



Acoustic Louvre// Type ACL1/ACL2 & Non-Acoustic Louvre// Type ACLN

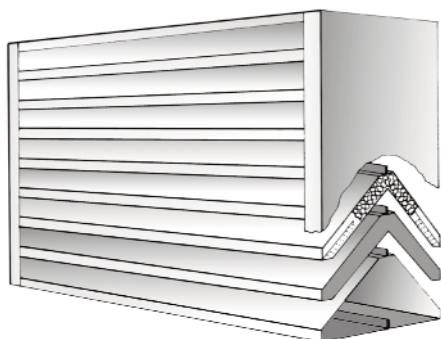
With the increasing need for quieter air conditioning systems, Tek manufacture acoustic louvres to meet the architects' requirement of aesthetically pleasing looks while meeting the building services requirements for airflow and noise reduction. The louvres have been tested by an independent consultant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



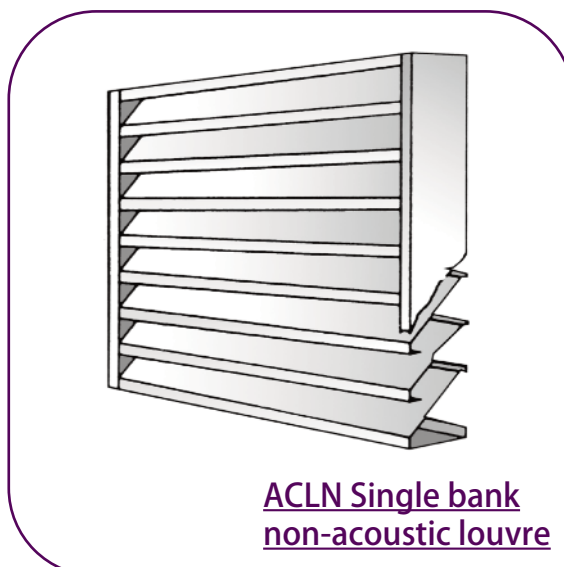
ACL1 Single bank acoustic louvre

ACL2 Double bank acoustic louvre



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...



ACLN Single bank non-acoustic louvre



Acoustic Louvre Dimensions// Type ACL1/ACL2/ACLN

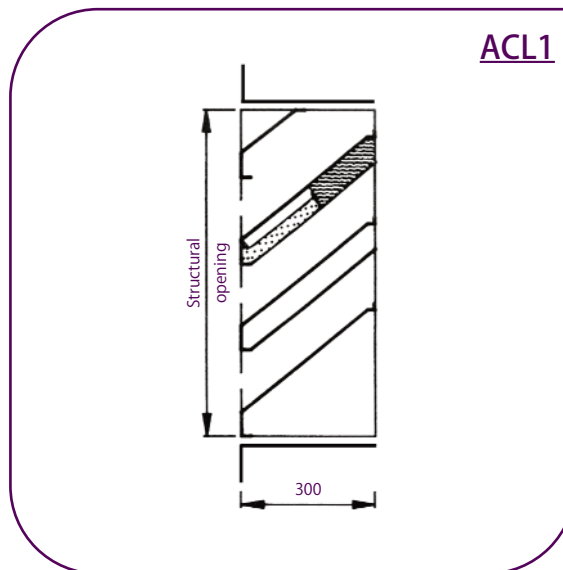
Single Acoustic Louvre//Type ACL1

Construction:

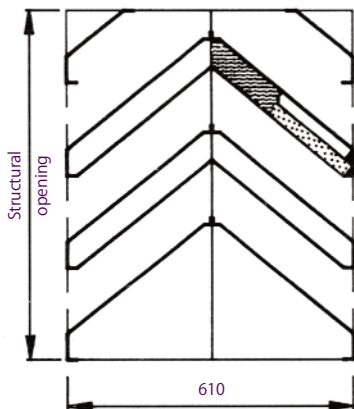
The standard acoustic louvre is 300mm deep manufactured from 1mm thick galvanised mild steel up to a maximum size of 2400mm x 2400mm. Larger sizes are available made up in modules. Bird guard mesh is fitted as standard.

