

# Acoustic Louvre Type – ACL300/ACL600

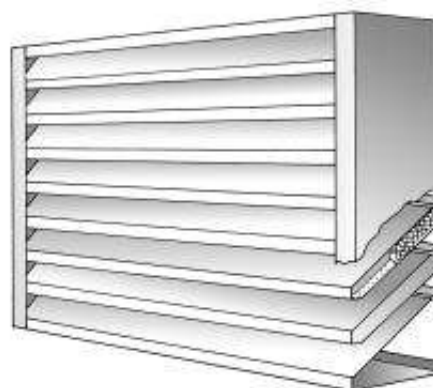
## Non-Acoustic Louvre Type - ACLN



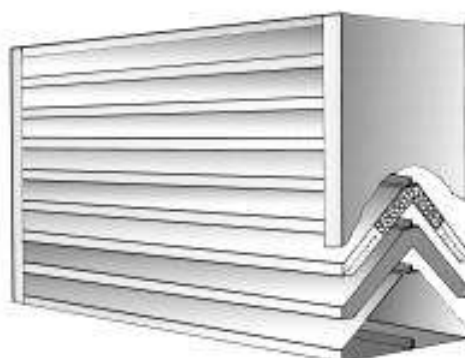
With the increasing need for quieter air conditioning systems NLC manufacture acoustic louvres to meet the architect's requirement of aesthetically pleasing looks while meeting the building services requirements for airflow and noise reduction. The louvres have been tested by an independent consultant to **BS2750**

Because all louvres are designed and manufactured in-house by engineers with many years experience we are not restricted to standard sizes. This means each louvre is tailor made to meet your opening dimensions.

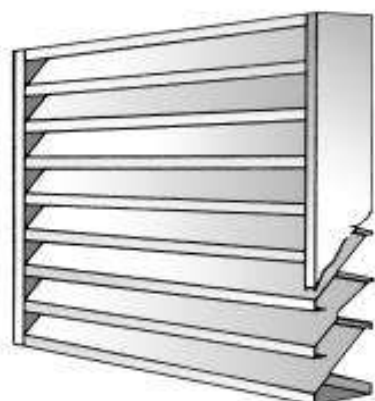
We offer a comprehensive service with our acoustic design which ensures you receive the best possible advice at planning stage, thereby avoiding site problems later on. On large louvre assemblies/screens our engineers work in close liaison with you from quotation and design to order stage through manufacture to delivery and if required, organise our own experienced fitters for the installation of the units on site.



**Single Bank Acoustic Louvre Type ACL300**



**Double Bank Acoustic Louvre Type ACL600**



**Single Bank Non-Acoustic Louvre Type ACLN**



# Acoustic Louvre Dimensions

## Type ACL300/ACL600/ACLN

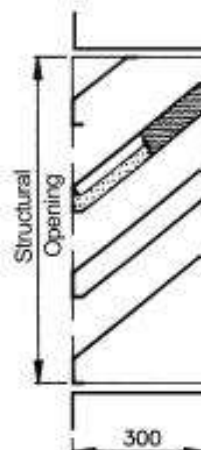
### Single Acoustic Louvre Type ACL300

#### Construction:

The standard acoustic louvre is 300mm deep manufactured from 1mm thick galvanised mild steel up to a maximum size of 2400mm x 2400mm. Larger sizes are available made up in modules. Bird guard mesh is fitted as standard.

#### Fixing:

The louvres are supplied undrilled and are normally fixed through the sides by others. (Refer to fixing methods for other suggestions.)



ACL300

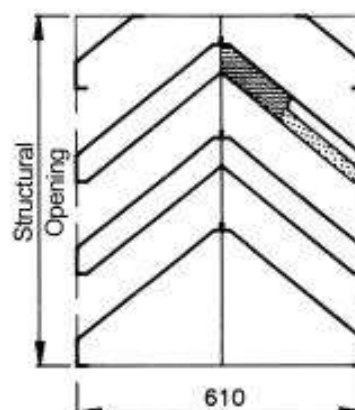
### Double Acoustic Louvre Type ACL600

#### Construction:

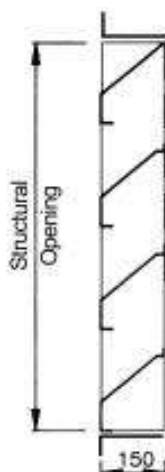
The standard double banked louvre is two single units back to back making the louvre 600mm deep manufactured from 1mm thick galvanised mild steel up to a maximum size of 2400mm x 2400mm. Larger sizes are available made up in modules. Bird guard mesh is fitted as standard.

