

Drainage

RainWater Tanks

Installation and Operation Manual



Andel Limited
Unit 1 Dodworth Business Park South,
Upper Cliffe Road,
Dodworth,
Barnsley
S75 3SP

Tel +44 (0) 1484 845000
Fax +44 (0) 1484 845222

www.andel.co.uk

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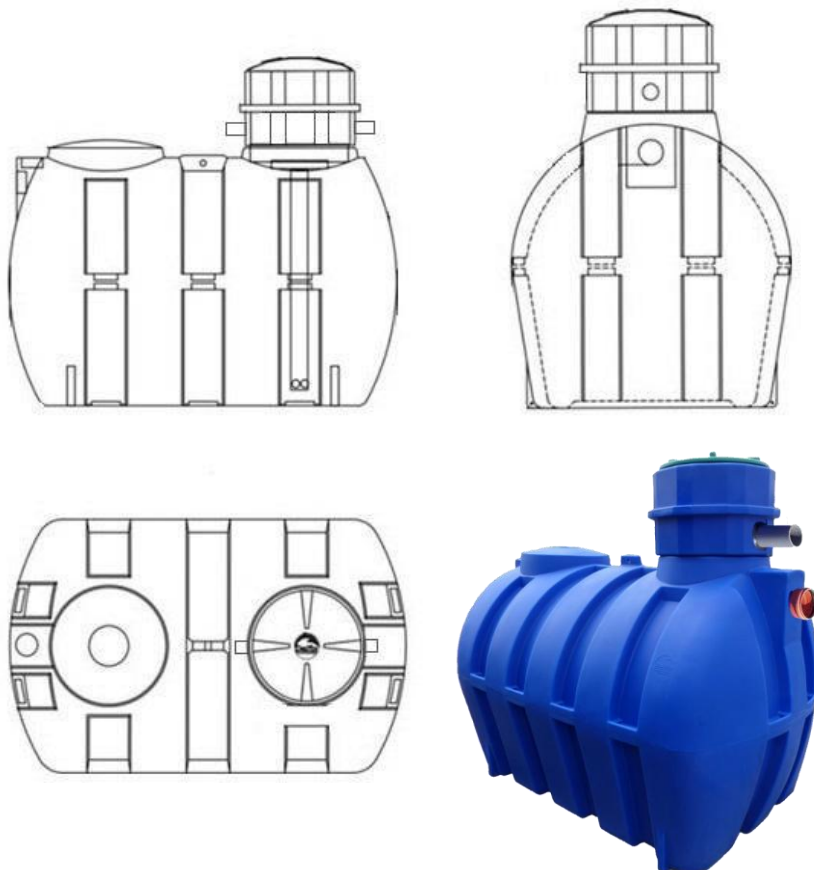
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Thank you for selecting the Andel Rain Water Tanks. This manual provides safety, installation, and operation information. Please read before installing or operating the unit and retain for future reference.

1. Installation Instructions

1.1. General Information

1. Prior to the installation of the rainwater tank it is necessary to determine the level of underground water and ground conditions that influence the way of installation.
2. The excavation size depends on overall dimensions and shapes of the rainwater tank.
3. The rainwater tank should be situated in a place which is not exposed to loads such as a traffic routes, car parks.
4. It is necessary to maintain distances from buildings, determined by building law provisions, to avoid unilateral, unsymmetrical load increase on rainwater tank walls, transferred by the foundations of these objects.
5. The rainwater tank cover must extend above the ground surface, ensuring the easy access to the tank during maintenance works.



1.2 Installation

- when the height of backfill above the tank is up to 80 cm;
- when the underground water level is **BENEATH** the bottom of the tank even at its maximum;

Step 1

Additional protection should be applied in the form of sand-cement ballast around the entire tank. The ballast should be made in the minimum proportions 150kg of cement on 1m³ of sand. You can order the finished mixture in the concrete plant or prepare carefully dry mixture on the construction site. Install the tank during the dry period, when there is a reduced groundwater level.

