



**air master**  
ISO 9001 CERTIFIED COMPANY



# SAND TRAP LOUVERS



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Cover Page Photo | HHR Tower, Dubai.

## CONSTRUCTION:

**Frame and blades:** 1.5 mm and 1.2 mm thick high quality extruded aluminium profiles.

**Bird screen:** 12 mm x 12 mm x 1 mm diameter G.I wire mesh as standard. 12 mm x 12 mm x 1.5 mm diameter aluminium wire mesh as option.

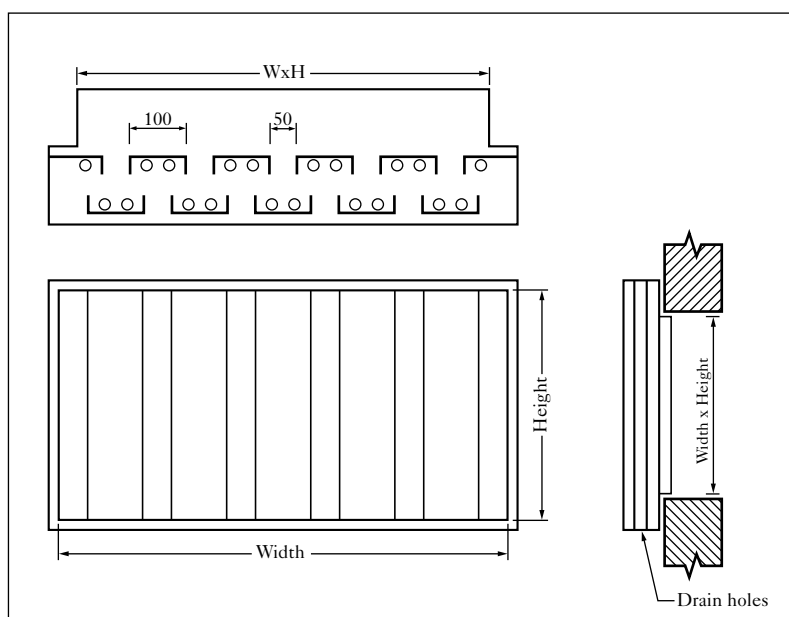
**Drain:** 20 mm diameter self drain holes at the bottom of the louver.

## Description:

- The frame and blades are of high quality extruded aluminium profiled construction with the advantages of corrosion resistance and rigidity.
- Composed two sets of inverted U-channels mounted vertically on two opposite rows.
- Drain holes of diameter 20 mm are provided in two rows at the bottom of the louver for emptying filtered sand and dust.
- Can be manufactured from G.I or SS as option.
- Designed to separate sand and dust from the air stream.
- Generally used for ventilation applications and at inlet duct of air handling unit.

## Standard finishes:

- Natural aluminium anodized finish.
- Finish as per RAL colour code.
- Flexibility of finishing available as option.



**SAND TRAP LOUVER  
WITH FILTER**
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**CONSTRUCTION:**

**Frame and blades:** 1.5 mm and 1.2 mm thick high quality extruded aluminium profiles.

**Bird screen:** 12 mm x 12 mm x 1 mm diameter G.I wire mesh as standard. 12 mm x 12 mm x 1.5 mm diameter aluminium wire mesh as option.

**Drain:** 20 mm diameter self drain holes at the bottom of the louver.

**Filter frame:** 20 gauge aluminium sheet.

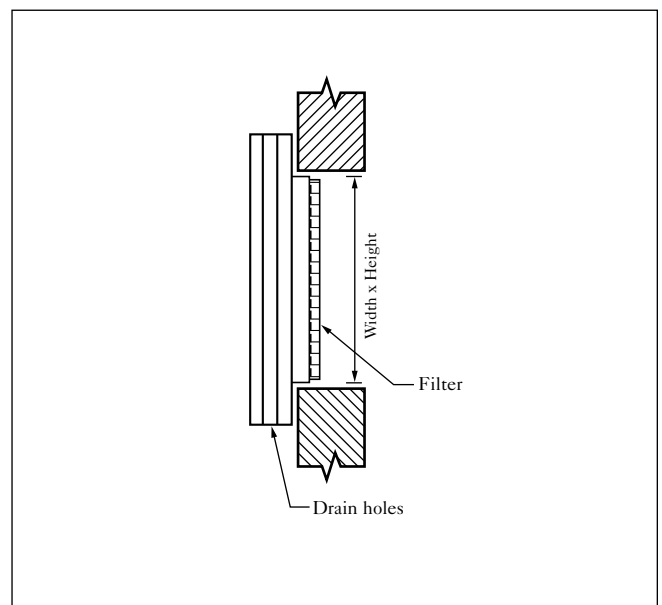
**Filter media:** Expanded aluminium media. Synthetic filter is optional.

