LUX
ARCHITECTURAL PRODUCTS

BOARD + BATTEN
INSTALLATION GUIDE

Introduction

The following LUX Architectural Products Board + Batten Installation Guide has been prepared and intended for persons with experience in the field of siding and soffit installation and who have a fundamental knowledge of basic building practices. Warranty may be void if proper application and installation practices are not followed.

LUX products are designed to install easily and efficiently, but precision and attention to detail is required for a successful install and it is highly recommended that an experienced professional install the product.

The information provided in this document is offered in good faith and believed to be reliable but is made without warranty, express or implied, as to merchantability or fitness for a particular purpose. Readers should review this document in conjunction with their design professional's advice, construction drawings, manufacturer's technical literature, building code, and fire code. LUX Architectural Products does not assume any responsibility for the reader's compliance with applicable laws and regulations.

Getting Started

When beginning the installation of your LUX Architectural Products order, always check for any potential issues with your product such as damage that might have occurred during shipping, post-manufacturing defects, or deformity from improper unpacking.

Also, check to make sure that your colour and product match your order. This is imperative because once installation has begun, any outstanding issues become the responsibility of the installer. If you find an issue, contact LUX immediately before starting the installation.

It is crucial that you ensure you have enough product to complete your installation. Although LUX Board + Batten's finish is generally very consistent, all pre-painted metals are batch-sensitive. This means it is paramount you have enough product to complete your installation from one order as the product is not guaranteed against paint batch inconsistency.

LUX Board + Batten is designed to be tailored to the requirements of your project. This means the LUX installation begins before the material is ordered in the way of pre-planning your install. A planned install yields the most efficient installation and pleasing aesthetic, making sure every trim and plank ordered is utilized correctly.

After ensuring you have received your order free of issue, it is time to begin installing LUX. Below lists the methods for installing each particular LUX trim for different starting and termination points.

LUX Architectural Products Features & Properties

All LUX Architectural Products are made from 24 gauge ASTM A792 55% Al-Zn Alloy Coated Steel prepainted in a KYNAR 500® (PVDF) high endurance paint. LUX has A ratings in fire tests, can withstand extreme weather changes and winds, is impervious to insects, requires virtually no maintenance and is warrantied for a 40-year paint finish. Unlike wood, it will never rot or support mould or mildew and is easy to clean and maintain. LUX is also proud to hold an official Canadian Construction Materials Centre (CCMC) certification number 14137-L.

Safety Considerations

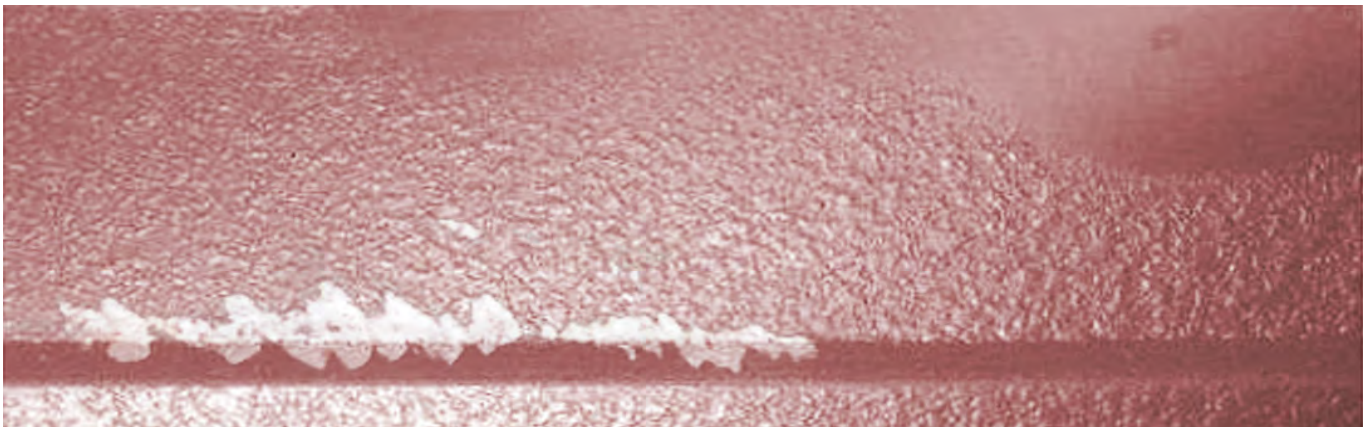
Always wear and use appropriate Personal Protective Equipment (PPE), taking all precautions to protect eyes during installation and cutting. Gloves are recommended as there can be sharp corners and edges on the Board + Batten Panels. When cutting or being exposed to airborne particles, always wear an appropriate dust mask. Refer to the OHS (OSH in the U.S.A) Code for further requirements and safety measures for Jobsite siding installations.

Transportation

LUX Architectural Products securely packages and crates each order. To maintain the integrity of the product, precautions must be used when loading and unloading the product. The product should be moved by forklift from the center of the crate, taking extra care not to hit the crate with the forks or allow the crate to twist. All custom cut shipments are photo-documented on the truck when they leave and must be in 100% manufacturer condition. When the products arrive, immediately check for any crate or product damage. Do not install damaged products.

Storage Considerations

Pre-painted metal siding is subject to premature corrosion if they are not handled and stored correctly at the jobsite prior to installation. Excessive storage periods or poor storage conditions often result in water intrusion into panel bundles. Prolonged exposure of bundled panels to wet conditions can cause paint blistering and substrate corrosion. Wet Stack Corrosion can occur within two weeks if the storage conditions are poor or improper storage practices are not followed.



Close-up image of severe "Wet Stack Corrosion." Note smooth, normal surface in upper right corner.
Note when scratched, the primer has been compromised as well as the presence of Zinc Oxide (white rust).

Environmental & Service Conditions

If proper precautions are not taken during transport, water may be present between the panels upon delivery at the job site. When water or water vapour collects along the sides of a panel bundle, it may travel between the panels by capillary action. Humidity and temperature cycles can also promote water intrusion into stored panel bundles through condensation. Finally, rain and snow are other potential sources of water that can cause storage corrosion of pre-painted panels.

