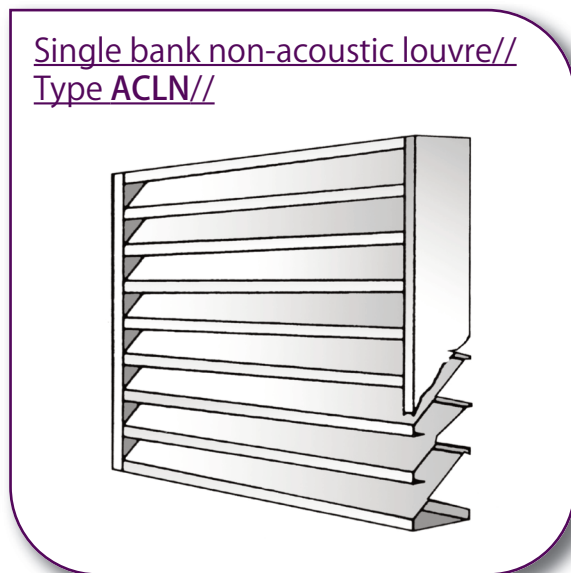
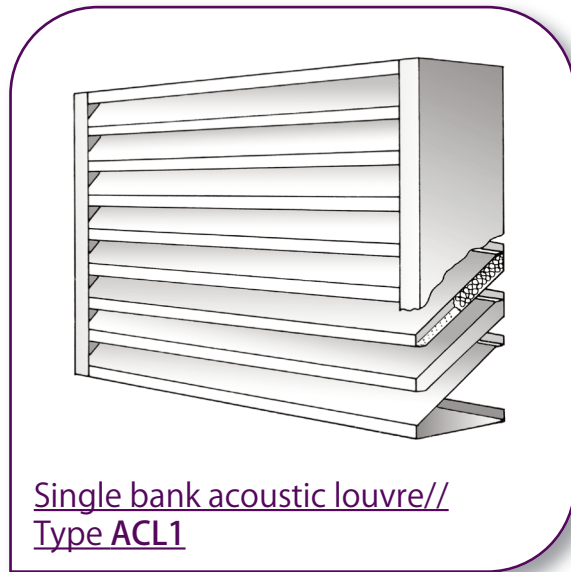


With the increasing need for quieter air conditioning systems, Tek manufacture acoustic louvres to meet the architects' requirement of aesthetically pleasing looks while meeting the building services requirements for airflow and noise reduction. The louvres have been tested by an independent consultant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



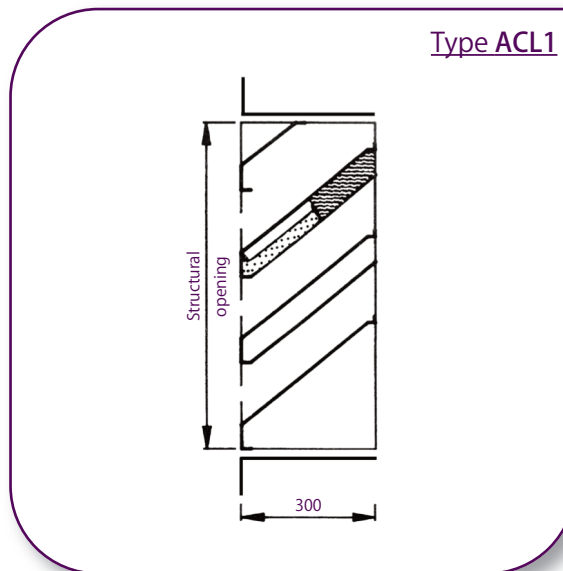
Acoustic Louvre Dimensions

Single Acoustic Louvre// Type ACL1 Construction:

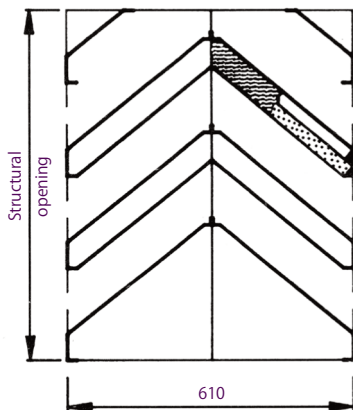
The standard acoustic louvre is 300mm deep manufactured from 1mm thick galvanised mild steel up to a maximum size of 2400mm x 2400mm. Larger sizes are available made up in modules. Bird guard mesh is fitted as standard.

