Dyno Room Soundproofing

Megasorber's range of noise barrier and acoustic absorption materials are ideally suited to provide treatment to dyno rooms – reducing noise heard by neighbouring properties and allowing technicians to clearly hear the required frequencies whilst tuning equipment.

In any room, noise will find the 'weak' areas and try to get through, potentially disturbing those in neighbouring rooms. Imagine a plastic bag with water inside... no matter how strong the plastic is; if there are any holes the water will leak. Similar with noise – if there are any gaps, the sound will enter or escape. In short, to reduce noise being heard outside the studio, you need to 'seal' the ceiling and walls.

Initially, a noise barrier will assist with reducing noise transfer between the studio and adjoining rooms / properties – when applied to walls and ceiling, between layers of plasterboard, due to its high density and viscoelastic properties. For best results, a staggered stud wall should be used to allow for decoupling, which further increases performance of the wall.

In addition, Megasorber acoustic absorption panels can then be installed on to the ceiling and walls to reduce reverberation and improve the acoustics for the technicians.

Recommended Treatments

Noise Barrier - Walls

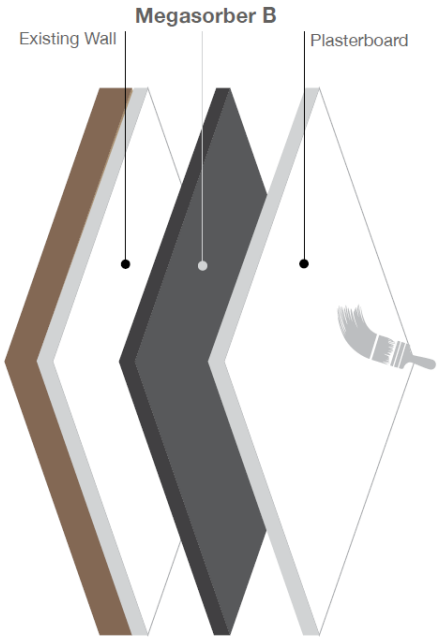
We recommend applying Megasorber B8 in between 2 layers of plasterboard (you can also use MDF or similar if you prefer, depending on the finished look you require) on either side of a staggered stud wall.

If treating an existing wall, this means simply installing the B8 over the existing plasterboard (this can be stapled or nailed on initially), taking care to overlap sheets to ensure there are no gaps.

If overlapping is not possible, butt join the sheets together and use Megasorber A200 adhesive as a bead at each join to seal any gaps. Once you apply the 2nd layer of plasterboard, the screws will provide the final fixing for both the plaster and the noise barrier.

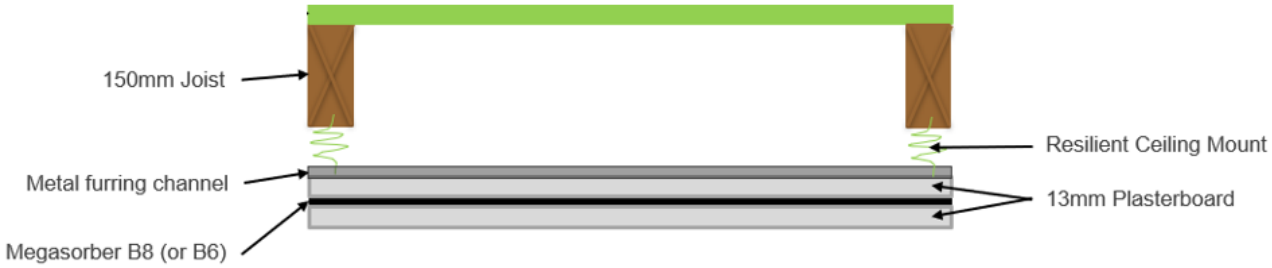
For noisy environments such as this, we recommend treating both sides of the stud wall.

We recommend a minimum 13mm plasterboard – the thicker and heavier, the better the overall acoustic performance of the wall.



Noise Barrier – Ceiling

As with the wall treatment outlined above, the ceiling should be treated with Megasorber B8 between two layers of plasterboard. For best results, this should be fixed using resilient mounts and furring channels, however if your space or budget is limited, this can be directly fixed to the joists if required.



Reverberation Reduction

If there are many hard surfaces in a room, the 'noise', soundwaves are reflected, bounce around, echo and reverberate. This noise energy builds up and gets louder, which is a major source of discomfort for occupants of the room.

To treat this, we recommend lining the ceiling and walls with Megasorber's FM or FG range of acoustic absorption panels. The panels can be easily adhered to the ceiling and walls with A200 adhesive.

In a dyno room environment, you should aim to treat all wall and ceiling surfaces (the more the better) with Megasorber FM50 or FG50 panels.

How much absorption do I need?

To determine the amount of panel coverage you require, here is the calculation:

Calculate the surface area of all walls and ceiling.

You need to treat this total surface area.

Example: For a room that is 4m x 3m x 2.7m …

Walls: 4m x 2.7m (x2)
Walls: 3m x 2.7m (x2)
Ceiling: 4m x 3m
Floor: N/A

Total Surface Area: 49.8m2, which is around 18 panels of 1.2m x 2.4m.

Recommended Products

B8
8kg/m2 Thermal mouldable flexible noise barrier

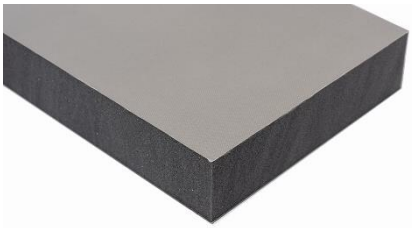
Standard sheet size: 2.3m x 1.2m

We recommend installation using mechanical fixings – if adhesive is also required use Megasorber A200CW.

FM50G-G
50mm Lightweight Acoustic Panel (Grey) with Soundmesh G8 Facing (Grey)

Standard Panel size: 2.4m x 1.2m

We recommend installation using A200CW adhesive.



FG50G-G
50mm Acoustic Panel (Grey) with Soundmesh G8 Facing (Grey)

Standard Panel size: 2.4m x 1.2m

We recommend installation using A200CW adhesive.

A200CW
High tack, high temperature resistant cartridge adhesive (white)

Carton size: 12 x 290ml cartridges

Use A200CW to install Megasorber FM & FG panels as required

Further Information

As each project has different requirements, this information should be used as a guide only.

Please contact the Megasorber team with any specific enquiries for additional information and recommendations.