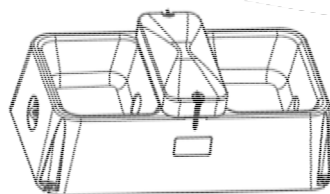
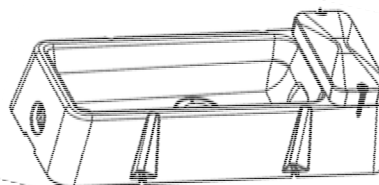


INSTALLATION GUIDE

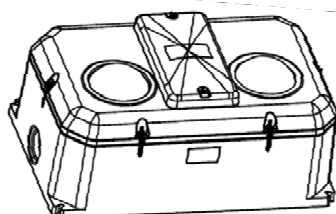
Drinker VT1030 / 1330 / 1151, WT1830 / 1155 / 2244



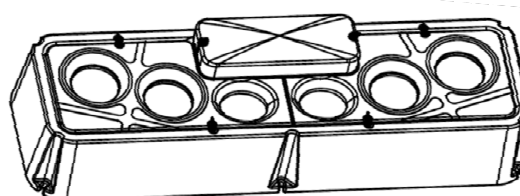
VT 1030



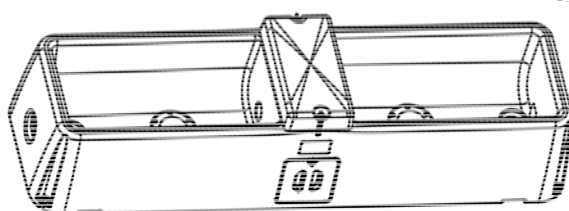
VT 1330



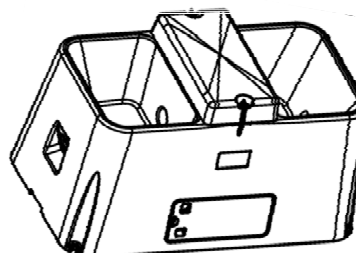
VT 1151G



WT 1830K



WT 2244



WT 1155

Parameters

	Capacity	Herd capacity	Drinking height	Weight
VT 1030	43 L / 11 gal	40 beef	300 mm / 11.8 inches	21 kg / 46 lbs
VT 1330	65 L / 17 gal	60 beef	300 mm / 11.8 inches	25 kg / 55 lbs
WT 1830 K	85 L / 22 gal	80 beef	300 mm / 11.8 inches	32 kg / 70 lbs
WT 1830 G	80 L / 21 gal	80 beef	300 mm / 11.8 inches	40 kg / 88 lbs
VT 1151 G	100 L / 25 gal	100 beef	445 mm / 17.5 inches	45 kg / 90 lbs
WT 1155	80 L / 21 gal	80 beef	550 mm / 21.6 inches	40 kg / 88 lbs
WT 2244	200 L / 52 gal	170 beef	440 mm / 17.3 inches	58 kg / 128 lbs

Contents

Before you start.....	4
VT 1330 measurements.....	4
VT 1030 measurements.....	4
VT 1151 measurements.....	5
WT 1830 measurements.....	5
WT 1155 measurements.....	5
WT 2244 measurements.....	6
Basic concrete slab measurements	6
Concrete and tank hole alignment	7
Unpacking the box	8
Recommended parts	10
Recommended tools.....	10
Included parts	11
Installation.....	17
Cross-section of final installation.....	17
Step 1: Preparing the site	18
Step 2: Installing the water supply lines	18
Step 3: Installing the thermal earth tube.....	18
Step 4: Pouring the concrete slab	18
Step 5: Preparing the vertical water supply line	19
Step 6: Preparing the tank	13
Step 7: Connecting the 1 inch flex line and valve	22
Step 8: Filling the tank	23
Step 9: Setting the water level.....	23
Pressure and flow capacity.....	23
Recommendations	25
Split fence measurements.....	25
Troubleshooting	27
Spare parts components.....	28

All drinkers can be equipped with the highly efficient heating unit as an option, available in a wide range of voltages and wattages, please contact your local distributor for more information.

Safety warnings



Caution!

Please read this installation guide carefully before you install the drinker. It is also a service guide for providing information about spare parts.



Warning!

The installation of your DRINKER must be performed with rigorous adherence to national and local plumbing and electrical codes. Failure to install or maintain your unit to the code standards may result in personal injury, death or loss of livestock.

Warranty registration

Please supply us with your details so that we may register your product and keep you informed of any important updates.

All product names and brand names in this document are trademarks or registered trademarks of their respective holders.

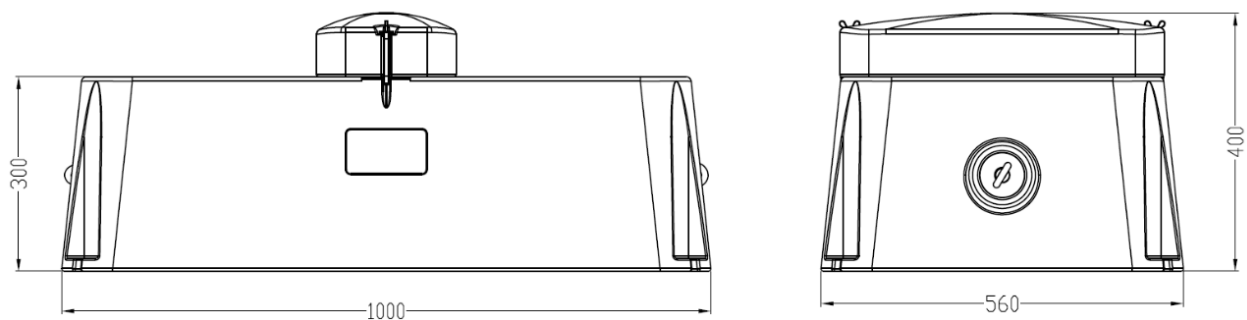
No part of this publication may be photocopied, reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Sales. Product specifications may change without prior notice.

Before you start

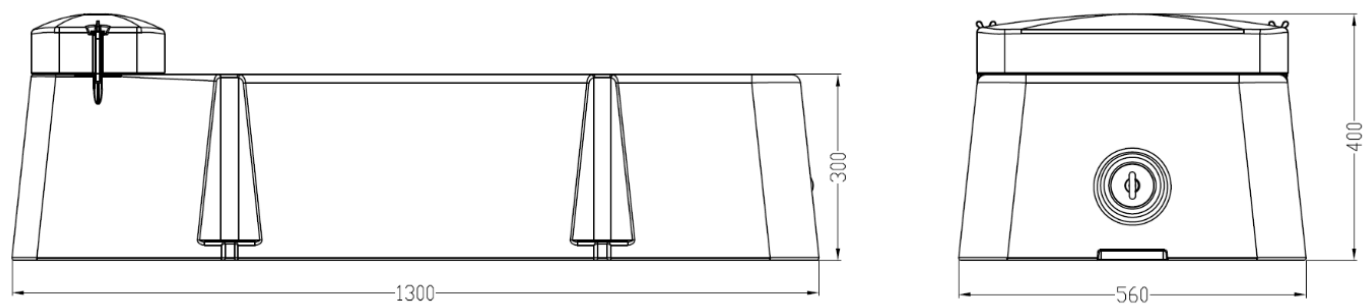
Measure out the dimensions of the concrete slab needed, based on the Drinker you have.

	Length x Width x Overall Height	Length x Width x Overall Height
VT 1030	39.37 x 22.05 x 15.75 inches	1000 x 560 x 400 mm
VT 1330	51.18 x 22.05 x 15.75 inches	1300 x 560 x 400 mm
VT 1151G	43.30 x 25.07 x 20.19 inches	1100 x 637 x 513 mm
WT 1830G/K	70.87 x 22.05 x 15.75 inches	1800 x 560 x 400 mm
WT 1155	45.47 x 25.59 x 25.59 inches	1155 x 650 x 650 mm
WT 2244	88.58 x 25.59 x 21.26 inches	2250 x 650 x 540 mm

