

Introduction

Noise emitted from plant through essential ventilation apertures can be effectively reduced by fitting modular acoustic louvres which are adaptable to a wide range of building service applications.

External plant equipment (centrifugal or axial fans handling large quantities of air, refrigeration equipment and compressors, etc) can be particularly noisy. Our Acoustic Louvre systems provide effective methods of minimising the environmental impact of such machinery by screening the plant from noise sensitive locations whilst allowing ingress of cooling air to the plant and maintaining an aesthetically pleasing louvred appearance.

The Waterloo Acoustic louvred screen and panels are designed to provide maximum attenuation of plant noise whilst at the same time being robust and aesthetically pleasing. They are ideal for use in screening plant rooms, generator buildings and roof-mounted air conditioning plant.



Manufacture

Waterloo acoustic louvres are manufactured from pre-galvanised mild steel with 1mm thick formed blades contained within a robust channel frame from 1.2mm thick sheet. External flanges where required are formed from 1.6-3mm thick GSS.

Louvre blades have a perforated under-face and are filled with highly absorbent mineral wool to provide maximum acoustic attenuation. The infill which is inert, vermin proof, non-combustible and non-hygroscopic is retained behind the perforations with a glass tissue interface to prevent entrainment of the absorbent medium.

Louvres can also be provided with a polyester powder coat Acoustic finish to any BS or RAL colour.

Performance

Type	Acoustic Louvre Sound Reduction Index (S.R.I.)						
	125	250	500	1k	2k	4k	Rw
LV	7	12	13	14	14	11	14
SV	7	8	12	22	28	23	16
WL/ALS	8	9	12	23	31	23	16-18
WL/ALS/DB	9	12	18	26	34	26	22-24

Option suffixes

EF	External Flange (50mm wide)
RF	Recessed Frame
BS	Birdscreen
IS	Insect screen
DC	Drip cill
P	Polyester Powder Coat finish to any standard stock RAL or BS colour
BP	Rear Blanking Panel
DB	Double Bank louvre
SS	Structural Steel Supports

Single panel sizes

LV & SV From 200mm x 200mm up to 2000mm wide x 1500mm high or 1500mm wide x 2000mm high.

WL/ALS From 200mm x 600mm up to 2000mm wide x 1500mm high or 1500mm wide x 2000mm high

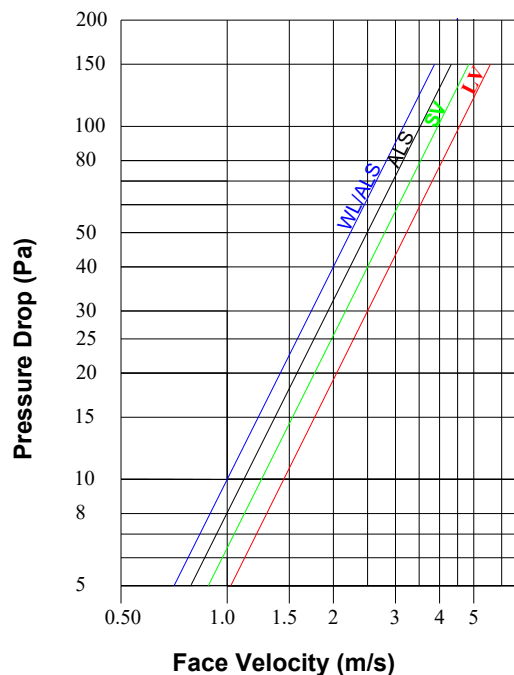
Acoustic Louvre Types

LV Particularly effective high level plant rooms and screens where 'line-of-sight' through the louvre is undesirable.

SV For use where weather resistance is important. Its low pressure drop characteristics make it ideal for fresh air inlet and discharge to atmosphere side openings.

