

IO&M

Louvers - 08.91.00

Maintenance of Nystrom/Airline Architectural Mechanical louvers is as follows:

- (1) Once a year check attachment hardware angle, bolts, screws, etc. for looseness: Tighten as required.
- (2) Once a year check caulking or sealant around perimeter of louver for cracking, distortion, shrinkage, etc. Replace caulking as required to prevent leakage.
- (3) Once a year check vertical and horizontal blade brace and angle bolts for looseness. Tighten as required to prevent blades from vibrating.
- (4) Louvers with clear or color anodized and mill finish are to be cleaned with warm, soapy water as required. Rinse with clean water to remove all cleaning agents.
- (5) Louvers with a baked enamel or Kynar 500 finish should be cleaned with a mild cleaning solution or with mild soapy water (nothing stronger than Tide powder detergent). Rinse with clear water to remove all cleaning agents.
- (6) If you have any questions, please call factory.

9300 73rd Ave. N Brooklyn Park, MN 55428 (800) 547-2635 FAX (800) 317-8770 www.airline.com

FIELD ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR EXTRUDED ALUMINUM STATIONARY LOUVERS

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FIELD ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR EXTRUDED ALUMINUM STATIONARY BLADE LOUVERS

This booklet is provided to offer basic assembly and installation instructions for standard Airline extruded aluminum stationary blade louvers. While these instructions should be useful for most standard models and applications, "special" louver designs or installation conditions may not be covered. If job-specific submittal/shop drawings were generated for the order, refer to them for special field assembly and installation details. Airline louvers are designed to withstand 20 psf windloads unless otherwise instructed. Since Airline louvers may be installed in a variety of substrates, installation fasteners to anchor the louver to the substrate are typically not designed or provided by Airline. Consult the Engineer of Record on your project for the size, type and quantity of fasteners required.

RECEIVING/INSPECTION

Upon delivery, inspect shipping containers and contents closely. If shipping containers are damaged, contents could also be damaged. Note any damage on trucker's delivery receipt. Contact the freight company within 24 hours for inspection. All products are shipped f.o.b. Airline plant; receiver of the shipments is responsible for filing freight claims with the freight company.

STORAGE

Store in an orderly manner at a safe location away from construction traffic, material, etc. to prevent damage. Cover with plastic sheeting to protect from excessive moisture, dirt and debris.

DRAWING EXPLANATION

This booklet contains several drawings that are provided for use in field assembly of multiple section louvers. Field assembly generally consists of joining frames and hidden vertical blade supports (HVBS) together. The style of construction dictates what type and how many of these joint connections are required. Airline extruded stationary blade louvers are constructed in two typical construction types: Visible Mullion and Architectural Style. Visible Mullion construction is typical with most drainable blade models. This construction utilizes perimeter frames and side frames on all louver sections. They may or may not have intermediate top and bottom frames on all sections. Architectural Style construction is typical with most non-drainable models. This construction utilizes frames only at the perimeter of the louver. Frames are not used on intermediate section joints. Both construction types typically utilize intermediate HVBS members within individual sections for windload support.

After the assembly and installation sections, exploded views of Visible Mullion and Architectural Style construction louvers with detail drawing callouts are provided. Following the exploded drawings are the detail drawings they reference which depict the louver frame and HVBS connections required for each. Identify which type of louver construction applies to your order and utilize the appropriate details to assemble the louvers.

PRE-ASSEMBLY

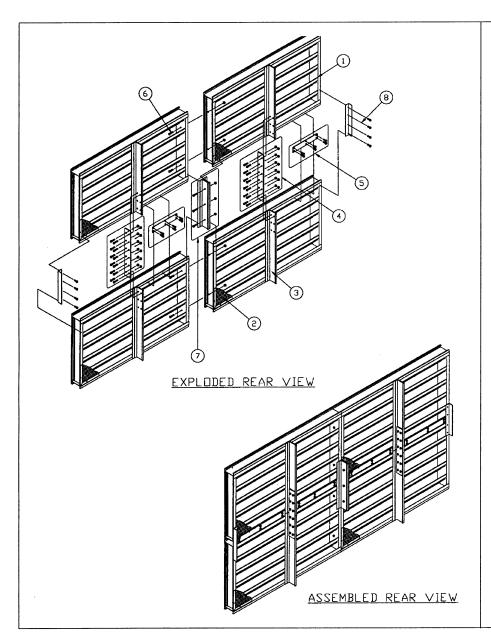
- 1. Remove louvers and accessories from shipping containers and inspect for damage. Single section units will be shipped fully assembled. Multiple section units will be shipped in shipping sections to be assembled at the job site. Large multiple section units may be packaged in more than one shipping crate. Reference the crate identification tags and bill of lading to determine crate contents. Care must be taken when handling components. Lift louver sections carefully by the supports or frames; avoid lifting by the louver blades. Do not apply excessive force to any one point of the section. Lift at multiple points, if necessary, to avoid deformation or racking of components.
- 2. Inspect louvers and components after removal from containers. Verify that all components and fasteners are accounted for. Use the exploded drawings and details found in this booklet to identify parts. Report any shortages immediately to the Airline plant that manufactured the louver(s).
- 3. Inspect the openings that the louvers will be installed in. Verify that the openings are square and that the unit will fit prior to installation. Check available installation depth for possible HVBS interference. IF HVBS must be notched or modified for installation, secure the HVBS to a suitable substrate as close to the modification as possible to maintain structural integrity. Contact your local Airline representative if you have questions pertaining to this or other field modifications.

