

# Acoustical Louvers



**CVS**   
LOUVER SERIES



**MODEL AXF-12**

**12" [305mm] ACOUSTICAL LOUVER**

**STANDARD CONSTRUCTION:**

**Frame:** 12" [305mm] Deep x 18 gauge galvanized steel

**Blade (air side):** 18 gauge galvanized steel

**Blade (noise side):** 20 gauge galvanized perforated steel

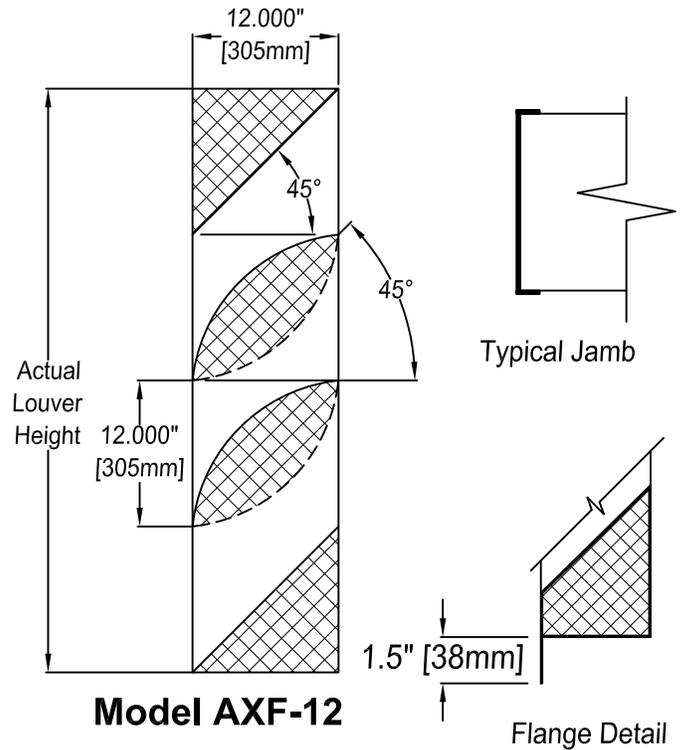
**Sound Absorber:** Advanced Microfibers composed of Polyester and Polyolefin

**Screen:** 0.75" x 0.051" [19mm x 1.29mm] flattened aluminum screen mounted in removable frames.

**Minimum Louver Size:** 12"w x 24"h [305mm x 610mm]

**Maximum Louver Size:** 48"w x 120"h [1219mm x 3048mm]

Louvers more than 48" [1219mm]w are built in mult. sections



**Model AXF-12**

FREE AREA: 30% (based on size 48" x 48") [1219mm x 1219mm]

**OPTIONS:**

- Screen mounted: Exterior Side
- Flanged Frame (1.5" [38mm] std.)
- Custom Flange (1", 2" , or 3") [25mm, 51mm, or 76mm]
- Extended Sill
- Insect Screen (Other Screens Available, See Screen Page)
- Filter Racks (no screen)
- Security Bars
- Hinged Sub Frame
- Welded Construction
- Blank-off, Steel, non-insulated, no screen, non-removeable
- Blank-off, Steel, non-insulated, with bird screen or insect screen
- Blank-off, Steel, insulated double wall, with bird screen, removable
- Blank-off, Steel, insulated double wall, no screen, non-removeable
- Aluminum Construction
- 304 Stainless Steel Const.     316 Stainless Steel Const.

**AVAILABLE FINISHES:**

- Powder Polyester TGIC** (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F [177° C], 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar®** (ALUM\*A\*STAR®) 2 coats by AkzoNobel baked on at 450°F [222° C], 1.2 to 1.6 mils dry Meets AAMA-2604-05 Standards
- Kynar 500®** or **HYLAR®** 5000 70% **TRINAR®** (2 coats) by AkzoNobel baked on at 450°F [222°C], 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR®** 5000 (70% Tri-Escent II) (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F [213° C], 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize** 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- Clear Anodize** 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- Integral Color Anodize** (AA-C22A42)(>0.7 mil)
  - Clear coat available for all above finishes.
  - Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
  - Kynar® 500 is a registered trademark of Arkema.
  - ALUM\*A\*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
  - ACRA-BOND® ULTRA is a registered trademark of AkzoNobel

**Model AXF-12**

Acoustical Performance Certified data by Riverband Acoustical Laboratories

Selected 1/3 Octave Band Center Frequency HZ	125	250	500	1000	2000	4000
Transmission Loss in Decibels	6	5	8	11	10	8
Free Field Noise Reduction	12	11	14	17	16	14
						STC = 9

\*Width and Height dimensions are approximately 1/4" [6.35mm] under listed size.

