

Apex[®]

**Capped Bamboo-PVC
Composite Cladding Boards**

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About California Proposition 65:

<https://fortressbp.com/about/californiaproposition65>

INTRODUCTION

READ INSTRUCTIONS COMPLETELY BEFORE STARTING INSTALLATION

General Guidelines

- These Installation Instructions are specific to Apex Decking as Cladding in a Rainscreen application.
- Apex Decking is approved for applications as Cladding in a Rain Screen System.
- Apex may not meet the requirements of all applications. Determining the suitability for use is not the responsibility of Fortress Building Products.
- These Instructions were crafted for use by the professional installer.
- While a DIY with advanced skills is capable of installing Apex as cladding, Fortress recommends installation by professionals trained in rainscreen system applications.
- Do not install Apex boards directly to a wall as siding component.
- Apex is approved only for use as a cladding component in a rainscreen system-comprised of a suitable Water-Resistive Barrier and properly applied flashing and a well-constructed Ventilated Drainage Plane.

Pre-Construction Checklist

- ✓ Store Fortress Apex boards flat, supported every 2' [610mm]. Improper storage from supports >2' [610mm] O.C. can result in a waviness that will be visible when installed.
- ✓ Apex is pre-finished. As with any pre-finished product care must be taken prior to installation.
- ✓ Keep Apex covered and protected from dirt, debris, mortar and cementitious material.
- ✓ Fortress will not be responsible for installation of blemished or damage product.
- ✓ We recommend testing the fasteners to gain understanding of their use and installed aesthetic.

Design Checklist

- ✓ Apex boards are available in 12' [3660 mm], 16' [4880mm], and 20' [6100mm] lengths.
- ✓ Trim boards are also available in 9/16" x 7-1/4" [14mm x 184mm] and 5/8" x 11-1/4" [16mm x 285mm] widths and 12' [3660mm] lengths.
- ✓ Verify that Apex boards meet all applicable Codes, Zoning, Associations, Fire and Wind performance requirements.
- ✓ The finished project will only be as good as the substructure upon which it is applied-correct all deficiencies. Remove all pre-existing siding or cladding and/or remediate any unsound or non-planar conditions prior to installation of Apex boards.
- ✓ Extreme heat conditions resulting from reflected/concentrated sunlight from low-E glass, cooking grills, fire features, and high intensity lighting may damage Apex boards. Consult the manufacturers of these products/assemblies regarding how to mitigate risk.
- ✓ Apex boards contract and expand in dimension in response to temperature changes. This dynamic must be understood, and its implications considered prior to and during installation. Refer to the Tables section to address these concerns proactively.
- ✓ The material and placement of furring materials to create the drainage plane can affect the speed and aesthetic of the finished project. Time spent planning this part of the assembly will result in best results.
- ✓ Laying out, or racking, Apex boards to acclimatize in advance of installation, will result in more consistent gapping and better aesthetics.
- ✓ Apex boards may be installed in horizontal, diagonal and vertical orientations.
- ✓ In addition to cladding, Apex boards may also be used as paneling, soffit and ceilings, and screen facades.
- ✓ Use Hulk composite deck screws for face fastening boards as cladding and soffits/ceiling applications.
- ✓ All Hulk fasteners are available in sharp points for wood and very light gauge metal, and also in drill points for

heavier gauge metal.

- ✓ Hulk Hidden clips are required for fastening Fortress grooved boards in a hidden fastener application.
- ✓ All fasteners must securely fasten cladding to a structural furring strip or framing member.

Note:

Hulk Hidden clips are for decking and cladding applications (only)-not for ceilings or soffits.

- ✓ Face fasteners with plugs, designed for Apex boards, are an alternative to HFS but screws must be pre-drilled.
- ✓ Apex boards must be a minimum 6" [150mm] above soft grades like grass and landscaping and 2" [50mm] above hard grades (sidewalks, roofing, etc).
- ✓ Face Fasteners must be located minimum 1-3/16" [30mm] from board edges and 1-3/16" [30mm] from board ends. Install Hulk Hidden clips 1" (25mm) from ends.
- ✓ Ensure all installers are aware of and comply with all gapping and fastener setback requirements.
- ✓ Consult local building code officials regarding requirements of cladding applications. This includes approved methods for attachment of cladding framing supports.

