Laced two-piece service-opening trunk guard

Form a broad hardware-cloth guard with a fixed rear laced seam and a separately releasable front overlap, so the trunk and ground can be inspected without cutting a closed cylinder apart. Nothing is fastened to the tree.

Capacity and fit

Two 32 x 36 in blanks (812.8 x 914.4 mm), each hemmed 1/2 in on four edges, become 31 x 35 in developed panels. Two 3 in seam overlaps give 56 in developed circumference, layout diameter 17.825 in (452.8 mm). Finished envelope allowance 18 1/4 x 18 1/4 x 35 in; verify a clear inner diameter at least 17 1/2 in. Example trunk maximum 2 in diameter, centered.

Limits

This is an inspectable barrier component, not a certified rodent/deer exclusion product. Actual species, expected snow, ground gaps and tree growth determine suitability. Height must remain above the local reach/snow exposure; do not infer protection from the nominal 35 in height alone.

Keep the mesh, hems, ties and anchors clear of bark, branches and root flare. A centered 2 in trunk in the minimum 17 1/2 in opening has 7 3/4 in radial clearance. Remove or enlarge the guard before growth reduces the required local clearance.

Wear gloves and eye protection while cutting/folding wire. Fully fold cut ends outward into hems; no loose wire end points toward the trunk. Do not dig through roots or fasten wire to the tree.

Finished component envelope

18 1/4 x 18 1/4 x 35 in / 463.5 x 463.5 x 889.0 mm (x, y, z). Allowance for the formed guard, including mesh folds; not the flat blank envelope. Layout diameter is 56/pi; actual inside clearance and seam thickness must be measured. Anchors and service-opening sweep excluded.

Cut list - actual dimensions

Part / quantity	Finished L x W x T / material
P01 / Flexible mesh half-panel / 2	32 x 36 x 0.025 in / 812.8 x 914.4 x 0.6 mm. 1/4 in galvanized hardware cloth, 23-gauge wire nominal 0.025 in; this T is wire diameter, not a solid sheet or folded-wall thickness

Hardware and consumables

- At least 64 in (5 ft 4 in / 1625.6 mm) length from a 36 in-wide hardware-cloth roll; allow spare material for a clean cut and damaged ends.

- Seven 6 in (152.4 mm) lengths of soft coated tie wire for rear lacing; four outdoor-rated reusable cable ties no wider than 1/8 in and at least 8 in (203.2 mm) long for the front seam.

- Four purchased smooth U-shaped landscape staples, 6 in (152.4 mm) long, only for locations free of roots and buried services; no anchorage/wind rating.

- One 56 in (1422.4 mm) nonstretch layout cord, temporary support clips, two straight clamping boards and scrap backing.

Tools

Tape measure and combination square; Pencil, clamps and safety glasses; Saw with wood blade; drill/driver and piloting bits; 120- and 180-grit abrasive; Wire snips suitable for the mesh; flat-nose pliers; deburring tool; flexible tape.

Fastener direction and joint schedule

- No wood screws or tree fasteners. Seven rear lacing ties and four front releasable ties join overlapped mesh layers. Ground staples locate the guard only; they are not a structural anchoring design.

Build sequence

01. Check the proposed tree and site first. Confirm the centered trunk is no larger than 2 in and all bark/flare will clear the finished mesh. Determine the locally needed height above snow and animal reach; reject this example if its finished height is inadequate.

02. Cut two separate 32 x 36 in mesh rectangles. Measure with a tape rather than counting nominal mesh cells; stock descriptions do not establish exact center-to-center wire pitch. Clip damaged welds away and retain sound edges.

03. Mark a 1/2 in fold line inside each raw vertical edge. Clamp between straight boards, bend the exposed strip outward through 180 degrees and flatten it with pliers so cut ends are captured against the outside face.

04. Fold top and bottom edges outward by the same 1/2 in, easing the corners without leaving projecting points. The developed panel now measures 31 x 35 in; inspect with a cloth for snagging ends.

05. On both 31 in developed widths mark seam-center lines 1 1/2 in from each hemmed vertical edge. These marks are 28 in apart and will define half the 56 in layout circumference.

