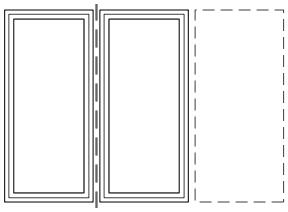
Field 1/2” Reinforced Mullion Assembly of Aluminum-Clad Wood Windows

IMPORTANT **Determining and meeting the structural load requirements and design of the rough opening is the responsibility of the architect, engineer, and/or contractor. Windows, doors, and/or mullions are not designed to support additional elements or components of the building wall system. Refer to published technical recommendations for window and door combinations or your local distributor for more information. For applicable warranty and arbitration information, please refer to the product website. Field combinations not in accordance with the following parameters and/or the technical recommendations will void warranty.**

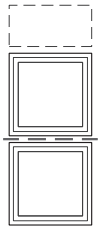
Parameters:

- 1/2” reinforced mull span limitation for two-way mulls is 12 feet
- Not recommended for use at vertical mullions adjacent venting doors
- Three-way mullions with transoms over venting doors must be checked for dead load
- Openings exceeding 10 ft are recommended to utilize 1/2” perimeter rough opening installation clearances
- Openings exceeding 20 ft are recommended to incorporate an expansion mullion design

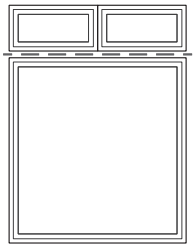
Example Combinations:



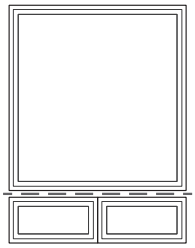
Two-way vertical reinforced mullion
(Horizontal row or ribbon)

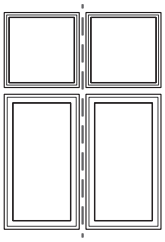


Two-way horizontal
reinforced mullion
(Vertical column or stack)



Three-way horizontal thru reinforced mullion
w/ intermediate joining or reinforced mullion





Four-way vertical thru reinforced mullion
w/ intermediate joining or reinforced mullions.
(thru mull may be horizontal or vertical)

⚠WARNING **Window combinations can be extremely heavy. Installation will require (2) or more persons for safety reasons.**
Remember to use personal protective equipment.
Read the entire instruction before proceeding.

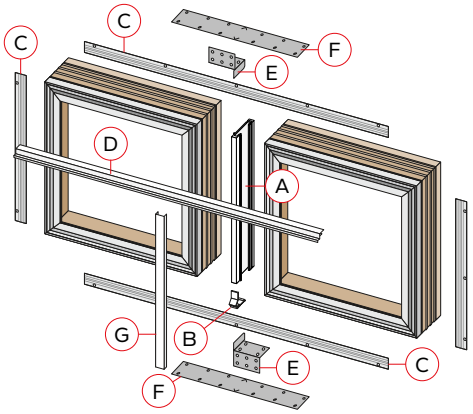
You will need to supply:

- Impervious shims / spacers
- High quality exterior grade polyurethane sealant
- Foil backed butyl window and door flashing tape

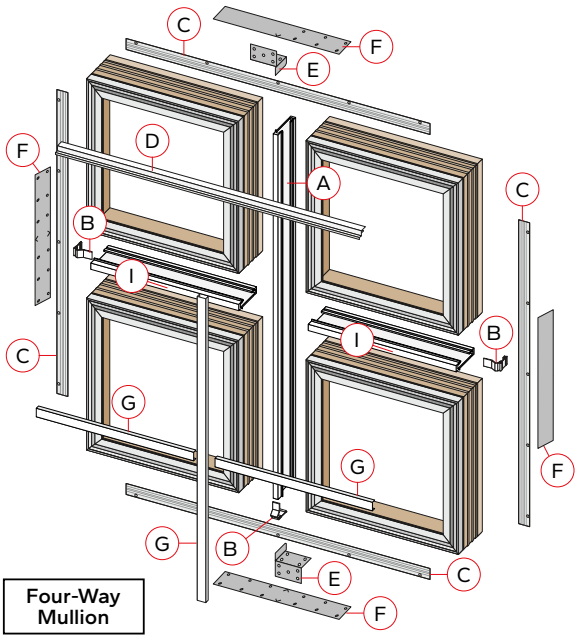
Tools required:

- Tape measure
- Corner notching tool or hacksaw
- Hammer or air staple gun
- Rubber mallet
- Drill

Legend / Parts to Supply	Catalog Part # Reference
A. 1/2" Reinforcement	0A6G or 0A6K
B. Mull End Splice / Cap	72WQ
C. Nail Fin (if applicable)	42G7
D. Head Dip Cap	72GW or 72WA
E. Mull End Anchor	512D or 000F
F. Shipping Plate	500P
G. 1/2" Mullion Cover	736M



Two-Way Mullion



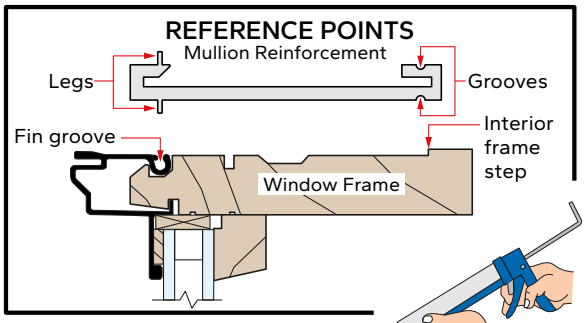
Four-Way Mullion

Note: For standard intermediate mullions (without 1/2" reinforcement) refer to Non-Reinforced Mullion Instructions. For reinforced intermediate mullions, proceed to Step 1 - Mulling Intermediate Combinations.

Note: If you are assembling a two-way reinforced mullion (two units mulled together, either side by side or one above the other) proceed to Step 2 - Continuous Mullion Assembly.

Note: See last page for assemble-within-opening option

1 Mulling Intermediate Combinations:

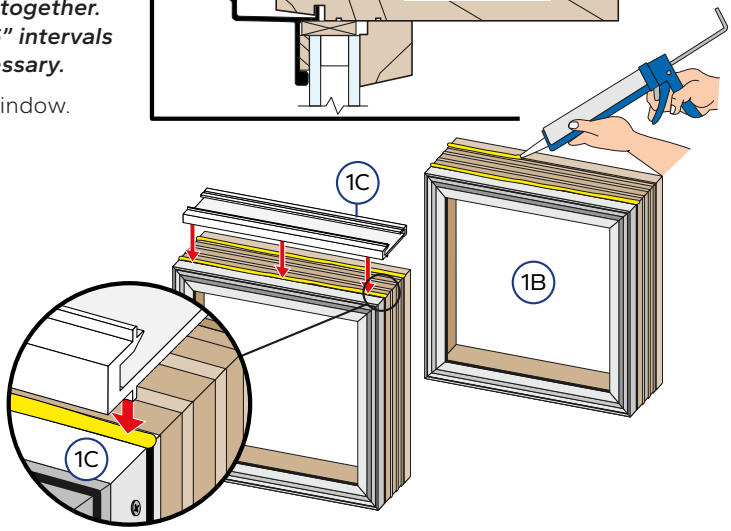


Note: If units to be mulled include a nailing fin or Steady Set™ components, remove the components on the side of the windows to be joined together. For Steady Set™ windows, receiver bases can be re-attached at 6" intervals from the mull end to be used as mullion end load anchors, if necessary.

A. **Cut a piece of mullion reinforcement** 1/2" shorter than the window.

B. **Place a 3/8" continuous bead of sealant** down the fin groove and interior frame step of the window.

C. **Position the mullion reinforcement** as shown in the REFERENCE POINTS, center on the window and press the leg into the fin groove.



