

# Acoustic Louvres

A complete range of certified, high performance acoustic louvres to solve a wide range of environmental noise pollution problems

[www.iac-australia.com.au](http://www.iac-australia.com.au)



making the world a quieter place

# IAC Acoustics

## Making the World a Quieter Place

Founded on an unrivalled history of engineering with some of the most pioneering discoveries in the industry, the IAC Acoustics brand is synonymous with technological innovation.

From controlling noise at a power station to tuning the sound in a TV or radio studio, IAC Acoustics has had a positive impact on society and helped to shape what can be achieved to make speech more intelligible, music more enjoyable, reduce the impact of industrial noise and protect people's sense of hearing.

The continual success of our products and services over the decades has brought the brand a reputation for quality and reliability among customers, whether they are multinational corporations or independent family businesses. This is supported by the expertise and passion of our workforce, the people behind the products, including designers, engineers and industry specialists.

To face the ever increasing noise reduction demands of the future, we will strive to further enhance our ability to reduce excessive noise. We aim to focus on developing tomorrow's solution today, innovating faster and delivering solutions that meet the requirements of the next generation. In doing so, we will stay true to our key values and founding philosophy to make the world a quieter place.

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# Acoustic Louvres Overview

## Form & Function Together

Our acoustic louvred screens result in a high performance solution to unwanted levels of noise without the need for additional architectural cladding.

IAC Acoustics is a leading global manufacturer of rugged, high performance acoustic louvres and has completed thousands of installations worldwide. Applications include:

- Fresh air intakes for ventilation systems
- Mechanical equipment screens and penthouses
- Noise barriers
- Process air intakes
- Cooling tower inlets / exhausts and screens

IAC Acoustics can provide louvre solutions to combat environmental noise problems in mixed commercial / residential areas, carrying out all relevant noise surveys and acoustic analysis.

IAC Acoustics curved (Noishield™) or linear (Slimshield™) blade louvre styles can be used to match the overall scale and aesthetics of a new building.



# Acoustic Louvre Range

## Noishield™ - Aerofoil blade

Model R & Model LP: 305mm deep  
 Model 2R & Model 2LP: 610mm deep

## Slimshield™ - Linear Blade

SL-100: 100mm deep  
 SL-150: 152mm deep  
 SL-300: 300mm deep  
 SL-600 (double banked): 600mm deep

## Noishield™ Louvres - Sound Transmission Loss (dB)

Octave Band Centre Frequency, Hz	Louvre Depth (mm)	63	125	250	500	1k	2k	4k	8k
Model R	305	5	7	11	12	13	14	12	9
Model 2R	610	6	12	15	21	24	27	25	20
Model LP	305	4	5	8	9	12	9	7	6
Model 2LP	610	5	8	12	16	22	18	15	14

## Slimshield™ Louvres - Sound Transmission Loss (dB)

Octave Band Centre Frequency, Hz	Louvre Depth (mm)	63	125	250	500	1k	2k	4k	8k
SL-100	100	5	4	5	6	9	13	14	13
SL-150	150	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

## Integrated or Standalone

Our acoustic louvres can be used as standalone screens around mechanical plant, or be integrated into walls and building façades.

# Product Features

Our acoustic louvres are multi-purpose, permitting air to flow, whilst shielding the environment from unwanted noise.

Both IAC Acoustics Noishield™ and Slimshield™ louvres are available in an array of standard modular sizes, meaning that a wide range of performance requirements can be met. By using our range of acoustic louvres, it overcomes architectural consistency issues, especially where space is limited.

Where access is required, both Noishield™ and Slimshield™ acoustic louvres can be supplied as doorsets, either for inclusion in louvred screens, or as standalone units.

## Noishield™ Special Features

- Suitable for use behind architectural louvres (100mm air space is required between faces)
- Bold, curved blade appearance
- A highly economical louvre system

