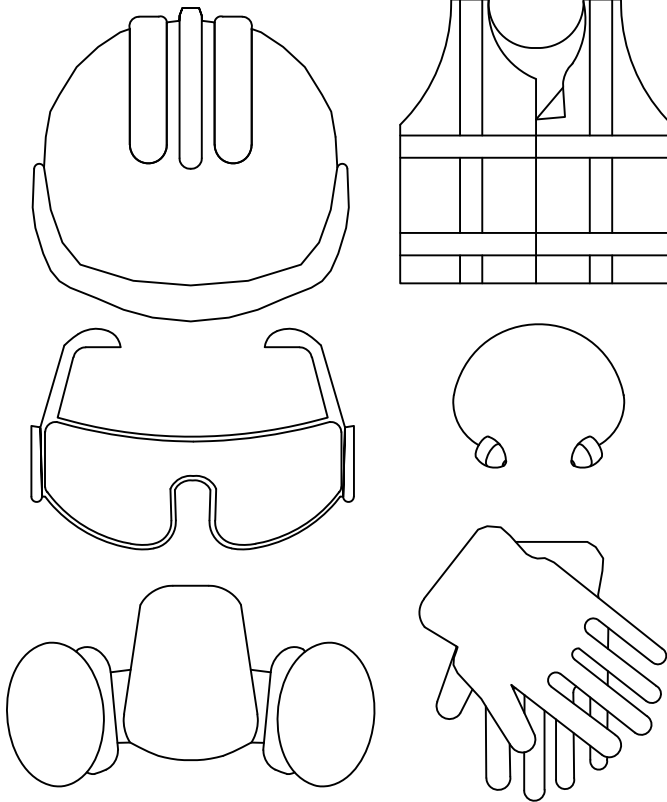


WINCO Window Company



Installation Instruction Manual

This is a Generic version with the most common trim configurations included. If the project is furnished with a Shop Drawing Packet prepared by WINCO, a project specific installation manual may also be issued in PDF format along with the 1st Shop Drawing Submittal. A project specific manual supersedes this generic manual.



Personal Protective Equipment (PPE)

The installer(s) should wear the appropriate Personal Protective Equipment. This includes, but is not limited to, Gloves, Safety Glasses, Hearing Protection, and Dust Masks or Respirator Filters. (Gloves should not be worn while operating rotating tools such as drills, circular saws, etc.) Many project sites additionally require Steel Toed Boots, Hi-Visibility Vests, Hard Hats and Safety Harness for work on Scaffolds or Ladders.

It is the installer's responsibility to evaluate which PPE will be required. Check with the General Contractor for minimum PPE required by the Project Site conditions.

WARNING

The windows, trim and consumable materials used in the installation of WINCO products contain chemicals which are known to the State of California to cause Cancer and/or Birth Defects or other Reproductive Harm. For more information go to www.p65warnings.ca.gov

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General Product Notes

1) Receipt and Inspection of Material

Upon receipt of delivery, all material must be counted and inspected for any apparent damage. All visible damage must be noted at this time on the freight bill. If a freight claim is required, the receiving party is to contact the delivery carrier. If assistance is required, contact our shipping department at extension 232.

2) Shipping and handling of the window product during installation may cause stress to frame joints and create voids in the seal of joints. After the window is installed into the opening, inspect & ensure the sealant is complete at the joints by re-tooling sealant into the face of the joint at each frame corner. This is a critical point for potential water intrusion.

3) Product Storage and Protection

A) Material should be handled and moved carefully to avoid damage and / or racking of windows and their accessories.

B) WINCO products should be stored in a secure and dry area out of the elements, which is safe from abuse from other construction trades.

C) Windows should be stacked in the storage area in the same position as they were shipped. Windows are not to be stored flat and / or on top of each other.

D) All products are to be stored in a manner where there will be no direct ground contact.

4) Field Adjustments and/or Modifications

All windows must be securely anchored and set level, square and plumb. This is critical to assure that the frame, vent and hardware operate and perform properly. Projected sash should be operated several times after setting it in the opening. This should be done to make sure the sash and frame are in the same plane to ensure that the window and hardware function properly. Make any necessary adjustments before final attachment of system to condition.

WINCO will not pay for any adjustments and/or modifications to our windows or their accessories by the purchaser of our products without prior written authorization from us. This is in accordance with WINCO's terms and conditions of sale.

5) Cleaning

A) Windows should be protected from other trade's debris / products (i.e. plaster, cement, etc.).

B) Cleaning compounds used to clean masonry structures are very harmful to our product's applied finishes and will cause permanent staining. These compounds and their residue should be removed immediately with mild soap and water mixture. You may refer to AAMA standard 609 & 610 for cleaning and maintenance of aluminum finishes.

6) All materials are to be installed plumb, level true, and in proper alignment. Products are to be installed maintaining tolerances of 1/8" in 12'-0" of length.

7) Isolate all aluminum that directly contacts masonry, stucco, EIFS, Drywall etc., or metals other than aluminum with a heavy coat of zinc chromate, plastic isolators or bituminous paint to avoid corrosive or galvanic reaction.

8) Pressure Treated Lumber is corrosive in nature and must not come into direct contact with any aluminum products furnished by WINCO. Any perimeter fasteners coming into direct contact with, or anchoring into, treated lumber must be coated for use in treated lumber.

9) Expanding Foam i.e. "Great Stuff™" or similar has not been tested for compatibility with anodized finishes, kynar painted finishes, thermal bridge materials, and silicone sealants used in WINCO windows. WINCO cannot endorse or recommend the use of these foam agents for this reason. If the frame cavity is to be filled in order to enhance thermal or acoustical performance, WINCO can recommend the use of rigid (fully cured) polystyrene foam board or glass fiber insulation materials. Refer to the chosen insulation medium manufacturer's MSD sheets and other documentation for safe handling instructions.

General Product Notes continued:

- 10) Do not drill, punch, penetrate or alter the thermal barrier (poured & de-bridged polyurethane or polyamide strut) of the windows or trim in any manner.
- 11) All blocking and shims shall be high strength plastic or other non-corrosive material and must be non-compressible by the weight of the windows, the torque of the fasteners, or the design loads of the window system. Shims and blocking are not furnished by WINCO. Blocking must be of sufficient size & shape to support the window or receptor frame at all anchor locations. This blocking must prevent the anchoring fasteners from bowing, racking, twisting or otherwise distorting the aluminum frames and accessories.
- 12) The vast majority of buildings WINCO products are installed in, utilize a Surface Barrier System as defined in ASTM E 2112. All sealant joints depicted in this set of installation instructions are therefore designed for a Surface Barrier System. Should your project / building be designed for a WRB system, the sealant joints at the sill must be adjusted accordingly to prevent incidental moisture from getting trapped within the barrier envelope. Consult the Architectural drawings & specification and the window shop drawings (if they were included in the Scope of Work).
- 13) Sealants must be compatible with all materials they contact, including other sealant surfaces. Any sealant detail shown in this manual or other WINCO documentation are furnished by others, not by WINCO, unless explicitly stated otherwise.
- 14) The minimum sealant gap used must allow for thermal movement of the window system, as well as allow for any variations of the substrate from level and plumb.
- 15) It is not WINCO's position to select or recommend sealant or caulking types and will assume no liability or responsibility thereof. Contact the sealant supplier for recommendations relative to compatibility, adhesion, priming, tooling, shelf life and joint design. As stated above in paragraph 12, WINCO's products and the sealant joints depicted within this installation guide are for a Surface Barrier System. All shim stack cavities visible on the room side should be closed with paintable caulking to keep dust & debris from accumulating in the shim stack cavity. Any such caulking is on the "dry / protected" side of the system and cosmetic in nature.
- 16) All exterior wall systems are protected with a weather proofing system of some sort. The windows penetrate this system. Since WINCO does not design or manufacture these membranes, the appropriate manufacturer's installation instructions must be followed. Typically WINCO's windows are installed on the "wet" side of a Surface Barrier System. It is important that any sealant used in installation of the window system, is compatible with the weather proofing membrane. Follow the membrane's manufacturer's instructions to seal any fastener penetrations of the membrane.
- 17) WINCO does not provide perimeter anchors / fasteners.
- 18) Anchor design, (type, diameter, minimum embedment, minimum edge distance, maximum O.C. spacing, etc.), is project specific as well as specific to each window opening type. Unless specifically contracted to do so, WINCO will not provide an anchor schedule or make anchor recommendations. Anchor schedules attached to product certifications are to test size & configuration, to tested / certification pressures, and are substrate specific to the testing apparatus.
- 19) The frame and trim extrusions shown in the following pages are generic in nature and reflect shapes used in a typical project. While the actual extrusions furnished may differ, the sequence of installation or the methods shown will still apply.
- 20) If the following installation instructions are unclear, please contact WINCO at (800) 525-8089 for assistance.

- 1) Check the Rough Opening size to make sure it matches the size in the shop drawings or other materials furnished to WINCO for window unit & trim sizing.
- 2) Establish the face of the window line at the head, sill and jambs. This reference is to be determined by using the architectural plans, existing field conditions or shop drawings.
- 3) Thoroughly clean off all construction debris from the opening. The opening should be free of existing caulking, dirt, dust and other loose materials. The opening needs to be prepared for the new window installation. Score lines of previous window installations may require grinding to remove all existing sealant remnants.
- 4) Determine the high point of the masonry sill, and the low point of the head, using a level, straight line & line level, or transit. Shim as required to achieve a level sill (jamb to jamb and inboard to outboard). Verify the opening height will work with the materials planned for usage of the opening. (See Fig.1)
- 5) Check the opening jambs to see if they are plumb. Verify the existing R.O. width at the parallel point will work with the fabricated materials.
- 6) In order for the window system to operate properly, all materials must be set plumb and level, both side to side and front to back. This is especially important for windows with operating vents. (See Fig.1)

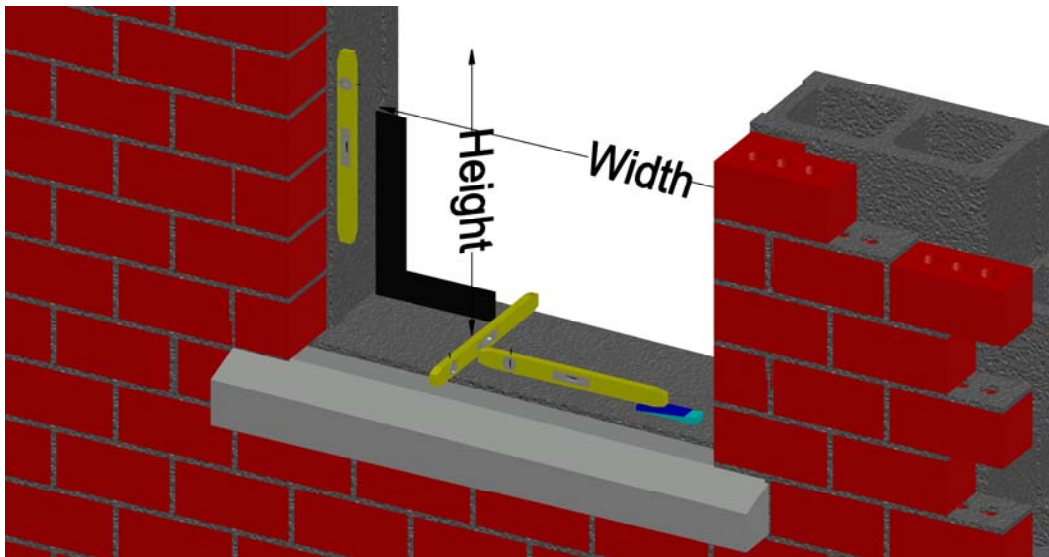


Fig. 1

- 7) The materials provided by WINCO are finished materials and great care must be taken to avoid scratches or other blemishes to the finish.
- 8) Any chemicals used to clean off the surrounding condition and area should be thoroughly washed clean prior to installing any materials furnished by WINCO. Any acidic or caustic solution must be neutralized prior to window installation to avoid the window's aluminum from reacting and corroding.
- 9) Prior to installation, aided by the shop drawings if furnished, determine the size, type and quantity of perimeter fasteners required. Unless specifically contracted to provide stamped & sealed Professional Engineering Calculations, WINCO will not be responsible for specifying perimeter anchors. WINCO will not be responsible for providing these anchors.

10) All casement windows must be securely anchored at jambs on hinged side. When butt hinges are used, anchor through each hinge. Do not bow or twist frames when anchoring. Use shims and / or blocking as necessary to keep jamb free of deformation from anchor fasteners. Pressure treated lumber is corrosive to aluminum and should not be used for this blocking. Any fastener which comes in direct contact with pressure treated lumber must be either Stainless Steel or otherwise be coated to resist corrosion as a result. (See Fig. 2 and Fig. 3)

11) Utilizing butt hinges at side stacked or mulled window units on the mullion or side stack side is technically possible, but will require extra care and blocking to prevent deformation of the window frame from anchors and rotational load of the casement sash. The space to receive the blocking is not readily accessible once the windows are placed in their respective installation position. (See Fig. 4 and Fig. 5)

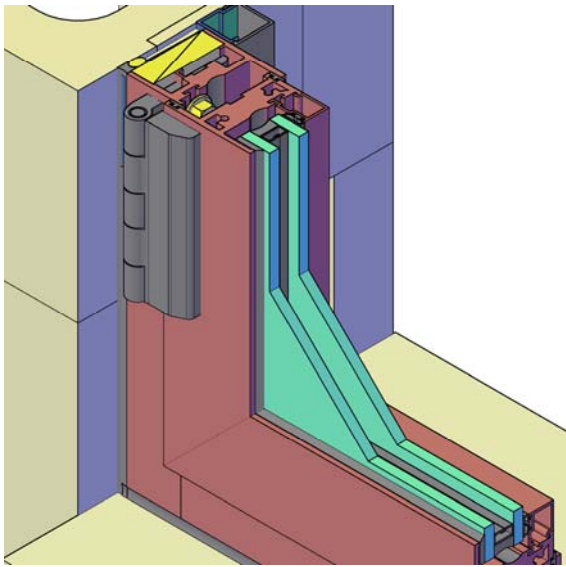


Fig. 2

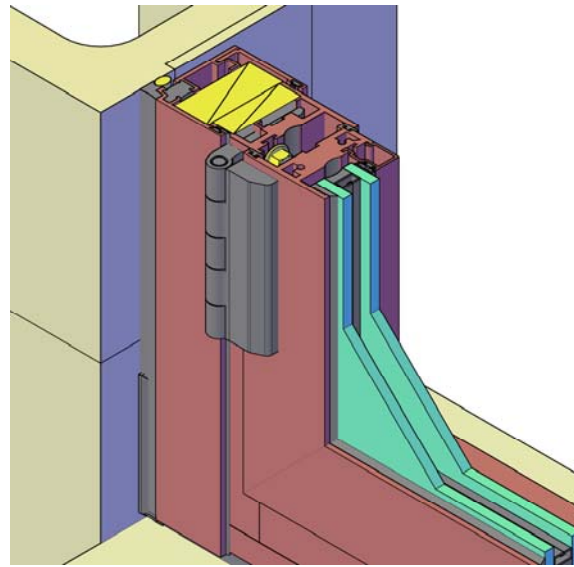


Fig. 3

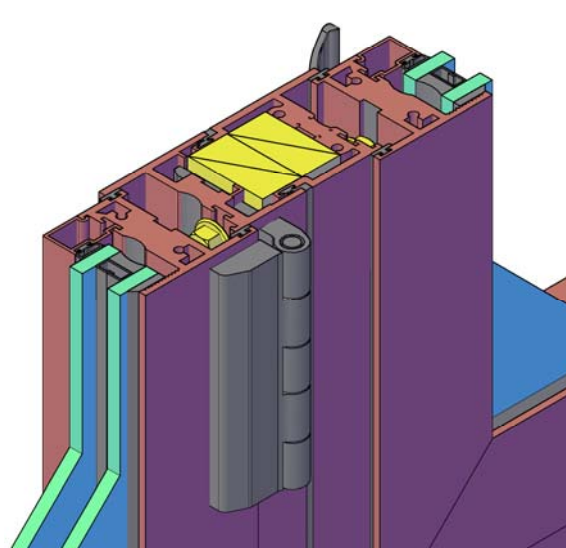


Fig. 4

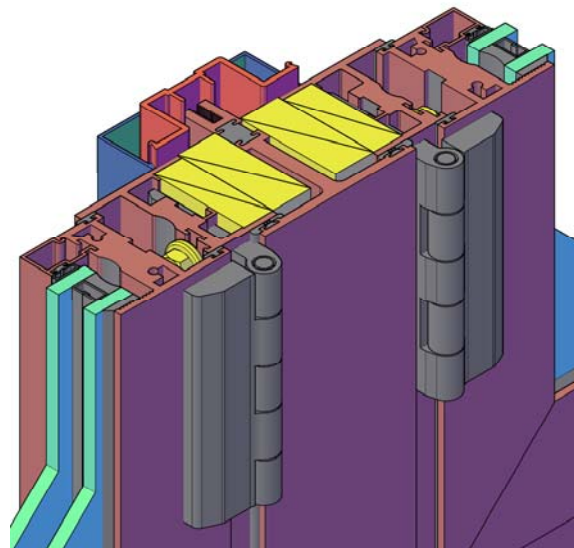


Fig. 5

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Snap Trim Installation

Generic frame and trim extrusions shown, actual extrusions used may differ.

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1) Place intermittent shim packs or PVC Frame Filler into the window frame cavity. This will act as support for the sealant backer rod later. See Fig. 1

2) Place the window into the final installation position and plumb / level the unit with shims. Care must be taken to maintain all frame corners square. See Fig. 2
No shims must be sticking out beyond the interior plane of the window.

