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** MATERIAL

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.

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 1 NOTES

1600UT SYSTEM 1 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.

GLASS BITE IS 1/2" AT VERTICALS AND HORIZONTALS, 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.

SHIM ALL SILL HORIZONTALS AT SETTING BLOCK LOCATIONS.

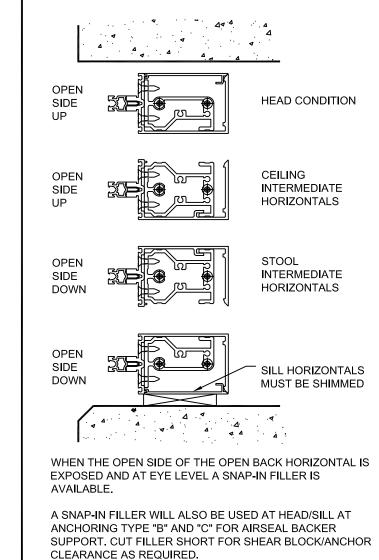
DO NOT REDUCE THE .625" EMBEDMENT DEPTH OF THE 1600UT PRESSURE PLATE FASTENER IN THE SCREW RACE. OTHER ACCOMMODATIONS / COMPONENTS MUST BE MADE FOR OTHER OPTIONAL INFILL SIZES / APPLICATIONS TO ENSURE THREAD ENGAGEMENT REMAINS AS INITIALLY DESIGNED. TORQUE APPLIED TO THE 1600UT PRESSURE PLATE FASTENERS REMAIN AT 95-100 IN-LBS PER STANDARD INSTALLATION INSTRUCTIONS FOR ALL INFILL DEPTHS.

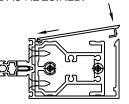
OPEN BACK HORIZONTAL NOTES

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





AT INTERMEDIATE HORIZONTALS, 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 162316 FOR THE 6" & 6-3/4" DEEP SYSTEM USE PART 162317 FOR THE 7-1/2" & 8-1/4" DEEP SYSTEM

171910 SHEET 01 OF 09

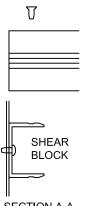
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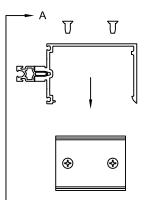
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OPEN BACK HORIZONTALS AT 90° AND 135° CORNERS

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 171908

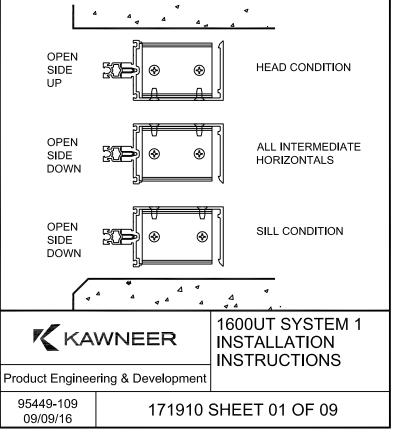




SECTION A-A

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.

► A



STEP - 1 CHECK OPENINGS

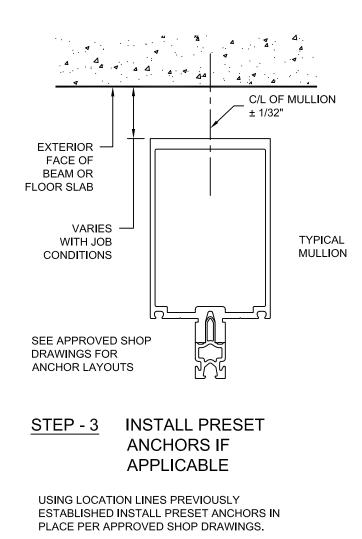
ELEVATIONS AND SLABS MUST BE WITHIN ADJUSTMENT OF ANCHORING SYSTEM. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT.

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.



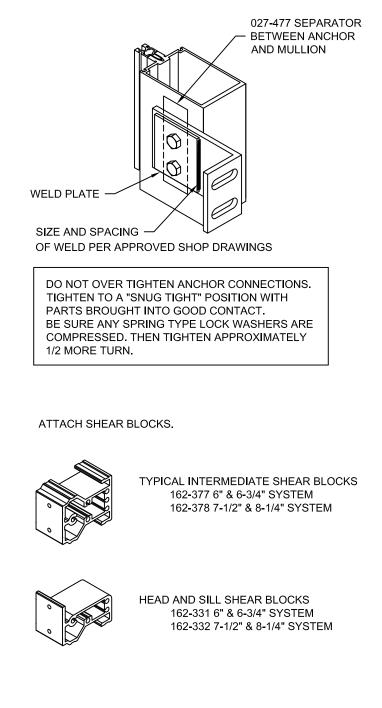
STEP - 4 FRAME ASSEMBLY

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.

