



Acoustic Louvres

A COMPLETE RANGE OF CERTIFIED HIGH
PERFORMANCE ACOUSTIC LOUVRES TO
SOLVE A WIDE RANGE OF ENVIRONMENTAL
NOISE POLLUTION PROBLEMS

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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.



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.

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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 can provide acoustic 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.

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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

SL-V300L: 300mm deep

SL-V300S: 300mm 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
SL-V300L	300	-	5	10	12	17	22	21	21
SL-V300S	300	-	7	13	13	18	21	20	21

Integrated or Standalone

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

Product Feature

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 acoustic louvre system

Finishes Available

- Galvanised mild steel
- Aluminium
- Stainless steel
- Polyester Power Coated [PPC]
- Vinyl coated steel
- Syntha Pulvin

Other non-standard finishes are available upon request.

Slimshield™ Special Features

- Linear appearance
- Superior high frequency performance

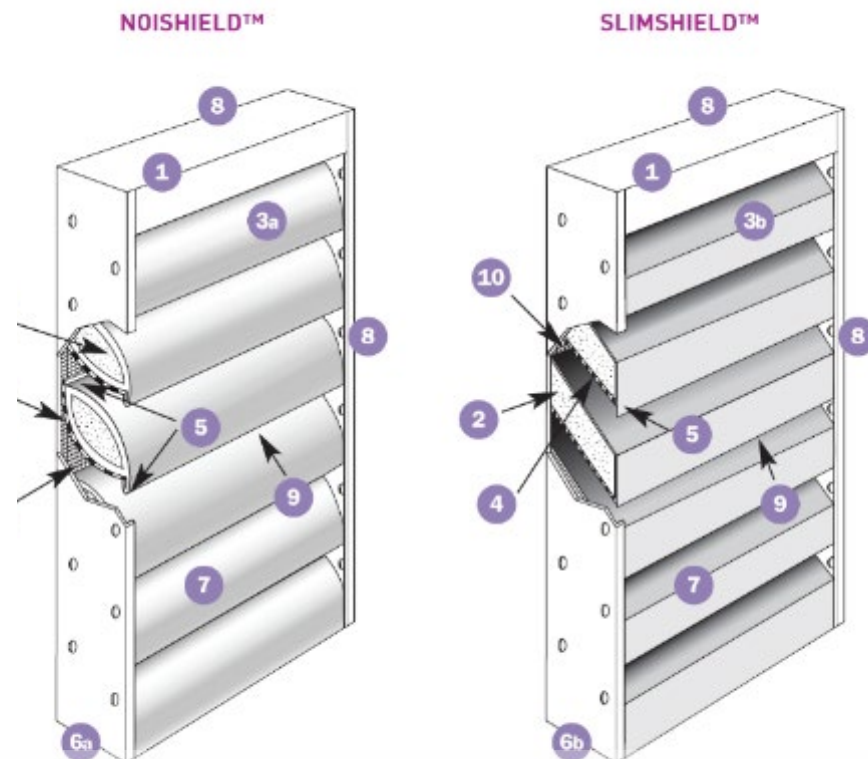


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ACOUSTIC LOUVRES

- 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, 152, 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



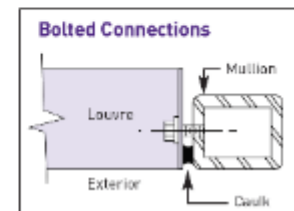
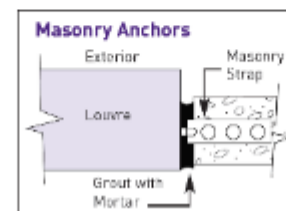
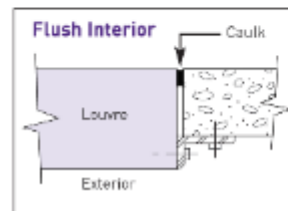
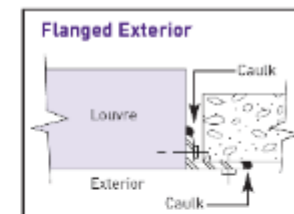
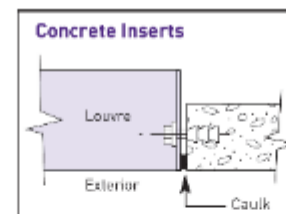
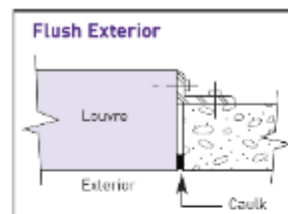


Acoustic Louvres Installation

Typical details are shown below and certified dimension drawings are provided with each acoustic 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.

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 scalable to suit individual projects.



