JELD-WEN WINDOWS & DOORS

Installation Instructions for Vinyl Flush Fin Windows and Vinyl Windows with Nailing Fin

Vinyl Flush Fin Windows

The flush fin window is a retro-fit product designed for installation into an existing window frame with a 3/8" or wider return that protrudes past or is flush with the exterior siding. There cannot be any fins or lips that extend past this vertical plane. The flush fin window will be sealed to this surface.

Vinyl Windows with Nailing Fin

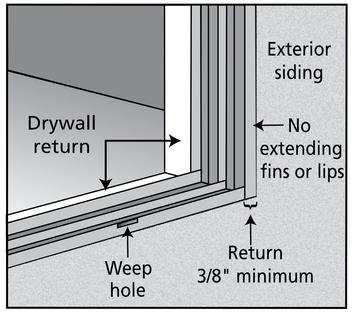
The attached are JELD-WEN's recommended installation instructions for vinyl windows which incorporate an integral nail fin. These installation instructions do not supersede any national, provincial, or local building codes. While the use of these installation instructions is recommended, in Canada, installation in strict compliance with CSA A440-4 is an alternate method of window installation and will not affect the application of the JELD-WEN limited warranty.

Newer construction methods have led to an increase in air and water tightness in buildings. This frequently leads to negative air pressure inside the home, which can draw water through very small openings. Our installation method integrates the window with the weather barrier (typically building wrap).

***These installation instructions do not supercede any national, provincial or local building codes. They are meant as a guideline and reflect good installation practices.**

RELIABILITY *for* real life® JW

INSTALLATION PREREQUISITES
for Vinyl Flush Fin Windows



The lack of an adequate return significantly adds to the complexity of a long-term, water-tight installation. If the existing window frame does not have a sufficient return, consult an installation professional to design an installation that completely seals the new window in a weatherproof manner.

IMPORTANT INFORMATION

Vinyl Flush Fin Windows
This installation assumes that the existing frame has a water-tight installation into the structure.

Vinyl Windows with nailing Fin and Flush Fin
This instruction is based on CSA A440.4, for any specific details (ex: different siding type) that maybe different please contact your supplier for recommendations.

If installing in an area of high winds, see the structural engineering report of the product for specific fastening requirements.

Any local building code requirements supersede the recommended installation instructions. Failure to install square, level and plumb could result in denial of warranty claims for operational or performance problems.

Please Note! Installation such that the window sill is higher than 35 feet above ground level or any window installation into a wall condition not specifically addressed in this poster must be designed by an architect or structural engineer.

Vinyl Flush Fin Windows

Vinyl Windows with Nailing Fin

GLOSSARY

Flush Fin Window: A vinyl window used for retro-fit installation into an existing window frame. The integral exterior trim is decorative and covers the gap between the new window and the existing siding.

Meeting Stile: A vertical frame member of a window that sits in the center of the exterior sill track and either holds one side of the fixed glass or keeps the stationary sash from moving.

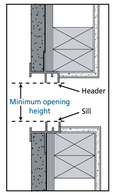
Minimum Opening Width/Height: Measurements taken to determine the size of window that will fit into a retro-fit opening. For example, the minimum opening height is the distance between the highest frame point on the sill to the lowest frame point on the header.

Return: The exterior face of an existing window frame that helps tie the window to the siding.

Mulled Unit: Two or more window units structurally joined together.

Shiplap: The layering method in which each layer overlaps the layer below it so that water runs down the outside.

Weep Hole (weep channel): The visible exit or entry part of a water drainage system used to drain water out of a window.



SAFETY & HANDLING

Please Note!
For a detailed list of safety and handling recommendations, refer to the full set of installation instructions at our website: www.jeld-wen.com/resources.

SAFETY
- Do not work alone.
- Use caution when handling glass. Broken or cracked glass can cause serious injury.
- Wear protective gear as necessary.
- Read and fully understand ALL manufacturers' instructions before beginning.

WINDOW HANDLING
- Do not put stress on joints, corners or frames.

