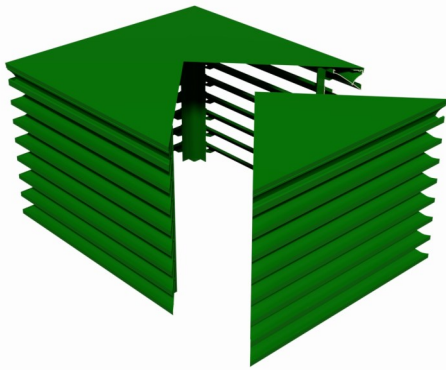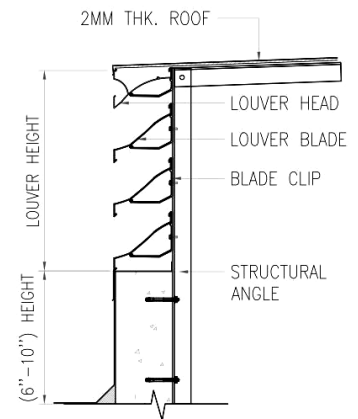# PENTHOUSE SL-660

158mm Horizontal Line Fixed Louver Blade

AIRFLOW PERFORMANCE

∗ Free Area is: 57.3% based on a test sample of 48in (1220mm) x 48in (1220mm)

∗ Discharge loss coefficient Classification—Class 2

∗ Free Area Velocity at Beginning Point of Water Penetration: 900 fpm (4.57 m/s)

∗ Air Volume Flow Rate at Beginning Point of Water Penetration — 7,194.4 cfm (3.4 m^3/s)

∗ Pressure Drop at Beginning Point of Water Penetration: 0.10 in. H$_2$O (25 Pa)

Design: OSA Architectural Line Penthouses use AMCA Certified 6" (152.4mm) fixed louver blade continuously around all four sides. Penthouses are mitered and welded at corners providing a horizontal line. Where air control is desired, operating penthouse louvers with mullions can be supplied. Any louver in this brochure may be used in a penthouse application.

Large Size Structural Penthouses: OSA designs and manufactures louvered roof enclosures in very large sizes. For these unusually large penthouses, the roof, roof trusses and the structural supports are engineered to handle the specified wind loads.

Suggested Specification: Furnish and install PENTHOUSE SL-660 where indicated in the drawing. Head, sills and jambs to be fabricated of .081" (2.06mm) thick extruded aluminum sections of 6063-T52 alloy. All sills, fixed blades and heads to be continuously heliarc welded at the corners and supported by aluminum structural as detailed. Structural supports to be designed by the penthouse manufacturer to carry a wind load of not less than 20 pounds (or other required loading) per square foot (957 pascals) and a roof snow load of not less than 30 pounds (1,436 pascals). All fastening to be stainless steel. Penthouse shall have weatherproof roof of 0.081" (2.06mm) thick sheet aluminum reinforced with structural supports. All roof corners to be heliarc welded. Entire underside of roof to be underside of roof to be insulated with minimum thickness of 1/4" (6.35mm) Scotch-Clad® 1,000 coating. All penthouses furnished with 1/2" (12.7mm) meash, 0.063" (1.6mm) diameter wire intercrimp bird screen secured in removable extruded aluminum frames. All louvers to be free of scratches and blemishes and shall be finished in Kynar 500 coating in one of the 16 standard colors as selected by the architect.

Material & Finishes:

1. PENTHOUSE SL-660 comprises
    a. Blades: 6" deep Horizontal Fixed Blade
2. Metal Thickness: Frame 0.081 inch (2.0mm); blades 0.081 inch (2.0mm).
3. Finish: PE-SDF / PVDF / Anodize after fabrication
4. Color: As scheduled.
5. Mullions: Concealed or Exposed.
6. Screens: Bird mesh / Insect mesh AVAILABLE AS OPTIONAL ACCESSORIES.
7. Screen location: Interior
8. Screening Material: Aluminium / Stainless Steel
9. Formed Aluminum Roof with Braces: 0.05 (1.27mm) - 0.125 (3.0mm)
10. Optional: 1/4" (6.35mm) Scotch-Clad 1,000 coating to be insulated

Louver Construction:

1. Wind Load Resistance: Design to resist +ve and –ve wind load of ___ psf (___kPa) without damage or permanent deformation.

2. Blades: One piece extrusion blades with reinforcing bosses snap-locked to heavy-gage extruded aluminum blade braces, attached to structural supports. Each blade brace is mechanically secured to structure using stainless steel fastenings.

3. Supplied in fully assembled or semi-knocked down for field assembly.

4. Welded corner units for blade alignment and blade continuity.

5. Exposed edges and ends of metal dressed smooth, free from sharp edges.

6. For Airflow Data, refer to the attached Tear Sheet.

Warranty:

