

Akustik +
sylomer[®]
by getzner

 HOSPITAL

ISOLATION OF
HOSPITALS

AMC
MECANOCAUCHO

ABOUT AMC MECANOCAUCHO

Aplicaciones Mecánicas del Caucho (AMC) is a company that designs and produces anti-vibration mounts as well as noise insulation composites for the industrial and building sectors.

Since 1969 we have been developing noise and vibration solutions for a wide range of applications. To meet the demands of each project our products combine the properties of different isolating materials such as rubber, metal, springs and Sylomer.

Our dedicated engineering team are on hand to offer technical support with vibration calculations and product advice. On our website akustik.com you will find access to an extensive range of technical data for our products as well as calculation tools such as our acoustic mount selector. This tool allows the input of your system specifications and provides a recommendation of ceiling and floor mounts to meet the requirements of your project. Our library of acoustic test data is also available to view using our dB finder tool, this details the acoustic data we have obtained for various ceiling, wall and floor systems.

With a wide variety of clients served from across the world, we are ready to provide you with a personalised acoustic solution to your problem.



Machinery in Hospitals



Isolation of Hospitals

HOSPITALS



In order for patients to **effectively recover** and for sensitive machinery to operate it is important that sources of noise and vibration are correctly controlled.

A hospital is a place which can have **significant sources of vibration**, this brochure gives an overview of these areas and methods to isolate them.

IMPORTANT SOURCES OF VIBRATION

ENGINE ROOM



The machine rooms are a strong source of noise and vibrations which are transmitted to the other rooms of the hospital.

HELIPORT



A hospital landing pad saves time, but the vibrations of the helicopter affect the rooms below.

OPERATING ROOM



HOSPITAL BED ROOM



MRI SCANNER AND ROOM



Isolation of Hospitals

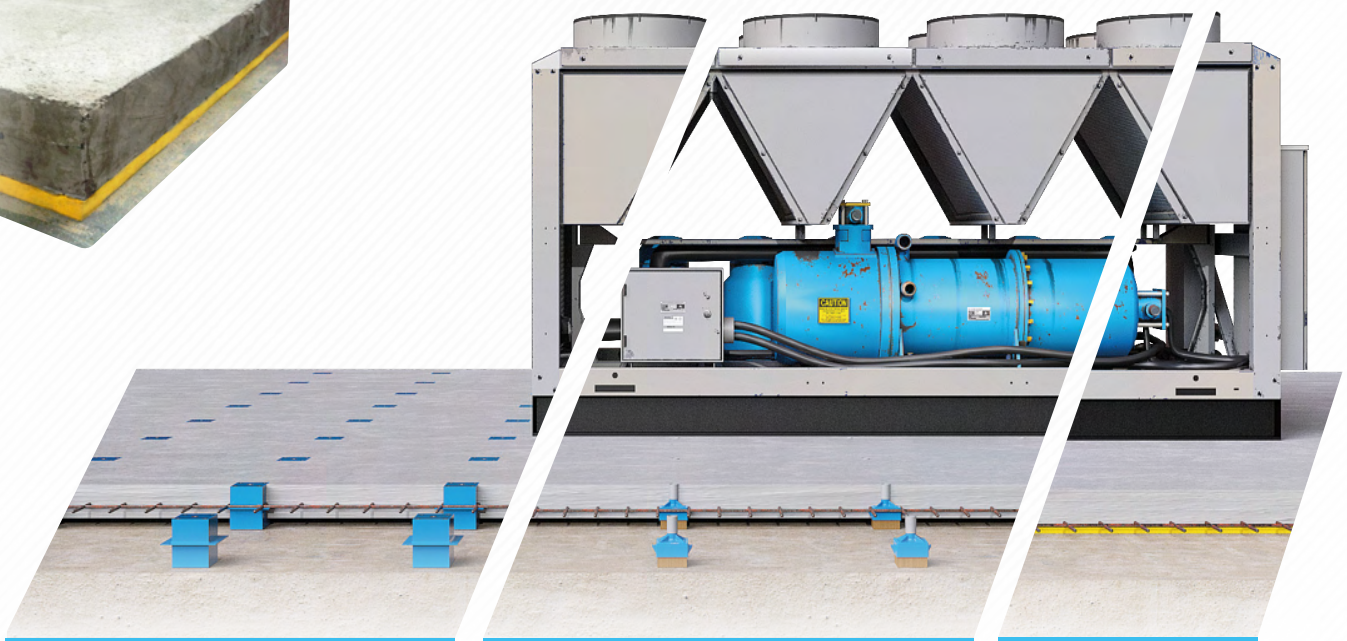
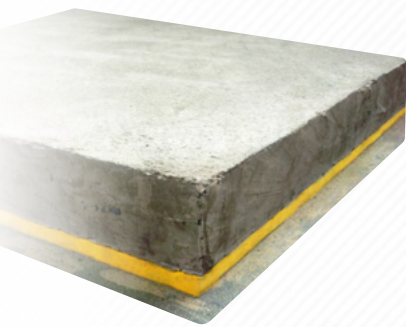
MACHINERY ROOMS