SINGLE SECTION INSTALLATION

- 1. Install head and/or extended sill flashing in opening, if applicable (fasteners not provided by Airline). Caulk the heads of penetrating fasteners and any flashing joints.
- 2. If perimeter clip or continuous angles are utilized in installation, locate and anchor them in the opening.
- 3. Place the louver assembly in the opening.
- 4. Using shims, level the louver assembly both horizontally and vertically in the opening (shims are not provided by Airline). Position the louver in the opening so that the desired sealant joint will be maintained around the perimeter.
- 5. When louver is level and in proper position, install fasteners through the installation angles into the louver. If the louver is to be installed with fasteners through the frames into substrate or with glazing adapters into window frames, make these connections now.
- After louver is secured, install backer rod and sealant around louver perimeter (backer rod and sealant is not provided by Airline).

MULTIPLE SECTION ASSEMBLY/INSTALLATION

- 1. Install head and/or extended sill flashing in opening, if applicable (fasteners not provided by Airline). Long lengths of flashing will be provided in sections. Apply a continuous bead of caulk at heads of penetrating fasteners and any section seam where moisture could seep.
- 2. Locate loose-shipped hardware required for louver assembly.
- 3. Position the louver sections face down on a level, non-abrasive surface in the configuration they will be assembled in. Reference the tag numbers on each section to ensure the sections are in the correct order.
- 4. Fasten the sections together at the frame and HVBS joints. Refer to appropriate exploded and detail drawings in this booklet for splice hardware identification and location.
- 5. If perimeter clip or continuous angles are utilized in installation, locate and anchor them in the opening.
- 6. Carefully lift the assembled louver and place it in the opening. Be careful to lift by frames and HVBS members only; do not lift by louver blades.
- 7. Using shims, level the louver assembly both horizontally and vertically in the opening (shims are not provided by Airline). Position the louver in the opening so that the desired sealant joint will be maintained around the perimeter.
- 8. On architectural style units, check blade alignment at the vertical joints. Loosen section-connecting hardware and adjust the position of the sections as required to achieve good blade-to-blade alignment. When alignment is complete, tighten all section-connecting hardware.
- 9. When louver is level and in proper position, install fasteners through the installation angles into the louver. If the louver is to be installed with fasteners through the frames into substrate or by glazing adapters into window frames, make these connections now.
- 10. After louver is secured, install backer rod and sealant around louver perimeter (backer rod and sealant is not provided by Airline). Also apply backer rod and sealant at section joints where possible.



