GA-028 Inverted watering-can draining rack

Hold two empty watering cans inverted so residual water can drain before storage.

Controlling dimensions: US inches and feet. Metric equivalents are references. Original editorial design; no physical build, animal trial or load certification is claimed.

Before marking and cutting

Measure the stated stock sections before cutting. Use the cut-list geometry, not scale measurements from the drawing.

US inch dimensions control; millimeter values are rounded conversions. Ordinary cut target ±1/16 in (1.6 mm); fit commercial accessories before boring attachment holes.

Use limits

Original bounded garden component, not an occupied structure.

No human standing, sitting, climbing, lifting or fall protection use. No stated safe working load.

Geometry and fastener quantities are editorially checked; no prototype build, wind test or crop trial is claimed.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
P01 Base rails	2	24 × 3 1/2 × 3/4 in 609.6 × 88.9 × 19.05 mm	1 × 4 in board sound untreated cedar or other durable untreated wood
P02 Cross ties	2	16 × 1 1/2 × 3/4 in 406.4 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage
P03 Can locating pegs	2	6 × 1/2 × 1/2 in 152.4 × 12.7 × 12.7 mm	1/2 in dowel smooth hardwood
P04 Central support rail	1	24 × 3 1/2 × 3/4 in 609.6 × 88.9 × 19.05 mm	1 × 4 in board sound untreated cedar or other durable untreated wood
P05 Peg blocks	2	3 × 3 × 3/4 in 76.2 × 76.2 × 19.05 mm	measured 3/4 in plywood exterior-bond plywood for protected non-food-contact fixtures

Hardware and consumables

8 #8 × 1-1/4 in screws, 2 at each tie/rail crossing

2 hardwood dowels 1/2 in diameter × 6 in

2 small 3 × 3 × 3/4 in peg blocks cut from solid untreated stock

4 #8 × 1-1/4 in screws for peg blocks, plus 4 #8 × 1-1/4 in screws for central rail

Wood glue for peg sockets

Tools

Tape measure and steel rule; Pencil, square and clamps; Saw suited to the stated stock; eye and hearing protection; Drill/driver, countersink and bits matched to fasteners; Sandpaper and edge file; gloves when handling cut mesh

Primary context and design record

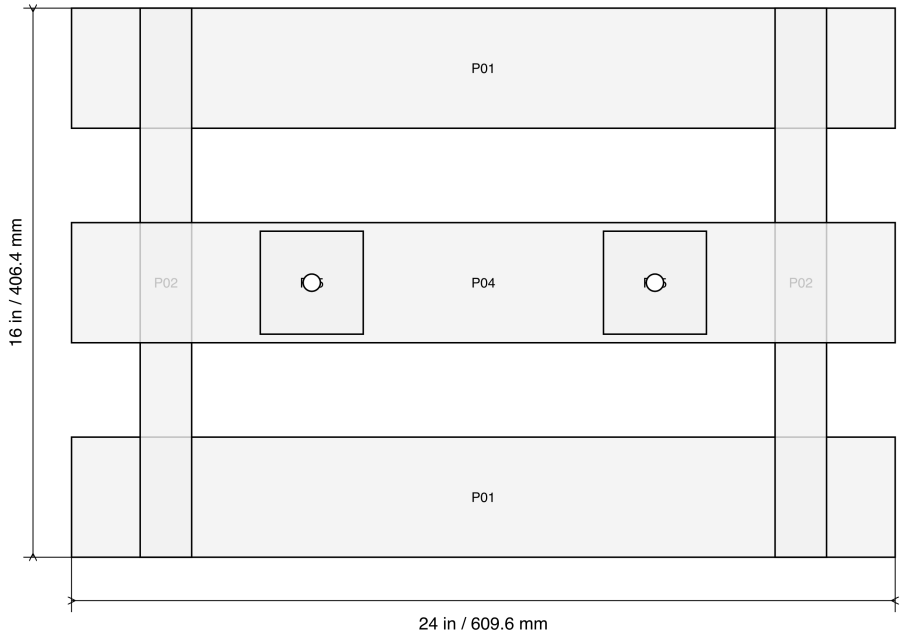
Context references; not design endorsements or certifications.

E07 · Rain Barrels: Information and Guide · Penn State Extension · https://extension.psu.edu/rain-barrels-information-and-guide

Assembly and first checks

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PLAN — looking down; rear at top; controlling dimensions in inches



Part IDs refer to the finished cut list. Shapes are not load-rated. Read assembly before cutting.

Notches, holes, fittings and operating angles: see numbered steps and geometric annotations.