WL/ALS A slightly larger blade format and steeper slope give excellent attenuation characteristics coupled with good weather resistance. Variable airway providing an incremental increase in acoustic performance for critical applications. Minimum height 600mm

Acoustic Louvres Aerodynamic Pressure Loss -



Product Data Sheet

WL/ALS

The WL/ALS range of Acoustic Louvres provides good broad band attenuation which is particularly effective at medium and high frequencies. The range has been designed with excellent weathering characteristics.

Construction

Acoustic Louvre constructed from pre-galvanised mild steel sheet with 1.2mm thick robust channel frame incorporating profiled blades from 1mm thick formed steel sheet riveted to retaining frame.

The acoustic media is retained in each louvre blade by a perforated flattened expanded metal sheet with a minimum 33% free area.

The acoustic media is a highly absorbent mineral wool (45kg/m³ density) providing maximum acoustic attenuation. The infill which is inert, vermin proof, non-combustible and non-hygroscopic is retained behind the perforations with a glass tissue interface to prevent entrainment of the absorbent medium.

External flanges (where specified) are form from 1.6-3mm thick GSS with welded corners and mechanically fixed to the louvre frame.

Bird screen provide to rear face of louvre as standard.

Larger units are provided in modular sections. These are bolted together via the side frames with M6x25 stainless steel sets to provide a finished unit of any size.

Structural steelwork supports where required are designed by our specialist engineers to suit project specific criteria.

Materials

Acoustic louvres are fabricated from pre-galvanised mild steel sheet as standard. Waterloo Acoustic Louvres are also available in stainless steel and aluminium.

Visuals

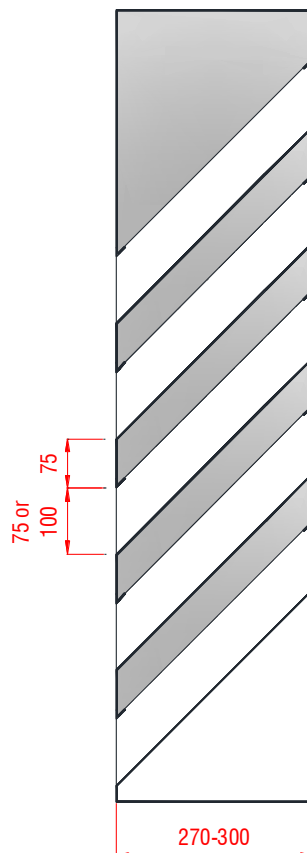
The louvre blades are inclined at 45° and mounted on a 150-175mm pitch within a standard 270-300mm nominal depth frame. The variable pitch provides for an incremental increase of acoustic performance for critical applications.

Performance

The WL/ALS Acoustic Louvres provides a nominal 35-40% free area, however this will vary dependent upon modular height. If in doubt seek assistance from one of our experienced acoustical engineers.

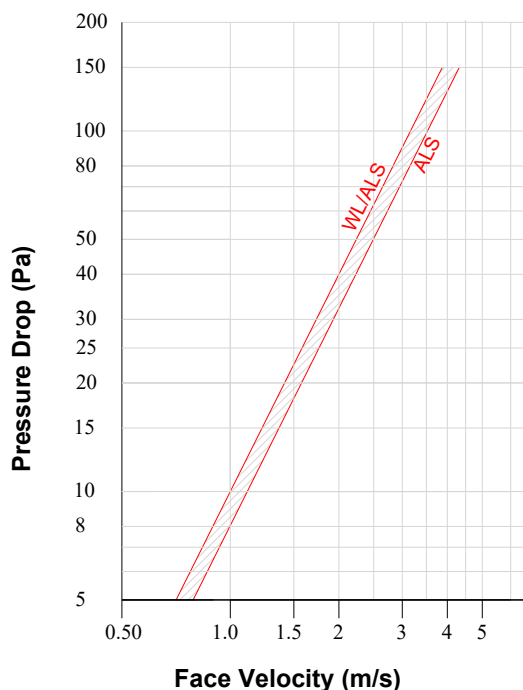
Type	Acoustic Louvre Sound Reduction Index (S.R.I.)						
	125	250	500	1k	2k	4k	Rw
WL/ALS	8	9	12	23	31	23	16-18

The SRI (sound reduction index) is quoted in accordance with ISO 140 Part III.