06. Gently curve both panels around the 56 in layout cord, with all folded edges facing outward. At both joins overlap hemmed ends by 3 in and align the seam-center marks. Do not make a smaller ring to hide an uneven lap.

07. At the rear overlap tie the layers together at finished heights 2, 7, 12, 17, 22, 27 and 33 in. Use the nearest sound intersections without distorting the 3 in overlap. Twist only to secure; turn all trimmed tails outward and down into the outer mesh.

08. At the front overlap install four reusable ties at heights 2, 12, 23 and 33 in. Pass each through both layers and a neighboring mesh opening, with its release head outside. These ties provide the intended service opening; do not replace them with a tight wire loop around the tree.

09. Check developed circumference near mid-height and measure the actual clear opening in two perpendicular directions. Require at least 17 1/2 in inside, no projecting wire inward and a finished outside envelope no larger than the stated allowance. Mesh/fold thickness is verified physically, not inferred from the single-wire cut-table value.

Place and inspect the formed guard

10. Open only the front ties and flex the front seam apart to place the guard around the tree without scraping bark. Center it before closing. Seat the bottom against suitable ground/mulch as local Extension guidance requires; do not cut roots to bury a ring.

11. If appropriate to the site, place four U-staples through the lowest sound mesh along the outside, roughly a quarter-turn apart. Hand-place them only where no root, irrigation line or buried service will be damaged; they must not draw the guard toward the trunk.

12. Open and reclose the front once more for a full inspection. Remove trapped debris, check ground gaps, confirm all bark clearances and document a regular growth/snow check in the separate husbandry/garden routine.

Acceptance checks

- Each developed panel is 31 x 35 in; rear and front overlaps are each 3 in, giving 31+31-3-3=56 in.

- Clear inside diameter is at least 17 1/2 in in two directions, with a centered 2 in trunk leaving at least 7 3/4 in to the nominal circular barrier.

- All cut ends are hemmed outward; rear lacing stays secure and the four front ties release without tools.

- Ground gaps, snow level and plant growth are actual site checks; no exclusion or wind performance has been tested.

Use

- Inspect through the front seam frequently and after storms or snow movement. Keep competing vegetation/debris from hiding damage, and keep the guard entirely free of contact with the living trunk.

Care

- Replace torn mesh, failed welds, corroded ties or brittle reusable fasteners. Remove anchors before taking the guard away and flatten only off the tree for storage.

Primary context sources

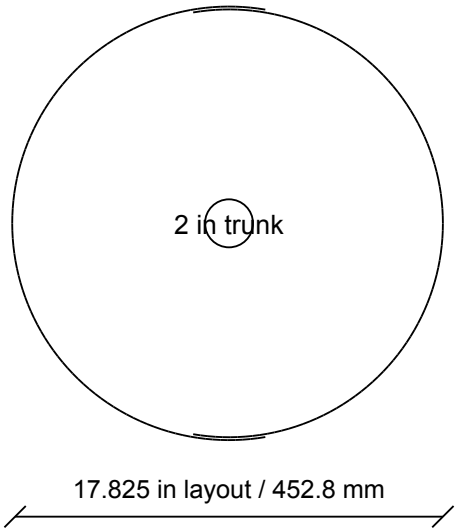
USDA Forest Service / University of Minnesota host: Tree Owner's Manual - Installing a Trunk Guard. Trunk clearance, snow exposure and inspection context; this original openable guard is not an agency-tested exclusion product.

Marco Specialty Steel: Galvanized Hardware Cloth - Stock Specifications. Published 23-gauge 0.025 in wire and 1/4 in mesh stock in 36 in roll width. Wire diameter is not the total folded seam thickness.

OR-006 / FORMED GUARD AND ACCESS SEAM

Original developed-line geometry. Welds and hems are schematic; verify the actual opening and the site-specific bottom edge.