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Acoustic Louvre Specification

Noishield™ Acoustic Louvre Type R

Noishield™ Acoustic Louvre Type 2R

Noishield™ Acoustic Louvre Type LP

Noishield™ Acoustic Louvre Type 2LP

Slimshield™ Acoustic Louvre SL-100

Slimshield™ Acoustic Louvre SL-150

Slimshield™ Acoustic Louvre SL-300

Slimshield™ Acoustic Louvre SL-600

Slimshield™ Acoustic Louvre SL-V300L

Slimshield™ Acoustic Louvre SL-V300S

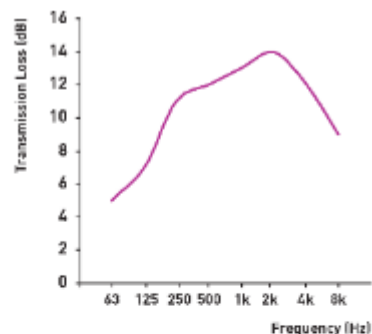
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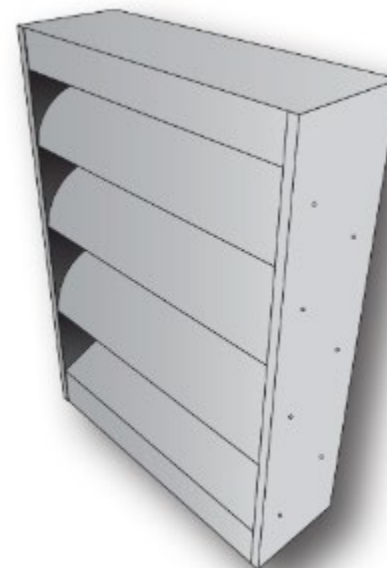
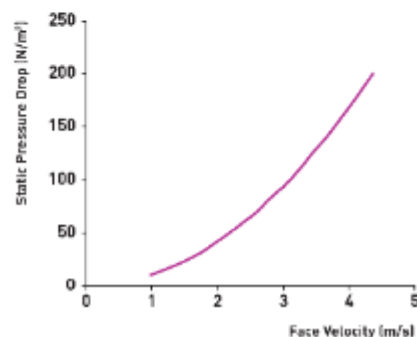
Acoustic Performance

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 _w 14dB / D _{RCW} 21dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	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									
Cd	0.239									



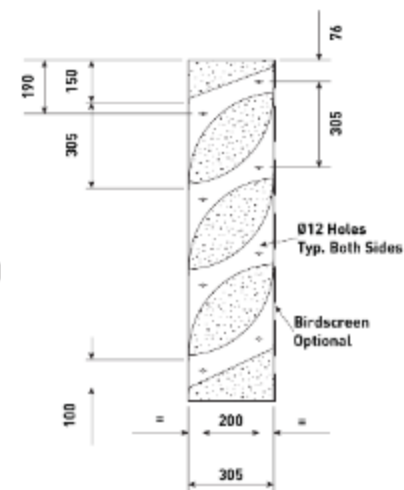
Acoustic Louvred Doors

- Single and double doors are available in the R louvre range

Weight
40kg/m²

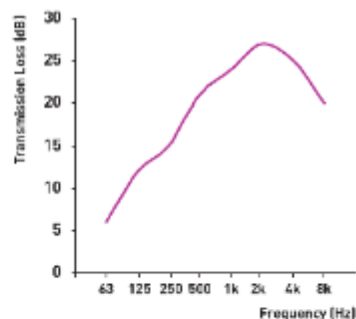
Module Width
300 - 1800mm

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



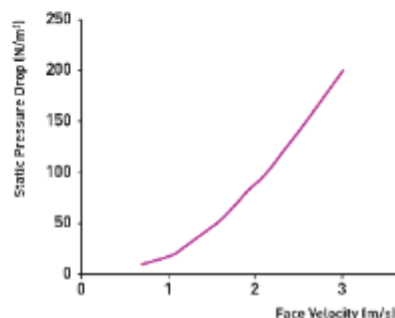
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	6	12	15	21	24	27	25	20
Acoustic Rating	R _w 24dB / D _{rev} 31dB							
For noise reduction, add 6dB to the above values								



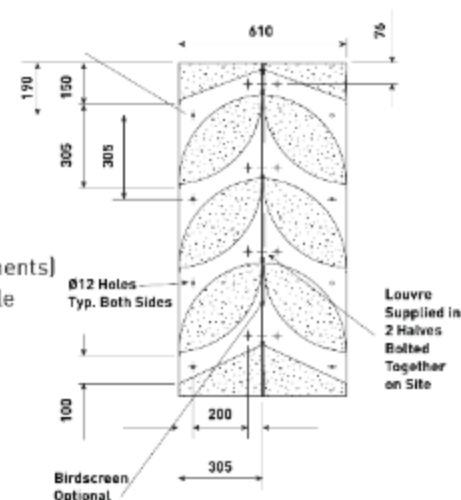
Aerodynamic Performance

Static Pressure Drop (N/m²)	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									
Cd	0.17									



