

RESTRAINING BOWED WALLS AROUND STAIRWELLS USING STRUCSOL ULTRABAR AND LATERAL RESTRAINT TIES (1 OF 2)

Recommended Tooling

- For cutting slots 40mm deep or over: Twin-bladed cutter with a vacuum attachment.
- For drilling: SDS Rotary percussion 3-jaw chuck drill.
- For mixing StrucSol HSGROUT: SDS Rotary percussion 3-jaw chuck drill with mixing paddle.
- For injection of StrucSol HSGROUT into slots: Applicator gun + Mortar Nozzle.
- For installation of Lateral Restraint Ties: Lateral Restraint Tie Support Tool.
- For injection of StrucSol Resin: StrucSol Resin Applicator gun + nozzle.
- For smoothing pointing: Standard Finger Trowel.
- For Injection of the StrucSol Crack Filler: A 400ml Mastic Gun is required.
- PPE Clothing and Protection.

General Notes

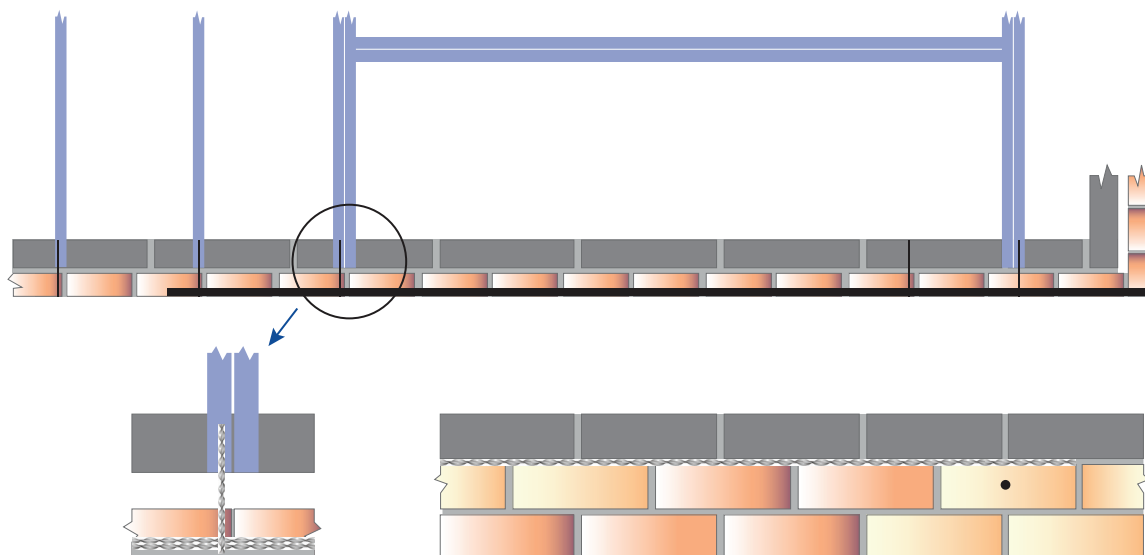
If you require specific advice on your project, please call the StrucSol technical help line 0116 2375082. We can supply a full support service which includes:

- Advice and assistance on all structural matters.
- Preparing repair proposals for specific projects.

Method Statement:

1. Using a twin bladed wall chaser and vacuum attachment, cut slots into the brickwork to the specified depth and at the required vertical spacing. Ensure that no mortar is left attached to the exposed brick surfaces in order to provide a good masonry / grout bond.
 2. Clean out all dust and mortar from the slots and thoroughly flush with water. Ensure the slot is damp prior to commencing step 4.
 3. Mix StrucSol HSGROUT using a power mixer and load into the Grout Tie Pointing Gun.
 4. Inject a bead of StrucSol HSGROUT, approx. 15mm deep, into the back of the slot.
 5. Push the first 6mm StrucSol Ultrabar into the grout to obtain good coverage.
 6. Inject a second bead of StrucSol HSGROUT over the exposed StrucSol Ultrabar.
 7. Push the second 6mm StrucSol Ultrabar into the grout to obtain good coverage.
 8. Inject a third bead of StrucSol HSGROUT over the exposed StrucSol Ultrabar and iron it into the slot using a finger trowel. Inject additional StrucSol HSGROUT as necessary, leaving 10-15mm for new pointing.
 9. Mark the positions of the joists on the external wall either side of the stairwell trimmer joists.
 10. Drill clearance holes for the Lateral Restraint Ties (normally 12mm) through the masonry in line with the centre of the joists.
 11. Clear out the hole to clear any dust or debris.
 12. Fit the Lateral Restraint Tie Power Support Tool into an SDS rotary hammer drill and insert the Lateral Restraint Tie into the support tool. Drive the Lateral Restraint Tie into the timber to the required depth.
 13. Inject StrucSol Resin into the hole to fill it completely.
 14. Point up the slots using a matching mortar, then make good all the holes at the surface and cracks using StrucSol TE resin or StrucSol Crack Filler and leave ready for decoration. To achieve a near perfect look, use StrucSol Stain Colour Matching mortar.
 15. Clean the tools with both clean, fresh water and a suitable polyester resin cleaner, where applicable.
- *Making good the holes and pointing of the slots may be carried out as soon as is convenient after the StrucSol HSGROUT & StrucSol Resin has started to gel.*

RESTRAINING BOWED WALLS AROUND STAIRWELLS USING STRUCSOL ULTRABAR AND LATERAL RESTRAINT TIES (2 OF 2)



SPECIFICATION NOTES

The following criteria are to be used unless specified otherwise.

A	The StrucSol Ultrabars are to be installed in the mortar joint either directly above or below the brick courses containing the Lateral Restraint Ties. Additional StrucSol Ultrabars may be required at higher or lower levels for significant bowing.
B	Depth of slot into the masonry to be 45mm to 55mm.
C	If StrucSol Ultrabars are to be joined in a straight run, overlap the Ultrabars by a minimum of 500mm.
D	StrucSol Ultrabars to extend a minimum 500mm either side of the stairwell.
E	Any fractures in the masonry within the 'beam zone' MUST be stabilised by crack-stitching, TE resin or replacement of the masonry.
F	Any missing or very poor quality masonry MUST be replaced.
G	Minimum Lateral Restraint Tie penetration into the end grain of timber is 75mm.
H	Each joint in the area of concern is to be secured with a Lateral Restraint Tie (i.e. spacing of Lateral Restraint Ties to correspond with the original joist spacing).
I	Ensure that all joists into which Lateral Restraint Ties are to be installed are both sound and secure.
J	If the joists run parallel to the wall, refer to StrucSol Repair Detail RB02 for the Lateral Restraint Tie installation.
K	In hot conditions, ensure the masonry is well wetted or primed to prevent premature curing of the StrucSol HSGrout due to rapid de-watering.
L	Do not use StrucSol HSGrout when the air temperature is 4°C and falling, or apply over ice. In all instances, the hole MUST be thoroughly damp or primed prior to injection of the StrucSol HSGrout.
	The above specification notes are for general guidance only and StrucSol reserve the right to amend as necessary.