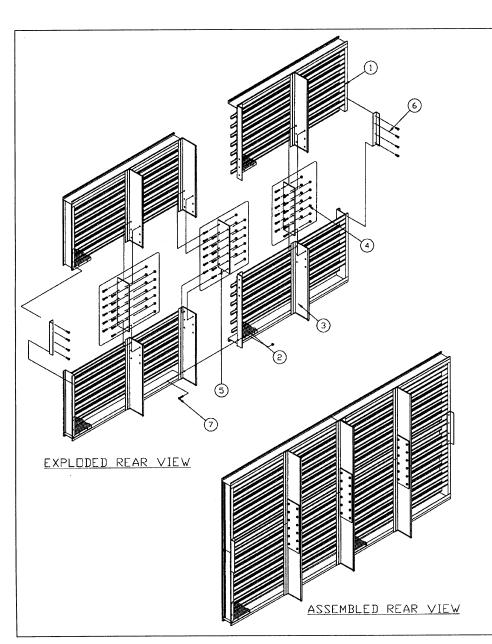
LEGEND

- (1) LOUVER SECTION
- (2) BIRD OR INSECT SCREEN (PARTIAL VIEW)
- (3) HIDDEN VERTICAL BLADE SUPPORT (H.V.B.S.)
- (4) HVBS SPLICE PLATE & FASTENERS, REF. DETAIL 163
- (5) HORIZONTAL FRAME SPLICE PLATE & FASTENERS, REF. DETAIL 904
- 6 VISIBLE VERTICAL MULLION SPLICE BOLT & NUT, REF. DETAIL 143 (SEE NOTES BELOW)
- 7 VISIBLE VERTICAL MULLION SPLICE MEMBER & FASTENERS (2 X 2 ASSEMBLY ONLY), REF. DETAIL 300
- (BY OTHERS) REF. DETAIL 165

NOTES

- 1) THE DETAIL NUMBERS REFERENCED ABOVE CORRESPOND WITH THE LAST THREE(3) DIGITS IN THE APPLICABLE DETAIL DRAWINGS IN THIS BOOKLET.

 EXAMPLE: 163 ABOVE = DWG. #70-020163-00B
- 2) FOR LOUVERS WITH BLADE CENTER TO CENTER SPACING OF 2" OR LESS, AND ALL CHEVRON STYLE MODELS, FRAME SPLICE PLATES & FASTENERS (REF. DETAIL 258) WILL BE PROVIDED IN PLACE OF MULLION SPLICE BOLTS.



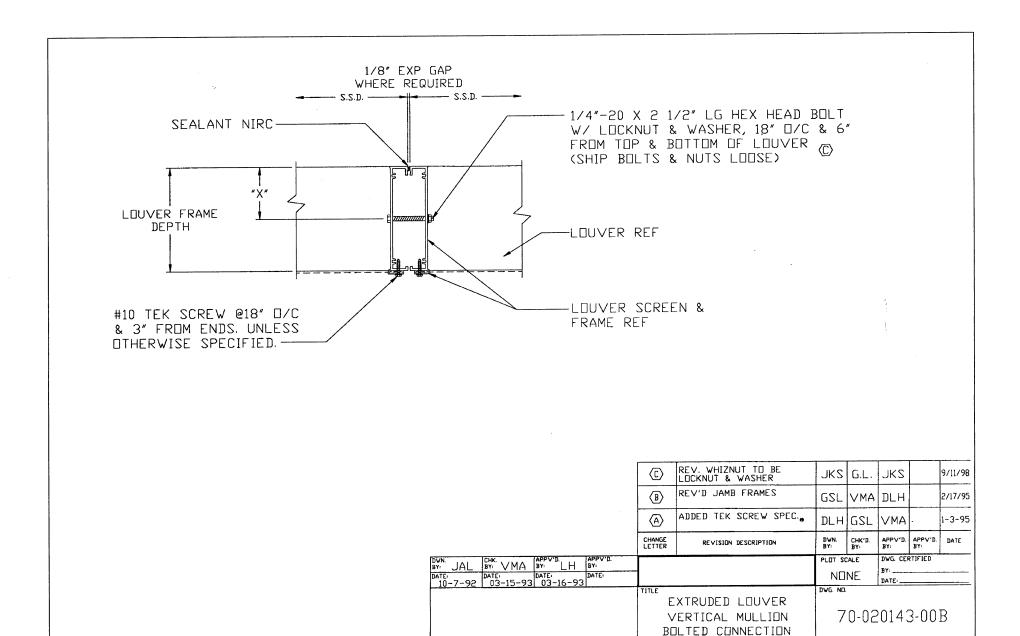
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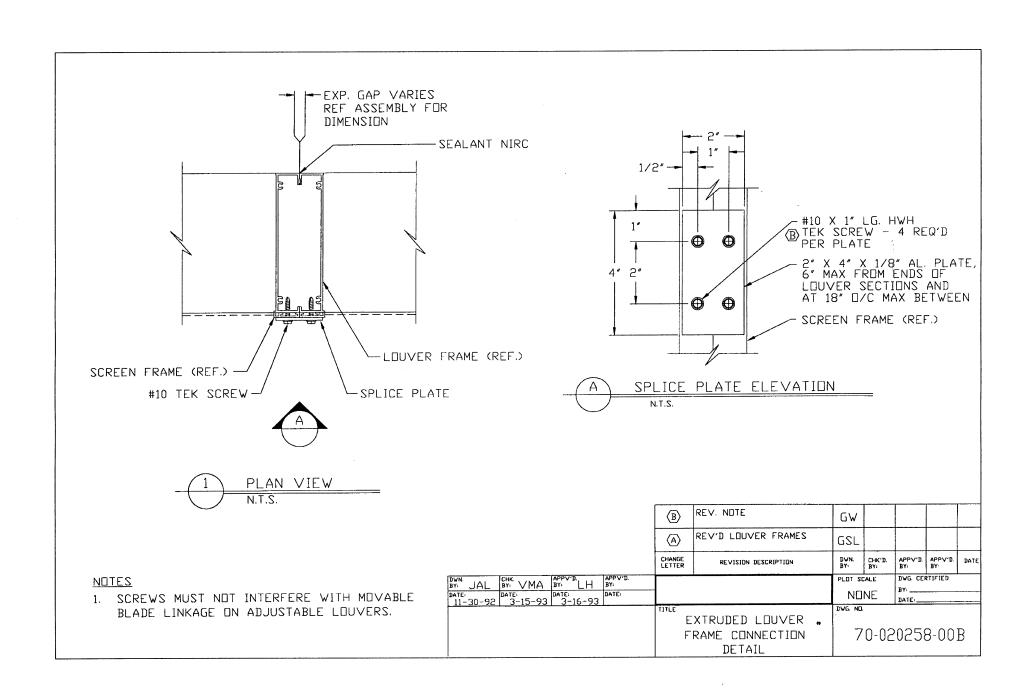
- (1) LOUVER SECTION
- (2) BIRD OR INSECT SCREEN (PARTIAL VIEW)
- (3) HIDDEN VERTICAL BLADE SUPPORT (H.V.B.S.)
- (4) HVBS SPLICE PLATE & FASTENERS, REF. DETAIL 163
- (5) HVBS VERTICAL & HORIZONTAL SPLICE PLATE & FASTENERS, REF DETAIL 164.
- (BY OTHERS) REF. DETAIL 165
- (7) ARCHITECTURAL JOINT CONNECTION BOLT, REF. DETAIL 162

