# **Extruded Aluminum Louver**

4" Deep · Fixed High Performance Type Blade · Stationary Louver

**X4K3** 

## STANDARD MATERIALS AND CONSTRUCTION

FRAME: 4" (101.6mm) deep channel x .081" thick 6063-T5 extruded

aluminum alloy

BLADES: .081" thick 6063-T5 extruded aluminum alloy

ASSEMBLY: Mechanically Fastened

FINISH: Mill

SCREEN: 1/2" (12.7mm) removable expanded aluminum bird screen;

located on interior

**MULLIONS:** Exposed

### **OPTIONS**

Baked Enamel, Kynar, Anodize or Prime Coat Finish

Variety of bird and insect screen

Hidden-Vertical or Exposed-Horizontal Mullions

Welded Construction

Formed .063" Aluminum Extended Sill

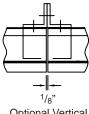
11/2"W (38.1mm) x .08" (2.03mm) Thick Extruded 6063-T5 Aluminum Flange

### **NOTES**

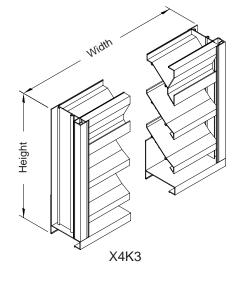
- 1. "A" width and "B" height are opening dimensions. Louvers are provided approximately  $^{1}/_{2}$ " (12.7mm) undersize.
- 2. Panels over  $60^{\circ}\text{W}$  (1524mm) will have a  $11/2^{\circ}$  (38.1mm) x  $11/2^{\circ}$  (38.1mm) x  $11/4^{\circ}$  (31.75mm) 6063-T5 aluminum support angle mounted vertically on interior at approximate midpoint.
- 3. Openings that require multiple louver panels in both width and height will require internal structural supports. It is recommended that large openings will divided with structural members so that the louvers will span either width or height with a single panel. Unusually high wind loading may require structural supports on non-multiple wide and multiple high assemblies. Structural supports and mounting accessories are not supplied as a standard.

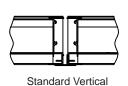
## DAMPER SIZES

Orientation	Horizontal & Vertical					
Panel	Minimum Panel	Maximum Panel				
X4K3	12"W x 12"H (304.8mm x 304.8mm)	96"W x 96"H (2438.4mm x 2438.4mm)				



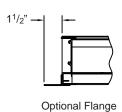
Optional Vertical Mullion



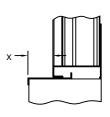


Mullion

Standard Horizontal Mullion



Frame



Optional Extended Sill



Cesco Products certifies that the model X4K3 louver 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 air performance ratings and water penetration ratings.

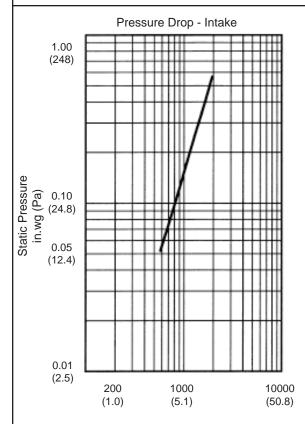


# **Extruded Aluminum Louver**

4" Deep · Fixed High Performance Type Blade · Stationary Louver

**X4K3** 

Water Penetration: 0.01 oz (3.0 g) at 779 fpm (3.96 m/s) recommended free area velocity Pressure Drop: 0.09 in.wg (22.3 Pa) at 779 fpm (3.96m/s) and 7034 SCFM (3.32 scm/s) Free Area: 9.03 sq.ft. (0.839 sq.m.) = 56.4% for 48"W x 48"H (1.22m x 1.22m) test size



Free Area

	Width										
Height	in (mm)	12 (304)	24 (609)	36 (914)	48 (1219)	60 (1524)	72 (1828)	84 (2133)	96 (2438)		
	12 (304)	0.29 (0.027)	0.68 (0.063)	1.06 (0.098)	1.45 (0.135)	1.79 (0.166)	2.17 (0.202)	2.56 (0.233)	2.95 (0.274)		
	24 (609)	0.78 (0.072)	1.82 (0.169)	2.87 (0.267)	3.91 (0.363)	4.82 (0.448)	5.86 (0.544)	6.90 (0.641)	7.95 (0.739)		
	36 (914)	1.27 (0.118)	2.97 (0.276)	4.67 (0.434)	6.37 (0.592)	7.85 (0.729)	9.55 (0.887)	11.25 (1.045)	12.95 (1.203)		
	48 (1219)	1.77 (0.164)	4.12 (0.383)	6.47 (0.601)	9.03 (0.820)	10.89 (1.011)	13.24 (1.230)	15.59 (1.449)	17.95 (1.667)		
	60 (1524)	2.26 (0.210)	5.27 (0.490)	8.28 (0.769)	11.29 (1.049)	13.92 (1.293)	16.93 (1.573)	19.94 (1.852)	22.95 (2.132)		
	72 (1828)	2.75 (0.255)	6.41 (0.596)	10.08 (0.936)	13.74 (1.276)	16.95 (1.576)	20.62 (1.916)	24.28 (2.256)	27.95 (2.597)		
	84 (2133)	3.24 (0.301)	7.56 (0.702)	11.88 (1.104)	16.20 (1.505)	19.98 (1.856)	24.30 (2.258)	28.63 (2.660)	32.95 (3.061)		
	96 (2438)	3.73 (0.347)	8.71 (0.809)	13.69 (1.272)	18.66 (1.734)	23.02 (2.139)	27.99 (2.600)	32.97 (3.063)	37.95 (3.526)		

Velocity through Free Area FPM (meters/second)
Standard Air - 0.075 lbs. per cu.ft.
Ratings do not include the effect of a bird screen.

Below is an explanation of how to use the AMCA performance data for the recommended free area velocity of 779 fpm (3.96 m/s).

To determine minimum free area required for louver:

**Step #1** Divide the required CFM flow by the maximum recommended free area velocity.

**Step #2** Select the most desirable louver size, from the free area table, that meets the minimum free area requirement. **Step #3** Compare specified performance to the certified water penetration and pressure drop ratings.

#### Example:

Given 15,000 CFM design flow

Step #1

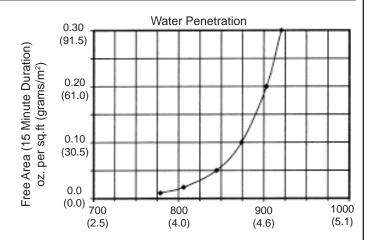
Minimum Free Area = Design CFM
Maximum Recommended Velocity

 $\frac{15,000}{779}$  = 19.26 sq.ft.

#### Step #2

From the free area table the approximate louver size is 84"W x 60"H (19.94 sq.ft.)





Velocity through Free Area FPM (meters/sec.)

Both maximum recommended Free Area Velocity and beginning of water penetration are 779 fpm at standard air - .075 lbs per cu.ft. The above water penetration data is based on mill finish 48"W x 48"H (1.22m x 1.22m) test size per AMCA Standard 511.

Cesco Products certifies that the model X4K3 louver 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 air performance ratings and water penetration ratings.

