AIROLITE®
The look that works.™

LOUVER TYPES
T9106X

Florida Product Approval No.: FL7708.5, 15720
UL Classified: R25376

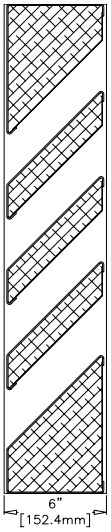
FLORIDA BUILDING CODE APPROVED ACOUSTIC LOUVER

Visible Mullion Louver Type	T9106X
Material	Formed Aluminum
Stationary Blade	0.080 in. (2 mm)
Frame	0.080 in. (2 mm)
Louver Depth	6 in. (152.4 mm)
Blade Angle	45˚
Free Area – 4 ft. x 4 ft. Unit	4.89 sq. ft. (0.45 m^2)
Percent Free Area	30.6%
Free Area Velocity at Beginning Point of Water Penetration – 0.01 oz H_2O/sq. ft. Free Area	799 fpm (4.059 m/s)
Air Volume Flow Rate at Beginning Point of Water Penetration – 4 ft. x 4 ft. Unit	3,907 cfm (1.84 m^3/s)
Pressure Drop at Beginning Point of Water Penetration	0.060 in. H_2O (0.015 kPa)
Maximum Qualified Wind Design Load*	+/- 200 PSF (9.6 kPa)

amca CERTIFIED RATINGS — WATER PENETRATION, SOUND AND AIR PERFORMANCE

amca INTERNATIONAL LISTED — IMPACT RESISTANT LOUVER *Enhanced Protection* — See www.AMCA.org for all certified or listed products — This label does not signify AMCA airflow performance certification

CLASSIFIED UL



RECOMMENDED SPECIFICATION

GENERAL
Furnish and install where indicated on plans or described in schedules acoustic Louver Type T9106X as designed and manufactured by The Airolite Company LLC, Schofield, Wisconsin. Louvers shall be Florida Building Code approved. Furnish louvers with bird screen, insect screen, sill pans, supports, installation hardware and finishes as specified and as required for a complete installation.

SUBMITTALS
Manufacturer shall submit shop drawings incorporating key plans, elevations, sections and details showing profiles, angles and spacing of louver blades and frames; unit dimensions related to wall openings and construction; and, anchorage details and locations. For each type of product specified, submit free area, air performance water penetration, and sound ratings determined in accordance with AMCA Standard 500-L and licensed under the AMCA Certified Ratings Program, as well as tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris. Include Florida Building Code Approval to demonstrate compliance with applicable codes. Provide samples of manufacturer's finish and color charts showing the full range of colors available.

PRODUCTS
Louvers shall be acoustic Louver Type T9106X with visible mullions and shall be Florida Building Code Approved. Louvers shall be 6-inches (152.4 mm) deep and assembled entirely from fabricated aluminum components. Blades and frames shall be 0.081-inch (2 mm) thick aluminum, alloy 3003-H32. Parallelogram shape blades shall be positioned at 45-degrees and spaced 5-inches (127 mm) on center. Each blade and top and bottom frame cavity shall be filled with fiberglass acoustic insulation to absorb the transmission of sound. Acoustic insulation shall be held in place by perforated aluminum panels.

STRUCTURAL DESIGN CRITERIA
Louvers installed in the Wind-Borne Debris Region shall be tested and certified to comply with Miami-Dade protocols TAS-201, TAS-202 and TAS-203. Louvers installed outside the Wind-Borne Debris Region shall be tested and certified to comply with Miami-Dade protocol TAS-202. In addition, louvers shall be tested to wind forces up to 200 psf. Louvers must be secured to a structural substrate in accordance with Florida Building Code approved drawings. In addition, the structural substrate must be designed to accommodate the point loads transferred by the louvers when subject to the design wind loads.