**Description:**

- The frame and blades are of high quality extruded aluminium profiled construction with the advantages of corrosion resistance and rigidity.
- Composed two sets of inverted U-channels mounted vertically on two opposite rows.
- Drain holes of diameter 20 mm are provided in two rows at the bottom of the louver for emptying filtered sand and dust.
- Fixed with a removable washable extruded aluminium filter with aluminium mesh as the filter media.
- Filters are available at 12, 25 and 50 mm thickness as required.
- Total assembly is designed to operate at medium and high velocities with high dust holding capacity at low resistance to air flow.
- Can be manufactured from G.I or SS as option.
- Design to separate sand and dust from the air stream. Generally used for ventilation applications and at inlet duct of air handling unit.

**Standard finishes:**

- Natural aluminium anodized finish.
- Finish as per RAL colour code.
- Flexibility of finishing available as option.





## CONSTRUCTION:

**Frame and blades:** 1.5 mm and 1.2 mm thick high quality extruded aluminium profiles.

**Bird screen:** 12 mm x 12 mm x 1 mm diameter G.I wire mesh as standard. 12 mm x 12 mm x 1.5 mm diameter aluminium wire mesh as option.

**Drain:** 20 mm diameter self drain holes at the bottom of the louver.

**Damper:** Galvanized steel sheet construction.

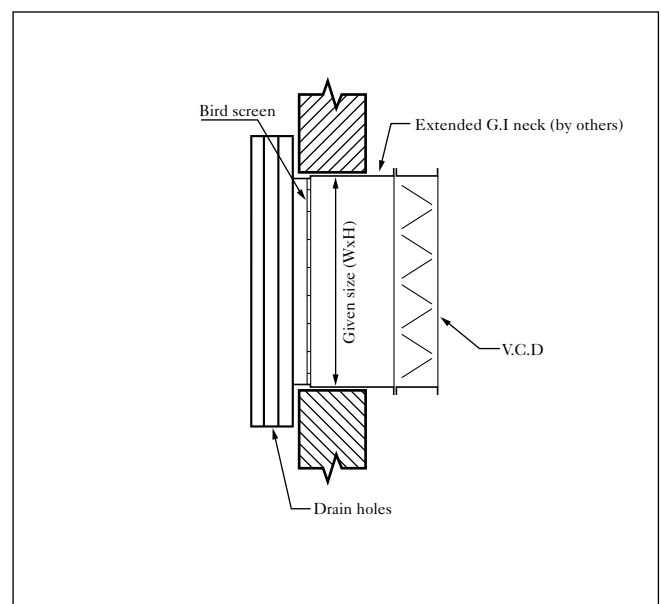
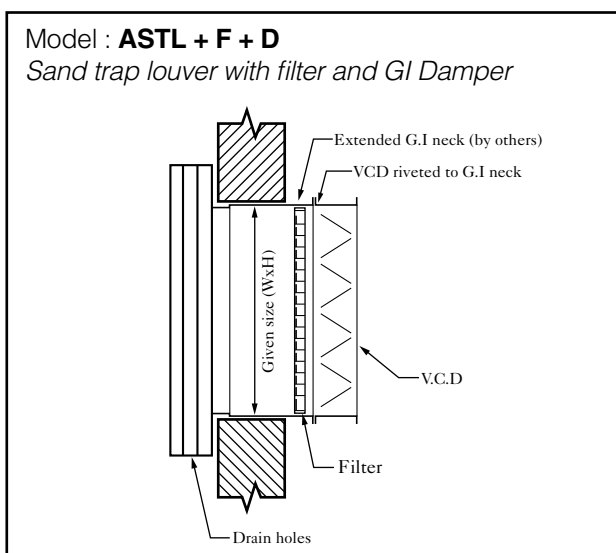
**Damper blades:** High quality extruded aluminium profiles.