Tables

Note:

All conditions anticipate temperatures are the temperature of the board at time of installation. Racking boards in the shade for a minimum of 30 minutes will help acclimatize boards.

Table 1: Gapping

	If < 30°F (-1°C)	If > 30°F (-1°C) & < 50°F (10°C)	If > 50°F (11°C) & < 70°F (21°C)	If > 70°F (22°C) & < 90°F (32°C)	If > 90°F (32°C)
End-To-End & Butt Joints (Minimum Allowed)	5/16" [8mm]	1/4" [6mm]	3/16" [5mm]	1/8" [3mm]	1/16" [2mm]
Edge-To-Edge When Face Fastened (Minimum Allowed)	1/8" [3mm]	1/8" [3mm]	1/8" [3mm]	1/8" [3mm]	1/8" [3mm]
Edge-To-Edge With HULK HFS (Minimum Allowed)	3/16" [5mm]	3/16" [5mm]	3/16" [5mm]	3/16" [5mm]	3/16" [5mm]

Table 2: Clearances

	Recommended	Minimum	Maximum
Drainage Plane As Measuring From The Face Of The WRB To The Back Of Apex	3/4" [20mm]	3/8" [10mm]	N/A
End Or Edge To Structure Or Any Interfacing Materials	3/16" [5mm]	3/16" [5mm]	N/A
Soft Grade (Ex: Landscaping-Tends To Increase Over Time-Maintain Clearance	>6" [150mm]	>6" [150mm]	N/A
Hard Grade (Ex: Pavement, Sidewalk, Top Of Canopy Or Roof Surface)	>2" [50mm]	>2" [50mm]	N/A

Table 3: Recommended Fasteners

	Fastener Type
Face Fastening	#10, 2 1/2" / M5 x 63mm Hulk Composite Deck Screw
Hidden Fastening	#8, 1 5/8" / M4.2 x 42mm Hulk Hidden Fastener/Clip

Note:

If a different fastener is used and a condition arises attributable to that fastener, such condition shall not be covered by the Fortress Building Products Warranty.

Best Practices

- ✓ Store boards on a flat surface.
- ✓ Ensure board supports are 2' [609mm] or less.
- ✓ Always rack boards to acclimate temperature.
- ✓ Protect boards prior to installation as you would with any other pre-finished products.
- ✓ Install furring with the finished result in mind will result in better finished installation.

- ✓ Verify and follow all gapping requirements including inside trim pockets.
- ✓ Train installers in fastener use of consistent look.
- ✓ Pre-drill for screws in boards < 4" [102mm] wide, as under eaves or interfaces that required notching.
- ✓ Always install fasteners perpendicular to board.
- ✓ Install face fasteners no less than the minimum (1-3/16" [30mm]) distance from ends and edges. Install Hulk Hidden clips 1" (25mm) from ends.
- ✓ If using a fastener other than hulk fasteners-always pre-drill holes before installing fastener and test for aesthetic acceptability.
- ✓ Spot check level or plumb regularly and make small corrections as needed for board variances.
- ✓ Avoid butt joints directly above or under openings.
- ✓ Ensure structural attachments are sound and free of rot.

What Not To Do

- ✗ Store boards on an irregular surface.
- ✗ Store boards where supports are >2' [609mm] O.C.
- ✗ Installing boards of different temperatures.
- ✗ Store boards as if they are unfinished raw materials, allow boards to get dirty or scratched.
- ✗ Not planning for furring placement can result in unattractive screw lines/aesthetic result.
- ✗ Fail to follow gapping requirements or anticipate pinch points like inside trim pockets.
- ✗ Never install fasteners at an angle less than 90°.
- ✗ Install screws in boards < 4" [102mm] wide without pre-drilling (maintain min end and edge distance).
- ✗ Never 'toe' a screw or install less than 90°.
- ✗ Install fasteners less than the minimum distance from ends and edges.
- ✗ Use of a fastener not designed for composites. Failures induced from improper fasteners are not covered by Fortress Building Products Warranty.
- ✗ Not check level or plumb regularly and have to make unsightly adjustments.

- × Fail to plan for openings and board lengths.
- × Never use APEX™ as structural elements nor fasten boards to rotten or otherwise unsound surfaces.

