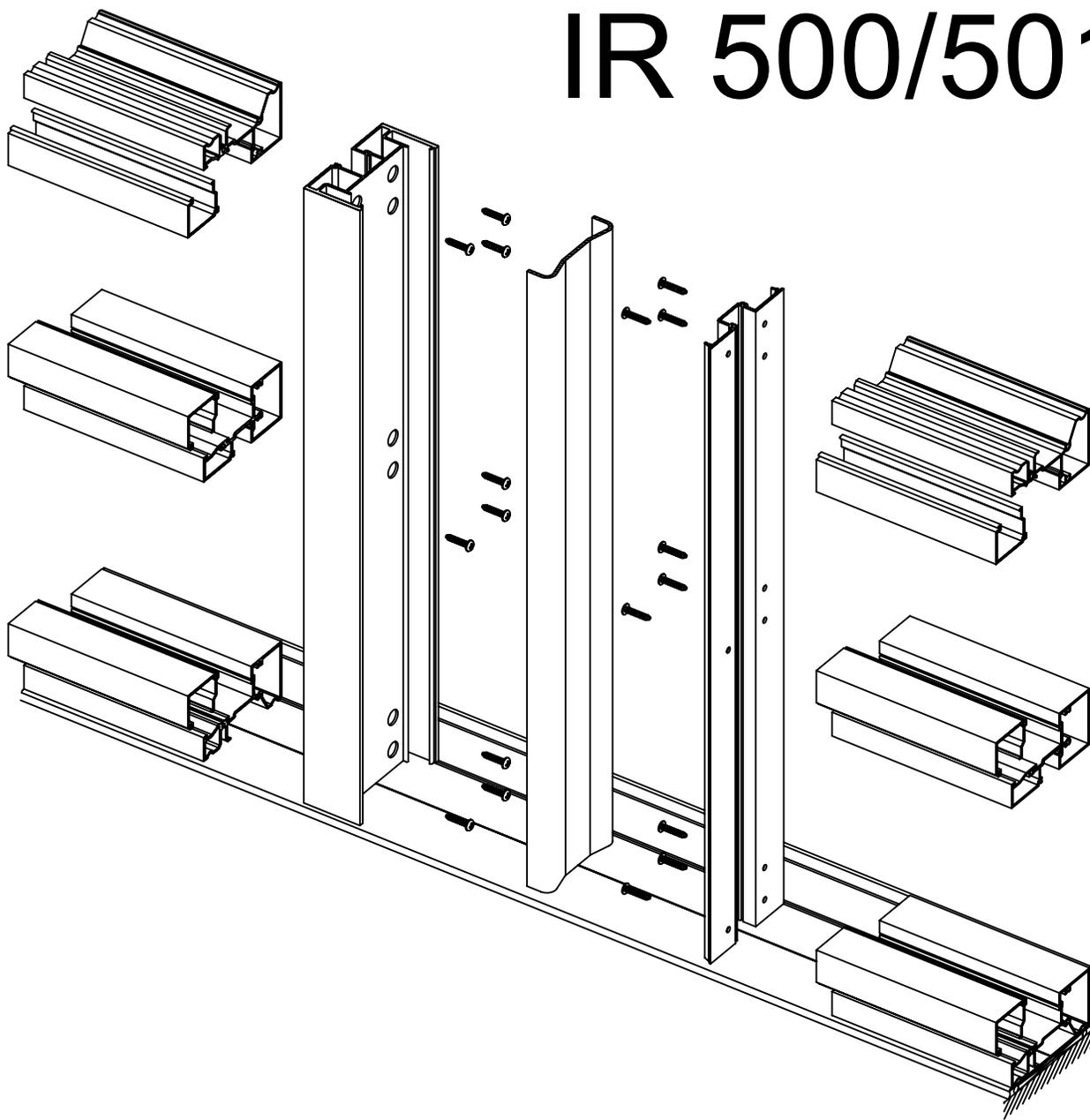


INSTALLATION

IR 500/501



INSTRUCTIONS

Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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IR 500/501 INSTALLATION INSTRUCTIONS

These instructions provide the general fabrication, assembly, installation sequence and erection procedures for typical applications. They are intended to supplement the project shop drawings and/or published details.

| <u>SECTION</u> | <u>PAGE</u> | |
|----------------|-------------|--|
| I | 3 | GENERAL NOTES * HANDLING, STORAGE & PROTECTION OF ALUMINUM * GENERAL INSTALLATION NOTES |
| II | 4 - 9 | PARTS IDENTIFICATION |
| III | 10 - 23 | SCREW SPLINE * FABRICATION * ASSEMBLY * INSTALLATION |
| IV | 24 - 27 | GLAZING |
| V | 28 | STRUCTURAL SILICONE SEAL |
| VI | 29 | EXPANSION MULLION |
| VII | 29 | STEEL REINFORCEMENT |

Consult the KawneerDirect website for the latest updates to these instructions before beginning work on your project.

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HANDLING, STORING, AND PROTECTION OF ALUMINUM

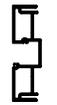
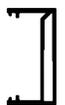
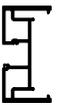
The material must be protected against damage. The following precautions are recommended to assure early acceptance of your products and workmanship.

- A. **HANDLE CAREFULLY**- Do not drop from the truck. Stack with adequate separation so material will not rub together. Store off the ground. Protect against elements and other construction trades. **Work safely - always wear proper personal protective equipment. Wear had protection to prevent injury due to sharp edges of cut extrusions.**
- B. **KEEP MATERIAL AWAY FROM WATER, MUD, AND SPRAY** - Prevent cement, plaster, or other materials from damaging the finish.
- C. **PROTECT THE MATERIALS AFTER ERECTION** - Protect by wrapping with Kraft paper or by erecting Visqueen or canvas splatter screen. Cement, plaster, terrazzo, and other alkaline solutions and acid based materials used to clean masonry are very harmful to the finish and should be removed with water and mild soap IMMEDIATELY.

GENERAL INSTALLATION NOTES

The following practices are recommended for all installations:

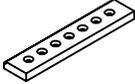
- A. **CHECK SHOP DRAWINGS, INSTALLATION INSTRUCTIONS and GLAZING INSTRUCTIONS** to become thoroughly familiar with the project. The SHOP DRAWINGS take precedence and include specific details for the project. The INSTALLATION INSTRUCTIONS are of a general nature and cover the most common conditions.
- B. All materials are to be **INSTALLED PLUMB, LEVEL, and TRUE.**
- C. All work should start from bench marks and/or column lines as established by the ARCHITECTURAL DRAWINGS and the GENERAL CONTRACTOR. Check mullion spacing from ends of masonry opening to prevent dimensional build-up of day light opening.
- D. Make certain that the construction and openings which will receive your materials are in accordance with the contract documents. If not, notify the GENERAL CONTRACTOR IN WRITING and resolve the differences before proceeding with your work.
- E. Isolate all aluminum to be placed directly in contact with uncured masonry or incompatible materials with a heavy coat of zinc chromate or bituminous paint.
- F. Check all materials on arrival for quantity and be sure you have everything required to begin installation.
- G. Sealants must be compatible with all materials with which they have contact, including other sealant surfaces. Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, priming, tooling, adhesion, etc.
- H. **FASTENING** - "Fastening" means any method of securing one part to another or to adjacent materials. These instructions specify only those fasteners used within the system. Due to varying perimeter conditions and job performance requirements, perimeter anchor fasteners are not specified in these instructions. For perimeter anchor fastening, refer to the Shop Drawings or Engineering Calculations.
- I. **CHECK OPENINGS** - Make certain that the opening which will receive your materials is in accordance with the contract documents. If not, notify the General Contractor in writing and resolve differences before proceeding with your work.
- J. **BUILDING CODE** - Building and glazing codes governing the design and use of products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility for these design considerations. It is the responsibility of the owner, specifier, architect, general contractor and the installer to make these selections in strict conformance with all applicable codes.
- K. **EXPANSION JOINTS** - Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at a normal size. Actual dimensions may vary due to perimeter conditions and/or difference in metal temperature between the time of fabrication and time of installation, For example, a 12 foot unrestrained length of aluminum extrusion can expand or contract 3/32" over a 50 degree F temperature change. Any movement potential should be accounted for at the time of installation.
- L. **FIELD TESTING** - It is recommended that a Water Hose Test be conducted once a sufficient portion of the frame is installed, glazed and caulked to ensure proper installation. the Water Hose Test shall be conducted in accordance with AAMA 501.2. In addition, larger projects should have periodic Water Hose Tests as additional precautionary measures.
- M. **GASKET INVENTORY ROTATION** - These high quality rubber extrusions are coated with silicone lubricant, Silicone will dry over time leaving a white "chalky" residue. Please rotate your stock "FIRST IN - FIRST OUT". If the rubber becomes dry, you may use water ONE TIME to reconstitute the silicone, after that, use a soap water solution.

| ILLUSTRATION | NO. | DESCRIPTION | ILLUSTRATION | NO. | DESCRIPTION |
|---|---------|--|---|---------|--|
|  | 575-001 | JAMB |  | 575-029 | GLAZING ADAPTER SINGLE GLAZING |
|  | 575-002 | POCKET FILLER SHALLOW |  | 575-033 | TRANSOM POCKET FILLER |
|  | 575-003 | HEAD/SILL |  | 575-035 | POCKET FILLER DEEP |
|  | 575-004 | GLASS STOP |  | 575-036 | STRAP ANCHOR FOR 575-001/012 |
|  | 575-008 | EXPANSION MULLION MALE HALF SINGLE GLAZING |  | 575-037 | SILL FLASHING |
|  | 575-009 | EXPANSION MULLION MALE HALF |  | 575-044 | POCKET FILLER SHALLOW SINGLE GLAZING |
|  | 575-010 | EXPANSION MULLION FEMALE HALF |  | 575-046 | POCKET FILLER DEEP SINGLE GLAZING |
|  | 575-011 | TUBULAR HORIZONTAL |  | 575-050 | OPEN BACK DOOR JAMB |
|  | 575-012 | ONE-PIECE HEAD OPTIONAL |  | 575-051 | OPEN BACK DOOR JAMB WITH EXTRUDED FIN |
|  | 575-013 | VERTICAL MULLION |  | 575-062 | C.O.C. TRANSOM BAR (IR 500 / 501) |
|  | 575-020 | TRANSOM BAR |  | 575-057 | OPTIONAL SILL (IR 500) |
|  | 575-021 | HEADER |  | 575-058 | COVER FOR OPTIONAL SILL (IR 500) |
|  | 575-022 | TRANSOM BAR WITH FIN |  | 575-060 | TRANSOM BAR STOP - EXTERIOR (IR 500) |
|  | 575-023 | TRANSOM BAR WITH FIN |  | 575-061 | TRANSOM BAR STOP - INTERIOR (IR 500) |

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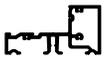
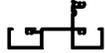
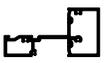
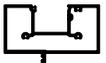
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| ILLUSTRATION | NO. | DESCRIPTION | ILLUSTRATION | NO. | DESCRIPTION |
|--|------------|---|---|---------|--|
|  | 575-056 | GLASS POCKET EXTENSION |  | 575-110 | STEEL REINFORCEMENT VERTICAL MULLIONS |
|  | 575-063 | RADIUS HEAD (IR 500) |  | 575-111 | STEEL REINFORCEMENT DOOR JAMB (IR 500) |
|  | 575-064 | RADIUS HEAD COVER (IR 500) |  | 575-300 | VERTICAL STEEL REINFORCEMENT #1 |
|  | 575-065 | RADIUS HEAD PRESSURE PLATE (IR 500 / 501) |  | 575-301 | VERTICAL STEEL REINFORCEMENT #2 |
|  | 451-VG-030 | 5/8" INFILL ADAPTER |  | 575-310 | VERTICAL STEEL REINFORCEMENT |
|  | 069-177 | CONCEALED SCREW APPLIED DOOR STOOP | | | |
|  | 575-297 | DOOR JAMB ANCHOR BLOCK | | | |
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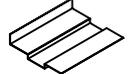
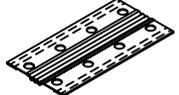
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| ILLUSTRATION | NO. | DESCRIPTION | ILLUSTRATION | NO. | DESCRIPTION |
|---|---------|--------------------------------|---|---------|--|
|  | 575-052 | FASTENER SUPPORT FILLER |  | 575-133 | TRANSOM POCKET FILLER |
|  | 575-101 | JAMB |  | 575-135 | POCKET FILLER DEEP |
|  | 575-102 | POCKET FILLER SHALLOW | | | |
|  | 575-103 | HEAD/SILL |  | 575-157 | SILL FLASHING |
|  | 575-104 | GLASS STOP |  | 575-158 | SILL |
|  | 575-112 | ONE-PIECE HEAD OPTIONAL |  | 575-159 | SILL COVER |
|  | 575-115 | TUBULAR HORIZONTAL |  | 575-160 | TRANSOM BAR STOP - EXTERIOR (IR 501) |
|  | 575-116 | H.W. VERTICAL MULLION (IR 501) |  | 575-161 | TRANSOM BAR STOP - INTERIOR (IR 501) |
|  | 575-117 | EXPANSION MULLION MALE HALF |  | 575-162 | H.W. C.O.C. TRANSOM BAR (IR 500 / 501) |
|  | 575-118 | EXPANSION MULLION FEMALE HALF |  | 575-163 | RADIUS HEAD EXTRUSION (IR 501) |
|  | 575-120 | TRANSOM BAR |  | 575-164 | RADIUS HEAD COVER (IR 501) |
|  | 575-122 | TRANSOM BAR WITH FIN | | | |
|  | 575-123 | ONE PIECE TRANSOM BAR WITH FIN | | | |
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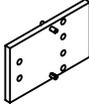
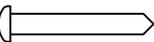
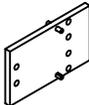
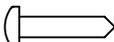
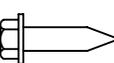
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| ILLUSTRATION | NO. | DESCRIPTION | ILLUSTRATION | NO. | DESCRIPTION |
|---|---------|----------------------------------|---|---------|--------------------------------------|
|  | 127-011 | 1/4" SILICONE SPACER |  | 575-114 | END DAM |
|  | 127-012 | 5/16" SILICONE SPACER |  | 575-203 | RADIUS HEAD ANCHOR CLIP (IR 500/501) |
|  | 027-074 | STANDARD PUSH-ON GASKET |  | 175-313 | WATER DEFLECTOR (IR 500) |
|  | 027-077 | HEAVY PUSH-ON GASKET |  | 127-015 | SETTING BLOCK (IR 500) |
|  | 127-146 | INTERIOR FIXED GASKET (IR 500) |  | 127-137 | TRANSOM BAR SETTING BLOCK (IR 500) |
|  | 127-147 | IR500 INTERIOR GLAZING GASKET |  | 451-105 | WATER DEFLECTOR (IR 501) |
|  | 127-121 | INTERIOR FIXED GASKET (IR 501) |  | 127-070 | SETTING BLOCK (IR 501) |
|  | 127-127 | INTERIOR GLAZING GASKET (IR 501) |  | 127-138 | TRANSOM BAR SETTING BLOCK (IR 501) |
|  | 027-806 | FIXED GASKET |  | 027-916 | PERIMETER SPACER AT CURVED HEADER |
|  | 027-900 | 3/16" GLAZING WEDGE |  | 480-520 | "W" SIDE BLOCK |
|  | 163-303 | THERMAL BREAK | | | |
|  | 127-120 | FOAM TAPE AT SILL | | | |
|  | 575-202 | SPLICE SLEEVE | | | |
|  | 027-094 | XPANDR SPLICE SLEEVE | | | |

