



Top Tip
 Mix the concrete as per the guide on AfriSam's website, www.afrisam.com – enter a search for 'all purpose cement'.

Cool, calm & concreted

Copper pipes, threaded rod and AfriSam create a recipe for structured silence

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Casting concrete into the desired shape and size is achieved by building a mould that will double up as a water reservoir.

DIFFICULTY RATING

BUILDERS WAREHOUSE SHOPPING LIST

MATERIAL

- 1 x 50kg bag cement
- 2 x 40kg mixing stone
- 2 x 40kg mixing sand
- Bucket
- Fired Earth Granular Paint
- 1m M10 threaded rod
- 8 x M10 nuts and washers
- 22mm copper pipe 1.5m
- 22mm copper tee
- 22mm – 15mm copper coupler
- 2 x 22m copper end cap
- 6 x dropper rods
- Shutterply
- 12mm clear tubing
- Submersible pump
- 20mm PVC pipe
- Flux
- Solder



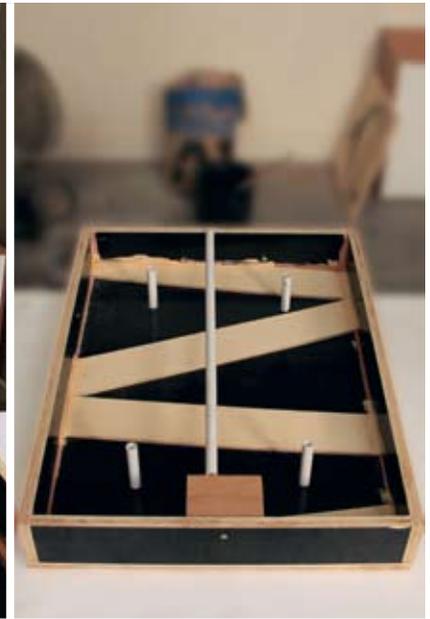
TOOLS

- Blowtorch
- Cordless drill
- 3mm pilot bit
- Counter-sunk bit
- Spade
- Pipe cutter
- Concrete mixer

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Step 1 Start by making two moulds. Using black-faced shutterply board, cut four lengths to determine what thickness your slab needs to be (height, width and thickness all depend on your personal preference). Mix your concrete according to the recommended ratio. Don't use glue when assembling the mould, as you will need to remove it from the slab. Line the corners with wood filler for a smooth, round edge.

Step 2 Some grooves are required to aid in the patter of water. For ease of extracting the mould, add some 9mm ply inlays in the pattern of your choice. One or two panel pins will hold, and can easily be removed.

Step 3 Channels or pre-made holes can be made by using PVC tubing. This does not bond well to the cement so it can be removed to leave a guide hole for the threaded rod and clear tubing for the water pump. Measure four evenly spaced points on the base and screw four screws at these points to hold four short pieces of PVC in the required positions.

Step 4 Time to mix the concrete. We mixed three-and-a-half buckets of sand, three-and-a-half buckets of stone and one bucket of cement. Mix these evenly before adding the water. This should be added gradually until a smooth, paste-like consistency. Pour some into the mould and spread evenly until half of the required thickness is reached. Lay in some dropper rods (cut to size with an angle grinder) to aid in the structural reinforcement. Fill the mould and allow it to stand for no less than 24 hours.

Step 5 Soldering is rather easy if the correct method is followed. Start by cleaning the fittings with either a fine-grit sandpaper or steel wool. Remove any grease or dust. Once clean, apply a layer of flux to the end of the copper pipe to be joined, then slide the fitting over into the required position. The natural inclination of the solder is to move towards the heat. With this in mind, you want to heat the spot where you imagine the end of the copper pipe to be. As soon as the flux starts to bubble, place the solder on the edge of the fitting. This will melt quickly and run down and in between the join towards the heat. Repeat this step for all six joins.



HOME IMPROVEMENT



MAKING SPARKS FLY
Nico grinds the dropper rods to size to create structural reinforcement. **ALWAYS** wear protective glasses when using an angle grinder.

Step 6 This step should take place in the final location. Stand the mould upright and remove all the screws. Use a rubber mallet to aid in the release of any pieces. Reassemble the mould to be reused as the reservoir. Paint the inside with ABE Autocoat to waterproof the inside. Lay into place and paint the exterior with Fired Earth Granular Paint.

Step 7 As the two slabs are very heavy, some added support will be necessary. We used four 90-degree brackets laid down with two edges clamped in between the two slabs. Before fitting the second slab, put your pump into place and route the tube up in the channel, connecting it to the copper fitting. The length of your tube should only be cut when the pump is in place to ensure a neat, tight fitting of the copper coupling between the two slabs.

Step 8 Cut the threaded rod into four even lengths and bolt the two slabs together. Put on all the nuts and washers until they are finger-tight then tighten all the bolts to ensure an even tension. The reservoir is ready to be filled and enjoyed.



With half the slab in place (right), Nico's fountain was almost ready to roll.



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