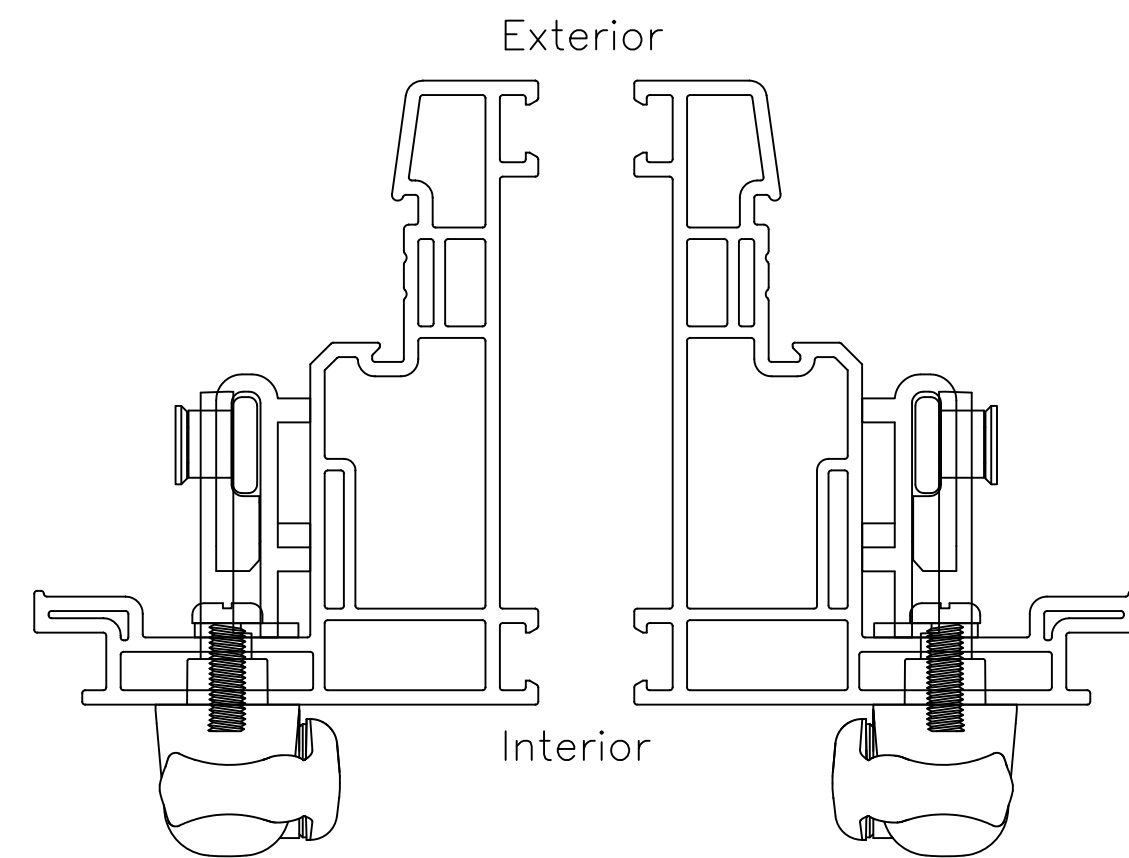
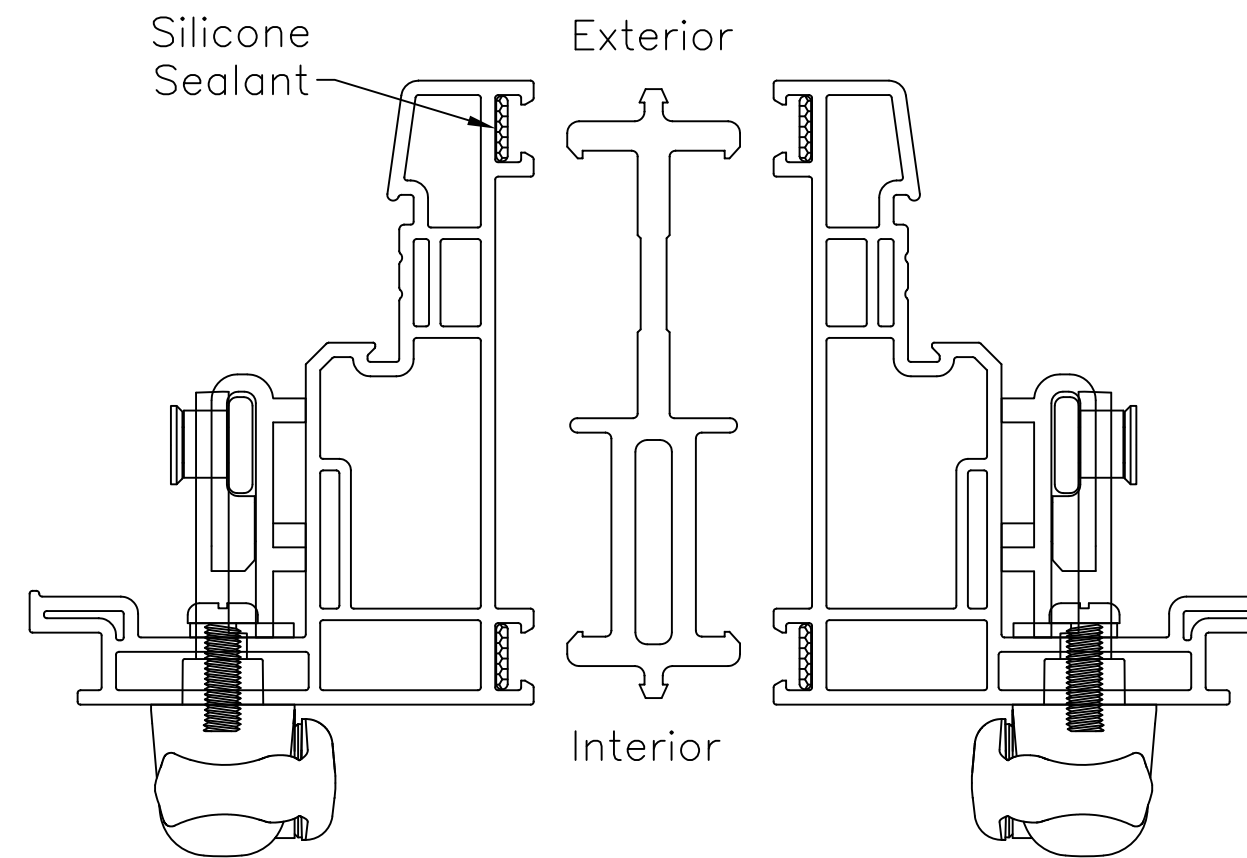


