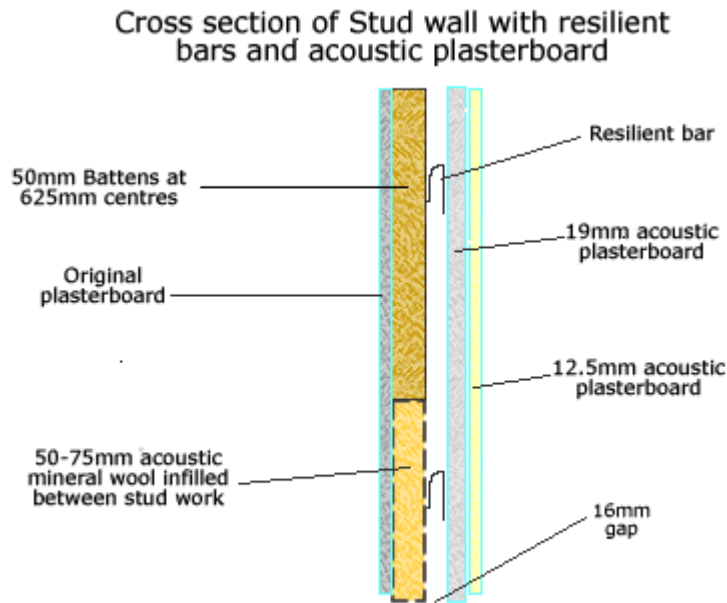




## Soundproofing a Stud Wall

### Fitting Instructions

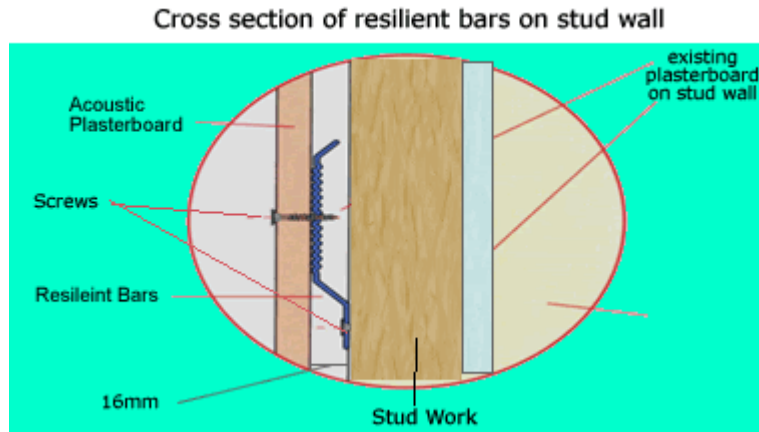


One side of plasterboard needs to be removed so that voids in the studwork can be filled with acoustic mineral wool. Removal of the plasterboard is best achieved with a claw hammer. The choice of the mineral wool is dependent on the set up of the studwork. For older irregular studwork we would recommend density 45kg/m<sup>3</sup> for newer square stud work 60kg/m<sup>3</sup> would be a better choice.

Once the voids have been filled with the appropriate thickness of mineral wool (such that it fills the void) you should then proceed to the resilient bars.

Starting at approximately 50-100mm from the floor level, screw resilient bars to battens at 400- 600mm horizontal centers along the stud wall.) The final resilient bar should be approximately 50mm from the ceiling). If bars need joining just overlap and nest corrugated metal flange by about 10-15cm.

19mm Acoustic plasterboard should now be fixed to the metal flange part only using 32mm drywall screws. Note that the screws should penetrate the metal flange section only and not come into contact with the wall.



A second layer of 12.5mm plasterboard should then be affixed to this using 42mm screws again taking care not to touch the wall, or battens with screw tips). Take care to leave a small (2-3mm gap at the perimeter that can be filled with acoustic sealant.

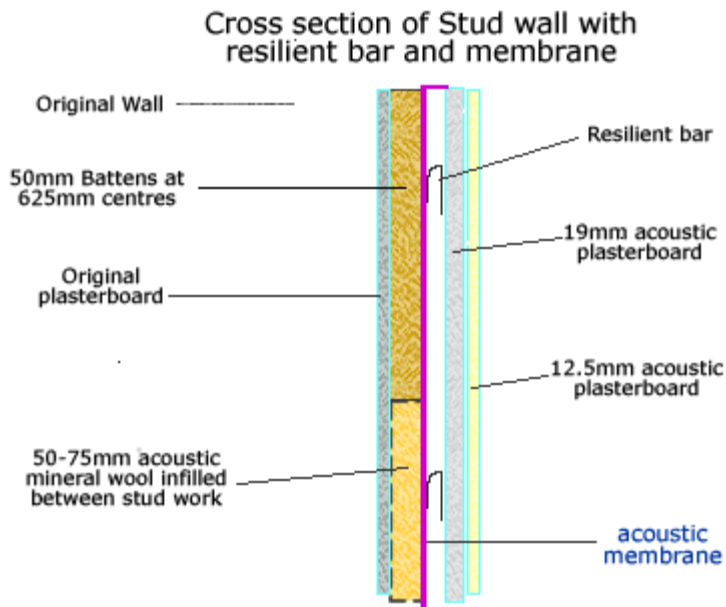
The wall should be sealed around the perimeter using acoustic sealant such that no gaps remain.

### Cutting

Bars can be cut with tin snips or a hack saw.

### Acoustic Membrane Upgrade

A further acoustic uplift can be achieved by adding an acoustic membrane to the stud wall between the resilient bars and stud wall. This should add a further 6db of protection.



## Wall Solution 5: Stud Wall Soundproofing

If you wish to upgrade this construction further these can be achieved by sandwiching Acoustic membrane (1.2mm) between the studwork and the resilient bars. This can be achieved by affixing the membrane at the top of the studd wall with highest horizontal line of resilient bars, letting the membrane drape down the wall (like a blanket). Any join in the membrane should be achieved by using impact adhesive (or other similar and overlapping the membrane by 10-15cm at the joins). The membrane should be sandwiched between the plasterboard and the wall and any excess trimmed with a Stanley knife. In this way a seal is affected. The plasterboards should then be screwed onto the resilient bars as described above.