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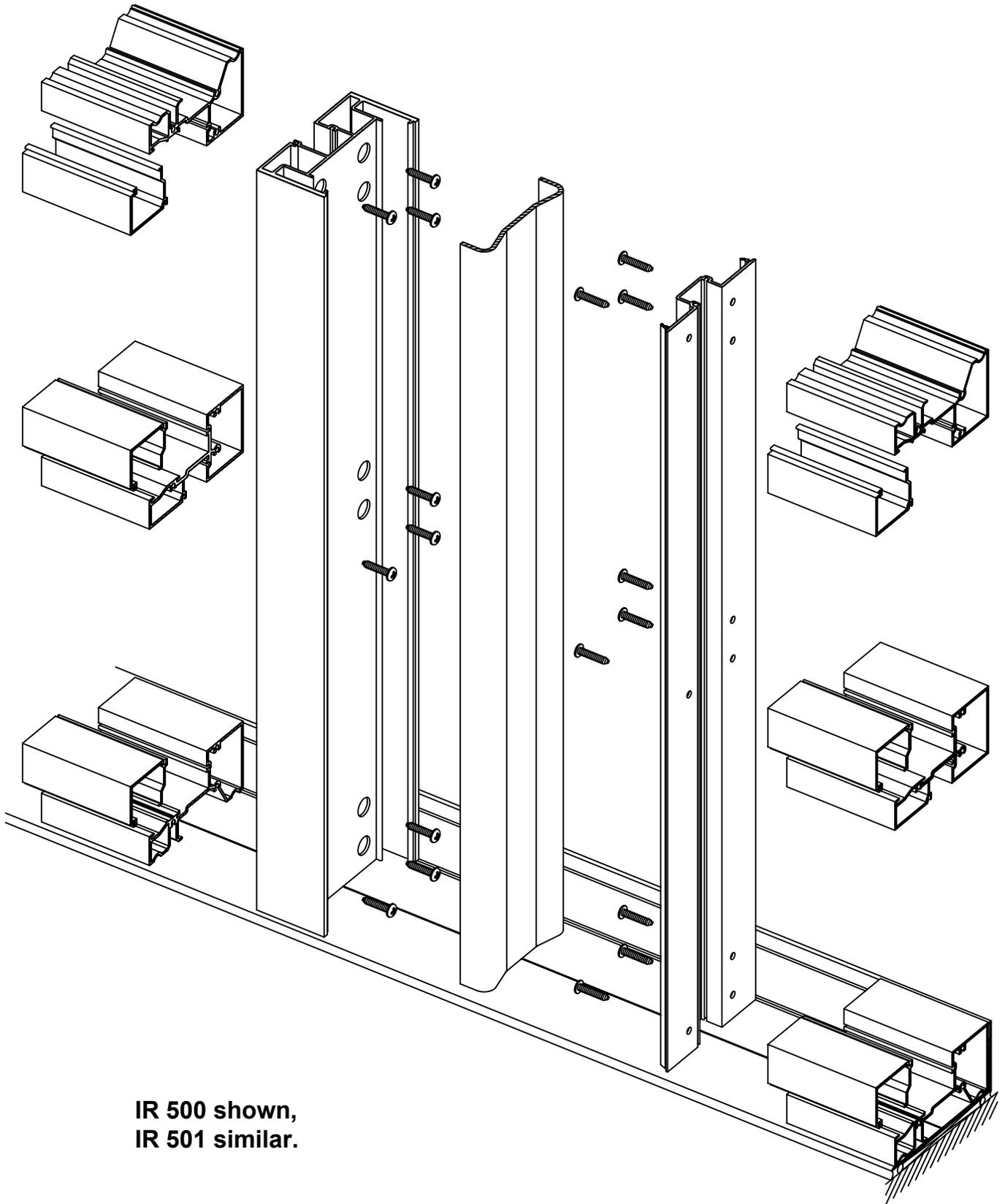
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| ILLUSTRATION | NO. | DESCRIPTION | ILLUSTRATION | NO. | DESCRIPTION |
|--|---------|--|---|---------|-----------------------|
|  | 028-260 | APPLIED DOOR STOP #8 x 3/8" PHTF "AB" |  | 575-200 | DRILL JIG (IR 500) |
|  | 128-112 | RADIUS HEAD SPLINE SCREW #12 x 1-1/2" F Active |  | 575-201 | DRILL JIG (IR 501) |
|  | 128-267 | SPLINE SCREW #12 X 1" S.S. PHTF "AB" | | | |
|  | 128-271 | STEEL ATTACHMENT SCREW #12 x 5/8" PHTF "B" | | | |
|  | 128-396 | SILL TO FLASHING SCREW #12 X 7/16" S.S. PHTF "B" | | | |
|  | 128-406 | PRESSURE PLATE SCREW 1/4" x 1" HHTF "AB" | | | |
|  | 128-910 | T-BAR GLASS STOP SCREW #10 x 1/2" FHTF "B" (UC) | | | |
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**IR 500 shown,
IR 501 similar.**

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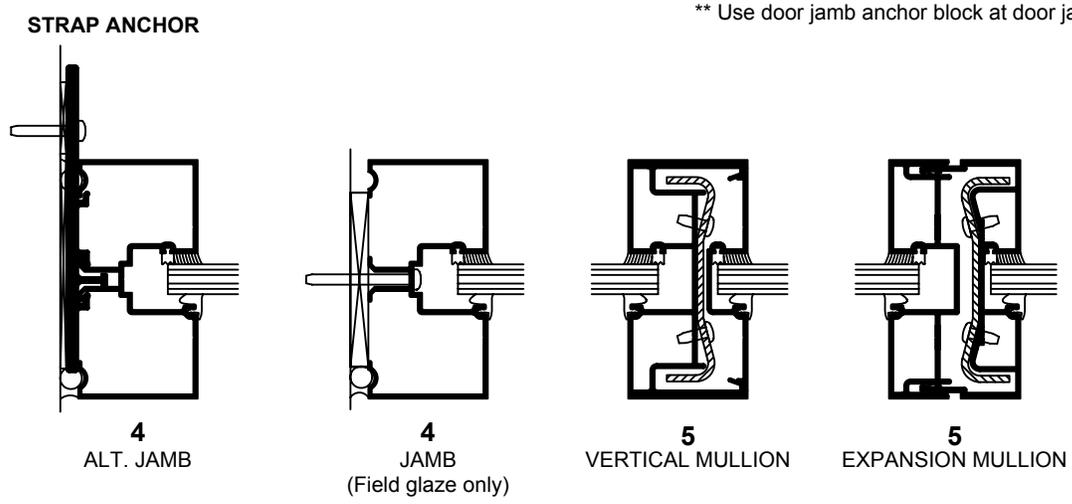
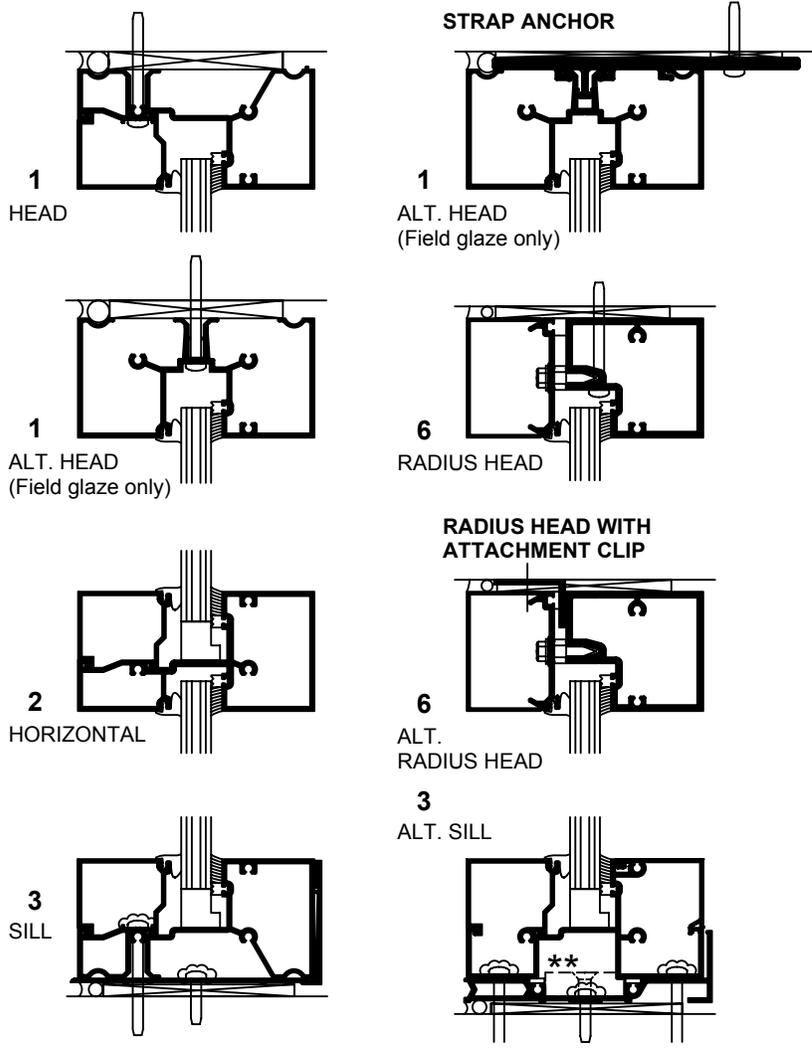
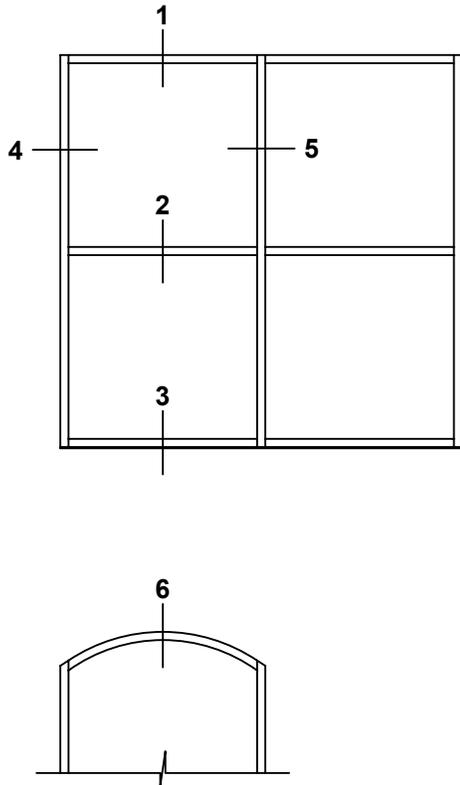
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SCALE: 3" = 1'-0"

The Screw Spline method of fabrication and erection permits pre-assembly of single units in the shop or at the job site. These units are then erected by mating the male mullion half of one unit with the female mullion half of a unit already installed.

Note: 5/8" infill shown, 1/4 and 9/16" infill similar.



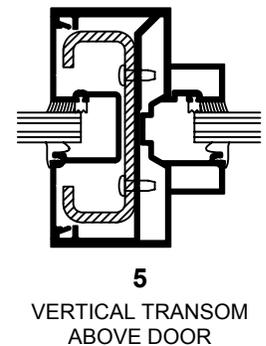
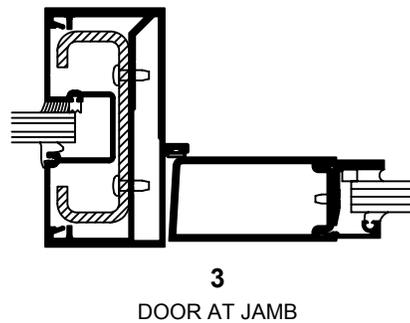
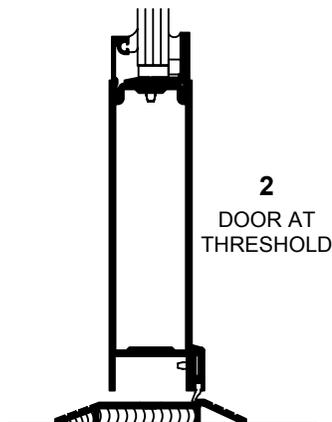
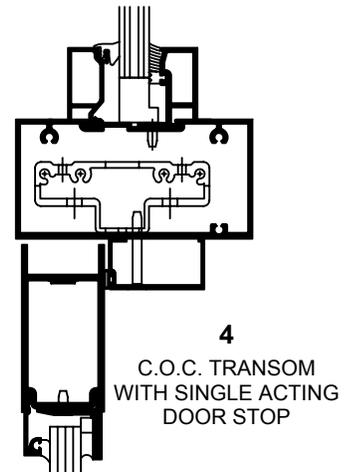
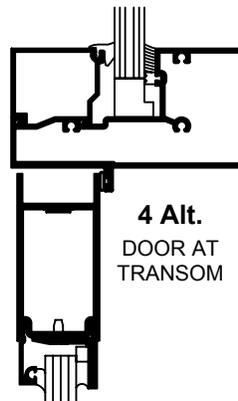
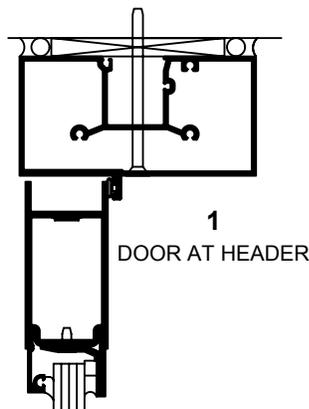
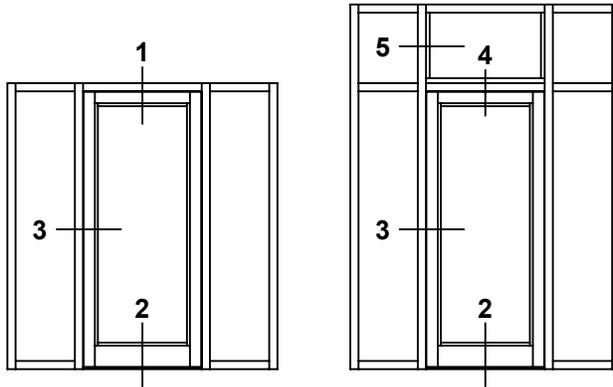
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Note: 5/8" infill shown, 1/4" and 9/16" infill similar.