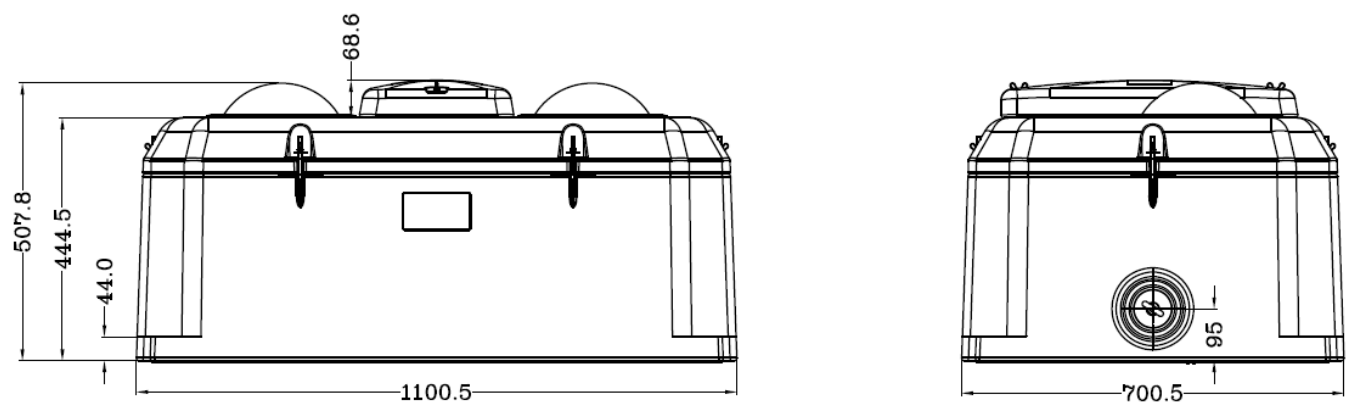
VT1030 measurements



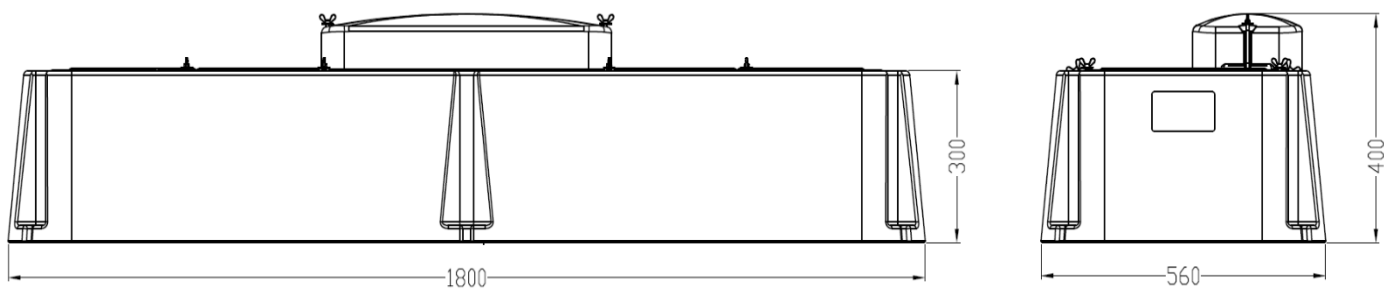
VT1330 measurements



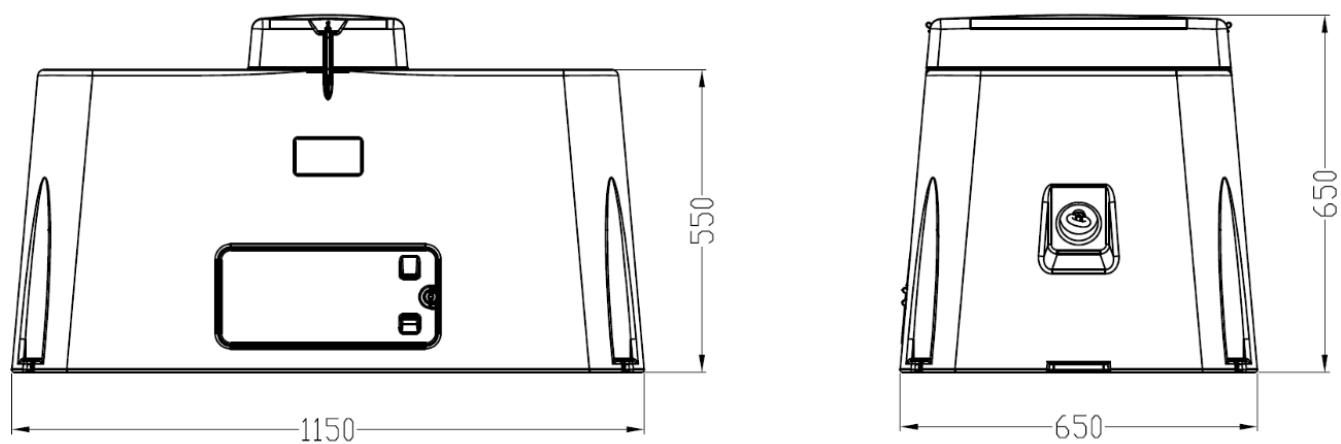
VT1151G measurements



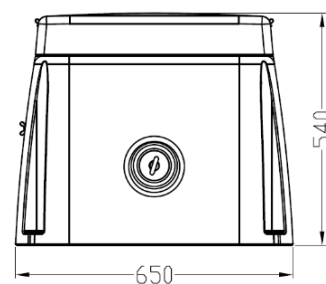
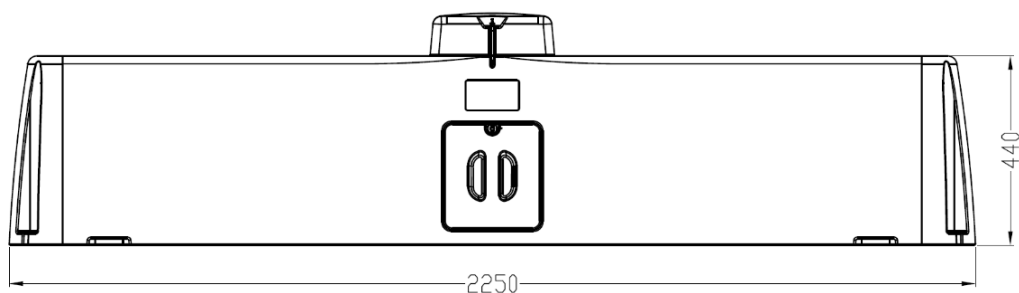
WT1830G/K measurements



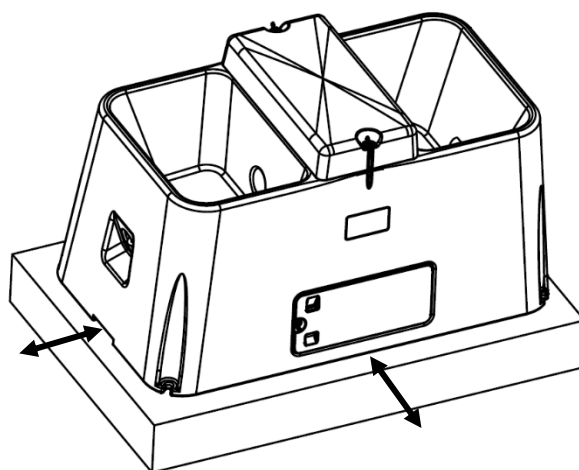
WT1155 measurements



WT2244 measurements



Basic concrete slab measurements



2 inch(50mm) apron from tank to concrete edge

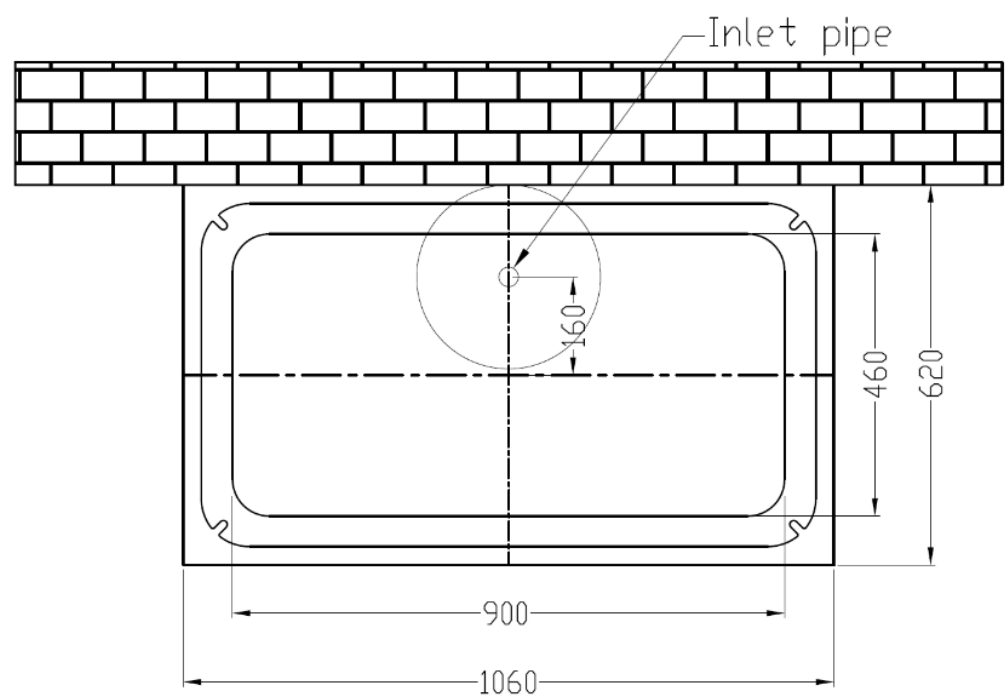
Concrete and tank hole alignment



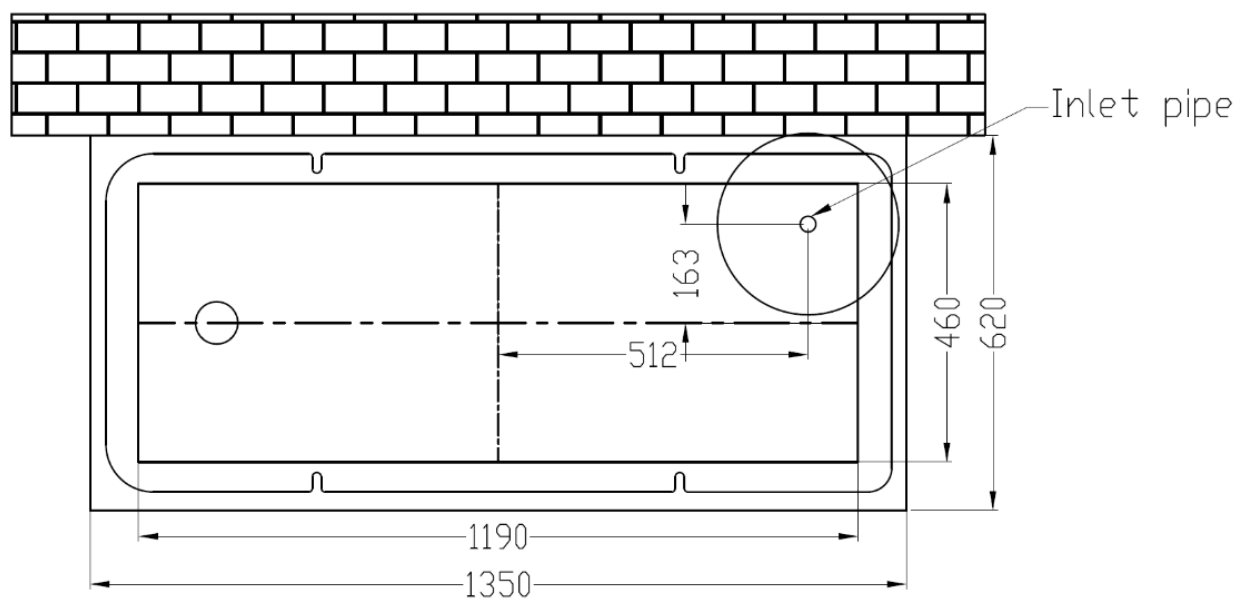
Check your measurements to ensure that the opening on the bottom of the tank aligns with the thermal earth tube placement in the concrete. The opening on the bottom of the tank is off center. Ensure that the water supply lines are not touching the sides of the thermal earth tube.

The base dimensions provided here are a rough guide; you can adjust the height to suit the animals you keep. Please contact our sales team if you require detailed base drawings.