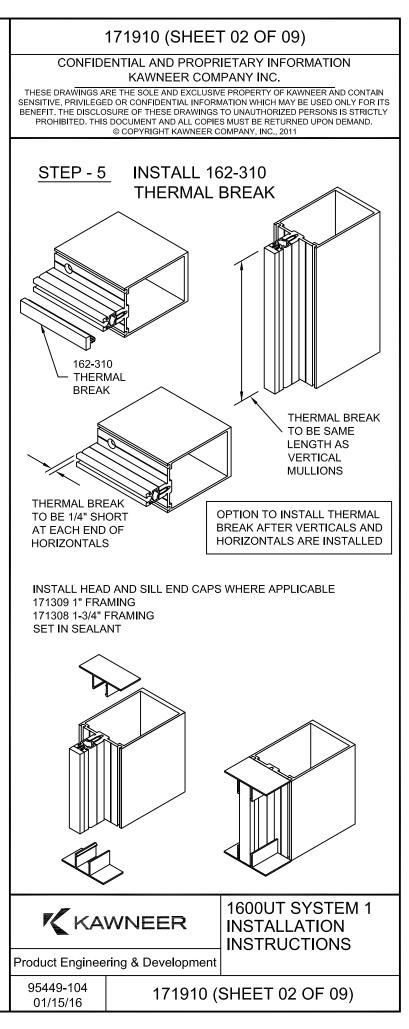
WHEN WELDING ANCHORS, PROTECT INSTALLED GLASS AND METAL FROM WELD SPLATTER.

