#### **GENERAL NOTES**

THESE INSTALLATION INSTRUCTIONS ARE A SUPPLEMENT TO THE APPROVED SHOP DRAWINGS. USE IN CONJUNCTION WITH THOSE DRAWINGS.

#### 1 - HANDLING, STORING AND PROTECTING ALUMINUM MATERIAI

THE FOLLOWING PRECAUTIONS ARE RECOMMENDED TO ASSURE EARLY ACCEPTANCE OF YOUR PRODUCTS AND WORKMANSHIP.

A - HANDLE CAREFULLY - DO NOT DROP FROM THE TRUCK. STACK WITH ADEQUATE SEPARATION SO MATERIAL WILL NOT RUB TOGETHER. STORE OFF THE GROUND. PROTECT AGAINST ELEMENTS AND OTHER CONSTRUCTION TRADES.

B - KEEP MATERIAL AWAY FROM WATER, MUD AND SPRAY - PREVENT CEMENT, PLASTER AND OTHER MATERIALS FROM DAMAGING THE FINISH.

C - PROTECT THE MATERIALS AFTER ERECTION, BY WRAPPING WITH KRAFT PAPER - OR BY ERECTING VISQUEEN/CANVAS SPLATTER SCREENS. CEMENT, PLASTER, TERRAZZO AND OTHER ALKALINE MATERIALS ARE VERY HARMFUL TO THE FINISH AND SHOULD BE REMOVED WITH WATER AND MILD SOAP BEFORE SETTING OCCURS. UNDER NO CIRCUMSTANCES ALLOW THESE MATERIALS TO TO DRY OR PERMANENT STAINING WILL OCCUR.

#### 2 - GENERAL RULES

THE FOLLOWING PRACTICES ARE RECOMMENDED FOR ALL WALL INSTALLATIONS.

A - READ COMPLETE INSTRUCTIONS BEFORE ORDERING GLASS OR FABRICATING MATERIAL.

B - CHECK SHOP DRAWINGS TO BECOME THOROUGHLY FAMILIAR WITH THE JOB.

 $\ensuremath{\mathsf{C}}$  - ALL MATERIALS ARE TO BE INSTALLED PLUMB, LEVEL AND TRUE.

D - ALL WORK SHOULD START FROM ESTABLISHED BENCH MARKS AND COLUMN CENTER LINES ESTABLISHED BY THE ARCHITECTURAL DRAWINGS AND THE GENERAL CONTRACTOR.

E - THE SEQUENCE OF ERECTION SHOULD BE COORDINATED WITH THE JOB SUPERINTENDENT SO DELAYS ARE PREVENTED AND RISK OF MATERIAL DAMAGE IS MINIMIZED. IF PRESETTING OF ANCHORAGE IS REQUIRED, COORDINATE WITH GENERAL CONTRACTOR AND SUPERVISE LOCATION.

F - MAKE CERTAIN CONSTRUCTION WHICH WILL RECEIVE YOUR MATERIALS IS ACCORDING TO THE CONTRACT DOCUMENTS. IF NOT, NOTIFY THE GENERAL CONTRACTOR IN WRITING AND RESOLVE DIFFERENCES BEFORE PROCEEDING WITH YOUR WORK.

G - INSULATE ALL ALUMINUM TO BE PLACED DIRECTLY IN CONTACT WITH THE MASONRY OR INCOMPATIBLE MATERIALS WITH A HEAVY COAT OF ZINC CHROMATE OR BITUMINOUS PAINT.

H - FOLLOW KAWNEER INSTALLATION AND GLAZING INSTRUCTIONS.

J - CHECK ALL MATERIAL ON ARRIVAL FOR QUANTITY.

K - BE SURE TO HAVE ALL THE MATERIALS AND TOOLS NEEDED TO BEGIN THE INSTALLATION.

- 1 APPROVED SHOP DRAWINGS
- 2 LEVEL AND PLUMB (TRANSIT)
- 3 FASTENERS AND REQUIRED DRIVERS.
- 4 PERIMETERS AND ACCESSORIES SUCH AS ANCHORS, FASTENERS, SLEEVES AND/OR SPLICE CAPS.
- 5 SEALING MATERIALS.
- 6 GLAZING MATERIALS.

L - FOLLOW SEALANT MANUFACTURER'S
RECOMMENDATIONS FOR PROPER SEALANT AND
APPLICATION. ALL SEALANTS AND MASTICS MUST BE
COMPATIBLE WITH ALL SURFACES INCLUDING
OTHER SEALANT SURFACES. WHERE REQUIRED ALL
SEALANTS MUST ADHERE TO ALL SURFACES
INCLUDING OTHER SEALANT SURFACES.

## 1600UT SYSTEM<sup>2</sup> NOTES

1600UT SYSTEM<sup>2</sup> IS AVAILABLE WITH 1" FRAMING MEMBERS WHICH ACCEPT BOTH 1" AND 1/4" INFILLS AND 1-3/4" FRAMING MEMBERS WHICH ACCEPT BOTH 1-3/4" AND 1" INFILLS. DETAILS IN THIS INSTALLATION MANUAL SHOWING 1" FRAMING WILL BE SIMILAR FOR 1-3/4" FRAMING UNLESS NOTED OTHERWISE.

THE TERM "CAPTURED VERTICALS OR CAPTURED HORIZONTALS" WILL BE USED THROUGHOUT THESE INSTRUCTIONS. THIS MEANS FRAMING MEMBERS THAT ACCEPT AN EXTERIOR PRESSURE PLATE AND COVERS. "STRUCTURAL GLAZED VERTICALS" DO NOT ACCEPT EXTERIOR METAL.

GLASS BITE IS 1/2" AT CAPTURED VERTICALS AND HORIZONTALS. GLASS BITE IS 1" AT STRUCTURAL GLAZED VERTICALS. GLASS SIZES MUST BE CALCULATED FROM APPROVED SHOP DRAWINGS.

UNLESS OTHERWISE SPECIFIED, IT IS RECOMMENDED THAT SILICONE SEALANT BE USED FOR ALL INTERNAL SEALS.

SEALANT MUST BE APPLIED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS AND PASS ALL ADHESION AND COMPATIBILITY TESTING.

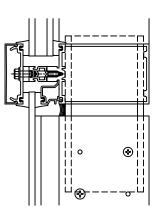
AT ALL JOINT SEALS, SEALANT MUST ADHERE TO METAL, GASKETS, THERMAL SEPARATOR AND JOINT PLUG MATERIALS.

CLEAN ALL SURFACES PRIOR TO APPLICATION OF SEALANT AND PRIME WHERE NECESSARY TO ACHIEVE PROPER ADHESION.

VERTICAL MULLION SPLICE -VERTICAL MULLIONS THAT ARE STRUCTURALLY GLAZED MUST BE SPLICED AT A HORIZONTAL. LOCATION OF THIS SPLICE MUST BE REVIEWED FOR STRUCTURAL INTEGRITY BY FACTORY ENGINEERING.

SHIM ALL SILL HORIZONTALS AT SETTING BLOCK LOCATIONS.

TYPICAL SPLICE LOCATION VISION OVER SPANDREL HORIZONTAL



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#### STRUCTURAL SEAL NOTES

STRUCTURAL SILICONE SEAL - THE GLAZING INSTALLER IS RESPONSIBLE FOR SELECTING AND CONTACTING THE SILICONE MANUFACTURER TO DETERMINE WHICH TYPE OF SILICONE IS TO BE USED AND WHAT SAMPLES ARE REQUIRED TO BE SUBMITTED FOR ADHESION AND COMPATIBILITY TESTING.

THE SILICONE SEALANT SHALL NOT BE APPLIED TO KAWNEER PRODUCTS WITHOUT THE APPROVAL OF THE SILICONE MANUFACTURER AND UNTIL ALL REQUIRED TESTING IS COMPLETED AND DETAILED APPLICATION INSTRUCTIONS HAVE BEEN DELIVERED TO THE INSTALLER BY THE SILICONE MANUFACTURER.

IF YOU FIND THE SILICONE MANUFACTURER'S INSTALLATION INSTRUCTIONS ARE NOT IN ACCORDANCE WITH KAWNEER'S INSTALLATION INSTRUCTIONS, IT IS YOUR RESPONSIBILITY TO NOTIFY KAWNEER OF THIS CONFLICT PRIOR TO GLAZING.

YOUR GLASS SUPPLIER MUST BE MADE AWARE THAT THEIR GLASS WILL BE USED IN A SSG APPLICATION. THE APPLICATION MUST BE APPROVED BY THE GLASS SUPPLIER PRIOR TO GLAZING.