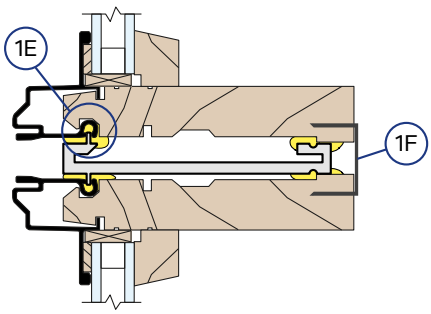
Note: A space of 1/4" from the edge of the window to the end of the mullion reinforcement is required to allow for fin placement.

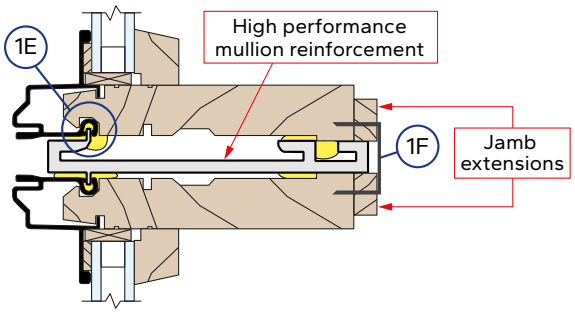
D. **Place a continuous bead of sealant** on the second window, down the fin groove and interior frame step.

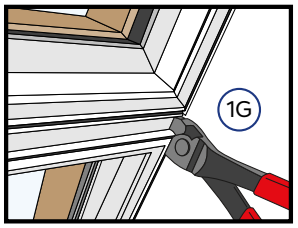
E. **Place the second window onto the mullion reinforcement.** Line up the leg on the mullion reinforcement with the fin groove of the second window and press into place.

F. **Attach the windows together** on the interior using 1" x 3/4" staples.

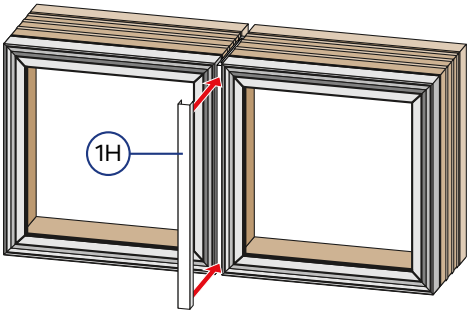
G. **Using a corner notching tool or hacksaw,** notch corners wherever a mullion cover, head drip fin or frame expander will run through a joint.







H. **Cut a piece of mullion cover** 5/8" shorter than the window, center on combinations and use a rubber mallet to snap the mullion cover in place.



2 Continuous Mullion Assembly:

This step is for continuous mullion application, where sub-combinations or single windows are mulled together using continuous mullions.

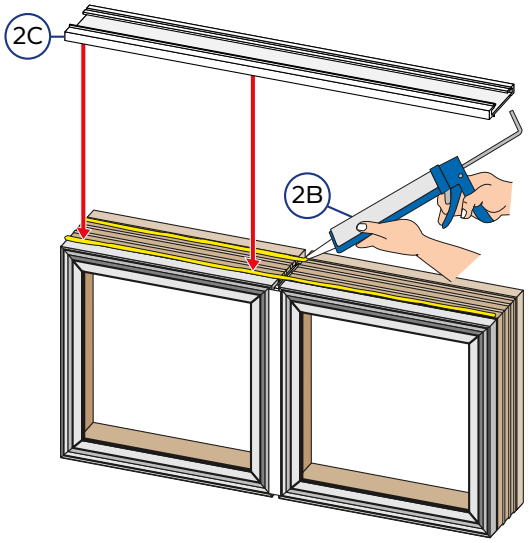
A. **Prepare sub-combinations according to the instructions in Step 1** - MULLING INTERMEDIATE COMBINATIONS.

B. **Place a 3/8" continuous bead of sealant** down the fin grooves and interior frame steps of the window.

C. **Cut and install a piece of mullion reinforcement** 1/2" shorter than the window or sub-combinations.

   Orientate the mullion reinforcement as shown in the REFERENCE POINTS, center on the sub-combinations and press the leg into the fin groove.

