



AIRCOUSTICS

ENGINEERED FOR SILENCE

CIVIL Acoustics Products

ABOUT US



- Aircoustics, since 2006, is a U.A.E based company with a team of diverse backgrounds, whose combined education and experience covers the fields of architectural, engineering, and environmental acoustics with dedicated offices and in U.A.E. and India.
- Aircoustics Engineering and Consultancy pvt ltd. Established in Noida for Indian region in 2011.
- Aircoustics experience, expertise and technical development are complemented by practicality and sensitivity to budgets and building processes. By integrating with other disciplines at Aircoustics, the firm's acoustics specialists develop and apply innovative, practical techniques for sound and vibration control.





ENGINEERING SOLUTIONS- SCOPE

- Noise calculations with the recommendations for **all HVAC Equipment and any noise source** i.e. (Generator room/ MEP room/ Chiller/ cooling towers/ PUs/ CUs/VRF outdoor/indoor/ FCUs/ pipes/ sewage/ pumps/ fans/ swimming pool/ drainpipe etc...
- Calculation for Architectural and Civil Acoustic solutions
- Industrial Noise source
- Highway/ Railway/ transport etc...
- Reports by professional/ certified staff in Acoustics.
- **ACOUSTIC/ HVAC PRODUCTS - SUPPLY/ INSTALLATION**
- Environmental noise and vibration surveys for planning applications and appeals.
- Architectural acoustic study and design
- Acoustic design: of residential, commercial, educational & industrial buildings in accordance to building regulation, bulletins and relevant guidelines.
- Acoustic evaluation: of proposed building, mechanical services design and providing specifications for noise control measures.
- Investigation: of noise complaints and providing specification of remedial measures
- Expert witness in cases involving noise and vibration
- Acoustic Contracting: Turnkey Solutions



Aircoustics

PRODUCTS LINE UP- CIVIL



**ACOUSTIC DOORS (WOODEN & STEEL)
ACOUSTIC PARTITIONS (FIXED & STACKABLE),
FIRE DOORS**



ACOUSTIC LOUVERS



FLOATING FLOOR



**ACOUSTIC TREATMENT (COOLING TOWER/
CHILLER/ GENERATOR/FAN ROOM ETC.)**



ARCHITECTURAL LOUVERS/ SAND TRAP LOUVERS (AMCA UNDER PROCESS)



ACOUSTIC BARRIERS



**ACOUSTIC UNDERLAY (RUBBER, CROSS- LINED
RUBBER & POLYETHYLENE) (SPAIN)**



ARCHITECTURAL LOUVERS/ GRILLES-WEATHER RESISTANT



ARCHITECTURAL LOUVER/ WEATHER RESISTANT LOUVER

FEATURES

- Weather-resistant louvers give good protection against the direct ingress of rain, leaves and birds.
- Frame and blades - made of GI or Extruded AL -as per specifications
- Wire Mesh (optional)
- Color/ Coating- as per specifications

APPLICATION

USED FOR WIDE RANGE OF HVAC EQUIPMENTS SUCH AS COMPRESSORS, AIR HANDLING UNITS, FANS, PUMPS AND CHILLERS, FAN COILS, PACKAGE UNITS, COOLING TOWERS ETC.

**** for cross section/ free area/ pressure drop/ selection- please contact sales office for more information.**

**** Sound data is available upon request**

FIRE tested as per BS 476 PART 20 (for Fire grilles)



ARCHITECTURAL WEATHER LOUVER



DESCRIPTION

- Weather-resistant louvres give good protection against the direct ingress of rain, leaves and birds. Aircoustics AWRL range is Weather-Resistant-
- Louvres are designed to provide good protection against the same. Mounting is available both Flush and flange mounting. Special mounting design is available upon request.

