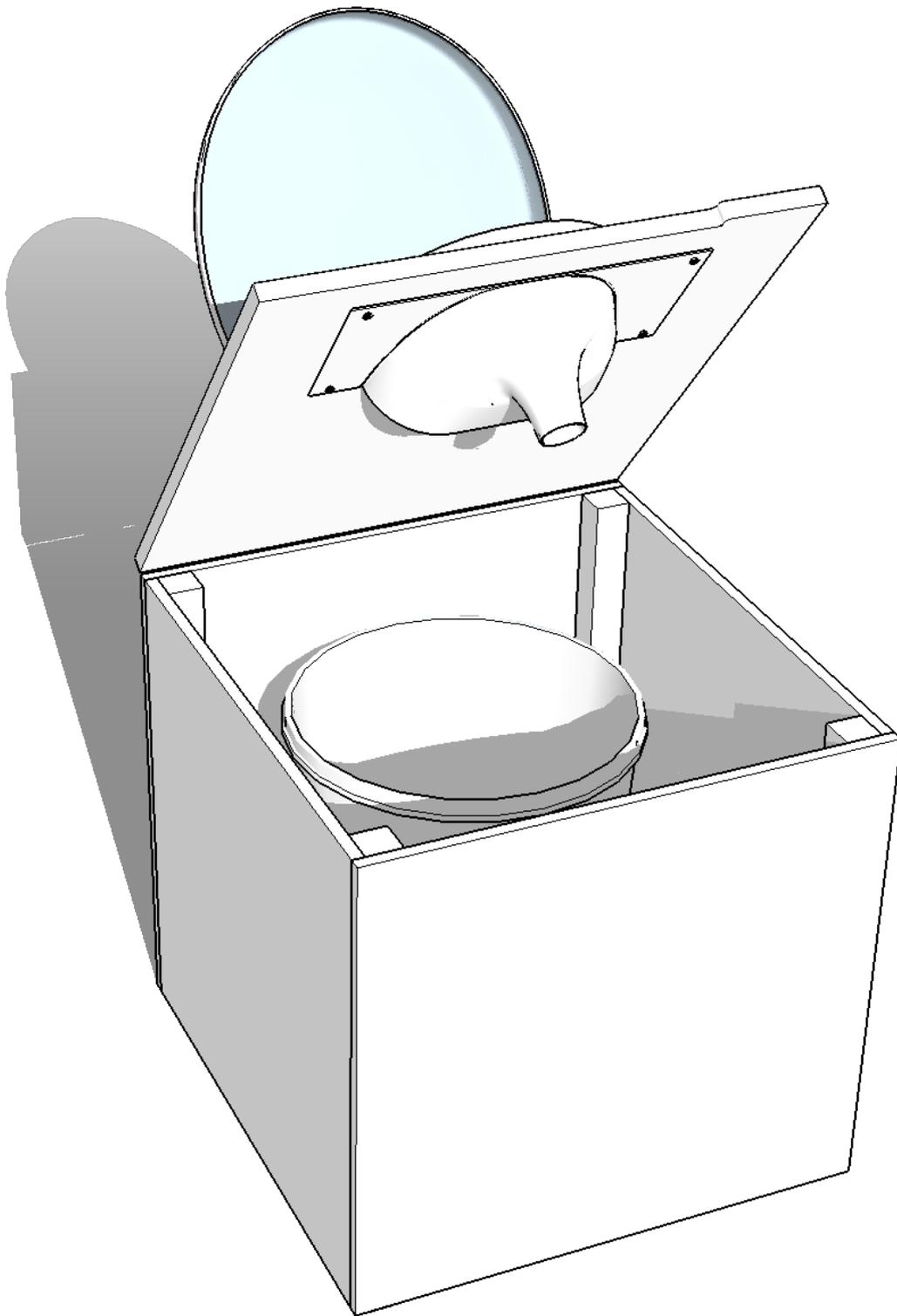


# Compost Toilet Box



Assembly Instructions for a Compost Toilet Box,  
designed by Free Range Designs

## Introduction

This compost toilet box is the simplest complete composting system (apart from a hole in the ground of course). When using, add a handful of soak - saw dust, rice husks, wood shavings etc. - to balance the fibre content of the poo compost. Empty the bucket when full and use the urine fresh in small quantities on your flower beds and fruit tree beds as an excellent natural fertiliser.

