

PRO))SOUND

ReductoClip System

Independent Wall Installation Guide & Product Overview

Overview

Tried, tested and proven to provide the highest level of sound reduction.

The ReductoClip Independent System is a slimline, highly effective wall soundproofing solution, engineered to enable you to achieve peace and quiet in your home.

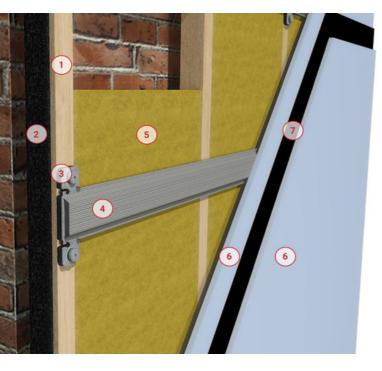
This system ticks all the necessary boxes, adding high levels of mass, resilience to dampen sound energy and a full decoupling from the structure.

Whether you want peace and quiet from noisy neighbours, or privacy in your own space, the ReductoClip Independent System is the perfect solution.



Why Use The ReductoClip Independent Wall System

- Highest level of sound reduction giving you peace, quiet and privacy in your own home
- Slimmest system of its kind saving you space in your room
- Straightforward DIY installation saving you time and money, without the need of extra labour costs
- Fast delivery lead times 3 5 working days



Features

Fully Isolated Clip and Bar System (120mm Thick):

- **1. Independent Stud Frame -** 10mm air gap isolates the soundproofing from the offending wall for best possible sound reduction performance
- **2. Isolation Strip -** isolates from surrounding surfaces to reduce flanking vibration
- **3. ReductoClips -** decouple the mass layers from the frame and act like a shock absorbing suspension system to dampen high levels of sound energy and vibration
- 4. ReductoClip Furring Channels extra wide to make fixing acoustic plasterboards quicker and easier
- 5. Acoustic Mineral Wool dampens sound within the frame cavity to stop sound amplifying
- **6. Acoustic Plasterboard -** (2 layers) to increase the mass of the wall. More mass and density than standard plasterboard but with the same finishing and decorating techniques
- **7. FlexiSound 5 -** Anti-Vibration membrane to add further mass to the wall. A different type of mass to reduce different sound frequencies to the other layers. FlexiSound also helps to dampen sound energy and vibration



ReductoClip Independent Wall (Performance in front of 100mm brick wall)	Airborne Performance (Higher dB figure the better)
ReductoClip system fitted in front of 100mm brick wall (120mm)	77dB (DnT,w)
Untreated 100mm brick wall	38dB (DnT,w)

With airborne noise a higher value equals a better performance

Airborne sound improvement after ReductoClip system was fitted

39dB



ReductoClip Independent Wall (Performance in front of 100mm stud partition wall)	Airborne Performance (Higher dB figure the better)
ReductoClip system fitted in front of 100mm stud partition*	69dB (DnT,w)
Untreated 100mm stud partition	35dB (DnT,w)

With airborne noise a higher value equals a better performance

*12.5mm standard plasterboard, 100mm timber stud frame and 12.5mm standard plasterboard

Airborne sound improvement after ReductoClip system was fitted

34dB

For context 10dB improvement is generally perceived by the human ear to being a halving of noise.

For further information on decibels **CLICK HERE**

For more performance data and building regulation compliance please **CLICK HERE**



ProSound ReductoClip System Independent Wall Overview

Specification

Total thickness of system: 120mm

Weight: 35.7Kg per m² **Thermal Conductivity:**

• Plasterboard 15mm: 0.25 W/mK

FlexiSound 5: 0.037 W/mK

• 60kg Acoustic Mineral wool: 0.034 W/mK

Thermal Resistance, (R-Value):

Plasterboard 15mm: 0.060 m² K/W

• FlexiSound 5: 0.14 m² K/W

50mm 60kg Acoustic Mineral Wool: 1.45 W/mK

Fire:

Plasterboard 15mm: EN13501-1: A2-s1, d0

FlexiSound 5: EN13501-1: C-s3 d0

60kg Acoustic Mineral Wool: EN13501-1: A1

System Components

- ProSound 5mm Isolation Strip
- Acoustic Mineral Wool
- ProSound ReductoClip
- ProSound ReductoClip Furring Channel
- 15mm Acoustic Plasterboard
- FlexiSound 5
- Acoustic Sealant 900ml
- Jumbo Sealant Applicator Gun for 900ml tubes
- Plasterboard Scrim Tape 90m
- Packers 28mm x 5mm (Pack of 25)
- ReductoClip Fixing Kit (pack of 100)
- ReductoClip Furring Channel Screws 50mm x 3.5mm (pack of 200)
- ReductoClip Furring Channel Screws 25mm x 3.5mm (pack of 200)

Please Note: These components are heavy and we recommend two people for installation.