Special designs:

- ❖ **Both split and linear construction** are possible, and details are available upon request. Usually for the cross section more than 4 m² or as per site condition. **
- ❖ **Drainable louvres** reduce water penetration from non-wind driven rain. Blade gutters direct water sitting on the blades to vertical down spouts in the louvre. e.g. Outdoor Generator/ plant rooms.
- ❖ **Economical, Non-Drainable louvers** should be used in applications where ventilation is important and water penetration is unlikely to occur. e.g., for Car parks

AWG

- Frame and Blades are of Galvanized steel sheet
- Flange drilled as standard
- Wire-mesh of GI
- 60% FREE cross section area**

AWGE

- Frame and Blades are of Stainless steel
- Wire-mesh of SS
- Flange drilled as standard
- 60% FREE cross section area

AAWG

- Frame and Blades are of EXTRUDED Aluminum section
- Wire mesh of Galvanized steel
- Flange drilled as standard
- 60% FREE cross section area**

AAWK

- Frame and Blades are of EXTRUDED Aluminum section- (Natural Anodized)
- Wire mesh of Galvanized steel
- Flange drilled as standard
- 60% FREE cross section area**

AWG-F

- Frame, Blades and Mullions are from Galvanized or Aluminum construction
- Mullion is powder coated standard RAL 9005
- Mullion is drilled at side to connect the louver sections together or to site support structure.
- Wire mesh is of Galvanized steel
- 50% FREE cross section area

ACOUSTIC LOUVERS



ACOUSTIC LOUVERS



FEATURES

- Heavy Gauge Frame
- Withstand minimum design load of 30 psf (146.5 kg/m²)
- Multi section possible enable to assemble at site
- Coating as per specification- Baked enamel/ Kynar/ Anodized/ prime coat finish etc..
- Color as per Specifications can be provided
- Water penetration 0.01 oz/ ft² of free area** (*please contact sales office for more information*)
- Available in 100,150,300,600,900 mm thickness



Sound Reduction Index (SRI) tested in independent laboratory as per BS ISO EN 140-3:1995 standard.



ACOUSTIC LOUVERS



ACOUSTIC LOUVERS



DESCRIPTION

Acoustic louvers are used to prevent noise breakout from an air inlet or outlet of a plant room, building or enclosure whilst allowing ventilation air transfer. They have varying acoustic performance depending on the type of aerodynamically designed blades is used and the depth of the acoustic louvre demanded by the design.

Aircoustics certifies that the water penetrations and air performance ratings have been verified by private testing. Test and procedures were performed in accordance with AMCA publication 511.

Multi section possibility in design enables ease to assemble at site

RANGE

Acoustic louvers:

AAL- 1045/ 1545/ 2035/ 3035/ 3045. Usually designed to have both sound absorptive and improved STL characteristics. Material could be Aluminum or Steel as per specification

AALD 2035/ 3035: Usually designed to have both sound absorptive and improved STL characteristics. Material could be Aluminum or Steel as per specification.

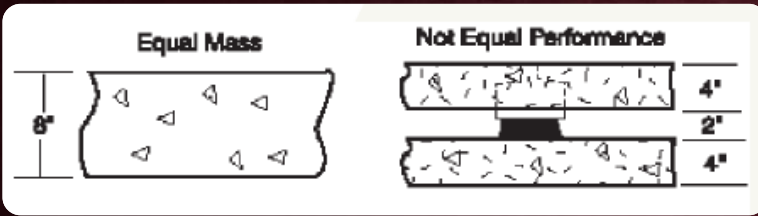
MATERIAL

- Louvers are with mill finish in standard Aluminum construction & Blades extruded aluminum with water drain
- Frame extruded aluminum with vertical drain channel, joined with corners and screws
- The construction is with stationery airfoil blades or rectangular ones.
- The construction material can be as per specification i.e., **Aluminum/ GI/ Stainless steel.**
- Coating - Baked enamel/ Kynar/ Anodized/ prime coat finish etc. or as per Specifications can be provided**

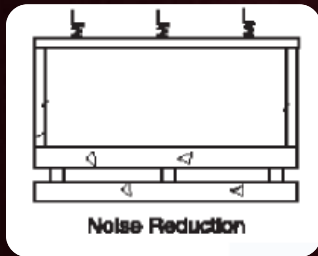


FLOATING FLOOR

Why floating floor?