Vinyl Flush Fin Windows and Vinyl Windows with Nailing Fin
- Make sure the window is locked prior to installation.
- Read material manufacturers' handling and application instructions.
- Properly dispose of unused products and waste material per federal, provincial, and local environmental protection rules.

- Handle in vertical position; do not drag on floor.
- Store window in dry, well-ventilated area in vertical, leaning position to allow air circulation; do not stack horizontally.
- Protect from exposure to direct sunlight.
- Install only when conditions and sheathing are completely dry.

IF INJURY OCCURS, IMMEDIATELY SEEK MEDICAL ATTENTION!

NEEDED MATERIALS & TOOLS

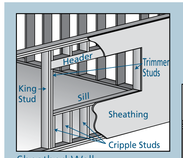
MATERIALS
- 3 1/2" corrosion-resistant, pan head screws; screws must penetrate at least 1" into framing
- Solid wood (sloped sill); dimensions should be 1/4" shorter than the length of the sill and 3/8" taller than the depth of the track by a minimum of 3 1/4" wide.
- Sealant (polyurethane if painted, Thermoplastic sealant if left exposed) and backer rod
- Low expansion foam or/and fiberglass insulation

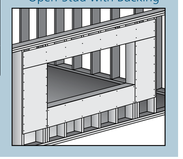
Please see your local retailer for appropriate foam expansion properties.
- 1 3/4" galvanized roofing nails; nails must penetrate at least 1" into framing
- Shims
- JELD-WEN 6" wide self-adhesive flashing (part #08987) or equivalent, or flexible flashing (Width requirement may vary according to local code)
- 3/8" stainless steel square wire staples

Note!
Follow all material manufacturers' instructions for proper use and compatibility.

TOOLS
- Tape measure
- Level
- Screwdriver
- Hacksaw
- Cloth
- Hammer
- J-roller
- Caulking gun
- Putty knife
- Drill with 1/8" tapered drill bit and 3/8" countersink
- Construction stapler

ROUGH OPENINGS
for Vinyl Windows with Nailing Fin





FULLY SHEATHED WALL CONSTRUCTION
The wall framing is covered by sheathing and the window will be mounted with the nailing fin flush against the sheathing.

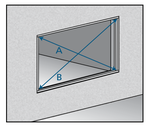
OPEN-STUD INSTALLATION
The wall framing needs to be covered by backing support before the window can be installed. The window will be mounted with the nailing fin flush against the applied backing support. This backing support should be a non water-degradable, thin (max. 1/8" thick) sheet material such as vinyl sheeting. Completely surround the rough opening with the backing support as shown. Backing support must be applied before building wrap. Note! For curved windows, ensure framing is sufficient around window perimeter to allow nailing fin to be nailed every 8" to the framing.

1 REMOVE PACKAGING & INSPECT YOUR WINDOW

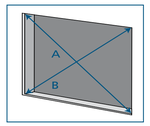
REMOVE PACKAGING
Remove shipping materials such as corner covers, shipping blocks or pads. If there is a protective film on the glass, do not remove it until installation and construction are complete.

INSPECT YOUR WINDOW
- Cosmetic damage
- Product squareness (diagonal measurements no more than 1/4" difference)
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.)
- Cracked frame
- Splits, cracks or missing sections in nailing fin longer than 6"
- Cracks, holes or other damage to nailing fin within 1/2" of window frame

2 INSPECT EXISTING FRAME OR ROUGH OPENING



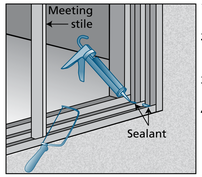
For Vinyl Flush Fin Windows
- Verify width/height of new window are each 3/4" smaller than minimum opening width/ height of the existing frame.
- Verify the existing opening is square. The "A" and "B" measurements above should be the same. Maximum allowable deviation from square is 1/8" for windows 20 sq. ft. and smaller, and 1/4" for windows larger than 20 sq. ft.
- Verify the existing frame is level and plumb. The maximum allowable deviation is 1/16" for every 2' (not to exceed 1/8").
- The exterior face of the rough opening must be in a single plane with less than 1/8" twist from corner to corner.
- Signs of water leakage near the existing frame must be investigated and corrected prior to installing the new flush fin window.