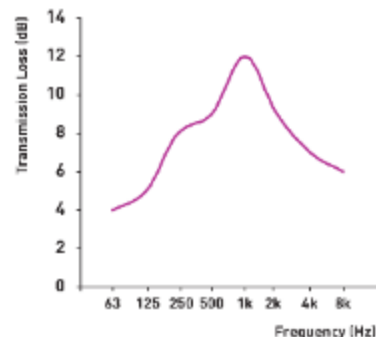
Pressure Drop = \dot{m}/Cd
 \dot{m} = mass flow
 Cd = Discharge Coefficient

Weight 80kg/m²
Module Width 300 - 1800mm
Standard Module Height 305 - 3660mm (in 305mm increments)
 Intermediate heights are available



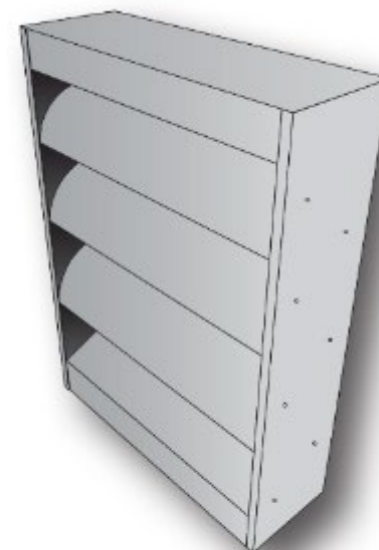
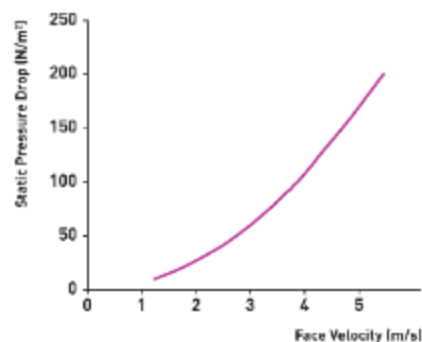
Acoustic Performance

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 _w 11dB / D ₁₀₀₀ 18dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	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%* <small>* Average over louvre depth</small>									
Cd	0.3									



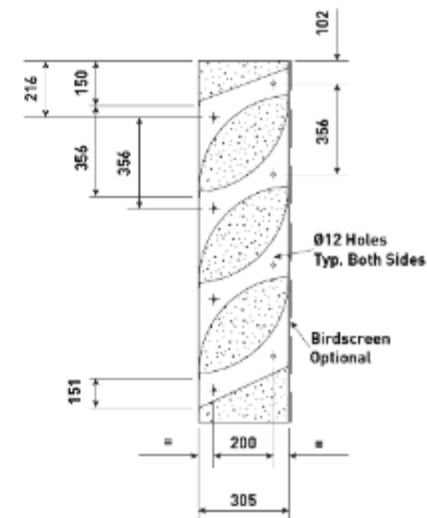
Acoustic Louvred Doors

- Single and double doors are available in the LP louvre range

Weight
35kg/m²

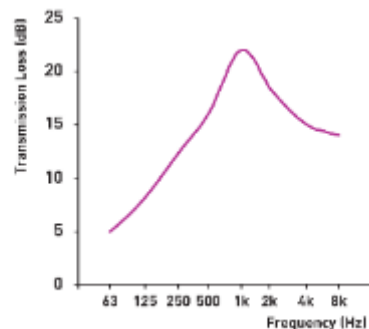
Module Width
300 - 1800mm

Standard Module Height
356 - 3560mm (in 356mm increments)
Intermediate heights are available



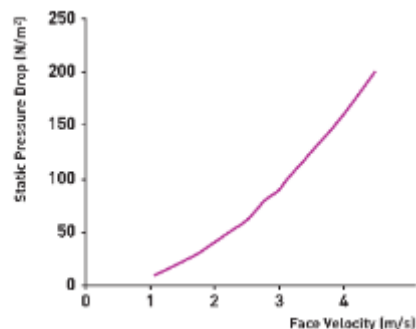
Acoustic Performance

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 _w 19dB / D _{ecw} 25dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	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									
Cd	0.242									