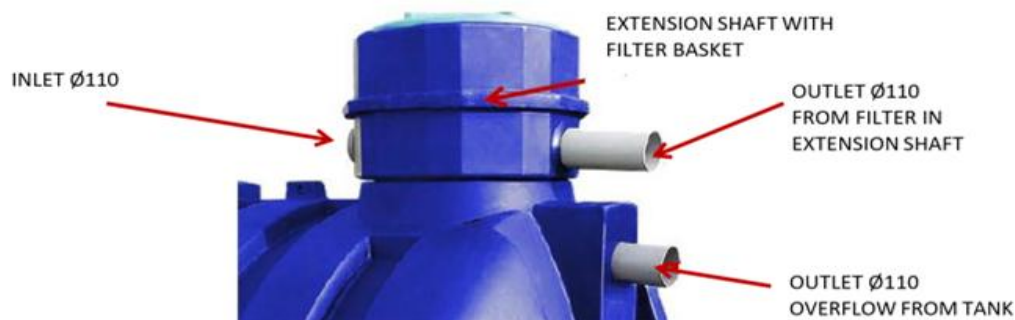
Step 2

Prepare the excavation for the tank. The tank cannot adhere to the excavation walls and be exposed to protruding stones or rough surfaces. Min. 20 cm space round the tank should be planned for an absorbing layer. When the foundation depth of the tank is determined, make a sand bed with thickness of min. 20 cm on the excavation bottom. This layer of sand should be carefully compacted and levelled.

Step 3

Set the tank on the sand bed and check the tank levelling.

Connect the pipe 110Ø which gathers the water from the gutters to the filter in the extension shaft.



We install two holes in the extension: the first to insert the discharge pipe and the second hole for the electrical cable from the pump.

Step 4

Mount on PVC outlet 160 PCV tee. Connect to the tee the PVC 110 drain pipe from the extension filter and sewer pipe 160 PVC which is draining excess rainwater from the tank.

Step 5

Start filling the tank with water by means of a hosepipe, putting sand with cement around the tank at the same time. Fill the tank with water up to about $\frac{1}{3}$ of the tank capacity and then put the sand- cement bed around the whole tank up to the height of the water level in the tank. The sand-cement bed should be placed layer by layer (each 20 cm thick) and should be thickened by trampling (the use of mechanical compactors to harden the sand and cement bed around the tank is forbidden). In the case of sand-cement bed there is no need of thickening it by pouring water.

Step 6

Fill the tank with water up to $\frac{2}{3}$ of the tank capacity and proceed as above. When the sand bed is placed up to the level of $\frac{2}{3}$ of the tank capacity, add water once again and then make further layers of bedding.

Step 7

After checking the connection of inlet and outlet pipes with the tank for leak tightness, proceed with putting the sand-cement over the tank, and next with soil . The tank should be covered with sand- cement min.20 cm above the upper vault of the tank. The backfilling layer of sand and soil above the tank should not be thicker than 80 cm.

Step 8

After backfilling the tank, wait for the sand and cement backfill to harden and do not empty the water from the tank until then. The hardening time of the backfill depends on the soil moisture content at the installation site and the atmospheric conditions. After the sand and cement cover has hardened, the water can be pumped out of the tank and left for self-filling by rainwater. If it is necessary to install the tank where its bottom is below the groundwater table, additional protection should be applied according to an individual design prepared by the designer.

NOTE!!!

Installation of rainwater tanks at the depth of more than 80 cm and in wetland (groundwater mirror above the bottom of the reservoir) without additional protection is prohibited. –

2. Maintenance

In rainwater tanks there is a double filtration system, so there is no need to clean the tank interior. The pipe filter can be removed and cleaned outside. The sponge filter can also be disassembled and cleaned outside with water. The way of removing the filters is the same as when replacing the pump according to the enclosed instructions.

2.1 Installation

In case of pump failure, when the pump needs to be checked or replaced, follow the procedure described below.

Inside of the tank (with pump)



NOTE!!!

If the pump will not be used for a period of several months (eg. during the winter) it should be dismantled from the tank, rinsed with clean water, dried and stored in a room with the temperature higher than 5°C. During maintenance, it is advisable to clean the filter tube in the filter in extension shaft and to rinse the sponge in the filter basket.

Step 1

Disconnect the pump from the power supply. Unscrew the fixing screw and pull out the PVC pipe $\varnothing$ 110 from the filter basket.