**MODEL AXF-12**  
**(12" [305mm] ACOUSTICAL LOUVER)**



**MODEL AXF-8**

**8" [203mm] ACOUSTICAL LOUVER**

**STANDARD CONSTRUCTION:**

**Frame:** 8" [203mm] Deep x 18 gauge galvanized steel

**Blade (air side):** 18 gauge galvanized steel

**Blade (noise side):** 20 gauge galvanized perforated steel

**Sound Absorber:** Advanced Microfibers composed of Polyester and Polyolefin

**Screen:** 0.75" x 0.051" [19.05mm x 1.30mm] flattened aluminum screen mounted in removable frames.

**Minimum Louver Size:** 12"w x 16"h [305mm x 406mm]

**Maximum Louver Size:** 48"w x 120"h [1219mm x 3048mm]

Louvers more than 48" [1219mm]w are built in mult. sections

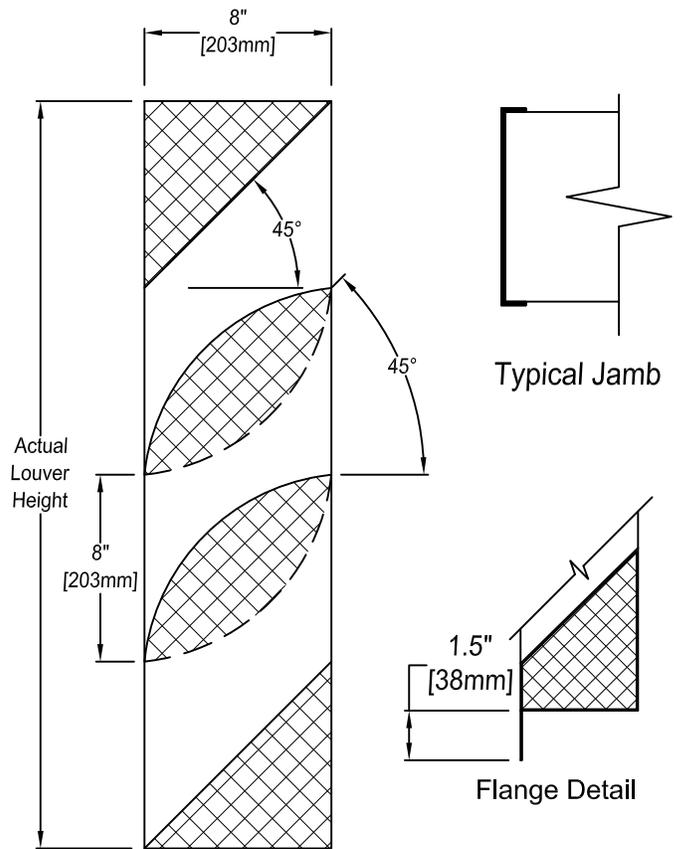
**OPTIONS:**

- Flanged Frame (1.5" std.) [38mm]
- Custom Flange (1", 2" , or 3") [25mm, 51mm, or 76mm]
- Extended Sill
- Insect Screen (Other Screens Available, See Screen Page)
- Filter Racks (no screen)
- Security Bars
- Hinged Sub Frame
- Welded Construction
- Blank-off, Steel, non-insulated, no screen, non-removeable
- Blank-off, Steel, non-insulated, with bird screen or insect screen
- Blank-off, Steel, insulated double wall, with bird screen, removable
- Blank-off, Steel, insulated double wall, no screen, non-removeable
- Aluminum Construction
- 304 Stainless Steel Construction
- 316 Stainless Steel Construction

**AVAILABLE FINISHES:**

- Powder Polyester TGIC** (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel (ACRA-BOND® ULTRA)** by AkzoNobel baked on at 350°F [177° C], 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar® (ALUM\*A\*STAR®)** 2 coats by AkzoNobel baked on at 450°F [222° C], 1.2 to 1.6 mils dry Meets AAMA-2604-05 Standards
- Kynar 500®** or **HYLAR® 5000 70% TRINAR®** (2 coats) by AkzoNobel baked on at 450°F [222° C], 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR® 5000 (70% Tri-Escent II)** (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F [213° C], 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize 204 R-1 Class II (AA-C22A31)**(0.4 to 0.7 mil)
- Clear Anodize 215 R-1 Class I (AA-C22A41)**(>0.7 mil)
- Integral Color Anodize (AA-C22A42)**(>0.7 mil)

- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- Kynar® 500 is a registered trademark of Arkema.
- ALUM\*A\*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel



**Model AXF-8**

**Model AXF-8 Acoustical Performance**

Octave Band HZ	63	125	250	500	1000	2000	4000	8000
Free Noise Reduction DB	11	12	11	12	13	13	13	13

To calculate transmission loss (db), subtract the 6 db from the freefield noise reduction (db)

\*Width and Height dimensions are approximately 1/4" [6.35mm] under listed size.

