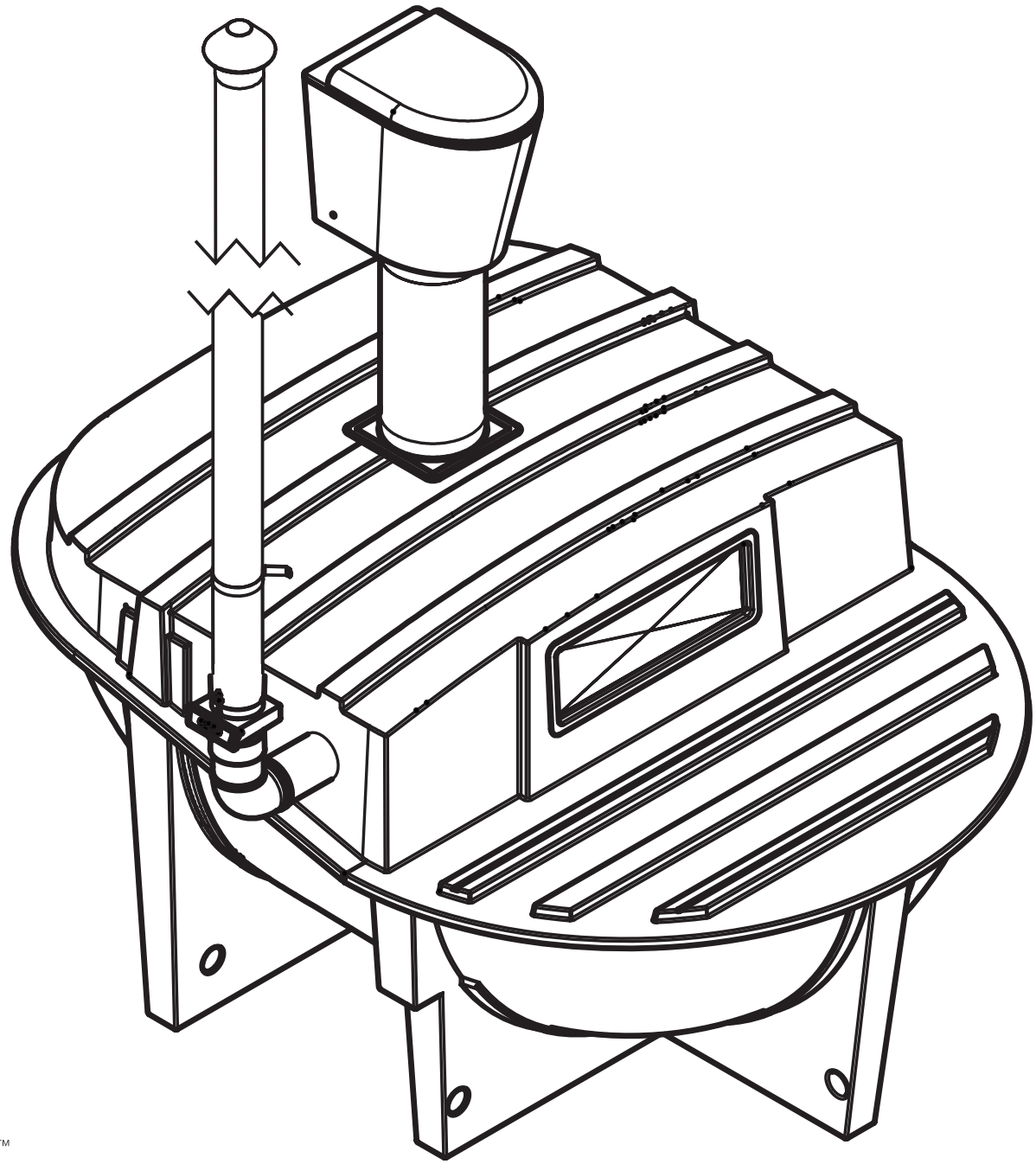
CM14 Next Gen.

AUS|NZ

INSTALLATION MANUAL

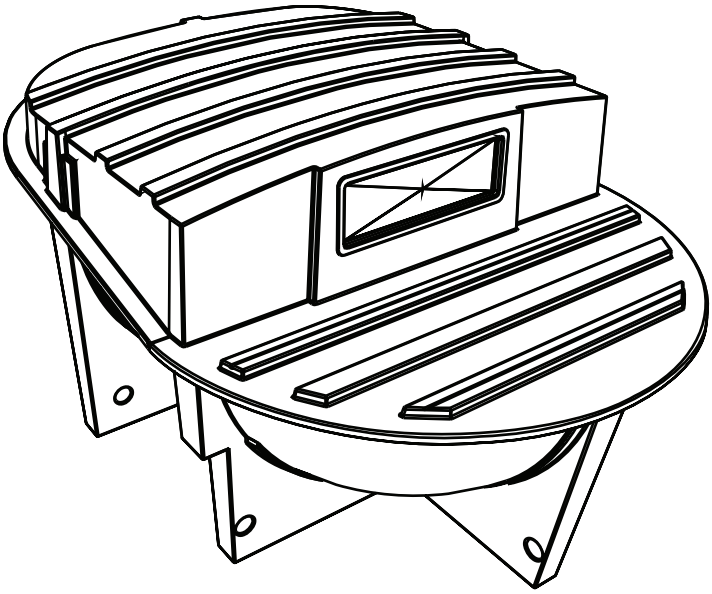


Certified Product™
Australian Standard
Lic No. SMKH25591
AS/NZS 1546.2
SAI Global

clivus multrum
WATERLESS COMPOSTING TOILETS

www.ecoflo.com.au 1300-138-182

CM14 TANK



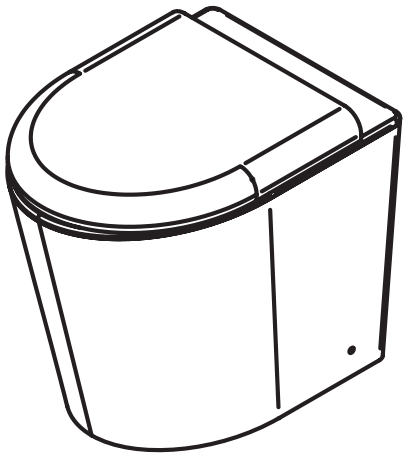
1x CM14 TANK

1x MAINTENANCE RAKE

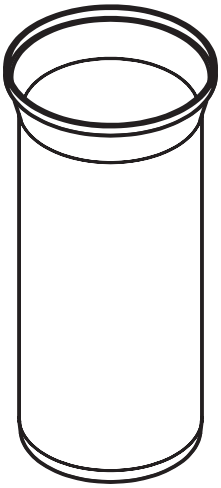
1x SILICONE SEALANT

1x 'HOW TO USE' SIGN

PEDESTAL



1x PEDESTAL AND TOILET SEAT



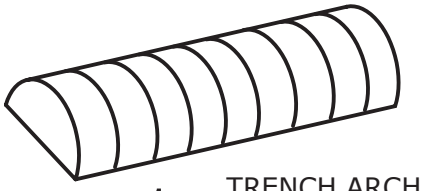
1x TOILET CHUTE

16x ROOFING SCREWS

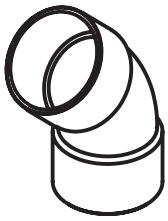
1x TOILET CHUTE COLLAR

DRAIN

1x LIQUID DRAIN PIPE CONNECTOR -50MM



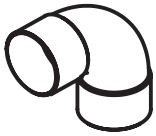
1x TRENCH ARCH DRAIN WITH END CAPS AND GEOCLOTH