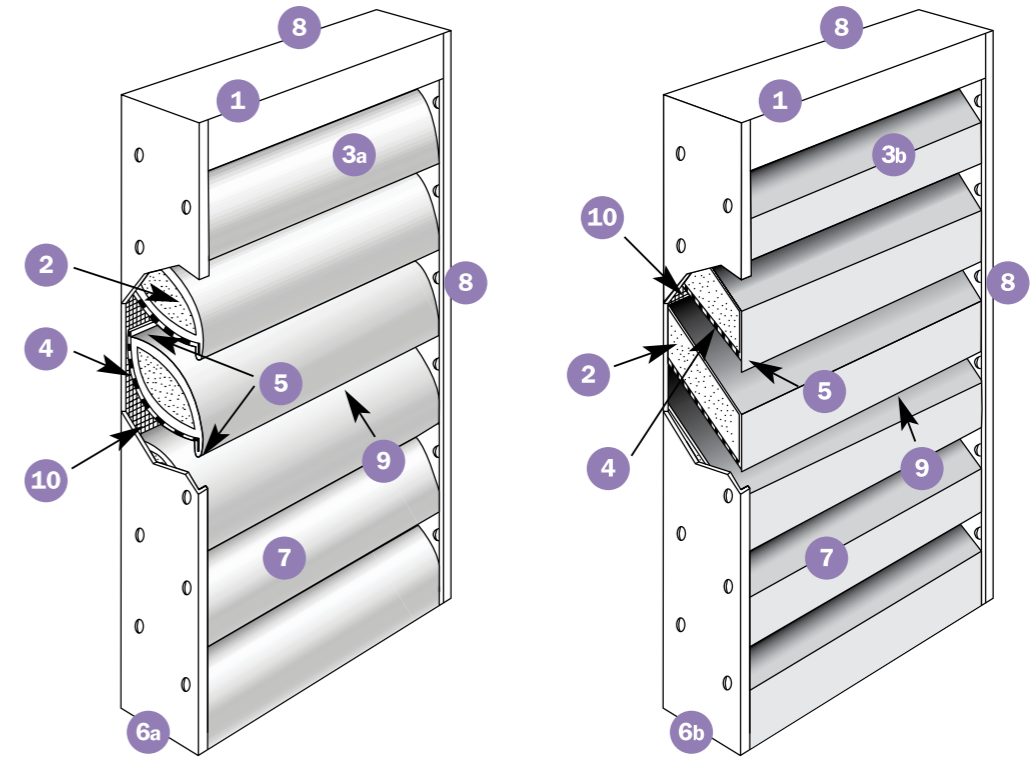
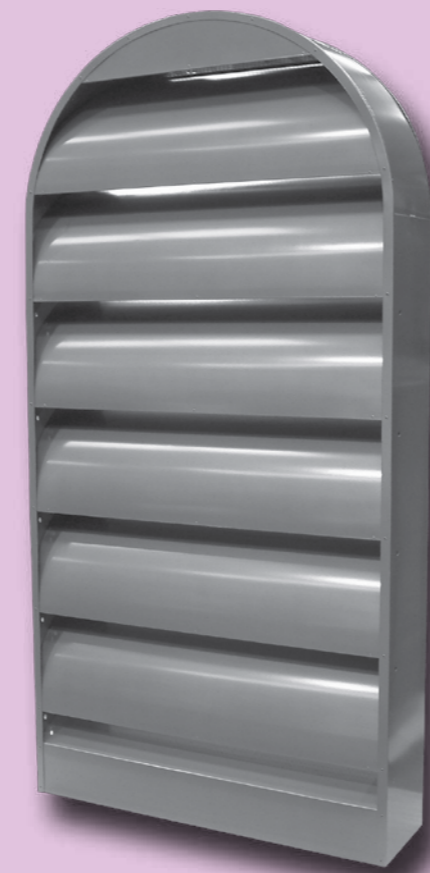
## Finishes Available

- Galvanised mild steel
- Aluminium
- Stainless steel
- Polyester Power Coated (PPC)
- Vinyl coated steel
- Syntha Pulvin
- Wood effect painted finish

## Slimshield™ Special Features

- Linear appearance
- Superior high frequency performance

Other non-standard finishes are available upon request.