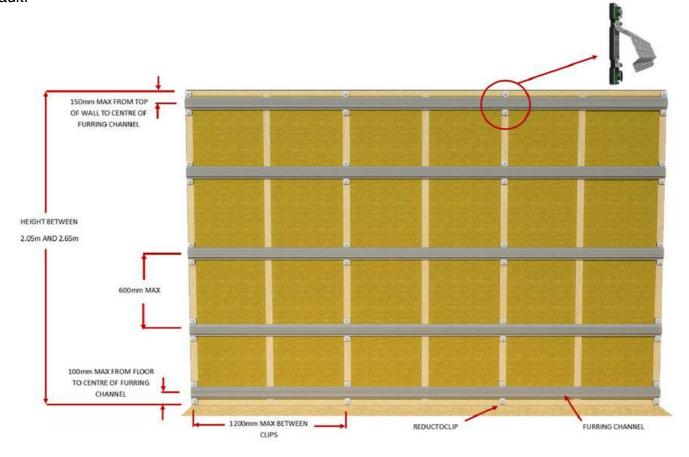
ReductoClip Positioning Diagram

The below diagram illustrates the max spacings that can be used between clips and furring channels.

For walls higher than 2.65 meters another row will be required.

ReductoClips at the ends of each row should be fitted 5mm away from the adjoining walls.

The recommended use of 5mm isolation strip around the perimeter of the stud frame will ensure this by default.



Installation Video

The below video link shows the ReductoClip independent system being installed



Installation Instructions

The below installation instructions are for when fitting the ReductoClip Independent Wall System in front of an existing solid masonry wall.

i.e. Brick, blockwork and concrete.

For instructions on fitting the ReductoClip Independent Wall System in front of an existing timber stud frame please see pages 11 - 14

Solid Brick Wall Installation Instructions

1. Remove all skirting and coving.

Dot and dab plasterboard should also be removed from the wall being treated and cut away on returning side walls by 125mm.





2. Build the stud frame attaching the isolation strip around the perimeter of the stud frame. This sits between the stud frame and the surrounding surfaces and has a self adhesive backing.

3. Secure the stud frame in place with suitable fixings, screwing through the stud frame and isolation strip into the returning walls, ceiling and floor. A minimum of 10mm air gap should be left between the stud frame and the existing wall. There should be no parts of the stud frame touching the existing wall that you are soundproofing.

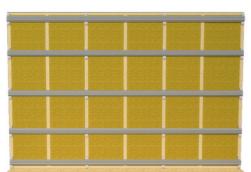




4. The stud frame should be built at 600mm centre widths. Use noggins if necessary for larger walls to give extra support.

5. Install Acoustic Mineral Wool between studs. If the studs are installed at 600mm centres, mineral wool slabs should be slightly compressed either side and friction fit into the space between battens. No fixing required.





6. Fix the ReductoClip to the stud frame in the appropriate positions.

See diagram on Page 6

Tighten fixings until they come into solid contact with the top washer on the ReductoClip. Do not over tighten.

Maximum space between clips 1200mm (horizontally).

Maximum space between furring channels (vertical) clip positions 600mm. Top row of clips should be a maximum of 150mm away from the ceiling. Bottom row of clips should be a maximum of 100mm from the floor.

7. Snap the ReductoClip furring channel into the ReductoClip by squeezing the furring. IMPORTANT: Make sure to overlap channels by 150mm and secure with 4 self tapping screws (not supplied). Make sure overlaps occur between the clips, not on the clips. Ensure furring channels are overlapped alternatively, front to back and so on.

Tip: To utilise the furring channel quantities, and ensure joins occur between clips, cut a 600mm length bar and start with this bar. Then start the second row with the offcut.





8. Before installing the first plasterboard layer, mark the locations of the furring channels on the surrounding walls in chalk or pencil. This will help you to locate the position of the furring channels later once the first layer of plasterboard is on and furring channels are no longer visible.

9. Install the first layer of 15mm acoustic plasterboard.
Offer your first board to the wall making sure it sits square leaving a 5mm gap around the perimeter edge of the wall, floor and ceiling. You may need to scribe the boards to follow the curvature of your surrounding walls, floor and ceiling to maintain the 5mm gap.

Use 5mm packers to lift the board off the floor and to isolate the board from surrounding surfaces.