Fixing:

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



ACL2



Double Acoustic Louvre//Type ACL2

Construction:

The standard double banked louvre is two single units back to back making the louvre 610mm 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.

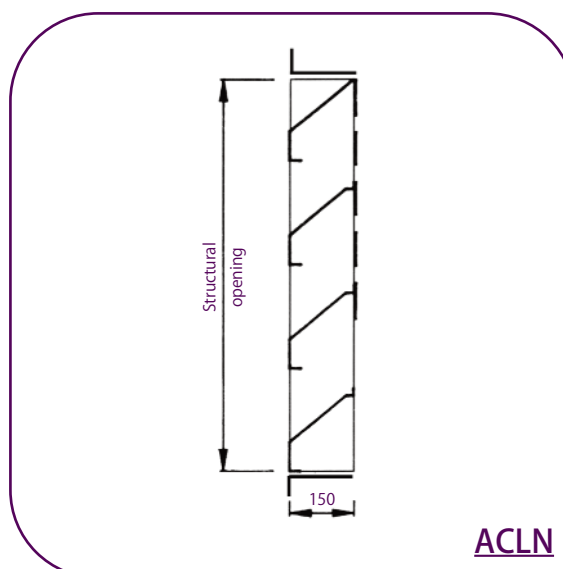
Non-Acoustic Louvre//Type ACLN

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.





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/m³.

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 require the actual opening dimensions as we 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.

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.

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

Acoustic Louvred Doors

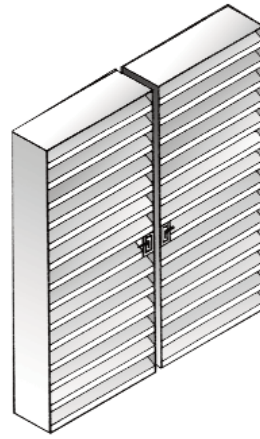
Doors can be supplied single or double leaf 300mm deep. Hinges are heavy duty and run the full height of the door.

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.

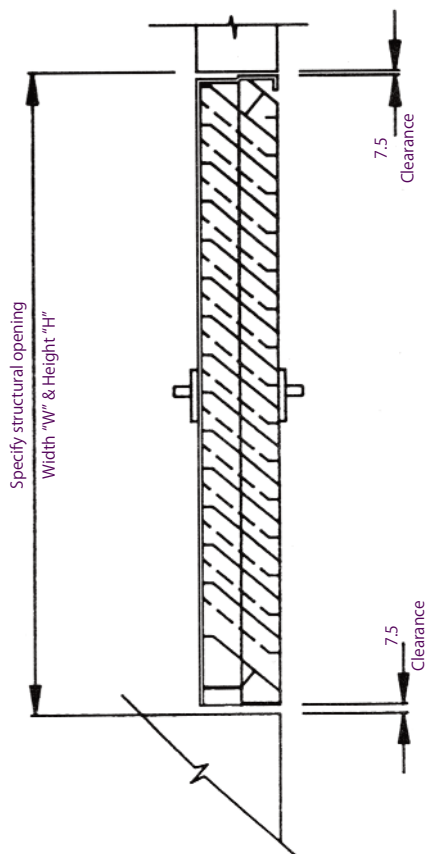
Finish:

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



ACL1DD//Double leaf acoustic louvred door

Acoustic louvre door dimensions



ACL1SD/Single leaf acoustic door



Single & Double Banked Multiple Section Louvre & Penthouse Acoustic Louvre

Multiple Section Louvre// Type ACL1MS

Specification:

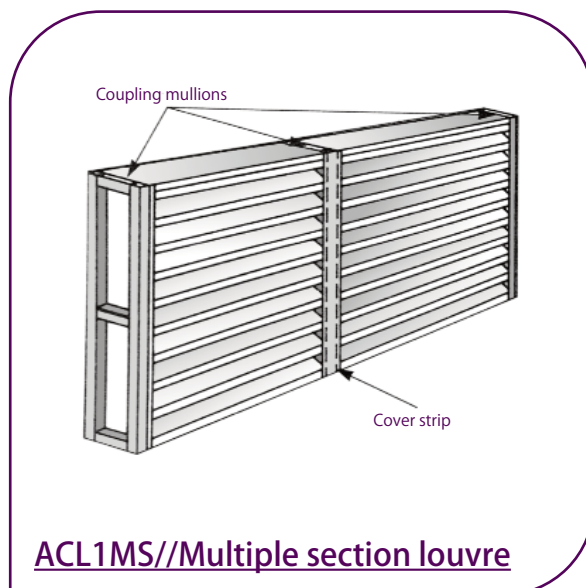
For louvre sizes 2400 x 2400 these are supplied as multi-section. For strengthening, the units are supplied with framework as shown.

Fixing:

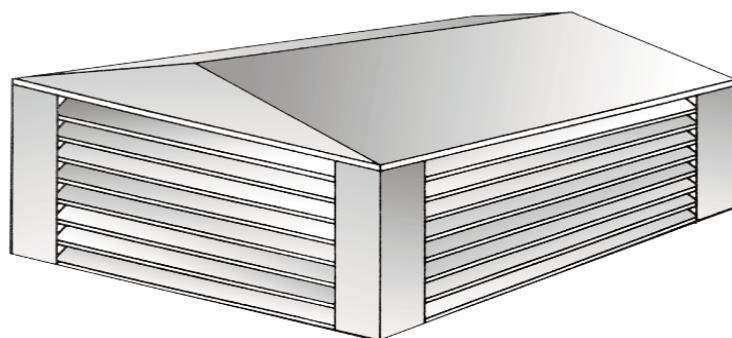
The support framework is first fitted to the structural opening, the louvre units are then secured by fixing into the framework.

Installation:

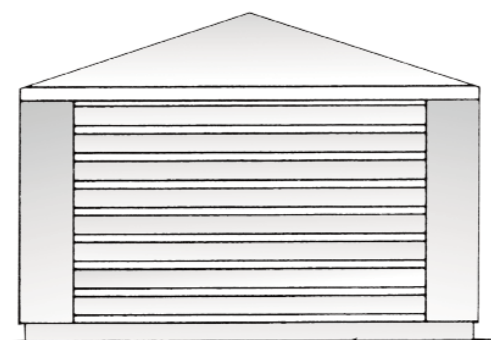
If required we have our own team of experienced fitters who can install large louvre units. Should you require this facility then please contact the head office for details.



ACL1P// Penthouse louvre



ACL1P



Penthouse Louvre//Type 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:

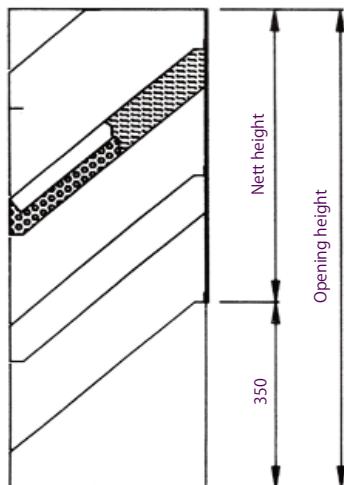
When specifying your requirements please state the over kerb size. The penthouse is manufactured so that there is a 20mm overhang all the way round.

Pressure Drop Chart & Calculations

Velocity shown on the pressure drop chart are 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.