3) WINCO furnishes the snap trim cut long & square. Determine the final length of the snap trim base and cut to size. The base does not have to be cut to exact dimension since it will be concealed by the snap on cover later. Lay out the anchor spacing for both the primary wind load anchors and the back anchors. Pre-drill the aluminum as required. The primary anchor secures the snap trim base to the wall substrate, the back anchor connects the window and the snap trim base. The back anchor is often a self drilling screw. Since the geometry of the load path and the fastener diameter differ between the primary anchor and the back anchor, the spacing of the two anchor types will differ in most installations. Using the snap trim base as template, drill fastener clearance holes as required. See Fig. 3

4) Place the snap trim base into position. If the primary anchors require a pilot hole in the wall substrate, mark the hole locations using the snap trim base. Set the base aside and drill as required. Refer to fastener documentation for hole size. Clean and dust debris and chips as necessary and place the base into position. Blind holes in concrete or CMU will require removal of dust from the hole itself. Replace the trim base and insert a primary anchor on each end and tighten it. Install the back anchors to secure the window to the snap trim base. Repeat this process on all four sides. Insert the balance of the primary anchors into position and torque them as required to achieve full anchor capacity. See Fig. 4

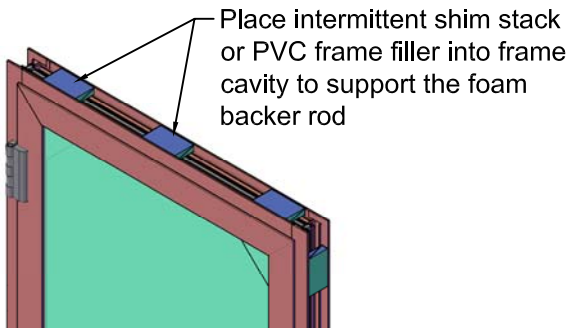


Fig. 1

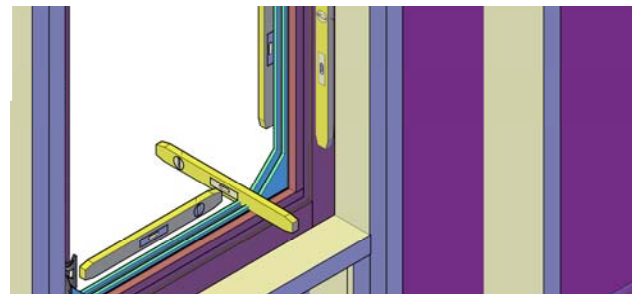


Fig. 2

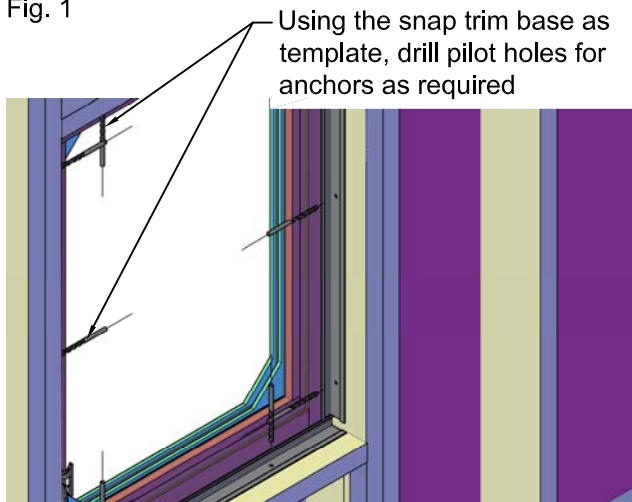


Fig. 3

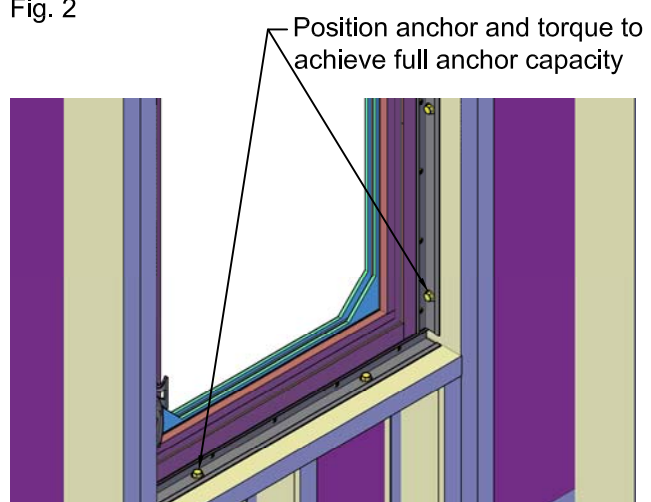


Fig. 4

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Snap Trim Installation

Generic frame and trim extrusions shown, actual extrusions used may differ.

5) The snap trim cover should be cut as accurate as possible. Snap in the sides running through first and then the intersecting covers. See Fig. 5

6) On the Building Exterior, place foam backer rod between the condition and the windows to act as bond breaker and limit the amount of sealant pumped into the joint. Lay a continuous bead of sealant along the entire exterior perimeter joint. Tool sealant as required. - Refer to sealant manufacturer's instructions. See Fig. 6

A typical snap trim installation is now complete.

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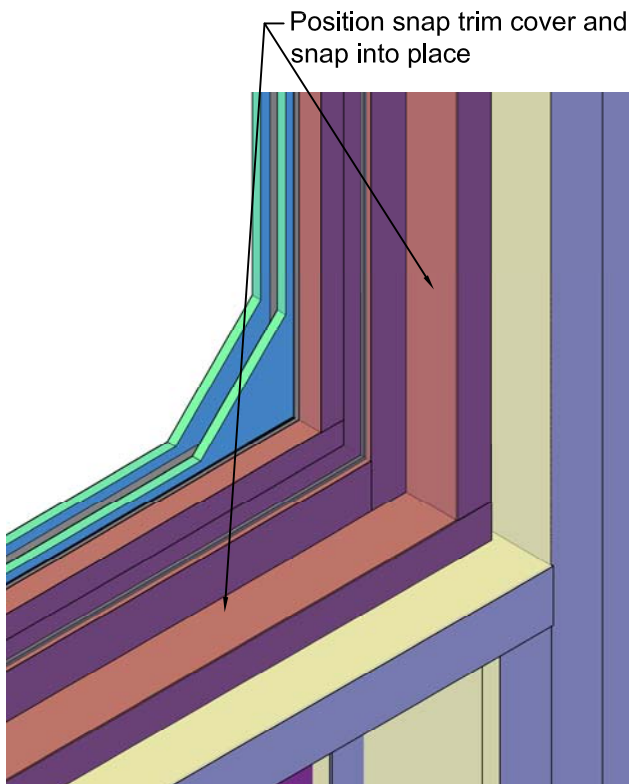


Fig. 5 - Viewed from Building Interior

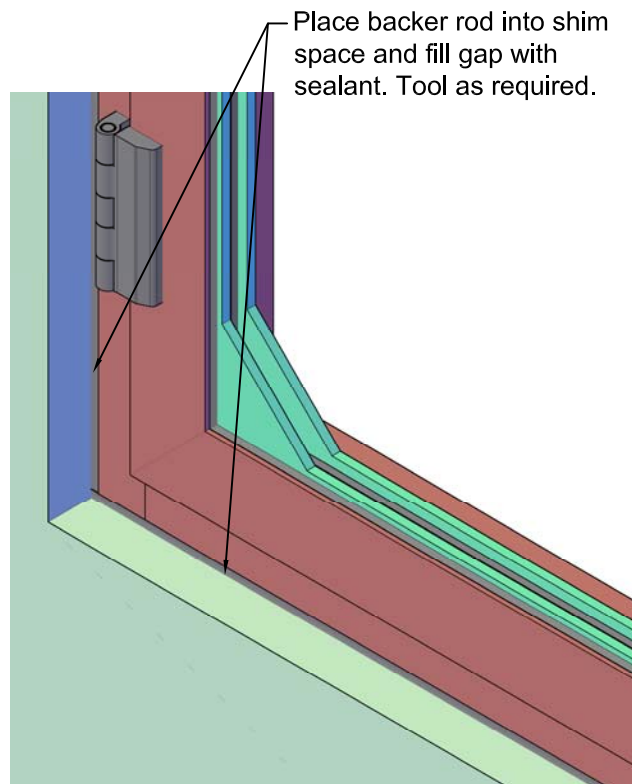


Fig. 6 - Viewed from Building Exterior

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Snap Trim Installation

Generic frame and trim extrusions shown, actual extrusions used may differ.

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7) IF additional exterior snap trim is required for aesthetic reasons, cut the exterior snap trim base to final size and position the snap trim base to cover the sealant installed in step 6. See Fig. 7

8) Attach the exterior trim base with self drilling screws to the window frame. See Fig. 8

9) Lay a small bead of sealant on the snap trim base toe to limit water intrusion between the wall substrate and the trim. Also, lay a small bead of sealant at the opposite trim hook to limit water intrusion between snap trim base and window. See Fig. 9

If the snap trim base is set in a bed of sealant, the sealant in step 9 can be omitted.

This sealant is not intended to replace the primary weather seal installed in step 6. It is only intended to limit water intrusion and accumulation on the under side of the exterior snap trim which could cause problems during a freeze / thaw cycle and deform the exterior snap trim.

10) The exterior snap trim cover should cut as accurate as possible. Scrolled or other non-rectangular trim shapes will require a miter joint. Snap the cover into position and clean any sealant squeeze-out. See Fig. 10

Some snap trim covers are designed to take an additional bead of sealant at the wall perimeter. If this applies to your project, apply the sealant and tool as required.

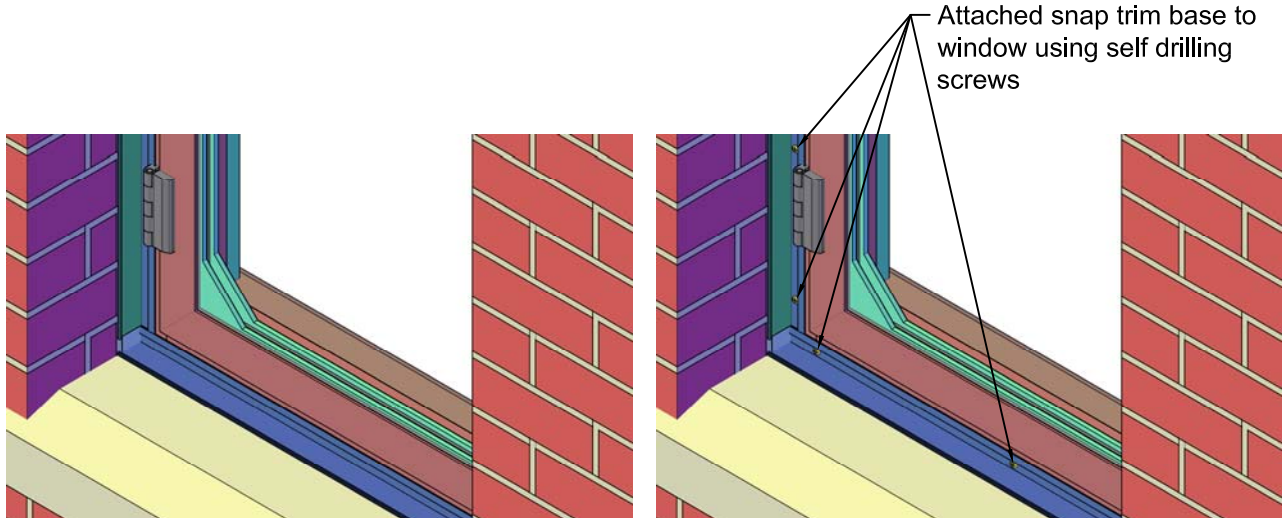


Fig. 7

Fig. 8

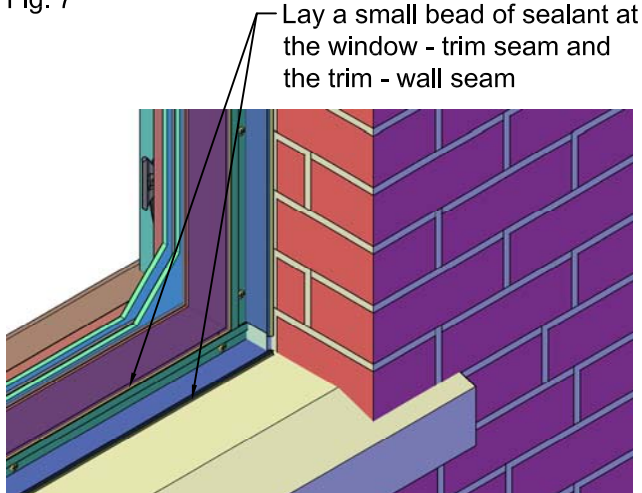


Fig. 9

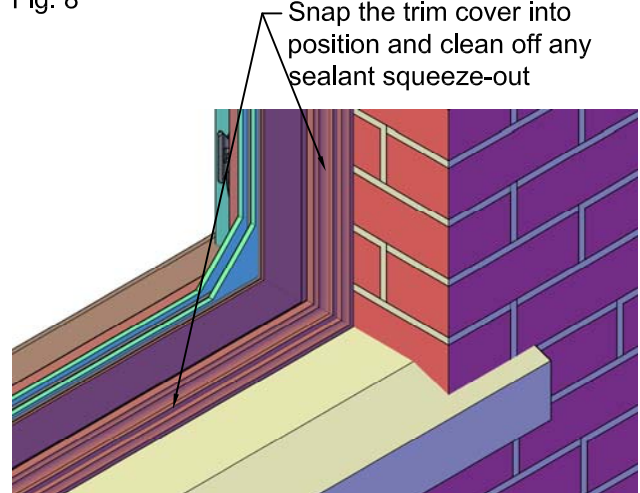


Fig. 10

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Sub Frame / Receptor Installation

Sub-Sill Preparation

Generic frame and trim extrusions shown, actual extrusions used may differ.

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- 1) If a sill extension is used, prep the sub sill first for the weep and insert the sill extender before proceeding to attach the end dams.

Determine the final length of the sub sill and cut to size.
(Actual Rough Opening Width minus 1/4")
Drill a $\varnothing 1/4$ " weep hole approximately 6" from each end PLUS one (1) hole each side of any intersecting mullion. On TB-102, the weep holes will cut into the horizontal shelf supporting the window. This is expected. Do not down size the drill size, since surface tension of the water can counteract the free flow of water if the hole diameter is less than $\varnothing 1/4$ ".
Make sure the saw cuts are burr free and all chips & debris are removed from sub sill before proceeding to next step.

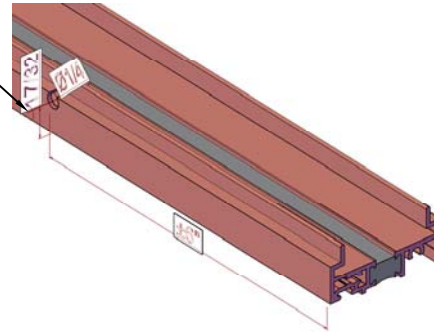


Fig. 1

- 2) Sill Extender installation

(If the project does not require extruded sill extender(s), skip figures 2 and 3)

Lay a bead of Silicone Sealant along the entire length of the sub sill before inserting the sill extender. This prevents wicking of water through the capillary joint between the extrusions. The sealant used must be compatible with the silicone used for the primary weather seal.

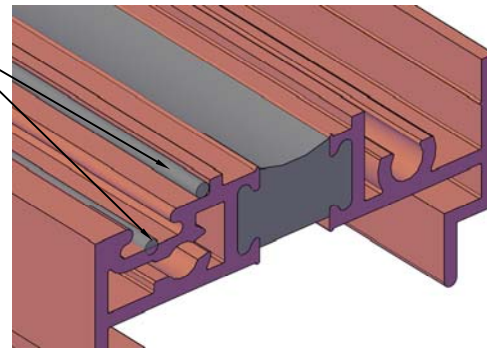


Fig. 2
(Sub Sill is upside down for this step)

Insert Sill Extender into the keyed groove and slide into position. Once final position is achieved, tool all visible sealant to ensure a water tight seal.

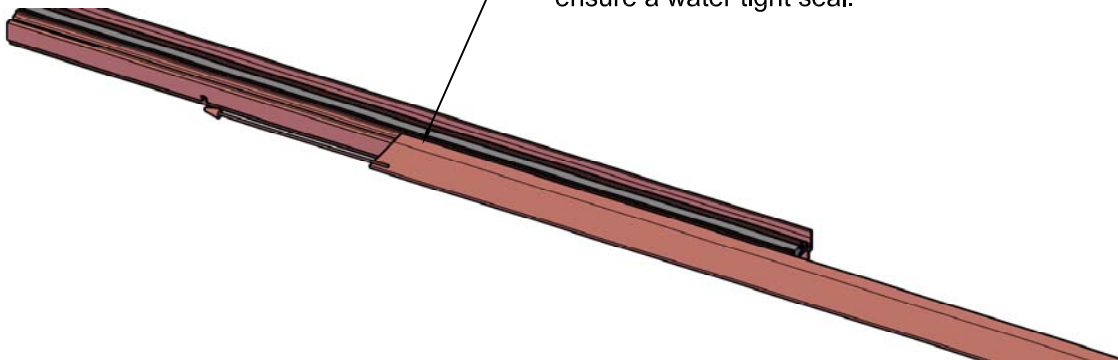


Fig. 3
(Sub Sill is upside down for this step)

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Sub Frame / Receptor Installation

Sub Sill Preparation



Generic frame and trim extrusions shown, actual extrusions used may differ.

3) The factory supplied end dams are the same depth as the sub sill and 3" tall. The hole pattern lines up with the screw bosses in the sub sill. Since the holes may be offset, the correct orientation of the end dam needs to be established prior to applying sealant.

Lay a number of silicone beads to "butter" the bottom 3/4" of the end dam where it will come into contact with the sub sill.
Only the side of the end dam facing the sub sill will be treated in this fashion.

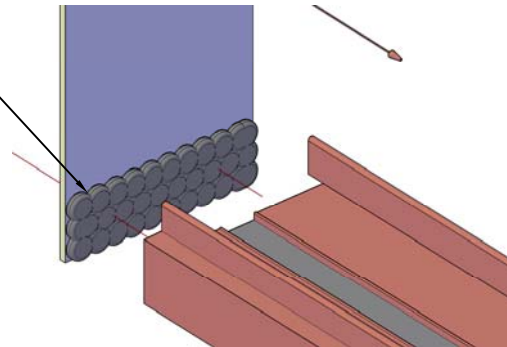


Fig. 4

4) Bring the end dam into position and insert the factory supplied screw (Bill of Lading item X-113) into the holes. With a No. 2 Phillips screw driver, tighten the screws to a snug fit. Tool any exposed sealant to ensure a watertight fit. See Fig. 5 without Sill Extender and Fig. 6 if a Sill Extender is used.

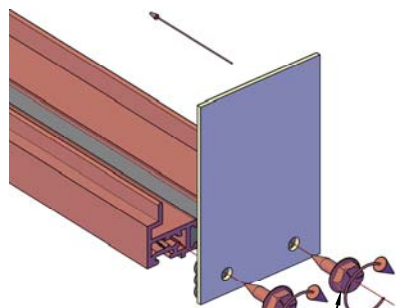


Fig. 5

No.8 x 3/8" SMS
w/ Phillips Drive
WINCO Part No. X-113

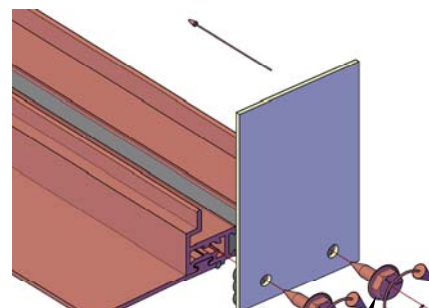


Fig. 6

No.8 x 3/8" SMS
w/ Phillips Drive
WINCO Part No. X-113

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Generic frame and trim extrusions shown, actual extrusions used may differ.