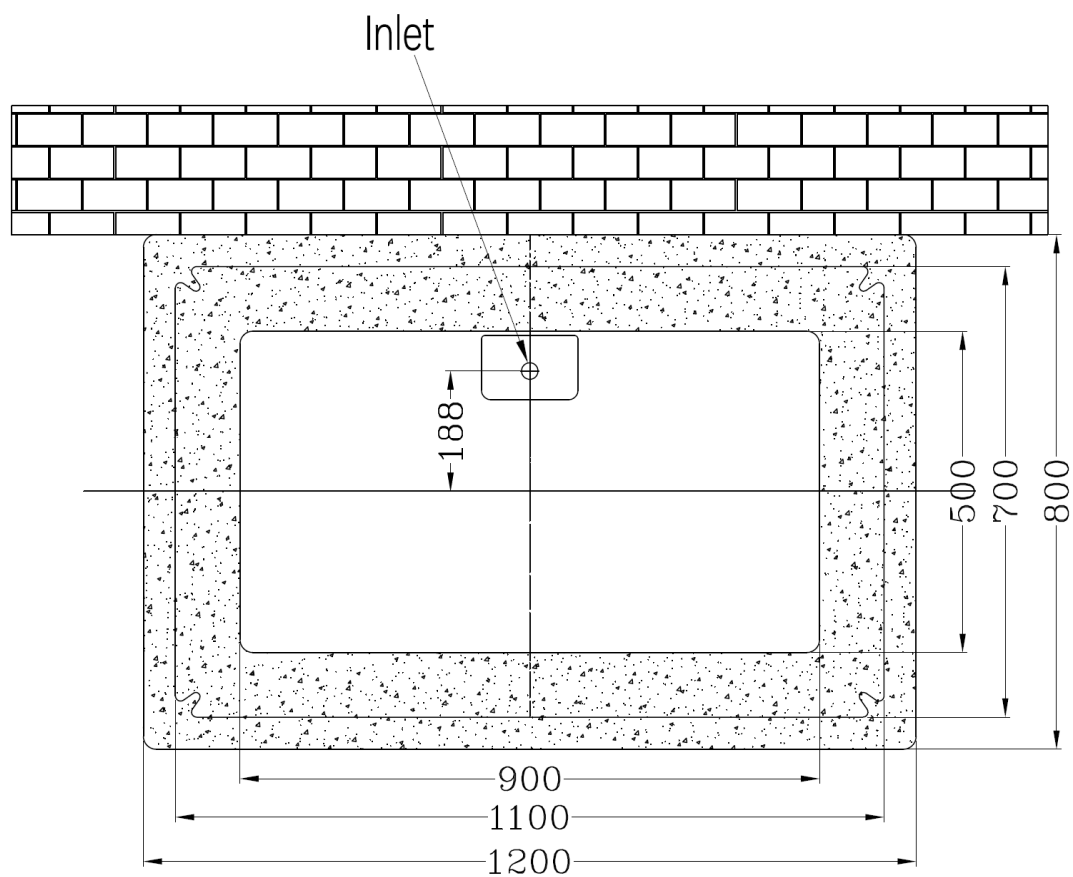
Underneath the VT 1030



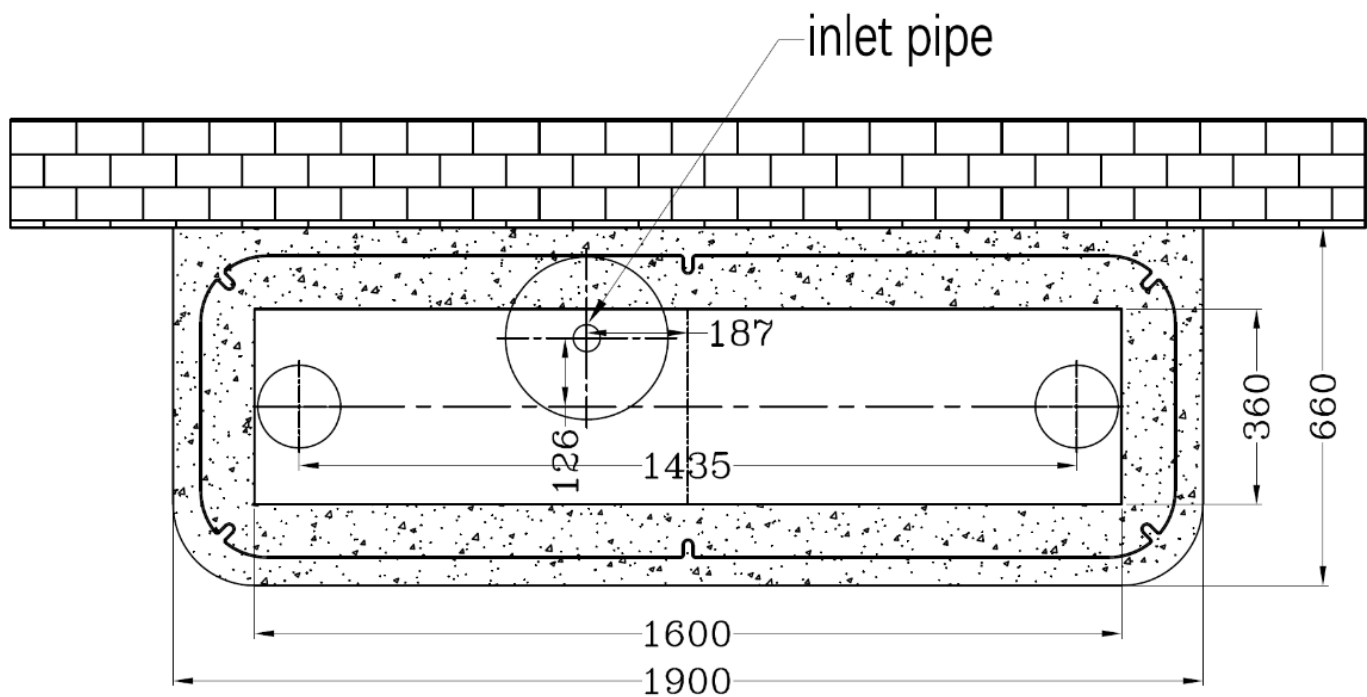
Underneath the VT 1330



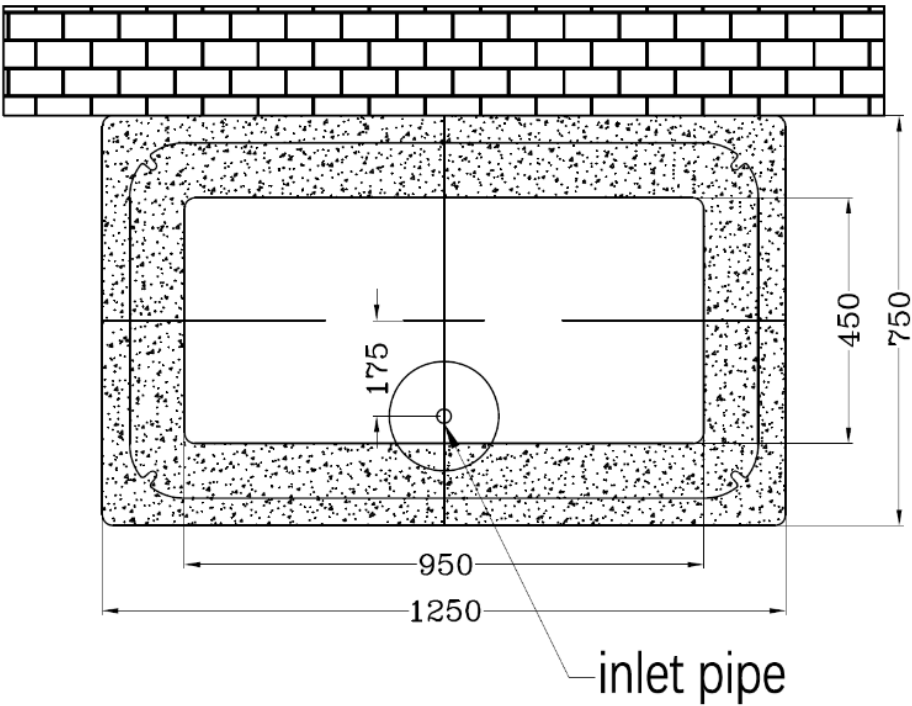
Underneath the VT 1151G



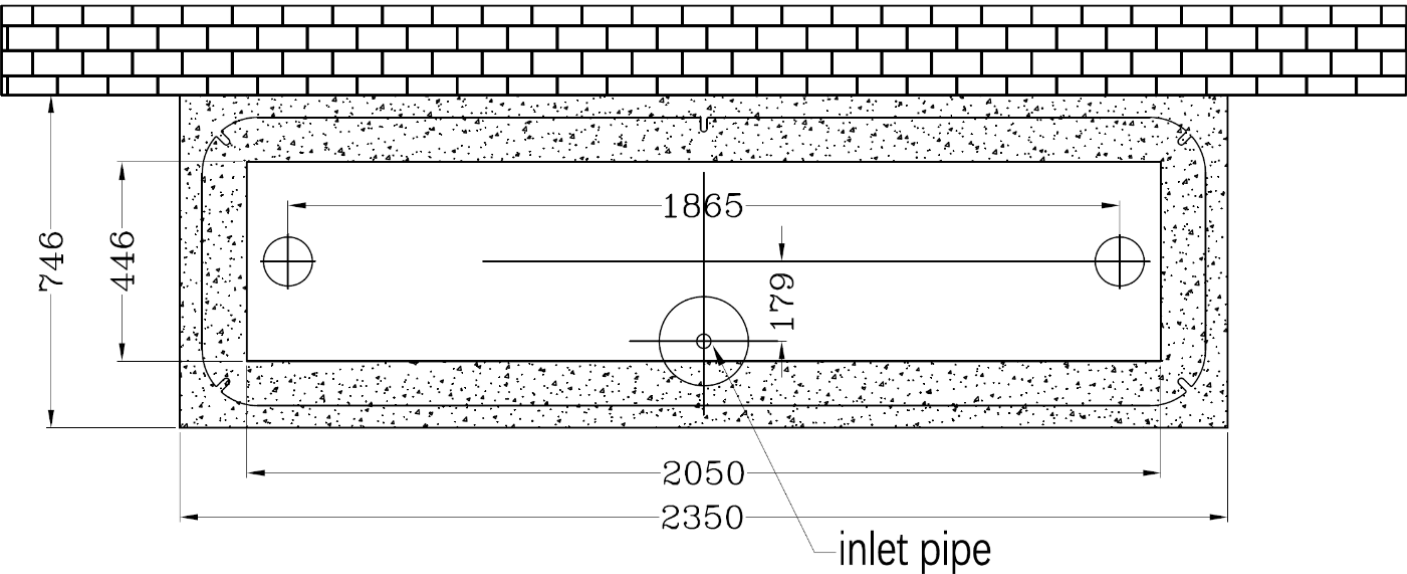
Underneath the WT 1830 G/K



Underneath the WT 1155



Underneath the WT 2244



Unpacking the box

Recommended parts

- In colder climates, we strongly recommend the use of one or more thermal earth tubes to help keep the vertical water supply line from freezing. The thermal earth tube(s) must be long enough to extend 1 foot (305 mm) below the normal frost line.
- 1 inch NPT male fitting to connect the water supply line to the 1 inch flex line inside the tank. If your water supply line is more than 1 inch in diameter, you will also need an adapter.
- Insulated thermal earth tube(s) suitable for your environment and frost line depth.

