

Barrel Composter

The barrel composter is fast way to make small batches of compost. Mix 1/3 nitrogen materials with 2/3 carbon materials. Turn rotating drum daily and keep materials as damp as a wrung out sponge.

Cost: <\$100 with new materials, less if using recycled materials

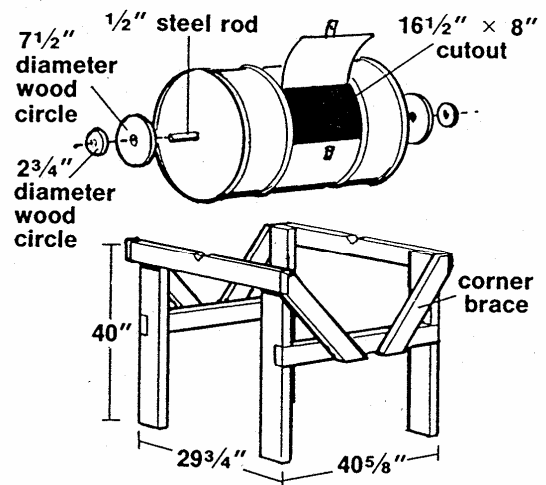
Capacity: 3-4 30 gal bags of yard materials

Materials:

Lumber

Cut lumber into the following lengths. Use cedar or non-arsenic pressure-treated lumber. Measure and cut the pieces as assembled, to be sure of correct fit.

- 4 pieces 2 x 4 x 40" (legs)
- 4 pieces 2 x 4 x 29³/₄" (frame horizontals)
- 2 pieces 1 x 3 x 40 5/8" (cross braces)
- 4 pieces 1 x 3 x 23³/₄" (corner braces)
- 2 pieces 3/4" x 7 1/2" diameter wood circles (bearings)
- 2 pieces 3/4" x 2 3/4" diameter wood circles (bearings)



Hardware

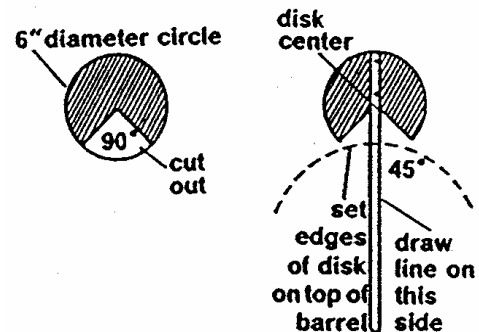
- 1 55-gallon drum (composter)
- 2 hinges, 1 1/2" x 2"
- 1 small hasp
- 1 steel rod, 1/2" x 40 1/2"
- 8 stove bolts, 1/4" x 1 1/4"
- 12 stove bolts, 1/4" x 1"
- 28 wood screws, #10 x 1 1/2"
- 1 pint black rust-retardant paint

Tools

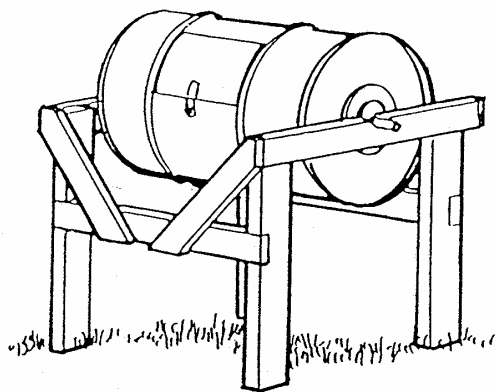
- Electric drill
- Screwdriver
- Pliers
- Saws (saber saw with metal-cutting blade and handsaw or circular saw)
- Paintbrush
- Gloves and eye protection

Construction Details:

1. Use 55-gallon drum that has not been used for toxic chemicals. (Paint barrels are ideal.)
2. Drill a 1/2-inch hole in exact center of each end of drum to accommodate 1/2-inch steel rod. Make simple gauge to find center by cutting a 6-inch-diameter circle out of heavy cardboard or wood. Mark the exact center of the circle, and cut out a 90-degree wedge. Hold the gauge with cut-out edge against the edge of the drum. Draw a line where the piece of wood bisects end of the drum. Move the gauge 90 degrees, and draw another line. The intersection of these lines will be the exact center.



3. Draw lines for opening in barrel, making sure to round corners slightly. Drill a ¼-inch hole somewhere along one of lines, to start saber saw. If barrel has ribs, cut a 1-inch V notch on each rib to facilitate opening door. Attach the hinges and hasp to barrel and lid with ¼ by 1-inch stove bolts.
4. From ¾-inch wood, cut two 7½-inch-diameter circles (bearings) and two 2 ¾-inch-diameter circles. Drill a ½-inch hole in center of each, and apply glue to 2 ¾-inch circles. Glue each 2 ¾-inch circle to a 7½"-inch one. (Temporarily slip them over ½-inch steel rod and clamp them.) After glue has dried, remove bearings, insert rod through barrel, and assemble as shown in illustration below. Use four ¼ by 1-inch stove bolts in each bearing to bolt it to drum.
5. To build support frame, use a corner lap joint to fasten legs to horizontal pieces. (To make a corner lap joint, remove one-half the thickness of the stock to a length comparable to the width of the stock on the ends of both pierces to be joined.) Use two #10 by 1½-inch wood screws in each joint. Cut grooves (dados) on legs 23 inches from bottom to fit 1 by 3-inch cross braces. Cut 45-degree angles at both ends of 23¾-inch-long corner braces, and attach them across corners, as shown, with #10 by 1½ inch wood screws. Cut a ½-inch notch in center of each top horizontal piece to accommodate rod.
6. Drill several rows of ¼-inch holes along bottom of barrel underneath door opening, to eliminate excess moisture. Paint barrel unit inside and out with black, rust-retardant paint.



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For More Information, Contact Your County Extension Agent or SHWEC

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