## Description:

- Manufactured from high quality extruded aluminium profiles with the advantages of corrosion resistance and rigidity.
- Composed two sets of inverted U-channels mounted vertically on two opposite rows.
- Drain holes of diameter 20 mm are provided in two rows at the bottom of the louver for emptying filtered sand and dust.
- Can be manufactured from G.I or SS as option.
- Fixed with a removable volume control damper to ensures positive control over the fresh air stream.
- Damper can be operated manually from the back of the louver or can be motor operated.
- Designed to separate sand and dust from the air stream. Generally used for ventilation applications and at inlet duct of air handling unit.

## Standard finishes:

- Natural aluminium anodized finish.
- Finish as per RAL colour code.
- Flexibility of finishing available as option.



**SAND TRAP LOUVER**  
HIGH EFFICIENCY**air master**  
ISO 9001 CERTIFIED COMPANY**CONSTRUCTION:**

**Frame:** 2mm thick extruded aluminium formed sheets.

**Blades:** 6063 high grade aluminium blade 2 mm thick.

**Sand Chute:** 1.5 mm thick aluminium sheet.

**Description:**

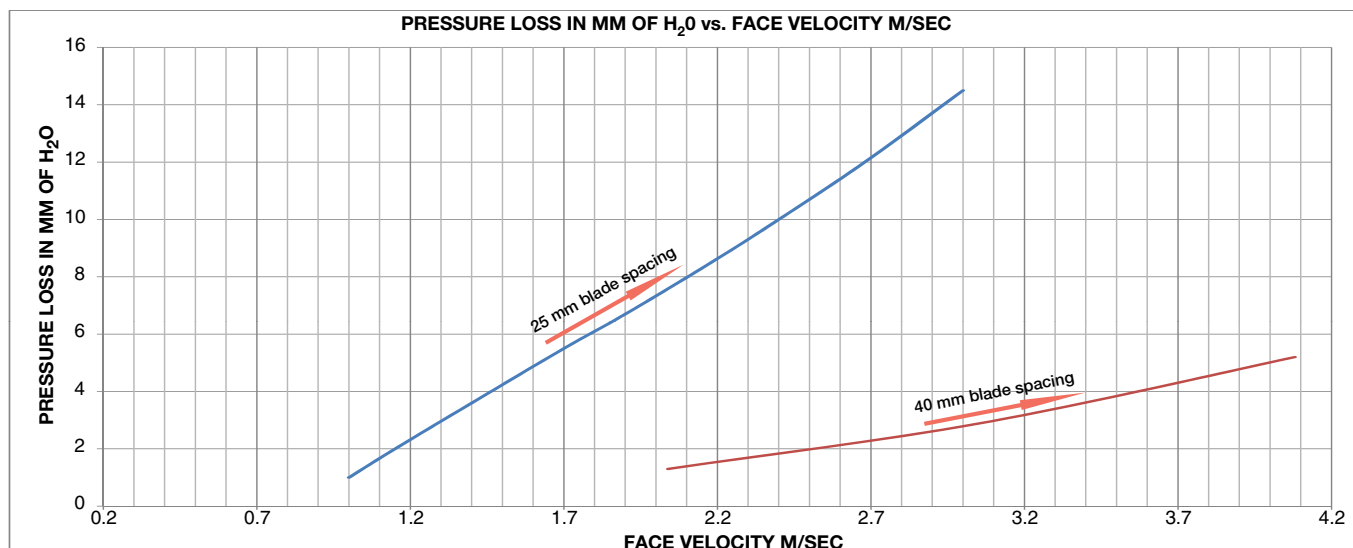
- Designed to filter sand particles at high intake velocities, with high efficiency which is more than 90% and lesser pressure drop.
- It has the advantage of more free area so that sizes of usual sand trap louvers can be reduced to 25% of the normal sizes.
- Composed of a row of blades mounted vertically inside the frame.
- Designed to separate sand and dust from the air stream.
- The filtered sand will be drained through a sand chute fixed at the bottom of the louver.
- Generally used for ventilation applications and at inlet duct of air handling unit.

