



## StoneClip Installation Brochure

### Using fixed StoneClips:

Start at ground level and ensure that the starting row is level. Cut slots as required in stone cladding using a standard biscuit cutter fitted with diamond cutting wheel.

Always cut slot measured from front face of panels to ensure plumb/flush faces.

Note: For correct loading of the StoneClip, the cut must be made centrally in the top and bottom edges of the stone panels (eg, 40mm stone to have the cut made 20mm from the front edge).



Mount panel onto bottom brackets and insert StoneClips into upper panel slots. Hold clip in place ensuring that the centre spindle sits on the upper edge of stone panel.

Drill into the wall through the top mounting hole of the StoneClip. Drive in the zinc-alloy metal hit anchor pins using a hammer and punch to affix the StoneClip. It is recommended to fill the slots in the top of the panels with silicone sealer to take up any play in the panels and to stop moisture pooling in the lot. Use Nylon "X" spaces between panels to provide even spacing.

### Using adjustable StoneClips:

Make cut in panels with biscuit cutter (as before) and indent if panel is to be flush-fitted.

Locate StoneClips with the front face to wall and set the adjustment to the exact size required. Then lock the nut in place and remove StoneClip from panel and trim off the excess thread.

Reinstall StoneClip with locknut securely locked in place and in forward position. Then drill a hole in wall for fixing pin through StoneClip fixing hole.

Drive in zinc-alloy metal hit anchor pins using hammer and punch to affix StoneClip. Check for plumb before repeating process.



Note: To comply with building codes and engineers report an angle strip needs to be affixed every 3 vertical metres. Slot thickness is to be no greater than 0.3mm wider than the clip thickness.

### StoneClip Overview

**Mechanical Fixing** methods rely on purely mechanical of the stone to the substrate.

These are available in a variety of systems typically incorporating metallic clips, bolts, nuts and washers but tend to be tricky to install, costly and designed/approved for the specific project application.

StoneClip is one solution that is quicker than any of the methods mentioned above for fixing heavy stone cladding to substrates. This method is an Engineered Approved generic system for fixing panels.

With this method you are not restricted to a given height of installed product per day. You can install as much product as determined by the available manpower/resources.

This method is slightly more expensive in material costs for a given project but considerably cheaper on labour costs as it is quick to install compared to other methods available.

The number of clips required to restrain a panel is nearly always two, but more are needed when the panels get larger and deeper.

You can decide what level of joint you use, simply by imbedding the joining pin in the stone or not and then leaving a grout joint to be either filled or left open for ventilation.

With this system it is also easier to fix Lateral-fixing pins (Side fixing to prevent suction by wind and bending from thermal expansion/contraction of panels) to the panels and substrate.

The specific Project will determine the extent of restraint needed on each panel, these will be called up by the project architect/engineer.



## StoneClip Calculation – Cladding Panels in Horizontal Position

StoneClip		Cladding Type																				
		500 x 500 x 30mm (Sawn/Honed/Polished)	500 x 500 x 40mm (Sawn/Honed/Polished)	600 x 250 x 15mm (Rock Face)	600 x 250 x 30mm (Rock Face)	600 x 250 x 30mm (Sawn/Honed/Polished)	600 x 300 x 20mm (Sawn/Honed/Polished)	600 x 300 x 30mm (Sawn/Honed/Polished)	600 x 300 x 30mm (Rock Face)	600 x 300 x 40mm (Sawn/Honed/Polished)	600 x 400 x 30mm (Sawn/Honed/Polished)	600 x 400 x 40mm (Sawn/Honed/Polished)	600 x 600 x 30mm (Sawn/Honed/Polished)	600 x 600 x 40mm (Sawn/Honed/Polished)	800 x 400 x 30mm (Sawn/Honed/Polished)	800 x 400 x 40mm (Sawn/Honed/Polished)	1000 x 500 x 30mm (Sawn/Honed/Polished)	1000 x 500 x 40mm (Sawn/Honed/Polished)	1000 x 1000 x 40mm (Sawn/Honed/Polished)			
Clips per tile	Side (Lateral)	1	1													1	1			1	1	2
	Bottom	EcoClip	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	4	4		
		Standard	2	2	2	2	2	2	2	2	2	2	2	2	2							
	Top	EcoClip	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	4	4		
Standard		2	2	2	2	2	2	2	2	2	2	2	2	2								
Tiles / m2		4	4	6.6	6.6	6.6	5.5	5.5	5.5	5.5	4.2	4.2	2.8	2.8	3.1	3.1	2	2	1			
Clips per m2	EcoClip	10	10	10	10	10	7	7	7	7	6	6	10	10	5	5	10	10	10			
	Standard			16	16	16	12	12	12	12	10	10			8	8						

