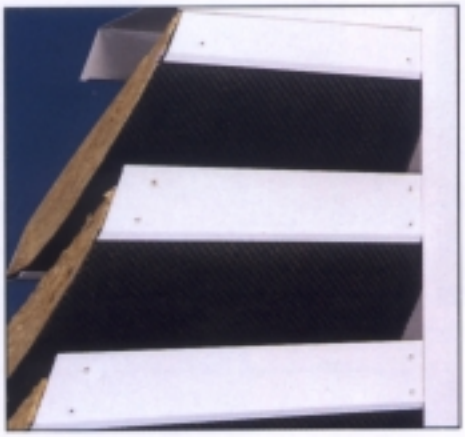
CI/SFB
(31·8) Xh4
Leaflet No. AC-2

MM ACOUSTIC Louvre



Designed as an effective means of reducing sound transmittance whilst allowing weathered ventilation, the louvre is suitable for vertical mounting into sidewall cladding or brickwork and may be installed singly, in horizontal runs or in vertical tiers.
Each louvre blade incorporates sound absorption material which is contained within a double layer of perforated mesh and gives a sound reduction of 20(dB) on an octave band centre frequency of 2000 (Hz).
The units are simple to install and maintain and may be used in conjunction with roof ventilators to provide an overall system of natural and/or fire ventilation. The louvres are made-to-measure and offered in a variety of materials to meet specific requirements.

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Independent Product Testing

The unit has undergone successful testing at Salford University's Department of Applied Acoustics, Test Report No. AT/88/11, and also at their Department of Aeronautical and Mechanical Engineering.

Performance Testing

Acoustic Testing
The unit was subjected to a series of controlled sound transmission tests, following the procedure detailed in BS2750: Part 3: 1980, 'Recommendations for Field and Laboratory Measurements of Airborne Sound Transmissions in Buildings'. The acoustical performance results are charted below:

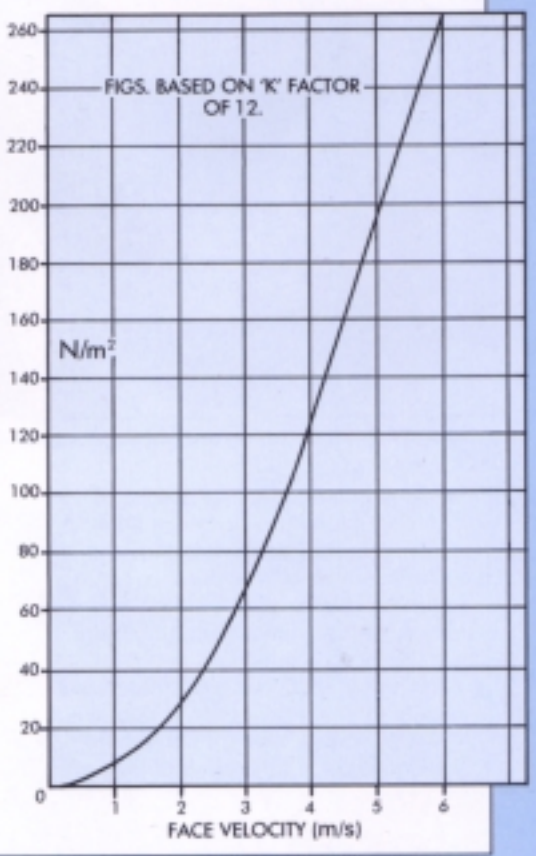
Octave Band Centre Frequency (Hz)	Sound Reduction Index (dB)
63	3.0
125	6.7
250	9.3
500	13.4
1000	17.7
2000	20.4
4000	17.0
8000	14.7

Average SRI, R.ave, (100-3150Hz) is 13.6 dB
Weighted Sound Reduction Index, Rw, is 17 dB
BS5821: 1984

Aggregate adverse deviation is 23.1 dB
STC Rating is 17 dB
ASTMS E413-73

Pressure Testing
The unit was subjected to a series of independently controlled tests to determine the aerodynamic performance of the design.
Discharge Co-efficient – 0·278.

PRESSURE LOSS GRAPH



Applications

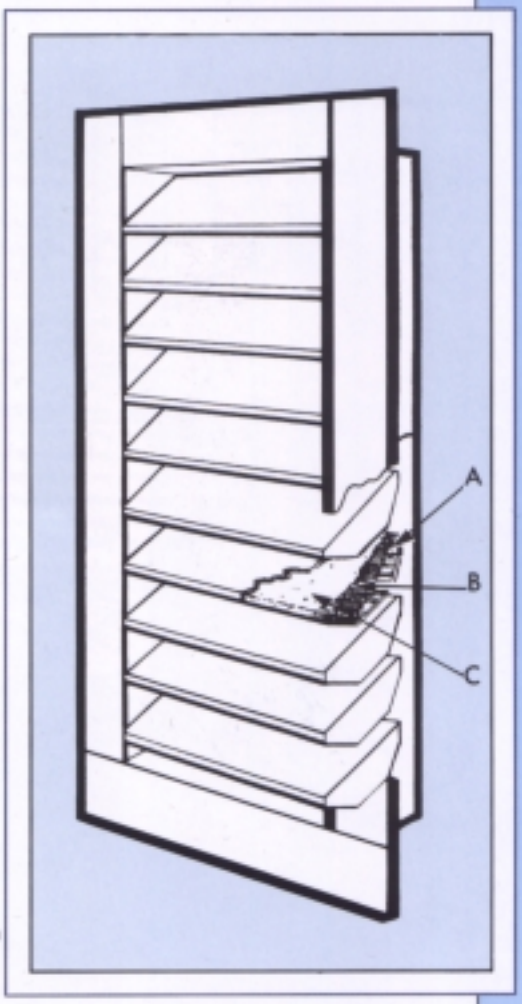
The louvre is suitable for situations where there is a need for noise control combined with a need for a constant supply of air, such as plant rooms, boiler houses, chemical, pharmaceutical, woodworking, oil, steel, power generation and general manufacturing industries.