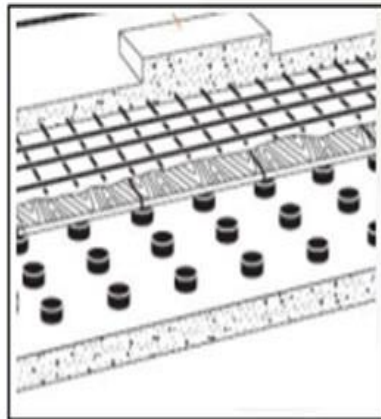
Two masses separated by a low frequency response isolator create an environment for noise and impact many times greater than a single mass of equal weight



If the frequency range is 20 Hz
NEOPRENE **IS THE BEST CHOICE



If Vibration or Impact reduction
Is required then spring supporting
The isolated floor is normally
SUFFICE**

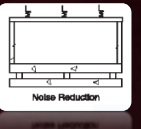


The **EANF** neoprene floor isolators all perform below **8.5 Hz**. Compounding is to AASHO specifications and mounts are supplied by **Enginias Inc., Canada**

(Rating of **STC-71** and **INR+17** as verified by an independent laboratory)

AIRCOUSTICS brand- Floating floor
800+ successful installations in the region
"The most Trusted name in Floor Acoustics"





DESCRIPTION

- The sound radiates via the floor into adjacent rooms and other noise sensitive spaces of the building, where it is perceived as a disturbing noise. The high-performance acoustic floating floors distinguish structural and isolated floor by providing the neoprene mounts.
- The isolator seeks to emulate the stiffness properties of air, but as this space increases, the frequency of the isolator governs the frequency of the floor system. If noise reduction is the primary goal, then enveloping walls usually rest on the isolated floor. Ceiling with their own isolators cap the construction. All floating floor system must be isolated at perimeter using minimum 20mm thick isolation board to avoid the flanking transmission.
- The professional acoustician is the best person to make the evaluations and provide the best suitable advice pertaining to area of isolation and thickness of floating slab.

FLOATING FLOOR VARIANTS

CONCRETE SYSTEM

- Concrete floating floors are the most common type due to their robust construction having capacity to hold the larger weight. Such floors as compared to any other form provide a complete area homogenous slab with minimum flanking.
- The thickness of the concrete floating slab depends upon the area of use and the load requirement and mesh reinforcement is typically used. The structural stability of slab to be verified by structural engineer during design stage. Concrete floating floor system is ideal to use where heavy equipment's to be placed over the isolated slab i.e., Chillers, Generators and Air Handling units etc.

DRY SYSTEM (Floated Wood and Composite Floor System)

Dry system is ideal approach where it is not feasible to cast the concrete floating slab, or structure cannot withstand high load, or constraint by height, or curing time create delays. Dry system can be created by using plaster boards and plywood and acoustic walls construction can start immediately. This system shall be best use for Theaters, Dance Studios, Night clubs, Recording Studios, Cinema halls and Concert Halls etc.

ACOUSTIC BARRIER



Aircoustics

ACOUSTIC BARRIER



FEATURES

- Offers exceptional transmission loss i.e. 14 Db at 125 Hz**
- Rust proof finish
- Cleanable with water and mild detergent periodically
- GI/AL/PVC/Vinyl coated material and finish available
- Special options- brick/stone/wood-consult our sales office
- Structural steel work upon request
- Louvered and solid barrier options

** (please contact sales office for more information)

STC 36 tested in independent laboratory as per ASTM standards.





