



METHOD 1: INSTALLING WITH HINGES

1. Match shutters together properly for each window.
2. If applicable, apply construction adhesive to shutter cap and place cap firmly against top of shutter. Apply pressure and allow cure time. Fasten hinges even with the outside edge of shutter. Pre-drilling holes is recommended. (Figure 1). Use caution not to drill all the way through shutters.
3. Place shutters with hinges installed against opening. Use shims or spacers and a level as necessary to ensure proper spacing, alignment, and level (two persons may be required). Test to ensure shutters open and close properly.
4. With shutters properly placed against the structure, slide pintels into hinges and mark holes where pintels will be installed. (Figure 2)
5. Drill pilot holes for pintels, then fasten pintels.
6. Slide shutter and hinges over pintels (Figure 3).
7. Install acorn holdbacks by screwing the clasp to the back of the shutter. Mark where acorn will be installed to the structure, pre-drill, then fasten acorn to the structure.
8. Install S or rat-tail holdback. If using holdback support, slide the holdback support over the lag bolt, then place the S or rat-tail holdback below the shutter with the bottom of the shutter resting on the holdback support. Mark and pre-drill into structure, then fasten lag bolt to

INSTALLATION NOTES:

- Pintels illustrated are 'pintel on plate' intended for flat surfaces. Lag pintels are available for uneven surfaces such as stone, or jamb pintels are available for installation on side of the jamb.
- Variety of offset hinges and pintels are available to accommodate varying window/opening types.
- Instructions are intended to be general in nature. Applications, techniques, and requirements may vary.
- Use discretion when penetrating surfaces.

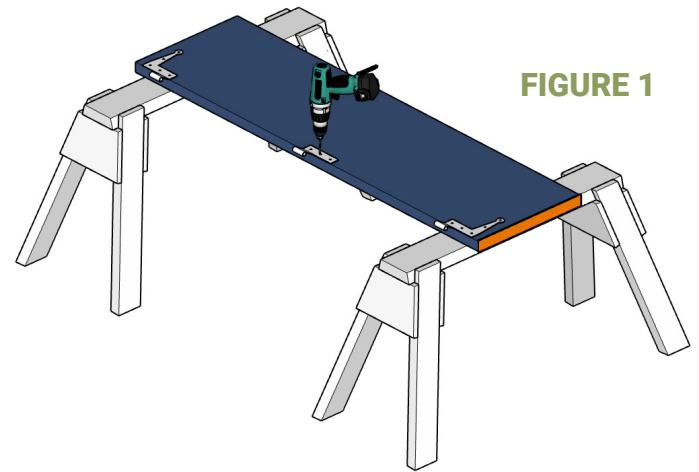


FIGURE 1

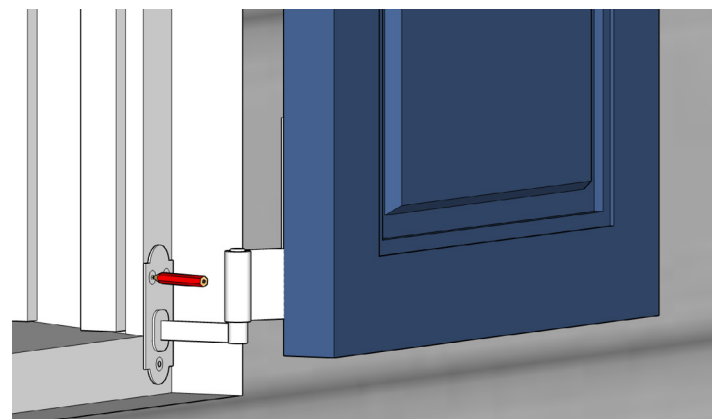


FIGURE 2



FIGURE 3



FUNCTIONAL MOUNTING REQUIREMENTS

Shutters require a specific number of connection points depending on the size of the shutter. The larger the shutter, the greater number of connection points required to support the weight of the shutter. Connection points include hinges/pintels, and holdback supports. Ekena Millwork's SteelTek brand hardware is required on all EnduraCore shutters to maintain warranty coverage.