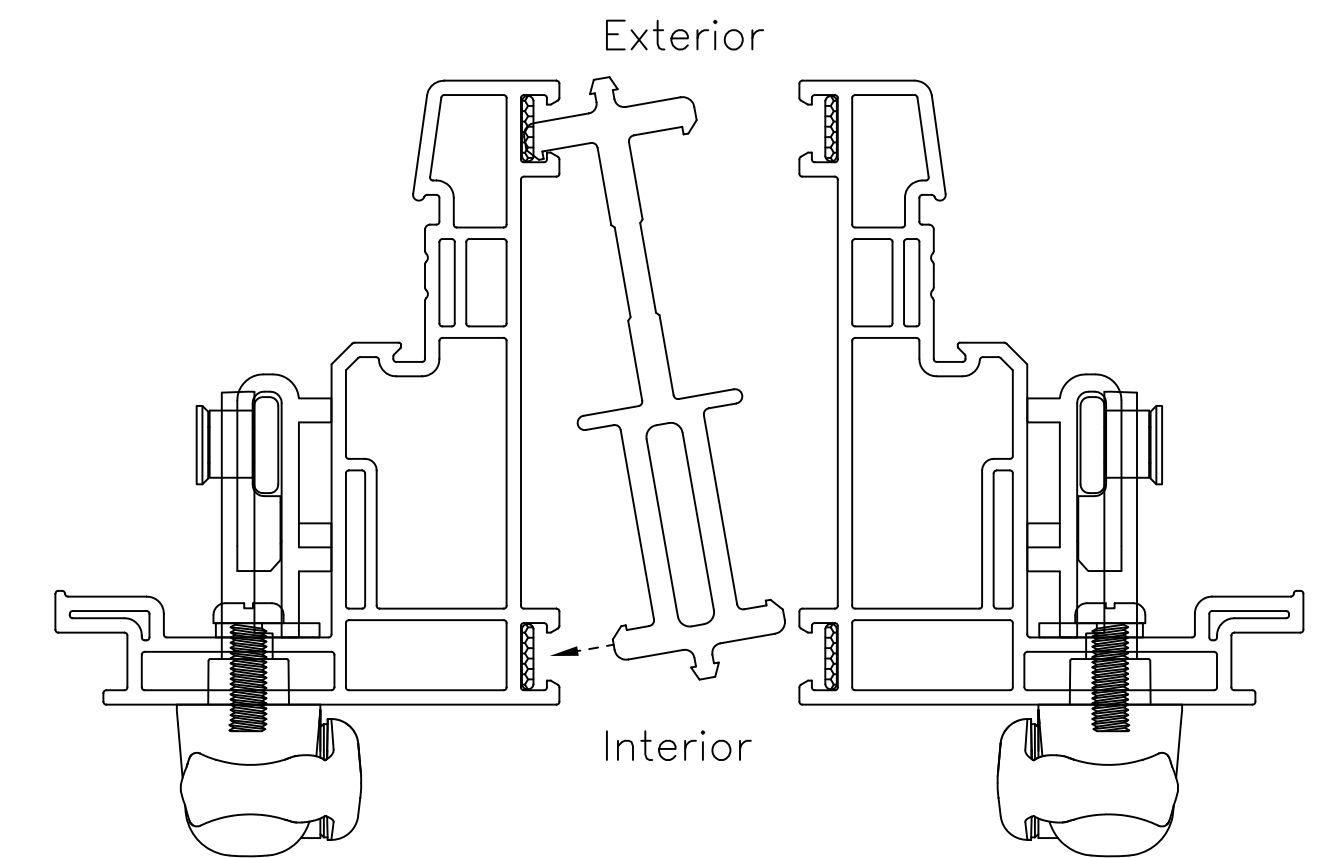
Step 1: Determine the orientation of the windows to be mullied. Engineering recommends that the products be mullied in the vertical position but they can also be mullied laying flat. If mullied in the flat position, the exterior of the window should be facing up and steps should be taken to ensure the hardware is not damaged. The sashes of both windows should either be removed or remain open for the duration of the mulling process.