ACOUSTIC BARRIER



DESCRIPTION

- “Out of sight is out of ears” can be referred as the basic principle of blocking or diffraction of longer wavelength size or same wavelength size than the barrier size. An acoustic barrier (sometimes also called a 'noise barrier') is designed to protect people close to the source of a noise. Common noises which can be treated with acoustic barriers include construction work, industrial sites, roads/motorways, and quarries. Sound absorptive surfaces reduce the reverberant build up between parallel barriers and other reflective surfaces- this enhances the ability of barrier to attenuate noise.
- Aircoustics products and structures are designed to built in accordance with numerous international standards and specifications. AFZE has been assessed and accredited with the ISO 9001: 2008 Quality standard.
- Aircoustics designed AAB model is a range of acoustic barrier which Offer exceptional transmission loss i.e. 14 Db at 125 Hz**.
- ** Sound data is available upon request- for more information on design and product please contact our sales office.
- ** Design calculation for barrier is available by our expert Acoustic Engineers. **
- Aircoustics offer complete design, manufacturing and installation services including all necessary structural steel work or an expert supervision is provided to ensure the performance is

RANGE

Free standing barriers

- **AFS/ ASFS-** Usually designed to have both sound absorptive and improved STL characteristics. Material could be Aluminum or Steel as per specification.
- **AFS-** designed long side the noisy equipment/ source.
- **ASFS-** designed for free standing between multiple sound source/ equipment
- Offers excellent Sound Transmission Loss (STL) characteristics.
- Suitably designed for rapid assembly from prefabricated components.
- Desired height can be achieved by **stackable panels** between steel posts.

Cladding module

- A special design that comes with acoustic panels which are fabricated in such a way to easily attach to a new or existing structure thus improving the acoustic performance. Material available in Aluminum and steel.

Model

- AC: 64 mm / AC12 : 76 mm thickness/ AC 38 :102 mm thickness
- The sound absorptive cladding modules are good for reducing reflective sound/ Suitable to apply on new and retrofits
- Can be applied on metal/ wood/ brick/ concrete/ stone or any other noise reflecting surfaces. Enhances the sound absorption on 125 Hz

Louver screens

- Are aesthetically pleasing looking product that allows the ventilation yet provides acoustic performance
- Suitable for mechanical service plants (pumps/ compressors and chillers)

MATERIAL

- Aircoustics AAB barrier is with rust proof finish
- Product is designed to be Cleanable with water and mild detergent periodically
- Construction and finish have a wide choice: GI/AL/PVC/Vinyl coated material
- Available in Special options- brick/stone/wood**
- Desired RAL color and different coating is available to choose from Kynar/ powder coating/ Anodized finish etc.

ACOUSTIC UNDERLAY



Aircoustics

ACOUSTIC UNDERLAY



FEATURES

- Sound reduction up to 26dB
- Sustainable rubber fiber composition
- Maintains resilience over time
- Resistant to mold and mildew
- PVC free product
- Lightweight; Easy to install
- Approved for underfloor heating
- Made in Denmark from recycled tires
- Odor-free / low-VOC
- Produced with 50% wind energy
- LEED / BREEAM certified

*** (please contact sales office for more information)*

LEED/ BREEAM *Certified*

Impact test for sound reduction *as per DIN EN ISO 10140*





ACOUSTIC UNDERLAY



DESCRIPTION

- "Excess of everything is bad" and same goes for excessive exposure of loud noise or impact sound that can cause increased tiredness, lack of concentration, problem with sleep which in long run would result in chronic disease.
- TEXIMPACT- underlay is a product from Spain and manufactured in accordance to CTE-DB-HR, EN ISO 140-1, EN ISO 140-3, EN ISO 140-6, EN ISO 140-8, EN ISO 717/1/2. The Quality management system is according to ISO 9001.
- TEXIMPACT Acoustic underlay dampens sound by separating the floor covering and the subfloor with a thick, dense, insulative layer of felt, Closed cell membrane by absorbing sound energy before it can reach the rooms below. A careful selection and installation can improve the living ambience and make the atmosphere serene. The material is available in 6 m and 10 mm thickness.

