

CONFIDENTIAL AND PROPRIETARY INFORMATION
KAWNEER COMPANY INC.

THESE DRAWINGS ARE THE SOLE AND EXCLUSIVE PROPERTY OF KAWNEER AND CONTAIN SENSITIVE, PRIVILEGED OR CONFIDENTIAL INFORMATION WHICH MAY BE USED ONLY FOR ITS BENEFIT. THE DISCLOSURE OF THESE DRAWINGS TO UNAUTHORIZED PERSONS IS STRICTLY PROHIBITED. THIS DOCUMENT AND ALL COPIES MUST BE RETURNED UPON DEMAND.

COPYRIGHT KAWNEER COMPANY, INC., 2002

USE THESE INSTRUCTIONS IN CONJUNCTION WITH INSTALLATION INSTRUCTIONS

166-970 HEAD/SILL RUNNING THRU TYPE B
166-971 SCREW SPLINE TYPE A
166-972 SHEAR BLOCK

166-973 TYPE B SSG
166-974 TYPE A SCREW SPLINE SSG
166-975 SHEAR BLOCK SSG

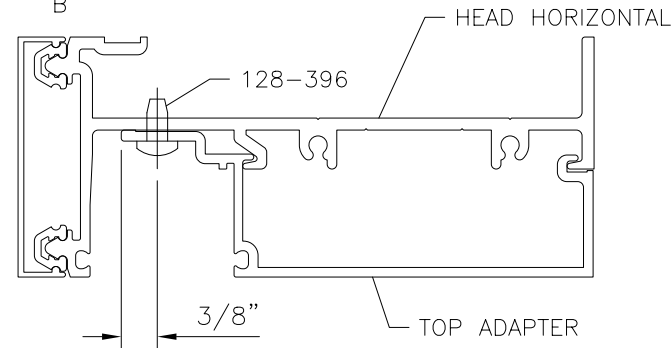
INSTALL FRAMING BEFORE INSTALLING GLASS VENTS

REFERENCE APPROVED SHOP DRAWINGS FOR CORRECT EXTRUSIONS USED

SQUARENESS AND DAYLITE OPENING DIMENSIONS MUST BE HELD TO WITHIN 1/16" OF NOMINAL FOR THE VENTS TO FIT AND OPERATE PROPERLY. DIAGONAL DIMENSIONS ACROSS OPENING MUST NOT VARY MORE THAN 1/16".

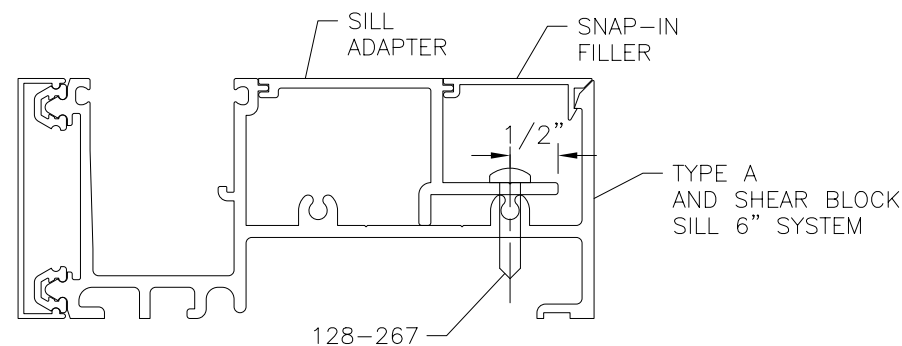
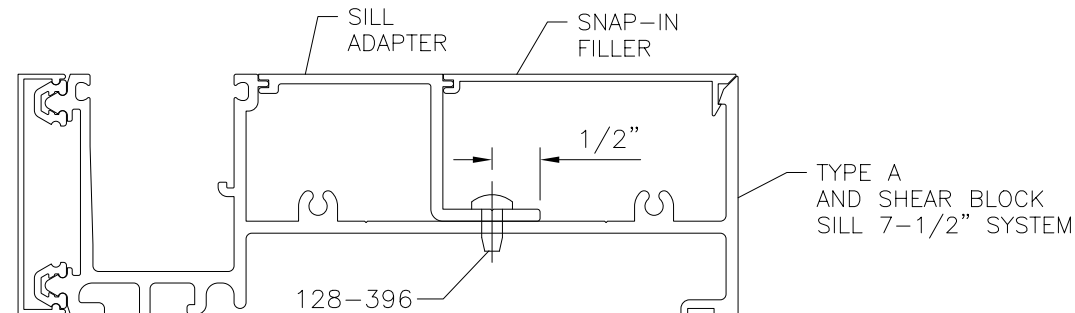
FABRICATE AND INSTALL TOP ADAPTER AT HEAD HORIZONTAL

ADAPTER CUT LENGTH = $DLO - 1/32"$
DRILL #1 (0.228" DIA.) HOLES IN ADAPTER 3" FROM EACH END AND 9" ON CENTER. USE THE ADAPTER AS A TEMPLATE TO MATCH DRILL #14 (0.182" DIA.) HOLES INTO FRAME AND APPLY ADAPTER WITH 128-396 SCREWS #12 x 7/16" PAN HEAD TYPE B



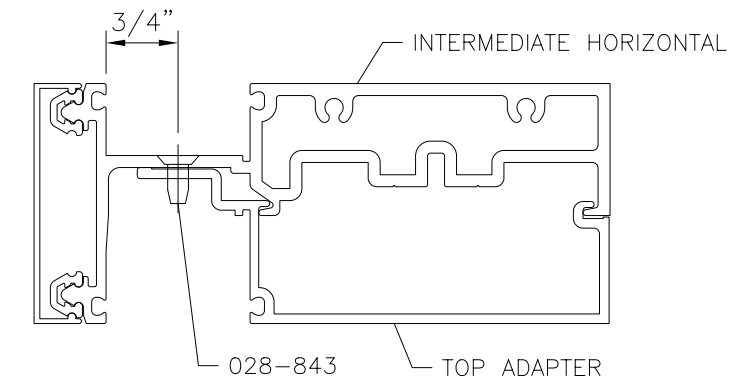
FABRICATE AND INSTALL BOTTOM ADAPTER AT SHEAR BLOCK / SCREW SPLINE SILL HORIZONTAL

ADAPTER CUT LENGTH = $DLO - 1/32"$
DRILL #1 (0.228" DIA.) HOLES IN ADAPTER 3" FROM EACH END AND 9" ON CENTER. USE THE ADAPTER AS A TEMPLATE TO MATCH DRILL #14 (0.182" DIA.) HOLES INTO FRAME AND APPLY ADAPTER WITH 128-396 SCREWS #12 x 7/16" PAN HEAD TYPE B OR 128-267 #12 X 1" PAN HEAD TYPE AB AS SHOWN BELOW.



