

Nail On Frame Installation Instructions

Every Service Aluminum Company window product has been designed and tested to meet or exceed industry performance and engineering standards. Proper installation, care and maintenance are the key to maintaining this performance. Failure to correctly install your window product may result in the improper functioning and will void the manufacturer's warranty.

Window Storage and Handling

The following steps should be taken when handling or storing the product to protect against damage:

- Do not drop, drag, or rub the units against other materials or each other during transportation or at the jobsite to avoid racking or damaging the window as it may compromise the factory applied joint seal in the window frame or cause the window to become out of square.
- Handle the window unit by the jambs and not the by head section.
- For temporary storage, all windows should be stacked in a near vertical position with the window oriented in the proper direction.
- Store units in a dry and well-ventilated environment, preferably inside and above the ground (e.g., on pallets or planks, etc...).
- Do not allow the windows to remain in wet packaging, remove any damaged/wet packaging material immediately, dry the units and repack. All finishes will be quickly damaged by wet cardboard.

Rough Opening Preparation

- Ensure that the rough opening does not contain any dissimilar metals, which may lead to galvanic corrosion with the aluminum window frame. If a dissimilar metal is used in the rough opening framing, it must be completely isolated from the window frame by either placing an inert material between them or by painting the surfaces with a bituminous paint. Both surfaces must be completely dry prior to installation.
- The rough opening for the window should be sized 1/2" larger than the window size (outside measurement of the window frame) in width and height. Provide a minimum of 1/4" clearance at the top or head of the window frame and 1/8" clearance on each side or jamb of the window frame. (Note: When using a rigid sill panning product, the rough opening dimensions may have to be adjusted accordingly to account for the height of the panning.)
- The rough opening framing should be level, plumb, square and structurally adequate.
- On shapes such as round tops, eyebrow arch tops, rakes (polygons), bulls-eye (round) and octagons, make sure there is proper bracing in the rough opening framing.
- A minimum 9" wide (or wider as required by local codes) strip of flashing material must be applied in a weatherboard fashion. If it is not self-adhering, apply with galvanized nails or corrosion resistant staples around the full perimeter of the opening.
Note: The flashing paper shall be barrier coated reinforced to provide twenty-four (24) hour minimum protection from water penetration per ASTM D 779.
- Apply a strip of flashing paper horizontally immediately below the sill, cut sufficiently long enough to extend past each side of the window, so that it projects at least three inches (3") past the vertical flashing to be applied later.
- Fasten the top edge of the sill flashing, but do not fasten the lower edge, so the weather resistant barrier, applied later, may be slipped up and underneath the window flashing paper in a weatherboard fashion.
- Place temporary shims at each corner of the rough opening where the jamb meets the sill. (Note: The shims should be a non-porous, non-absorbent and inorganic material.)

Window Preparation

- Place the window product at the appropriate rough opening and remove the protective corners from the window frames.
- Inspect each window unit for correct size, type and any hidden damage. If a problem exists, immediately report it to your distributor or the manufacturer.
- Make sure that the operable sash is closed and locked during the entire installation process.
- Inspect the exterior of the unit before installation to ensure that none of the factory applied sealant has been compromised during transportation or storage. It is the installer's responsibility to ensure the integrity of all framing joints after installation and must water test all joints to guarantee a completely sealed product. Apply joint sealer and / or sealant necessary to ensure watertight joints.
- Apply a 1/2" continuous bead of sealant to the backside (interior) of the nail fin at the head and jambs only in line with the pre punched holes, if any. Do not apply sealant on the backside of the nail fin at the sill.
(Note: The sealant material should conform to AAMA 800-92 and should be compatible with the flashing material per each manufacturer's recommendations. Refer to ASTM E 2112 for guidance on sealant selection.)
- Also apply a heavy bead of sealant along the seams of all window frames and nail fin joints at the corners.