Pressure Drop = \dot{m}/Cd
 \dot{m} = mass flow
 Cd = Discharge Coefficient

Weight

70kg/m²

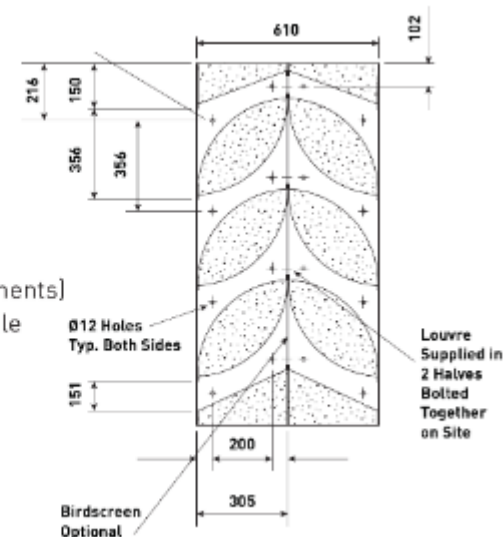
Module Width

300 - 1800mm

Standard Module Height

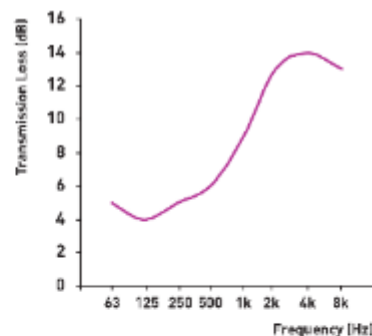
356 - 3560mm (in 356mm increments)

Intermediate heights are available



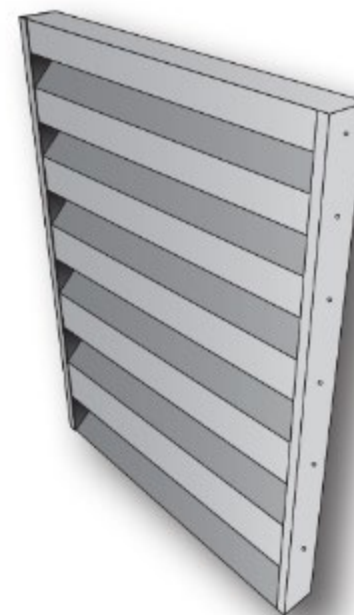
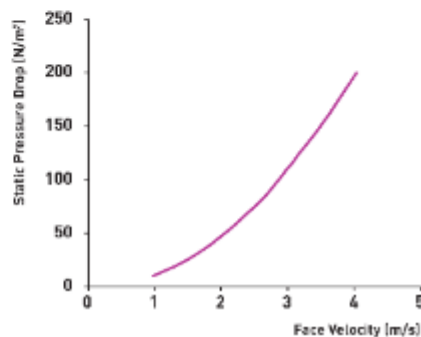
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	5	4	5	6	9	13	14	13
Acoustic Rating	R _w 10dB / D _{snr} 16dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.92	1.30	1.59	1.84	2.05	2.25	2.43	2.61	2.76	2.90
Nominal Free Area	42%* * Average over louvre depth									
Cd	0.225									



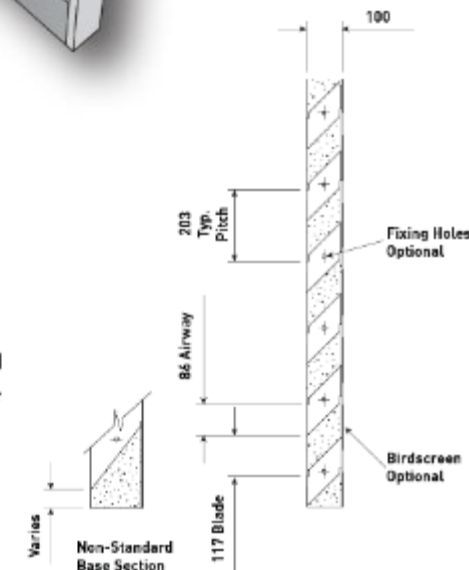
Acoustic Louvred Doors

- Single and double doors are available in the SL-100 louvre range

Weight
20kg/m²

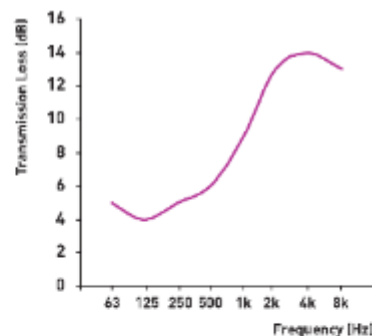
Module Width
300 - 1800mm

Standard Module Height
400mm minimum,
(increasing increments of 203mm)
Intermediate heights are available