All you need to construct this are the instructions you are reading, a few hand tools and the materials listed below.

### Minimum tools needed:

- Tape measure,
  - Pencil,
  - Panel saw,
  - Pozzi headed screw driver,
  - Set square,
  - Clamps
- Waterproof wood glue,
  - Sand paper,
  - Danish oil
- (Power tools such as drill driver, mitre saw, table saw, sander, planer, finishing nailer etc. would be handy if you have them)

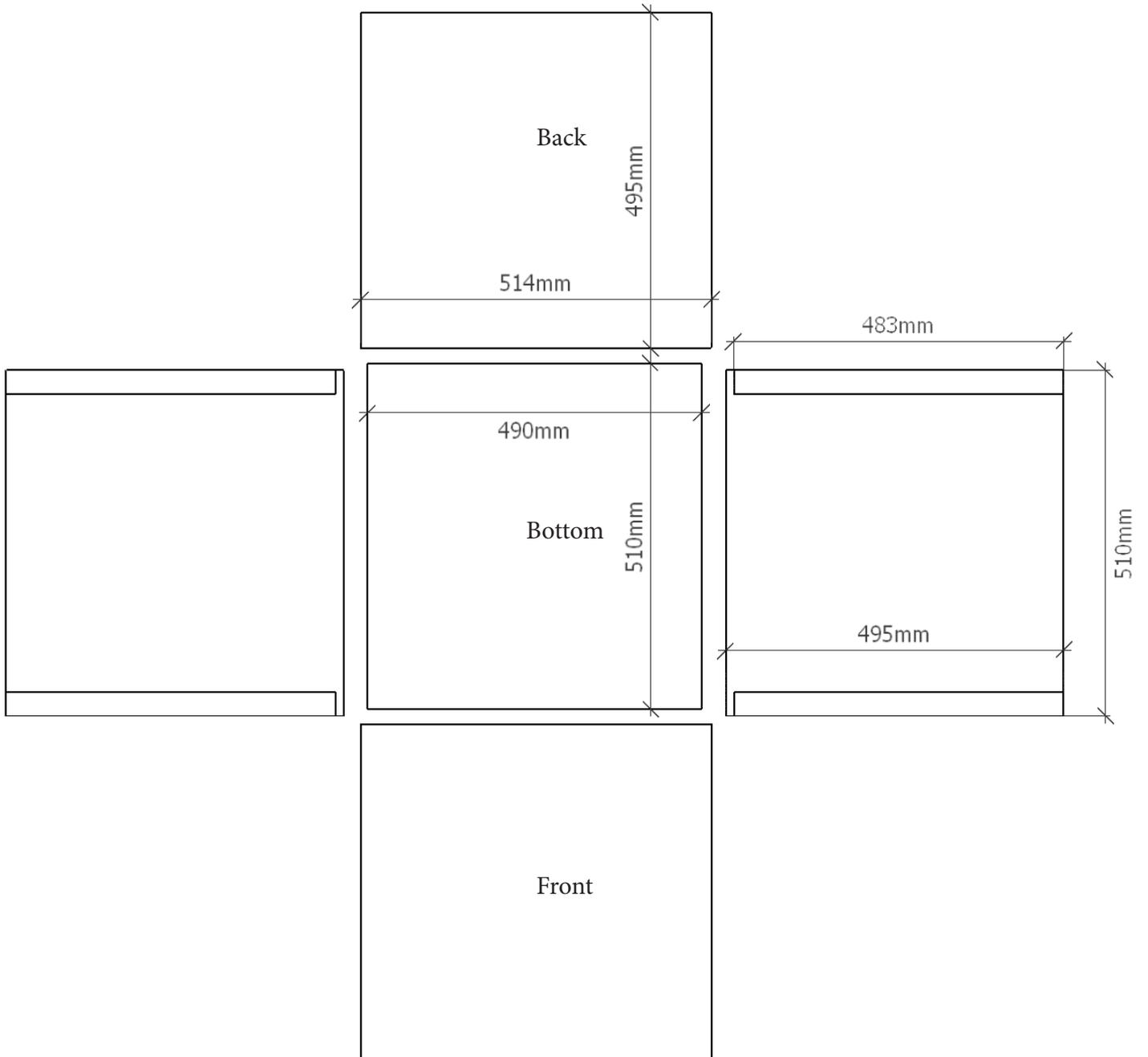
Materials: Get these from your local builder's merchants.

