

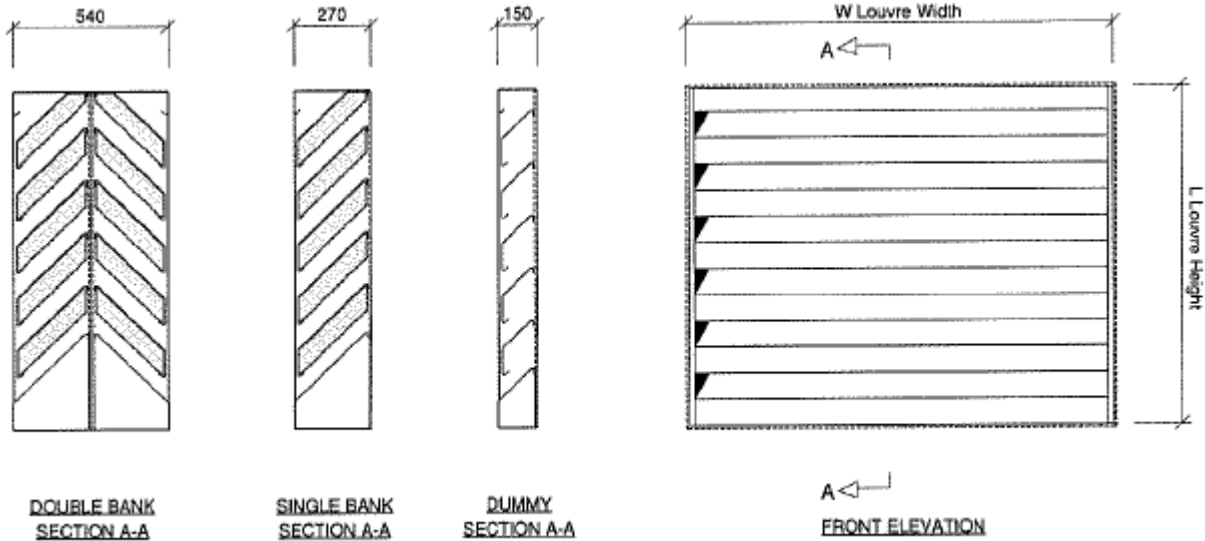
# Acoustic Louvre

## Applications

For installation into builderswork openings to reduce mechanical plant noise to atmosphere and allow airflow movement against minimal pressure loss. Also utilised for acoustically screening noisy items of external plant. Matching dummy acoustic louvres can also be provided for non-acoustic applications.

## Size Range

From 600mm square up to 1500mm square in one piece. Modular units can then be used to form any size of louvre required. Single bank louvres are 270mm deep, double bank louvres are 540mm deep. Dummy louvres are 150mm deep.



## Construction

Model codes are used to define the specific constructional properties of each product. The coding system for louvres operates as follows:

PRIMARY CODE / TYPE / OPTIONAL FEATURES / OPTIONAL EXTRAS

The code definitions for acoustic louvres are as follows:

PRIMARY CODE		TYPES		OPTIONAL FEATURES		OPTIONAL EXTRAS	
AS	Folded construction from galvanised sheet steel with 1.2mm thick peripheral frame and 1.0mm thick louvre blades. Controlled density acoustic infill retained within louvre blades by perforated sheet steel.	R	Rectangular	1	Single bank louvre	B	Birdmesh
AA	As AS but constructed from folded aluminium	M	Modular rectangular	2	Double back louvre	I	Insect mesh
		C	Circular	D	Dummy louvre	F	Flanged
		T	Triangular	U	Unfinished base material	N	Non-acoustic blanking
		Z	Special shape	P	Polyester powder paint finish	A	Acoustic blanking
		S	Single door	B	British Steel plastisol finish	X	Special optional extra
		D	Double door	S	Synthapulvin finish		
		P	Penthouse	E	Stove enamel finish		
				A	Anodised finish		

Example coding: AS / R / 1P / B

# Acoustic Louvre

## Typical Constructional Specification

Acoustic louvres shall be constructed from folded galvanised sheet steel or folded aluminium with a peripheral channel frame containing profiled louvre blades. The assembly shall be constructed to provide inherent structural rigidity and ensure adequate blade support across the full louvre width.