FLOATING FLOOR

AMC Mekanocaucho offers **different solutions** for elastically decoupling floors.

SYLOMER

Sylomer is a microcellular polyurethane with very good insulation properties. It is placed under the entire surface of the slab. It is a stable and easy to install solution.



OPTION 1

OPTION 2

OPTION 3

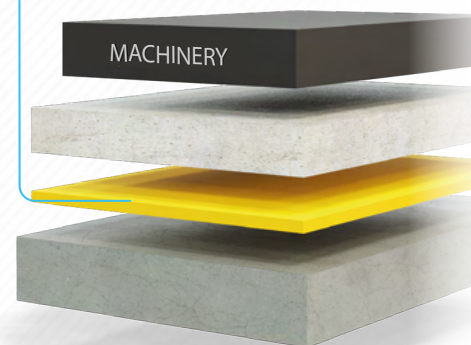
FZH2M + SYLOMER



FZH + SYLOMER



SYLOMER



Isolation of Hospitals

MACHINERY ROOMS



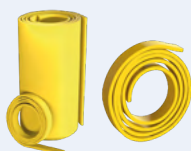
AMC Mecanocaucho also offers anti vibration mounts to isolate each machine individually.

Different solutions for elastically decoupling floors.

- For medium-high frequencies the **first stage** uses **Sylomer** and for low frequencies, **the second stage** uses **spring mounts**
- The reinforced concrete slab provides stability and absorbs part of the vibrations
- Simple installation
- The ducts can be supported on the insulated slab

FIRST STAGE

1



2



SECOND STAGE



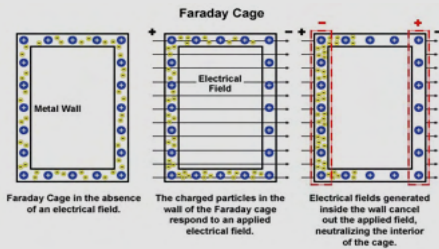


MRI Scanners

Solutions for resonance machine
noise and vibrations

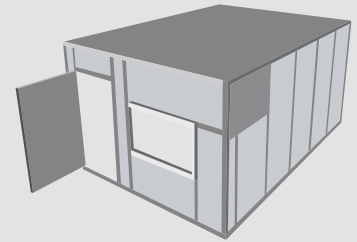
Isolation of Hospitals

MAGNETIC RESONANCE IMAGING MACHINERY (MRI)



The disturbances in this room are required to be as small as possible, since this would affect the quality of the obtained images.

For example air conditioning units, X-ray machine, tomographic machines... it is necessary to **correctly insulate both the MRI room and the machine itself**, so it will be necessary to **use the anti vibration mounts**.