ANY STRUCTURAL SILICONE GLAZED PRODUCT APPLICATION THAT IS NOT SHOWN IN KAWNEER'S STANDARD PRODUCT LITERATURE MUST BE PRE-APPROVED BY KAWNEER.

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. WEATHER SEAL SEALANT MUST ADHERE TO EXTERIOR GASKET MATERIAL.



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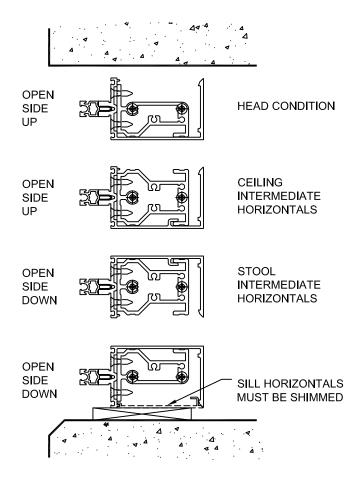
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#### OPEN BACK HORIZONTAL NOTES

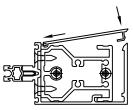
THE OPEN BACK HORIZONTAL IS TO BE TYPICALLY USED FOR ALL HEAD/SILL AND LAST BAY INTERMEDIATE HORIZONTALS.

THE OPEN BACK HORIZONTAL CAN BE USED AT OTHER CONDITIONS IF IT IS AN ADVANTAGE TO THE JOB DESIGN.

THE SHEAR BLOCK AT ALL OPEN BACK INTERMEDIATE HORIZONTALS HAS THE OPTION TO BE PRE-INSTALLED INTO THE HORIZONTAL BEFORE HORIZONTALS ARE INSTALLED



WHEN THE OPEN SIDE OF THE OPEN BACK HORIZONTAL IS EXPOSED AND AT EYE LEVEL A SNAP-IN FILLER IS AVAILABLE.



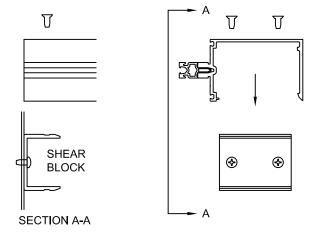
WHEN THE SNAP-IN FILLER IS NOT USED, AND DUE TO STANDARD COMMERCIAL EXTRUDING TOLERANCES, IT MAY BE REQUIRED TO USE A 4" PIECE OF THE FILLER AT EACH END OF A HORIZONTAL.

USE PART 162-316 FOR THE 6" & 6-3/4" DEEP SYSTEM USE PART 162-317 FOR THE 7-1/2" & 8-1/4" DEEP SYSTEM

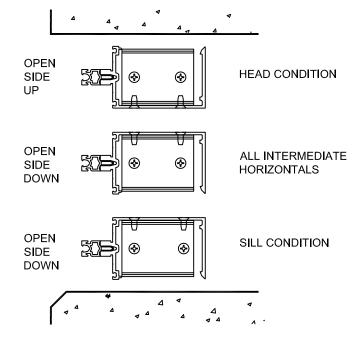
#### OPEN BACK HORIZONTALS AT 90° AND 135° CORNERS

WHENEVER POSSIBLE AVOID USING OPEN BACK HORIZONTALS AT 90° AND 135° CORNERS. IF USING THE OPEN BACK HORIZONTAL BECOMES ABSOLUTELY NECESSARY THE SHEAR BLOCK CONNECTION WILL BE AS SHOWN BELOW.

ALSO REFER TO CORNER INSTRUCTIONS 171909



THE OPEN SIDE OF THE OPEN BACK HORIZONTAL IS TO BE POSITIONED AS SHOWN BELOW. THE INTERMEDIATE HORIZONTAL IS POSITIONED OPEN SIDE DOWN FOR DEAD LOAD SUPPORT.



#### STEP - 1 CHECK OPENINGS

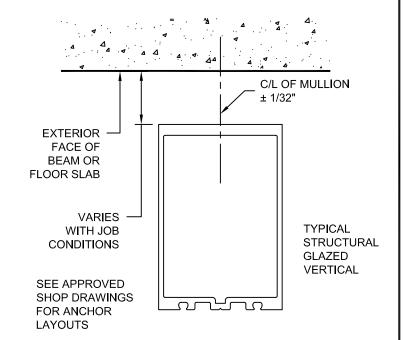
ELEVATIONS AND SLABS MUST BE WITHIN ADJUSTMENT OF ANCHORING SYSTEM. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT.

ANCHORING SURFACES OF PERIMETER CONSTRUCTION MUST BE LEVEL AND PLUMB WITHIN THE ADJUSTMENT LIMITS OF THE HEAD, SILL AND JAMB. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT.

## STEP - 2 LAY OUT ANCHOR AND MULLION CENTERLINES

USE WALL LINES ESTABLISHED BY THE GENERAL CONTRACTOR. ON EACH FLOOR LAY OUT A REFERENCE LINE TO ESTABLISH IN AND OUT WALL LOCATIONS.

USE COLUMN CENTER LINES ESTABLISHED BY THE GENERAL CONTRACTOR. ON EACH FLOOR LAY OUT MULLION CENTER LINES AND ANCHOR CENTER LINES.



# STEP - 3 INSTALL PRESET ANCHORS IF APPLICABLE

USING LOCATION LINES PREVIOUSLY ESTABLISHED INSTALL PRESET ANCHORS IN PLACE PER APPROVED SHOP DRAWINGS.

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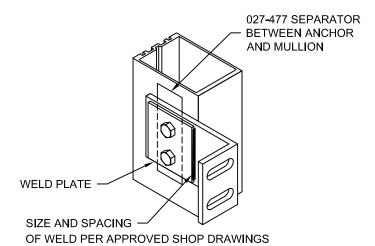
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#### STEP - 4 FRAME ASSEMBLY

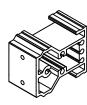
ATTACH ANCHORS TO MULLIONS WHERE APPLICABLE.
ANCHOR PREP MAY BE FABRICATED IN THE FIELD OR
FACTORY. CONSULT APPROVED SHOP DRAWINGS FOR
CORRECT METHOD. STANDARD ANCHOR PREP IS
THRU-BOLTED AT INTERMEDIATE VERTICALS AND TAPPING
PLATES ARE USED AT JAMB VERTICALS. REFER TO
APPROVED SHOP DRAWINGS FOR CORRECT METHOD.

WHEN WELDING ANCHORS, PROTECT INSTALLED GLASS AND METAL FROM WELD SPLATTER.



DO NOT OVER TIGHTEN ANCHOR CONNECTIONS. TIGHTEN TO A "SNUG TIGHT" POSITION WITH PARTS BROUGHT INTO GOOD CONTACT. BE SURE ANY SPRING TYPE LOCK WASHERS ARE COMPRESSED. THEN TIGHTEN APPROXIMATELY 1/2 MORE TURN.

#### ATTACH SHEAR BLOCKS



TYPICAL INTERMEDIATE SHEAR BLOCKS 162-377 6" & 6-3/4" SYSTEM 162-378 7-1/2" & 8-1/4" SYSTEM



HEAD AND SILL SHEAR BLOCKS 162-331 6" & 6-3/4" SYSTEM 162-332 7-1/2" & 8-1/4" SYSTEM



1600UT SYSTEM 2 INSTALLATION INSTRUCTIONS

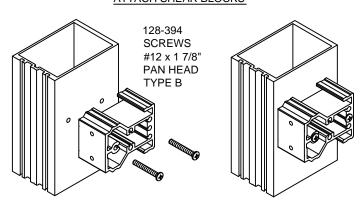
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#### STEP - 4 FRAME ASSEMBLY

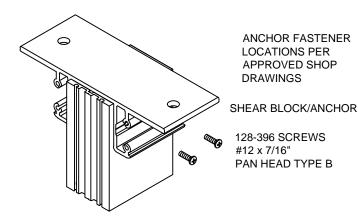
ATTACH SHEAR BLOCKS



HEAD/SILL SHEAR BLOCK/ANCHOR WHERE APPLICABLE AND SHOWN BELOW.

> 162-314 6" & 6-3/4" SYSTEM AT JAMBS 162-315 7-1/2" & 8-1/4" SYSTEM AT JAMBS 162-342 6" & 6-3/4" SYSTEM AT MULLIONS 162-343 7-1/2" & 8-1/4" SYSTEM AT MULLIONS

STRUCTURAL INTEGRITY OF ANCHOR AND FASTENERS MUST BE CHECKED BY FACTORY ENGINEERING.