PERFORMANCE RATINGS

FREE AREA:	4.89 Square Feet (0.45 m^2)
MINIMUM FREE AREA VELOCITY at Beginning Point of Water Penetration:	799 fpm (4.059 m/s)
MINIMUM AIR VOLUME FLOW RATE at Beginning Point of Water Penetration:	3,907 cfm (1.84 m^3/s)
MAXIMUM STATIC PRESSURE at Beginning Point of Water Penetration:	0.060 in. H_2O (0.016 kPa)

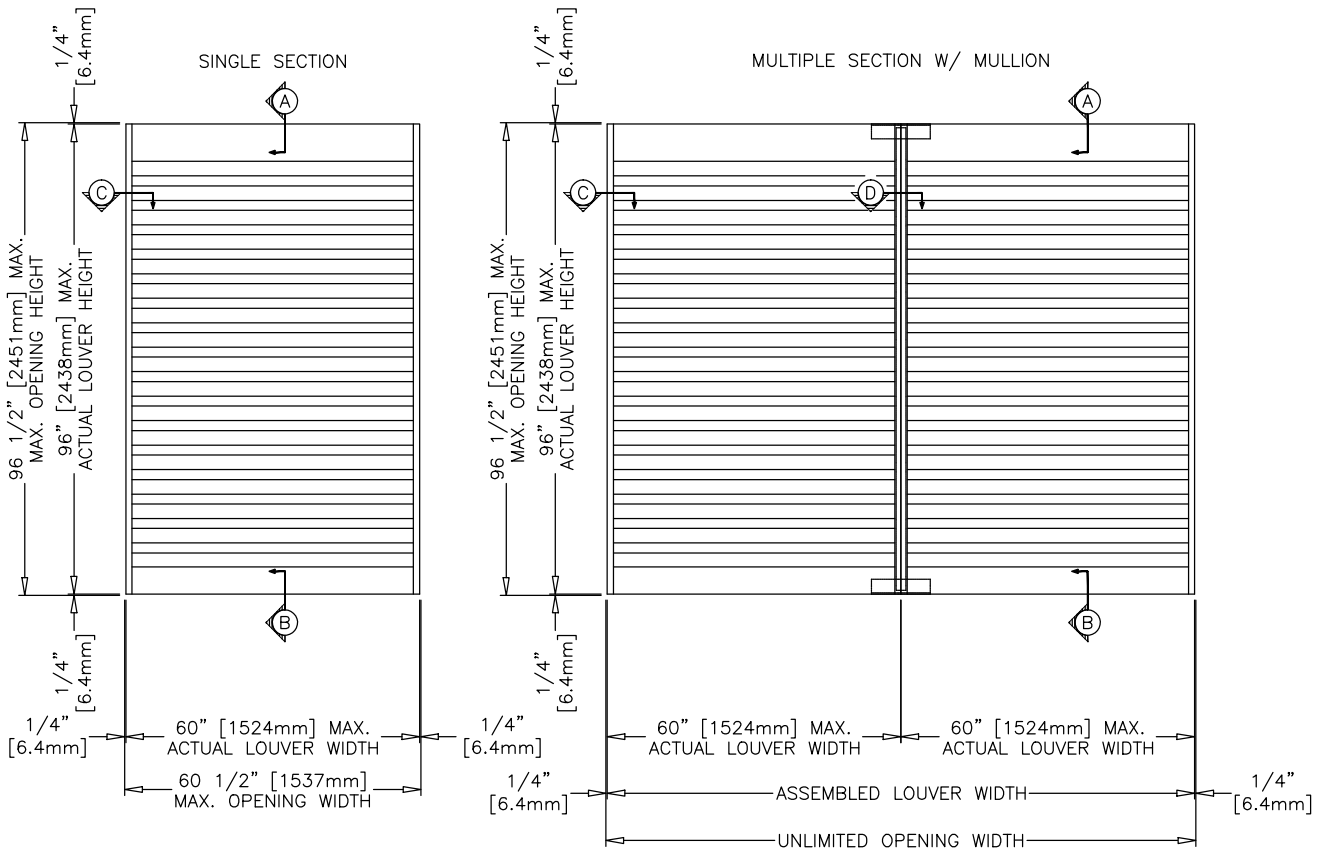
See page 6 for complete finish options

*UL Classified as a Wind Restrictive Building Component in accordance with ASTM E330-02, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference* (Florida Building Code TAS-202-94).