**MODEL AXF-8**  
**(8" [203mm] ACOUSTICAL LOUVER)**



MODEL XAC-4

8" Deep Acoustical Louver

STANDARD CONSTRUCTION:

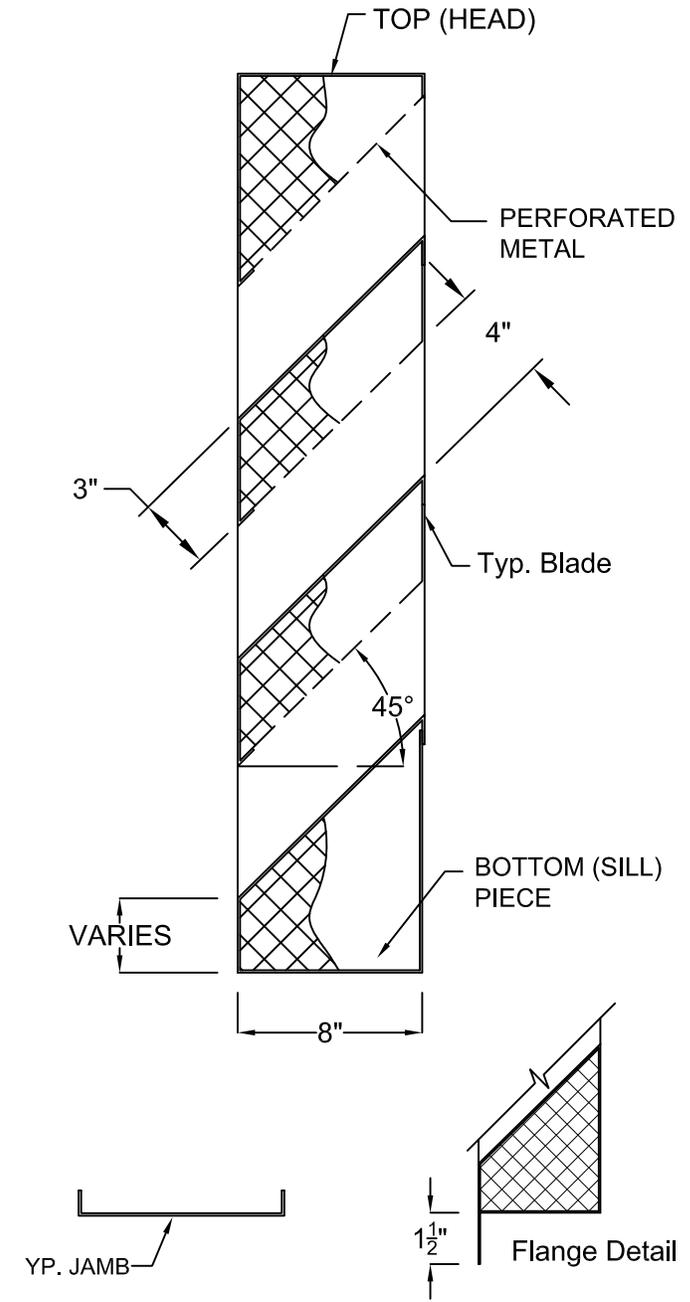
- Frame:** 18 ga. galvanized
- Blade (air side):** 18 ga. galvanized
- Blade (noise side):** 20 ga. galvanized perforated
- Absorbent fill:** Advanced Microfibers composed of Polyester and Polyolefin
- Screen:** 3/4" x .051" flattened aluminum  
Screen mounted in a removable frame
- Minimum Louver Size:** 12"w x 12"h
- Maximum Louver Size:** 48"w x 120"h  
Larger sizes are made in sections with vertical mullions

OPTIONS:

- Flanged Frame (1.50" std.)
- Custom Flange (1", 2" , or 3")
- Extended Sill
- Insect Screen (Other Screens Available, See Screen Page)
- Filter Racks (no screen)
- Security Bars
- Hinged Sub Frame
- Welded Construction
- Blank-off, Steel, non-insulated, no screen, non-removeable
- Blank-off, Steel, non-insulated, with bird screen or insect screen
- Blank-off, Steel, insulated double wall, with bird screen, removable
- Blank-off, Steel, insulated double wall, no screen, non-removeable
- Aluminum Construction
- 304 Stainless Steel Const.
- 316 Stainless Steel Const.