For Vinyl Windows with Nailing Fin
- Verify the width and height of the window are each 1/2" smaller than the rough opening width/ height.
- Verify the rough opening is square. The "A" and "B" measurements above should be the same. Maximum allowable deviation from square is 1/8" for windows 20 sq. ft. and smaller, and 1/4" for windows larger than 20 sq. ft.
- Verify the rough opening is level and plumb. The maximum allowable deviation is 1/16" for every 2' of rough opening (not to exceed 1/8").
- The rough opening sill must not be crowned or sagged.
- The exterior face of the rough opening must be in a single plane with less than 1/8" twist from corner to corner.
- The header must be supported by trimmer studs.
- Signs of water leakage near the existing frame must be investigated and corrected prior to installing the new window.

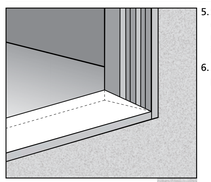
3 PREPARE EXISTING WINDOW FRAME
for Vinyl Flush Fin Windows

PREPARE THE FRAME



1. Remove the sashes and/or glass in the existing window.
2. Remove the meeting stile (if a slider) with a screwdriver or hacksaw.
3. Seal all four corners of the window frame.
4. Remove all existing window frame cladding.

APPLY THE SLOPED SILL

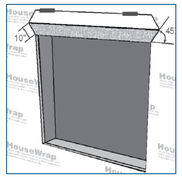


5. Sloped sill must be continuous with a minimum of 3/8" in height inside to 0" outside.
6. Test fit new window into place and then remove.

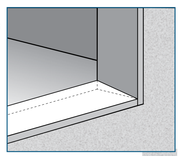
3 PREPARE ROUGH OPENING
for Vinyl Windows with Nailing Fin

FOR RETROFIT INSTALLATIONS
- After removing sufficient siding to expose at least 9" of intact building wrap, remove old window.
- If damaged, apply new building wrap in shiplap manner.
- Verify trimmer studs/header are structurally sound.
- Continue with the instructions.

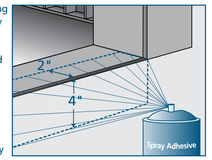
PREPARE BUILDING WRAP
1. Trim building wrap flush at rough opening head, sides and sill. Check with your building wrap manufacturer to verify that this does not void their product warranty.
2. At the head, cut building wrap 10" at 45 degrees. Tape up as shown.



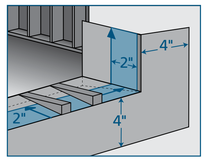
PREPARE SILL
3. Sloped sill must be continuous with a minimum of 3/8" in height inside to 0" outside.



4. If using self-adhesive flashing in extreme conditions, apply spray adhesive/primer per manufacturer's instructions to nailing fin, sheathing and building wrap at the sides and head of the window as shown.

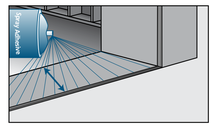


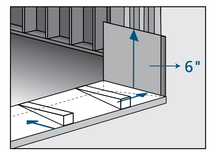
5. Cut a piece of self-sealing adhesive flashing to the sill length and jambs and apply it as shown.
6. Apply sill shims in the following manner: Apply one shim at 1" from each window corner. Apply one shim under any mullion or meeting rail or at centre for any window exceeding 24" in width.



7. Fold the drain mat down onto the sheathing.

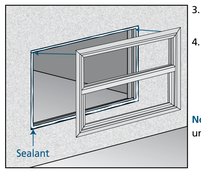
4 INSTALL WINDOW
for Vinyl Flush Fin Windows





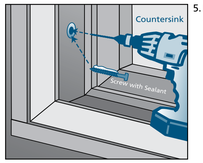
PREPARE SILL
1. Cut a piece of self-sealing adhesive flashing to the sill length and jambs and apply it as shown.
2. Apply sill shims in the following manner: Apply one shim at 1" from each window corner. Apply one shim under any mullion or meeting rail or at centre for any window exceeding 24" in width.

