

# INSTALLATION

ANZ  
MA01

## Masonry arch pinning using CemTies

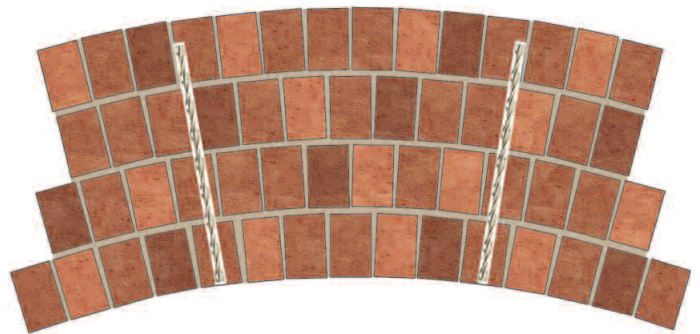
Product	Description	Code
CemTie	Helical stainless steel pin	HCT
HeliBond	Injectable cementitious grout	HLB
HeliPrimer	Water-based primer for porous substrates	HWB

### Method Statement

1. Mark the points for CemTie installation onto the underside of the arch.\*
2. Drill a clearance hole at the required location and to the specified depth and diameter.\*
3. Clean out all dust from the holes and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. Ensure the hole is damp or primed prior to commencing step 8.
4. Attach the required length of CemTie pinning nozzle to the Helifix Pointing Gun so that the flared end of the pinning nozzle sits inside the cone.
5. Mix HeliBond cementitious grout thoroughly using a drill and mixing paddle and load into the gun.
6. Pump grout to fill the nozzle.
7. Wind the CemTie into the nozzle and ensure that it is fully covered in grout.
8. 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.
9. Make good all holes at the surface using either a mixture of sand, cement and oxide colouring to match the original surrounding brick surfaces or a silicone sealant coated with brick dust or drillings.
10. Clean tools with clean, fresh water.

**NOTE.** If there is a lot of movement in the arch then the ties will have to be installed in phases. After each phase the ties should be left for 24 hours for the grout to achieve initial set. After 24 hours continue with the next phase.

**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 drilling .....SDS rotary hammer drill 650/850w  
 For mixing HeliBond .....Drill with mixing paddle  
 For insertion of the CemTies .....Helifix Pointing Gun HD with CemTie pinning nozzle

### \*SPECIFICATION NOTES

The following criteria are to be used unless specified otherwise:

- A. Place CemTies on a staggered 450mm x 450mm grid. Any loose bricks should also be pinned. Refer to Repair Details MA06 or MA07.
- B. CemTie length to be sufficient to penetrate at least 75mm into sound brickwork.
- C. Clearance hole diameter to be:

CemTie Length	Up to 600mm	600 to 1000mm	1000 to 1200mm
Drilled Hole Diameter	14mm	16-18mm	18mm

- D. Depth of hole to be CemTie length + 25mm.
- E. Where arch rings are badly delaminated and/or brickwork is very loose, the CemTies will have to be installed in phases. In this case consideration should be given to using extra ties to help stabilise the brickwork prior to installing the first phase of CemTies. Depending on the condition of the brickwork, it may be possible to use Helifix DryFix ties for this purpose.
- E. 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 hole or priming with HeliPrimer WB should be carried out just prior to inserting the CemTie.

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

### GENERAL NOTES

- Product details available from Helifix.
- Contact Helifix if your application differs from this repair detail or you require specific technical information.