Size	Connection Points To Structure Required (Per Shutter)
Less than 36" High	3
36" - 60" High	4
60" - 80" High	5

*For shutters less than 36" high, 3 connection points required including two hinges attached to structure and shutter supported by holdback support.

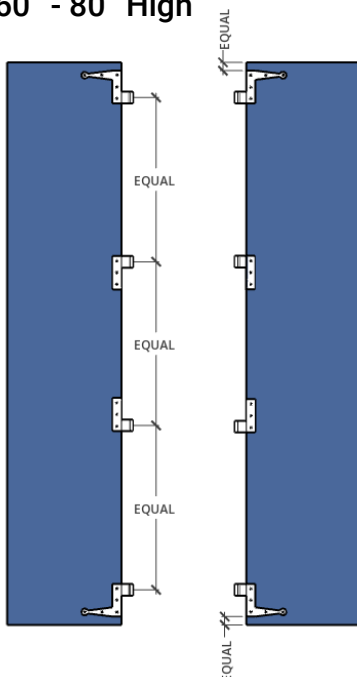
*For shutters >36"-60" high, 4 connection points required including three hinges attached to structure and shutter supported by holdback support.

*For shutters >60"-80" high, 5 connection points required including four hinges attached to structure and shutter supported by holdback support.

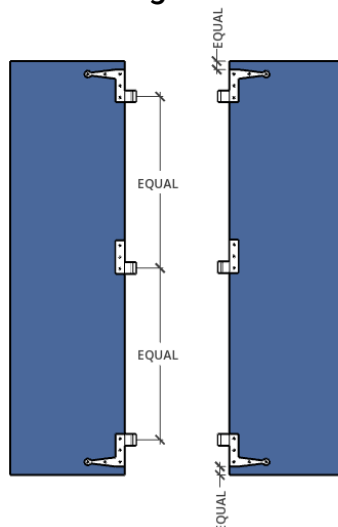
SHUTTER HOLDBACK SUPPORT



60" - 80" High

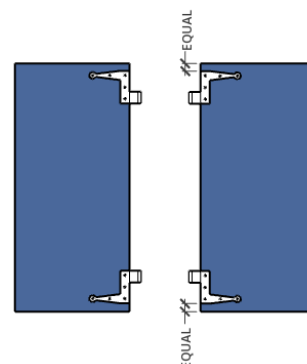


36"-60" High



HINGE ATTACHMENT EXAMPLES

36" and Under





METHOD 2: INSTALLING WITH FRENCH CLEAT BRACKETS

1. If applicable, apply construction adhesive to shutter cap and place cap firmly against top of shutter. Attach french cleat bracket to shutters ensuring brackets are level. French cleat brackets should be fastened to shutters with holes on top. Pre-drill, then fasten with screws. (Figure 1). Repeat on bottom of shutters with holes remaining on top. NOTE: Ensure bottom of French cleat bracket does not exceed shutter.
2. Attach French cleat brackets to structure. French cleat brackets should be fastened to structure with holes on bottom. Pre-drill, then fasten with screws. (Figure 2)
3. Slide shutter with French cleat brackets installed, over the top of the French cleat brackets that are installed on the structure. (Figure 3 Top and Figure 4 Bottom)

NOTE: AmeriCraft wood shutters over 48" require additional narrow French cleat brackets installed at center of shutters on both sides. Repeat same steps at center of shutter side rails if applicable.