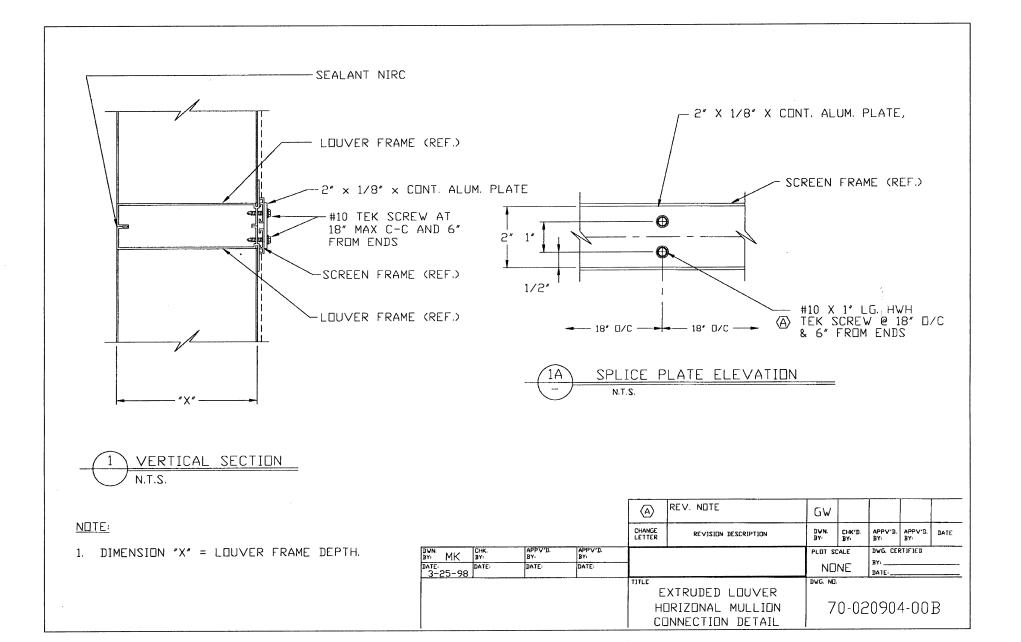
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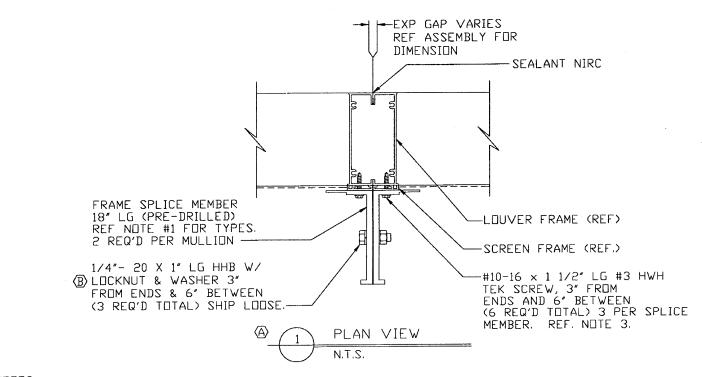
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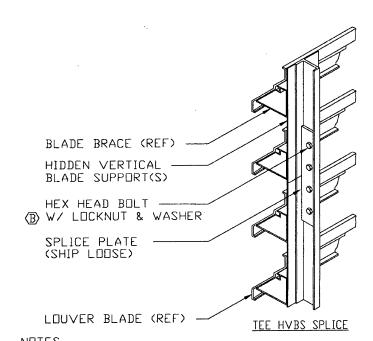