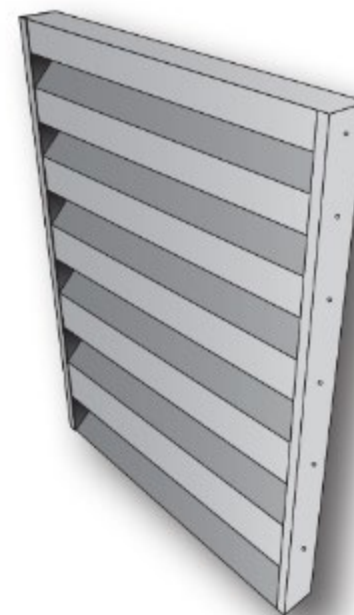
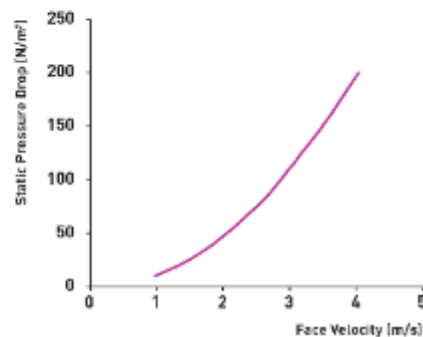
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	5	4	5	6	9	13	14	13
Acoustic Rating	R _w 10dB / D _{snr} 16dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.92	1.30	1.59	1.84	2.05	2.25	2.43	2.61	2.76	2.90
Nominal Free Area	42%* * Average over louvre depth									
Cd	0.225									



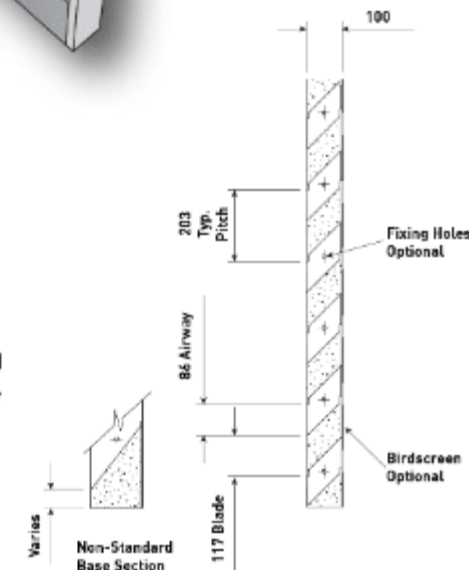
Acoustic Louvred Doors

- Single and double doors are available in the SL-100 louvre range

Weight
20kg/m²

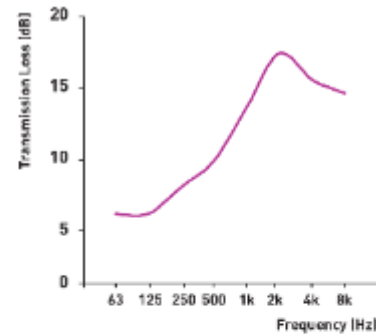
Module Width
300 - 1800mm

Standard Module Height
400mm minimum,
(increasing increments of 203mm)
Intermediate heights are available



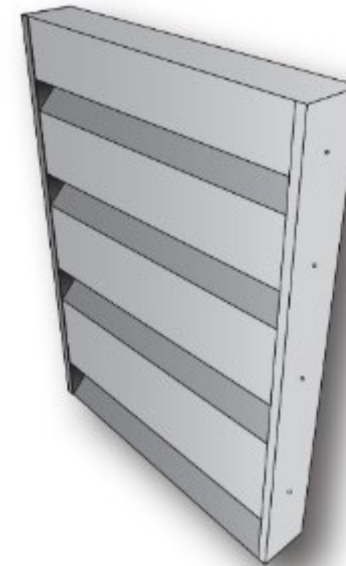
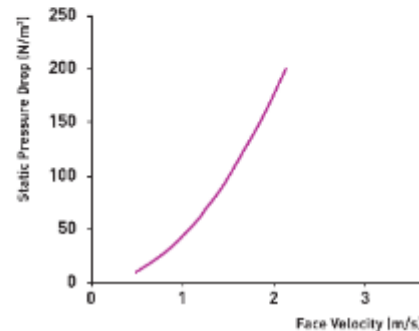
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	6	6	8	10	14	18	16	15
Acoustic Rating	R _w 15dB / D _{new} 21dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.53	0.73	0.90	1.04	1.16	1.28	1.37	1.47	1.56	1.64
Nominal Free Area	32%* * Average over louvre depth									
Cd	0.127									