Other Components Of Rain Screen Systems

Fasteners

Fortress Building Products recommends Hulk surface mount composite deck screws for face fastening our cladding. Hulk surface mount screws are a #10, 2 1/2" screw which comes in color matched heads to compliment our boards. If a different fastener is used and a condition arises attributable to that fastener, such condition shall not be covered by the Fortress Building Products Warranty. For hidden fastening, Hulk Hidden clip is approved for use with Fortress Building Products Apex boards in the grooved profile in a cladding application.

Water Resistive Barriers (WRB)

Fortress Building Product is agnostic when it comes to the brand of WRB used. We defer to the manufacturer of those products to provide their best recommendations and instructions for use in applications with our boards

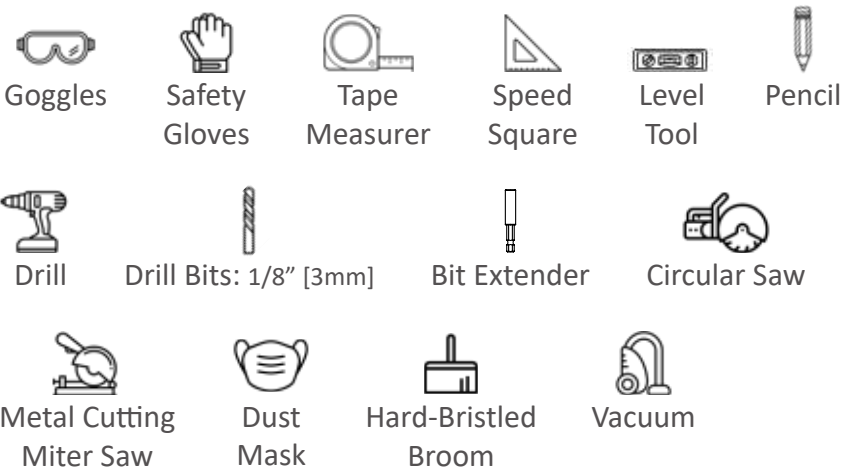
Drainage Planes

What the best materials used for the creation of drainage planes are variable by application. Fortress Building Products defers to the manufacturer of those products for recommendations and installation instructions. Examples include PT wood, PVC, metal Hat or Z channels, entangled nets, etc)

Trim

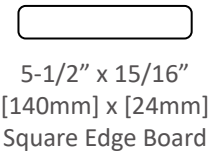
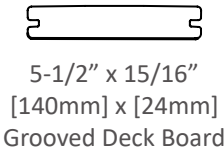
Apex boards may be used as trim elements, with cladding boards butting toward or receiving behind furred out trim. Other products may also be used based on the desired aesthetic (ex: extruded Aluminum, metal coil, PVC boards, etc). In all instances, gapping and clearance requirements apply (ex: hard-to-see-inside trim pockets).