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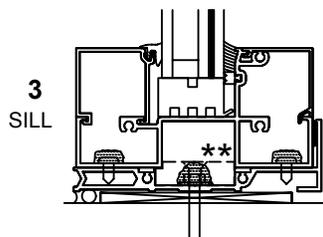
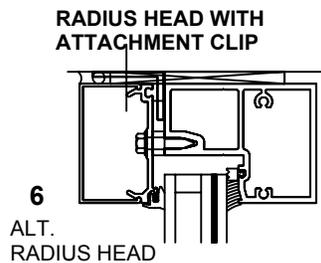
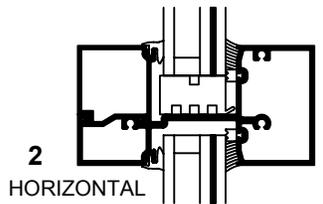
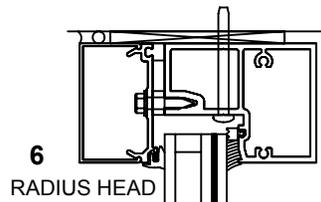
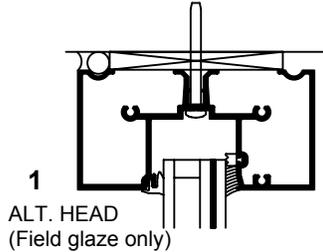
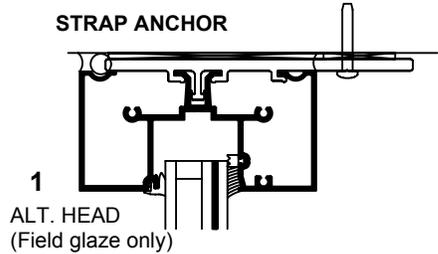
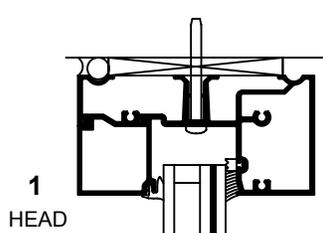
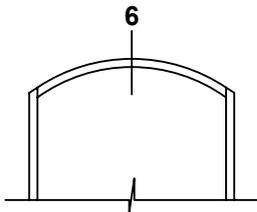
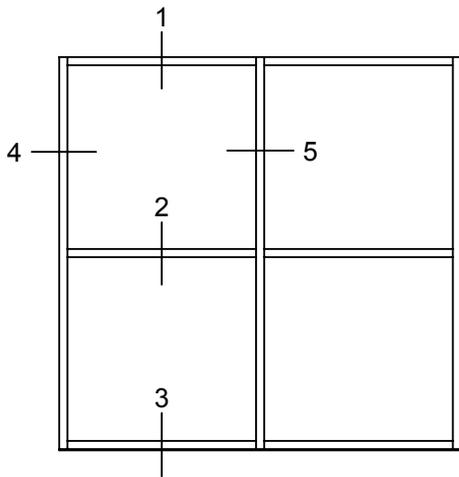
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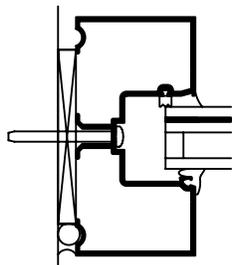
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Note: 1-5/16" infill shown.

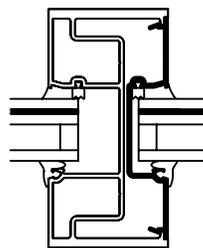


HIGH PERFORMANCE SILL

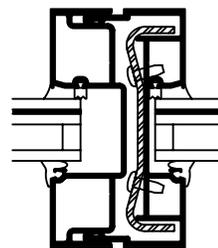
** Use door jamb anchor block at door jambs with sidelites.



4 ALT. JAMB



5 VERTICAL MULLION



5 EXPANSION MULLION

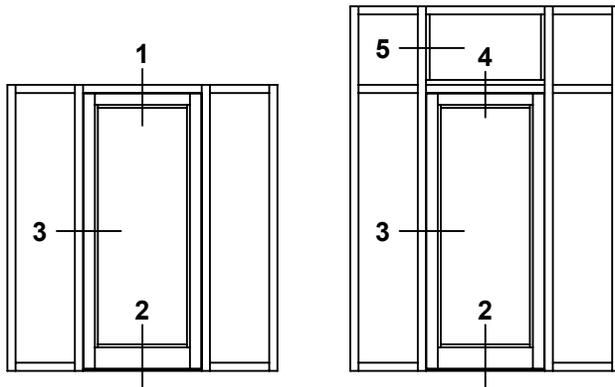
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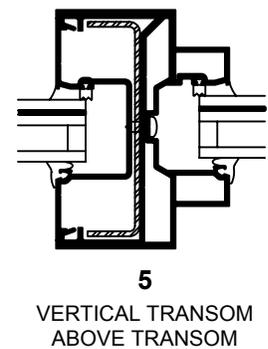
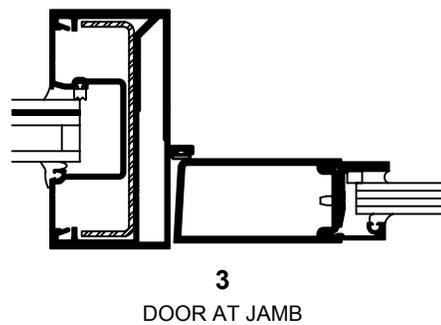
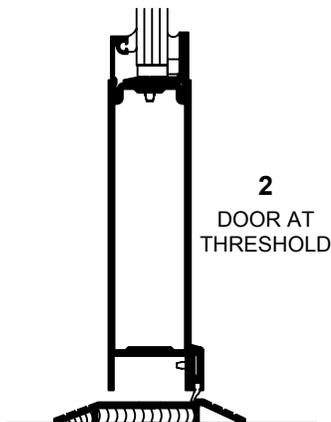
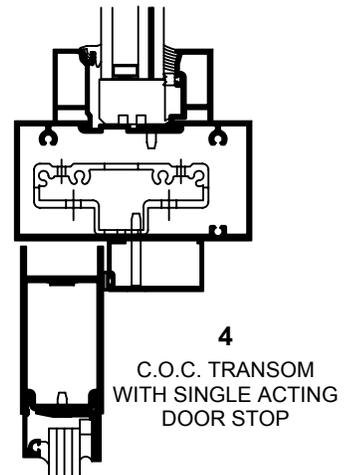
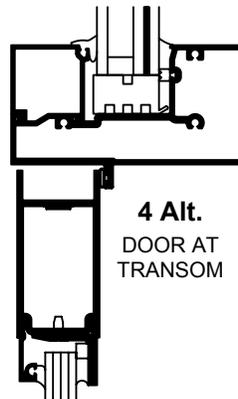
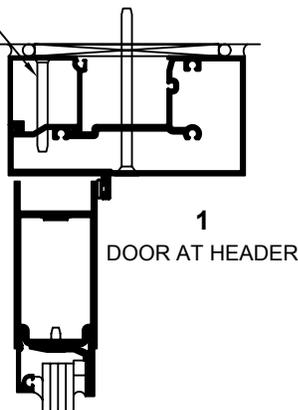
SCALE: 3" = 1'-0"

The Screw Spline method of fabrication and erection permits pre-assembly of single units in the shop or at the job site. These units are then erected by mating the male mullion half of one unit with the female mullion half of a unit already installed.

Note: 1-5/16" infill shown.



#12 x 2" F.H. screw at 3" from each end and 11" on center typical.



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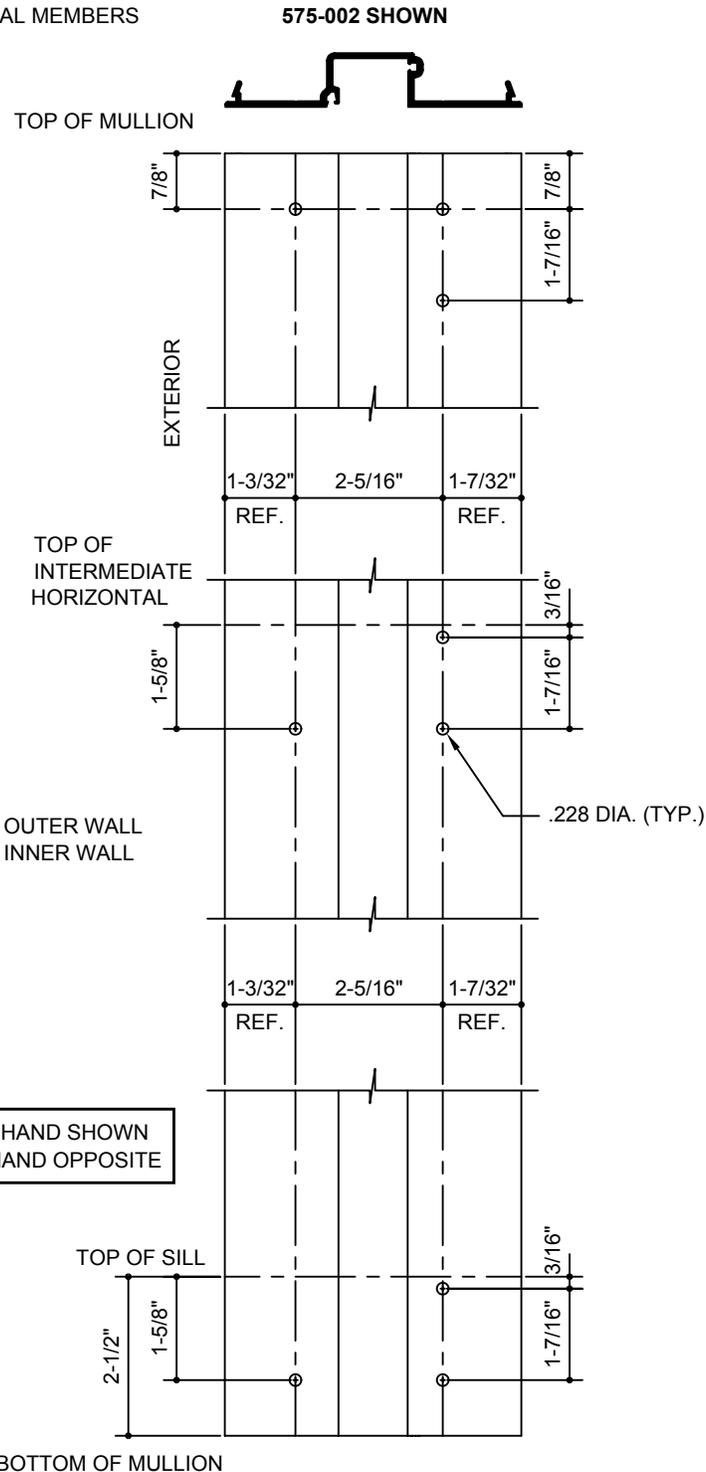
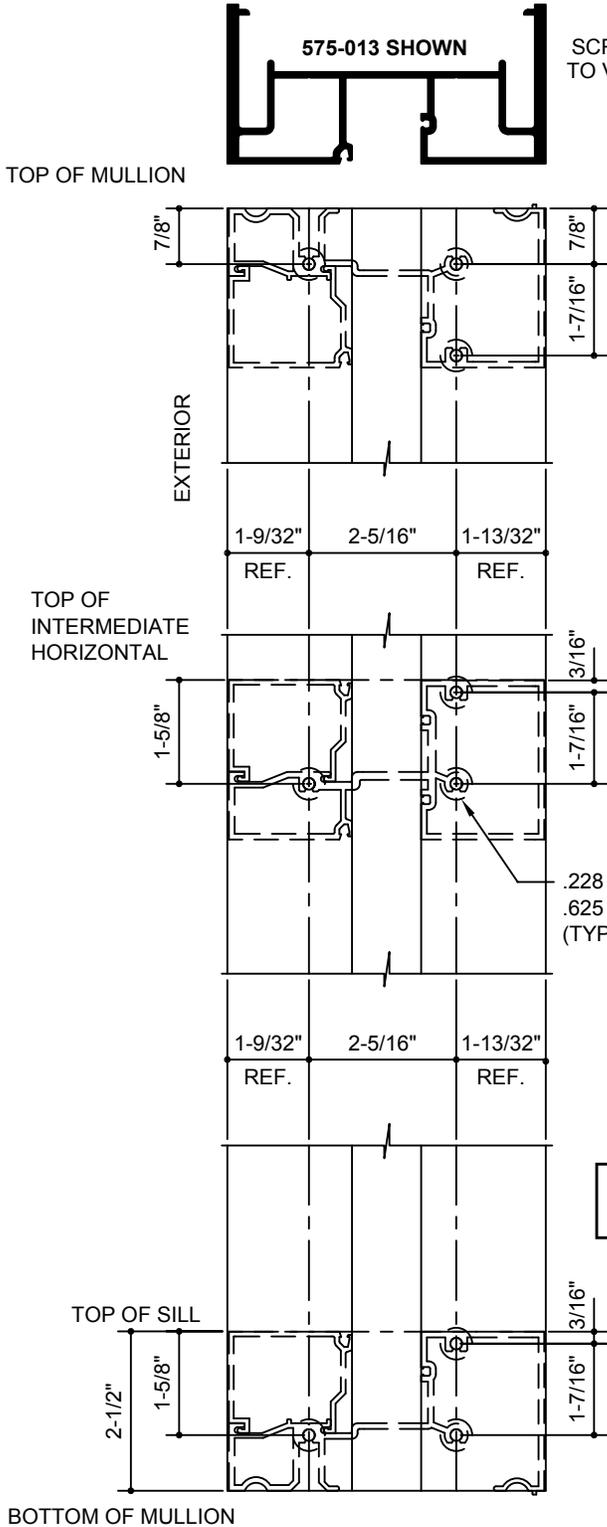
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FABRICATION (IR500)

Measure the opening to determine the required length of vertical and horizontal framing members. Allow a minimum of 1/4" clearance at the head, sill and both jambs to facilitate installation and provide space for caulking. If job conditions are uncertain or masonry openings are irregular, allow extra clearance to accommodate construction tolerances.