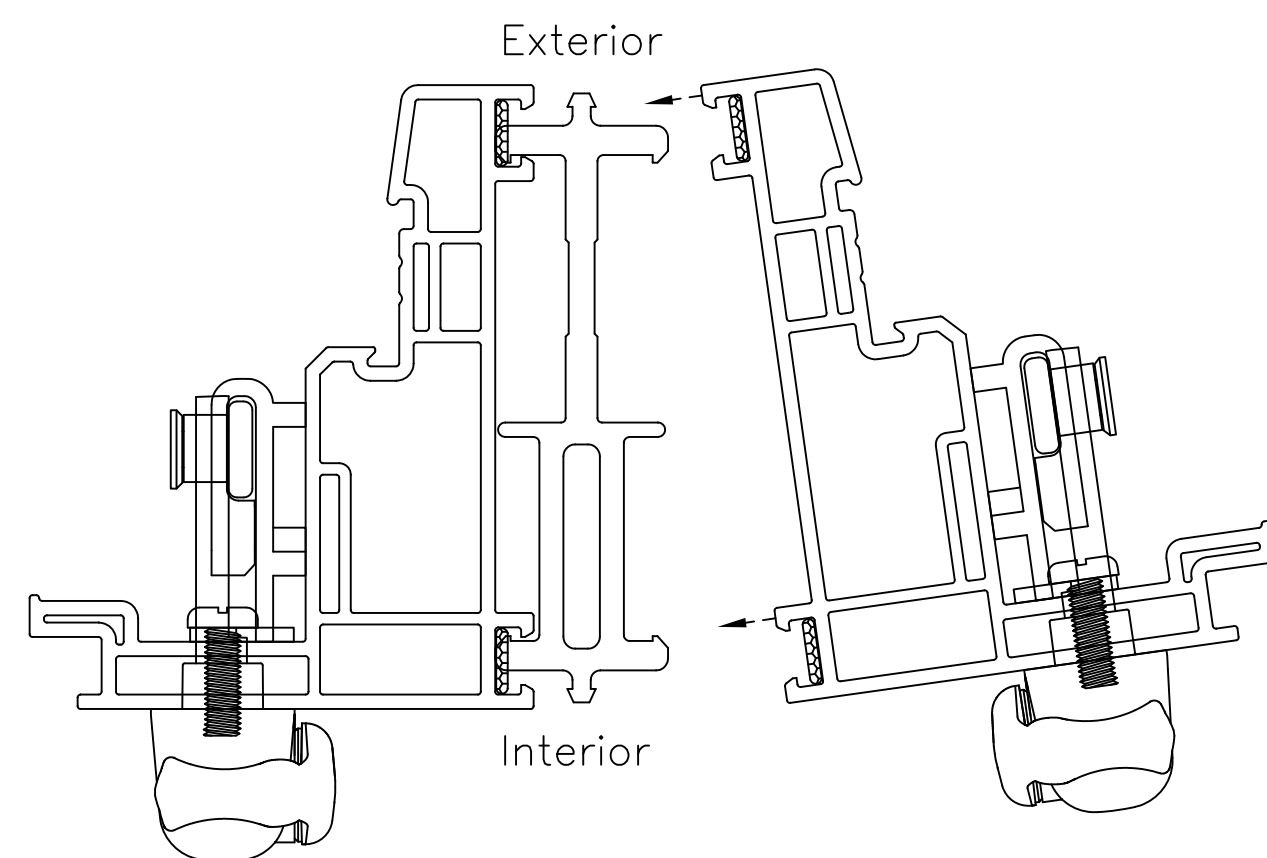
Step 2: Remove the opposing nail fins on the vertical jambs of the window frames.



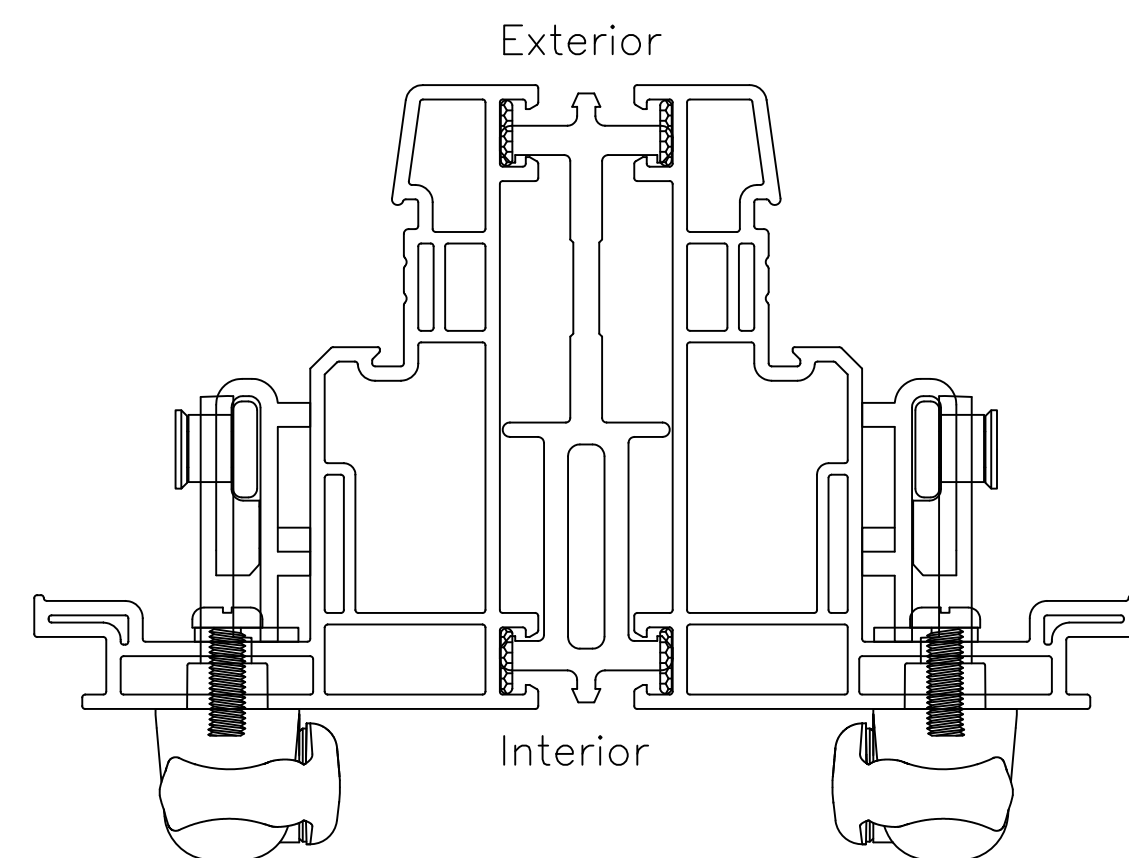
Step 3: Apply large, continuous beads of silicone sealant to the locations detailed in the image above. The 1/2" mullion should always be oriented so that the hollow is on the interior side of the frames. This allows the proper installation of the mullion clips in step 12.