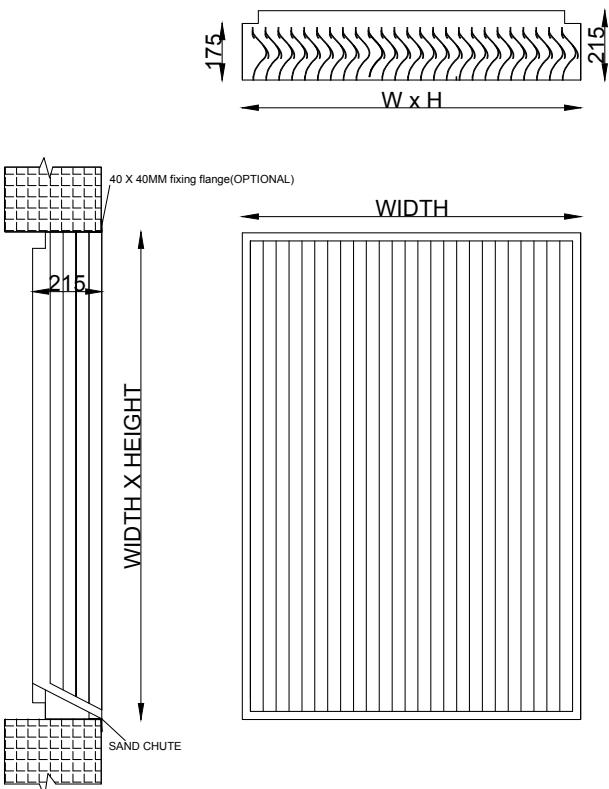
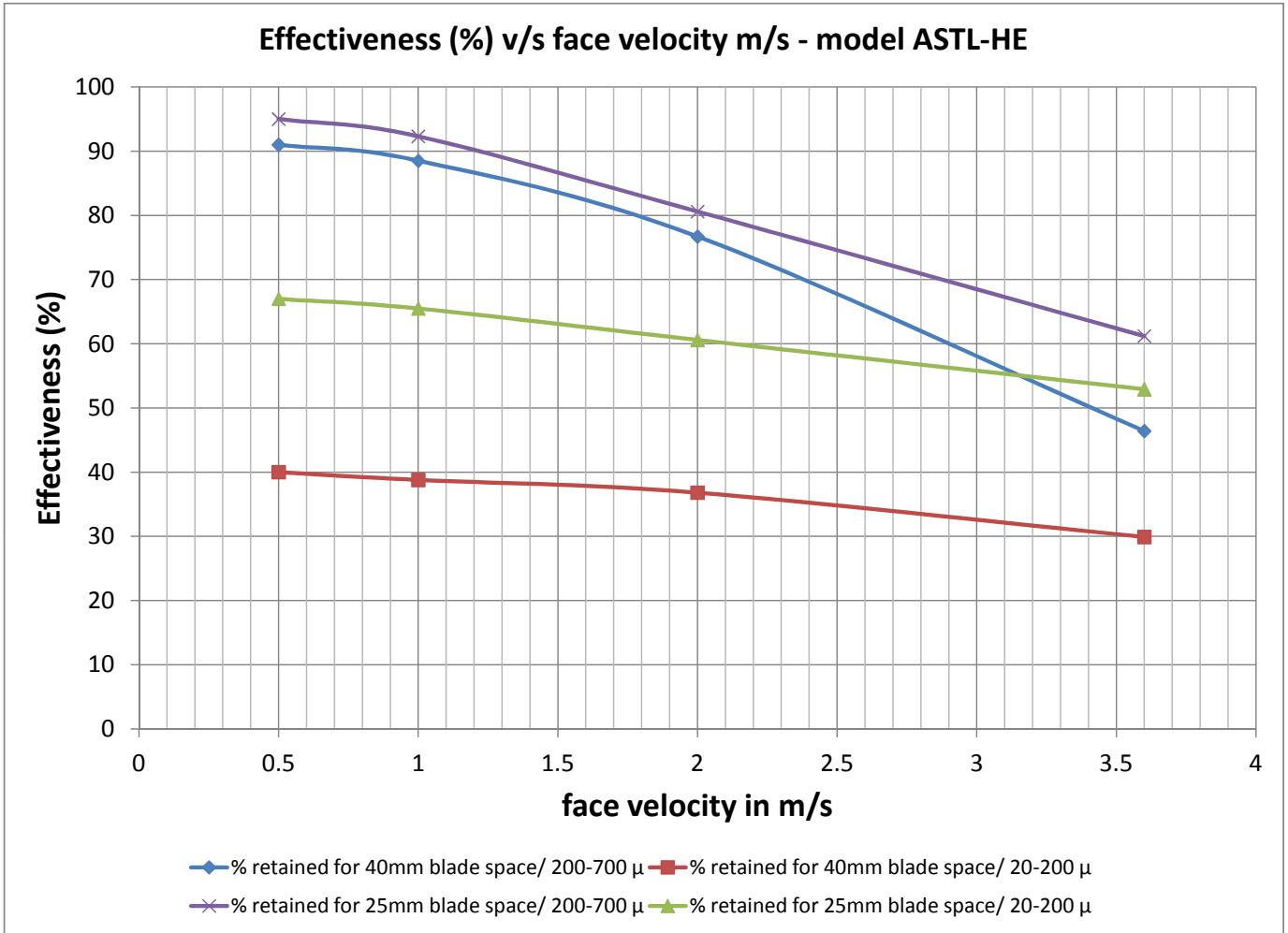
**Standard finishes:**