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5) Set the sub sill & end dam assembly into position and insert shims below to achieve a level installation plane. The shim stack height should be no less than 1/4" to afford sufficient space for the primary silicone weather seal. Consult the sealant manufacturer's documentation to ensure their minimum recommended sealant gap is achieved. Establish the anchor locations and anchor size. The thermal barrier of the sub sill may not be penetrated by the anchor or the anchor's clearance hole. Anchor design, (type, diameter, minimum embedment, minimum edge distance, maximum O.C. spacing, etc. are project specific and also specific to each window opening type. Unless specifically contracted to do so, WINCO will not provide an anchor schedule or make anchor recommendations. WINCO does not provide perimeter anchors / fasteners. All anchor locations must be fully supported by a shim stack made from non-compressible shims to prevent bowing and twisting of the sub sill when the anchors are tightened. See Fig. 7 & 8

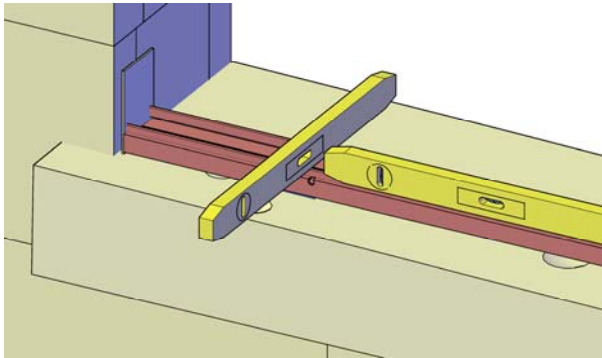


Fig. 7 - Viewed from Building Exterior

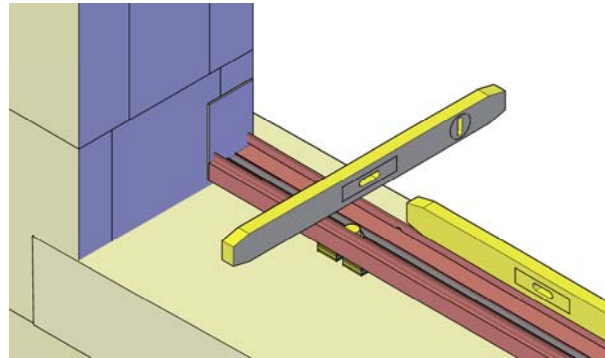


Fig. 8 - Viewed from Building Interior

6) Apply a bead of silicone around the perimeter of the end dam to establish a seal against the wall substrate. Also apply a generous bead of silicone along the intersection of sub sill and end dam. Tool as necessary to ensure a water tight seal. The illustrations in this manual show CMU substrate. While the actual wall substrate at your project may differ, the procedure remains the same. See Fig. 9 & 10

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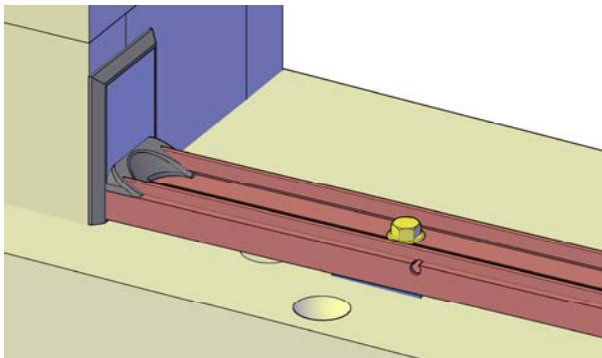


Fig. 9 - Viewed from Building Exterior

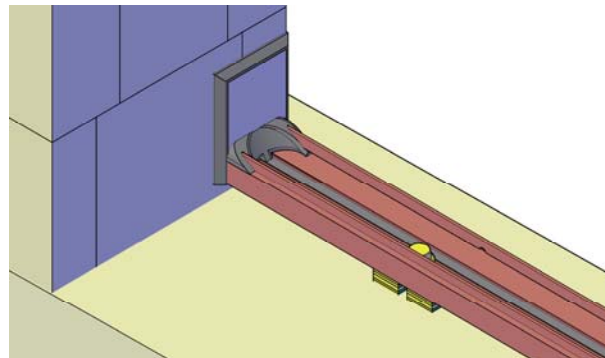


Fig. 10 - Viewed from Building Interior

Generic frame and trim extrusions shown, actual extrusions used may differ.

7) Determine the final length of the head receptor and cut to size. (Actual Rough Opening Width minus 2 times the shim stack / sealant joint allowance)

8) Determine the final length of the jamb receptor and cut to size. A standard receptor installation terminates the jamb receptors at the head cut square.

Alternatively, at the installer's option, the jamb can be cut longer at the head and coped to fit into the head receptor. If the standard installation configuration of the closure is used, the interior side of the receptor will also require coping. Doing so will add field labor and not boost the weather performance of the receptor system. See Fig. 11a for standard and Fig. 11b for alternate jamb cope at head. When a sub sill is also used, the jamb receptor must be coped to clear the sub sill. (Fig. 12) This cope should be the full depth of the jamb receptor's web at about 1" tall. Since the sill end of the jamb receptor runs past the sill end dam, there is a great deal of tolerance for the actual height of the cope. See Fig. 12a and Fig. 12b

9) The jamb closure must be coped at the sill to clear the sub sill and shim stack. For a 1/4" sealant allowance the cope needs to be 1" tall. See Fig. 13

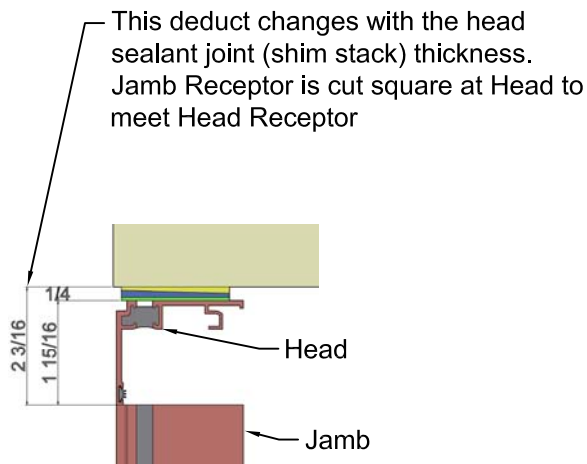


Fig. 11a - Jamb Receptor at Head

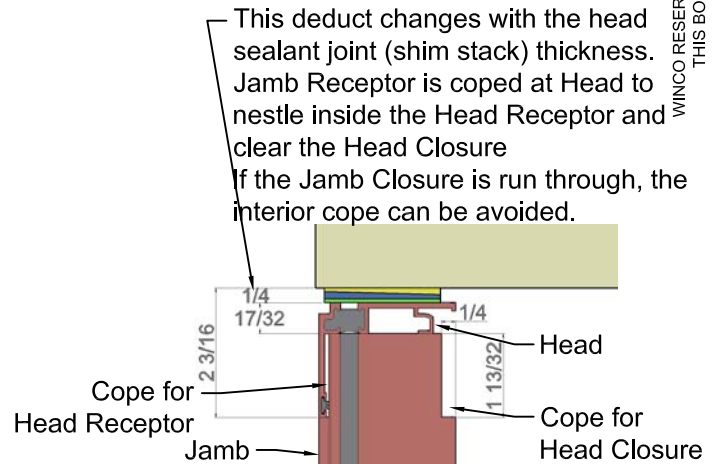


Fig. 11b - Jamb Receptor at Head

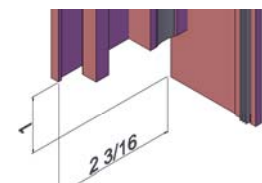


Fig. 12

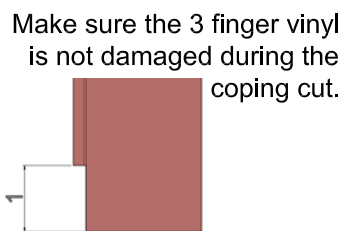


Fig. 12a - Jamb Receptor at Sill Viewed from Building Exterior

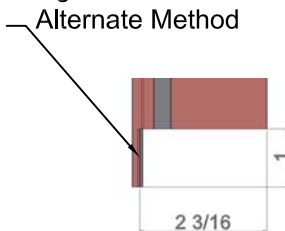


Fig. 12b - Jamb Receptor at Sill Viewed from Receptor Back

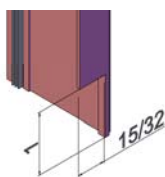


Fig. 13 - Jamb Receptor Closure at Sill

The 3 finger vinyl (WINCO Part No. H30-2) functions as a bond breaker and backer rod for the final seal between the exterior window surface and the receptor frame.

If the final sealant between window and receptor is not made using silicone sealant, excessive water intrusion into the system must be expected. Should the 3 finger vinyl be damaged, its function as a bond breaker may be compromised and sealant failure in the form of tearing of the silicone due to thermal movement must be expected.

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Generic frame and trim extrusions shown, actual extrusions used may differ.

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10) Place the head & jamb receptors into position and insert shims below to achieve a plumb & level installation plane. The shim stack height should be no less than 1/4" to afford sufficient space for the primary silicone weather seal. Consult the sealant manufacturer's documentation to ensure their minimum recommended sealant gap is achieved. Establish the anchor locations and anchor size. The thermal barrier of the sub sill may not be penetrated by the anchor or the anchor's clearance hole. Anchor design, (type, diameter, minimum embedment, minimum edge distance, maximum O.C. spacing, etc. are project specific as well as specific to each window opening type. Unless specifically contracted to do so, WINCO will not provide an anchor schedule or make anchor recommendations. WINCO does not provide perimeter anchors / fasteners. All anchor locations must be fully supported by a shim stack made from non-compressible shims to prevent bowing and twisting of the sub sill when the anchors are tightened. See Fig. 14 & 15

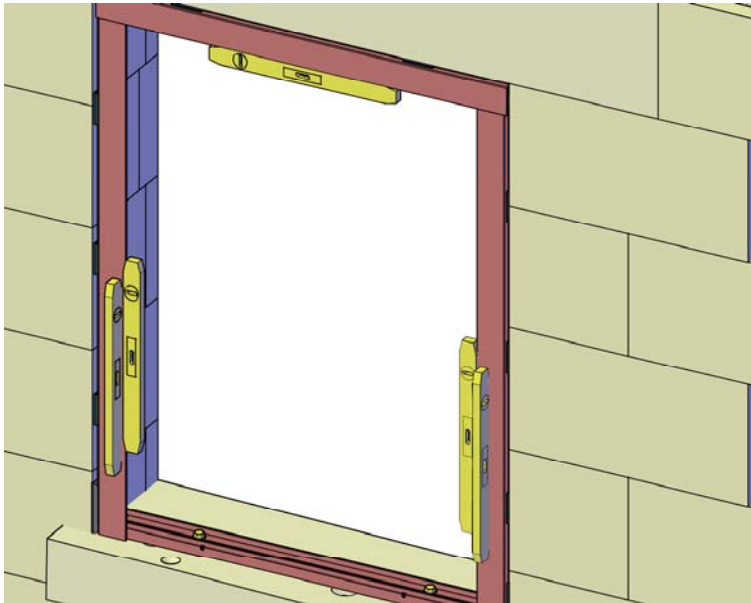
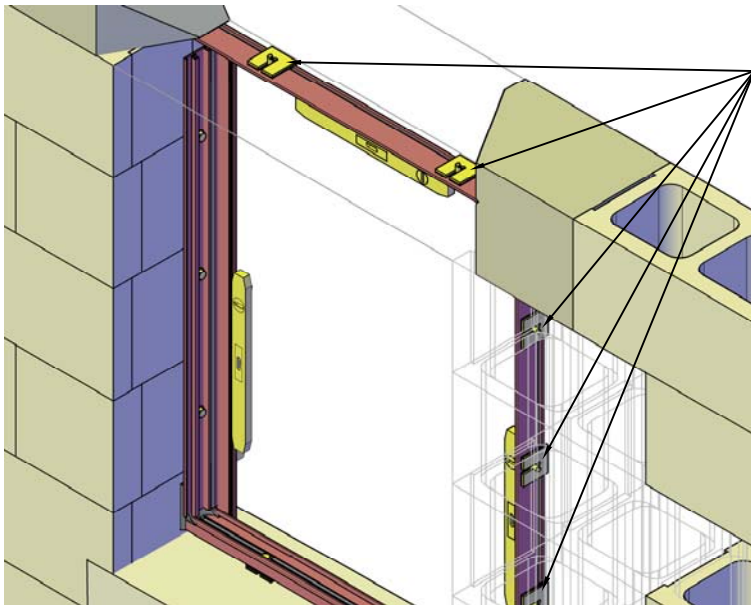


Fig. 14 - Viewed from Building Exterior



Shims at all anchor locations to achieve a plumb and level installation of the window unit(s) and allow the recommended sealant gap.

Fig. 15 - Viewed from Building Interior

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11) Seal all sill anchor heads with silicone sealant. Inspect and make sure that no debris is left in the sub sill which might clog the weep holes. Lay a small continuous bead of silicone sealant on each of the horizontal surfaces of the sub sill which will support the window unit(s). See Fig. 16 & 17
 Lay a continuous bead of silicone along the interior edge of the receptor alongside of the 3 finger vinyl. This seal will limit water intrusion between window and receptor frame. The 3 finger vinyl acts as backer rod and bond breaker. It is not designed as a substitute for sealant. See Fig. 17

12) Seal the top edge to the jamb receptor with a short bead of silicone sealant. See Fig 18a & 18b

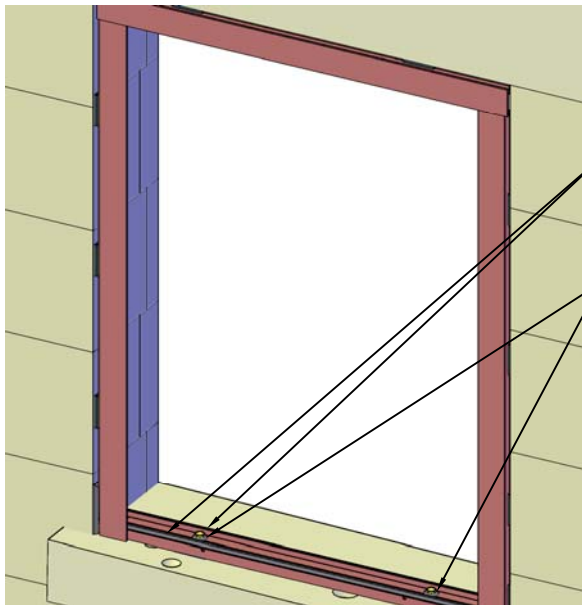


Fig. 16 - Viewed from Building Exterior

Place a bead of silicone sealant along the interior and exterior receiving surfaces of the sub sill.

Be sure to seal all sill anchor heads with silicone sealant.

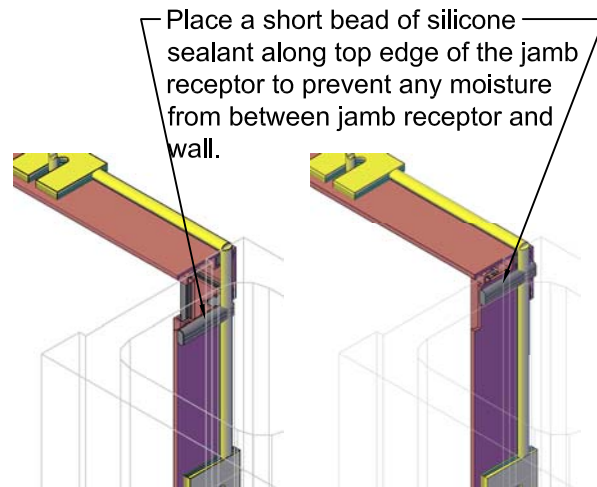


Fig. 18a

Fig. 18b

Place a short bead of silicone sealant along top edge of the jamb receptor to prevent any moisture from between jamb receptor and wall.

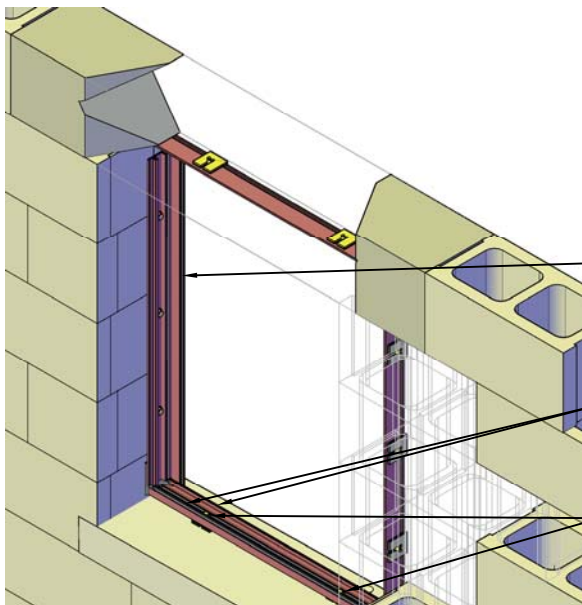


Fig. 17 - Viewed from Building Interior

Place a continuous bead of silicone sealant along the interior edge of the receptor along side the 3 finger vinyl. (Head and both jambs)

Place a bead of silicone sealant along the interior and exterior receiving surfaces of the sub sill.

Be sure to seal all sill anchor head with silicone sealant.

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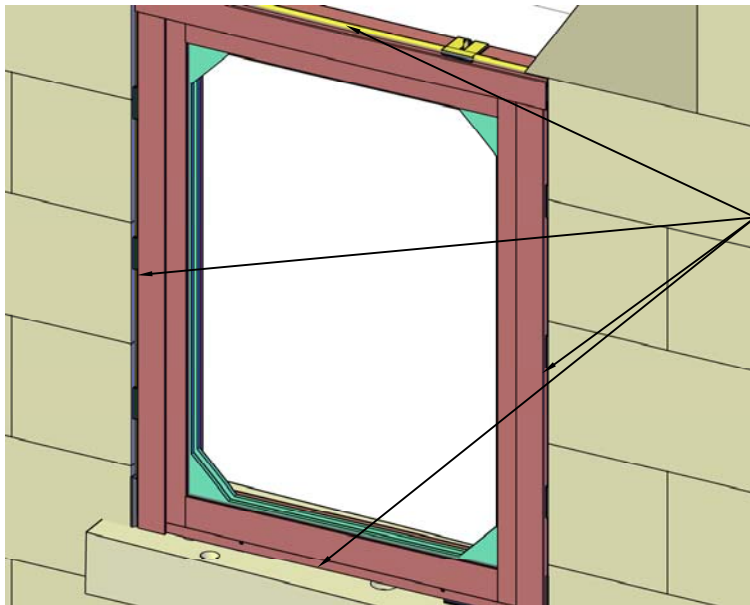
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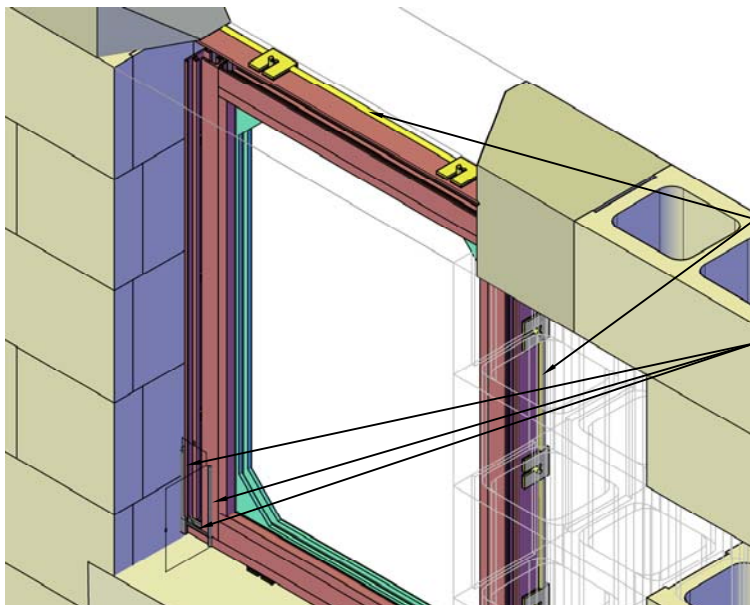
13) Set window unit into position. Insert Foam Backer Rod on all four sides to act as a bond breaker for the exterior primary water seal. See Fig. 19 & 20

14) Apply Two (2) 6 Inch tall bead of sealant approximately 2 inches apart and a horizontal bead connecting the two at each sill end of the jambs. This serves to prevent ingress of any water into the occupied space should the sill weep slower than a potential water intrusion. The vertical beads seal the closure against window and wall substrate, the horizontal bead will seal the closure against the sub sill. See Fig. 20



Place backer rod on all 4 sides of the exterior to act as bond breaker for the exterior primary seal.

