Measure out the soil using a wheelbarrow.

Add cement.

Start mixing from this pile onto a new pile beside it.

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Put the soil and cement onto the top of the second pile so it distributes with little effort.

Add water using a water can or a tin with holes in the bottom to spread the water through the mix avoiding over-wetting one portion. This saves a lot of effort.

Shovel the mix back and forth between two mixing piles in order to ensure that the bottom is properly mixed.

When it is finished the whole pile will have an even colour and the water is evenly distributed through it.

Start filling the brick moulding cavity.

After filling it full, punch the mix down according to the clay content.

When the clay content is high, it can be compressed more. This created space for additional mix to be put into the cavity. It will take practice to get the right number of ‘Punches’. However if it is a high clay soil it will be about 8 punches and about 2 if it is a high sand, low clay soil.

The additional space is filled with mix. Pre-press the corners to ensure they will emerge sharp and strong.

Sometimes a little additional mix can be placed in the centre. Use the lid to hammer it down. The idea is to put exactly the right volume of mix into the cavity.

Bring up the handle and lift the red release mechanism, dropping the round bar into the groove on top of the lid.

With one heavy person or, as shown in the photo, two smaller people, pull the handle all the way down.

If the amount of mix in the cavity is correct, the handle will be difficult to move near the end of the stroke. It is acceptable to jump on the handle in order to apple the full force available.

When the stroke is complete, the brick is fully formed. Lifting the handle slightly will cause the handle socket to make a ‘click’ noise indicating that the pressure on the brick is correct. If it is silent when you lift the handle the pressure was insufficient. The lid can be opened to add a little more mix. Once practiced, this last step is never necessary. An experienced Filler always puts in exactly the right amount of soil-cement mix.

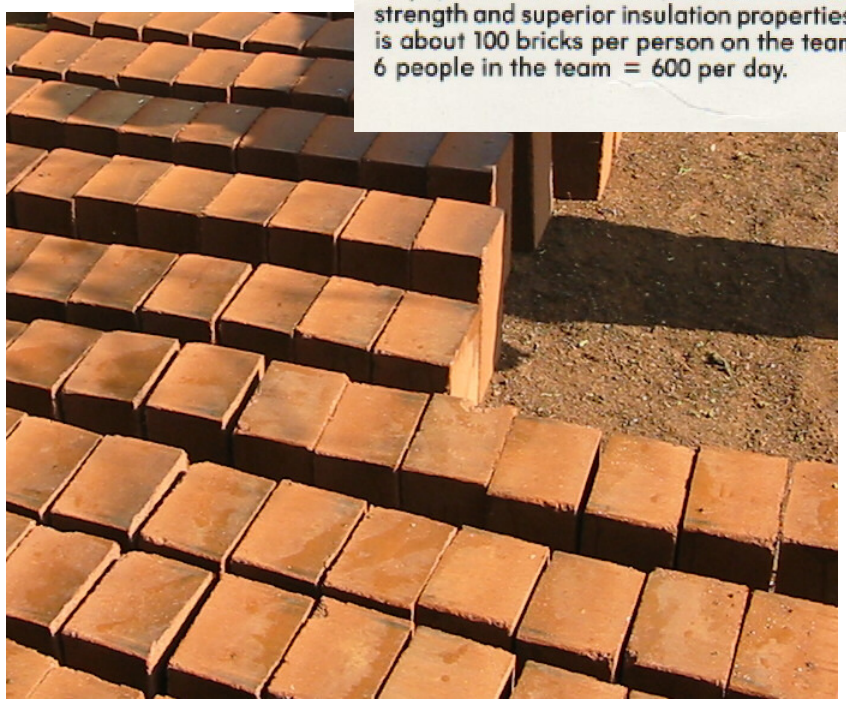
The handle mechanism is them returned to its original position while a second person opens and holds the lid. Pressing the handle down ejects the finished brick upwards. Take it away using two hands held flat so as not to change its shape.

TERRABRIC MACHINE

Our Terrabric Machine is constructed from top quality steel. This ensures that the equipment is able to withstand the high pressures involved in making bricks. It is portable (total weight 80 kg) and manually operated. This allows it to be used out in the field or bolted to a cement footing.

The Terrabric Machine uses a minimum amount of water to make bricks. The bricks can be made from either a mixture of soil and cement or subsoil only (depending on your requirements). This cuts out transport costs for crushed stone and sand.

The finished brick size is 290 mm x 154 mm x 108 mm. Because they are made under high pressure (about 5Mpa) the bricks are solid, smooth-surfaced with high strength and superior insulation properties. Production is about 100 bricks per person on the team, i.e.:
6 people in the team = 600 per day.



Place the bricks on flat ground as close together as possible for one day. Covering them with a sheet of plastic will help prevent them drying in the sun. The cement in the bricks does not 'dry' it 'hydrates' meaning that it absorbs water. You must add water to keep them moist. Do not allow the wind to dry them before they finish curing. This wet curing process causes the bricks to become much stronger than if they were immediately dried in the sun.

On day two they can be stacked 5 high and covered with plastic sheeting. They should be watered and kept under the plastic for at least 10 days. They are only allowed to dry after 10 days. During that time the water will soak into the bricks, setting the cement and hardening it.