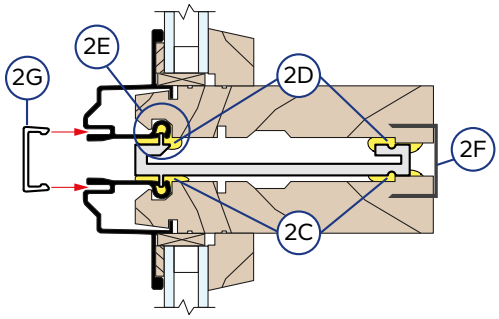
Note: A space of 1/4" from the edge of the sub-combination to the end of the mullion reinforcement is required to allow for fin placement.

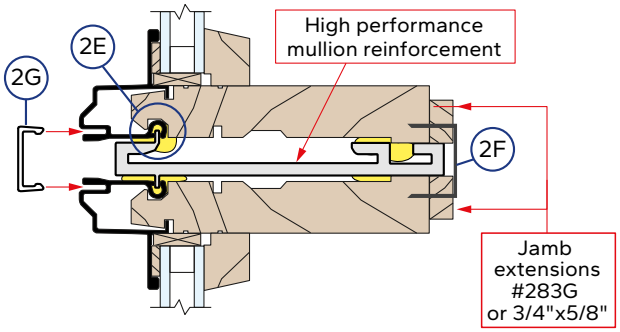


D. **Place a 3/8" continuous bead of sealant** on the second window or set of sub-combinations, down the fin grooves and interior frame steps.

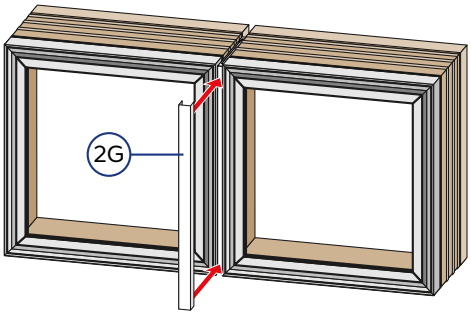
E. **Place the second window or set of sub-combinations** onto the mullion reinforcement. Line up the leg on the mullion reinforcement with the fin groove of the second window or set of sub-combinations and press into place.

F. **Attach the windows together** on the interior using 1" x 3/4" staples.





G. **Cut a piece of mullion cover** 5/8" shorter than the combinations, center on combinations and use a rubber mallet to snap the mullion cover in place.



3 Complete the Combination Assembly:

A. **Cut a 1/2" piece of mullion end splice** for each horizontal and the bottom of each vertical mullion joint.

B. **Fill the end of the mullion joints with sealant** and attach the mullion end splices, lined up with the adjacent windows.

C. **Install continuous nailing fins** around the combination (if applicable).

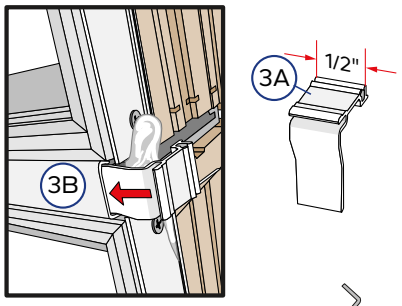
D. **Attach the fin corners** (if applicable).

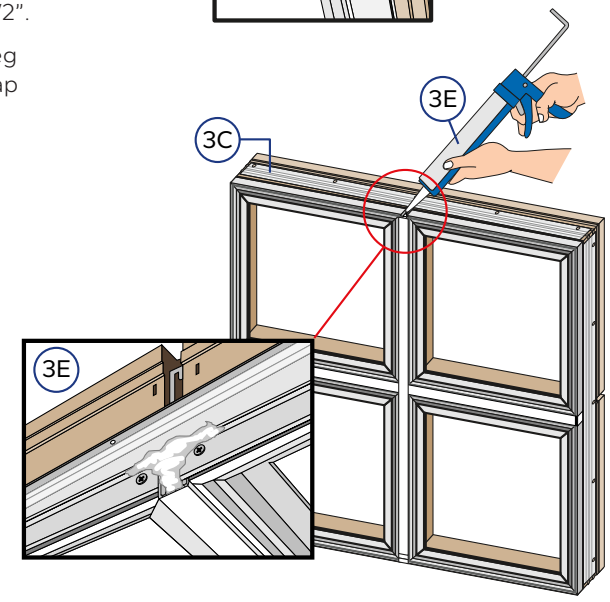
E. **Fill all head end joints with sealant**.

