STATIONARY LOUVERS
SSL - 100

Stationary Louver is a weather louver designed to provide air intake and air exhaust openings in building exterior walls to protect against direct ingress of rain. The blades are positioned on 98mm minimum centers up to 120mm maximum centers at 45 degree slope and has a high free area to provide minimum resistance to airflow.

**Construction Standards**

**Frame:**
Gauge 16 (1.5mm thick) formed galvanized steel sheet.

**Blades:**
Gauge 18 (1.2mm thick) formed galvanized steel sheet.

**Screen:**
Galvanized steel bird screen 12 x 12 x 1mm fixed behind the blades. Please note that Pressure Drop Data is obtained from AMCA Test without bird screen. Pressure drop of bird screen is additive and to be calculated separately.

**Minimum Size:**
200mm x 200mm (8in x 8in) - Neck Size.

**Maximum Size:**
1250W x 2500H as single section (Neck Size).
2500W x 2500H will be single module with 2 sections on horizontal blades.
Consult SAFID for multiple section assembly details.

SSL - 110

General construction as type SSL - 100 but frame and blades are built from mill finish aluminum sheet.

SSL - 120

General construction as type SSL - 100 but frame and blades are built from stainless steel Grade 304.

Optional:
Frame and blades from stainless steel Grade 316 or 316L.

**Additional Options**

* Code Z: Painted to RAL (epoxy coated).
* Code I: Insect screen in galvanized steel 1 x 1 x 0.4mm.
* Code T: Bird screen in stainless steel 5 x 5 x 0.7mm.

Catalog ID: SSL - 100 March 25, 2015

SAFID certifies that the Stationary Louver shown herein is licensed to bear the AMCA Seal for Model SSL - 100. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance Ratings.

Test Information: Tested for air performance in accordance with AMCA / ANSI Standard 511-14 (Volume Performance Ratings).

Test Information: Tested for air performance in accordance with AMCA / ANSI Standard 510-14 (Pressure Drop).

Catalog ID: SSL - 100 January 26, 2014

Data are corrected to standard air density.
Test size: 48in. x 48 in.
SSL SERIES [SSL - 100, SSL - 110, SSL - 120]

Air Performance

Pressure Drop

Exhaust Air Performance

Free Area Chart (Square Feet)

Free Area Velocity (FPM x 100)

Data are corrected to standard air density.
Test size: 48in. x 48 in.

Catalog ID: SSL - 100 January 26, 2014
SSL SERIES [SSL - 100, SSL - 110, SSL - 120]

Construction - Dimension and Details

1 - Casing  
2 - Blade  
3 - Bird Screen (optional)

SSL - 100, SSL - 110, SSL - 12 (Single Section)

The maximum size for single section is up to 1500mm wide (W) and up to 2500mm height (H).

Single Module with Mullion

Multiple Module (Segmented)

Single module with 2 sections on horizontal blades and with mullion from size above 1250mm up to 2000mm maximum width (W). The maximum Single Module is 2600 W x 2600 H.

Segmented for size above 2000 W and 2500 H.

Vertical Joint Detail

Horizontal Joint Detail

Catalog ID: SSL - 100 January 26, 2014
SSL SERIES [SSL - 100, SSL - 110, SSL - 120]

Table 1

<table>
<thead>
<tr>
<th>Outer Frame Size (in.)</th>
<th>Neck Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1 x H1</td>
<td>W x H</td>
</tr>
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<td>12 x 12</td>
<td>200 x 200</td>
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<td>104 x 104</td>
<td>2500 x 2500</td>
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</table>

Selection Example
Selection Procedure of Stationary Louver

Example:
With Given Air Volume: Select Exhaust Air Louver or Fresh Air Intake Louver with a given air volume of 4000 cubic feet per minute (CFM) and 800 feet per minute (FPM) free area velocity.

Catalog ID: SSL - 100 January 26, 2014

Calculate for free area, neck size and pressure drop.
1. Free Area = 4000 CFM / 800 FPM = 5 square feet (ft²).
2. From Free Area Chart the outer frame size can be 48in. x 48in., or 64in. x 64in. (W x H).
3. From Table 1 neck size is 1100mm x 1000mm, or 1500mm x 800mm (W x H).
4. The pressure drop for Exhaust Air Louver from Exhaust Air Performance Graph at 800 feet per minute (FPM) is 0.12 in. W.G. (30Pa).
5. The pressure drop for Fresh Air Intake Louver from Intake Air Performance Graph at 800 feet per minute (FPM) is 0.105 in. W.G. (26Pa).