Recommended tools

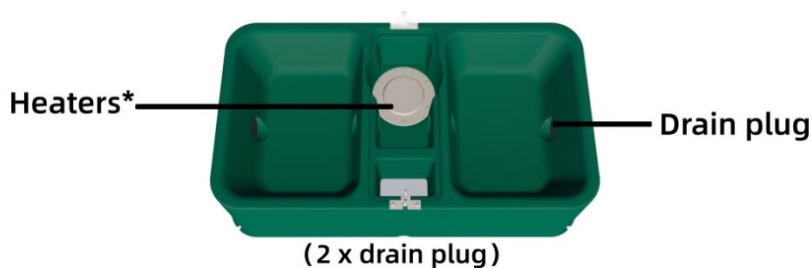
- Adjustable wrench
- Pipe wrench
- Measuring tape
- Utility knife
- Level
- 6mm hexagonal wrench wrench
- Hammer drill
- ½ inch masonry bit
- Hammer
- ½ inch ratchet wrench
- Caulk

Included parts

Get to know the parts of the DRINKER before you install it. Contact us if anything is missing.

Images are indicative of the shipped part and are not shown to scale.

Drinker VT1030



1 x Drinker lid



1 x Lid latch assembly
(depending on purchase)



1 x 1 inch flex line and
2 x seals
for attaching to the valve and
vertical water supply line



1 x Water supply
insulation tub
(for insulating the vertical
water supply line)



1 x 1 inch Valve and
float assembly



1 x valve plate assembly
(plate, Screws, Washers, Spring
Washers)
M8 x 1.18 inch length



4 x anchor bolts
(bolts, washers, fender washers)
bolt M10 x 3.937 inch length



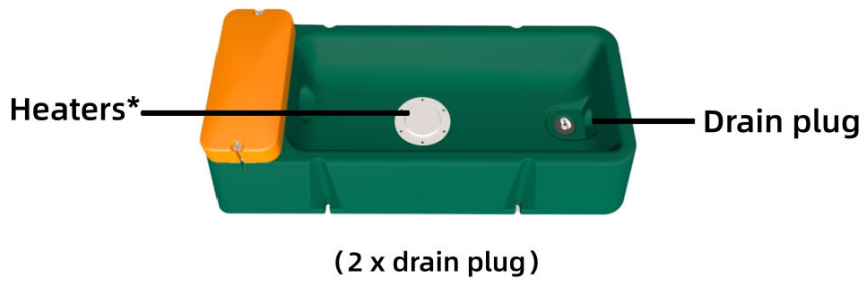
1 x Control box *
(earth leakage protection switches
, controllers, circuit breakers,
transformers)



1 x sensor with quick
connectors *
temperature and level
sensor

*Optional parts

Drinker VT1330

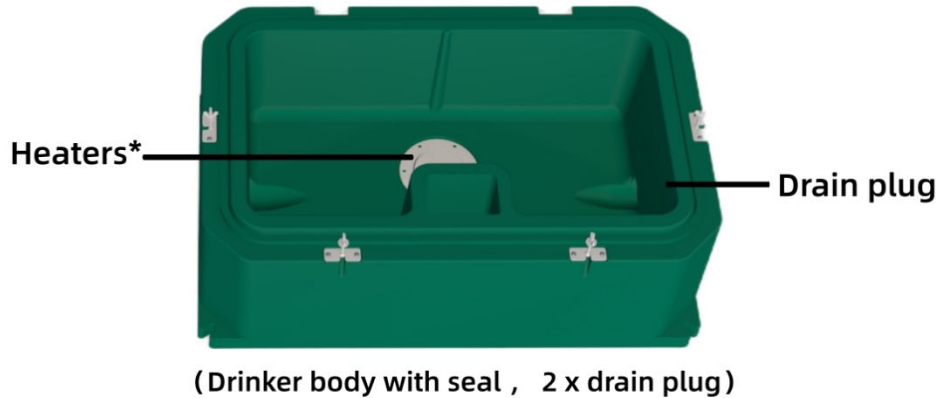


1 x 1 inch flex line and
2 x seals
for attaching to the valve and
vertical water supply line



*Optional parts

Drinker VT 1151G



1 x Drinker Lid
(with seal)



1 x Top Lid



2 x Flotation balls



1 x 1 inch Valve and
float assembly



1 x Lid latch assembly
(M6 x 2.16 inch length)
(6 set)



1 x Water supply
insulation tub
(for insulation the vertical
water supply line)



1 x 1 inch flex line
and 2 x seals
for attaching to the valve
and vertical water supply
line



1 x Valve plate assembly
(M8 x 1.18 inch length)



4 x Anchor bolts
bolt M10x 3.937 inch
length



1 x Control box *
(earth leakage protection
switches, controllers, circuit
breakers, transformers)



1 x Sensor with
quick connectors *
temperature and level
sensor



1 x Drinker body seal
Spare part



1 x Drinker bottom seal

*Optional parts

Drinker WT 1830 G/K



(4 x drain plug , 1 x inspection cover with screws)



1 x Drinker lid



1 x Lid latch assembly
(depending on purchase)



1 x 1 inch flex line and
2 x seals
for attaching to the valve and
vertical water supply line



2 x drainage hose
4 inch x 19.68 inch length



1 x 1 inch Valve and
float assembly



1 x valve plate assembly
(plate, Screws, Washers, Spring
Washers)
M8 x 1.18 inch length



1 x Water supply
insulation tub
(for insulating the vertical
water supply line)



1 x Control box *
(earth leakage protection switches
, controllers, circuit breakers,
transformers)



1 x sensor with quick
connectors *
temperature and level
sensor



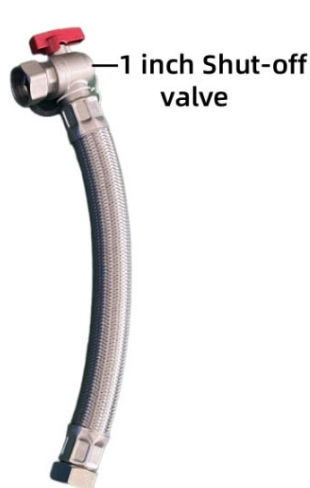
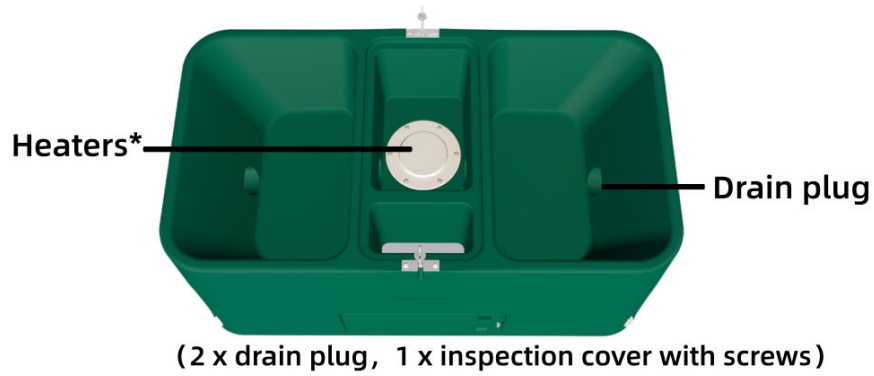
2 x clamp
For connecting drains to
sewage pipes



6 x anchor bolts
(bolts, washers, fender washers)
bolt M10 x 3.937 inch length

*Optional parts

Drinker WT 1830 G/K



(earth leakage protection switches
, controllers, circuit breakers,
transformers)



*Optional parts

Drinker WT 2244



(2 or 4 x drain plug, 2 or 3 x heaters *, 1 x inspection cover with screw)



1 x Drinker lid



1 x Lid latch assembly
(depending on purchase)



**1 x 1 inch flex line and
2 x seals**
for attaching to the valve and
vertical water supply line



2 x drainage hose
4 inch x 19.68 inch length



**1 x 1inch Valve and
float assembly**



1 x valve plate assembly
(plate, Screws, Washers, Spring
Washers)
M8 x 1.18 inch length



**1 x Water supply
insulation tub**
(for insulating the vertical
water supply line)



1 x Control box *
(earth leakage protection switches
, controllers, circuit breakers,
transformers)



