



Installation Guide

Introduction

The following LUX Architectural Products V-Groove 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 is designed to be efficient and simple to install. Still, precision and attention to detail are required for a successful install, and it is highly recommended that an experienced professional install the product.

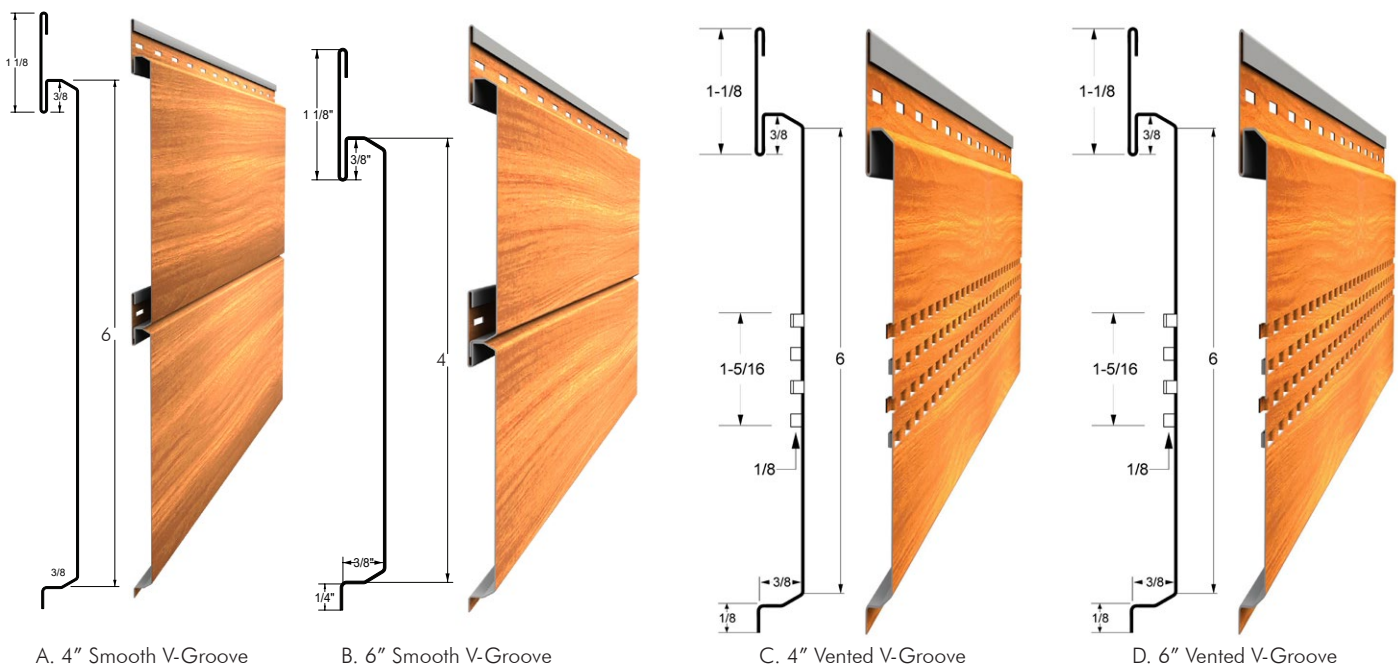
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LUX Architectural Products Features & Properties

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 warranted 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.

The LUX V-Groove's

LUX V-Groove is available in a 4" (101.6mm) and 6" (152.4mm) panel as well as 4" (101.6mm) and 6" (152.4mm) V-groove smooth and vented soffit. Panels are cut to custom lengths from 4' to 24' or (1.22 Meters to 7.32 Meters). LUX V-Groove is also sold in boxes of 12' (3.66 meter) lap panels.



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 V-Groove Panels. When cutting or being exposed to airborne particles, always wear an appropriate dust mask. Refer to the OHS Code for further requirements and safety measures for Jobsite siding installations.

Transportation

LUX Architectural Products securely packages and crates each custom cut 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 100% manufacturer condition. When the products arrive, immediately check for any crate or product damage. Do not install damaged products.

Storage Considerations

Prepainted building panels have been successfully used for many years. In general, properly installed building panels under normal service conditions have excellent corrosion resistance. However, pre-painted building panels are subject to premature corrosion failures prior to installation if they are not handled and stored correctly on the job site. 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 in the right conditions can manifest itself in as little as two weeks. Still, typically after four weeks, early stages of adhesion failure can be detected on panels.



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).

Storage Considerations

Environmental & Service Conditions

Water is a necessary prerequisite for corrosion of stored pre-painted panels. When water or water vapour is available along the sides of a panel bundle, it may penetrate between the panels by capillary action. If proper precautions are not taken during transport, water may be present between the panels upon delivery at the job site. Ambient humidity and temperature cycles will 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 prepainted panels.

Besides water, two other important factors contributing to the corrosion of stored pre-painted panels are temperature and exposure time. Corrosion will accelerate with increased temperature. Given enough time, panel bundles will eventually become wet, and storage corrosion may occur under most job site panels. 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. Under the roof, storage is always preferred. 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 shadows the bundle from direct sunlight and should act to moderate high-temperature extremes.

Storage Considerations



Insufficient support in the center of long panels allow "Bowling" 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 under the tarp is trapped under the tarp and impregnates the bundle of panels. 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.



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.

Storage Considerations

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 1



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.

STEP 2



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

STEP 3



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 4

While using stakes and elastic straps, pull the top tarp tight enough to keep the edge off the ground, creating airflow under the bundle.



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.

Any technical information or advice in this bulletin is provided without charge as a service to the industry. The use of this information or advice may produce unexpected results, and any persons intending to make use of this information are urged to carry out tests of their own to satisfy themselves they are using the correct materials, approach, and techniques. Correctly following the information and advice should produce a satisfactory result, but LUX Architectural Panel assumes no responsibility whatsoever in relation to such information or advice. Please ensure you have the most current Installation Manual.

Additional Tools Needed

Recommended Equipment

- | | | |
|--------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------|
| <input type="checkbox"/> LUX Shear | <input type="checkbox"/> Metal Snips | <input type="checkbox"/> Chalk Line |
| <input type="checkbox"/> Power Drill | <input type="checkbox"/> Metal Nibblers | <input type="checkbox"/> Rubber Mallet |
| <input type="checkbox"/> Levels | <input type="checkbox"/> Tape Measure | <input type="checkbox"/> Skill Saw, mitre saw, or radial arm saw with a ferrous blade |

Warning

Never nail LUX V-Groove Panels, follow installation instructions for proper screw choice and desired tightness of the screw. **Nailing the LUX V-Groove Panels automatically voids the warranty.**

Preparation

LUX V-Groove Panel is ready to install upon delivery.

