

Repair to Cracked Masonry

Cracking has been discovered to the existing masonry walls at first floor level, in the corridor to the north of the main staircase. Photos 01 and 02 below show the walls to the western and eastern ends of the corridor respectively.

Both cracks are to be repaired using HeliBars by Helifix Ltd (or similar), as per the attached manufacturer's literature. In order to do this, the plaster finishes to the walls in the corridor are to be removed locally. No finishes to the rooms outside of this corridor will be removed.

Approximate HeliBar locations are shown in yellow on the photos.



01 Western end of first floor corridor



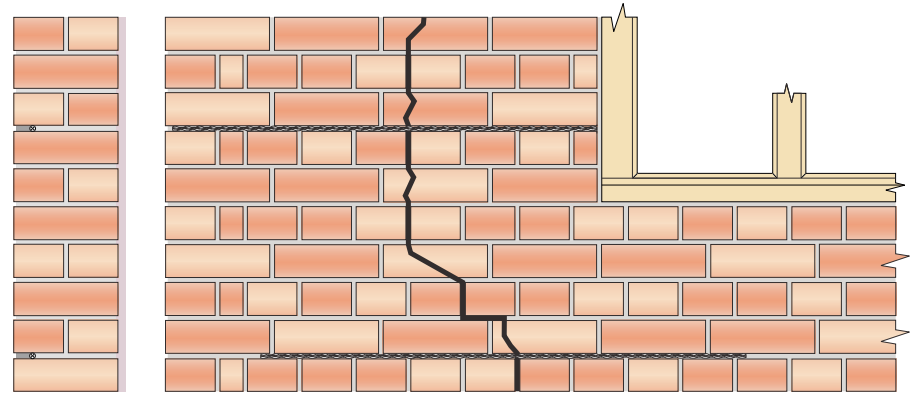
02 Eastern end of first floor corridor

Crack Stitching a Solid Wall using HeliBars

METHOD STATEMENT

1. Using a twin-bladed, diamond-tipped wall chaser with 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 surfaces in order to provide a good masonry/grout bond.
2. Remove ALL dust and mortar from the slots and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. Ensure the slot is damp or primed prior to commencing step 5.
3. Mix HeliBond cementitious grout using a power mixer and load into the Helifix Pointing Gun CS.
4. Fit the appropriate mortar nozzle.
5. Inject a bead of HeliBond grout, approx. 15mm deep, into the back of the slot.
6. Push the 6mm HeliBar into the grout to obtain good coverage.
7. Inject 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.
8. The crack within the wall should be weather-proofed using an appropriate Helifix bonding agent e.g. HeliBond or CrackBond, depending on the width of the crack and the surface made good or left ready for any decoration.
9. Clean tools with clean, fresh water.

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**Twin bladed cutter with vacuum attachment
- For mixing HeliBond**3-jaw-chuck drill with mixing paddle
- For injection of HeliBond into slots**Helifix Pointing Gun CS with mortar nozzle
- For smoothing pointing**Standard finger trowel

Specification Notes

The following criteria are to be used unless specified otherwise:

- A. Depth of slot into the masonry to be 35mm to 40mm.
- B. 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.
- C. HeliBar to be long enough to extend a minimum of 500mm either side of the crack or 500mm beyond the outer cracks if two or more adjacent cracks are being stitched using one rod.
- D. Normal vertical spacing is 450mm (6 brick courses).
- E. Where a crack is less than 500mm from the end of a wall or an opening, the HeliBar is to be continued for at least 100mm around the corner and bonded into the adjoining wall or bent back and fixed into the reveal, avoiding any DPC.
- F. 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 slot, or priming with HeliPrimer WB, should be carried out just prior to injecting the HeliBond grout.
- G. Do not use HeliBond when the air temperature is +4°C and falling or apply over ice. In all instances the slot must be thoroughly damp or primed 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.

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