WALL ACOUSTIC INSULATION



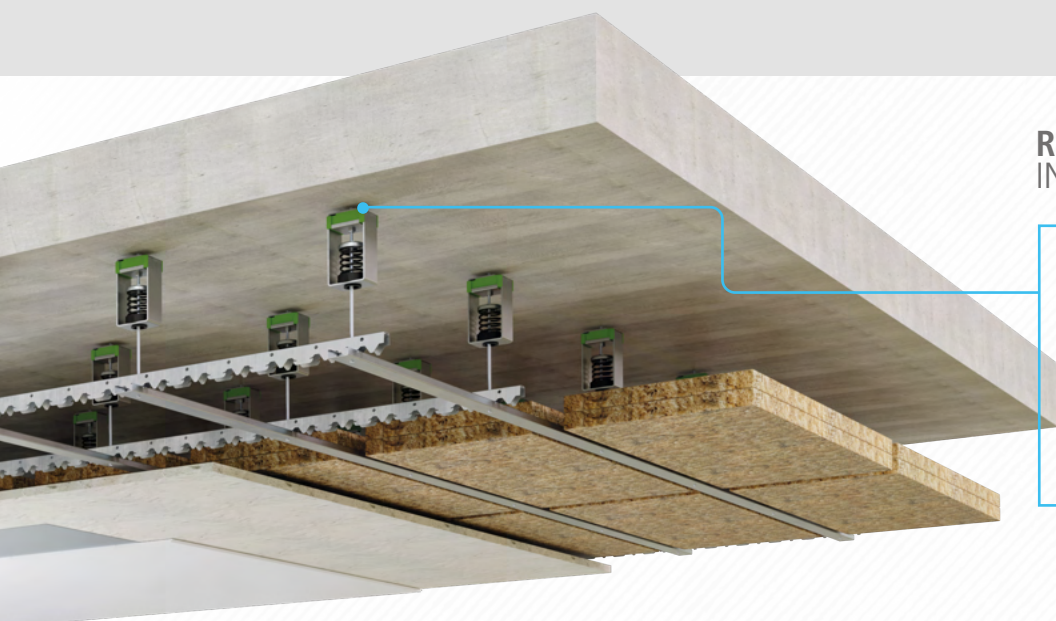
Faraday Cage



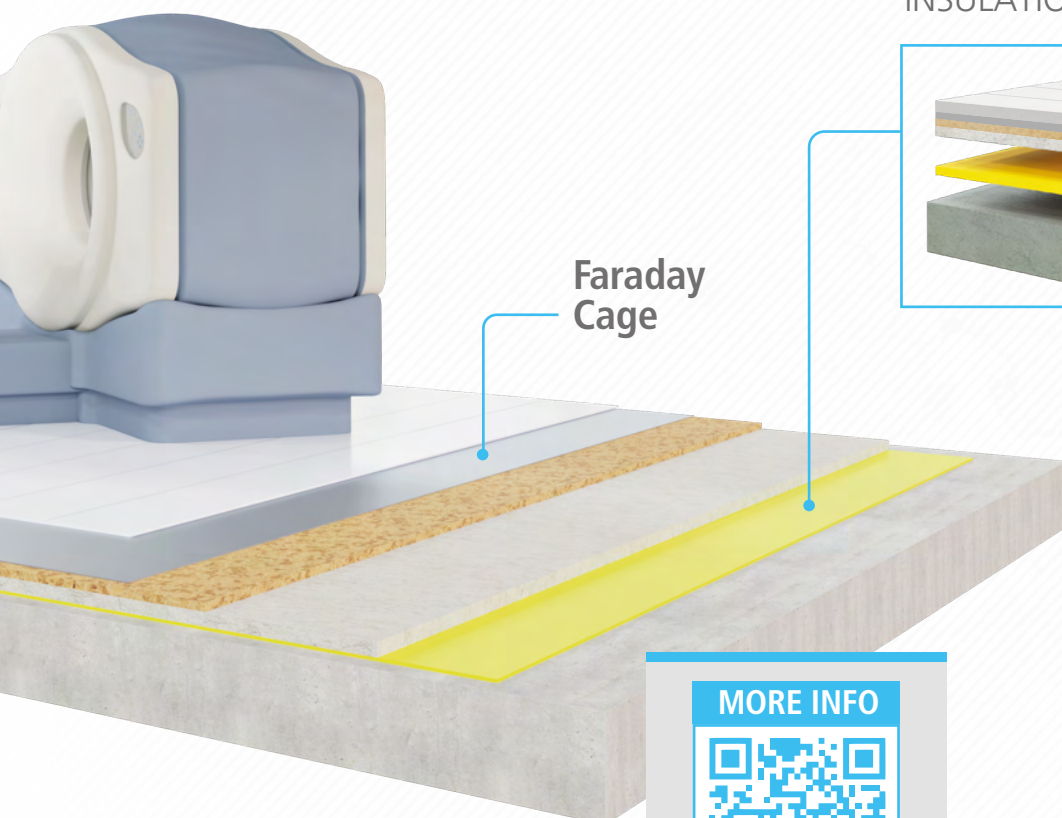
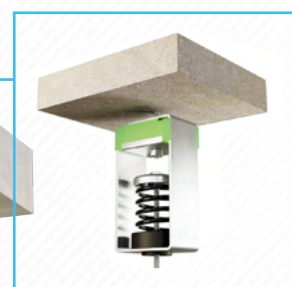
VIDEO