OSA louvers warranted for 2 years against defective material and workmanship, and 20 Years for Finishes.
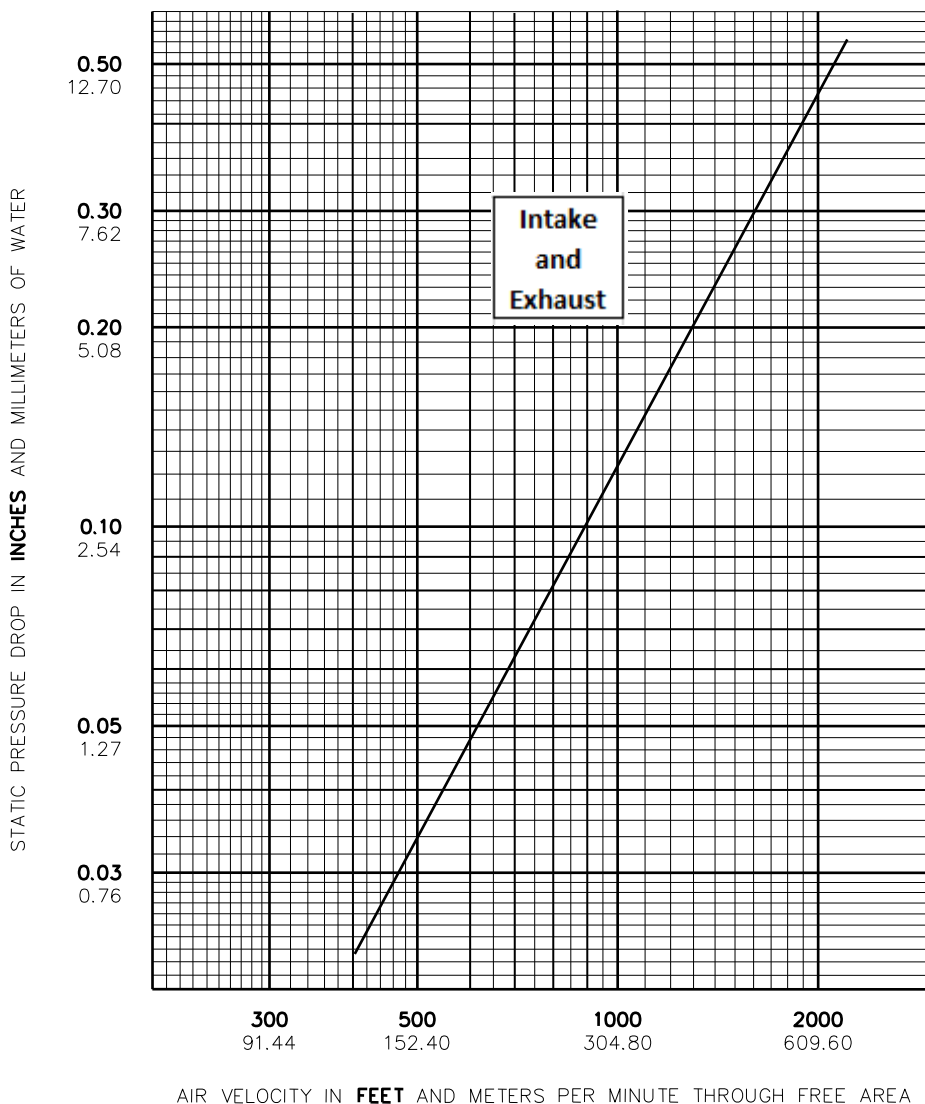
PENTHOUSE SL-660
158mm Horizontal Line Fixed Louver Blade

FREE AREA TABLE (in m2)

Width (meter)

	0.3	0.41	0.51	0.61	0.71	0.81	0.91	1.02	1.12	1.22	1.32	1.42	1.52
0.3	0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.16	0.17	0.19	0.20	0.22	0.23
0.46	0.07	0.10	0.12	0.14	0.17	0.19	0.21	0.24	0.26	0.29	0.31	0.33	0.36
0.61	0.09	0.13	0.16	0.19	0.22	0.25	0.28	0.32	0.35	0.38	0.41	0.44	0.47
0.76	0.12	0.16	0.20	0.24	0.28	0.31	0.35	0.40	0.43	0.47	0.51	0.55	0.59
0.91	0.14	0.19	0.24	0.28	0.33	0.38	0.42	0.47	0.52	0.57	0.61	0.66	0.71
1.07	0.16	0.22	0.28	0.33	0.39	0.44	0.50	0.56	0.61	0.67	0.72	0.77	0.83
1.22	0.19	0.26	0.32	0.38	0.44	0.50	0.57	0.63	0.70	0.76	0.82	0.88	0.95
1.37	0.21	0.29	0.36	0.43	0.50	0.57	0.64	0.71	0.78	0.85	0.92	0.99	1.06
1.52	0.23	0.32	0.40	0.47	0.55	0.63	0.71	0.79	0.87	0.95	1.02	1.10	1.18
1.68	0.26	0.35	0.44	0.52	0.61	0.69	0.78	0.87	0.96	1.05	1.13	1.22	1.30
1.83	0.28	0.38	0.48	0.57	0.66	0.76	0.85	0.95	1.05	1.14	1.23	1.33	1.42
1.98	0.30	0.41	0.51	0.62	0.72	0.82	0.92	1.03	1.13	1.23	1.33	1.43	1.53
2.13	0.33	0.45	0.55	0.66	0.77	0.88	0.99	1.11	1.22	1.33	1.43	1.54	1.65
2.29	0.35	0.48	0.60	0.71	0.83	0.95	1.06	1.19	1.31	1.42	1.54	1.66	1.78
2.44	0.37	0.51	0.63	0.76	0.88	1.01	1.13	1.27	1.39	1.52	1.64	1.77	1.89
2.59	0.40	0.54	0.67	0.81	0.94	1.07	1.20	1.35	1.48	1.61	1.74	1.88	2.01
2.74	0.42	0.57	0.71	0.85	0.99	1.13	1.27	1.43	1.57	1.70	1.84	1.98	2.12
2.9	0.44	0.61	0.75	0.90	1.05	1.20	1.35	1.51	1.66	1.80	1.95	2.10	2.25
3.05	0.47	0.64	0.79	0.95	1.10	1.26	1.42	1.59	1.74	1.90	2.05	2.21	2.36

Height (meter)

STATIC PRESSURE DROP IN **INCHES** AND MILLIMETERS OF WATER

AIR VELOCITY IN **FEET** AND METERS PER MINUTE THROUGH FREE AREA

Test Data

Published data is in accordance with ANSI/AMCA 500-L, Figure 5.5.

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 area.