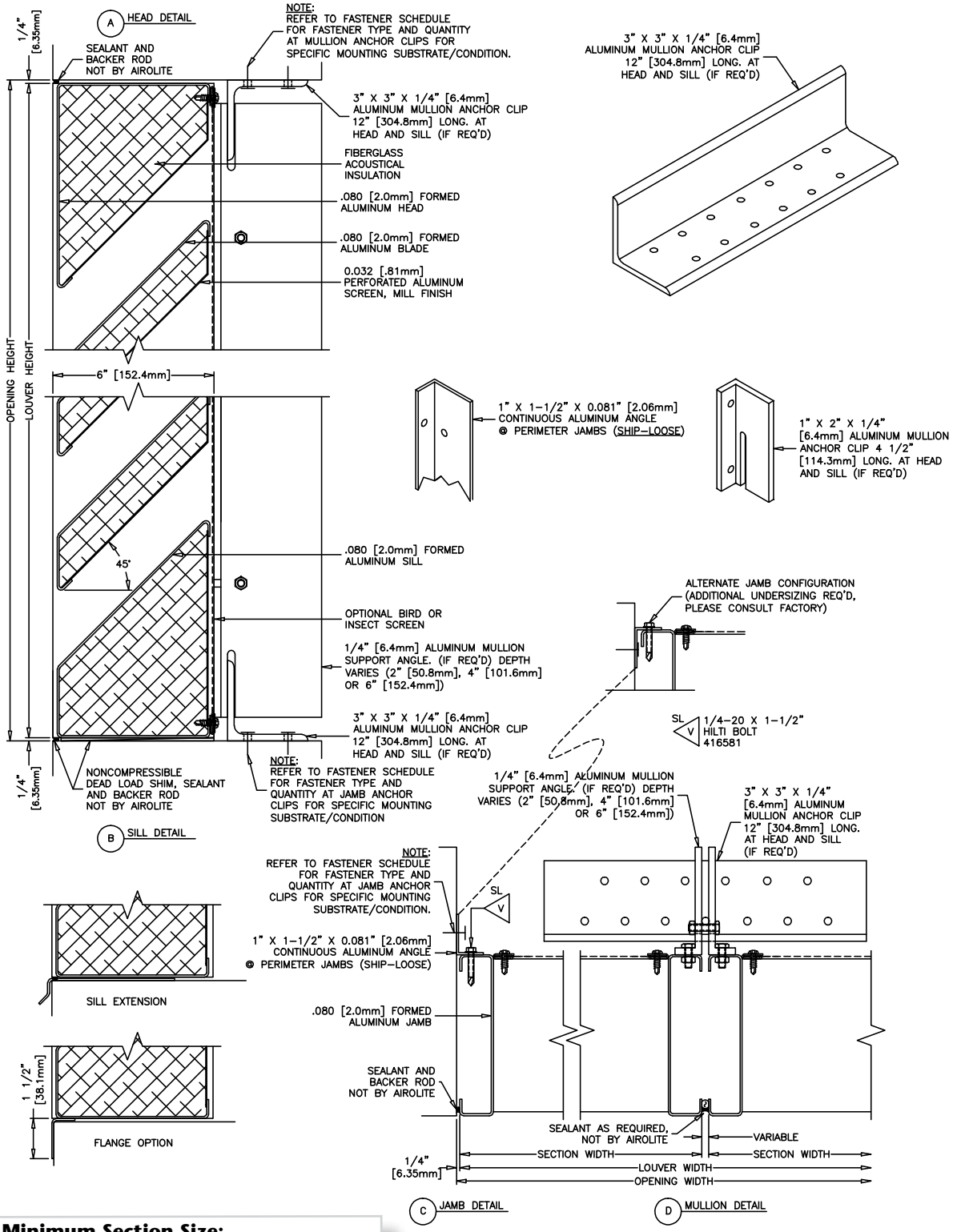
LOUVER TYPE T9106X PRODUCT DESCRIPTION & DETAILS

AIROLITE LOUVER TYPE T9106X is a 6-inch (152.4 mm) deep, parallelogram blade, acoustic louver that is Florida Building Code approved for use in the Wind-Borne Debris Zone. The Florida Building Code requires louvers installed in the Wind-Borne Debris Zone to be tested and certified to comply with Miami-Dade protocols TAS-201, *Large and Small Missile Impact*; TAS-202, *Criteria for Testing Impact and Not Impact Resistant Building Envelope Components Using Static Uniform Air Pressure*; and, TAS-203, *Criteria for Testing Product Subject to Cyclic Wind Pressure*. Louvers installed outside the Wind-Borne Debris Zone must be tested and certified to comply with Miami-Dade protocol TAS-202, *Criteria for Testing Impact and Not Impact Resistant Building Envelope Components Using Static Uniform Air Pressure*. Louver Type utilizes the energy-absorbing characteristics of acoustic insulation fibre to restrict the transmission of high and low frequency sound generated by mechanical equipment. Consequently, Louver Type K6744X is a highly effective louver with AMCA Licensed air performance, water penetration and sound ratings, as well as tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris that enable designers to select and specify this product with confidence. Please contact your local Airolite representative or the factory for assistance with the layout an design of support systems when required.