If you have ordered your product according to a cut sheet, make sure to review each panel's length in accordance with the cut sheet before attaching it to the substrate.

The protective film is advised to be peeled back from the panels' ends before they are inserted into finishing trims.

Ensure that no jobsite debris gets caught between panels, in the crate or in the area where the panels might be stored. This debris could damage your LUX products by scratching or marring the surface.

Temperature Considerations

While the expansion and contraction coefficient of the LUX V-Groove Panel is extremely low, you must follow installation instructions regarding spacing against trims and by allowing the panel some room to float by not overtightening screws.

Code Compliance

The applicable building code and fire code are determined based on the project site location as there can be various code changes per province or state, city and region. LUX Architectural Products cannot address all the various codes in this guide. Project Designers, Builders, Architects and Engineers must understand the applicable code and install exterior cladding products within these codes' guidelines. The Local Building Codes requirements must be observed as a minimum requirement of the installation of all LUX Architectural Products.

Cutting LUX V-Groove Panels

LUX V-Groove is best cut along the profile and ideally with the custom-designed LUX Shear. It can also be quickly and cleanly cut with a quality ferrous blade. A skill saw, mitre saw, or radial arm saw can all be used to create clean cuts of the panel and trims. Nibblers work excellent for all cuts, even lengthwise down the center of a Panel. Snips can also be used to cut or clean up cuts to V-Groove Panels. Always wear proper protective equipment when cutting LUX and ensure the panel and saw are on a level plane.

Care & Maintenance

While factory-applied finishes for metal building panels are so durable that they will last many years longer than ordinary paints, it is desirable 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 buildings 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 done at least every six months and more frequently in coastal areas where marine salt spray is prevalent and areas where high industrial fallout levels occur. Mild solutions of detergents or household ammonia will aid in the removal of most dirt, and the following are recommended levels:

1. One cup of detergent (example - Tide®), which contains 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.)
2. One cup of household ammonia dissolved into five gallons of water (at room temperature).

Using either solution and working from the top to the bottom of panels, use a well-soaked cloth, sponge, brush (with very soft bristles) or low-pressure spray washer to clean the surface. The application should be gentle to prevent shiny spots. We do not recommend the use of scouring powders or industrial solvents since these agents may damage the paint film. Solvent-containing cleaners, such as Fantastic®, 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 (e.g. Ivory®) to aid wetting 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, 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. This removal and the regular cleaning of surfaces by hosing will help prevent the settling of localized areas where accelerated corrosion might occur. Accumulations of wind-borne salty deposits in seaside locations can have a particularly aggressive effect on metal products. These salty deposits are readily removed by a gentle hosing with clean water.

Any technical information or advice in this bulletin is provided without charge as a service to the industry. The use of this information or advice may produce unexpected results, and any persons intending to make use of this information are urged to carry out tests of their own to satisfy themselves they are using the correct materials, approach, and techniques. Correctly following the information and advice should produce a satisfactory result, but LUX Architectural Panel assumes no responsibility whatsoever in relation to such information or advice. Please ensure you have the most current Installation Manual.

LUX V-Groove Installation

LUX V-Groove steel cladding is designed to be installed vertically, horizontally, diagonally and under overhangs as a soffit installation to interior or exterior surfaces. LUX V-Groove is a premium metal cladding product with a high level of finish and engineering detail so it is recommended that LUX be installed by an experienced professional who can reflect these qualities. Importantly, the overall quality of the final LUX installation is dependent on the installer's experience, skill and attention to detail, so in order to ensure a beautiful and long-lasting finished product, professional installation is highly recommended.

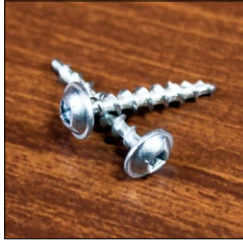


Fig.01



Fig.02

LUX V-Groove should be installed using a modified #8 truss head screw (Fig. 01) for attaching the panel to wood and #8 self-tapping pan-head screw (Fig. 02) for attaching panels to steel studs. Screws are sold by the pound (Approximately 200 pieces per lb.) and by the box (8000 pieces).

LUX V-Groove is manufactured from cold rolled prefinished steel which gives it superior strength and durability.



Fig.03



Fig.04



Fig.05



Fig.06



Fig.07



Fig. 08

LUX V-Groove can be cut using the LUX Stand-alone shear (Fig. 04), snips (Fig. 05), nibblers (Fig. 06) and power saws (Fig. 07). A metal cutting blade such as Freud Diablo Steel Demon 48 tooth TCG Ferrous Metal Cutting Blade (Fig. 08) is recommended.

***NEVER USE A GRINDER OR ZIP DISC AS IT WILL VOID THE WARRANTY ON ALL LUX PRODUCTS.**

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

V Groove Panel Installation



Fig.09

When attaching LUX V-Groove Panel, it is essential to place the screws centred in the designated screw hole (Fig. 09). The screw pattern for the soffit that runs parallel with the building should be fastened at a maximum of 16", and siding applications (vertical or horizontal) should have a maximum spacing of 16" on center.

The V-Groove panel should be hung on the wall using recommended screws and should not be nailed. Hanging the panel this way will allow for expansion and contraction of the panel and will enable the panel to float over minor waves and imperfections in the wall. Do not overtighten the fastener as the panel should be able to float on the wall (Fig. 10). This image also demonstrates the necessary 1/16" - 1/8" gap between wall and panel.



Fig.10



Fig.11

Never overtighten screws while installing LUX V-Groove as this can and will cause damage to the panel. An overtight screw prevents the panel from floating on the wall, which allows for expansion & contraction, building movement and general settling of the installation. Overtight screws lead to buckling and unsightly damage. LUX takes no responsibility for improperly installed products, and an installation with overly tight screws or nails will automatically void the warranty (Fig. 11).

V Groove Panel Installation

During the manufacturing process, the ends of custom-cut panels can be slightly compressed (Fig. 12). The edge of the V-Groove tongue can be trimmed at an angle. It will then fit snugly into the receiving groove of another V-Groove Panel.



Fig.12

Another method to adjust a compressed custom cut V-Groove is to place a flat screwdriver in the compressed end and twist gently to open (Fig. 13).



Fig.13

V-Groove Soffit Installation

Install panels either at a right angle away from the wall (Fig. 14), or parallel with the wall attaching the panels to blocking at a minimum of 16" (Fig. 15). Trims are installed similarly in both applications as viewable in (Fig. 14 & 15).



Fig. 14



Fig. 15

Double 7 Soffit Installation

The Double 7 Soffit has to be pre-drilled on the side with the insert flange and the insert side matching every 16" (Fig. 16). The centre lower rib should be drilled every 24". Fasten with appropriate screws. Check with LUX to see if colour matched screws are available (Fig. 16 & 17).