INSTALL WINDOW



3. Make sure prepared slope sill is level.
4. From the exterior, place the new flush window into the existing frame making sure the window sill rests completely on the shims.

Note! Hold window in place until fully fastened.

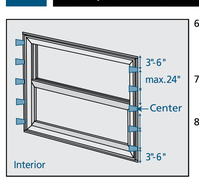


5. Fasten window temporarily through the predrilled holes in jamb 3"-6" from one upper corner as follows: (if there is no predrilled holes do step a.)

a. Use a 1/8" tapered drill bit with 3/8" countersink to drill a screw hole through the side jamb and into the buck (on the interior, or exterior if insufficient space). Countersink should not penetrate the back wall of the frame.

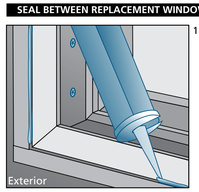
b. Apply sealant to the threads of a 3 1/2" screw and drive into the side jamb.

4 INSTALL WINDOW (CONTINUED)
for Vinyl Flush Fin Windows



6. Shim the side jambs aligned with the predrilled holes or 3"-6" from the corners and at 24" maximum intervals.
7. Inspect window for square, level, plumb. Adjust as needed with shims.
8. Fasten window through side jambs and shims.
9. If the window is higher than 3', fasten the side jambs at 24" maximum intervals. If the window is wider than 3', fasten the head jamb at 24" maximum intervals with a free flowing screw. Do not shim the head.
10. Install vinyl plugs supplied or available through suppliers if desired.

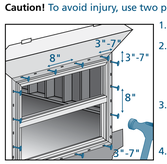
SEAL BETWEEN REPLACEMENT WINDOW AND EXISTING FRAME



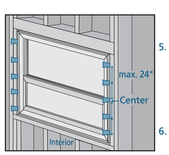
11. Apply back rod and a continuous bead of thermoplastic sealant between the new window frame and the existing frame around the window. Leave 2" x 1/2" gaps in your back rod and sealant at sill to allow for proper water drainage.

4 INSTALL WINDOW
for Vinyl Windows with Nailing Fin

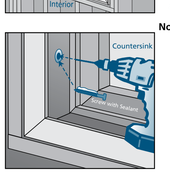
Caution! To avoid injury, use two people to install.



1. Place window into the rough opening.
2. Temporarely fasten window with a galvanized roofing nail through a nailing fin hole between 3"-7" from one top corner.
3. Shim the side jambs aligned with the predrilled holes or 3"-6" from the corners and at 24"maximum intervals.
4. Inspect window for square, level, plumb. Adjust as needed with shims. Fasten window through side jambs predrilled holes and shims.



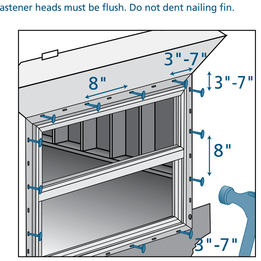
5. If the window is taller than 3', fasten the side jambs at 24"maximum intervals. If the window is wider than 3', fasten the head jamb at 24" maximum intervals with a free flowing screw. Do not shim the head.
6. Install vinyl plugs supplied or available through suppliers if desired.

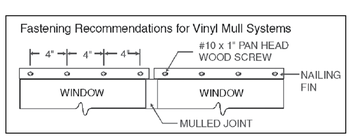


Note! a. Use a 1/8" tapered drill bit with 3/8" countersink to drill a screw hole through the side jamb and into the buck (on the interior, or exterior if insufficient space). Countersink should not penetrate the back wall of the frame.

b. Apply sealant to the threads of a 3 1/2" screw and drive into the side jamb.

Note! Fastener heads must be flush. Do not dent nailing fin.

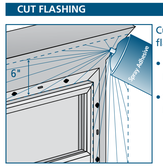




- For any product B4 or above, fastener spacing is 4".
- For mulled units, fastener spacing is 4" around the mulled joint as shown.