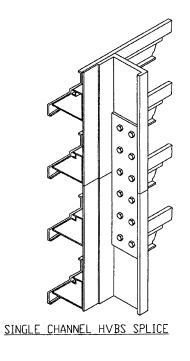


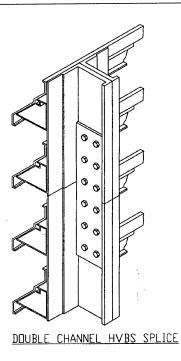
NOTES:

- (A)1. 2- 2" X 2" X 1/4" ALUM SUPPORT SPLICE ANGLES FOR 1 1/4", 1 1/2" & 2" DP. LOUVERS, 2- 70-020087-00B SUPPORT SPLICE CHANNELS FOR 3" & 4" DP. LOUVERS, AND 2- 70-020059-00B SUPPORT SPLICE CHANNELS FOR 5" & 6" DP. LOUVERS.
 - 2. INSTALLER MUST REMOVE THE FACTORY INSTALLED SCREEN FRAME SCREWS PRIOR TO INSTALLING SPLICE MEMBERS.
 - 3. ON MOVABLE LOUVERS LOCATE SCREWS
 TO AVOID INTEFERANCE W/CONCEALED LINKAGE.

				B	REV. SERRATED FLG. NUT TO BE LOCKNUT & WASHER	KDH G.L. JKS			9/11/98		
				(A)	REV'D FRAMES & SPLICE SUPPORTS	GSL	VMA	DLH		2/17/95	
				CHANGE LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D.	APPV'D. BY:	APPV'D. BY:	DATE	
N JAL		APPV'D. BY: LH	APP√'D. BY:			PLOT SC		DWG. CER	TIFIED		
TE: 10-7-92	3-15-93		DATE:			NΠ		DATE:			
				_	XTRUDED LOUVER VISIBLE MULLION SPLICE DETAIL	DVG. NO.		2030	0-00	В	
				l	SECTOR DELMIK	l				1	