Fixing:

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



Type 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:

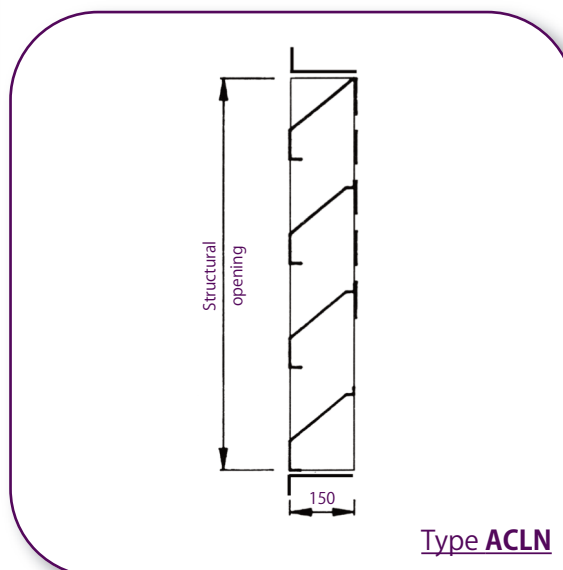
As the single acoustic louvre.

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.



Acoustic Louvre

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 Louvre

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.

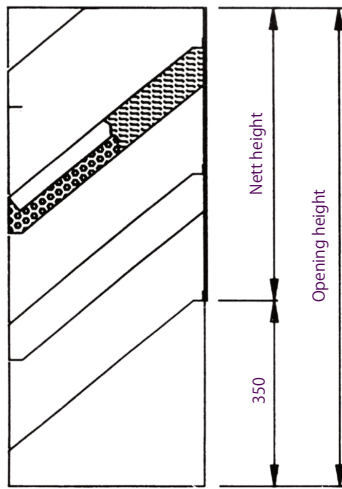
Sizes:

As acoustic louvres.

Transmission Loss	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

Pressure Drop Chart and Calculations

Acoustic louvre dimensions



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.

Example:

Volume = 1.575 m³/s

Louvre + 1000 Wide x 800mm High

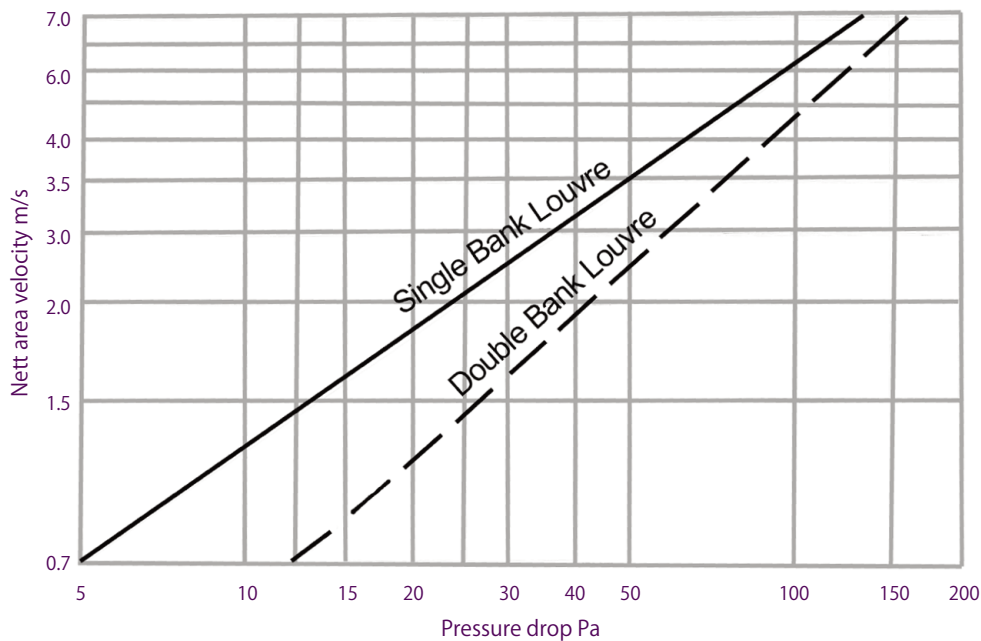
Nett Area = (Opening Height - 350mm) x Opening Width