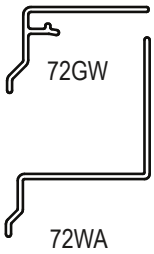
F. **Apply 1-1/2" head sealant tape,** lapping the tape onto the fin at least 1/2".

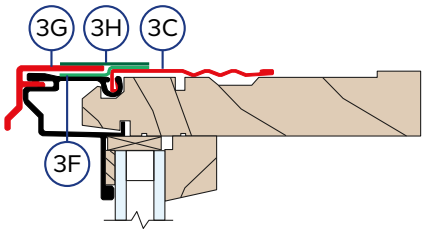
G. **Cut the head drip cap** to the width of the combination and press the leg of the cap into the accessory groove of the combination. 72GW drip cap shown below.

H. **Tape over the joint** between the head fin and head drip cap with 1-1/2" head sealant tape. Not applicable to 72WA field applied drip cap with upturned flashing leg.









I. **Fold the nailing fins up** and insert the head and sill mullion anchor brackets.

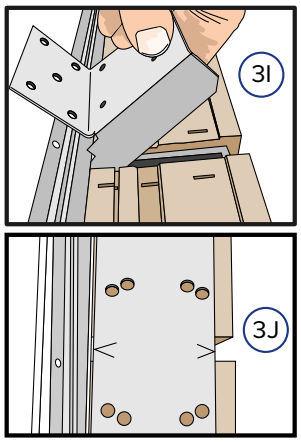
Note: Do not attach the mullion anchor bracket with screws at this time.

J. **Attach the shipping plate to the mullion combination** by aligning the arrows on the plate with the mullion joints and driving ten #6 x 5/8" flat head screws (provided) to secure.

Note: When installing the shipping plate at the head and sill, two of the holes on the mullion anchor bracket will align with holes in the shipping plate. Secure the mullion anchor bracket in place using the two exposed holes.

K. **Package the combination assembly for shipping** and handling to the job site (if applicable).

Note: Wood blocking behind the fin is recommended to support the fin and prevent damage.



Field 1/2” Reinforced Mullion – Assemble-Within-Opening Option:

Note: This option may be helpful when there is limited job site space available to assemble combinations out of the opening, or to avoid large, heavy combination installation. This option requires sufficient rough opening clearance to allow room for the first window or combination to be installed, then necessary sealants and 1/2” reinforcement, followed by another window or combination to be set in the opening and transitioned into the sealant and against the previously set window or combination.

A. **Remove the fins or Steady Set™ components** (if applicable) from the side of the window or combination that will have the mullion. Note - For Steady Set™ units that do not include head or sill brackets, relocate the receiver bases being removed from the sides onto the head and sill of each window to be installed, 6” and 12” from each corner.

B. **Install the first window or combination** against one side of the opening. Refer to other applicable installation instructions for installation and anchoring of the three sides against the opening framing. Do not complete head flashing tape application at this time, as that will be completed after all windows are set and the head drip cap is installed later.

C. **Place two 3/8” beads of sealant,** as indicated in step 2B above.

D. **Cut the 1/2” reinforcement mull to length,** slide the mull end anchors (512D or 000F) into each end (if applicable), and attach to the side of the first window or combination. Refer to step 2C above. Attach to window frame with #8 x 1” screws if necessary.

E. **Place two 3/8” beads of sealant,** as indicated in step 2D above.

F. **Set the next window or combination into the opening,** being careful not to disturb the sealant. Align the window with the 1/2” reinforcement mull installed in step D. Clamp or apply pressure as necessary to wet out sealants, then drive the interior staples. Refer to step 2F above. Anchor the window sides to the opening framing.