**1 x sensor with quick
connectors ***
temperature and level
sensor



2 x clamp
For connecting drains to
sewage pipes



8 x anchor bolts
(bolts, washers, fender washers)
bolt M10 x 3.937 inch length

* Optional parts

Installation

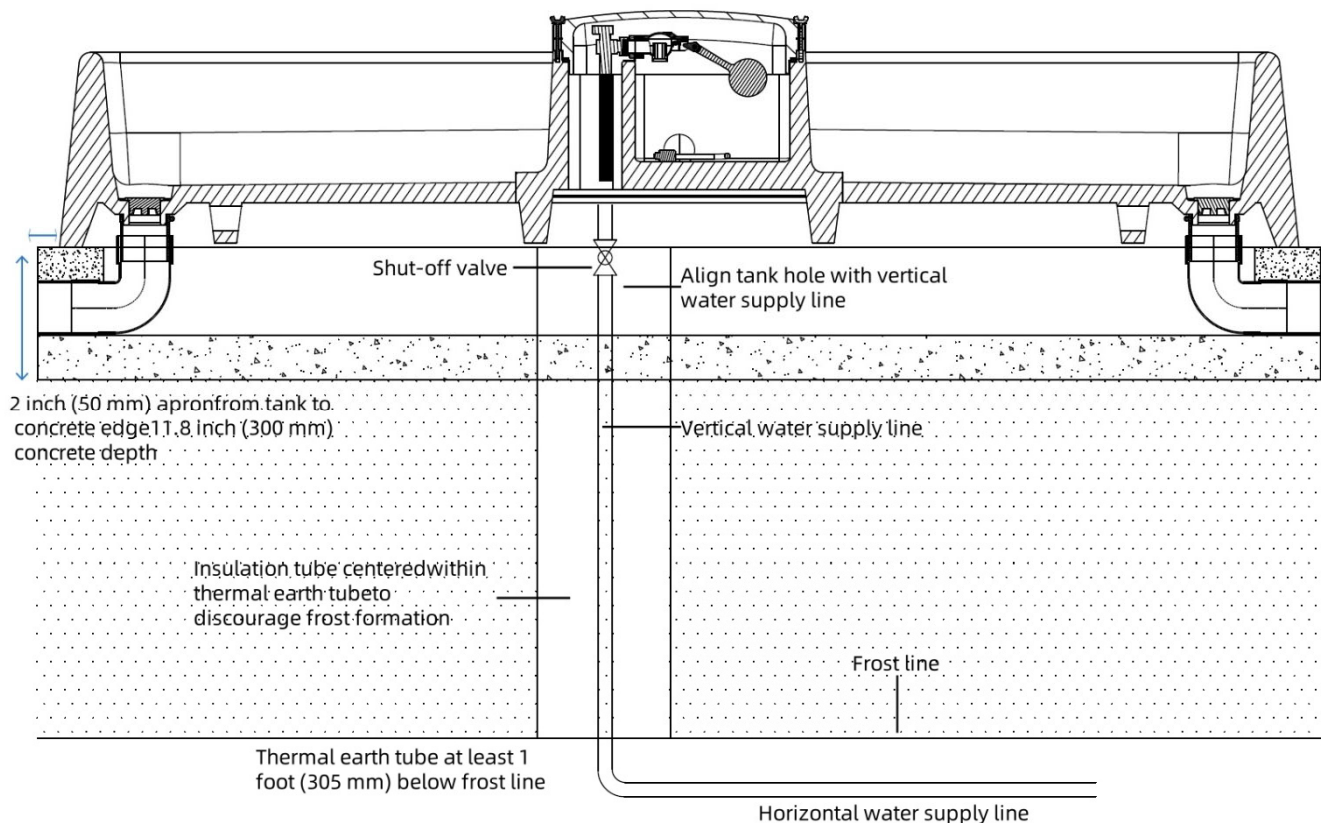
Cross-section of final installation

The drinker is designed to provide reliable fresh water to your livestock all year round.



When installing the drinker pay attention to the following areas:

- Choose a location where the tank will be sheltered from the elements.
 - The vertical water supply line and the horizontal water supply line should all be installed to reach more than 1 foot (305 mm) below the usual frost line.
 - The concrete slab should have a 11.8 inch (300 mm) by 2 inch (50mm) apron from the tank to the concrete edge.
 - Ensure that the placement of the water access hole in the concrete aligns with the anticipated placement of the water access cavity of the waterer.
 - ALL models: Make sure that your vertical water supply line **with** 1 inch male NPT fitting attached is 4 inch (100 mm) **above** the top of concrete.
 - The water supply line should be centered in the thermal earth tube (if using) to help discourage frost formation.
- To be effective, the thermal earth tube(s)* must be installed to reach at least 1 foot (305 mm) below the usual frost line.
- *Note that more than one thermal earth tube may be required.*





In addition to the shut-off valve located inside the unit, we strongly recommend that a second, external shut-off valve be installed outside of the concrete.



Have you turned off the water?

Step 1: Preparing the site

- a Choose a location that is easily accessible by livestock and sheltered from the elements.
- b Check the measurements of your drinker against the size of the concrete slab you need to pour. See *Concrete and tank hole alignment* on page 7.
- c The circular opening (hole) underneath the tank is off center.



Note where the thermal earth tube will align with the hole under the tank. See *Concrete and tank hole alignment* on page 7.

Check that you have aligned the hole in the concrete with the access cavity under the drinker.

Step 2: Installing the water supply lines

- a The horizontal water supply line should be at least 1 foot (305 mm) below the frost line.
- b Strongly recommended: If installing a shut-off valve, install it on the horizontal water supply line leading up to the tank (located outside the perimeter of the concrete slab).
- c The vertical water supply line should be 1 inch (25 mm) in diameter to connect to the horizontal water supply line. If your vertical water supply line is not 1 inch (25 mm) in diameter, you will need an adaptor.
- d Run the vertical water supply line about 10 inches (250 mm) above ground. You will cut it to a more precise length later.

Step 3: Installing the thermal earth tube

- a Install a thermal earth tube around the vertical water supply line. It must be at least 1 foot (305 mm) below the frost line. Ensure that the vertical water supply line is centered within the thermal earth tube.
- b If you are in a colder climate, we recommend an additional thermal earth tube be used to reach below the frost line by at least another foot (305 mm).

Step 4: Pouring the concrete slab

- a Before you pour the concrete, check that you are using the correct measurements for your drinker. See *Concrete and tank hole alignment* on page 7.
- b Install the thermal earth tube so that it is flush with the top of the concrete.

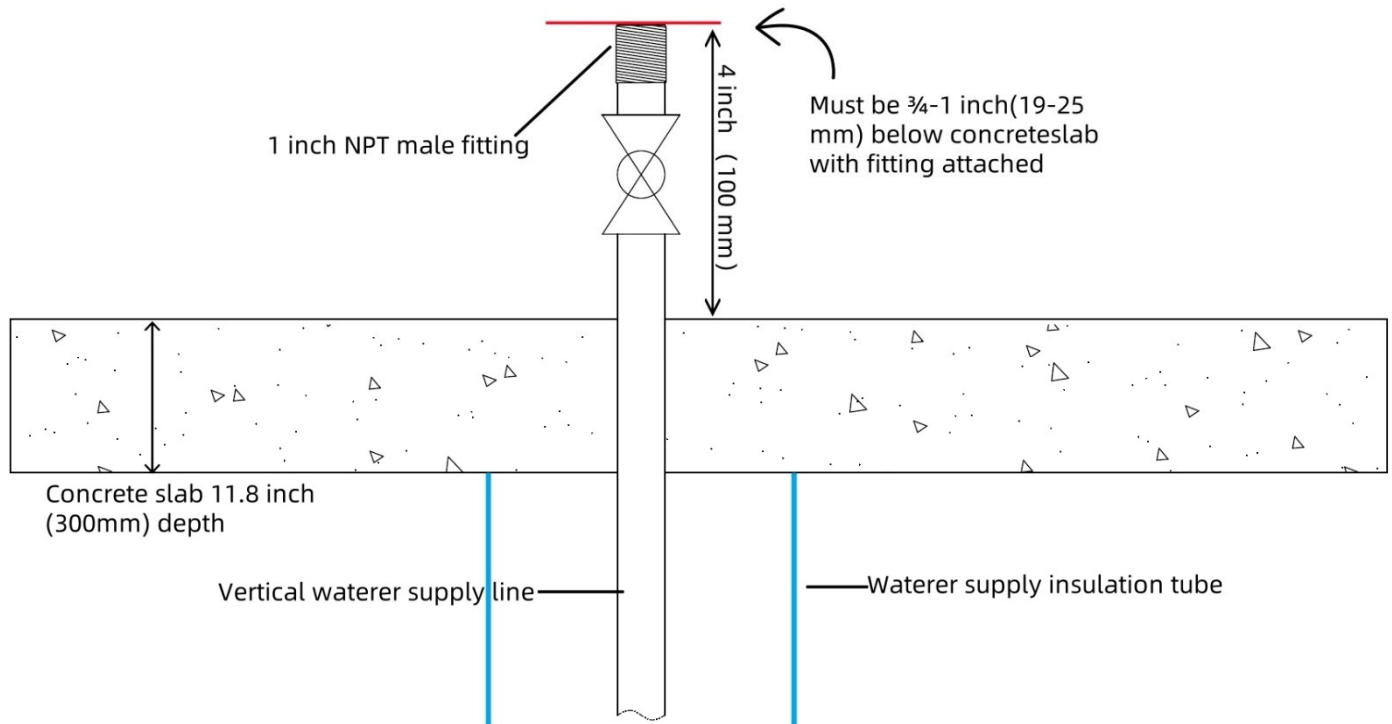


Do not pour concrete into the thermal earth tube or fill the space with dirt or any other material, as it will prevent warm air below the frost line from circulating around the vertical water supply line, and will cause the water line to freeze.

Step 5: Preparing the vertical water supply line

For the WT 2244 / WT 1155 / WT1830 / VT1330 / VT1030

Cut the vertical water supply line, and make sure it sits 4 inch (100 mm) **below** the above of the concrete **with** the 1 inch NPT fitting attached. This allows ample space to connect the 1 inch flex line to the valve, and then push any excess flex line back down through the access cavity.

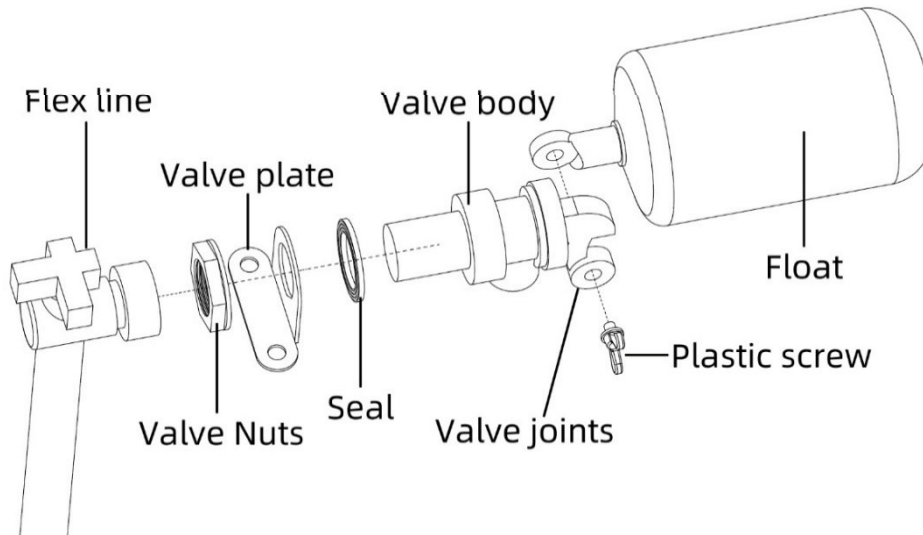


If the vertical water supply line is not cut to the required length, it will be difficult to connect to the valve and push any excess 1 inch flex line back down through the access cavity.

