

BLR10

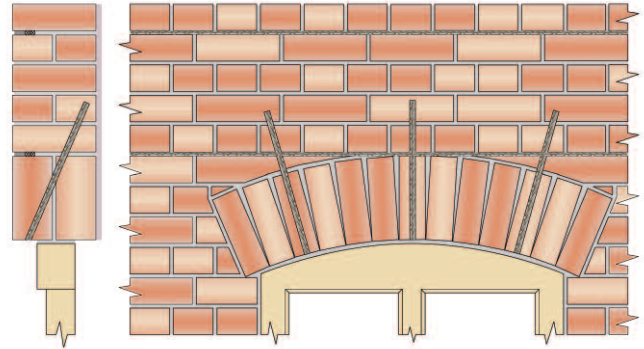
Stabilising failed brick arch lintels using HeliBars and CemTies

Product	Description	Code
HeliBar	Grade 316 stainless steel reinforcement	HBR
CemTie	Grade 316 stainless steel structural pin	HCT
HeliBond	Injectable cementitious grout	HLB
HeliPrimer	Water-based primer for porous substrates	HWB

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.* If the wall is plastered/rendered and the mortar joints are not visible, cut the horizontal slots through any plaster/render and into the masonry. Ensure that as much mortar is removed as possible from the exposed brick surfaces in order to provide a good masonry/grout bond.
- Mark the positions for the CemTie holes on the underside of the soldier course.
- Drill 14–16mm Ø clearance 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 HeliBars and penetrate at least 50mm into the course of masonry above the reinforcing.
- Clean out all dust and loose mortar from the slots and holes and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. Ensure the slot and holes are damp or primed prior to commencing steps 7 and 15.
- 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 cementitious grout, 10-15mm deep, into the back of the slot.
- Push the first 6mm HeliBar into the grout to obtain good coverage.
- Inject a second bead of HeliBond grout over the exposed HeliBar.
- Push the second 6mm HeliBar into the grout to obtain good coverage.
- Inject a third 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.
- Repeat steps 7 to 11 for the lower slot.
- Attach the required length of CemTie pinning nozzle to the pointing gun and pump grout to fill the nozzle.
- Wind the CemTie into the nozzle and ensure that it is fully covered in grout.
- Insert the nozzle to the full depth of the drilled hole and pump the CemTie and grout.
- Repeat steps 13 to 15 for each hole.
- Make good the CemTie holes and point up the remaining slots with a suitable matching mortar.
- 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.



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 drilling**.....SDS rotary hammer drill 650/850w
- For mixing HeliBond**.....Drill with mixing paddle
- For injection of HeliBond into slots**.....Helifix Pointing Gun with mortar nozzle
- For insertion of the CemTies**.....Helifix Pointing Gun with CemTie Pinning Nozzle
- For smoothing pointing**.....Standard finger trowel

* Specification Notes

The following criteria are to be used unless specified otherwise:

- Depth of slot into masonry to 40mm to 55mm.
- Height of slot to equal full mortar joint height, with a minimum of 8mm.
- Top and bottom reinforcements should be positioned as far apart as practicable, up to a maximum distance equivalent to 10 brick courses (approx. 850mm).
- HeliBar to be long enough to extend a minimum of 500mm beyond each side of the opening.
- Any fractures in the masonry within the 'beam zone' MUST be stabilised by crack stitching (see Repair Detail BCS01), CrackBond or masonry replacement.
- Any missing or very poor quality masonry MUST be replaced.
- CemTie length to be sufficient to penetrate at least 50mm into the course of masonry above the reinforcement.
- Depth of hole to be CemTie length + 25mm.
- 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 slots and holes, or priming with HeliPrimer WB, should be carried out just prior to injecting the HeliBond.

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.