Besides water, two other most important factors contributing to the corrosion of stored pre-painted panels are exposure time. Corrosion will accelerate with increased temperature.

Storage Considerations

Given enough time, panel bundles will eventually become wet, and storage corrosion may occur under most job site conditions. Storage corrosion can be prevented by:

- Reducing site storage time
- Decreasing water contact
- Moderating temperature extremes

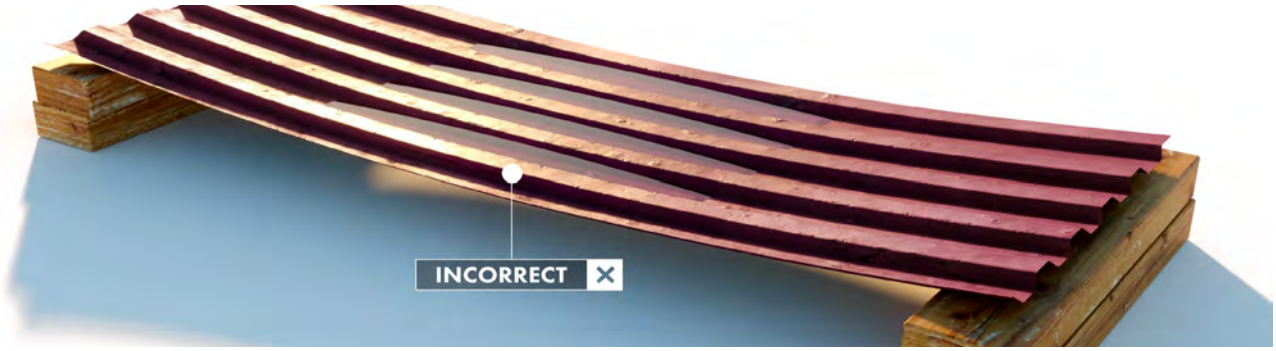
Special case factors not considered here are the presence of aggressive soluble chemicals, such as sulphur and chlorine compounds, that might be present in polluted atmospheres, road salt contaminants, or marine environments. It is reasonable to assume that these soluble species would accelerate storage corrosion.

Job Site Storage

Prolonged storage will always increase the likelihood of storage corrosion. Therefore, the best prevention is to minimize storage time. Proper storage limits the collection of water from rain, snow and condensation on the panel surfaces. Storage under a roof is highly recommended. If panel bundles have to be stored outdoors, several precautions must be taken to prevent storage corrosion. The panel bundles should be stored in a level area out of the way of other construction activities to minimize the number of bundle movements required at the job site. If the bundles are stored on the ground, a plastic ground cover must be put down under the bundle to minimize condensation of water from the ground onto the panels. The bundles must then be raised off the plastic ground cover to avoid contact with water puddles and allow for air circulation around the bundle to promote drying of condensed water.

Wet, uncured or pretreated lumber should not come in contact with the panel bundles. The panels must be stored at an angle to promote drainage of water off the bundle. Sufficient support must be provided to the raised and angled bundles to avoid excessive bowing, which may result in low spots that could hold water.

The bundle must be sheltered entirely with a loose-fitting waterproof tarp to protect the bundle during rain or snow events but allow for air circulation and drying of condensed water. A loose-fitting tarp also shades the bundle from direct sunlight and should act to moderate extreme temperature fluctuations.

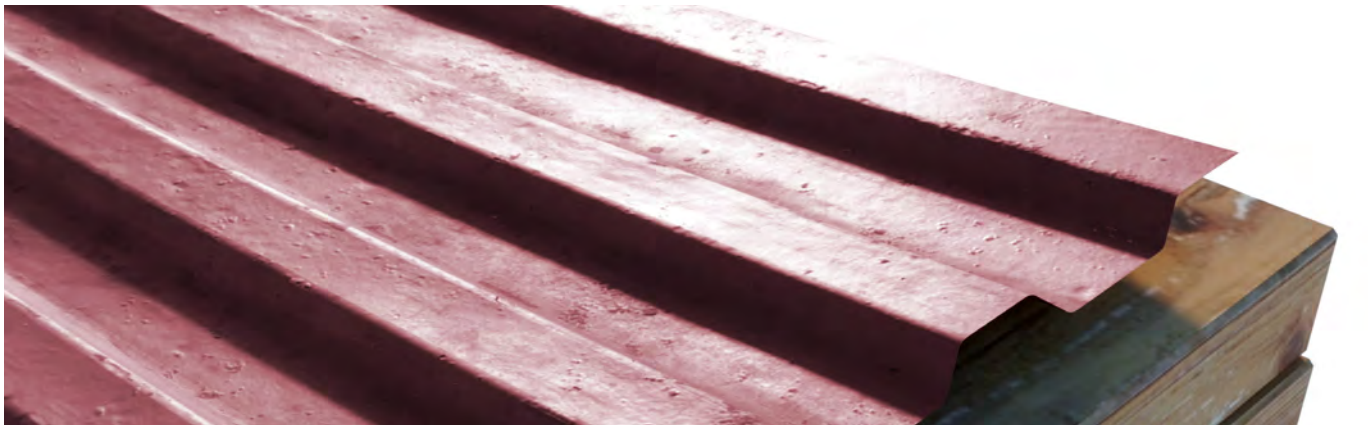


Insufficient support in the center of long panels allow "Bowing" or "Sagging" that traps water in the center of the panel length.

It is crucial NOT to snugly cover panels with a tarp when on the ground. By covering pre-painted panels in this manner, airflow is prevented, and moisture in the ground is trapped under the tarp and. The effect is worse than just letting the bundles of pre-painted panels sit uncovered in the rain. This is because a "humidity chamber" has been created, and sunlight will heat the tarp and accelerate corrosion by means of increased humidity pulled from the ground below.

Storage Considerations

Job Site Storage



After just 3 months covered in the manner above, the panel bundle is opened to reveal that moisture has made its way into the layers of sheets.

