WS-003 Right-angle glue-up corner fixture

Hold two light frame members at a verified right angle while separate clamps apply glue-up pressure.

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

US inches; feet where appropriate. Metric values are rounded references. Written inch values control.

3/4 in means measured 0.750 in actual thickness wherever used. Recalculate mating lengths for other sheet thicknesses; do not substitute nominal stock blindly.

Use limits

For the bounded stated manual task. Do not install it on a powered machine or use it to replace a guard.

No load, measurement-certification or protective-equipment claim.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
A Reference board	1	10 × 10 × 3/4 in 254 × 254 × 19.05 mm	Sanded birch plywood with sound, void-free receiving edges. Measured actual thickness 3/4 in.
B X fence	1	8 × 1 1/2 × 3/4 in 203.2 × 38.1 × 19.05 mm	Clear solid hard maple, straight grain along the listed length. Measured actual thickness 3/4 in.
C Y fence	1	6 1/2 × 1 1/2 × 3/4 in 165.1 × 38.1 × 19.05 mm	Clear solid hard maple, straight grain along the listed length. Measured actual thickness 3/4 in.

Hardware and consumables

6 × Compatible wood screws. Selected length, pilots and locations are stated in the instructions; test on actual scrap.

Tools

Rule with fractional inches; Pencil or appropriate material marker; Reliable square; Saw suited to the specified stock; Clamps; Abrasive and dust-removal brush; Drill with the specified bit and depth stop where needed; Driver matching selected fasteners

Primary context and design record

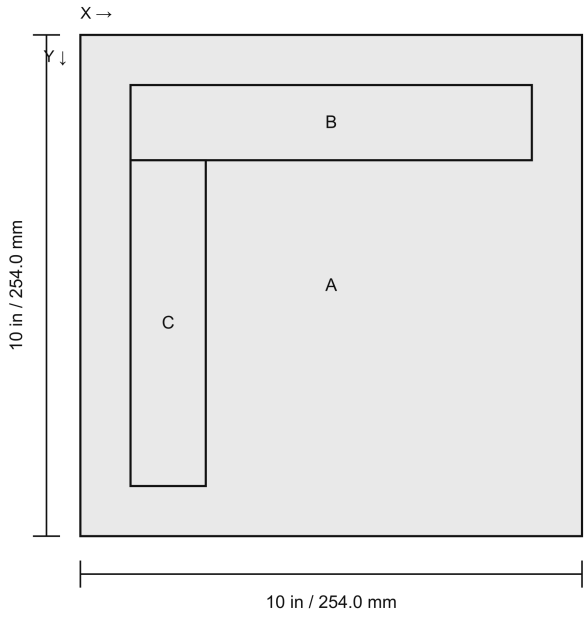
Context references; not design endorsements or certifications.

WS-S01 · Hand and Power Tools · OSHA

Assembly and first checks

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PLAN / reference origin at front-left; not to scale. Inch values control.



Part letters identify the cut-list pieces. Dashed outline = underside part.
Coordinates in the method use the same X/Y reference.
Do not drill from the graphic: transfer the written center coordinates.
Original editorial design; no physical construction trial or certified load rating.

01 This fixture locates a corner; separate clamps carry the clamping force. Cover the contact area with removable release tape when using wood adhesive.

02 Cut A to 10 in / 254.0 mm by 10 in / 254.0 mm from flat measured 3/4 in stock. Mark one face UP and mark front-left X0 Y0; remove only the splinters, not the reference edges.

03 Draw the centerline and attachment footprints from the part positions below. Measure from the reference faces each time; do not add a chain of rounded conversions.

04 Cut B 8 × 1 1/2 × 3/4 in and C 6 1/2 × 1 1/2 × 3/4 in. C runs along Y, so its plan footprint is 1 1/2 × 6 1/2 in.

05 Clamp B at X = 1–9, Y = 1–2 1/2 in. Clamp C at X = 1–2 1/2, Y = 2 1/2–9 in. The inside faces Y = 2 1/2 and X = 2 1/2 form the working corner.

06 Dry-fit and clamp the assembly on a stable surface. Check the intended article against the clearances before drilling or gluing; correct the layout on paper if it does not fit.

Complete the assembly

WS-003 Component dimensions

Orthographic component reference. Quantities shown; not a sheet nesting plan or full-size template.

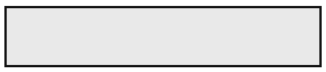


10 × 10 in

A Reference board QTY 1

10 in / 254.0 mm × 10 in / 254.0 mm

thickness 3/4 in / 19.0 mm

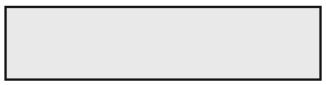


8 × 1 1/2 in

B X fence QTY 1

8 in / 203.2 mm × 1 1/2 in / 38.1 mm

thickness 3/4 in / 19.0 mm



6 1/2 × 1 1/2 in

C Y fence QTY 1

6 1/2 in / 165.1 mm × 1 1/2 in / 38.1 mm

thickness 3/4 in / 19.0 mm

Measured actual stock controls. Read the written assembly sequence before cutting or fastening.

07 Drill from beneath A at (2,1 3/4),(5,1 3/4),(8,1 3/4) in into B, then at (1 3/4,3 1/2),(1 3/4,6),(1 3/4,8) in into C. Use six #8 × 1 1/4 in screws with clearance holes and centered pilots.

08 Ease exposed corners and all edges that the operator will touch. Remove dust and any projecting point; countersink only to a flush head.

09 Check the two inside faces with a reliable square over their full contact length. Do not use the outside cut edges as the acceptance reference.

10 Fit two scrap frame members to the inside faces. Place independent clamps so they do not pull the board upward or put a hand in a pinch point.

11 Apply a small amount of adhesive to a test joint, add release tape beneath it and close the independent clamps gently.

12 Remove the test after the adhesive cure time. Check the joint square and remove any hardened glue that could change the fence seating.

Acceptance and intermediate checks

Working inside reference is X = 2 1/2, Y = 2 1/2 in; fences meet without an inside obstruction.

Both members contact their fence continuously and a completed scrap joint checks square.

Assembly is flat and free of splinters, exposed tips and loose parts.

A second operator can repeat the intended light-duty operation without being coached.

Cleaning and maintenance

Brush or wipe the unloaded assembly clean after use.

Inspect attachment fit and fasteners before each new task.

Replace a damaged contact surface; recheck the reference dimensions after repair.