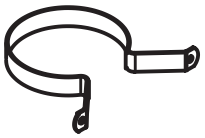
2x 45° BEND -50MM

1x PVC DRAIN PIPE - 50MM

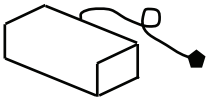
VENT



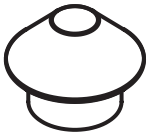
1x 90° BEND -100 MM



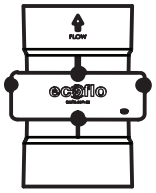
2x VENT SUPPORT BRACKETS AND 4 SCREWS



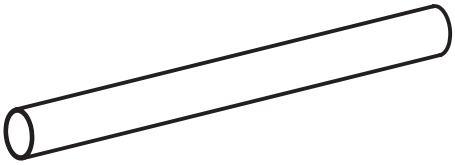
1x TRANSFORMER



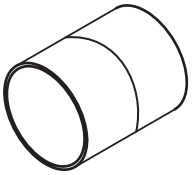
1x VENT COWL -100MM



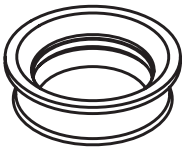
1x FAN IN HOUSING -100MM



4x VENT PIPE SECTIONS

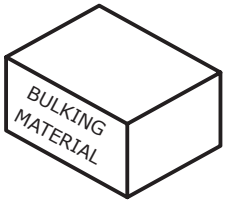


3x SLIP JOINERS -100 MM



1x WALLACE SEAL -100MM

CONSUMABLES

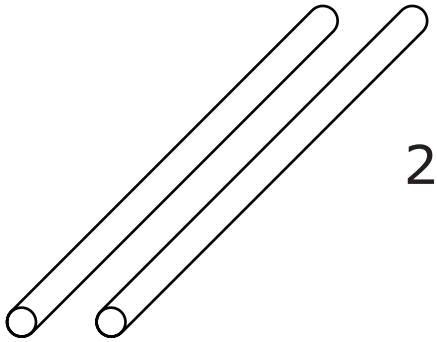


6x STARTER BULKING MATERIAL

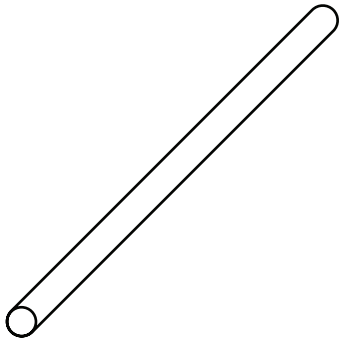
1x SPRAY BOTTLE

1x 125mL ENZYME

OPTIONAL PACK FOR BURIED INSTALL ONLY



2x *GALVANISED PIPE*
40NB 1500MM LONG



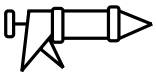
1x *GALVANISED PIPE*
40NB 1200MM LONG

TOOLS REQUIRED


Screwdriver (Philips/plain)


Spade

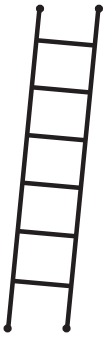

Spirit Level


Caulking gun


Scissors/Knife

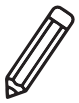

Drill


PPE


Ladder


Jigsaw


Tape Measure


Marker

MATERIALS REQUIRED

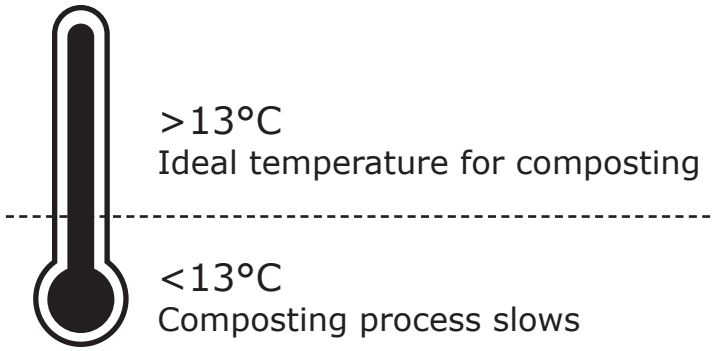
- Water for wetting starter material.
- Additional 50mm PVC pipe (coupling and bends if absorption trench is to be located some distance away from tank). Additional pipe bends if needed for vent pipe.
- In poor soil conditions, extra length of trenching arch or agi drain may be required.
- Drainage gravel for excess fluids drain.

INSTALLATION SUMMARY

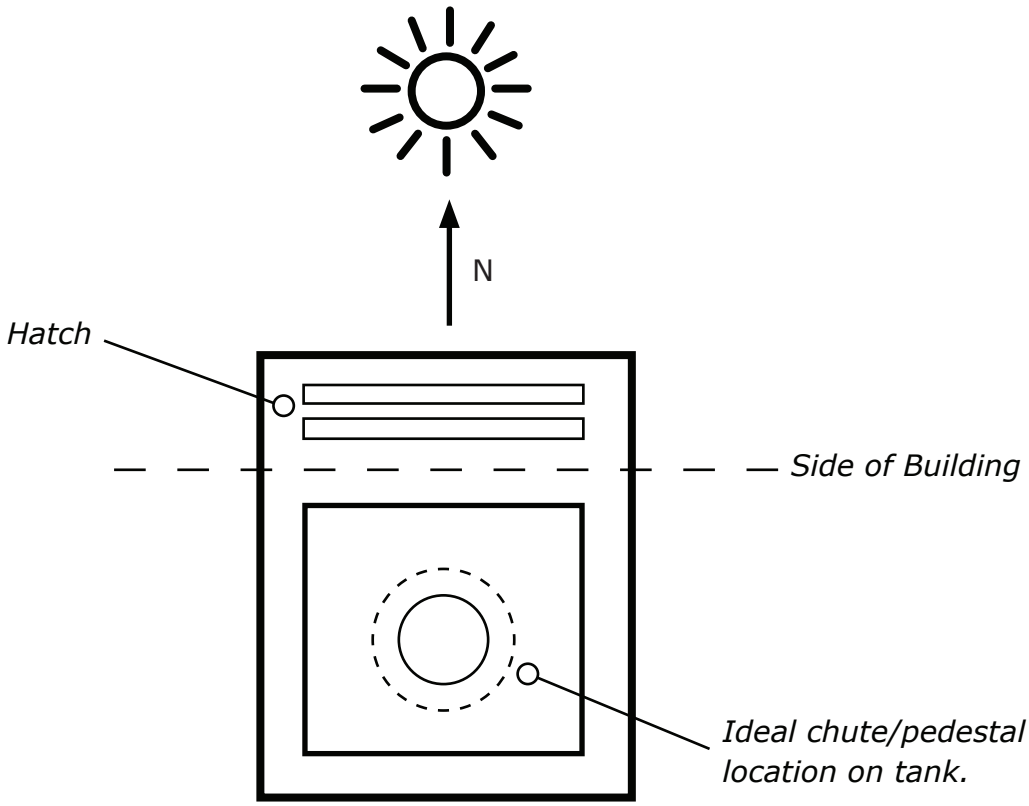
1. Ensure the tank is in a position so that the toilet chute will be perfectly straight over the tank below.
2. Ensure the tank foundation is solid with a sand or crusher dust bed.
3. Mark and cut holes in the floor for the toilet chute.
4. Mark and cut holes in the tank top.
5. Insert toilet chute and pedestal.
6. Install the vent system.
7. Install the liquid end-product drain pipe and absorption/transpiration trench.
8. Connect fan to power source.
9. Check everything is sealed.
10. Place a starter-bed of suitable bulking agent (e.g. wood shavings) in the unit.
11. Wet bulking agent before use of toilet.
12. Add starter bacteria after 14 days of use.

CONDITIONS

Any **decomposition process works better where temperatures are warmer**. Over the winter months the composting process slows or can even temporarily stop where temperatures in the pile drop below 4°C.



As the composting tank is black, it will absorb heat from the sun. **Simply by installing the compost bin on the north side of the house will make a dramatic difference to the composting process**. In addition, a translucent hatch and enclosure can be installed around the compost bin. In extreme alpine conditions it may be necessary to insulate the tank itself in addition to the above.



PLAN VIEW

POSITIONING THE TANK

If there is very little room between the top of the tank and the floor of the building, the order of the installation can be changed as follows: Firstly, cut the pedestal hole in the floor of the building (refer Section 9), mark the hole position on the tank when the tank is in position, but before the tank is secured into the ground. After the tank has been marked, it can be removed from under the building and then cut the hole in the tank and fit the chute collar before replacing the tank.