#### STEP - 5 **INSTALL 162-310** THERMAL BREAK

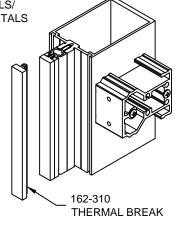


VERTICALS/ **HORIZONTALS** 

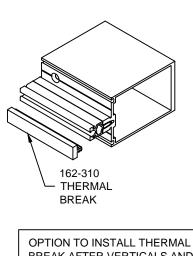
CAPTURED

DO NOT STRETCH WHEN REMOVING FROM COIL AND CARTON

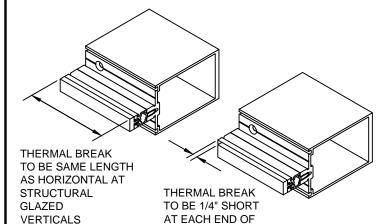
DO NOT STRETCH **DURING** INSTALLATION



#### STEP - 5 **INSTALL 162-310** THERMAL BREAK







HORIZONTAL AT CAPTURED

**VERTICALS** 

THERMAL BREAK

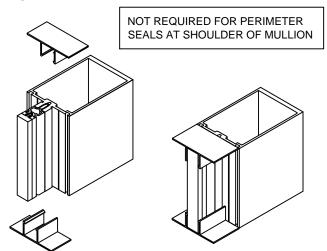
TO BE SAME

**LENGTH AS** 

**VERTICAL** 

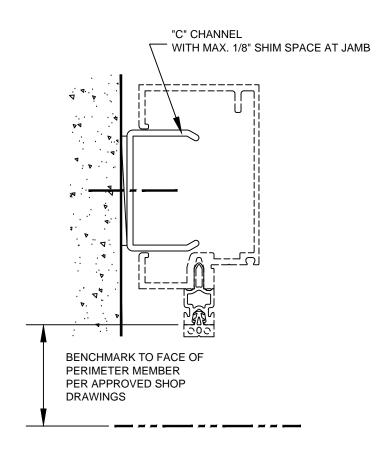
**MULLIONS** 

INSTALL HEAD AND SILL END CAPS WHERE APPLICABLE 171309 1" FRAMING 171308 1-3/4" FRAMING **SET IN SEALANT** 



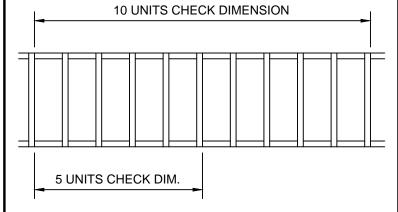
#### STEP - 6 PERIMETERS WHERE **APPLICABLE**

INSTALL "C" CHANNEL AT JAMBS PER APPROVED SHOP DRAWINGS.



#### STEP - 7 **INSTALL VERTICAL MULLIONS**

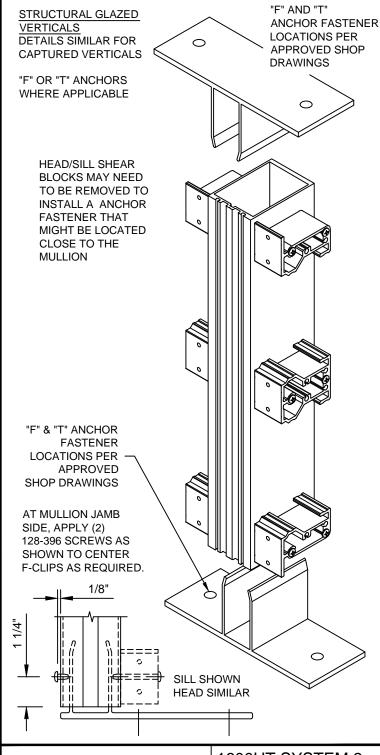
DIMENSION BUILD-UP CHECK CHECK OVERALL FRAME DIMENSIONS ABOUT EVERY FIVE MULLIONS ON LONG RUNS. THIS IS TO AVOID DIMENSIONAL BUILD-UP.



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## KAWNEER

1600UT SYSTEM 2 **INSTALLATION** INSTRUCTIONS

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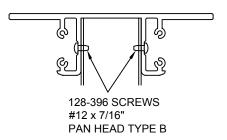
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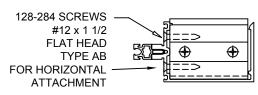
#### STEP - 7 **INSTALL VERTICAL MULLIONS**

STRUCTURAL GLAZED VERTICALS **DETAILS SIMILAR FOR CAPTURED VERTICALS** 

HEAD/SILL SHEAR BLOCK/ANCHOR WHERE APPLICABLE.

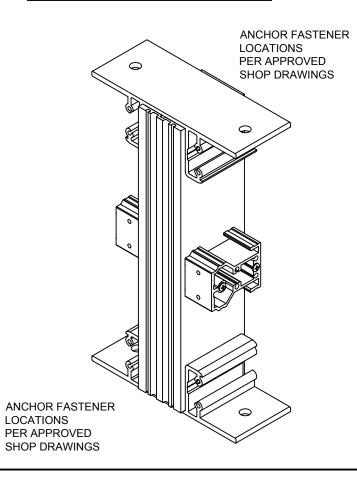
162-314 6" & 6-3/4" SYSTEM AT JAMBS 162-315 7-1/2" & 8-1/4" SYSTEM AT JAMBS 162-342 6" & 6-3/4" SYSTEM AT MULLIONS 162-343 7-1/2" & 8-1/4" SYSTEM AT MULLIONS





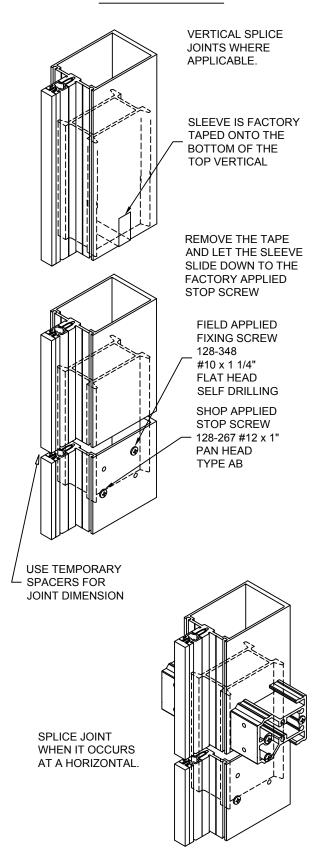
THE ABOVE SCREWS ARE ONLY USED AT THE OPTIONAL SHEAR BLOCK/ANCHORS.

STRUCTURAL SHIMMING IS REQUIRED AT SILL TO ACCOMPLISH DESIGNED PERIMETER SEAL WIDTH.



#### STEP - 7 **INSTALL VERTICAL MULLIONS**

CAPTURED VERTICALS



#### STEP - 7 INSTALL VERTICAL MULLIONS

STRUCTURAL GLAZED VERTICALS

THERMAL BREAK

THERMAL BREAK TO BE 1/4" SHORT

AT EACH END OF

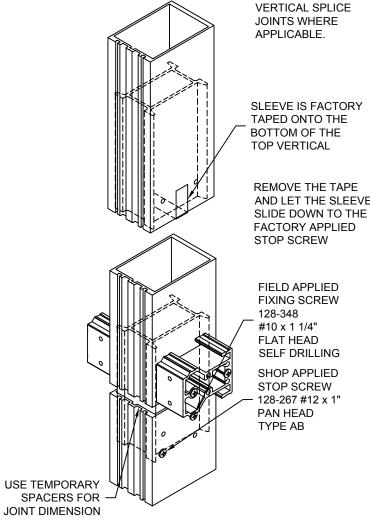
HORIZONTALS AT

**CAPTURED** 

**VERTICALS** 

TO BE SAME

LENGTH AS HORIZONTAL AT SSG VERTICAL



AND LET THE SLEEVE

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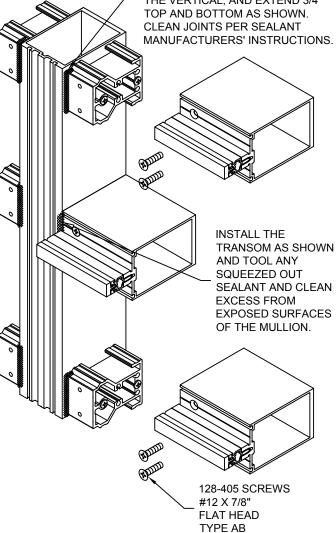
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#### STEP - 8 **INSTALL HEAD/SILL AND** INTERMEDIATE HORIZONTALS

#### STRUCTURAL GLAZED VERTICALS

DETAILS SIMILAR FOR CAPTURED VERTICALS EXCEPT HORIZONTAL THERMAL BREAK CUT 1/4" SHORT EACH END.

