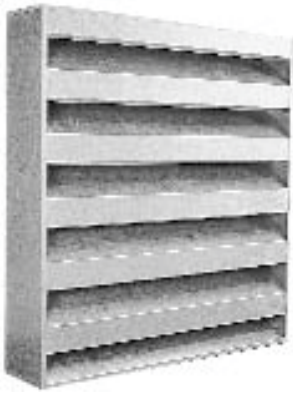


ACOUSTIC LOUVRES WLA SERIES



Acoustic Performance

as tested by CSIR

Model	Static Insertion Loss, dB							
	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
WLA	-5	-5	-7	-11	-17	-20	-16	-14

Features

The use of acoustic louvres or control of plant noise to atmosphere is now a widely accepted practice. AMS developed a compact louvre, which ensures weather protection with significant acoustic performance and pleasing visual aspect.

AMS acoustic louvres are supplied in galvanised or aluminium finishes.

Plastic coatings, anodised aluminium or special paint finishes are available on request.

Common applications for acoustic louvres are plant room air intakes and exhausts, cooling towers, refrigeration equipment,

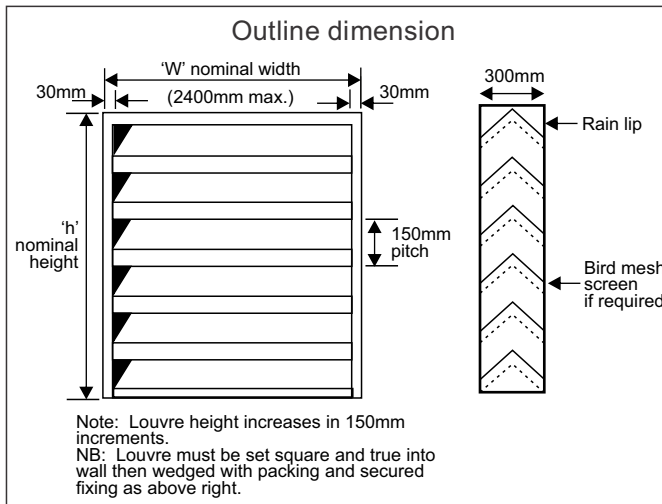
diesel generators, air cooled condensers and screen wall applications.

To compliment the WLA acoustic louvres series AMS can provide matching profile standard weather louvres, these being designed type WL or for blanked off sections type WLD.

All being available in the same finish options as for the WLA type acoustic louvres.

Acoustic Performance

The acoustic performance table for WLA acoustic louvres is presented as a sound reduction index (transmission loss). In most practical applications the figures shown can be considered in the same way as the static insertion loss for an attenuator.

