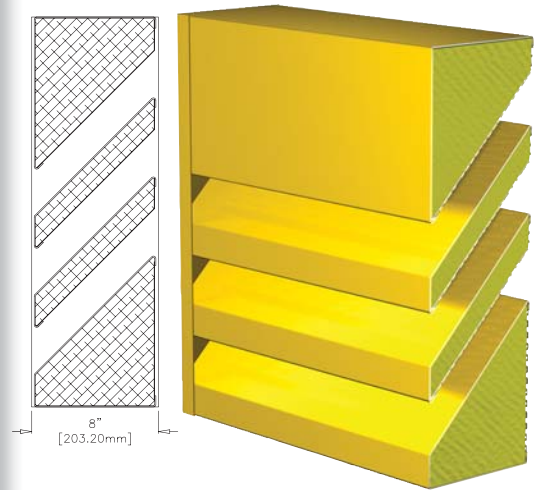


## PARALLELOGRAM BLADE ACOUSTIC LOUVER

<b>Visible Mullion Louver Type</b> .....	T9108	9108
<b>Concealed Mullion Louver Type</b> .....	CB9108	FCB9108
<b>Material</b> .....	Formed Aluminum (Alloy 3003-H32)	Galvanized Steel
<b>Stationary Blade</b> .....	0.080 in. (2 mm)	18 Gauge
<b>Frame</b> .....	0.080 in. (2 mm)	16 Gauge
<b>Louver Depth</b> .....	8 in. (203.2 mm)	8 in. (203.2 mm)
<b>Blade Angle</b> .....	45°	45°
<b>Free Area – 4 ft. x 4 ft. Unit</b> .....	4.28 sq. ft. (0.40m <sup>2</sup> )	4.28 sq. ft. (0.40 m <sup>2</sup> )
<b>Percent Free Area</b> .....	26.8%	26.8%
<b>Free Area Velocity at Beginning Point of Water Penetration – 0.01 oz H<sub>2</sub>O/sq. ft. Free Area</b> .....	887 fpm (4.51 m/s)	887 fpm (4.51 m/s)
<b>Air Volume Flow Rate at Beginning Point of Water Penetration – 4 ft. x 4 ft. Unit</b> ..	3,798 cfm (1.79 m <sup>3</sup> /s)	3,798 cfm (1.79 m <sup>3</sup> /s)
<b>Pressure Drop at Beginning Point of Water Penetration</b> ..	0.074 in. H <sub>2</sub> O (0.018 kPa)	0.074 in. H <sub>2</sub> O (0.018 kPa)



### RECOMMENDED SPECIFICATION

#### GENERAL

Furnish and install where indicated on plans or described in schedules Acoustic Louver Type T9108 designed and manufactured by The Airlite Company LLC, Schofield, Wisconsin. Louvers shall be furnished with bird screen, insect screen, supports, installation hardware and finishes as specified and as required for a complete installation. If aluminum construction is preferred, specify Louver Type T9108 with visible vertical mullions or Louver Type CB9108 with concealed vertical mullions. If galvanized steel construction is preferred, specify Louver Type 9108 with visible mullions or Louver Type FCB9108 with concealed vertical mullions.

#### 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. Submit theoretical calculations prepared by a professional engineer specializing in the application of welding technology demonstrating that each fillet weld joining blade and frame members will withstand a minimum of 526 pounds of force in shear. Provide samples of manufacturer's finish and color charts showing the full range of colors available. For each type of product specified, submit free area, air performance, water penetration and sound ratings determined in accordance with AMCA Standard 500-L 99 and licensed under the AMCA Certified Ratings Program.

#### PRODUCTS

Louvers shall be acoustic type incorporating stationary, parallelogram blades in a single frame. Louvers shall be 8-inches (203.2 mm) deep and assembled entirely from fabricated aluminum components (or select material type from the table above). Blades and frames shall be 0.080-inch (2 mm) thick aluminum, alloy 3003-H32 (or select material thickness and material from the table above). 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 0.032-inch (0.81 mm) thick perforated aluminum panels.

#### ALL-WELDED ASSEMBLY

Join stationary blade and frames and frame members with fillet welds concealed from view, unless the size of the louver makes bolted connections between louver sections necessary. Louver blades shall be joined to each jamb frame with a minimum of two fillet welds produced with the Pulsed Gas Metal Arc Welding (GMAW/Mig) process. Each weld shall be a minimum of 1-inch (25.4 mm) in length with a minimum 1/8-inch (3.175 mm) leg. Frames shall be joined at each corner with a full-length GMAW fillet weld with a minimum 1/8-inch (3.175 mm) leg.

