PO-006 Removable screened vent insert

Guard an existing 24 × 12 in ventilation opening with mechanically clamped mesh while retaining a removable inspection panel; not a ventilation sizing calculation.

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

No person may stand or sit on this component. No tested load rating is claimed.

A site-specific safe location and supervision are required; remove it if birds become trapped, peck damaged material, or cannot use their normal feed, water, shelter and escape routes.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
A Full-width horizontal rail	2	27 × 1 1/2 × 3/4 in 685.8 × 38.1 × 19.05 mm	Untreated sound straight softwood. Square ends; remove splinters.
B Between-rail stile	2	12 × 1 1/2 × 3/4 in 304.8 × 38.1 × 19.05 mm	Untreated sound straight softwood. Square ends; remove splinters.
C Hardware-cloth screen	1	25 1/2 × 13 1/2 × 1/25 in 647.7 × 342.9 × 1.02 mm	Welded galvanized 1/2 in hardware cloth, 19-gauge product; inspect actual welds/coating. No universal predator-resistance claim.. Trim wire ends back under the battens; do not leave exposed cut points.
D Horizontal clamp batten	2	27 × 1 1/2 × 3/4 in 685.8 × 38.1 × 19.05 mm	Untreated sound straight softwood. Square ends; remove splinters.
E Between-batten vertical clamp	2	12 × 1 1/2 × 3/4 in 304.8 × 38.1 × 19.05 mm	Untreated sound straight softwood. Square ends; remove splinters.

Hardware and consumables

16 × #8 corrosion-resistant exterior wood screw 1 1/4 in (31.75 mm). Clamp battens. Use compatible coatings/metals and the maker's pilot-hole guidance; do not substitute drywall screws.

4 × Flat corner brace with matched short screws. Temporary frame integrity; no animal load rating

6 × Framing-specific removable anchors. Verify actual framing and weather exposure

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.

S1 · Caring for chickens in cold weather · University of Minnesota Extension

S3 · Small-Scale Poultry Housing · Penn State Extension

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

S4 · Galvanized Hardware Cloth · Marco Specialty Steel

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 Confirm the existing clear opening is 24 × 12 in (609.6 × 304.8 mm) and that sound perimeter framing can receive the 27 × 15 in insert without reducing the required air opening.

02 Cut A rails to 27 × 1 1/2 in and B stiles to 12 × 1 1/2 in from actual 3/4 in stock. Lay A horizontally with B between their ends.

03 Clamp the 27 × 15 in rectangle square. Fit a small flat corner brace on the rear of each joint using its maker's short screws; the rear must still sit against the wall without sharp projections.

04 Cut hardware cloth C to 25 1/2 × 13 1/2 in (647.7 × 342.9 mm) using gloves and eye protection. Center it with 3/4 in (19.1 mm) overlap beyond every clear-opening edge.

05 Cut D full-width clamp battens to 27 in and E between-batten pieces to 12 in. Round their exposed ends.

06 Lay the mesh on the front face of the frame. Clamp D at top and bottom so every cut wire is buried behind wood.

07 Fasten each D with five 1 1/4 in screws placed 1 in (25.4 mm) from its ends and evenly between. Predrill through the batten and keep the screw line centered on the rail.

08 Fit E between D on both sides. Fix each E with three 1 1/4 in screws, again capturing the mesh without bowing the opening.

09 Turn over the assembly and run a gloved hand around both faces. Recut and reclamp any wire point that reaches an edge; do not fold exposed wire into the bird space.

10 Install the panel to inspected existing framing with six removable suitable anchors: two top, two bottom and one on each side. Anchor choice follows the actual framing and exposure, not the siding alone.

11 Check that the mesh is taut, every edge remains mechanically captured and the entire panel can be removed for cleaning without dismantling the wall.

12 Check airflow and flock conditions after installation. This screen is not a proof against every predator and does not establish adequate vent area for the coop.

Acceptance and intermediate checks

The inside frame opening remains exactly 24 × 12 in; measured diagonals match before the mesh is clamped.

Mesh overlaps each opening edge by 3/4 in and all four cut edges are completely covered.

No loose mesh, exposed sharp wire, accessible brace screw or perimeter bypass gap.