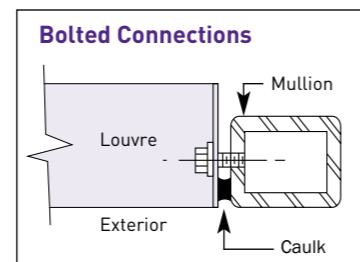
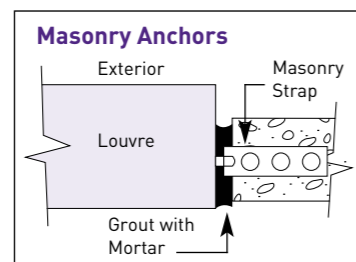
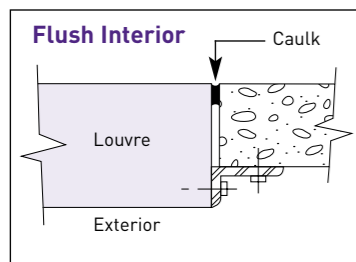
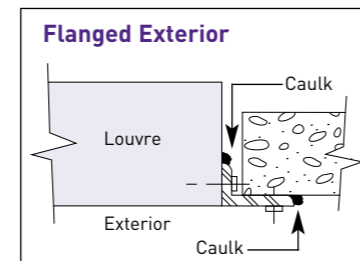
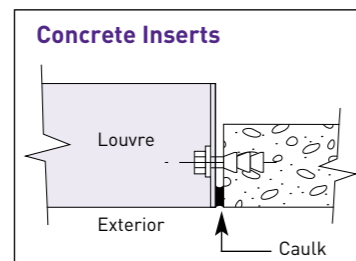
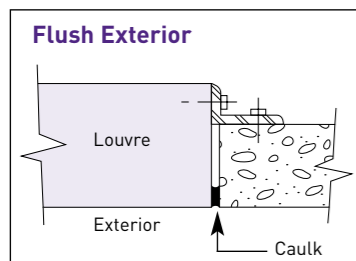
- 1 Rugged all-steel galvanised construction. Stainless steel, aluminium and other materials are also available
- 2 Inert, vermin-proof, weather-rated non combustible acoustic fill
- 3a **FOR NOISHIELD™** Aerofoil shaped splitter blade for maximum noise reduction with minimum pressure drop
- 3b **FOR SLIMSHIELD™** Linear blade appearance for superior high frequency performance
- 4 Perforated splitter underside for maximum sound absorption
- 5 Weather stop inhibits rain/snow entry
- 6a **FOR NOISHIELD™** 305mm for the single banked system or 610mm deep for the double banked system
- 6b **FOR SLIMSHIELD™** 100, 150, 300mm deep single banked systems and 600mm deep for the double banked system
- 7 Available in a variety of durable, attractive finishes, e.g. vinyl coated steel, polyester powder paint, mill finish aluminium, anodised aluminium, Syntha Pulvin, galvanised and stainless steel
- 8 Modular sizes enable assembly of rectilinear louvre 'walls' of almost any size
- 9 Louvre blade orientation blocks horizontal line of site, enhancing both aesthetics and acoustic performance
- 10 Bird guards are available in galvanised or stainless steel, insect screens can also be supplied

# Louvre Installation

## Engineered for Performance

Despite primarily being engineered as a high performance solution to attenuating unwanted noise, our acoustic louvres are a modular design, resulting in screens that are scaleable to suit individual projects.

Typical details are shown below and certified dimension drawings are provided with each louvre. IAC Acoustics will supply all supporting steelwork if necessary. For large louvre banks, IAC Acoustics will provide installation drawings and a full installation service if required.

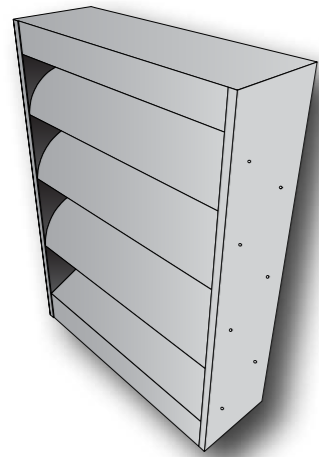


# Acoustic Louvre Specifications

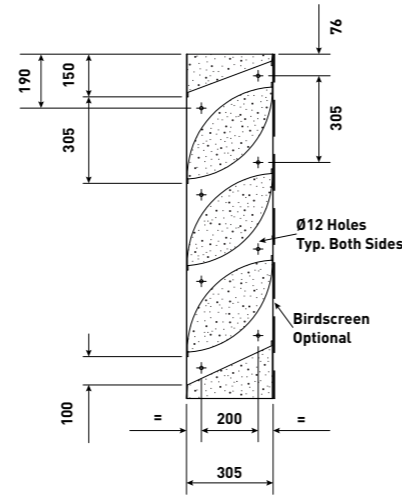
## Page

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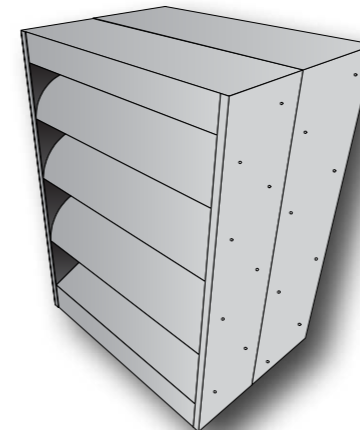
# Model R Noishield™ Acoustic Louvres