Fig. 19 - Viewed from Building Exterior



Place backer rod on all 4 sides of the exterior to act as bond breaker for the exterior primary seal.

On the Building Interior side, place a horizontal bead of sealant 2 inches long on each end of the sub sill as shown connected to 2 vertical beads to 6" elevation on the wall side and where the jamb closure will terminate.

Fig. 20 - Viewed from Building Interior

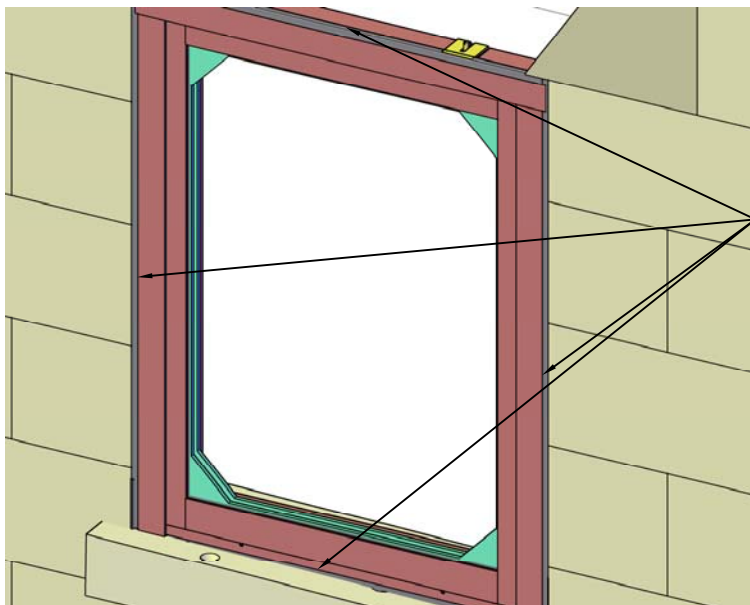
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Generic frame and trim extrusions shown, actual extrusions used may differ.

15) Apply primary sealant to exterior sides & tool sealant. See Fig. 21 & 22

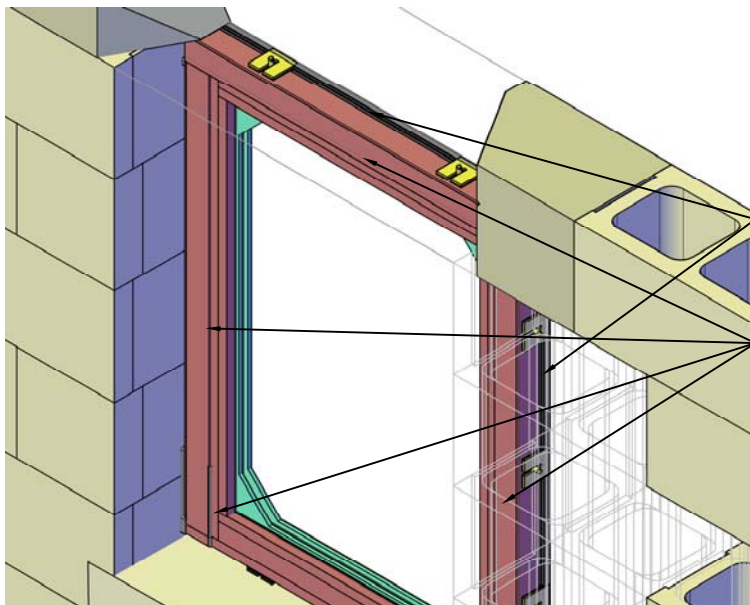
16) Snap head & jamb receptors into position to securely attach window to receptor. Tool any sealant squeeze-out at the sill.

Note that the shim stack will remain visible to the interior on all four sides. This is typically concealed with drywall and a sill stool. The gap between receptor / sub sill and the wall is protected by the primary sealant. WINCO does not require additional sealant on the interior edge. If the shim stacks are exposed to view after windows are installed, Painter's caulk can be applied for cosmetic purposes.



Apply & tool primary sealant on the exterior. (all four sides)

Fig. 21 - Viewed from Building Exterior



Apply & tool primary sealant on the exterior. (all four sides)

Apply receptor closure D11-148 to jamb and head receptors. Tool any sealant squeeze-out at the sill as required.

Fig. 22 - Viewed from Building Interior

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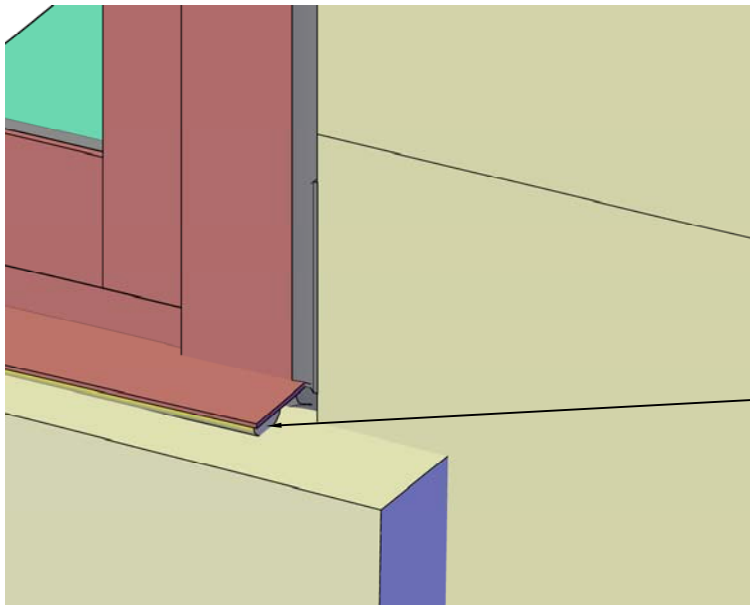
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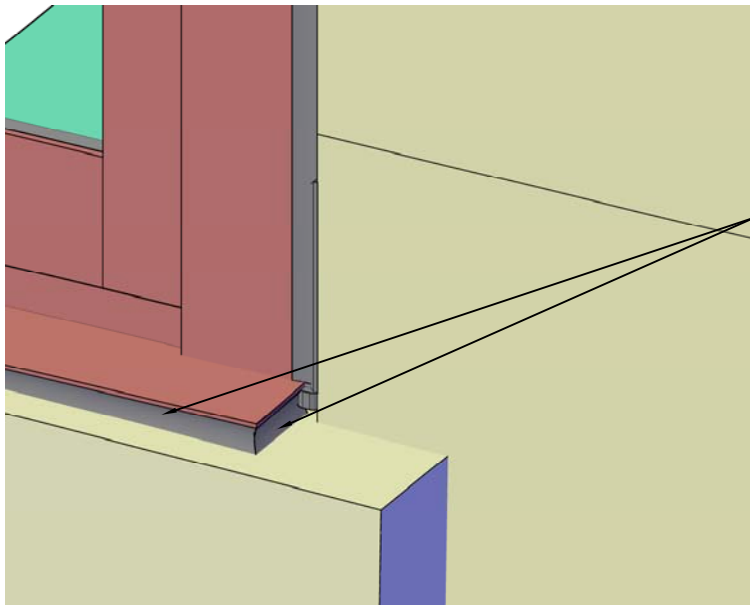
17) If a sill extender is used, insert a foam backer rod between the sill extender and the wall condition. See Fig. 23

18) Apply a bead of silicone sealant and tool as required. See Fig. 24



Insert backer rod between sill extender and wall

Fig. 23



Apply & tool primary sealant at sub sill and wall interface

Fig. 24

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Stacked Installation

Side Stack

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Vertical Stack (Side Stack)

The window units should be spaced with a nominal 1/8" gap for a vertical stack joint. This gap will allow a sufficient amount of sealant for a weather tight installation and at the same time allow expansion / contraction room for thermal movement. The gap can be increased or decreased slightly to allow uniform window sizes with moderate variance in opening width.

Window unit sizes will be divisible by 1/16" increments, but will be no less than 1/8" from one size to the next. This is due to manufacturing considerations and tolerances.

The vinyl (WINCO Part No. H30-2) only serves as backer rod and bond breaker to prevent a 3 sided joint.

The following rules must be observed for a problem free product life cycle:

The total amount of joint space should not be less than 0.125" for every 120" opening width for thermal expansion.

The individual joint should never be less than 0.062".

The individual joint should not exceed 0.188".

1) Clean the window unit jamb to remove any dust and oils from handling.

Apply a small bead of silicone to the "male" stacking leg on the exterior and the units's interior side. See Fig. 1

2) Position the second window unit in place. Tool & clean all squeeze out silicone from the window units. The sealant joint must run the full length of the stack. See Fig. 2

Proceed with installation according to the trim package applicable to your project.

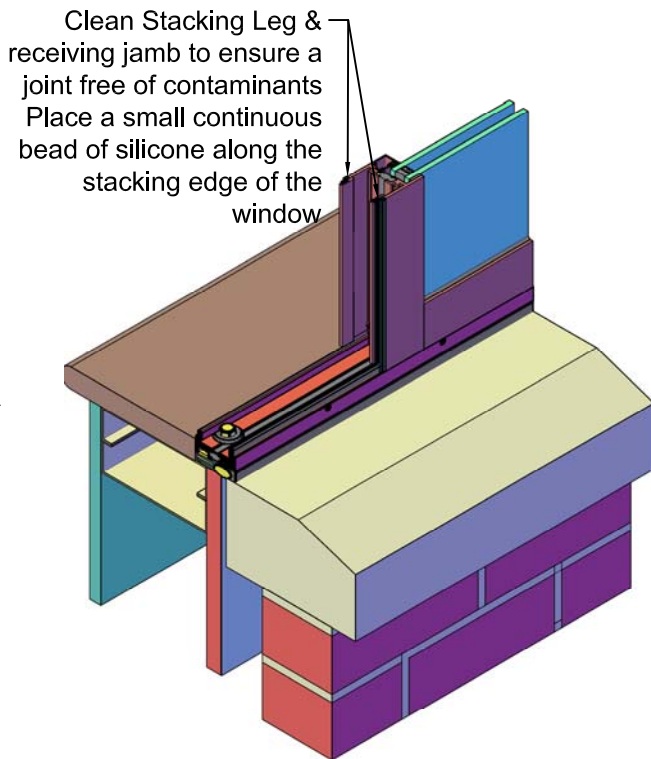


Fig. 1

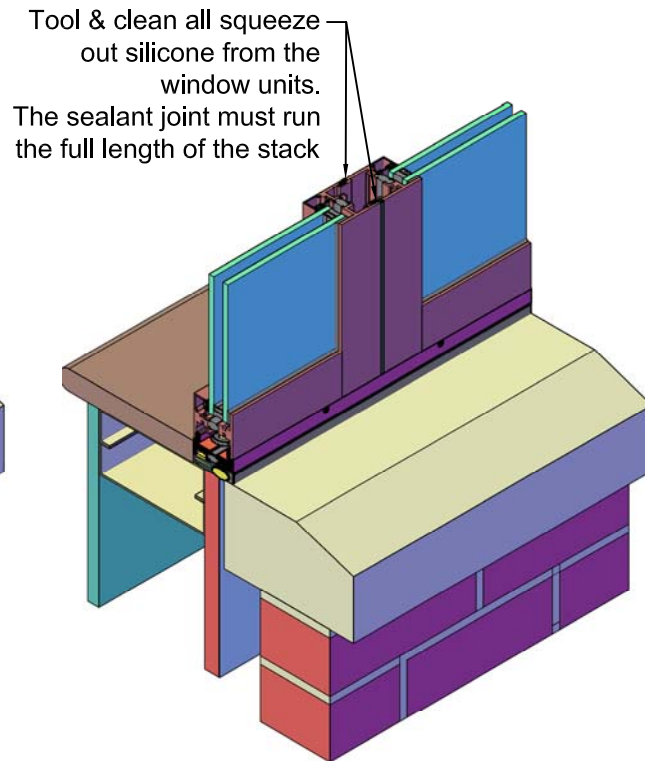


Fig. 2

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Stacked Installation

Gravity Anchor



Generic frame & trim extrusions shown, actual extrusions used may differ.

Horizontal Stack

Installation for this orientation follows the same procedures as a vertical stack. Depending on the opening height, the units may be hard stacked to transfer the dead load directly from frame to frame. On taller openings (typically exceeding 12'-0") gravity anchors will be required and a 1/8" nominal gap in the stack is planned to allow for the thermal expansion of the individual units. Since the vertical thermal expansion / contraction is a function of the unit height, shorter stacks can fully absorb expansion / contraction in the perimeter sealant joint or the receptor engagement at the head.

If Gravity anchors are not required / used, proceed directly to step 7

If Gravity Anchors are required / used:

Gravity anchors support only the dead load of the window unit directly above the anchor. It is not intended to transfer wind loads to the wall substrate.

3) Determine the vertical position of the gravity anchor. Since this will vary with the frame sill extrusion used on your project, these instructions cannot provide a formula for each instance. Measure the distance from the sill edge of the window frame to the interior (concealed) area where the gravity anchor will support the window. Subtract 1/4" plus any allowance for a thermal separator shim if required. This is the location of the bottom surface of the gravity anchor. The gravity anchor is factory pre-drilled with 2 holes for $\varnothing 1/4$ " fasteners. See Fig. 3

Snap Trim installation:

4) If the windows are installed without receptors, determine if the fastener used will require pre-drilling of the wall substrate. Pre-Drill wall substrate as required. Attach the gravity anchor to the wall substrate and secure with fasteners. See Fig. 4 & Fig. 5

Receptor Installation:

5) For installation using a jamb receptor, lay out and pre-drill clearance holes for the gravity anchor fastener. See Fig. 6

6) A pan head screw w/ nut & bolt (X-307 w/ nut washer) can be used to secure the gravity anchor to the receptor jamb prior to installing the trim into the rough opening. Install the jamb receptor per the receptor installation instructions. See Fig. 7

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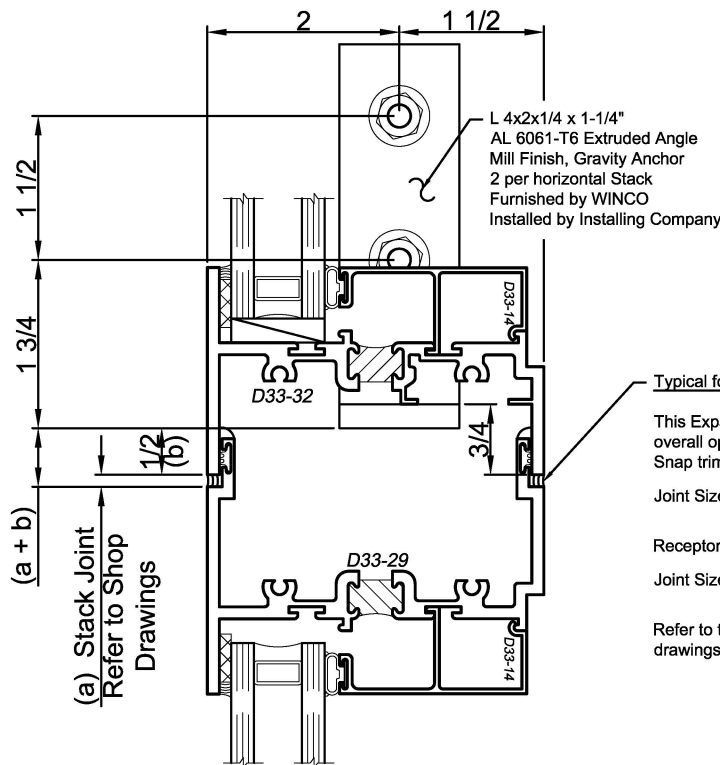
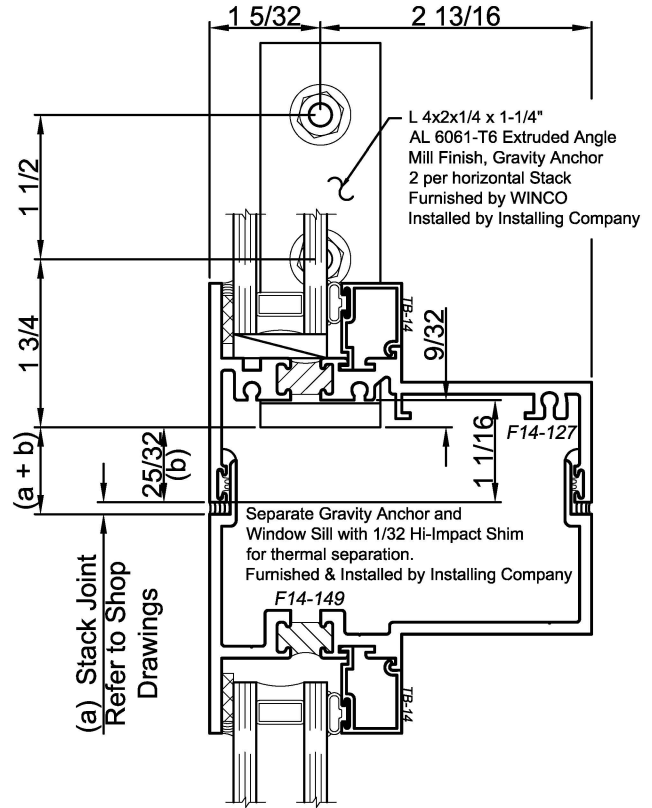
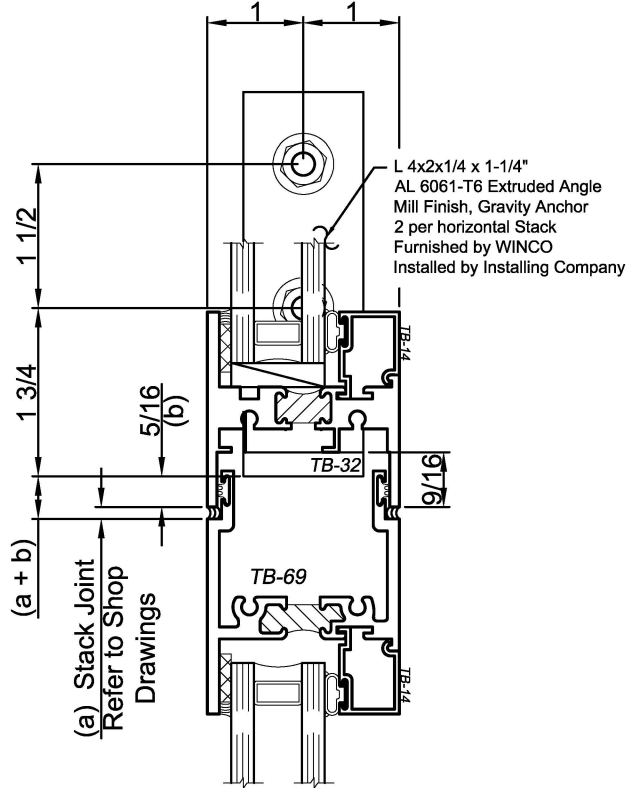
Stacked Installation Gravity Anchor



Generic frame & trim extrusions shown, actual extrusions used may differ.

