

Compact Workbench Plans

Compact Workbench

Full Build Plans — 60" x 24" x 34" General-Purpose Bench

This is a space-saving workbench size for a small garage, apartment workshop, or tight corner: sturdy enough for hand-tool joinery and power-tool work, compact enough to fit the tightest garages, corners, or apartment workshops, and simple enough to build in a weekend with basic tools.

Skill level: Beginner – Intermediate | Build time: 1–2 days | Cost: Moderate

1. Overview & Final Dimensions

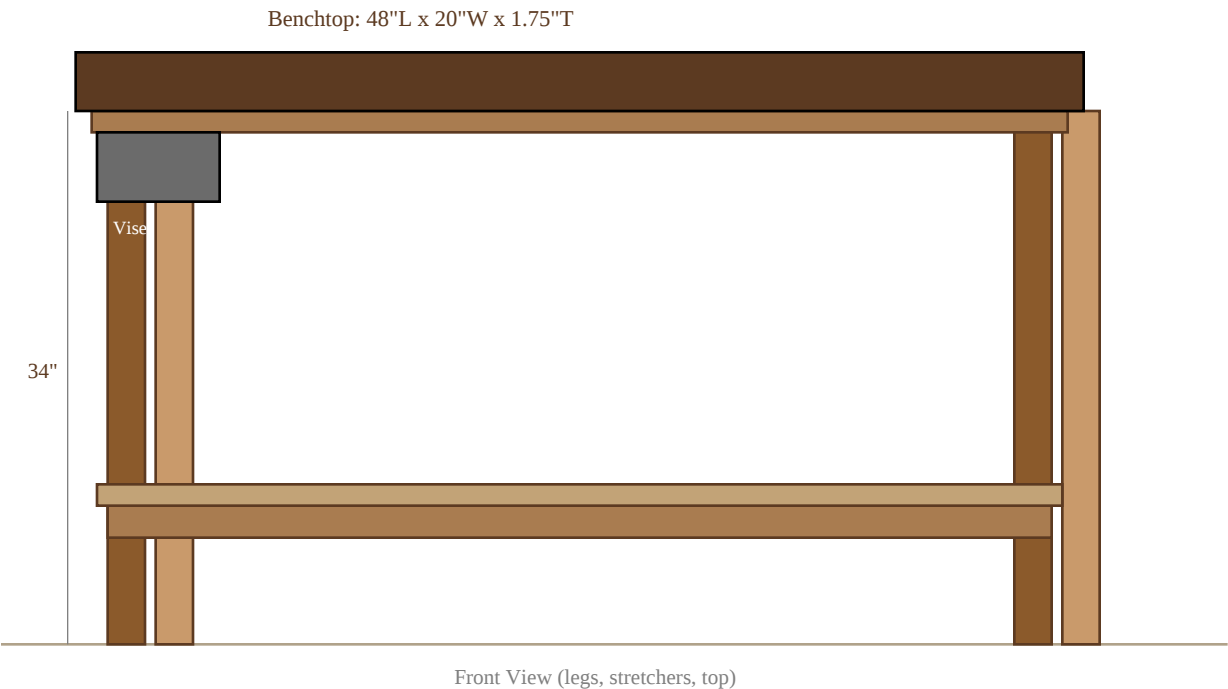
This bench uses a compact four-leg-and-apron design with a laminated or sheet-good top, lower stretchers for rigidity, and an optional lower shelf for storage. It's sized to be the most space-efficient workbench footprint for general woodworking, assembly, and light metalworking.

Dimension	Measurement
Overall length	48 in (4 ft)
Overall depth	20 in
Working height	34 in (adjust ± 2 " to your height)
Benchtop thickness	1.75 in (laminated) or 1.5 in (2-layer plywood)
Leg stock	3.5 in x 3.5 in (4x4 nominal)
Clearance under lower shelf	6 in

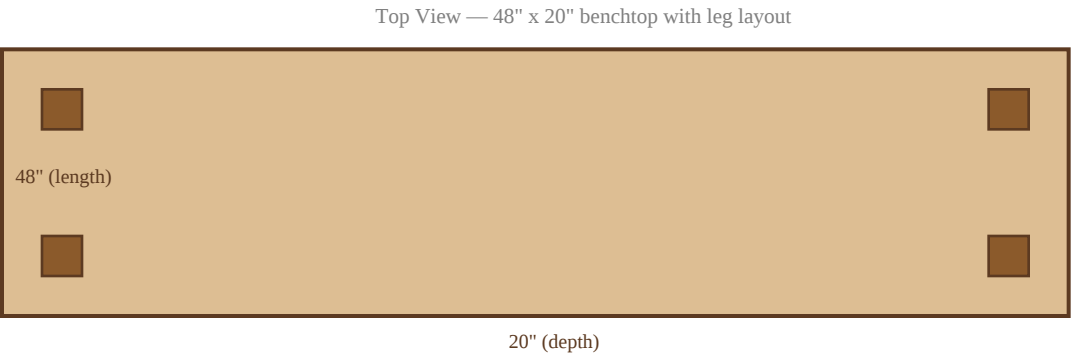
Sizing tip: Working height should sit roughly at your wrist height when standing relaxed with arms at your sides — this is comfortable for both hand-planing and assembly work.

