Structural Mullion System

Installation Instructions

DNA Part Number 10300085

This system is designed to allow for larger window combinations. It is not intended to replace structural members in a building. Improper structural support may lead to performance problems. Before starting window installation, consultation with an architect, structural engineer or contractor is strongly recommended. Such consultation is necessary to determine if the window installation will meet all applicable design and building codes. The manufacturer assumes no responsibility for selection or installation. Selection and installation are the sole responsibility of the architect, contractor or consumer.
Standard Side by Side and Side by Side with Transom N/C Installation

1 Preparation
   a. Make sure you have all the parts for your particular application
      i. Traditional wood opening (see figure 1)
         1) 2 steel plates
         2) 18 #10 – 11 x 1 ½ pan head type 410 stainless steel screws
         3) 4 #8 – ¾” self tapping screws 410 stainless steel screws
         4) 1 pre-fabricated aluminum mullion
         5) As required #8 – 11 x ½ type 410 stainless steel screws (used to secure the window frames to the mullion – MAX 12” spacing)

![Fig. 1](image1)

ii. Concrete Block opening (see figure 2)
    1) 1 steel plate
    2) 1 aluminum plate
    3) 6 - #8 ¾” self tapping stainless steel screws
    4) 6 - #10 x 2 ¼” hex head ITW Tapcons to achieve minimum 1 ¾” embedment into substrate
    5) 1 pre-fabricated aluminum mullion
    6) As required #8 – 11 x ½ type 410 stainless steel screws (used to secure the window frames to the mullion – MAX 12” spacing)

![Fig. 2](image2)
iii. Transom (see Fig. 3, in addition to the “Traditional wood opening” or the “Concrete block opening” kits, you should also have)
   1. 2 steel plates
   2. 20 #8 - 11 x 1 ½ pan head type 410 stainless steel screws
   3. 4 #8 - x 3/4” self tapping screws type 410 stainless steel screws
   4. 1 pre-fabricated aluminum mullion
   5. As required #8 – 11 x 1/2 type 410 stainless steel screws (used to secure the window frames to the mullion – MAX 12” spacing)

![Fig. 3](image)

b. Remove the nailing fin from the side of the window frames that run with the mullion (see Figs. 4, 5, 6 & 7)
   i. To remove the nailing fin
      1. Score the fin as shown in Fig. 4
      2. Bend the nailing fin back and forth as shown in Fig. 5
      3. Until the fin snaps off as shown in Fig. 6
      4. If any nailing fin is left remaining at the corners, as shown in Fig. 6, trim it back even with the frame as shown in Fig. 7

![Fig. 4](image)
c. Remove the weld flashing from the corners of the window frames where the mullion will be (see Figs. 8 & 9)
   i. To remove the weld flashing as shown in Fig. 8
      1. Cut the flashing on the corners and in the grooves with snips as shown
      2. Be sure to get as much of the flashing as possible
      3. A box knife is also useful for more precise trimming.
   ii. Check for clearance using a piece of mullion as shown in Fig. 9
      1. The mullion should slide down the frame and past the corner without hang-ups.
II. Mullion assembly
   a. “Traditional wood opening” and “Transom” kits
      i. Attach the steel plates to the both ends of the mullion as shown (see Figs. 10 & 11)
         1. Pay special attention to the orientation between the mullion and the plate
         2. Use 2 of the #8 x 3/4" self tapping screws for each plate

Fig. 10

Fig. 11
b. “Concrete block opening” kits
   i. Attach the steel plate to the notched end of the mullion as shown (see Fig. 12)
   ii. Attach the aluminum plate to the straight cut end of the mullion as shown (see Fig. 13)
      1. Pay special attention to the orientation between the mullion and the plates
      2. Use 4 of the #8 – 3/4” self tapping stainless steel screws

![Fig. 12](image1)

![Fig. 13](image2)
III. Window / mullion installation
   a. Apply code compliant sealant to the perimeter of the opening ONLY where the first window will be installed as shown (see Fig. 14)
   b. Sealant bead should be a minimum of 3/8” diameter.

   ![Fig. 14]

   c. Install the first window in the opening as shown (see Fig. 15)
      i. Use AAMA certified window installation techniques

   ![Fig. 15]
d. Install mullion assembly (see Figs. 16 & 17)
   i. Make sure the mullion is nested into the grooves on the side of the window frame and the notch is pointed toward the exterior
   ii. The fit should be snug and secure
   iii. For “Traditional wood opening” and “Transom” kits (shown below) use 18 #10 – 11 x 1 ½ pan head type 410 stainless steel screws to secure the top and bottom plates to the rough opening
   iv. For “Concrete block opening” kits (not shown) use 3 #10 x 1 ½ hex head TAPCON screws to secure the top plate (steel) and 3 3/16 x 1 ½ hex head TAPCON screws to secure the bottom plate (aluminum)
e. Apply code compliant sealant to the remaining perimeter of the opening as shown (see Fig. 18)

f. Sealant bead should be a minimum of 3/8” diameter.

![Fig. 18]

Fig. 18

g. Install the second window in the opening as shown (see Fig. 19)
   Use AAMA certified window installation techniques

![Fig. 19]

Fig. 19
IV. Secure frames to mullion
   a. Drill clearance holes for the screws using a 1/8 DIA x 3/8 DIA step drill. The 1/8 DIA portion of the bit should be approximately 1/2” long. The top and bottom holes should be 4” from each end. The remaining holes should be spaced evenly no more than 12” apart (see Fig. 20)
      i. Make sure the drill penetrates the aluminum but does not breach the last PVC wall of the frame. Stagger the holes about a ½” from one side of the mullion to the other

Fig. 20

b. Shoot the screw thru the PVC into the aluminum (see Fig. 21)
c. Apply sealant to screw hole (see Fig. 22)

Fig. 22

V. Trim package installation
a. Trim back snap legs on the trim pieces as shown (see Fig. 23)

Fig. 23
b. Apply sealant to the mullion as shown (see Figs. 24)

![Fig. 24](image1)

Fig. 24

c. Install the mullion trim to the interior and the exterior (see Fig. 25)

![Fig. 25](image2)
d. Apply sealant to J-channel at head of mulled units as shown (see Fig 26 & 27)
e. Apply the drip cap (see Figs. 28 & 29)
VI. Transom Installation (optional)
a. Install the assembled transom mullion, section II.a., as shown (see Figs. 30 & 31)
b. Install the transom window and drill clearance holes as shown (see Fig. 32)
   i. Use a 1/8 DIA x 3/8 DIA step drill as before
   ii. Holes should be 4” from each end and spaced evenly between no more than 12” apart

Fig. 32

c. Use 3/8 DIA hole plugs to hide the holes (see Fig. 33)

Fig. 33
d. Apply sealant to mullion as shown (see Figs. 34 & 35)

Fig. 34

Fig. 35

e. Install the trim using the same step as a twin installation (see Fig. 34)

Fig. 36