QUALIFIED SHAPES



LOUVER TYPE T9106X PRODUCT DETAILS



Minimum Section Size:

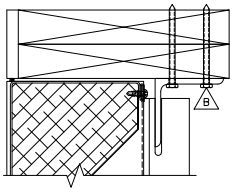
12 in. (30 cm) W x 15 in. (38 cm) H

Maximum Section Size:

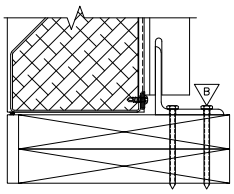
60 in. (152 cm) W x 96 in. (244 cm) H

LOUVER TYPE T9106X INSTALLATION DETAILS

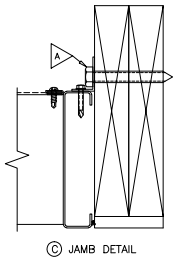
WOOD OPENING



Ⓐ HEAD DETAIL AT MULLION

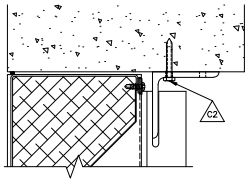


Ⓑ SILL DETAIL AT MULLION

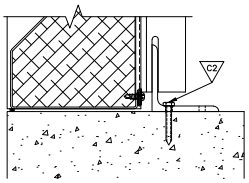


Ⓒ JAMB DETAIL

MASONRY OPENING



Ⓐ HEAD DETAIL AT MULLION



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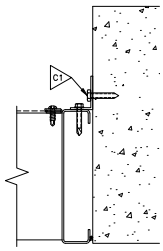
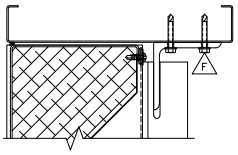


Ⓒ JAMB DETAIL

STEEL STUD OPENING



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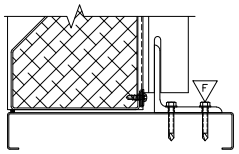

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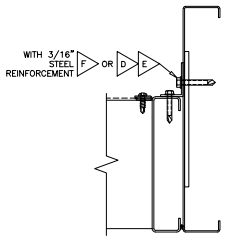
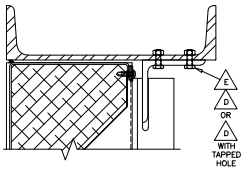
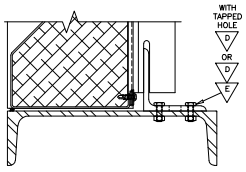