Required Tools

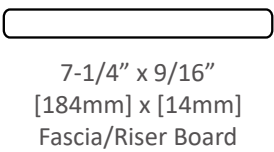


Apex Cladding Board Profiles

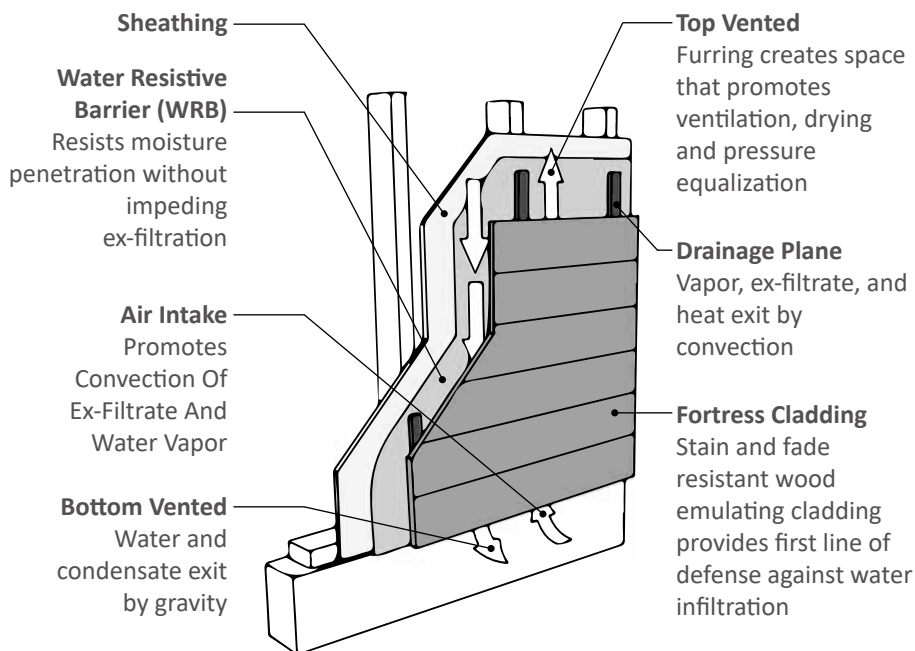
Open-Joint Board Profiles



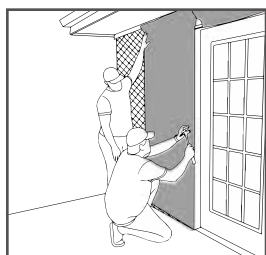
Trim Profiles



INSTALLATION: APEX CLADDING



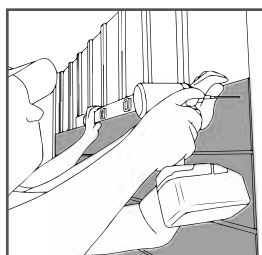
Apex Cladding Installation Process (Overview)



1.
Install WRB



2.
Install Furring



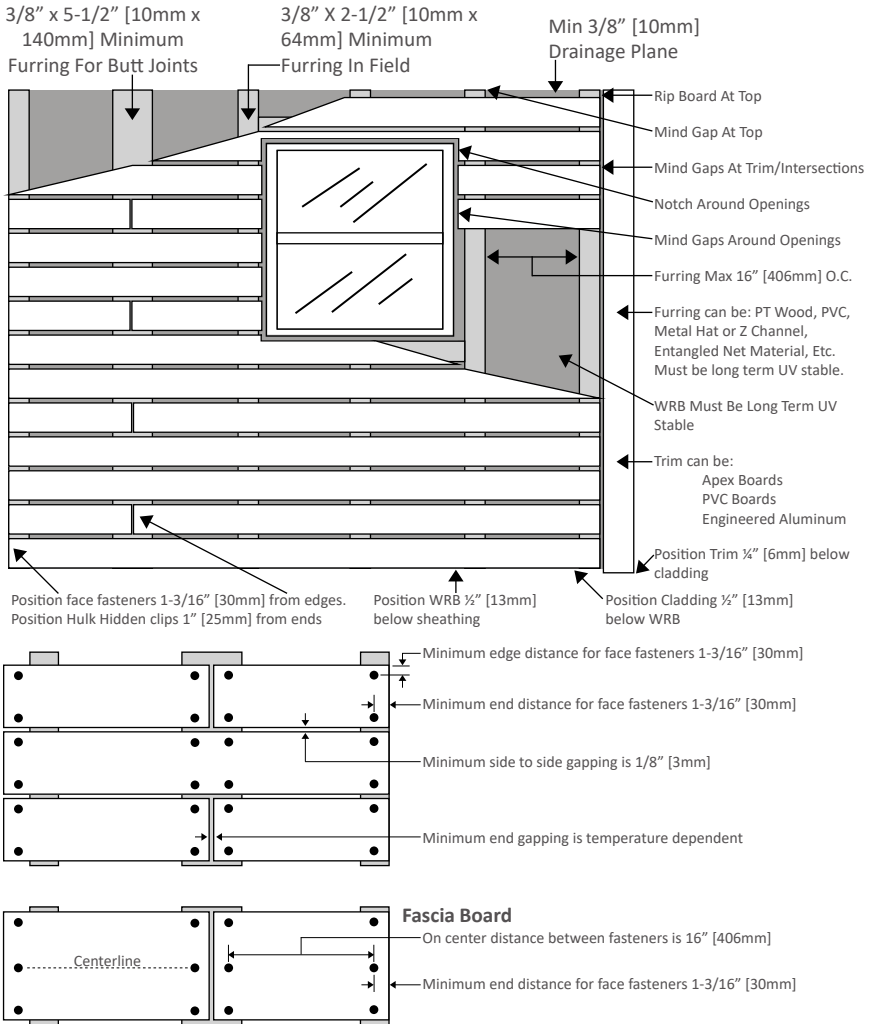
3.
Install Apex Cladding

Note:

All fasteners must securely fasten cladding to structural furring or framing member.

