



INSTALLATION INSTRUCTIONS

ALUMINUM LOUVERS

STATIONARY & OPERABLE

MODEL SERIES: 1600

I. General

1. The following guidelines provide basic assembly and installation instructions for standard Nailor extruded aluminum stationary blade and operable louvers. Nailor standard louvers are designed to resist a 25 psf wind load.
2. Consult with the Engineer of record for the size, type, and quantity of anchors required to secure the louver to the surrounding condition.
3. Refer to job-specific submittal drawings for additional details when provided.
4. Carefully lift louver sections by their frames or support members using multiple lifting points if necessary to avoid distortion, racking or damage.
WARNING: Do not apply excessive force to a single point and never lift units by louver blades, linkage, or actuator. Take necessary precautions to prevent damaging the louver finish.
5. Caulk and anchors are by others. Proper isolation (by others) is recommended between aluminum louver components and steel building conditions to prevent corrosion.

II. Receiving

Upon delivery, inspect shipping containers and contents closely. If containers are damaged, contents may also be damaged. Note any damage on freight carrier's delivery receipt. Contact the freight company within 24 hours to initiate a claim and schedule an inspection. All products ship F.O.B Nailor plant and the receiver of the shipment is responsible for filing freight claims with the freight company.

III. Storage

Store louvers in a cool, dry, and safe location in an orderly manner away from construction sites, warehouse traffic, other materials, etc. to prevent damage. Do not expose louvers to excessive heat. Cover with plastic sheeting to protect from excessive moisture, dirt, and debris.

IV. Preparation

1. Louvers and Hardware
 - a. Locate all crates, boxes, cartons, etc.
 - b. Remove louvers from packaging, inspect for damage, confirm quantities and sizes with packing list, and organize parts in order of installation. If installation hardware or Extended Sills were ordered they will typically be shipped loose.
 - c. Notify your Nailor sales representative immediately of any shortages should they occur.
2. Openings
 - a. Inspect openings for damage, repair as needed, and remove obstructions and debris as required.
 - b. Verify that openings are square, plumb, and that the louvers will fit properly prior to installation.

V. Single Section Louver Installation

1. Locate Extended Sills, if applicable. (Optional by Nailor). Ensure the sill of the opening and the underside of the Extended Sill is free from debris.
2. Apply caulk to the opening and firmly set the Extended Sill in place. (Caulk by others).
3. Locate and anchor clip angles 1.5" x 1.5" x .125" thick x 2" long (38 x 38 x 3 x 51) as required to establish proper louver depth and position. See Fig. 2.1 for required spacing for stationary and operable louvers. (Clip angles are by others or optional by Nailor).
4. Place the louver section into the opening. See Fig. 2.2, 2.3 (stationary only), 2.4 and 2.5.
5. Shim around the perimeter of the louver to maintain the proper sealant joint clearance and to level the louver. (Shims are by others).
6. When the louver is level and in the proper position, fasten louver frame to clip angles with (2) minimum #10 s.m. screws. (Fasteners are by others).
7. Install backer rod and caulk around the entire perimeter of the louver, as required. (Backer rod and caulk are by others). **WARNING:** Do not caulk between louver and sill flashing to allow for drainage.

VI. Multiple Section Louver Installation

Architectural Concealed Mullion

1. Locate Extended Sills, if applicable. (Optional by Nailor). Ensure the sill of the opening and the underside of the Extended Sill is free from dirt and debris.
2. Apply caulk to the opening and firmly set the Extended Sill in place. (Caulk by others).
3. Locate anchor clip angles as required to establish proper louver depth and position. See Fig. 3.1 for required spacing for stationary non-drainable louvers. (Clip angles are by others or optional by Nailor).
4. If single section high/multiple sections wide, install the left section first (as viewed from the exterior) following steps 4-6 above in Section V. If multiple sections high, install the upper left section(s) first. Install remaining sections from left to right, across the top, and then install bottom louvers from left to right, across the bottom.
5. Install Universal Splice Angle (U.S.A.) to vertical jamb and Hidden Blade Support Angle Splice (H.B.S.A. Splice) where required. See Fig. 3.2 and 3.3 (stationary louvers only).
6. For concealed architectural mullions on stationary blade louvers, install gasket or sealant (by others) between mating Hidden Blade Support Angles (H.B.S.A.). See Fig. 3.4.