#### Fixing:

As the single Acoustic Louvre.



ACL600



ACLN

### Non-Acoustic Louvre Type ACLN

#### Construction:

The non acoustic louvre is normally used to match the appearance of the acoustic louvre. It is 150mm thick galvanised mild steel up to a maximum size of 2400mm x 2400mm. Larger sizes are available made up in modules.

#### Fixing:

As the single acoustic louvre.

## Nationwide Louvre Company

The Louvre Works, Units 5 - 7, Beacon Trading Estate, Aldridge, West Midlands, WS9 8DU.

Tel: 01922 457 204 Fax: 01922 453 427 Email: [sales@nlcontracts.co.uk](mailto:sales@nlcontracts.co.uk) Web: [www.nlcontracts.co.uk](http://www.nlcontracts.co.uk)

# Product Specification

## Acoustic Louvres



### Construction - Frame & Blades:

The frame and blades are manufactured from 1mm thick galvanised mild steel or aluminium. Each blade in the airstream has an acoustic infill covered by 0.7mm thick perforated or expanded galvanised steel sheet. The blades are positioned on a 150mm pitch.

### Acoustic Infill:

The infill is inorganic mineral wool or glass fibre rigid slabs with a glass fibre tissue face to limit fibre erosion. The fibre is inert, vermin, rot and moisture proof, non-combustible, non-supportive of bacteriological growth and packed to a density of not less than 45kg/m<sup>3</sup>. The infill has been tested for fire and has a Class 1 spread of flame. (As measured to BS476: Part 7: 1971)

### Sizes:

There are no standard sizes for the acoustic louvres as each louvre is tailor-made to meet your requirements. When specifying the size, we re-

quire the actual opening dimensions as well as allow a tolerance to ensure the louvre fits into the opening.

### Acoustic Performance:

The louvres have been tested in accordance with BS2750:1980 by an independent consultant.

### Aerodynamic Performance:

The louvres have been tested in accordance with BS2750 by an independent consultant. See pressure loss charts.

### Finishes:

As standard the louvres are supplied in galvanised mild steel finish but can be supplied with a polyester powder finish to BS4800 or RAL colours or a BSC Plastisol HP200 Finish.

Transmission Loss	63	125	250	500	1K	2K	4K	8K	dB
Single Bank	05	06	07	12	18	21	16	15	dB
Double Bank	07	09	11	20	32	35	31	31	dB

## Non-Acoustic Louvres

### Construction - Frame & Blades:

The frame and blades are manufactured from 1mm thick galvanised mild steel or aluminium. The blades are positioned on a 150mm pitch.

### Sizes:

As acoustic louvres.



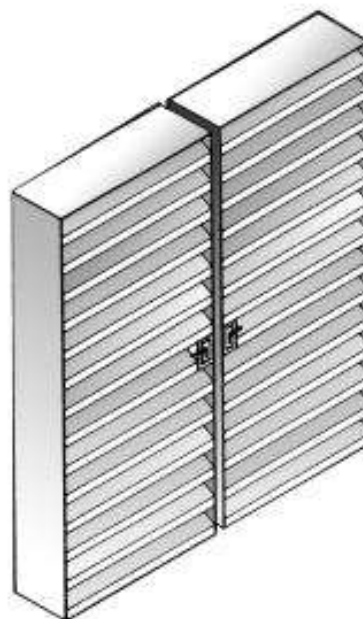
# Non Acoustic Louvred Doors

Doors can be supplied single or double leaf 150mm deep. Hinges are heavy duty and run the full height of the door. Handles and locks are to the customers specification. Prices on application. Units are complete with bird guard mesh as standard.

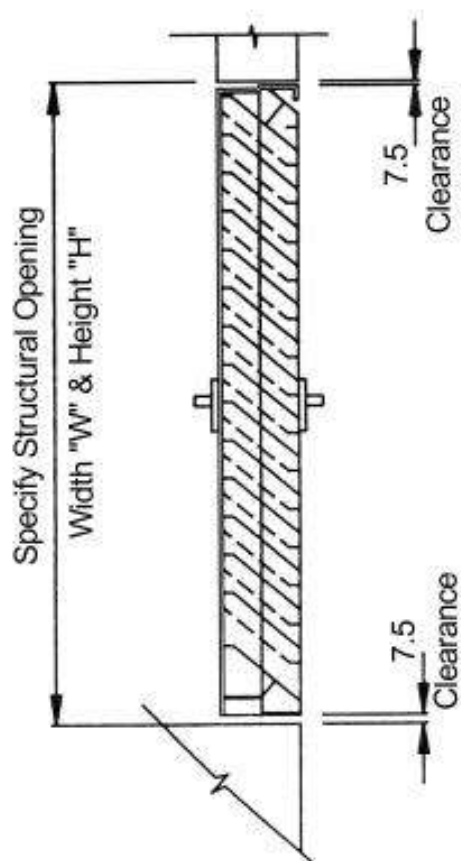
If non-active we would suggest that a non-active louvre is used as the appearance is the same but is only 150mm deep.