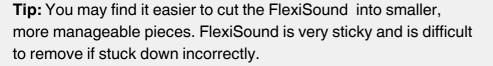


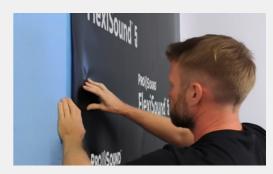


10. While holding the acoustic plasterboard in position use the 25mm self-drilling screws to secure the board into each ReductoClip furring channel. Screw the fixing in place until the screw head is flush with the plasterboard. A screw should be used every 200mm on each furring channel. Once the first plasterboard is in position, apply the next board butting up tightly to the previous board and continue.

It is best practice to apply Acoustic Sealant around the perimeter and over all joins in the boards.

11. Install FlexiSound 5. FlexiSound is self-adhesive and requires no fixings or secondary adhesive. Stick the FlexiSound to the plasterboard covering the entire wall leaving no gaps. The FlexiSound can touch the walls and ceiling, as it is a soft material and won't aid in the transfer of sound energy. It also helps to seal the first layer of plasterboard.







12. Install the second layer of 15mm acoustic plasterboard using 50mm self-drilling screws. Stagger the joins by starting at the opposite side from where you started on the first layer. This should sandwich the FlexiSound between the two layers. A screw should be used every 200mm on each furring channel. A 5mm gap should be left around the perimeter again too.

13. Finally remove the shims and fill the gaps around the perimeter with Acoustic Sealant.

It is best practice to also apply sealant over all joins in the boards.

Use a putty knife to smooth off.





14. The ReductoClip System is then ready for standard plasterboard finishing. A plaster skim finish is most common but heavy duty backing paper can also be used.

Installation Instructions

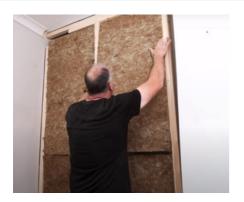
The below installation instructions are for when fitting the ReductoClip Independent Wall System in front of an existing stud frame wall.

For instructions on fitting the ReductoClip Independent Wall System in front of an existing masonry wall please see pages **7 - 10**

Stud Wall Installation Instructions

1. Remove all skirting, coving and plasterboard from existing stud wall to expose the stud frame





2. Install Acoustic Mineral Wool between studs of the existing stud frame. You should use the same thickness mineral wool as the depth of the studs.

Mineral wool slabs should be slightly compressed either side and friction fit into the space between battens. No fixing required. Leave this stud frame open with the mineral wool showing.

3. Build the new stud frame attaching the isolation strip around the perimeter of the stud frame. This sits between the stud frame and the surrounding surfaces and has a self adhesive backing.





4. Secure the new stud frame in place with suitable fixings, screwing through the stud frame and isolation strip into the returning walls, ceiling and floor. A minimum of 10mm air gap should be left between the new stud frame and the existing stud wall. There should be no parts of the stud frames touching each other.

5. The stud frame should be built at 600mm centre widths. Use noggins if necessary for larger walls to give extra support.





6. Install Acoustic Mineral Wool between studs. If the studs are installed at 600mm centres, mineral wool slabs should be slightly compressed either side and friction fit into the space between battens. No fixing required.

7. Fix the ReductoClip to the stud frame in the appropriate positions.

See diagram on Page 6

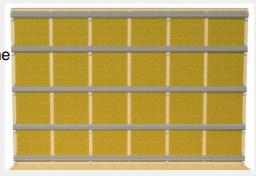
Tighten fixings until they come into solid contact with the top washer on the ReductoClip. Do not over tighten.

Maximum space between clips 1200mm (horizontally).

Maximum space between furring channel (vertical) clip positions 600mm.

Top row of clips should be a maximum of 150mm away from the ceiling.

Bottom row of clips should be a maximum of 100mm from the floor.

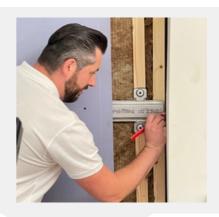




8. Snap the ReductoClip furring channel into the ReductoClip by squeezing the furring. IMPORTANT: Make sure to overlap channels by 150mm and secure with 4 self tapping screws (not supplied). Make sure overlaps occur between the clips, not on the clips. Ensure furring channels are overlapped alternatively, front to back and so on.

Tip: To utilise the furring channel quantities, and ensure joins occur between clips, cut a 600mm length bar and start with this bar. Then start the second row with the offcut.

9. Before installing the first plasterboard layers, mark the locations of the furring channels on the surrounding walls in chalk or pencil. This will help you to locate the position of the furring channels later once the first layer of plasterboard is on and channels are no longer visible.





10. Install the first layer of 15mm acoustic plasterboard.

Offer your first board to the wall making sure it sits square leaving a 5mm gap around the perimeter edge of the wall, floor and ceiling. You may need to scribe the boards to follow the curvature of your surrounding walls, floor and ceiling to maintain the 5mm gap.