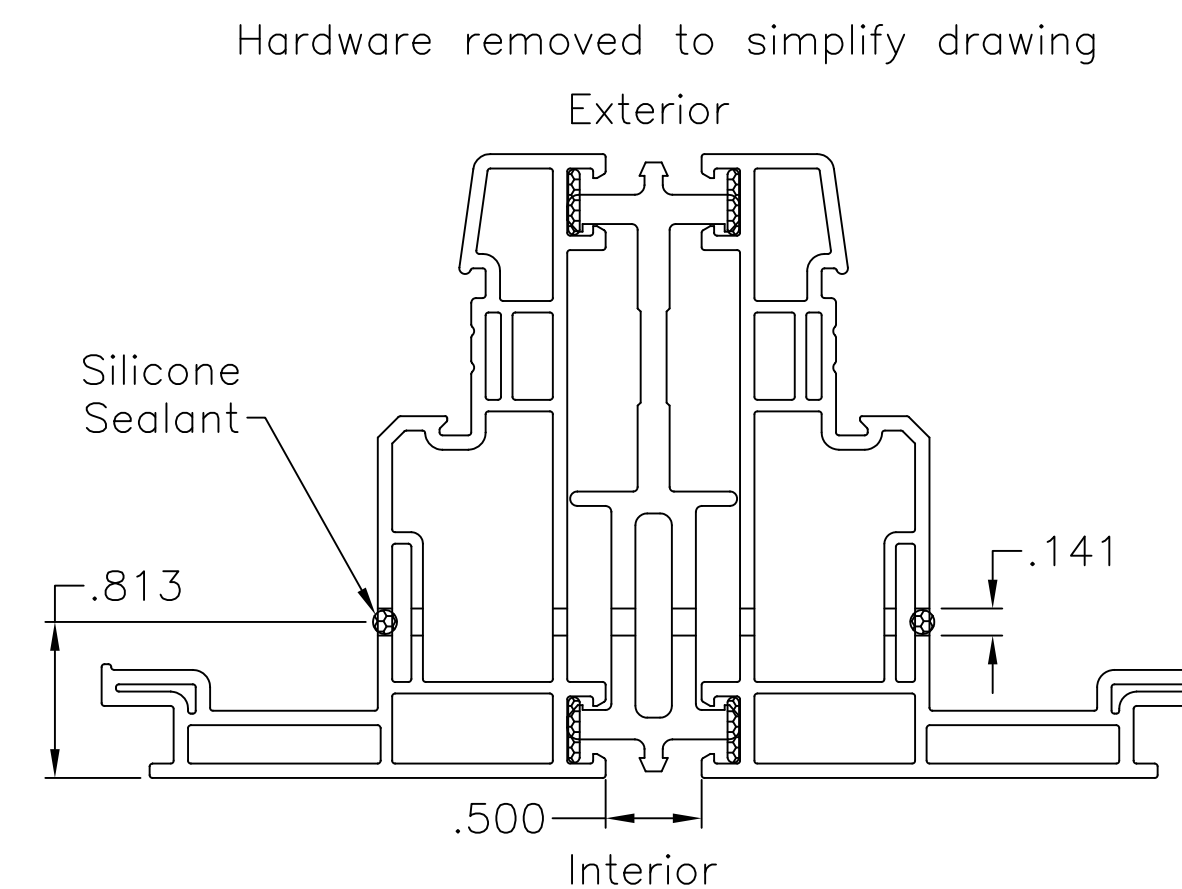
Step 4: Insert the top hook of the mullion (#10796) along its entire length into the first window. Ensure that the mullion hook is fully inserted into the accessory groove and that it is making good contact with the silicone. It is important that this hook be inserted first since it is deeper than the "snap" hook on the interior side of the mull.



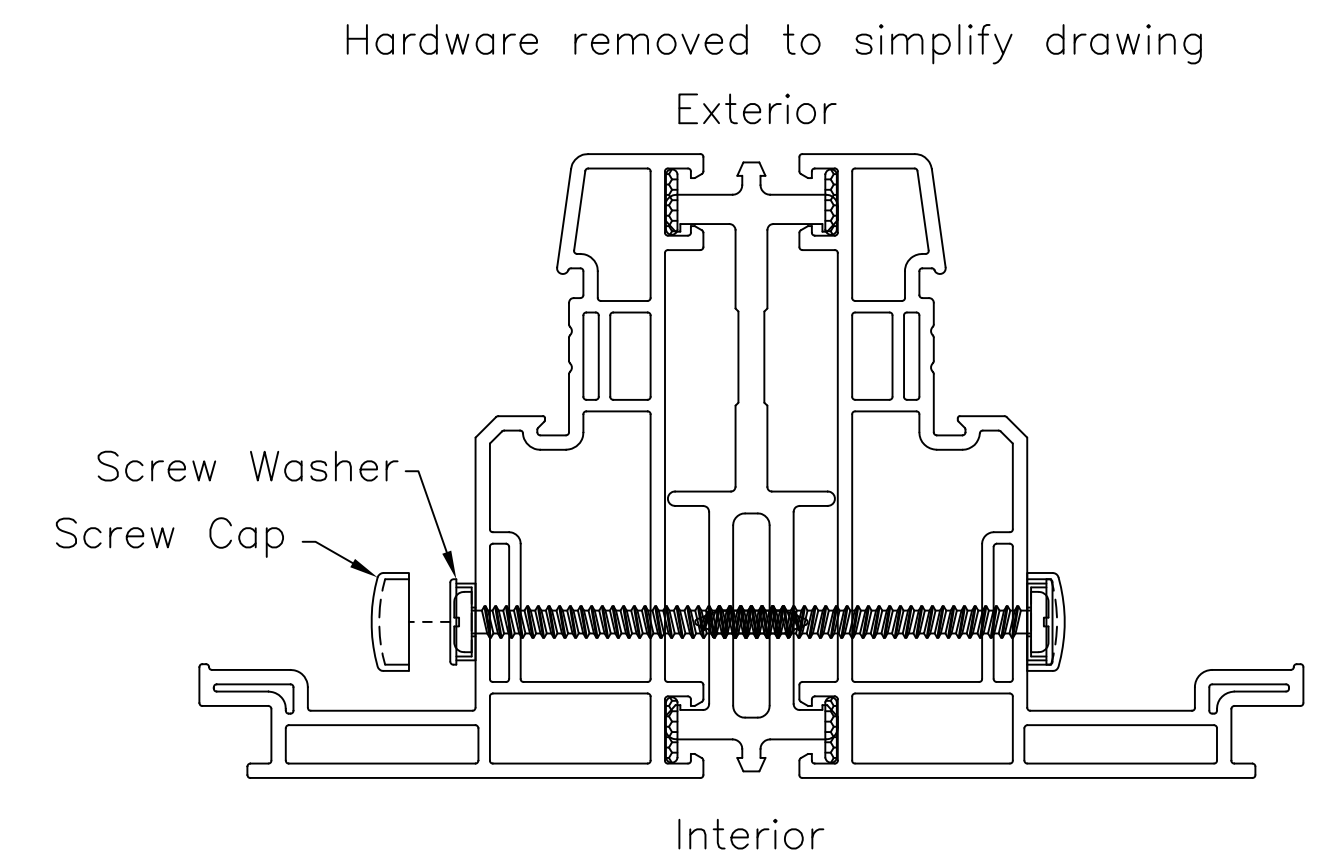
Step 5: Snap the bottom mullion hook into the other accessory groove. The mull should be fully inserted along the entire length of the accessory grooves on the first window at this time. Rotate the second window slightly and align it with the mullion.



