Outdoor Storage Center

Need extra storage for your lawn mower or gardening tools and supplies? With Simpson Strong-Tie® connectors, it's easy for you to get all of your outdoor goods organized. This sturdy storage center can be completed, from start to finish, in just one day.

TOOLS NEEDED
- Saw
- Screw gun
- #2 Phillips-head bit
- 1/4" hex drive socket
- Tape measure
- Clamps
- Framing square
- Hammer
- Straight edge

Connectors are easy to install and strong enough to support even the heaviest boxes, tools or machinery, and can be finished with paint to blend with the style of your home.

INSTALLATION INSTRUCTIONS
1. Cut lumber and plywood to size. Since all of your cuts are straight cuts, Simpson Strong-Tie connectors simplify building with wood.

2. Install connector on vertical post. Mark height, clamp connector to post and attach with Simpson Strong-Tie #9 x 1 1/4" Strong-Drive® SD Connector screws.

3. Connect horizontal rafter on each side. Use a clamp to help hold the wood in the seat of the connector during installation.

4. Notch corners of plywood shelves. Use a piece of 2x4 on each corner of the shelf, trace and cut to accommodate corner posts.
Outdoor Storage Center

Materials and Cut Diagram

Hardware Needed
- (14) Rigid Tie® RTO22 connectors*
- (4) TP-8G 6" plates*
- (6) A31 angles*
- (2) FB242 brackets*
- (2) H2.5A ties*

Front View

Lumber Needed
- (18) Pieces 2x4 x 8'
- (1) 4" x 4" sheet of 1/8" plywood
- (1) 4" x 8" sheet of 1/8" plywood

Cut List

Cut from 2x4 x 8'
(6) 65° vertical corner posts
(1) 65° long back rafter blocking
(2) 93° long front/back top rail
(2) 60° long back rail and 31° side rails
(4) 31° short front/back rails and (2) 31° side rails
(5) 31° side rails (results in extra scrap rail)
(5) 46° rafters (results in extra scrap rail)

Cut from 4" x 8" plywood
(1) 96 x 46" plywood roof
(2) 38 x 33" shelves

Use 8x1 x 6" preservative-treated lumber, or non-treated lumber with exterior-grade stain or paint.
Dimensions can be modified to fit your specific needs. Use roofing material of your choice.
Underlayment and asphalt shingles are recommended. Follow manufacturer's instructions for installation.

*Corrosion Information: We recommend using our ZMAX® galvanized product for best results on exterior projects and those using preservative-treated wood. These products have a "Z" at the end of the model number (e.g., RTC22). ZMAX coated products provide additional corrosion resistance, which is advisable but not required, for non-structural projects like the one shown above. Visit strongtie.com/Info for critical information.

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DIY-CSOUTSTR19 2/19 exp. 6/23
Simpson Strong-Tie makes it affordable for you to build a fence that will withstand the test of time and, best of all, complement the character and design of your home. Your style, your way. Building a fence with Simpson Strong-Tie® connectors can save you the cost of hiring a contractor and save or long-term costs by adding strength that minimizes repairs.

TOOLS NEEDED
- Saw
- Screw gun
- #2 Phillips-head bit
- Tape measure
- Clamps
- Framing square
- Straight edge
- Level
- Post hole digger
- String for layout

INSTALLATION INSTRUCTIONS
Connecting 2x4 horizontal rails (FB24Z bracket). Mark the desired position and use a FB24Z fence bracket to hold the horizontal rails to the center of the 4x4. Attach with Simpson Strong-Tie® #9 x 1 1/2" Strong-Drive® SD connector screws.

Connecting 2x6 horizontal rails (FB26Z bracket). If you prefer 2x6 rails (or are building a post-and-rail fence) use a FB26Z bracket centered on the post. Attach with #9 x 1 1/2" SD Connector screws.

You can create a fence of any style that enhances your home or backyard. Whether you prefer a standard picket fence, three rail, or a lattice top, Simpson Strong-Tie connectors make it easy.