FIGURE 1

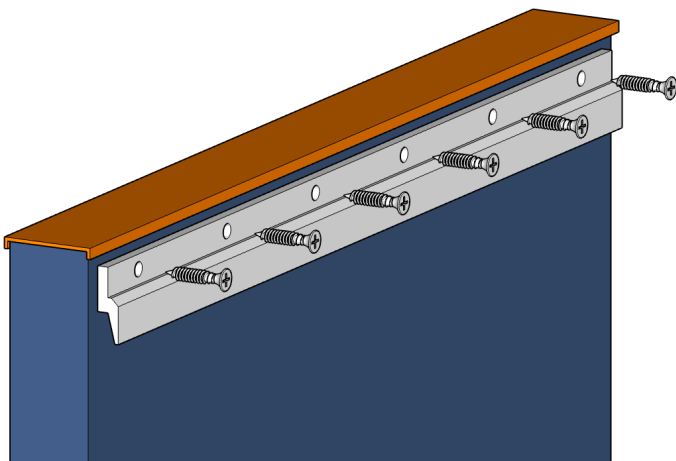


FIGURE 2

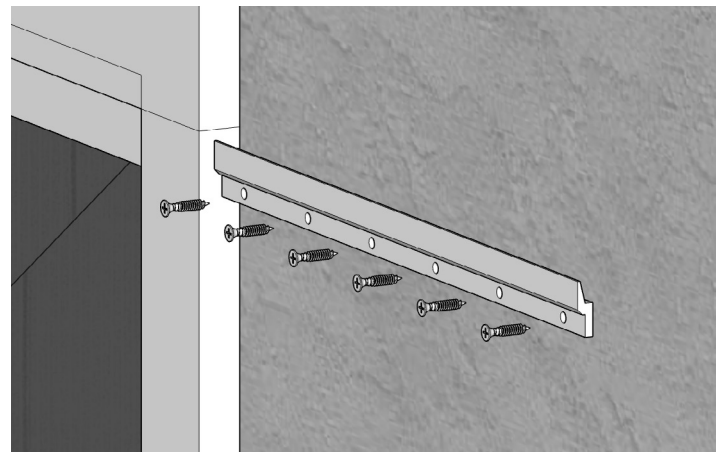


FIGURE 3 (TOP)

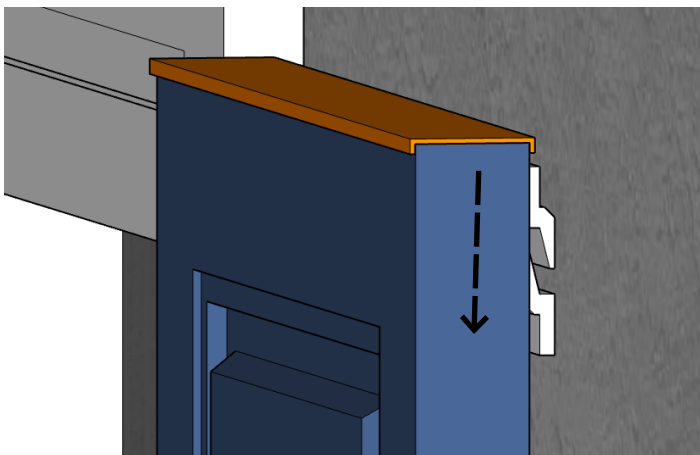
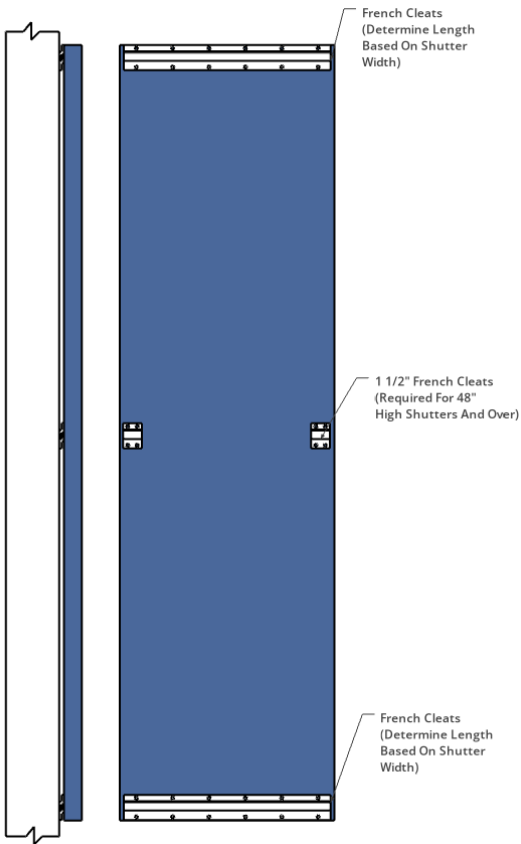


FIGURE 4 (BOTTOM)

