certainteed
SAINT-GOBAIN

Install Like the Pros

Drywall Installation Guide

SAINT-GOBAIN

GETTING STARTED RIGHT

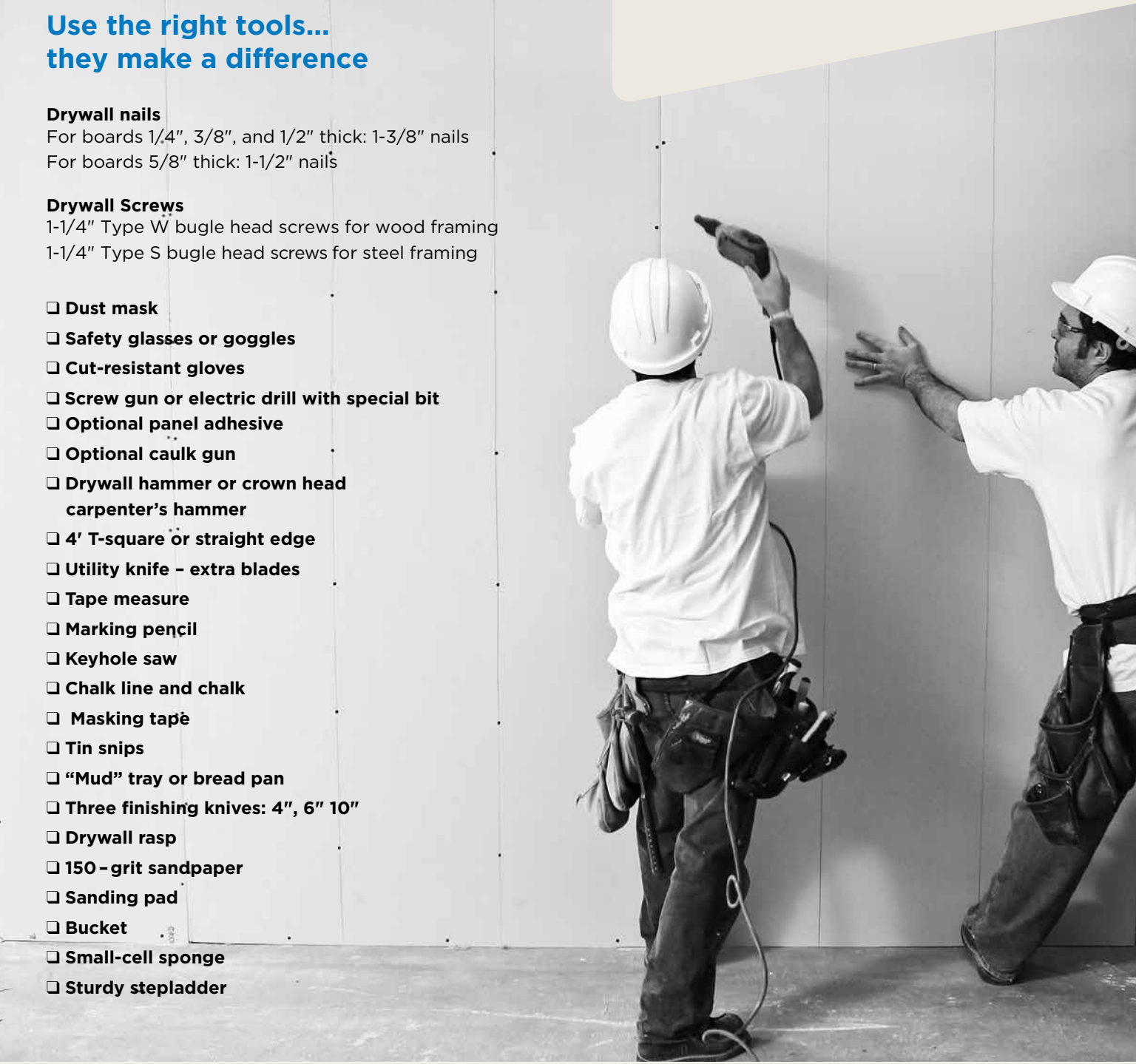
For the best results choose the right CertainTeed gypsum board at www.certainteed.com/drywall