Cut vertical members to required length (frame height). At required horizontal locations using drill jigs, drill fastener holes in the verticals as shown below. Cut horizontal members to required length (DLO). Cut glass stops to required length (DLO + 0", - 1/16").

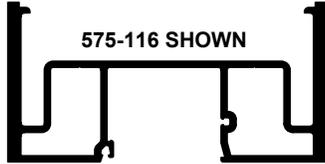


RIGHT HAND SHOWN
LEFT HAND OPPOSITE

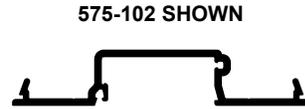
FABRICATION (IR501)

Measure the opening to determine the required length of vertical and horizontal framing members. Allow a minimum of 1/4" clearance at the head, sill and both jambs to facilitate installation and provide space for caulking. If job conditions are uncertain or masonry openings are irregular, allow extra clearance to accommodate construction tolerances.

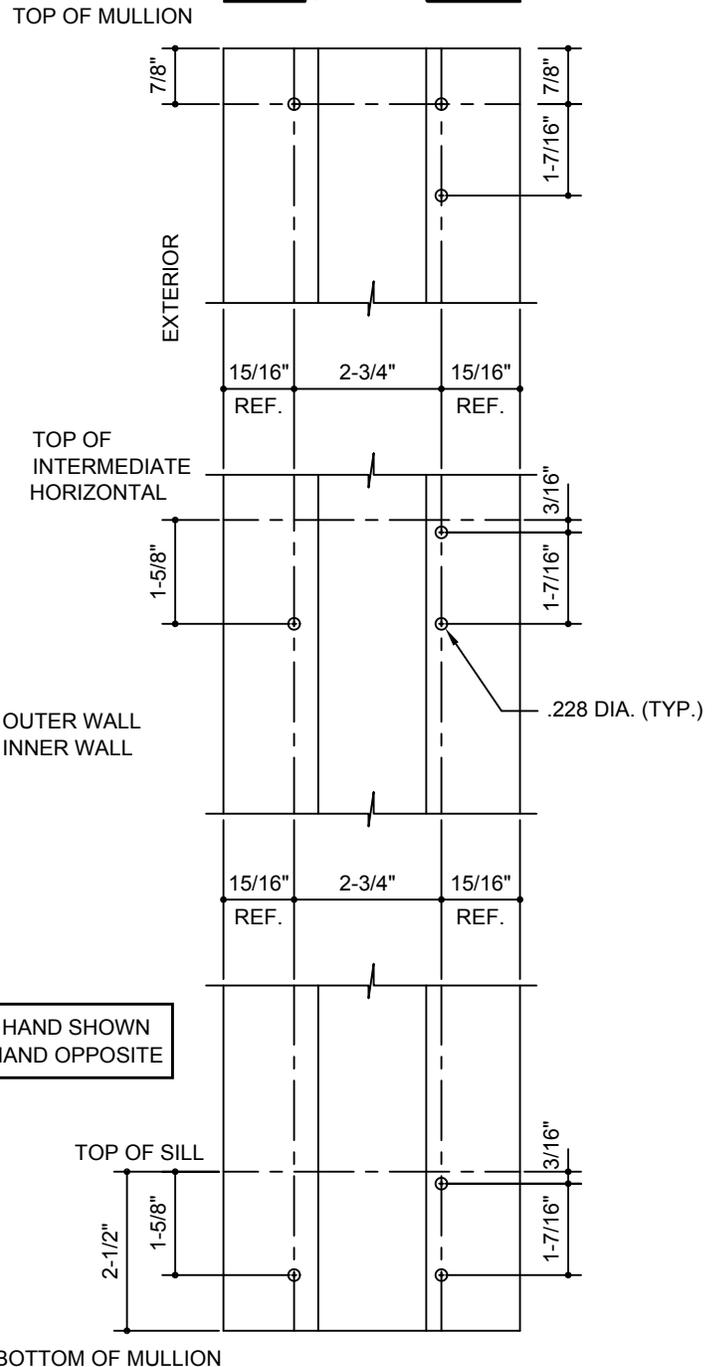
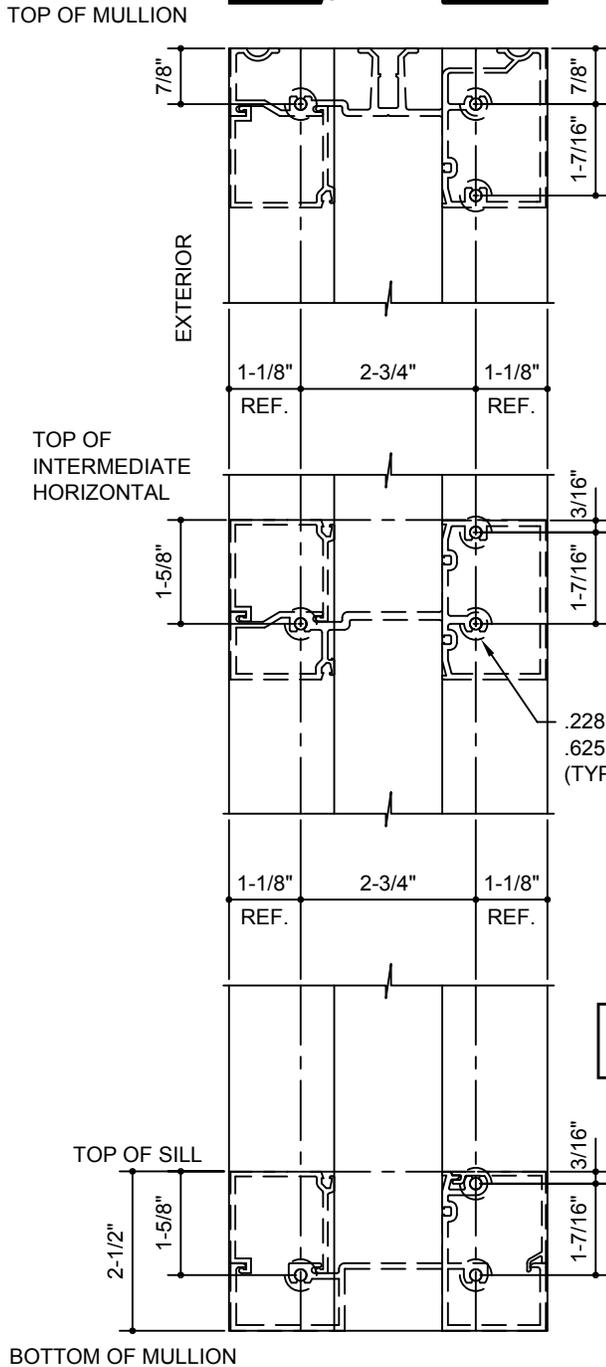
Cut vertical members to required length (frame height). At required horizontal locations using drill jigs, drill fastener holes in the verticals as shown below. Cut horizontal members to required length (DLO). Cut glass stops to required length (DLO + 0", - 1/16").



575-116 SHOWN
SCREW SPLINE PREPS
TO VERTICAL MEMBERS



575-102 SHOWN



RIGHT HAND SHOWN
LEFT HAND OPPOSITE

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ASSEMBLY (Typical)

Slide the required silicone spacer into all interior reglets in both the horizontal and vertical members.
spacer cannot be installed after the frames are assembled.

glass pockets of intermediate horizontals to allow installation of the water deflectors.

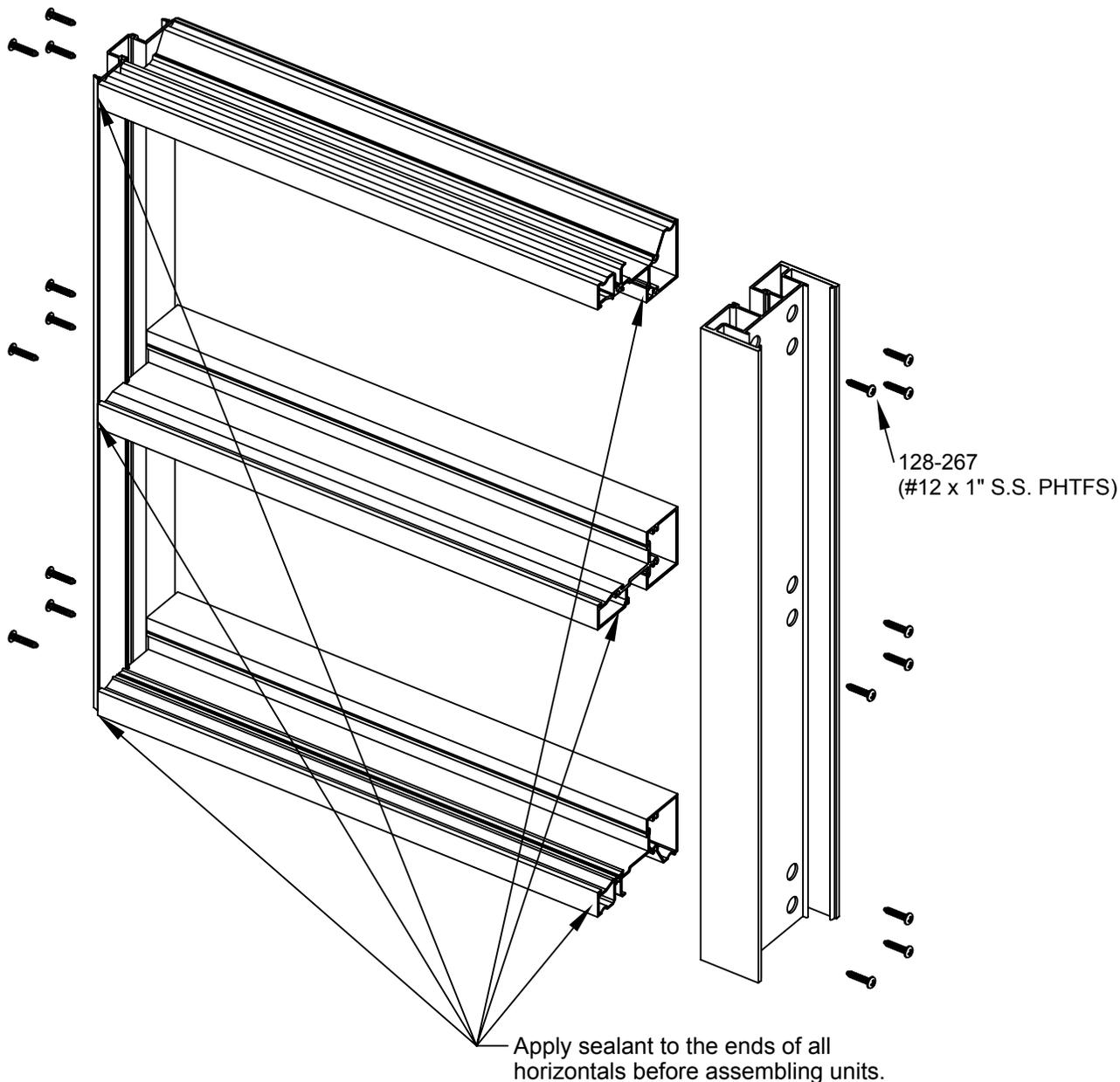
used at the head, they must be slid onto the head members before the unit is assembled.

Apply sealant to the ends of all horizontal members to provide a good seal at the vertical members.

Vertical mullions always run through, and horizontal mullions butt between the vertical mullions.

Assemble the units using three (3) 128-267 (#12 x 1" S.S. pan head) screws at each joint as shown below. Make sure that each unit includes a male and female vertical mullion half, and that there is a deep pocket in at least one of the vertical

Assembled frames can be pre glazed in the shop, or in the field after erection. If the frames are pre glazed in the shop, the end lites must be field glazed so that the jambs can be anchored to the perimeter condition through the glass pocket, or 575-036 strap anchors must be used at the jambs.



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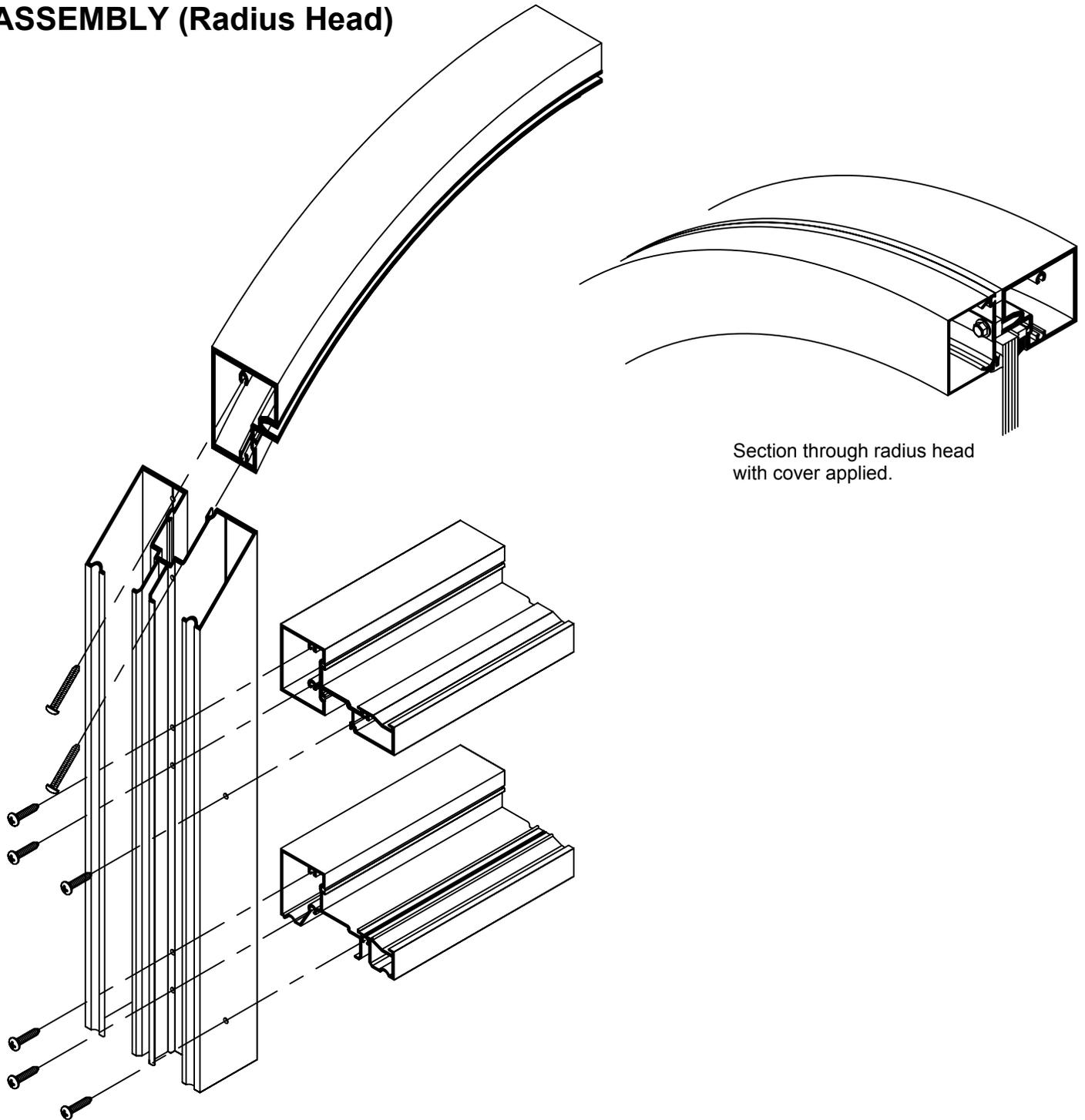
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ASSEMBLY (Radius Head)

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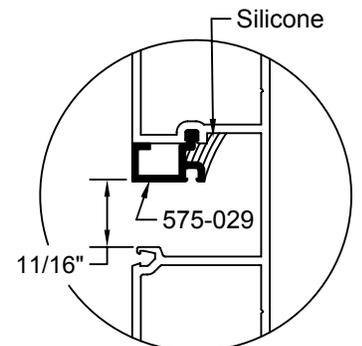
© Kawneer Company, Inc. 2010



Section through radius head with cover applied.