MATERIAL

- High performance cross-linked polyethylene closed cells membrane
- 1 m² of TEXIMPACT will approximately cover 90 m² of surface, including the overlaps

BENEFITS

- High impact noise reduction
- Separates and insulates the sound from dropping of object/ footsteps, furniture movements, etc.
- Impact noise insulation: ΔL_w 24 dB**
- Airborne noise reduction: 7.5 dBA**
- Very high compressive strength
- Dynamic stiffness of 57.7 to 87 MN/m³ / Durable mechanical properties
- Minimum loss of thickness under loading situations
- Lightweight, flexible, easy to handle, cut and adapt to any surface
- Waterproofed
- Underfloor heating approved
- CFCs-free/ Odour-free / low-VOC

APPLICATION

IMPACT NOISE INSULATION FOR ANY KIND OF FLOORS

AS A SEPARATING /DAMPENING LAYER FOR THOSE APPLICATIONS WHERE DIFFERENT CONSTRUCTION ELEMENTS MUST BE SEPARATED.

HOTEL/ SERVICES APARTMENTS

OLD AGE HOMES/ STUDENT ACCOMMODATIONS

CONDOMINIUMS`

ACOUSTIC DOORS



Aircoustics

ACOUSTIC DOORS/ STEEL & WOODEN



FEATURES

- Guaranteed performance -site tested to International standards
- Complete size flexibility
- Door Jamb-for both in built and retrofit jobs
- Acoustic seals in built
- Rugged construction for long life
- Finish as per specifications
- Foldable steel doors are available
- Single and double leaf doors with **STC 50** and **45** respectively.

*** (please contact sales office for more information)*

Rw 47 tested in independent laboratory as per BS EN ISO 10140-22010 standards.





ACOUSTIC DOORS



DESCRIPTION

- Aircoustics acoustic wooden/ steel doors are extremely high-performance sound reducing door sets. These high-quality door sets are available in a wide range of finishes and are fire rated. The doors are filled with an inert non-combustible vermin proof acoustic absorber and is fitted with standard door hardware. All acoustic doors are tested in accordance with International standards.
- Aircoustics offer complete design, manufacturing and installation services including all necessary structural steel work or an expert supervision is provided to ensure the performance is not hurt.

MATERIAL

Wooden Doors

- Wooden Doors are with Veneers finish.
- Paint primer finish and full range of RAL colour is available
- Print grade laminates are standard but other proprietary laminate finish is available on request
- Available in Special options- brick/stone/wood**
- Desired RAL color and different coating is available to choose from Kynar/ powder coating/ Anodized finish etc.

Steel Doors

- Door and door frame is manufactured in Galvanized steel sheet.
- Print grade laminates are standard but other proprietary
- Standard bulkhead doors are fitted with positive action seals suitable for personal access.

BENEFITS

Wooden Doors

- High performance version is called AIRCOUSTICS 44 and it has a sound reduction of RW 44 Db.
- Medium performance has Rw 35 and model is AIRCOUSTICS 35. Other performances i.e. 38 or others are available at request.
- Wooden door 35 Db are FD60 and 44 Db are FD 30 fire tested.
- Available in single and double leaf construction.
- Vision panels glazed in clear 17 mm fire and acoustic safety glass are provided on all 35 Db doors.
- Perimeter seals are integrally fitted in the frames and an automatic lift threshold seal at the base of the door leaf
- Special vision glass and seals upon request

Steel Doors

- Steel doors are available with single leaf and double leaf construction
- Single leaf is with STC 50 and double leaf has STC 45 Db performance
- Door jamb is designed for build-in or retrofit installations.
- Choice of finishes
- Rugged construction for long life and low maintenance
- Complete size flexibility
- Foldable doors option

CONTACT US



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