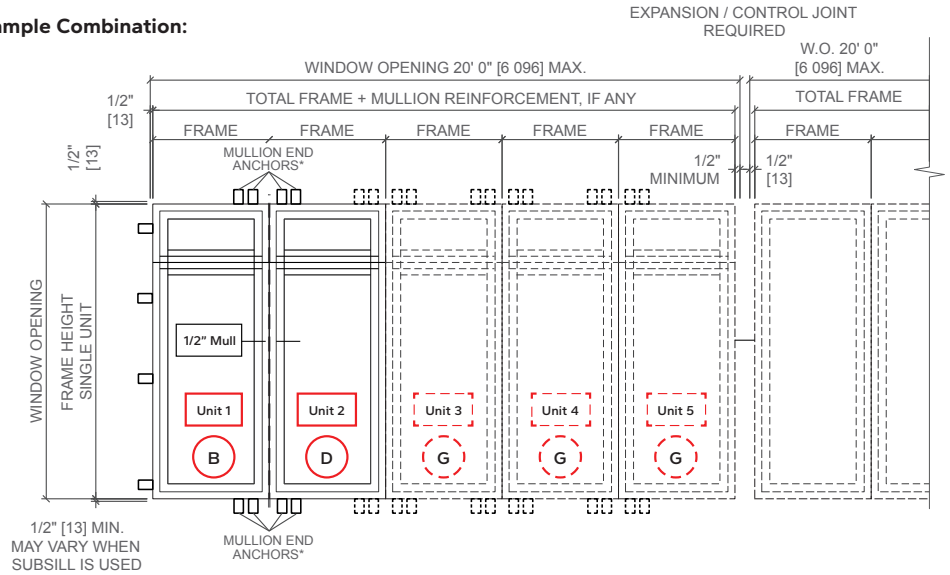
G. **Repeat procedure A to F as necessary** for any additional windows or combinations (up to 20 ft of overall opening), to complete the larger combination.

H. **Measure, cut, and apply the exterior mullion cover(s)** as indicated in step 2G above.

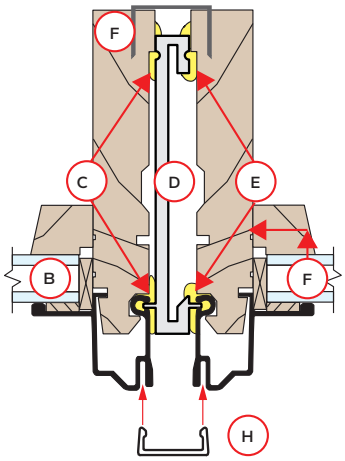
I. **Seal and install end splices.** Refer to step 3A - B above.

J. **Finish installing and anchoring the combination,** by driving anchors through the fins or Steady Set™ brackets, attaching the mull end anchors (if applicable), and applying flashing tape as indicated in the product installation instructions to integrate with the buildings’ weather resistive barrier. Utilize head drip caps over field vertical 1/2” mullions following the procedure in step 3 above or using head drip cap with flashing #72WA.

Example Combination:



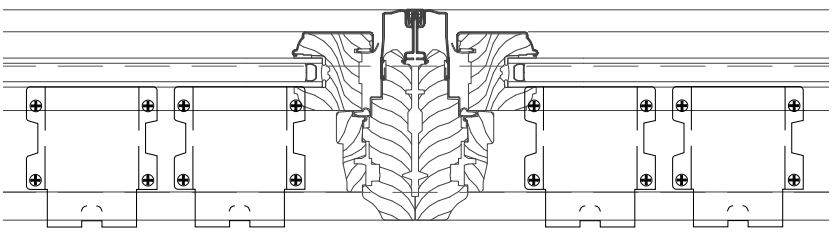
1/2” Mull Cross-Section



Mullion End Anchors*

Relocate Steady Set™ receiver bases or add through frame fasteners or installation clips spaced ~3" from mullion end and as necessary to carry applicable wind load forces on the field assembled window combination to the rough opening framing structure.

Relocated Steady Set™ Bracket Option



Through Frame Fastener Option
Do Not install through operator cutout