

# chambers

The instructions that follow are based on a toilet in one or two rooms on the ground floor, but can be amended to fit the different situations illustrated.

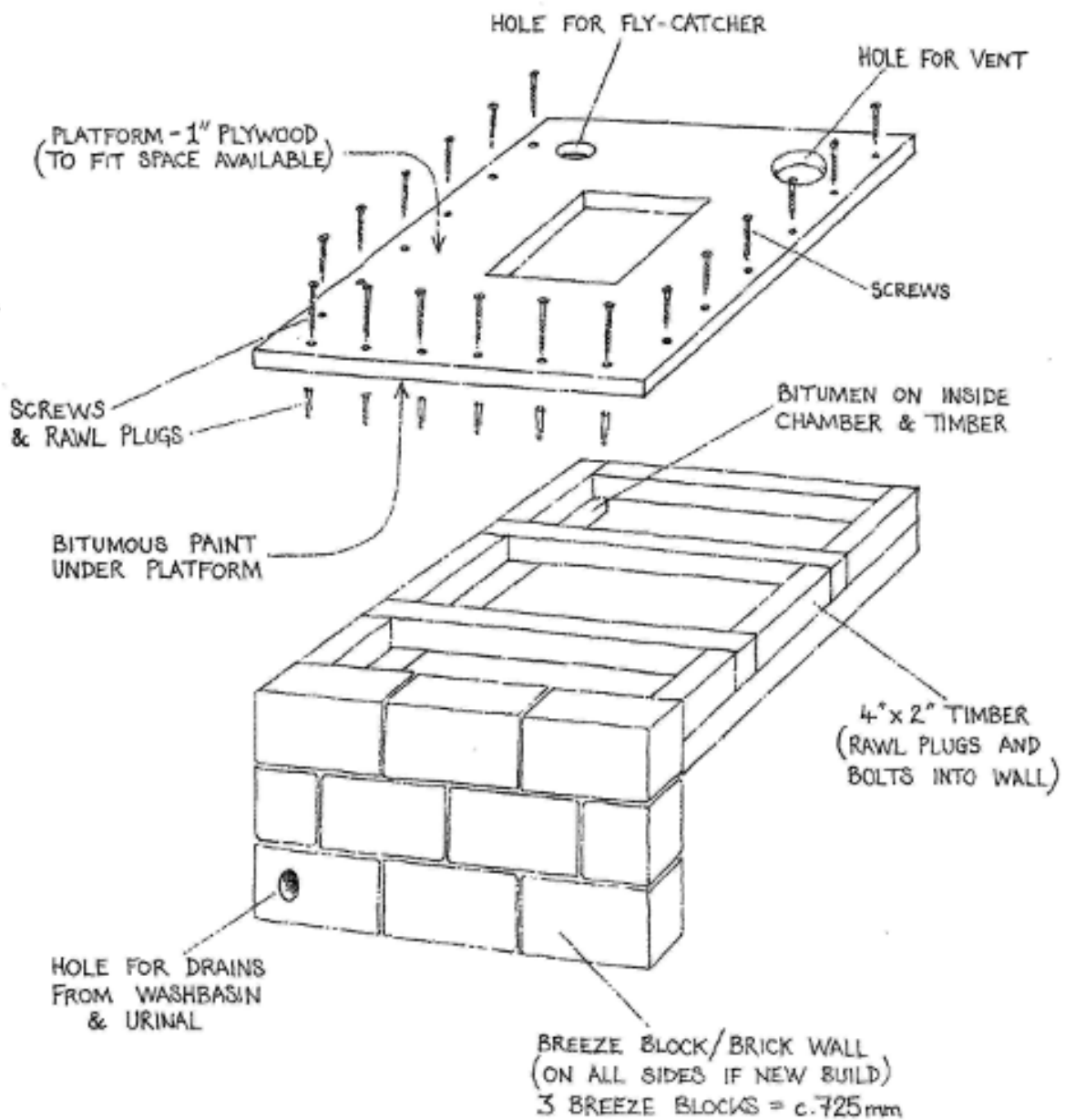
If the toilet is in constant use, then allow half a cubic metre per person for the chamber. If there are no alternative toilets, then it's definitely better to err on the large side, but you will be surprised at the small volume of finished compost that you eventually get from the hatch – it will dry out and decompose to around 10% of its original volume.

