HANDLING, STORING, AND PROTECTION OF ALUMINUM

The material must be protected against damage. The following precautions are recommended to assure early acceptance of your products and workmanship.

A. HANDLE CAREFULLY - Don’t 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. Wear hand protection to prevent injury due to sharp edges of cut extrusions.

B. KEEP MATERIAL AWAY FROM WATER, MUD AND SPRAY - Prevent cement, plaster, or other materials from damaging the finish.

C. PROTECT THE MATERIALS AFTER ERECTION - Protect by wrapping with Kraft paper or by erecting Visqueen or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions and acid based materials used to clean masonry are very harmful to the finish and should be removed with water and mild soap IMMEDIATELY.

GENERAL INSTALLATION NOTES

The following practices are recommended for all installations:

A. CHECK SHOP DRAWINGS, INSTALLATION INSTRUCTIONS, AND GLAZING INSTRUCTIONS to become thoroughly familiar with the project. The SHOP DRAWINGS take precedence and include specific details for the project. The INSTALLATION INSTRUCTIONS are of a general nature and cover most common conditions.

B. All materials are to be INSTALLED PLUMB, LEVEL, AND TRUE.

C. All work should start from bench marks and/or column lines as established by the ARCHITECTURAL DRAWINGS and the GENERAL CONTRACTOR. Check mullion spacing from both ends of the masonry opening to prevent dimensional buildup of day light opening.

D. Make certain that construction which will receive your materials is in accordance with the contract documents. If not, notify the GENERAL CONTRACTOR IN WRITING and resolve differences before proceeding with your work.

E. Isolate all aluminum to be placed directly in contact with uncured masonry or incompatible materials with a heavy coat of zinc chromate or bituminous paint.

F. Check all materials on arrival for quantity and be sure you have everything required to begin installation.

G. Sealants must be compatible with all materials with which they have contact, including other sealant surfaces. Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, priming, tooling, adhesion, etc.

H. FASTENING - “Fastening” means any method of securing one part to another or to adjacent materials. These instructions specify only those fasteners used within the system. Due to varying perimeter conditions and job performance requirements, anchor fasteners are not specified in these instructions. For anchor fastening, refer to the Shop Drawings or consult the fastener supplier.

I. CHECK OPENINGS - Make certain that the opening which will receive your materials is in accordance with the contract documents. If not, notify the GENERAL CONTRACTOR IN WRITING and resolve differences before proceeding with your work.

J. BUILDING CODES - Glass and glazing codes governing the design and use of products vary widely. Kawneer does not control the design or product configurations, operating hardware, or glazing materials, and assumes no responsibility for these design considerations. It is the responsibility of the owner, specifier, architect, general contractor and the installer to make these selections in strict conformance with all applicable codes.

K. EXPANSION JOINTS - Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at normal size. Actual dimensions may vary due to perimeter conditions and/or difference in metal temperature between the time of fabrication and time of installation. For example, a 12 foot unrestrained length of aluminum extrusion can expand or contract 3/32" over a 50°F temperature change. Any movement potential should be accounted for at the time of installation.

L. FIELD TESTING - It is recommended that a Water Hose Test be conducted once a sufficient portion of the framing is installed, glazed and caulked to ensure proper installation. The Water Hose Test shall be conducted in accordance with AAMA 501.2. In addition, larger projects should have periodic Water Hose Tests as additional precautionary measures.

1600 L R NOTES

1600 LR IS AVAILABLE WITH 1" FRAMING MEMBERS WHICH ACCEPT BOTH 1" AND 1/4" INFILLS.

THE PERIMETER MULLION FOR THE 5 3/4" AND 7 1/4" SYSTEMS IS NOT INTENDED TO BE USED IN A MULTI-SPAN APPLICATION. USE THE TYPICAL CAPTURED MULLION AT JAMB INTERMEDIATE LOCATIONS AT 90° & 135° CORNERS. USE THE TYPICAL CAPTURED MULLION AT 90° AND 135° CORNERS.

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.

SEALANT MUST BE APPLIED PRIOR TO GLAZING.

 OPEN BACK HORIZONTAL NOTES

THE OPEN BACK HORIZONTAL IS TO BE TYPICALLY USED FOR LAST BAY INTERMEDIATE HORIZONTALS.

