility.

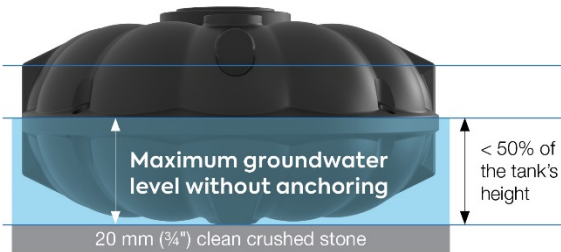


Effective Volume	Maximum Groundwater Height*
3,000 L 680 US gal	974 mm (38")
5,000 L 1,135 US gal	1,017 mm (40")
7,000 L 1,590 US gal	1,232 mm (48")

*From the bottom of the tank.

SCENARIO 1

Groundwater level is below the midpoint of the tank's height.
The installation does not require anchoring.



SCENARIO 2

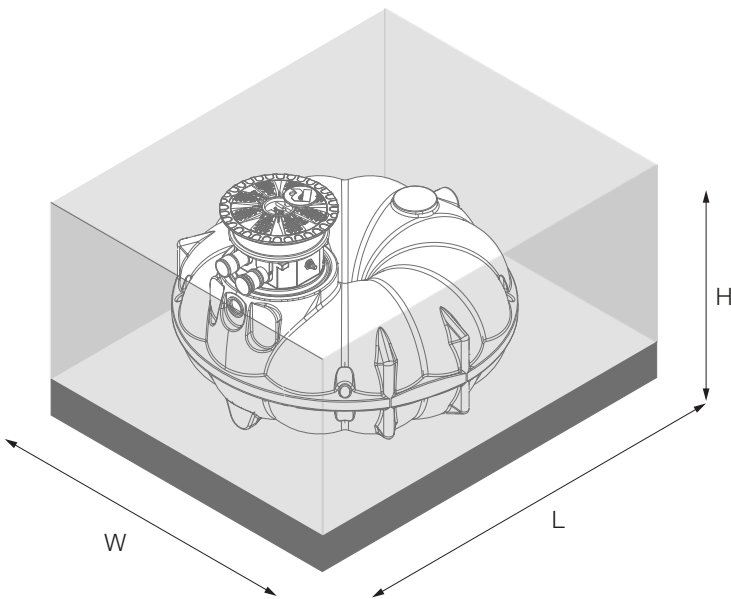
Groundwater level is above the midpoint of the tank's height.
The installation requires anchoring (not included).



Concrete slab sizing must be validated by an external consultant.

4.3 Excavation

The diagram below is for illustrative purposes only.



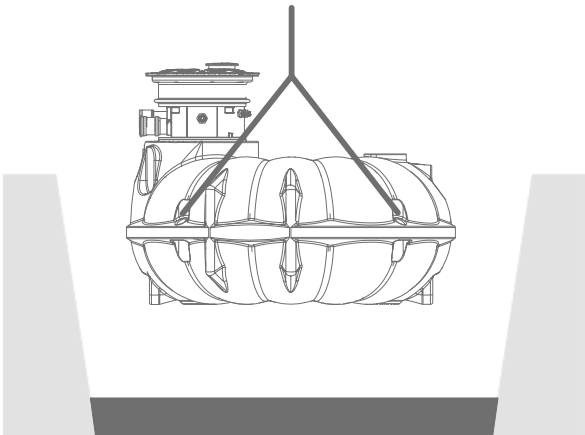
	Model		
	NEO-300	NEO-500	NEO-700
Length (L)	3,337 mm (131")	4,400 mm (173")	4,370 mm (172")
Width (W)	3,337 mm (131")	3,320 mm (130")	4,350 mm (171")
Height (H)	1,811 mm (71")	1,883 mm (73")	2,088 mm (83")

4.4 Placement and connections

4.4.1 Placement

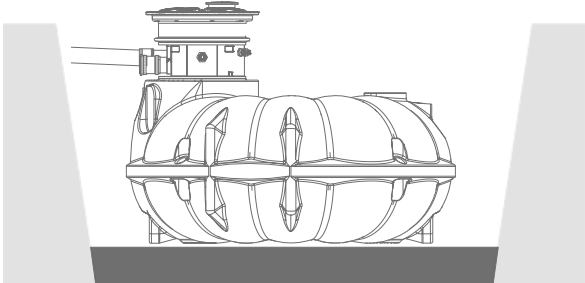
Lower the tank as close as possible to the centre of the excavation. Remove the lid (1). Level the tank on a 150 mm (6") bed of 3/4" clean crushed stone.