The louvre blades shall be designed to reduce the entrainment of water into the plantroom or ducted system. Each blade shall positively retain the acoustic infill which shall be faced with galvanised perforated sheet steel for mechanical protection. The infill shall be controlled density mineral wool or glass fibre and shall be inert, non-hygroscopic, rot-proof, vermin proof and have a Class "1" rating for spread of flame in accordance with BS 476: Part 7.

Birdscreens shall be fitted to the rear of the acoustic louvre ensuring that there are no protruding sharp edges. Alternatively, insect mesh is to be included where specified.

The acoustic louvre assembly shall be finished in a high quality polyester powder paint ensuring that all surfaces are thoroughly prepared and cleaned prior to application. The colour shall be from the BS4800-1982 or RAL-F3-1984 ranges.

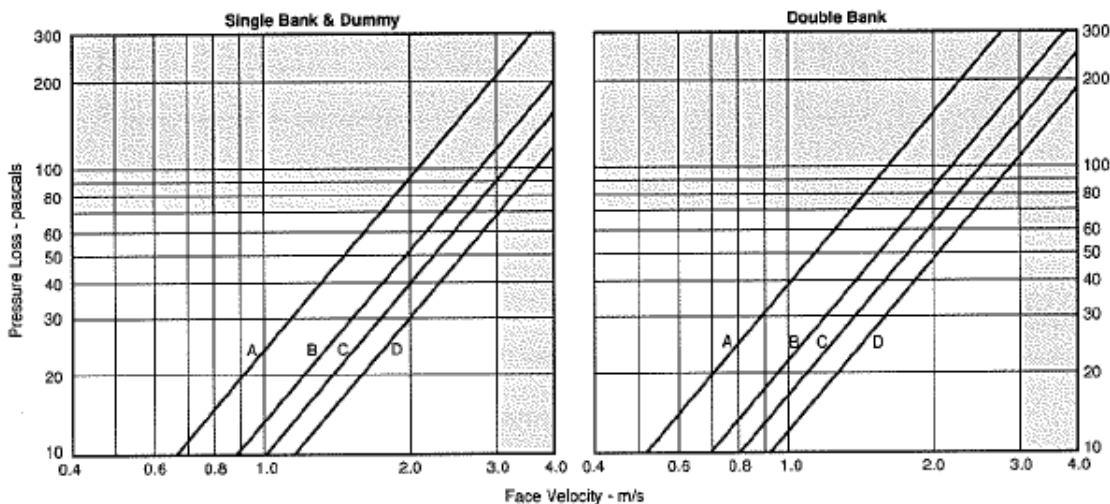
All acoustic louvres shall be delivered to site with protective packing, and shall also be provided with labels stating unit reference and description.

## Performance

Acoustic and aerodynamic performance data for AS and AA acoustic louvres is given below.

	Octave Band Sound Reduction Index (dB)							
	63	125	250	500	1k	2k	4k	8k
Single bank	4	5	8	11	16	18	14	12
Double bank	6	8	12	18	24	26	20	18

## Aerodynamic Pressure Loss



- A 600 high
- B 900 high
- C 1200 high
- D 2400 high

## Free Areas

The following gives an approximate guide to acoustic louvre free area relative to height.

Louvre Height (mm)	Free Area %	No. of Airways
600	23	1
900	31	2
1200	36	3
1500	38	4
1800+	40+	5

## Weights

The following table gives approximate single bank acoustic louvre weights in kg. For double bank acoustic louvres, multiply the weights shown by two.

Louvre Width (mm)	Louvre Height				
	600	900	1200	1500	1800
600	20	30	40	50	60
900	30	45	60	75	90
1200	40	60	80	100	120
1500	50	75	100	125	150
1800	60	90	120	150	180