TUBULAR HORIZONTALS JUST BEFORE ASSEMBLING THE HORIZONTAL APPLY A GENEROUS BEAD OF SEALANT BETWEEN THE FRONT FACE OF SHEAR BLOCK AND THE VERTICAL, AND EXTEND 3/4" TOP AND BOTTOM AS SHOWN. CLEAN JOINTS PER SEALANT MANUFACTURERS' INSTRUCTIONS.





1600UT SYSTEM 2 **INSTALLATION INSTRUCTIONS** 

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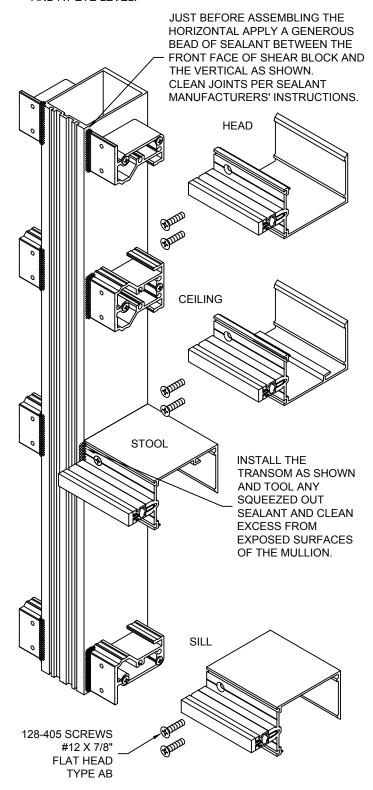


# STEP - 8 INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS

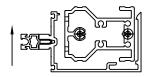
#### STRUCTURAL GLAZED VERTICALS

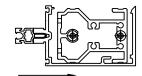
DETAILS SIMILAR FOR CAPTURED VERTICALS EXCEPT HORIZONTAL THERMAL BREAK CUT 1/4" SHORT EACH END.

OPEN BACK HORIZONTALS AND LAST BAY HORIZONTALS FILLER AVAILABLE WHEN OPEN BACK IS EXPOSED AND AT EYE LEVEL.

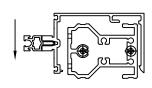


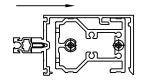
INSTALLING CEILING INTERMEDIATE OPEN BACK HORIZONTAL





INSTALLING STOOL INTERMEDIATE OPEN BACK HORIZONTAL



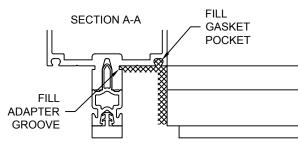


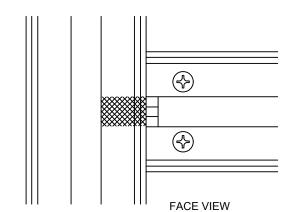
#### STEP - 9 INSTALL JOINT PLUGS

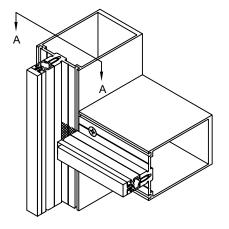
#### **CAPTURED VERTICALS**

ALL SURFACES AND GROOVES MUST BE CLEANED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.

JUST BEFORE INSTALLING JOINT PLUGS APPLY SEALANT AS SHOWN FILLING GASKET POCKET AND ADAPTER GROOVE. ENSURE THAT THE MULLION TONGUE RACEWAY AND THERMAL SEPARATOR IS SEALED AND COMPLETELY FILLED AT PLUG LOCATION.

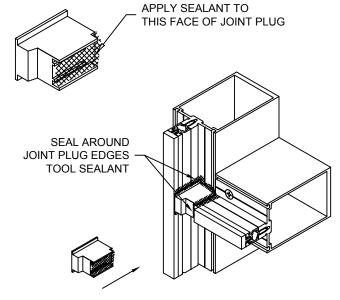


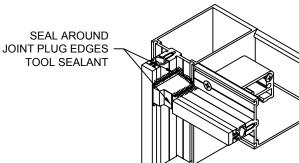






JOINT PLUG 162-321 1" FRAME 171307 1-3/4" FRAME





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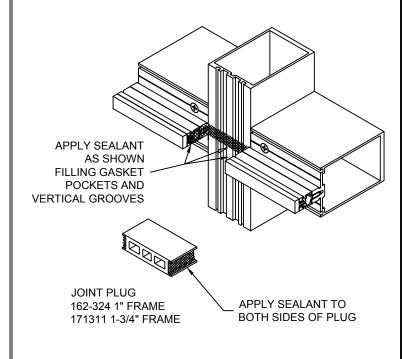
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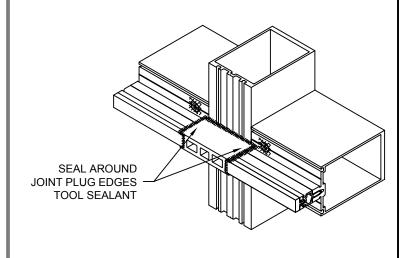
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#### STEP - 9 INSTALL JOINT PLUGS

STRUCTURAL GLAZED VERTICALS







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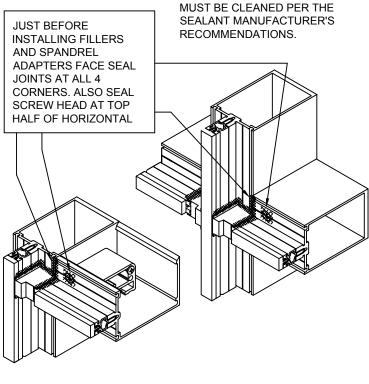
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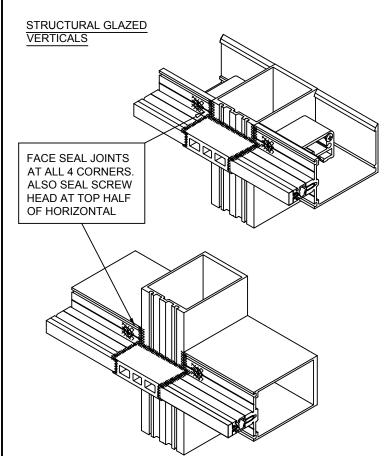
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# STEP - 10 INSTALL SPANDREL ADAPTERS WHERE APPLICABLE

**CAPTURED VERTICALS** 

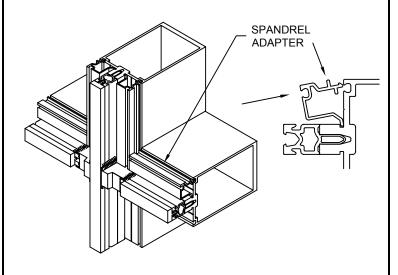


ALL SURFACES AND GROOVES



# STEP - 10 INSTALL SPANDREL ADAPTERS WHERE APPLICABLE

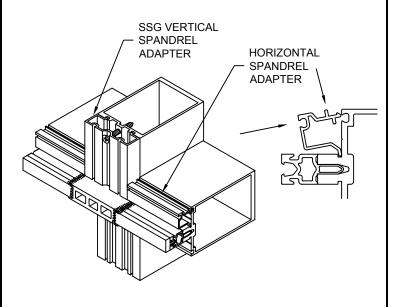
CAPTURED VERTICALS



## $\frac{\mathsf{STRUCTURAL}\;\mathsf{GLAZED}}{\mathsf{VERTICALS}}$

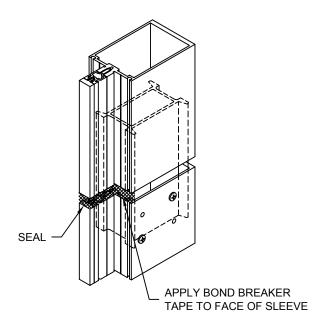
INSTALL VERTICAL ADAPTER WITH 128-348 SCREWS, #10 X 1-1/4" FLAT HEAD SELF DRILLING SCREW. LOCATE A MAXIMUM 6" AND A MINIMUM 4" FROM EACH END AND 9" ON CENTER.

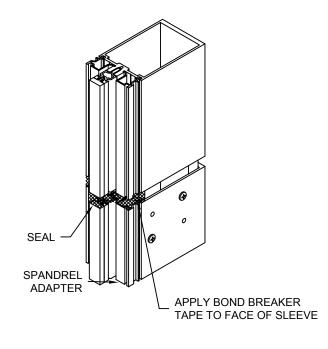
AT STEEL REINFORCING USE 128-401 #10 X 1" FLAT HEAD TYPE B SCREW. DRILL 0.154 DIA. (#23 DRILL) INTO MULLION USING ADAPTER HOLES AS A PILOT.