AVAILABLE FINISHES:

- Powder Polyester TGIC** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar®** (ALUM\*A\*STAR®) 2 coats by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry Meets AAMA-2604-05 Standards
- Kynar 500®** or **HYLAR® 5000 70% TRINAR®** (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR® 5000 (70% Tri-Escnt II)** (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F, 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize 204 R-1 Class II** (AA-C22A31)(0.4 to 0.7 mil)
- Clear Anodize 215 R-1 Class I** (AA-C22A41)(>0.7 mil)
- Integral Color Anodize** (AA-C22A42)(>0.7 mil)
  - Clear coat available for all above finishes.
  - Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
  - Kynar® 500 is a registered trademark of Arkema.
  - ALUM\*A\*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
  - ACRA-BOND® ULTRA is a registered trademark of AkzoNobel



\*Width and Height dimensions are approximately 1/4" under listed size.

**MODEL XAC-4**  
**(8" Deep Acoustical Louver)**

# XAC-4

## ACOUSTICAL DATA

### Sound Transmission Class (STC)

This is a numerical two-digit figure rating derived from a standardized performance test made in accordance with ASTM E90-90 (Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions) and ASTM E413-87 (Standard Classification for Determination of Sound Transmission Class). The number is used in evaluating the effectiveness of an assembly in isolating or reducing airborne sound transmission. Acoustic performance ratings have been determined by an AMCA Laboratory.

### Outdoor Indoor Transmission Class (OITC)

ASTM E1332 and ASTM E966 procedures are used to determine the OITC rating of building facades relative to ground or air transportation noise.

#### Full Octave Band Specimen Sound Transmission Loss

Hz	125	250	500	1000	2000	4000
TL	6	4	7	12	14	10
NR	12	10	13	18	20	16

TL = Transmission Loss    NR = Free Field Noise Reduction    NR = TL + 6 dB

## PERFORMANCE DATA

AMCA Standard 500-L provides a reasonable basis for testing and rating louvers. Testing to AMCA Standard 500-L is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate.

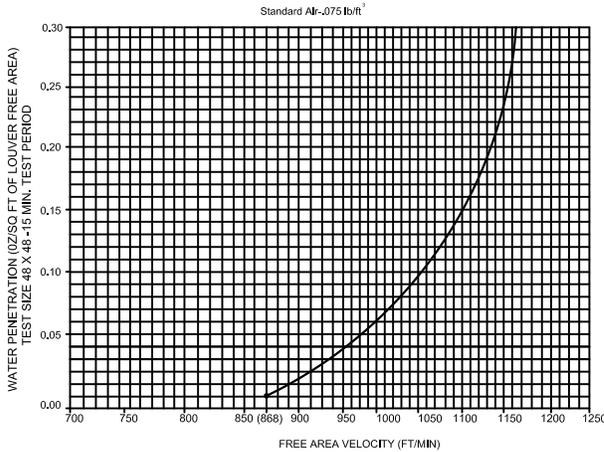
The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carryover, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq.ft. of water penetration.