WLS/ALS

WL/ALS - Acoustic Louvres Aerodynamic Pressure Loss -



Product Data Sheet

WL/ALS/DB

The WL/ALSDB range of double banked Acoustic Louvres provides improved broad band attenuation which is particularly effective at medium and high frequencies. The range has been designed with excellent weathering characteristics.

Construction

Acoustic Louvre constructed from pre-galvanised mild steel sheet with 1.2mm thick robust channel frame incorporating profiled blades from 1mm thick formed steel sheet riveted to retaining frame.

The acoustic media is retained in each louvre blade by a perforated flattened expanded metal sheet with a minimum 33% free area.

The acoustic media is a highly absorbent mineral wool (45kg/m³ density) providing maximum acoustic attenuation. The infill which is inert, vermin proof, non-combustible and non-hygroscopic is retained behind the perforations with a glass tissue interface to prevent entrainment of the absorbent medium.

External flanges (where specified) are form from 1.6-3mm thick GSS with welded corners and mechanically fixed to the louvre frame.

Bird screen provide to rear face of louvre as standard.

Larger units are provided in modular sections. These are bolted together via the side frames with M6x25 stainless steel sets to provide a finished unit of any size.

Structural steelwork supports where required are designed by our specialist engineers to suit project specific criteria.

Materials

Acoustic louvres are fabricated from pre-galvanised mild steel sheet as standard. Waterloo Acoustic Louvres are also available in stainless steel and aluminium.

Visuals

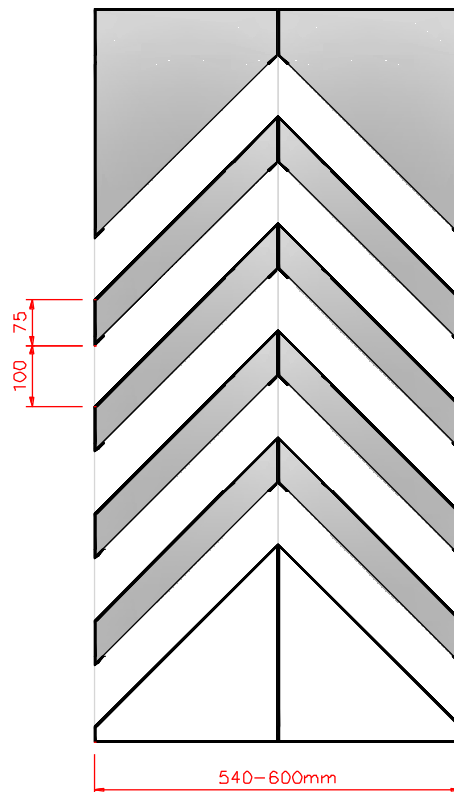
The louvre blades are inclined at 45° and mounted on a 175mm pitch within a standard 540-600mm nominal depth frame.

Performance

The WL/ALS Acoustic Louvres provides a nominal 35-40% free area, however this will vary dependent upon modular height. If in doubt seek assistance from one of our experienced acoustical engineers.

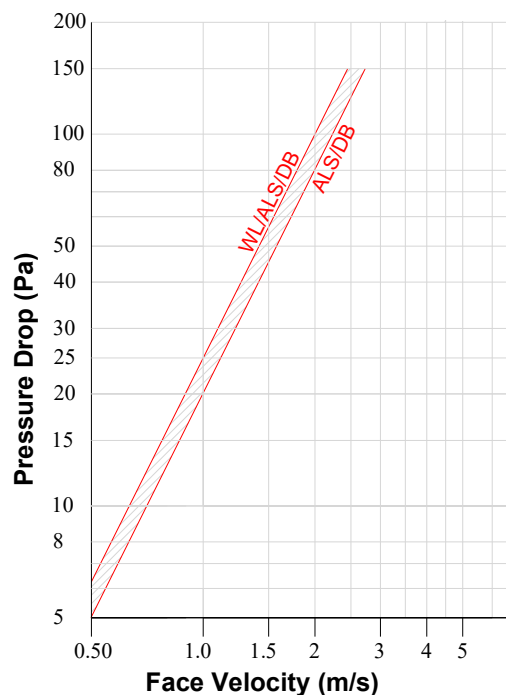
Type	Acoustic Louvre Sound Reduction Index (S.R.I.)						
	125	250	500	1k	2k	4k	Rw
WL/ALS/DB	9	12	18	26	34	26	22-24