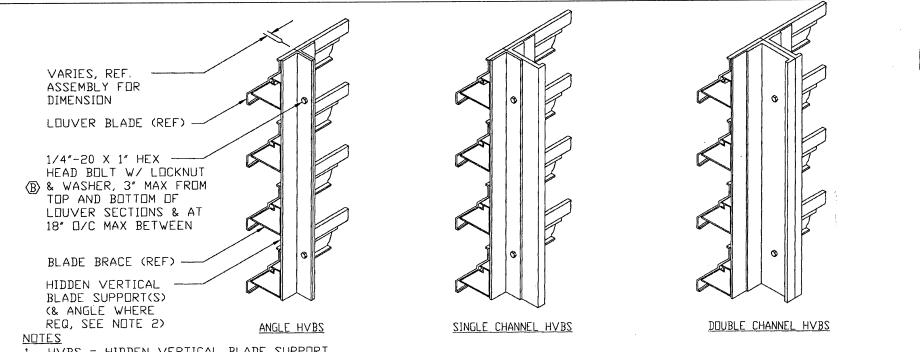




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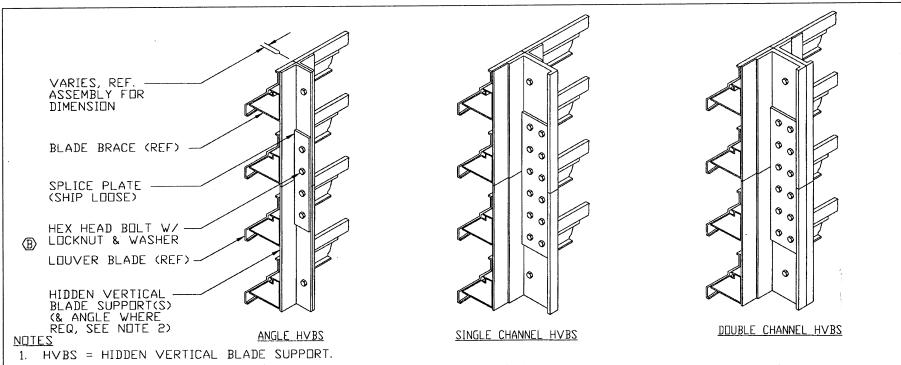
- 1. HVBS = HIDDEN VERTICAL BLADE SUPPORT.
- 2. REF ORDER OR DWGS FOR HVBS TYPE, OR INSPECT LOUVER ASSEMBLIES. REF DETAIL DWGS BELOW FOR SPLICE PLAN VIEW AND SPLICE PLATE PART DWGS.

DI ADE CHODEDE (III/DC) TVOE	DETAIL DVC #	7								
BLADE SUPPORT (HVBS) TYPE	DETAIL DWG #				REV. FLANGENUT TO BE		۱ ـ .			
(1) 70-020097-00B 3" TEE				B	LOCKNUT & WASHER	JK2	G.L.	JKS		9/11/98
(1) 70-020088-00B 3" CHANNEL	70-020167-00B				REV'D TITLE BLOCK &	1140		\ /\ A		2 (20 (05
(1) 70-020087-00B 4" CHANNEL	70-020168-00B			(A)	REMV'D DWG 70-020255-00B	JKS	U.L.	VMA		2/20/95
(1) 70-020059-00B 6" CHANNEL	70-020169 - 00B			CHANGE	REVISION DESCRIPTION	DWN.	CHK'D.	APPV'D.	APPV'D.	DATE
2) 70-020088-00B 3" CHANNELS	70-020170-00B			LETTER	AL VIOLEN BESSAL VIEW	BY:	BY:		BY:	
2) 70-020087-00B 4" CHANNELS	70-020171-00B	DVN. BY: JAL BY: VMA BY:	APPV'D. BY:				CALE	DWG. CER	TIFIED	
2) 70-020059-00B 6" CHANNELS	70-020172-00B	DATE: DATE: DATE:	DATE:	-		NONE		DATE:		
3" & 4" CHANNELS	70-020173-00B	9-16-92 2-17-93		TITLE		DWG. NO.		DATE		
3" & 6" CHANNELS	70-020174-00B			1X2 VERT ARCH						
4" & 6" CHANNELS	70-020175-00B]		STYLED SPLICE CONFIG.		5. 70-020163-		2-UU.		
							0-06	.010.	, 00.	D
]		FUR	EXTRUDED LOUVERS					