FABRICATE AND INSTALL TOP ADAPTER AT INTERMEDIATE HORIZONTAL

ADAPTER CUT LENGTH = $DLO - 1/32"$
DRILL #1 (0.228" DIA.) THRU 0.438" x 82' COUNTERSINK HOLES IN HORIZONTAL 3" FROM EACH END AND 9" ON CENTER. USE THE HORIZONTAL AS A TEMPLATE TO MATCH DRILL #14 (0.182" DIA.) HOLES INTO ADAPTER AND APPLY ADAPTER WITH 028-843 SCREWS #12 x 1/2" FLAT HEAD TYPE B



Kawneer
An Alcoa Company

Product Engineering & Development

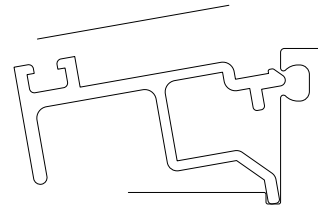
95488-23
12/10/03

1600 SYSTEM 5
CASEMENT GLASS-
VENT INSTALLATION
INSTRUCTIONS

166-989 (SHEET 1 OF 5)

INSTALL VENT POCKET ADAPTERS

INSTALL VERTICAL ADAPTERS FIRST



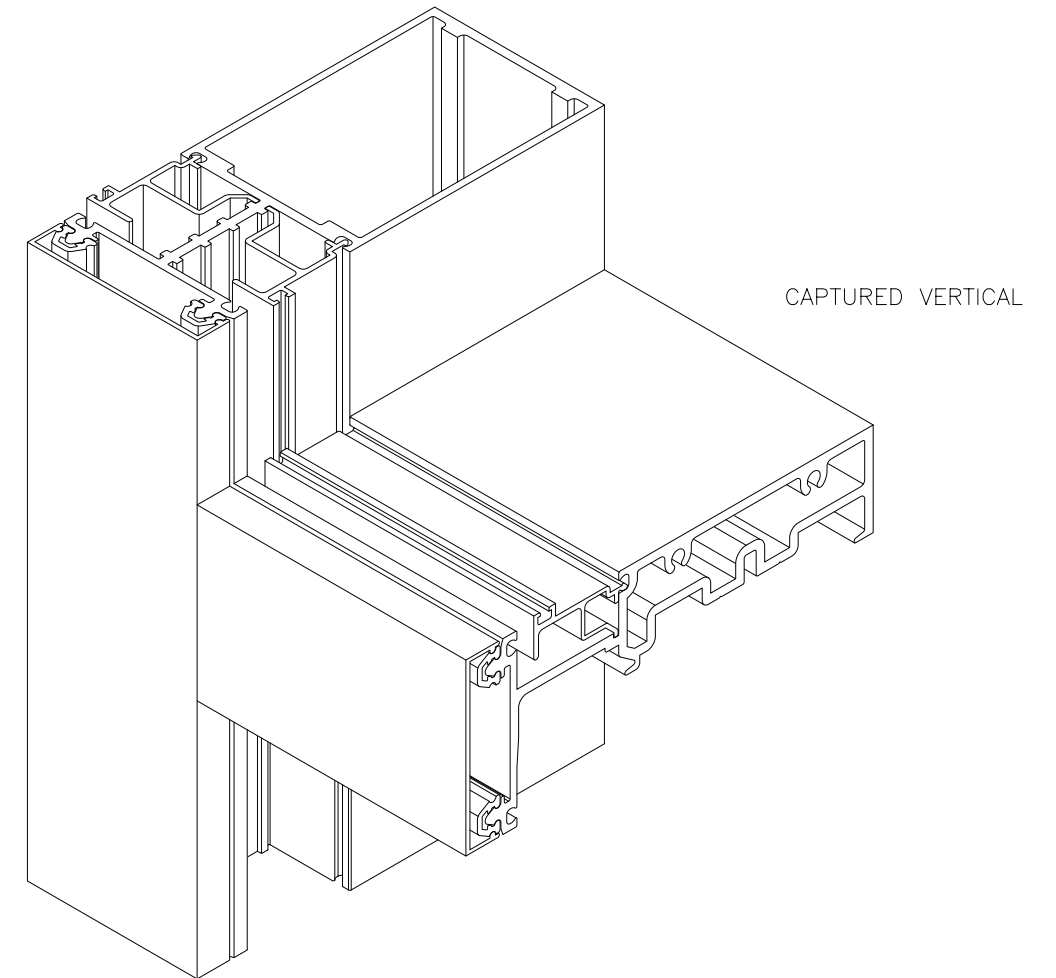
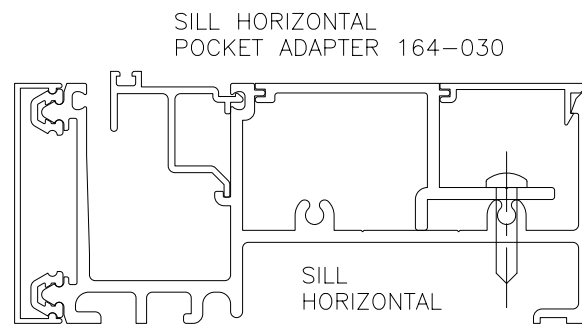
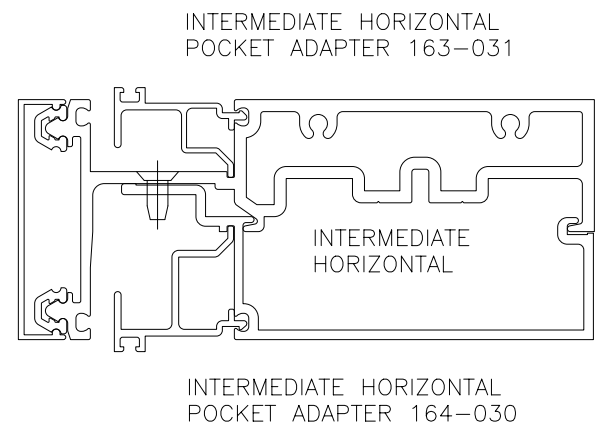
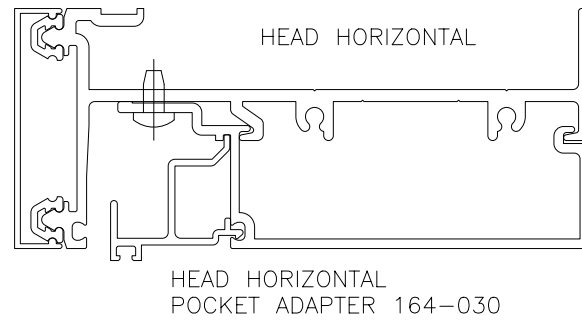
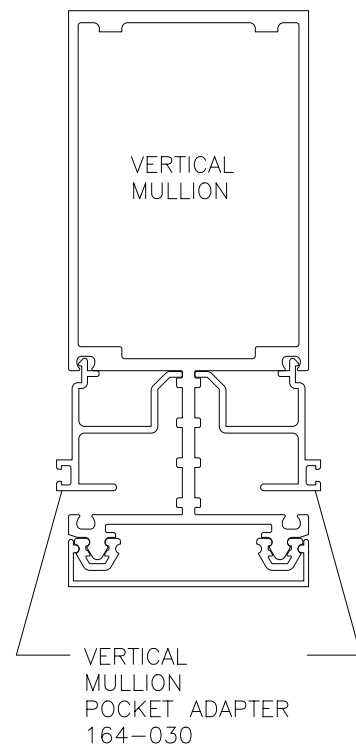
POCKET ADAPTER CUT LENGTH