Proper storage of bundled pre-painted panels is essential and, to some, considered "time-consuming and costly" to do. However, failure of your panels is an even more costly idea when you have to reorder and wait for delivery. Other costs associated with delays in Jobsite completion as well as material replacement are things to consider when debating the use of proper storage methods.

NCCA Storage Methods

The National Coil Coaters Association (NCCA) has developed a time tested storage method for pre-painted, bundled panels. This section will lay out the steps for proper storage that will assure your panels remain dry and defect free when it comes time to install them on your structure.

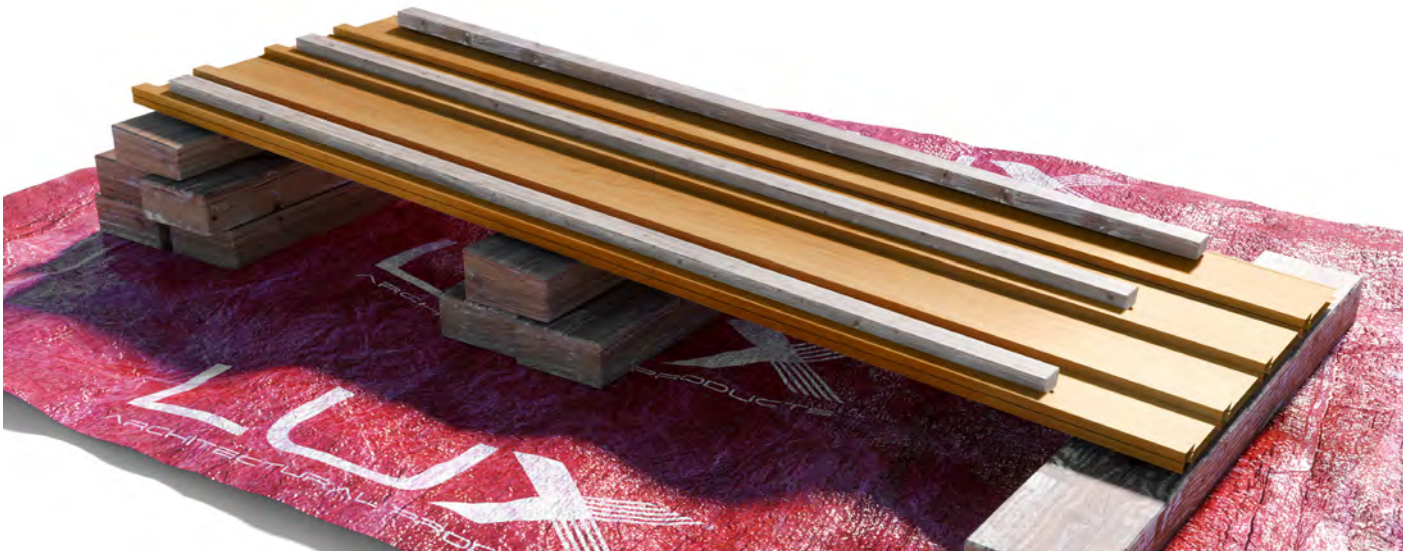
STEP 01

Your pre-painted bundle should be placed on a tarp to prevent ground moisture from being a factor. The bundle should then be placed on top in a sloping position. This allows any moisture that may already be present to gravitate out.

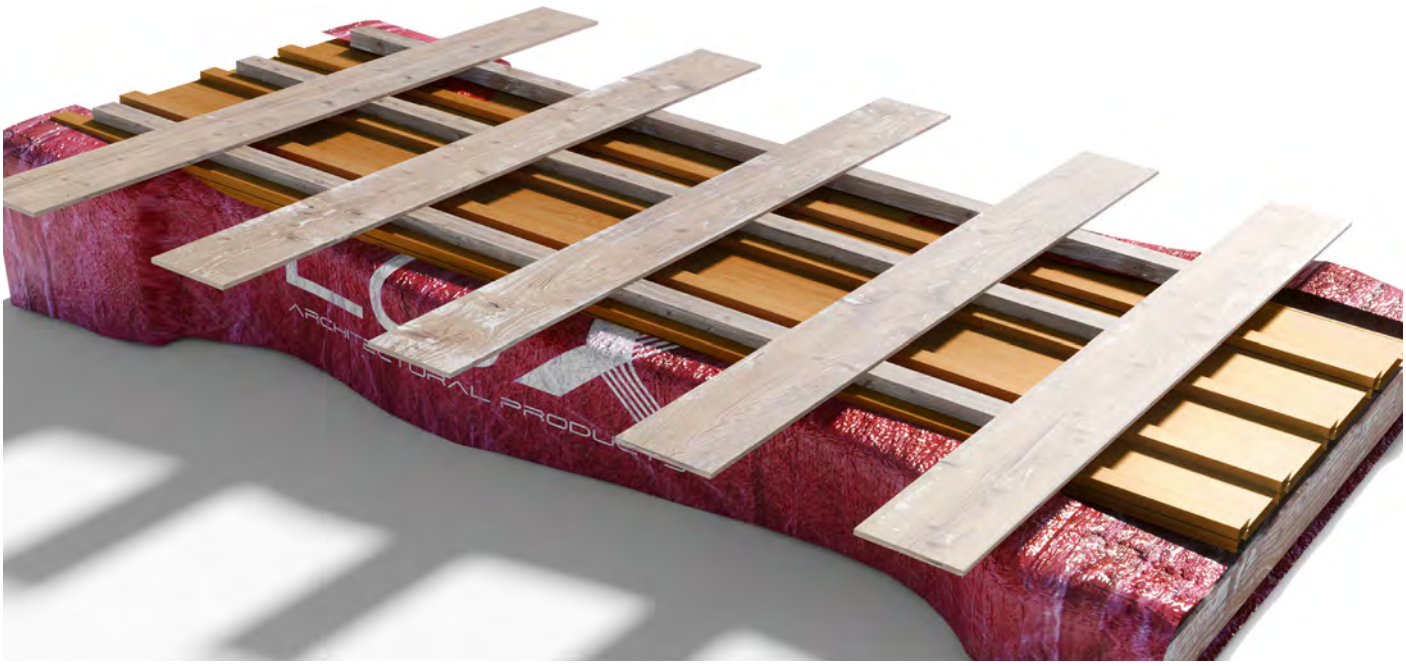
Storage Considerations

NCCA Storage Methods

STEP 02



Place scraps of dimensional lumber on the bundles "Cover Sheet." This is to keep the top tarp from resting directly on the panels to increase airflow, which will allow moisture to escape.

