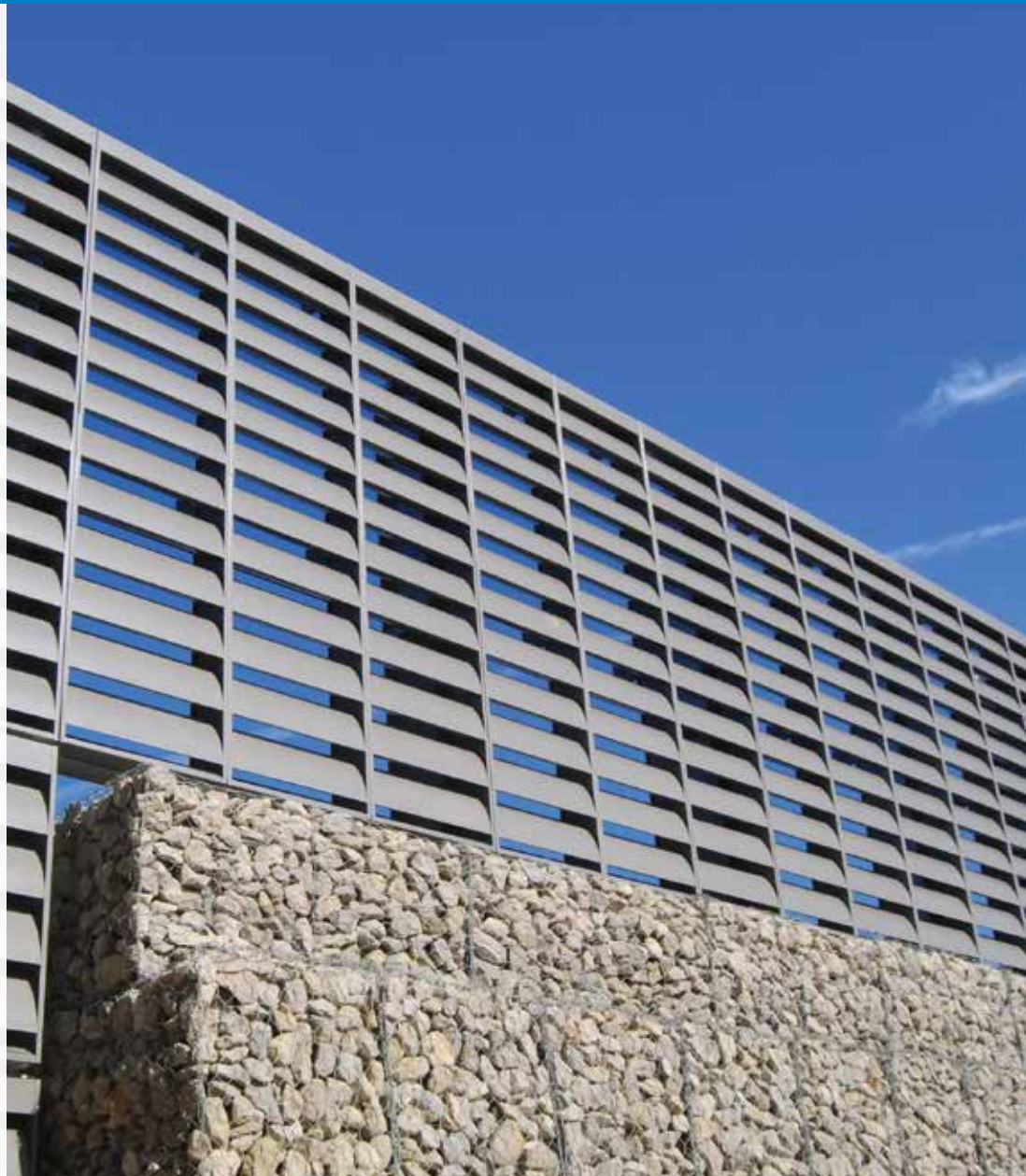


Acoustic Louvers

A Complete Range of Certified, High-Performance Acoustic Louvers to Solve Diverse Environmental Noise Pollution Problems



- Certified performance data per ASTM E90
- Easy to install and engineered for high performance
- Rugged galvanized construction (other materials available)
- Standard and specialty shaped louvers available
- Louver barriers/walls
- Airfoil and straight splitter blades available
- Variety of durable attractive finishes
- Over 60 years experience



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, make 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 experts.

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 Louvers Overview

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

Air Conditioning Systems & Equipment

- Return air and supply systems
- Cross-talk silencers
- Recording and broadcasting studios
- Air conditioning and refrigeration equipment
- Ventilation openings
- Cooling towers
- Data centers
- Fans
- Hospitals
- Hotels and motels
- Boiler rooms
- Conference rooms

Industrial, Transportation & Construction Equipment

- Diesel generator sets
- Marine or propulsion fans
- Machinery enclosures
- Gas turbines
- Oil coolers
- Electric motors
- Trucks and buses
- Locomotives
- Transformer barriers
- Tractors
- Pumps
- Bulldozers
- Air compressors
- Diesel powered vehicles and equipment
- Industrial cooling towers
- Noise barriers
- Air coolers

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



Form & Function Together

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

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



Acoustic Louvers Range

Noishield™ – Airfoil Blade

- Model R & Model LP: 12" (305mm) deep
- Model 2R & Model 2LP: 24" (610mm) deep
- LF2-24: 24" (610mm) deep

Slimshield™ – Linear Blade

- SL-4: 4" (101mm deep)
- SL-6: 6" (152mm) deep
- SL-12: 12" (305mm deep)
- SL-24 (double banked): 24" (610mm deep)

Noishield™ Louvers – Sound Transmission Loss (dB)

Model	Louver Depth	Octave Band Center Frequency, Hz							
		63	125	250	500	1k	2k	4k	8k
		Sound Transmission Loss, dB							
Model R	12"	5	7	11	12	13	14	12	9
Model 2R	24"	6	12	15	21	24	27	25	20
Model LP	12"	4	5	8	9	12	9	7	6
Model 2LP	24"	5	8	12	16	22	18	15	14
Model LF2-24	24"	6	11	19	24	28	23	17	17

Slimshield™ Louvers – Sound Transmission Loss (dB)

Model	Louver Depth	Octave Band Center Frequency, Hz							
		63	125	250	500	1k	2k	4k	8k
		Sound Transmission Loss, dB							
SL-4	4"	5	4	5	6	9	13	14	13
SL-6	6"	6	6	8	10	14	18	16	15
SL-12	12"	6	7	10	12	18	18	14	13
SL-24	24"	7	9	12	24	31	33	29	30

IAC Acoustics' acoustical louvers adhere to and are applicable to ASTM Standard E90.