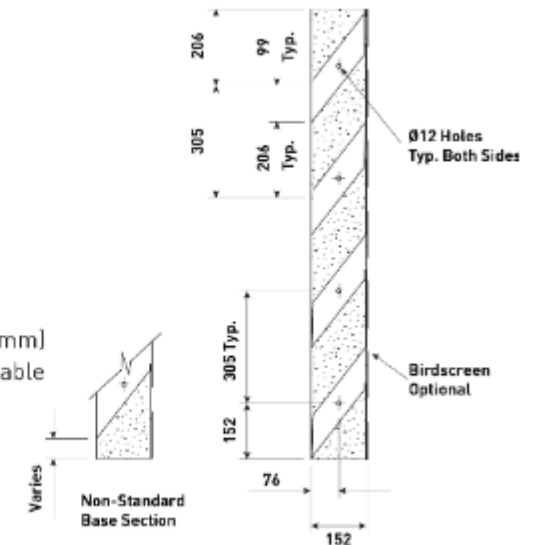
Acoustic Louvred Doors

- Single and double doors are available in the SL-150 louvre range

Weight
30kg/m²

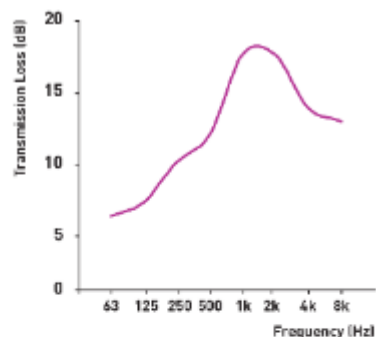
Module Width
300 - 1800mm

Standard Module Height
305mm minimum,
(increasing increments of 305mm)
Intermediate heights are available



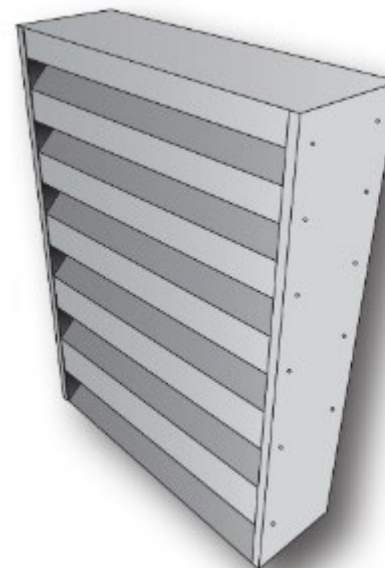
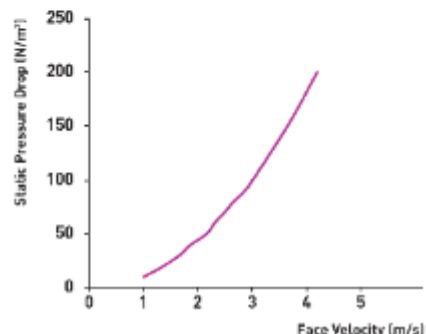
Acoustic Performance

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	R _w 17dB / D _{nw} 23dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	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									
Cd	0.233									



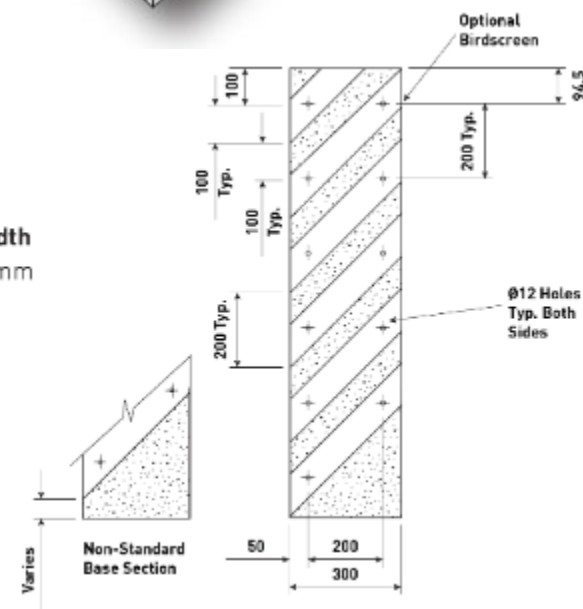
Acoustic Louvred Doors

- Single and double doors are available in the SL-300 louvre range

Weight
50kg/m²

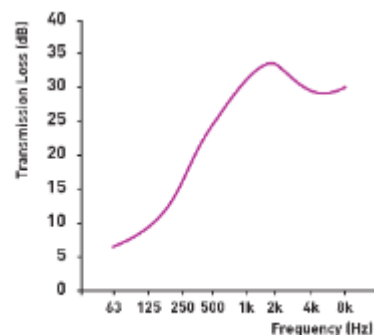
Module Width
300 - 1800mm

Standard Module Height
600mm minimum,
(increasing increments of
200mm)
Intermediate heights are
available