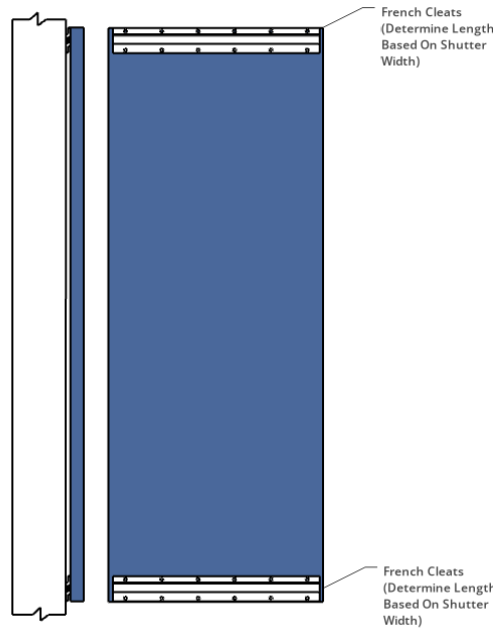




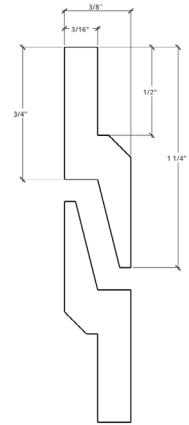
FRENCH CLEAT EXAMPLE 48" HIGH AND OVER)



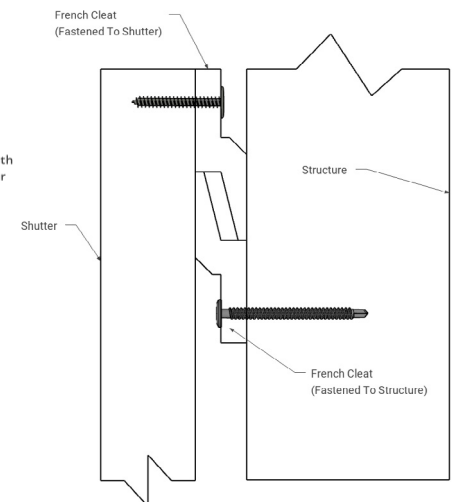
FRENCH CLEAT EXAMPLE (UNDER 48" HIGH)



FRENCH CLEAT DETAIL



FRENCH CLEAT ATTACHMENT DETAIL



NOTE: Cleats may be inset from edges of shutters. Use closest size down French cleats. For example, if shutters are 18" wide, use closest size down 17 1/2" French cleats.

INSTALLATION NOTES

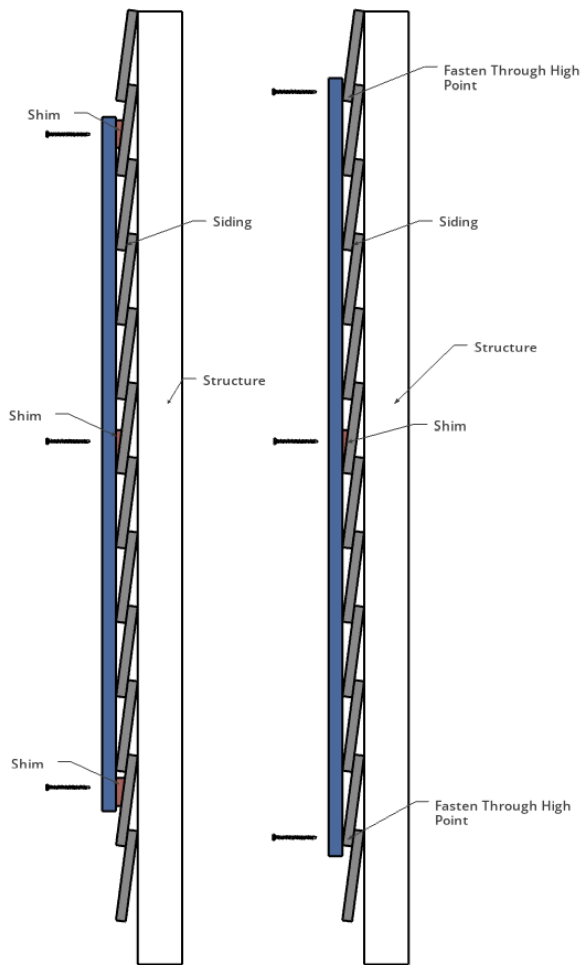
- French cleat brackets are intended for flat surfaces only and will not install properly on uneven siding, stone, or other uneven surfaces. If surface is uneven, install with hinges/pintels, or use screws through the front of the shutter into the structure. Touch up may be required if using alternate method of mechanically fastening shutters to structure with screws.
- Masonry surfaces require anchors for screws to properly secure the brackets to the structure. Anchors are not provided, but may be sourced through a local hardware supplier. Screw type and length may vary depending on install surface. Installer to determine screw type, length, and anchoring methods.
- French cleat brackets do not mechanically fasten the shutter to the structure and rely on the weight of the shutter and gravity to hold the shutters in place, similar. This method provides the most concealed installation where fasteners are not visible and major touch up work is not generally required.
- Instructions are intended to be general in nature. Applications, techniques, and requirements may vary.
- Use discretion when penetrating surfaces. Alternate fasteners may be required depending on shutter type, thickness, and installation surface.