Use cedar, redwood or preservative-treated lumber and finish with exterior grade stain or paint. Make sure posts are designated for below-ground use. Dimensions can be modified to fit your specific needs. Check local building codes before construction.
Wood Fencing

Materials and Cut Diagram

**Simpson Strong-Tie® Connectors and Fasteners**
- (6) FB24Z fence brackets
- (1) Box Simpson Strong-Tie® #8 x 1 ¼” Strong-Drive® SD Connector screws
- (120) 1 ¼” decking screws or 0.131” x 2 ½” hot-dip galvanized nails

**Lumber Needed**
- (3) Pieces 1 x 4 x 8’
- (2) Pieces 1 x 6 x 8’
- (4) Pieces 2 x 4 x 8’
- (20) Pieces 1 x 6 x 6’
- (3) Pieces 1 x 4 x 6’ (for post bracing)
- (2) Wood stakes (for post bracing)

**Cut List**
- Cut from 4 x 4 x 8’
  - 4 x 4 x 96” fence posts
- Cut from 2 x 4 x 8’
  - 2 x 4 x 96” fence rails
  - 1 x 4 x 96” fence cap
- Cut from 1 x 6 x 8’
  - 1 x 6 x 70” fence boards

**Setting Fence Posts**
- A common rule of thumb is that a 6’-tall fence requires 2’ of post in the ground. It is also recommended that a 2’ gap be maintained between the bottom of the fence and the ground to help prevent rot. (Check with local building department for specific requirements.)
- Mark the fence line with stakes and string to identify where sides of posts should align.
- Mark post locations every 8’.
- It is recommended that posts be set in concrete for strength and durability.

**Suggested steps:**
1. Dig post holes to desired depth.
2. Position fence post in hole and brace to ensure it is plumb.
3. Pour concrete in hole, finishing to a dome at the top to direct water away from the post.

*There is fence-post concrete readily available in bags that does not require mixing. Typically you can just pour a bag of the dry mix into the hole and add water. (Follow manufacturer’s instructions.)*

CORROSION INFORMATION: We recommend using our ZMAX® galvanized product for best results on exterior projects and those using preservative-treated wood. These products have a “Z” at the end of the model number. (e.g., FB24Z). ZMAX coated products provide additional corrosion resistance, which is advisable but not required, for non-structural projects like the one shown above. Visit strongtie.com/info for critical information.

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Garden Trellis

Build this trellis to give your landscape an interesting focal point while getting the most from your home improvement dollar. Simpson Strong-Tie® connectors make it quick and easy to build this simple, strong structure in just one day. Use cedar lumber with a weather-proof stain, to dress it up or customize to fit your needs. Simpson Strong-Tie post bases make it easy to anchor your trellis securely to concrete.

**TOOLS NEEDED**
- Saw
- Screw gun
- #2 Phillips-head bit
- 1/4" hex head socket
- Tape measure
- Clamps
- Framing square
- Straight edge

**INSTALLATION INSTRUCTIONS**
1. Cut lumber and plywood to size. Since all of your cuts are straight cuts, Simpson Strong-Tie connectors simplify building with wood.

2. Install connectors on vertical posts. Mark height, clamp connector to post and attach with Simpson Strong-Tie #6 x 1 1/2" Strong-Drive® SD Connector screws.

3. Connect horizontal rails on each side. Use a clamp to help hold the wood in the seat of the connector during installation.

Ask your lumber retailer about decorative posts or post covers

Use Rigid Tie® RTU brackets to attach 2x2 cross members to 2x4 frame

Attach Rigid Tie RTC42 connectors with #9 x 1 1/4" SD Connector screws

Attach FB242 brackets with #9 x 1 1/2" SD Connector screws

Anchor the ABA44 post base to concrete and attach 4x4 post with #9 x 1 1/4" SD Connector screws. (See strongtie.com for other post base options for new and existing concrete.)
Garden Trellis

Materials and Cut Diagram

Front View

Side View

Hardware Needed
- (4) Rigit-Tie® RTC42 connectors**
- (6) Rigit-Tie® RT1US brackets**
- (6) FB24Z brackets**
- (4) ABA44 post bases**
- (2) Boxes Simpson Strong-Tie® #9 x 1½" Strong-Drive® SD Connector screws
- (20) #8 x 1¼" flat-head screws
- (4) Anchors (for existing or new concrete)

Lumber Needed
- (4) Pieces 4x4 x 8'
- (4) Pieces 2x4 x 8'
- (2) Pieces 2x2 x 8'
- (1) Piece 4' x 8' sheet of lattice (wood or plastic)

Cut List

Cut from 4x4 x 8'
(4) 88" corner post

Cut from 2x4 x 8'
(2) 60" horizontal rails
(6) 29" end rails

Cut from 2x2 x 8'
(4) 29" trellis rafters

Cut from 4' x 8' sheet of lattice
(2) 29" x 48" lattice sides

Cut two from (1) 4' x 8' sheet. Attach with #8 x 1¼" flat-head screws at 8" spacing.

*Use preservative-treated wood or non-treated wood with exterior-grade paint or stain.

**Correlation Information: We recommend using our 2XAV® galvanized product for best results on exterior projects and those using preservative-treated wood. These products have a 25 year warranty. If using a 2XAV® coated product, additional corrosion resistance is available. Visit strongtie.com/2xav for more information.

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