## STEP - 11 SEAL INTERIOR OF VERTICAL SPLICE JOINTS

**CAPTURED VERTICALS** 





#### 171911 (SHEET 06 OF 12)

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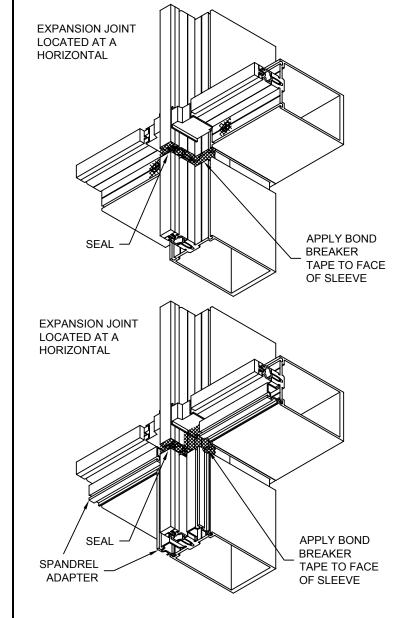
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## STEP - 11 SEAL INTERIOR OF VERTICAL SPLICE JOINTS

#### **CAPTURED VERTICALS**

ALL SURFACES AND GROOVES MUST BE CLEANED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.





1600UT SYSTEM 2 INSTALLATION INSTRUCTIONS

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## STEP - 12 INSTALL INTERIOR GLAZING GASKETS

GASKETS SHOULD BE INSTALLED JUST PRIOR TO GLASS TO AVOID CONTAMINATION BY JOB SITE DEBRIS. GASKET GROOVES AND POCKETS SHOULD BE CLEAN.

IN TEMPERATURES COLDER THAN 50° F ARRANGEMENTS SHOULD BE MADE TO WARM GASKETS BEFORE INSTALLATION. THIS WILL PREVENT EXCESSIVE GLAZING PRESSURE ON THE GLASS DUE TO COLD, STIFF RUBBER GASKETS.

GASKETS CAN BECOME DEFORMED DURING STORAGE IN CARTONS. THEY SHOULD BE REMOVED FROM CARTONS SEVERAL HOURS PRIOR TO GLAZING AND LAID FLAT OR HUNG TO ALLOW RECOVERY OF CORRECT SHAPE. TEMPERATURES SHOULD BE AT LEAST 50° F TO ALLOW THIS

GASKET INSTALLED LENGTH TO BE DAYLITE OPENING. GASKET LENGTH AT STRUCTURAL GLAZED VERTICALS TO BE DAYLITE OPENING PLUS 1-3/8".

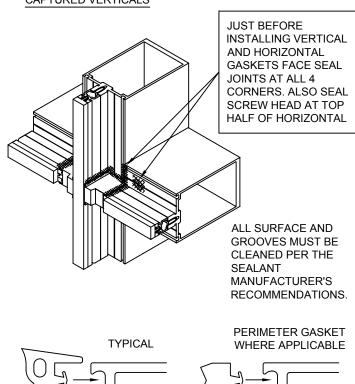
GASKETS TO BE CUT LONG FOR SOME "CROWD-IN". GASKETS SHOULD NEVER BE " STRETCHED TO FIT".

"CROWD-IN" TO BE:

1/8" PER FOOT UP TO 5"-0" 3/16" PER FOOT UP TO 8'-0" 1/4" PER FOOT OVER 8'-0"

#### CAPTURED VERTICALS

027-850

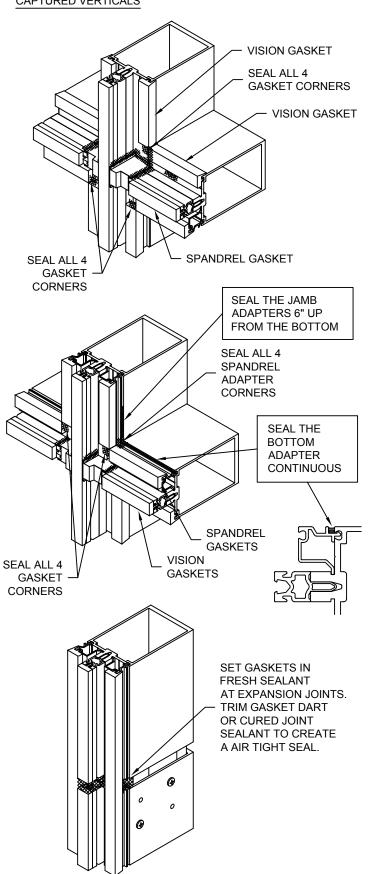


**GASKET** 

027-857

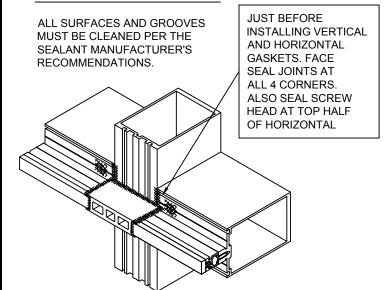
## STEP - 12 INSTALL INTERIOR GLAZING GASKETS

**CAPTURED VERTICALS** 

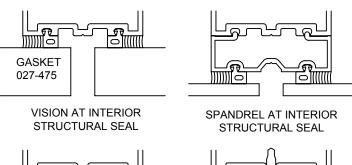


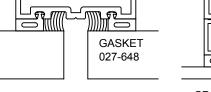
## STEP - 12 INSTALL INTERIOR GLAZING GASKETS

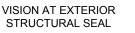
#### STRUCTURAL GLAZED VERTICALS

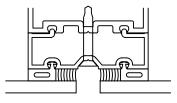


#### VERTICAL GASKETS TO RUN DAYLIGHT OPENING PLUS 1 3/8"

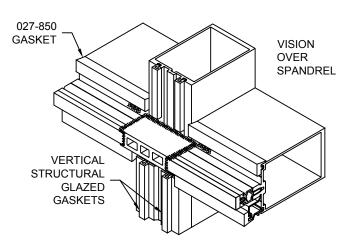








SPANDREL AT EXTERIOR STRUCTURAL SEAL



#### 171911 (SHEET 07 OF 12)

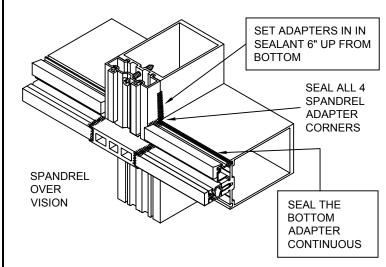
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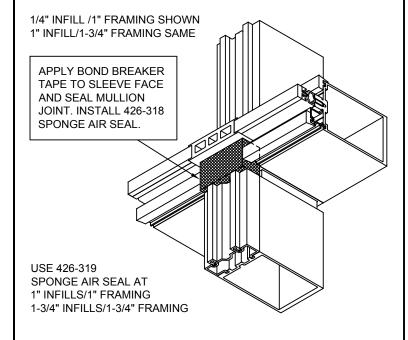
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## STEP - 12 INSTALL INTERIOR GLAZING GASKETS

STRUCTURAL GLAZED VERTICALS



## STEP - 13 INSTALL INTERIOR SPONGE AIR SEALS





1600UT SYSTEM 2 INSTALLATION INSTRUCTIONS

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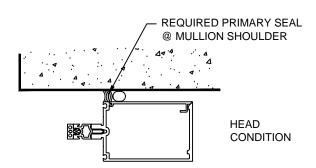
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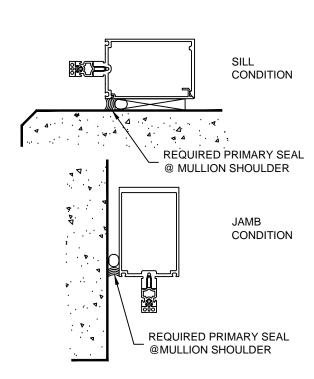
171911 (SHEET 07 OF 12)

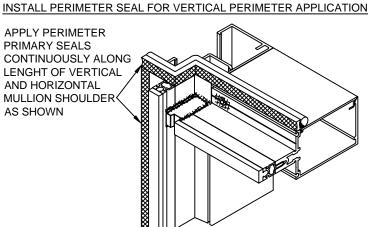
#### STEP - 14 INSTALL PERIMETER SEAL AT MULLION SHOULDER

PERIMETER PRIMARY SEALS ARE REQUIRED TO BE INSTALLED AT THE MULLION SHOULDER. PERIMETER SEALS AT THE MULLION SHOULDER MUST BE APPLIED BEFORE PRESSURE PLATES ARE INSTALLED.

INSTALL SUITABLY SIZED BACKER ROD AND APPLY GENEROUS, CONTINUOUS BEAD OF SEALANT AS SHOWN.