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7. Install backer rod and caulk around the entire perimeter of the louver, as required. (Backer rod and caulk are by others). **WARNING:** Do not caulk between louver and sill flashing to allow for drainage.
 8. **WARNING:** Do not apply excessive force to a single point and never lift units by louver blades, support angles, or splices.

Visible Mullion

1. Follow steps 1-5 above.
2. For visible mullions on stationary blade or operable louvers, install mullion cover on right hand jamb (as viewed from the exterior). See Fig. 4.3.
3. Install backer rod and caulk around the entire perimeter of the louver, as required. (Backer rod and caulk are by others). **WARNING:** Do not caulk between louver and sill flashing to allow for drainage.
4. **WARNING:** Do not apply excessive force to a single point and never lift units by louver blades, linkage, actuator, support angles, or splices.

VII. Actuator Connection

1. All electrical and pneumatic connections should be done in accordance with local code requirements and actuator installation documentation. Before you apply power to the actuator, verify power requirements. After appropriate power has been connected to the actuator, cycle the louver to ensure proper operation.
2. Refer to job-specific submittal drawings for additional details when provided.

VIII. Protecting and repairing the finish

Today's high quality painted and anodized finishes are extremely durable and despite this fact, even the best finishes require maintenance. Even with the most careful treatment of louvers during shipment, installation, and daily use, occasional damage may occur.

1. Care & Cleaning: Powder Coat Finishes
 - a. When selecting a cleaning solution, use mild soap solutions that are safe for use with your bare hands and are not caustic or corrosive. Avoid the use of strong acid or alkali cleaners as they may damage the finish.
 - b. Solvents equivalent to denatured alcohol or mineral spirits may be used to remove sealants, grease, or other materials. Never mix cleaners and/ or solvents as the resultant mixture can cause harmful results.
 - c. Do not use abrasive cleaners or abrasive materials (i.e. steel wool, steel brushes, etc.) which can also harm the finish.
 - d. Once sealant, grease, or other materials are removed, the mild soap solution can be applied with a soft sponge, cloth, or brush.
 - e. Rinse the surface thoroughly with clean water and let air dry.
2. Care & Cleaning: Anodized Finishes
 - a. Follow steps a through d above.
 - b. Scuffmarks and Rub marks may be removed using a mildly abrasive pad (i.e. Scotch-Brite pad). Use the pad to remove the mark, and then follow steps d and e above.

After installation of your louver, field touch up work (by others) may be required to remedy any damages during shipping, handling, or installation.

3. Field Touch Up
 - a. Minor painted surface damage can be sanded prior to touchup painting with excellent results. For superficial scratches and gouges, use a relatively course grit sandpaper to remove the damage, then use progressively finer grit paper to remove the sanding marks, finishing with a 180 to 220 grit paper.
 - b. **WARNING:** Sanding of Anodized surfaces prior to touchup painting is NOT recommended.
 - c. Touchup paint can be ordered by contacting your Nailor representative. It is intended to cover up small blemishes or to touchup exposed ends on fabricated parts. The color will closely match the factory applied painted or anodized finish, however the touchup finish will not be as durable as the original finish.

IX. Adjustable Louver and Combination Louver/Damper Maintenance

All adjustable louvers and combination louver/dampers should be checked and serviced on a regular schedule. Inspection intervals depend on system usage and atmospheric conditions within the system.

1. All louvers and dampers should be checked for freedom of movement. Shafts, bearings, pivot points, etc. should be cleaned and lubricated with a light spray oil. Any and all access should be removed.
2. Blades should be checked in the closed position to insure tight closure. Adjustments should be made at linkage to correct any misalignment.
3. Motors (Optional by Nailor or by others), where applicable, should be visually checked through their complete cycle for defects, binding or misalignment. Operator anchorage and fittings should also be checked.
4. Blades should be checked for freedom of movement. Blades should be disconnected from their operators and manually checked (Blades should move freely with no binding or twisting).
5. Pins, straps and bushings should be checked for wear, corrosion or rust. Replace or paint (by others) as required.
6. Check louver or damper blade edge and jamb seals (where applicable).
7. Check all linkage, connecting bars and operator connections for proper alignment and fit.
8. Check overall installation to insure that louver or damper was installed in a perfectly plumb and square position and proper clearance was allowed for blade linkage and operator movement.