**NOTE - Check what dimensions you can source easily before cutting any pieces; for example the 35mm square profile timber may be different dimensions and therefore you'll have to adapt the design to suit.**

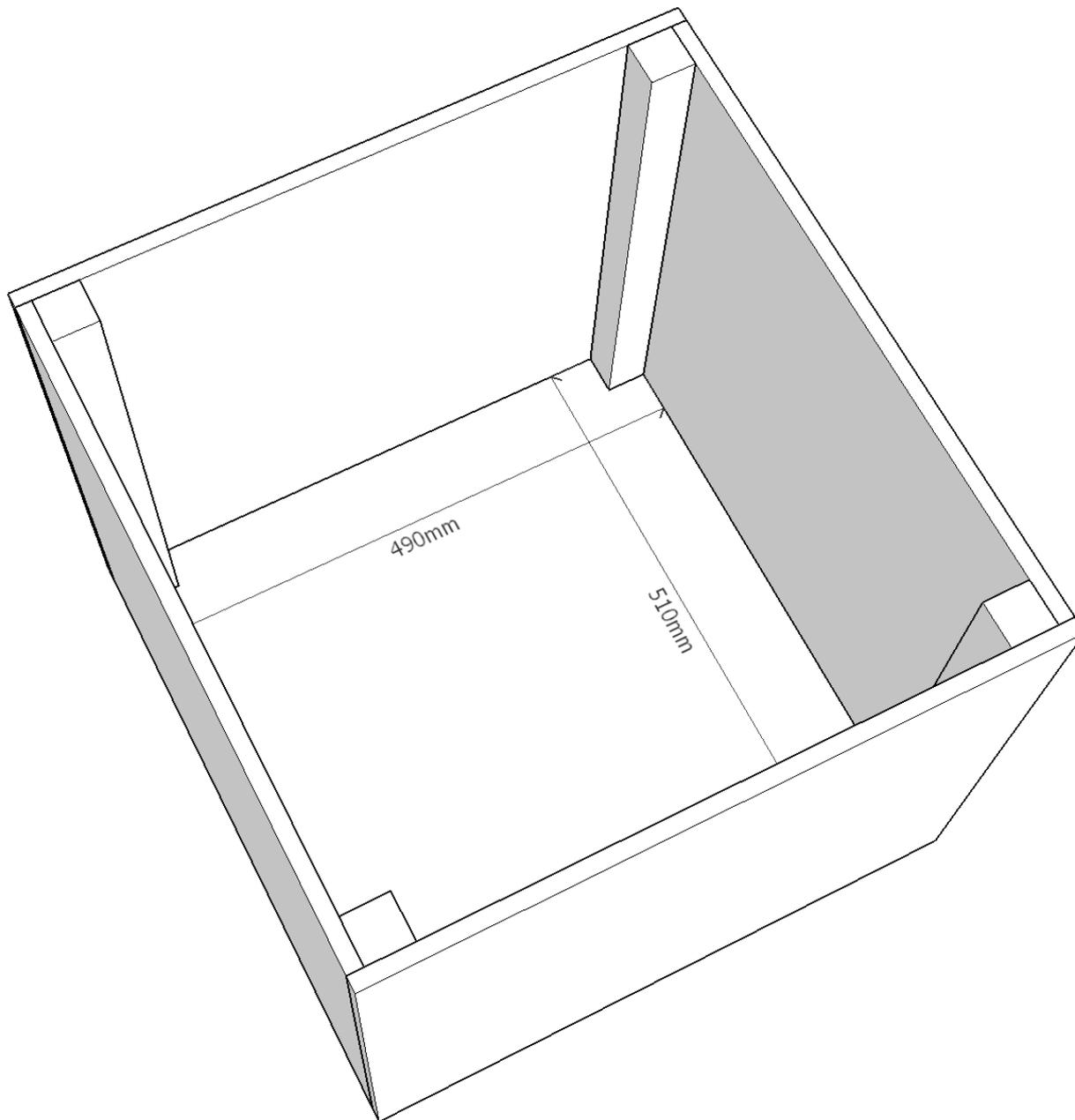
- Approx 2.4m of 35x50mm of timber, spruce/pine or larch or douglas fir.
- Minimum of 1100x1600mm of 12mm plywood, good quality (birch topped or hardwood).
- Minimum of 544x514mm 18 mm ply for top/lid.
- 1 toilet seat (if made of wood it can be modified to create a more air tight seal)
- 2 x small brass or stainless steel hinges approx 40-50mm long and now greater than 18mm wide (to fit the 18mm plywood top).
- 20mm, 25mm, 35mm and 80mm screws, and some suitable length panel pins to fix 35mm or you choice of timber dimension to the front plywood sides.
- 1 x bucket purchased through eBay using suggested search term '20 Litre Plastic Bucket with Lid' (compost toilet designed to fit bucket of these dimensions - design change needed at various points if using different bucket).
- 1 x flat bottomed urine collector
- 1 x urine separator provided by Free Range Designs.