Integrated or Standalone

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

Product Features

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

Both IAC Acoustics Noishield™ and Slimshield™ louvers 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 louvers, it overcomes architectural consistency issues, especially where space is limited.

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

Noishield™ Special Features

- Suitable for use behind architectural louvers (4" / 101mm air space is required between faces)
- Bold, curved blade appearance
- A highly economical louver system

Slimshield™ Special Features

- Linear appearance
- Superior high frequency performance

Finishes Available

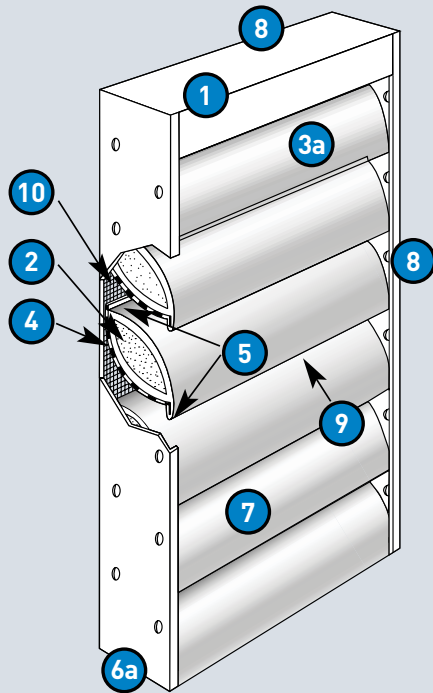
- Galvanized mill steel
- Aluminum
- Stainless steel
- Power coated finish

Other non-standard finishes are available including:

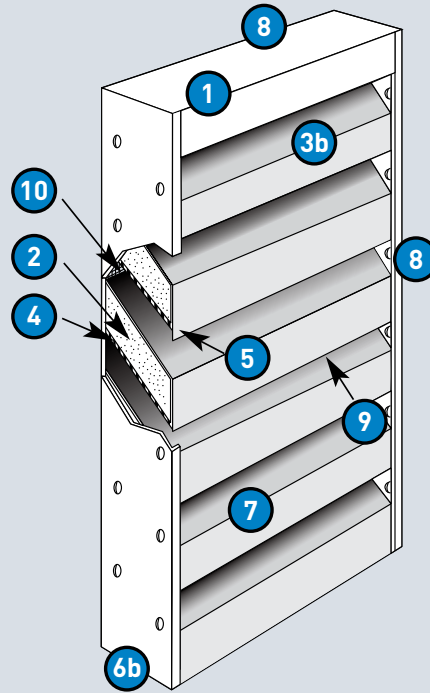
- Galvanized G-90 mill finish
- Galvannealed A-60 in various finishes
- Anodized aluminum
- Stainless steel
- Kynar finish



Noishield™ Louver



Slimshield™ Louver



- 1 Rugged all-steel galvanized construction. Stainless steel, aluminum and other materials are also available
- 2 Inert, vermin-proof, weather-rated non combustible acoustic fill
- 3a **FOR NOISHIELD™** airfoil 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™** 12" (305mm) for the single banked system or 24" (610mm) deep for the double banked system
- 6b **FOR SLIMSHIELD™** 4, 6, 12" (101, 152, 305mm) deep single banked systems and 24" (610mm) deep for the double banked system
- 7 Available in a variety of durable, attractive finishes, including powder finish, Kynar, mill finish aluminum, anodized aluminum, galvanized and stainless steel
- 8 Modular sizes enable assembly of rectilinear louver 'screens' of almost any size
- 9 Louver blade orientation blocks horizontal line of site, enhancing both aesthetics and acoustic performance
- 10 Bird screens are available in galvanized or stainless steel, insect screens can also be supplied

How to Specify Acoustic Louvers

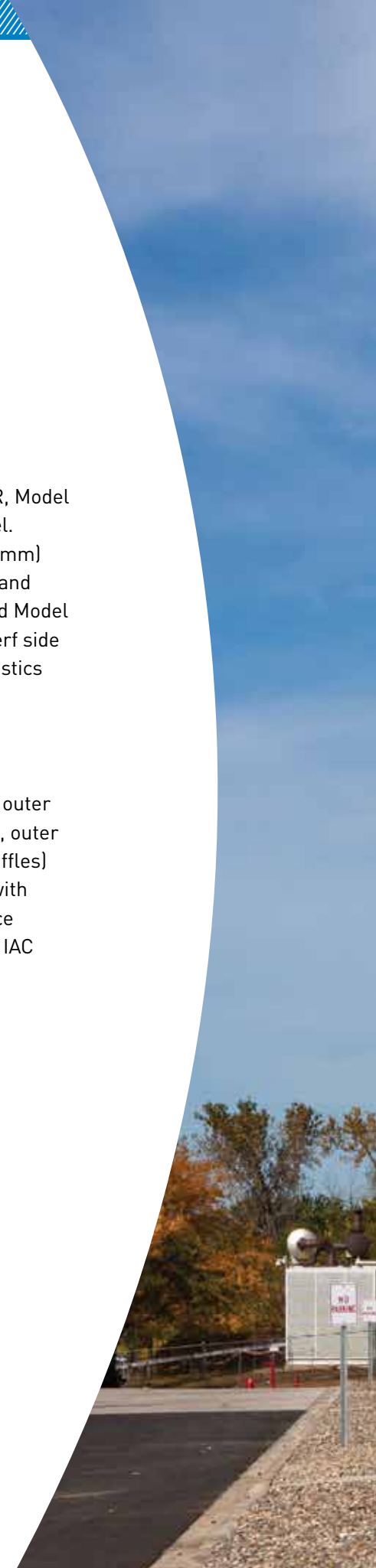
Specifying Noishield™ Louvers

Furnish and install Noishield™ louvers as manufactured by IAC Acoustics. For Model R, Model LP and Model LF2-24, outer casings are made of 16 gauge (1.613 mm) galvanized steel. Louver splitter blades (baffles) are airfoil configuration and made of 22 gauge (0.8534 mm) galvanized steel. They are packed with inert, vermin and moisture proof mineral fiber and provide the acoustical performance as indicated. For Model R, Model 2R, Model LP and Model 2LP, birdscreens are standard on one side only. Birdscreens will be installed on the perf side as standard. For Model LF2-24, birdscreens are not included. Please contact IAC Acoustics for birdscreen and installation options.