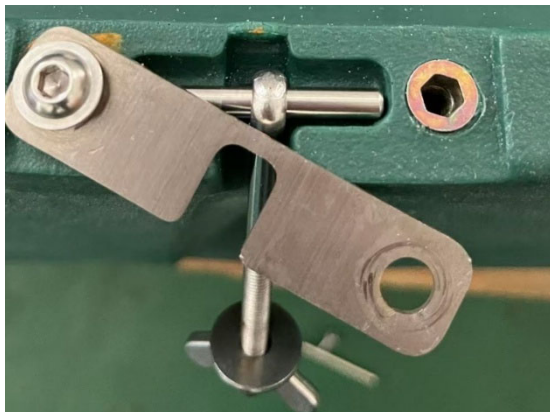
- a Cut the supply line per the details pictured above, and attach a 1 inch NPT male fitting onto the end of the vertical water supply line. This will connect to the drinker 1 inch flex line.
- b Insert one seal (supplied with the 1 inch flex line) into one end of the flex line. Connect that end to the vertical supply line and tighten with a pipe wrench.
- c Turn on the water to flush the line to remove dirt and debris, and to check for leaks at the connection. Turn off the water.
- d Slide the water supply insulation tube over the 1 inch flex line and vertical water supply line, making sure that the insulation tube reaches up to the valve.

Step 6: Preparing the tank

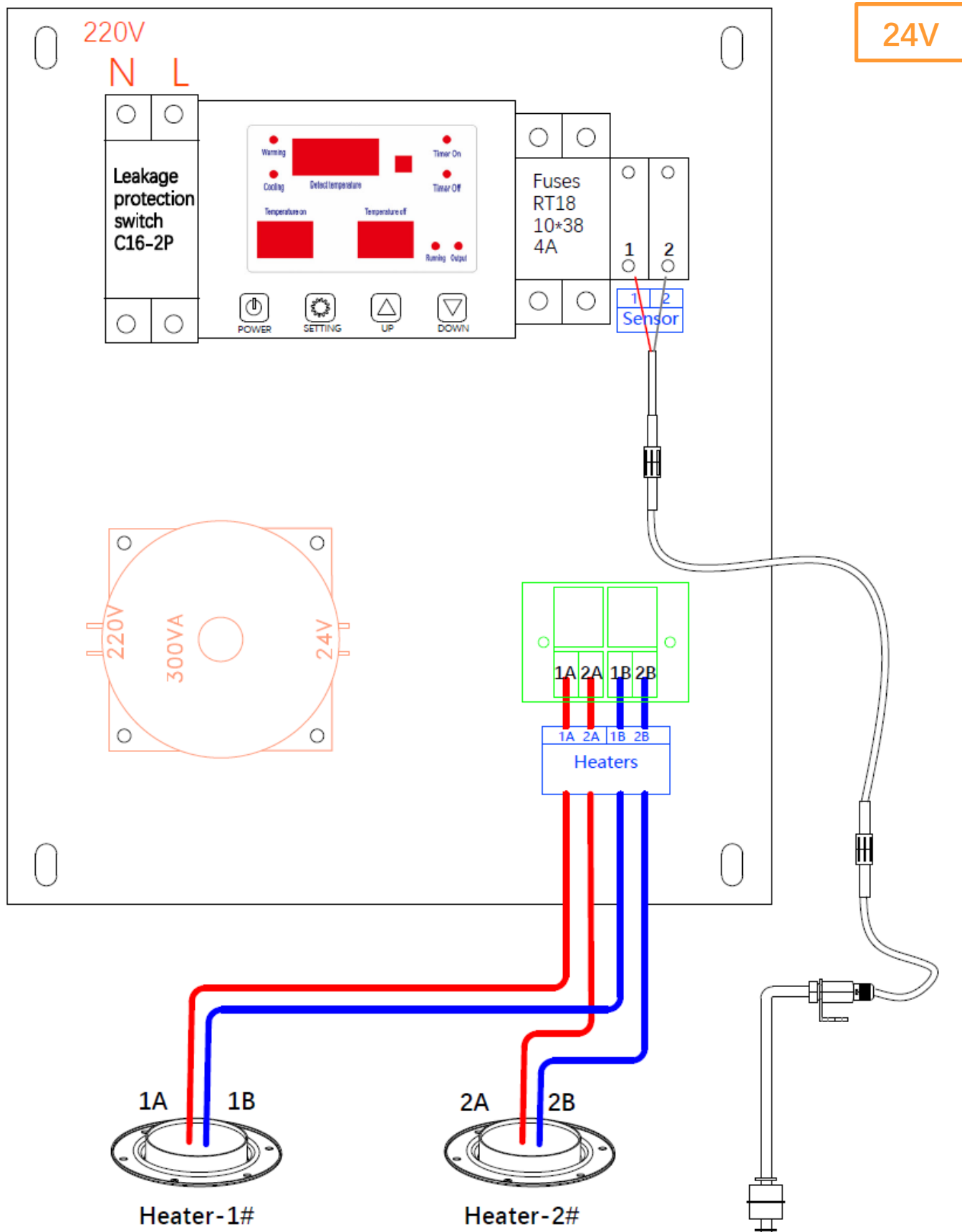
- a Assembling float valves.
- b Remove the float valve assembly and remove the valve plate assembly.
- c Install the float valve on the valve plate bracket as shown in the picture (note that the seal ring is on the side closest to the float)..



- d To prevent damage during shipping, we do not install the lid. Therefore, you will need to install it yourself, along with the lid lock assembly.

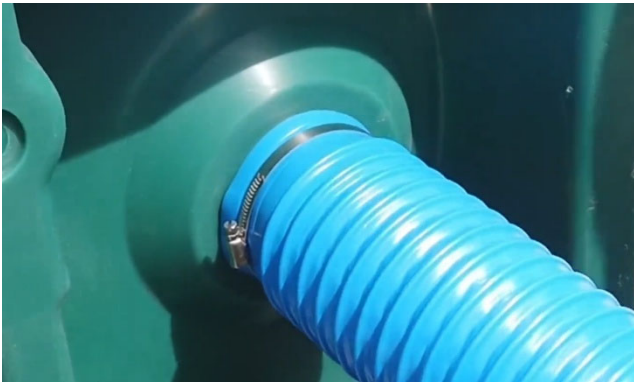


- e (If no heater is installed, this step can be skipped.) If you have selected a water dispenser with a heater, connect the heater cable to the bottom of the sink at this time. All heaters must be connected individually to the control box (For detailed information, please refer to the heating installation instructions)



When connecting heating plates in parallel, cold-pressed terminals must be used for the connections.

- f Connect the drain hose to the drain ports on both sides of the bottom of the drinker with clamps and tighten with a screwdriver. (If you purchased a water dispenser with a side drain, this step is not required)



Connect the water dispenser to the drain flex pipe



Connect the drain pipe

- g Lift the tank and carefully place it over the vertical water supply line and 1 inch flex line, so that the 1 inch flex line comes up through the tank top opening. The end of the 1 inch flex line should be 2-3 inches (5-7,5 cm) above the opening. This allows room to make connections to the valve. Excess line will be pushed back down into the tank bottom later.

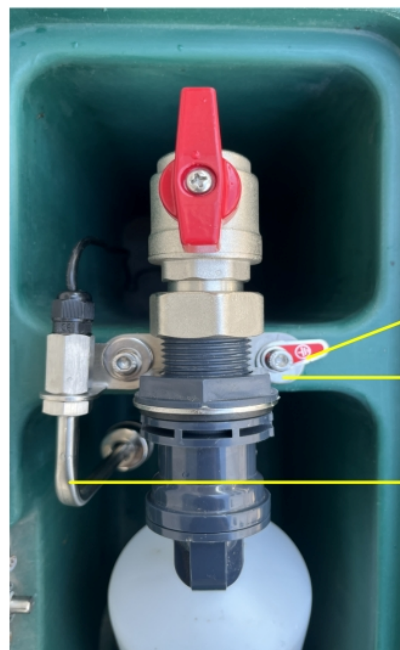
Step 7: Connecting the 1 inch flex line and valve

- a Install the remaining seal into the top of the 1 inch flex line.
- b Connect the 1 inch flex line to the valve and plate assembly. Do not over tighten.
- c Turn on the water and check for leaks. Turn off the water.
- d Carefully push excess 1 inch flex line back down through the tank bottom or opening of the tank.
- e Reattach the valve mount plate assembly to the tank with the supplied hardware and tighten.
- f Open the shut-off valve.

Shut-off valve SHUT



Shut-off valve OPEN



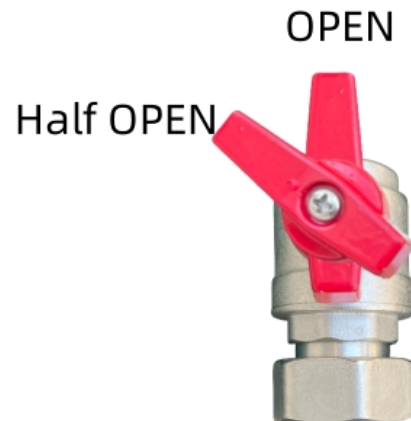
Connect the ground wire here.

Valve plate assembly

Sensor position



If high water pressure is an issue, the shut-off valve can be used to help reduce the flow of water into the valve. We recommend the use of a pressure reducer in situations where water pressure exceeds 87 psi. (See *Pressure and flow capacity* on page 24 if using a pressure valve).



Step 8: Filling the tank

- a Check that both(or four) drain plugs are screwed in tightly.
<If you are going to connect the drinker dispenser to the sewer line, you need to put the connected drain hose into the sewer line in this step>
- b Turn on the water supply to fill the tank and check for leaks. If no leaks are found, attach the tank top and float reservoir lid and fasten with supplied hardware.
- c Drill 14mm holes in the concrete using the moulded mounting openings found on each corner of the drinker.
- d Insert anchor bolts in each hole. Place washers over anchor bolts, then apply the nut. Tighten the nut and repeat on all corners so that the drinker is securely mounted.
- e We recommend caulking the perimeter of the tank to protect it from wind and debris.

Step 9: Setting the water level

Remove the drinker lid. Adjust the water to the desired level using the wing nuts on the valve. Once the water level is set, attach the drinker lid and tighten hardware.