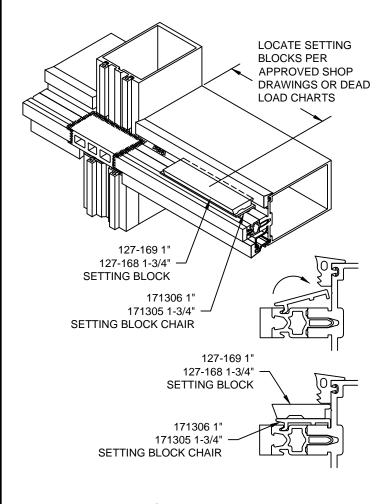


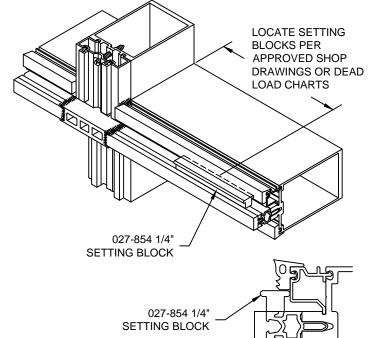


#### STEP - 15 INSTALL SETTING BLOCKS

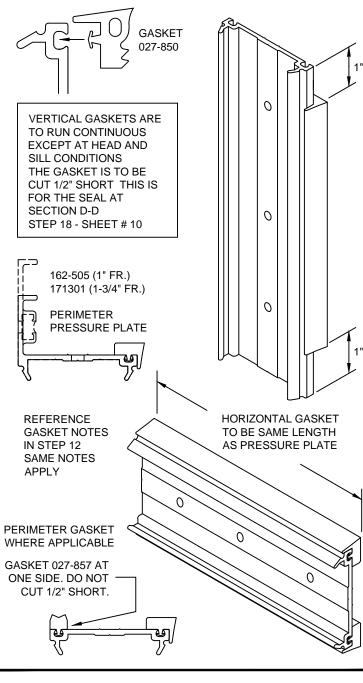
#### STRUCTURAL GLAZED VERTICALS

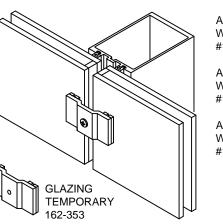
CAPTURED VERTICAL DETAILS SIMILAR





#### STEP - 16 **INSTALL EXTERIOR GASKETS** INTO PRESSURE PLATES





AT 1" GLASS INSTALL WITH 128-400 SCREWS #12 X 2-1/4 PH HD TYPE B

AT 1/4" GLASS INSTALL WITH 128-284 SCREWS #12 X 1-1/2 FL HD TYPE AB

AT 1-3/4" GLASS INSTALL **WITH 128-388 SCREWS** #12 X 3" FL HD TYPE AB

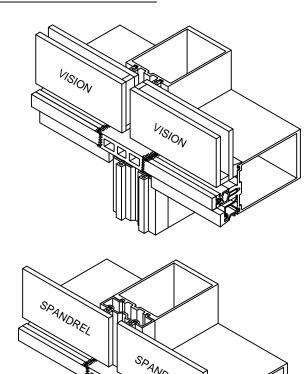
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#### STEP - 17 INSTALL GLASS

STRUCTURAL GLAZED VERTICALS



THE LOCATION OF TEMPORARY EXTERIOR INFILL RETAINERS SHOULD BE AT A MAXIMUM SPACING OF 30" ON CENTER.

IF WINDS GREATER THAN 50 MPH (80KPH) ARE EXPECTED, ADDITIONAL TEMPORARIES MAY BE REQUIRED. CONSULT YOUR SEALANT AND/OR INFILL SUPPLIER FOR SPACING RECOMMENDATIONS.

AT CORNERS AND SPLAYS RETAINERS SHOULD BE MADE FROM A GOOD QUALITY HARDWOOD. THESE RETAINERS ARE NOT SUPPLIED BY KAWNEER.



INSTALLATION INSTRUCTIONS

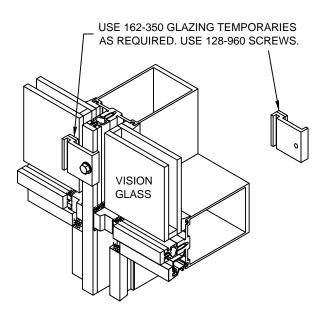
Product Engineering & Development

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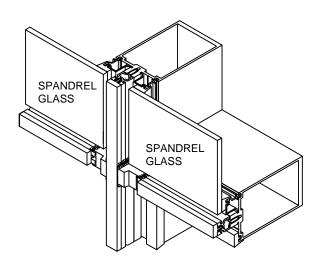
171911 (SHEET 08 OF 12)

#### STEP - 17 INSTALL GLASS

#### **CAPTURED VERTICALS**



MAXIMUM TEMPORARY SPACING IS 30". IF WINDS GREATER THAN 50 MPH (80KPH) ARE EXPECTED, ADDITIONAL TEMPORARIES MAY BE REQUIRED. CONSULT YOUR SEALANT AND/OR INFILL SUPPLIER FOR SPACING RECOMMENDATIONS. INSTALL PRESSURE PLATES WHERE POSSIBLE.



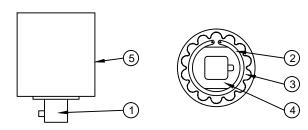
## STEP - 18 INSTALL EXTERIOR PRESSURE PLATES



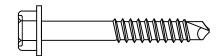
RECOMMEND USING TORQUE LIMIT TOOL 162-399 SEE NOTE.

#### HOW TO SET TORQUE LIMIT

- 1. ATTACH ANY CALIBRATED TORQUE INDICATOR TO OUTPUT STUB (1) AND DETERMINE PRESENT TORQUE SETTING WHILE HOLDING THE BODY (5), OR VICE-VERSA.
- 2. REMOVE SNAP RING (2) AND LOCKING PLATE (3).
- 3. ADJUST NUT (4) WITH OPEN-END WRENCH: CLOCKWISE TO INCREASE TORQUE, COUNTER- CLOCKWISE TO DECREASE TORQUE.
- 4. OBTAIN NEW TORQUE READING WITH THE CALIBRATED TORQUE INDICATOR. REPEAT PRECEDING STEP IF MORE ADJUSTMENT IS NECESSARY TO REACH DESIRED LIMIT.
- 5. REPLACE LOCKING PLATE INTO NOTCHES AND INSTALL SNAP RING. IF LOCKING PLATE DOES NOT "SEAT", MOVE THE ADJUSTING NUT SLIGHTLY UNTIL IT DROPS IN PLACE. THE DIRECTION IS BEST DETERMINED BY WHETHER A MINIMUM TORQUE APPLICATION OR A MAXIMUM ONE IS DESIRED.



INSTALL PRESSURE PLATES USING SCREWS 128-960 1/4-14 X 1-3/4" HEX WASHER HEAD SELF DRILLING SCREWS.



SCREWS ARE TO BE LOCATED 9" ON CENTER MAXIMUM. FOR PROJECTS DESIGNED FOR WIND LOADS GREATER THAN 60 PSF, APPLY PRESSURE PLATES SCREWS AT 6" ON CENTER.

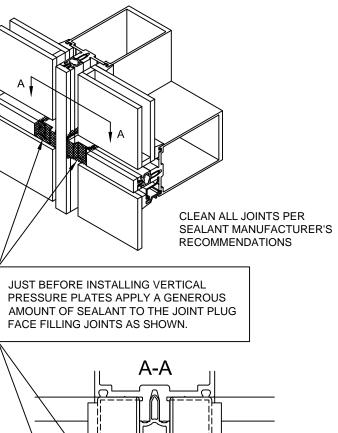
ALWAYS LOCATE A SCREW AS CLOSE AS POSSIBLE TO A HORIZONTAL JOINT. THIS WILL PROVIDE MAXIMUM PRESSURE FOR THE CRITICAL JOINT SEALS.

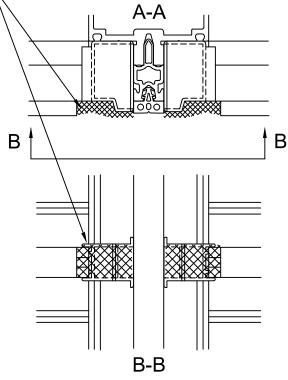
INSTALL HORIZONTAL PRESSURE PLATES WITH WEEP HOLES TOWARDS TOP OF HORIZONTAL.

AT EACH HORIZONTAL AND VERTICAL PRESSURE PLATE INSTALL TWO SCREWS PART WAY, THEN INSTALL THE THIRD SCREW ALL THE WAY, AND THEN TIGHTEN THE FIRST TWO SCREWS. THIS ELIMINATES LATERAL WALKING OF THE PRESSURE PLATE POSITION.

