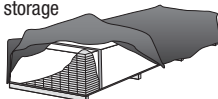


CEDAR • GROOVED CEDAR • SMOOTH

IMPORTANT: FAILURE TO FOLLOW INSTALLATION INSTRUCTIONS PUBLISHED BY JAMES HARDIE AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY.

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



CUTTING INSTRUCTIONS

OUTDOORS

1. Position cutting station so that wind will blow dust away from user and others in working area.
2. Use one of the following methods:
 - a. Best: Score and snap OR Shears (manual, pneumatic or electric) OR Circular saw equipped with a Hardie™ Blade saw blade and attached vacuum dust collection system

- b. Better: Circular saw equipped with a Hardie™ Blade saw blade, and supplemental ventilation
- c. Good: Circular saw equipped with a Hardie™ Blade saw blade.

For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. For best performance when cutting with a circular saw, James Hardie recommends using Hardie™ Blade saw blades.

INDOORS

1. NEVER cut with power saws indoors
2. Cut only using score and snap, or shears (manual, electric or pneumatic).
3. Position cutting station in well-ventilated area

– NEVER dry sweep – Use wet suppression or Vacuum

IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw and fiber cement cutting blade with a diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

Note: If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

GENERAL REQUIREMENTS:

- These instructions to be used for single family installations only. **For Commercial / Multi-Family installation requirements go to www.jameshardiepros.com.
- Cempanel® vertical siding can be installed over braced wood or steel studs, 20 gauge (33 mils) minimum to 16 gauge (54 mils) maximum, spaced a maximum of 24 in o.c. or directly to minimum 7/16 in thick OSB sheathing. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.
- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind load.
- A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements. The manufacturer will assume no responsibility for water infiltration. Hardie™ Weather Barrier, a non-woven non-perforated housewrap, complies with building code requirements.
- Information on installing products by James Hardie over non-nailable substrates such as gypsum, foam, etc. can be located in JH Tech Bulletin 19 at www.jamehardiepros.com
- Do not install Cemboard® products such that they may remain in contact with standing water.
- Cempanel® vertical siding may be installed on vertical wall applications only.
- DO NOT use Cempanel® vertical siding in Fascia or Trim applications.
- The designer and/or architect shall take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in the Technical Bulletin #8 "Expansion Characteristics of Hardie® Siding Products" at www.jameshardiepros.com.
- James Hardie Building Products provides installation/wind load information for buildings with a maximum mean roof height of 85 feet. For information on installations above 60 feet, please contact JH technical support.
- Minimum standard panel design size is 12" x 16". Note: Panels may be notched and cut to size to fit between windows, doors, corners, etc.

INSTALLATION:

FASTENER

Position fasteners 3/8 in from panel edges and no closer than 2 in away from corners. Do not nail into corners.

- Cempanel® vertical siding must be joined on stud.
 - Double stud may be required to maintain minimum edge nailing distances.
 - When screws are used to attached panels to steel studs/furring, the screws shall have wing tips. If screws do not have wing tips, then pre-drilling is required. (Not all applicable when using pins)
- Follow chart below for pre-drilling:

SCREW	PRE-DRILL	HEAD DIAMETER
No. 8	7/32 in	Min 0.323 in
No. 10	1/4 in	Min 0.323 in

JOINT TREATMENT

- Vertical Joints - Install panels in moderate contact (fig. 1), alternatively joints may also be covered with battens, PVC or metal jointers or caulked* (fig. 2).
- Horizontal Joints - Provide Z-flashing at all horizontal joints (fig. 3).

Figure 1

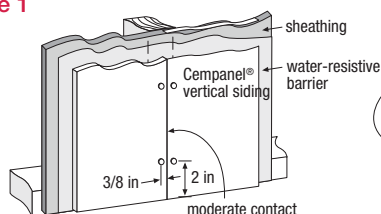


Figure 2

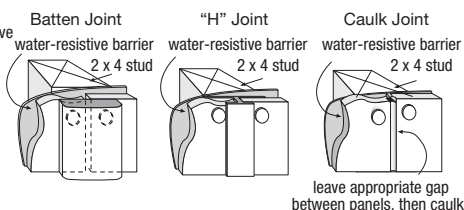
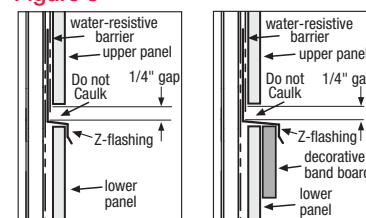


Figure 3



*Apply caulk in accordance with caulk manufacturer's written application instructions.

**James Hardie recommends installing a rainscreen (an air gap) between the Cempanel Panel siding and the water-resistive barrier as a best practice. James Hardie recommends that you consult your design professional if you have questions regarding the use of rainscreen on your single family project.

For additional information on Hardie™ Weather Barrier, consult James Hardie at 1-866-4Hardie or jameshardie.com/weather-barrier.