Use only the handling slings that we provide.



4.4.2 Gutter to tank connection

Use a 100 mm (4") BNQ PVC pipe to connect the residence's gutter system to the tank's rainwater inlet. The pipe must have at least a 1% to 2% downward slope toward the tank. The slope reduces the risk of freezing in the winter. If needed, use 45° elbows instead of 90° elbows.

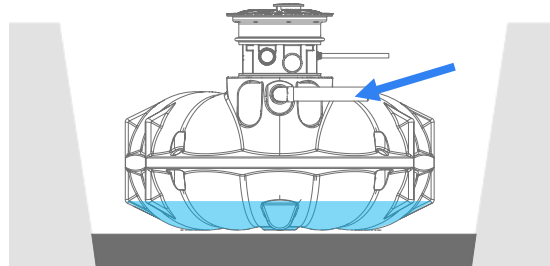


4.4.3 Overflow outlet to infiltration well connection

Connect a 100 mm (4") BNQ PVC pipe to the tank's overflow outlet by inserting the pipe into the central bulkhead fitting.

Connect the other end of the pipe to the infiltration well. The pipe must have at least a 1% downward slope toward the infiltration well.

Fill the bottom 200 mm (8") of the tank with water.

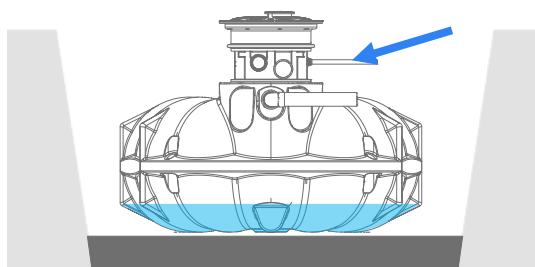


4.4.4 Filtration unit shaft to residence connection (indoor use only)

Connect a 100 lb, 25 mm (1") polyethylene pipe to the threaded male adapter (17). Firmly tighten the metal collars.

The pipe should reach the interior of the residence. It must have a downward slope toward the tank so that the pump can empty between two pumping events.

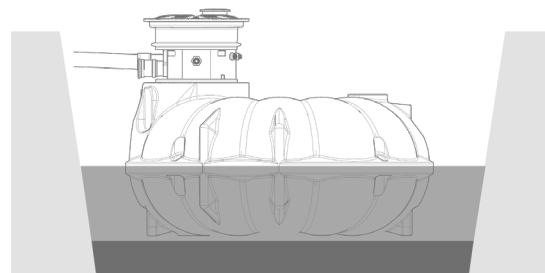
If the rainwater harvester will be used in the winter, insulate the pipe with insulating panels.



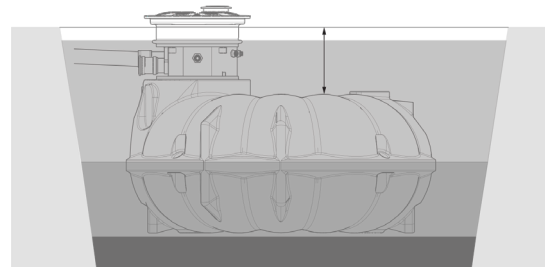
4.5 Backfill

Backfill with successive 300 mm (12") layers of 3/4" clean crushed stone.