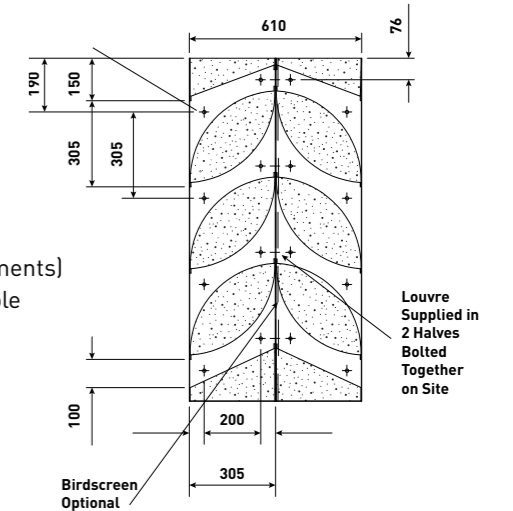
**Weight** 40kg/m<sup>2</sup>  
**Module Width** 300 - 1219mm  
**Standard Module Height** 305 - 3660mm (in 305mm increments)  
 Intermediate heights are available



# Model 2R Noishield™ Acoustic Louvres

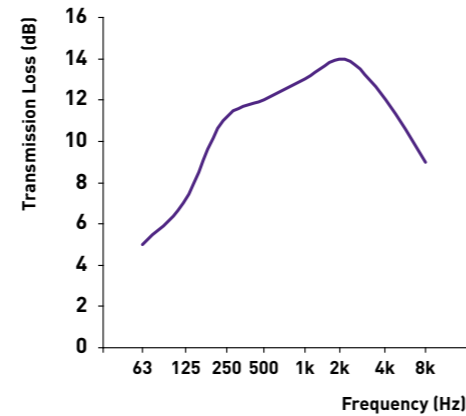


**Weight** 80kg/m<sup>2</sup>  
**Module Width** 300 - 1219mm  
**Standard Module Height** 305 - 3660mm (in 305mm increments)  
 Intermediate heights are available



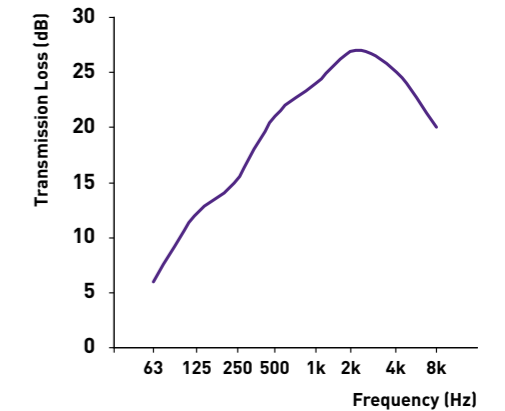
## Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	5	7	11	12	13	14	12	9
Acoustic Rating	R <sub>w</sub> 14dB / D <sub>new</sub> 21dB							



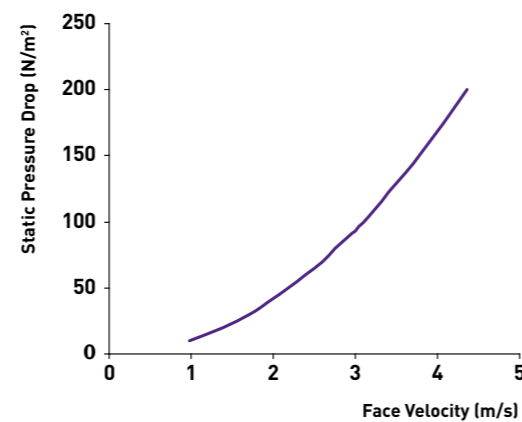
## Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	6	12	15	21	24	27	25	20
Acoustic Rating	R <sub>w</sub> 24dB / D <sub>new</sub> 31dB							