Prepare:

- 12mm ply - 2 pieces @ 514x495mm
- 2 pieces @ 510x495mm
- 1 piece @ 510x490mm
- 35x35mm 4 pieces @ 483mm

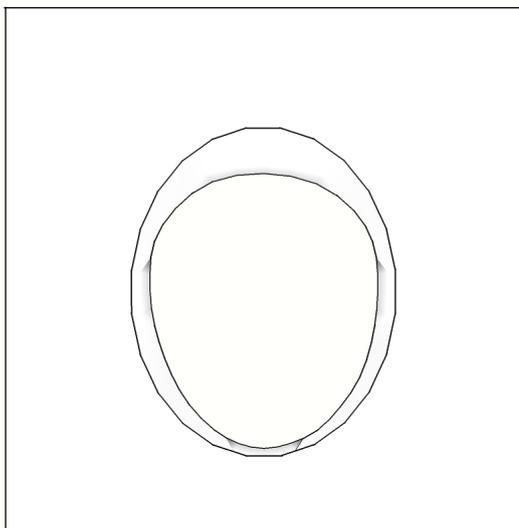
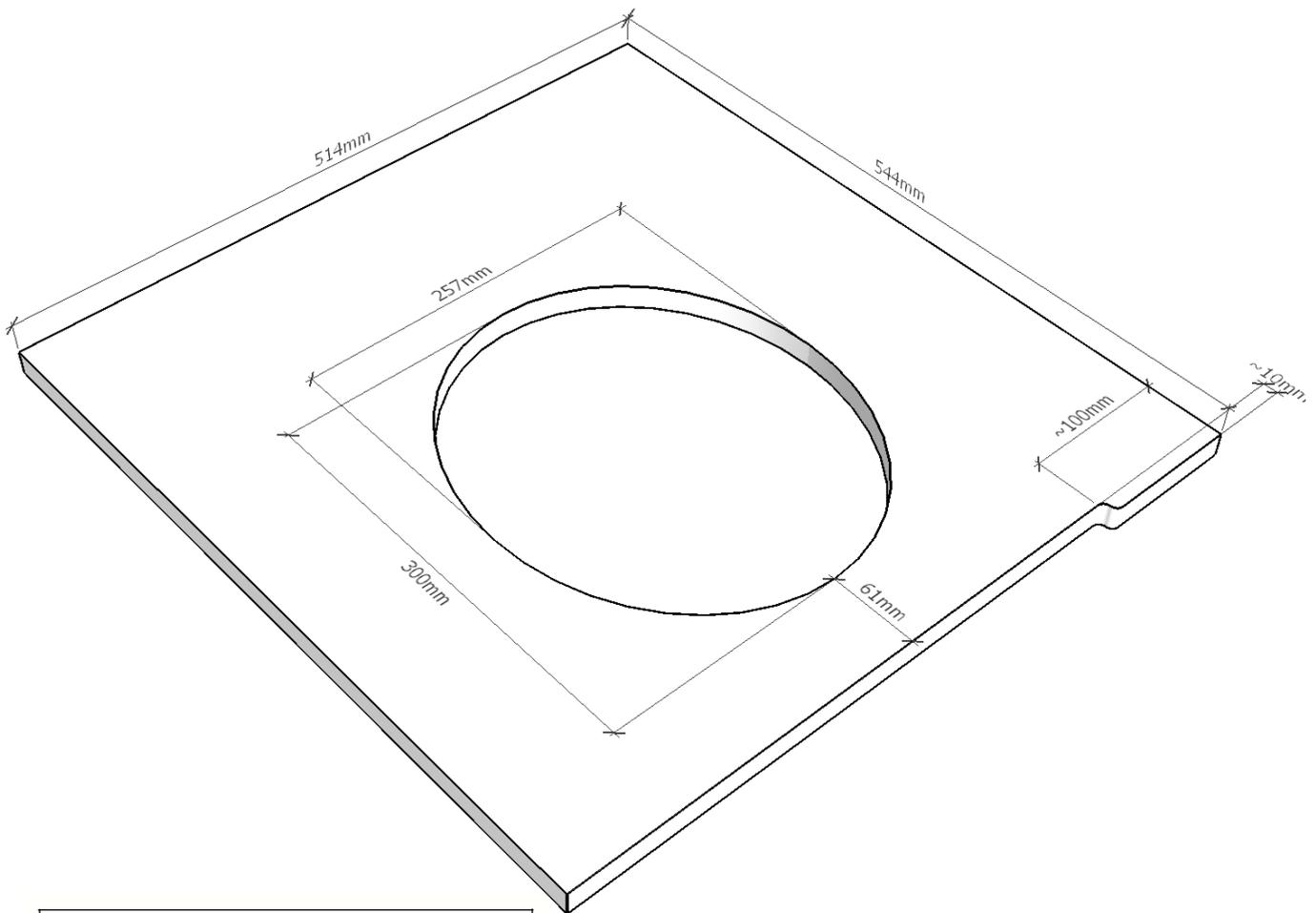


Assemble main box as shown Glue and screw, and pin if necessary. Ensure they are square. and that the internal dimensions are the same as the base, as shown.



Next, cut the seat ply to and cut an elliptical hole, larger than the toilet seat itself. The easiest way to get the correct shape is to draw round the inside of the toilet seat and increase the 'diameter' of the hole by approx 20mm. It should be central width ways, and approx 7cm from front.

NOTE: Use these measurements as a guide only as your toilet seat hole size WILL differ. The hole should be situated such that the front of the toilet seat overlaps the edges of the hole and should be as close as possible to the front of the ply.



