

# ALPHA *fon*

ALPHA ACOUSTIKI Ltd

NOISE CONTROL



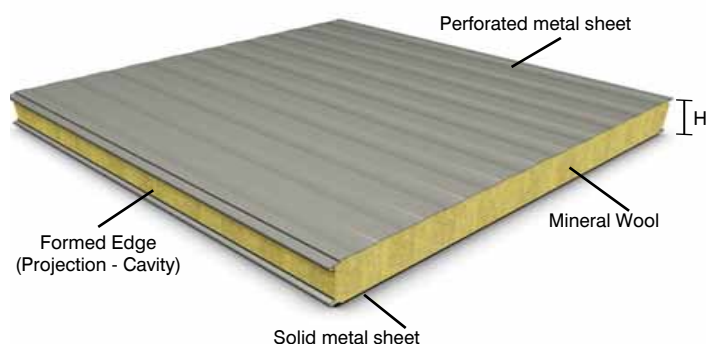
## Noise Control Applications



ALPHA ACOUSTIKI Ltd manned with Engineers which are highly experienced and specialized in Noise & Vibration Control since 1980. Our company can assist in resolving a wide range of Noise Control projects, which includes consultancy, design and production of high technology noise control products. We can also undertake Noise Control turnkey constructions, realizing a Noise Control intervention for industrial, environmental and residential Noise abatement.



Bellow some indicative Noise Control projects are presented. For more thorough technical information please visit our website [www.alphacoustic.com](http://www.alphacoustic.com) or contact our technical department at [tech@alphacoustic.com](mailto:tech@alphacoustic.com)



The metal noise insulation barriers **ALPHAfon** - MB can offer solutions, in Noise control problems while offering sound absorption in a wide range of frequencies.

They can be used in:

- Road and Railways Noise Barriers to protect schools, hospitals etc.
- Noise Enclosures (Air-Condition units, Power Generators, Cooling towers, Chillers, etc)
- Indoor applications for walls and ceilings (industrial plants, swimming pools, multipurpose halls, etc)

Standard Thickness (H): 50 – 80 – 100 mm

The top and the bottom side of the metal barrier are properly formed (projection - cavity) in order to achieve sound sealing but also to improve its bending strength. Internally it is filled with sound-absorbing material (mineral wool) covered with thin glass wool fabric which is water repellent offering also fire protection.

The metal noise barrier has great durability against time and ultraviolet radiation.

The standard colour in both sides is RAL 9002 but can be painted in any RAL Colour to match different project requirements.

Noise Reduction:  $R_w = 31$  dB, according to ISO 140.3 & ISO 717.1

Sound Absorption Coefficient (at 250 Hz):  $\alpha_s = 0.77$  according to ISO 354.





## ALPHAfon - TB

### TRANSPARENT NOISE BARRIERS



Transparent Noise barriers **ALPHAfon - TB** are used when noise insulation and visual contact are simultaneously required. They can be used in motorways, railways, schools and building sites and in projects that require high architectural aesthetics.

The Noise reduction of **ALPHAfon - TB** (for 20 mm thickness) is  $R_w = 30$  dB according to ISO 140.3 & ISO 717.1

## ALPHAfon - CB

### SOUND INSULATION CABINS

**ALPHAfon - CB** can offer a quite environment for employees in industrial noisy environment. Their purpose is to protect the workers from noise, when the conditions do not allow noise isolating at the noise source or path.

Additionally they are suitable for music practice room, to prevent the emission of music to the outside environment.



#### Typical Applications:

Drum booths, demountable interpreter's rooms, audiometric chambers, control room for industry supervision etc.

The sound insulation cabins are made from a modular construction based on **ALPHAfon - MB**. They can be assembled on site very easily and hence also reduce the transportation cost.



**ALPHAfon - CB** can be equipped with the following:

- Sound Insulated Window
- Ventilation System
- Power supply
- Carpet or Wooden Laminated floor

Sound insulation cabin is easy to assemble and does not require high specialized technical assistance or any particular tool. They are delivered in elements and can be assembled on site. Windows are optional and can be placed on each wall side.

They offer both Noise reduction and sound absorption for better internal acoustics.

**ALPHAfon - IC**

## NOISE INSULATING CANOPIES

Noise Insulation Covers **ALPHAfon - IC** are used as enclosures for noisy machinery. They consist of metal frame profiles, on which **ALPHAfon - MB**, noise insulation panels) are adjusted. These panels have also sound absorption, fire resistant and thermal insulation characteristics.