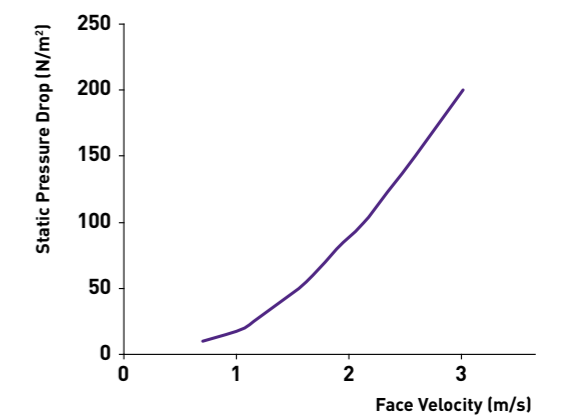
## Aerodynamic Performance

Static Pressure Drop (N/m <sup>2</sup> )	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.98	1.39	1.71	1.95	2.18	2.39	2.60	2.75	2.93	3.10
Nominal Free Area	43%* * Average over louvre depth									
Aerodynamic Coefficient	17.53k									



## Aerodynamic Performance

Static Pressure Drop (N/m <sup>2</sup> )	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.70	1.07	1.21	1.39	1.55	1.68	1.79	1.89	2.01	2.13
Nominal Free Area	43%* * Average over louvre depth									
Aerodynamic Coefficient	34.68k									

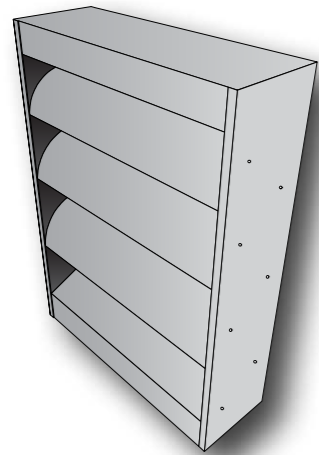


## Acoustic Louvred Doors

- Single and double doors are available in the R louvre range.
- See page 22 for further details