VERTICAL ADAPTERS DLO PLUS 1 3/8"

HORIZONTAL ADAPTER DLO MINUS 5/16" WITH CAPTURED VERTICALS AT BOTH ENDS

HORIZONTAL ADAPTER DLO PLUS 2 1/4" WITH SSG VERTICALS AT BOTH ENDS (NOTCH ENDS)

HORIZONTAL ADAPTER DLO PLUS 31/32" WITH CAPTURED VERTICAL AT ONE END AND SSG VERTICAL AT ONE END (NOTCH)



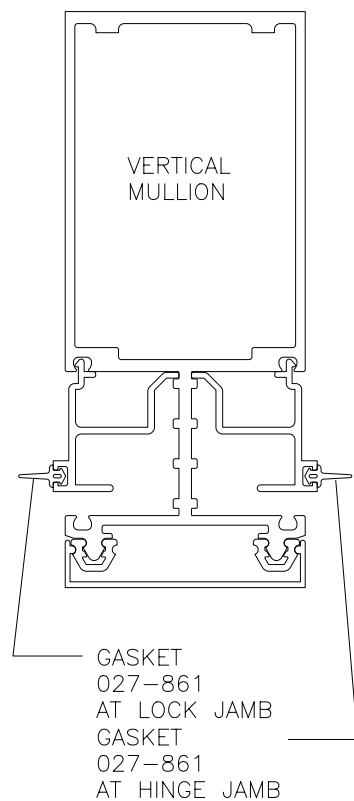
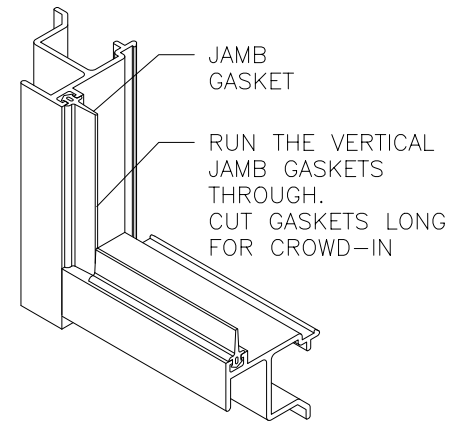
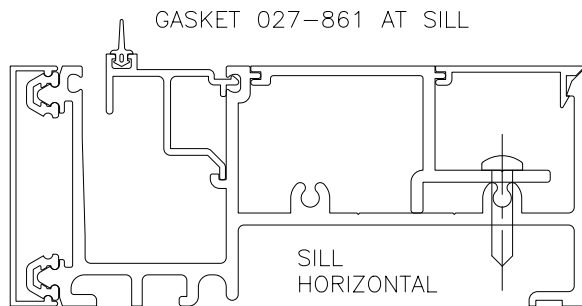
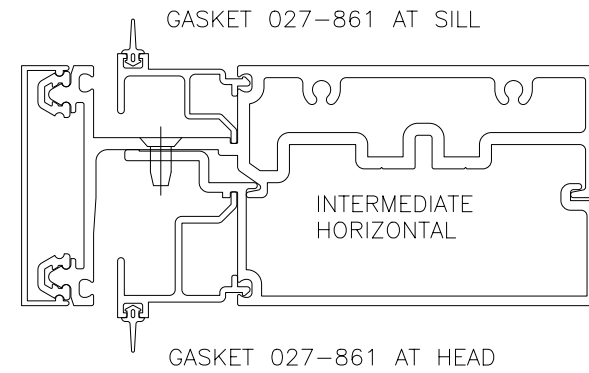
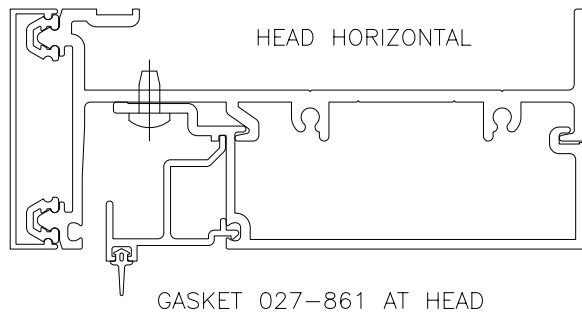
 An Alcoa Company	1600 SYSTEM 5 CASEMENT GLASS-VENT INSTALLATION INSTRUCTIONS	
	Product Engineering & Development	
95488-23 12/10/03	166-989 (SHEET 2 OF 5)	

CONFIDENTIAL AND PROPRIETARY INFORMATION
KAWNEER COMPANY INC.