Ⓒ JAMB DETAIL

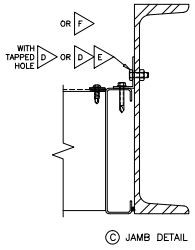
STRUCTURAL STEEL OPENING



Ⓐ HEAD DETAIL AT MULLION



Ⓑ SILL DETAIL AT MULLION



Ⓒ JAMB DETAIL

FASTENER SCHEDULE (FIELD INSTALLED - NOT BY AIROLITE)							
MOUNTING SUBSTRATE	**FASTENER TYPE**	**DESCRIPTION**	**ANCHOR CLIP LOCATION**	**QUANTITY**	**MIN. EMBED.**	**MIN. EDGE DIST.**	**MIN. SPACING**
WOOD	A	1/2" DIA. LAG SCREW	JAMB	VARIES	3"	2 1/2"	6.5"
WOOD	B	1/4" DIA. LAG SCREW	VERT. MULLION (HEAD/SILL)	12 PER CLIP	3"	1/2"	2"
CONCRETE	C1	1/4" DIA. TAPCON ANCH.	JAMB	VARIES	1.25"	1"	3.25"
CONCRETE	C2	1/4" DIA. TAPCON ANCH.	VERT. MULLION (HEAD/SILL)	7 PER CLIP	1.75"	2.5"	2"
MASONRY BLOCK	C1	1/4" DIA. TAPCON ANCH.	JAMB	VARIES	1.25"	1"	3.25"
MASONRY BLOCK	C2	1/4" DIA. TAPCON ANCH.	VERT. MULLION (HEAD/SILL)	7 PER CLIP	1.75"	2.5"	2"
STEEL STUD	D & E	1/4" DIA. BOLT & NUT	JAMB	VARIES	THRU BOLT	1/2"	6.5"
STEEL STUD (3/16" STEEL REINFORCED)	F	1/4" DIA. DRILL FLEX	JAMB	VARIES	FULL	1/2"	6.5"
STEEL STUD	G	1/4" DIA. DRILL FLEX	VERT. MULLION (HEAD/SILL)	12 PER CLIP	FULL	1/2"	2"
STRUCTURAL STEEL	D & E	1/4" DIA. BOLT & NUT	JAMB	VARIES	THRU BOLT	1/2"	6.5"
STRUCTURAL STEEL	D	1/4" DIA. BOLT	JAMB (FIELD DRILL & TAP HOLE)	VARIES	FULL	1/2"	6.5"
STRUCTURAL STEEL	F	1/4" DIA. DRILL FLEX	JAMB	VARIES	FULL	1/2"	6.5"
STRUCTURAL STEEL	D & E	1/4" DIA. BOLT & NUT	VERT. MULLION (HEAD/SILL)	4 PER CLIP	THRU BOLT	1/2"	6.5"
STRUCTURAL STEEL	D	1/4" DIA. BOLT	VERT. MULLION (HEAD/SILL) FIELD DRILL & TAP HOLE	4 PER CLIP	FULL	1/2"	6.5"
STRUCTURAL STEEL	F	1/4" DIA. DRILL FLEX	JAMB	VARIES	FULL	1/2"	6.5"

GENERAL NOTES:
1. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE LOUVERS.
2. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED.
3. WOOD SUBSTRATE TO BE MINIMUM G = 0.42 DENSITY.
4A. CONCRETE SUBSTRATE TO BE MINIMUM 3,192 PSI CONCRETE OR 3,192 PSI GROUT FILLED ASTM C-90 HOLLOW BLOCK AT HEAD/SILL MULLION ANCHORS.
4B. CONCRETE SUBSTRATE TO BE MINIMUM 3,192 PSI CONCRETE OR ASTM C-90 HOLLOW BLOCK AT JAMB ANCHORS.
5. STEEL STUD OPENINGS (16 GA. MINIMUM THICKNESS) TO BE MINIMUM Fy = 33 ksi.
6. STRUCTURAL STEEL OPENINGS (1/4" MINIMUM THICKNESS) TO BE MINIMUM Fy = 36 ksi.

LOUVER TYPE T9106X PERFORMANCE RATINGS

FREE AREA CHART - in square feet

Louver Height Inches	Louver Width in Inches								
	12	18	24	30	36	42	48	54	60
15	0.13	0.21	0.29	0.37	0.45	0.53	0.61	0.69	0.77
18	0.25	0.42	0.57	0.74	0.90	1.06	1.22	1.38	1.55
24	0.38	0.62	0.86	1.10	1.35	1.59	1.83	2.08	2.32
30	0.50	0.82	1.15	1.47	1.80	2.12	2.45	2.77	3.09
36	0.63	1.03	1.44	1.84	2.25	2.65	3.06	3.46	3.87
42	0.75	1.24	1.72	2.21	2.70	3.18	3.67	4.15	4.64
48	1.00	1.65	2.30	2.95	3.59	4.24	4.89	5.54	6.19
54	1.12	1.85	2.58	3.31	4.04	4.77	5.50	6.23	6.96
60	1.25	2.03	2.87	3.68	4.49	5.30	6.11	6.92	7.73
66	1.37	2.27	3.16	4.05	4.94	5.83	6.72	7.61	8.51
72	1.50	2.47	3.44	4.42	5.39	6.36	7.33	8.31	9.28
78	1.75	2.88	4.02	5.15	6.29	7.42	8.56	9.69	10.83
84	1.87	3.09	4.31	5.52	6.74	7.95	9.17	10.38	11.60
90	2.00	3.30	4.59	5.89	7.19	8.48	9.78	11.08	12.37
96	2.12	3.50	4.88	6.26	7.64	9.01	10.39	11.77	13.15

The Airolite Company, LLC certifies that Louver Type T9106X shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Water Penetration, Air Performance and Sound.

