



170 GALLON STOCKTANK FOR RAINWATER CONTAINMENT

University of Arizona Water Wise Program waterwise.arizona.edu

A 6' x 2' x 2' water trough holds approximately 170 gallons (more than three 55 gallon barrels and takes up less space), and is easy to construct. This design has a cover to reduce evaporation, and is split so it can be opened for easy access. There is outlet on the side of the tank for a hose.

Materials:

- Galvanized trough: Size: 6'x 2'x 2' Costs about \$130 - \$160. Available at feed stores and home improvement stores. **NOTE: trough sizes vary**
- Plywood for outdoor use (one side good) 8' x 4'x 3/4". About \$25. **NOTE:** stucco concrete board (about \$36) can be used – no painting needed and won't rot, but harder to cut
- Garden hose shut-off fitting
- Caulk
- Window screen: approx. 6" x 6"
- Concrete blocks – 3 minimum
- Exterior paint (for wood top)
- Paint brush, roller (for wood top)
- Mosquito control: "Mosquito Dunks" or similar product (widely available in stores)

Overflow Fittings (suggested, can be modified). These fittings cost about \$13:

ABS plastic (BLACK):

- 1 - 2" 90-degree slip male/slip female fitting
- 1 - 2" 90-degree female/female slip fittings
- 1 - 2" coupling
- Approx. 5' length of 2" pipe

Tools:

- 2 1/2" hole saw or smaller drill bit
- Power drill
- Power saw (for concrete board, use tile or metal cutting blade)
- Jigsaw (optional)
- Staple gun
- Metal file (if using a small drill bit)
- Hacksaw (for plastic pipe)

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Downspout entry hole



Hinges

Overflow



Directions: MEASURE TANK BEFORE CUTTING LID

Buy materials: When purchasing plywood (not cement board) for the lid, ask to have it cut 2 inches wider and longer than the tank (you will have to cut the cement board yourself). You will have a total of three pieces. The smallest piece is scrap, the second largest piece is the tank platform and the largest is the tank lid.

Cut the lid: Cut the lid larger than the tank. If you want, round or shape the lid corners. Use the jigsaw or a saw to cut the downspout entry hole in the lid. Cut across the lid approximately 18" from the non-downspout entry end to make the part to lift up for water access. **OPTIONAL:** Attach 2 hinges to connect the 18" lid.

Paint (wood top): Paint both sides of the two pieces of plywood and edges with exterior paint with several coats.

Tank platform: Place small plywood/concrete piece on blocks. Place tank.

Cut the tank's overflow hole: Near the top of the tank, trace around the male end of the 2" 90-degree fitting. Cut out the hole with a hole saw, or with a drill make multiple small holes around the hole circumference and punch it out. File down sharp edges – be careful, those edges are sharp!

Overflow: Put the male end of the 2" 90-degree fitting through the tank hole and secure with the coupling (won't be tight). Caulk around the hole to seal. Cut the 2" pipe to correct length and assemble according to the pictures. Gluing is not necessary. Direct overflow away from tank base and to a plant.

Downspout entry: Staple or fit window screen over the hole. This will prevent animals and debris from entering the tank.

Hose outlet fitting: Screw in garden hose shut-off fitting on outlet.

Mosquitoes: Use mosquito control in the tank as the lid is not tight fitting.

OPTIONAL SAFETY: Secure the lid by screwing 2 metal screws on either side through the lid into to the tank. Put a hasp lock on the hinged 18" lid.