TORQUE ALL SCREWS TO 90 TO 100 INCH POUNDS. DURING COLD WEATHER, TORQUE SCREWS TO 50 INCH POUNDS UNTIL ALL 4 SIDES HAVE BEEN CLAMPED. THEN TORQUE SCREWS TO 90 TO 100 INCH POUNDS.

## INSTALL VERTICAL PRESSURE PLATES AT CAPTURED VERTICALS





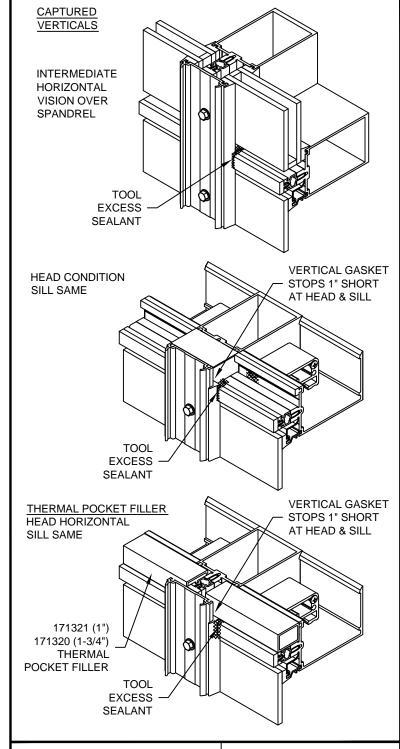
NOTE - THE TORQUE LIMIT TOOL WAS DESIGNED TO BE USED WITH A HAND DRIVEN DEVICE. THE TOOL CAN BE ADAPTED TO A DRILL MOTOR IF USED AT A MAXIMUM SPEED OF APPROX. 300 RPM. HIGHER SPEEDS CAN CAUSE OVERHEATING AND AFFECT THE ACCURACY. AFTER APPROX. 1 HOUR OF TOOL USAGE CHECK TORQUE SETTINGS WITH A TORQUE WRENCH.

#### 171911 (SHEET 09 OF 12)

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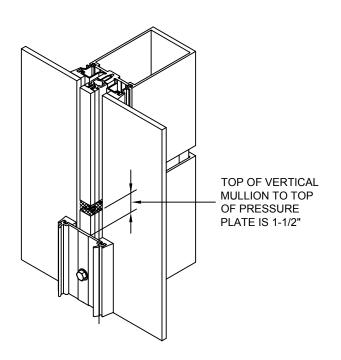
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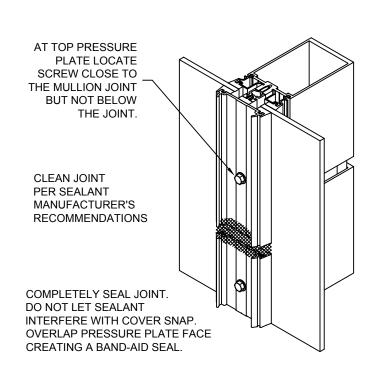
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## STEP - 18 INSTALL EXTERIOR PRESSURE PLATES

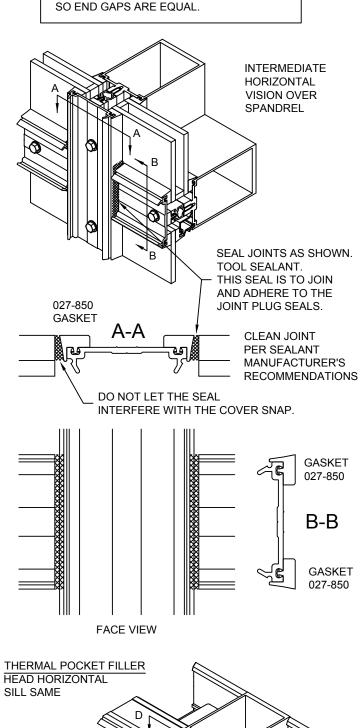
VERTICAL EXPANSION JOINTS AT CAPTURED VERTICALS





## INSTALL HORIZONTAL PRESSURE PLATES AT CAPTURED VERTICALS

CENTER HORIZONTAL PRESSURE PLATES



SEAL JOINTS

AS SHOWN.

THIS SEAL IS

TO JOIN AND

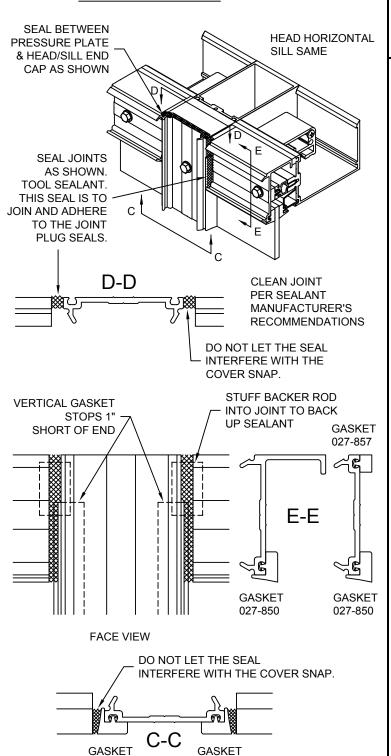
ADHERE TO

THE JOINT

PLUG SEALS.

TOOL SEALANT.

## INSTALL HORIZONTAL PRESSURE PLATES AT CAPTURED VERTICALS



NOTE - THE TORQUE LIMIT TOOL WAS DESIGNED TO BE USED WITH A HAND DRIVEN DEVICE. THE TOOL CAN BE ADAPTED TO A DRILL MOTOR IF USED AT A MAXIMUM SPEED OF APPROX. 300 RPM. HIGHER SPEEDS CAN CAUSE OVERHEATING AND AFFECT THE ACCURACY. AFTER APPROX. 1 HOUR OF TOOL USAGE CHECK TORQUE SETTINGS WITH A TORQUE WRENCH.

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027-850

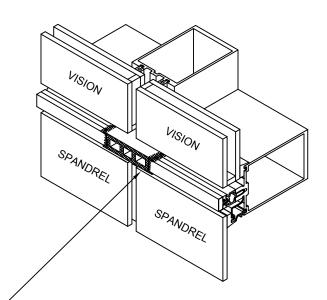
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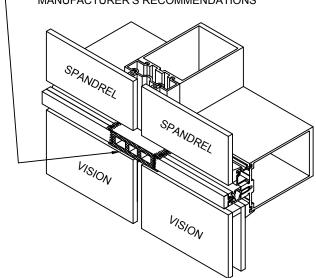
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## INSTALL HORIZONTAL PRESSURE PLATES AT STRUCTURAL GLAZED VERTICALS



JUST BEFORE APPLYING PRESSURE PLATE APPLY A GENEROUS AMOUNT OF SEALANT TO THE JOINT PLUG FACE.

CLEAN JOINT PER SEALANT
MANUFACTURER'S RECOMMENDATIONS





1600UT SYSTEM 2 INSTALLATION INSTRUCTIONS

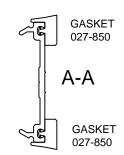
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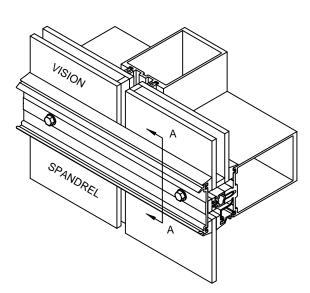
95449-82 06/24/11

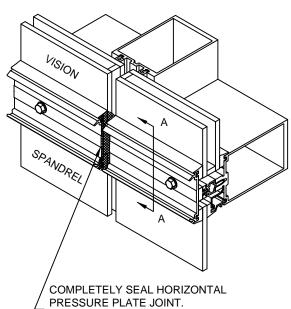
171911 (SHEET 10 OF 12)

## STEP - 18 INSTALL EXTERIOR PRESSURE PLATES

INSTALL HORIZONTAL PRESSURE PLATES
AT STRUCTURAL GLAZED VERTICALS



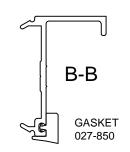


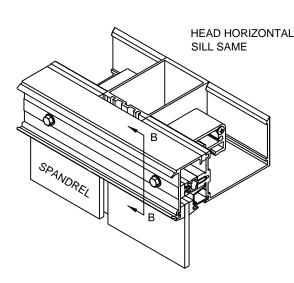


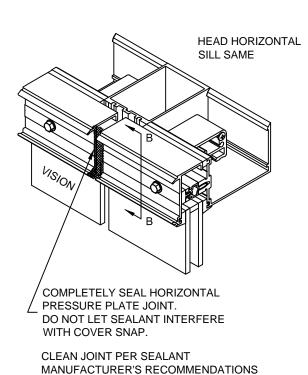
PRESSURE PLATE JOINT.
DO NOT LET SEALANT INTERFERE
WITH COVER SNAP.