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Below is a short list of the most common extrusion profiles used in combination with Gravity Anchors. This list does not a complete selection of all available extrusions. It is only intended to serve as a guide how to correctly determine the installation position of the gravity anchor(s) relative to the window immediately below the horizontal stack joint.



Typical for all Horizontal Stacks with Gravity Anchor:

This Expansion Joint may vary from 1/8" to 1/4" depending on the project's overall opening sizes, window and trim configuration.

Snap trim installation:

$$\text{Joint Size [in]} = \frac{\text{Rough Opening size [in]} \times 0.000013 \times \Delta T [^{\circ}\text{F}]}{\text{number of horizontal expansion joints}}$$

Receptor Installation:

$$\text{Joint Size [in]} = \frac{(\text{Rough Opening size [in]} \times 0.000013 \times \Delta T [^{\circ}\text{F}]) - 1/4"}{\text{number of horizontal expansion joints}}$$

Refer to the actual nominal joint size indicated on the project specific shop drawings.

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Stacked Installation Gravity Anchor

Generic frame & trim extrusions shown, actual extrusions used may differ.

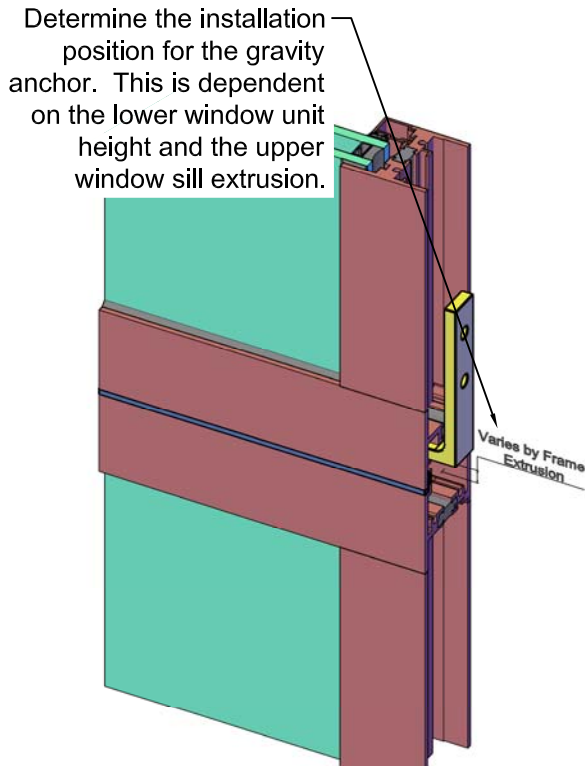


Fig. 3

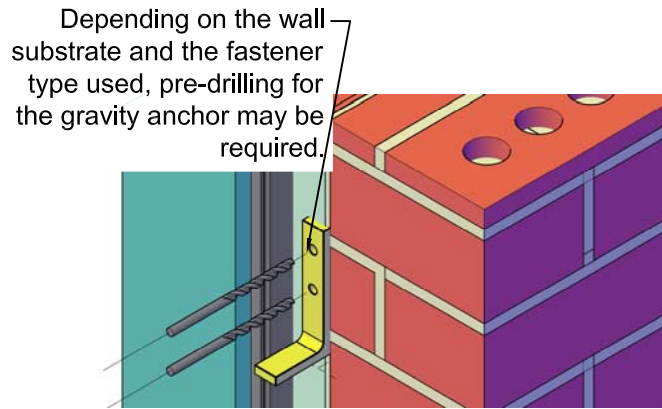


Fig. 4

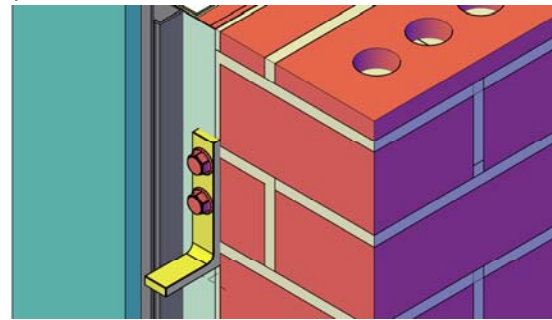


Fig. 5

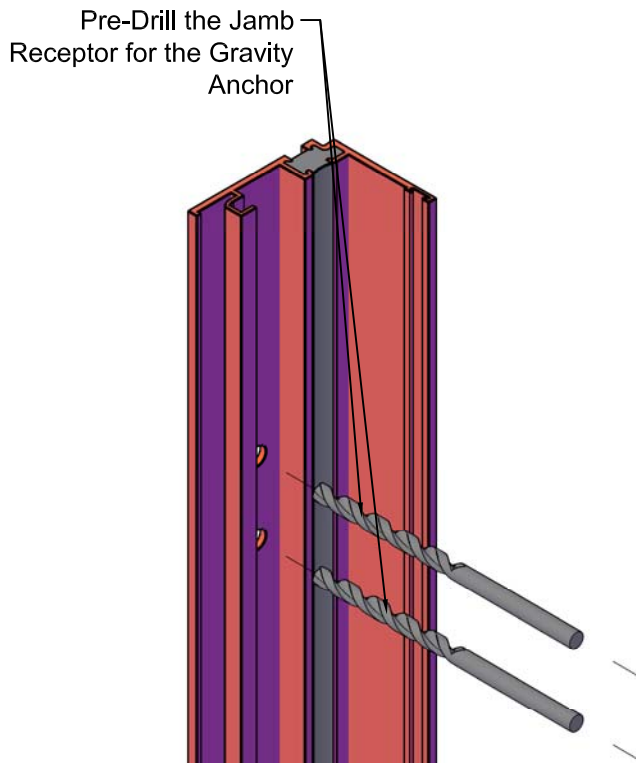


Fig. 6

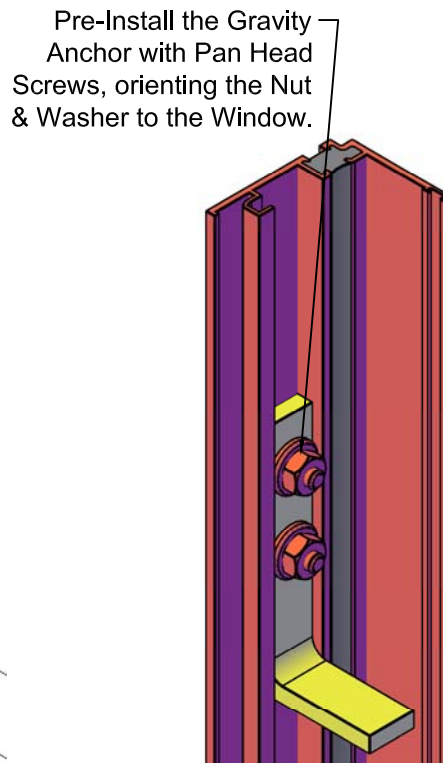


Fig. 7

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Stacked Installation

Horizontal Stack

Generic frame & trim extrusions shown, actual extrusions used may differ.

Horizontal Stack

Installation for this orientation follows the same procedures as a vertical stack. Depending on the opening height, the units may be hard stacked to transfer the dead load directly from frame to frame. On taller openings (typically exceeding 12'-0") gravity anchors will be required and a 1/8" nominal gap in the stack is planned to allow for the thermal expansion of the individual units. Since the vertical thermal expansion / contraction is a function of the unit height, shorter stacks can absorb expansion / contraction in the perimeter sealant joint or the receptor engagement at the head.

If gravity anchors are not required / used, proceed directly to step 7, else follow steps 3 through 5 for snap trim and 3, 6 & 7 for receptor installed windows on the preceding pages.

7) Install the bottom window unit per the appropriate trim installation instructions. Clean the window units head (bottom unit) & sill (top unit) to remove any dust and oils from handling. Apply a small bead of silicone to the "male" stacking leg on the exterior and the units's interior side. Position the second window unit in place. See Fig. 8

8) Position the second window unit in place. Tool & clean all squeeze out silicone from the window units. The sealant joint must run the full length of the stack. See Fig. 9

Proceed with installation according to the trim package applicable to your project.

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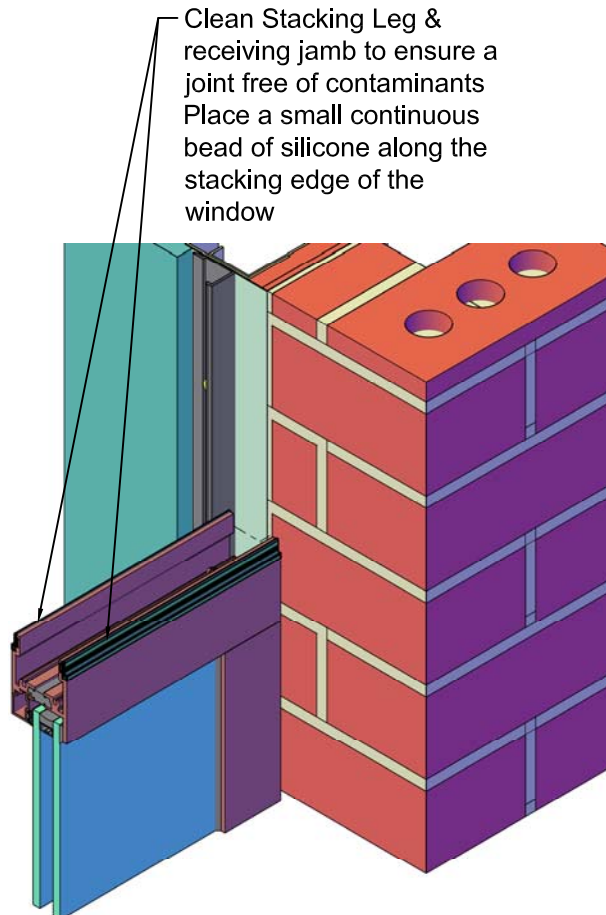


Fig. 8

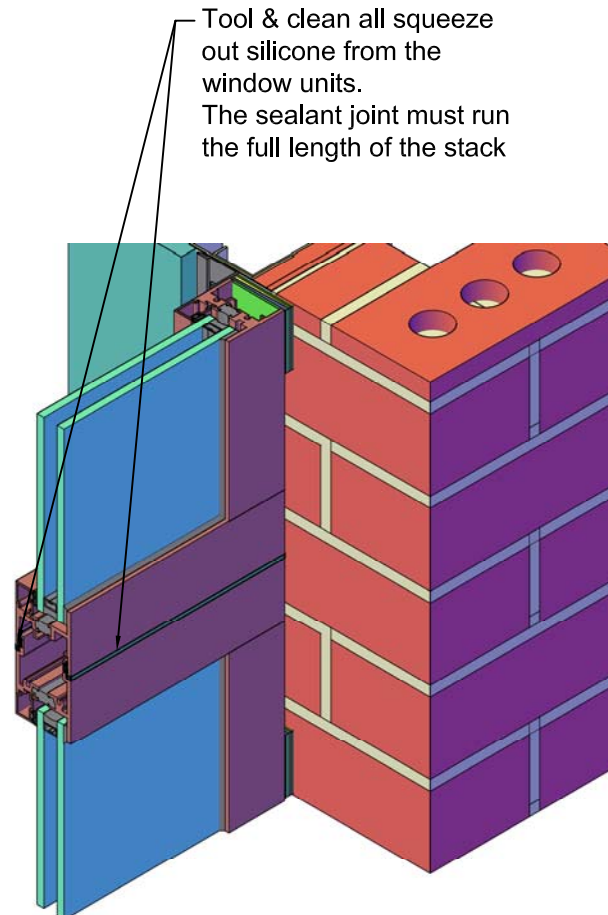


Fig. 9

Generic frame & trim extrusions shown, actual extrusions used may differ.

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Mullion Installation

Snap Trim Installation - Standard Orientation



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Vertical Mullion

Snap Trim installation:

WINCO furnishes the mullions for a snap-trim installation square cut and long. Measure the exact opening height where the mullion will be used and cut the mullion to size leaving just enough clearance to allow installation. See Fig. 1 & Fig. 2

Both ends of the mullion will require notching to clear the snap trim base. See Fig. 3

Should the openings have pan trim, the mullion cut length and the end work depends on the exact pan extrusions required - Refer to the WINCO shop drawings if they are purchased for your project.

Determine where the mullion anchor will sit on the mullion web and pre-drill $\varnothing 5/16"$ clearance holes for the fastener tying the mullion to the mullion anchor. A pan head screw w/ nut & bolt (X-307 w/ nut washer) is used to secure the mullion anchor to the mullion web. If 2 mullion anchors are used per end, then a slightly longer screw X-308 is used. See Fig. 3

The mullion anchor (Clip Angle, WINCO ID = ANCH4) comes factory pre-drilled for $\varnothing 1/4"$ fasteners. The flange for the mullion web connection has 3 holes to allow the installer flexibility which pair of holes to use. See Fig. 4 & Fig. 5

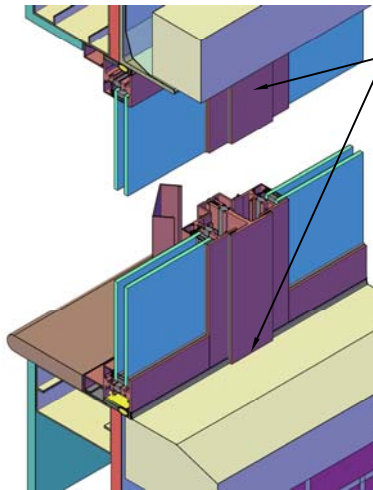


Fig. 1
Viewed from Building Exterior

The mullion runs the full height of the opening, allowing only a small deduct to permit a sliding fit.

The mullion cover runs the full height of the finished opening. Deduct for any sill stool, casework or drywall return.

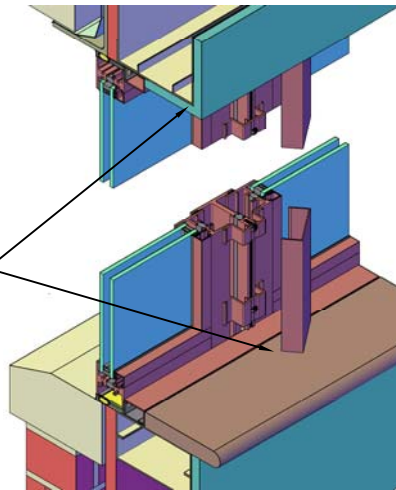


Fig. 2
Viewed from Building Interior

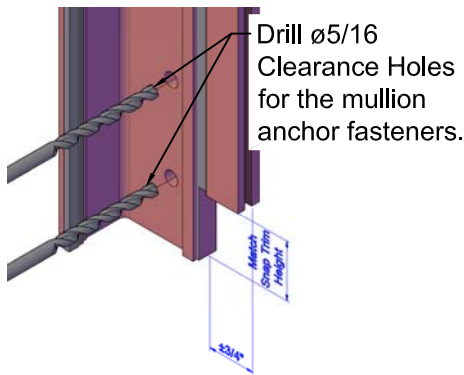


Fig. 3

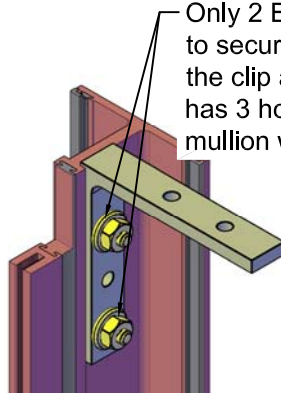


Fig. 4

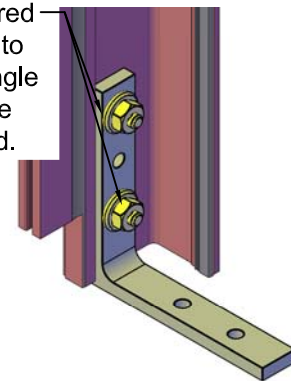


Fig. 5

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Mullion Installation

Snap Trim Installation - Standard Orientation

Generic frame & trim extrusions shown, actual extrusions used may differ.

Determine if the fastener used will require pre-drilling of the wall substrate. Pre-Drill wall substrate as required. The fasteners used to secure the mullion to the wall substrate are project specific. When the mullion is anchored into steel stud, pre-drilling may be omitted, depending on the anchor diameter and substrate thickness.

Set the mullion into final position and attach the mullion anchors. Make sure the mullion is set plumb. See Fig. 6

Secure the mullion to ANCH4 and ANCH4 to the wall substrate. Seal the head of the masonry fasteners at the sill. See Fig. 7

In a typical installation, each mullion anchor will require 2 fasteners to the substrate. The exact type, size, embedment, etc is project specific and must be determined based on the architectural drawings or by a qualified professional engineer.

