

REPAIR OF FAILED SOLID BRICK ARCH LINTELS USING STRUCSOL ULTRABAR AND MECHANICAL REMEDIAL TIES (1 OF 2)

Recommended Tooling

- For cutting slots 40mm deep or over: Twin-bladed cutter with a vacuum attachment.
- For drilling and Tie installation: SDS rotary hammer drill 650 / 700w and rotary percussion drill.
- For mixing StrucSol HSGrout: 3-jaw chuck drill with a mixing paddle.
- For injection of StrucSol HSGrout: Applicator gun with nozzle.
- For installation of Mechanical Remedial Wall Ties: Power Support Tool.
- 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

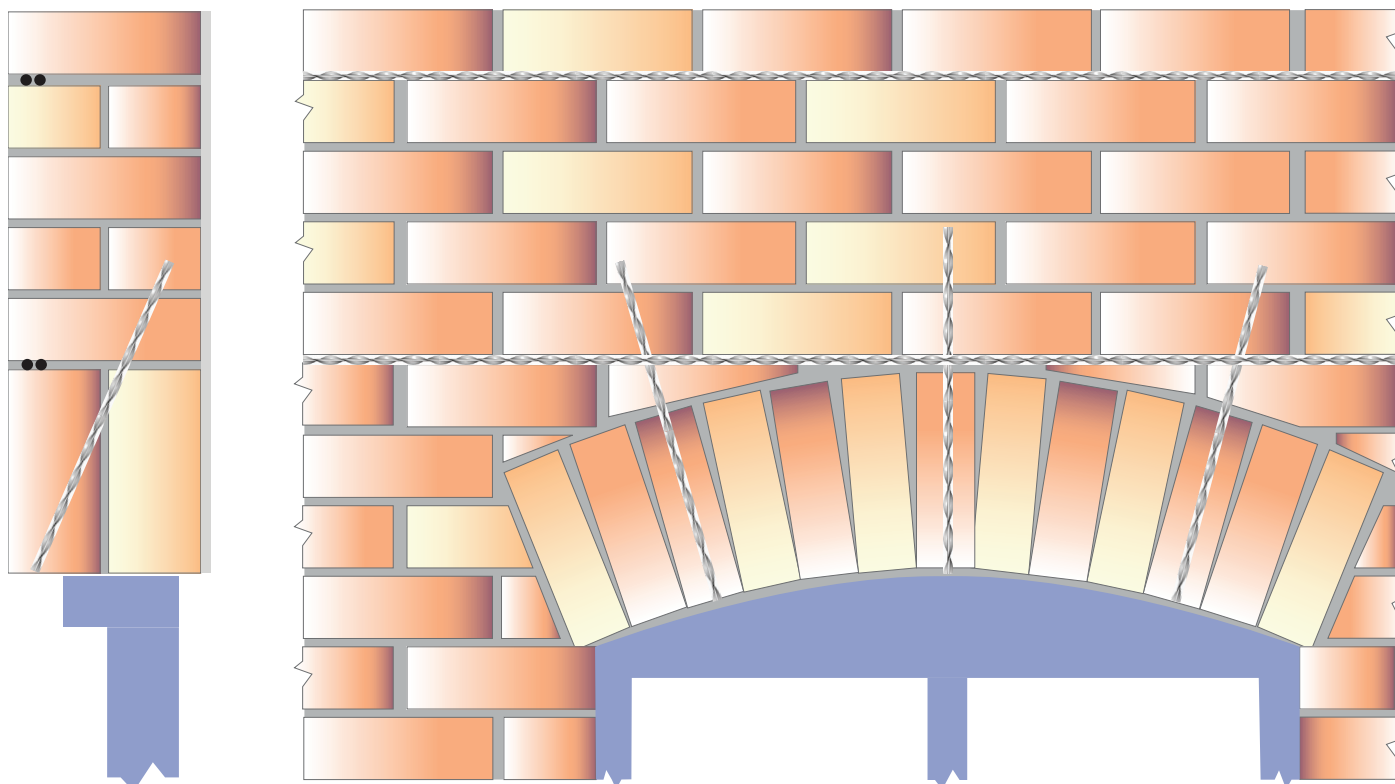
If you require specific advice on your project, please call the StrucSol technical help line 0116 2375082. We can supply a full support service which includes:

- 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 the positions for the Grout Tie holes on the underside of the soldier course.
 3. Drill 6mm pilot holes 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 Ultrabar (where installed) and penetrate at least 50mm into the course of masonry above the reinforcing.
 4. Remove all dust and thoroughly flush with water. Ensure the slots are damp or primed prior to commencing steps 6 and 14.
 5. Mix StrucSol HSGrout cementitious grout and put into the StrucSol Crack-stitching 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 Ultrabar 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.
 - * Repeat steps 6 to 10 for installation of the StrucSol Ultrabar in the lower slot.
 11. Put the Power Support Tool into the SDS rotary hammer drill, turn to hammer only and place tie in the tool.
 12. Install the tie into the pre-drilled holes until the tie is fully driven home by the Power Support Tool.
 13. 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.
 14. Clean tools with clean, fresh water.
- *Pointing may be carried out as soon as the StrucSol HSGrout has started to set and gel.*

REPAIR OF FAILED SOLID BRICK ARCH LINTELS USING STRUCSOL ULTRABAR AND MECHANICAL REMEDIAL TIES (2 OF 2)



SPECIFICATION NOTES

A	Depth of slot into the masonry to be 45mm to 55mm.
B	Height of slot to be equal to full mortar joint height, (minimum 10mm). For thin mortar joint specifications refer to StrucSol Technical Dept..
C	Top and bottom reinforcements should be positioned as far apart as practicable, up to a max. distance equivalent to 12 brick courses (approx. 900mm). The upper course should be reinforced first.
D	StrucSol Ultrabar to be long enough to extend a minimum of 500mm beyond each side of the opening.
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	In hot conditions, ensure the masonry is well wetted to prevent premature curing of the StrucSol HSGrout due to rapid de-watering. Ideally additional wetting of the slot should be carried out just prior to injecting the StrucSol HSGrout.
H	Do not use StrucSol HSGrout when the air temperature is 4°C and falling, or apply over ice. In all instances, the slot MUST be thoroughly damp or wetted prior to injection of the StrucSol HSGrout. Ensure the grout is stored in a shaded and cool area prior to use.
The above specification notes are for general guidance only and StrucSol reserve the right to amend as necessary.	