Acoustic louvre dimensions



Example:

Volume = 1.575 m/s

Louvre + 1000 Wide x 800mm High

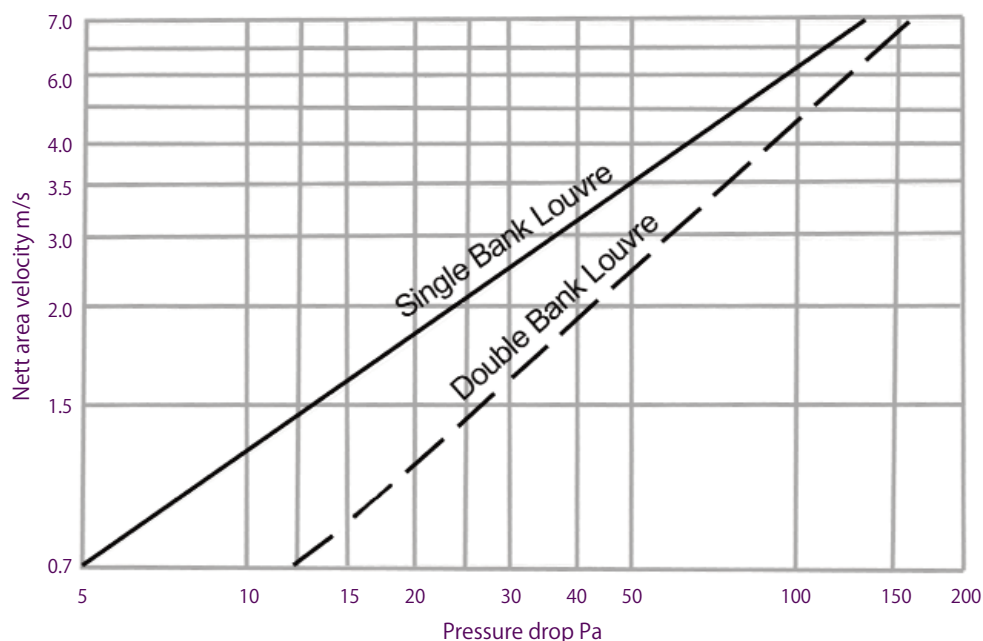
Nett Area = (Opening Height - 350mm)
x Opening Width

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

Nett Area = 0.45m²

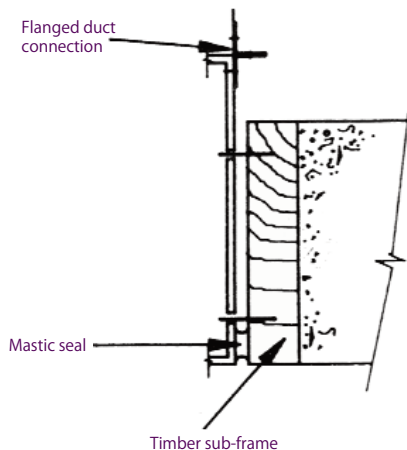
Net Area Velocity = $\frac{\text{Volume}}{\text{Nett Area}} = \frac{1.575\text{m}^3/\text{s}}{0.45\text{m}^2} = 3.5\text{m/s}$

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

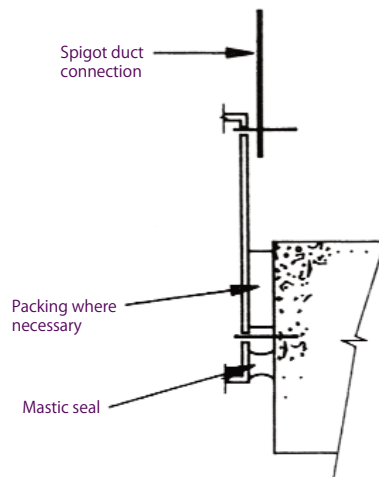


Acoustic louvre pressure drop chart

Acoustic Louvre Fixing Methods



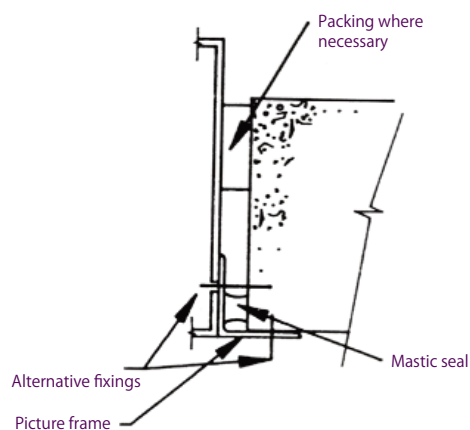
Mounted in wall with timber and flange duct connection