CLEAN JOINT PER SEALANT MANUFACTURER'S RECOMMENDATIONS

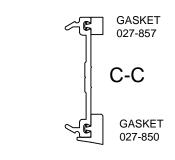
INSTALL HORIZONTAL PRESSURE PLATES
AT STRUCTURAL GLAZED VERTICALS

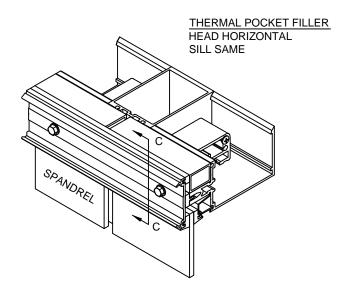


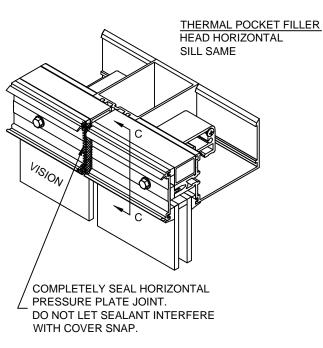




INSTALL HORIZONTAL PRESSURE PLATES
AT STRUCTURAL GLAZED VERTICALS







CLEAN JOINT PER SEALANT
MANUFACTURER'S RECOMMENDATIONS

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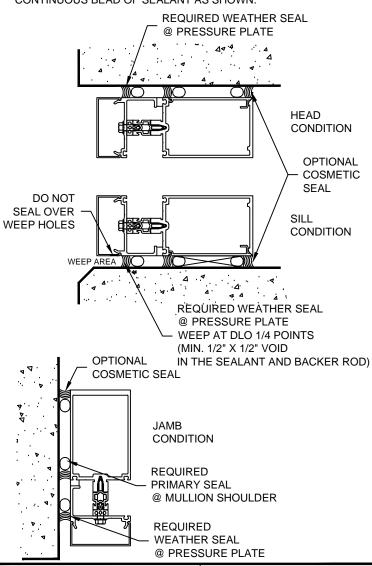
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#### STEP - 19 INSTALL PERIMETER SEALS

PERIMETER WEATHER SEALS ARE REQUIRED TO BE INSTALLED AT PRESSURE PLATE. PERIMETER PRIMARY SEALS AT THE MULLION SHOULDER ARE COVERED IN STEP 14.

PRESSURE PLATE SEALS SHOULD BE INSTALLED BEFORE COVERS ARE APPLIED WHEN COVERS DEEPER THAN 3/4" ARE USED. SILL COVERS MUST REMAIN OPEN TO ALLOW WATER DRAINAGE TO THE EXTERIOR.

INSTALL SUITABLY SIZED BACKER ROD AND APPLY GENEROUS, CONTINUOUS BEAD OF SEALANT AS SHOWN.





1600UT SYSTEM 2 INSTALLATION INSTRUCTIONS

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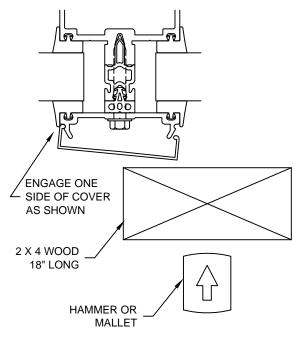
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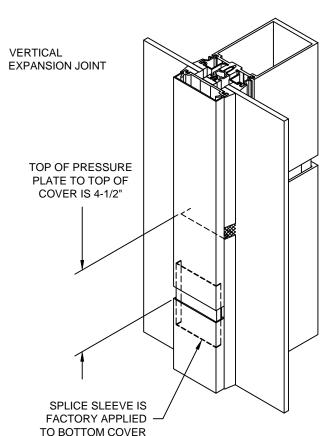
171911 (SHEET 11 OF 12)

## STEP - 20 INSTALL EXTERIOR COVERS

#### **CAPTURED VERTICALS**

CARE MUST BE TAKEN TO AVOID DAMAGE TO COVERS DURING INSTALLATION. USE A 18" LONG PIECE OF 2 X 4 WOOD ALONG WITH A HAMMER OR MALLET TO SEAT THE COVER.

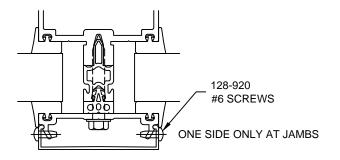




## STEP - 20 INSTALL EXTERIOR COVERS

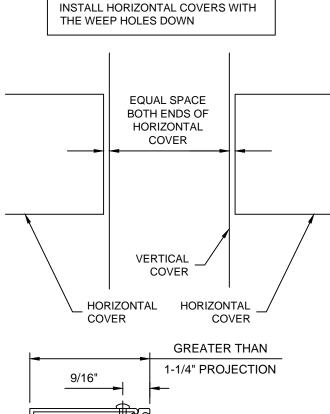
#### CAPTURED VERTICALS

PINNING OF ALL VERTICAL COVERS IS REQUIRED FOR BOTH SIDES. DRILL A .106 DIA. HOLE (#36 DRILL) AND INSTALL 128-920 SCREWS #6 X 3/8" PAN HEAD TYPE B. LOCATE PINNING AT A HORIZONTAL CLOSEST TO THE COVER HEIGHT CENTER.



#### NOTE FOR 5" SIGHTLINE COVERS:

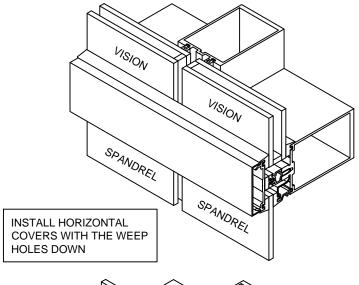
DUE TO LARGE EXTRUSION TOLERANCES, 5" SIGHTLINE COVERS MAY REQUIRE SEALANT OR PINNING TO HOLD IN PLACE.

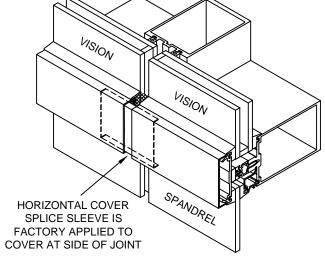


# 9/16" 1-1/4" PROJECTION FOR HORIZONTAL COVERS WITH A PROJECTION DEEPER THAN 1-1/4" THE COVERS ARE TO BE PINNED AS SHOWN AT THE CENTER OF THE COVER WIDTH

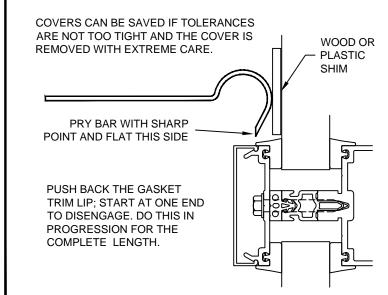
## STEP - 20 INSTALL EXTERIOR COVERS

#### STRUCTURAL GLAZED VERTICALS





#### REMOVING COVERS



#### 171911 (SHEET 12 OF 12)

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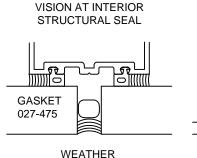
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## STEP - 21 INSTALL STRUCTURAL AND WEATHER SEALS

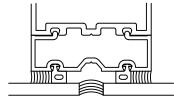
KAWNEER DOES NOT SUPPLY SEALANT. SEALANT TO BE SILICONE AS RECOMMENDED BY THE SEALANT MANUFACTURER. INFILL AND METAL TO BE CLEANED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS. SEALANT BACKUP ROD TO BE PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.

FILL SPACE BETWEEN INSULATED UNITS AND BEHIND SINGLE GLAZED UNITS WITH RECOMMENDED BACKUP ROD. APPLY STRUCTURAL SEAL AND WEATHER SEAL AS SHOWN.

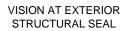
ALLOW STRUCTURAL SEAL TO CURE PER SEALANT MANUFACTURER'S RECOMMENDATIONS.
THEN REMOVE TEMPORARY RETAINERS, SEAL FASTENER HOLES AND FILL WEATHER SEAL HOLES.





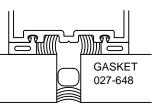


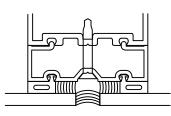
WEATHER SEAL



**SEAL** 







EXTERIOR STRUCTURAL SEAL MUST BE APPLIED IN THREE STEPS. EACH SIDE SEPARATELY: THEN THE WEATHER SEAL.



1600UT SYSTEM 2 INSTALLATION INSTRUCTIONS

Product Engineering & Development

95449-094 04/26/13

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