

Rain Barrel Construction Design

Material List

Ref	Item
A	Plastic barrel (food grade or non-hazard approved)
B	1 1/2" x 3/4" threaded bushing
C	3/4" brass hose bib (spigot)
D	1 1/2" threaded elbow insert
E	(Optional: 1 1/2" overflow hose and hose clamp)
F	Fiberglass screening
G	100% Silicone



Ref A



Ref B, C



Ref D



Ref E



Ref F



Ref G

Equipment/Tools

- Electric drill and bit
- (1 3/4") Hole saw with arbor bit
- Caulking Gun
- Metal snips or scissors to cut screen
- Adjustable wrench
- Teflon Tape (optional)

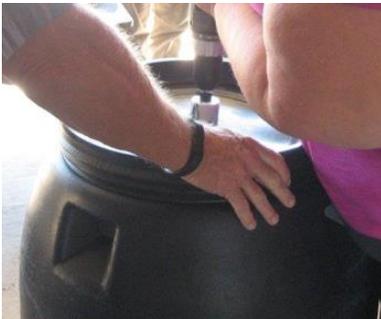


Assembly Instructions

1. Rinse your barrel thoroughly. Avoid using bleach, as it can be harmful to the environment via transport through the storm drain system. For an environmentally safe soap solution, use 2 teaspoons of castile soap and 2 teaspoons of vinegar or lemon juice for every gallon of water used to clean your barrel. One to two gallons of the solution is sufficient to rinse each barrel.



2. Using a 1/3/4" hole saw, drill holes all over the top of the barrel making a "swiss cheese" effect.. This will allow rain water to flow into your barrel. Later a circle of small insect screening will be put in place over the top of the barrel and sealed with 100% silicone caulk around the edges to keep debris and mosquitos out of your rain barrel.



3. Drill a hole (with a 1 3/4" hole saw) at the top of the barrel for an overflow and one at the bottom of the barrel for the spigot. If barrel will not be elevated locate hole for spigot high enough to attach hose without crimping.



4. To insert spigot; thread the 1 1/2" x 3/4" bushing with your hand then use a wrench to completely tighten. The threaded bushing will fit tightly in the hole therefore this will take some effort to insert. If needed use rasps or a reaming tool to slightly enlarge hole. Run a bead of the 100% silicone sealant on the outside around the bushing (apply generously). Use your finger to smooth the bead, filling in any cracks or voids. Hint: Wet finger with soapy water prior to smoothing bead for easy clean up. Allow silicone to dry according to manufactures specifications. Wrap threaded end of the spigot with Teflon tape and screw into the threaded opening of the 1 1/2" x 3/4" threaded bushing. Turn until spigot is tight and vertical.



5. Wrap Teflon tape around the threads of the elbow at the top of the barrel. At the overflow hole insert the 1 ½” threaded elbow through the overflow hole then use a wrench to completely tighten. Apply a bead of the 100% silicone sealant on the outside of the barrel around the elbow (apply generously). Use your finger to smooth the bead filling in any cracks or voids. Allow silicone to dry according to manufacturer’s specifications. (Optional Steps: Slide overflow hose over elbow and secure with hose clamp if applicable. Another step at this point is to wrap a piece of screening around the adapter and then attach the hose and clamp. This will aid in preventing mosquitoes from entering into the barrel through the overflow.)



6. Cut fiberglass screen into a circle that fits the inside of the top of your barrel. Carefully fit the piece of screen on the top and using a finger press the screen in place all around. Any extra screen will flare up the side of the barrel. Using silicone caulk in a caulking gun run a bead around the inside edge of the barrel top Repeat step with a second bead at the cut edge of screen, this will prevent raveling.



7. ENJOY YOUR RAIN BARREL AND START CONSERVING WATER. ☺



- Optional Materials-These items can be purchased to enhance your rain barrel.
 - Flex gutter extension
 - Mosquito dunks
 - Spray Paint
 - Concrete blocks, pavers, platform

Rain Barrel Considerations

Where should the rain barrel located?

The rain barrel should be placed directly underneath the gutter downspout. Pick a downspout that is in a well-drained area (see Overflow Drainage below). Ideally the downspout should be close to the location you want to water and at the same elevation, or greater, than the location you want to water. If neither of these ideal conditions is possible, read on! We suggest a pair of angles in the downspout which will get allow the water to flow to the middle of the screen.



Overflow drainage

The overflow drainage pipe design will work in a light rain, but rain water will overflow through the top screen in a heavy rain. This is why the barrel should be located in a well-drained area. If you make a disconnect of an existing gutter system place the overflow pipe into the system leaving the foundation of your home. If the overflow pipe will discharge directly on the ground include enough hose to direct flow away from foundation of the home. Please keep in mind that ¼” rainfall event will typically fill a rain barrel!

Using a bucket or watering can

This is the simplest and cheapest method of distributing rainwater, but it is the most physically taxing. Be sure that the rain barrel is sufficiently elevated to get a bucket under the spigot. Cinder blocks work sufficiently to achieve proper elevation.

Using a hose

If the spigot on your rain barrel is at a higher elevation than the area that you want to water, then you are in luck! Attach a hose to the spigot and run it to the area to be watered. Remember the flow is not pressurized, but slow watering of plants and bushes allow for greater infiltration. Watch out for parts of the hose actually being higher than the spigot. Air could get trapped in the hose and the hose will lose its prime!



Other designs

There are as many rain barrel designs as there are people who build them. We like this design best primarily due to minimal cost. Of course, there are many other designs can be found on the internet and we encourage you to look at them and experiment to find out what works best for you. As you do so, please don't forget us! Tell us your experiences, good and bad.

