PO-046 Fixed poultry-entry boot-change bench

Provide a low fixed seat at a clean/dirty footwear transition, with broad posts and bolted aprons; the bench itself does not establish a biosecurity barrier.

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

Read every step and identify the installed orientation. Make the component off-site with birds excluded.

Measure the actual receiving space, chosen commercial accessories and access route. Stop if the example does not fit; changing only one member can invalidate the assembly.

Reject split, warped, moldy or chemically contaminated stock. Keep exposed mesh cut ends and all sharp fasteners inaccessible to birds.

The drawing dimensions control; illustrations are not full-size templates. Allow a saw kerf between parts when laying out stock.

Use limits

Furniture example is unbuilt/untested with no occupant load rating. Assess actual stability and suitability before seated use.

Never use as a step, platform, railing or child play equipment; keep the footwear-change area clear.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
A Seat	1	36 × 14 × 3/4 in 914.4 × 355.6 × 19.05 mm	Exterior-bond plywood, measured actual thickness. Square ends; remove splinters.
B Leg	4	16 3/4 × 3 1/2 × 3 1/2 in 425.45 × 88.9 × 88.9 mm	Untreated sound straight softwood. Square ends; remove splinters.
C Front/rear apron	2	34 × 3 1/2 × 1 1/2 in 863.6 × 88.9 × 38.1 mm	Untreated sound straight softwood. Square ends; remove splinters.
D Side racking panel	2	12 3/4 × 11 × 3/4 in 323.85 × 279.4 × 19.05 mm	Exterior-bond plywood, measured actual thickness. Square ends; remove splinters.

Hardware and consumables

8 × 1/4 in diameter × 6 in corrosion-resistant through-bolt 6 in (152.4 mm). Aprons to 3 1/2 in posts [N1]

8 × 1/4 in diameter × 5 in corrosion-resistant through-bolt 5 in (127.0 mm). Side panels to posts [N1]

8 × #10 exterior wood screw 2 1/2 in (63.5 mm). Seat to posts. Use compatible coatings/metals and the maker's pilot-hole guidance; do not substitute drywall screws.

N1 applies to every entry marked [N1]: Use two suitable washers and a locking nut per bolt unless specified; cap or trim exposed threads after verifying full nut engagement.

Tools

Tape measure, square and pencil; Saw appropriate to material and work supports; Drill/driver, countersink and pilot bits selected for the screws; Clamps, sanding block and eye/hearing protection; dust control appropriate to the material

Primary context and design record

Context references; not design endorsements or certifications.

S2 · Build a Clean Routine · USDA APHIS Defend the Flock

Assembly and first checks

The large drawing plates follow the instructions in this same PDF. Read the cut list and match part IDs before cutting. Print with automatic page orientation; use written dimensions rather than measuring the printed drawing.

01 Locate on a firm level dry floor, clear of doors and escape routes. This is an untested furniture design without a stated occupant rating; assess suitability before actual seated use.

02 Cut four B posts 16 3/4 in long from actual 3 1/2 in square stock. Reject splits, end checks or large knots at any bolt position.

03 Cut C aprons 34 × 3 1/2 × 1 1/2 in, D side panels 12 3/4 × 11 × 3/4 in and A seat 36 × 14 × 3/4 in.

04 Set post outside faces at x = 1–4 1/2 and 31 1/2–35 in; front/rear y = 1 1/2–5 and 9–12 1/2 in. Clamp all four tops level at 16 3/4 in.

05 Fit C across the outer front/rear post faces, their tops flush with B. Drill two 9/32 in holes per post contact at z = 14 1/4 and 15 3/4 in, centered on post x.

06 Through-bolt C to B with eight 1/4 × 6 in bolts and broad washers/locking nuts. Tighten gradually without crushing timber, then cap remaining threads.

07 Fit D to the outer left/right post faces at y = 1 1/2–12 1/2 in, z = 4–16 3/4 in. This large panel braces front-to-rear movement.