THESE DRAWINGS ARE THE SOLE AND EXCLUSIVE PROPERTY OF KAWNEER AND CONTAIN SENSITIVE, PRIVILEGED OR CONFIDENTIAL INFORMATION WHICH MAY BE USED ONLY FOR ITS BENEFIT. THE DISCLOSURE OF THESE DRAWINGS TO UNAUTHORIZED PERSONS IS STRICTLY PROHIBITED. THIS DOCUMENT AND ALL COPIES MUST BE RETURNED UPON DEMAND.

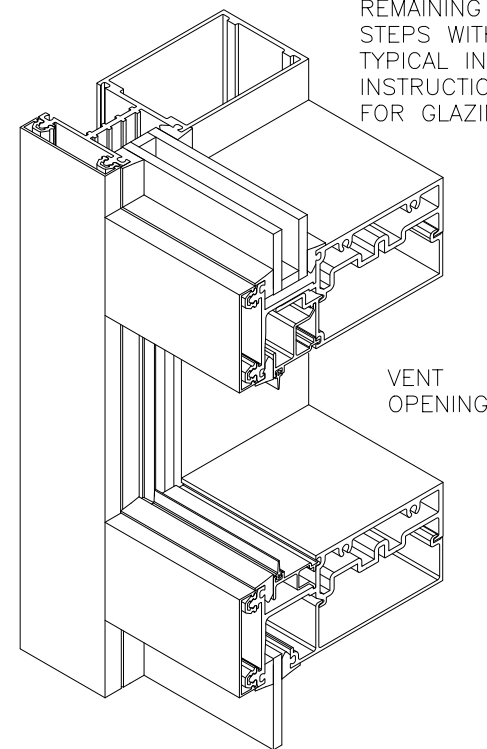
COPYRIGHT KAWNEER COMPANY, INC., 2002

INSTALL PERIMETER VENT GASKETS



GLAZE GLASS

AFTER INSTALLING VENT POCKET ADAPTERS COMPLETE THE REMAINING STEPS WITH THE TYPICAL INSTALLATION INSTRUCTIONS FOR GLAZING

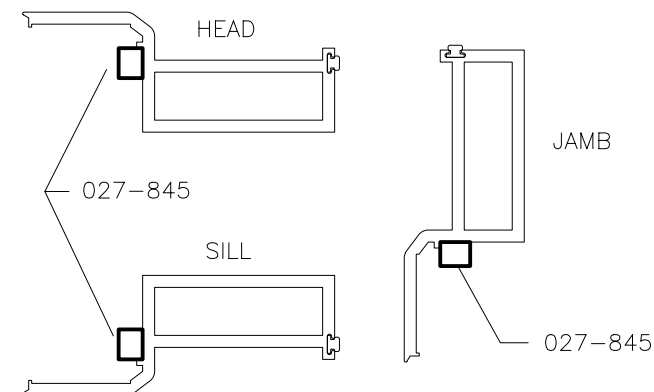


STRUCTURAL VENT GLAZING

STRUCTURAL SEAL - SEALANT TO BE STRUCTURAL TYPE SILICONE AS RECOMMENDED BY THE SEALANT MANUFACTURER. SEALANT SHALL NOT BE APPLIED UNTIL ALL REQUIRED COMPATIBILITY AND ADHESION TESTING IS COMPLETE. SEALANT MUST BE APPLIED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.

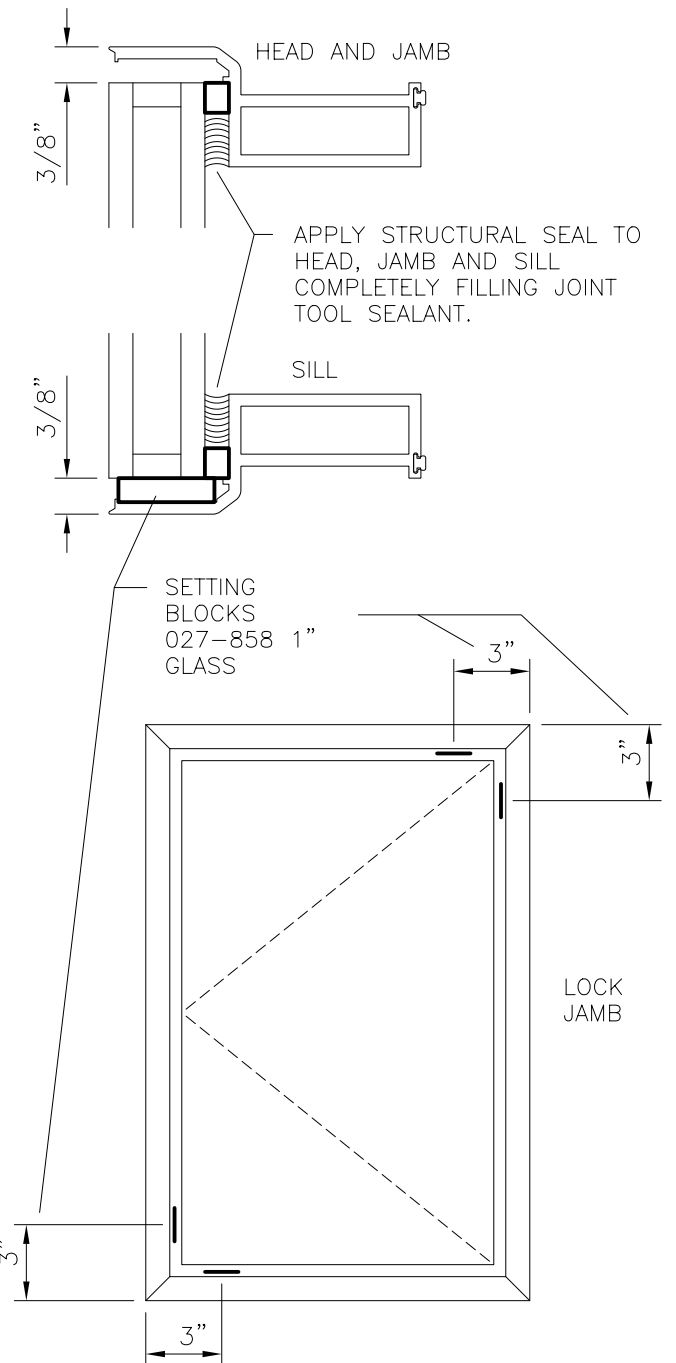
EXTERIOR GLASS WEATHER SEAL - SEALANT TO BE A TYPE AS RECOMMENDED BY THE MANUFACTURER OF THE STRUCTURAL SEALANT BEING USED FOR THIS PROJECT. SEALANT MUST BE APPLIED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.

