Sand Trap Louvre
Types WSL and AWSL
For Building Facades
The sand trap louvre is used as pre-filter for the protection of air conditioning plants in areas exposed to extreme levels of industrial pollution. It has a degree of separation of sand and large dust particles, even in cases of high dust concentration. The vertically arranged sections and holes for sand drainage ensure the sand trap louvre is self-cleaning and maintenance-free.

The sand trap louvre is designed to separate large particles at low air velocities, thus avoiding excessive dust loading on conventional air filters. It is not intended as a substitute for conventional supply air filtration plant.

Order Code

Type
- WSL - 0
- AWSL - Aluminium sand trap louvre.
- WSL - Galvanised steel sand trap louvre.

Standard Sizes
900 x 900
B x H

Wire Mesh
0 - GI mesh 12 x 12 x 1.1 mm
1 - SS 304 mesh 12 x 12 x 1.2 mm
2 - SS 316 mesh 12 x 12 x 1.2 mm
N - Without wire mesh

Finish/Colour
- A1 = Aluminum mill finish
- G0 = Pre Galvanised sheet
- P9 = External use powder coat finish to RAL colour

Not Used
0 / 0 / P9 / RAL 9010

Order Example
Make: TROX
Type: AWSL / 1800 x 1350 / 0 / 0 / P9 / RAL 9010
Dimensions

<table>
<thead>
<tr>
<th>Standard Sizes . Single Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width B in mm</td>
</tr>
<tr>
<td>Height H in mm</td>
</tr>
</tbody>
</table>

*With split blades and sand chute (see Detail 1)*

All combinations for B and H dimensions can be supplied. For sizes larger than indicated in the table several sections can be combined to provide any combination of overall width or height.

Sand trap louvres with H between 1050 and 1949 integral sand chutes are fitted (see detail 1), H between 150 and 3900 they are split on height and supplied with additional sand chute (see details 2), loose for fitting on site by others. The additional support for reinforcement and assembly of the sand trap louvre combination is to be supplied on site by others.

Construction

Two rows of vertically arranged channels sections to form a labyrinth for the air path. Base frame has drainage holes for the sand ensuring the louvre is self-cleaning and maintenance free.

Materials

Basic construction either aluminum (AWSL) or galvanized steel (WSL). Standard finish AWSL mill, WSL galvanized or power coated RAL RAL9010, other RAL colours on request.

Fixing

Louver rear section to be site drilled for fixings supplied by others.

Weight

Net weight without packing
Aluminum approx. 18kg per m² of area (B x H)
Steel approx. 27 kg per m² of area (B x H)
Filtration

The filtration performance is dependant on the dust type and the velocity of the air:

<table>
<thead>
<tr>
<th>Particle Size Range (mm)</th>
<th>Filtration Efficiency in % at 1.0 m/s</th>
<th>Filtration Efficiency in % at 2.0 m/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>350 - 700</td>
<td>90</td>
<td>70</td>
</tr>
<tr>
<td>75 - 700</td>
<td>60</td>
<td>approx. 30</td>
</tr>
</tbody>
</table>

Example

For normal operation conditions the sand trap louvres should be rated for a face velocity of approx 1.0 m/s

Volume flow 2430 l/s (8750 m³/h)
With a face velocity of 1.0 m/s
Area of louvre required approx. 2.4 m²

Dimensions selected
- Assembly width 1800 mm
- Assembly height 1350 mm

Total pressure drop approx. 30 Pa

Specification Text

This specification describes the general properties of the product.

Sand trap louvres for the protection of air intakes exposed to extreme levels of industrial / sand pollution.
To separate large dust particles / sand at low air velocities, to be self-cleaning and maintenance free.
To be used as initial filter to protect conventional air filters from excessive dust loading.