Fig.16

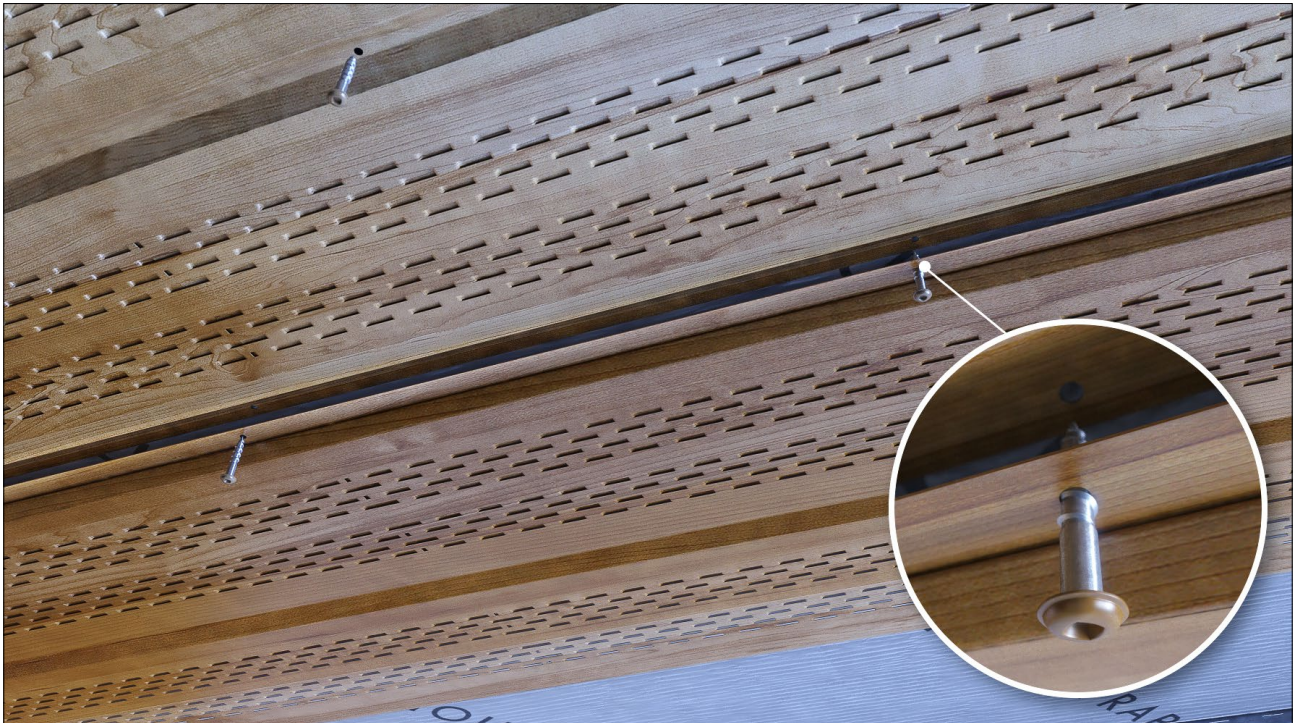


Fig.17

Horizontal V-Groove Installation



Fig.18

*All walls must be prepared with a proper rain screen and vapour barrier that meet local building codes before installing LUX Products.

Install Starter Strip by predrilling 16" on centre. Then level and attach the starter strip with the appropriate fasteners (Fig.18).

Begin the V-Groove installation by sliding the panel into the starter strip with the screw flange up. Depending on the installation, you will likely also slide the panel into a finish trim such as a Two-Piece J-Channel. Ensure the panel is snug and level in the starter strip (Fig.19).

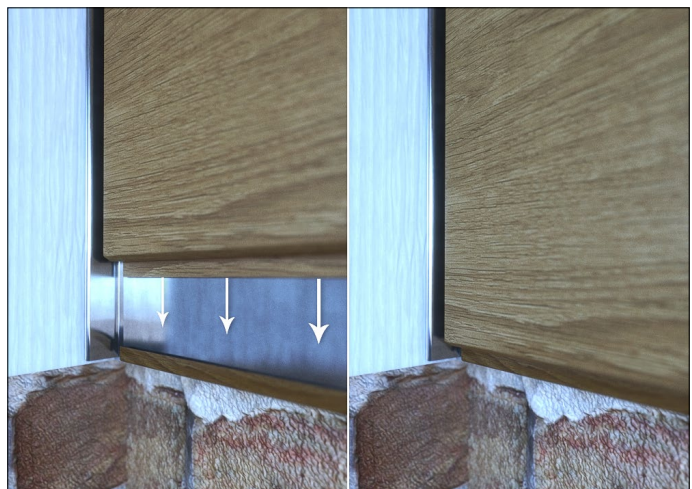


Fig.19



Fig.20

Attach V-Groove with appropriate fasteners through screw flange. Continue the installation by inserting the next panel's bottom tongue snugly into the previous panel's groove, ensuring that it is fully seated. Continue until you reach the last piece, which may be trimmed to fit if necessary (See finishing a V-Groove Section). Do not overtighten the fastener as the panel should be able to float on the wall.

Vertical V-Groove Installation

Begin at either end of the wall surface to be covered. Start by placing your chosen trim in place and fasten it (Fig.20). Then put the V-Groove tongue into the starter or trim piece, attach the panel to the wall with the appropriate fastener in the screw flange. Do not overtighten the fastener as the V-Groove should be allowed to float on the wall (Fig.21).



Fig.20



Fig.21

LUX V-Groove can be installed snug to the base flashing or placed into the J channel that is installed over the base flashing (Fig.22). *If installed into a J-Channel that will catch moisture, weep holes must be drilled. Continue the installation by inserting the next panel's tongue snugly into the previous panel's groove, ensuring that it is fully seated. Continue until you reach the last piece, which may be trimmed to fit if necessary (Fig.23). (Refer to Finishing a V-Groove Panel Run)