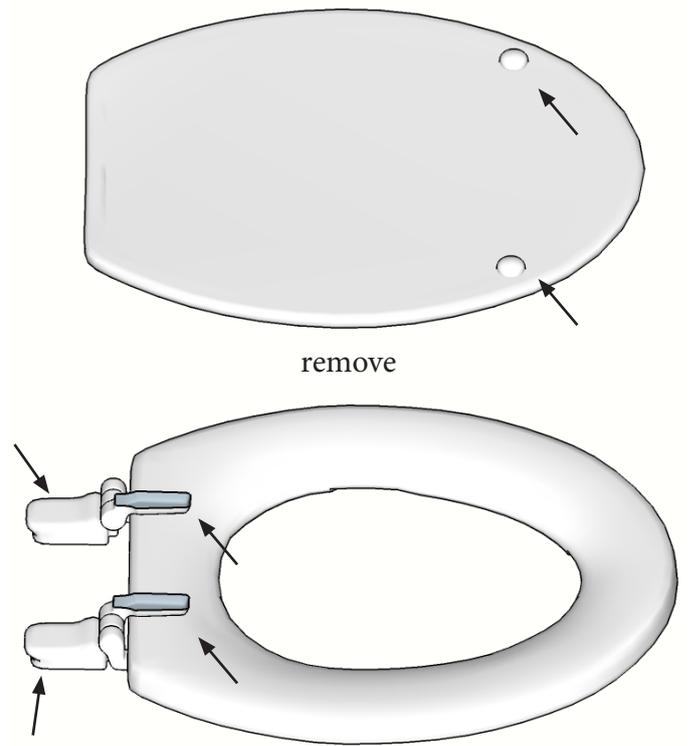
seen from below

If you have a wooden toilet seat to use:

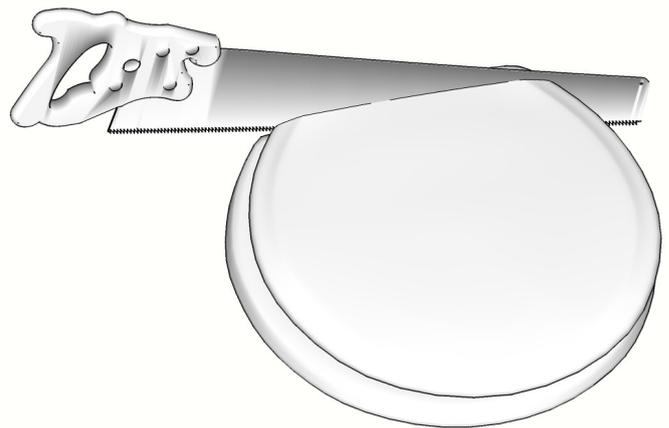
Before fixing the seat onto the ply it needs adapting. This is so the seat creates a more air tight fit that will function to stop any undesirable odours and stop flies from gathering. See next page on how to do this.

Remove all parts of the toilet seat except the seat itself and the lid. This means removing the pad/feet on the seat and lid and the hinges and fixings.

Then you should just have the bare lid and bare seat.



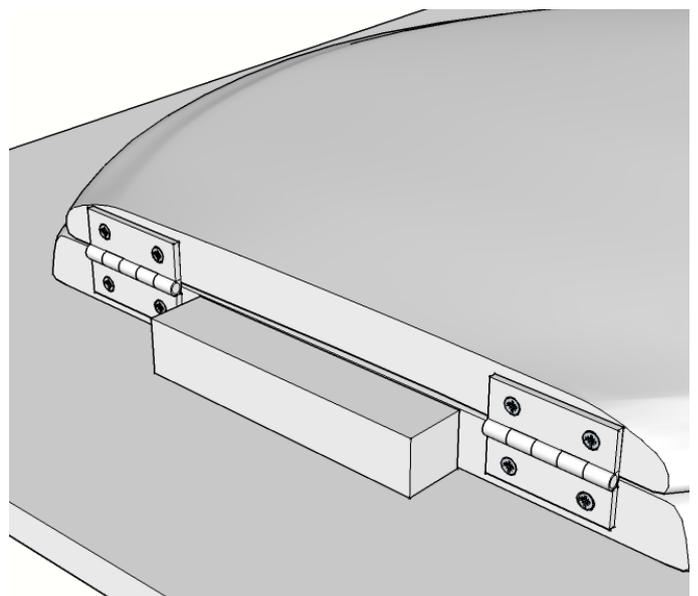
Next, draw a line at the rear of the seat and lid and cut the rear end off both. You only need to cut off enough so that the two will have a flat back (as shown right).



Now take two small hinges and screw lid to the seat (see right).