- Natural anodized aluminium finish.
- Powder coated colour finish as per RAL colour code.
- Flexibility of finish available as option.



Main & inset picture:  
ASTL-HE installed at Doha convention centre.





### High Efficiency Sand Trap Louver

**FLUSH MOUNTED  
SAND TRAP LOUVER**
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**CONSTRUCTION:**

**Frame and blades:** 1.5 mm and 1.2 mm thick high quality extruded aluminium profiles.

**Bird screen:** 12 mm x 12 mm x 1 mm diameter G.I wire mesh as standard. 12 mm x 12 mm x 1.5 mm diameter aluminium wire mesh as option.

**Sand chute:** Aluminium sheet tray of 1.2 mm thickness.

**Description:**

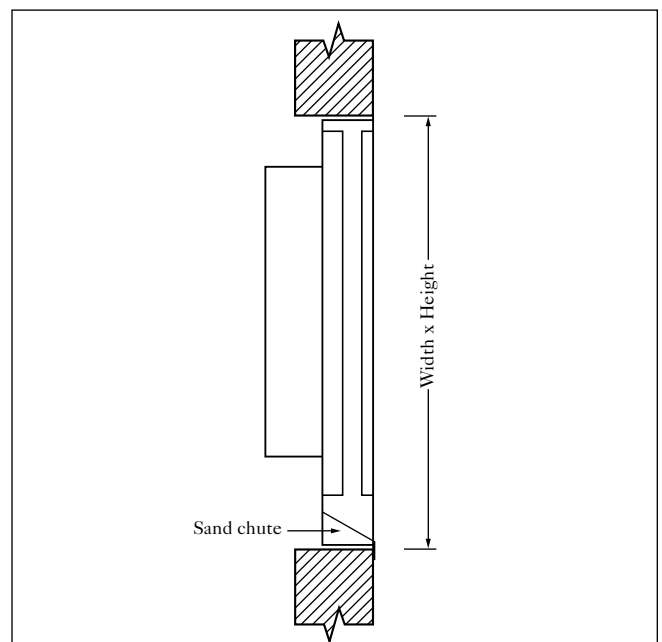
- The frame and blades are of high quality extruded aluminium profiled construction with the advantages of corrosion resistance and rigidity.
- Composed two sets of inverted U-channels mounted vertically on two opposite rows.
- Surface of the louver is fixed flush on the plane of the wall. The filtered sand will be drained through a sand chute.
- Sand chute is an inclined tray fixed at the bottom of the louver for sand drain.
- Designed to separate sand and dust from the air stream.
- Generally used for ventilation applications and at inlet duct of air handling unit.
- Can be manufactured from G.I or SS as option.

**Standard finishes:**

- Natural aluminium anodized finish.
- Finish as per RAL colour code.
- Flexibility of finishing available on option.