Use the right tools... they make a difference

Drywall nails
For boards 1/4", 3/8", and 1/2" thick: 1-3/8" nails
For boards 5/8" thick: 1-1/2" nails

Drywall Screws
1-1/4" Type W bugle head screws for wood framing
1-1/4" Type S bugle head screws for steel framing

- ❑ **Dust mask**
- ❑ **Safety glasses or goggles**
- ❑ **Cut-resistant gloves**
- ❑ **Screw gun or electric drill with special bit**
- ❑ **Optional panel adhesive**
- ❑ **Optional caulk gun**
- ❑ **Drywall hammer or crown head carpenter's hammer**
- ❑ **4′ T-square or straight edge**
- ❑ **Utility knife – extra blades**
- ❑ **Tape measure**
- ❑ **Marking pencil**
- ❑ **Keyhole saw**
- ❑ **Chalk line and chalk**
- ❑ **Masking tape**
- ❑ **Tin snips**
- ❑ **"Mud" tray or bread pan**
- ❑ **Three finishing knives: 4", 6" 10"**
- ❑ **Drywall rasp**
- ❑ **150 – grit sandpaper**
- ❑ **Sanding pad**
- ❑ **Bucket**
- ❑ **Small-cell sponge**
- ❑ **Sturdy stepladder**



PLANNING CAREFULLY

Before you begin, it helps to make a drawing of the area you're covering in drywall.

Estimate Quantities

To determine how many boards you'll need, first figure out the square footage of the surface area you're going to cover.

Measure your walls, corner to corner (length) and floor to ceiling (height), and then multiply the length by the height to find the square footage. Do not subtract for openings: windows, doors, etc.

Measure the ceiling and multiply the length by the width.

Add the square footage of your walls and ceiling to get total square footage. Divide total square footage by the square footage of a single board (see chart) to determine the number of drywall boards required.

Use the CertainTeed drywall calculator at www.certainteed.com/drywall/calculator/

DRYWALL

Board Size	Square Feet
4′ x 8′	32 sq. ft.
4′ x 10′	40 sq. ft.
4′ x 12′	48 sq. ft.

ACCESSORY MATERIAL

TO DETERMINE THE AMOUNT OF ACCESSORY MATERIALS YOU'LL NEED, USE THIS RULE OF THUMB:

For 100 sq. ft. you will need:

- ✓ **1 gallon joint treatment compound**
- ✓ **0.6 lbs. of nails or 0.3 lbs. of drywall screws**
- ✓ **37 ft. of joint tape**

Note: Determine your board installation layout to minimize the number of end to end board joints on the ceiling and on each wall.

Measure Twice

Place the drywall with light-colored face paper side up. Refer to your drawings, measure and mark the panel size you need.

Cut Once

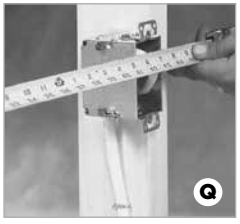
Using a straight edge or T-square to guide your utility knife, cut the face paper deeply through to the gypsum core. Make 3 or 4 passes along the same line, if necessary. Grasp the drywall firmly and with a quick, even downward pressure, snap the board along the cutline. Fold back the partially separate piece of board and cut the back paper along the crease. Rasp or sand any rough edges.

PROFESSIONAL TIP

Remember: Measure Twice, Cut Once. Improper measuring results in an improper fit, wasting your time and money.

Allow for Utility Holes

To cut openings for electrical outlets, telephone jacks, etc.,



Q Measure from the edge of the adjacent board to the near and far sides of the installed fixture box. Then measure from the top edge of the board to the top and bottom of the box.

Measure both ways twice!

W Trace the outline with a pencil in the position you just measured on the panel.

E Cut the opening with a keyhole saw.

For doors and windows, install the boards directly over the openings. Then use a drywall saw to cut the boards from the other side of the opening, using the framing as your guide, ensuring there are no drywall joints at the edges of doors or windows.

ATTACHING PANELS

Inspecting the Framing

Measure to ensure the wall and ceiling framing is straight and square, and repair or replace any framing that is out of alignment. The attachment surface of any framing member shall not vary more than 1/8″ from the plane of the surfaces of adjacent framing members.