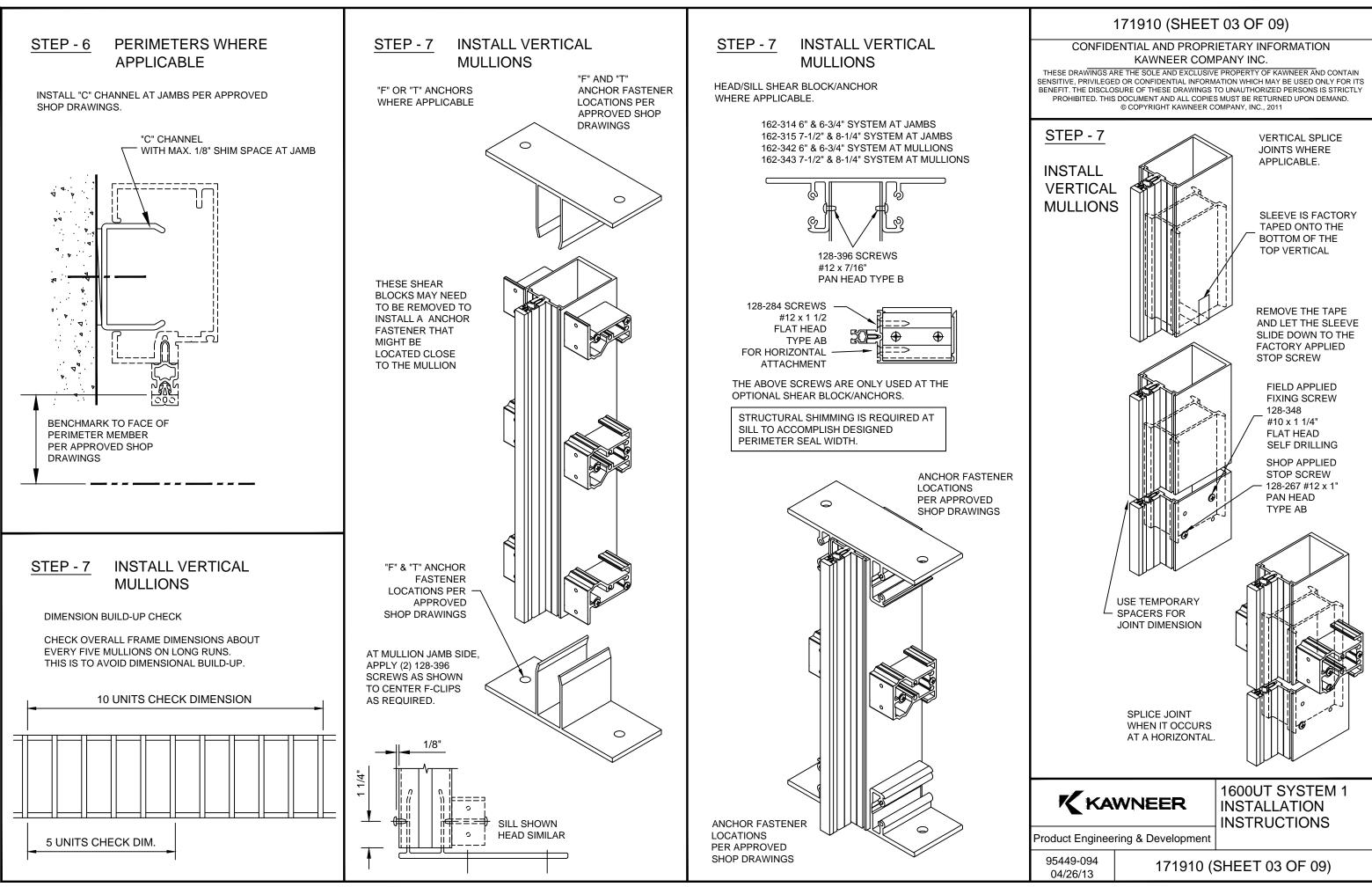


ATTACH SHEAR BLOCKS 128-394 SCREWS #12 x 1 7/8" PAN HEAD TYPE B HEAD/SILL SHEAR BLOCK/ANCHOR WHERE APPLICABLE AND SHOWN BELOW. 162-314 6" & 6-3/4" SYSTEM AT JAMBS 162-315 7-1/2" & 8-1/4" SYSTEM AT JAMBS 162-342 6" & 6-3/4" SYSTEM AT MULLIONS 162-343 7-1/2" & 8-1/4" SYSTEM AT MULLIONS STRUCTURAL INTEGRITY OF ANCHOR AND FASTENERS MUST BE CHECKED BY FACTORY ENGINEERING. ANCHOR FASTENER 0 LOCATIONS PER APPROVED SHOP DRAWINGS Q SHEAR BLOCK/ANCHOR 128-396 SCREWS aage #12 x 7/16" PAN HEAD TYPE B STEP - 5 **INSTALL 162-310** THERMAL BREAK ြဂိုဝါ 162-310 DO NOT STRETCH WHEN REMOVING FROM COIL AND CARTON DO NOT STRETCH DURING INSTALLATION 162-310 THERMAL BREAK

FRAME ASSEMBLY

STEP - 4

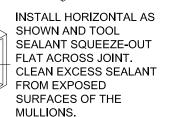




<u>STEP - 8</u> INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS

TUBULAR HORIZONTALS

JUST BEFORE ATTACHING HORIZONTALS, APPLY A BEAD OF SEALANT INTO THE CORNER FORMED BY THE FRONT FACE OF THE SHEAR BLOCK AND THE SIDE OF THE MULLION. FILL THE SPACE WITH A BEAD OF SEALANT LARGE ENOUGH TO EXTEND PAST THE FRONT EDGE OF THE MULLION. WRAP THE BEAD 3/4" AROUND THE TOP AND BOTTOM OF THE SHEAR BLOCK AS SHOWN. PRIOR TO APPLYING SEALANT, CLEAN EACH JOINT PER SEALANT MANUFACTURER INSTRUCTIONS.



128405 SCREWS #12 X 7/8" FLAT HEAD TYPE AB

NOTE: SEALANT SQUEEZE-OUT IS NECESSARY TO ENSURE A PROPER SEAL BETWEEN VERTICAL MULLION AND HORIZONTALS.

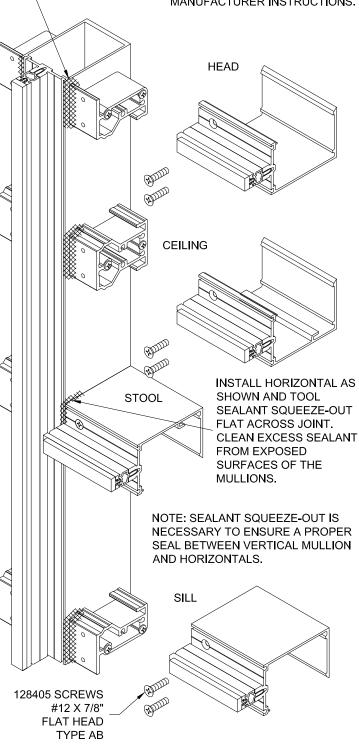
ADD

THERMAL BREAK TO BE 1/4" SHORT AT EACH END OF HORIZONTALS

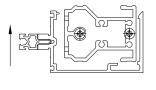
STEP - 8 AND INTERMEDIATE HORIZONTALS

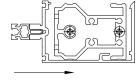
OPEN BACK HORIZONTALS AND LAST BAY HORIZONTALS. FILLER AVAILABLE WHEN OPEN BACK IS EXPOSED AND AT EYE LEVEL.

JUST BEFORE ATTACHING HORIZONTALS, APPLY A BEAD OF SEALANT INTO THE CORNER FORMED BY THE FRONT FACE OF THE SHEAR BLOCK AND THE SIDE OF THE MULLION. FILL - THE SPACE WITH A BEAD OF SEALANT LARGE ENOUGH TO EXTEND PAST THE FRONT EDGE OF THE MULLION. WRAP THE BEAD 3/4" AROUND THE TOP AND BOTTOM OF THE SHEAR BLOCK AS SHOWN. PRIOR TO APPLYING SEALANT, CLEAN EACH JOINT PER SEALANT MANUFACTURER INSTRUCTIONS.