08 Bolt each D to both posts with two 1/4 × 5 in bolts per post at z = 5 and 11 in, eight total. Center y-holes on the post faces, clear of the upper apron bolts.

09 Sand A's edges and corners. Place it flush over the 36 × 14 in footprint and pilot two seat screws into each post, offset from the horizontal apron-bolt axes.

10 Attach A with eight #10 × 2 1/2 in screws, keeping each vertical screw at least 3/4 in sideways from the corresponding apron-bolt centerline. No screw may strike a hidden bolt.

11 Check all feet contact, bolts are capped, seat is level and the frame does not rock or rack. Correct the floor or joinery; do not add loose packing beneath a leg.

12 Use only for a controlled footwear change after checking actual suitability. Keep clean/dirty shoes separated under the actual routine; no standing, jumping, climbing, rail use or child play.

Acceptance and intermediate checks

Seat top is 17 1/2 in above floor; post and apron tops are flush at 16 3/4 in.

Side panels and aprons meet post faces without overlapping volume; vertical seat screws miss bolt axes.

No rocking, racking, split joint, sharp thread or blocked route.

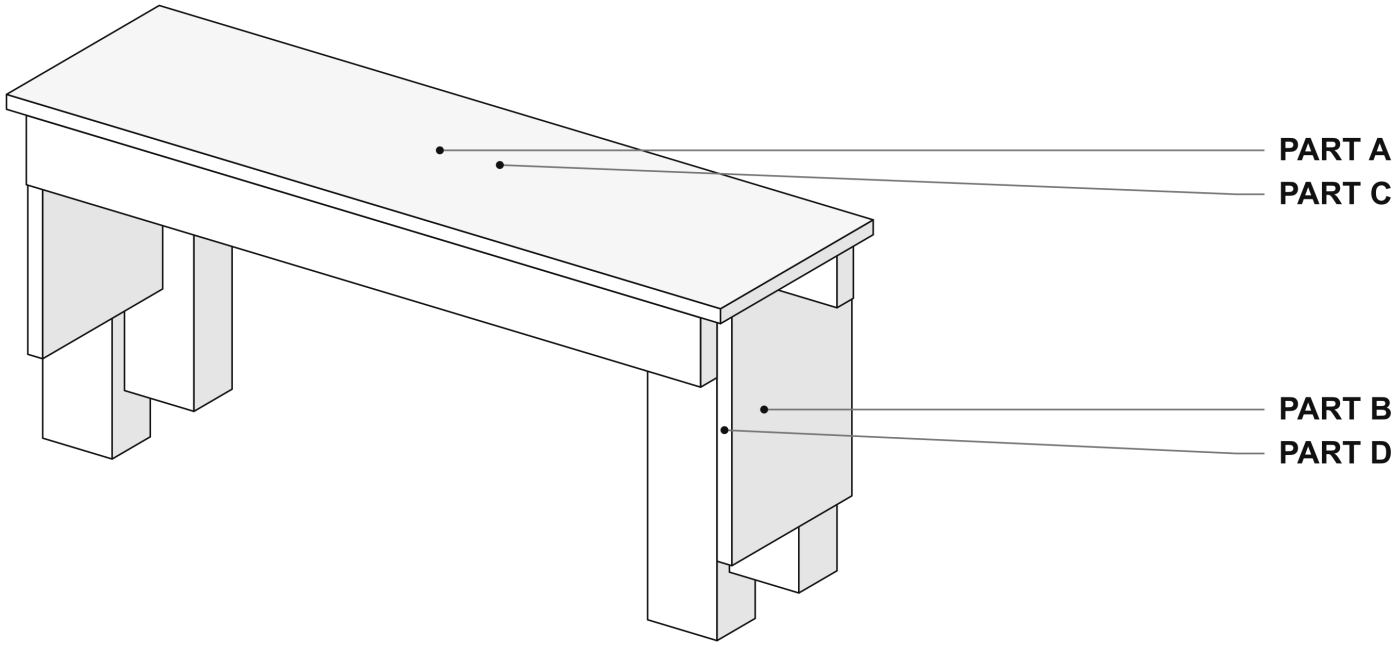
No occupant-capacity, fall-protection or biosecurity certification.

