

## REPAIR OF FAILED SOLDIER COURSE LINTELS USING STRUCSOL ULTRABAR AND GROUT TIES (1 OF 2)

### 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 injection of StrucSol resin: Applicator Gun with Mortar Nozzle.
- ✦ For insertion of Grout Ties: Applicator Gun with Pinning 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:

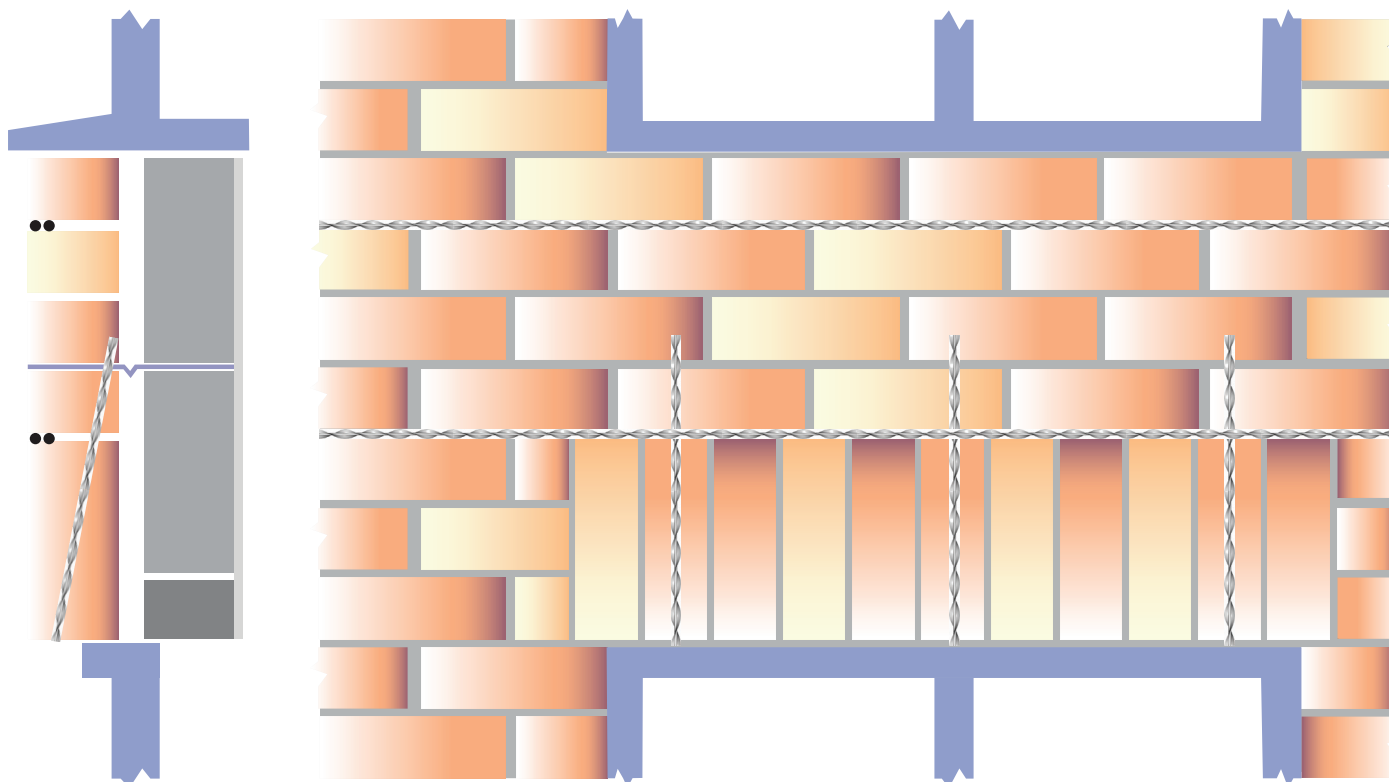
- ✦ Advice and assistance on all structural matters.
- ✦ Preparing repair proposals for specific projects.

### Method Statement:

1. Using a twin bladed wall chaser, 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. Mark positions for the Grout Tie holes on the underside of the soldier course.
3. Drill 14mm clearance holes (16mm if the Grout Tie is longer than 450mm) at the required angle and to the specified depth. The angle of drilling should be such, that the hole will pass behind the lower StrucSol Ultrabars (when installed) and penetrate at least 50mm into the course of masonry above the reinforcing.
4. Remove all dust and mortar from the slots and holes and thoroughly flush with water. Where the substrate is very porous or flushing is inappropriate, use water. Ensure the slot and holes are damp or primed prior to commencing steps 6 and 14.
5. Mix StrucSol HSGROUT with a power mixer and load into Grout Tie Pointing Gun.
6. Inject a bead of StrucSol HSGROUT, approx. 15mm deep into the back of the slot.
7. Push the first 6mm StrucSol Ultrabar into the grout to obtain good coverage.
8. Inject a second bead of StrucSol HSGROUT over the exposed StrucSol Ultrabar.
9. Push the second 6mm StrucSol into the grout to obtain good coverage.
10. 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.
11. Repeat steps 6 to 10 for the lower slot.
12. Attach the required length of Grout Tie Pinning Nozzle to the gun and pump grout to fill the nozzle.
13. Wind the Grout Tie into the nozzle and ensure that it is fully covered in grout.
14. Insert the nozzle to the full depth of the drilled hole and pump the grout.
15. 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.

- ✦ *Pointing may be carried out as soon as the StrucSol HSGROUT has started to set and gel.*

## REPAIR OF FAILED SOLDIER COURSE LINTELS USING STRUCSOL ULTRABAR AND GROUT TIES (2 OF 2)



### SPECIFICATION NOTES

<b>A</b>	Depth of slot into the masonry to be 45mm to 55mm.
<b>B</b>	Height of slot to be equal to full mortar joint height, (minimum 10mm). For thin mortar joint specifications refer to StrucSol Technical Dept..
<b>C</b>	Top and bottom reinforcements should be positioned as far apart as practicable, up to a maximum distance equivalent to 12 brick courses (approx. 900mm). The upper course should be reinforced first.
<b>D</b>	StrucSol Ultrabar to be long enough to extend a minimum of 500mm beyond each side of the opening.
<b>E</b>	Any fractures in the masonry within the 'beam zone' MUST be stabilised by crack-stitching, TE resin or replacement of the masonry.
<b>F</b>	Depth of hole to be Grout Tie length +25mm.
<b>G</b>	Any missing or very poor quality masonry MUST be replaced.
<b>H</b>	If existing wall ties are defective in any way, additional StrucSol Remedial Wall Ties should be installed.
<b>I</b>	In hot conditions,, ensure the masonry is well wetted or primed to prevent premature curing of the StrucSol HSGrout due to rapid de-watering. Ideally additional wetting of the holes and slots or priming with water, should be carried out just prior to injecting the StrucSol HSGrout.
<b>J</b>	Do not use StrucSol HSGrout when the temperature is 4°C and falling, or apply over ice. In all instances, the holes and slots MUST be thoroughly damp or primed prior to injection of the StrucSol HSGrout.
<b>K</b>	In any areas where there is instability in the soldier course it would be best to use a drive fit tie based solution due to the requirement for smaller pilot holes and the instantaneous effect of the repair .
The above specification notes are for general guidance only and StrucSol reserve the right to amend as necessary.	

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