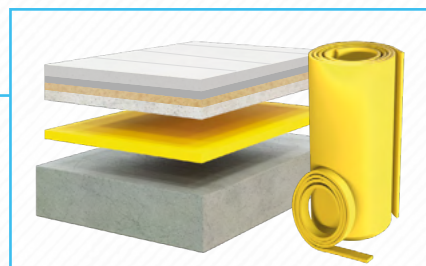
MAGNETIC RESONANCE IMAGING MACHINERY (MRI) ROOM INSULATION



**ROOF ACOUSTIC
INSULATION**



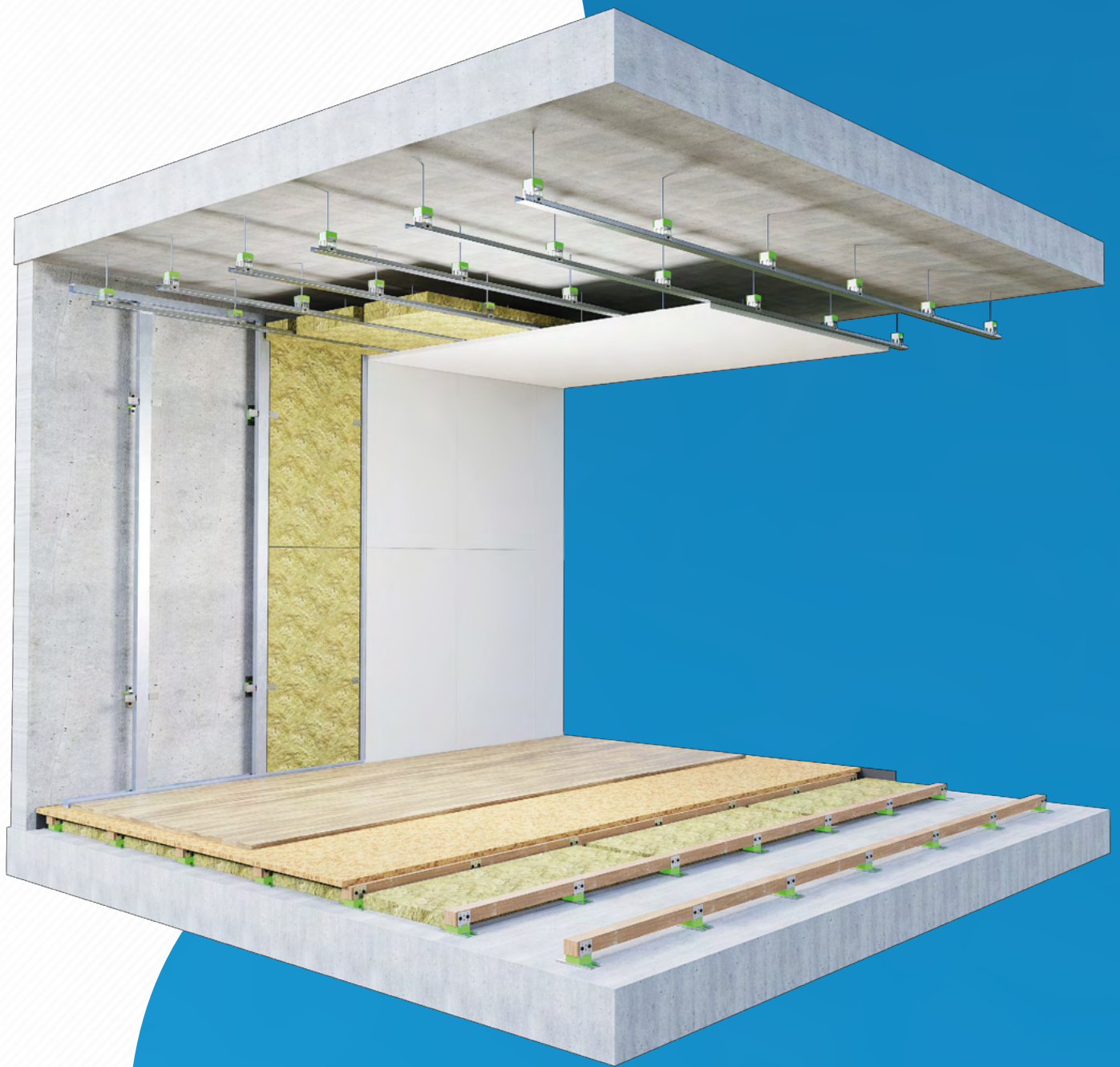
**FLOOR ACOUSTIC
INSULATION**



**Faraday
Cage**

MORE INFO





BOX IN BOX
SOUND INSULATION

Isolation of Hospitals

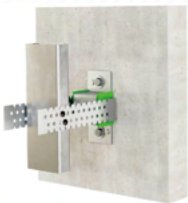
BOX IN BOX

AMC Mekanocaucho has a wide range of products for all types of joints and profiles.