One person produces around 200 litres of faeces per year; add the same amount of sawdust, but remember that it will decompose to around 10% of volume, and then half a cubic metre per person seems more than enough (half a cubic metre is 500 litres) – but it's better to be on the safe side. Also remember that you won't use the toilet at home all the time (for example, when you're out or on holiday), but this will maybe be balanced by the number of guests who use it.

The larger your chamber, the longer you can let the material decompose, which is a good idea. If you have space, build the chamber with one cubic metre capacity per person, and use each chamber for two years. Then you'll be absolutely sure that all materials will be decomposed, and the final product will be even more like garden centre bag compost.



*This picture shows a chamber with steps, platform with cork tiles, vent, and fly-trap. the bricks have been limewashed. The chamber has a 10cm layer of sawdust, and is ready for the seat to be attached.*



*Plan for the construction of a compost toilet chamber.*

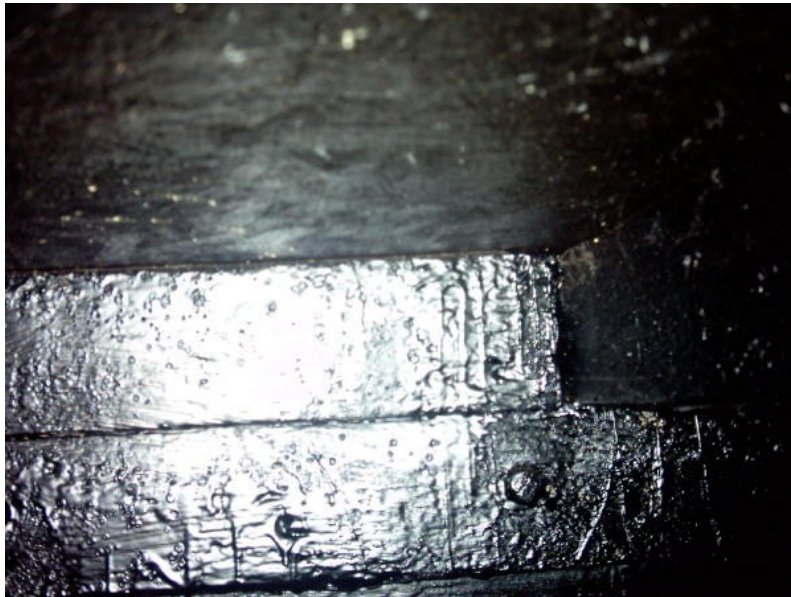
If the toilet room has a concrete floor, we'd recommend a brick chamber (second-hand bricks of course) because it is stronger than timber when it comes to supporting the platform, and although everything will be painted with a bituminous paint, timber will rot if the paint is breached. (You could use concrete blocks instead, but we don't favour concrete because of its environmental-unfriendliness – over 10% of global CO<sub>2</sub> emissions are from the cement industry). If your chamber will be on a timber floor, then it will have to be made of timber – you just have to make sure that it has several coats of bituminous paint so that no moisture can breach it and rot the wood. Alternatively you could be creative when designing your chamber, and possibly make it out of some large plastic bulk container such as the type of IBC (intermediate bulk container) that orange juice is sometimes delivered in – just as long as you can cut into it to make a hatch for emptying the chamber, and a drain.

We also recommend using lime putty rather than cement when laying bricks, as lime is carbon-neutral (takes CO<sub>2</sub> from the air when it sets, unlike cement).

For a mortar, mix one part lime putty with four parts sharp sand (it's easier to mix putty and sand in a bucket, with a spade, rather than on a board). Soak bricks well in a bucket of water first, as dry bricks will suck all the moisture out of the lime mortar.

If you are building new walls on all sides of the chamber (as opposed to using existing walls for the sides), it might be a good idea to leave gaps on the top row of bricks to accommodate cross-timbers which will support the platform (see below).

Whether the chamber is of brick or timber, coat it completely in bituminous paint, such as the paint designed to seal underneath cars, or waterproof guttering / roofs. Alternatively you can do what we did, and apply bitumen melted in a little wood burner. This will give a thicker coat, and definitely won't allow moisture through, but it gives off some hellish fumes.



*Here you can (maybe) see the timber supports for the platform completely coated in bitumen. You can use bituminous paint, but in this case we used real bitumen melted in a little wood burner and painted on thickly with an old brush (which was thrown away afterwards). This method is great fun but the downside is the fumes.*