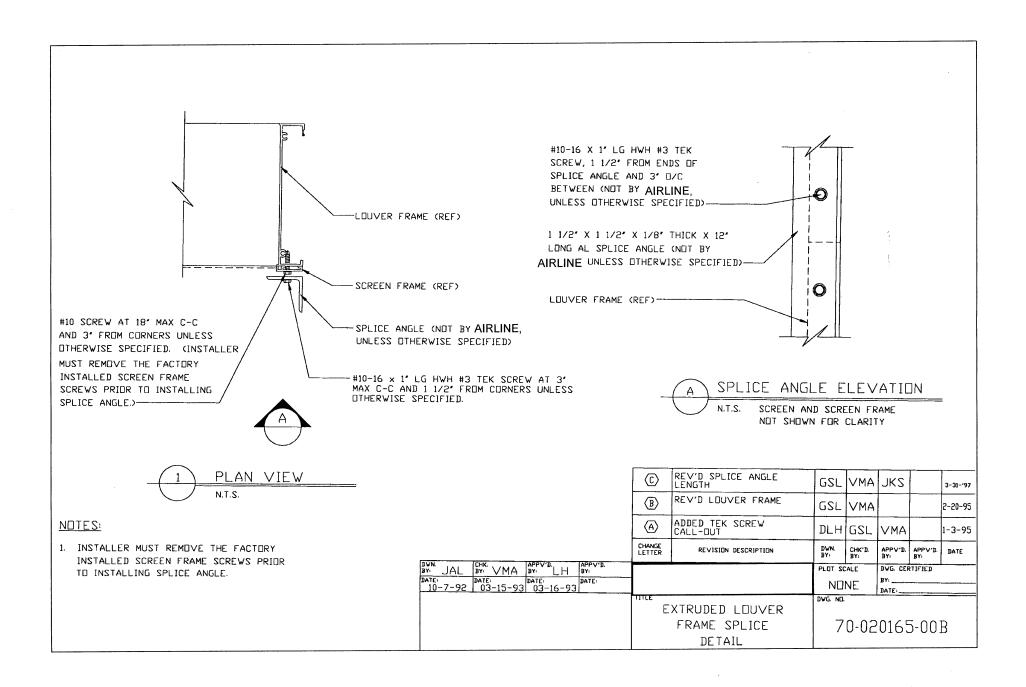
- 1. HVBS = HIDDEN VERTICAL BLADE SUPPORT.
- 2. REF ORDER OR DWGS FOR HVBS TYPE, OR INSPECT LOUVER ASSEMBLIES. REF DETAIL DWGS BELOW FOR BOLT LOCATION DIMENSIONS (PLANT ONLY).
- 3. LOUVERS WITH SINGLE ANGLE OR CHANNEL HVBS SHALL HAVE AN ANGLE ON ONE SIDE OF THE SHIP SECTION TO CONNECT WITH HVBS.
- 4. PLACE EXPANSION GAP SHIMS BETWEEN HVBS MEMBERS AND/OR ANGLES AT SHIP SECTIONS WHERE REQ. (SHIMS BY OTHERS)

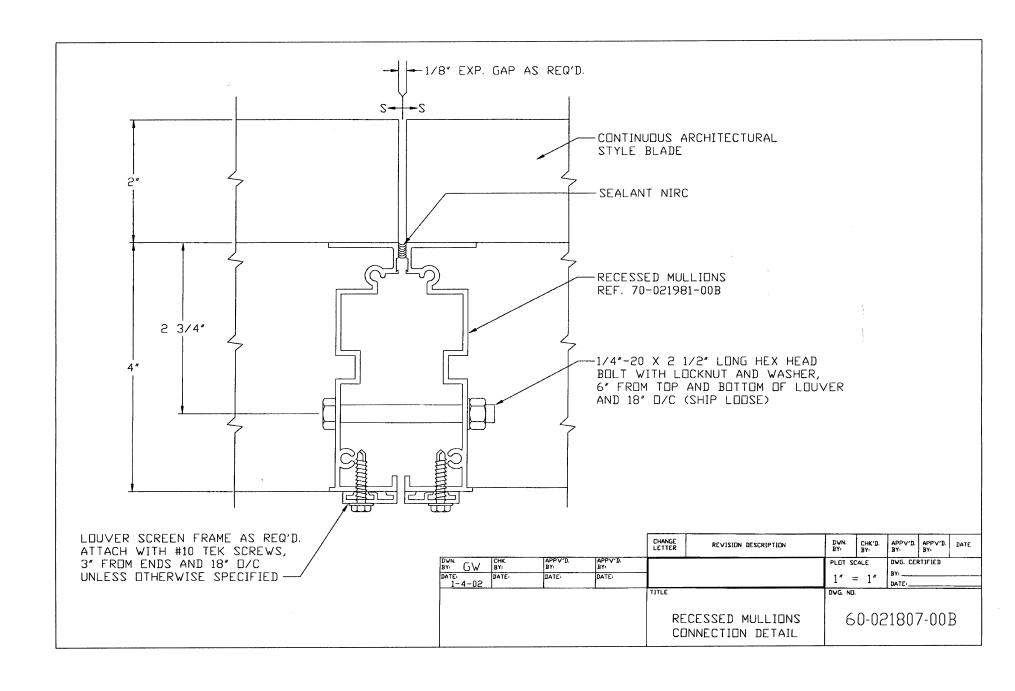
BLADE SUPPORT (HVBS) TYPE	DETAIL DWG #		(B)	REV. WHIZNUT TO BE LOCKNUT & WASHER	JKS	G.L.	JKS		9/11/98
2" X 2" 1/8" ALUM ANGLE (1) 70-020088-00B 3" CHANNEL	70-020466-00B 70-020177-00B		(A)	REV'D TITLE & REM'D DWG 176 & ADDED DWG 466	JKS	G.L.		VMA	2/20/95
(1) 70-020087-00B 4" CHANNEL (1) 70-020059-00B 6" CHANNEL	70-020178-00B 70-020179-00B		CHANGE LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D. BY:	APPV'D. BY:	APPV'D. BY:	DATE
(2) 70-020088-00B 3" CHANNELS (2) 70-020087-00B 4" CHANNELS	70-020180-00B 70-020181-00B	DVN. JAL CHK. VMA APPV'D. APPV'D. BY: DATE: DATE: DATE: DATE: DATE:			PLOT SO		DWG. CER	TIFIED	
(2) 70-020059-00B 6" CHANNELS 3" & 4" CHANNELS 3" & 6" CHANNELS	70-020182-00B 70-020183-00B 70-020184-00B	7 - 1 - 2 - 1	TITLE	DWG. ND.			o_∩∩`	D	
4" & 6" CHANNELS	70-020185-00B		STYLED SPLICE CONFIG			, 0 020102 0			D

