

Sand Trap Louvre

Types WSL and AWSL
for Building Façades



TROX® **TECHNIK**

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Description

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 concentrations. 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 plant filters. It is not intended as a substitute for conventional supply air filtration plant.



Materials

Basic construction either aluminium (AWSL) or galvanised steel (WSL). Bird screen galvanized steel mesh 12 x 12 x 1 mm.

Standard finish AWSL mill, WSL galvanized or powder coated RAL RAL 9010 25% gloss, other RAL colours and of gloss finish on request. For all external application AWSL powder coat finish to BS EN 12206-1;2004, WSL powder coat finish to BS EN 13438:2005.

Louvre Fixing

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

Dimensions

Standard Sizes · Single Section

Width B in mm	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1949
Height H in mm	150	300	450	600	750	900	1050 ¹⁾	1200 ¹⁾	1350 ¹⁾	1500 ¹⁾	1650 ¹⁾	1800 ¹⁾	1949 ¹⁾

¹⁾ 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 1950 and 3900 they are split on height and supplied with additional sand chute (see detail 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. Sand trap louvres with B = 1950 to 3900 are also split into end section left, end section right and middle if required. The vertical joint between two end sections of sand trap louvre is capped on site by others with a loose channel section supplied.

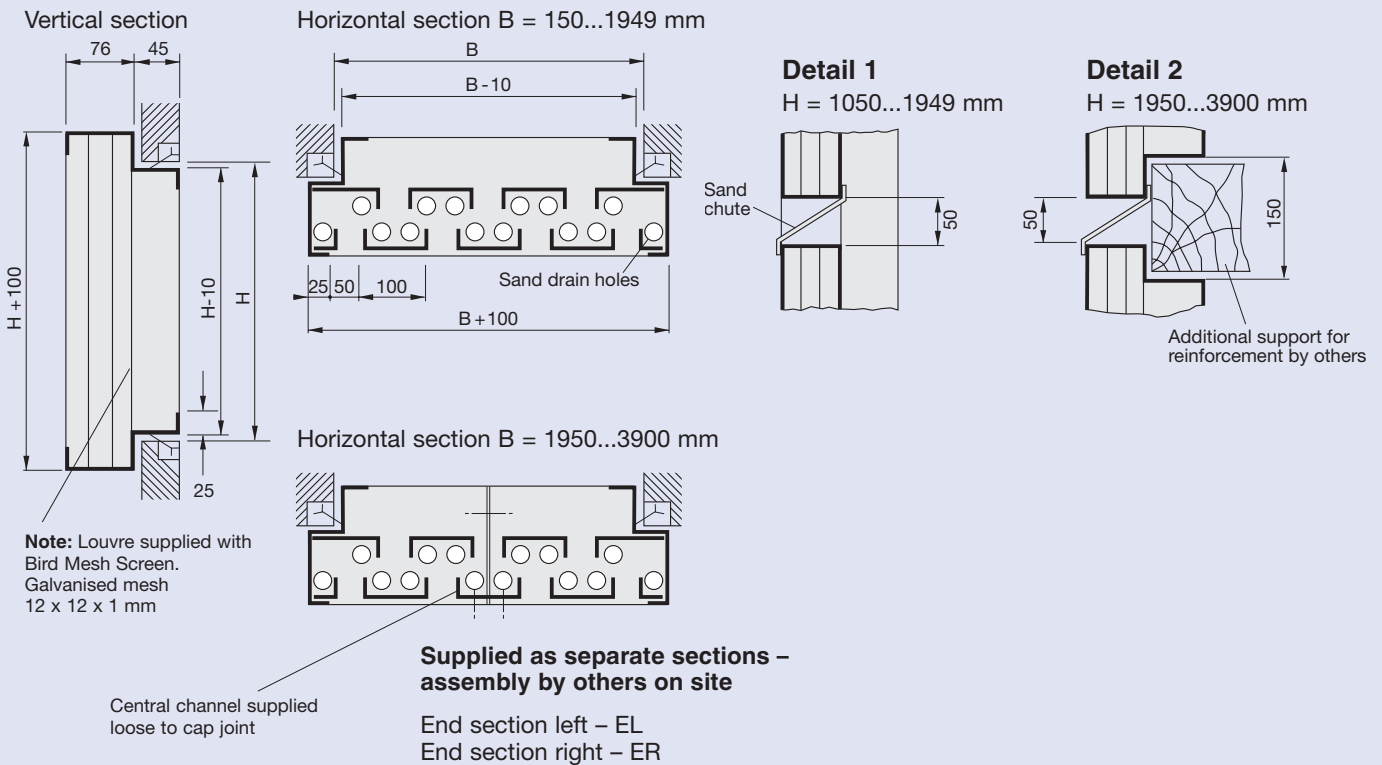
Construction

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.

Weight

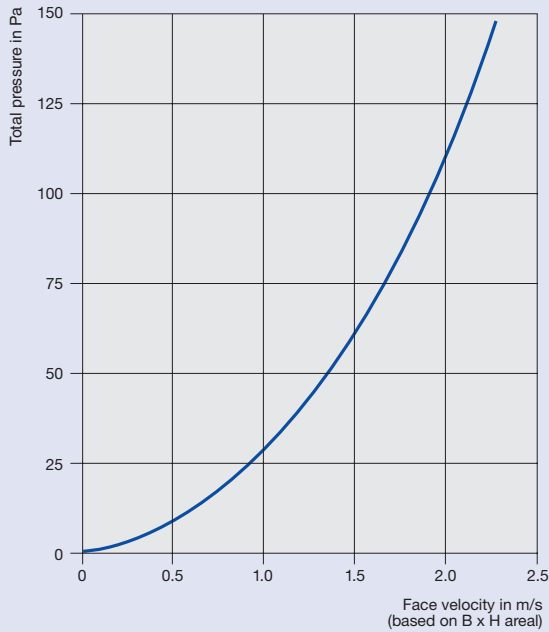
Net weight without packing
 Aluminium approx. 18 kg per m² of area (B x H)
 Steel approx. 27 kg per m² of area (B x H)

Construction



Technical Data · Order Details

Pressure Drop



Filtration

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

Particle Size Range	Filtration Efficiency in %	
	at 1.0 m/s	at 2.0 m/s
350-700	90	70
75-700	60	approx. 30

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) m ³ /h
With a face velocity of 1.0 m/s	
Area of louvre required	approx. 2.4 m ²
Dimensions selected	
– Assembly width	1800 mm
– Assembly height	1350 mm
Total pressure drop	approx. 30 Pa

Order Code

- WSL /
 900 x 900 /
 0 /
 0 /
 P9 /
 RAL 9010 /
 25% Gloss

Complete Louvre or multi-section ¹⁾²⁾
 M = middle section
 EL = end left section
 ER = end right section

Standard Sizes
 B x H

Not used

Finish/colour
 A1 = Aluminium mill finish
 G0 = Pre Galvanised sheet
 P9 = External use Powder coat finish to RAL colour

RAL colours and levels of gloss finish on request

Type
 AWSL - Aluminium sand trap louvre with galvanised steel bird screen.
 WSL - Galvanised steel sand trap louvre with galvanised steel bird screen.

¹⁾ Split on H Dimension when H exceeds 1949 mm

²⁾ Split on B Dimension when B exceeds 1949 mm

Specification Text

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 plant filters from excessive dust loading.

Order Example

Make: TROX

Type: AWSL / 1800x1350 / 0 / 0 / P9 / RAL 9010 / 25% Gloss