Window Installation

- Insert the window into the rough opening from the outside and rest it on the temporary shims.
- Adjust the placement of the window unit by shimming at the head, jambs and sill.
- Cross measure the window unit diagonally in both directions and adjust as necessary to achieve a level, plumb and square condition as well as an even reveal around the frame opening.
- Ensure there are no crowns and dips in the head, jambs or sill.
- Secure the full perimeter of the window with 6d galvanized or corrosion resistant fasteners at 12" max on center and at least 6" (but no closer than 3") from corners to prevent frame distortion or fracture of joint seals. Take care not to damage the nail fin by over tightening the fasteners
- Hinged windows require additional fasteners located within 1" side of, and in the same plane as the hinge.
- Recheck the window unit for level, plumb and square.
- Inspect the entire unit after installation, especially interior joints, to ensure that none of the factory applied sealant has been compromised during transportation or storage. It is the installer's responsibility to ensure the integrity of all framing joints after installation and must water test all joints to guarantee a completely sealed product. Apply joint sealer and / or sealant necessary to ensure watertight joints. Retest as necessary.
- Install hardware, if not already completed, and adjust all hardware for proper operation to ensure that it operates smoothly without any binding and the locks are able to engage completely.
- Once window is installed into the opening, is watertight, and prior to the application of flashing paper, apply a continuous seal to exposed fin at the head and jambs. The jambs should be sealed vertically approximately 8 inches above the top of the window. The sealant applied horizontally at the head should not extend beyond the jamb sealant.
- All fasteners, pre-punched holes, and corner seams where the fins meet should be sealed at this time as well.
(Note: The application of sealant to the exterior surface may not be necessary if using a self-adhering type flashing over the nail fin. Consult the flashing paper manufacturer as needed.)
- At each jamb, embed the flashing paper into the sealant on the fin and fasten in place. Do not fasten the bottom 9" of the jamb flashing so the weather resistant barrier applied later may be slipped up and underneath the flashing in a weather board fashion. Prior to installing the flashing, ensure that it is long enough to extend at least 3" past the sill flashing paper and at least 6" above the head of the window.
- At the head, embed the flashing paper into the sealant on the fin and fasten in place. Prior installing the flashing, ensure that it is long enough to extend at least 3" past the jamb sill flashing paper.
- On the interior of the window unit, apply a backer rod and a continuous bead of appropriate sealant to the entire joint between the window frame and the building structure.
- The Owner/General Contractor is responsible to ensure that the weather resistant barrier (i.e. building paper, insulating board, or other materials by other trades) is effectively integrated around the window frame in a weather board fashion.
- Refer to the separate "CARE & MAINTENANCE INSTRUCTIONS" regarding the proper cleaning and care required for the window frame, glass and components. (Note: The "CARE & MAINTENANCE INSTRUCTIONS" document provides important information regarding protecting the window product immediately after installation and during the building construction process.)
- Refer to "AAMA Installation Masters" or applicable ASTM standards for additional detail or clarifications. Installation of Service Aluminum products must be in accordance with the standards set forth in ASTM E 2112. AAMA, ASTM and/or EIMA guidelines supersede these instructions.

Field Glazing

- If the units are not factory glazed, remove the provided glass stop from the frames. Each piece is custom cut for the location and must be returned to the same position on the frame to ensure proper fit.
- Inspect the entire unit before installation to ensure that none of the factory applied sealant has been compromised during transportation or storage.
- Apply provided tape around interior perimeter of frame.
- Insert 2 setting blocks in the sill of the frame at the ¼ points, one on each jamb approximately 2" above sill and one at center of head.
- Apply glass ensuring that it is square and centered.
- Caulk the edge of the glass to the frame in a continuous seal with Dow Corning 795 or equivalent to meet ASTM Specification C 920 Type S, Grade NS, Class 25.
- Re-insert glass stop in proper locations.
- Roll in provided vinyl.
- Recommend a cap bead on the opposite side of the vinyl (for outside glazed units, on the interior, and for inside glazed units, on the exterior) of all units.
- Refer to *GANAL Glazing Manual* for additional detail or clarifications. *The manual supersedes these instructions.*

Service Aluminum recommends using a professional glazier with a C-17 license in California (or equivalent state exam) for all installations and field glazing.

Service Aluminum assumes no liability for damages done by installers/general contractors or the final cleaning of aluminum done after window has left the factory.

The key to any window installation is preparation. Careful planning and attention to detail can help ensure the installation of a properly functioning window.