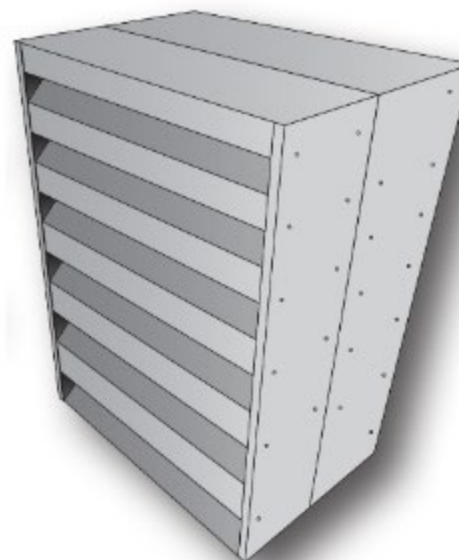
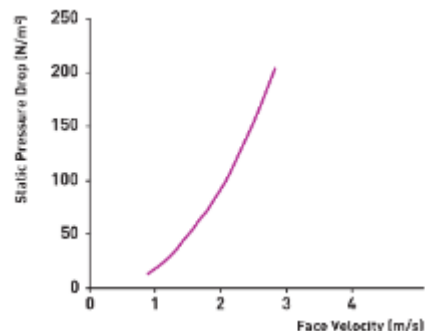
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	7	9	12	24	31	33	29	30
Acoustic Rating	R _a 26dB / D _{nn} 31dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	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									
Cd	0.161									



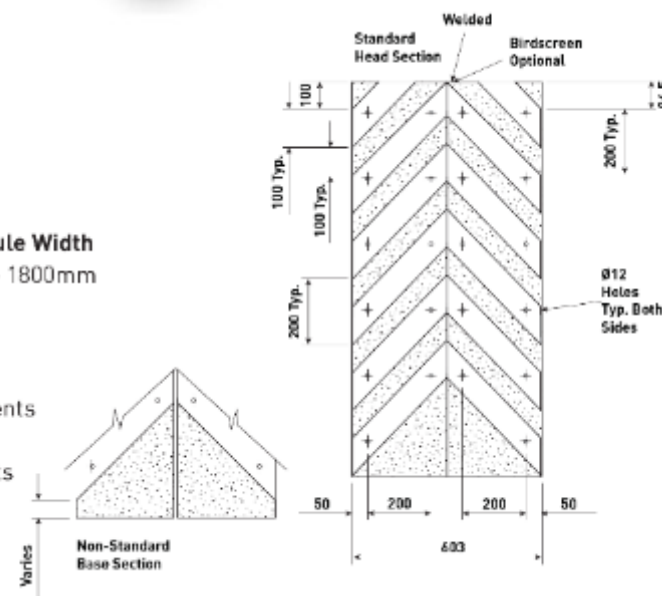
Acoustic Louvred Doors

- Single and double doors are available in the SL-600 louvre range

Weight
100kg/m²

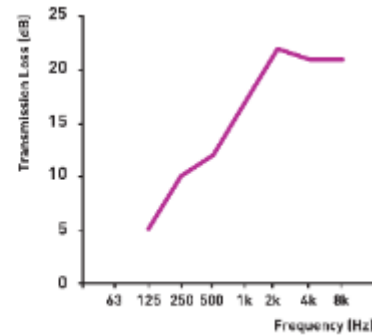
Module Width
300 - 1800mm

Standard Module Height
600mm minimum,
(increasing increments of 200mm)
Intermediate heights are available



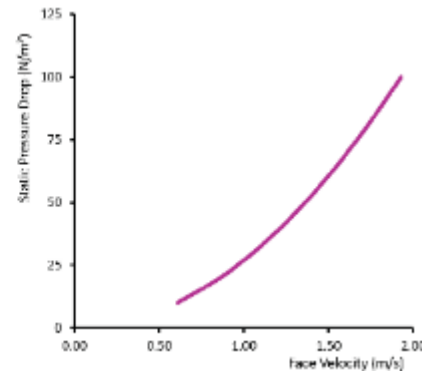
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	-	5	10	12	17	22	21	21
Acoustic Rating	R _w 18dB / D _{sn} 26dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

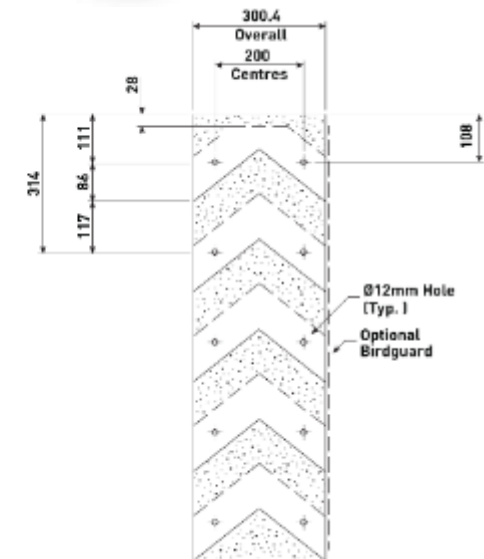
Static Pressure Drop [N/m²]	10	20	30	40	50	60	70	80	90	100
Face Velocity [m/s]	0.61	0.86	1.06	1.22	1.36	1.49	1.61	1.72	1.83	1.93
Nominal Free Area	42%* * Average over louvre depth									
Aerodynamic Coefficient	[k] 45.04									
Discharge Coefficient	0.149									