### Notes:

- Shelf Angles to be used in conjunction with StoneClips when the wall being clad exceeds 3,000mm in height. See section for sizes of angles.
- Suggested fixings for:
  - TIMBER – 14 gauge pan head screws x 20mm
  - STEEL SHEETING – 12 gauge x 20mm – Wafer, Bungle, Button or Tek screws suitable for this material
  - CONCRETE or BRICK – 38mm x 6.5mm nylon hammer screws or 33mm x 6.5mm zinc alloy drive pins
- Allow 2 additional clips from the first square metre of every clad area.
- All sized clips are sold in boxes of 36 including pins.

## StoneClip Calculation – Cladding Panels in Vertical Position

Panel Size (L x W x D)	Cavity Support (15-30mm)	Cavity Support (35-50mm)	Cavity Support (55-75mm)	Cavity Support (80-120mm)	Notes
800 x 400 x 30 Lateral	SB-1 x 2 H/D6 x 1	SB-2 x 2 H/D8 x 1	SB-3 x 2 H/D8 x 1	SB-4 x 2 EXT10 x 1	
1000 x 500 x 30 Lateral	SB-1 x 2 H/D6 x 1	SB-2 x 2 H/D8 x 1	SB-3 x 2 H/D8 x 1	SB-4 x 2 EXT10 x 1	
1200 x 600 x 30 Lateral	SB-1 x 2 H/D6 x 2	SB-2 x 2 H/D8 x 2	SB-3 x 2 H/D8 x 2	SB-4 x 2 EXT10 x 2	
1500 x 750 x 30 Lateral	EXT10 x 2 H/D6 x 2	EXT10 x 2 H/D8 x 2	SB-3 x 2 H/D8 x 2	SB-4 x 2 EXT10 x 2	
1750 x 1000 x 30 Lateral	EXT10 x 2 H/D6 x 3	EXT10 x 2 H/D8 x 3	SB-3 x 2 H/D8 x 3	SB-4 x 2 EXT10 x 3	
2000 x 1000 x 30 Lateral	EXT10 x 3 H/D6 x 3	EXT10 x 3 H/D8 x 3	SB-3 x 3 H/D8 x 3	SB-4 x 4 EXT10 x 3	
2400 x 1200 x 30 Lateral	EXT10 x 4 H/D6 x 4	EXT10 x 4 H/D8 x 4	SB-3 x 4 EXT10 x 4	SB-4 x 4 EXT10 x 4	Centre Support Required
3000 x 1200 x 30 Lateral	EXT10 x 5 H/D6 x 5	EXT10 x 5 H/D8 x 5	SB-3 x 5 EXT10 x 5	SB-4 x 5 EXT10 x 5	Centre Support Required
3000 x 1500 x 30 Lateral	EXT10 x 6 H/D6 x 5	EXT10 x 6 H/D8 x 5	SB-3 x 6 EXT10 x 5	SB-4 x 6 EXT10 x 5	Centre Support Required

### Key:

- SB = Load Bearing Shelf Angle StoneClip  
 EXT10 = Extreme StoneClip  
 H/D6 = 6mm StoneClip  
 H/D8 = 8mm StoneClip