Specifying Slimshield™ Louvers

Furnish and install Slimshield™ louvers as manufactured by IAC Acoustics. For SL-4, outer casings are made of 18 gauge (1.27 mm) galvanized steel. For SL-6, SL-12 and SL-24, outer casings are made of 16 gauge (1.613 mm) galvanized steel. Louver splitter blades (baffles) for all models are made of 22 gauge (0.8534 mm) galvanized steel. They are packed with inert, vermin and moisture proof mineral fiber and provide the acoustical performance as indicated. For all Slimshield™ louvers, birdscreens are not included. Please contact IAC Acoustics for birdscreen options.

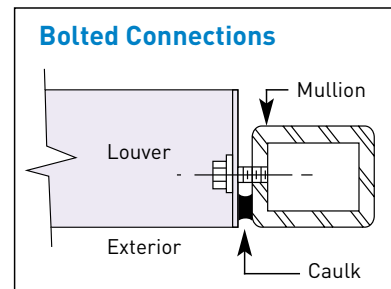
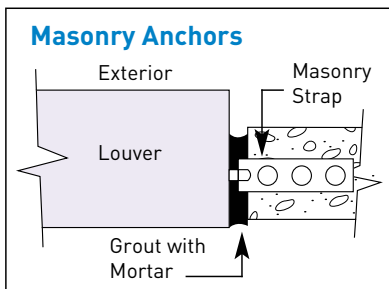
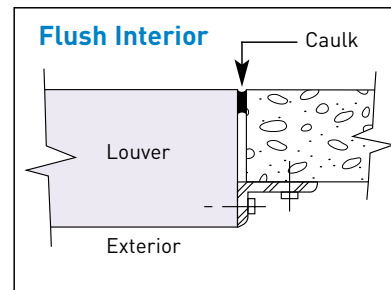
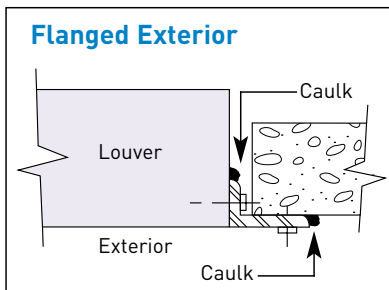
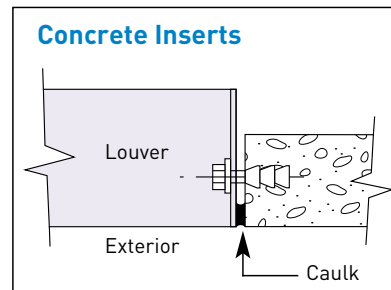
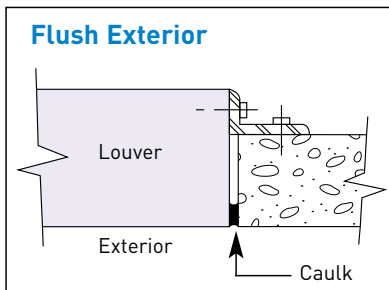
IAC Acoustics' acoustical louvers adhere to and are applicable to ASTM Standard E90.





Acoustic Louver Installation

Typical details are shown below. IAC Acoustics will supply all supporting steelwork if necessary. For large louver banks, IAC Acoustics can supply supporting steelwork, engineering services and drawings along with installation if desired.





Integrated or Standalone

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



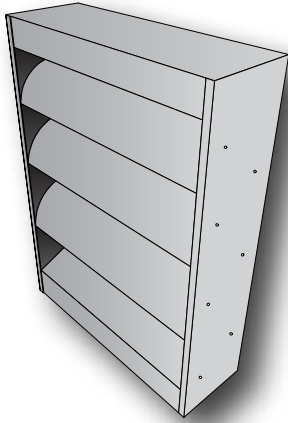
Acoustic Louver Specifications

Page

16	Model R Noishield™ Acoustic Louver
17	Model 2R Noishield™ Acoustic Louver
18	Model LP Noishield™ Acoustic Louver
19	Model 2LP Noishield™ Acoustic Louver
20	Model LF2-24 Noishield™ Acoustic Louver
22	SL-4 Slimshield™ Acoustic Louver
23	SL-6 Slimshield™ Acoustic Louver
24	SL-12 Slimshield™ Acoustic Louver
25	SL-24 Slimshield™ Acoustic Louver



Noishield™ Acoustic Louvers (Model R)



Weight

11 lbs/ft² (54kg/m²)

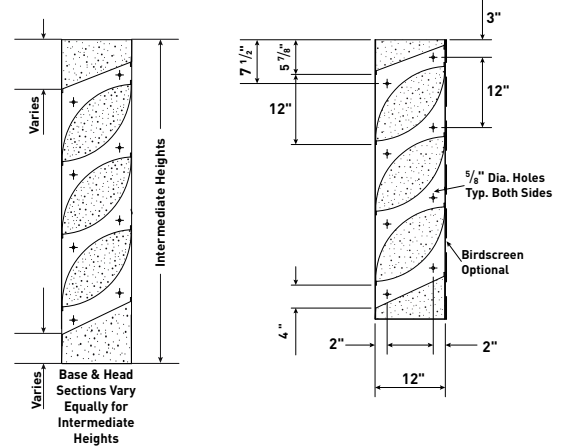
Typical Module Width

12" - 72" (305-1829mm)

Standard Module Height

24" - 144" with increments of 12"
(610mm - 3658mm with increments of 305mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	5	7	11	12	13	14	12	9

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Water Penetration

To minimize water penetration, limit face velocity to 225 ft/min (1.2 m/sec).