Note: The 575-029 glazing adapter is designed to be slid into the spacer reglet prior to assembly of the frame. **The adapter cannot be snapped into the frame after assembly.** Vertical adapters run through. Note that the adapter will not fit into the 575-002 pocket filler and the 575-009 male expansion mullion half. There is a special pocket filler and male expansion mullion half for single glazing.

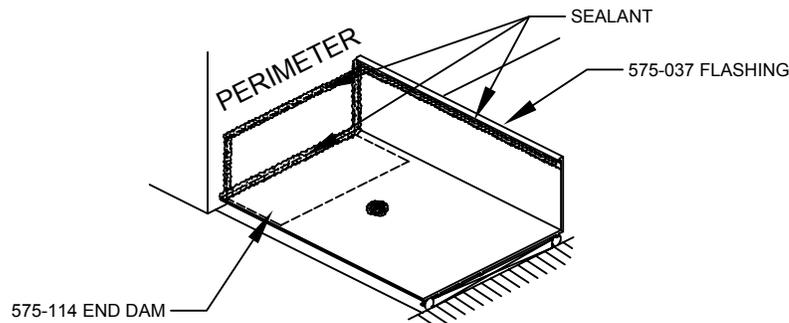
Vertical adaptors run through and should be cut to the same length as jamb or vertical mullion to which they will be inserted, horizontal adaptors should be cut to DLO and/or same length as the horizontal member to which they will be inserted.



INSTALLATION (IR 500)

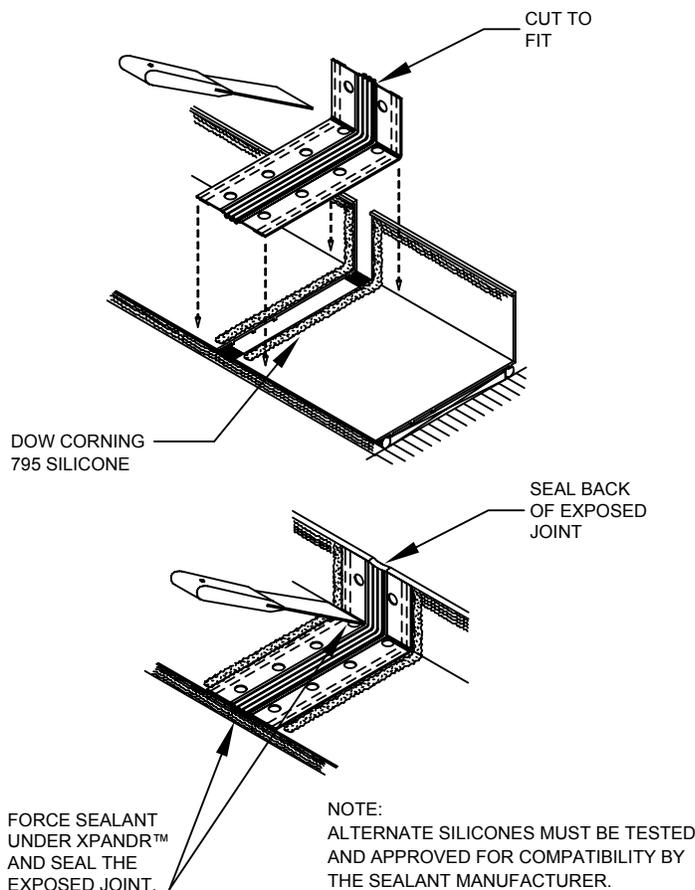
Install 575-037 flashing at the sill and attach it to the floor. The flashing should be shimmed up a minimum of 1/4" to make sure that it is flat and level. It should run the full width of the opening - 1/4", and be interrupted only at entrances. If the opening is over 24'-0" wide a splice joint is required every 12'-0" (see splice joint procedure below).

The flashing must be carefully sealed at each end. Use 575-114 end dams for all typical perimeter conditions, and seal the end dams to the flashing and perimeter conditions as shown below.



SPLICE JOINTS

SPLICES SHOULD BE LOCATED A MAXIMUM OF EVERY 12'-0" WITH A 1/2" JOINT BETWEEN HEAD & SILL MEMBERS. DO NOT LOCATE SPLICE DIRECTLY UNDER A VERTICAL MULLION.



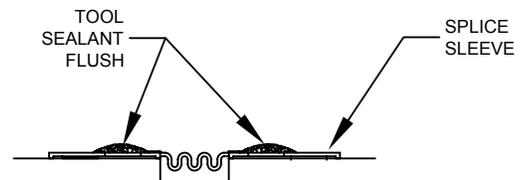
PROCEDURE FOR INSTALLING KAWNEER XPANDR™ SPLICE SLEEVE

1. Cut XPANDR™ Splice Sleeve (27-094) to length and form using a putty knife to bend the material square.
2. Clean splice area with solvent.
3. Apply bead of Dow Corning 795 silicone within 1/4" of the edge of the sill members on each side of the 1/2" joint. (For cold weather applications see note below.)
4. Remove protective liner from adhesive tape.
5. Center the XPANDR™ Splice Sleeve over the joint. Then, using a putty knife, seat the XPANDR™ into the corner and onto the surface of the sill member.
6. Silicone will squeeze out through the holes. Use putty knife to tool off excess silicone.
7. Seal back of exposed joint and apply perimeter seals. Be sure to force sealant up under the XPANDR™ Splice Sleeve in front.

COLD WEATHER NOTE:

For temperatures below 40° the following precautions should be taken. Just prior to installing XPANDR™, wipe flashing material with a solvent or cleaning solution recommended by the sealant manufacturer. This will remove any condensation or frost that may be present.

CAUTION: Carefully follow the recommendations contained in the material safety data sheet provided by the solvent/cleaning solution manufacturer regarding health and fire/explosion risks.



If there is an entrance, the entrance frame and attached sidelite(s) should be installed first, being careful to locate them accurately in the opening. Fasten the entrance frame to the perimeter condition as necessary using the required perimeter fasteners.

Apply sealant to the upstanding leg of the flashing as shown above.

INSTALLATION (Continued)

Position the assembled frame in the opening to align it with the sill flashing, checking to make sure that the unit is level and plumb.

Insert shims as needed at the head and jambs, and anchor the frame to the perimeter condition as required for exterior, center or interior attachment. Shims should be continuous and extend to both return caulk legs on the head and jambs. Contact your Area Application Engineering Dept. for help in selecting fasteners if necessary. Seal over the heads of all fasteners at the sill.

Caulk the exterior perimeter joints at the head, jambs and under the sill flashing with a high quality sealant. Do not caulk between the sill member and the sill flashing. This area must be left open to allow water to drain.

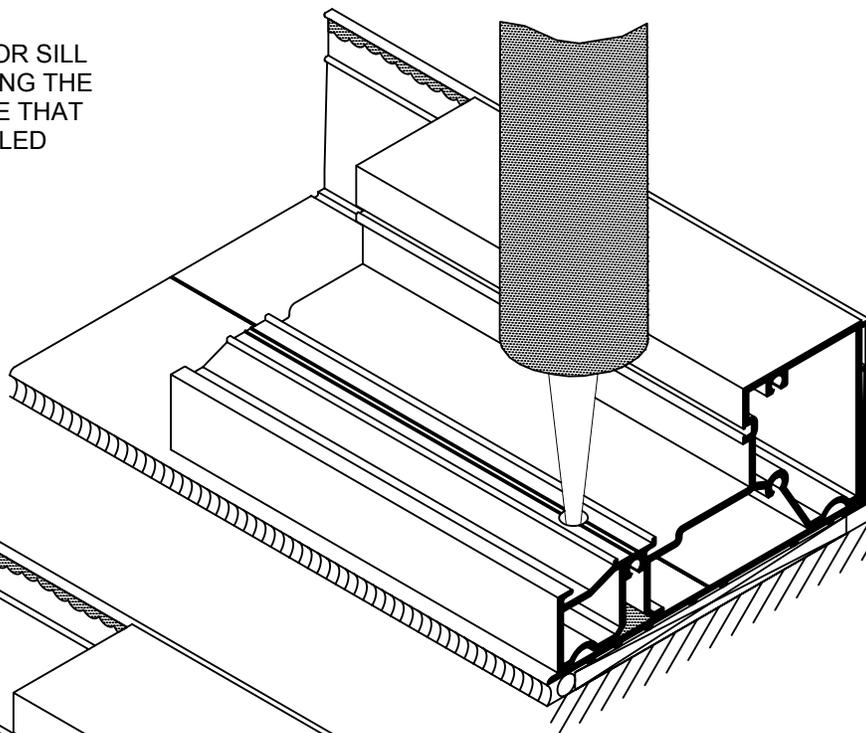
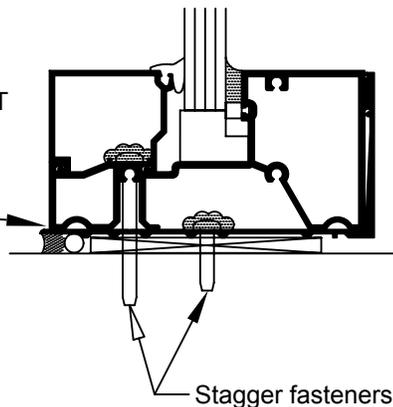
NOTE: FORCE SEALANT INTO THE HOLES FOR SILL PERIMETER FASTENERS PRIOR TO INSERTING THE FASTENERS. THIS IS IMPORTANT TO INSURE THAT THE HOLES IN THE SILL FLASHING ARE SEALED BEFORE THE FASTENERS ARE INSTALLED.

Seal over fastener heads at sill.

EXTERIOR ATTACHMENT

Do not seal between sill and flashing. It must be left open for drainage.

Stagger fasteners



NOTE:
Coat shank and threads with sealant prior to installing.

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INSTALLATION (IR501)

Install 575-157 flashing at the sill and attach it to the floor. The flashing should be shimmed up a minimum of 1/4" to make sure that it is flat and level. It should run the full width of the opening - 1/4", and be interrupted only at entrances. The flashing must be carefully sealed at each end. Use 575-114 end dams for all typical perimeter conditions, and seal the end dams to the flashing and perimeter conditions as shown below.

Note:

If the opening is over 24'-0" wide a splice joint is required every 12'-0", with a 1/2" joint between head and sill members at the center of the DLO. Do not locate splice directly under a vertical mullion.

Apply bond breaker tape to the underside of the aluminum splice sleeve as shown on center.

Clean splice area with solvent.

Note: For temperatures below 40°, take the following precautions.

Just prior to installing the sleeve, wipe flashing material with a solvent or cleaning solution recommended by the sealant manufacturer.

This will remove any condensation or frost that may be present.

Caution: Carefully follow the recommendations contained in the material safety data sheet provided by the solvent / cleaning solution manufacturer regarding health and fire / explosion risks.

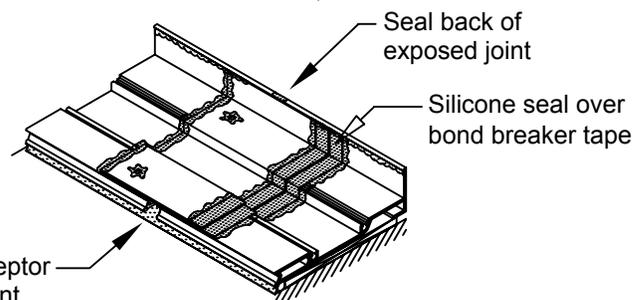
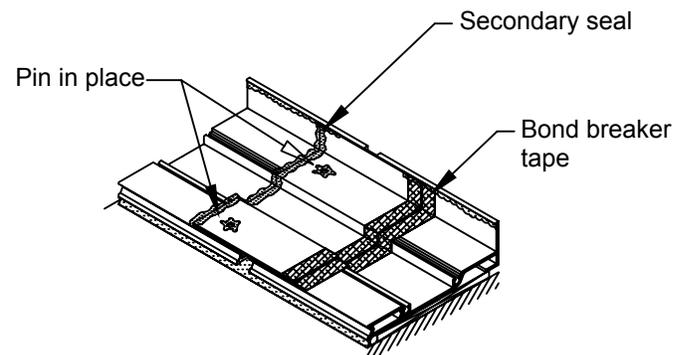
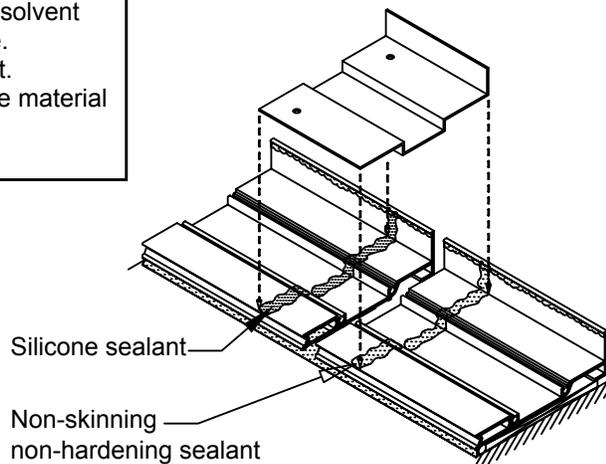
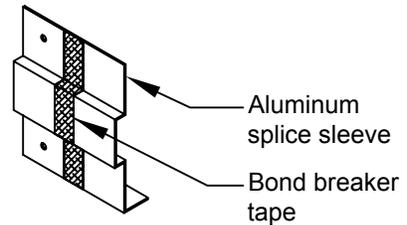
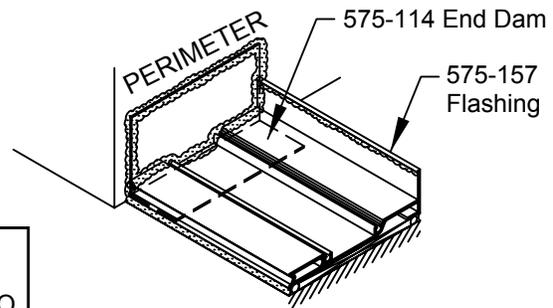
Apply heavy bead of silicone sealant on one receptor and bead of non-skinning, non-hardening sealant on the other receptor. Install splice sleeve so that bond breaker tape aligns with splice joint as shown.