Box in Box Solutions

In order to completely decouple the rooms where we have the noise from equipment, food trolleys, beds, alarms, operating theatres, etc., it is necessary to make a **Box in Box**. In addition to **elastically decoupling the floor**, it is also necessary to insulate the walls and ceiling.

WALL



EP 700 + SYLOMER®



EP 500 + SYLOMER®



AKUSTIK 4 HIGH + SYLOMER®



AKUSTIK SUPER T60 + SYLOMER®



AKUSTIK 1 NONIUS + SYLOMER®

FLOOR



FZH + SYLOMER®



FLOOR BLOCKS



AKUSTIK + SYLOMER® FLOOR MOUNT

CEILING

WALL

FLOOR





Heliport

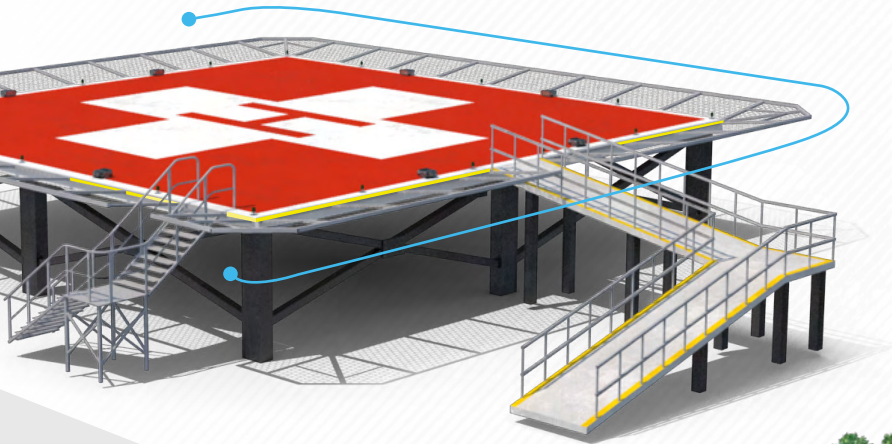
Solutions for landing
pad noise and vibration
in a hospital

Isolation of Hospitals

HELIPORT

FLOATING FLOOR

AMC Mecanocaucho offers **different solutions** for elastically decoupling floors.

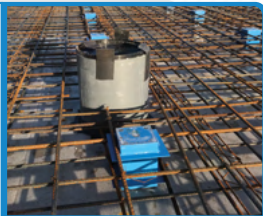


SYLOMER

The **Sylomer** is placed under the entire surface of the slab. It is a **stable and easy to install solution**.

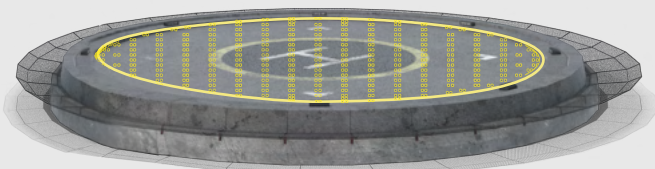


REAL CASE VIDEO



FZH2M + SYLOMER®

Spring mounts that are capable of reaching natural frequencies as low as 2Hz (**higher isolation**). The **Sylomer base** of the anti vibration mount isolates the **medium-high frequencies** that can be transmitted through the coils.



INSTALLATION DES FZH2M



Isolation of Hospitals

HELIPORT

SUPPORTING POINTS

AMC Mecanocaucho offers the **TFB XT + Sylomer®** support for elastic decoupling of the structure using point supports.



TFB XT+ SYLOMER®

Support made of **Sylomer** composite material with a wide range of load-bearing capacities and, above all, good insulation at medium and high frequencies. Although this support is primarily designed for compressive loads, it can withstand both radial and tensile loads thanks to its internal structure and fail-safe system.