Apply a continuous bead of sealant along the entire length of the mullion adjacent to the 3-Finger Vinyl backer so the exterior mullion-window interface will be sealed. See Fig. 8

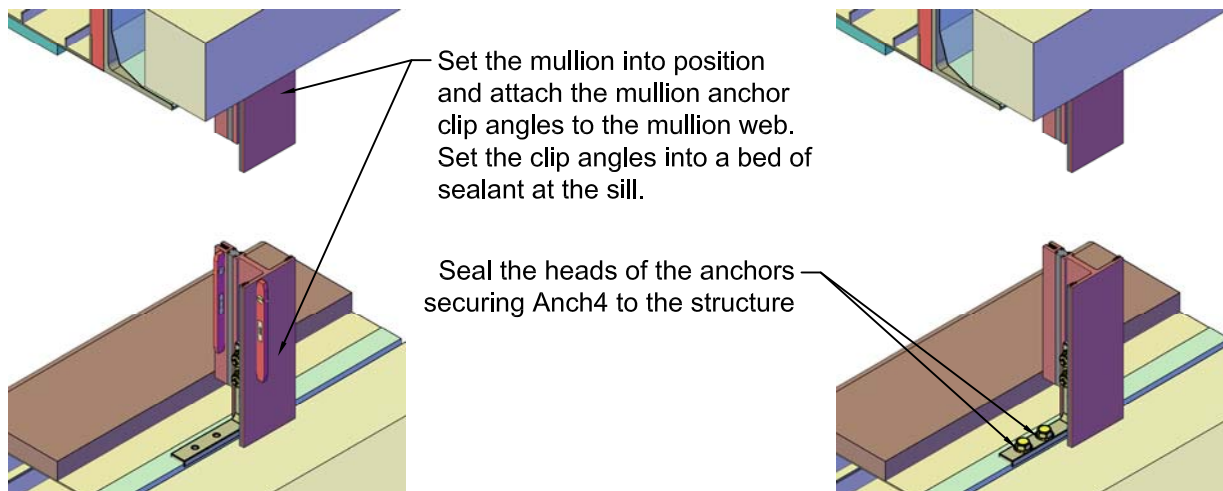


Fig. 6
Viewed from Building Exterior

Fig. 7
Viewed from Building Exterior

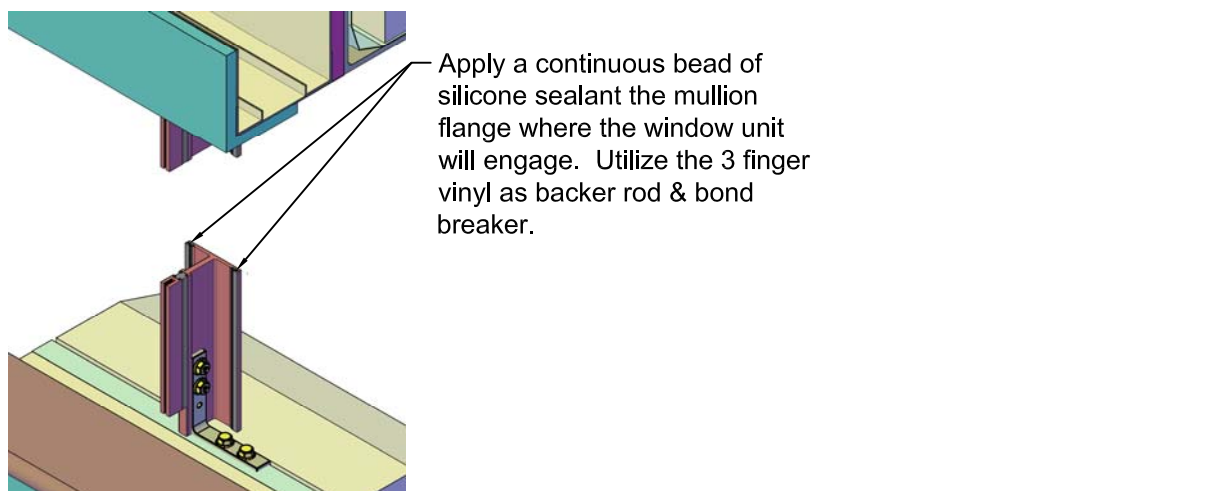


Fig. 8
Viewed from Building Interior

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Mullion Installation

Snap Trim Installation - Standard Orientation



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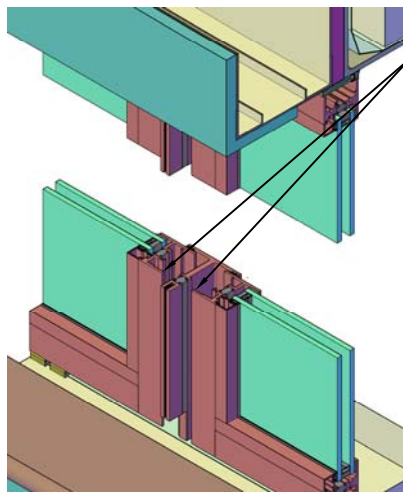
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Position the windows in the opening. Refer to the shop drawings for the spacing from window to window. If no shop drawings were purchased for your project, The spacing should be between 1-3/4" and 2". See Fig. 9

Apply the pressure clamps and secure them with the screws furnished by WINCO for this purpose. WINCO furnishes the pressure clamps and screws to be spaced at 16" O.C., no more than 8" from each end. See Fig. 10

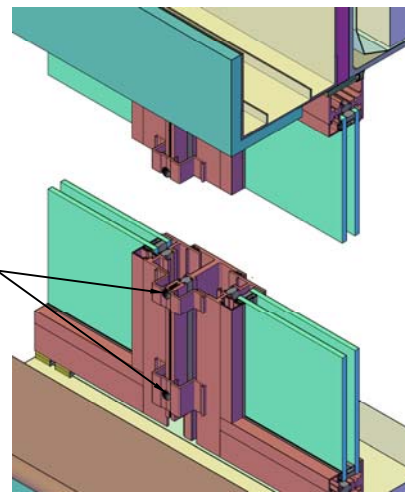
Secure the windows with snap trim. Refer to the Snap Trim installation section of this manual for detailed instructions.

Measure the full height of the interior side of the opening and trim the snap on cover to final size. Use the palm of your hand to apply firm pressure to lock the cover into place. Do not use a hammer or other impact device as this may damage the finish and surface of the extrusion. See Fig. 11



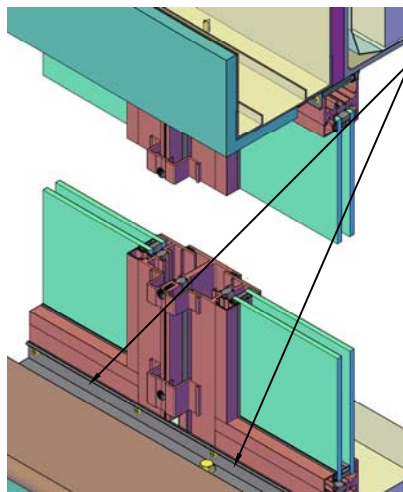
Position the windows 1-3/4" to 2" apart. Refer to the shop drawings for the correct spacing for your project.

Fig. 9
Viewed from Building Interior



Apply the pressure clamps with the screws furnished by WINCO for this purpose.

Fig. 10
Viewed from Building Interior



Secure the windows per the snap trim installations instructions.

Use the palm of your hand to pressure fit the snap on cover. Do not use a hammer or mallet for this purpose since the finish could be damaged.

Fig. 11
Viewed from Building Interior

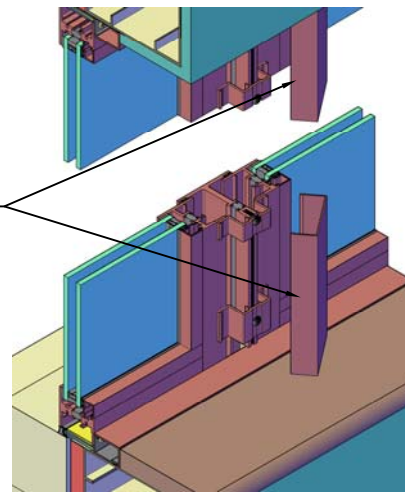


Fig. 12
Viewed from Building Interior

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Mullion Installation

Snap Trim Installation - Reversed Orientation



Generic frame & trim extrusions shown, actual extrusions used may differ.

Vertical Mullion

Snap Trim installation:

WINCO furnishes the mullions for a snap-trim installation square cut and long. Measure the exact opening height where the mullion will be used and cut the mullion to size leaving just enough clearance to allow installation. See Fig. 1 & Fig. 2

Both ends of the mullion will be cut square. See Fig. 3

Should the openings have pan trim, the mullion cut length and the end work depends on the exact pan extrusions required - Refer to the WINCO shop drawings if they are purchased for your project.

Determine where the mullion anchor will sit on the mullion web and pre-drill $\varnothing 5/16$ " clearance holes for the fastener tying the mullion to the mullion anchor. A pan head screw w/ nut & bolt (X-307 w/ nut washer) is used to secure the mullion anchor to the mullion web. If 2 mullion anchors are used per end, then a slightly longer screw X-308 is used. See Fig. 3

The mullion anchor (Clip Angle, WINCO ID = ANCH4) comes factory pre-drilled for $\varnothing 1/4$ " fasteners. The flange for the mullion web connection has 3 holes to allow the installer flexibility which pair of holes to use. See Fig. 4 & Fig. 5

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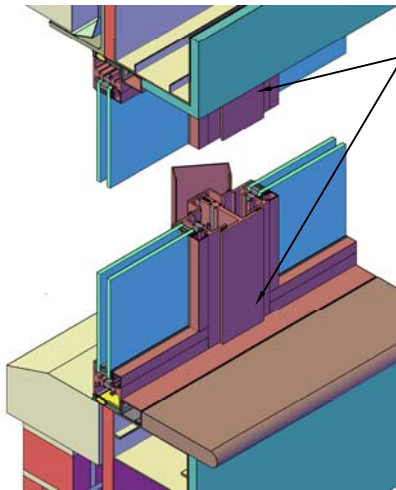


Fig. 1
Viewed from Building Exterior

The mullion runs the day light height of the Snap Trim, allowing only a small deduct to permit a sliding fit for the snap trim cover.

The mullion cover runs the full height of the finished opening. Deduct for any sill stool, casework or drywall return.

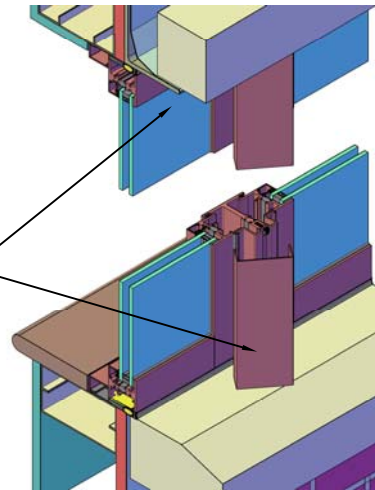


Fig. 2
Viewed from Building Interior

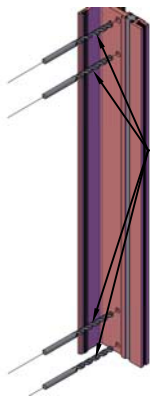


Fig. 3

Drill $\varnothing 5/16$ Clearance Holes for the mullion anchor fasteners.

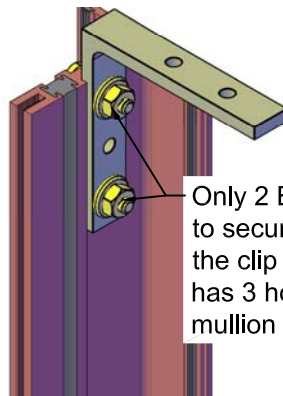


Fig. 4

Only 2 Bolts are required to secure the mullion to the clip angle. The angle has 3 holes in case the mullion web is notched.

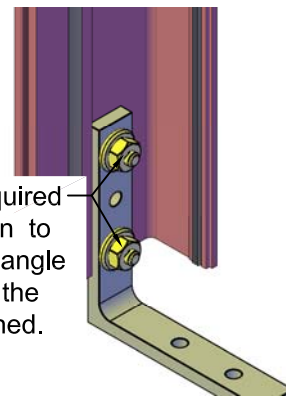


Fig. 5

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Mullion Installation

Snap Trim Installation - Reversed Orientation

Generic frame & trim extrusions shown, actual extrusions used may differ.

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Determine if the fastener used will require pre-drilling of the wall substrate. Pre-Drill wall substrate as required. The fasteners used to secure the mullion to the wall substrate are project specific. When the mullion is anchored into steel stud, pre-drilling may be omitted, depending on the anchor diameter and substrate thickness.

Set the mullion into final position and attach the mullion anchors. Make sure the mullion is set plumb. See Fig. 6

Secure the mullion to ANCH4 and ANCH4 to the wall substrate. Seal the head of the masonry fasteners at the sill. See Fig. 7

In a typical installation, each mullion anchor will require 2 fasteners to the substrate. The exact type, size, embedment, etc is project specific and must be determined based on the architectural drawings or by a qualified professional engineer.

Apply a continuous bead of sealant along the entire length of the mullion adjacent to the 3-Finger Vinyl backer so the exterior mullion-window interface will be sealed. See Fig. 8

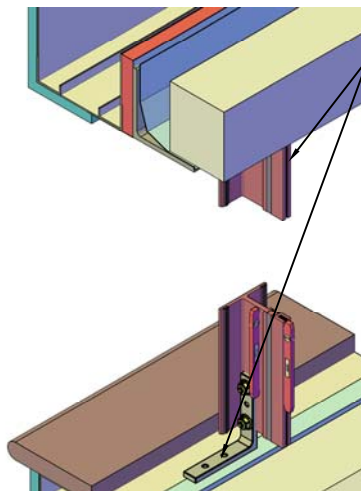


Fig. 6
Viewed from Building Exterior

Set the mullion into position and attach the mullion anchor clip angles to the mullion web. Set the clip angles into a bed of sealant at the sill.

Seal the heads of the anchors securing Anch4 to the structure

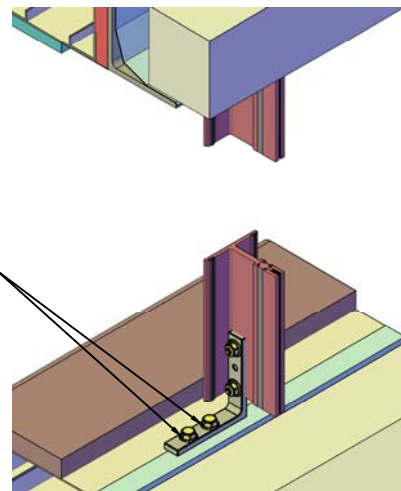


Fig. 7
Viewed from Building Exterior

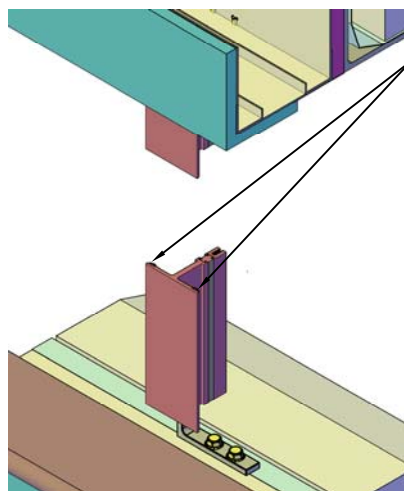


Fig. 8
Viewed from Building Interior

Apply a continuous bead of silicone sealant the mullion flange where the window unit will engage. Utilize the 3 finger vinyl as backer rod & bond breaker.

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Mullion Installation

Snap Trim Installation - Reversed Orientation

Generic frame & trim extrusions shown, actual extrusions used may differ.

Position the windows in the opening. Refer to the shop drawings for the spacing from window to window. If no shop drawings were purchased for your project, The spacing should be between 1-3/4" and 2". See Fig. 9

Apply the pressure clamps and secure them with the screws furnished by WINCO for this purpose. WINCO furnishes the pressure clamps and screws to be spaced at 16" O.C., no more than 8" from each end. See Fig. 10

Secure the windows with snap trim. Refer to the Snap Trim installation section of this manual for detailed instructions.

Measure the full height of the interior side of the opening and trim the snap on cover to final size. Use the palm of your hand to apply firm pressure to lock the cover into place. Do not use a hammer or other impact device as this may damage the finish and surface of the extrusion. See Fig. 11

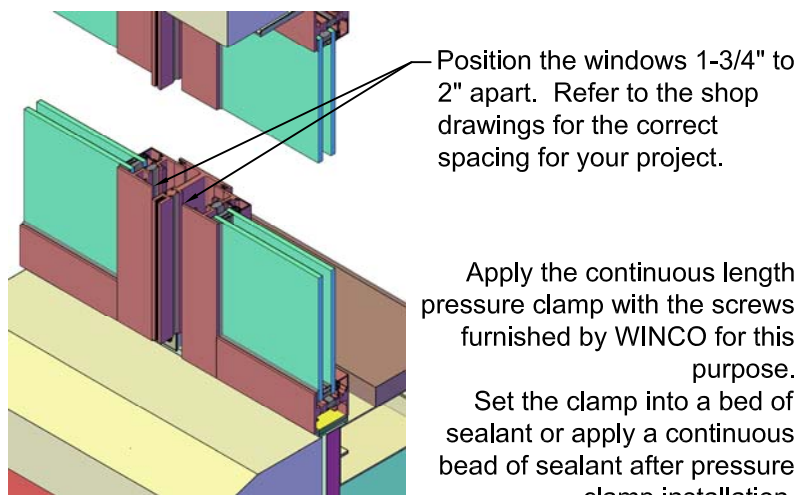


Fig. 9
Viewed from Building Exterior

Apply the continuous length pressure clamp with the screws furnished by WINCO for this purpose. Set the clamp into a bed of sealant or apply a continuous bead of sealant after pressure clamp installation.

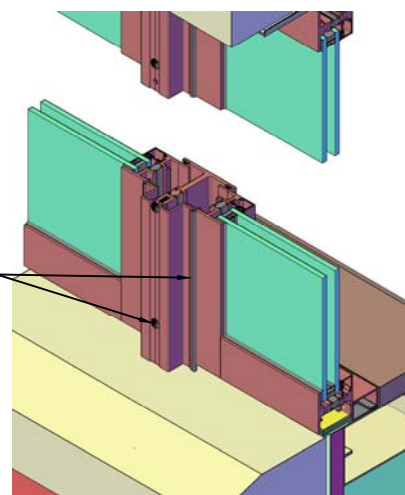


Fig. 10
Viewed from Building Exterior

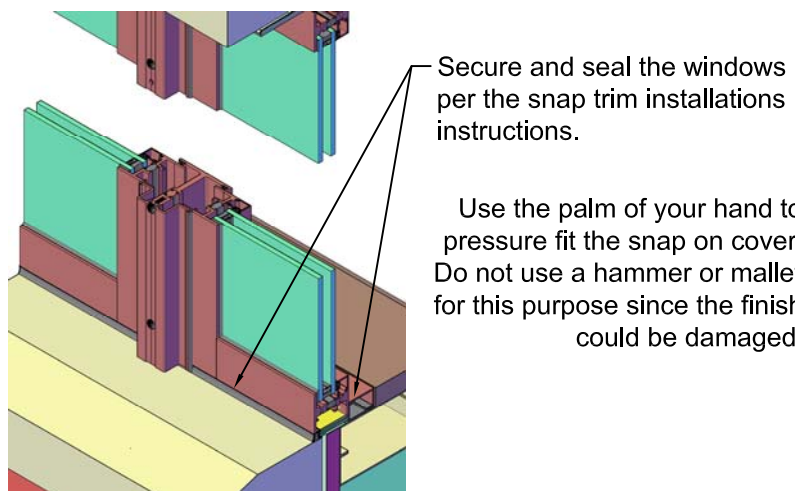


Fig. 11
Viewed from Building Exterior

Use the palm of your hand to pressure fit the snap on cover. Do not use a hammer or mallet for this purpose since the finish could be damaged.