Pin splice sleeve on the side with the silicone joint and seal over heads of pins. Apply a secondary silicone seal on the pinned side as shown.

Apply bond breaker tape over the joint between the splice and receptor on the bead of non-skinning, non hardening sealant side of splice.

Apply silicone sealant over the bond breaker tape to create a water tight joint as shown.

Seal exposed joint at the back of the sill flashing, and force sealant up under the splice sleeve in the front.



Force sealant under receptor and seal the exposed joint

INSTALLATION (Continued)

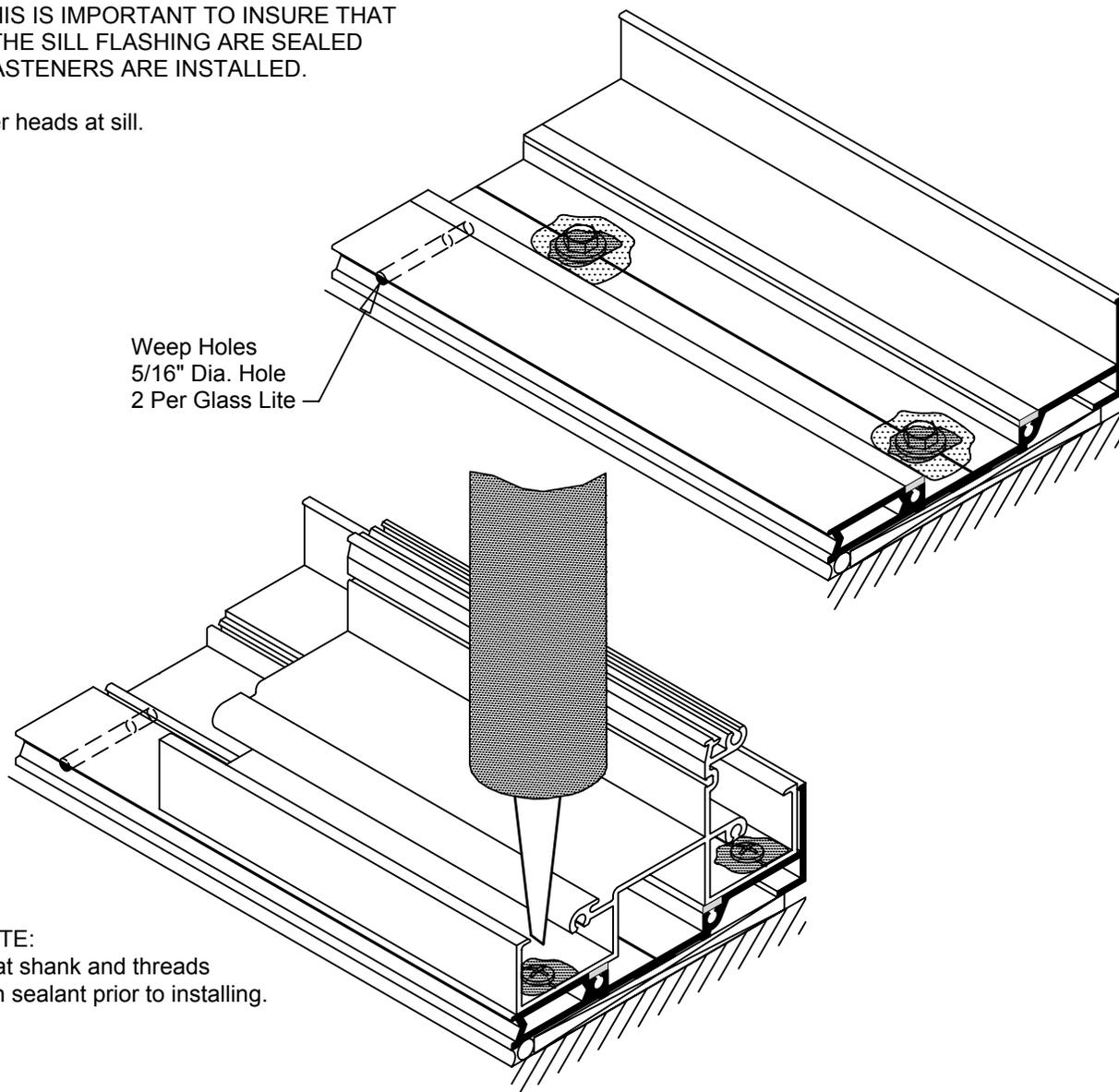
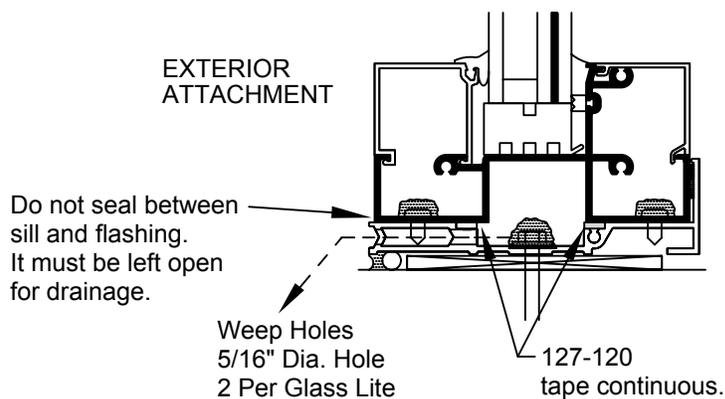
Position the assembled frame in the opening to align it with the sill flashing, checking to make sure that the unit is level and plumb.

Insert shims as needed at the head and jambs, and anchor the frame to the perimeter condition as required for exterior, center or interior attachment. Shims should be continuous and extend to both return caulk legs on the head and jambs. Contact your Area Application Engineering Dept. for help in selecting fasteners if necessary. Seal over the heads of all fasteners at the sill.

Caulk the exterior perimeter joints at the head, jambs and under the sill flashing with a high quality sealant. Do not caulk between the sill member and the sill flashing. This area must be left open to allow water to drain.

NOTE: FORCE SEALANT INTO THE HOLES FOR SILL PERIMETER FASTENERS PRIOR TO INSERTING THE FASTENERS. THIS IS IMPORTANT TO INSURE THAT THE HOLES IN THE SILL FLASHING ARE SEALED BEFORE THE FASTENERS ARE INSTALLED.

Seal over fastener heads at sill.



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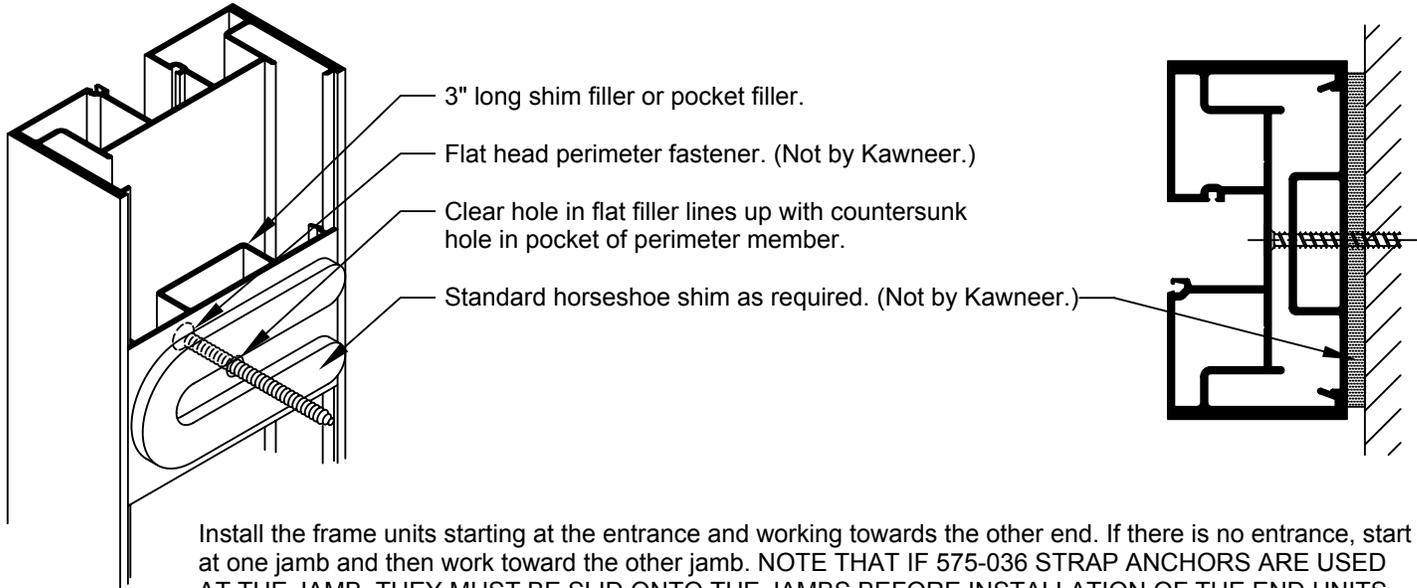
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INSTALLATION (Continued)

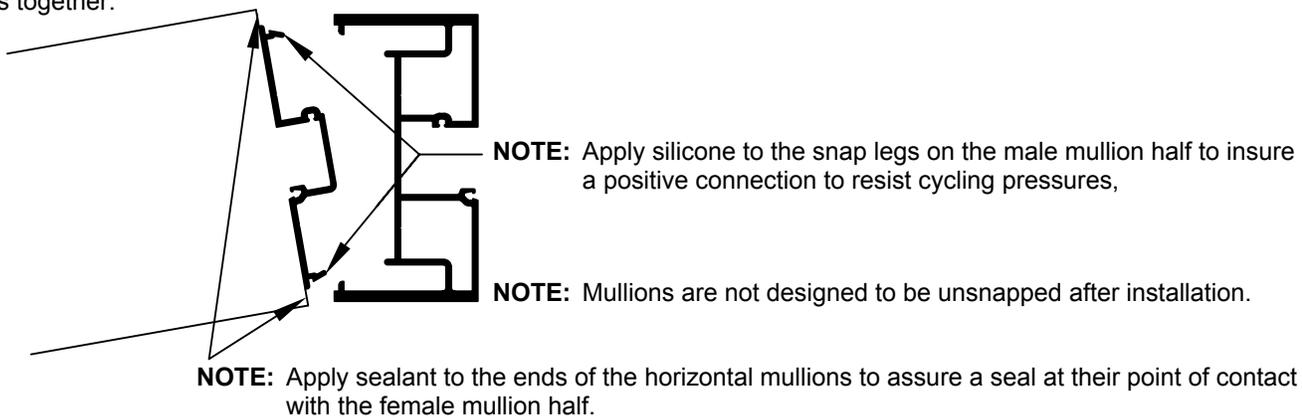
SHIM INSTALLATION

Install support shims at head, sill and jamb. Place between pocket filler and perimeter condition at perimeter anchor locations.

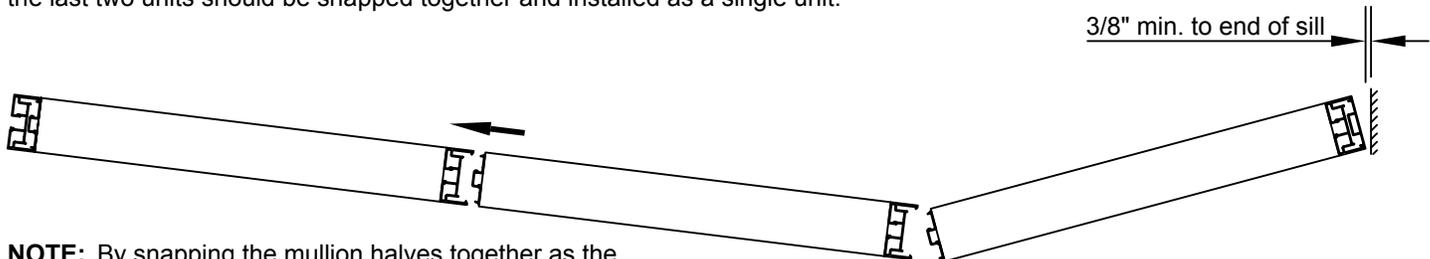


Install the frame units starting at the entrance and working towards the other end. If there is no entrance, start at one jamb and then work toward the other jamb. **NOTE THAT IF 575-036 STRAP ANCHORS ARE USED AT THE JAMB, THEY MUST BE SLID ONTO THE JAMBS BEFORE INSTALLATION OF THE END UNITS.** Crimp one of the retaining legs at the bottom of the jambs to prevent them from sliding off the jambs during installation. Slide them up to the required locations after the frame is set in place.

The first unit should be attached to the perimeter condition as required at the head, sill and jamb. The remaining units are installed by snapping together the female mullion half with the male mullion half of the adjacent unit as shown below. Apply sealant to the ends of the horizontal mullions, and silicone to the snap legs on the male mullion half, prior to snapping the units together.



The last unit should be pivoted into position using the last installed mullion half as a pivot point. With narrow units (under 4') the last two units should be snapped together and installed as a single unit.



NOTE: By snapping the mullion halves together as the frame is assembled, the frame can be installed as one unit for elevations less than three bays wide.

Rotate last panel into position.