CLEAN VENT GLAZING AND APPLY 027-845 2 SIDED ADHESIVE TAPE AS SHOWN. TEMPORARILY LEAVE THE PROTECTIVE LINER ON



APPLY STRUCTURAL SEAL

MASK GLASS AND METAL AS REQUIRED



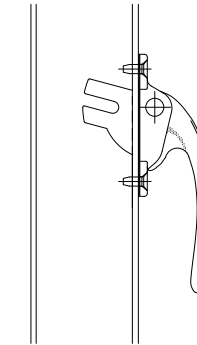
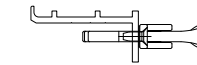
Product Engineering & Development

1600 SYSTEM 5
CASEMENT GLASS-
VENT INSTALLATION
INSTRUCTIONS

CONFIDENTIAL AND PROPRIETARY INFORMATION
KAWNEER COMPANY INC.

THESE DRAWINGS ARE THE SOLE AND EXCLUSIVE PROPERTY OF KAWNEER AND CONTAIN SENSITIVE, PRIVILEGED OR CONFIDENTIAL INFORMATION WHICH MAY BE USED ONLY FOR ITS BENEFIT. THE DISCLOSURE OF THESE DRAWINGS TO UNAUTHORIZED PERSONS IS STRICTLY PROHIBITED. THIS DOCUMENT AND ALL COPIES MUST BE RETURNED UPON DEMAND.
COPYRIGHT KAWNEER COMPANY, INC., 2002

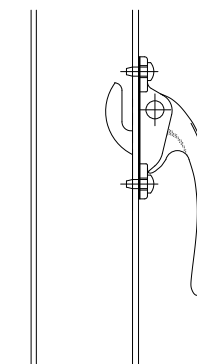
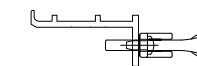
INSTALL MULTI-POINT LOCK



835-431
MULTI-POINT
LOCK 835-432
GASKET
128-415
SCREWS

INSTALL HOOK LOCK

AT SINGLE LOCK POINT APPLICATIONS



225-438
HOOK
LOCK
835-432
GASKET
128-414
SCREWS

AFTER VENTS ARE INSTALLED
ADJUST
VENT KEEPERS AS REQUIRED

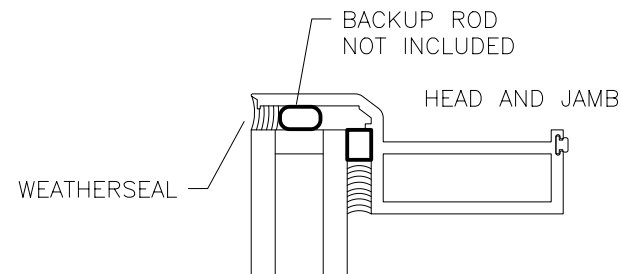


1600 SYSTEM 5
CASEMENT GLASS-
VENT INSTALLATION
INSTRUCTIONS

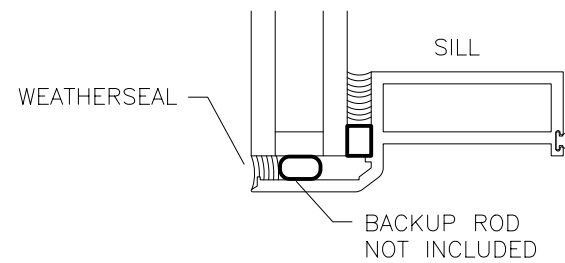
Product Engineering & Development

95488-23
12/10/03

APPLY WEATHER SEAL



MASK GLASS AND
METAL AS
REQUIRED

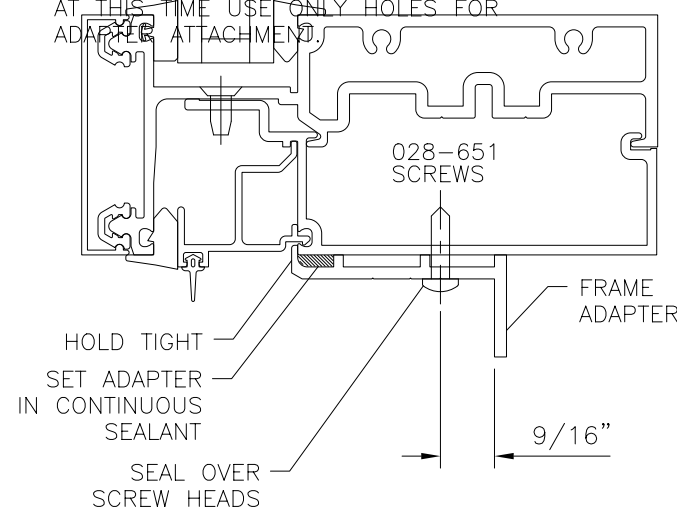


INSTALL VENT FRAME ADAPTERS

VENT FRAME ADAPTERS ARE HANDED.
SEE
APPROVED SHOP DRAWINGS FOR
LOCATION.