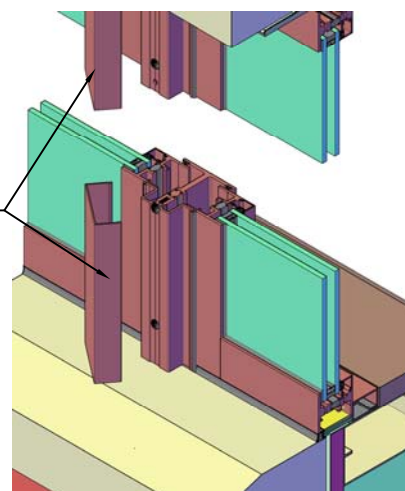


Fig. 12
Viewed from Building Exterior

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Mullion Installation

Receptor System Installation - Standard Orientation



Generic frame & trim extrusions shown, actual extrusions used may differ.

Install the head & jamb receptors along with the sub-sill according to appropriate installation instructions to the point just prior to the windows being set into place.

The head end will be cut square to terminate at the daylight opening of the head receptor (see Fig. 1) unless the mullion is a tube or semi-tube design. In that case, the mullion head will terminate at the rough openings and the mullion web will require a 2" + sealant joint (typically 1/4") deep notch to clear the head receptor. (See Fig. 2) Measure the exact opening height where the mullion will be used and cut the mullion to size leaving just enough clearance to allow installation.

WINCO furnishes the mullions for a receptor installation with a notch at the sill end to clear the sub-sill, the other end is square cut and long for T-mullion and notched for a Tube or Semi-Tube mullion. See Fig. 3

The mullion cover is factory notched at the head end to clear the receptor closure. The sill end is cut square. See Fig. 4

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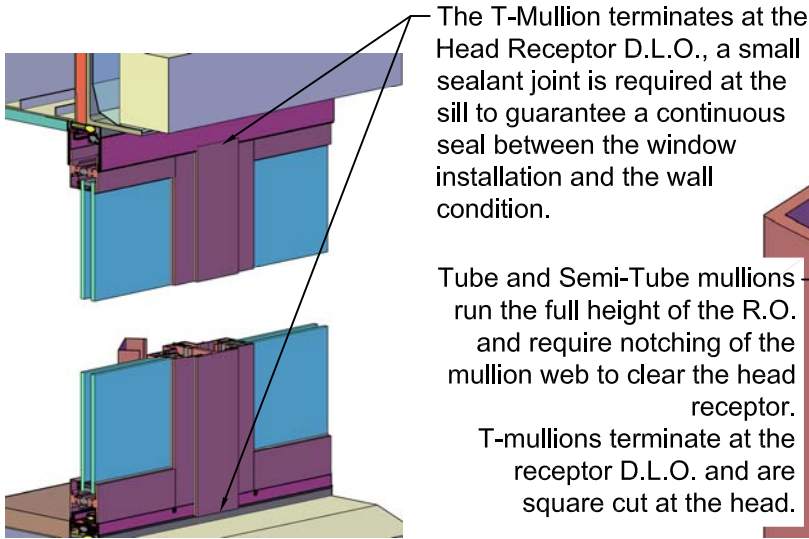


Fig. 1
Viewed from Building Exterior

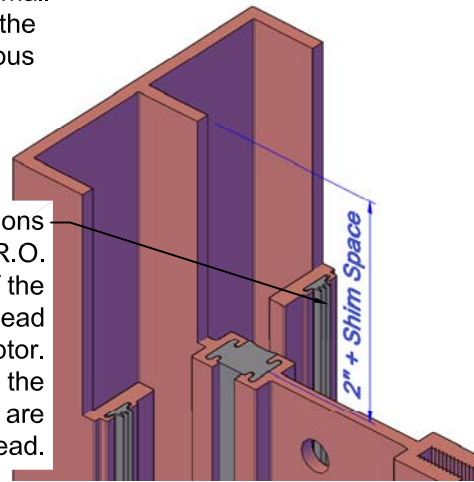


Fig. 2

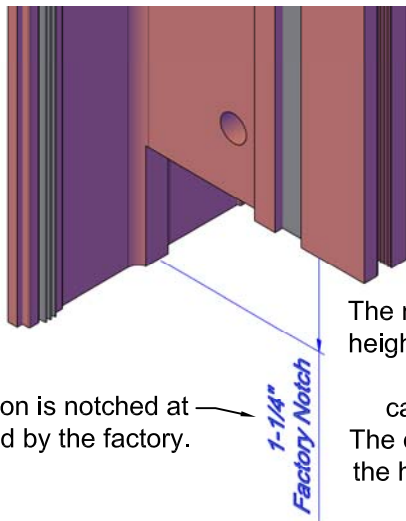


Fig. 3

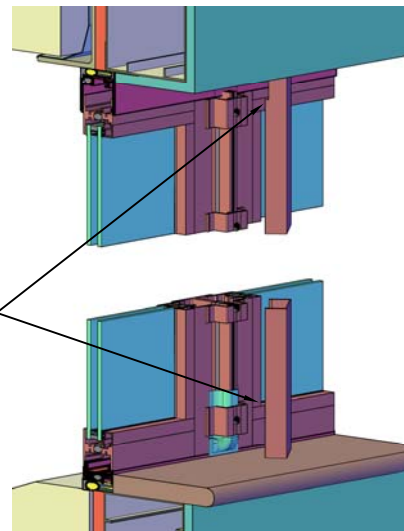


Fig. 4
Viewed from Building Interior

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Mullion Installation

Receptor System Installation - Standard Orientation



Generic frame & trim extrusions shown, actual extrusions used may differ.

The mullion anchor (Clip Angle, WINCO ID = ANCH4) comes factory pre-drilled for $\varnothing 1/4"$ fasteners. The flange for the mullion web connection has 3 holes to allow the installer flexibility which pair of holes to use.

Determine where the mullion anchor will sit on the mullion web and pre-drill $\varnothing 5/16"$ clearance holes for the fastener tying the mullion to the mullion anchor. See Fig. 5a or Fig. 5b
 A pan head screw w/ nut & bolt (X-307 w/ nut washer) is used to secure the mullion anchor to the mullion web. See Fig. 6a, Fig. 6b, Fig. 7a and Fig. 7b
 If 2 mullion anchors are used per end, then a slightly longer screw X-308 is used.

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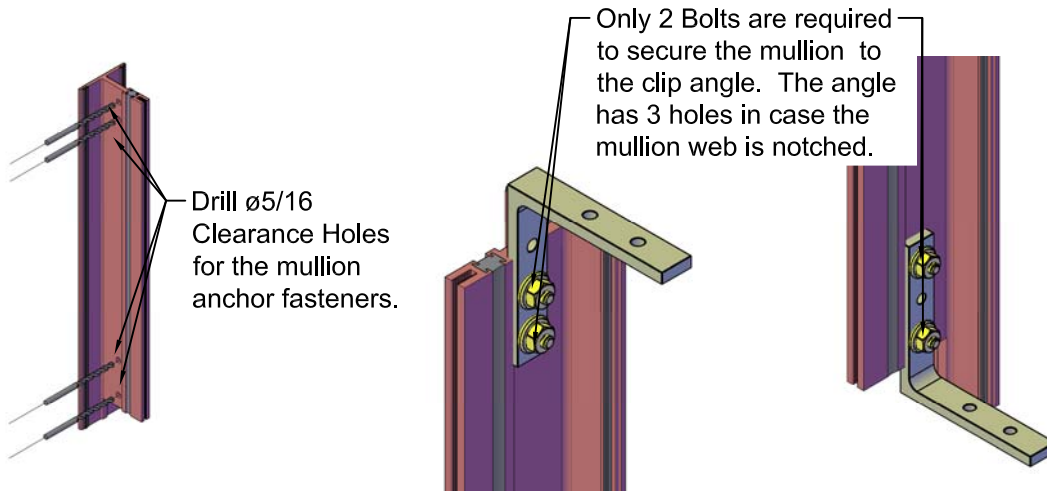


Fig. 5a
T-Mullion

Fig. 6a
T-Mullion

Fig. 7a
T-Mullion

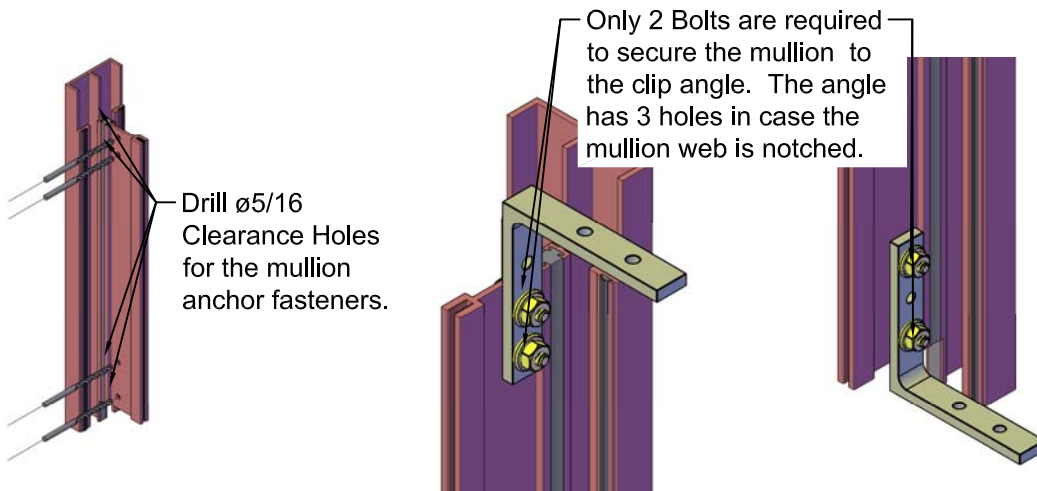


Fig. 5b
Tube or Semi-Tube Mullion

Fig. 6b
Tube or Semi-Tube Mullion

Fig. 7b
Tube or Semi-Tube Mullion

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Mullion Installation

Receptor System Installation - Standard Orientation



Generic frame & trim extrusions shown, actual extrusions used may differ.

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The fasteners used to secure the mullion to the wall substrate are project specific. Determine if the fastener used will require pre-drilling of the wall substrate. Pre-drill wall substrate as required. When the mullion is anchored into steel stud, pre-drilling may be omitted, depending on the anchor diameter and substrate thickness. See Fig. 8

Remove any drill shavings, dust & debris. Back bead the sub-sill and receptor around the entire perimeter prior to setting the mullion(s).

Set the mullion into final position and make sure the mullion is set plumb. Seal the mullion against the sub-sill. If sub-sill is used, set the ANCH4 clip into a bed of sealant to ensure water will not leak through the anchor penetration into the dry space below. In a typical installation, each mullion anchor will require 2 fasteners to the substrate. The exact type, size, embedment, etc is project specific and must be determined based on the architectural drawings or by a qualified professional engineer. Secure the mullion to ANCH4 and ANCH4 to the wall substrate. Seal the head of all masonry fasteners at the sill. See Fig. 9

Apply a continuous bead of sealant along the entire length of the mullion flange adjacent to the 3-Finger Vinyl backer so the exterior mullion-window interface will be sealed. See Fig. 10

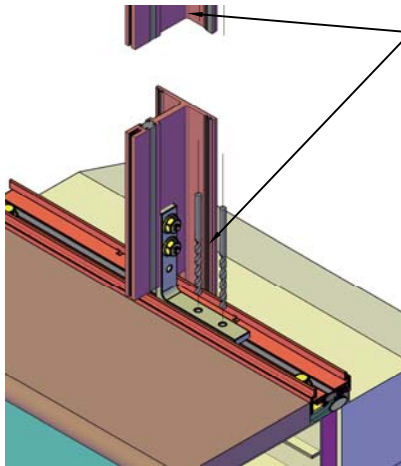


Fig. 8
Viewed from Building Interior

Determine the position of Anch4 and pre-drill clearance holes in sub sill and head receptor. Follow with pilot holes into the substrate as required by substrate & fastner type.

Set the mullion into position and attach the mullion anchor clip angles to the mullion web. Install the mullion plumb & square to the sub sill. Set the clip angles into a bed of sealant at the sill.

Apply sealant under the fastener heads at the sill.

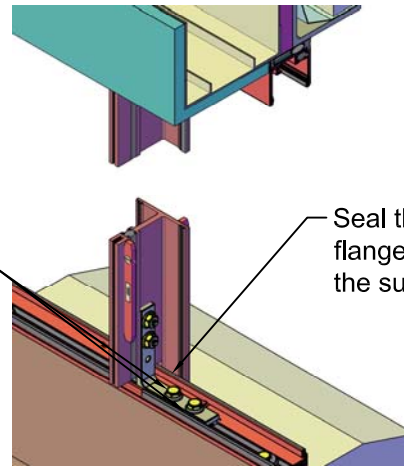


Fig. 9
Viewed from Building Interior

Seal the mullion flange against the sub sill.

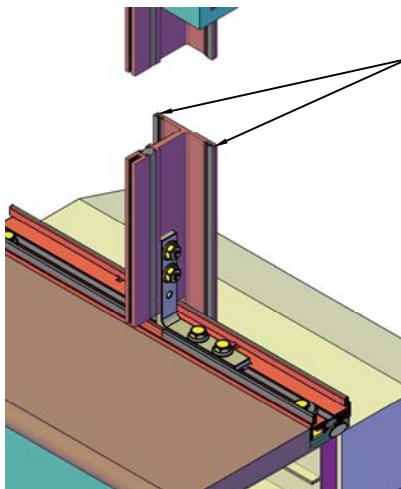


Fig. 10
Viewed from Building Interior

Apply a continuous bead of silicone sealant the mullion flange where the window unit will engage. Utilize the 3 finger vinyl as backer rod & bond breaker.

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Mullion Installation

Receptor System Installation - Standard Orientation



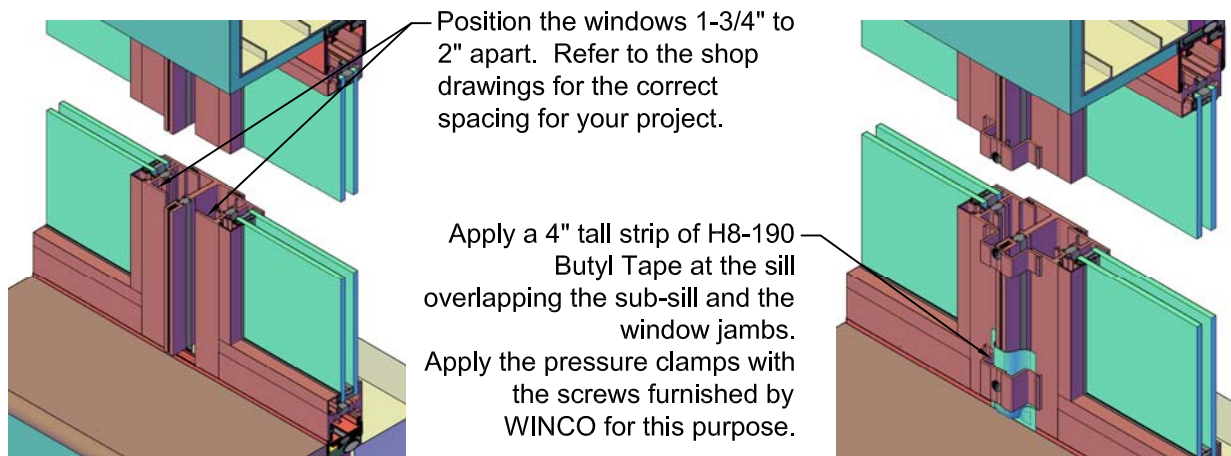
Generic frame & trim extrusions shown, actual extrusions used may differ.

Position the windows on the sub-sill. Refer to the shop drawings for the spacing from window to window. If no shop drawings were purchased for your project, The spacing should be between 1-3/4" and 2". See Fig. 12

Apply a 4" tall strip of H8-190 Butyl Tape at the sill overlapping the sub-sill and the window jambs. Apply pressure by hand to ensure the tape's adhesive bonds without bubbles or gaps to the windows and sub-sill. The bottom most pressure plate should cover the Butyl tape at least partially if the mullion stem protrudes beyond the window surface. This will prevent the tape from prying loose of the sub-sill. Apply the balance of the pressure clamps and secure them with the screws furnished by WINCO for this purpose. WINCO furnishes the pressure clamps and screws to be spaced at 16" O.C. See Fig. 13

Install the receptor closure at the head. - Refer to the sub-frame / receptor section of the installation instructions. See Fig. 14

Measure the full height of the interior side of the opening and trim the snap on cover to final size. The head will require a 3/16" deep notch to clear the receptor closure. The height of the notch depends on the thickness of the sealant joint and where the cover terminates. Use the palm of your hand to apply firm pressure to lock the cover into place. Do not use a hammer or other impact device as this may damage the finish and surface of the extrusion. See Fig. 15

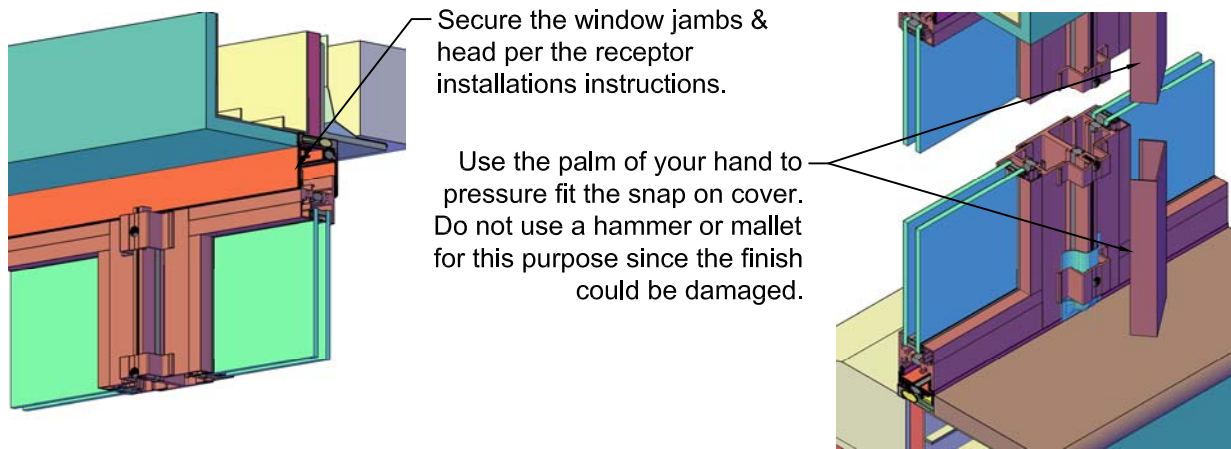


Position the windows 1-3/4" to 2" apart. Refer to the shop drawings for the correct spacing for your project.