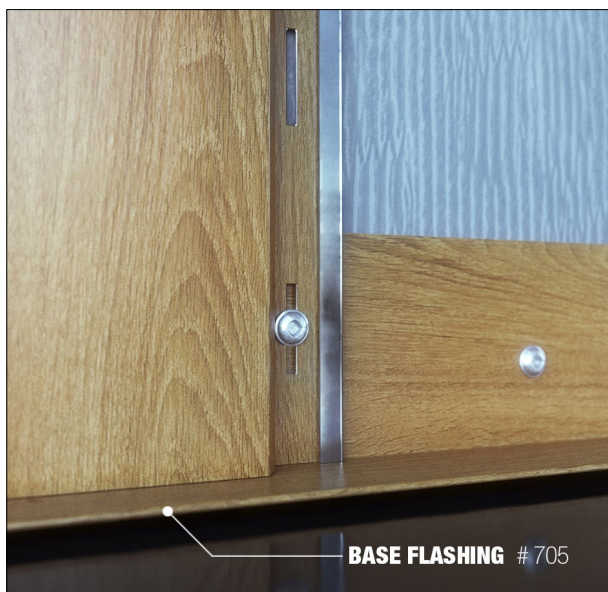


Fig.22

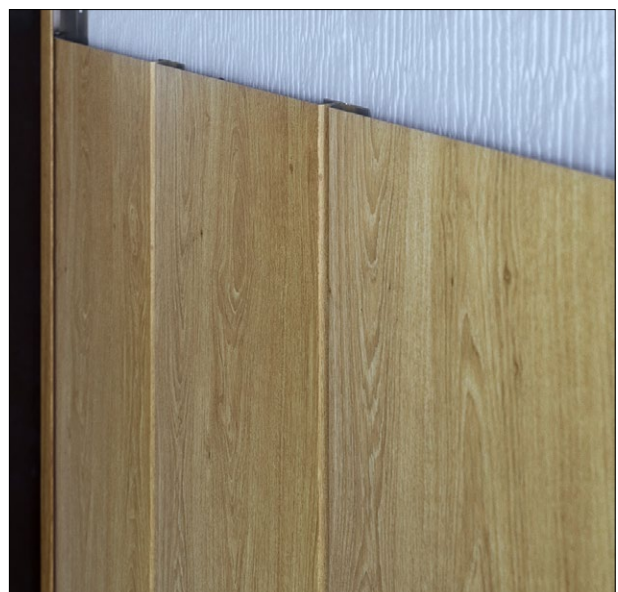


Fig.23

Finishing A V-Groove Panel Run

Finishing the last panel horizontally or vertically.

*Horizontal Installation is demonstrated and vertical installation is similar.

Step 1: Measure from the last panel to the inside edge of the finishing trim, subtract $1/16''$ from measurement (Fig.24).

Step 2: Then use measurement to cut panel through its full length (Fig.25).



Fig.24

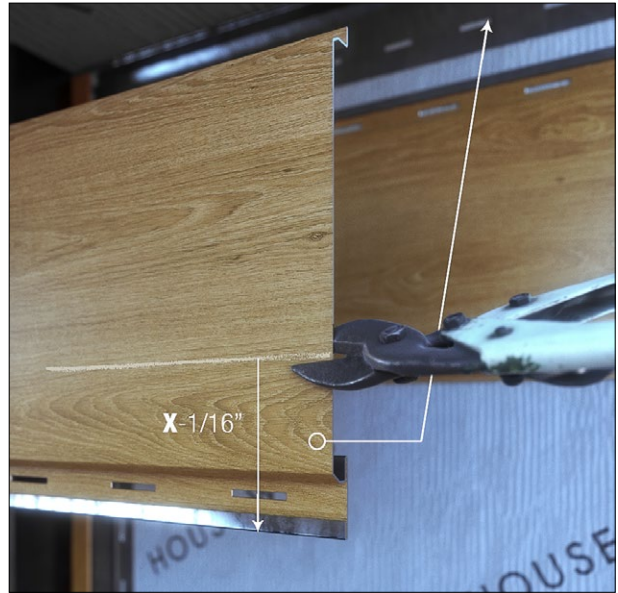


Fig.25

Step 3: After cutting the V-Groove Panel, you will have the finished cut piece and the surplus off-cut (Fig.26).

Step 4: Use the off-cut as an inside support for the trimmed V-Groove Panel (Fig.27).



Fig.26



Fig.27

Finishing A V-Groove Panel Run

Finishing the last panel horizontally or vertically.

*Horizontal Installation is demonstrated and vertical installation is similar.

Step 5: If not using the locking Roll-Formed two-piece J-Channel, add a small amount of silicone sealant between the finished panel and the underside off-cut support pane (Fig.28).

Step 6: Install the off-cut piece into trim with the cut portion against the trim piece's inside edge (Fig.29).



Fig.28



Fig.29

Step 7: Snap insert of the two-piece J into place by applying pressure or tapping with a rubber mallet (Fig.30).

Step 8: Ensure the trim is seated and flush with the panel (Fig.31).



Fig.30



Fig.31

Trimming Panels

2 Piece J Channel - The top and bottom J-channel are designed to go together to finish panel sections where it is necessary to add the trim after the panels have been installed (Fig. 35).



Fig.32



Fig.33

Step 1: Install the two-piece J base section as required on one side or bottom of the wall (Fig.32).

Step 2: Set standard panels in place and fasten (Fig.33).

Step 3: Finish the installation by installing the top cover of the two-piece (Fig.34).



Fig.34

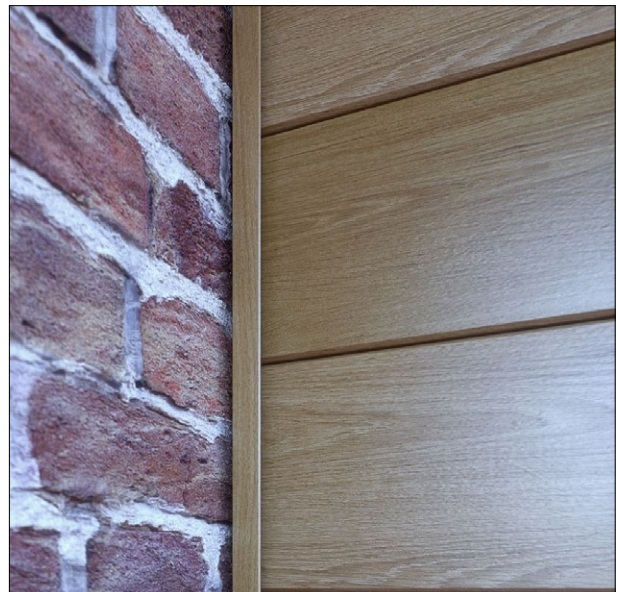


Fig.35

Trimming Panels

Two-Piece Joiner J - The two-piece Joiner J-channel and closure are designed to go together to finish panel sections where it is necessary to add the trim after the panels have been installed (Fig.38). The Closure #705 is part of the water dispersion design (Fig.36) + (Fig.37).



Fig.36



Fig.37

Step 1: Install the two-piece Joiner J and closure back to back (Fig.36) + (Fig.37).

Step 2: Set the standard panels in place and fasten (Fig.37).

Step 3: Finish the installation by installing the Joiner J Insert #716 (Fig.38).

The finished installation will provide you with a clean aesthetic that also accommodates water drainage (Fig.39).