Acoustic Louvered Doors

- Single and double doors are available in the Model R louver range
- See page 28 for further details

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	215	305	375	430	480	525	610	675	745	830	960	1070

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{V_2}{V_1} \right)^2$$

Ex: 5,000 cfm through a 24" w x 60" h Model R Louver
Face Velocity = $V = 5,000 \text{ cfm} / 10 \text{ ft}^2 = 500 \text{ ft/min}$
 $\Delta P_s = 0.25 \times (500/480)^2 = 0.27" \text{ wc}$

Nominal Free Area for standard heights: 20%

Self-Noise (SN) Power Levels (Lw)

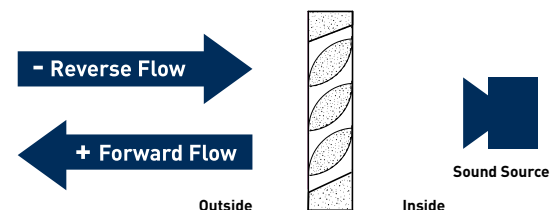
Octave Band	1	2	3	4	5	6	7	8
Hz	63	125	250	500	1K	2K	4K	8K
Louver Face Velocity (V), fpm								
-1000	72	78	74	68	66	64	62	53
-750	69	70	66	61	59	57	50	44
-500	53	53	50	47	45	41	33	24
500	56	54	52	48	43	40	32	22
750	69	72	69	66	58	54	51	43
1000	74	81	80	75	67	62	61	54

For areas other than 4 ft²,
add or subtract from above Lw values:

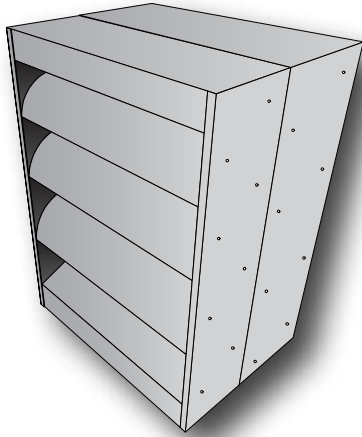
$$10 \text{ LOG} \left(\frac{\text{Louver Face Area, ft}^2}{4} \right)$$

Ex 1: 48" x 48" SN @ +500 ft/min @ 1 kHz = 43 + 10 LOG (16/4) = 43 + 6 = 49 dB
Ex 2: 12" x 24" SN @ +500 ft/min @ 1 kHz = 43 + 10 LOG (2/4) = 43 - 3 = 40 dB

Self-Noise Test Arrangement



Noishield™ Acoustic Louvers (Model 2R)



Weight

22 lbs / ft² (107kg / m²)

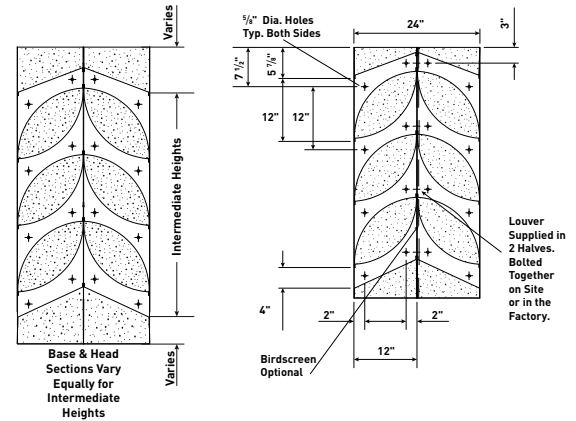
Typical Module Width

12" - 72" (305-1829mm)

Standard Module Height

24" - 144" with increments of 12"
(610mm - 3658mm with increments of 305mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	6	12	15	21	24	27	25	20

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Water Penetration

To minimize water penetration, limit face velocity to 225 ft/min (1.2 m/sec).

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	154	235	264	305	337	364	371	468	509	573	661	739

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{V_2}{V_1} \right)^2$$

Ex: 5,000 cfm through a 24" w x 60" h Model 2R Louver
Face Velocity = $V = 5,000 \text{ cfm} / 10 \text{ ft}^2 = 500 \text{ ft/min}$
 $\Delta P_s = 0.50 \times (500/468)^2 = 0.57" \text{ wc}$

Nominal Free Area for standard heights: 20%

Self-Noise (SN) Power Levels (Lw)

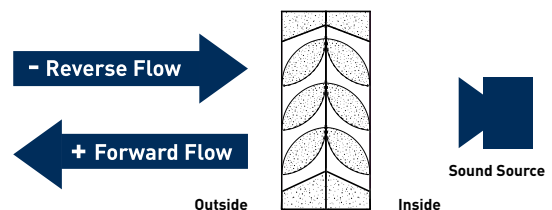
Octave Band	1	2	3	4	5	6	7	8
Hz	63	125	250	500	1K	2K	4K	8K
Louver Face Velocity (V), fpm								
-1000	76	81	77	71	66	63	60	57
-750	71	71	67	62	57	54	50	45
-500	58	58	54	49	43	39	33	24
500	64	64	59	57	49	47	43	35
750	75	76	72	70	62	57	56	50
1000	80	85	81	78	71	65	62	60

For areas other than 4 ft²,
add or subtract from above Lw values:

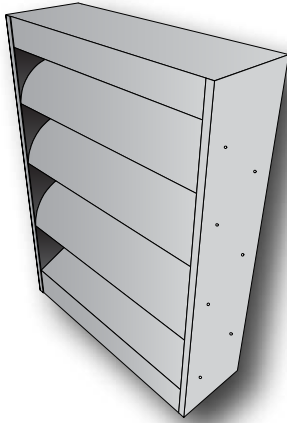
$$10 \text{ LOG} \left(\frac{\text{Louver Face Area, ft}^2}{4} \right)$$

Ex 1: 48" x 48" SN @ +500 ft/min @ 1 kHz = 49 + 10 LOG (16/4) = 49 + 6 = 55 dB
Ex 2: 12" x 24" SN @ +500 ft/min @ 1 kHz = 48 + 10 LOG (2/4) = 49 - 3 = 46 dB

Self-Noise Test Arrangement



Noishield™ Acoustic Louvers (Model LP)



Weight

9.5 lbs/ft² (46.4 kg/m²)

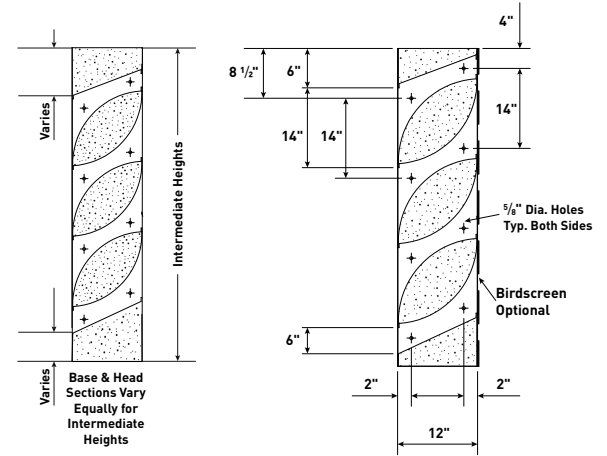
Typical Module Width

12" - 72" (305-1829mm)

Standard Module Height

28" - 140" with increments of 14"
(711mm - 3658mm with increments of 356mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	4	5	8	9	12	9	7	6

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Water Penetration

To minimize water penetration, limit face velocity to 315 ft/min (1.6 m/sec).