Use 5mm packers to lift the board off the floor and to isolate the board from surrounding surfaces.

11. While holding the acoustic plasterboard in position use the 25mm self-drilling screws to secure the board into each ReductoClip furring channel. Screw the fixing in place until the screw head is flush with the plasterboard. A screw should be used every 200mm on each furring channel. Once the first plasterboard is in position, apply the next board butting up tightly to the previous board and continue.







12. Install FlexiSound 5. FlexiSound is self-adhesive and requires no fixings or secondary adhesive. Stick the FlexiSound to the plasterboard covering the entire wall leaving no gaps. The FlexiSound can touch the walls and ceiling, as it is a soft material and won't aid in the transfer of sound energy. It also helps to seal the first layer of plasterboard.

Tip: You may find it easier to cut the FlexiSound into smaller, more manageable pieces. FlexiSound is very sticky and is difficult to remove if stuck down incorrectly.

13. Install second layer of 15mm acoustic plasterboard using the 50mm self-drilling screws. Stagger the joins by starting at the opposite side from where you started on the first layer. This should sandwich the FlexiSound between the two layers. A screw should be used every 200mm on each furring channel. A 5mm gap should be left around the perimeter again too.





14. Finally remove the shims and fill the gaps around the perimeter with Acoustic Sealant.

It is best practice to apply sealant over all joins in the boards too. Use a putty knife to smooth off.

15. The ReductoClip System is then ready for standard plasterboard finishing. A plaster skim finish is most common but heavy duty backing paper can also be used.

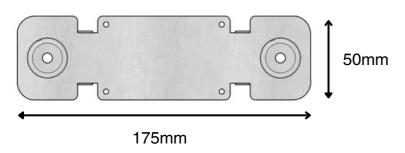


Plug Sockets

Address light switches and plug sockets with either Acoustic Putty Pads or the use of surfaced mounted plug sockets.

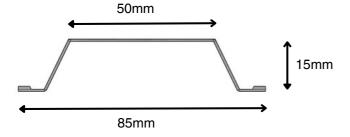


ReductoClip Dimensions

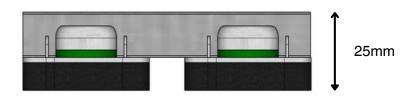




Furring Channel Dimensions



ReductoClip & Furring Channel Combined Dimensions



Additional Fixing Information

The hole in the ReductoClip has a diameter of 7.5mm for your fixing to go through

• **Self tapping screws:** For furring channel joins (approx. 10 – 15mm)

*If your self tapping screws are struggling to pierce the furring bar, use a pilot hole beforehand

TV & Radiator Installation

When installing a TV or radiator on to the ReductoClip Systems, it is important to use suitable fixings.

With suitable fixings most TV's and radiators can be installed directly onto the finished system using the plasterboard as a fixing substrate.

For extra reassurance we recommend the use of extra clips and furring channels are fitted.

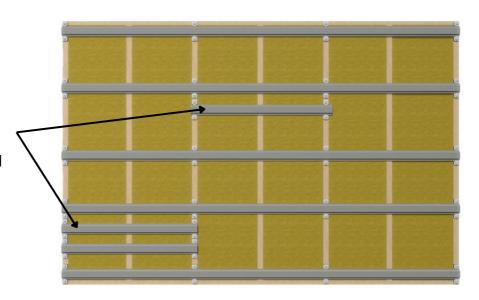


Install one/two extra horizontal furring channels between the two standard furring channels to accommodate the TV wall mount or radiator mounts. Make a note of the location of your extra furring channels by marking on the returning walls and the ceiling so that they are easily identifiable, (As further in the installation process they will be concealed with the plasterboard and FlexiSound layers).

Once the system is installed fix your TV bracket or radiator bracket through the plasterboard fixing into the furring channels behind.

For multiple items being fixed to your wall you could consider adding additional ReductoClips every 600mm rather than the standard 1200mm on the main furring channels.

Additional ReductoClips and furring channels depending on desired position of TV and radiator brackets.



Important Notes

- If you are employing fitters, please do not schedule or start any installation work until you have received your order
- Delivery will be on a pallet and will be wheeled as close to your property as possible.
 (Unfortunately our haulier cannot take the goods into your property)
- Please note that our products have a great deal of mass, and will add weight to your structure. You may need to check with a structural engineer to ensure compatibility
- For installations and applications not listed, please contact The Soundproofing Store for guidance

ReductoClip Specification

Maximum design Load: 3kg - 25kg per ReductoClip for optimum performance

Resonance Frequency: 7 - 15Hz



ReductoClip System

Exclusively available through The Soundproofing Store