Original editorial draft • B/W vector • not physically built or tested • no implied Extension endorsement

01 Plan the inverted watering-can draining rack for this result: Hold two empty watering cans inverted so residual water can drain before storage. Confirm the design reference before cutting: Two cans drain without tip-over; pegs do not take vertical weight. In the drawings x runs left to right, y runs front to rear and z runs upward.

02 Verify the required stock before laying out these parts: 1 × 2 in board: actual 0.75 × 1.5 in (19.05 × 38.1 mm); 1 × 4 in board: actual 0.75 × 3.5 in (19.05 × 88.9 mm); 1/2 in dowel: measured diameter 0.5 in; measured 3/4 in plywood: measured thickness 0.75 in. Reject split or twisted wood and unknown salvage; thinner stock requires recalculating the joints, not simply using the listed lengths.

03 Cut and label the finished parts: 2 Base rails 24 × 3.5 × 0.75 in (609.6 × 88.9 × 19.05 mm), mark P01; 2 Cross ties 16 × 1.5 × 0.75 in (406.4 × 38.1 × 19.05 mm), mark P02; 2 Can locating pegs 6 × 0.5 × 0.5 in (152.4 × 12.7 × 12.7 mm), mark P03; 1 Central support rail 24 × 3.5 × 0.75 in (609.6 × 88.9 × 19.05 mm), mark P04; 2 Peg blocks 3 × 3 × 0.75 in (76.2 × 76.2 × 19.05 mm), mark P05. Keep saw kerf outside each finished line. Rip only where the finished width is narrower than the actual stock; use a suitable guide and target ±1/16 in (1.6 mm) for ordinary cuts. Dowel triples mean length × diameter × diameter, not square dowel stock.

04 Lay the two 24 in base rails parallel with outside depth 16 in. The clear gap between them is 9 in.

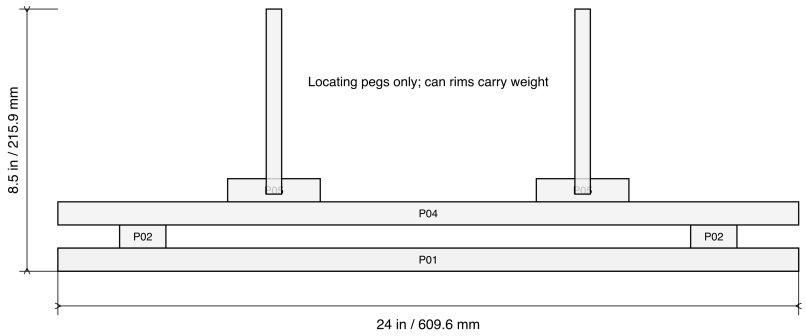
05 Place the 16 in ties across both rails at x = 2 and 20-1/2 in. Check the 24 × 16 in rectangle before fastening.

06 Pilot and install two 1-1/4 in screws at each tie/rail crossing. Confirm no points emerge below the base rails.

Complete the assembly

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FRONT — transparent assembly projection from y = 0; controlling dimensions in inches



Part IDs refer to the finished cut list. Shapes are not load-rated. Read assembly before cutting.
Notches, holes, fittings and operating angles: see numbered steps and geometric annotations.
Original editorial draft • B/W vector • not physically built or tested • no implied Extension endorsement

07 Fit the central 24 × 3-1/2 × 3/4 in rail across the two ties at y = 6-1/4 to 9-3/4 in, z = 1-1/2 in. Pilot and use two 1-1/4 in screws at each tie crossing.

08 Place 3 × 3 × 3/4 in peg blocks on the central rail at x = 5-1/2 to 8-1/2 and 15-1/2 to 18-1/2 in, y = 6-1/2 to 9-1/2 in. Fasten each with two underside screws clear of its center. Confirm these stations fit the actual can openings before drilling.

09 Drill 1/2 in blind holes 1/2 in deep in the peg blocks at x = 7 and 17 in, y = 8 in. Fit/glue the 6 in dowels with 5-1/2 in projecting above the block. Peg top is z = 8-1/2 in.

10 Trial-fit empty cans inverted with the pegs entering their filling openings loosely. The cans must rest securely on their own upper rims or handles across the rails; pegs only locate, not carry weight.

11 Place over a drainable surface. Remove standing water, keep rose heads unblocked and store only empty cans; shorten/remove pegs if they obstruct safe rim support.

12 Complete the acceptance checks below before putting the assembly into service. Record any changed stock thickness, fastener or equipment fit on the project sheet. The published geometry has not been physically built or load-tested.

Acceptance and intermediate checks

Two cans drain without tip-over; pegs do not take vertical weight.

Auxiliary center rail and peg blocks are installed and counted in the full cut schedule.

Operation

No water sanitization or freeze-proof claim. Never use the rack for filled containers.

Cleaning and maintenance

Brush soil away and dry under cover; replace loose pegs.