IMPACT RESISTANT LOUVER
Enhanced Protection

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification

The Airolite Company, LLC certifies that Louver Type T9106X shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordane with AMCA Publications and comply with the requirements of the AMCA Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers.

WATER PENETRATION

(Standard Air - .075 lb./ft.^{3}; Test Size - 48 in. x 48 in.; Test Duration - 15 min.)

The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The point of zero water penetration is defined as that velocity where the water penetration curve projects through .01 oz. of water (penetration) per sq. ft. of louver free area. ***The beginning point of water penetration for Louver Type T9106X is 799 fpm free area velocity**. These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.

Sound Transmission Class (STC)

The Sound Transmission Class (STC) is a rating of the effectiveness of an assembly in isolating or reducing airborne sound transmission. STC is a single number that summarizes airborne sound transmission loss data. Assemblies with higher STC ratings are more efficient at reducing sound transmission. STC is determined in accordance with ASTM E413-04.

Outdoor Indoor Transmission Class (OITC)

Transmission Loss (TL) is a measurement of the reduction of sound power transmission (dB) through an assembly at a given frequency. The more sound power that is reduced, the greater the TL. TL is tested and determined in accordance with ASTM E90-04.

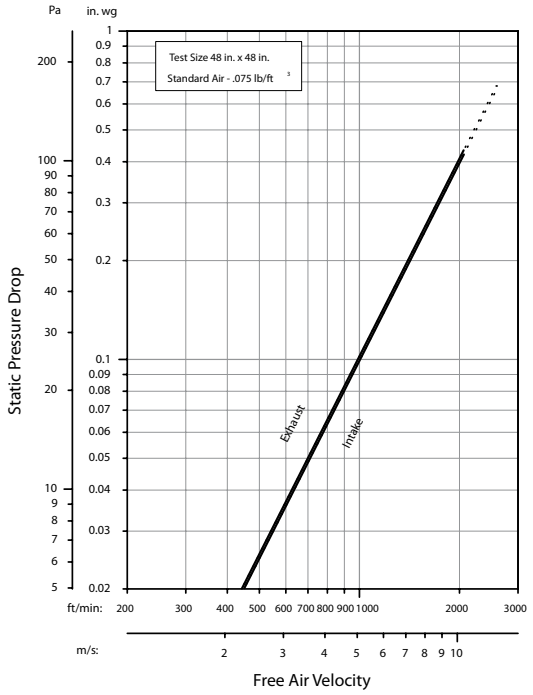
Free Field Noise Reduction in Decibels

Free Field Noise Reduction is determined by adding 6 dB to the Transmission Loss.

Octave Band	2	3	4	5	6	7	STC
Frequency (Hz)	125	250	500	1000	2000	4000	10
Transmission Loss (dB)	4	4	6	10	17	12	
Free Field Noise Reduction (dB)	10	10	12	16	23	18	