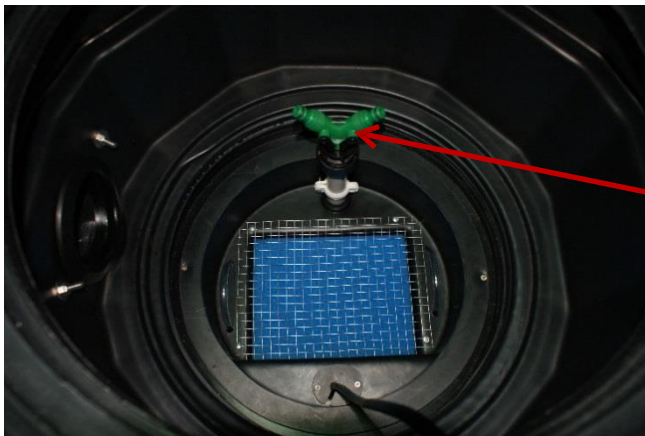


PVC pipe $\varnothing$ 110cm

Fixing screw

Step 2

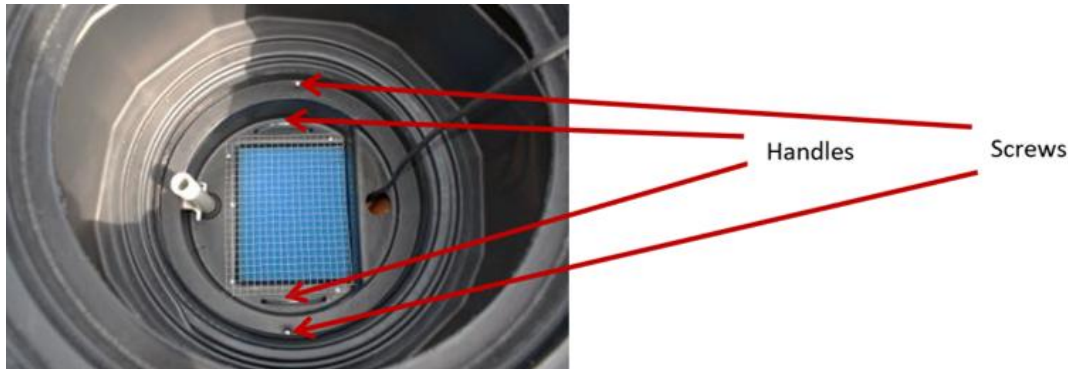
Unscrew the two-way valve



Two-way valve

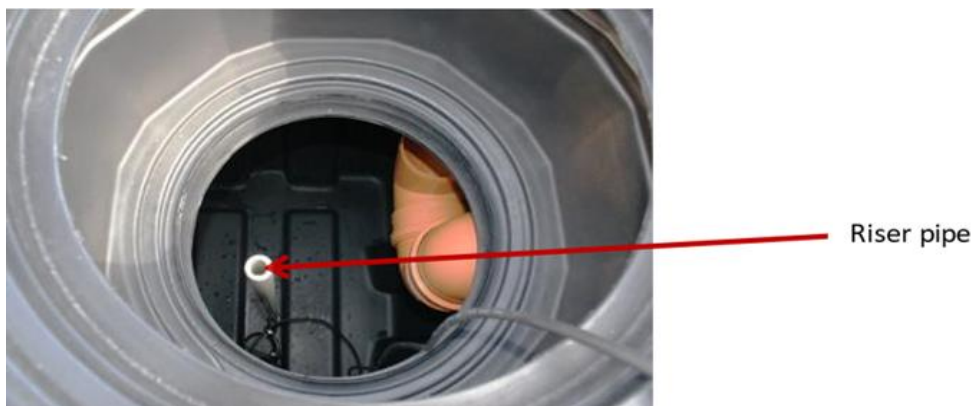
Step 3

Remove the screws that fix the filter basket to the rainwater tank. Pull out the filter basket using the handles built in the basket.



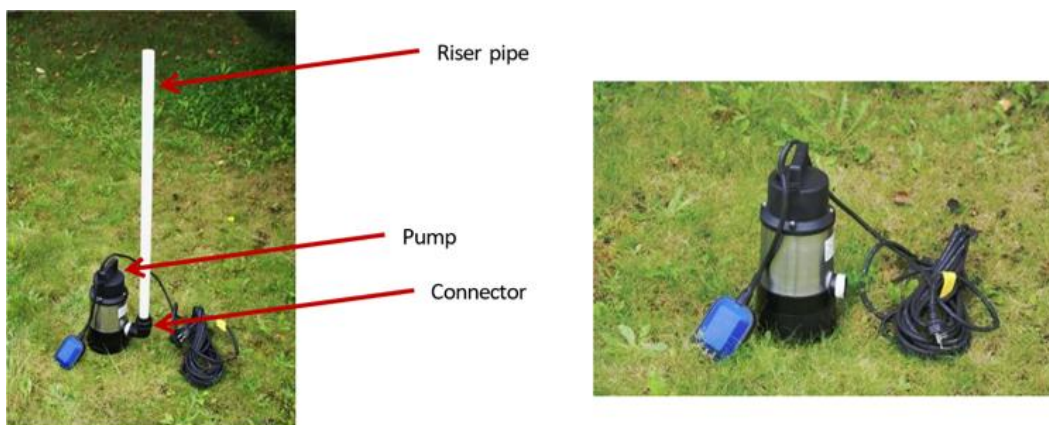
Step 4

Remove the pump from the tank by lifting it with the riser pipe (do not pull the electrical cable).



Step 5

Unscrew the riser pipe and the connector from the pump.



WHEN INSTALLING OR REPLACING THE PUMP WITH A NEW ONE, FOLLOW THE INSTRUCTIONS DESCRIBED ABOVE IN REVERSE ORDER.