

TYPICAL BAY WINDOW REPAIR IN CAVITY OR SOLID WALL, INTERNAL AND EXTERNAL REPAIR, USING STRUCSOL ULTRABAR AND LATERAL RESTRAINT TIES (1 of 2)

Method Statement:

1. Using a twin bladed wall chaser, cut horizontal slots into the mortar joints to the specified depth and at the required vertical spacing. Make sure that no mortar is left in the cut slots in order to give an excellent bond.
 2. Where the slots end at the internal bay returns, drill a 16mm clearance hole all the way through the inner leaf, keeping the drill straight and parallel.
 3. Internally, using a twin bladed wall chaser. Cut a horizontal slot starting at the 16mm hole and away from the bay, a minimum of 200mm.
 4. Remove all dust and thoroughly flush with water. Make sure the slots are damp prior to injecting the StrucSol HSGrout.
 5. Insert the 6mm StrucSol Ultrabar through the 16mm drilled hole and bend to fit into both the external slots and internal slots. Then move them so a the Pinning nozzle and mortar nozzles can be used.
 6. Mix StrucSol HSGrout and put into the StrucSol Crack-stitching Gun.
 7. Fill the 16mm hole fully with StrucSol HSGrout using a Grout Tie pinning nozzle
 8. Inject a bead of StrucSol HSGrout, approx. 15mm deep to the back of the slot using the Mortar Nozzle.
 9. Push the first StrucSol Ultrabar into the grout and ensure that it is fully covered in grout.
 10. Inject a second bead of StrucSol HSGrout over the exposed StrucSol Ultrabar and push the second StrucSol Ultrabar into the grout to obtain good coverage.
 11. 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.
 12. Mark the positions of the joists on the external wall.
 13. Drill clearance holes for the Lateral Restraint Ties (normally 12mm) through the masonry in line with the centre of the joists. Clean out the hole to clear any dust or debris.
 14. 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 support tool. Drive the Lateral Restraint Tie into the timber to the required depth.
 15. Inject StrucSol resin to fill the hole completely. Allow the resin to gel (normally 15-20 minutes).
 16. 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.
- ☞ *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.*

Recommended Tooling

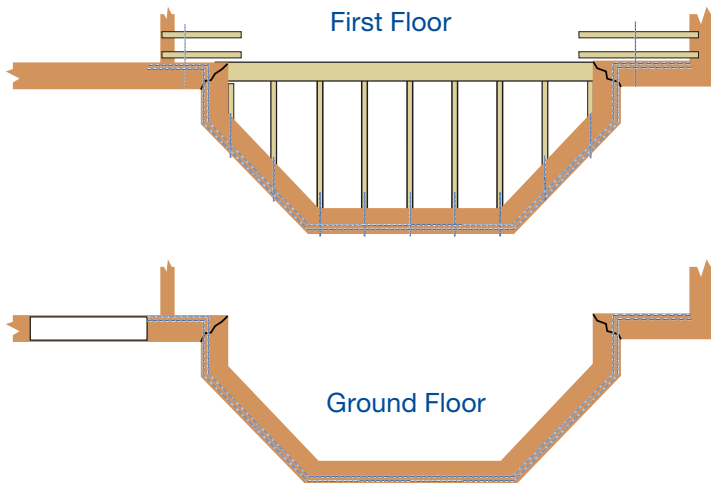
- ☞ For cutting slots 40mm deep or over: Twin-bladed cutter with a vacuum attachment.
- ☞ For drilling: SDS rotary hammer drill 650 / 700w.
- ☞ For mixing StrucSol HSGrout: 3-jaw chuck drill with a mixing paddle.
- ☞ For injecting the StrucSol HSGrout into slots, use the StrucSol Crack-stitching Gun and Mortar Nozzle.
- ☞ For injecting the StrucSol HSGrout into holes, use the StrucSol Crack-stitching Gun and Pinning Nozzle.
- ☞ For installation of Lateral Restraint Tie: Lateral Restraint Tie Support Tool.
- ☞ To smooth the pointing, use the StrucSol Finger Trowel.
- ☞ For Injection of the StrucSol Crack Filler: A 400ml Mastic Gun is required.
- ☞ For injection of StrucSol Resin: StrucSol Resin Applicator Gun + Nozzle.
- ☞ 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.

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SPECIFICATION NOTES

A	Depth of slot: 45-55mm plus any plaster. Solid wall: 55-70mm plus any plaster.
B	Height of slot: Full mortar joint height (minimum 10mm).
C	If StrucSol Ultrabar is to be joined in a straight run, overlap the Ultrabars a minimum of 500mm.
D	StrucSol Ultrabar to extend a minimum of 200mm internally on each side of the bay.
E	Top and bottom reinforcements should be positioned as far apart as practicable, up to a maximum distance equivalent to 12 brick courses (approx. 900mm).
F	Any fractures in the masonry within the 'beam zone' MUST be stabilised by crack-stitching, TE resin or replacement of the masonry.
G	Any missing or poor quality masonry MUST be replaced.
H	Minimum Lateral Restraint Tie penetration into the end grain of timber is 75mm.
I	Each joist in the area of concern is to be secured with a Lateral Restraint Ties (i.e. spacing of Lateral Restraint Ties is to correspond with the original joist spacing).
J	If joists run parallel to the front of the bay, refer to StrucSol Repair detail 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.