Materials

Louvre Blade Casing
Offered in a choice of aluminium or steel. British Steel Colorcoat Plastisol coated galvanised steel in a full range of colours or alternatively in plain galvanised steel or mill finish aluminium alloy to BS1470 NS3 H4 in a choice of painted finishes and colours.

Acoustic Infill
Each louvre blade incorporates sound absorbing, fire retardant, inert mineral wool, which is vermin and bacteria proof.

Mesh
The sound absorption material is contained within 2 layers of self extinguishing fire retardant nylon mesh: Inner layer 2mm diamond, black; outer layer 6mm diamond, black, or expanded aluminium mesh mounted to the rear of the louvre blade.



A – Nylon Mesh / Expanded Aluminium Mesh
B – 2mm Diamond black Nylon Mesh
C – Sound Absorption Material

Manufacturing Options.

1. Top, bottom and side flanges may be formed to whatever mounting detail is required (see over). For additional information please consult the separate form entitled Details Required for Manufacture.
2. With flanged louvres, the box depth can be manufactured to fit inside or outside the building line as required.
3. Where units are to be mounted in continuous horizontal runs, joining plates are supplied for weathering.
4. Nylon mesh or expanded aluminium mesh bird guards can be fitted internally if required.

Maintenance

Maintenance should be carried out in accordance wih McKenzie-Martin's recommendations as detailed in the separate 'Technical Information – Louvres' booklet.

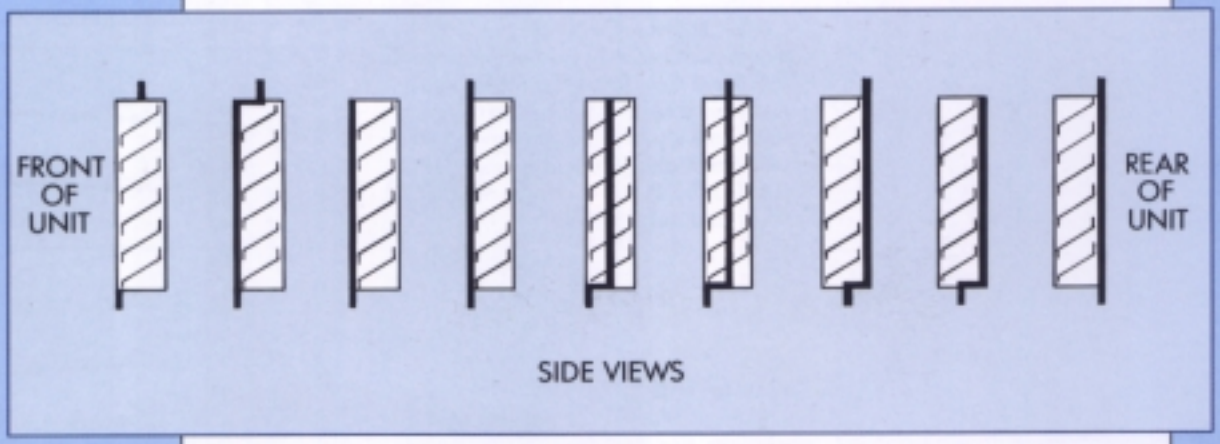
Fixing

Detailed fixing instructions supplied with units.

Design Features

The louvre blade configuration has been specifically designed, evaluated and tested by Salford University's Faculty of Applied Acoustics and Department of Aeronautical and Mechanical Engineering to provide, within a single unit, an effective means of sound reduction combined with good airflow characteristics.

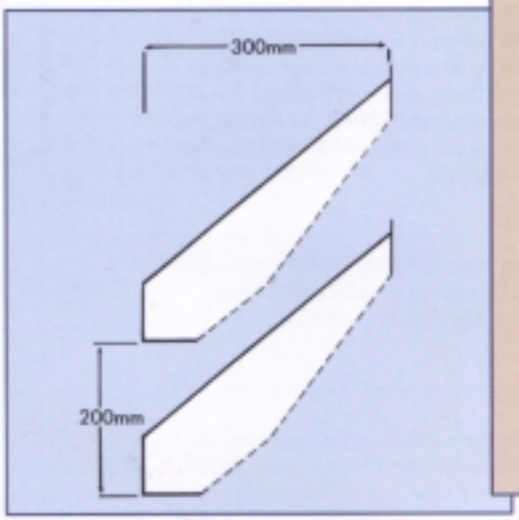
Flange Details



Weight

Weight of unit = 44 kilo per sq.mtr. Approx

Sizes



NO OF BLADES	WIDTH (EXCLUDING SIDE FLANGES) (M)	HEIGHT OF UNIT (M)
2	From 0-600m To 1-150m	0·535
3		0·735
4		0·935
5		1·135
6		1·335
7		1·535
8		1·735
9		1·935
10		2·135
11		2·335
12		2·535
13		2·735
14		2·935

Ventilation Schemes

Recommendations or complete schemes prepared and submitted on request.

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