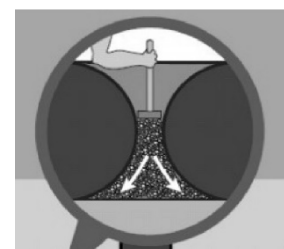
Properly place the material under the tank using a manual tamping rammer. You can use a vibrating plate to compact the material around the tank.



After backfilling, you can deposit a layer of topsoil to fill the final 50 mm (2") of the excavation.



Place material in the centre of the tank with a manual tamping rammer.



5. Solenoid valve panel (indoor use only)

For indoor rainwater use, a factory-fitted solenoid valve panel (19) must be installed inside the residence.

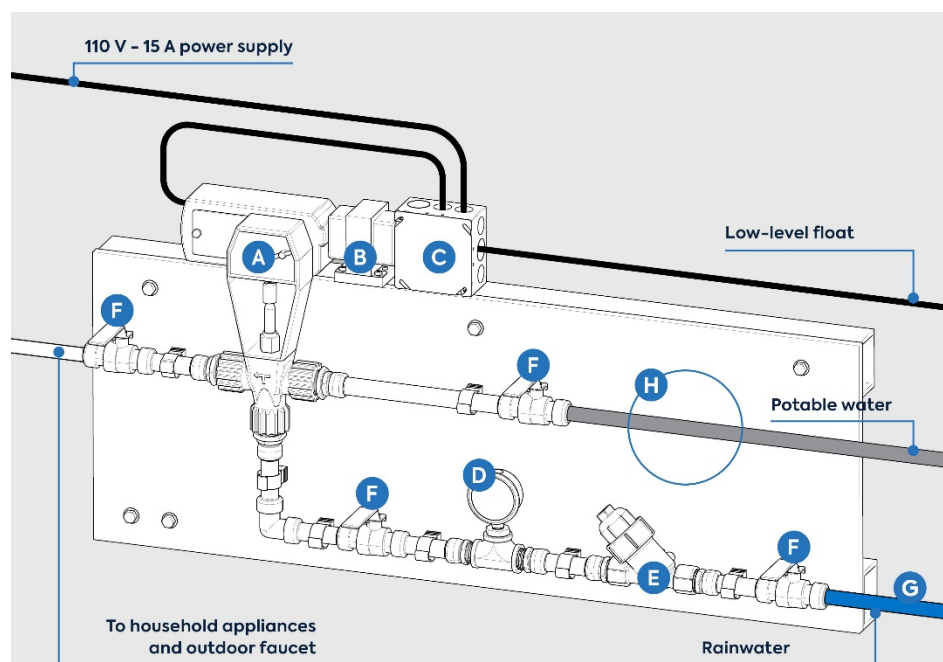
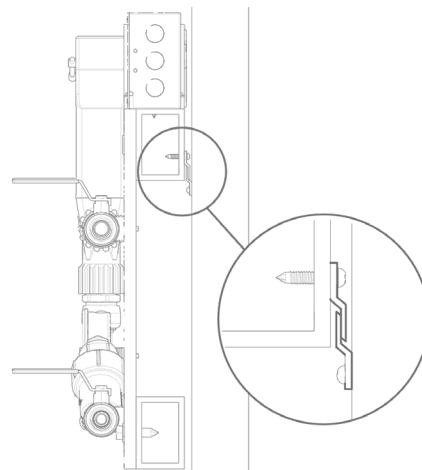
A Z-shaped support bar is located behind the solenoid valve panel. Attach the second support bar to a wall to support the panel, as shown in the diagram. Ensure that the panel is level.

A certified plumber must connect the various intake and distribution pipes for rainwater and potable water.

A certified plumber must also install a backflow prevention device (H) in accordance with local building regulations to avoid any risk of contamination. We do not provide the backflow prevention device.

A water meter (G) is included and can be installed on the rainwater intake pipe inside the residence. Install the meter in a location that precedes the shut-off valves (F). See the installation instructions provided with the water meter.

A certified electrician must install all electrical connections in accordance with the connection diagram below.