Acoustic doors can be installed in any side of the cover. Their exact position is determined according to each specific need, so that the maintenance of the machinery is best facilitated (e.g. access to oil air-filters, batteries etc.). Additionally windows can be placed for regular inspection of the machine.

Specially designed sound attenuators are installed in the intake and exhaust of cooling air. These sound traps are specially designed to provide low air pressure drop and do not have influence in the operation of the machinery.

**ALPHAfon - ICon**

## NOISE INSULATION CONTAINERS FOR GENERATOR SETS

**ALPHAfon - ICon** are standardized containers which have been properly Sound Insulated in order to carry large noisy equipment such as Generators Sets and desalination equipment.

The Sound Insulation Containers are specially designed to fit a wide range of big generators sets. They can be easily and rapidly transferred on site offering electric power fast-reliable with low-emission noise.

Insulation Containers have the following characteristics:

- All internal surfaces are covered with Noise Insulation Barriers **ALPHAfon - MB** which also offers increased sound absorption and thermal protection.
- Sound Insulation Doors at distinct positions for easy maintenance and control.
- Sound Attenuators at the cooling air inlet and outlet.
- Sound Insulation openings for the passage for power supply cables.
- Special Silencer (Industrial or Residential muffler) on the gas outlet.
- Vibration Isolation Pads, Vibro.



## ALPHAfon - AL ACOUSTIC LOUVERS

Acoustic Louvers **ALPHAfon - AL** are scientifically designed to combine low air pressure drop, rain protection and increased noise reduction with small width. ALPHAfon-AL has semi aerodynamic horizontal sound absorptive inclined louver blades. They are available in 3 basic materials: galvanized metal sheet, aluminum and stainless steel. They can be painted in any color. The

Acoustic Louvers are available in two types:

- **ALPHAfon - AL TYPE 1 with 300 mm depth.**
- **ALPHAfon - AL TYPE 2 with 600 mm depth** (with double louver blades for improved sound reduction.)



## ALPHAfon - SA SOUND ATTENUATORS

Sound attenuators **ALPHAfon - SA** are used in air ducts installations that require noise reduction and low pressure drop. Typical applications are air conditioning ductworks, cooling towers, ventilation systems.

The outer surface of the inside sound absorptive materials (Baffles) is properly protected depending on the use and the air velocity. It can be made from sound transparent fabric, perforated or non-perforated galvanized metal sheet.

We can calculate the required characteristics of the sound attenuators using advanced acoustic software in order to achieve specific results. Additionally, regenerated noise from the air velocity inside the duct can also be calculated, to optimize the characteristics of the sound attenuators.



**ALPHAfon - AD**

## ACOUSTIC DOORS

Acoustic doors **ALPHAfon - AD** are an advanced noise control product, developed for industrial and building noise control applications. Deep acoustic researches were carried out by our R & D Department in order to optimize their acoustic characteristics at the Acoustic Laboratory of the University of Athens, Greece. Some Acoustic doors model offers also fire rating characteristics up to 90'

Acoustic doors **ALPHAfon - AD** are available in two different types: Metal or Timber.

They can be fabricated in different sizes and characteristics in order to cover a wide range of requirements.

Their noise insulation index varies from  $R_w=36$  dB to  $R_w=49$  dB, measured and assessed according to International Standard ISO 140.3 and ISO 717.1.

They can be equipped with:

- Multiple Elastic profiles for complete acoustic sealing.
- Special sealing mechanism at the bottom part.
- Rotating handle for additional pressure on the elastic sealing profiles
- Sound proofed window, with the equivalent noise insulation of the door





Alpha Acoustiki Ltd, is specialized and leading company in the following fields:


## NOISE CONTROL

- Environmental and Industrial Noise Control Consultancy
- Products *ALPHAfon* (noise barriers, acoustic louvers & Attenuators, Generator sound covers and acoustic doors)
- Sound Level Measurements (environmental and occupational noise)

## ARCHITECTUAL ACOUSTICS

- Room Acoustic Consultancy
- Design and Manufacture of Acoustic Products (acoustic panels with fabric, wooden acoustic panels, sounds diffusers and acoustic baffles) *ALPHAacoustic*
- Turn key acoustic solutions (studio construction)
- Room Acoustic Measurements

## VIBRATION CONTROL

- Vibration Control Consultancy
- Vibration Control Products, 



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