



**Working environment transformed
in trio of city centre offices**

PROJECT DETAILS:

Location	Birmingham, Manchester & Leeds
Objective	Reverberation & echo solutions
Client	Major commercial office landlord
Sector	Offices
Hush Products	Hush Class A acoustic panels

Background

The acoustic environment inside a trio of contemporarily-designed city centre offices located in Manchester, Birmingham and Leeds had become an issue for the occupying businesses.

Despite the three open-plan offices being created to a high specification, the experience for many of those working in them was less than satisfactory as a result of an extremely common, but often overlooked acoustic issue affecting spaces of this kind – reverberation. This is the problem of soundwaves generated through everyday activities, such as speaking and music playing, reflecting off hard surfaces back into the room and making it echoey and unfeasibly noisy.

The landlord and operator of all three of these offices had created them to a contemporary style, including exposed soffits and services to give the spaces a stylish, industrial feel. However, this design, coupled with hard

surfaces such as wooden floors, large areas of glazing and extensive desk spaces, meant that the acoustic conditions were poor when the offices were fully occupied because there was so little scope for soundwaves to be absorbed.

The Challenge

As many of the staff working in these spaces are constantly speaking with customers on the phone, the level of background noise had become uncomfortable and a cause for concern. Hence, the landlord asked their fit-out contractor to address the situation who then contacted Hush Acoustics to investigate.

Following an initial assessment of each office using photos supplied, the Hush team conducted site visits to ensure accurate acoustic calculations could be obtained in order to recommend the most appropriate solution. Prior to the work commencing, it was estimated that the reverberation time (RT60) within the offices was in the region of between 4s and 5s, well above the acceptable target level in the region of 1s to 2.5s.

The benefits of improving the acoustic conditions in open plan offices are well documented and increasingly being recognised by property owners, landlords and agents. For businesses occupying offices where reverberation is minimised, research has shown that they benefit as a result of employees who are more satisfied overall, more productive and less prone to making errors during daily work. But, more importantly, their well-being is generally improved, partly due to their levels of stress hormones being lower.





The Solution

Hush Acoustics, working in conjunction with the fit-out contractor, recommended a solution which involved installing Class A acoustic rafts suspended from the ceilings in all three offices. Plans were drawn up by the contractor for the positioning of the acoustic rafts within each office according to the location of ventilation systems, other building services and available fixing points.

Class A acoustic panels offer the highest possible levels of sound absorption with between 90% and 100% of sound absorbed, hence why they can make an instant impact in any space affected by high levels of background noise. Whilst acoustic panels can be mounted on walls and ceilings or suspended from ceilings as acoustic baffles, in these three office projects the most effective approach was to suspend them as acoustic rafts because it would maximise the area overhead to absorb soundwaves.

Hush Acoustics manufactured a total of 91 acoustic rafts, all of which were sized 2400 x 1200 x 40mm and designed to be suspended from the soffits using raft fixing wires. At the Leeds and Birmingham offices 29 acoustic rafts were fitted, with 33 installed at the Manchester office.

The sound absorber panels are manufactured by Hush Acoustics using a specially formulated 50mm thick acoustic foam which is wrapped and finished with interior fabric that is applied to the face, edges and back return. This means the appearance of the panels can be specified to coordinate with the interior décor or a company's branding, and in the case of this client the decision was to choose the colour Denny.

The Results

Since installing the acoustic rafts, the client has reported far higher levels of satisfaction with the office space amongst those using it. Post-installation testing has shown that the reverberation time has been reduced to between 1s and 1.5s in each location, instantly transforming the working environment and boosting productivity.