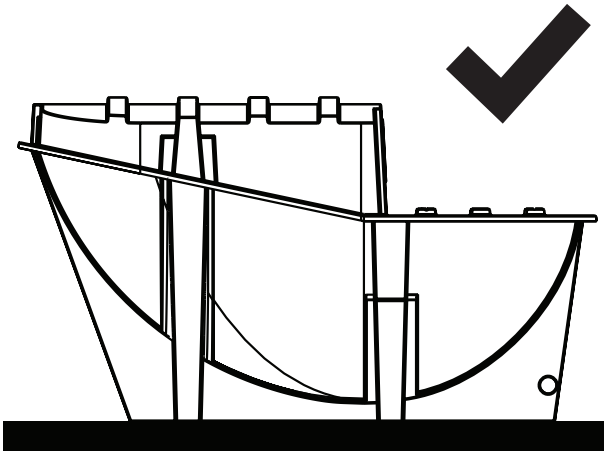
- ☐ Check the position planned for the toilet chute. The toilet chute must be positioned over the top of the compost tank. For less maintenance of the compost pile, the optimum location for the chute/s to enter the tank is mid-width, in the rear half of the tank. A clearance of at least 150mm from edge of chute to edge of tank-top is desirable to avoid rapid build up of the pile against the sides.
- ☐ Check there are no major support beams, pipes or electrical wire that are in the way of the toilet chute.
- ☐ Where mains power is to be used, check that a power point has been installed near the location for the ventilation fan.
- ☐ Locate where the excess liquid drainpipe and tench is to go and take this into account when positioning the tank.

TANK SUPPORT

The composting tank must be supported by either packed earth with the tank placed on a base of sand, or a wooden frame on a solid base; e.g. a concrete slab. Insulation between the tank and the concrete slab will reduce heat loss and aid the composting process.

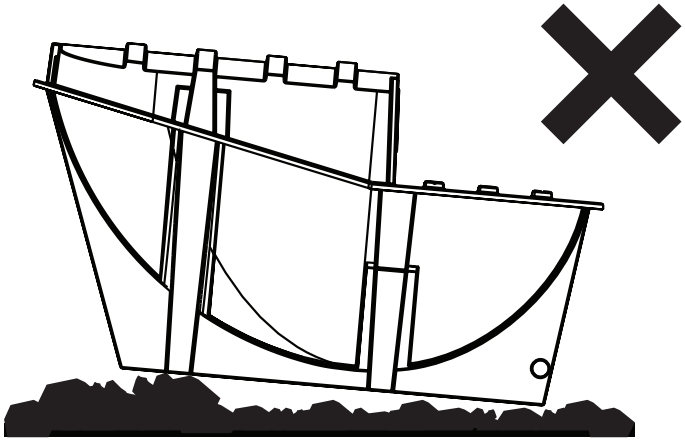
NOTE: The tank and enclosure should be protected from surface and floodwater.

Smooth Ground



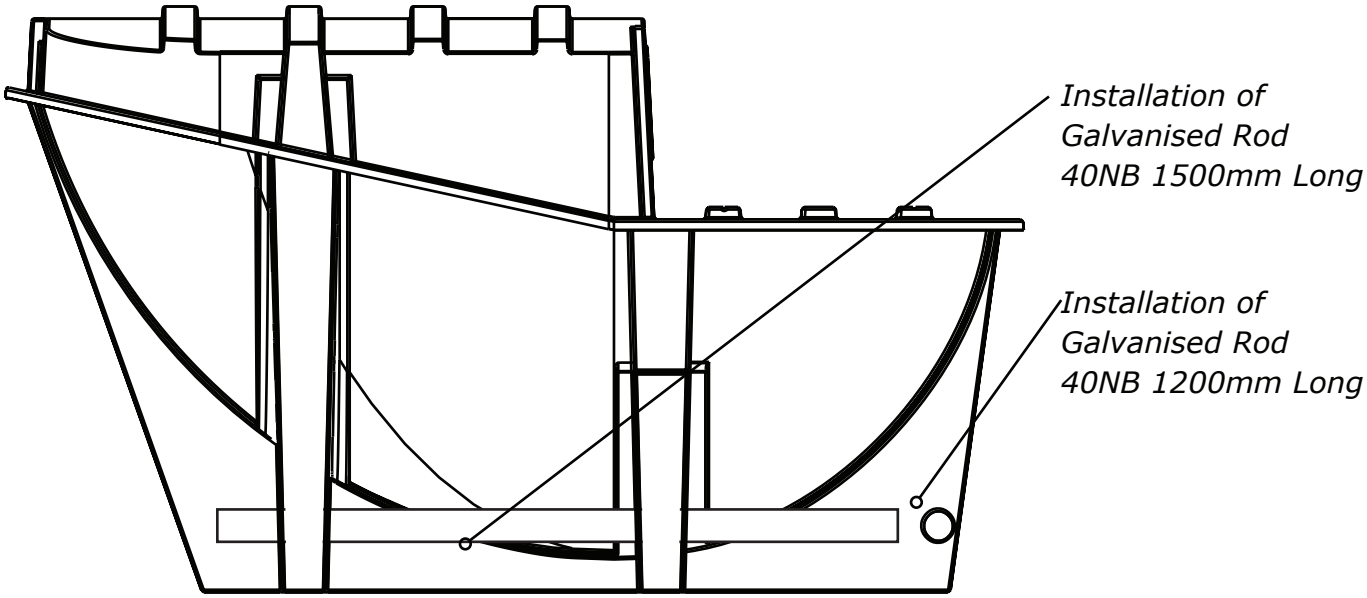
50-75mm bed of sand, fine dust or similar solid sub-soil