Fig.38

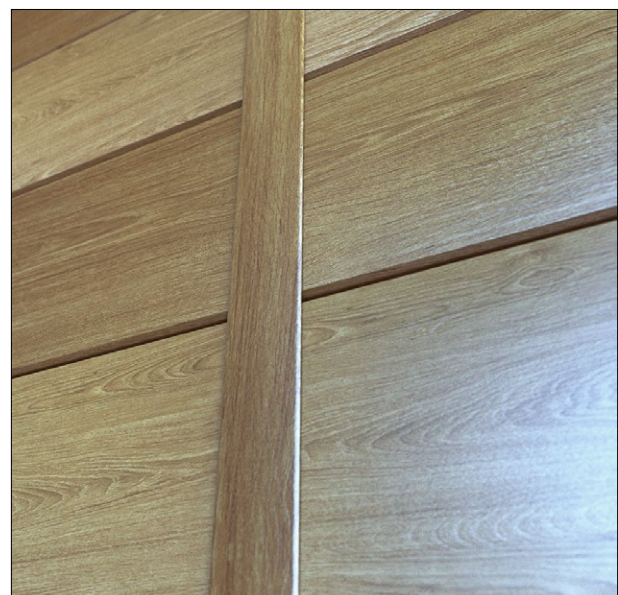


Fig.39

Trimming Panels

Joiner J - is used as required to join the panel sections together or as a transition moulding between the LUX panel and another surface.



Fig.40



Fig.41

Step 1: Set closure (#705) in Place (Fig.40).

Step 2: Set standard panels in place and fasten (Fig.41).

Step 3: Set the Joiner-J (#708) in place and fasten (Fig.42).

Step 4: Set the standard panels in place and fasten (Fig.43).



Fig.42



Fig.43

Trimming Panels

The joiner-J is used as required to join panel sections together (Fig.44).



Fig.44

The joiner J is also used as a transition moulding between the LUX panel and another surface of the same thickness (Fig.45).



Fig.45

Full Corners

Install corners before the installation of LUX panels as demonstrated in the following diagrams. Install on inside and outside corners as required. When installing LUX V-Groove in a vertical application, start at the inside or outside corner and work towards the open trim. When installing panels on a closed wall with two corners, install inside corner or outside corner on one end, then install panels and trim on other end over the top such as an open corner.

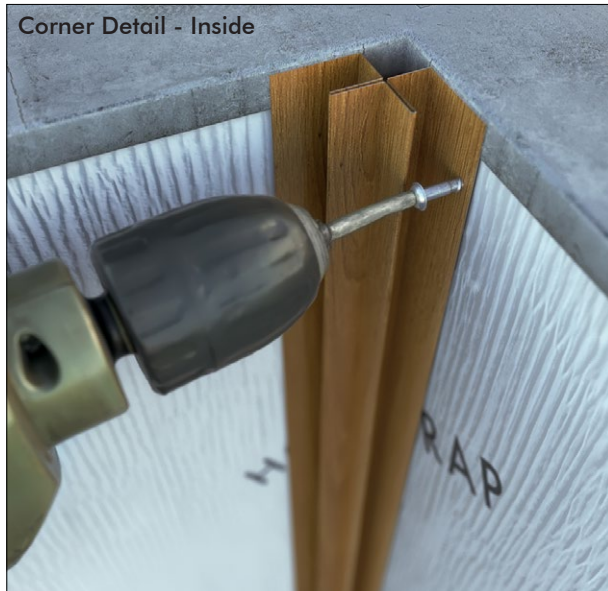


Fig.46



Fig.47

Inside corner:

Step 1: Set the inside corner (#707) in place and fasten (Fig.46).

Step 2: Set the standard panels in place and fasten (Fig.47).

Outside corner:

Step 1: Set the outside corner (#706) in place and fasten (Fig.48).

Step 2: Set the standard panels in place and fasten (Fig.49).

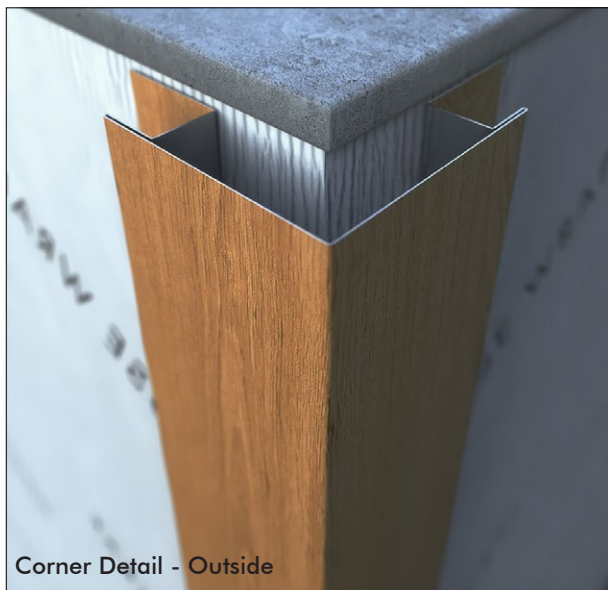


Fig.48



Fig.49

Open Corners

Open Inside Corners - Use as an end of wall trim installed after the V-Groove panel or as a transition moulding between the LUX V-Groove and a finished wall with a different material.

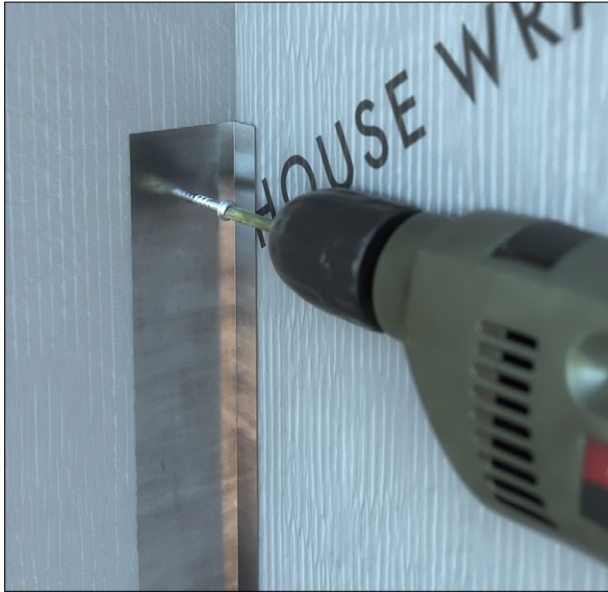


Fig.50



Fig.51

Step 1: Set the closure trim (#705) in place (Fig.50).

Step 2: Set the standard V-Groove panels in place and fasten (Fig.51).

Step 3: Set the open inside corner (#712) in place and fasten (Fig.52).

Step 4: Set the standard V-Groove panels in place and fasten (Fig.53).