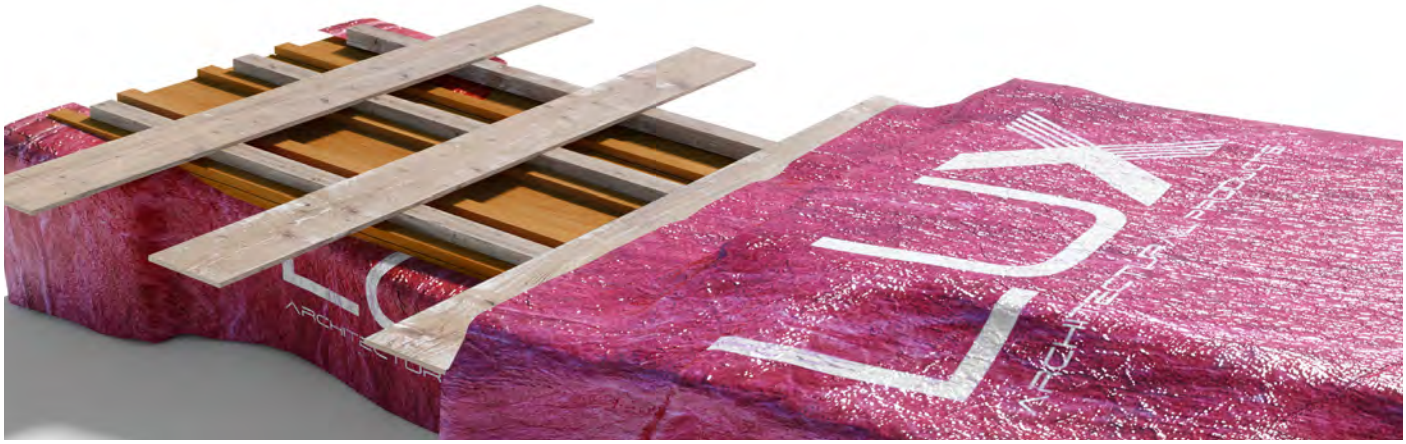


If you roll the edges of the bottom tarp up as seen above, cutting a hole in the lowest area of the bottom tarp will allow water to escape.

Storage Considerations

NCCA Storage Methods

STEP 03



Roll your top tarp over the stack allowing enough tarp to stretch out at least 12 inches from any edge of the panel stack.

STEP 04

When completed, this method will increase the storage life of your panels. Unused portions of open bundles must be recovered. The condition of the tarps and paper wrapping of stored bundles should be inspected daily for damage, puddles and snow accumulation. Damage to packaging or tarps must be repaired, and snow accumulation or puddles should be removed. If water is present in the panel bundles, the panels must be separated and wiped dry with a clean, soft cloth and stacked with a space between each panel so that air circulation can complete the drying process.

There is currently no test method to determine the storage corrosion resistance of pre-painted sheet products that has been correlated with actual storage performance; however, there are a number of test methods that have been utilized by the building products industry.

Unwrapped Products

Unwrapped or inadequately stored metal siding bundles can often result in water intrusion into panel bundles, causing potential damage such as component degradation, mold, paint degradation, rust, or the weakening of building materials. Pre-painted building panels are also subject to premature substrate corrosion and paint blistering if proper wrapping and storage considerations are not followed. It is the responsibility of the user to ensure proper storage and wrapping to prevent these issues. Failure to properly follow the wrapping, handling, and storage procedures outlined in this guide, or failure to protect your materials from moisture, will void any warranties. We assume no liability for damages resulting from inadequate wrapping, storage or protection methods.

Warranty

Your warranty may be void if proper application practices are not followed. That includes the practices outlined in this guide as well as the LUX Board + Batten installation guide. Additionally, your warranty may be void if you do not follow local building codes.

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Code Compliance

The applicable Building Codes and Fire Codes are determined based on the project site location. There can be various code changes per province, city, state, county and region.LUX Architectural Panel cannot address all the various codes in this guide. Project Designers, Builders, Architects, and Engineers must understand the applicable codes and install exterior cladding products within the guidelines of these codes. The requirements of the Local Building Codes must be observed as a minimum requirement of the installation of LUX Board + Batten. LUX Products adhere to the CGSB-93.4-92 as per standards Council of Canada, National Research Council Canada, National Building Code of Canada. In the United States, compliance with ASTM E330 or equivalent standards, as well as the International Building Code (IBC), may be required.

Care & Maintenance

While factory-applied finishes for metal building panels will last many years longer than ordinary paints, it is recommended to clean them thoroughly on a routine basis, especially when the finish is not washed by rain. Cleaning will generally restore the appearance of these products and render repainting unnecessary. An occasional light cleaning will also help maintain an aesthetically pleasing appearance.

Examples of applications requiring maintenance cleaning and inspection include roof cladding, soffits, wall cladding under eaves, garage doors, and the underside of eave gutters. Washing should be completed at least every six months. Cleaning may be required more frequently if your building is located in coastal areas, areas where marine salt spray is prevalent, or in areas where high levels of industrial fallout occur. Mild solutions of detergents or household ammonia will be sufficient for the removal of most dirt. The following cleaning solutions are recommended:

- One cup of detergent (ex. Tide®), containing less than 0.5% phosphate, dissolved into five gallons of warm water. (NOTE: The use of detergents containing greater than 0.5% phosphate is NOT recommended for use in general cleaning of building panels. NEVER BLEND CLEANSERS AND BLEACH.)
- One cup of household ammonia dissolved into five gallons of water (at room temperature)for the removal of most dirt.