Uneven Ground

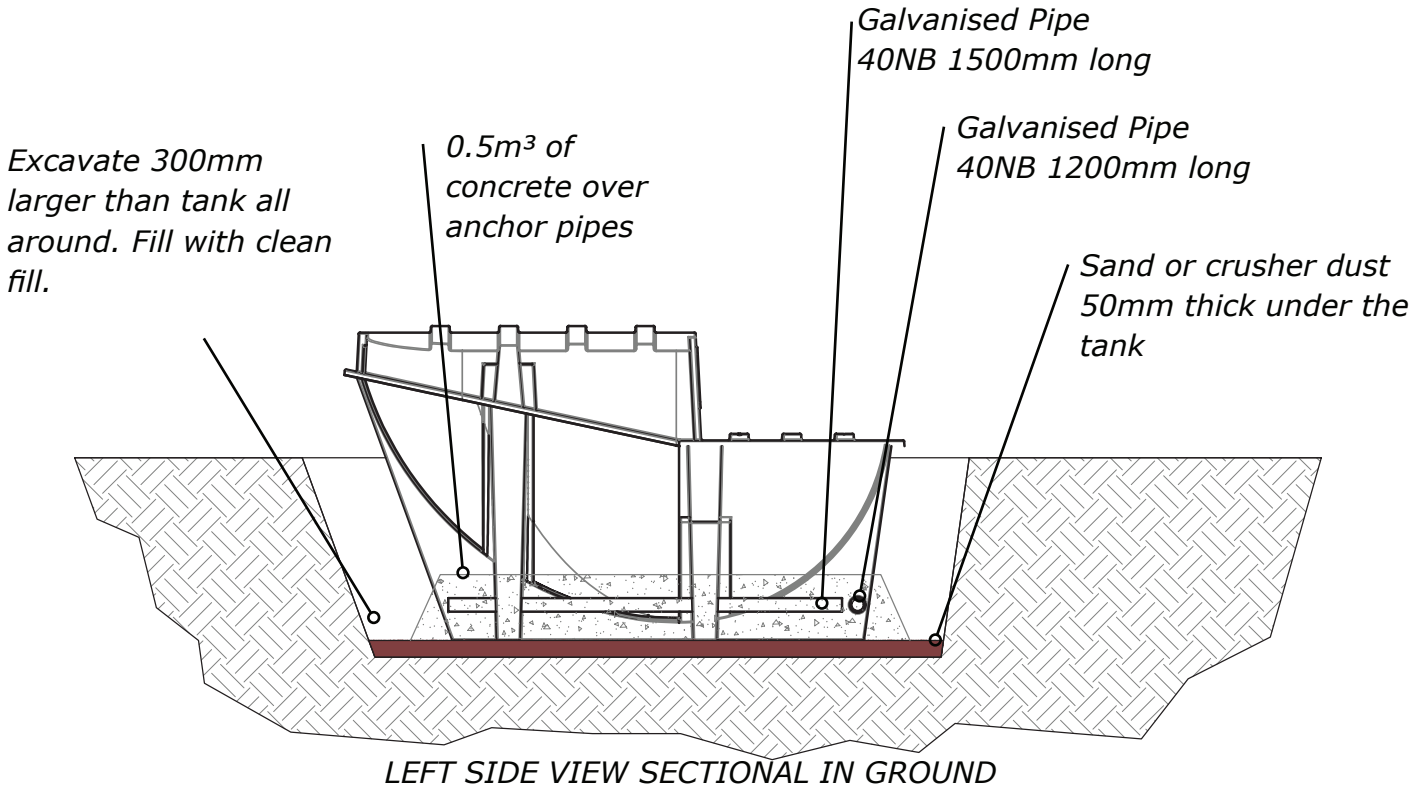


FOR BURIED INSTALL SYSTEM ONLY

For a buried system it is required to hold the tank down with galvanised rods. These are slid into the slots provided on both sides and the front of the CM10 tank.

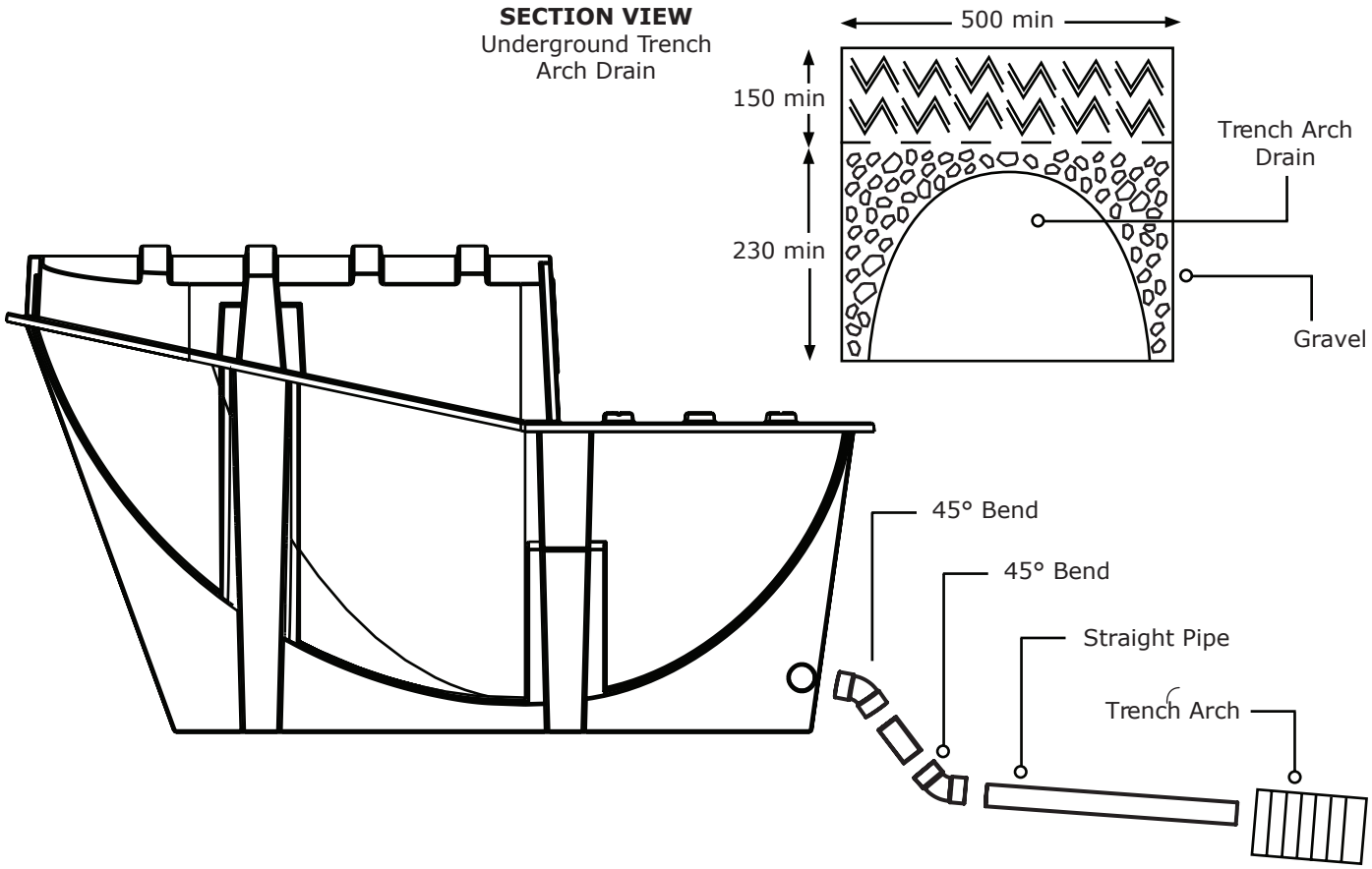


LEFT SIDE VIEW



LEFT SIDE VIEW SECTIONAL IN GROUND

EXCESS LIQUID DRAIN INSTALLATION



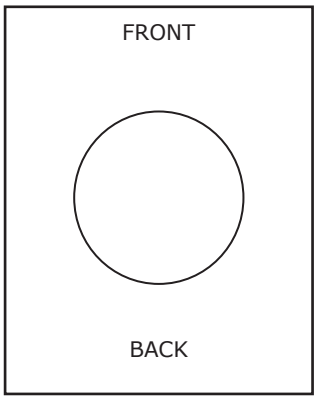
TOILET CHUTE & PEDESTAL

1

Please refer to the Pedestal installation manual for instructions on how to locate the pedestal in your bathroom.

A3 Template to cut chute hole at the correct size.

A3 Template



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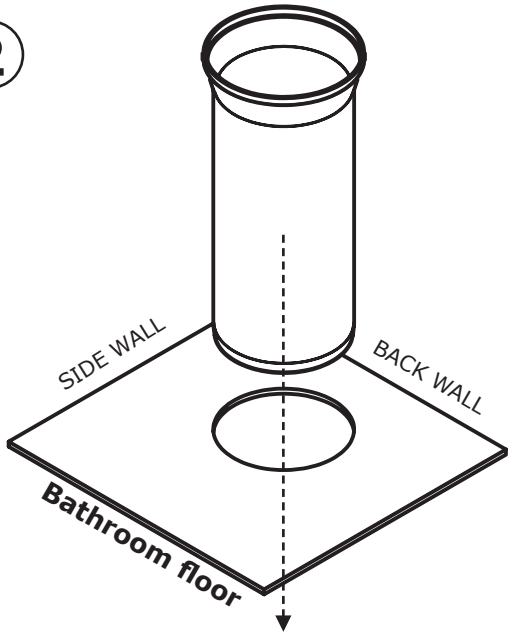
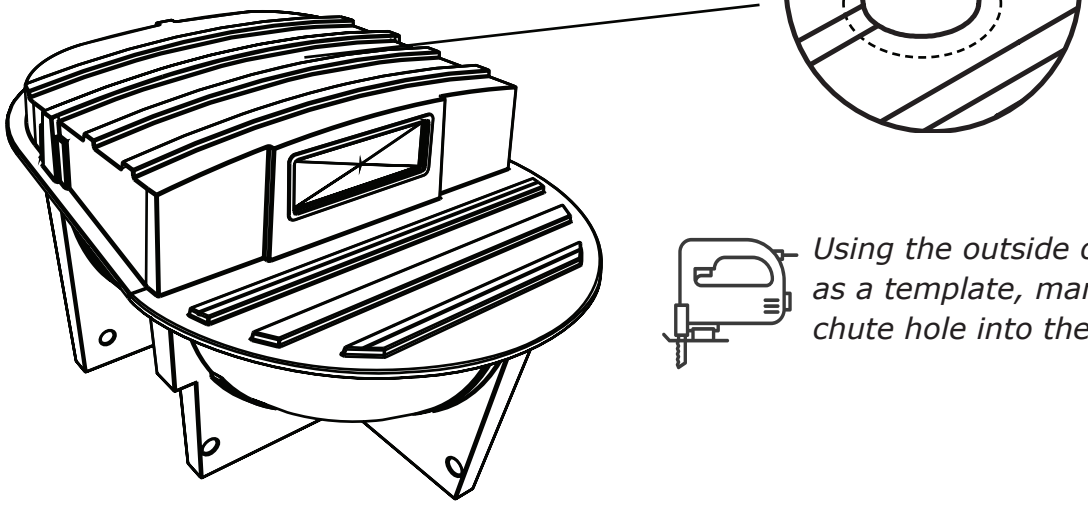