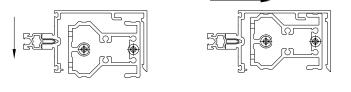


INSTALLING CEILING INTERMEDIATE OPEN BACK HORIZONTAL





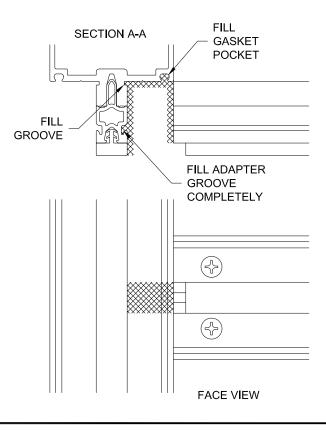
INSTALLING STOOL INTERMEDIATE OPEN BACK HORIZONTAL



STEP - 9 INSTALL JOINT PLUGS

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

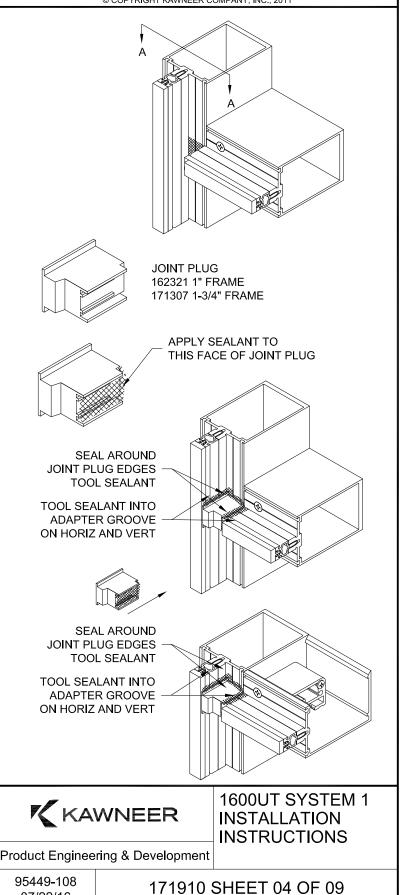
JUST BEFORE INSTALLING JOINT PLUGS APPLY SEALANT AS SHOWN FILLING GASKET POCKET AND ADAPTER GROOVE. ENSURE THAT THE MULLION TONGUE RACEWAY AND THERMAL SEPARATOR IS SEALED AND COMPLETELY FILLED AT PLUG LOCATION.