Step 6: Place the top mullion hook into the exterior accessory groove on the window. Apply a light clamping force to both windows and snap the bottom mull hook onto the interior groove on the second window.



Step 7: Using a 9/64" drill bit, predrill the holes for the mullion installation screws into both window frames and the mullion as shown above. Hole spacing should be 5" from each end and 18" on center. A small amount of silicone sealant should be applied in each pre-drilled hole. This will help create a water barrier at the screw locations as the windows are fastened together.



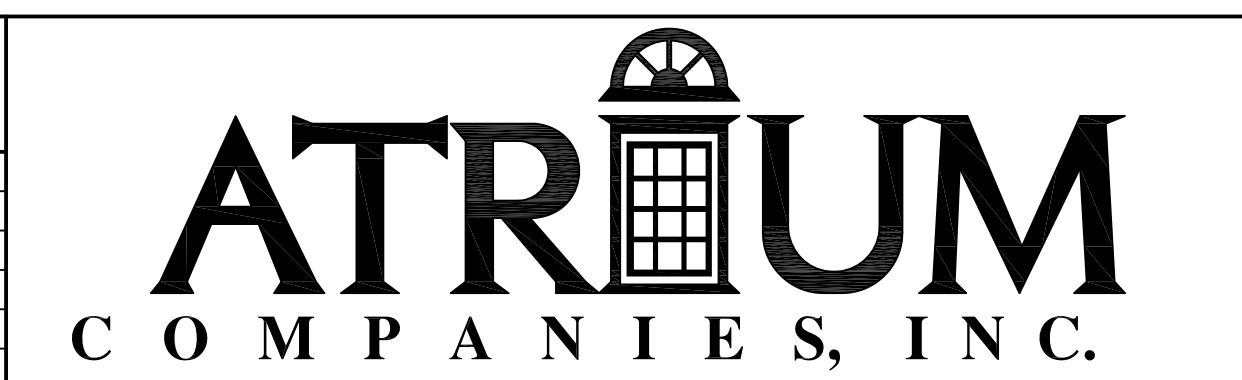
Step 8: After double checking the mull hooks (especially the exterior hooks) to make sure they are fully engaged, fasten the windows together using #8 x 1.75" PPH SMS. This screw length will penetrate both walls of the mullion and ensure its consistent and secure attachment. A clamp can be used to keep the windows together during the fastening process. Slightly offset the screws on both sides to avoid fastener interference. The optional external hole cover system shown above can be used to hide the installation screws.

Notes:

1. These instructions represent Engineering's recommendations for mullion installation on these products. The mullion can be installed using more robust methods (i.e.: additional screws, etc) or in a different sequence than the steps shown here.
2. However, the mullion installation must at least adhere to the details specified in this document and in the AAMA test report for these twin products. This ensures that the product will perform in the field as it did in the test lab.
3. These instructions apply to mullion installation on the 700 casement/awning.
4. These instructions can apply to either vertical twins or stacking units. Combine the methods shown on individual installation instruction sheets when mulling mismatched units.