#### STRUCTURAL DESIGN CRITERIA

Manufacturer shall design and furnish all supports required to withstand a wind force of not less than 25 pounds per square foot. Louvers larger than 60-inches (152 cm) wide x 120-inches (305 cm) high will be fabricated and installed in multiple sections. Louver blades, frames, mullions and anchorages shall be demonstrated to withstand the specified wind design load.

#### PERFORMANCE RATINGS

FREE AREA:	4.28 Square Feet (0.40 m <sup>2</sup> )
MINIMUM FREE AREA VELOCITY at Beginning Point of Water Penetration:	887 fpm (4.51 m/s)
MINIMUM AIR VOLUME FLOW RATE at Beginning Point of Water Penetration:	3,798 cfm (1.79 m <sup>3</sup> /s)
MAXIMUM STATIC PRESSURE at Beginning Point of Water Penetration:	0.074 in. H <sub>2</sub> O (0.018 kPa)

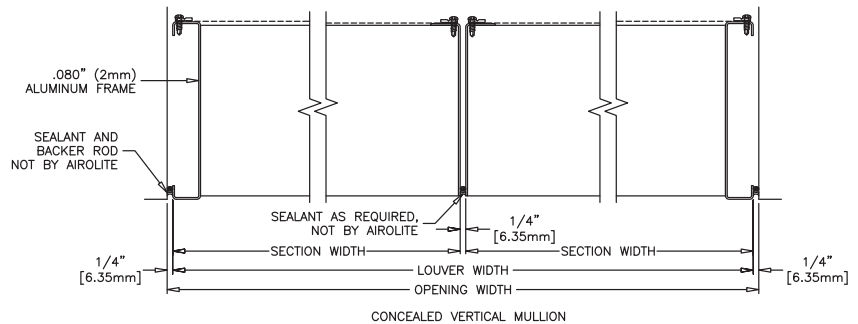
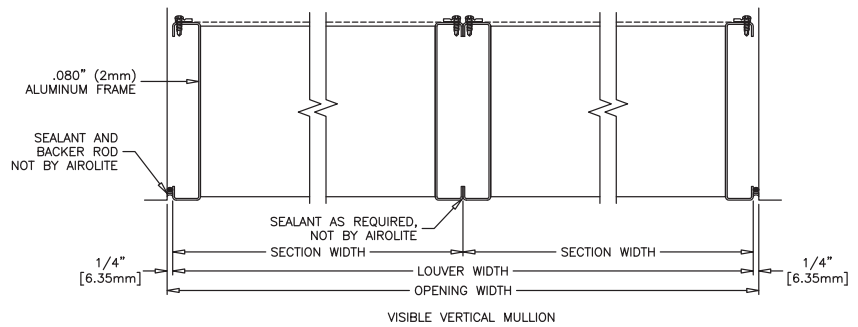
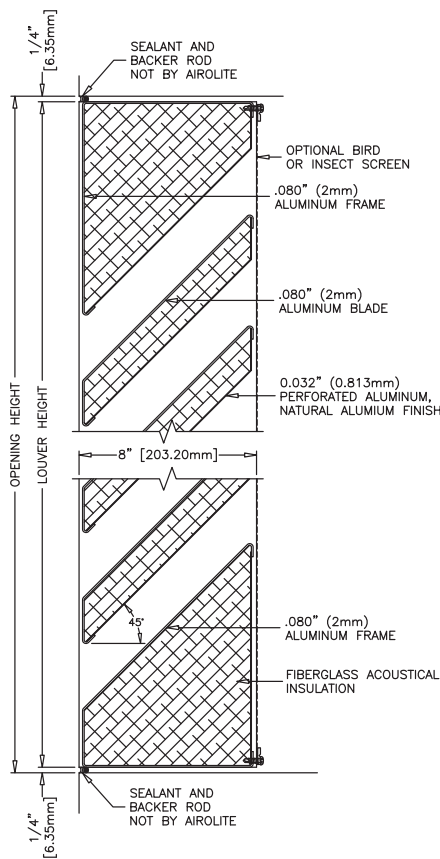
See page 4 for complete finish options

