## Fagao Mangimangi



Medidas por 2-40L Fagao de Escola(mm)


## 40 L Rocket Stove for Chomoio Mozambique <br> Sunday Nov 232003



1. Take one piece of 10 mm round bar and cut a 1840 mm length


## 1840

2. Roll this piece into a circle and weld

3. Take this 535 mm piece and weld it face down on to the round bar circle

4. Take one piece of 30 by 30 by 3 mm (or approximate equivalent) angle iron and cut a 535 mm length

5. Take one piece of 30 by 30
by 3 mm (or approximate equivalent) angle iron and cut a 430 mm length


430
6. Take this 430 mm piece and weld it face down on to the round bar circle so that it is equidistant from the 535 mm bar

7. Take one piece of 30 by 30 by 3 mm (or equivalent) angle iron and cut two 365
8. Place these two 365 mm angle iron face upn top of the existing angle pports so that ends of the 365 mm flush with the angle iron

9. Place the 365 mm angle pieces so that they are from the edges
10. Take the 367 mm by 1225 mm piece of 1.6 mm sheet steel from the template the lines given

11.Then take the $265^{*} 480 \mathrm{~mm}$ piece from the template and weld it to the back of this new piece

12. Cut the 265 mm square from inside the 575 mm circle. . Then cut a 165 mm square from the inside of the 265 mm square

13.Take a piece of square tube $25^{*} 25^{*}$ 1.5 mm (or 3.0 if available) and cut a length $\mathbf{5 0} \mathbf{~ m m}$ long
14. Weld the square tub to the bottom plate


501 ! ! I $\square$
15.Cut a piece of metal 1.6*1060* 17 mm and

1060

16. Fold it into a square and place it around the 265 mm square opening

17. Take the $250 * 1812 \mathrm{~mm}$ piece from the template and roll it into a circle

18. Then scribe a line, 34 mm from the bottom, on the inside of the skirt

19. Tack weld the skirt to the top plate. Make sure the skirt is perfectly round

20. Then lightly fill the bottom plate with the cement vermiculite mixture. The mixture should taper from 34 mm at the outer edge to 17 mm on the outside of the combustion chamber and then finally to 0 mm on the inside of the combustion chamber. The top of cement vermiculite bricks should be flush with the top of the combustion chamber.


21.Take a piece of 8 mm round bar and cut 3 pieces
2.5 cm long and weld them on the inside of the skirt, 4 cm above the cement vermiculite mixture


## Constructing the combustion chamber

To construct the combustion chamber you will need to use either vermiculite and cement bricks or clay and sawdust bricks. Make the cement vermiculite bricks at least ten days in advance of construction.

- 5 (Five) 170 by 170 by 50 mm
- 3 (three) 270 by 270 by 50 mm
- 3 (three) 270 by 170 by 50 mm (one of these will then be cut in half to produce $2-85$ by 270 by 50 mm bricks.

Soak the bricks in water for approx 1 min before constructing the combustion chamber.


## Mortar mixture

- 1 part cement
- 1 part Vermiculite
- 1 part sand

Make the mixture wet as the bricks will absorb a lot of water Let dry for 4 days before firing

Don't forget to place a clay tile at the back of the combustion chamber to protect the insulated bricks when wood is inserted too roughly.

The shelf


