

ACOUSTIC LOUVRE SPECIFICATION

EEC acoustic weather louvres are installed in the exterior fabric of buildings in either steelwork frames and cladding or direct into brickwork, the aesthetic appearance of the louvres complementing fully the design features from the architect.

Utilised by the building services engineer to introduce or exhaust a flow of air whilst controlling accurately the noise emission. EEC acoustic louvres can be manufactured to accommodate the various dimensional and appearance requirements a building project may demand. To aid on site handling/installation, larger louver assemblies would be manufactured in modular form.

The louvres can be designed and constructed as complete acoustic enclosures to house noise emitting plant. Also supplied are acoustic louvred fully openable single and double doors.

Built to the highest quality and specification, all EEC acoustic weather louvres will have outer casings of not less than 1.2mm galvanised mild steel sheet.

The louver blades and outer faces of the top and bottom support sections will not be less than 0.7mm galvanised mild steel sheet. The inner absorptive faces will not be less than 0.7mm galvanised perforated mild steel sheet.

The acoustic infill will be in-organic, non-hydroscopic, flame, moisture and vermin proof mineral wool with a minimum density of 45 kg/m³ and packed under compression to prevent voids due to settlement. When required, the infill can be further protected by a Melinex film envelope for water-laden air flow or corrosive gases. Birdscreens can be fitted to the rear of the louver on request. Special materials and finishes available include stainless steel, anodised aluminium, copper, colorcoat steel and paint as powder coat, synthapulvin, stove enamel, to the complete BS colour range.

The acoustic performance for single and double bank acoustic louvres is as follows:-

	Octave Bands								
	63	125	250	500	1K	2K	4K	8K	Hz
Type LA1/15 Transmission Loss	4	4	6	9	12	17	11	10	dB
Type LA2/15 Transmission Loss	6	6	9	14	21	29	27	27	dB
Type LA1/27 Transmission Loss	6	7	10	13	17	19	13	11	dB
Type LA2/27 Transmission Loss	9	10	14	20	30	33	32	30	dB

Performance Test in accordance with BS2750:1980

TL - Transmission Loss. This is the acoustic performance (dB) of an acoustic louver to BS2750:1980 and is defined as the ratio, in decibels, of acoustic energy transmitted through the louver sample to that which is incident upon it. Also expressed as Sound Reduction Index SRI.

The aerodynamic performance of single acoustic louvres is as follows:-

Face Velocity (m/s)	LA1/15 (N/m ²)(Pa)	LA2/15 (N/m ²)(Pa)	LA1/27 (N/m ²)(Pa)	LA2/27 (N/m ²)(Pa)
1.0	10	20	10	20
1.5	15	27	17	34
2.0	20	34	24	40
2.5	28	45	35	57
3.0	40	56	50	70
3.5	56	80	67	92
4.0	77	110	88	127
Weight per m ² (kg)	35	65	55	110