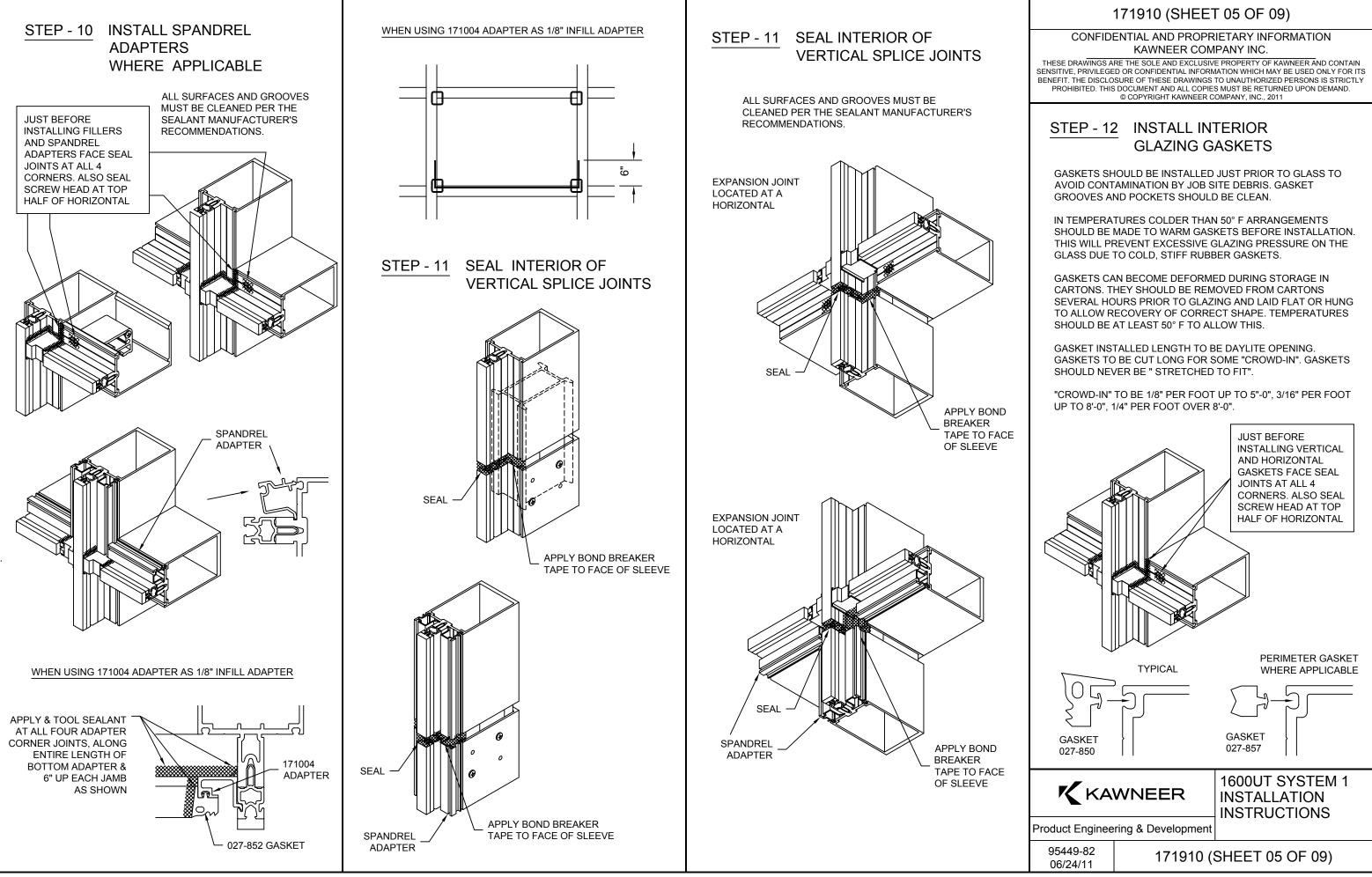
171910 SHEET 04 OF 09

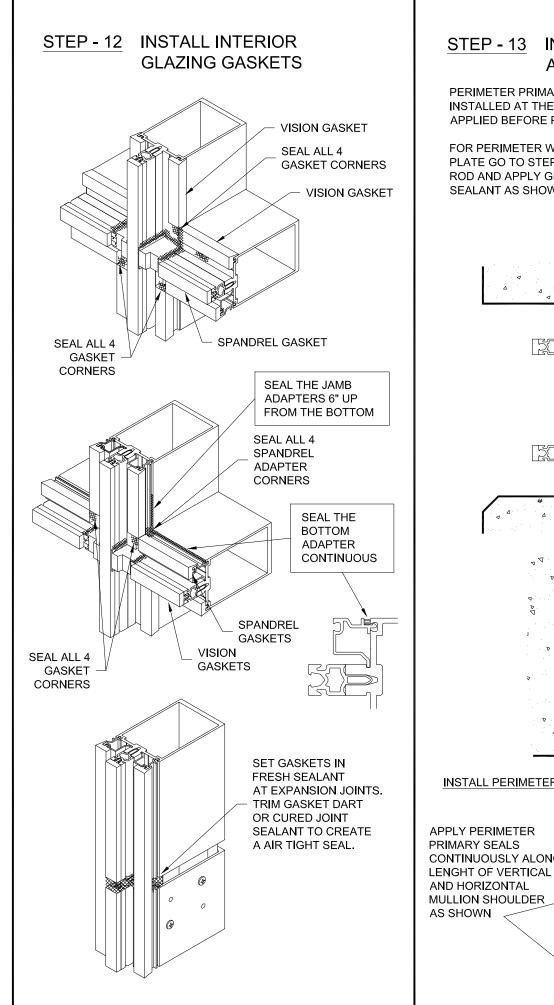
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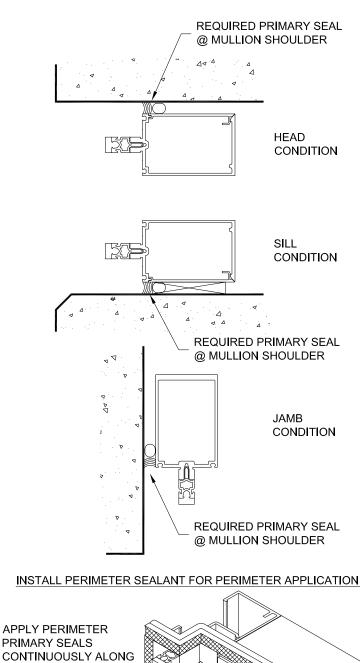