Beginning point of WATER PENETRATION  
is

**868 fpm**

free area velocity at .01 oz. of water penetration

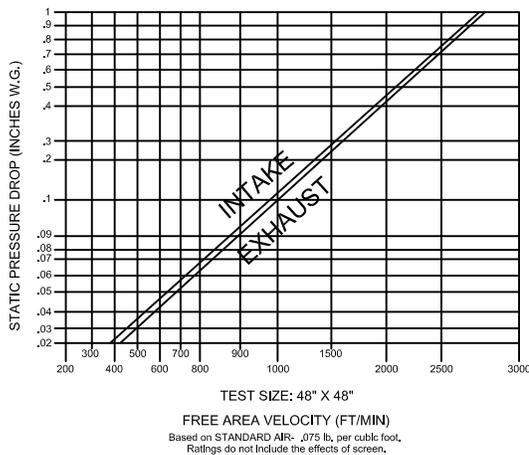
### WATER PENETRATION



### FREE AREA CHART (SQUARE FEET)

Louver Height Inches	Louver Width In Inches							Louver Height Inches
	12	18	24	30	36	42	48	
12	0.29	0.44	0.59	0.73	0.88	1.02	1.17	12
18	0.44	0.66	0.88	1.1	1.32	1.54	1.76	18
24	0.59	0.88	1.17	1.46	1.76	2.05	2.34	24
30	0.73	1.1	1.46	1.83	2.19	2.56	2.93	30
42	1.02	1.54	2.05	2.56	3.07	3.58	4.1	42
48	1.17	1.76	2.34	2.93	3.51	4.1	4.46	48
54	1.32	1.97	2.63	3.29	3.95	4.61	5.27	54
60	1.46	2.19	2.93	3.66	4.39	5.12	5.85	60
66	1.61	2.41	3.22	4.02	4.83	5.63	6.44	66
72	1.76	2.63	3.51	4.39	5.27	6.14	7.02	72
78	1.9	2.85	3.8	4.75	5.7	6.65	7.61	78
84	2.05	3.07	4.1	5.12	6.14	7.17	8.19	84
90	2.19	3.29	4.39	5.48	6.58	7.68	8.78	90
96	2.34	3.51	4.68	5.85	7.02	8.19	9.36	96
102	2.49	3.73	4.97	6.22	7.46	8.7	9.95	102
108	2.63	3.95	5.27	6.58	7.9	9.21	10.5	108
114	2.78	4.17	5.56	6.95	8.34	9.73	11.1	114
120	2.93	4.39	5.85	7.31	8.78	10.2	11.7	120

### PRESSURE DROP





**MODEL XAC-6 / XAC-9**

**12" [305mm] DEEP ACOUSTICAL LOUVERS**

**STANDARD CONSTRUCTION:**

**Frame:** 12" [305mm] Deep x 18 gauge galvanized steel

**Blade (air side):** 18 gauge galvanized steel

**Blade (noise side):** 20 gauge galvanized perforated steel

**Sound Absorber:** Advanced Microfibers composed of Polyester and Polyolefin

**Screen:** 0.75" x 0.051" [19.05mm x 1.30mm] flattened aluminum screen mounted in removable frame.

**Minimum Louver Size:** XAC-6 12"w x 18"h [305mm x 457mm]  
XAC-9 12"w x 22"h [305mm x 559mm]

**Maximum Louver Size:** 48"w x 120"h [1219mm x 3048mm]  
Louvers more than 48"w [1219mm] are built in mult. sections

**OPTIONS:**

- Flanged Frame (1.50" std.) [38mm]
- Custom Flange (1", 2", or 3") [25mm, 51mm, or 76mm]
- Extended Sill
- Insect Screen (Other Screens Available, See Screen Page)
- Filter Racks (no screen)
- Security Bars
- Hinged Sub Frame
- Welded Construction
- Blank-off, Steel, non-insulated, no screen, non-removable
- Blank-off, Steel, non-insulated, with bird screen or insect screen
- Blank-off, Steel, insulated double wall, with bird screen, removable
- Blank-off, Steel, insulated double wall, no screen, non-removable
- Aluminum Construction
- 304 Stainless Steel Const.     316 Stainless Steel Const.

**AVAILABLE FINISHES:**

- Powder Polyester TGIC** (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F [210° C], 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F [177° C], 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar®** (ALUM\*A\*STAR®) 2 coats by AkzoNobel baked on at 450°F [222° C], 1.2 to 1.6 mils dry Meets AAMA-2604-05 Standards
- Kynar 500®** or **HYLAR® 5000 70% TRINAR®** (2 coats) by AkzoNobel baked on at 450°F [222°C], 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR® 5000 (70% Tri-Escent II)** (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F [213° C], 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize 204 R-1 Class II** (AA-C22A31)(0.4 to 0.7 mil)
- Clear Anodize 215 R-1 Class I** (AA-C22A41)(>0.7 mil)
- Integral Color Anodize** (AA-C22A42)(>0.7 mil)
  - Clear coat available for all above finishes.
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  - Kynar® 500 is a registered trademark of Arkema.
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  - ACRA-BOND® ULTRA is a registered trademark of AkzoNobel

**Model XAC-9**

Acoustical Performance Certified data by Riverbank Acoustical Laboratories

Selected 1/3 Octave Band Center Frequency HZ	125	250	500	1000	2000	4000
Transmission Loss in Decibels	7	6	9	12	12	10
Free Field Noise Reduction	13	12	15	18	18	16