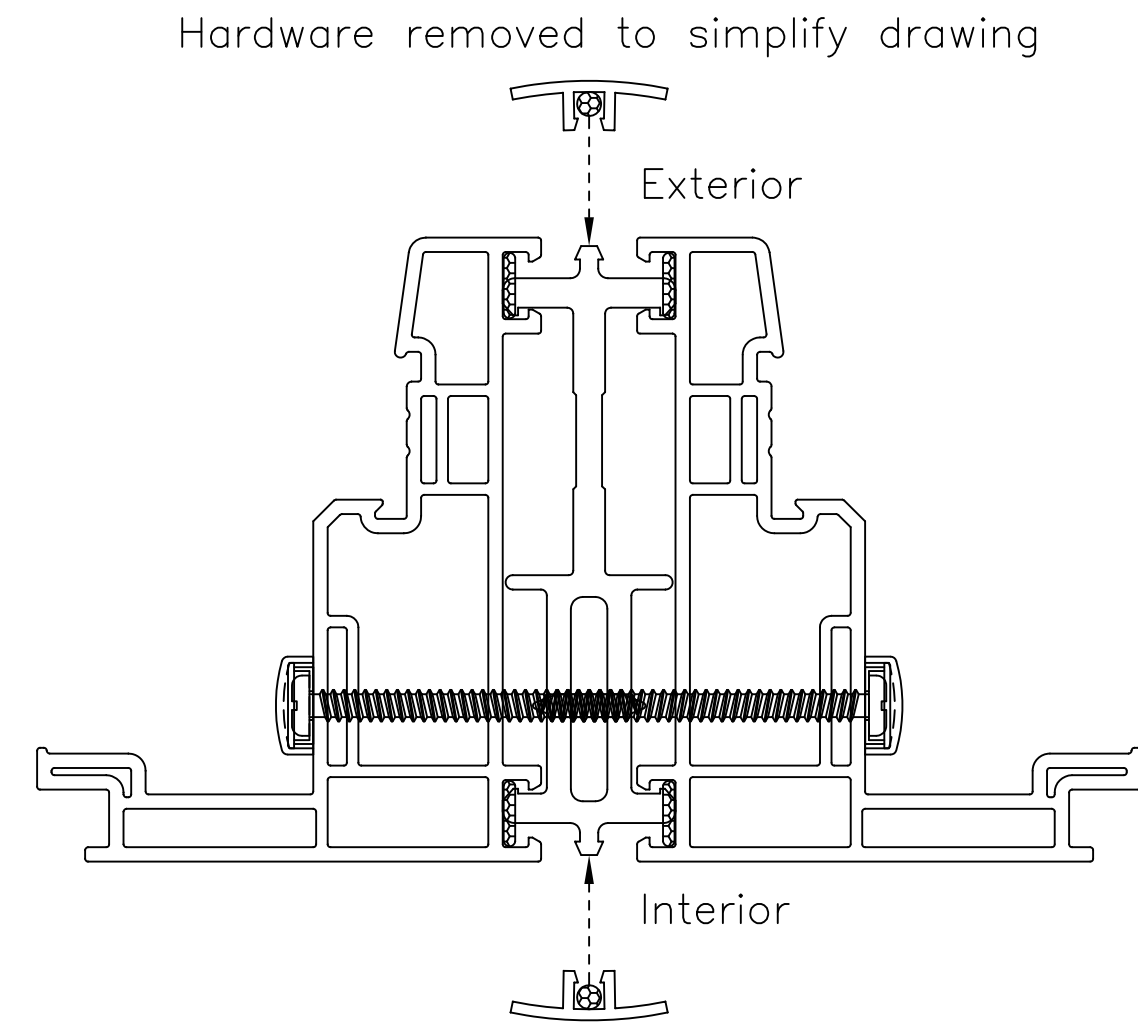
REVISIONS			
NO.	DATE	DESCRIPTION	CHG'D BY
1	11-26-2007	Added additional information to step 11 regarding flashing tape + silicone compatibility.	CRA
2	1-25-2008	Changed the wording of step #12. Mullion clips are no longer required for every mullied configuration.	CRA

ECN # ECN-2006-0994 (Initial Issue)
ECN-2006-0994.35
ECN-2006-0994.38

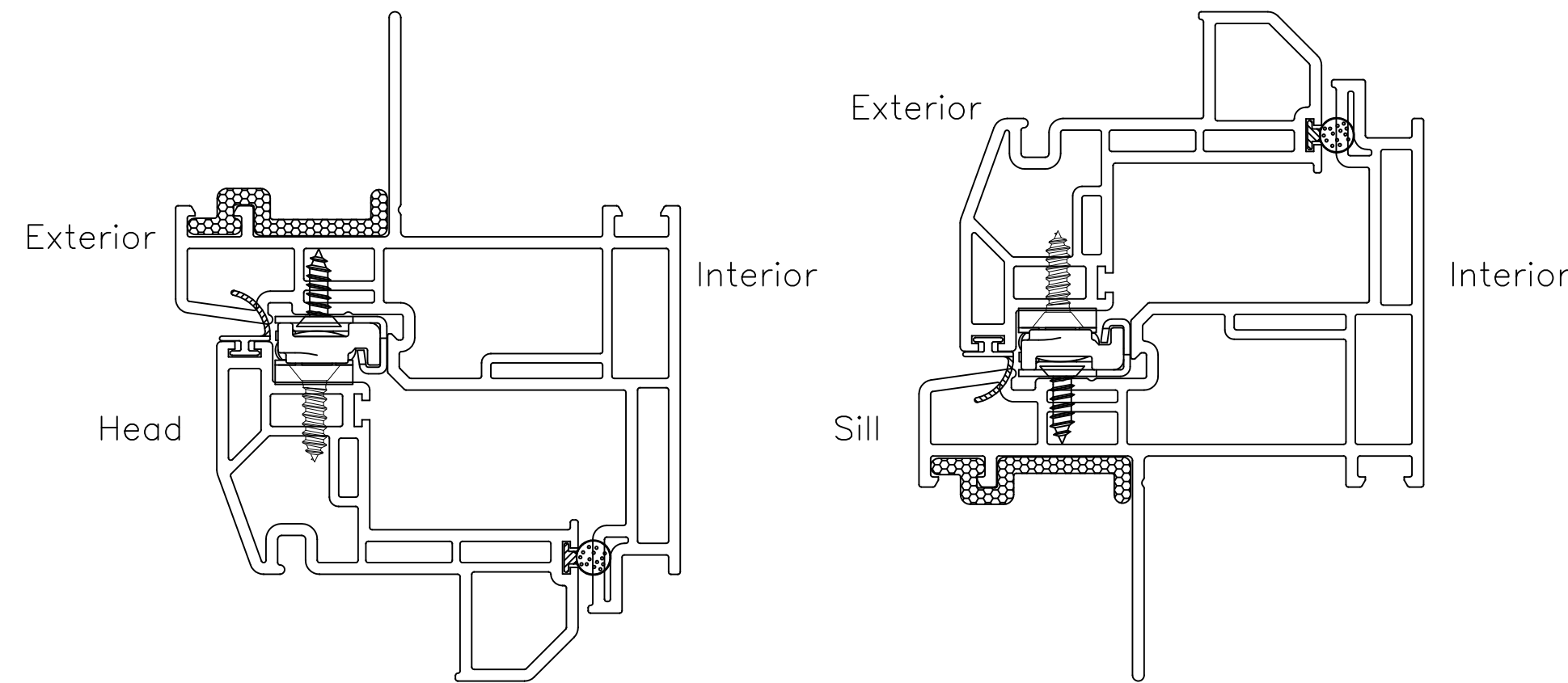


MANUFACTURING LOCATIONS:
ADW-00

TITLE: Atrium Series 700 Casement/Awning 1/2" Mullion Installation ADW-00 700 C AP 0.5 Inch Mullion Installation			
ALLOY: NA	TEMPER: NA	EST. AREA in: XXXXX EST. AREA cm: XXXXX	TOLERANCES: X.XX = +/- X.XX X.XXX = +/- X.XXX X.X DEG = +/- X.X DEG
MATERIAL: NA	SCALE: 1=1	EST. WEIGHT IN lb./ft.: XXXXX EST. WEIGHT IN kg./m: XXXXX	SHEET SIZE: ANSI D
DRAWN BY: C. Allison	APPROVED BY: D. Harden	DATE: 4-20-2007	DRAWING TYPE OR DIE # Installation Instructions Sheet 1/2