Cleaning and maintenance

Inspect before each use for splits, loose joints, protruding points and trapped debris. Remove accumulated litter or manure promptly. When cleaning is needed, move birds away, remove debris first, wash and use only a suitable label-directed product if disinfection is indicated; let the item dry before return. Recheck the fit after seasonal wood movement. Replace cracked panels, rusted fasteners or frayed liners instead of concealing damage. Sand accessible edges to a small smooth radius. Use a removable washable contact liner where specified. Any optional coating must be suitable for the intended animal-equipment use and fully cured according to its label before installation. Porous wood is not represented as a disinfectable food-contact surface.

PO-046 | ASSEMBLY GEOMETRY

Fixed poultry-entry boot-change bench



Displayed schematic envelope (x × y × z):

36 in × 14 in × 17 1/2 in / 914.4 × 355.6 × 444.5 mm

Part letters refer to the cut list; standard hardware is specified in the assembly steps.

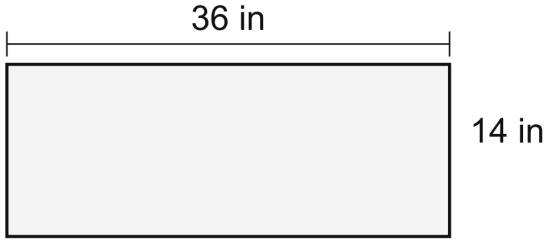
Original black/white vector schematic; dimensions control. Untested editorial draft.

x = left/right; y = front/rear; z = height. Purchased hardware is not falsely modeled as engineered parts.

PO-046 | DIMENSIONED PARTS 1 OF 1

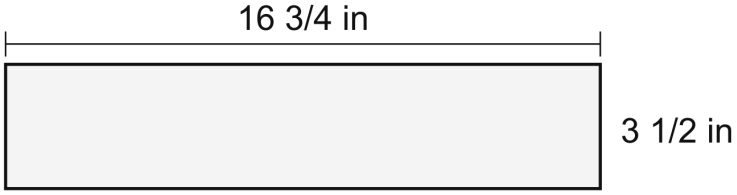
Finished sizes; allow for saw kerfs. Match part letters to the materials list.

A Seat ×1



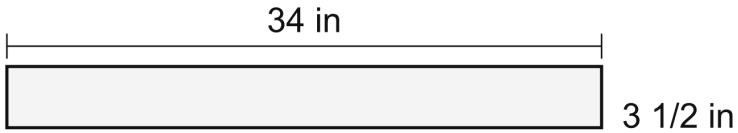
Metric face: 914.4 × 355.6 mm
Thickness: 3/4 in / 19.05 mm
Stock and special cuts: materials list.

B Leg ×4



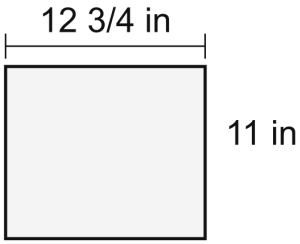
Metric face: 425.4 × 88.9 mm
Thickness: 3 1/2 in / 88.90 mm
Stock and special cuts: materials list.

C Front/rear apron ×2



Metric face: 863.6 × 88.9 mm
Thickness: 1 1/2 in / 38.10 mm
Stock and special cuts: materials list.

D Side racking panel ×2



Metric face: 323.8 × 279.4 mm
Thickness: 3/4 in / 19.05 mm
Stock and special cuts: materials list.

Original B/W vector drawing • US inches control • unbuilt / untested