< **5mm of sideways play** *around the hole.*

Note: If the floor of the building is high above the top of the tank a chute extension piece/s may be needed. Extra lengths are available from your supplier. Joints should be screwed with short self-tapper screws, and sealed with silicon. If more than 2 chutes are joined then additional support straps or brackets are needed to support their weight from the building frame, instead of hanging only by the top chute.

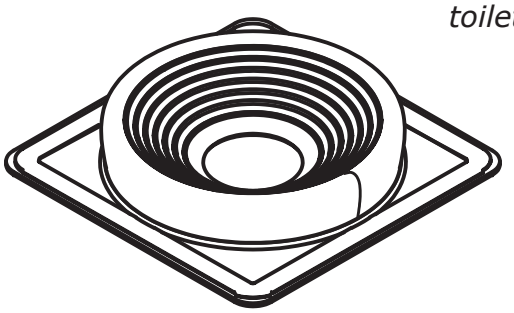
3

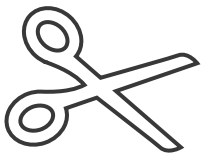


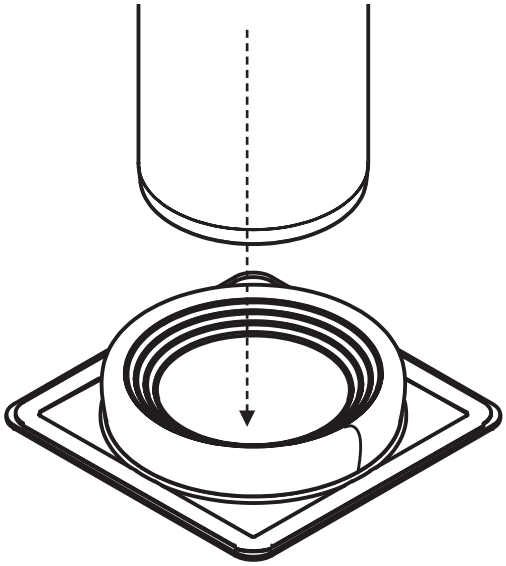
Using the outside of the toilet chute as a template, mark and cut the chute hole into the top of the tank.

4

Enlarge the hole in the rubber chute collar so it will stretch snugly around the toilet chute without gaps.







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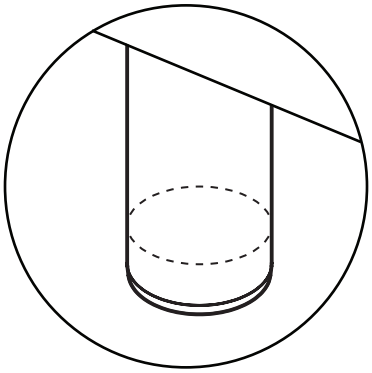
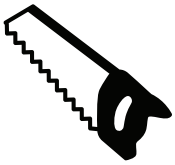
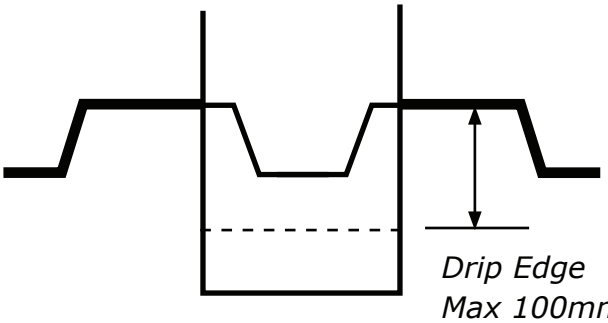


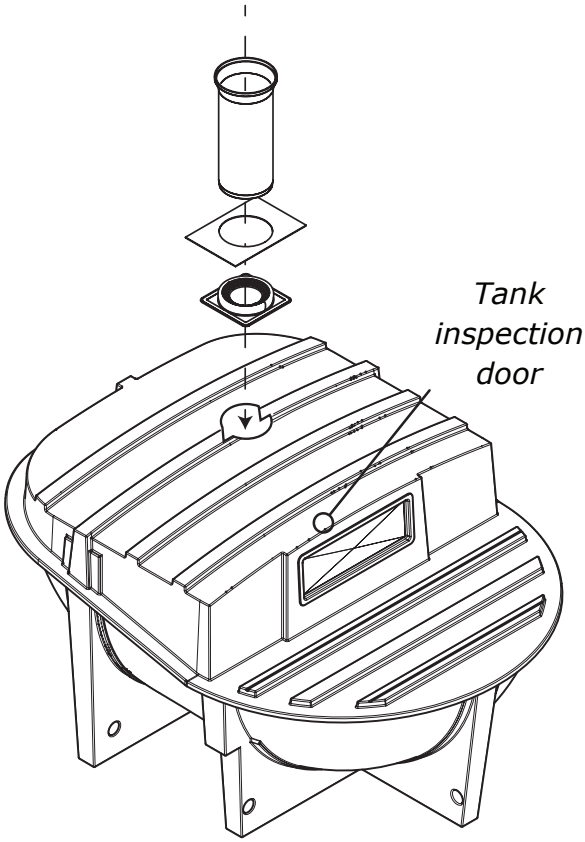
Mark and cut chute.