METHOD 3: INSTALLING WITH SCREWS (SCREWS NOT PROVIDED)

1. If applicable, apply construction adhesive to shutter cap and place cap firmly against top of shutter. Attach french cleat bracket to shutters. Place shutters against structure and mark holes where shutters will be installed with screws. If installing on uneven siding, be sure to mark where the higher part of the siding is located. If shutter overhang is excessive, shims should be used if necessary to create a level surface at top and bottom of shutter (See example diagram).
2. Pre-drill holes through shutter into structure.
3. Fasten shutters with screws. Do not to over-tighten.

UNEVEN SIDING EXAMPLES



IMPORTANT INSTALLATION NOTES

- Masonry surfaces require anchors for screws to properly secure the shutters to the structure. Anchors are not provided, but may be sourced through a local hardware supplier. Screw type and length may vary depending on install surface. Installer to determine screw type, length, and anchoring methods.
- Screw heads may be countersunk, patched, and touched up if desired, or screw heads may be left without touch up at customer's/installer's discretion.
- Instructions are intended to be general in nature. Applications, techniques, and requirements may vary.
- Use discretion when penetrating surfaces.
- Always store shutters laying flat and away from excessive heat build-up.
- Do not install inside of openings where shutters are not allowed space to expand/contract.

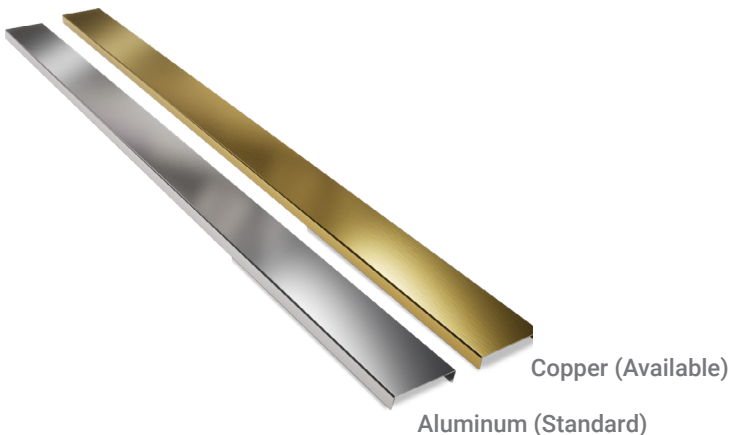
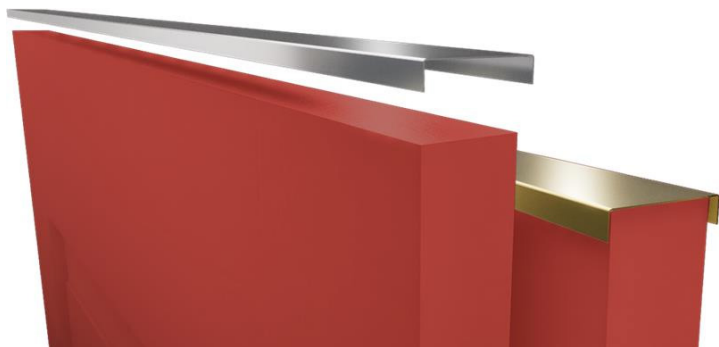
GENERAL SHUTTER INSTALLATION DISCLAIMER