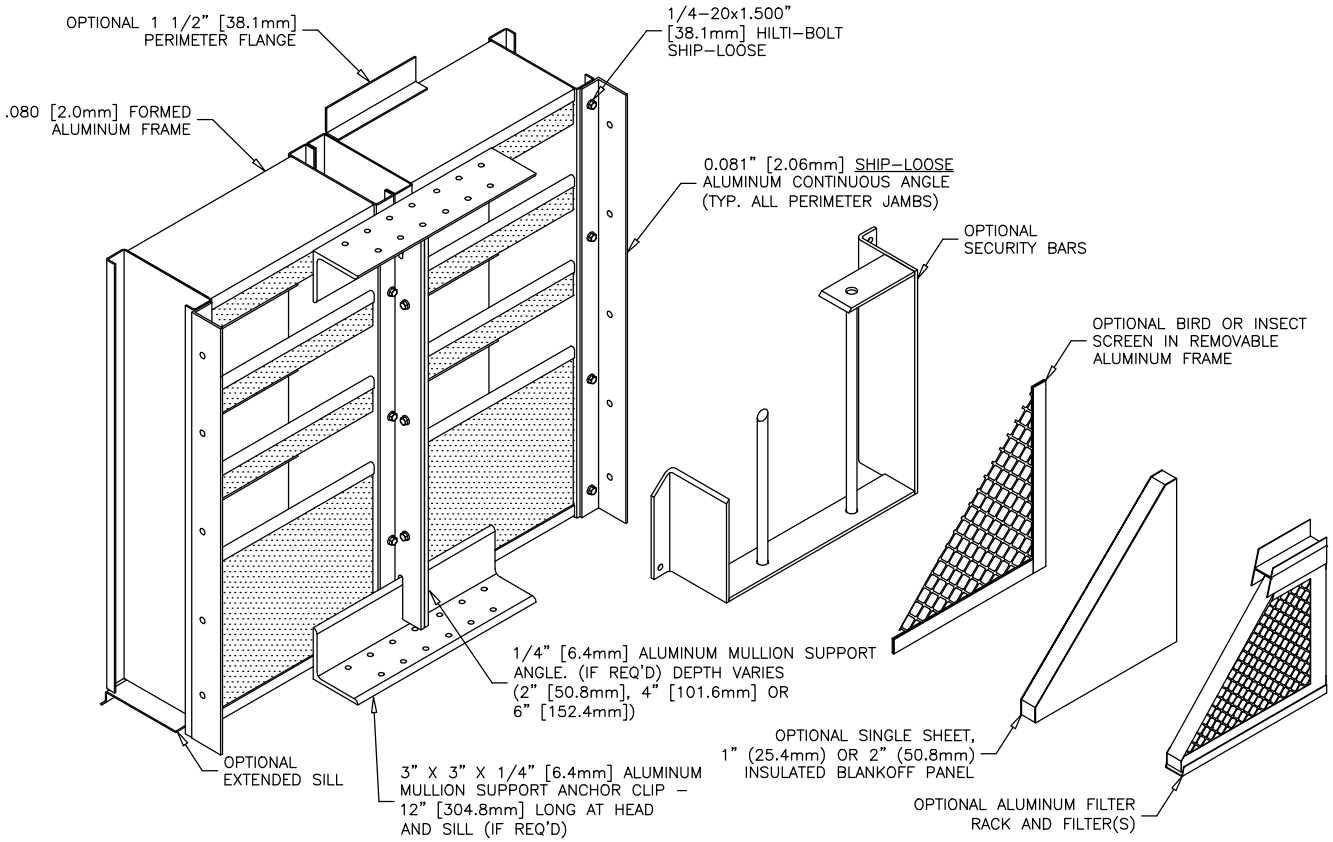
AIRFLOW RESISTANCE

(Standard Air - .075 lb./ft.^{3})



Louver Type T9106X resistance to airflow is shown with louver blades fully open. Resistance (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. (Test Figure: 5.5-6.5)

LOUVER TYPE T9106X
METHOD OF INSTALLATION & ACCESSORY OPTIONS



FINISHES (Select one of the following)

ACRYLIC ENAMEL: Louvers shall be cleaned, pretreated and FINISHED-AFTER-ASSEMBLY with an oven-cured thermosetting acrylic enamel finish that meets or exceeds the performance requirements of AAMA 2603, "Voluntary Specification Performance Requirements and Test Procedures for Pigmented Organic Coatings."

2-COAT FLUOROPOLYMER: Louvers shall be cleaned, pretreated and FINISHED-AFTER-ASSEMBLY with an inhibitive primer and oven-cured Kynar 500® / Hylar 5000® resin coating with minimum 1.2 mils dry-film coating thickness that meets or exceeds the performance requirements of AAMA 2605, "Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Aluminum Extrusions and Panels."

3-COAT FLUOROPOLYMER: Louvers shall be cleaned, pretreated and FINISHED-AFTER-ASSEMBLY with an inhibitive primer and oven-cured Kynar 500® / Hylar 5000® resin coating with minimum 2.0 mils dry-film coating thickness that meets or exceeds the performance requirements of AAMA 2605, "Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Aluminum Extrusions and Panels."

CLEAR ANODIZE*: Louvers shall be FINISHED-AFTER-ASSEMBLY with a Class I clear anodized coating (AA-M10C22A41) that complies with the performance requirements of AAMA Specification 611-98, "Voluntary Specification for Anodized Architectural Aluminum."

COLOR ANODIZE*: Louvers shall be FINISHED-AFTER-ASSEMBLY with a Class I electrolytically color anodized coating (AA-M10C22A42/44) that complies with the performance requirements of AAMA Specification 611-98, "Voluntary Specification for Anodized Architectural Aluminum." Color shall be (select one): Champagne, Light Bronze, Medium Bronze, Dark Bronze, Extra Dark Bronze or Black Anodize.

*Available only on aluminum construction.

AIROLITE®
The look that works.™
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