The solenoid valve panel includes:

- A** One three-way solenoid valve
 - B** One 110 V/24 V transformer
 - C** One electrical junction box
 - D** One 0-100 PSI pressure gauge
 - E** One 0.18 mm (80 mesh) screen
 - F** Shut-off valves
 - G** Water meter (to be installed on site)
 - H** Backflow prevention device (not included) must be installed by a certified plumber

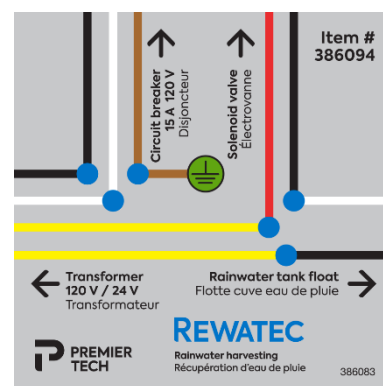


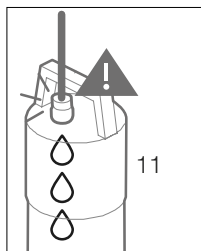
Diagram of connections in the electrical junction box (C).

6. Start-up

Check for leaks at various locations to avoid undue wear on the automatic submersible pump.

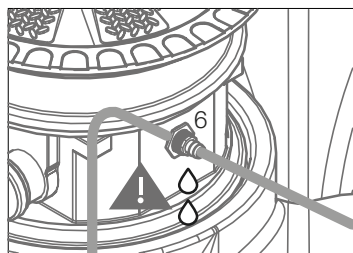
6.1 Pump testing

Ensure that the outlet of the automatic submersible pump (11) is watertight. Use thread seal tape for all threaded parts.



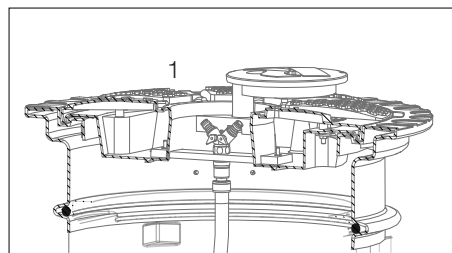
6.2 Outlet testing (indoor use)

For indoor use, ensure that the pump line is well sealed on the inside and outside of the filtration unit shaft (6). Use metal collars to properly tighten the connection.



6.3 Outlet testing (outdoor use)

For outdoor use, ensure that the pump line is well sealed at the brass connection inside the lid (1).



7. Accessory installation

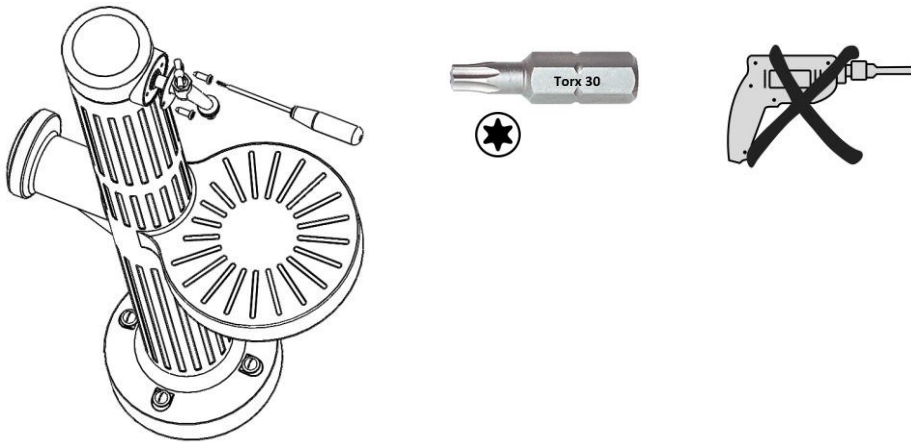
7.1 Decorative outdoor faucet

This accessory includes:

- decorative base;
- faucet and screws;
- water hose with universal connectors; and
- 4 x M8-190 nuts with bolts and flat washers.