Construction methodologies are always improving. Please visit FortressBP.com for the most up-to-date Installation Instructions.

INSTALLATION: HORIZONTAL APEX CLADDING



*Edge to Edge gapping has been exaggerated to provide more detail.

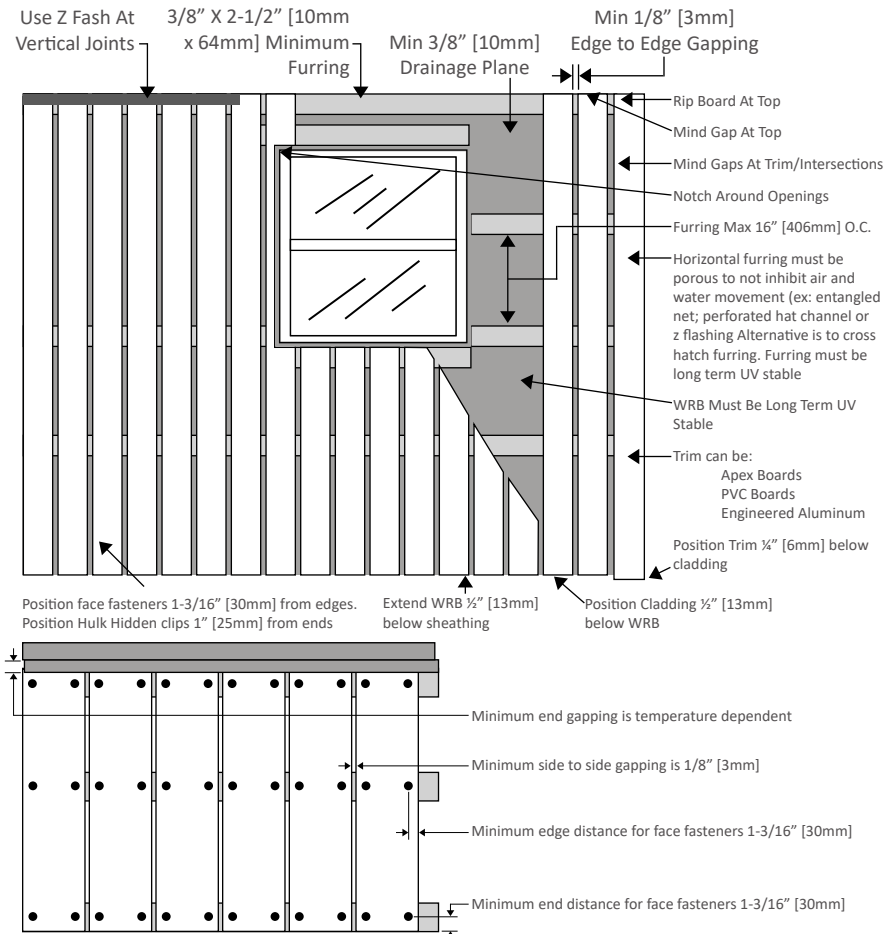
Tip:

Use spacers like aluminum bar stock to facilitate installation and proper and consistent gapping.

Note:

Construction methodologies are always improving. Please visit FortressBP.com for the most up-to-date Installation Instructions.

INSTALLATION: VERTICAL APEX CLADDING



*Edge to Edge gapping has been exaggerated to provide more detail.