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  (NOTE: The use of detergents containing greater than 0.5% phosphate is NOT recommended for use in general cleaning of building panels. **NEVER BLEND CLEANERS AND BLEACH**.)

- One cup of household ammonia dissolved into five gallons of water (at room temperature).

Care & Maintenance

To clean the surfaces, use either solution and work from the top to the bottom of panels with a well-soaked cloth, sponge, brush (with soft bristles), or low-pressure spray washer. The application of the cleaning solution should be gentle to prevent shiny spots.

Refrain from using scouring powders or industrial solvents, since these agents may damage the paint film. Cleaners that contain solvents, such as Fantastik®, are very effective and can be used without concern. If mildew or other fungal growth is a problem and cannot be removed as outlined above, household bleach mixed at a concentration of one gallon of bleach to five gallons of water together with one cup of mild soap (ex. Ivory®) is recommended. The surface should be thoroughly rinsed with clean water after cleaning to remove traces of detergent.

All exposed metal areas, such as scratches in the finish, are susceptible to rust and should be spot-painted with touch-up paint. Also, accumulated debris such as metal particles, leaves, branches, trash, dirt, pollution fallout, etc., should be removed. Removing debris and the regular cleaning of surfaces by hosing will help prevent the settling of localized areas where accelerated corrosion can occur. Accumulations of salt deposits in coastal locations can have a particularly aggressive effect on metal products. These deposits are easily removed by a gentle hosing with clean water.

Temperature Considerations

While the expansion and contraction coefficient of LUX Metal is extremely low, it is recommended that you follow the instructions regarding spacing against trims. Also, avoid over-tightening screws in order to allow the panel some room to float. When installing the Board + Batten into J-Trims at least 1/8" should be left for expansion and contraction as well as to ensure J-inserts are seated well. Other Joiner and Starter Trims are designed to allow expansion and contraction without any special measures. LUX will float over minor wall imperfections if installed correctly.

Transportation and Handling

In order to maintain the integrity of LUX Board + Batten, precautions must be taken when loading and unloading the product.

When transporting LUX Board + Batten, ensure that it is not stacked too high or it could result in damage to the product below. Be aware of tiedown tension as overtightening can damage the product, and never stack other materials on top of the panels. When the products arrive, immediately check for any damage caused during shipping. Do not install damaged products.

Best Practices for Working with Board + Batten

Never use a grinder to cut LUX Products. The warranty will be void as it may damage the integrity of the finish and the Galvalume Metal.

- Screws or stainless steel rivets should never be spaced farther than 24" apart.
- Never screw in Board+Batten panels too tight, as it will cause distortion and warping of the panel, potentially resulting in Oil Canning.
- Install panels with care; take precautions not to scratch the panel while installing on the wall or resting on the ground.
- Always leave room for expansion and contraction when terminating into your J-Trims, as it will cause distortion and warping of the panel, potentially resulting in Oil Canning.
- Always use a rubber mallet or other non-marring object to tap Top J Inserts into place.
- Installers must ALWAYS follow local building code as it applies to the installation of cladding, including all rainscreen requirements.
- Board + Batten should be installed using a bermuda clip and fastener with a 1" bite.

Cutting LUX Board + Batten and Trims

There are many ways that LUX Board+Batten can be cut and modified. Create clean cuts of the panels and trims by using a quality ferrous blade, a skill saw, a mitre saw, or a radial arm saw. Use nibblers or snips to clean up cuts or to cut lengthwise down the center of a panel. Always wear proper protective equipment when cutting LUX and ensure that the panel and saw are on a level plane.

LUX Board+Batten can be cut using metalworking snips, metalworking nibblers, or various power saws. A metal cutting blade such as Freud Diablo Steel Demon 48 tooth TCG Ferrous Metal Cutting Blade is recommended.

***Using a grinder will void the warranty as it damages the integrity of the finish and the Galvalume Metal.**

If you are using a sliding compound mitre saw, the cut will be improved if the saw is pulled across the panel toward the operator and not down onto the panel.

Cutting LUX Board + Batten and Trims

- Always accurately measure and mark your cut paths.

01

- Trim and detail cuts can be done with shears or snips.

02

- Long cuts can be done with power saws, nibblers, or shears.

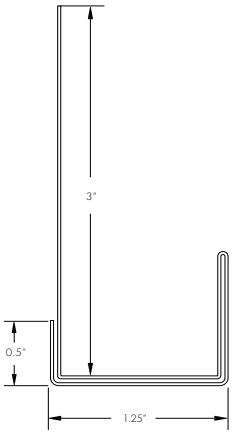
03

- Offcuts can be done with shears or snips.

04

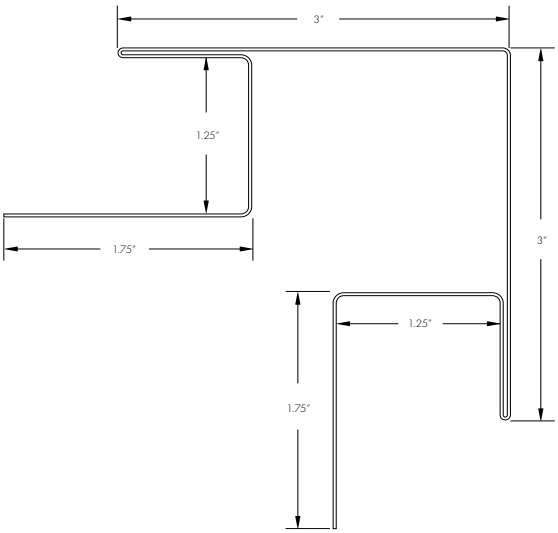
1PIECE J TRIM

10′: #600020 | #610020 (WCNS)



