

MASONRY ARCH CIRCUMFERENTIAL BEAMING AND PINNING USING STRUCSOL ULTRABAR AND GROUT TIES (1 OF 2)

Recommended Tooling

- For cutting slots up to 40mm deep: Twin bladed cutter with vacuum attachment.
- To achieve final depth of slot beyond 40mm: Hand or power chisel.
- For drilling: SDS rotary hammer drill 650 / 700w.
- For mixing Cementitious Grout: 3-jaw chuck drill with mixing paddle.
- For injection of Cementitious Grout into slots: Pointing Gun Kit HD with Mortar Nozzle.
- For insertion of the Grout Ties: Pointing Gun Kit HD 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

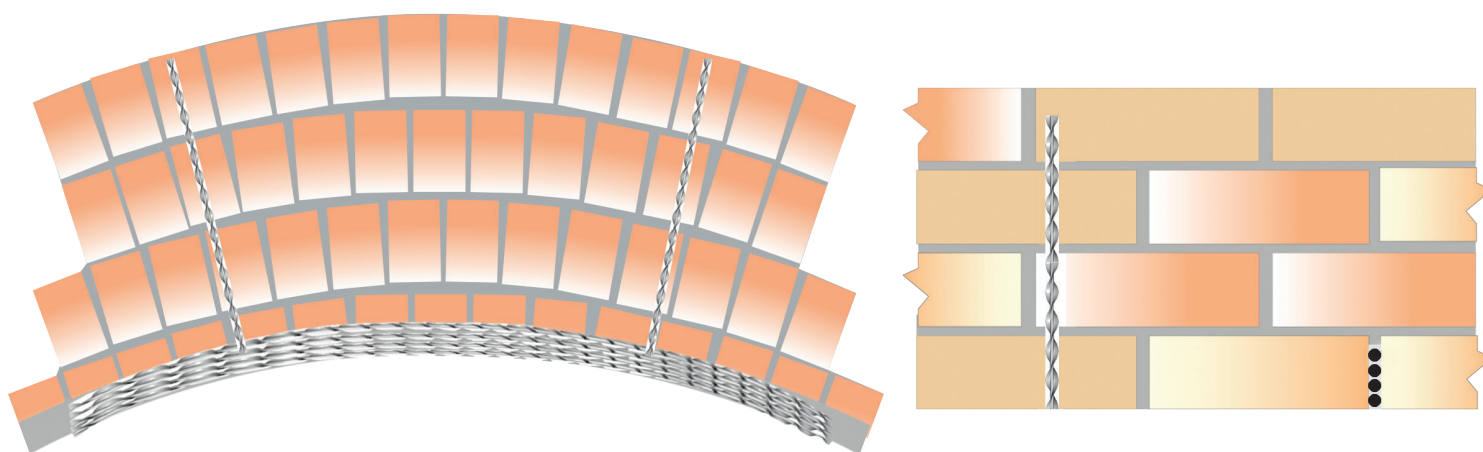
If you require specific advice on your project, please call the StrucSol technical help line 0116 2375082. We can supply a full support service which includes:

- Advice and assistance on all structural matters.
 - Preparing repair proposals for specific projects.
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- *Pointing may be carried out as soon as is convenient after the StrucSol HSGROUT has started to gel.*
 - *If there is a lot of movement in the arch, then the ties will have to be installed in phases. After each phase, the ties should be left for 24 hours for the grout to achieve initial set. After 24 hours continue with the next phase.*

Method Statement:

1. Using a twin-bladed diamond-tipped wall chaser with vacuum attachment followed by a hand or power chisel, cut slots into the longitudinal mortar joints to the specified depth and at the required lateral spacing. Ensure that NO mortar is left attached to the exposed brick surfaces in order to provide a good masonry / grout bond.
2. Mark locations for the Grout Ties on the underside of the arch at the required spacing.
3. Drill 14mm clearance holes (16mm if the Grout Tie is longer than 450mm) to the required depth and at the specified spacing.
4. Clean out ALL dust and mortar from the slots and holes and thoroughly flush with water. Ensure the slots and holes are damp or primed prior to commencing steps 9 and 11.
5. Attach the required length of the Grout Tie Pinning Nozzle to the gun.
6. Mix StrucSol cementitious grout with a power mixer and load into a Pointing Gun HD.
7. Pump grout to fill the nozzle.
8. Wind the Grout Tie into the nozzle and ensure that it is fully covered in grout.
9. Insert the nozzle to the full depth of the drilled hole and pump the grout until the Grout Tie is fully embedded.
10. Remove pinning nozzle and fit Mortar Nozzle.
11. Inject a bead of cementitious grout, approx. 15mm deep, into the back of the slot.
12. Push the first 6mm StrucSol Ultrabar into the grout to obtain good coverage.
13. Inject a second bead of grout over the exposed StrucSol Ultrabar.
14. Continue to install reinforcing rods as per 10 above until the required number of StrucSol Ultrabar have been installed and iron the final bead into the slot using a finger trowel. Inject additional grout as necessary, leaving 10-15mm for new pointing.
15. Make good the Grout Tie holes and point up the slots with a suitable matching mortar and weather-proof any cracks with an approved StrucSol bonding agent depending on the width of the crack. Make good the surface or leave ready for any decoration.
16. Clean tools with clean, fresh water.

MASONRY ARCH CIRCUMFERENTIAL BEAMING AND PINNING USING STRUCSOL ULTRABAR AND GROUT TIES (2 OF 2)



SPECIFICATION NOTES

The following criteria are to be used unless specified otherwise.

- A** Install the Grout Ties on a staggered grid at nominal 450mm x 450mm centres.
- B** Depth of hole to be Grout Tie length +25mm.
- C** Nominal spacing between slots for StrucSol Ultrabar to be 450mm.
- D** Depth of slot to be 65 to 75mm and full width of the mortar joint.
- E** Number of StrucSol Ultrabar per slot to be 4.
- F** Where StrucSol Ultrabar have to be joined in long runs, a minimum of 500mm overlap should be allowed and joints should be staggered.
- G** Any fractures in the masonry within the 'beam zone' MUST be stabilised by crack-stitching, TE resin or replacement of the masonry.
- H** Any missing or very poor quality masonry MUST be replaced.
- I** In hot conditions, ensure the masonry is well wetted or primed to prevent premature curing of the grout due to rapid de-watering.
- J** In all instances, the hole MUST be thoroughly damp or primed prior to injection of the grout.

The above specification notes are for general guidance only and StrucSol reserve the right to amend as necessary.

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Please always wear the appropriate safety and protective clothing when installing fixing and anchor products. Always observe the necessary Health & Safety guidelines.

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