THE OPEN BACK HORIZONTAL CAN BE USED AT OTHER INTERMEDIATE CONDITIONS IF IT IS A 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. 2004

OPEN BACK HORIZONTAL NOTES

THE OPEN BACK HORIZONTAL IS TO BE TYPICALLY USED FOR LAST BAY INTERMEDIATE HORIZONTALS.

THE OPEN BACK HORIZONTAL CAN BE USED AT OTHER INTERMEDIATE CONDITIONS IF IT IS A BENEFIT TO THE JOB DESIGN.

HORIZONALLS AT 90° AND 135° CORNERS

OPEN BACK HORIZONTALS CAN NOT BE USED AT INTERMEDIATE LOCATIONS AT 90° & 135° CORNERS. USE 168-001 FOR THE 5 3/4" SYSTEM OR 168-011 FOR THE 7 1/4" SYSTEM. THE SHEAR BLOCK CONNECTION WILL BE AS SHOWN BELOW.

ALSO REFER TO CORNER INSTRUCTIONS 168-562

SECTION A-A
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.

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.

INSTALL PRE-SET ANCHORS IF APPLICABLE

USING LOCATION LINES PREVIOUSLY ESTABLISHED, INSTALL PRE-SET ANCHORS IN PLACE PER APPROVED SHOP DRAWINGS.

FRAME ASSEMBLY

ATTACH ANCHORS TO MULLIONS WHERE APPLICABLE.

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.

TYPICAL SHEAR BLOCKS
168-260 5 3/4" SYSTEM
168-270 7 1/4" SYSTEM

SHEAR BLOCKS FOR OPEN BACK HORIZONTALS
168-377 5 3/4" SYSTEM
168-378 7 1/4" SYSTEM

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

ANCHOR FASTENER LOCATIONS PER APPROVED SHOP DRAWINGS

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.

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

168-040 PERIMETER FILLER. CLEAN AND APPLY SEALANT PER SEALANT MANUFACTURER'S RECOMMENDATIONS.

MATCH DRILL .185 DIA. (#13 DRILL) HOLES IN JAMB MULLION. APPLY SEALANT IN HOLES AND FASTEN WITH 128-396 SCREWS. SEAL OVER FASTENER HEADS.

APPLY SEALANT IN GLAZING REGLET
**FRAME ASSEMBLY**

INSTALL HEAD AND SILL END CAPS WITH 128-396 FASTENERS INTO SCREW RACE. SET IN SEALANT.

ALIGN FRONT EDGE OF CAP WITH FRONT EDGE OF TONGUE.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

APPLY SEALANT TO TONGUE AND AT FACE OF TUBE AT TOP AND BOTTOM.

APPLY SEALANT TO TONGUE AND AT FACE OF TUBE AT TOP AND BOTTOM.

ALIGN FRONT EDGE OF CAP WITH FRONT EDGE OF TONGUE.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

**INSTALL 168-200 THERMAL BREAK**

THERMAL BREAK TO BE SAME LENGTH AS VERTICAL MULLIONS.

APPLY SEALANT TO TONGUE AND AT FACE OF TUBE AT TOP AND BOTTOM.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

ALIGN FRONT EDGE OF CAP WITH FRONT EDGE OF TONGUE.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

APPLY SEALANT TO TONGUE AND AT FACE OF TUBE AT TOP AND BOTTOM.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

ALIGN FRONT EDGE OF CAP WITH FRONT EDGE OF TONGUE.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

APPLY SEALANT TO TONGUE AND AT FACE OF TUBE AT TOP AND BOTTOM.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

ALIGN FRONT EDGE OF CAP WITH FRONT EDGE OF TONGUE.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

APPLY SEALANT TO TONGUE AND AT FACE OF TUBE AT TOP AND BOTTOM.

APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT TONGUES AND AT FACE OF TUBE AT TOP AND BOTTOM.

TOOL SEALANT

APPLICATION AT PAN HEAD TYPE B 128-396 #12 x 7/16".

APPLICATION AT END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.

ALIGN FRONT EDGE OF CAP WITH FRONT EDGE OF TONGUE.
INSTALL VERTICAL MULLIONS

TYPICAL SPLICE SLEEVES
168-280 5 3/4" SYSTEM
168-281 7 1/4" SYSTEM
168-307 7 1/4" SYSTEM
AT HEAVY WEIGHT MULLION

VERTICAL SPLICE JOINTS WHERE APPLICABLE.

TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

REMOVE THE TAPE AND LET THE SLEEVE SLIDE DOWN TO PRE-APPLIED STOP SCREW

APPLY FIXING SCREW 128-248
#10 x 1 1/4" FLAT HEAD SELF DRILLING.
PRE-APPLIED STOP SCREW 128-267
#12 x 1" PAN HEAD TYPE AB

USE TEMPORARY SPACERS FOR JOINT DIMENSION

INSTALL VERTICAL MULLIONS

SPlice JOINt WHEN IT OCCURS AT A HORIZONTAL.

INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS

TUBULAR HORIZONTALS

128-405 SCREWS
#12 x 7/8" FLAT HEAD TYPE AB

JUST PRIOR TO INSTALLING HORIZONTAL, APPLY BEAD OF SEALANT TO FACE OF SHEAR BLOCKS AND RETURN 1/2" AT TOP AND BOTTOM. AT HEAD AND SILL, ALSO APPLY SEALANT TO END OF CAPS. TOOL EXCESS SEALANT.

DO NOT DEFORM HORIZONTAL FACE WHEN TIGHTENING SHEAR BLOCK SCREWS.

INSTALL INTERMEDIATE HORIZONTALS

OPEN BACK HORIZONTALS AND LAST BAY HORIZONTALS. FILLER AVAILABLE WHEN OPEN BACK IS EXPOSED AND AT EYE LEVEL. NOTE LOCATION OF FLAT SIDE OF TONGUE.

JUST PRIOR TO INSTALLING HORIZONTALS, APPLY A BEAD OF SEALANT TO FACE OF SHEAR BLOCKS. TOOL EXCESS SEALANT.

INSTALL OPEN BACK HORIZONTAL

1/2" TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

TYPICAL SPLICE SLEEVES
168-280 5 3/4" SYSTEM
168-281 7 1/4" SYSTEM
168-307 7 1/4" SYSTEM
AT HEAVY WEIGHT MULLION

VERTICAL SPLICE JOINTS WHERE APPLICABLE.

TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

REMOVE THE TAPE AND LET THE SLEEVE SLIDE DOWN TO PRE-APPLIED STOP SCREW

APPLY FIXING SCREW 128-248
#10 x 1 1/4" FLAT HEAD SELF DRILLING.
PRE-APPLIED STOP SCREW 128-267
#12 x 1" PAN HEAD TYPE AB

USE TEMPORARY SPACERS FOR JOINT DIMENSION

INSTALL VERTICAL MULLIONS

SPlice JOINt WHEN IT OCCURS AT A HORIZONTAL.

INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS

TUBULAR HORIZONTALS

128-405 SCREWS
#12 x 7/8" FLAT HEAD TYPE AB

JUST PRIOR TO INSTALLING HORIZONTAL, APPLY BEAD OF SEALANT TO FACE OF SHEAR BLOCKS AND RETURN 1/2" AT TOP AND BOTTOM. AT HEAD AND SILL, ALSO APPLY SEALANT TO END OF CAPS. TOOL EXCESS SEALANT.

DO NOT DEFORM HORIZONTAL FACE WHEN TIGHTENING SHEAR BLOCK SCREWS.

INSTALL INTERMEDIATE HORIZONTALS

OPEN BACK HORIZONTALS AND LAST BAY HORIZONTALS. FILLER AVAILABLE WHEN OPEN BACK IS EXPOSED AND AT EYE LEVEL. NOTE LOCATION OF FLAT SIDE OF TONGUE.

JUST PRIOR TO INSTALLING HORIZONTALS, APPLY A BEAD OF SEALANT TO FACE OF SHEAR BLOCKS. TOOL EXCESS SEALANT.

INSTALL OPEN BACK HORIZONTAL

1/2" TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

TYPICAL SPLICE SLEEVES
168-280 5 3/4" SYSTEM
168-281 7 1/4" SYSTEM
168-307 7 1/4" SYSTEM
AT HEAVY WEIGHT MULLION

VERTICAL SPLICE JOINTS WHERE APPLICABLE.

TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

REMOVE THE TAPE AND LET THE SLEEVE SLIDE DOWN TO PRE-APPLIED STOP SCREW

APPLY FIXING SCREW 128-248
#10 x 1 1/4" FLAT HEAD SELF DRILLING.
PRE-APPLIED STOP SCREW 128-267
#12 x 1" PAN HEAD TYPE AB

USE TEMPORARY SPACERS FOR JOINT DIMENSION

INSTALL VERTICAL MULLIONS

SPlice JOINt WHEN IT OCCURS AT A HORIZONTAL.

INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS

TUBULAR HORIZONTALS

128-405 SCREWS
#12 x 7/8" FLAT HEAD TYPE AB

JUST PRIOR TO INSTALLING HORIZONTAL, APPLY BEAD OF SEALANT TO FACE OF SHEAR BLOCKS AND RETURN 1/2" AT TOP AND BOTTOM. AT HEAD AND SILL, ALSO APPLY SEALANT TO END OF CAPS. TOOL EXCESS SEALANT.

DO NOT DEFORM HORIZONTAL FACE WHEN TIGHTENING SHEAR BLOCK SCREWS.

INSTALL INTERMEDIATE HORIZONTALS

OPEN BACK HORIZONTALS AND LAST BAY HORIZONTALS. FILLER AVAILABLE WHEN OPEN BACK IS EXPOSED AND AT EYE LEVEL. NOTE LOCATION OF FLAT SIDE OF TONGUE.

JUST PRIOR TO INSTALLING HORIZONTALS, APPLY A BEAD OF SEALANT TO FACE OF SHEAR BLOCKS. TOOL EXCESS SEALANT.

INSTALL OPEN BACK HORIZONTAL

1/2" TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

TYPICAL SPLICE SLEEVES
168-280 5 3/4" SYSTEM
168-281 7 1/4" SYSTEM
168-307 7 1/4" SYSTEM
AT HEAVY WEIGHT MULLION

VERTICAL SPLICE JOINTS WHERE APPLICABLE.

TAPE SLEEVE INTO THE BOTTOM OF THE TOP VERTICAL.

REMOVE THE TAPE AND LET THE SLEEVE SLIDE DOWN TO PRE-APPLIED STOP SCREW

APPLY FIXING SCREW 128-248
#10 x 1 1/4" FLAT HEAD SELF DRILLING.
PRE-APPLIED STOP SCREW 128-267
#12 x 1" PAN HEAD TYPE AB

USE TEMPORARY SPACERS FOR JOINT DIMENSION

INSTALL VERTICAL MULLIONS

SPlice JOINt WHEN IT OCCURS AT A HORIZONTAL.

INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS

TUBULAR HORIZONTALS

128-405 SCREWS
#12 x 7/8" FLAT HEAD TYPE AB

JUST PRIOR TO INSTALLING HORIZONTAL, APPLY BEAD OF SEALANT TO FACE OF SHEAR BLOCKS AND RETURN 1/2" AT TOP AND BOTTOM. AT HEAD AND SILL, ALSO APPLY SEALANT TO END OF CAPS. TOOL EXCESS SEALANT.

DO NOT DEFORM HORIZONTAL FACE WHEN TIGHTENING SHEAR BLOCK SCREWS.
INSTALL SPANDREL ADAPTERS WHERE APPLICABLE

Just before installing spandrel adapters, face seal joints at all 4 corners and seal screw heads.
All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

INSTALL SPANDREL ADAPTERS WHERE APPLICABLE

Apply a continuous line of sealant at vertical and horizontal glazing reglets on all sides of lite.
Attach 168-041 spandrel adapters. Match drill, 1/8" holes. Apply sealant in holes and fasten with 128-396 screws. Tool excess sealant and seal over fastener heads.

INSTALL WATER DEFLECTORS

Note: Water deflectors are not required at horizontal joints above a splice or at sill horizontals.
Remove liner on 168-202 water deflector and apply to top of tongue above all insulated lites of glass. Locate end of water deflector approximately 1/4" from vertical tongue. Back edge of water deflector is located against face of horizontal tube.
Seal along edge of water deflector and tool sealant flat.

ADHESIVE TAPE
ON BOTTOM SIDE

AT INTERMEDIATE HORIZONTALS

Extend water deflectors past glass edge below.