# LOUVER TYPE T9108 PRODUCT DESCRIPTION & DETAILS

In addition to use as an exterior weather louver, 8-inch (203.2 mm) deep Airlite Louver Type T9108 effectively prevents the transmission of high and low frequency sounds generated from mechanical equipment. Acoustic louvers are frequently utilized in the design of compressor rooms, pumping stations, generator installations and cooling tower enclosures to ensure compliance with code limitations on sound transmission levels. Louver Type T9108 is an parallelogram blade design with AMCA Licensed Air Performance, Water Penetration and Sound Ratings that enable designers to select and specify this product with confidence. If aluminum construction is preferred, specify Louver Type T9108 with visible vertical mullions or Louver Type CB9108 with concealed vertical mullions. If galvanized steel construction is preferred, specify Louver Type 9108 with visible mullions or Louver Type FCB9108 with concealed vertical mullions. Please contact your local Airlite representative or the factory for assistance with the layout and design of support systems when required.

## VERTICAL SECTION DETAIL

## PLAN SECTION DETAIL



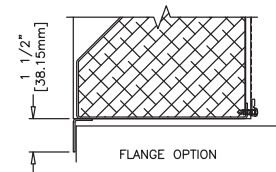
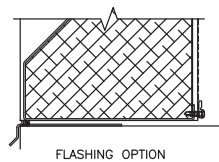
## ACCESSORY ITEMS

### Minimum Section Size:

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

### Maximum Section Size:

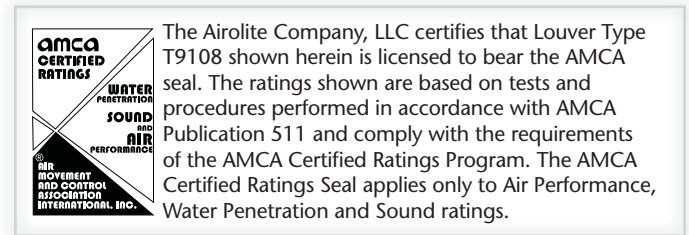
60 in. (152 cm) W x 120 in. (305 cm) H



# LOUVER TYPE T9108 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	0.13	0.21	0.29	0.37	0.45	0.53	0.61	0.69	0.77
24	0.25	0.41	0.57	0.74	0.90	1.06	1.22	1.38	1.55
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	0.88	1.44	2.01	2.58	3.14	3.71	4.28	4.85	5.41
54	1.00	1.65	2.30	2.95	3.59	4.24	4.89	5.54	6.19
60	1.25	2.06	2.87	3.68	4.49	5.30	6.11	6.92	7.80
66	1.37	2.27	3.16	4.05	4.94	5.83	6.72	7.62	8.51
72	1.50	2.47	3.44	4.42	5.39	6.36	7.33	8.31	9.28
78	1.62	2.68	3.73	4.79	4.84	6.89	7.95	9.00	10.05
84	1.75	2.88	4.02	5.15	6.29	7.42	8.56	9.69	10.83
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
102	2.25	3.71	5.16	6.62	8.08	9.54	11.00	12.45	13.91
108	2.37	3.91	5.45	6.99	8.53	10.07	11.61	13.15	14.68
114	2.50	4.12	5.74	7.36	8.98	10.60	12.22	13.84	15.46
120	2.75	4.53	6.31	8.09	9.88	11.66	13.44	15.22	17.00



## WATER PENETRATION

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 T9108 is 887 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.

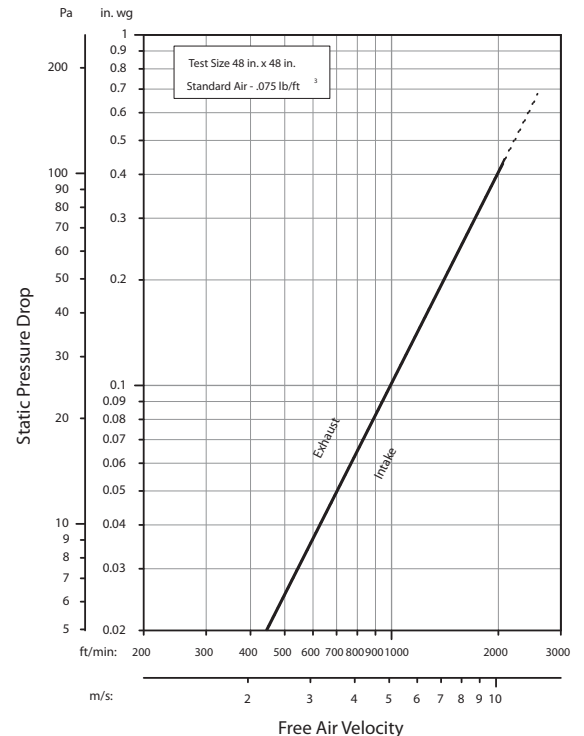
## Free Field Noise Reduction in Decibels