CLEARANCE AND FLASHING REQUIREMENTS

Figure 13
Roof to Wall

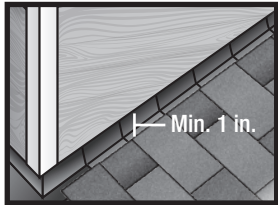


Figure 14
Horizontal Flashing

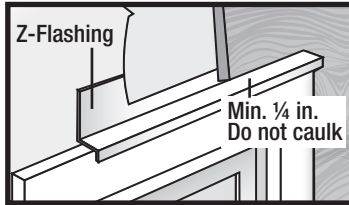


Figure 15
Kickout Flashing

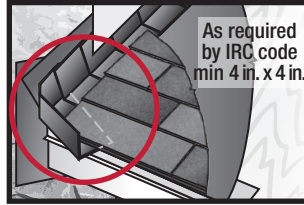


Figure 16
Slabs, Path, Steps to Siding



Figure 17
Deck to Wall

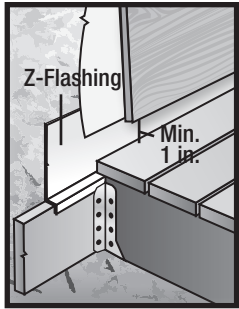


Figure 18
Ground to Siding

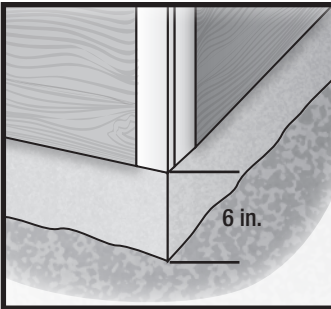


Figure 19
Gutter to Siding

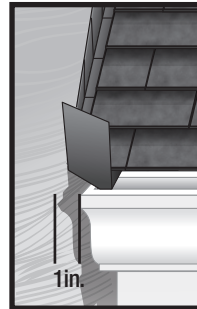


Figure 20
Sheltered Areas

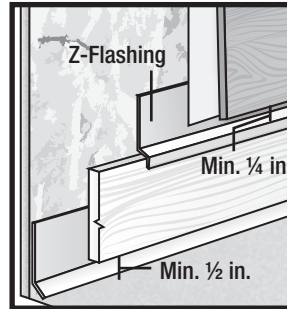


Figure 21
Mortar/Masonry

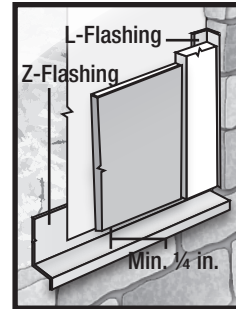


Figure 22
Drip Edge

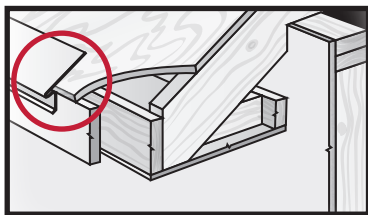


Figure 23
Block Penetration
(recommended)

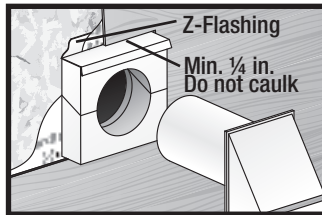
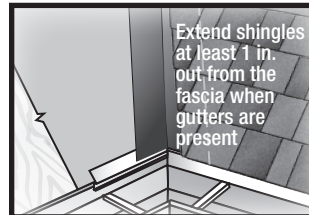
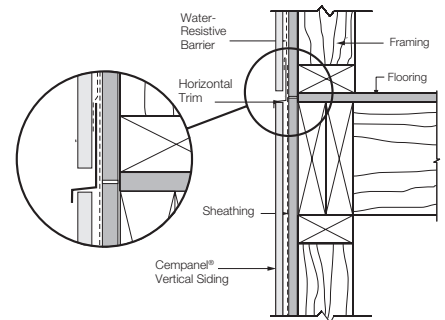


Figure 24
Valley/Shingle Extension



Do not bridge floors with Cempanel® siding. Horizontal joints should always be created between floors, see below).

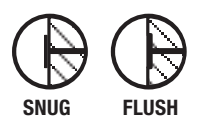


GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. Stainless steel fasteners are recommended when installing Cemboard® products near the ocean, large bodies of water, or in very humid climates. **Note: With the exception of finish nails, all stainless steel nails must be ring-shank (not smooth) nails. James Hardie is not responsible for the corrosion resistance of fasteners.**

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach Hardie™ Trim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5

- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- NOTE: Whenever a structural member is present, Cempanel® vertical sidings should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.



DO NOT



IF, THEN

WOOD
FRAME



HAMMER
FLUSH

STEEL
FRAME



REMOVE &
REPLACE

DO NOT



OVER
DRIVE



SLANT

IF, THEN ADDITIONAL NAIL

FACE
NAIL



COUNTERSINK
& FILL

DO NOT USE



ALUMINUM
FASTENERS



CLIPPED
HEAD NAILS



STAPLES

PNEUMATIC FASTENING

Cemboard® products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).

CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions. **Note: some caulking manufacturers do not allow tooling.**

PAINTING

DO NOT use stain, oil/alkyd base paint or powder coating on Cemboard® products. Cemboard® products must be painted within 180 days. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates, refer to paint manufacturer's specifications. Back-rolling is recommended if a paint sprayer is used.

BLOCKED PENETRATIONS

Penetrations such as hose bibs and holes 1 1/2" or larger such as dryer vents shall have a block of trim around point of penetration.

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to [P65Warnings.ca.gov](https://www.p65warnings.ca.gov).

RECOGNITION: CemPanel® Vertical Siding is recognized for application with the following product approval agencies: ICC-ES Evaluation Report ESR-1844, State of Florida Product Approval FL#13223, Miami-Dade County Florida NOA No. 22-0315.07, U.S. Dept. of HUD Materials Release 1263g, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.