5 FLASH WINDOW
for Vinyl Windows with Nailing Fin only

CUT FLASHING

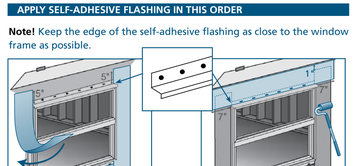


Cut three pieces of 6" self-adhesive flashing as follows:
- Two side pieces 12" longer than the side
- One header piece 14" longer than the header

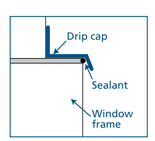
PRIMER
If using self-adhesive flashing in extreme conditions, apply spray adhesive/primer per manufacturer's instructions to nailing fin, sheathing and building wrap at the sides and head of the window as shown.
- Protect window from overspray. Concrete, on damp surfaces and/or where frost is present.
- The flashing manufacturer's recommended primer is Protecto Wrap Safseal Systems 5500.

Note! Extreme conditions exist where the outside temperature is at or below 32˚ F (0˚ C), on excessively dirty surfaces, on Dens-Glass Gold, on concrete, on damp surfaces and/or where frost is present.
- The flashing manufacturer's recommended primer is Protecto Wrap Safseal Systems 5500 primer.

APPLY SELF-ADHESIVE FLASHING IN THIS ORDER
Note! Keep the edge of the self-adhesive flashing as close to the window frame as possible.

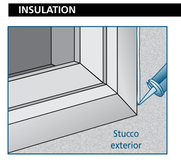


1. Apply the side pieces starting 5" above the header
2. Install drip cap (should extend 1/2" on each side)
3. Center and apply the header piece above the drip cap
4. Press the flashing down with a j-roller
5. Apply a bead of sealant all along between the drip cap and the window head



6 COMPLETE INSTALLATION
for Vinyl Flush Fin Windows

INSULATION



1. Insulate with fiberglass batting or low expansion foam. Fill gap with low expansion foam around window perimeter at the sash position. Fill remaining cavity with fiberglass batting. Use as per manufacturers instructions.

AFTER INSTALLATION
2. Apply interior trim as desired.
3. Adjust window for best operation (if applicable).
4. Protect recently installed units from damage from plaster, paint, etc. by covering the units with plastic.
5. For casement window, remove the shipping block (cork) underneath the sash.

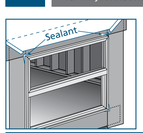
Please visit our website at www.jeld-wen.ca/eng/resources to download a copy of the complete guide to care and maintenance for your window.

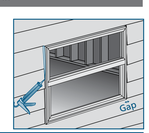
Thank you for choosing

JELD-WEN WINDOWS & DOORS

RELIABILITY *for* real life® JW

6 COMPLETE INSTALLATION
for Vinyl Windows with Nailing Fin





IF USING FLASHING
1. Seal the top corners of the window with a 1/4" bead of sealant. Tool into a fillet shape.
2. Release the building wrap from above the header (previously taped up) and overlap the header flashing. Seal the ends with self-sealing flashing or building wrap tape.
3. Ensure weep holes/ channels are clear of debris for proper water drainage; do not seal weep holes/channels if present.

IS USING FLEXIBLE FLASHING
- Mechanically fasten flashing.
- Apply sealant down sides where the window meets the flashing. "Tool" or smooth out the sealant.

AFTER INSTALLATION
1. Install exterior wall surface within seven days of window installation.
2. Maintain gap of 1/4"-3/8" between window frame and final exterior wall surface (siding, stucco, etc.).
3. Seal the gap with backer rod and sealant. Do not apply sealant on top of window frame or drip cap if present.
4. On the interior, seal the void between the rough opening and the window frame with backer rod and sealant, or with low expansion foam. Do not use high-expansion foam as this may cause frame deflection.
5. Adjust window for best operation.
6. Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
7. For casement window, remove the shipping block (cork) underneath the sash.

Note! For integral J-channel vinyl product installed into a structure with shiplap siding, no expansion/contraction joint is needed.