2. Diagrams

Front View



Top View



3. Materials List

Qty	Material	Notes
4	4x4 (3.5" x 3.5") x 34" — legs	Douglas fir or hard maple recommended
2	2x6 x 48" — front/back aprons	Straight, knot-free stock preferred
2	2x6 x 16" — side aprons	Fits between front/back legs
2	2x4 x 48" — lower stretchers (long)	Connects front/back leg pairs
2	2x4 x 16" — lower stretchers (short)	Connects side leg pairs
1 sheet	3/4" plywood, 48" x 20" x2 layers	Glue-laminated for 1.5" top, or use 8/4 hardwood boards
1	3/4" plywood, 48" x 14" — lower shelf	Optional storage shelf
1 box	3" wood screws (deck/construction screws)	For apron-to-leg and stretcher joints
1 box	2.5" pocket-hole or lag screws	For top attachment
1	Wood glue (exterior-rated)	For laminating top and reinforcing joints
1	Front vise (quick-release, 7"+ jaw)	Optional but highly recommended
4 (opt.)	Bench dogs / dog holes hardware	For a dog-hole workholding row

4. Cut List

Part	Qty	Dimensions (T x W x L)
Legs	4	3.5" x 3.5" x 34"
Front/back aprons	2	1.5" x 5.5" x 48"
Side aprons	2	1.5" x 5.5" x 13" (fit between legs)
Long stretchers	2	1.5" x 3.5" x 48"
Short stretchers	2	1.5" x 3.5" x 13"
Benchtop layers	2	0.75" x 24" x 60" (lamine together)
Lower shelf	1	0.75" x 14" x 44" (fit inside stretcher frame)

Note: Apron/stretcher lengths marked "fit between legs" assume 3.5" leg stock; dry-fit and trim to your actual leg spacing before final cuts.

5. Tools Needed

- Circular saw or table saw
- Drill/driver + countersink bit
- Pocket-hole jig (optional, for top attachment)
- Clamps (at least 6 bar or pipe clamps, 24"+)
- Framing square and tape measure
- Chisel (for cleaning up joints)
- Random orbital sander, 120/180 grit discs
- Safety glasses and hearing protection

6. Step-by-Step Assembly

Step 1 — Cut legs and joinery

Cut all four legs to 34" length. Mark and cut mortises or flat notches on the inner faces where the aprons will attach (a simple half-lap or pocket-hole joint works well for beginners). Sand all leg faces smooth before assembly.

Step 2 — Build the leg/apron frames

Attach the side aprons between each pair of legs first, forming two "H" shaped end assemblies. Glue and screw (or pocket-screw) each joint, checking for square with a framing square before the glue sets.

Step 3 — Join the end assemblies with long aprons

Connect the two end assemblies using the front and back aprons (48" length). Glue and clamp, then drive screws or pocket screws through the aprons into the legs. Check diagonals corner-to-corner to confirm the base is square before the glue cures.

Step 4 — Install stretchers and shelf

Attach the lower long and short stretchers about 6–10" above the floor, forming a rectangular frame. Drop the plywood shelf onto this frame (no fasteners needed, or a few screws to prevent shifting).

Step 5 — Laminate the benchtop

Glue two layers of 3/4" plywood face-to-face, staggering any seams. Clamp heavily across the whole surface every 8–10", using cauls to keep the panel flat. Let cure fully (24 hours) before handling.

Step 6 — Flatten and trim the top

Once cured, trim the top to final 60" x 24" dimensions with a track saw or circular saw + straightedge. Sand or hand-plane the surface flat and smooth, easing all top edges slightly with sandpaper.

Step 7 — Attach the top to the base

Center the top on the base with an even overhang on all sides. Attach from underneath using screws through the aprons (use slotted or oversized pilot holes on at least one axis to allow for wood movement).

Step 8 — Install the vise and dog holes (optional)

Mount the front vise flush with the front edge of the benchtop, typically at the left end. Drill a row of 3/4" dog holes spaced 4–6" apart in line with the vise for workholding.

Step 9 — Finish

Apply 2–3 coats of a durable finish such as boiled linseed oil, hardwax oil, or polyurethane. Let each coat dry fully and lightly sand between coats for a smooth, protective surface.

Safety reminder: Always cut on a stable, supported surface, keep hands clear of blade paths, and clamp workpieces securely before drilling or sawing.

7. Customization Notes

- Height: shorten or lengthen legs to match your preferred working height.
- Width: 20" depth keeps the footprint tight; increase to 24–26" if you need more surface area.
- Storage: add a second lower shelf, or enclose the lower section with doors/drawers for tool storage.
- Top material: hardwood strips (maple, beech) glued into a butcher-block-style top add durability if you plan heavy hand-tool use.
- Portability: add locking casters to two legs if the bench needs to move around the shop.

These plans are provided for personal, non-commercial workshop use. Always verify measurements against your own lumber and space before cutting, and follow the safety guidelines of your tool manufacturers.