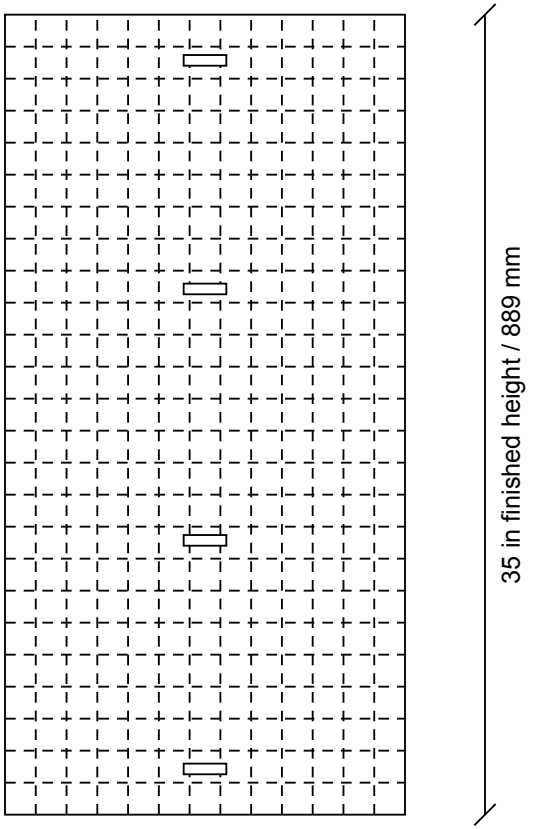
PLAN / centered tree; no trunk attachment



Front seam: four reusable ties.

Rear seam: seven fixed lacing ties.

FRONT / grid shown schematically



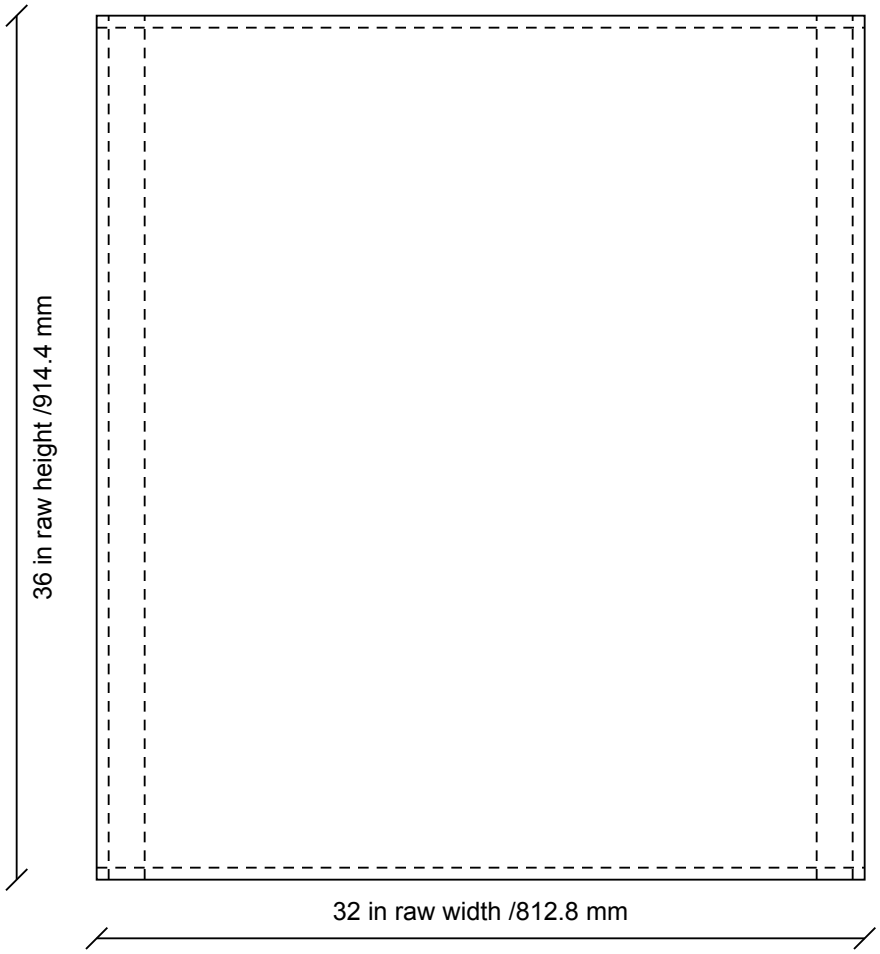
Check height above expected snow/reach.