Fig.52



Fig.53

Open Corners

Open Outside Corner

Step 1: Set the closure trim (#705) in place (Fig.54).

Step 2: Set the standard V-Groove panels in place and fasten (Fig.55).

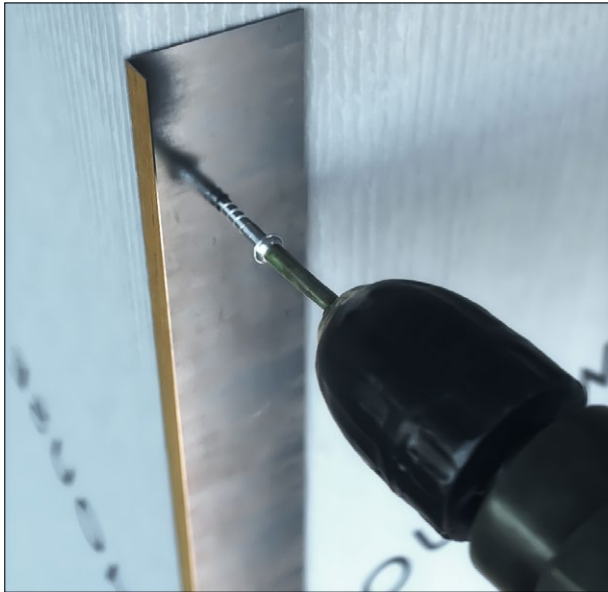


Fig.54



Fig.55

Step 3: Set the open outside corner (#711) in place and fasten (Fig.56).

Step 4: Set the standard V-Groove panels in place and fasten (Fig.57).



Fig.56

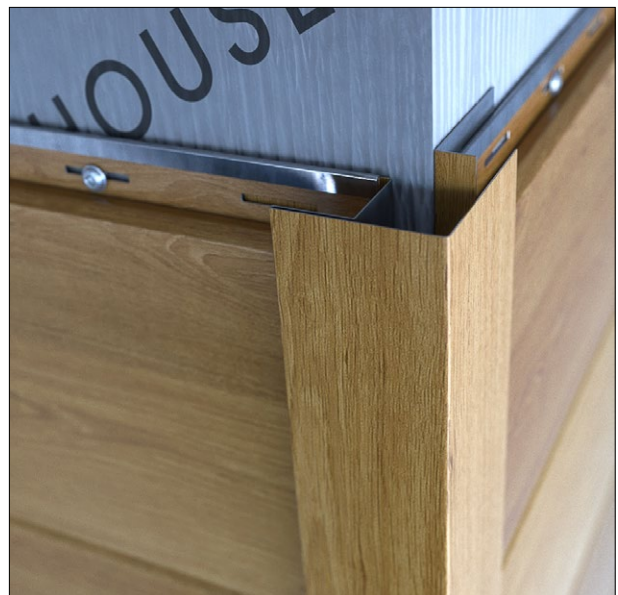


Fig.57

Multi-Piece Efficiency Series Corners

Outside Multi-Piece Efficiency Series Corner - The exclusive LUX Efficiency Outside Corner gives a unique narrow-angle to an outside finished corner. Figure 58 demonstrates the unique profile of the outside corner and its innovative design. Figure 59 also reflects the aesthetic of the finished LUX Efficiency outside Corner and the clean lines of the finished product. The following images demonstrate the recommended installation steps of the trim.



Fig.58



Fig.59

Step 1: Pre-drill installation holes at a minimum of 16 inches apart. (see Fig.60).

Step 2: Ensure that the corners of the LUX three-piece corner are square with the substrate of the wall, then fasten with a specified screw (Fig.61).

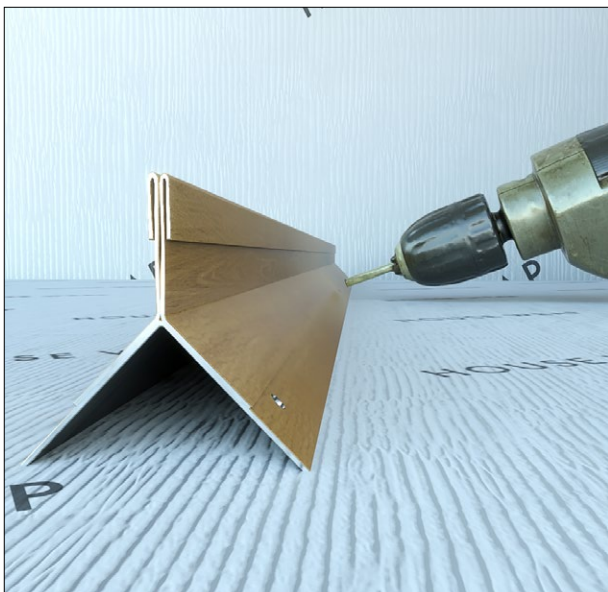


Fig.60



Fig.61

Multi-Piece Efficiency Series Corners

Step 3: Because the LUX three-piece corner is truly straight and accurate, variations in the substrate will have to be accommodated for when installing the corner. Shimming may be required to adjust for substrate variances and to guarantee that the ends are flush with each other and are aligned for the installation.



Fig.62



Fig.63

Step 4: Install the standard panels and fasten (Fig.63).

Step 5: Place one end of the insert for multi-piece corner in the channel and apply pressure to snap into place (Fig.64).

Step 6: Place the other insert into the slot in the channel in the middle of the corner and apply pressure until snug (Fig.65).



Fig.64



Fig.65

Multi-Piece Efficiency Series Corners

Inside Multi-Piece Efficiency Series Corner - The exclusive LUX Efficiency Series Inside Corner gives a unique narrow-angle to an inside finished corner. **Figure 76** demonstrates the unique profile of the inside corner and its innovative design. **Figure 76** also illustrates the finished LUX Efficiency Series Inside Corner's aesthetic and the clean lines of the finished product.



Fig.66



Fig.67

Step 1: Pre-drill installation holes at a minimum of 10 inches apart (see Fig.67).

Step 2: Ensure that the back of the LUX inside corner is square with the substrate of the wall, then fasten with a specified screw (Fig.68).

Step 3: Step 3: Install V-Grooves, leaving a 1/8" space between the panel and the inside of the trim for expansion and contraction (Fig.69).