SINGLE SECTION LOUVER INSTALLATION

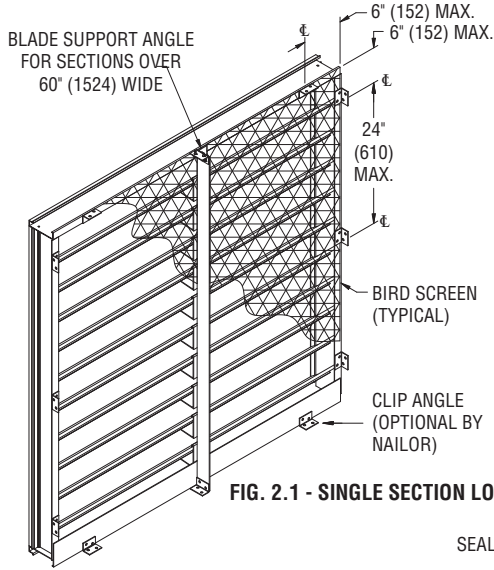


FIG. 2.1 - SINGLE SECTION LOUVER

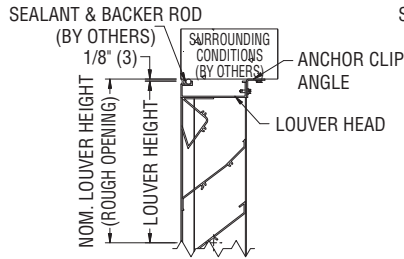


FIG. 2.2 - LOUVER HEAD

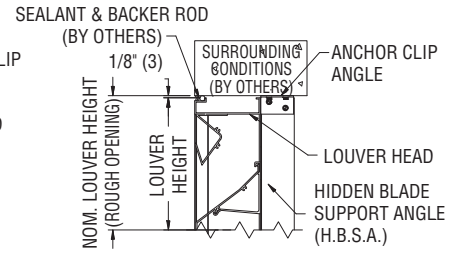


FIG. 2.3 - HIDDEN BLADE SUPPORT ANGLE (H.B.S.A.) (STATIONARY LOUVERS ONLY)