The SRI (sound reduction index) is quoted in accordance with ISO 140 Part III.



WL/ALS/DB

WL/ALS/DB - Double Bank Acoustic Louvres Aerodynamic Pressure Loss -



Product Data Sheet

SV

The SV range of Acoustic Louvres provides improved broad band attenuation which is particularly effective at medium and high frequencies. The range has been designed with excellent airflow characteristics.

Construction

Acoustic Louvre constructed from pre-galvanised mild steel sheet with 1.2mm thick robust channel frame incorporating profiled blades from 1mm thick formed steel sheet riveted to retaining frame.

The acoustic media is retained in each louvre blade by a perforated flattened expanded metal sheet with a minimum 33% free area.

The acoustic media is a highly absorbent mineral wool (45kg/m³ density) providing maximum acoustic attenuation. The infill which is inert, vermin proof, non-combustible and non-hygroscopic is retained behind the perforations with a glass tissue interface to prevent entrainment of the absorbent medium.

External flanges (where specified) are form from 1.6-3mm thick GSS with welded corners and mechanically fixed to the louvre frame.

Bird screen provide to rear face of louvre as standard.

Larger units are provided in modular sections. These are bolted together via the side frames with M6x25 stainless steel sets to provide a finished unit of any size.

Structural steelwork supports where required are designed by our specialist engineers to suit project specific criteria.

Materials

Acoustic louvres are fabricated from pre-galvanised mild steel sheet as standard. Waterloo Acoustic Louvres are also available in stainless steel and aluminium.

Visuals

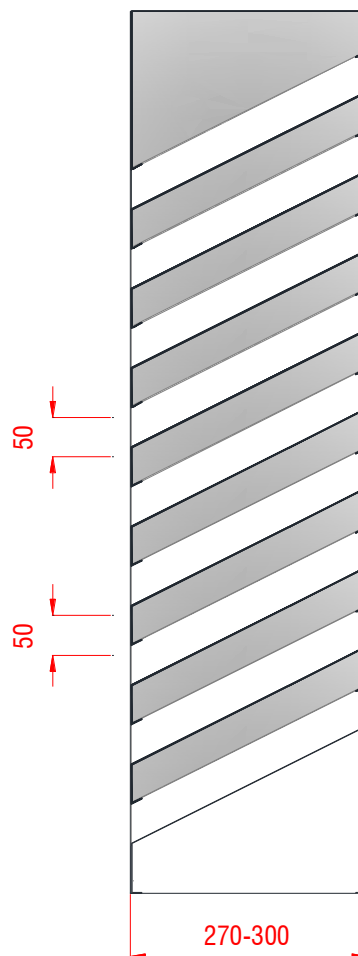
The louvre blades are inclined at 26° and mounted on a 100mm pitch within a standard 270-300mm nominal depth frame.

Performance

The SV Acoustic Louvres provides a nominal 42% free area, however this will vary dependent upon modular height. If in doubt seek assistance from one of our experienced acoustical engineers.