Weight
50kg/m²

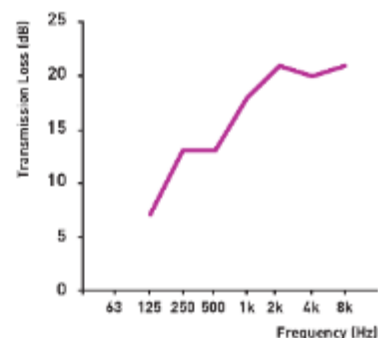
Module Width
300 - 1800mm

Standard Module Height
600mm minimum,
(increasing increments of
203mm)
Intermediate heights are
available



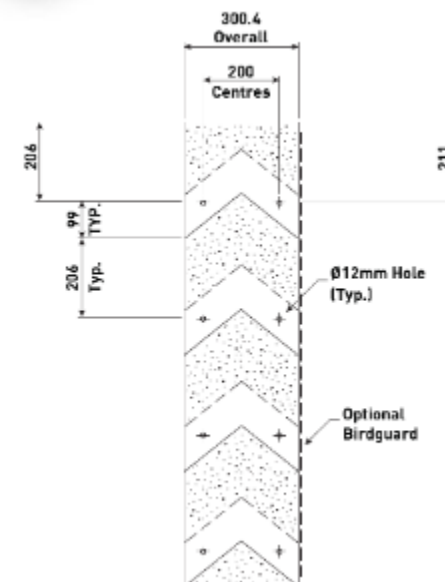
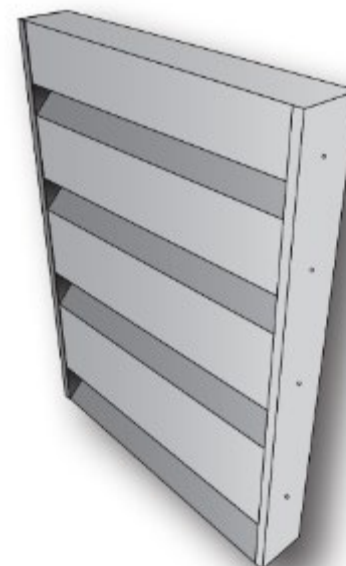
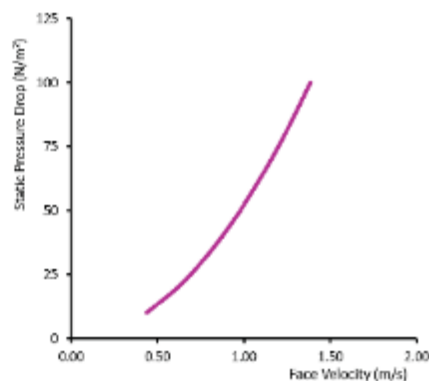
Acoustic Performance

Octave Band Centre Frequency (Hz)	63	125	250	500	1k	2k	4k	8k
Transmission Loss (dB)	-	7	13	13	18	21	20	21
Acoustic Rating	R _w 18dB / D _{new} 29dB							
For noise reduction, add 6dB to the above values								



Aerodynamic Performance

Static Pressure Drop (N/m²)	10	20	30	40	50	60	70	80	90	100
Face Velocity (m/s)	0.44	0.62	0.76	0.88	0.98	1.07	1.16	1.24	1.31	1.38
Nominal Free Area	32%* * Average over louvre depth									
Aerodynamic Coefficient	[k] 87.34									
Discharge Coefficient	0.107									



Pressure Drop = \dot{m}/Cd
 \dot{m} = mass flow
 Cd = Discharge Coefficient

Weight 55kg/m²
Module Width 300 - 1800mm

Standard Module Height
 600mm minimum,
 (increasing increments
 of 305mm)
 Intermediate heights
 are available

Acoustic Louvre Doors

- Single & double doors are available for louver depths up to 305mm
- Doors for 600mm deep louver banks can either be back to back doors, one swings inwards & one swings outwards
- Or made as a single bank door (up to 305mm) with a blanking plate to the rear (Non-active)
- 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 bird guards and insect meshes on request
- Doors can be polyester powder coated to match adjoining louvres
- Materials for the door and door frame include galvanized steel, stainless steel and aluminium

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Harsh environment

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

A Quality Solutions

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.

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IAC has worldwide offices and manufacturing plants in the UK, Australia, Canada, China, Malaysia, Indonesia, Thailand, Philippines Denmark, France, Germany, Italy, Spain, UAE - Dubai, USA Houston, USA Lincoln, USA - New York.