Acoustic Louvered Doors

- Single and double doors are available in the Model LP louver range
- See page 28 for further details

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	270	380	465	540	600	660	760	850	925	1040	1200	1340

For other velocities:

$$\Delta P_2 = \Delta P_1 \left[\frac{V_2}{V_1} \right]^2$$

Ex: 5,000 cfm through a 24" w x 70" h Model LP Louver
Face Velocity = $V = 5,000 \text{ cfm} / 11.67 \text{ ft}^2 = 429 \text{ ft/min}$
 $\Delta P_s = 0.10 \times (429/380)^2 = 0.13'' \text{ wc}$

Nominal Free Area for standard heights: 30%

Self-Noise (SN) Power Levels (Lw)

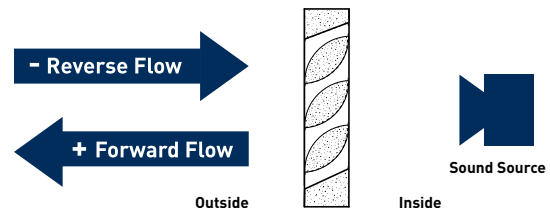
Octave Band	1	2	3	4	5	6	7	8
Hz	63	125	250	500	1K	2K	4K	8K
Louver Face Velocity (V), fpm								
-1000	72	75	71	67	61	60	55	49
-750	66	68	64	60	54	52	46	39
-500	54	57	54	49	43	40	31	24
500	58	61	58	55	48	46	38	30
750	69	73	70	67	60	57	52	45
1000	77	81	79	77	70	64	60	55

For areas other than 4.67 ft², add or subtract from above Lw values:

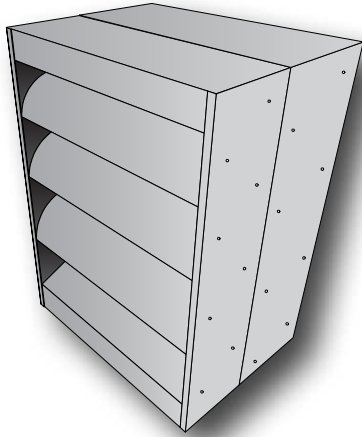
$$10 \text{ LOG} \left(\frac{\text{Louver Face Area, ft}^2}{4.67} \right)$$

Ex 1: 24" x 84" SN @ +500 ft/min @ 1 kHz = 44 + 10 LOG (14/4.67) = 44 + 4.8 = 48.8 dB
Ex 2: 12" x 42" SN @ +500 ft/min @ 1 kHz = 43 + 10 LOG (3.5/4.67) = 44 - 1.3 = 42.7 dB

Self-Noise Test Arrangement



Noishield™ Acoustic Louvers (Model 2LP)



Weight

19 lbs /ft² (92.8kg/m²)

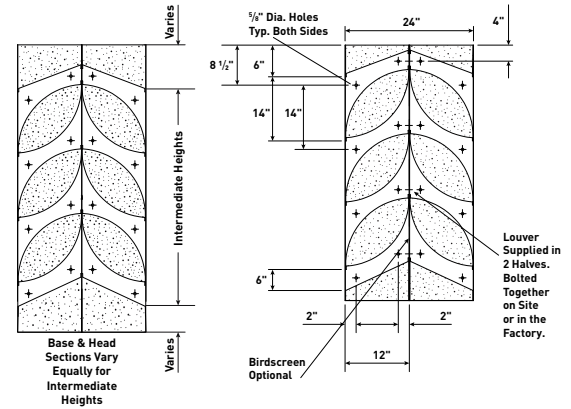
Typical Module Width

12" - 72" (305-1829mm)

Standard Module Height

28" - 140" with increments of 14"
 (711mm - 3556mm with increments of 356mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	5	8	12	16	22	18	15	14

Transmission Loss tested in accordance with ASTM E90.
 For Noise Reduction, add 6 dB to the above values.

Water Penetration

To minimize water penetration, limit face velocity to 315 ft/min (1.6 m/sec).

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	235	310	377	434	493	533	613	685	758	852	984	1100

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{V_2}{V_1} \right)^2$$
 Ex: 5,000 cfm through a 24" w x 70" h Model 2LP Louver
 Face Velocity = $V = 5,000 \text{ cfm} / 11.67 \text{ ft}^2 = 429 \text{ ft/min}$
 $\Delta P_s = 0.15 \times (429/377)^2 = 0.19" \text{ wc}$

Nominal Free Area for standard heights: 30%

Self-Noise (SN) Power Levels (Lw)

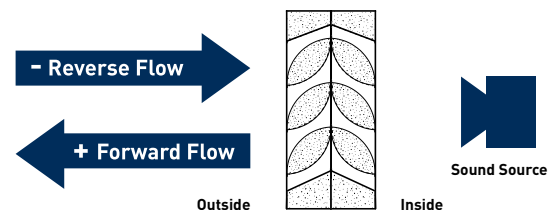
Octave Band	1	2	3	4	5	6	7	8
Hz	63	125	250	500	1K	2K	4K	8K
Louver Face Velocity (V), fpm								
-1000	76	81	77	71	66	63	60	57
-750	71	71	67	62	57	54	50	45
-500	58	58	54	49	43	39	33	24
500	64	64	59	57	49	47	43	35
750	75	76	72	70	62	57	56	50
1000	80	85	81	78	71	65	62	60

For areas other than 4.67 ft²,
 add or subtract from above Lw values:

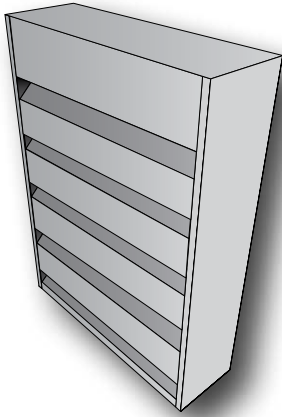
$$10 \text{ LOG} \left(\frac{\text{Louver Face Area, ft}^2}{4.67} \right)$$

Ex 1: 24" x 84" SN @ +500 ft/min @ 1 kHz = 48 + 10 LOG (14/4.67) = 48 + 4.8 = 52.8 dB
 Ex 2: 12" x 42" SN @ +500 ft/min @ 1 kHz = 48 + 10 LOG (3.5/4.67) = 48 - 1.3 = 46.7 dB

Self-Noise Test Arrangement



Noishield™ Acoustic Louvers (Model LF2-24)



Weight

22 lbs /ft² (107.4 kg /m²)

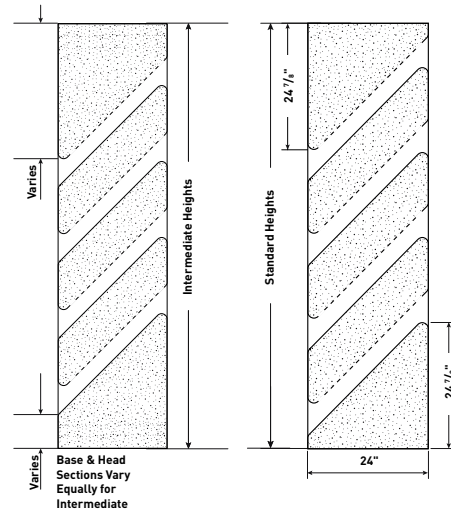
Typical Module Width

12" - 48" (305 - 1219 mm)

Standard Module Height

34" minimum, with increments of 17" (863 mm minimum, with increments of 432 mm)

Intermediate heights are available

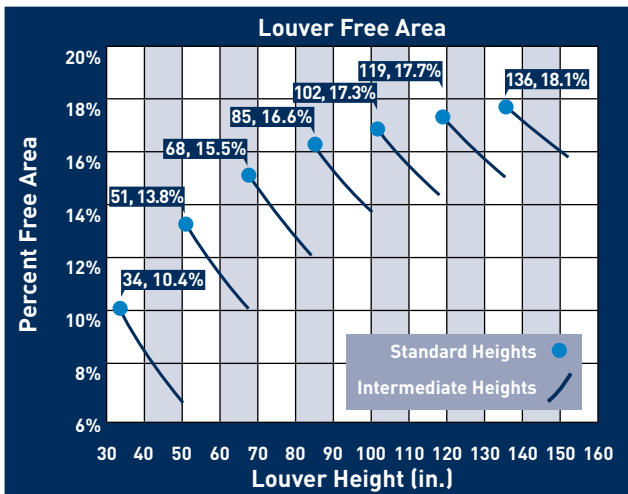


Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	6	11	19	24	28	23	17	17

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

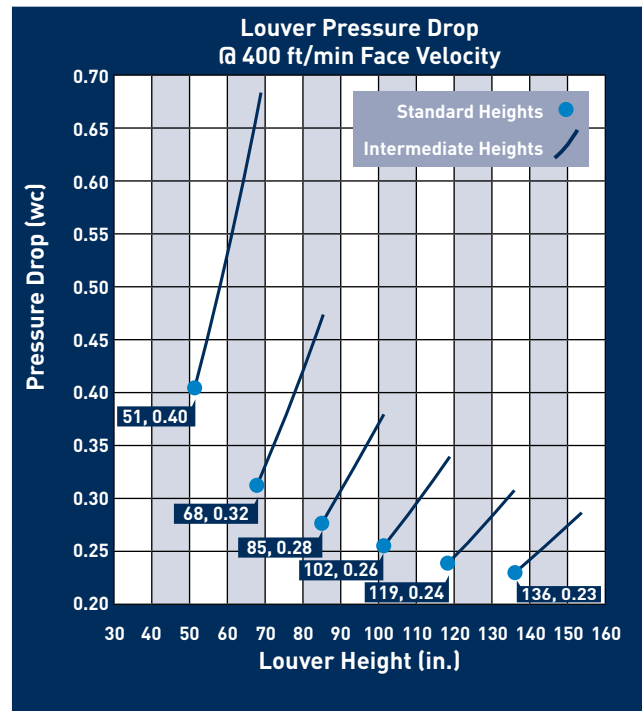
Aerodynamic Performance



For other velocities:

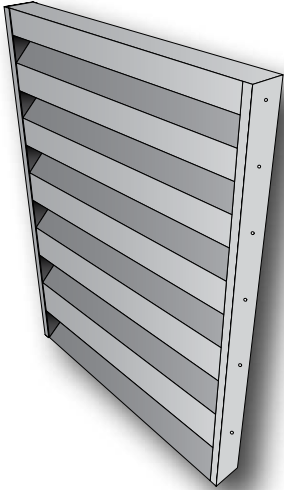
$$\Delta P_2 = \Delta P_1 \left(\frac{V_2}{V_1} \right)^2$$

Ex: 20,000 cfm face velocity through a 48" w x 119" h Model LF2-24 Louver
Face Velocity = V = 20,000 cfm / 39.7 ft² = 504 ft/min
 $\Delta P_s = 0.24 \times [504/400]^2 = 0.38''$ wc





Slimshield™ Acoustic Louvers (Model SL-4)



Weight

4 lbs/ft² (19.5 kg/m²)

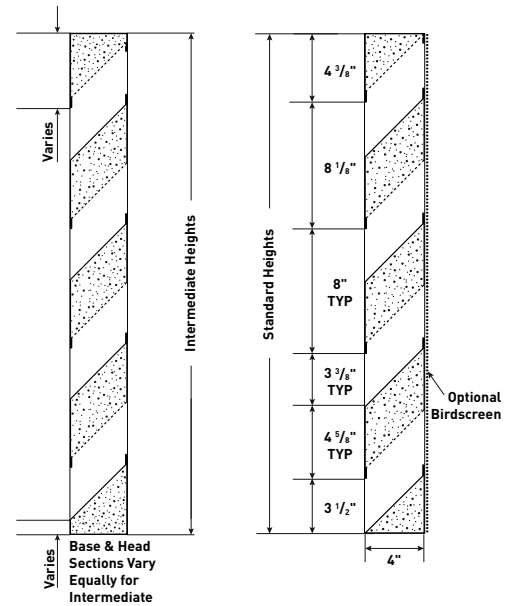
Typical Module Width

12" - 60" (305-1524 mm)