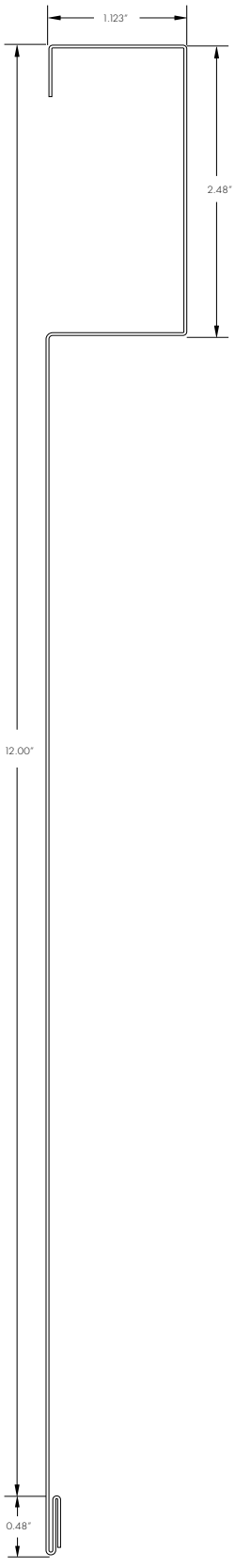
1 PIECE OUTSIDE CORNER

10′: #600026 | #610026 (WCNS)



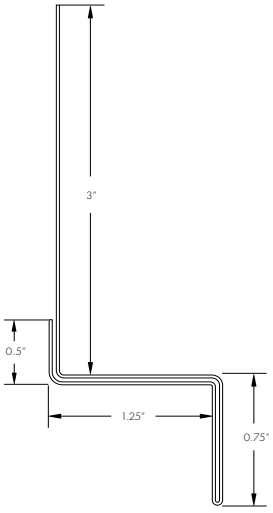
BOARD + BATTEN 12″

10′: #600000 | #610000 (WCNS)
13′: #600002 | #610002 (WCNS)
20′: #600004 | #610004 (WCNS)



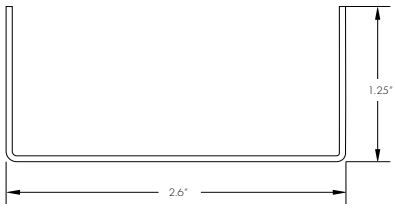
BELT LINE

10′: #600034 | #610034 (WCNS)



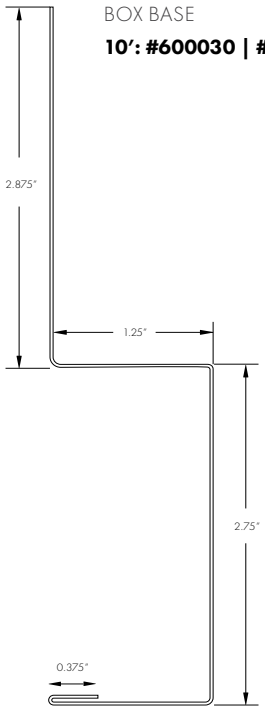
U SUPPORT

10′: #600032



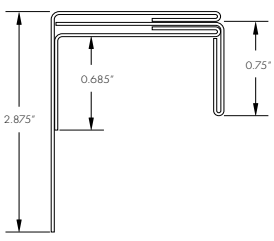
BOX BASE

10′: #600030 | #610030 (WCNS)



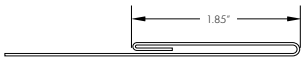
2 PIECE J TRIM

10′: #600022 | #610022 (WCNS)

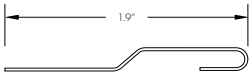


FINISH TRIM

10′: #600208| #610208 (WCNS)



BOARD & BATTEN CLIP (BERMUDA CLIP)
215083



LUX

BOARD + BATTEN

BOX BASE

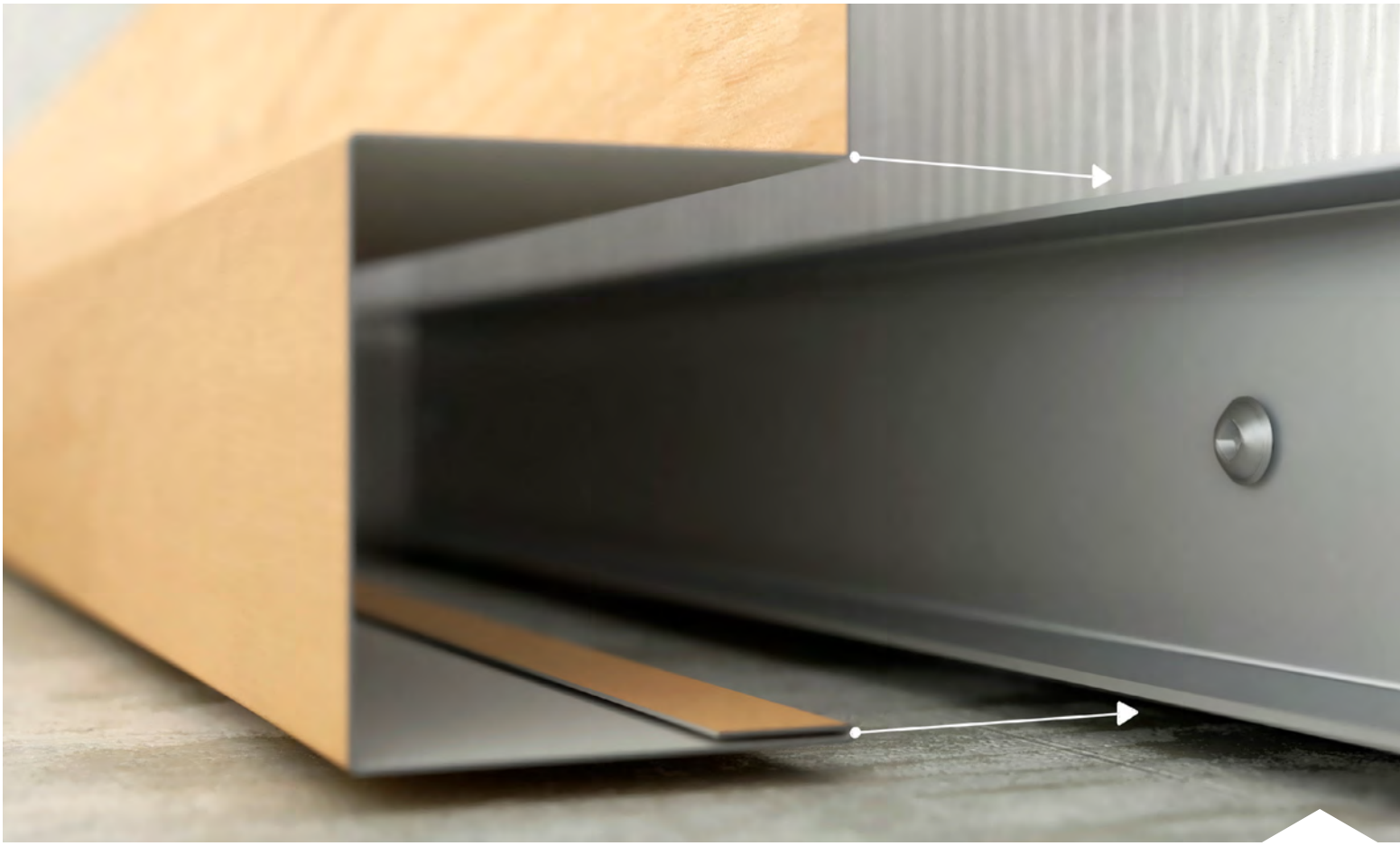
- The Box Base and U-Support are key components when installing Board + Batten vertically. The Board + Batten needs a solid foundation to ensure there is no distortion or sliding of the panel. Screw holes should be pre-drilled in the U-support and aligned with substrate studs.