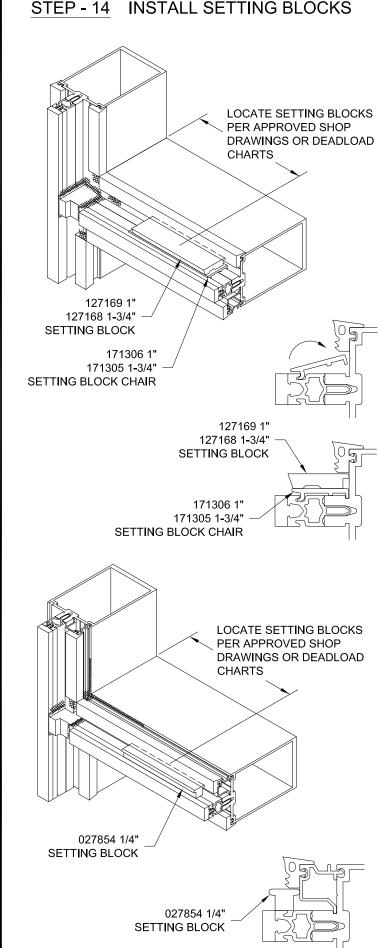


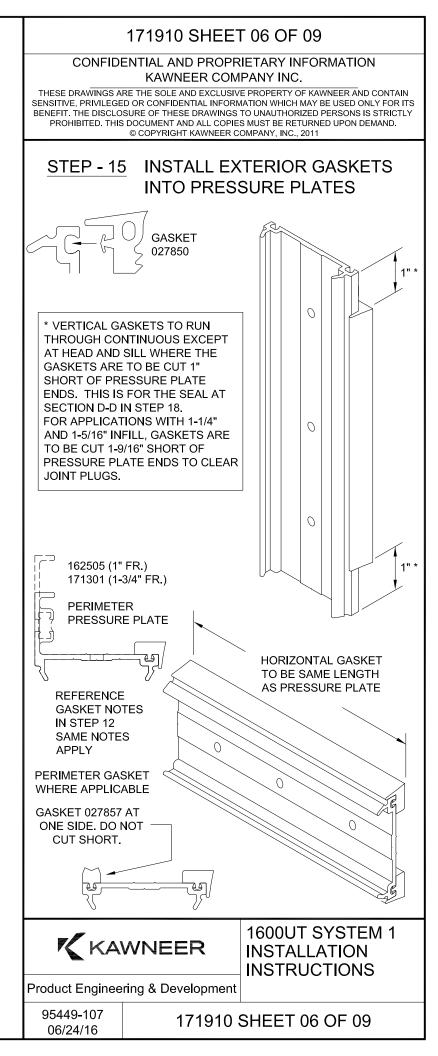
STEP - 13 INSTALL PERIMETER SEAL AT MULLION SHOULDER

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

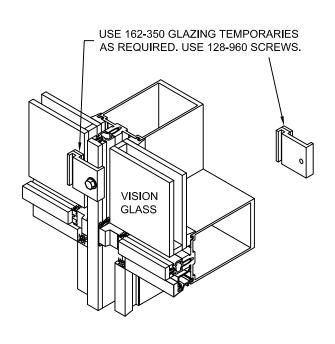
FOR PERIMETER WEATHER SEALS AT THE PRESSURE PLATE GO TO STEP 19. INSTALL SUITABLY SIZED BACKER ROD AND APPLY GENEROUS, CONTINUOUS BEAD OF SEALANT AS SHOWN.





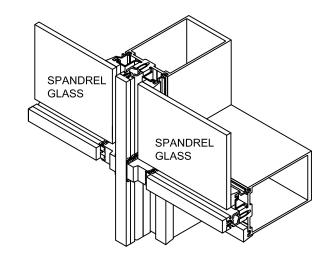


STEP - 16 INSTALL GLASS

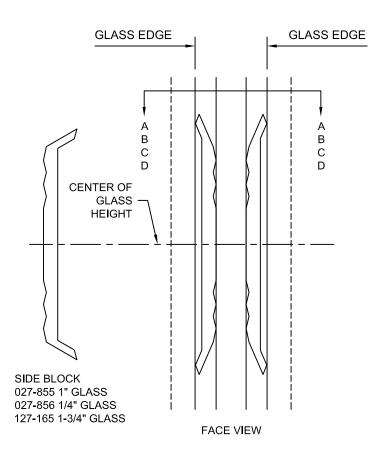


MAXIMUM TEMPORARY SPACING IS 30".

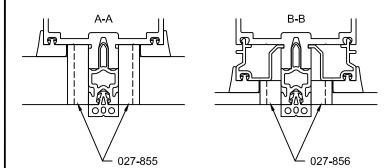
IF WINDS GREATER THAN 50 MPH (80KPH) ARE EXPECTED, ADDITIONAL TEMPORARIES MAY BE REQUIRED. CONSULT YOUR SEALANT AND/OR INFILL SUPPLIER FOR SPACING RECOMMENDATIONS. INSTALL PRESSURE PLATES WHERE POSSIBLE.

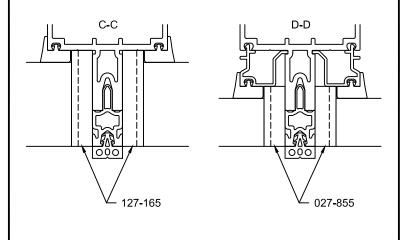


STEP - 17 INSTALL SIDE BLOCKS



INSTALL SIDE BLOCKS COMPRESSING AS SHOWN





STEP - 18 INSTALL EXTERIOR PRESSURE PLATES

RECOMMEND USING TORQUE LIMIT TOOL 162-399 SEE NOTE.

HOW TO SET TORQUE LIMIT

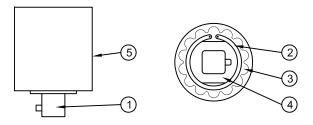
1. ATTACH ANY CALIBRATED TORQUE INDICATOR TO OUTPUT STUB (1) AND DETERMINE PRESENT TORQUE SETTING WHILE HOLDING THE BODY (5), OR VICE-VERSA.

2. REMOVE SNAP RING (2) AND LOCKING PLATE (3).

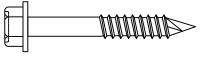
3. ADJUST NUT (4) WITH OPEN-END WRENCH : CLOCKWISE TO INCREASE TORQUE, COUNTER- CLOCKWISE TO DECREASE TORQUE.

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 WITH 128-960 SELF DRILLING SCREWS USING A NON-IMPACT DRIVER AT LOW SPEED.