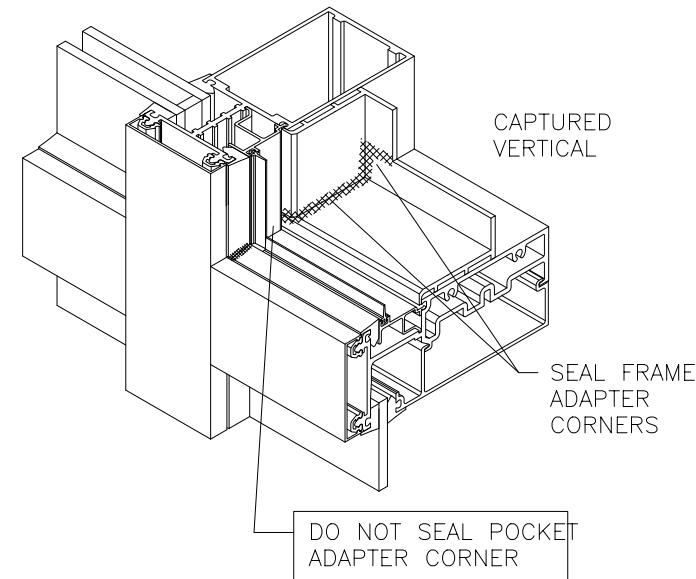
HOLD ADAPTERS TIGHT AGAINST MULLION
AS
SHOWN. USING HOLES IN ADAPTERS
MATCH
DRILL MULLIONS WITH #26 DRILL
(0.147" DIA.)
AND APPLY WITH 028-651 SCREWS #10
x 3/4"
PAN HEAD TYPE AB.

AT THIS TIME USE ONLY HOLES FOR
ADAPTER ATTACHMENT



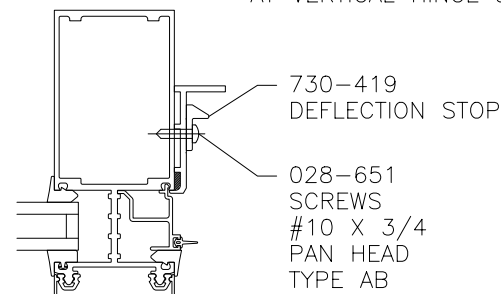
APPLY ADAPTERS TO ALL 4 SIDES AND
SEAL
CORNERS AS SHOWN.

DO NOT SEAL POCKET ADAPTER CORNERS.
THESE CORNERS ARE FOR WATER DRAINAGE.



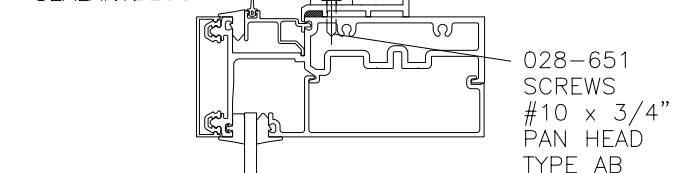
INSTALL DEFLECTION STOP

AT VERTICAL HINGE JAMB



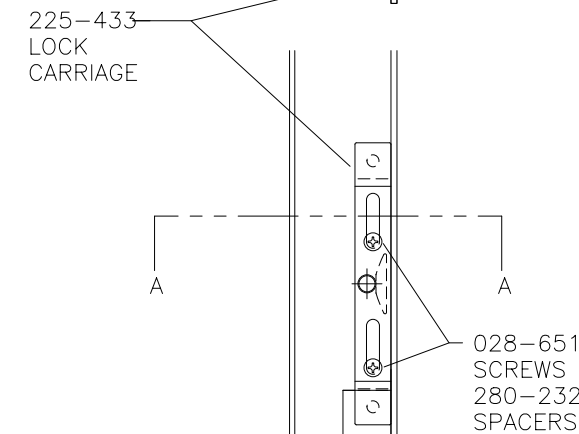
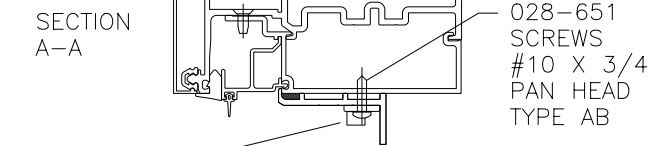
APPLY DEFLECTION STOP USING HOLES IN
ADAPTERS
DRILL HORIZONTAL WITH #26 DRILL (0.147" DIA.)
AND
APPLY WITH 028-651 SCREWS. ADJUST STOP
ALL THE
WAY TO THE EXTERIOR AND SNUG TIGHTEN
SCREWS.
ADJUSTMENT WILL BE REQUIRED AFTER THE
VENT IS
INSTALLED. RISER BLOCK

USING HOLES IN ADAPTERS DRILL
HORIZONTAL
WITH #26 DRILL (0.147" DIA.) AND APPLY
BLOCK
WITH 028-651 SCREWS. SET SCREWS IN
SEALANT

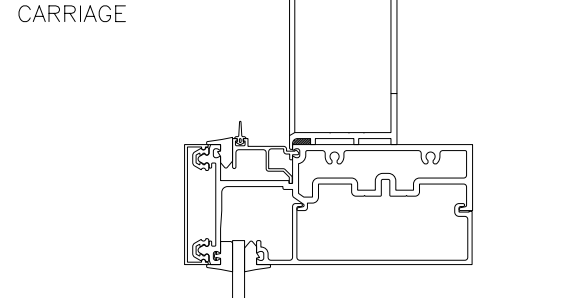
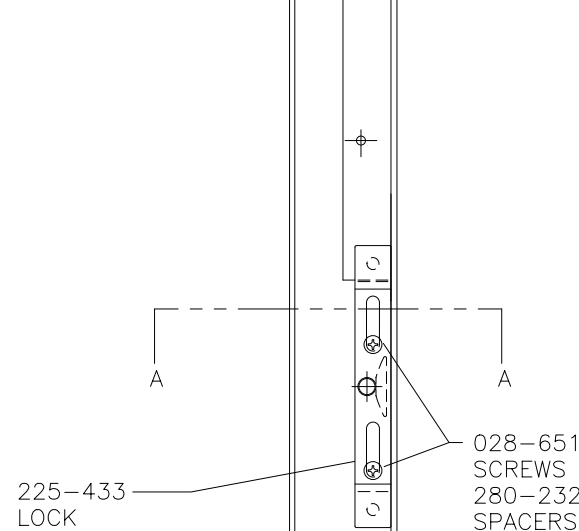