01

- Before installing the U-Support, pre-drill your screw holes (no farther than 24" apart). Attach the U-Support 1/4" from the ground or bottom level. Screw in place using appropriate fasteners for wood or steel.

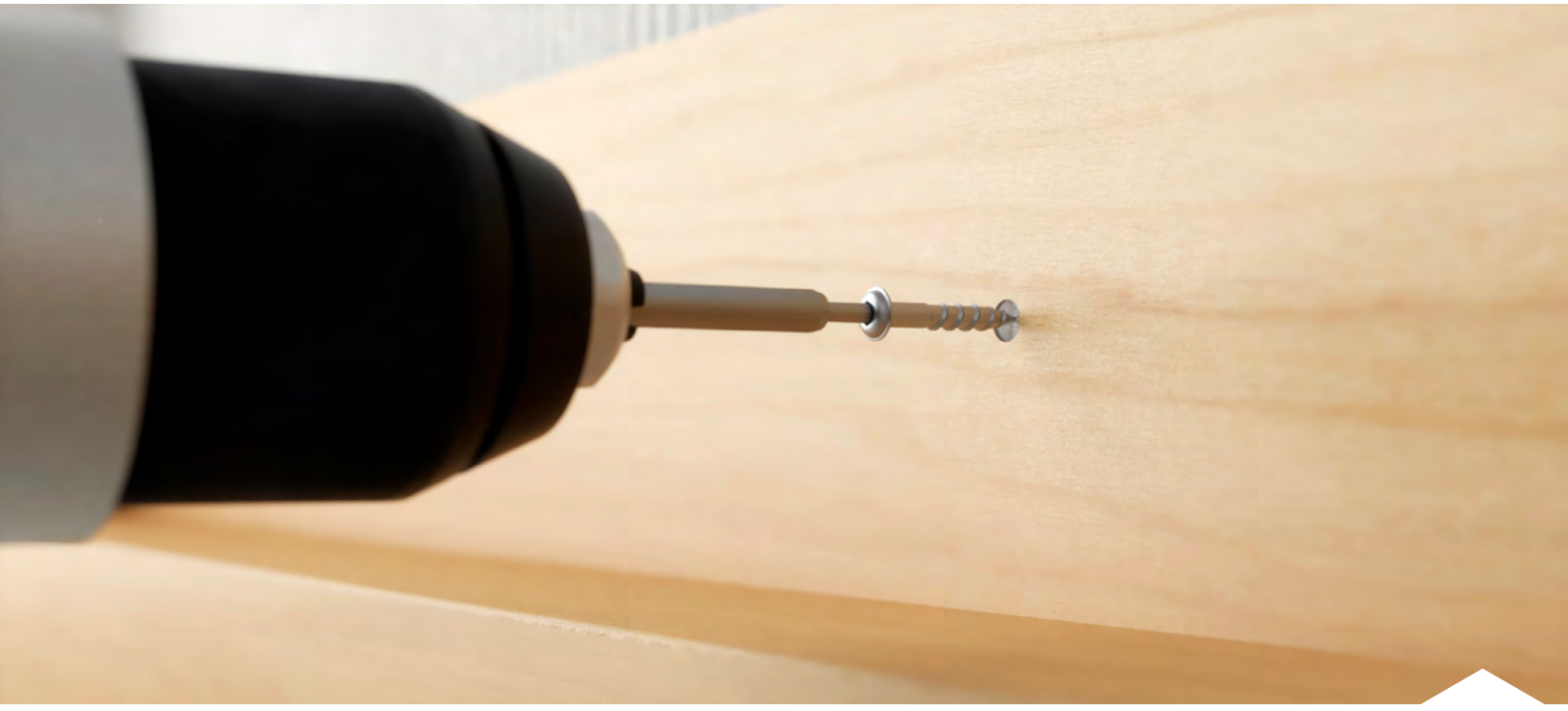
02

*Always follow local building codes for the installation of rain screens.



- The next step is to measure & cut your Box Base to fit over your U-Support. Ensure that the top of the bend in the Box Base is seated on the top of the U-Support.

03



- Pre-drill your holes and fasten the Box Base over the U-Support using the appropriate fasteners for wood or steel. Fasten the Box Base to the substrate studs.

04

LUX®

BOARD + BATTEN
PANEL INSTALLATION
(WITH 2 PIECE J'S)

- Install your J-Trim receiver over the Box Base. Once again, pre-drill your holes before fastening.