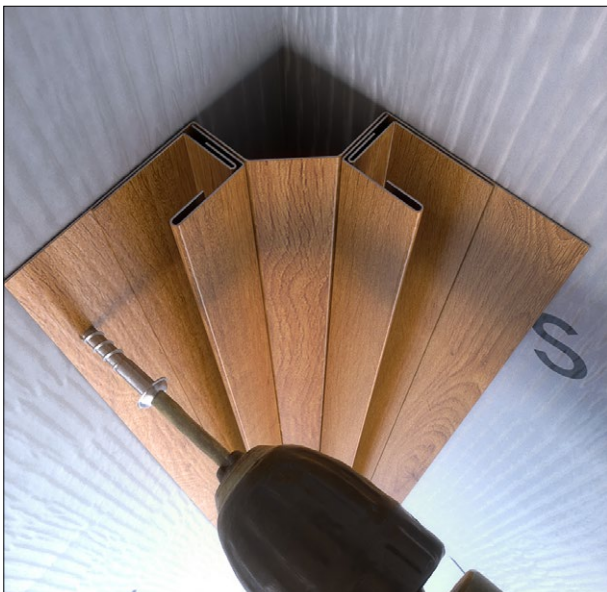


Fig.68



Fig.69

Multi-Piece Efficiency Series Corners

Because the Efficiency Series Corners are truly straight and accurate, variations in the substrate will have to be accommodated for when installing the corner and shimming may be required to adjust for substrate variances. A close-up of the details in of the corner is provided in (Fig.73).



Fig.70



Fig.71

Step 4: Place one end of the three-piece inside corner in channel and gently into place tap with rubber mallet (Fig.70).

Step 5: Place the other end of the three-piece corner in channel and gently into place tap with rubber mallet (Fig.71).

Step 6: Ensure that the corner pieces are snug and correctly aligned for your application (Fig.72).

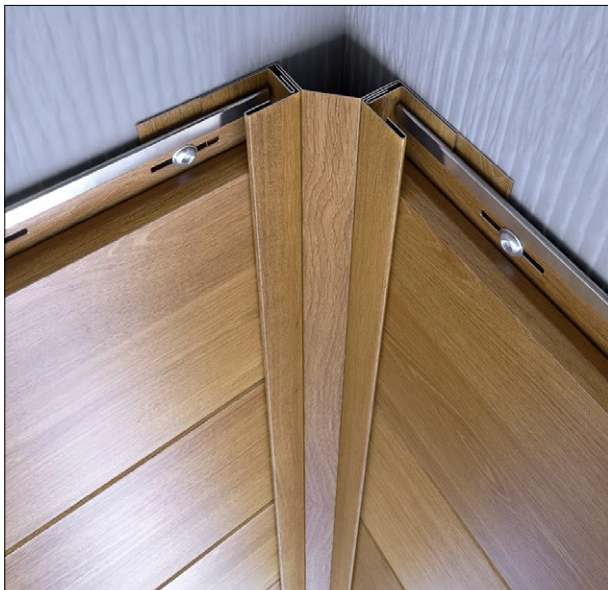


Fig.72

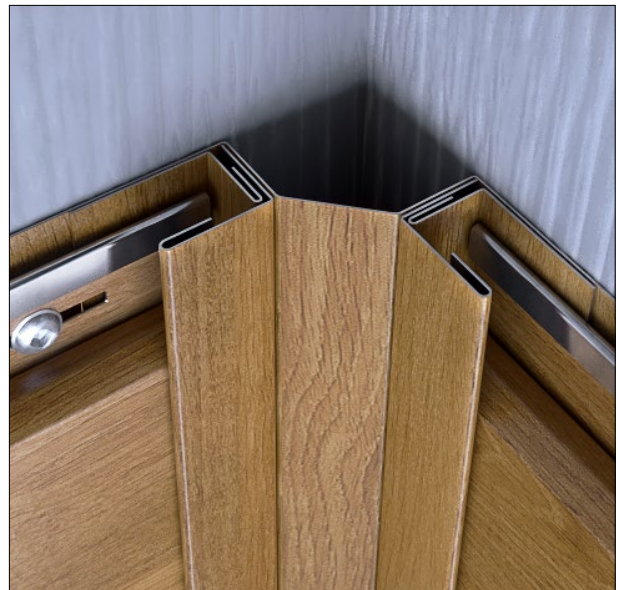


Fig.73

LUX LAP - Horizontal Installation

LUX Lap has a tongue and groove design that allows you to fit one panel into the back of another panel snugly. The insert end is only available on the panel's right side, which must be considered when installing.

Step 1: Pre-drill and install starter strip. (Fig.74).

Step 2: Trim the right side of the wall as desired - in this instance, we are using a J-Trim (Fig.74).

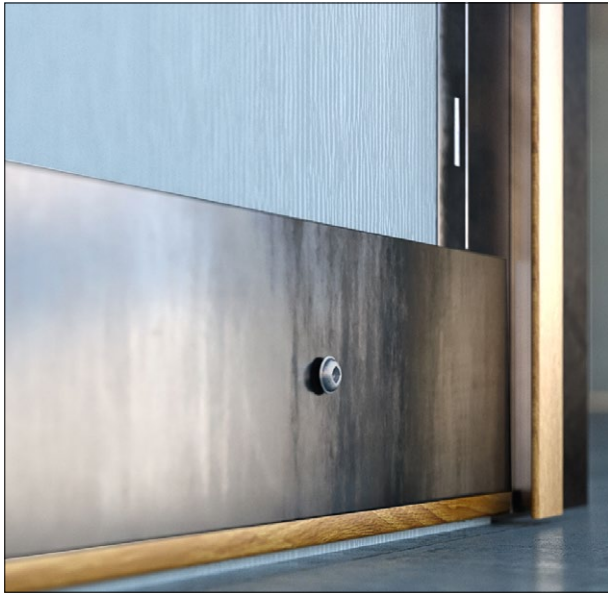


Fig.74



Fig.75

Step 3: Fasten panel with appropriate screws ensuring not to overtighten (Fig.75).

Step 4: If completing a horizontal installation less than 24' measure panel against the already installed panel, remembering to give 1/8" space from trim and 1/8" spacing between lap panels (Fig.76).

Step 5: Insert the next or trimmed lap panel into the starter strip (Fig.77).

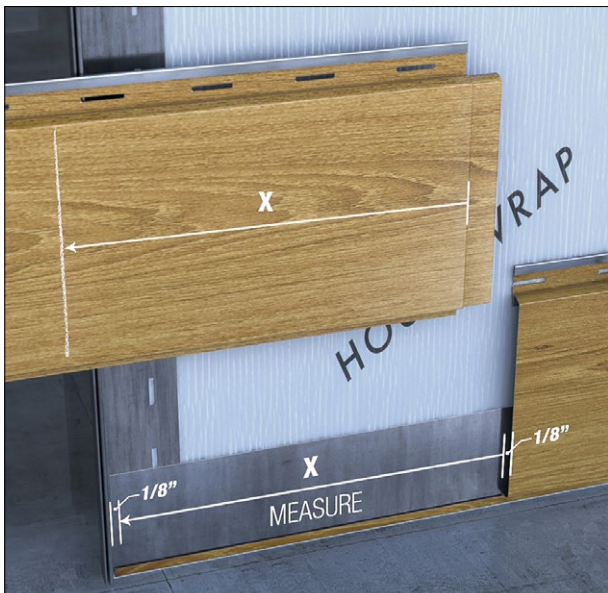


Fig.76



Fig.77

LUX LAP - Horizontal Installation

Step 6: Slide trimmed lap panel gently along starter strip and place the tongue into the end of the previously installed panel. Ensure the panel is cleanly seated in the in the back of the previous panel. Then using appropriate fasteners, secure the panel to the substrate (Fig.78).