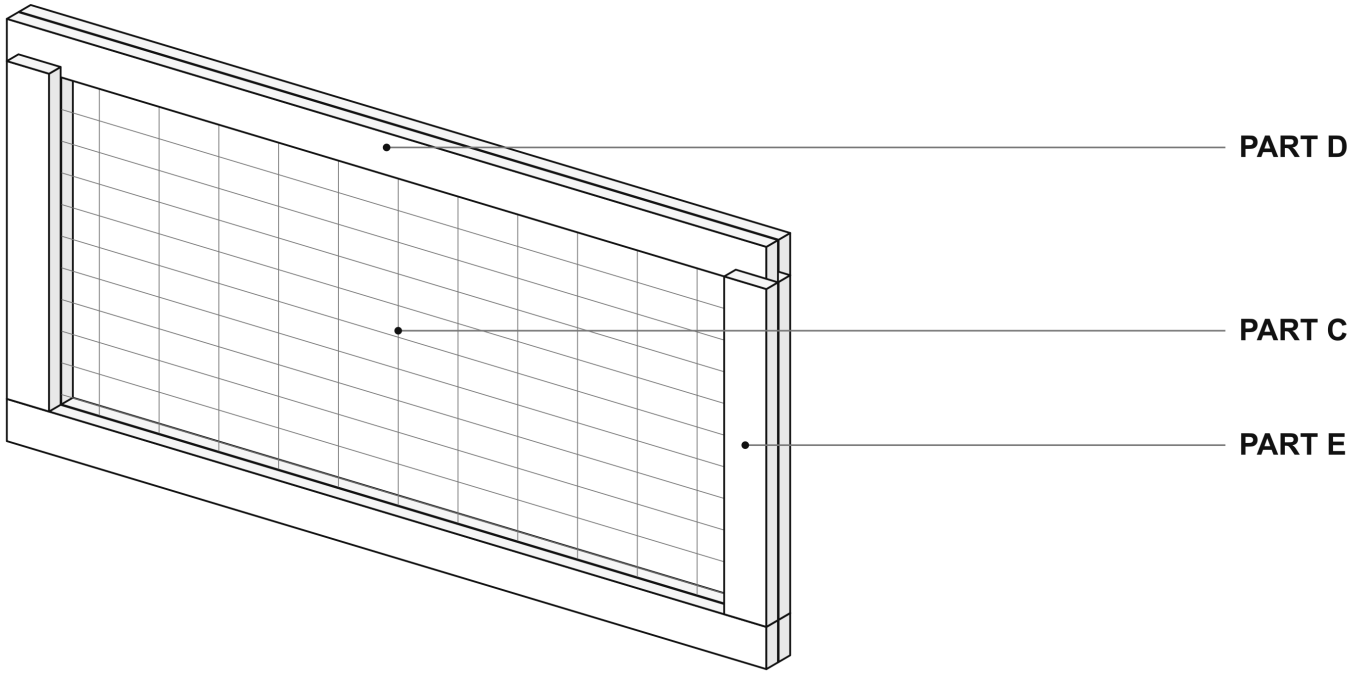
Panel removal is possible, and the existing ventilation requirement has not been assumed from this example.

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-006 | ASSEMBLY GEOMETRY

Removable screened vent insert



Displayed schematic envelope (x × y × z):

27 in × 1.54 in × 15 in / 685.8 × 39.1 × 381.0 mm

Part letters match the cut list. Hardware/anchors are described in the steps.

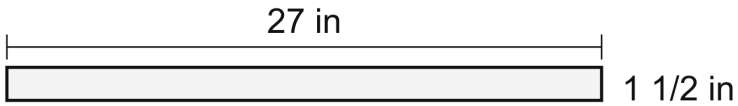
Original schematic • dimensions control • untested editorial draft

x = left/right; y = front/rear; z = height.

PO-006 | DIMENSIONED PARTS 1 OF 2

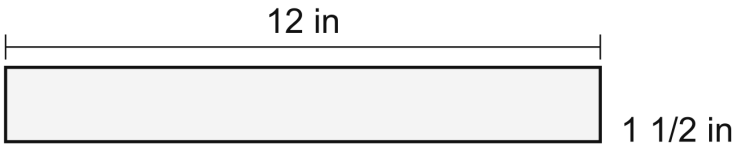
Finished sizes; allow for saw kerfs. Match part letters to the materials list.

A Full-width horizontal rail ×2



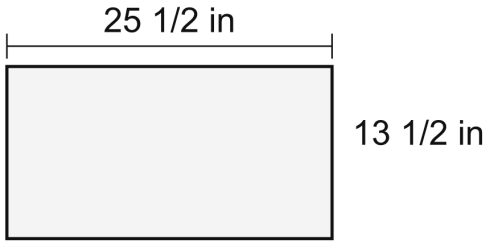
Metric face: 685.8 × 38.1 mm
Thickness: 3/4 in / 19.05 mm
Stock and special cuts: materials list.

B Between-rail stile ×2



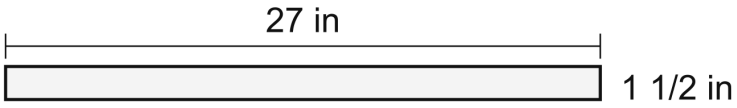
Metric face: 304.8 × 38.1 mm
Thickness: 3/4 in / 19.05 mm
Stock and special cuts: materials list.

C Hardware-cloth screen ×1



Metric face: 647.7 × 342.9 mm
19-gauge mesh; thickness is schematic.
Stock and special cuts: materials list.

D Horizontal clamp batten ×2



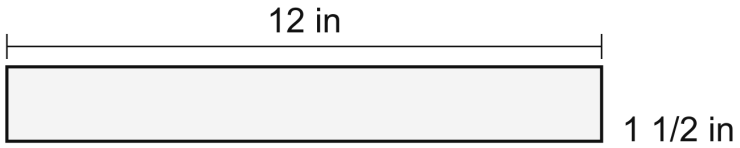
Metric face: 685.8 × 38.1 mm
Thickness: 3/4 in / 19.05 mm
Stock and special cuts: materials list.

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

PO-006 | DIMENSIONED PARTS 2 OF 2

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

E Between-batten vertical clamp ×2



Metric face: 304.8 × 38.1 mm
Thickness: 3/4 in / 19.05 mm
Stock and special cuts: materials list.

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