01

- Next, a Starter Strip is installed over the J-Trim receiver and above the Box Base. Leave a 1/2" gap between the starter and inside edge of the J-Trim. This provides space for the next Board + Batten panel to be fastened in place.

02

- After the Starter Strip is fastened in place, slide the Board + Batten panel into the J-trim.

03

- Pull the Board + Batten back and ensure it latches onto the Starter Strip. Then fasten your Board + Batten in place with a Board + Batten clip mounted on the hem of the panel.

04

- Insert your J-trim cap into the J-trim receiver and secure with rubber mallet.

05

Using the fastened Board + Batten clip, install your next panel and ensure it is securely latched on the Board + Batten clip.

- Continue the process and complete the installation of your Board + Batten section over the Box Base.

06

BOARD + BATTEN
PANEL INSTALLATION
(WITH 1 PIECE J'S)

- Here we have a 1 peice J-Trim fastened over the Box Base.

07

- Next, a Starter Strip is installed over the J-Trim and above the Box Base. Leave a 1/2" gap between the starter and inside edge of the J-Trim. This provides space for the next Board + Batten panel to be fastened in place.

08

- After the Starter Strip is fastened in place, slide the Board + Batten panel into the J-trim.

09

- Pull the Board + Batten back and ensure it latches onto the Starter Strip.

10

- Once the Board + Batten is securely latched onto the Starter Strip, fasten your Board + Batten in place with a Board + Batten clip mounted on the hem of the panel.

  Using the fastened Board + Batten clip, install your next panel and ensure it is securely latched on the Board + Batten clip.

11

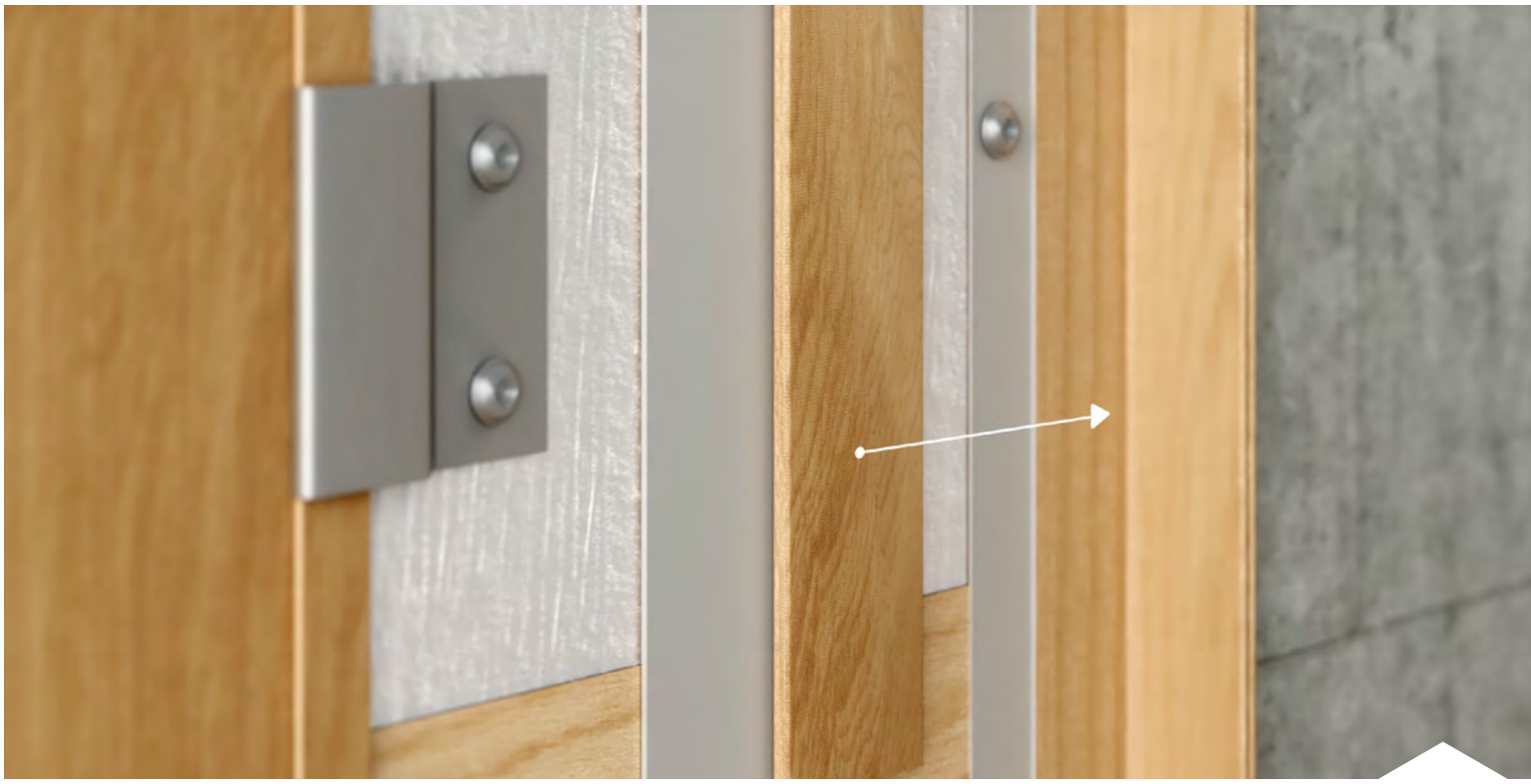
- Continue the process and complete the installation of your Board + Batten section over the Box Base.

12

LUX®

BOARD + BATTEN

FINISHING PANEL RUN



- Finish your installation by fastening a Finishing Trim over the J-trim. Here we are using a 2 piece J to finish.

01

- When installing the last panel, measure from the lower edge of the hem (from the previous panel) to the termination. Deduct 1/8" from your measurement.

02

- Slide in your last panel and using either silicon or crimps, secure the end of the panel in the hem of the Finishing Trim.

03

- Finish by inserting the J insert.

04

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THIS COMPLETES YOUR **BOARD + BATTEN** INSTALLATION

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