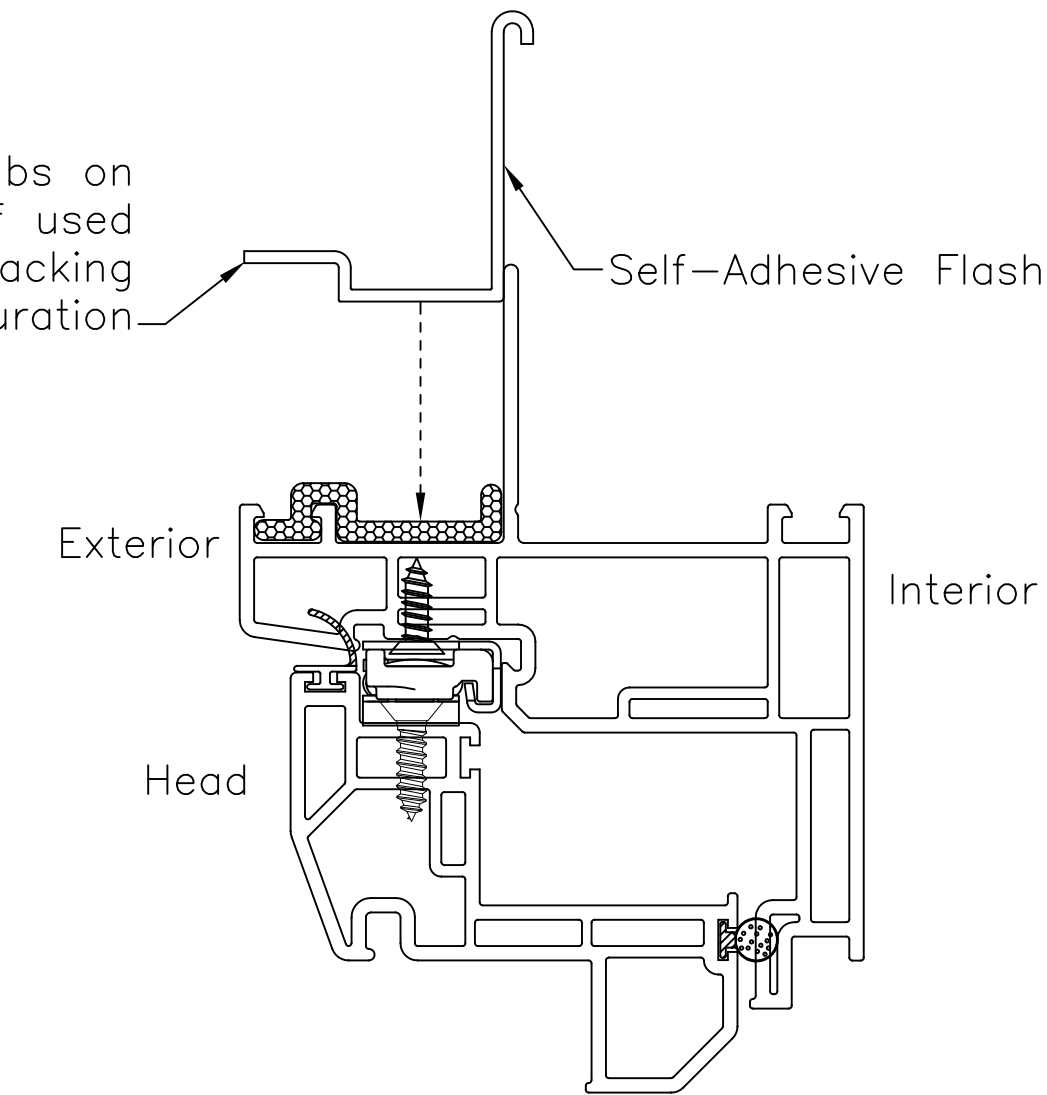


Step 9: Apply a bead of silicone into each snap section of the interior and exterior mullion caps (#1452-R). Snap the caps along the full length of the mullion and ensure they are firmly attached.

