

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

Finishes

PPG9010 (RAL 9010 Gloss - 80% Gloss White)

PPM9010 (RAL 9010 Matt - 20% Gloss White)

PPM9006 (RAL 9006 Matt - 30% Gloss Silver)

Other colours available on request

Weights

SL 14 kg/m² panel

Screen Options

BS Stainless steel bird screen

IS Aluminium insect screen

Advantages

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

Panel Sizes

SL-EF - 320mm x 300mm up to 4570mm wide x 1500mm high.

SL-RF - 333mm x 300mm up to 4583mm wide x 1500mm high.

Refer to table for full details.

Fixing

SF Screw Fixing

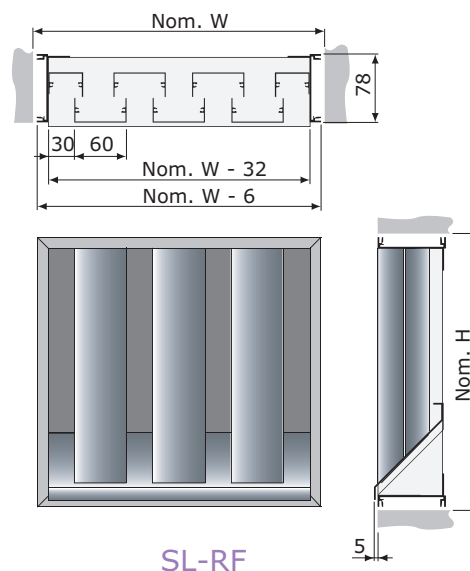
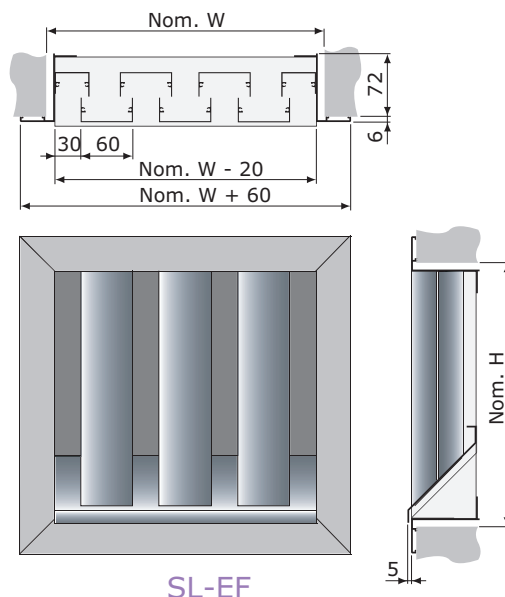
LF Rear Lug Fixing

NF No Fixing

Free Area
SL
18%

ORDER EXAMPLE

SL-EF/1520/1500/SF/PPM9006/BS
 Frame ☐
 Nominal Width ☐
 Nominal Height ☐
 Fixing ☐
 Finish ☐
 Screen ☐



Bird mesh

- Aperture size 13 x 13mm
- Wire diameter 1.6mm
- Free area 80%
- Material Stainless steel

Insect mesh

- Aperture size 1.31mm x 1.13mm
- Wire diameter 0.28 mm
- Free area 66%
- Material Aluminium

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Selection Example

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:

dBA = 46

Pa = 58

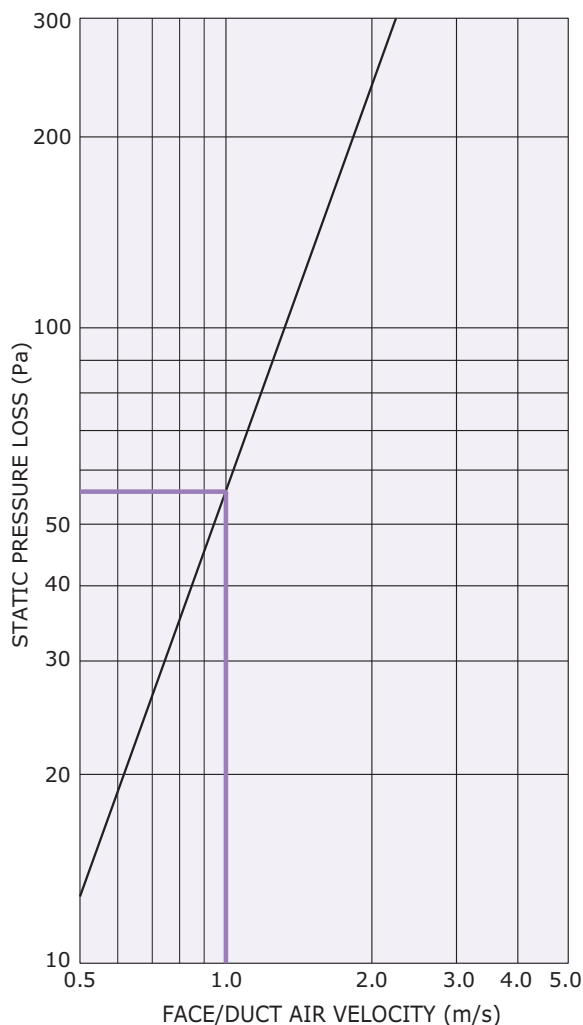
Efficiency = 67%

Frequency Spectrum Corrections (Hz)					
125	250	500	1k	2k	4k
+6	+5	+2	0	-6	-12

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

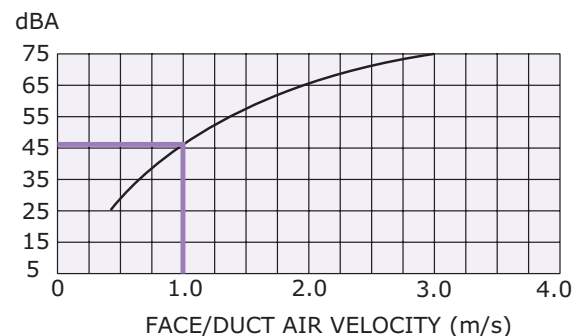
PRESSURE LOSS

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



NOISE GENERATION

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

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