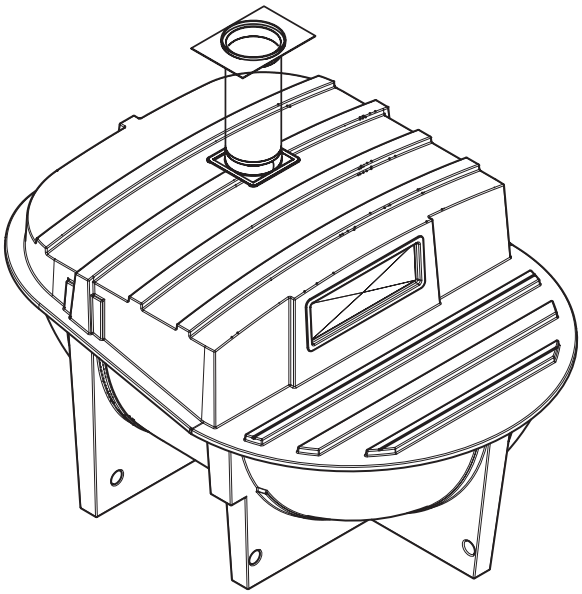




SECTION VIEW

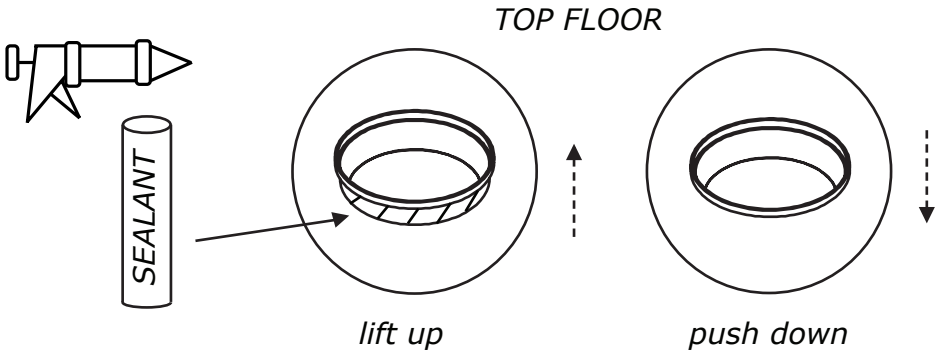
6





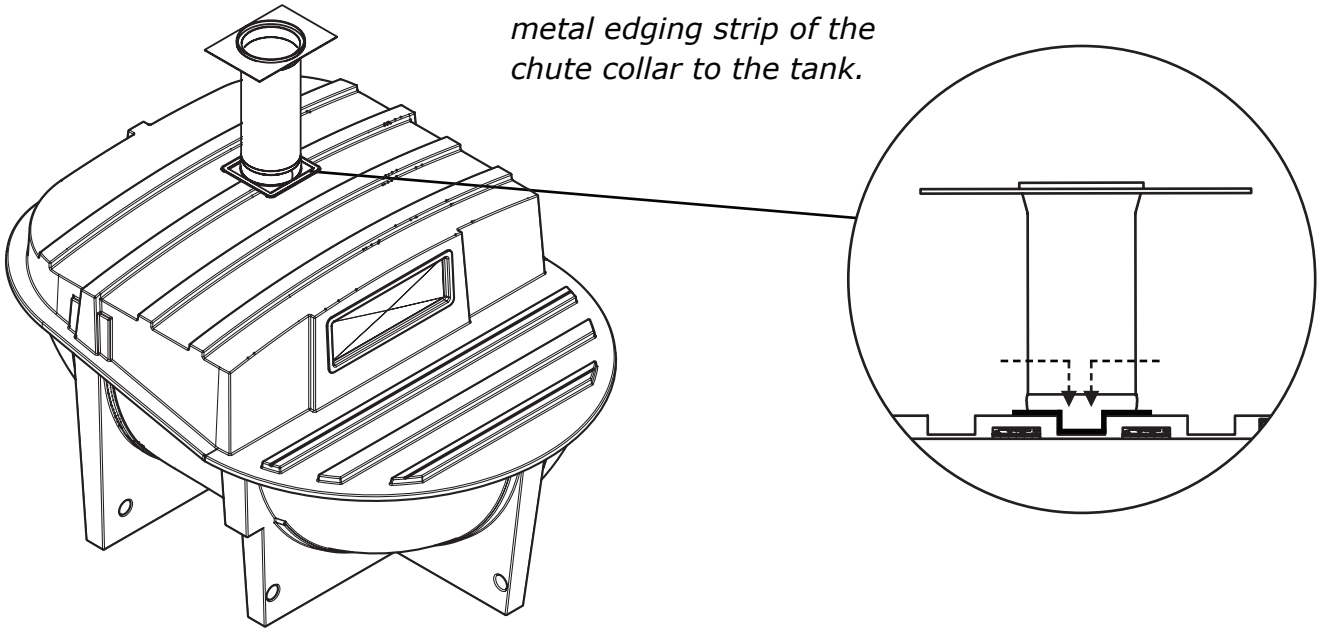
7

Lift the toilet chute slightly and put sealant between the toilet chute and the floor then **press chute down** *again to seat firmly onto the floor.*



8

Bend *and move the metal edging strip of the chute collar to the tank.*



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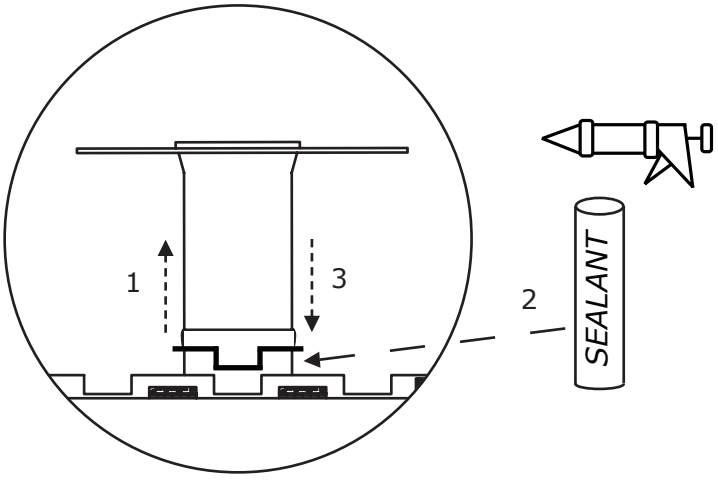
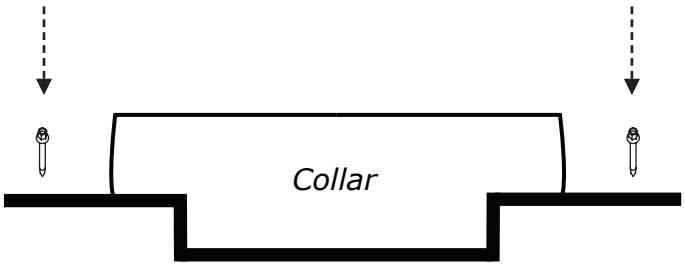


Run a bead of silicon sealant around the underside edge of the collar.

Using the 1/2 stainless screw provided, secured the collar of the tank top by screwing through the metal edging strip.



NEXT STEP: 'FIX THE PEDESTAL'

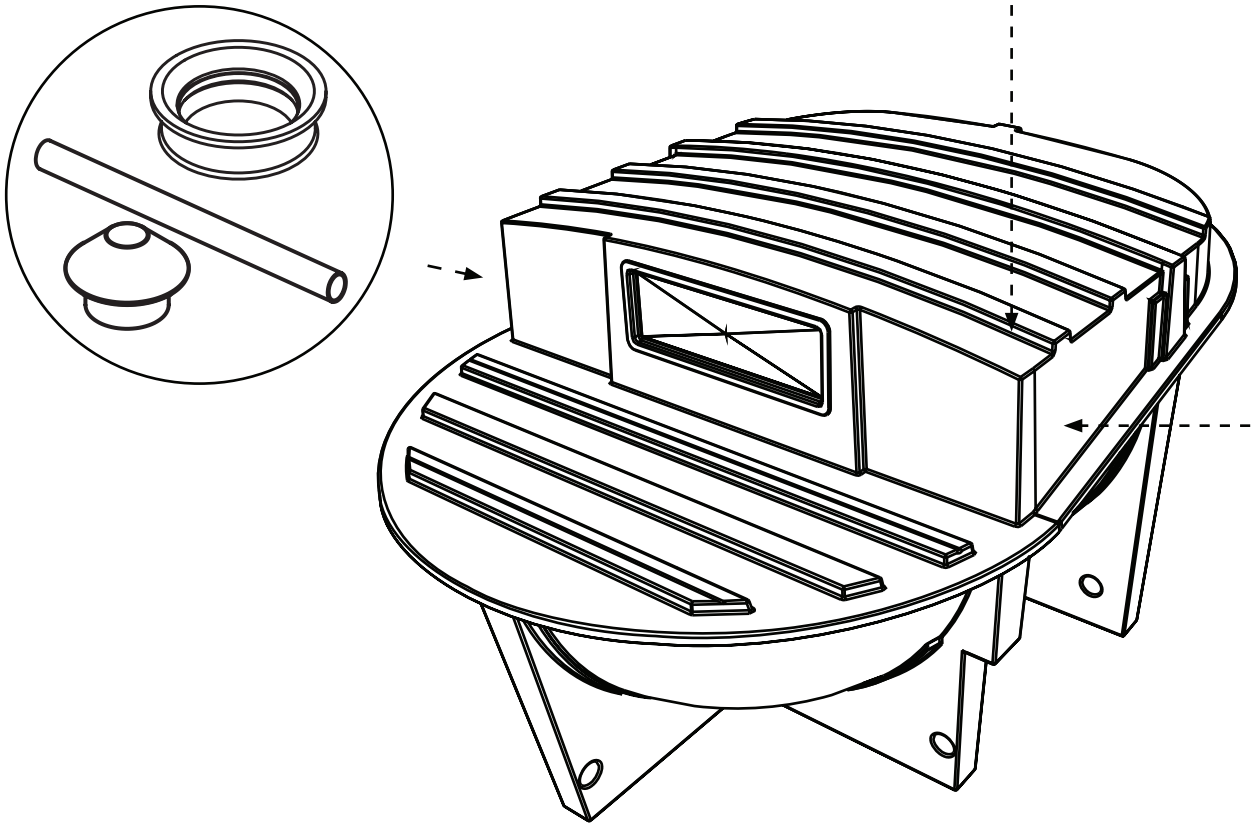
See manual for pedestal installation.