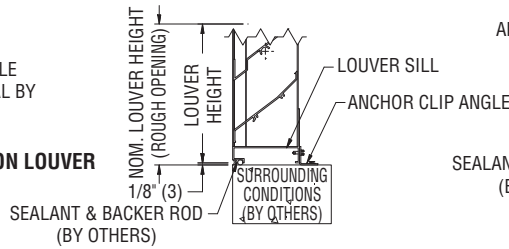


FIG. 2.4 - LOUVER SILL

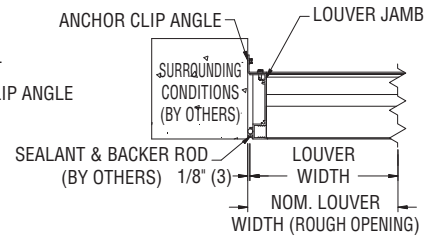


Fig. 2.5 - Louver Jamb

MULTI SECTION LOUVER INSTALLATION

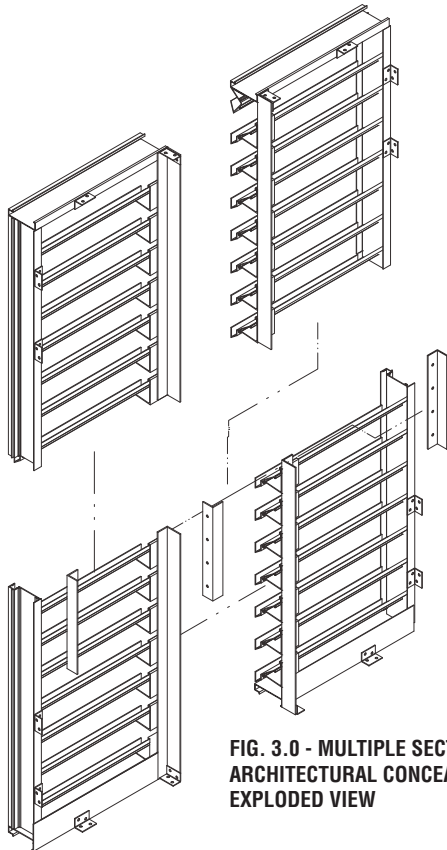


FIG. 3.0 - MULTIPLE SECTION LOUVER, ARCHITECTURAL CONCEALED MULLIONS, EXPLODED VIEW

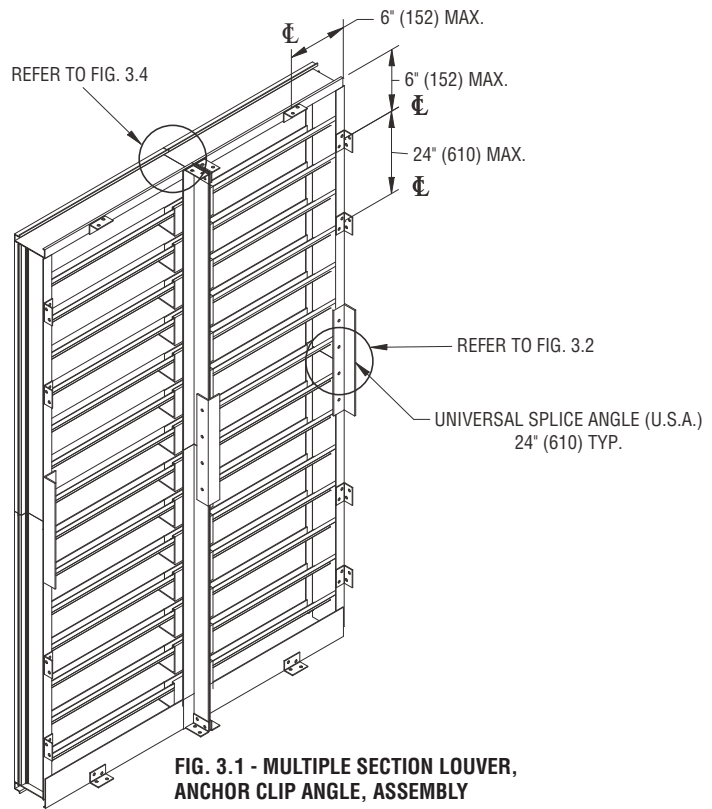


FIG. 3.1 - MULTIPLE SECTION LOUVER, ANCHOR CLIP ANGLE, ASSEMBLY

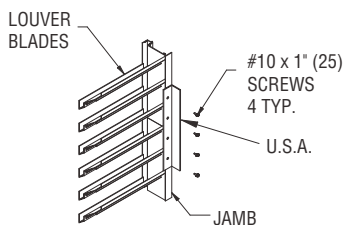


FIG. 3.2 - JAMB SPLICE AT ARCHITECTURAL HORIZONTAL MULLION

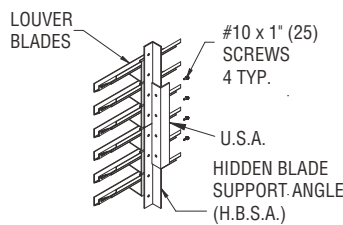


FIG. 3.3 - H.B.S.A. SPLICE