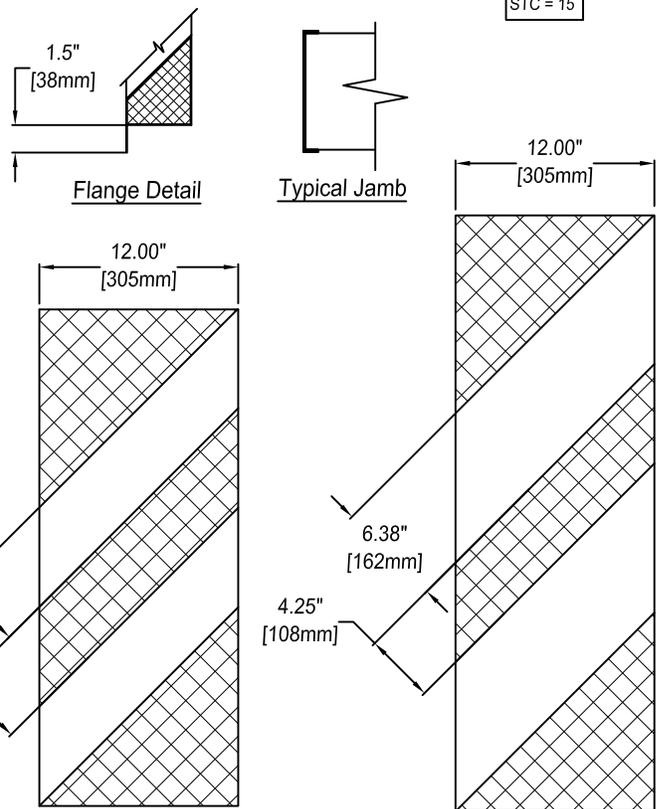
STC = 11

**Model XAC-6**

Acoustical Performance Certified data by Riverbank Acoustical Laboratories

Selected 1/3 Octave Band Center Frequency HZ	125	250	500	1000	2000	4000
Transmission Loss in Decibels	8	8	13	17	16	12
Free Field Noise Reduction	14	14	19	23	22	18

STC = 15



**Model XAC-6**

**Model XAC-9**

FREE AREA: 26% (based on size 48" x 48") [1219mm x 1219mm]

FREE AREA: 32.4% (based on size 48" x 48") [1219mm x 1219mm]

\*Width and Height dimensions are approximately 1/4" [6.35mm] under listed size.

**MODEL XAC-6 & 9**  
**(Straight Blade 12" [305mm] Deep Acoustical Louvers)**

# Product Range

- ▶ Fire-Resisting Ductwork (BS & EN)
- ▶ Fire-rated Insulation (ASTM & UL)
- ▶ Sound Attenuators (ASTM & BS)
- ▶ VAV Boxes (AHRI)
- ▶ Life Safety Dampers (UL)
- ▶ Control Dampers (AMCA & BS)
- ▶ Access Doors (BS & EN)
- ▶ Louvers (AMCA)
- ▶ Smoke Exhaust, Building, Car Park & Tunnel Ventilation Fans (AMCA & EN)
- ▶ Domestic and Industrial Ventilation Fans
- ▶ AHU, FAHU, FCU, RTU, ERV & Ecology Units (Eurovent, TUV & AHRI)
- ▶ Electrostatic Precipitators (ESPs) & UL Listed Air Filters (UL)

## Our Brands



Control Dampers, Louvers,  
Sound Attenuators & VAV Boxes



Non-Coated Fire-Resisting Ductwork  
& Life Safety Dampers



Fire-rated Insulation

Building & Industry



Smoke Exhaust, Car Park &  
Tunnel Ventilation



General Ventilation



Global Clean Air  
Solutions Provider

**Central Ventilation System  
Co. L.L.C**

Al Wasit Street,  
Industrial Area 2,  
Sharjah, U.A.E

**CVS Arabia L.L.C**

2nd Industrial City,  
Dammam 31952,  
K.S.A

**Badr and Asfour  
Company For Engineering  
and Metal Industries**

Al Minya Industrial Zone,  
Al Minya Governorate  
2427606, Egypt

**Central Ventilation Systems  
Co. W.L.L.**

Street 9,  
Industrial Area  
Doha, Qatar



[sales@cvshvac.com](mailto:sales@cvshvac.com)



[www.cvshvac.com](http://www.cvshvac.com)