Order Example

Product Code: SSL-100

With Optional Extras:
SSL-100 - Z
SSL-100 - I
SSL-100 - T

Sizes
Standard
Make : SAFID
Type : SSL - 100 - 500 x 500

With Optional Extras
Make : SAFID
Type : SSL - 100 - Z - 500 x 500

Description
SAFID Extruded Aluminum Stationary Louvers is designed to provide air intake and air exhaust openings in building exterior walls to protect against the direct ingress of rain. The blades are positioned on 104mm minimum centers up to 118mm maximum centers at 45 degree and has a high free area to provide minimum resistance to airflow.

Construction Standards
Frame: Extruded aluminum profile 2mm thick.
Blades: Extruded aluminum profile 1.8mm thick.
Standard Finish: Mill aluminum finish.
Screen: Expanded aluminum birdscreen.
Minimum Size: 300 x 300 mm
Maximum Size: 1200Wx2000H
Larger sizes will be in multiple sections.
For details of multiple sections consult SAFID.

Additional Options
*Code A: Anodized aluminum in silver.
*Code P: Polyester powder coated.
*Code Z: Painted to RAL (epoxy coated).
*Code I: Expanded aluminum insect screen.
*Code T: Bird screen in stainless steel, 5 x 5 x 0.7 mm.

SSL - 200
General construction as type SSL - 200 but with drainable frame and blades. Drain gutter in each blades and downspouts in vertical frames allows water to drain from louver to minimize water cascade from blade to blade.

NOTE
For optional screens the pressure drop is additive and to be calculated separately.
**STATIONARY LOUVER WITH EXTRUDED ALUMINUM PROFILES**

**SSL SERIES [SSL - 200, SSL - 210]**

**SSL - 200 (Single Section)**

- Frame
- Blades
- Bird Screen

**SSL - 210 (Single Section)**

- Drainable Frame
- Drainable Blades
- Bird Screen

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### Technical Data SSL - 200

The pressure drop across the selected size of louver is 25 Pa.

#### Suitable Louvers from Free Area Chart

- 1.0m x 1.3m High
- 1.2m x 1.4m High
- 1.5m x 1.6m High

#### Selection Procedure of Stationary Louver

**Example:**

**With given air volume:**

Select Fresh Air Intake Louver with a given air volume of 1.0m³/s and 3.5m/s free area velocity.

**A - Determine Louver Free Area:**

Dividing the given air volume (1.5m³/s) by free area velocity (3.5m/s, do not exceed to 4.2m/s for fresh air intake application), the free area will be:

\[ \text{Louver Free Area} = \frac{1.5 \text{ m}^3/\text{s}}{3.5 \text{ m/s}} = 0.429 \text{ m}^2 \]

**B - Select a suitable louver from Free Area Chart**

The following suitable louvers from Free Area Chart are:

1. 1.0m x 1.3m High
2. 1.2m x 1.4m High
3. 1.5m x 1.6m High

**C - Check the pressure drop of the selected louver on the Pressure Drop Chart:**

The pressure drop across the selected size of louver is 25 Pa.
Technical Data SSL - 200

**Airflow Resistance**

![Graph showing airflow resistance](image)

**Water Penetration**

![Graph showing water penetration](image)
Louver Free Area Chart:

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<td>0.001</td>
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</tbody>
</table>

Example:
With given air volume:
Select Fresh Air Intake Louver with a given air volume of 1.5m³/s and 3.5m³/s free area velocity.

A - Determine Louver Free Area:
Dividing the given air volume (1.5m³/s) by free area velocity (3.5m³/s), do not exceed to 4.2m/s for fresh air intake application, the free area will be:

\[
\text{Louver Free Area} = \frac{1.5 \text{m}^3/\text{s}}{3.5 \text{m}^3/\text{s}} = 0.429 \text{m}^2
\]

B - Select a suitable louvers from Free Area Chart
The following suitable louvers from Free Area Chart are:

- 1.1m Wide x 1.0m High
- 1.3m Wide x 0.9m High
- 1.5m Wide x 0.8m High

C - Check the pressure drop of the selected louvers on the Pressure Drop Chart:
The pressure drop across the selected size of louver is 34 Pa.
Technical Data SSL - 210

Water Penetration

![Graph showing water penetration vs. free area velocity. The x-axis represents free area velocity in meters per minute, ranging from 213 to 355. The y-axis represents ounces of water per m², ranging from 0 to 3.23. The graph shows a curve indicating increased water penetration with higher free area velocities.]