INSTALL MULTI-POINT LOCK
CARRIAGE AND LOCK ROD

USING HOLES IN ADAPTERS DRILL
HORIZONTAL
WITH #26 DRILL (0.147" DIA.) AND APPLY
LOCK CARRIAGE AND ROD USING 028-651
SCREWS
AND 280-232 SPACERS. SET SCREWS IN
SEALANT.



225-461
LH
225-462
RH
LOCK
ROD

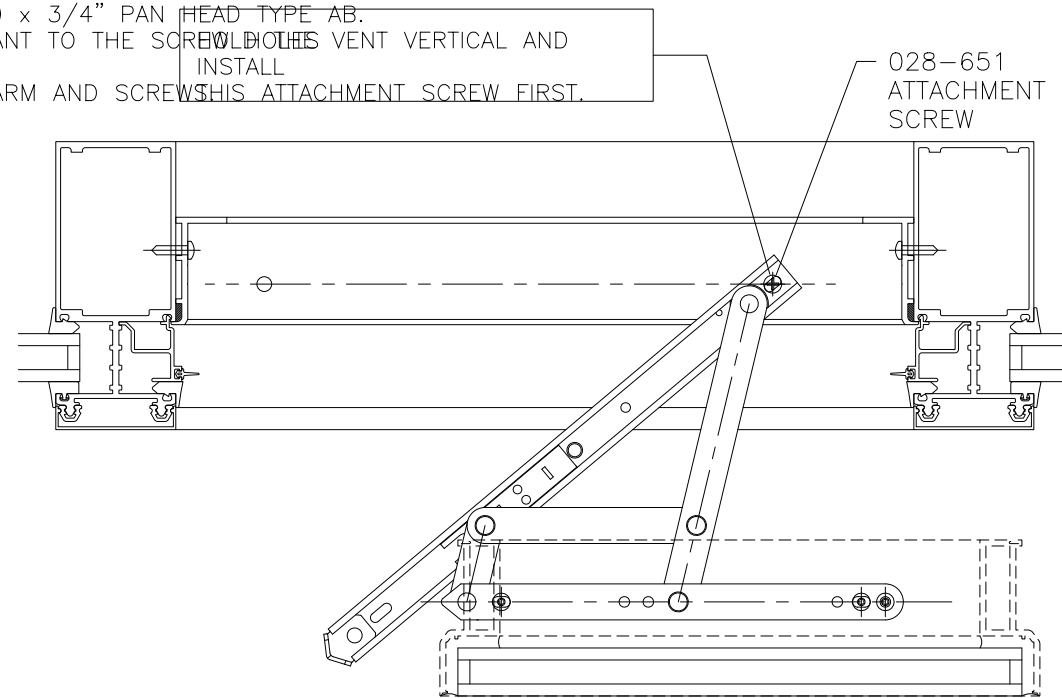


INSTALL GLAZED VENT

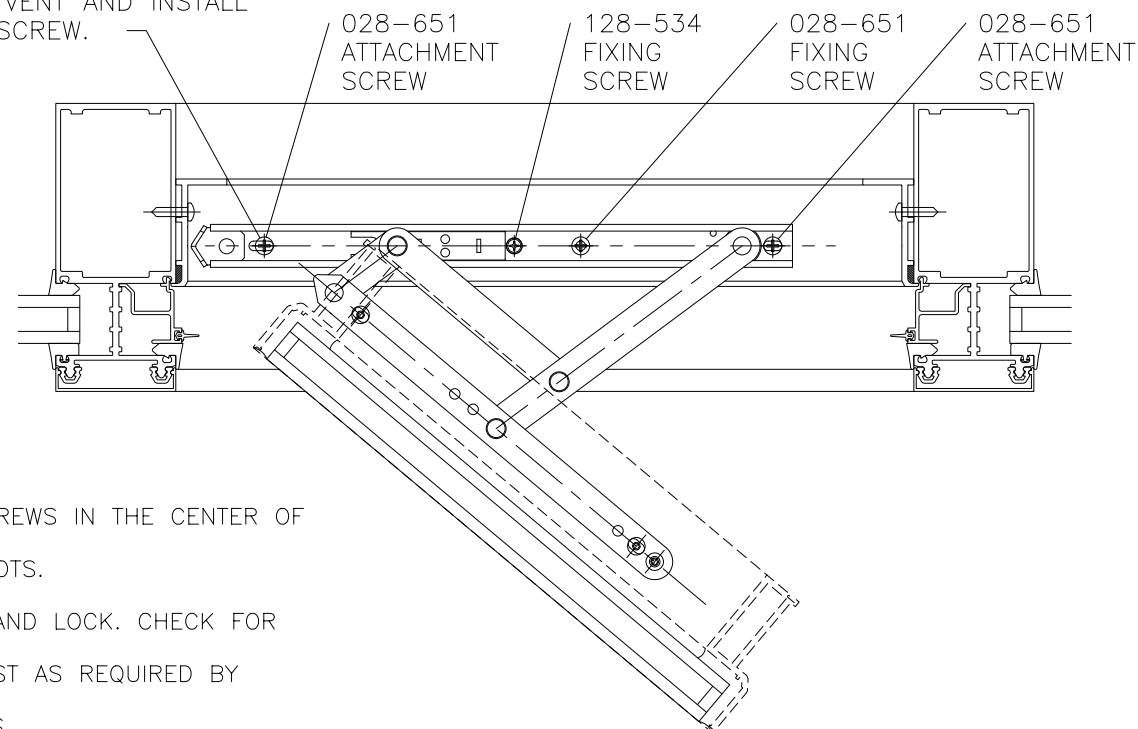
BEFORE INSTALLING VENT DRILL #26 (0.147" DIA.) HOLES IN THE MULLIONS USING THE REMAINING ADAPTER HOLES AS PILOTS.