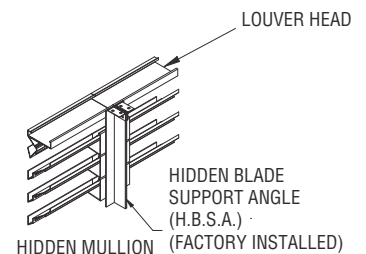


FIG. 3.4 - ARCHITECTURAL VERTICAL MULLION

MULTI SECTION LOUVER INSTALLATION

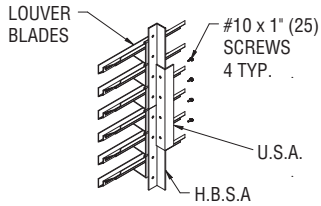
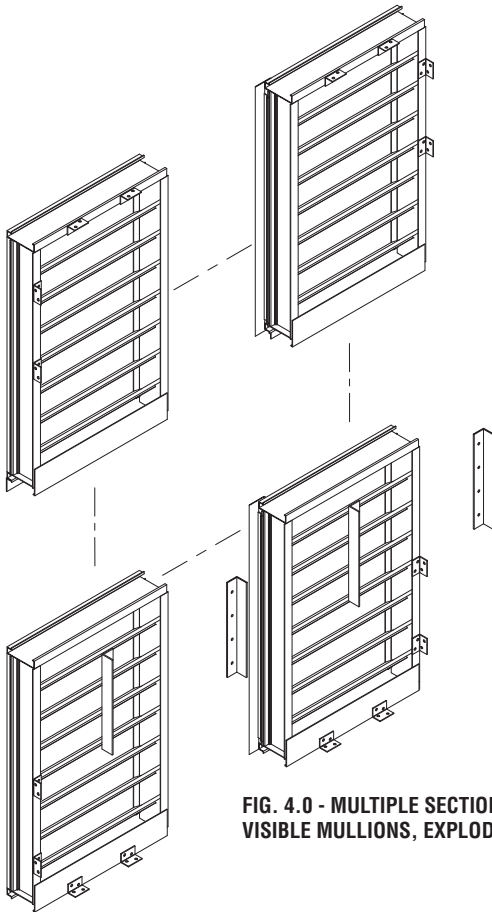


FIG. 4.2 - H.B.S.A. SPLICE

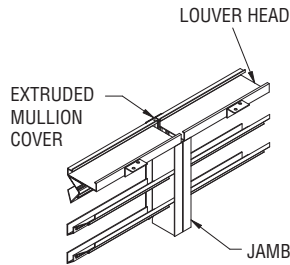


FIG. 4.3 - MULTI-SECTION WIDE VISIBLE MULLION

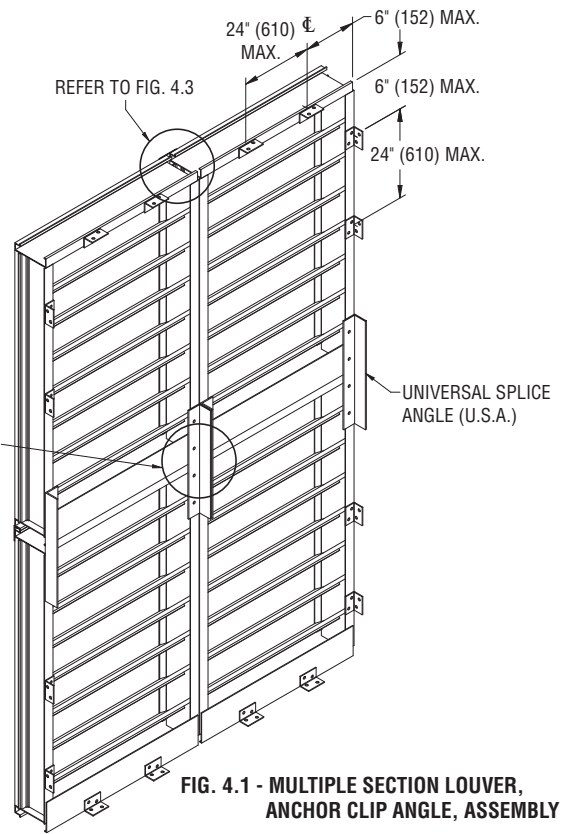


FIG. 4.1 - MULTIPLE SECTION LOUVER, ANCHOR CLIP ANGLE, ASSEMBLY

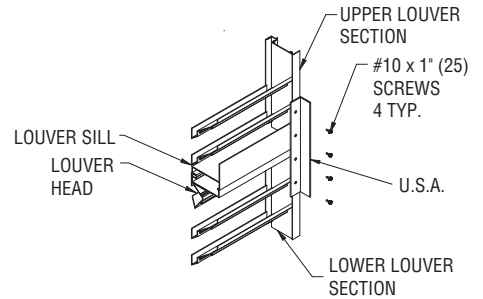


FIG. 4.4 - MULTI-SECTION HIGH

Dimensions are in inches (mm).



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