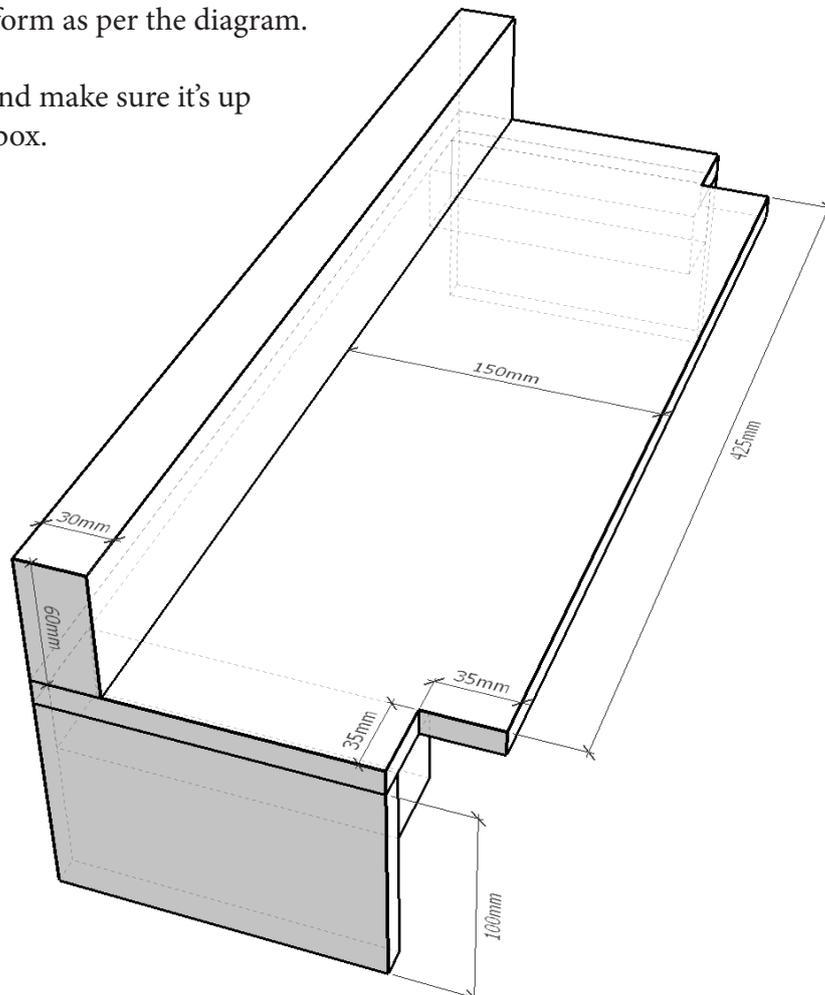
Now screw, from the underside of the ply, the seat to the seat plywood.

Cut a block to fit against the back of the toilet seat, in between the two hinges, as shown right.