AFSTL supplied to Abu Dhabi National Exhibition Center



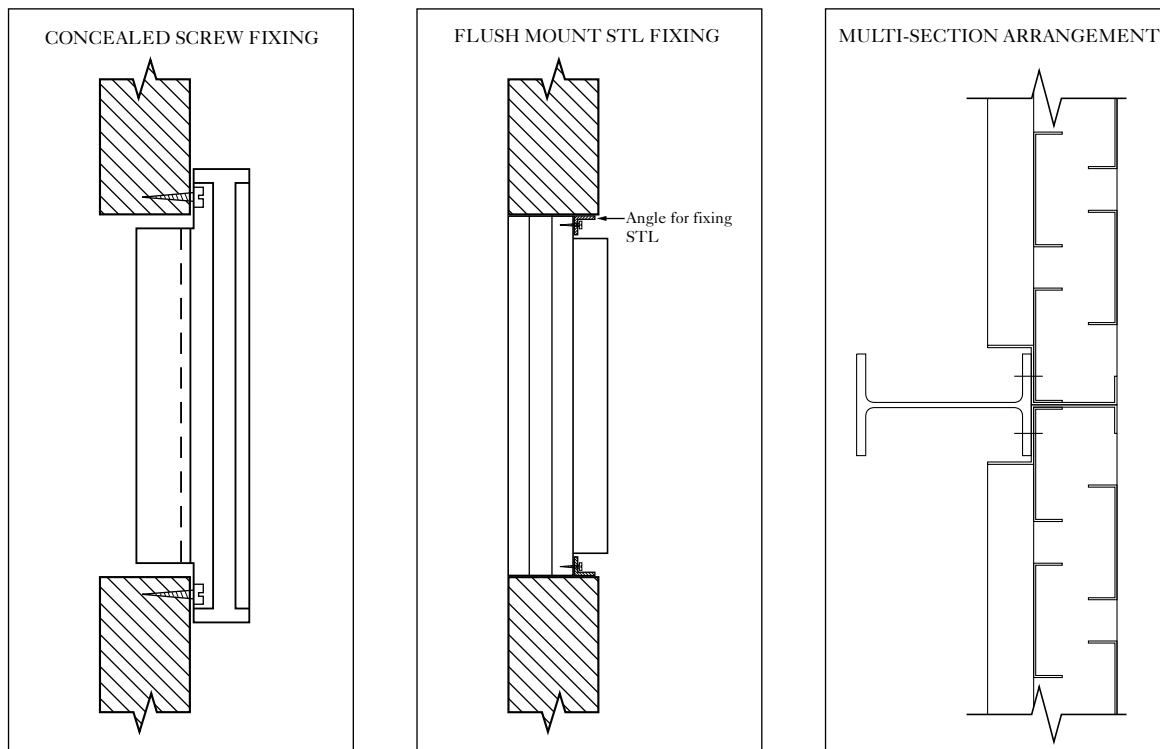


## Standard sizes:

- Available in square and rectangular sizes.
- All combination of width x height.
- Non standard sizes are available.

<b>Width in mm</b>	150	300	450	600	750	900	1050	1200	1350	1500
<b>Height in mm</b>	150	300	450	600	750	900	1050	1200	1350	1500

## Fixing details:



## Heavy Duty STL specification:

For special purpose projects, Air master offers heavy duty sand trap louvers constructed using 2 mm thick frame and 1.5 mm thick blade.