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

Nett Area = 0.45m²

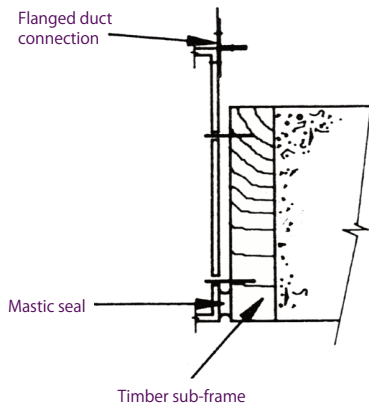
Net Area Velocity = Volume = $\frac{1.575\text{m}^3/\text{s}}{0.45\text{m}^2} = 3.5\text{m/s}$

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



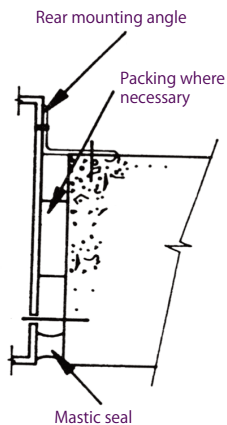
Acoustic louvre pressure drop chart

Fixing Methods



Mounted in wall with timber and flange duct connection

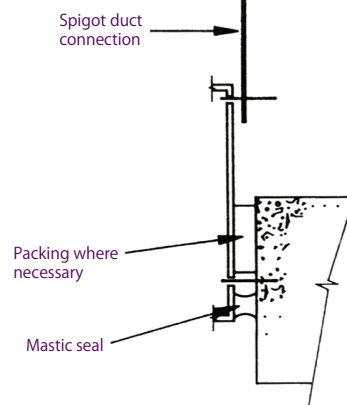
Louvre fixed with rear mounting angle



Optional Angled Frame Typical Installation

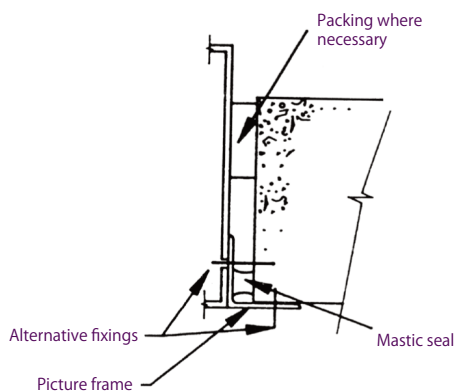
The angle frame is supplied loose for fitting on site. However if required it can be fitted at the factory providing the position of the frame is specified.

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



Recessed louvre with a direct masonry and spigot duct connection

Louvre with front picture frame

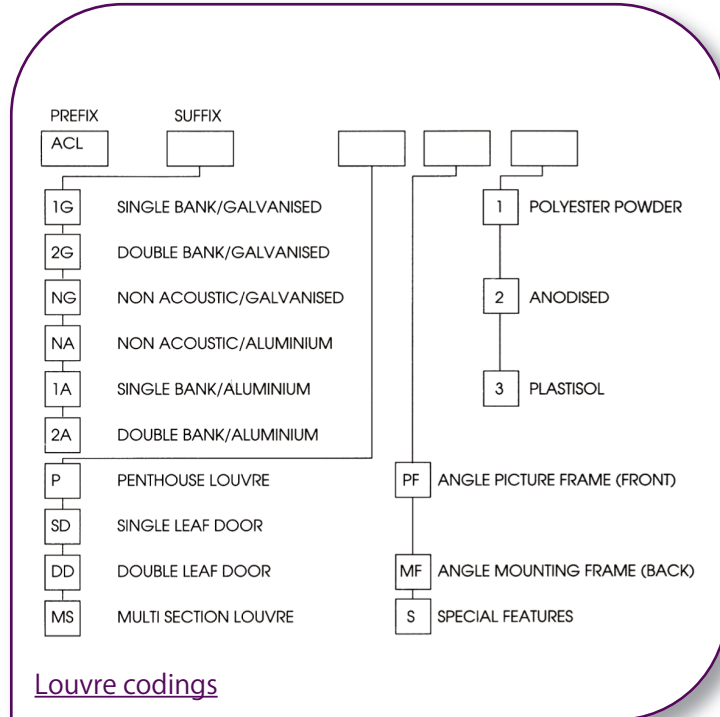


Louvre Codings & Weight Chart

Weight Chart

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

NB All weights are in kilogrammes.



Louvre codings

	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