Pressure and flow capacity

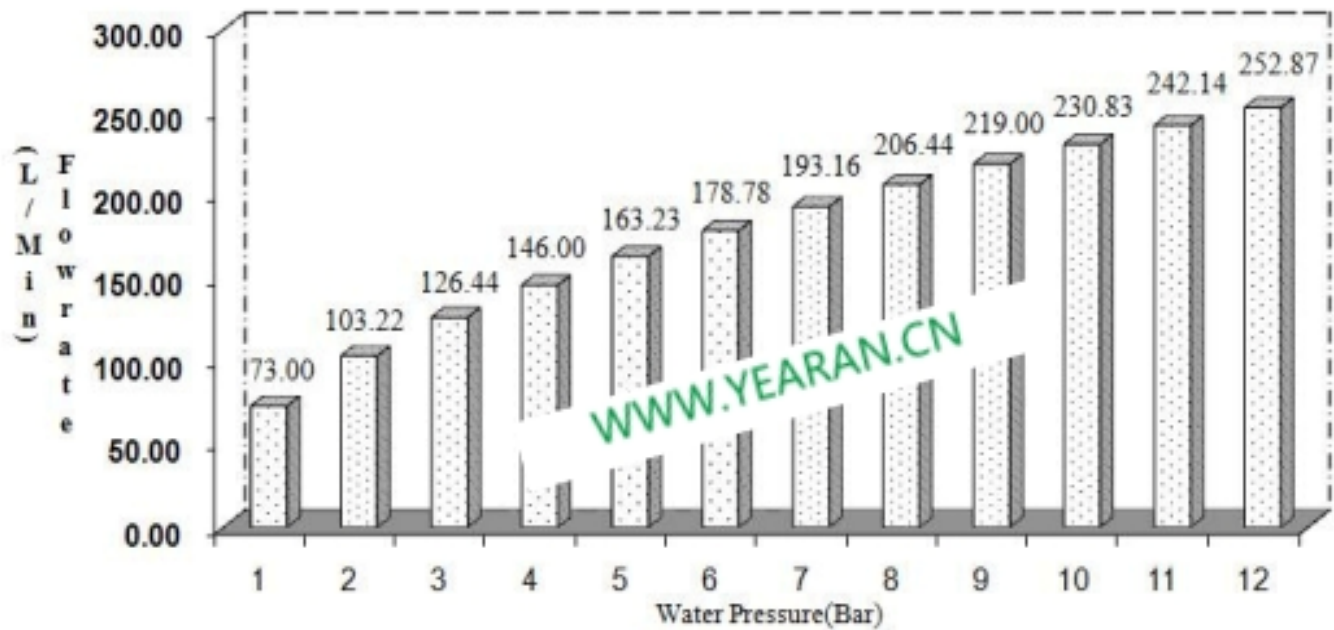
You may need to install a pressure reducer on the vertical water supply line in hilly areas where the water pressure is affected.



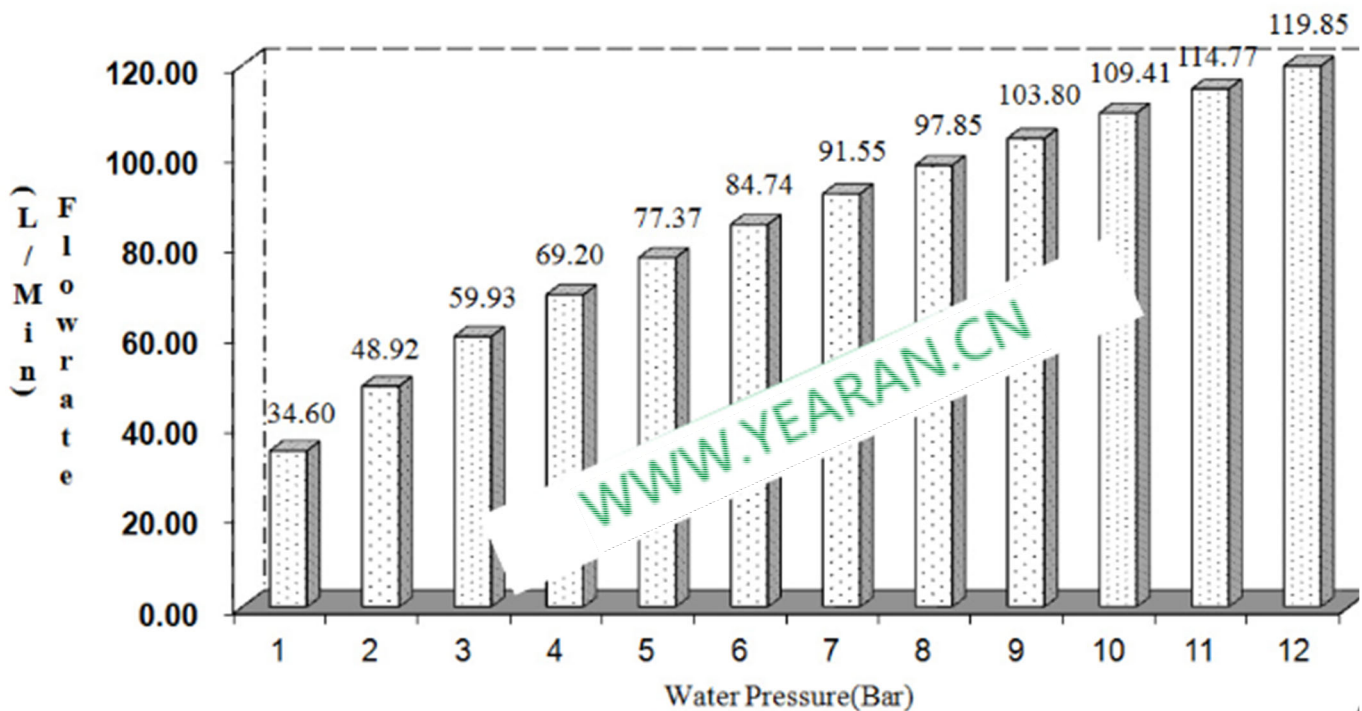
Pressure values are measured at the valve inlet while the valve is running.

Pressures measured at other locations in the water line will be different from those at the valve inlet.

Float Valve for WT2244/1830/1155/1151G



Float Valve for VT1330/1030



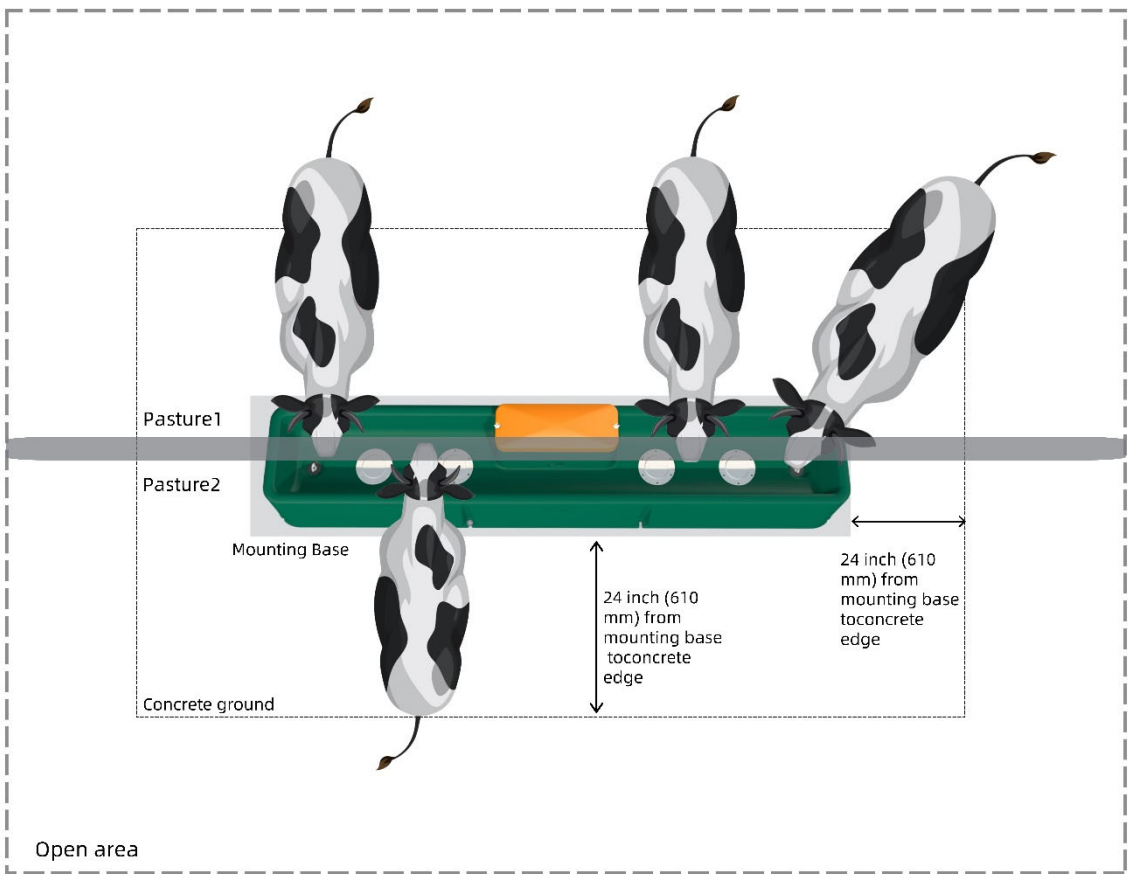
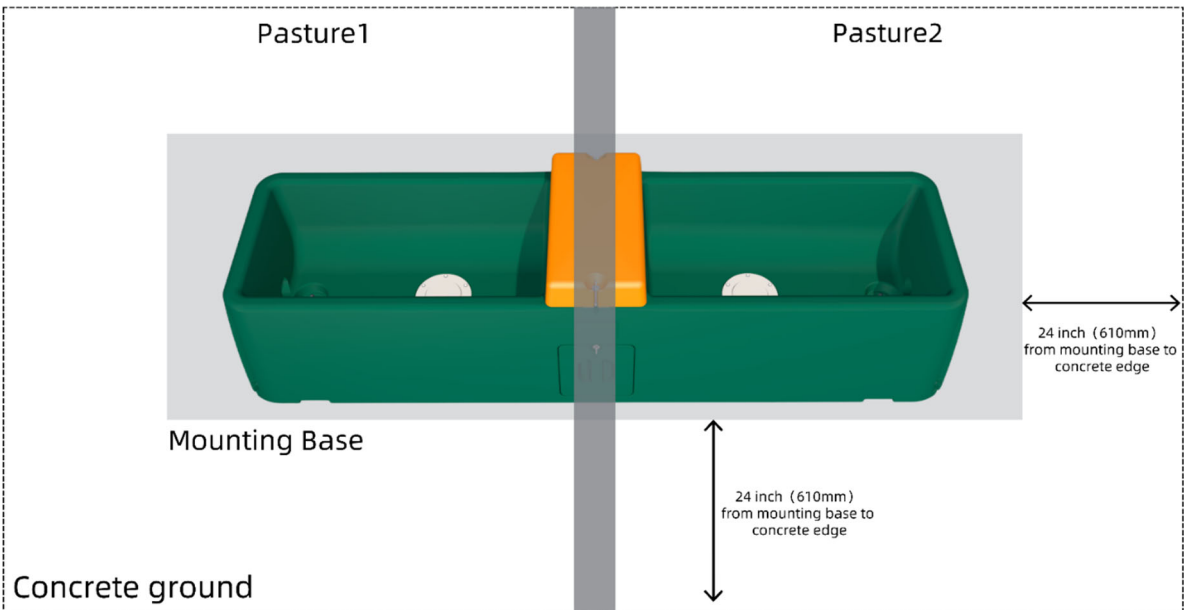
Metric measures