INSTALLATION OF VENTILATION SYSTEM

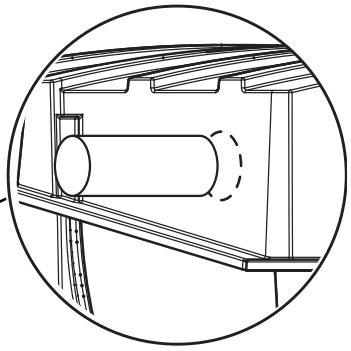
Note: As air flow is essential to the operation of the unit, **the fewer bends that are used when installing the vent system the better.**

Plan the vent pipe layout.

1



The hole for the vent pipe is best at the side of the tank or along the top edge, as far as practical from the nearest chute entry. Refrain from placing it along the front face as this can hinder opening of inspection lid.



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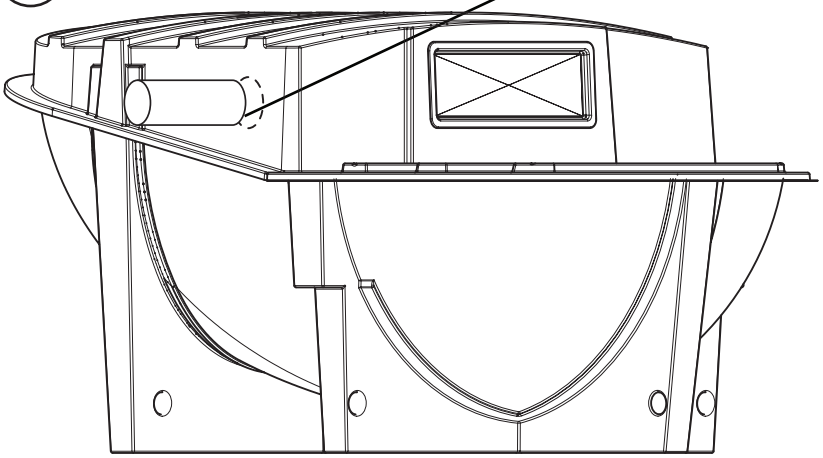
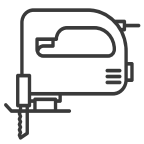
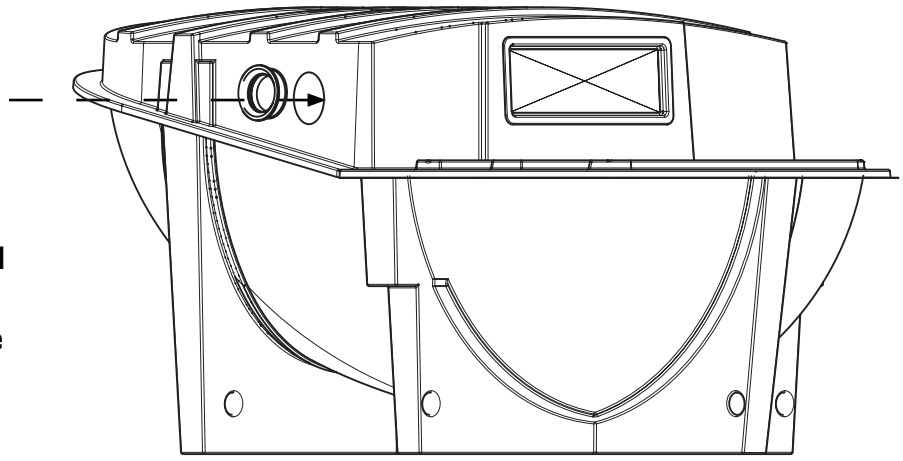




Cut hole 121mm in diameter (as noted on the wallace seal).

3

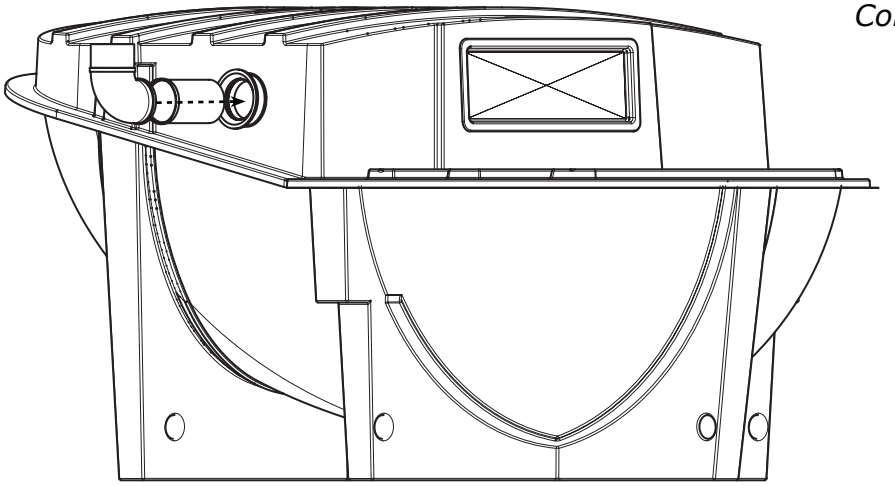
Secure Wallace seal into position.



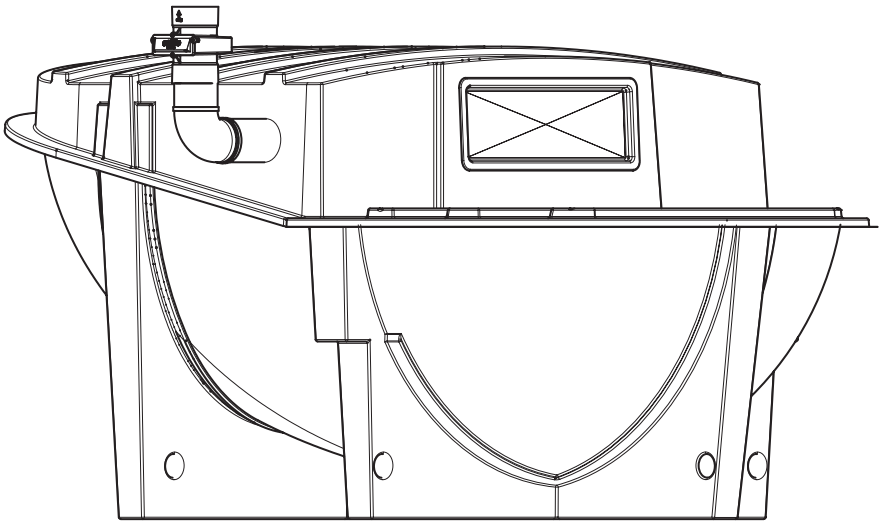
Tip: Putting the wallace seal in hot water for 5 minutes can help when installing the PVC pipe.

4

Secure pipe fittings according to building/roofing instructions. Complexity may vary.