AT HEAD HORIZONTALS

SEAL ALONG BACK EDGE OF WATER DEFLECTOR AND ON TOP ALONG HORIZONTAL TONGUE. TOOL SEALANT.

WATER DEFLECTOR
168-202

WATER DEFLECTOR
168-202

SEALANT
ON TOP SIDE

SEALANT
ON TOP SIDE

EDGE OF GLASS

EDGE OF GLASS

APPLICATION INSTRUCTIONS

Product Engineering & Development

1600 L·R

168970 (Sheet 05 of 11)

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., 2004

CONFIDENTIAL AND PROPRIETARY INFORMATION
KAWNEER COMPANY INC.
INSTALL JOINT PLUGS WHERE APPLICABLE

JOINT PLUGS ARE REQUIRED AT HORIZONTAL JOINTS ABOVE A SPLICE ONLY.

CLEAN JOINT PER SEALANT MANUFACTURER'S RECOMMENDATIONS. APPLY SEALANT AROUND SIDES AND BACK OF JOINT PLUG AND AROUND JOINT IN FRAME. JOINT PLUG IS OVERSIZED FOR COMPRESSION FIT. APPLY TOP OF JOINT PLUG LEVEL WITH THE TOP OF THE TONGUE. TOOL EXCESS SEALANT FLAT.

INSTALL PERIMETER SEAL

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

APPLY BACKER ROD AND SEAL TOOL SEALANT.

PRIOR TO GLAZING, INSPECT ALL SEALS AND REPAIR ANY THAT MAY BE SUSPECT.

SEAL INTERIOR OF VERTICAL SPLICE JOINTS

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

TYPICAL AT ALL SPLICE JOINTS

NOTE: SEALANT MUST BE CAPABLE OF ±50% MOVEMENT.

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 ALLOW RECOVERY OF CORRECT SHAPE. TEMPERATURES SHOULD BE AT LEAST 50° F TO ALLOW THIS.

VERTICAL GASKET INSTALLED LENGTH TO BE DAYLITE OPENING PLUS 1”. HORIZONTAL GASKET LENGTH TO BE DAYLITE OPENING AND CUT LONG FOR SOME “CROWD-IN”. GASKETS SHOULD NEVER BE “STRETCHED TO FIT”.

HORIZONTAL GASKET "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".

GROOVES HAVE BEEN ADDED TO THE GASKET TO DISTINGUISH IT FROM THE EXTERIOR GASKET. THE INTERIOR GASKET DART IS LOCATED IN A DIFFERENT POSITION THAN ON THE EXTERIOR GASKET. DO NOT USE EXTERIOR GASKET AT INTERIOR.

JOINT PLUG 168-201

AT INTERMEDIATE HORIZONTALS

EDGE OF GLASS

DO NOT BLOCK OPENING AT TOP OF CAP WITH SEALANT.

APPLY BOND BREAKER TAPE TO FACE OF SLEEVE AND SEAL.

NOTE: SEALANT MUST BE CAPABLE OF ±50% MOVEMENT.

SECTION A-A

SECTION B-B

SECTION B-B

BOND BREAKER

BOND BREAKER

BOND BREAKER

APPLE BOND BREAKER TAPE TO FACE OF SLEEVE AND SEAL.

IN ADDITION TO THE TYPICAL SEAL, APPLY A 4" LONG PIECE OF OPEN CELL BACKER ROD IN GLAZING POCKET. COMPLETELY SEAL GLAZING POCKET AT TOP OF BACKER ROD. CONTINUE SEAL DOWN FACE OF BACKER ROD BETWEEN PERIMETER FILLER OR ADAPTER AND MULLION TONGUE. ALSO SEAL BETWEEN PERIMETER FILLERS AND BETWEEN ADAPTERS AND MULLION Seal.

GLAZING REGLETS.

TOOL EXCESS SEALANT OUT OF GLAZING REGLETS.

TOOL EXCESS SEALANT OUT OF GLAZING REGLETS.

3/4" DIA.

1 1/8" DIA.

168-041

168-040

168-041

168-040

NOTE: SEALANT MUST BE CAPABLE OF ±50% MOVEMENT.