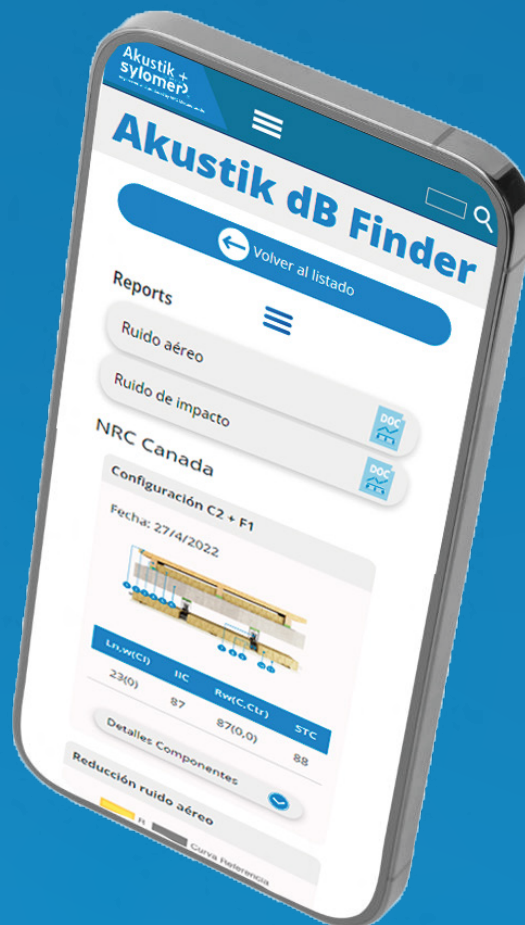
CASE STUDY - INSTALLATION OF TFB XT+ SYLOMER®



AKUSTIK DB FINDER

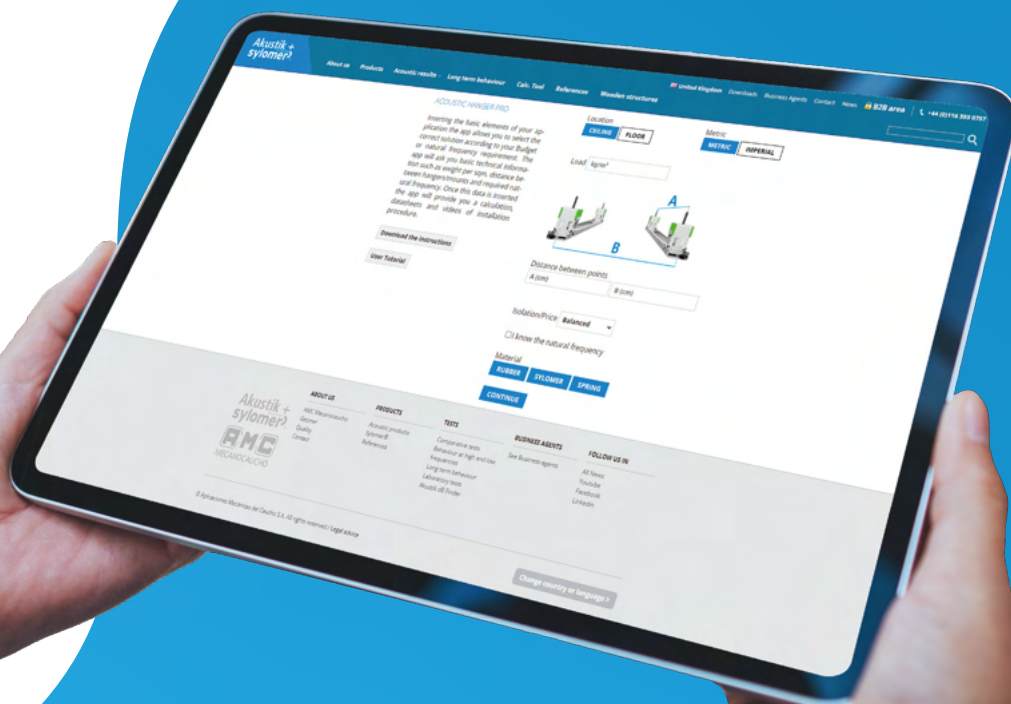
Another useful tool on our website, the **Akustik dB Finder**, contains a catalogue of acoustic test data for various ceiling, wall and floor structures. You can use this data to visualise the effectiveness of different insulation systems and better understand how to address your particular acoustic problems.

Akustik dB Finder



ACOUSTIC HANGER PRO

The professional acoustic mount selection tool (on our website and phone app) gives you a recommendation of acoustic mounts and floor stands for the customised characteristics of your system.



Acoustic Hanger Web-based selection tool



Download Acoustic Hanger Pro!





Our **expertise lies** in the **building** and **industrial acoustics field**, with a dedicated **technical department**. We have skilled engineers situated across various countries who are prepared to comprehend your specific situation and offer suitable solutions. Don't hesitate to **get in touch with our main office** or **explore our websites** and social media platforms.



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