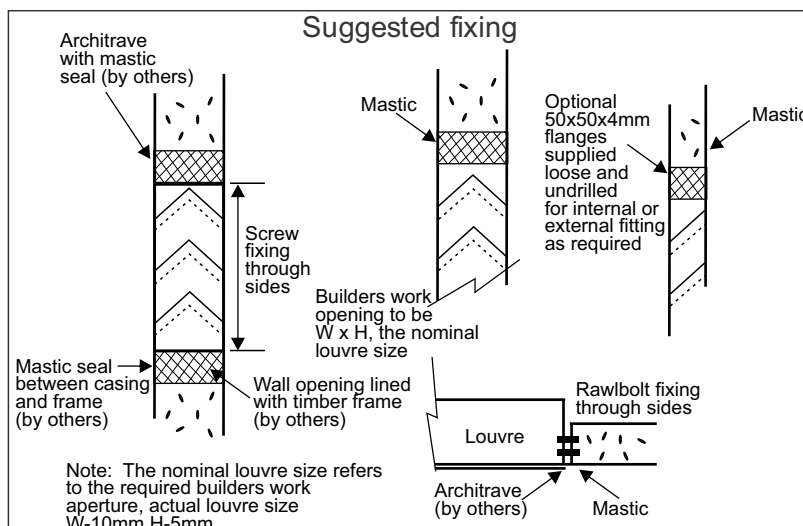


Construction

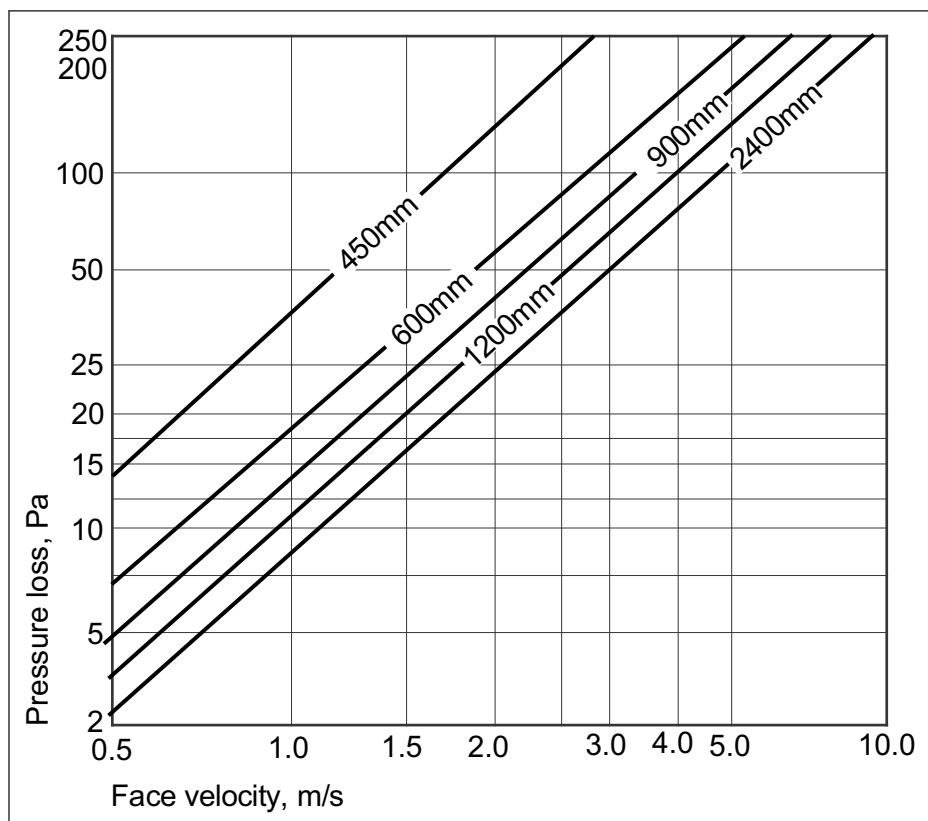
Louvre blade elements are manufactured from min.0.9 mm high quality galvanised sheet steel for the upper weather surface, acoustic infill being 47.5 kg/m density lass fibre with bonded surface membrane, retained by louvre blade under surface of steel wire mesh.

The louvre blade elements are mounted in a 1.6 mm galvanised sheet steel peripheral channel framework with returned edges for unit strength and rigidity.

Louvre additional options are bird mesh wire, internal or external flange frame, multi-section construction or architrave strip.



Pressure Drop Graph



Selection Method

For an existing structural opening select a suitable size standard louvre from the table below. Calculate the louvre from face velocity by dividing the total air volume being passed by the total surface area of the louvre selected. Refer to the relevant pressure loss graph at the intersection between the louvre face velocity and the height line read across horizontally to obtain the resistance for the louvre selected.

Example

Ducted fan from atmosphere having an opening size of 1500mm x 1200mm using WLA louvre.

Total air volume = 3.6m³/sec

Calculated face velocity

$$= \frac{3.6\text{m}^3/\text{sec}}{1500\text{mm} \times 1200\text{mm}}$$

From WLA pressure loss graph for 1200mm high louvre, the resistance will be 30 pascals.

Weights

Height, mm	Width, mm												
	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
600	18	23	28	31	37	43	48	55	59	68	83	96	107
750	23	31	37	44	52	57	64	75	82	92	104	116	128
900	30	38	45	53	63	69	79	87	95	108	118	126	140
1050	37	45	52	61	68	77	85	97	106	116	129	143	150
1200	43	52	60	67	75	85	94	107	113	130	145	150	157
1350	49	60	66	74	83	93	104	110	130	148	153	159	174
1500	60	66	75	81	94	102	110	133	146	152	160	175	181
1650	65	75	81	94	100	109	131	144	151	159	175	188	206
1800	70	81	92	101	108	129	143	150	156	178	191	208	228
1950	78	92	103	110	128	145	157	164	180	199	208	224	241
2100	86	103	111	130	140	153	161	174	190	209	225	240	258
2250	94	110	126	140	149	157	169	188	205	222	239	258	274
2400	101	124	137	148	156	166	184	200	219	236	252	269	286