IN ADDITION TO THE TYPICAL SEAL, APPLY A 4" LONG PIECE OF OPEN CELL BACKER ROD IN GLAZING POCKET. COMPLETELY SEAL GLAZING POCKET AT TOP OF BACKER ROD. CONTINUE SEAL DOWN FACE OF BACKER ROD BETWEEN PERIMETER FILLER OR ADAPTER AND MULLION TONGUE. ALSO SEAL BETWEEN PERIMETER FILLERS AND BETWEEN ADAPTERS AND MARRY SEALANT TO MULLION JOINT SEAL.

JOINT PLUG 168-201

AT ADAPTERS AND JAMBS

AT INTERMEDIATE HORIZONTALS

EDGE OF GLASS

DO NOT BLOCK OPENING AT TOP OF CAP WITH SEALANT.

APPLY BOND BREAKER TAPE TO FACE OF SLEEVE AND SEAL.

IN ADDITION TO THE TYPICAL SEAL, APPLY A 4" LONG PIECE OF OPEN CELL BACKER ROD IN GLAZING POCKET. COMPLETELY SEAL GLAZING POCKET AT TOP OF BACKER ROD. CONTINUE SEAL DOWN FACE OF BACKER ROD BETWEEN PERIMETER FILLER OR ADAPTER AND MULLION TONGUE. ALSO SEAL BETWEEN PERIMETER FILLERS AND BETWEEN ADAPTERS AND MARRY SEALANT TO MULLION JOINT SEAL.

NOTE: SEALANT MUST BE CAPABLE OF ±50% MOVEMENT.
INSTALL INTERIOR GLAZING GASKETS

JUST BEFORE INSTALLING INTERIOR GASKETS, FACE SEAL JOINTS AT ALL 4 CORNERS AND SEAL SCREW HEADS.

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

INSTALL SETTING BLOCKS

LOCATE SETTING BLOCKS PER APPROVED SHOP DRAWINGS OR DEADLOAD CHARTS.

INSTALL INTERIOR GLAZING GASKETS

SEAL ALL GASKET CORNERS COMPLETELY. SLIDE HORIZONTAL GASKET BACK AS SHOWN BELOW AND APPLY SEALANT. TOOL EXCESS SEALANT.

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

INSTALL INTERIOR GLAZING GASKETS

SEAL ALL CORNERS OF SPANDREL ADAPTERS.

SEAL ALL 4 GASKET CORNERS

SEAL ALL CORNERS OF SPANDREL ADAPTER CORNERS

SEAL ALL 4 SPANDREL ADAPTER CORNERS

SET GASKETS IN FRESH SEALANT AT EXPANSION JOINTS. TRIM GASKET DART OR CURED JOINT SEALANT TO CREATE AN AIR TIGHT SEAL.

1/4" INFILL OVER 1" INFILL

1/4" INFILL OVER 1" INFILL

1/4" INFILL SHOWN

1" INFILL SIMILAR

SEAL ANT

GASKET 127-100

GASKET 127-100

127-102 SETTING BLOCK

127-100 GASKET

PUSH IN GASKET AS SHOWN. DO NOT USE EXTERIOR GASKET AT INTERIOR.

GLAZING GASKETS
INSTALL INTERIOR

JUST BEFORE INSTALLING INTERIOR GASKETS, FACE SEAL JOINTS AT ALL 4 CORNERS AND SEAL SCREW HEADS.

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

INSTALL SETTING BLOCKS

LOCATE SETTING BLOCKS PER APPROVED SHOP DRAWINGS OR DEADLOAD CHARTS.

INSTALL INTERIOR GLAZING GASKETS

SEAL ALL GASKET CORNERS COMPLETELY. SLIDE HORIZONTAL GASKET BACK AS SHOWN BELOW AND APPLY SEALANT. TOOL EXCESS SEALANT.

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

INSTALL INTERIOR GLAZING GASKETS

SEAL ALL CORNERS OF SPANDREL ADAPTERS.

SEAL ALL 4 GASKET CORNERS

SEAL ALL CORNERS OF SPANDREL ADAPTER CORNERS

SEAL ALL 4 SPANDREL ADAPTER CORNERS

SET GASKETS IN FRESH SEALANT AT EXPANSION JOINTS. TRIM GASKET DART OR CURED JOINT SEALANT TO CREATE AN AIR TIGHT SEAL.