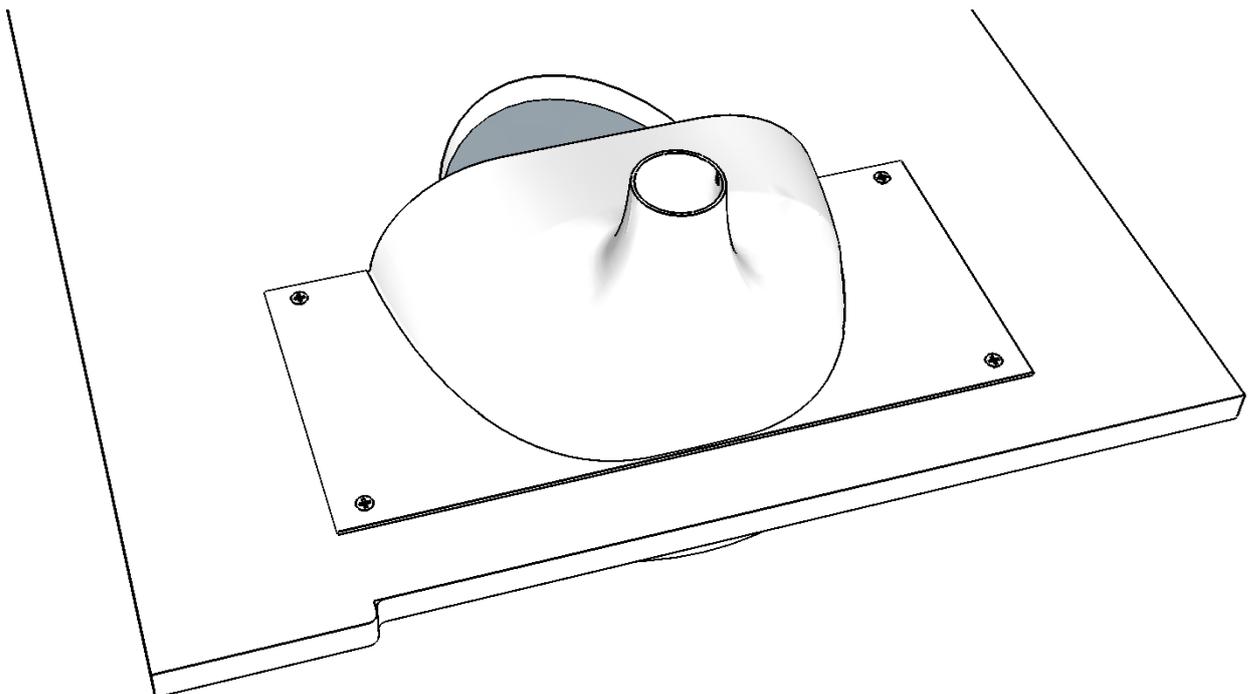


Cut the urine container platform as per the diagram.

Centre the urine container and make sure it's up against the front wall of the box.

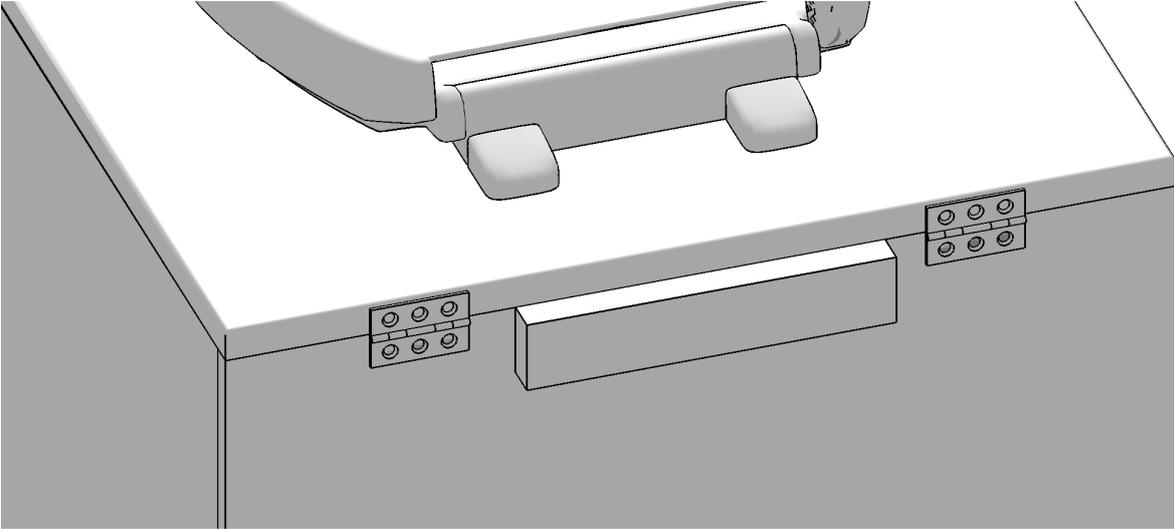


Ensure the location is central on the ply from either side and that the spout of the separator will fit directly into the urine collector when the seat is fitted onto the box.



Coat the cladding in a few layers of Danish Oil (you may want to coat the inside of the box also), and wait for it to dry. Place the bucket inside, put the seat on and your compost toilet box is ready for use.

Screw your lid to the box, as shown below. Next cut a small offcut piece of the 18mm ply and screw just a few millimeters lower than flush to the top of the box, to act as a stop for the lid.



Then place the urine container platform into the front of the box, and also the poo bin behind it, as shown below, and there you have it :)