Work in Pairs

You can attach boards using nails or screws, and glue. Start with the ceiling boards and use a T-brace or drywall lift to securely hold each board in place during fastening.

PROFESSIONAL TIP

To build a T-brace, use two 2-foot-long 1″x 4″ wood boards, and one 2″x 4″ wood board that measures the ceiling height plus 1″. Use one of the 1″x 4″ members to form the top of the "T," and use the second 1″x 4″ member as a diagonal brace from the top piece to the stem, to keep the T-brace square. Or rent a professional drywall lift, usually available at building rental outlets.

Nails. Holding the board against the framing, nail the center of the board first, then nail outward to the edges and ends. Nails are spaced a maximum 7″ o.c. on ceilings and 8″ o.c. on walls. Hammer the nails straight in, not at an angle, seating the nail so the head is in a shallow dimple formed by the last blow of the hammer. Take care not to tear the face paper.

If you do hammer at an angle or the paper rips, hold the board tight against the framing and drive in a second nail about 1-1/2″ from the first nail. Then drive the first nail below the surface of the board and repair the damaged area (see "Torn Face Paper," page 11).

Screws. If you use drywall screws, space them 12″ apart on walls and ceilings and seat the screwheads just below the board surface. Be careful not to rip the paper.

To install drywall horizontally (at right angle to the framing), start with the top board. Place together the tapered factory edge, moderately touching. Push the board firmly against the ceiling and fasten with nails or screws placed 7" from the interior ceiling angle. Space all nails 7" apart and screws 12" apart.

To join boards at the inside corner, abut the second board against the first and fasten the end of the second panel to the frame.

To join boards at the outside corner, lap the end of the second board over the end of the first and fasten both board ends to their common stud.

To position the lower board, make a shim or wedge from a piece of 2″ x 4″ board and use it as a lever under the bottom edge to jack up the lower board against the upper board. Leave a minimum 1/4″ gap between the drywall and the floor.

Glue. Even strong construction-grade panel adhesives must be reinforced with nails and screws. Make sure the framing surfaces are clean and free of contamination. Apply adhesive, following the manufacturer's instructions. Then use nails or screws, spacing them 16″ apart in the field of the boards.

For additional information, reference the Gypsum Association's *GA-216, Application and Finishing of Gypsum Panel Products*.

FINISHING IT RIGHT

Finish the Joints and Corners

First coat, embedding tape. After all drywall boards are in place, begin finishing the joints. First apply a liberal coat of joint compound, about 2″ to 3″ wide along the entire joint, following the manufacturer's directions. Keep the blade clean.

Dried pieces of compound will leave unsightly scratches, so throw away any compound that has dried pieces. While the compound is still wet, embed the reinforcing tape by centering the tape directly over the joint. Then use a 4″ or 6″ finishing knife to press the tape into the joint compound. Remove excess compound over and around the tape to level the surface. Let it set and dry about 24 hours.

Second coat. Scrape, sand or use a damp sponge on the dry embedded tape to gently remove ridges or other imperfections. Apply a second coat of joint compound that extends beyond the first coat 7″ to 8″. Let it dry completely.

Finishing coat. Scrape, sand or use a damp sponge to gently remove any imperfections. Draw a 10″ knife blade along the surface to ensure it is level. Apply a thin finishing coat to each joint, then feather outward 3″ to 4″ to eliminate imperfections.

Finish the Corners

Outside corners. Using a 6″ knife, apply the first coat of joint compound along one flange of the corner bead and smooth the compound outward with the knife. Repeat the process on the other flange. Allow the compound to dry and repeat the process again, using a 10″ knife, feathering the edges outward.

Inside corners. Using a 4″ finishing knife, spread a thin layer of joint compound on both sides of the corner, extending the compound slightly beyond the area to be taped.

Use your fingers to fold the joint tape, being careful to avoid a paper cut, and press the tape lightly into place. Embed the tape, using a 4″ knife or corner tool. Allow this coat to dry overnight.

Using a 6″ knife, apply a second coat along one side of the corner. Scrape away excess compound and feather the second coat outward.