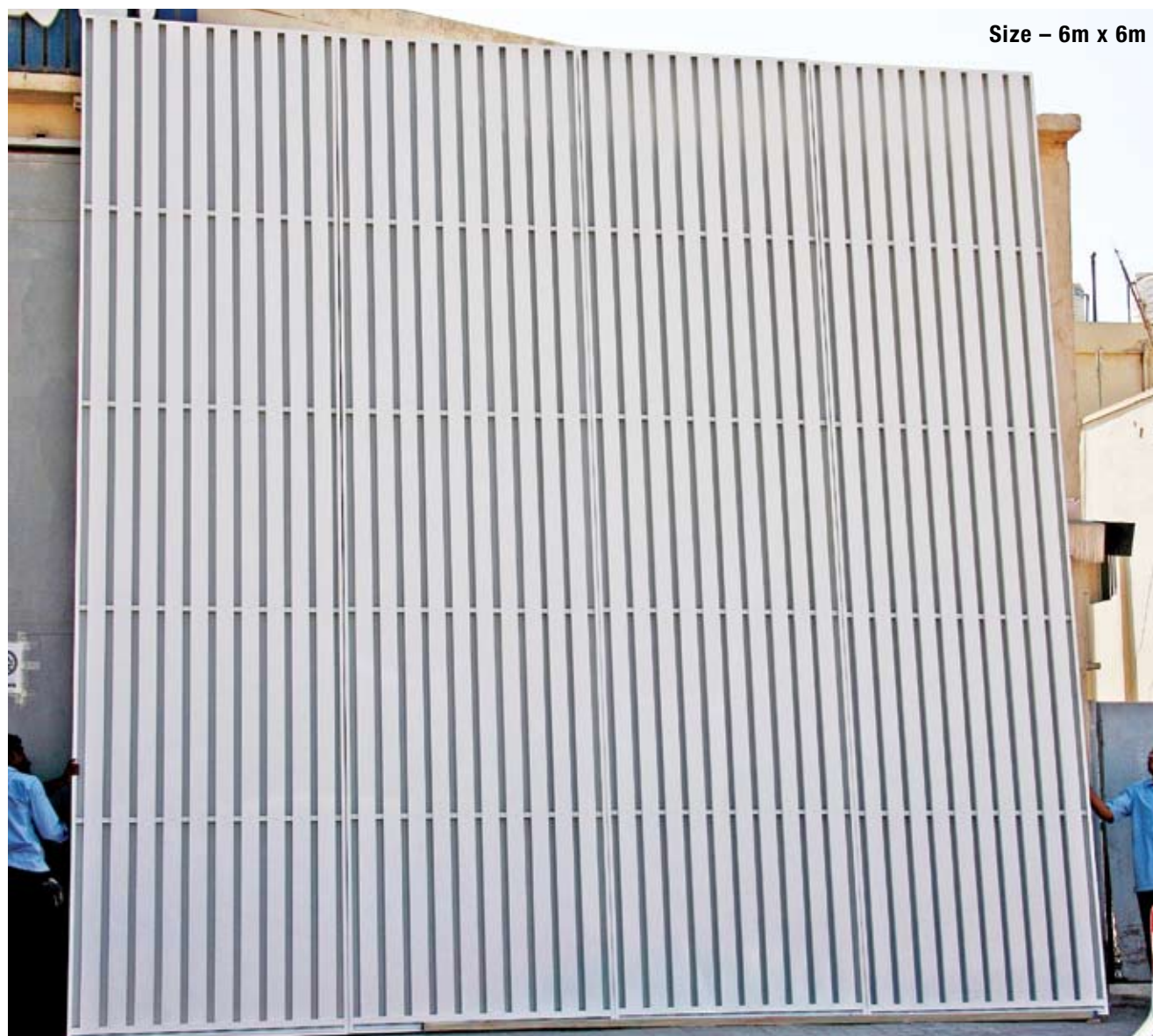
# PRODUCT SUMMARY & ORDER CHECKLIST



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## Product Summary:

Model	Product Description	Optional accessories
<b>ASTL</b>	Sand trap louver	
<b>ASTL+F</b>	Sand trap louver with filter	
<b>ASTL+D</b>	Sand trap louver with damper	
<b>ASTL+D+F</b>	Sand trap louver with filter and damper	
<b>ASTL-HD</b>	Sand trap louver Heavy Duty	
<b>AFSTL</b>	Flush mount sand trap louver	
<b>ASTL-HE</b>	High efficiency sand trap louver	Blade spacing <ul style="list-style-type: none"> <li>• 25 mm</li> <li>• 40 mm</li> </ul>



## Product order checklist:

- Model number (please refer product summary above)
- Size
- Colour ( RAL 9010, 9016, Anodized aluminium finish or other RAL Colours)
- Quantity

## DETERMINING ASTL SIZE

### How to Size ASTL and AFSTL:

*Note: For optimum performance of sand trap louver with lower pressure drop and higher efficiency, we recommend a face velocity of up to 1m/s.*

For a known air quantity, calculate face area as follows:

$$\text{Face area (m}^2\text{)} = \frac{\text{Air quantity (m}^3\text{/sec)}}{\text{Face velocity (m/sec)}}$$

The length (m) and width (m) of sand trap louver can be determined from the face area calculated with respect to the opening provided at the site.