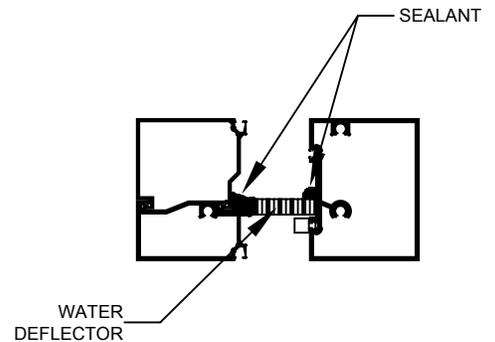
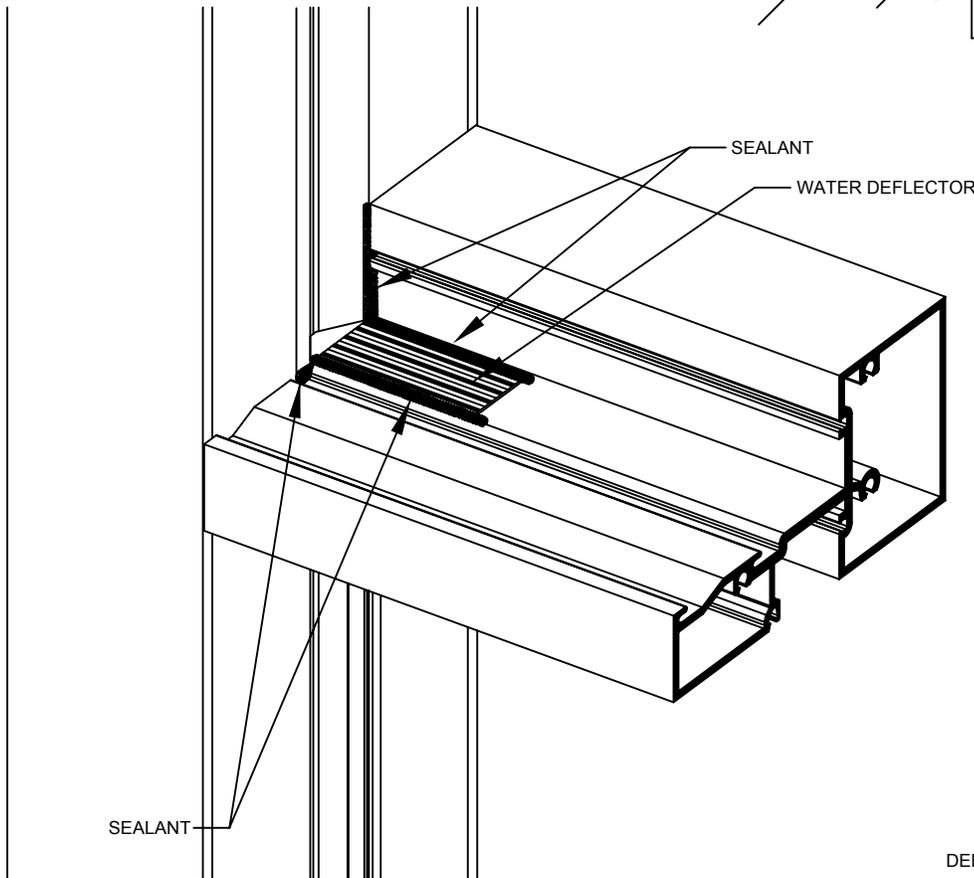
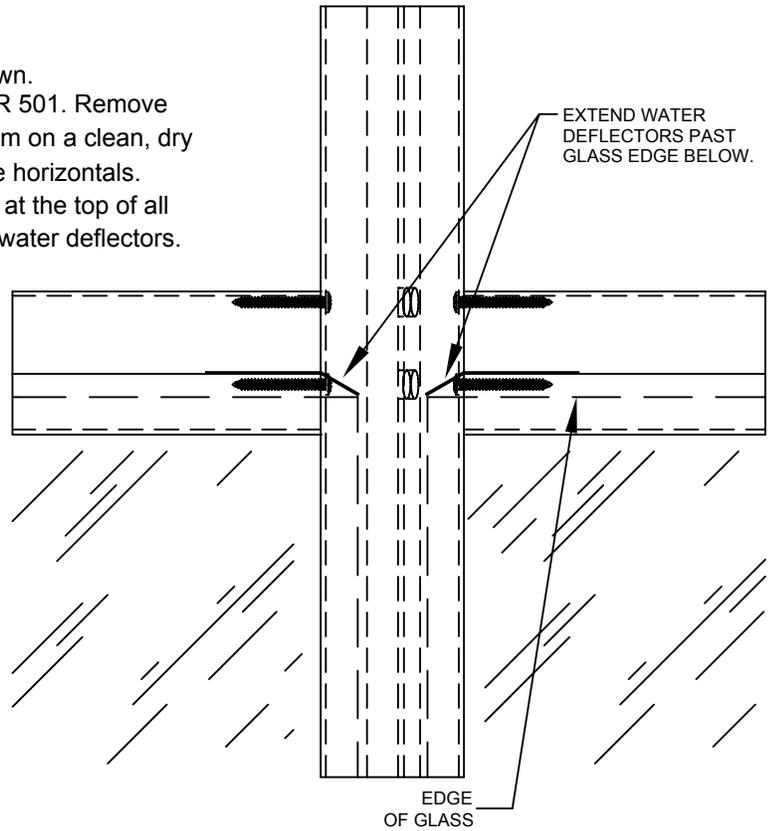
INSTALLATION (Continued)

Install water deflectors on intermediate horizontals as shown. Use water deflector 175-313 for IR 500, and 451-105 for IR 501. Remove the paper backing from the water deflectors and install them on a clean, dry surface centered in the glazing pockets of the intermediate horizontals. Note that the silicone spacer must be cut short or notched at the top of all intermediate horizontal pockets to allow installation of the water deflectors.

COLD WEATHER NOTE:

For temperatures below 40° the following precautions should be taken: Just prior to installing the water deflectors, wipe glazing pocket with a solvent or cleaning solution recommended by the manufacturer.

*CAUTION: Carefully follow the recommendations contained in the material data safety sheet provided by the solvent/cleaning solution manufacturer regarding health and fire/explosion risks.



AFTER THE WATER DEFLECTOR IS INSTALLED, SEAL THE JOINT BETWEEN THE BACK OF THE HORIZONTAL AND THE VERTICAL. MAKE SURE TO SEAL THE JOINT BETWEEN ANY GLAZING ADAPTERS AND ANY VOID IN THE GLAZING REGLETS IN THIS AREA TO PREVENT WATER FROM RUNNING DOWN TO THE LITE BELOW.

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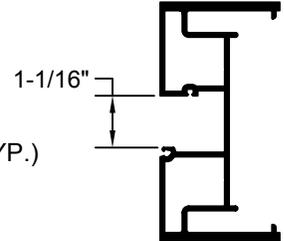
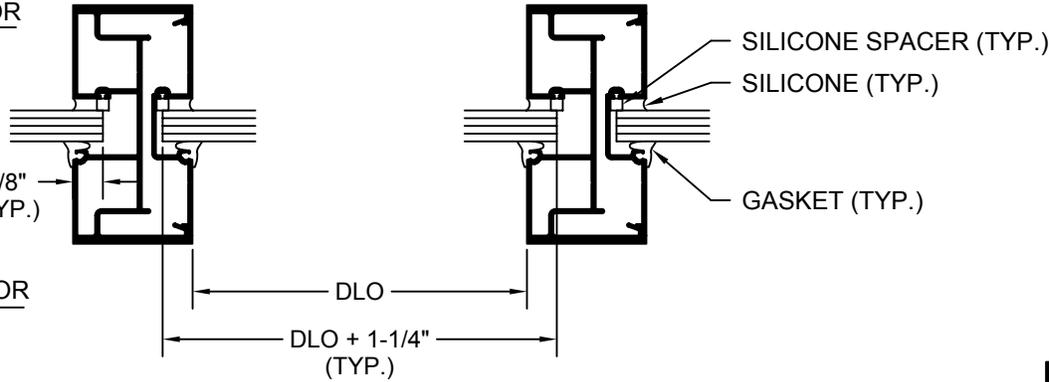
The standard glass pocket is approximately 1-1/16" in width, and the glass pocket with adapter is approximately 11/16" in width. These pockets are designed for glass products that are typically used in applications that must conform to hurricane impact/cycling requirements. **Contact your Kawneer representative for specific glazing applications.**

Typical glass size is daylight opening (DLO) + 1-1/4".

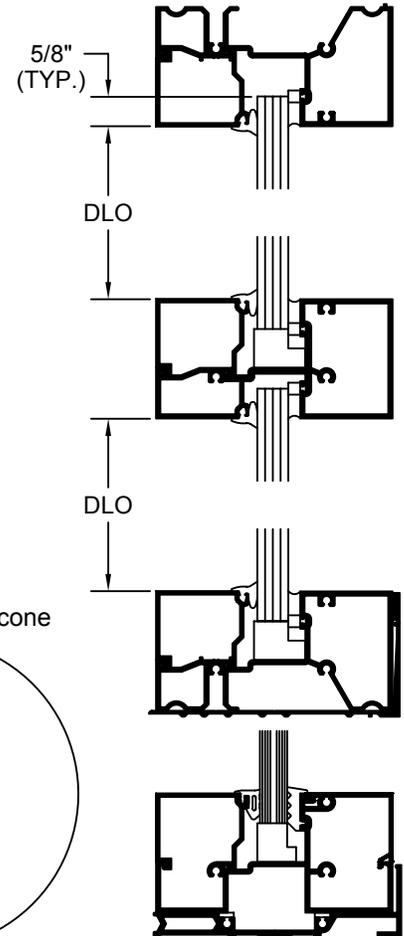
NOTE: This formula does not allow for undersized or out of square daylight openings.

INTERIOR

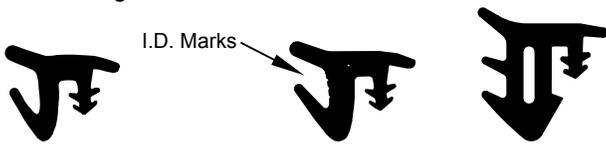
EXTERIOR



| Glazing Chart for IR 500 Framing | | | | | |
|----------------------------------|-------------------------|---------|-----------------|-----------------|---------------|
| Nominal Infill Thickness | Actual Infill Thickness | Adapter | Exterior Gasket | Interior Spacer | Impact Rating |
| 1/4" * | 0.191" - 0.253" | 575-029 | 027-077 | 127-011 | N/A |
| 9/16" | 0.555" - 0.617" | - | 027-074 | 127-012 | Large |
| 5/8" | 0.591" - 0.653" | - | 027-077 | 127-011 | Large |
| 9/16" | 0.555" - 0.617" | - | 127-147 | 127-146 | Large |



Exterior Glazing Gaskets



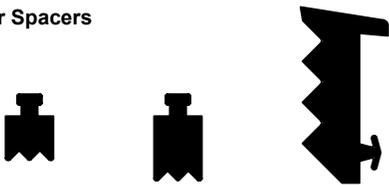
027-074 (Standard)

027-077 (Heavy)

127-147

NOTE: I.D. Marks = 3 for Heavy and none for Standard

Interior Spacers

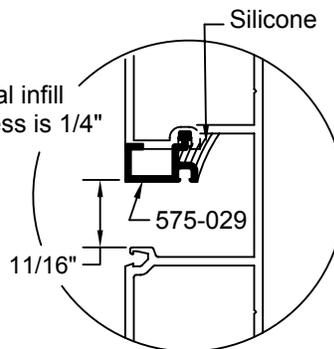


127-011

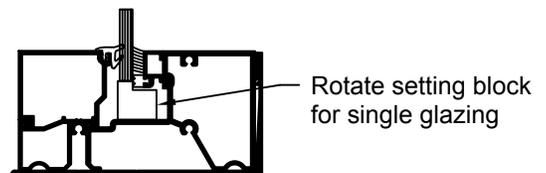
127-012

127-146

* NOTE:
Nominal infill thickness is 1/4"



Position the glass in the frame using the standard flush glazing technique. Place setting blocks under the glass at 1/4 points or as otherwise specified by engineering calculations. Make sure that there is a consistent glass bite of 5/8" on each side on each side of the glass.



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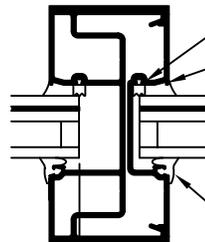
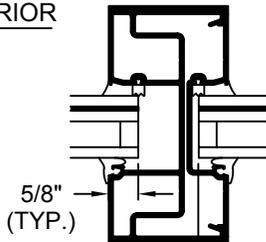
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The standard glass pocket is approximately 1-11/16" in width, and the glass pocket with adapter is approximately 1-5/16" in width. These pockets are designed for some of the glass products that are typically used in applications that must conform to hurricane impact/cycling requirements. CONTACT YOUR KAWNEER REPRESENTATIVE FOR SPECIFIC GLAZING RECOMMENDATIONS FOR SPECIFIC APPLICATIONS.

Typical glass size is daylight opening (DLO) + 1-1/4".

NOTE: This formula does not allow for undersized or out of square daylight openings.

INTERIOR



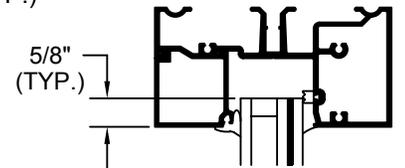
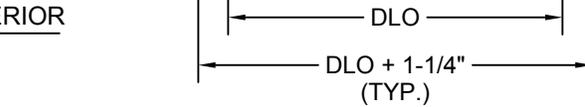
SILICONE SPACER (TYP.)

SILICONE (TYP.)

GASKET (TYP.)

1-11/16"

EXTERIOR



5/8" (TYP.)

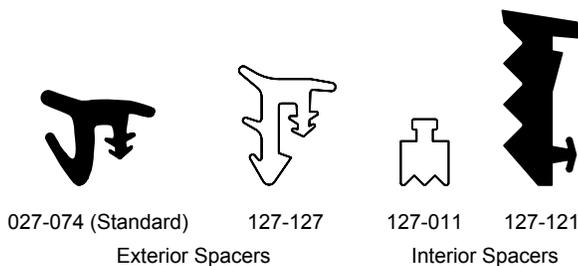
DLO

| Glazing Chart for IR 501 Framing | | | | | |
|----------------------------------|-------------------------|------------|-----------------|-----------------|---------------|
| Nominal Infill Infill Thickness | Actual Infill Thickness | Adapter | Exterior Gasket | Interior Spacer | Impact Rating |
| 1" * | 0.935" - 0.967" | 451-VG-030 | 027-074 | 027-900 | N/A |
| 1-5/16" | 1.263" - 1.325" | - | 027-074 | 127-011 | Large |
| 1-5/16" | 1.263" - 1.325" | - | 127-127 | 127-121 | Small & Large |

DLO

DLO

DLO



027-074 (Standard)

127-127

127-011

127-121

Exterior Spacers

Interior Spacers

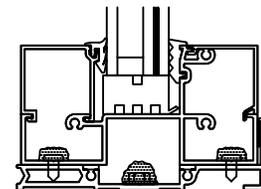
* NOTE:

Nominal infill thickness is 1"

1-5/16"

451-VG-030

Position the glass in the frame using the standard flush glazing technique. Place setting blocks under the glass at 1/4 points or as otherwise specified by engineering calculations. Make sure that there is a consistent glass bite of 5/8" on each side on each side of the glass.