Recessed louvre with a direct masonry and spigot duct connection



Louvre fixed with rear mounting angle



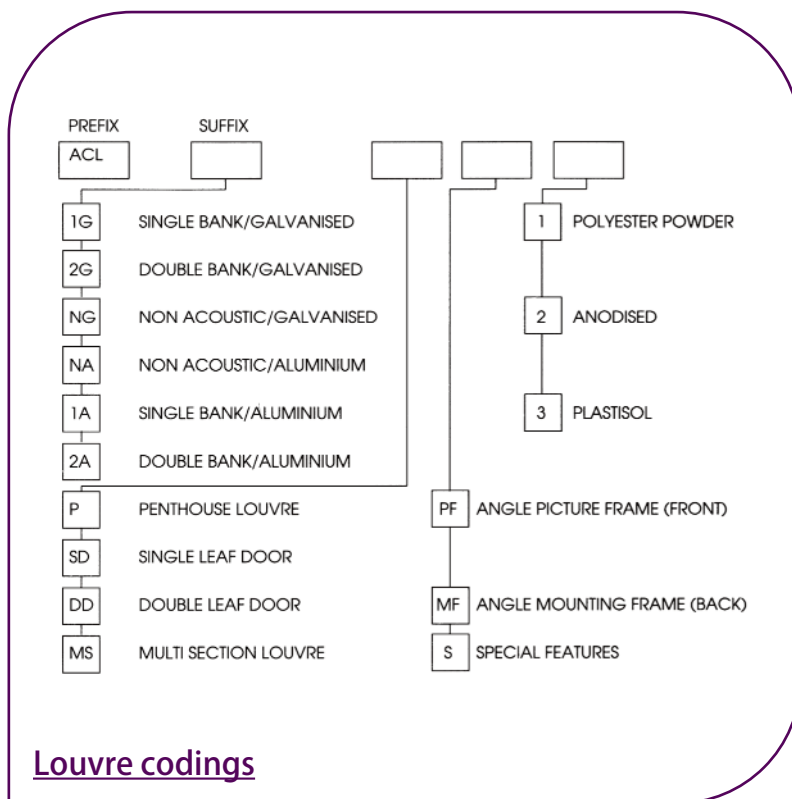
Louvre with front picture frame

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.

NB It is possible to combine any of the above options.

Louvre Codings & Weight Chart



Weight Chart

Weights are for single section galvanised steel single acoustic louvres type ACL1.

NB All weights are in kilogrammes.

Weight Chart

	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
450	13	16	20	23	26	29	32	35	38	40	44	48	51	53
600	16	22	28	32	36	43	46	52	57	55	59	64	68	73
750	20	28	36	41	48	52	58	65	69	69	75	80	86	92
900	26	34	42	50	56	60	65	72	78	82	89	96	103	110
1050	30	39	48	56	62	69	78	85	89	96	104	112	120	128
1200	35	43	52	60	69	78	86	94	101	109	119	128	138	145
1350	39	50	54	66	74	80	92	98	106	123	134	144	154	165
1500	44	55	59	72	86	92	105	111	123	138	149	161	172	184
1650	48	59	66	75	93	106	112	124	144	151	164	176	189	201
1800	52	64	78	89	102	114	126	138	152	164	179	192	207	216
1950	56	68	80	94	111	118	131	147	169	179	194	208	224	239
2100	60	75	86	98	119	129	143	156	176	192	209	224	240	257
2250	64	80	92	106	124	144	152	172	182	206	223	240	258	275
2400	68	85	104	118	136	153	167	184	198	216	239	257	275	282