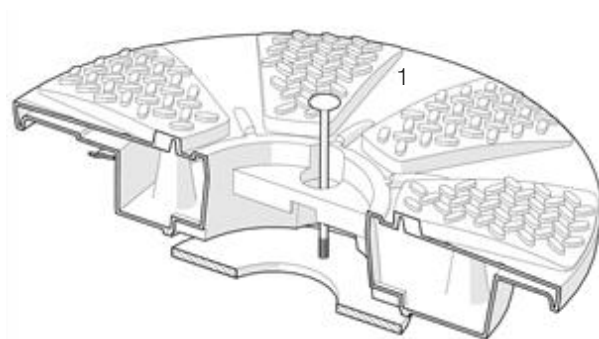
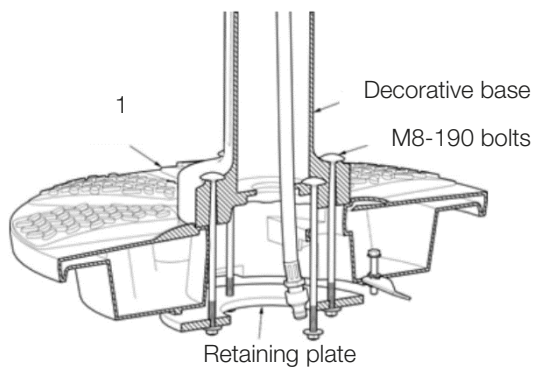
7.1.1 Installation for a water hose

1. Insert the water hose into the hole under the decorative base.
2. Use a screwdriver to attach the faucet with the two screws provided.



7.1.2 Installation on the tank lid

1. Pull back the lid (1) and remove the grey portion.
2. Insert the retaining plate under the lid.
3. Insert the M8-190 bolts through the bottom of the decorative base. You must insert one of the bolts into the hole provided for this purpose, as shown in the illustration on the right.
4. Place the decorative base in the centre of the lid and position it in the desired direction.
5. Attach the decorative base to the lid using the nuts and washers provided.
6. Caution! Gently tighten until the retaining plate slightly curves.
7. Return the lid to its original position.



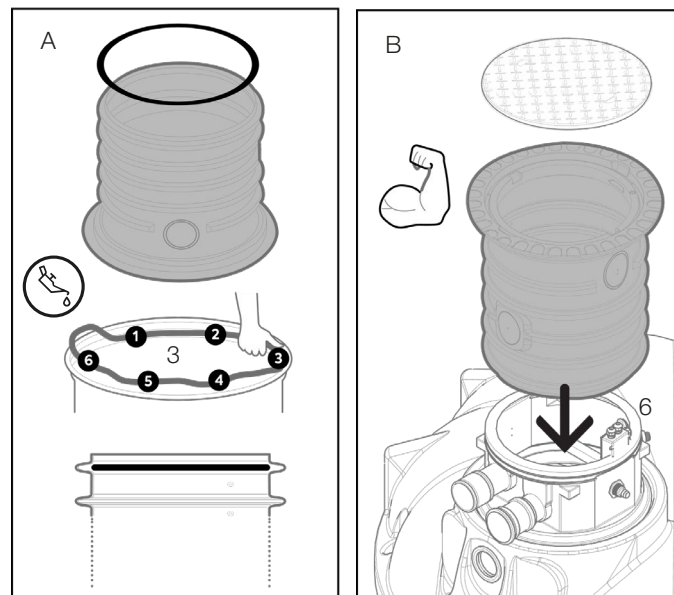
7.2 Light vehicle riser

This accessory contains:

- reinforced 600 mm (24") riser;
- steel lid; and
- gasket.

Note: When a light vehicle riser is used, it is not possible to connect a water hose directly to the lid. Water from inside the residence must supply external faucets.

- A. Turn the light vehicle riser over and insert the gasket (3) into the groove. Secure the gasket at six points in the groove and continue around the periphery of the riser. Generously lubricate the gasket with a water-based lubricant.
- B. Press hard on the riser to seat it on the filtration unit shaft (6). Put the steel lid in place and secure it.



**If you have any questions,
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