"W" SIDE BLOCKS (Small Missile Only)

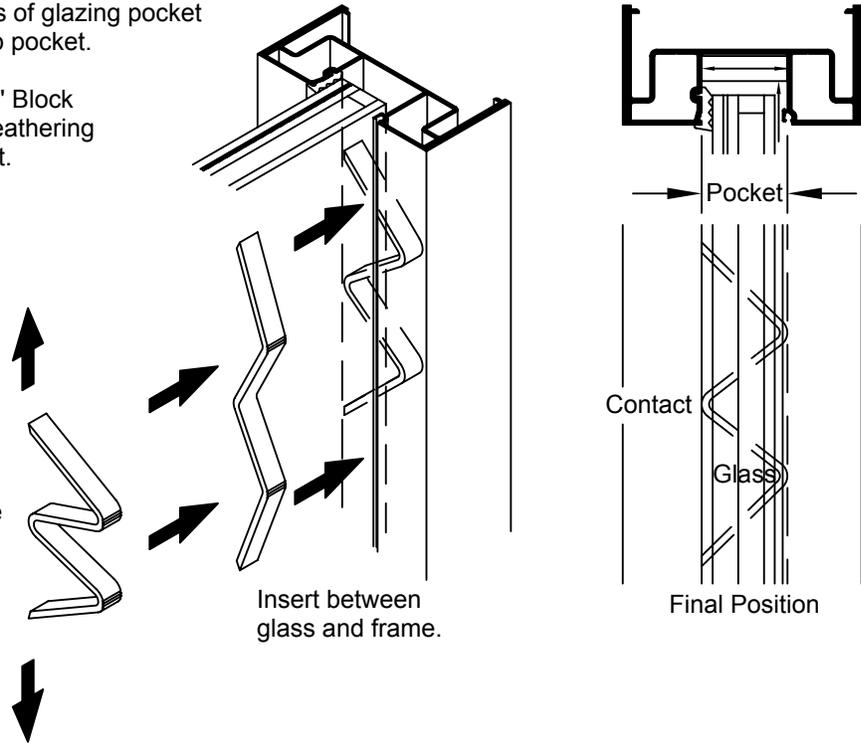
One "W" Side Block should be installed into the deep pocket of the mullion of each lite of glass in the opening.

"W" Block will expand and wedge between walls of glazing pocket pocket and prevent glass from shifting into deep pocket.

Note: If deglazing of the lite is required after "W" Block is installed, remove both interior and exterior weathering and use hook to pull "W" Block out of the pocket.

Side Block Installation

Flatten block and slide between reglet and glass lite.



GASKET AND GLASS STOP INSTALLATION (Small Missile Only)

Step 1: Cut horizontal and vertical gaskets to an approximate length of D.L.O. + 1/4" per foot of D.L.O.

Step 2: Install gasket 127-121 on the interior side of frame first.

Insert gaskets into the horizontal members first starting at the ends and work toward the center as shown. (See Figure #1)

Step 3: Install vertical 127-121 gaskets into the interior side of frame after horizontal gaskets are in place in the same manner.

Vertical gasket runs through, trim edge of vertical gasket to pass by horizontal gasket.

Step 4: Apply sealant between vertical and horizontal gaskets.

Step 5: Position setting blocks at points under glass as required.

Step 6: Install glass into frame using standard flush glazing technique.

Step 7: Install exterior gasket into frame in the same manner as described in Step #2.

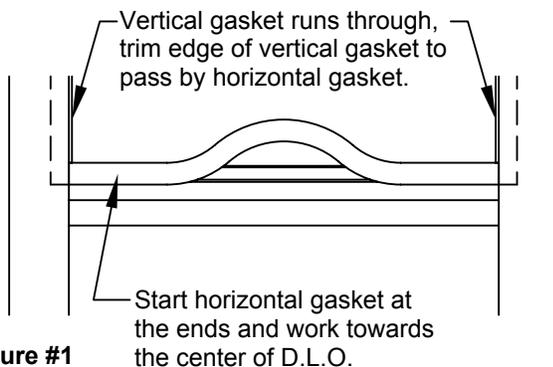
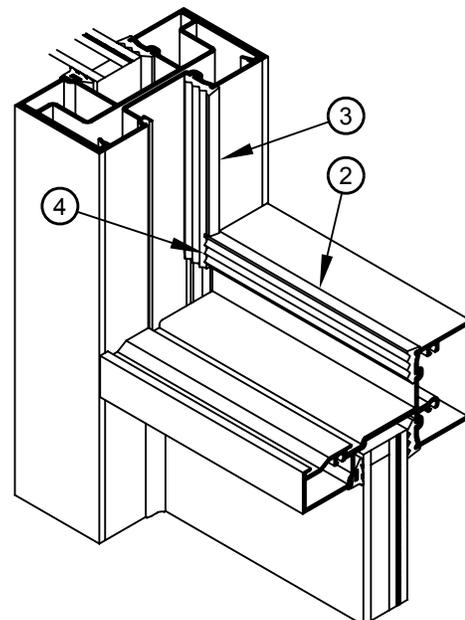
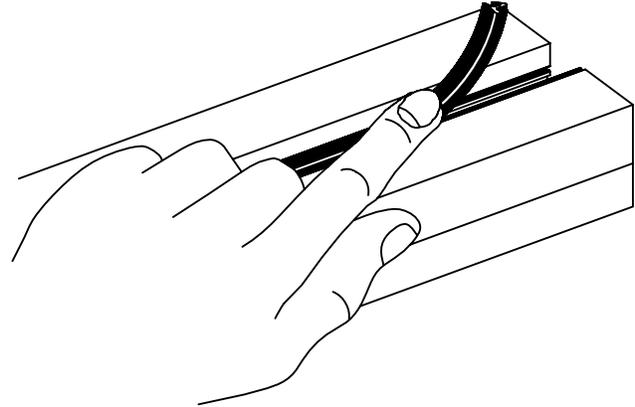
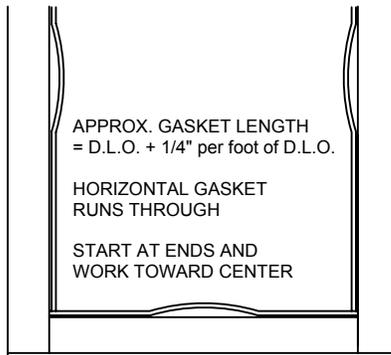


Figure #1



Install the glass stops by indexing them toward the glass to clear the hook legs on the horizontal members. Lower (raise at head) the stop to the horizontal member and pull out, making sure that both hook legs engage.

Cut the exterior push-in gasket to an approximate length of DLO + 1/4" per foot of DLO. Start the installation of the gaskets at the ends and work toward the center. The horizontal gaskets run through.



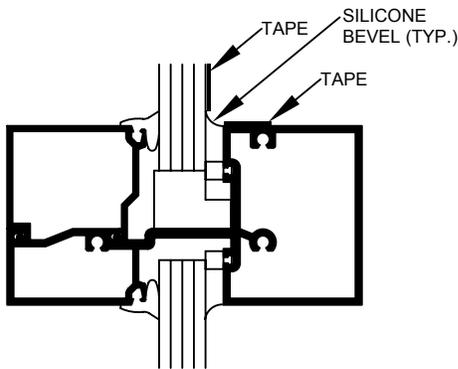
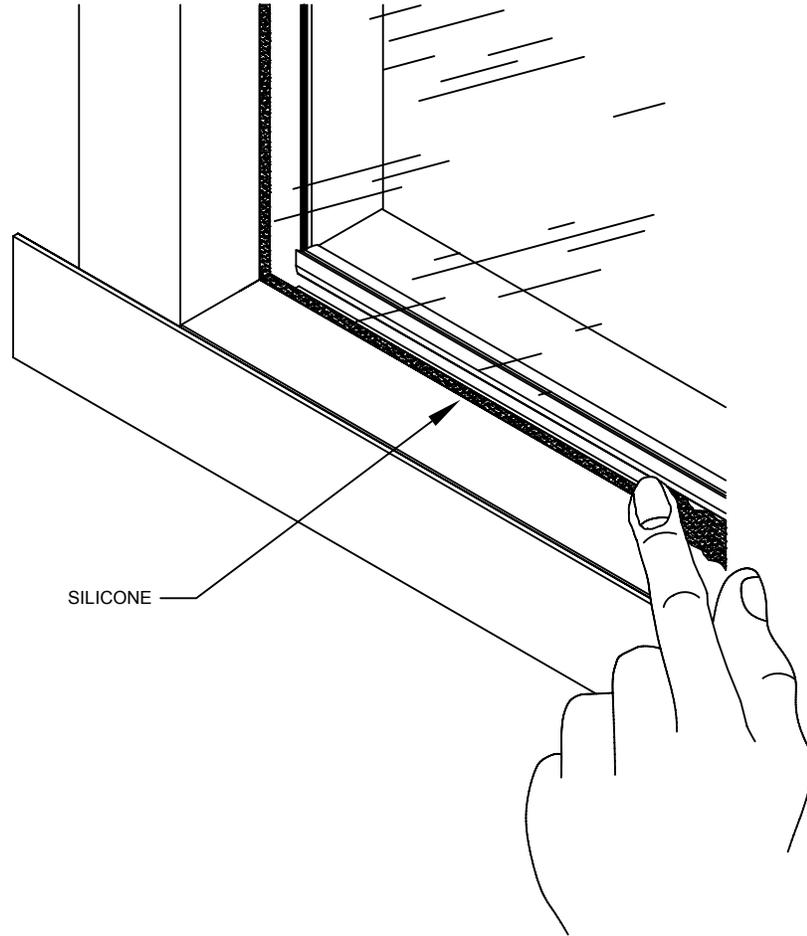
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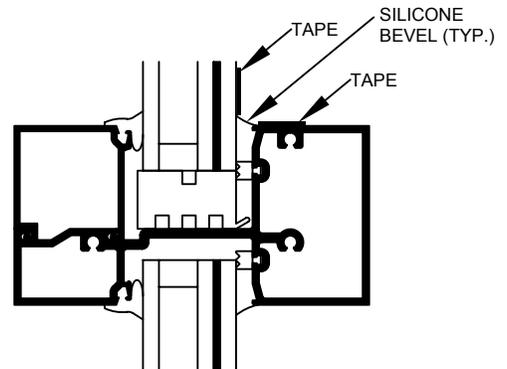
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Apply masking tape to the metal and glass.

Apply Dow Corning 995, 983 or Tremco Proglaze SSG silicone on the interior side of the glass pocket around all four sides of the glass. Make sure the silicone fills the entire cavity between the glass, frame and silicone spacer. Tool the silicone as necessary. Bevel the silicone at an approximate angle of 30 degrees so that you cannot see the exterior gasket from the inside. Remove the masking tape.



IR 500

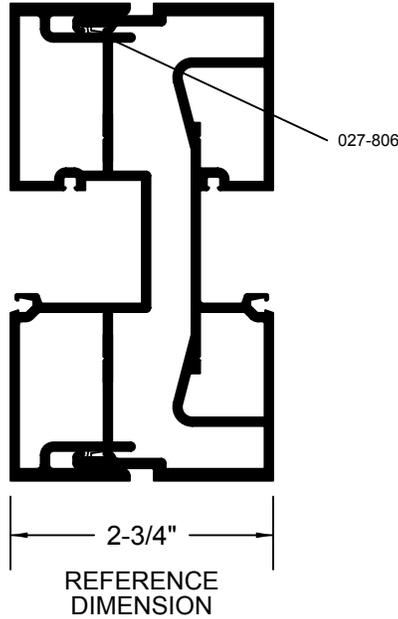


IR 501

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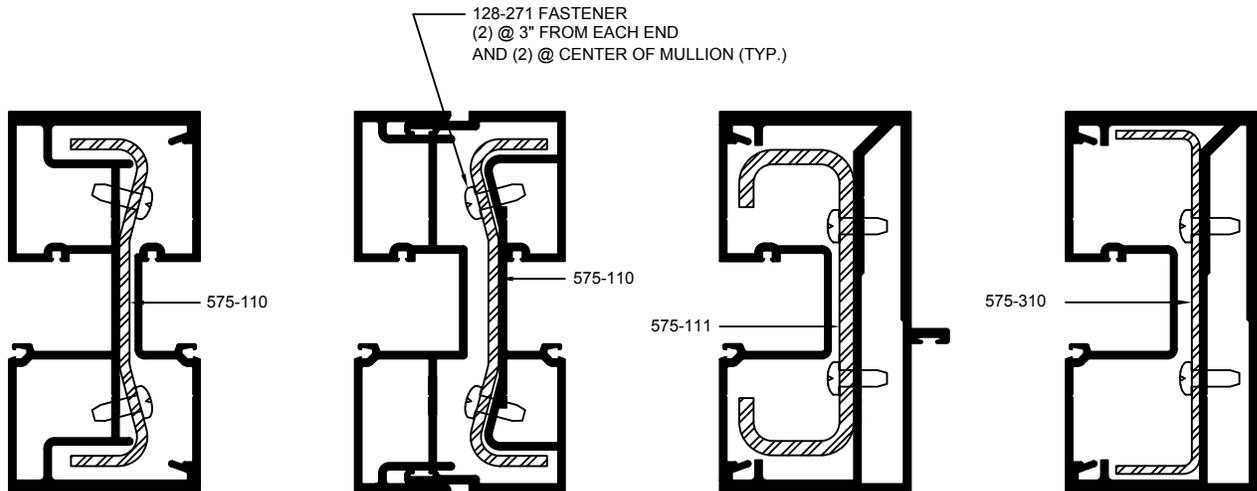
An expansion mullion should be used every 20' in large openings. The dimension of the assembly should be adjusted based on the temperature at the time of assembly and expected high and low service temperatures. Use 2-3/4" as a reference dimension. (For example, the sightline will be reduced slightly when installed in hot weather and increased slightly when installed in cold weather).



SECTION VII - STEEL REINFORCEMENT

575-110 steel reinforcement should be used in the standard mullion and the expansion mullion as required by engineering calculations. 575-111 steel reinforcement should be used in the door jambs. Steel reinforcement should run the full length of the mullion and be fastened into place as shown below. NOTE THAT THE STEEL MUST BE ATTACHED TO THE MULLIONS AFTER ASSEMBLY OF THE UNIT.

The cut ends of the steel reinforcement must be coated with a corrosion-inhibiting primer before installation.



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