Apply a 4" tall strip of H8-190 Butyl Tape at the sill overlapping the sub-sill and the window jambs. Apply the pressure clamps with the screws furnished by WINCO for this purpose.

Fig. 12
Viewed from Building Interior

Fig. 13
Viewed from Building Interior



Secure the window jambs & head per the receptor installations instructions.

Use the palm of your hand to pressure fit the snap on cover. Do not use a hammer or mallet for this purpose since the finish could be damaged.

Fig. 14
Viewed from Building Interior

Fig. 15
Viewed from Building Interior

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Mullion Installation

Receptor Installation - Reversed against Receptor



Generic frame & trim extrusions shown, actual extrusions used may differ.

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Install the head & jamb receptors along with the sub-sill according to appropriate installation instructions to the point just prior to the windows being set into place.

The head end will be cut square to terminate at the daylight opening of the head receptor (see Fig. 1) unless the mullion is a tube or semi-tube design. In that case, the mullion head will terminate at the rough openings and the mullion web will require a 2" + sealant joint (typically 1/4") deep notch to clear the head receptor. (See Fig. 2) Measure the exact opening height where the mullion will be used and cut the mullion to size leaving just enough clearance to allow installation.

WINCO furnishes the mullions for a receptor installation with a notch at the sill end to clear the sub-sill, the other end is square cut and long for T-mullion and notched for a Tube or Semi-Tube mullion. See Fig. 3

The mullion cover is factory notched at the head end to clear the receptor closure. The sill end is cut square. See Fig. 4

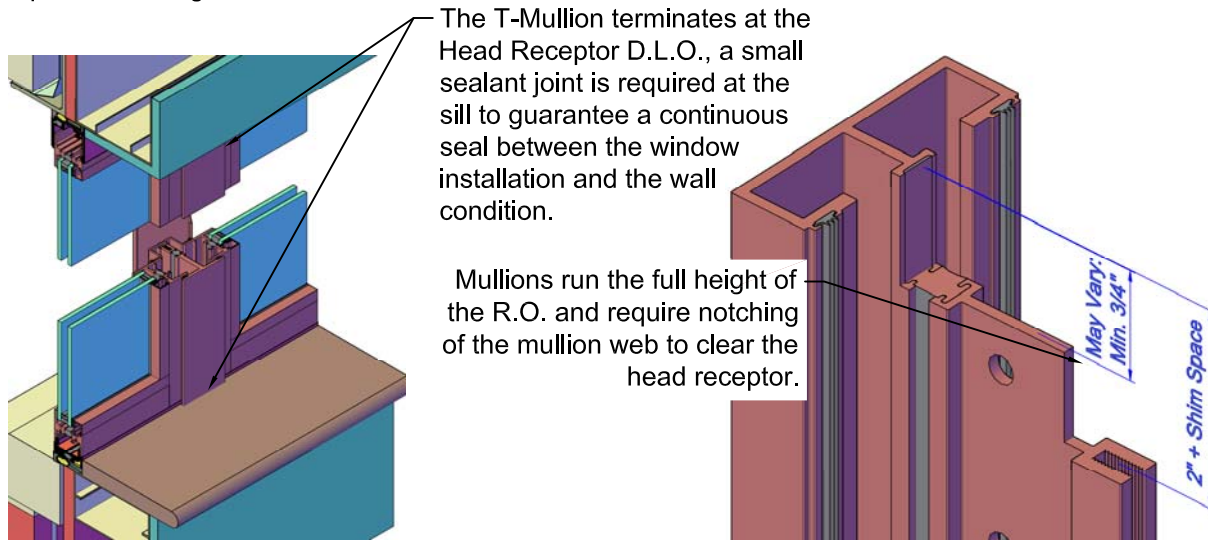


Fig. 1
Viewed from Building Interior

Fig. 2

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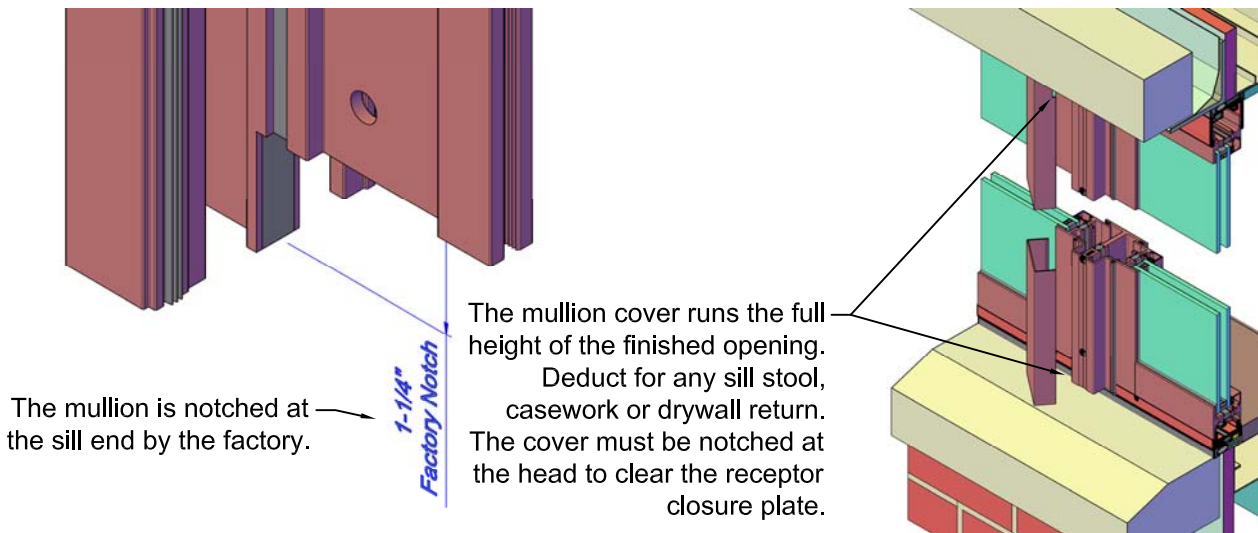


Fig. 3

Fig. 4
Viewed from Building Exterior

Mullion Installation

Receptor Installation - Reversed against Receptor



Generic frame & trim extrusions shown, actual extrusions used may differ.

The mullion anchor (Clip Angle, WINCO ID = ANCH4) comes factory pre-drilled for $\phi 1/4"$ fasteners. The flange for the mullion web connection has 3 holes to allow the installer flexibility which pair of holes to use.

Determine where the mullion anchor will sit on the mullion web and pre-drill $\phi 5/16"$ clearance holes for the fastener tying the mullion to the mullion anchor. See Fig. 5a or Fig. 5b
 A pan head screw w/ nut & bolt (X-307 w/ nut washer) is used to secure the mullion anchor to the mullion web. See Fig. 6a, Fig. 6b, Fig. 7a and Fig. 7b
 If 2 mullion anchors are used per end, then a slightly longer screw X-308 is used.

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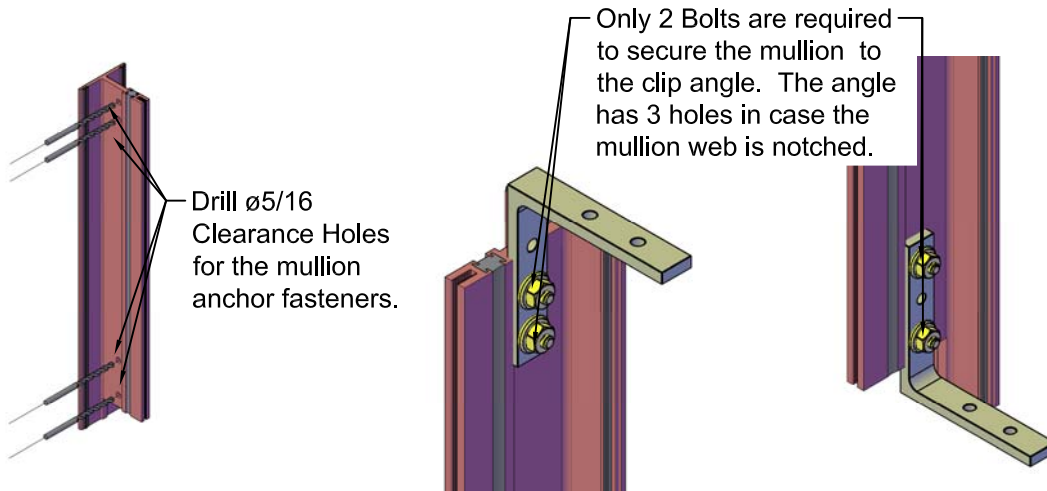


Fig. 5a
T-Mullion

Fig. 6a
T-Mullion

Fig. 7a
T-Mullion

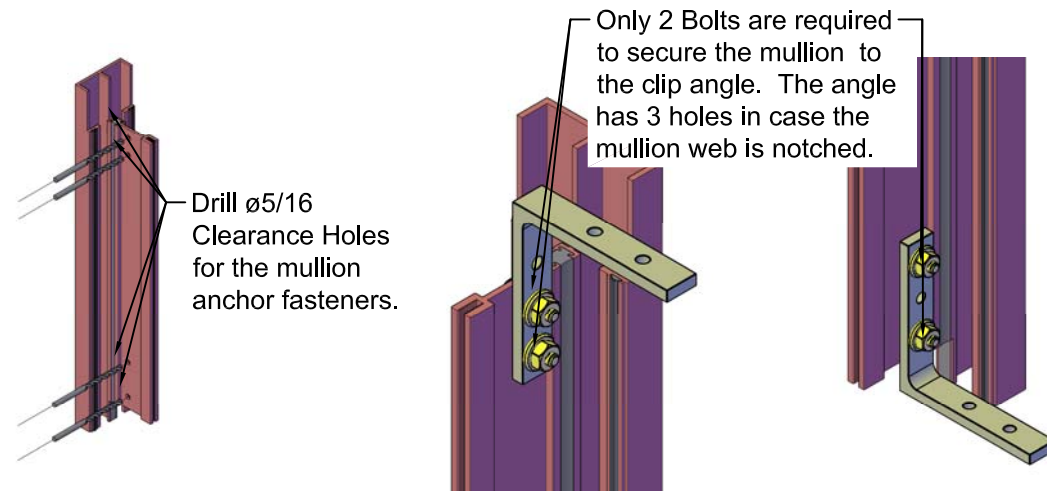


Fig. 5b
Tube or Semi-Tube Mullion

Fig. 6b
Tube or Semi-Tube Mullion

Fig. 7b
Tube or Semi-Tube Mullion

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Mullion Installation

Receptor Installation - Reversed against Receptor



Generic frame & trim extrusions shown, actual extrusions used may differ.

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The fasteners used to secure the mullion to the wall substrate are project specific. Determine if the fastener used will require pre-drilling of the wall substrate. Pre-drill wall substrate as required. When the mullion is anchored into steel stud, pre-drilling may be omitted, depending on the anchor diameter and substrate thickness. See Fig. 8

Remove any drill shavings, dust & debris. Back bead the sub-sill and receptor around the entire perimeter prior to setting the mullion(s).

Set the mullion into final position and make sure the mullion is set plumb. Seal the mullion against the sub-sill. If sub-sill is used, set the ANCH4 clip into a bed of sealant to ensure water will not leak through the anchor penetration into the dry space below. In a typical installation, each mullion anchor will require 2 fasteners to the substrate. The exact type, size, embedment, etc is project specific and must be determined based on the architectural drawings or by a qualified professional engineer. Secure the mullion to ANCH4 and ANCH4 to the wall substrate. Seal the head of all masonry fasteners at the sill. See Fig. 9

Apply a bead of sealant 6 Inches up from the sill on the mullion flange adjacent to the 3-Finger Vinyl backer so the interior mullion-window interface will be sealed against the sub-sill. See Fig. 10

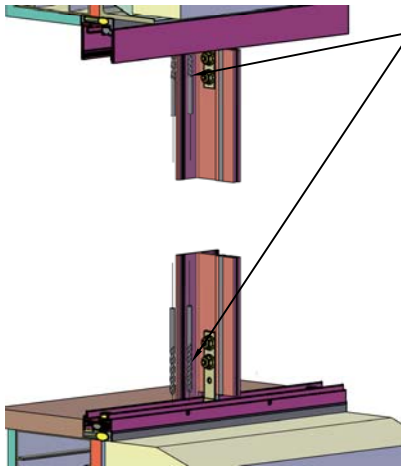


Fig. 8
Viewed from Building Exterior

Determine the position of Anch4 and pre-drill clearance holes in sub sill and head receptor. Follow with pilot holes into the substrate as required by substrate & fastener type.

Set the mullion into position and attach the mullion anchor clip angles to the mullion web. Install the mullion plumb & square to the sub sill. Set the clip angles into a bed of sealant at the sill.

Apply sealant under the fastener heads at the sill.

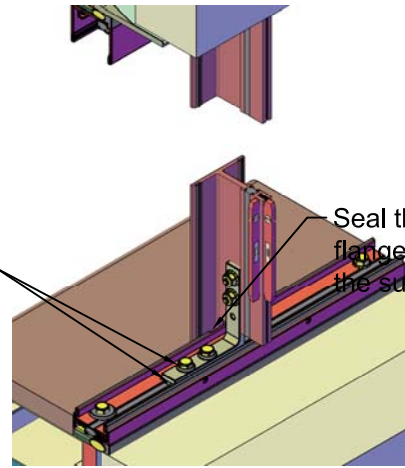


Fig. 9
Viewed from Building Exterior

Seal the mullion flange against the sub sill.

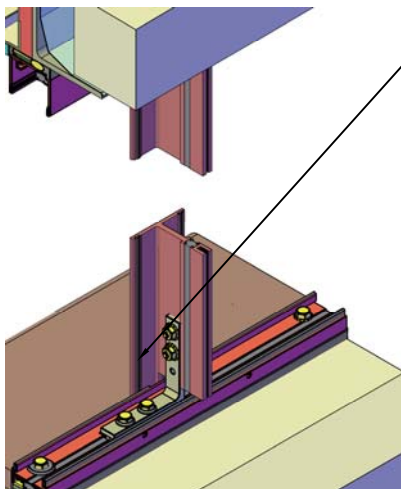


Fig. 10
Viewed from Building Exterior

Apply a bead of silicone sealant the mullion flange where the window unit will engage 6 Inches up from the sill. Utilize the 3 finger vinyl as backer rod & bond breaker.

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Mullion Installation

Receptor Installation - Reversed against Receptor



Generic frame & trim extrusions shown, actual extrusions used may differ.

Position the windows on the sub-sill. Since the receptor flange is on the exterior and the mullion flange on the interior of the building, the windows have to be set from the building interior at no less than 3" apart. They will then have to be walked sideways into the final installation position. This method is only used when the positive design pressure is greater than the capacity of the mullion pressure clamp and the fasteners securing the clamp. Refer to the shop drawings for the spacing from window to window. If no shop drawings were purchased for your project, The spacing should be between 1-3/4" and 2". See Fig. 12

Apply the the continuous pressure clamp and secure it with the screws furnished by WINCO for this purpose. Unless directed otherwise, WINCO furnishes the screws for the pressure clamp spaced at 16" O.C. See Fig. 13

Install the receptor closure at the head. - Refer to the sub-frame / receptor section of the installation instructions. See Fig. 14

Measure the full height of the interior side of the opening and trim the snap on cover to final size. The head will require a 3/16" deep notch to clear the receptor closure. The height of the notch depends on the thickness of the sealant joint and where the cover terminates. Apply a small bead of sealant on either side of the mullion pressure clamp to limit water intrusion into the receptor system. Use the palm of your hand to apply firm pressure to lock the cover into place. Do not use a hammer or other impact device as this may damage the finish and surface of the extrusion. See Fig. 15

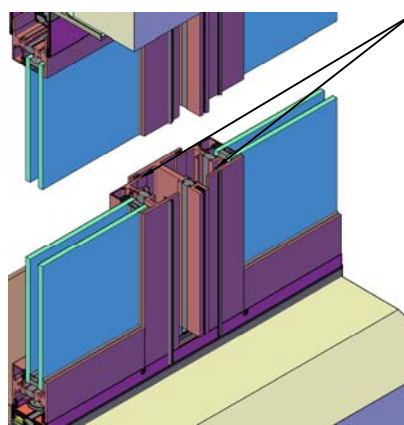


Fig. 12
Viewed from Building Exterior

Position the windows 1-3/4" to 2" apart. Refer to the shop drawings for the correct spacing for your project. Since the windows will be set from the Building Interior, they have to be set first out of position and then walked sideways into position.

Apply the continuous pressure clamp with the screws furnished by WINCO for this purpose.

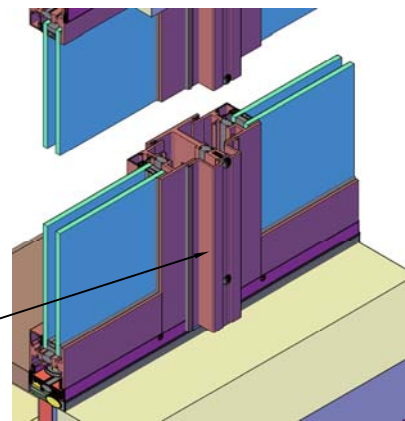


Fig. 13
Viewed from Building Exterior

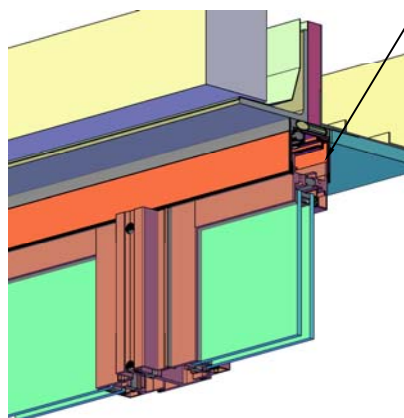


Fig. 14
Viewed from Building Exterior

Secure the window jambs & head per the receptor installations instructions.

Apply a small continuous bead of sealant along the sides of the pressure clamp. Use the palm of your hand to pressure fit the snap on cover. Do not use a hammer or mallet for this purpose since the finish could be damaged. Wipe off any excess sealant.

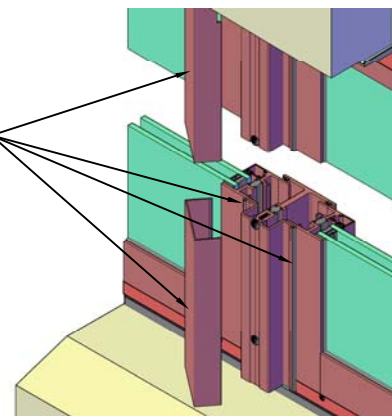


Fig. 15
Viewed from Building Exterior

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