## Finish:

Galvanised mild steel but polyester powder finish to BS4800 or RAL colours or plastic coated plastisol HP200 steel.



**Double Leaf Acoustic Louvred Door  
Type ACL1DD**



**Acoustic Louvre Door Dimensions**



**Single Leaf Acoustic Louvre Door  
Type ACL1SD**

## Nationwide Louvre Company

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# Single & Double Banked Multiple Section Louvre & Penthouse Acoustic Louvre



## Specification:

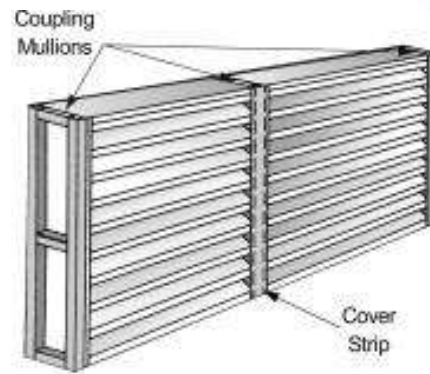
For louvre sizes 2400 x 2400 these are supplied as multi-section. For strengthening, the units are supplied with framework as shown.

## Fixing:

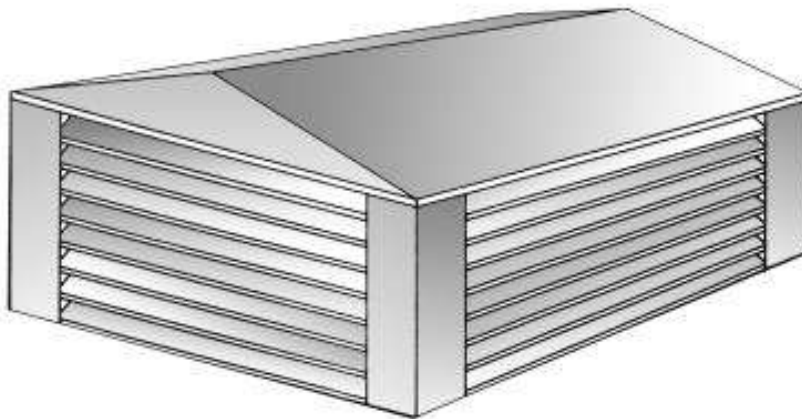
The support framework is first fitted to the structural opening, the louvre units are then secured by fixing into the framework.

## Installation:

If required we have our own team of experienced fitters who can install large louvre units. Should you require this facility then please contact the head office for details.



**Multiple Section Louvre  
Type ACL1MS**



**Penthouse Louvre Type ACL1P**



**ACL1P**

## Specification:

The penthouse louvre is made up of single louvre units, with the corner being fixed together by angle brackets and covered with a corner flashing.

## Fixing:

The penthouse is supplied in sections and bolted together using M6 bolts. The base is then secured to the kerb by fixing through the base of the louvre.

## Installation:

When specifying your requirements please state the over kerb size. The penthouse is manufactured so that there is a 20mm overhang all the way round.

# Acoustic Louvre Pressure Drop Chart & Calculations

Velocity shown on the pressure drop chart is based on a nett area i.e. the 350mm non active section is taken off the height.

Please note the pressure drop chart can only be used on the maximum louvre height of 2400mm. Above this height deduct 350mm from the opening height for each height multiple of 2400mm. This is also applicable to any multi section acoustic louvre split in the height- deduct 350mm for each section.