If only free area is known, calculate face area as follows:

$$\text{Face area (m}^2\text{)} = \text{Free Area (m}^2\text{)} \times 2.7$$

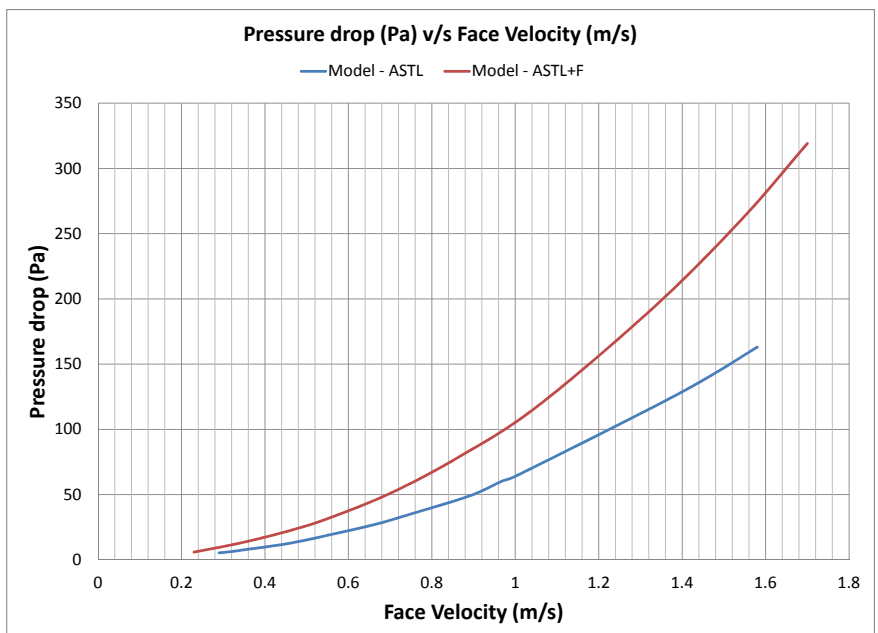
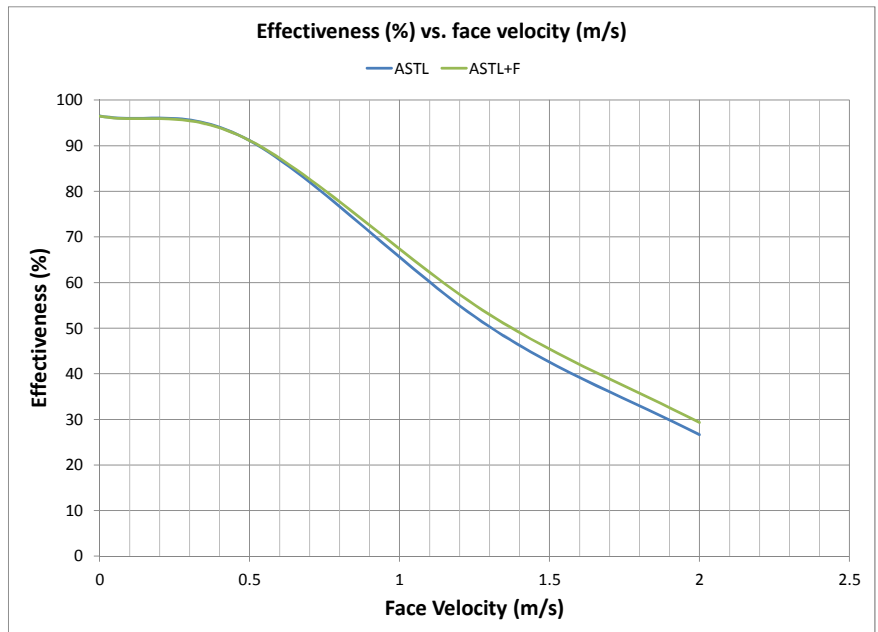
The length (m) and width (m) of sand trap louver can be determined from the face area calculated with respect to the opening provided at the site.

$$\text{Face Velocity (m/s)} = \frac{\text{Air quantity (m}^3\text{/sec)}}{\text{Face area (m}^2\text{)}}$$

$$\text{Free Area Velocity (m/s)} = \frac{\text{Air quantity (m}^3\text{/sec)}}{0.36 \times \text{Length(m)} \times \text{Width(m)}}$$

$$1 \text{ m}^3\text{/sec} = 1000 \text{ LPS (Litres per second)}$$

*Printed data based on face velocity and test results from accredited third-party testing laboratories.*





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