

Sand Louvres

SL-EF SL-RF

Introduction

The SL series sand louvres have been designed as first stage separators of airborne sand and dust, thereby reducing the dust loading on ventilation filtration equipment.

The attractive, compact and yet simple design uses 'inertia separation' techniques in a two stage baffle arrangement to separate particles and return them to the face via a lower blade chute.

Product Description

SL-EF external flanged sand louvre

SL-RF recessed frame sand louvre

Features

- Compact design
- Heavy duty extruded aluminium frame and blades
- Attractive vertical blade arrangement
- Integral collection chute
- Flanged or recessed frame options

Finish

PPM9006 (RAL 9006 Matt Silver)

PPM9010 (RAL 9010 20% Gloss White)

PPG9010 (RAL 9010 Gloss White)

Other colours available on request

Weights

14.0 kg/m² panel

Panel Sizes

From 320mm x 300mm up to 1533mm wide x 1500mm high.

Refer to table below for full details.

Screen Options

BS Birdscreen

IS Insect screen

Advantages

- Lightweight, extruded aluminium frame and blade system
- Sand and weather proof

Fixings

SF Screw fixing

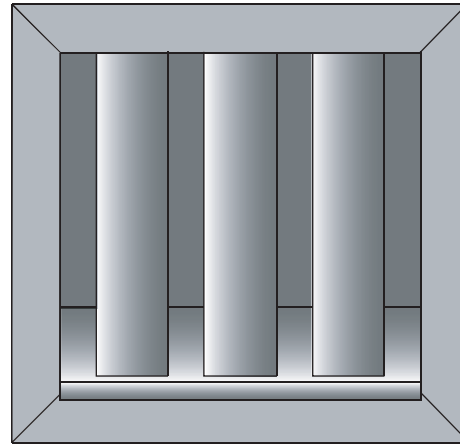
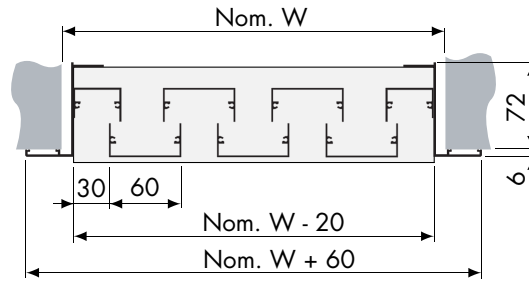
LF Rear lug fixing

NF No fixing

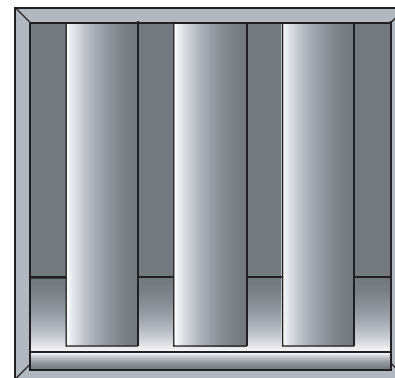
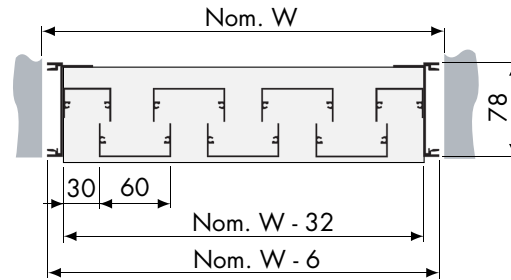
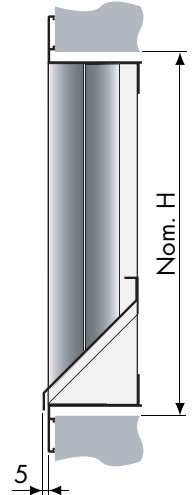
Free Area

SL

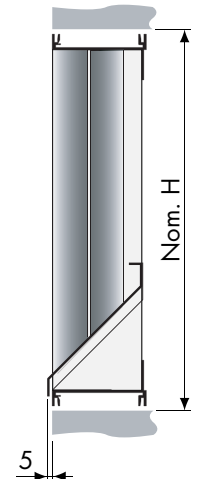
18%



SL-EF



SL-RF



Order Example

SL-EF/1520x1500/SF/PPM9006/BS

Frame _____

Nominal Width _____

Nominal Height _____

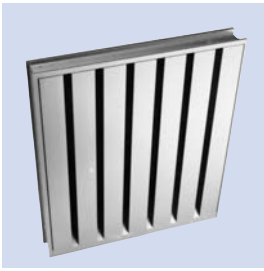
Fixing _____

Finish _____

Screen _____

Permissible Sizes

	Min & Max Nominal Opening Width						Min & Max Opening Height
	Single Panel		2 Panel		3 Panel		
	EF Frame	RF Frame	EF Frame	RF Frame	EF Frame	RF Frame	
Min	320	333	1605	1618	3130	3143	Min 300
Max	1520	1533	3045	3058	4570	4583	Max 1500