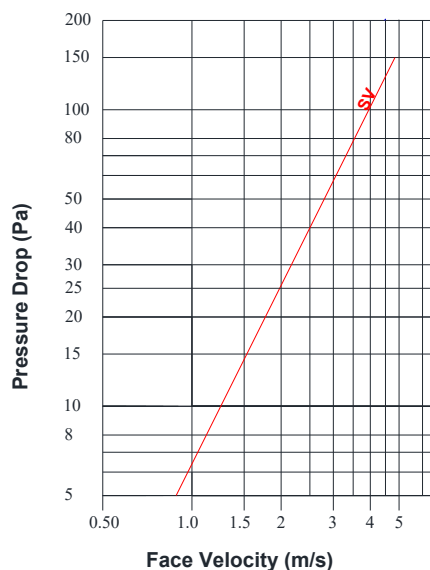
Type	Acoustic Louvre Sound Reduction Index (S.R.I.)						
	125	250	500	1k	2k	4k	Rw
SV	7	8	12	22	28	23	16

The SRI (sound reduction index) is quoted in accordance with ISO 140 Part III.



SV

SV - Acoustic Louvre Aerodynamic Pressure Loss -



Product Data Sheet

LV - (screening louvre)

The LV range of Acoustic Louvres provides good broad band attenuation which is particularly effective at medium and high frequencies. The range has been designed with excellent airflow characteristics and is particularly suitable for screening where sight lines need to be eliminated.

Construction

Acoustic Louvre constructed from pre-galvanised mild steel sheet with 1.2mm thick robust channel frame incorporating profiled blades from 1mm thick formed steel sheet riveted to retaining frame.

The acoustic media is retained in each louvre blade by a perforated flattened expanded metal sheet with a minimum 33% free area.

The acoustic media is a highly absorbent mineral wool (45kg/m³ density) providing maximum acoustic attenuation. The infill which is inert, vermin proof, non-combustible and non-hygroscopic is retained behind the perforations with a glass tissue interface to prevent entrainment of the absorbent medium.

External flanges (where specified) are form from 1.6-3mm thick GSS with welded corners and mechanically fixed to the louvre frame.

Bird screen provide to rear face of louvre as standard.

Larger units are provided in modular sections. These are bolted together via the side frames with M6x25 stainless steel sets to provide a finished unit of any size.

Structural steelwork supports where required are designed by our specialist engineers to suit project specific criteria.

Materials

Acoustic louvres are fabricated from pre-galvanised mild steel sheet as standard. Waterloo Acoustic Louvres are also available in stainless steel and aluminium.

Visuals

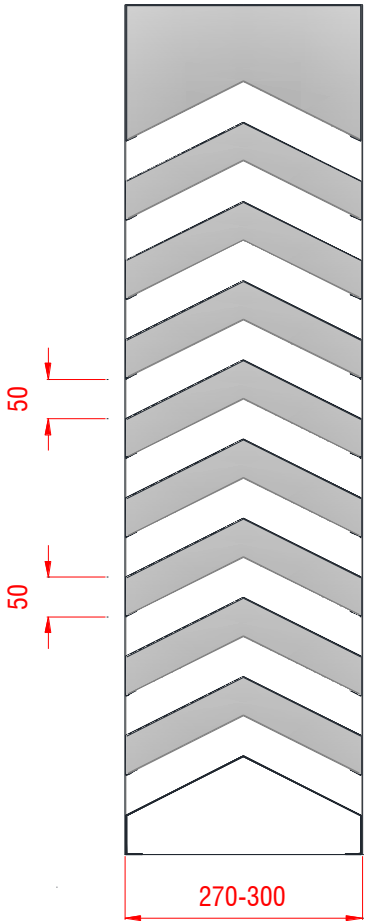
The louvre blades are chevron style inclined at 26° and mounted on a 100mm pitch within a standard 270-300mm nominal depth frame with the added advantage of no sight lines via the louvre.

Performance

The LV Acoustic Louvres provides a 42% free area, with excellent airflow characteristics.

