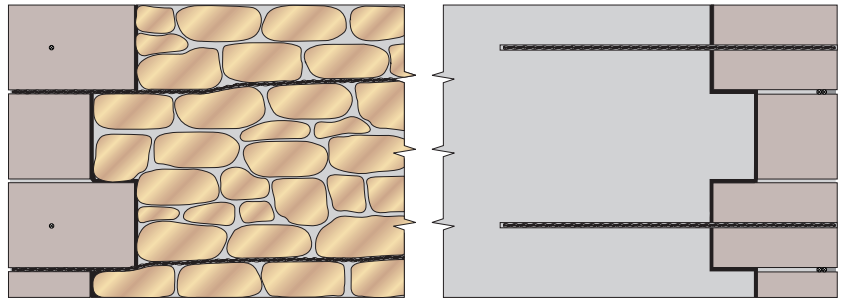


# Repair of Stone Quoins on Random Stone Walls using CemTies and HeliBars

## Method Statement

1. Mark the positions for the holes on the outer face of the wall.
2. Drill a 16mm clearance hole at the required location through the brick stone and into the backup material to the required depth.
3. Using a twin-bladed, diamond-tipped wall chaser and vacuum attachment, cut slots into the horizontal mortar joints, to the specified depth and at the required vertical spacing. Ensure that **NO** mortar is left attached to the exposed brick and stone surfaces in order to provide a good masonry/grout bond. This operation may require the use of hand tools to remove the mortar due to the random nature of the stone.
4. Clean out ALL dust from the holes and slots and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use Helifix WB Primer. Ensure the holes and slots are damp or primed prior to commencing steps 8 and 9.
5. Attach the required length of CemTie pinning nozzle to the gun.
6. Mix HeliBond cementitious grout using a power mixer and load into the Helifix Pointing Gun Kit HD.
7. Pump grout to fill the nozzle.
8. Wind the CemTie 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.
10. Inject a bead of HeliBond grout, approx. 15mm deep, into the back of the slot using the mortar nozzle.
11. Push the 6mm HeliBar into the grout to obtain good coverage.
12. Insert a second bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. Inject additional HeliBond as necessary, leaving 10-15mm for new pointing.
13. Make good all slots and holes at the surface with matching mortar or leave ready for any decoration.

N.B. Pointing may be carried out as soon as is convenient after the HeliBond has started to gel.



## Recommended Tooling

For cutting slots up to 40mm deep: Hilti DC-SE 20 wall chaser or similar with vacuum attachment.

For drilling: SDS rotary hammer drill 650/700w or diamond core drill.

For mixing HeliBond: 3-jaw-chuck drill with mixing paddle.

For injection of HeliBond into slots: Helifix Pointing Gun Kit HD with mortar nozzle.

For insertion of the CemTies: Helifix Pointing Gun Kit HD with pinning nozzle.

For smoothing pointing: Standard finger trowel.

## General Notes

If your application differs from this repair detail or you require specific advice on your particular project, call the Helifix Technical Sales Team on 020 8735 5222. Our Technical Department can provide you with a full support service including:

- Advice, assistance and recommendations on all structural repair matters
- Devising and preparing complete repair proposals for specific situations
- An insurance-backed warranty via our Approved Installers scheme

## SPECIFICATION NOTES

The following criteria are to be used unless specified otherwise:

- A** CemTies and HeliBar to be installed at a vertical spacing of 450mm.
- B** CemTies and HeliBar to extend at least 500mm past the join between the quoin and wall.
- C** Depth of hole to be CemTie length +25mm.
- D** CemTies are to be installed within the centre third of the wall.
- E** Depth of slot into the masonry to be 35 to 40mm.
- F** Height of slot to be equal to full mortar joint height, with a minimum of 8mm. For thin mortar joint specifications refer to the Helifix Technical Dept.
- G** In hot conditions ensure the masonry is well wetted or primed to prevent premature curing of the HeliBond due to rapid de-watering. Ideally additional wetting of the holes and slots should be carried out just prior to inserting the CemTies and HeliBar.
- H** Do not use HeliBond when the air temperature is +4°C and falling or apply over ice. In all instances the holes and slots must be thoroughly damp or primed with Helifix WB primer prior to injection of the HeliBond grout.

The above specification notes are for general guidance only and Helifix reserves the right to amend details/notes as necessary.