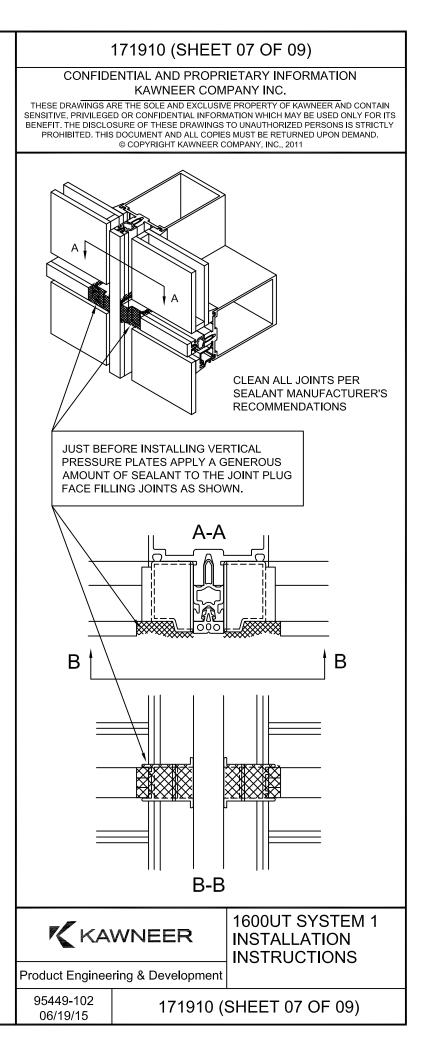
SCREWS ARE TO BE LOCATED 9" ON CENTER MAXIMUM. FOR PROJECTS DESIGNED FOR WIND LOADS GREATER THAN 60 PSF, APPLY PRESSURE PLATES SCREWS AT 6" ON CENTER.

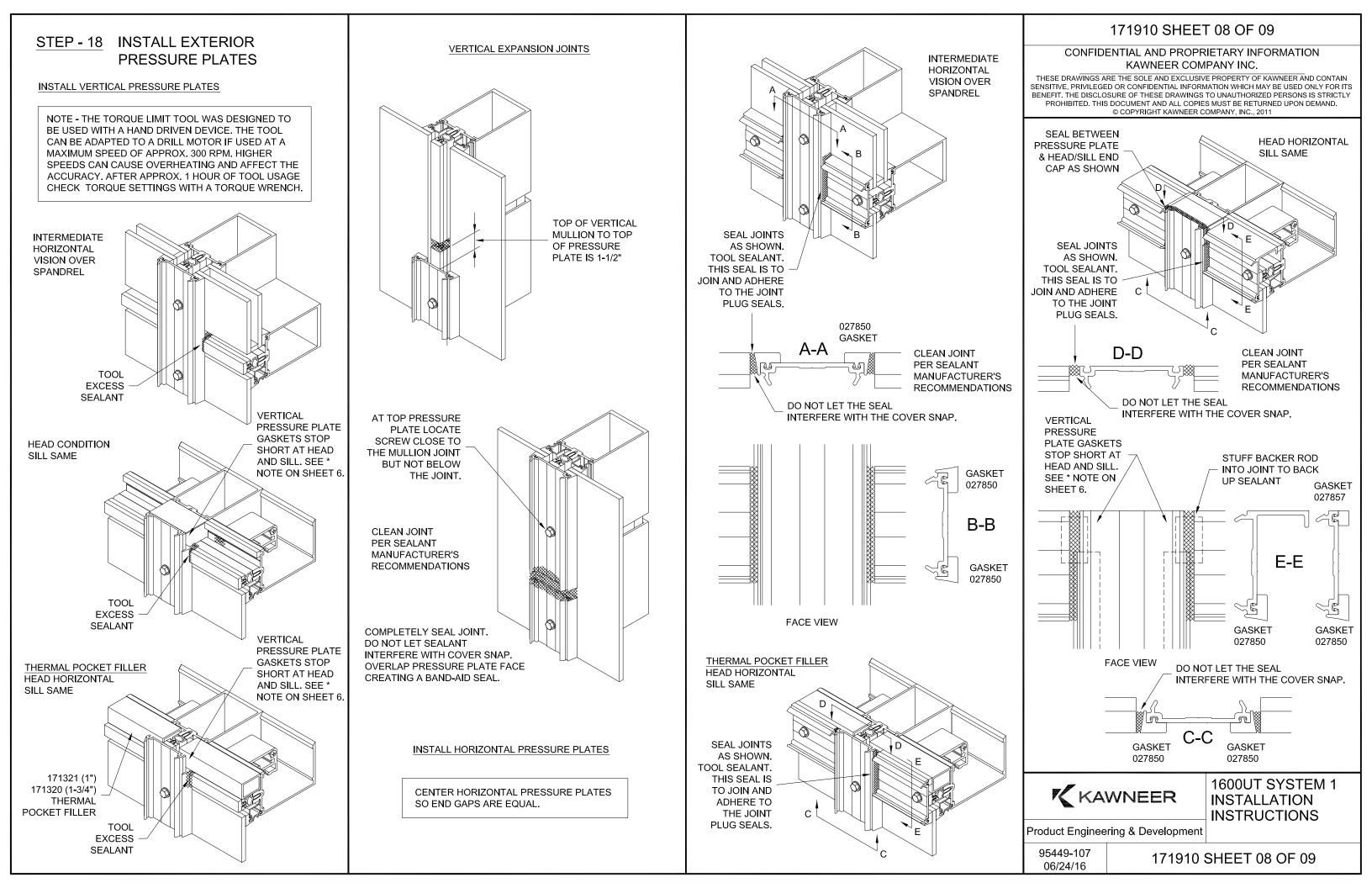
ALWAYS LOCATE A SCREW AS CLOSE AS POSSIBLE TO A HORIZONTAL JOINT. THIS WILL PROVIDE MAXIMUM PRESSURE FOR THE CRITICAL JOINT SEALS.