# Model LP

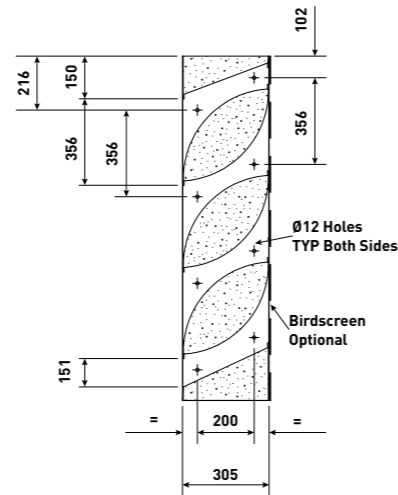
Noishield™ Acoustic Louvres



**Weight**  
35kg/m<sup>2</sup>

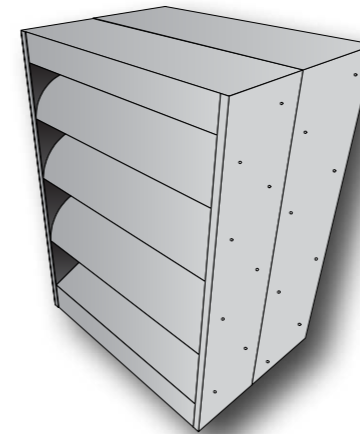
**Module Width**  
300 - 1219mm

**Standard Module Height**  
305 - 3660mm (in 305mm increments)  
Intermediate heights are available



# Model 2LP

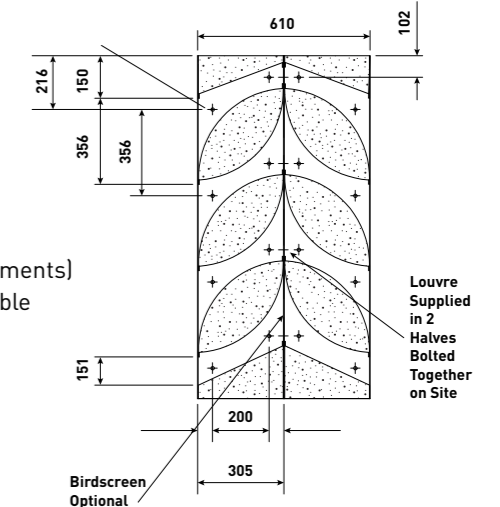
Noishield™ Acoustic Louvres



**Weight**  
70kg/m<sup>2</sup>

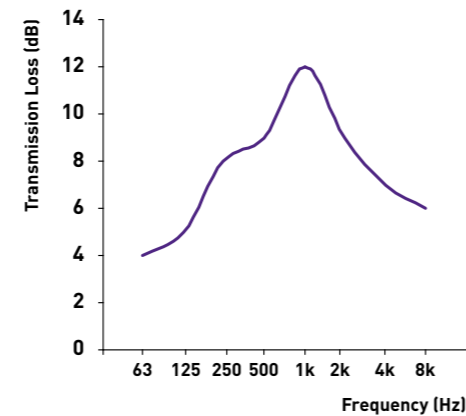
**Module Width**  
300 - 1219mm

**Standard Module Height**  
305 - 3660mm (in 305mm increments)  
Intermediate heights are available



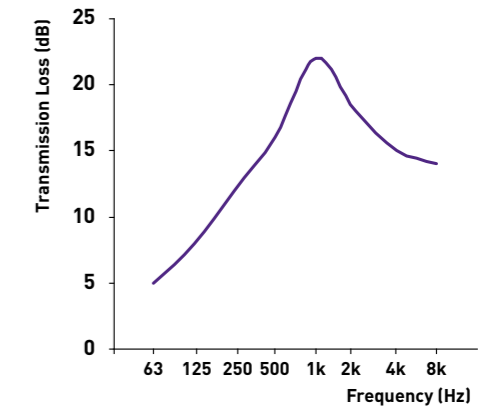
## Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	4	5	8	9	12	9	7	6
Acoustic Rating	R <sub>w</sub> 11dB / D <sub>new</sub> 18dB							



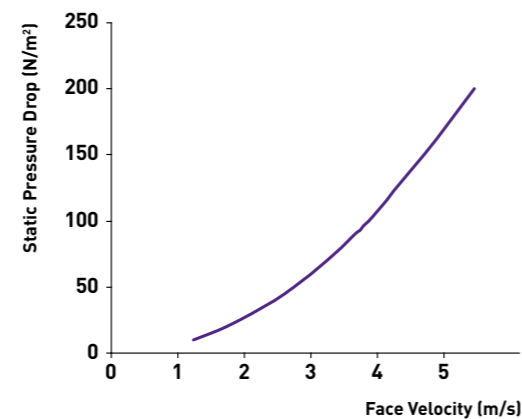
## Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	5	8	12	16	22	18	15	14
Acoustic Rating	R <sub>w</sub> 19dB / D <sub>new</sub> 25dB							



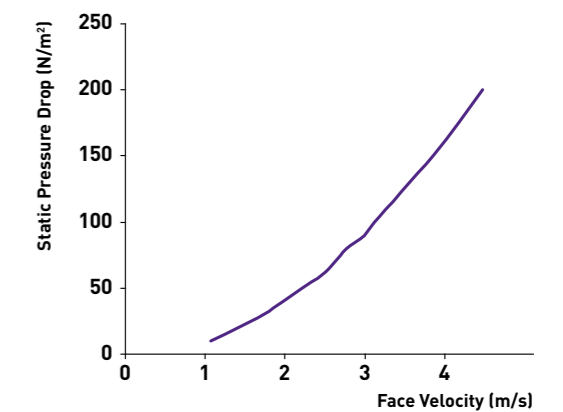
## Aerodynamic Performance

Static Pressure Drop (N/m <sup>2</sup> )	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	1.23	1.73	2.11	2.46	2.74	3.00	3.24	3.46	3.65	3.86
Nominal Free Area	52%* * Average over louvre depth									
Aerodynamic Coefficient	11.10k									



## Aerodynamic Performance

Static Pressure Drop (N/m <sup>2</sup> )	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	1.07	1.41	1.73	1.98	2.21	2.46	2.62	2.77	2.99	3.12
Nominal Free Area	52%* * Average over louvre depth									
Aerodynamic Coefficient	17.06k									