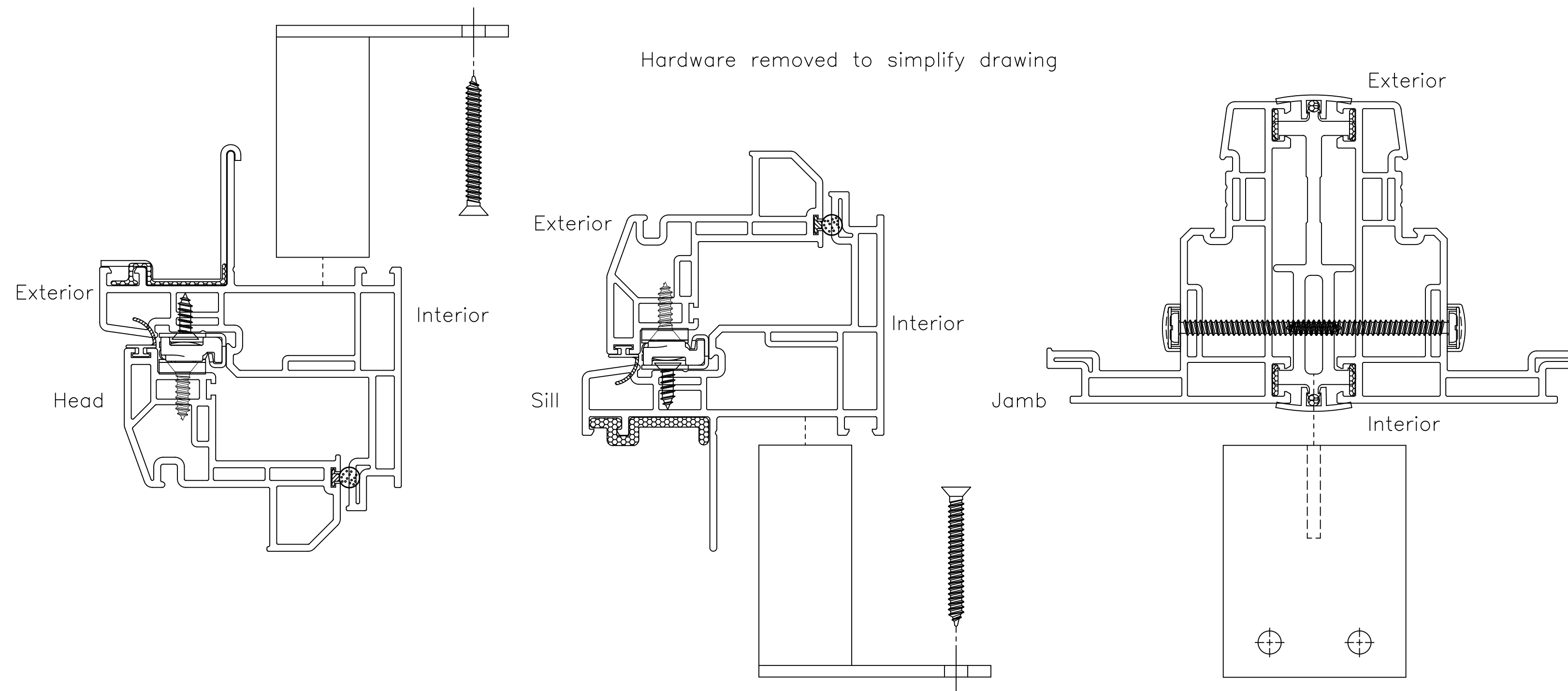


Step 10: Thoroughly seal the gaps at the head and sill created by the mullion with silicone or polyurethane sealant.

Apply to jambs on both sides if used in a stacking configuration



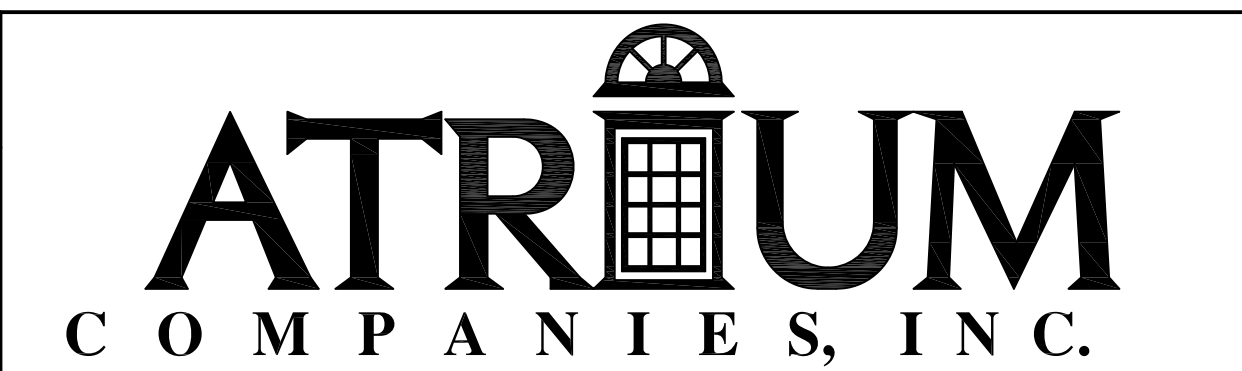
Step 11: Apply the self-adhesive flashing tape onto the head of both windows. This will further seal the mullion head gap. Ensure that the flashing tape has adequate adhesion with the rigid PVC if silicone is used. The tape can be wrapped around the nail fin to facilitate this. The flashing tape must be compatible with neutral cure silicone and/or polyurethane (depending on the sealant in use). ①



Step 12: The fabricated mullion clips (#10428) shown here are required to achieve certain size/performance numbers for some 700 mullion configurations (2 per mull). They are not required for every configuration. Refer to AAMA test reports for more details. The extension leg of each clip is inserted into the hollow of the mullion. These are applied in the field at the head and sill and connect the twin window to the wooden buck. Each clip is attached to the buck with 2 #8 x 1.5" PFH wood screws. ②

REVISIONS			
NO.	DATE	DESCRIPTION	CHG'D BY
1	11-26-2007	Added additional information to step 11 regarding flashing tape + silicone compatibility.	CRA
2	1-25-2008	Changed the wording of step #12. Mullion clips are no longer required for every mull configuration.	CRA

ECN # ECN-2006-0994 (Initial Issue)
ECN-2006-0994.35
ECN-2006-0994.38



MANUFACTURING LOCATIONS:
ADW-00

TITLE: Atrium Series 700 Casement/Awning 1/2" Mullion Installation ADW-00 700 C AP 0.5 Inch Mullion Installation			
ALLOY: NA	TEMPER: NA	EST. AREA in: XXXXX EST. AREA cm: XXXXX	TOLERANCES: X.XX = +/- X.XX X.XXX = +/- X.XXX X.X DEG = +/- X.X DEG
MATERIAL: NA	SCALE: 1=1	EST. WEIGHT IN lb./ft.: XXXXX EST. WEIGHT IN kg./m: XXXXX	SHEET SIZE: ANSI D
DRAWN BY: C. Allison	APPROVED BY: D. Harden	DATE: 4-20-2007	DRAWING TYPE OR DIE # Installation Instructions Sheet 2/2