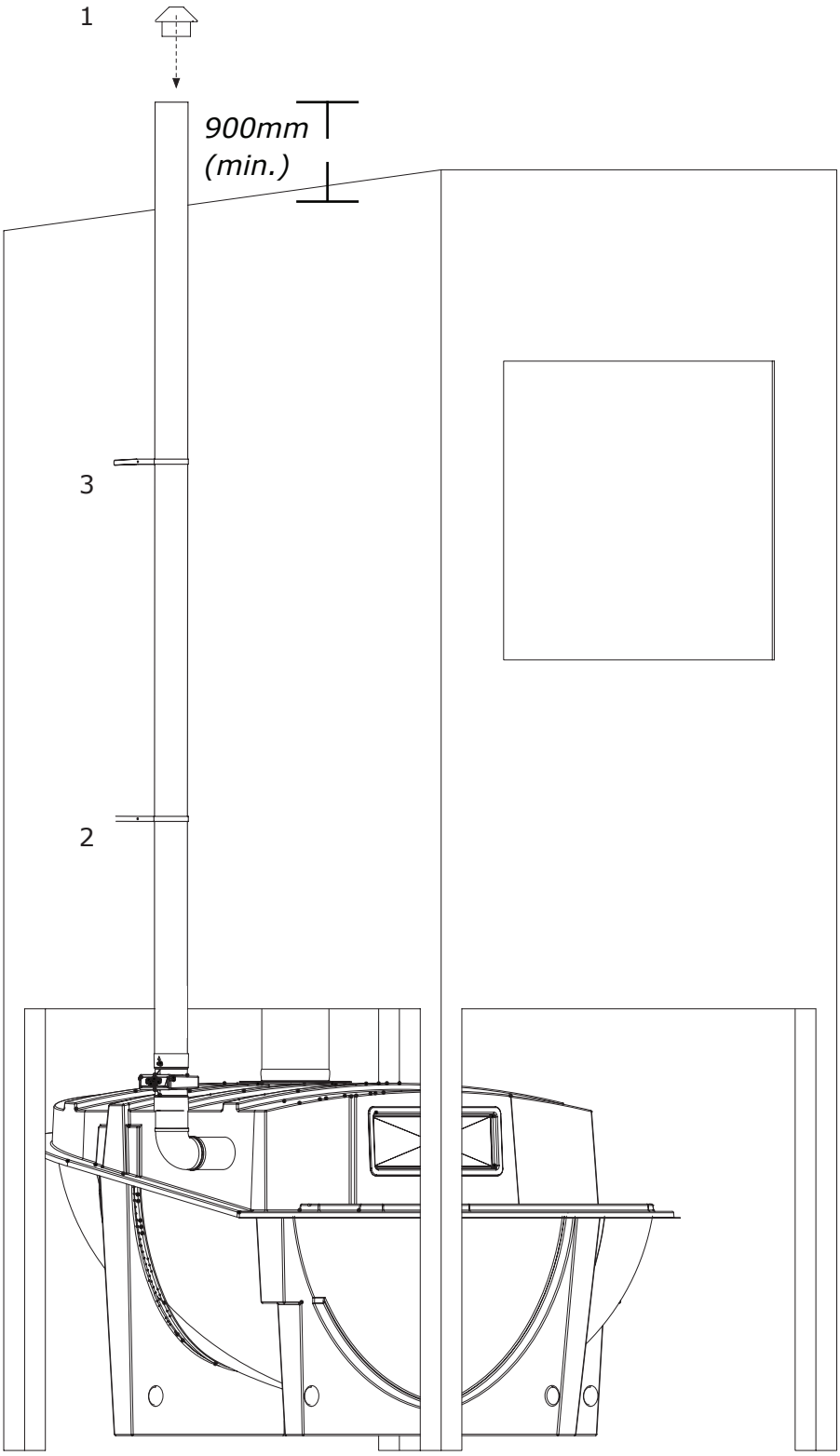
5



Mount the fan housing onto the vent pipe. Position the fan housing so that it can be easily accessed and secure with silicon.

6

Install the vent cowl or optional turbo vent (1). Secure with 3 self-tapping screws.



7

Attach the upper section of the vent pipe. The pipe should be **supported against the wall** *of the building with the brackets provided (2,3). This configuration will vary depending on location of CM14.*

STARTER-BED OF ORGANIC MATTER

SUITABLE BULKING MATERIAL

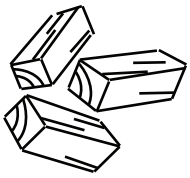

Wood shavings

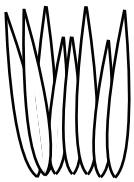

Hemp


Dry Leaves

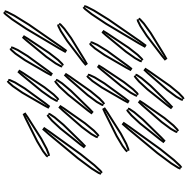

Peanut or coconut husk

NOT SUITABLE BULKING MATERIAL

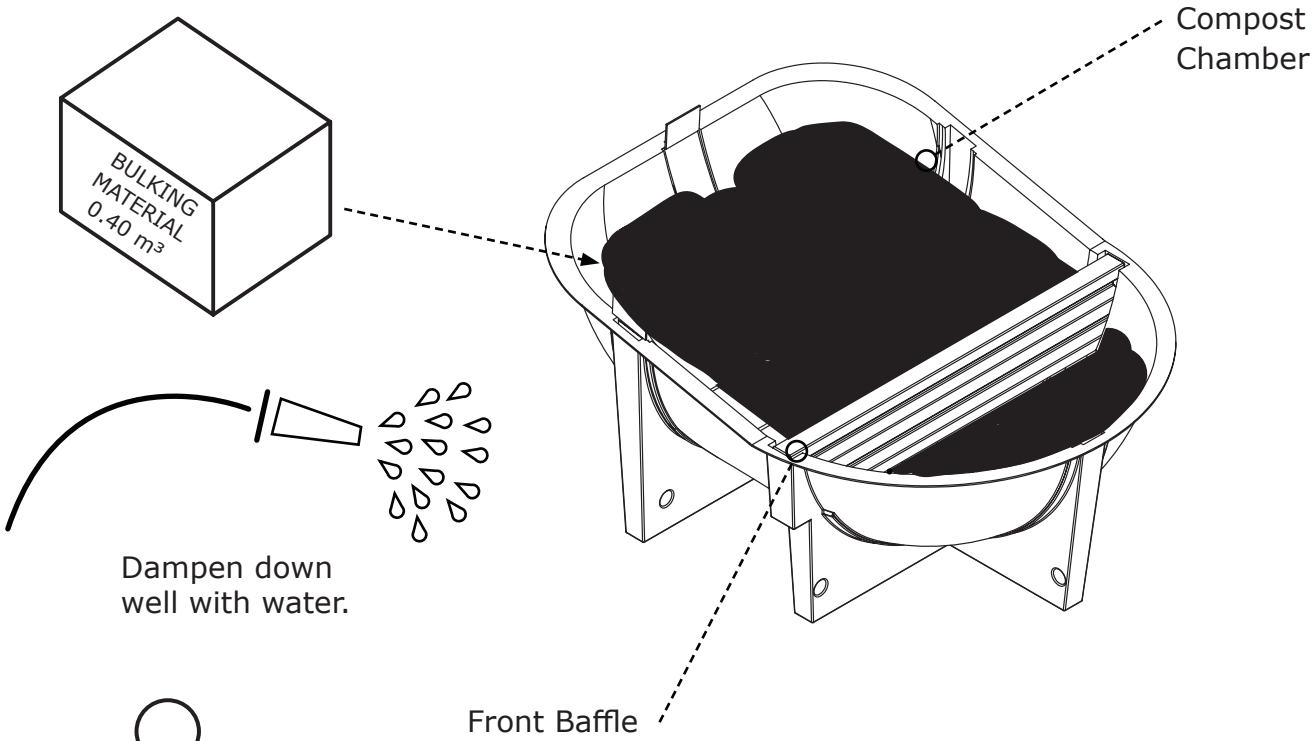

Large wood chips


Lawn clippings


Fine sawdust


Sugar cane mulch

1 Starter bed of bulking material to underside of baffle.



2

INSTALLATION COMPLETE

clivus multrum
WATERLESS COMPOSTING TOILETS