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.



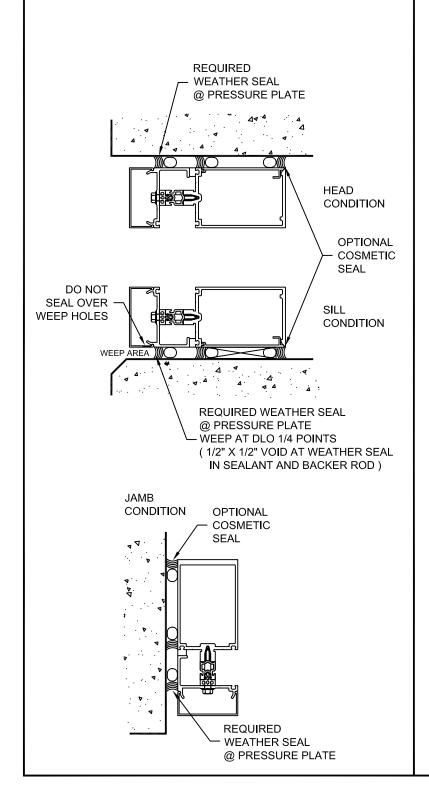




PERIMETER WEATHER SEALS TO BE INSTALLED AT PRESSURE PLATE.

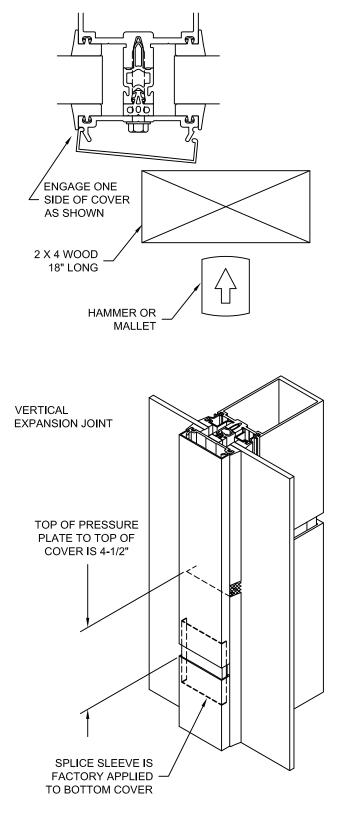
PRESSURE PLATE SEALS SHOULD BE INSTALLED BEFORE COVERS ARE APPLIED WHEN COVERS DEEPER THAN 3/4" ARE USED. SILL COVERS MUST REMAIN OPEN TO ALLOW WATER DRAINAGE TO THE EXTERIOR.

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



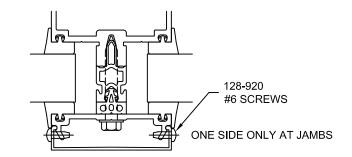
STEP - 20 INSTALL EXTERIOR COVERS

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.



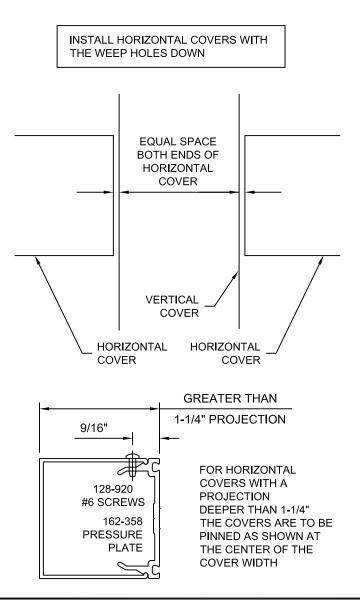
STEP - 20 INSTALL EXTERIOR COVERS

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.



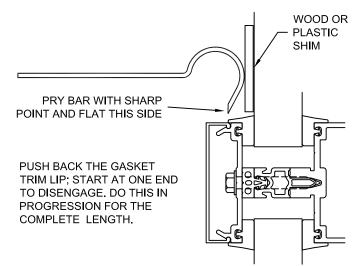
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REMOVING COVERS

COVERS CAN BE SAVED IF TOLERANCES ARE NOT TOO TIGHT AND THE COVER IS REMOVED WITH EXTREME CARE.





1600UT SYSTEM 1 INSTALLATION INSTRUCTIONS

Product Engineering & Development

171910 (SHEET 09 OF 09)