1/4" INFILL OVER 1" INFILL

1/4" INFILL OVER 1" INFILL

1/4" INFILL SHOWN

1" INFILL SIMILAR

SEAL ANT

GASKET 127-100

GASKET 127-100

127-102 SETTING BLOCK

127-100 GASKET

PUSH IN GASKET AS SHOWN. DO NOT USE EXTERIOR GASKET AT INTERIOR.
INSTALL EXTERIOR GASKETS INTO PRESSURE PLATES

INSTALL GLASS

USE 162-350 GLAZING TEMPORARIES AS REQUIRED. APPLY WITH 128-520 SCREWS.

MAXIMUM TEMPORARY SPACING IS 30" IF MORE THAN A 50 MPH WIND IS EXPECTED. INSTALL PRESSURE PLATES.

1/2" GLASS BITE TYPICAL UNLESS OTHERWISE NOTED

1 INfill OVER 1/4" INFILL

VERTICAL GASKET TO BE SAME LENGTH AS PRESSURE PLATE.

HORIZONTAL GASKET TO BE SAME LENGTH AS PRESSURE PLATE.

AT PERIMETER SIDE OF VERTICAL OR HORIZONTAL PRESSURE PLATE, APPLY THE 127-100 INTERIOR GASKET. NOTE GASKET DIRECTION IS REVERSED.

INSTALL GLASS

MAKE VERTICAL TEMPORARIES FROM 168-220 PRESSURE PLATE 4 INCHES LONG AND 127-101 GASKET AS SHOWN BELOW.

WHEN ADJACENT GLASS HAS BEEN INSTALLED, USE PRESSURE PLATE TEMPORARY. 162-350 TEMPORARY CAN BE REMOVED AND USED IN ANOTHER LOCATION.

1 INfill OVER 1/4" INFILL

REMOVE TEMPORARY AFTER PRESSURE PLATE TEMPORARY HAS BEEN APPLIED

INSTALL GLASS SIDE BLOCKS

INSTALL SIDE BLOCKS COMPRESSING AS SHOWN
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.

4. Obtain new torque reading with the calibrated torque indicator. Repeat preceding step if more adjustment is necessary to reach desired limit.

3. Adjust nut (4) with open-end wrench: clockwise to increase torque, counter-clockwise to decrease torque.

2. Remove snap ring (2) and locking plate (3).

1. Attach any calibrated torque indicator to output stub (1) and determine present torque setting while holding the body (5), or vice-versa.

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 exterior pressure plates:

Install exterior pressure plates:

To set torque limit, follow the steps:
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.

Screws are to be located 9" 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 95 to 100 inch pounds. During cold weather, torque screws to 50 inch pounds until all 4 sides have been clamped. Then torque screws to 95 to 100 inch pounds.

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.

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.

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.
Install exterior pressure plates

Install horizontal pressure plates. Center horizontal pressure plates so end gaps are equal.

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.

Install vertical covers first.

Install exterior covers

Seal between vertical cover and end of horizontal pressure plates completely. Tool sealant. Keep cover snap area free of sealant on horizontal pressure plate. Typical at all joints.

Install exterior covers

Install exterior covers at vertical expansion joint.

Apply 168-241 splice sleeve in the top of the bottom cover with sealant.

Where applicable, install horizontal pressure plates with weep holes at horizontal locations above a vertical mullion splice.

Weep hole location

Joint plugs at mullions

Install exterior covers

At head, in addition to the seal shown above, apply backer rod in top of cover. Seal top of vertical cover completely. Extend seal back and marry to perimeter seal. Tool sealant. Keep cover snap area free of sealant on horizontal pressure plate. Typical at all joints at head.

1" infill over 1/4" infill

Install exterior covers

Section A-A

Face view

Section B-B

Top of pressure plate to top of cover is 4 1/2".
INSTALL EXTERIOR COVERS

INSTALL HORIZONTAL COVERS. CENTER ON DLO.

REMOVING COVERS

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

PRY BAR WITH SHARP POINT AND FLAT THIS SIDE

START AT ONE END TO DISSOLVE DO THIS IN PROGRESSION FOR THE COMPLETE LENGTH

WOOD OR PLASTIC SHIM