INSTALL THE VENT BY SCREW APPLYING THE 4-BAR HINGES TO THE JAMBS USING 028-651

SCREWS #10 x 3/4" PAN HEAD TYPE AB. APPLY SEALANT TO THE SCREWS. INSTALL THIS ATTACHMENT SCREW FIRST.



THEN ROTATE THE VENT AND INSTALL THIS ATTACHMENT SCREW.



POSITION THE SCREWS IN THE CENTER OF THE 4-BAR HINGE SLOTS.

SHUT THE VENT AND LOCK. CHECK FOR VERTICAL ALIGNMENT. ADJUST AS REQUIRED BY LOOSENING 028-651 SCREWS.

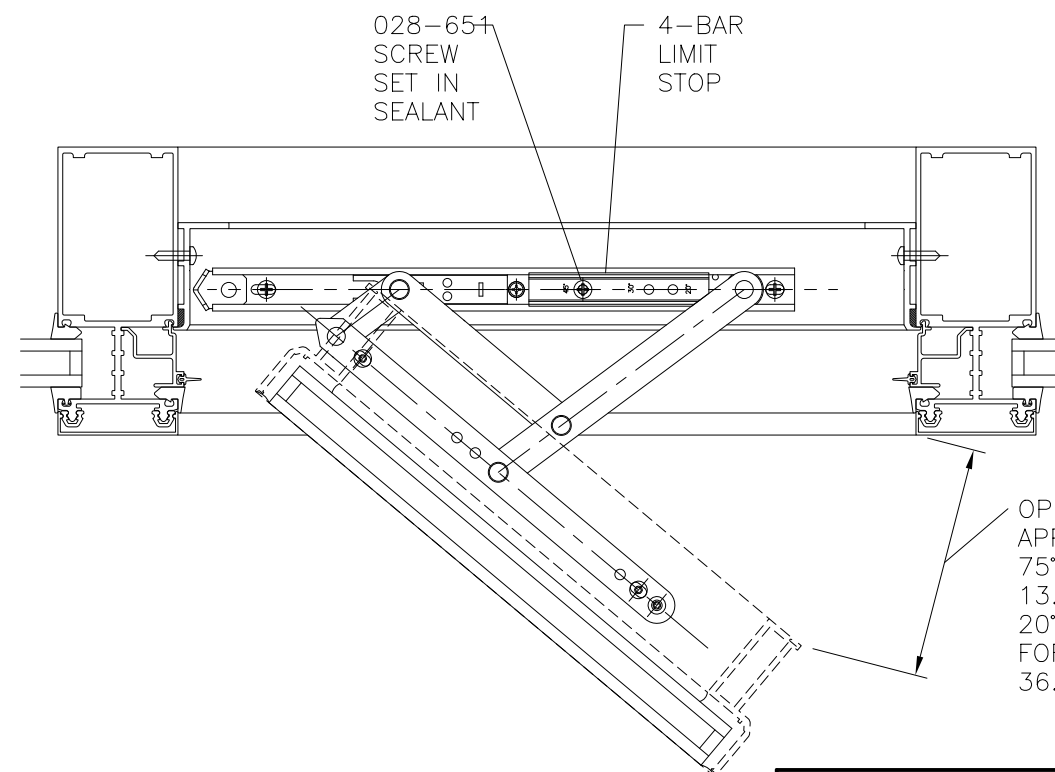
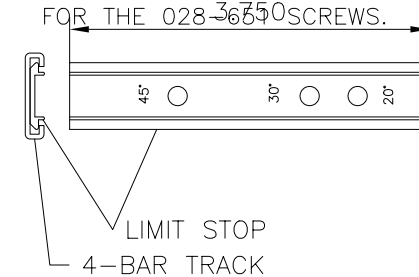
WITH THE VENT CENTERED DRILL AS ABOVE AND INSTALL 028-651 & 128-534 FIXING SCREWS. SET THE SCREW IN SEALANT.

INSTALL 4-BAR LIMIT STOPS ON DLO'S 20.500" AND OVER

THE LIMIT STOP IS FURNISHED 3-3/4" LONG. ADJUST AS REQUIRED TO LIMIT THE OPENING TO APPROXIMATELY 20°, 30° OR 45°.

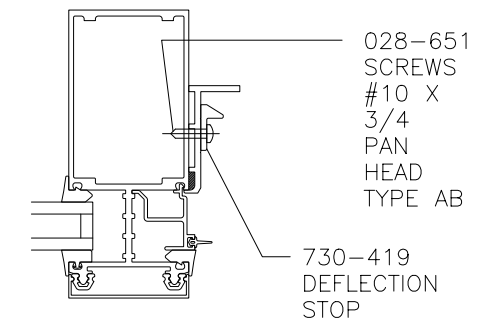
DRILL #26 (0.147" DIA.) HOLES AND INSTALL WITH 028-651 SCREWS. #10 x 3/4" PAN HEAD TYPE AB.

THE 4-BAR HINGE HAS A PRE-PUNCHED HOLE FOR THE 028-651 SCREWS.



OPENING TO BE APPROXIMATELY 75° MAXIMUM FOR DLO'S OF 13.250 TO 20.499 AND 20°, 30° OR 45° MAXIMUM FOR DLO'S OF 20.500 TO 36.000.

ADJUST DEFLECTION STOP



WITH THE VENT OPEN, LOOSEN SCREWS SO STOP WILL SLIDE. THEN SLIDE DEFLECTION STOP TOWARDS THE INTERIOR. CLOSE VENT AND LOCK. OPEN THE VENT CAREFULLY AND TIGHTEN DEFLECTION STOP SCREW.