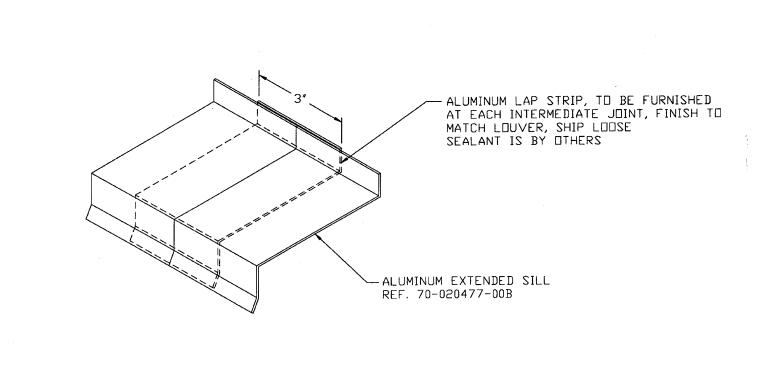


- 2. REF ORDER OR DWGS FOR HVBS TYPE, OR INSPECT LOUVER ASSEMBLIES. REF DETAIL DWGS BELOW FOR BOLT LOCATION DIMENSIONS (PLANT ONLY).
- 3. LOUVERS WITH SINGLE ANGLE OR CHANNEL HVBS SHALL HAVE AN ANGLE ON ONE SIDE OF THE SHIP SECTION TO CONNECT WITH HVBS.
- 4. PLACE EXPANSION GAP SHIMS BETWEEN HVBS MEMBERS AND/OR ANGLES AT SHIP SECTIONS WHERE REQ. (SHIMS BY OTHERS)

BLADE SUPPORT (HVBS) TYPE (1) 70-020088-00B 3" CHANNEL (1) 70-020087-00B 4" CHANNEL	70-020274-00B	ⓐ	(B)	REV. FLANGENUT TO BE LOCKNUT & WASHER REV'D TITLE BLOCK & REMV'D DWG 70-020272-00B	JK2 JK2		JS VMA		9/11/98 2/20/95
(1) 70-020059-00B 6" CHANNEL (2) 70-020088-00B 3" CHANNELS (2) 70-020087-00B 4" CHANNELS	70-020275-00B 70-020276-00B 70-020277-00B	DVN. BY. JAL BY. VMA BY. BY. BY.	CHANGE LETTER	REVISION DESCRIPTION	DWN. BY:	BYı	APPV'D. BY: DWG. CER	BY:	DATE
(2) 70-020087-00B 4 CHANNELS (2) 70-020059-00B 6" CHANNELS 3" & 4" CHANNELS	70-020278-00B 70-020278-00B 70-020279-00B	BY: JAL BY: VMA BY: BY: DATE: 9-21-92 2-18-93 DATE: DATE	TITLE		NO.		BY:		
3" & 6" CHANNELS 4" & 6" CHANNELS	70-020280-00B 70-020281-00B		2X2 STY FOR	1 70-020164-00				В	







				CHANGE LETTER	REVISION DESCRIPTION	DWN. BY:	BY:	APPV'D. BY:	APPV'D.	DATE		
DWN. BY: GW	CHK. BY:	APP√'D.	APPV'D. BY:			PLOT SI	CALE	DWG. CE	RTIFIED			
DATE: 1-4-02	DATE	DATE	DATE:			ND	NE	DATE:				
				1	EXTENDED SILL STALLATION DETAIL AT JOINT	DVG. NO		2180	8-00	В		