After one side has dried, repeat the procedure to apply the second coat on the other side. If necessary, apply a third coat, feathering beyond the edge of the second coat.

KEEPING UP APPEARANCES

Finish the Fasteners

Using a 4" knife, apply joint compound over each screw or nail head depression. Hold the blade almost flush with the board and draw the blade across the fastener and surrounding dimple. Scrape off excess compound to ensure a level board surface. Allow this coat to dry. Then repeat the procedure and apply a second coat. Allow it to dry and, if necessary, apply a third coat and allow it to dry.

Sand Joints and Fasteners

Only if necessary, lightly sand imperfections in finished joints, corners and over fastener heads, using fine-grit sandpaper. When sanding, be careful not to rough-up the fibers of the paper covering on the drywall. Remove the sanding dust with a damp sponge.

Decorate Your New Walls

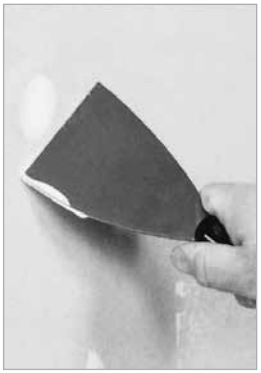
Before you apply any decoration, apply a base coat of high quality drywall primer to the walls and ceilings. You can create decorative surfaces using joint compound or special texturing materials ranging from semi-smooth to rough-textured. Visit your local paint dealer for semi-smooth textured, coarse sponge-finished coatings, heavily-bristled brush surfaces and spray-on textures. Consider using materials specifically formulated for surface texturing to conceal imperfections better, look whiter, dry into a harder finish and offer greater flexibility.

We hope this how-to booklet simplifies installation, finishing and maintenance of your CertainTeed drywall. We're confident you'll be pleased with our products.

PROFESSIONAL TIP

When applying any decoration that is new to you, practice first on a leftover piece of drywall.

Make Repairs Right Away



Small breaks. To repair small cracks and holes, first remove any loose material. Then, using a clean putty knife, fill the opening with joint compound. Let it dry and apply additional coats, if needed. To repair larger cracks, embed a piece of joint tape to cover the opening, then apply a second coat of joint compound and finish the surface.

Larger breaks. Where the tape will not bridge the opening, use a keyhole or other saw to cut out an area around the hole. Cut the board back to the center of the stud on either side of the damaged area.

For a large crack, remove the section and any fasteners with a hammer or screw gun. Measure and cut a new drywall panel to fit the damaged area. Fasten it to the studs. Apply joint compound and embed the tape to all four sides of the replacement piece. Or, for larger holes, use self-sticking fiberglass tape along the edges and apply joint compound. Let it dry, then apply a second coat, feathering to produce a smooth surface. If necessary, apply a third coat.

Popped nails. Press the board firmly against the framing member. Drive and dimple a new nail about 1- 1/2" from the popped nail. Then drive the first nail below the surface of the board. Cover the dimples with joint compound.

Torn face paper. Peel away any loose paper. Apply a very thin layer of joint compound, using a finishing knife large enough to cover the damaged area. Feather it to get a smooth finish. Let it **dry for 24 hours and apply a second coat, if needed.**

Limitations

- Not recommended for areas exposed to sustained temperatures over 125˚ F (52˚ C).
- Boards must be stored indoors and off ground surface.
- Boards should be stacked flat with care taken to prevent sagging or damage to edges, ends and surfaces.
- Storing board lengthwise leaning against the framing is not recommended.
- Boards should be carried, not dragged, to place of installation to prevent damaging finished edges.
- Cutting and scoring should be done from the face side.
- In cold weather or during joint finishing, temperatures within the enclosure should stay within the range of 50˚ to 95˚F (10˚ to 35˚C) and with sufficient ventilation to carry off excess moisture.
- Storage should be in accordance with the Gypsum Association GA-801, Handling and Storage of Gypsum Panel Products.

Additional Resources:

Gypsum Association
www.gypsum.org

Drywall Finishing Council
www.dwfc.org

Northwest Wall and Ceiling Bureau
www.nwcb.org

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Ceilings • Gypsum • Insulation
Roofing • Siding • Trim

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Printed in the USA Code No. 07-03-5180-US-EN