



Typical uses include:

- Fresh air intakes for ventilation systems
- Mechanical equipment screens and penthouses
- Noise barriers
- Process air intakes
- Cooling tower inlet silencers and screens

Special Features:

- Linear appearance
- Superior high frequency performance

SLIMSHIELD® LOUVRES

IAC Bulletin SL-DS/1.00

100, 150, 300 & 600 Single and Double Banked Acoustic Louvres

- Control noise
- Permit airflow
- Suitable for any application, in any size

The IAC Slimshield® louvre is a multi-purpose louvre which permits the flow of air while shielding the environment from noise. Slimshield® louvres are available in four models (100, 150, 300 and 600mm nominal depth) and a complete range of standard modular sizes. This means they can satisfy a wide range of performance requirements, especially where space is limited and architectural standards of appearance must be met. Where access is required, Slimshield® louvres can be supplied as doorsets, for inclusion in louvre screens or as stand-alone units.

Certified Performance Data

TABLE I - AERODYNAMIC PERFORMANCE

Slimshield Louvre Model	Static Pressure Drop, Pascals (N/m ²)											
	10	20	30	40	50	60	70	80	90	100	150	200
Face Velocity, metres per second												
SL-100	0.92	1.3	1.59	1.84	2.05	2.25	2.43	2.61	2.76	2.90	3.56	4.13
SL-150	0.53	0.73	0.9	1.04	1.16	1.28	1.37	1.47	1.56	1.64	2.01	2.32
SL-300	0.94	1.31	1.61	1.83	2.13	2.27	2.46	2.63	2.84	2.99	3.65	4.21
SL-600	0.68	0.94	1.15	1.30	1.47	1.61	1.77	1.89	2.02	2.13	2.60	2.99

TABLE II - TRANSMISSION LOSS (T.L.)

Defined as the ratio, in decibels, of acoustic energy transmitted through the louvre to that incident upon it.

Octave Band Centre Frequency, Hz	Louvre Depth (mm)	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
SL-100	102	5	4	5	6	9	13	14	13
SL-150	152	6	6	8	10	14	18	16	15
SL-300	300	6	7	10	12	18	18	14	13
SL-600	600	7	9	12	24	31	33	29	30

TABLE III - NOISE REDUCTION (N.R.)

The free-field noise reduction of a louvre is the difference, in decibels, between the sound pressure level on the noise source side of the louvre and that measured outdoors on the side of the louvre away from the noise source.

Octave Band Centre Frequency, Hz	Louvre Depth (mm)	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
SL-100	102	11	10	11	12	15	19	20	19
SL-150	152	12	12	14	16	20	24	22	21
SL-300	300	12	13	16	18	24	24	20	19
SL-600	600	13	15	18	30	37	39	35	36



Features & Benefits of IAC Slimshield® Louvres

- 1 Rugged all-steel galvanised construction. Stainless steel, aluminium and other materials also available.
- 2 Inert, vermin-proof, weather-rated non combustible acoustic fill.
- 3 Perforated splitter underside for maximum sound absorption.
- 4 Weather stop inhibits rain/snow entry.
- 5 Depth ranges from just 102 mm to 600 mm for the double banked model
- 6 Available in a variety of durable, attractive finishes, e.g. vinyl coated steel, polyester powder paint, mill finish aluminium, Syntha Pulvin, galvanised and stainless steel.
- 7 Modular sizes enable assembly of rectilinear louvre "walls" of almost any size.
- 8 Louvre blade orientation blocks horizontal line of site, enhancing both aesthetics and acoustic performance.
- 9 Galvanised bird screen fitted as standard on rear of louvre. Insect screens also available.

Standard Slimshield® Module Sizes

Slimshield® Louvre Model	Module Width (mm)	Module Height (mm)	Louvre Weight kg/m ² of face area
SL-100	300 to 1800	400 minimum increasing in increments of 200	20
SL-150	300 to 1800	305 minimum increasing in increments of 305	30
SL-300	300 to 1800	600 minimum increasing in increments of 200	50
SL-600	300 to 1800	600 minimum increasing in increments of 200	100

NOTE: Width and height dimensions are nominal. Final assemblies will be 6 mm less than nominal.

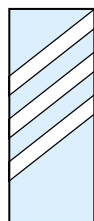
How to Specify Slimshield® Acoustic Louvres

Supply and install Slimshield® Louvre(s) as manufactured by IAC Limited. Outer casings shall be made from 18 gauge (1.2 mm) galvanised steel. Louvre blades shall be made from 22 gauge (0.71 mm) galvanised steel. They shall be packed with inert, vermin and moisture proof mineral fibre and provide the acoustic performance as indicated in Table II.

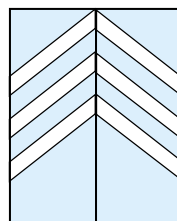
Louvres shall have finish in colour.

Static pressure drop of the louvres shall not exceed Pascals at a face velocity of metres per second. (*Fill in appropriate values*).

Manufacturer shall submit certified data from one laboratory substantiation of both the specified acoustic and aerodynamic performance.



Section through Model SL-100, 150 & 300 Louvres



Section through Model SL-600 Louvre

For application engineering advice, please contact IAC.

Simplified Selection Procedure

Louvres are rated in IAC's aero-acoustic laboratory in accordance with ASTM Standard E90 and other applicable test standards.

To analyse specific louvre requirements, ask for IAC SNAP II (Bulletin 1.0503). This *Systemic Noise Analysis Procedure* enables you to evaluate the effects of the acoustical environment in which the source is located and to determine the louvre model and size.



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