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	12
Transmission Loss (dB)	5	5	7	13	22	14	
Free Field Noise Reduction (dB)	11	11	13	19	28	20	

## AIRFLOW RESISTANCE

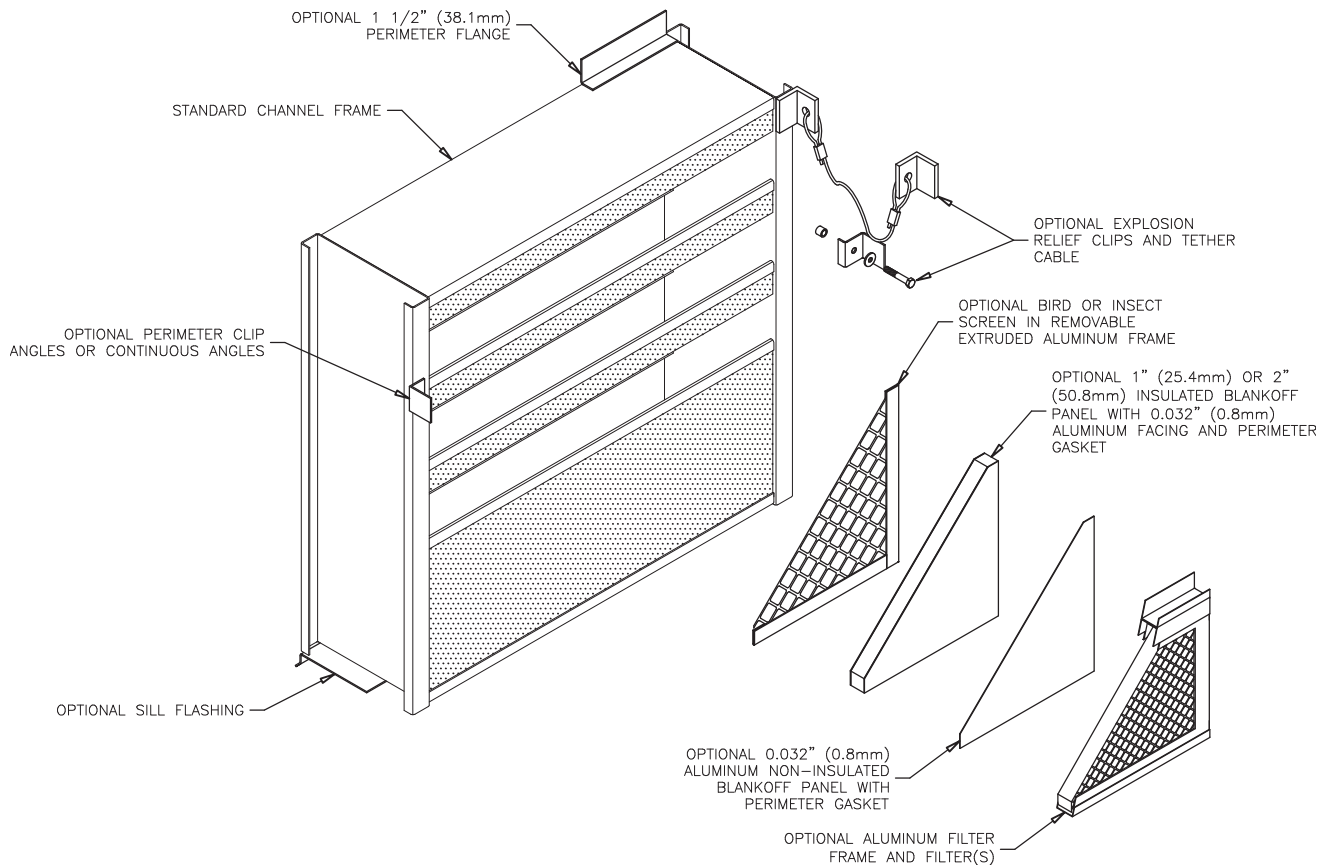
(Standard Air - .075 lb./ft.<sup>3</sup>)



Louver Type T9108 resistance to airflow (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.

# LOUVER TYPE T9108

## 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.



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Submittal T9108 August 2010, Rev. 2  
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**THE ALL-WELDED ADVANTAGE**