Standard Module Height

18" minimum, with increments of 8"
(450 mm minimum, with increments of 203 mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	5	4	5	6	9	13	14	13

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	202	285	350	404	452	495	571	639	700	785	904	1011

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{v_2}{v_1} \right)^2$$

Ex: 5,000 cfm through a 24" w x 64" h Model SL-4 Louver
 Face Velocity = $v = 5,000 \text{ cfm} / 10.67 \text{ ft}^2 = 469 \text{ ft/min}$
 $\Delta P_s = 0.30 \times (469/495)^2 = 0.27'' \text{ wc}$

Nominal Free Area for standard heights: 30%

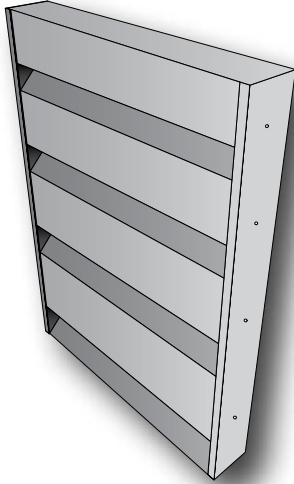
Water Penetration

To minimize water penetration, limit face velocity to 217 ft/min (1.1 m/sec).

Acoustic Louvered Doors

- Single and double doors are available in the SL-4 louver range
- See page 28 for further details

Slimshield™ Acoustic Louvers (Model SL-6)



Weight

6 lbs / ft² (30kg / m²)

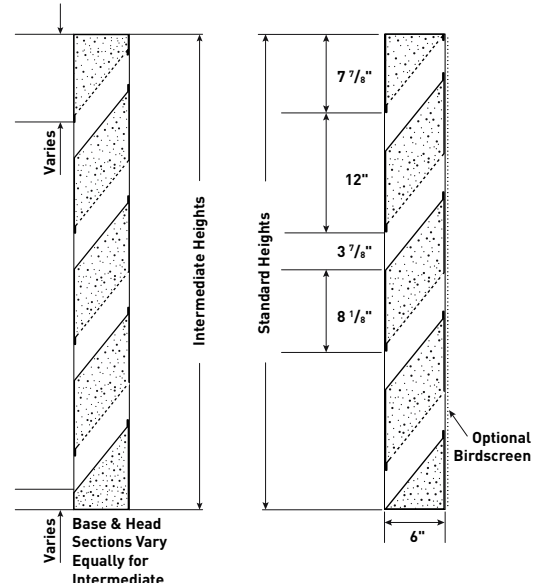
Typical Module Width

12" - 60" (305-1524mm)

Standard Module Height

18" - 140" with increments of 12"
(450 mm minimum, with increments of 305 mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	6	6	8	10	14	18	16	15

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	115	160	197	228	255	280	322	360	395	440	510	570

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{V_2}{V_1} \right)^2$$

Ex: 5,000 cfm through a 48" w x 60" h Model SL-6 Louver
Face Velocity = $V = 5,000 \text{ cfm} / 20 \text{ ft}^2 = 250 \text{ ft/min}$
 $\Delta P_s = 0.25 \times (250/255)^2 = 0.24'' \text{ wc}$

Nominal Free Area for standard heights: 20%

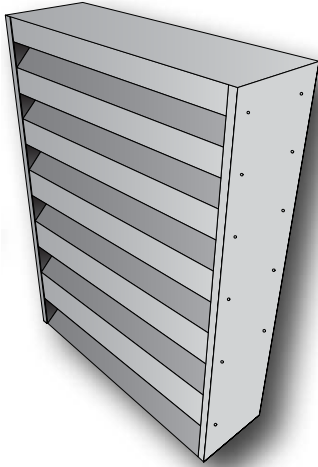
Water Penetration

To minimize water penetration, limit face velocity to 175 ft/min (0.89 m/sec).

Acoustic Louvered Doors

- Single and double doors are available in the SL-6 louver range
- See page 28 for further details

Slimshield™ Acoustic Louvers (Model SL-12)



Weight

10.3 lbs /ft² (50 kg/m²)

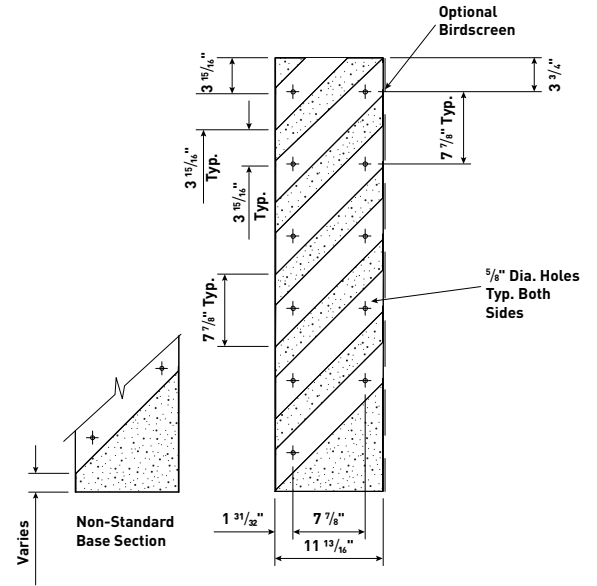
Typical Module Width

12"- 72" (305-1829 mm)

Standard Module Height

24" minimum, with increments of 12" (600mm minimum, with increments of 305 mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	6	7	10	12	18	18	14	13

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	206	292	357	413	461	505	584	653	715	799	923	1032

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{v_2}{v_1}\right)^2$$
 Ex: 5,000 cfm through a 24" w x 63" h Model SL-12 Louver
 Face Velocity = $V = 5,000 \text{ cfm} / 10.5 \text{ ft}^2 = 476 \text{ ft/min}$
 $\Delta P_s = 0.30 \times (476/505)^2 = 0.27'' \text{ wc}$

Nominal Free Area for standard heights: 30%

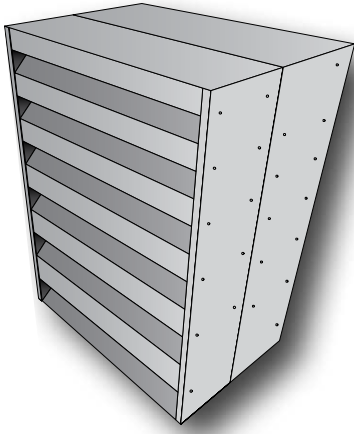
Water Penetration

To minimize water penetration, limit face velocity to 309 ft/min (1.57 m/sec).