Selection Example for a flanged louvre 1520mm wide x 1500mm high louvre handling 2280 l/s

Total air volume/area : $2280 / (1520 \times 1500) = 2280 / 2280 = 1 \text{ m/s}$

From charts

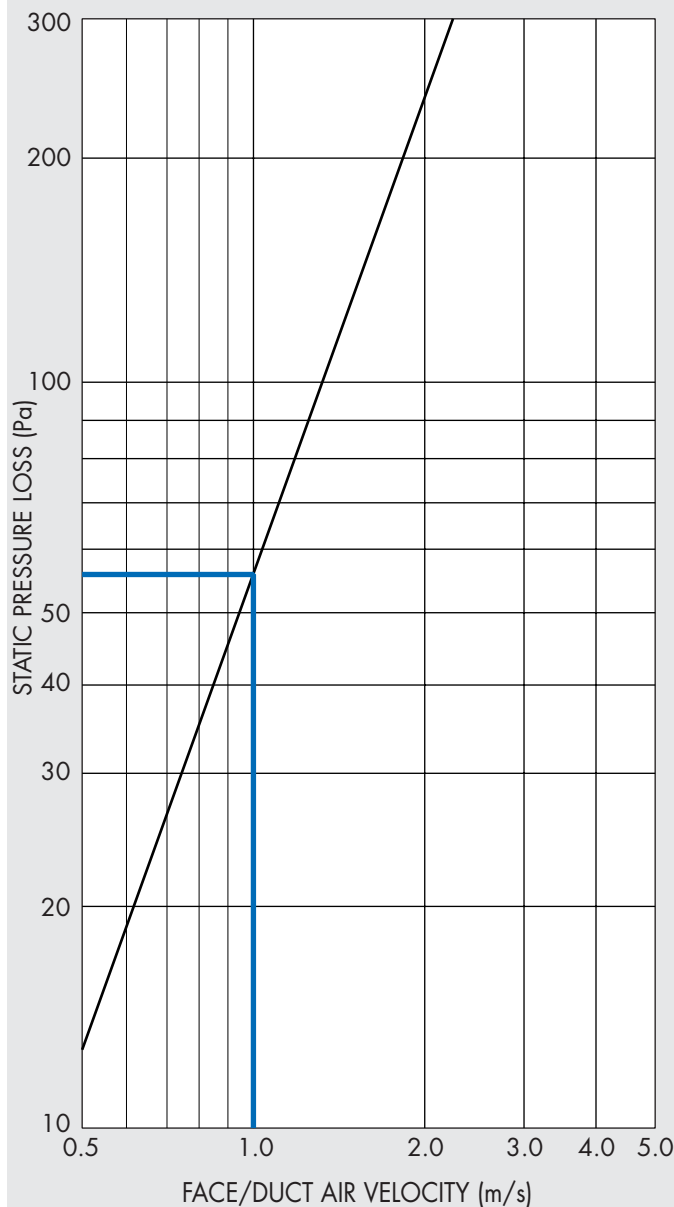
NR_{LW} = 41
 P_a = 58
 Efficiency = 67%

Frequency Spectrum Corrections (Hz)

125	250	500	1k	2k	4k
+6	+5	+2	0	-6	-12

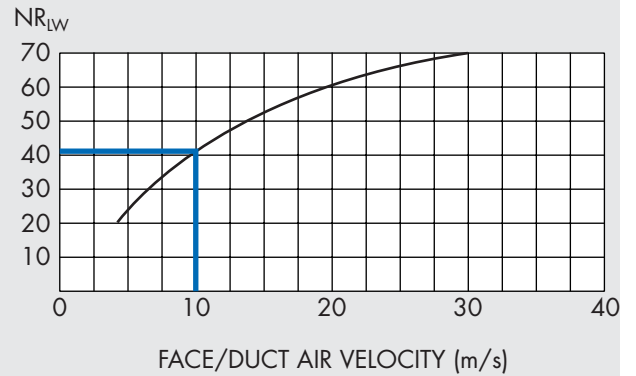
PRESSURE LOSS

The graph below gives static pressure loss across the louvre for intake or exhaust applications.



NOISE GENERATION

The graph below gives NR_{LW} levels based on peak sound power level plotted on noise rating (NR) curves. To obtain octave band sound power levels apply the spectrum corrections shown to the NR_{LW} level.



EFFICIENCY

Sand rejection efficiency using a standard sand having grains sized between 100 and 1000 microns with 90% between 150 and 425 microns. Sand collected by the double channel construction drops to the base of the louvre and a chute directs the sand back to the face.

$$\text{Efficiency} = \frac{\text{weight of sand rejected}}{\text{weight of sand injected}} \times 100$$