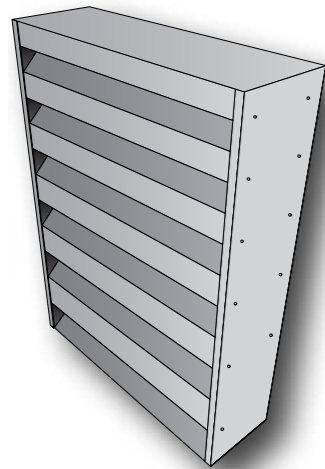


## Acoustic Louvred Doors

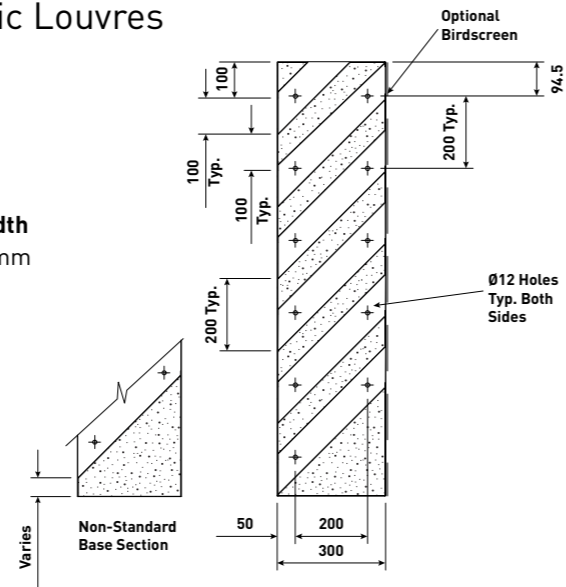
- Single and double doors are available in the LP louvre range.
- See page 22 for further details



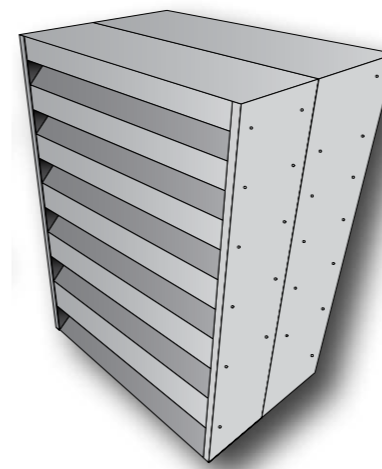
# SL-300 Slimshield™ Acoustic Louvres



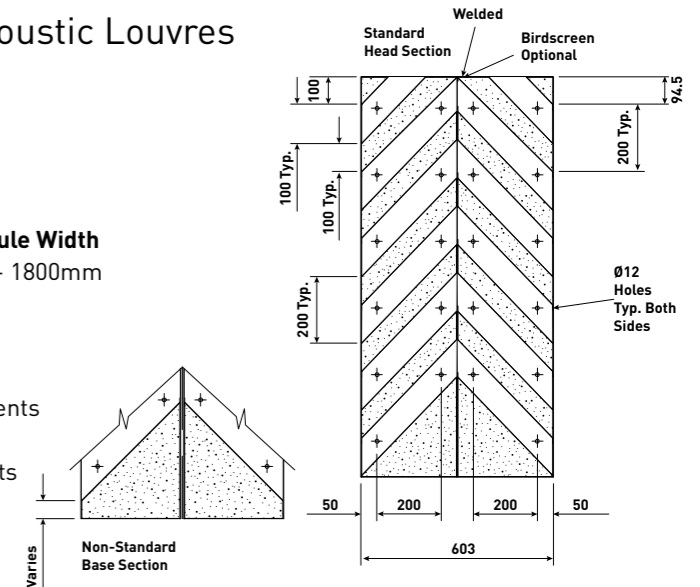
**Weight** 50kg/m<sup>2</sup>    **Module Width** 300 - 1800mm  
**Standard Module Height** 600mm minimum, (increasing increments of 200mm)  
 Intermediate heights are available



# SL-600 Slimshield™ Acoustic Louvres

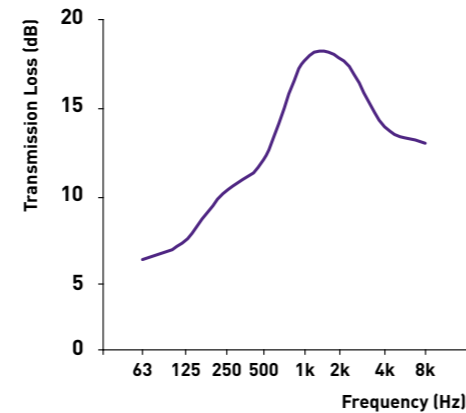


**Weight** 100kg/m<sup>2</sup>    **Module Width** 300 - 1800mm  
**Standard Module Height** 600mm minimum, (increasing increments of 200mm)  
 Intermediate heights are available



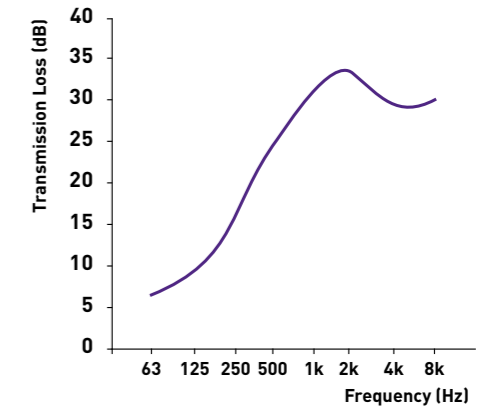
## Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	6	7	10	12	18	18	14	13
Acoustic Rating	<b>R<sub>w</sub>17dB / D<sub>new</sub>23dB</b>							