Acoustic Louvered Doors

- Single and double doors are available in the SL-12 louver range
- See page 28 for further details

Slimshield™ Acoustic Louvers (Model SL-24)



Weight

20.6 lbs/ft² (30kg/m²)

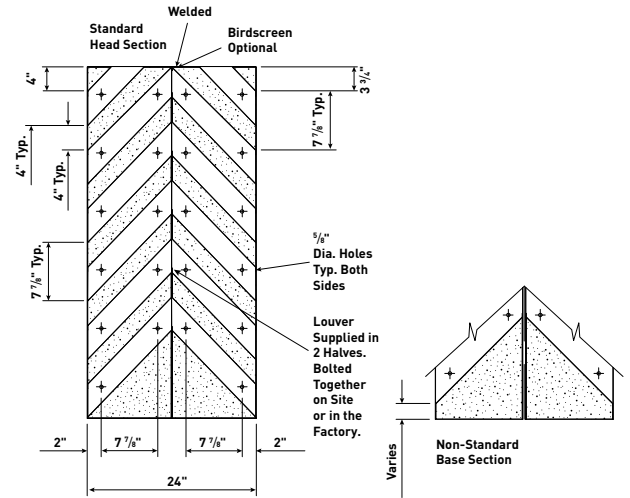
Typical Module Width

12" - 60" (305-1524mm)

Standard Module Height

24" - 140" with increments of 12" (600 mm minimum, with increments of 305 mm)

Intermediate heights are available



Acoustic Performance

Octave Band Center Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
Transmission Loss (dB)	7	9	12	24	31	33	29	30

Transmission Loss tested in accordance with ASTM E90.
For Noise Reduction, add 6 dB to the above values.

Aerodynamic Performance

Static Pressure Drop (i.w.g.)	.05	.10	.15	.20	.25	.30	.40	.50	.60	.75	1.0	1.25
Face Velocity (fpm)	149	207	247	289	323	360	419	468	511	569	657	734

For other velocities:

$$\Delta P_2 = \Delta P_1 \left(\frac{V_2}{V_1} \right)^2$$

Ex: 5,000 cfm through a 24" w x 63" h Model SL-24 Louver
Face Velocity = V = 5,000 cfm / 10.5 ft² = 476 ft/min
 $\Delta P_s = 0.50 \times (476/468)^2 = 0.52''$ wc

Nominal Free Area for standard heights: 20%

Water Penetration

To minimize water penetration, limit face velocity to 309 ft/min (1.57 m/sec).

Acoustic Louvered Doors

- Single and double doors are available from the IAC Acoustics louver range
- The structural minimum is 33 1/2 in. (850mm) and is available up to 49" x 116" (1250 x 2950 mm) high as standard for a single door, and 98" x 116" (2500 x 2950 mm) high for a double door. Other widths and heights are available on request
- All doors can be supplied with various hardware, including hinges, latches, screws, nuts, bolts, washers, handles and supporting frames
- Acoustic louvered doors can be fitted with bird or insect screens on request
- Doors can be powder coated to match adjoining louvers
- Materials for the door and door frame include galvanized steel, stainless steel and aluminum
- Other door options may be available in the entire IAC Acoustics louver range. Please contact IAC Acoustics for more details.



A Quality Solution

All IAC Acoustics 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, we can produce a highly engineered solution to your noise control issue.



Harsh Environments

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

A True World Leader

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

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

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.

An Engineering Benchmark

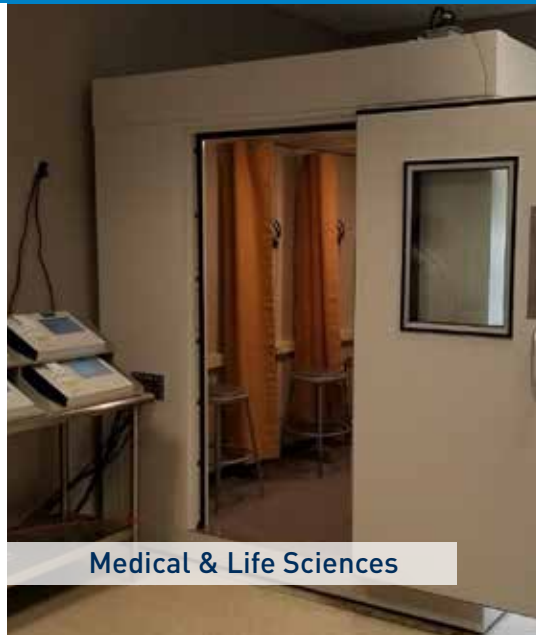
IAC Acoustics products are respected worldwide for their quality and certified performance. Rest assured that IAC Acoustics can deliver a solution to your unwanted noise problem.

Making the World a Quieter Place

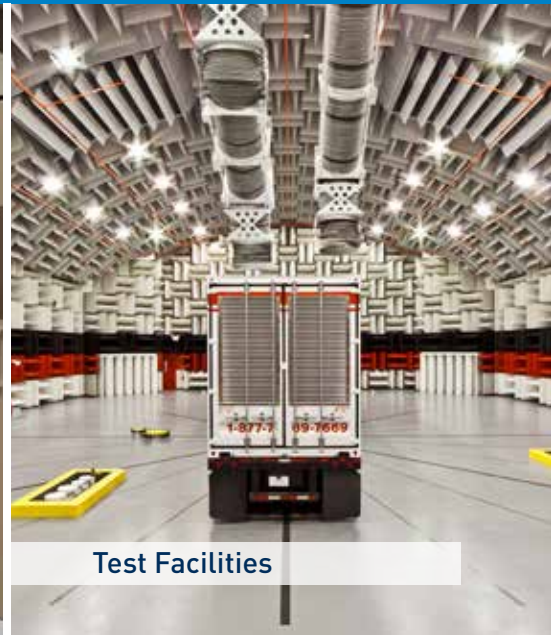
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