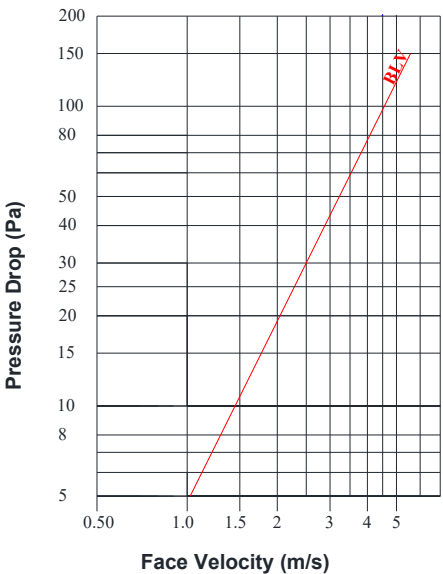
Type	Acoustic Louvre Sound Reduction Index (S.R.I.)						
	125	250	500	1k	2k	4k	Rw
LV	7	12	13	14	14	11	14

The SRI (sound reduction index) is quoted in accordance with ISO 140 Part III.



LV

LV - Acoustic Louvre
Aerodynamic Pressure Loss -



Product Data Sheet

WL/ALS-150

The WL150 range of Acoustic Louvres offers a slimline solution to less critical applications whilst providing good broad band attenuation which effective at medium and high frequencies. The range has been designed with excellent airflow characteristics and is particularly suitable for glazing application where reduced weight can be important.

Construction

Acoustic Louvre constructed from pre-galvanised mild steel sheet with 1.2mm thick robust channel frame incorporating profiled blades from 1mm thick formed steel sheet riveted to retaining frame.

The acoustic media is retained in each louvre blade by a perforated flattened expanded metal sheet with a minimum 33% free area.

The acoustic media is a highly absorbent mineral wool (45kg/m³ density) providing maximum acoustic attenuation. The infill which is inert, vermin proof, non-combustible and non-hygroscopic is retained behind the perforations with a glass tissue interface to prevent entrainment of the absorbent medium.

External flanges (where specified) are form from 1.6-3mm thick GSS with welded corners and mechanically fixed to the louvre frame.

Bird screen provide to rear face of louvre as standard.

Larger units are provided in modular sections. These are bolted together via the side frames with M6x25 stainless steel sets to provide a finished unit of any size.

Structural steelwork supports where required are designed by our specialist engineers to suit project specific criteria.

Materials

Acoustic louvres are fabricated from pre-galvanised mild steel sheet as standard. Waterloo Acoustic Louvres are also available in stainless steel and aluminium.

Visuals

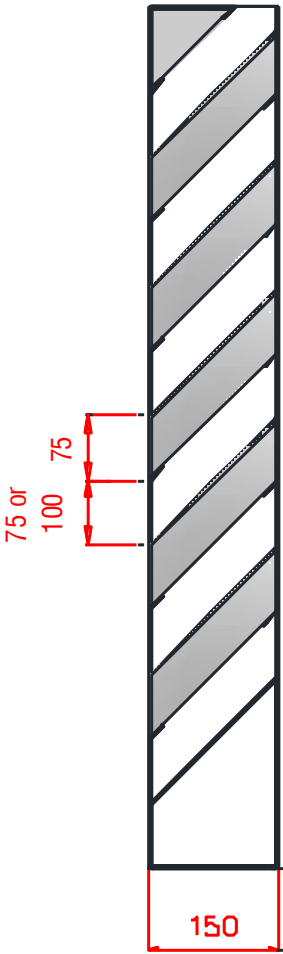
The louvre blades are chevron style inclined at 26° and mounted on a 100mm pitch within a standard 270-300mm nominal depth frame with the added advantage of no sight lines via the louvre.

Performance

The LV Acoustic Louvres provides a 35-40% free area, with excellent airflow characteristics.

Type	Acoustic Louvre Sound Reduction Index (S.R.I.)						
	125	250	500	1k	2k	4k	Rw
WL/ALS-150	4	6	9	13	19	15	12

The SRI (sound reduction index) is quoted in accordance with ISO 140 Part III.



WLS/ALS-150

**WL/ALS - Acoustic Louvres
Aerodynamic Pressure Loss -**