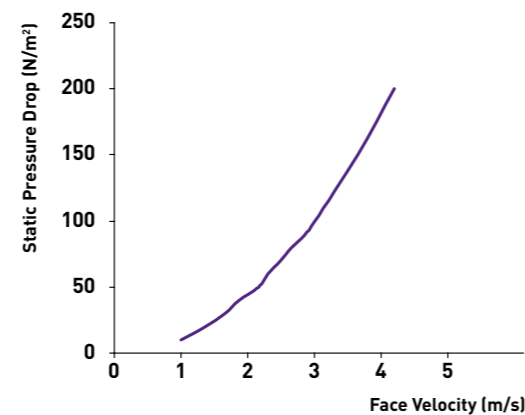
## Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	7	9	12	24	31	33	29	30
Acoustic Rating	<b>R<sub>w</sub>26dB / D<sub>new</sub>31dB</b>							



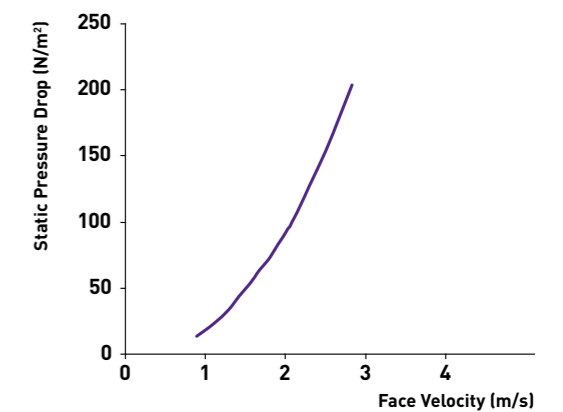
## Aerodynamic Performance

Static Pressure Drop (N/m <sup>2</sup> )	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.94	1.31	1.61	1.83	2.13	2.27	2.46	2.63	2.84	2.99
Nominal Free Area	45%*      * Average over louvre depth									
Aerodynamic Coefficient	<b>18.38k</b>									



## Aerodynamic Performance

Static Pressure Drop (N/m <sup>2</sup> )	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.68	0.94	1.15	1.30	1.47	1.61	1.77	1.89	2.02	2.13
Nominal Free Area	45%*      * Average over louvre depth									
Aerodynamic Coefficient	<b>38.56k</b>									



## Acoustic Louvred Doors

- Single and double doors are available in the SL-300 louvre range.
- See page 22 for further details

# Acoustic Louvred Doors

- Single and double doors are available in the entire IAC Acoustics louvre range
- The structural minimum is 850mm and is available up to 1250 x 2950mm high as standard for a single door and 2500 x 2950mm high for a double door. Other widths and heights are available on request
- All doors are supplied with a union oval lock, latch and pull handle
- Acoustic louvred doors can be fitted with birdguards and insect meshes on request
- Doors can be polyester powder coated to match adjoining louvres
- Materials for the door and door frame include galvanised steel, stainless steel and aluminium

## A Quality Solution

All IAC products are designed to stand the test of time and manufactured to suit the application. From offshore environments to extremes in weather and ambient temperature, IAC Acoustics can produce a highly engineered solution to your noise control issue.

## Harsh Environments

In addition to providing acoustic louvres located in everyday environments, IAC also has the ability to modify products to suit more demanding applications.

## An Engineering Benchmark

IAC products are respected worldwide for their quality and certified performance. Rest assured that IAC Acoustics can deliver a solution to your unwanted noise problem.

## A True World Leader

In addition to providing acoustic louvres, IAC Acoustics is also able to provide the following solutions to noise control:

- Acoustic doors
- Acoustic windows
- HVAC attenuators
- Medical rooms
- Audiology booths
- Acoustic studios
- Acoustic wall treatments
- Anechoic chambers
- Acoustic barriers
- Acoustic enclosures
- Engine exhaust silencers
- Vent silencers
- Aero-engine test facilities
- Jet blast deflectors
- Ground run-up enclosures
- Gas turbine acoustic packages
- Anti-vibration mounts

Our wealth of engineering experience means that custom solutions can also be tailored for specific client applications. Please contact your local IAC Acoustics office should you require a unique solution.

# Contacts



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Making the world a quieter place