Shutters are a decorative building product used in a wide variety of applications where techniques, methods, fasteners required, surfaces, and finishes vary. This installation guide is intended to be general in nature. Installers should use judgement and discretion when installing all decorative building products including shutters.



IMPORTANT WOOD SHUTTER INFORMATION

- Wood shutters are made from natural materials subject to minor imperfections. Light sanding and prep-work may be required prior to installation and is considered normal and industry standard for wood shutters.
- Wood shutters are inherently subject to the affects of nature and may require periodic maintenance. Best practices include brushing away debris like leaves, twigs, and nests, that may collect behind shutters, washing shutters gently with a soft cloth and non-abrasive cleaner, and periodic sanding and repainting. However, even when properly maintained, wood is subject to the affects of weather, sunlight, and other environmental factors.
- Varying height shutters may have varying height top and bottom rails and is a result of the construction methods used for achieving various heights of shutters. This is normal for Americraft wood shutters.
- Wood shutters must be removed from packaging and acclimated prior to installation. Improper storage and acclimation can lead to warping, cupping, gapping, and voids warranty.
- Louvers and panels are assembled using a 'floating' technique that allows for expansion and contraction between the stiles and rails, preventing cracking between the stiles and rails. This shrinkage may expose the unpainted ends of the panels and louvers. This is typical with wooden shutters due to the construction. If deemed unsightly, touch up paint may be applied, however, the exposure is typically very minimal and usually does not require any touch up.
- Shutter caps offer protection to the most vulnerable part of the shutter (the top) and are provided with every shipment of louvered and raised panel shutters. Shutter caps must be installed to meet 3 year warranty.
- Americraft shutters are available for purchase unfinished, primed, or factory painted. If unfinished or primed, the shutters must be painted to meet warranty. Stained shutters or shutters left un-painted are not covered under warranty. Paint offers protection against the elements and must be applied to all shutters unless already



Shutter Caps

- Shutters ship standard with aluminum caps.
- Copper caps also available for purchase for enhanced aesthetic.
- Protects most vulnerable part of wood shutters.
- Fits raised panel and louvered shutters (not available for board-n-batten styles)
- Apply construction adhesive to bottom of cap and adhere to top of shutter.
- Caps are required to to meet 3 year warranty (paneled and and louvered styles only).





How are wood shutters constructed?

Wood shutters are constructed from several components including a top rail, bottom rail, stiles, mullions and louvers or panels. Each rail is hand assembled with mortise and tenon joinery along with advanced wood glues. The louvers and raised panels are assembled between the rails using mortise and tenon joinery, and are left 'floating' between the rails to allow for expansion and contraction of the louvers, preventing cracking from occurring. Shutters are factory primed using a multi-step process.

What is Mango wood?

Mangowood is a sustainably sourced hardwood species that grows in tropical regions. It is denser than other common softwoods, providing increased durability and longevity compared to alternatives such as pine.

Are AmeriCraft shutters impact rated?

No, AmeriCraft shutters are not impact rated, but do offer inherent window protection when properly closed and secured.



What hardware do I need to use?

Ekena Millwork's line of SteelTek hardware manufactured from 304 stainless steel is recommended for use on all Ekena shutters. SteelTek hardware includes all necessary hinges, pintels, holdbacks, french cleats, and other hardware accessories to maintain warranty coverage.

What type of primer is recommended?

All raised panel, flat panel, and louvered AmeriCraft shutters are factory primed using a special two-part primer, which is more durable and harder than most primer. If priming in the field, a 100% acrylic primer is generally recommended. Installers should use best discretion when selecting primers and paints.

What type of paint is recommended?

100% acrylic paint is generally recommended, but as with any wood building product, paint choice is subject to the users/ installers discretion.