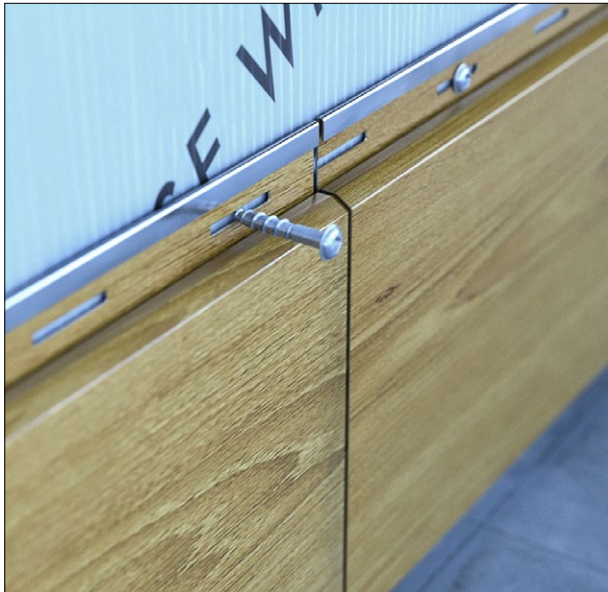


Fig.78



Fig.79

Step 7: Continue installing the LUX Lap until you reach your final panel (see Fig.79). Finish the last panel in the same way as the regular V-Groove panels.

IMPORTANT: Ensure that each run of lap panels' installation does not repeat colour or pattern in an unrealistic way (Fig.78). Figure 78 shows two panels with the exact same knot pattern installed on top of each other. This should always be avoided.

IMPORTANT: Never line up the Lap Join lines as this is unsightly and detracts from the wood grain's overall realism while also generating an awkward visual line (Fig.79).

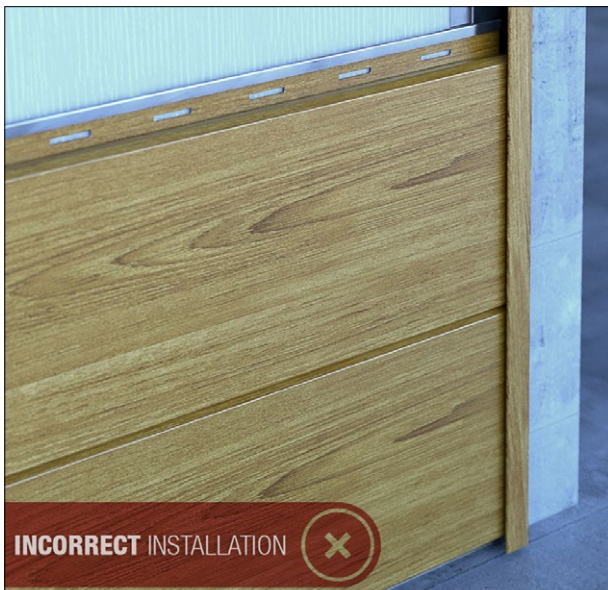


Fig.78



Fig.79

LUX LAP - Horizontal Installation

IMPORTANT: Avoid "Laddering" the joints or making a pattern that steps up, zig-zags evenly across or any other identifiable pattern combination. The installation should look as random as possible for the best possible aesthetic outcome (Fig.80).

The image in Figure 81 is of an actual lap installation. It is meant to demonstrate how cleanly the panels meet at the lap.

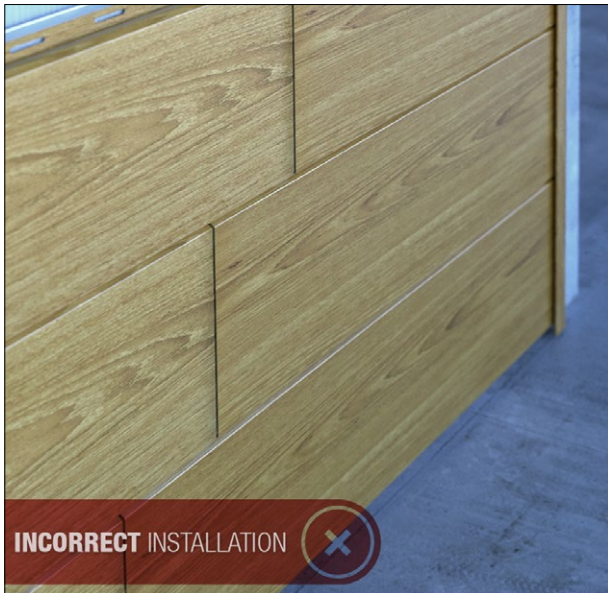


Fig.80



Fig.81

The final image is from the LUX Installation Video [LINK](#) and demonstrates a professional installation's potential, including various patterns and colours of panels. The panel joints are also staggered in a fashion that lends itself to the realism of an actual wood installation (Fig.82).



Fig.82

Installation Tips + Best Practices

- Although highly consistent in colour and pattern, ordering all necessary LUX V-Grooves, LUX Lap and trims at the same time will ensure colour continuity throughout the project. LUX wood-print finish is produced in batches which may have slight shade variations between orders from different master coils. Ordering a couple of extra panels and trims in case of damage or a wrong cut is standard practice and can save time and money for the overall project.
- LUX is manufactured from cold-rolled prefinished steel, which gives it superior strength and durability. However, the LUX V-Grooves, Lap Panel and trims can be damaged due to undue care or excessive pressure when fitting or handling.
- During the manufacturing process, the ends of the panels can be slightly compressed. Either cut the tongue of the next panel to be fitted at an angle or place a flat screwdriver in the compressed end and twist it open. See figure 12 + 13 on Page 2 of the installation guide.
- Overtightening fastening screws and not being diligent in placing the screws in the center of the screw slots can cause the panel to deflect and possibly show "oil canning. "
- Whenever possible, always pre-drill and install with specified screws.
- The screw pattern for the soffit that runs parallel with the building should be fastened at a maximum of 16," and siding applications (vertical or horizontal) should have a maximum spacing of 16" on center.
- OIL CANNING IS NOT AN IMMEDIATE CAUSE FOR REPLACEMENT.