1 Bar = 100 Kilopascals which is 14.50 PSI (pounds per square inch).

Recommendations

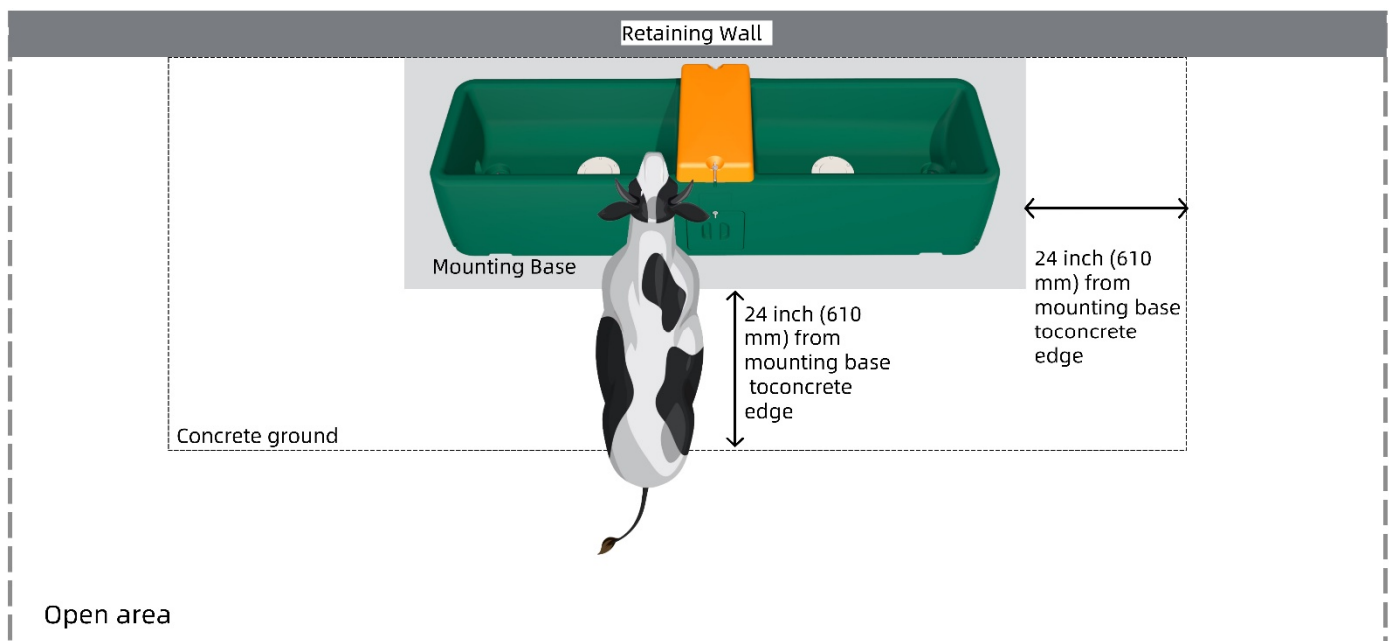
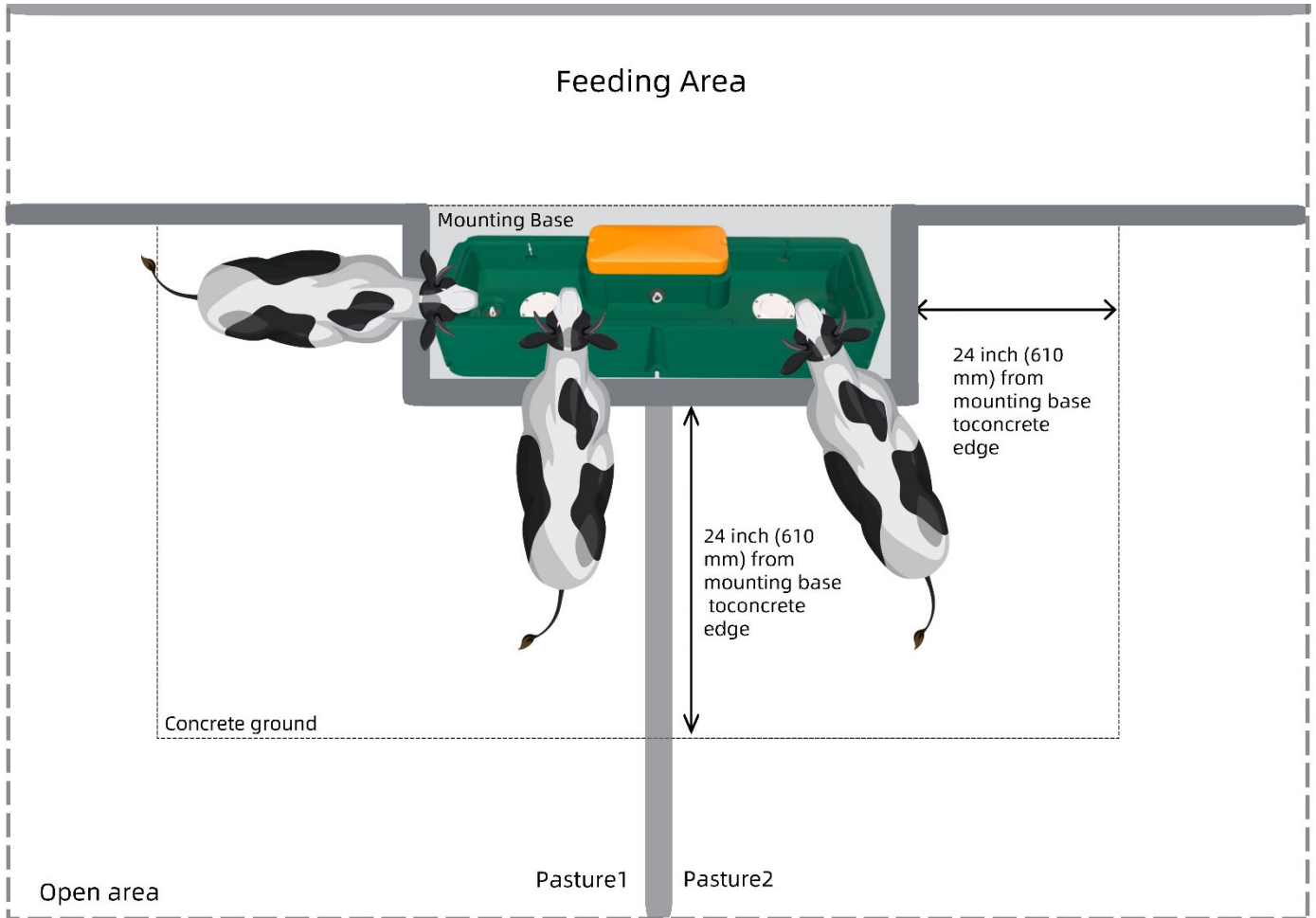
Split fence measurements

The drinker can also be used to split two pastures or pens with a fence line separating the drinking holes. This allows animals from both sides of the fence to have access to water.



Check that you have enough clearance between the drinker lid and fence so that you can lift the lid to get to the valve and float assembly.

You can utilize the feeding area for installation so that animals in 2 pastures can share the same waterer, which makes it easier for you to maintain and manage the waterer.



Typically, the water valve cover of a waterer should face the side of the feeding area, which makes it easier to maintain the product and reduces the chance of the animal opening the cover

Check that you have enough clearance between the drinker lid and fence so that you can lift the lid to get to the valve and float assembly.

General maintenance

If you are not using your drinker for extended periods of time, drain the tank and shut off the main water supply to the tank.

Clean the tank regularly to remove debris.

Depending upon the quality of the water supply, we recommend checking all seals and the diaphragm on an annual basis.

Troubleshooting

Symptom	Possible cause/s	Solution/s to check or action:
Water frozen in tank	Water frozen in lines or connections.	Vertical water supply line is properly insulated. Tank bottom is sealed on concrete. Cattle are drinking from the drinker, if not, drain and refill to recycle fresh water. Vertical water supply line is centered in the thermal earth tube. Horizontal water supply line is 1 foot (305 mm) below the frost line
Low water flow	Blockage or kinks in valves or vertical water supply line. Shut-off valve not set correctly.	Vertical water supply line is free from kinks. Valve and float assembly has no blockages. Shut-off valve is set to the open position. See images of shut-off valve positions on page 15 . Check water pressure with a pressure gauge.
Water dripping out of valve	Seals may need replacing.	Valve and float assembly is clear of debris. Check the valve diaphragm and seals. Check that the valve connections have been tightened. The shut-off valve is set to the open position. See images of shut-off valve positions on page 15.
Valve does not shut-off	Worn diaphragm.	Replace valve. Check pressure and flow capacity. See <i>Pressure and flow capacity</i> on page 16.
Drain plugs leak	Worn O-ring or loose plug.	Tighten drain plug.
Heater is not working.	Insufficient water level Cable disconnected Heater fault Sensor fault Controller fault	Fill the sink with enough water to float the sensor float. Check if the heater cable or sensor cable is disconnected. Replace the heater. Replace the sensor. Replace the controller.

Spare parts components

The parts below are available to order from your local drinker supplier.

Images are indicative of spare part and not shown to scale.

DRINKER SPARE PARTS



Drinker lid
(2 x screws , 2 x washers)



Valve and float assembly
1 inch



1 inch Shut-off valve

1 inch flex line and 2 x seals
for attaching to the valve and vertical water supply line



sensor with quick connectors *
temperature and level sensor



Rubber Drain Plug
with eyebolt



sealing assembly
seals and screws



Heater unit



Plate



For WT1830

For WT2244/1155 VT1030/1330



1 x Lid latch assembly
(depending on purchase)



For WT1830/4655