Tip:

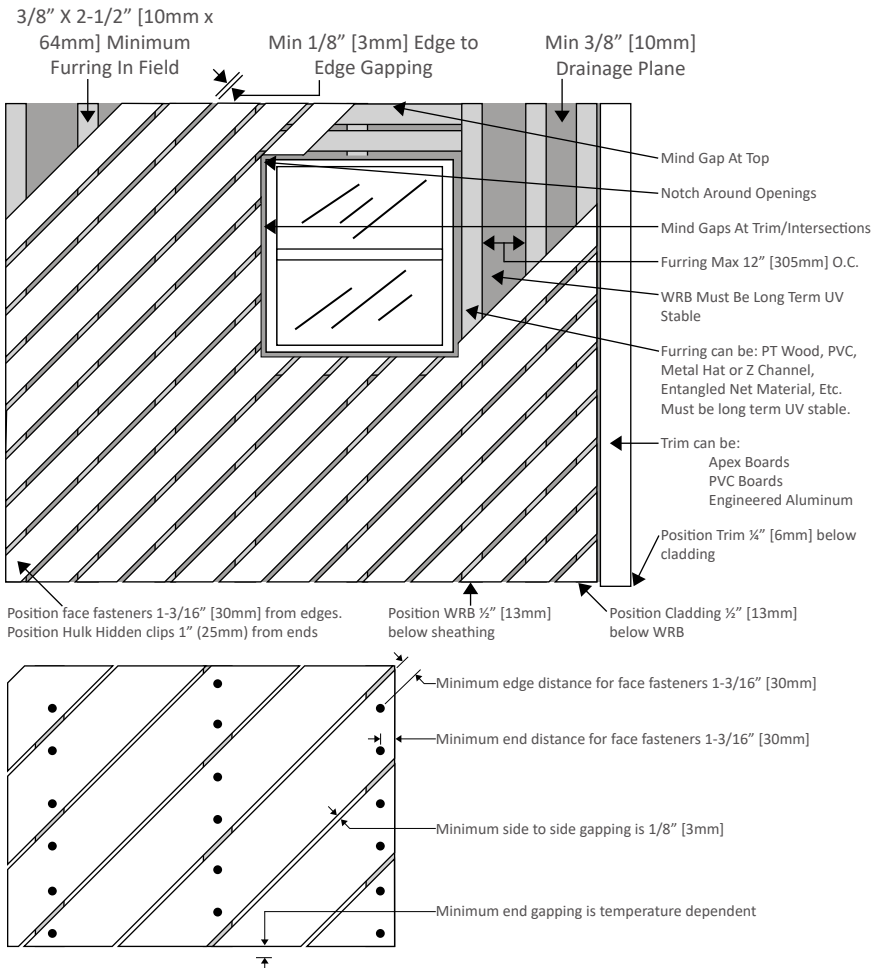
On vertical installation, when using the Hulk HFS, pin the board at the top using a Hulk Face Fastener to facilitate installation and better manage thermal movement.

Furring laid horizontally creates a barrier to water and air movement that can be overcome using a cross hatch of vertical and horizontal furring or by using a porous furring material (ex: entangled net).

Note:

Construction methodologies are always improving. Please visit [FortressBP.com](https://fortressbp.com) for the most up-to-date Installation Instructions.

INSTALLATION: DIAGONAL APEX CLADDING (45° MAX.)



*Edge to Edge gapping has been exaggerated to provide more detail.

Tip:

On diagonal installations, furring must be 12" [305mm] O.C. so that the actual span of the decking boards does not exceed 16" [406mm].

When installing cladding at a diagonal, furring can be installed diagonally, vertically, or horizontally. By placing furring vertically there is less chance of impeding air and moisture.

Note:

Construction methodologies are always improving. Please visit FortressBP.com for the most up-to-date Installation Instructions.

CARE & MAINTENANCE

CLEANING YOUR CLADDING BOARDS

What you will need



Soap



Water



Bucket



Sponge



Hard-Bristled
Broom



High Pressure Hose
With Fan Tip

STEP 1: Apply soapy water to your profile with a sponge.

STEP 2: Sweep the liquid over your profile using the hard-bristled broom, making sure to remove all dirt and residue from the gaps between the cladding boards. Sweeping in the direction of the grain is best.

STEP 3: If residue and/or dirt are still evident, a high pressure hose is very effective in removing stubborn and unavoidable organic waste.

***DO NOT** use standard composite cladding cleaners on APEX™.

WARRANTY

To obtain and review a copy of the warranty, please go to:

<https://Fortressbp.com/warranties>. You can also contact:

(844) 909-1999 or write to: Fortress Building Products Warranty,
1720 N 1st St, Garland, TX 75040 to obtain a copy of the warranty.



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