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Repair of a crack near a corner in a stone wall using HeliBars

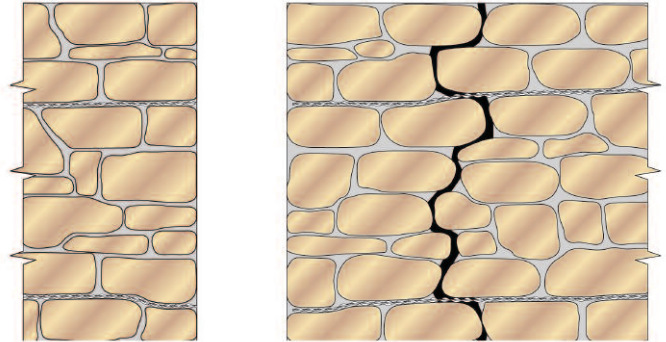
Product	Description	Code
HeliBar	Grade 316 stainless steel reinforcement	HBR
HeliBond	Injectable cementitious grout	HLB
HeliPrimer	Water-based primer for porous substrates	HWB
CrackBond	Epoxy resin for filling cracks	HCB

METHOD STATEMENT

- Using an appropriate power cutting tool with vacuum attachment, cut slots into the horizontal mortar joints, to the specified depth and at the required vertical spacing.* Ensure that as much mortar is removed as possible from the exposed 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.
- Clean out all dust and loose 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.
- Mix HeliBond cementitious grout thoroughly using a drill and mixing paddle and load into the Helifix Pointing Gun.
- Fit the mortar nozzle to the pointing gun.
- Inject a bead of HeliBond grout, 10-15mm deep, into the back of the slot.
- Push the 6mm HeliBar into the grout to obtain good coverage.
- Repeat steps 5 and 6 as required to install all specified HeliBars into the slot.
- Inject a final bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. Inject additional HeliBond grout as necessary, leaving 10-15mm for new pointing.
- Point up the remaining slot with a suitable matching mortar and make good the crack using an appropriate Helifix bonding agent or filler, e.g. CrackBond, depending on the width of the crack.
- Clean tools with clean, fresh water.

NOTE. Pointing may be carried out as soon as is convenient after the HeliBond has started to gel. Ensure that pointing does not disturb the masonry/HeliBond connection.

CAUTION. Always locate, identify and isolate any electrical, water or gas services which may be present in the wall or the wall cavities and can pose a safety risk before drilling or cutting. Always take the necessary safety precautions. Use electrical safety gloves and wear appropriate footwear and eyewear.



RECOMMENDED TOOLING

For cutting slots.....Chisel, mortar saw (e.g. Arbortech All Saw) or angle grinder with dust guard (e.g. C-Tec) and vacuum

For mixing HeliBond.....Drill with mixing paddle

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

For smoothing pointing.....Standard finger trowel

* Specification Notes

The following criteria are to be used unless specified otherwise:

- Allow for the installation of one HeliBar for each 100mm of wall thickness into each cut slot. By example, a common 200mm solid stone wall construction will require the installation of two HeliBars per slot. A 300mm solid wall construction will require three HeliBars per slot.
- Depth of slot into a common 200mm stone wall to be 35mm to 40mm. Add 10mm for each additional 100mm of wall thickness.
- Height of slot to equal full mortar joint height, with a minimum of 8mm.
- 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.
- Normal vertical spacing is 425mm.
- Where a crack is less than 300mm 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.
- In hot conditions ensure the masonry is well wetted or primed to prevent premature drying 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.

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

GENERAL NOTES

- Helifix product details available at www.helifix.com.au.
- If your application differs from this repair detail or you require specific technical information, call Helifix on 1300 66 70 71.