

BPWD 1

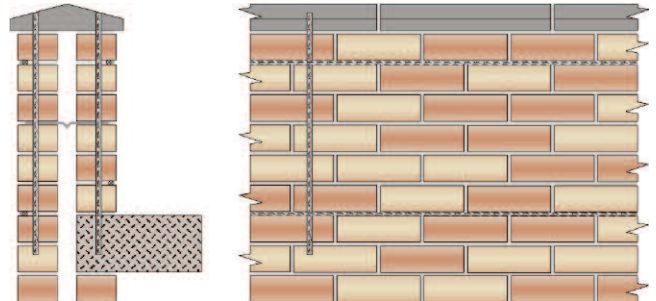
# Securing parapets in cavity walls using HeliBars and CemTies

## METHOD STATEMENT

1. Mark the positions for the CemTie pins onto the top of the wall at the required spacing.\*
2. Drill the clearance holes to the specified depth.\* The holes should measure 14–16mm Ø if installing 8mm Ø CemTies. Drill 16–18mm Ø clearance holes if installing 10mm Ø CemTies.
3. 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 brick surfaces in order to provide a good masonry/grout bond. If the wall is rendered and the mortar joints are not visible, cut the horizontal slots through the render and into the masonry.
4. 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 slots and holes are damp or primed prior to commencing steps 9 and 11.
5. Attach the required length of CemTie Pinning Nozzle to the Helifix Pointing Gun.
6. Mix HeliBond cementitious grout thoroughly using a drill and mixing paddle and load into the gun.
7. Pump grout to fill the nozzle.
8. Wind the CemTie into the nozzle and ensure that it is fully covered in grout. (Alternatively, fill the hole with grout and wind the CemTie into the grout-filled hole.)
9. Insert the nozzle to the full depth of the drilled hole and pump the grout. Slowly withdraw the nozzle while pumping. The CemTie will be carried out with the HeliBond grout as it is forced through the nozzle. Back pressure will help to push the nozzle back out of the hole.
10. Remove the pinning nozzle and fit the mortar nozzle.
11. Inject a bead of HeliBond cementitious grout, 10-15mm deep, into the back of the slot.
12. Push the 6mm HeliBar into the grout to obtain good coverage.
13. 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.
14. Complete CemTie and HeliBar installation for both inner and outer skins.
15. Make good all CemTies holes and point up the remaining slots with matching mortar to suit.
16. 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 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:

- A. CemTies are to be installed within the centre third of each brick skin of the wall and at a horizontal spacing of 900mm centres. The ties are to extend at least 225mm into the main, or sound, part of the wall.
- B. Depth of hole to be CemTie length +25mm.
- C. HeliBars to be installed at a depth of 35mm to 40mm and at a maximum vertical spacing of 340mm (4 brick courses).
- D. Height of slot to equal full mortar joint height, with a minimum of 8mm.
- E. If HeliBars are to be joined in a straight run, overlap the bars by a minimum of 500mm.
- F. Any fractures in the masonry within the 'beam zone' MUST be stabilised by crack stitching (see Repair Detail BCS01), CrackBond or masonry replacement.
- G. Any missing or very poor quality masonry MUST be replaced.
- H. Install Helifix remedial wall ties if existing ties are defective in any way. Refer to Repair Details BRT01–03 for details on Helifix remedial tie installation.
- I. 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](http://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.