No predator/deer exclusion rating.

Measure actual inner diameter >=17 1/2 in. Keep all hems/tails outward and all mesh clear of bark and root flare.

OR-006 / TWO RAW MESH BLANKS AND FOLD LINES

Cut two 32 x 36 in blanks. Dashed lines show the 1/2 in outward hems; inner dashed marks locate the seam centers.



Quantity 2 identical raw blanks.

Fold 1/2 in at all four edges.

Developed panel 31 x 35 in.

Raw seam-center marks:

x=2 and 30 in from the raw left edge.

These are 1 1/2 in inside the finished hems.

23-gauge wire nominal diameter 0.025 in.

Do not model mesh as a solid 0.025 in wall.

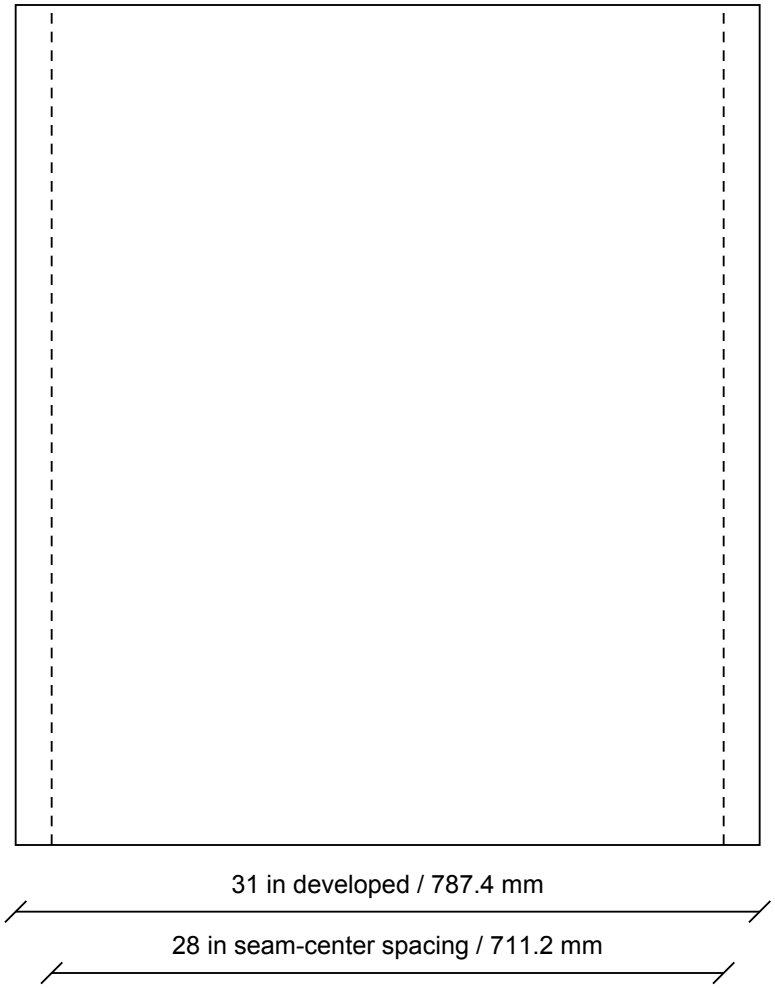
Welds, hems and lapped seams are thicker.

Keep cut ends captured on the outside.

Measure inches with a tape; nominal mesh opening does not establish exact center-to-center wire pitch.

OR-006 / DEVELOPMENT, HEMS AND OVERLAPS

Cut dimensions control the stock. Forming is flexible; the finished ring is not a precision cylinder.



Each raw blank: 32 x 36 in.

Fold 1/2 in at all four edges.

Developed face: 31 x 35 in.

Each seam-center mark is

1 1/2 in from a vertical hem.

Two joins overlap 3 in each:

31 + 31 - 3 - 3 = 56 in.

Mesh wire diameter 0.025 in.

Crossings and folds are thicker;

measure the final clear opening.

Do not count nominal mesh cells as exact inches. Check raw and developed dimensions with a flexible tape.