## Example:

Volume = 1.575 m/s

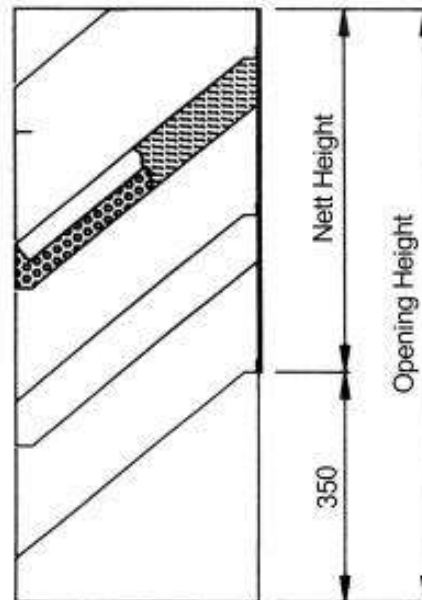
Louvre + 1000 Wide x 800mm High

Nett Area = (Opening Height - 350mm) x Opening Width

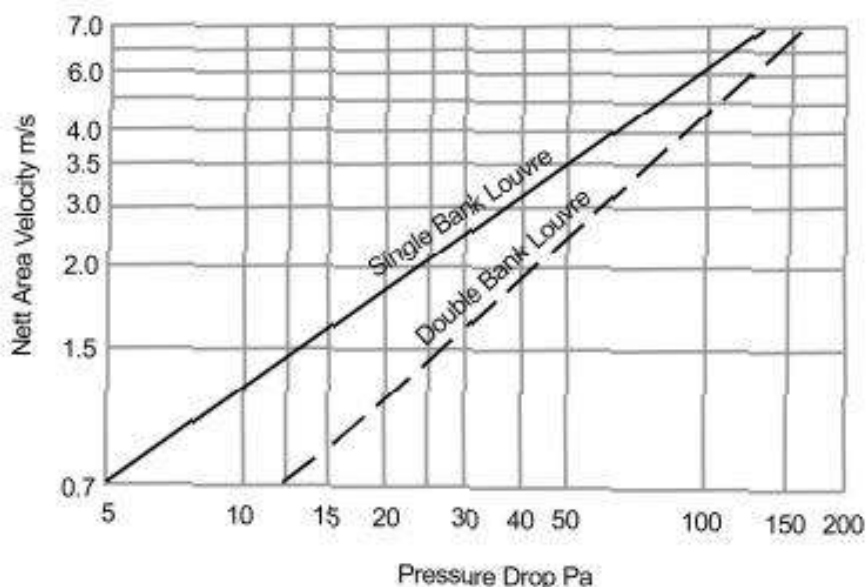
Nett Area = (0.8m - 0.35m = 0.45 High) x 1.0m Wide

Nett Area = 0.45m<sup>2</sup>

Plotting the velocity across to the Single Bank Louvre line indicates a pressure drop of 50 Pa



## Acoustic Louvre Dimensions



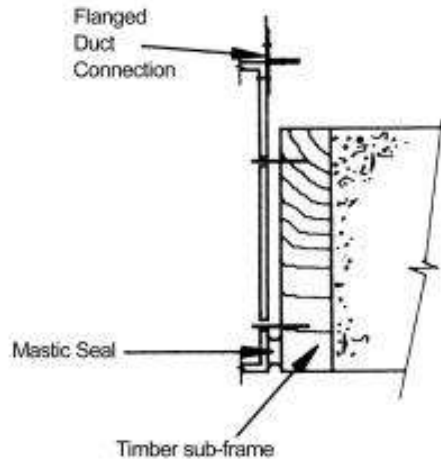
## Acoustic Louvre Pressure Drop Chart

## Nationwide Louvre Company

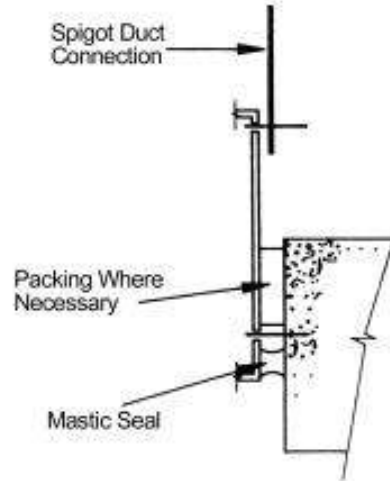
The Louvre Works, Units 5 - 7, Beacon Trading Estate, Aldridge, West Midlands, WS9 8DU.

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# Acoustic Louvre Fixing Methods



**Mounted in wall with timber and flange duct connection**

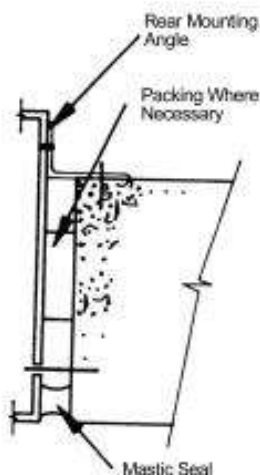


**Recessed louvre with a direct masonry and spigot duct connection**

## Optional Angled Frame Typical Installation

The angle frame is supplied loose for fitting on site. However if required it can be fitted at the factory providing the position of the frame is specified.

**Louvre fixed with rear mounting angle**



**Louvre with front picture frame**



