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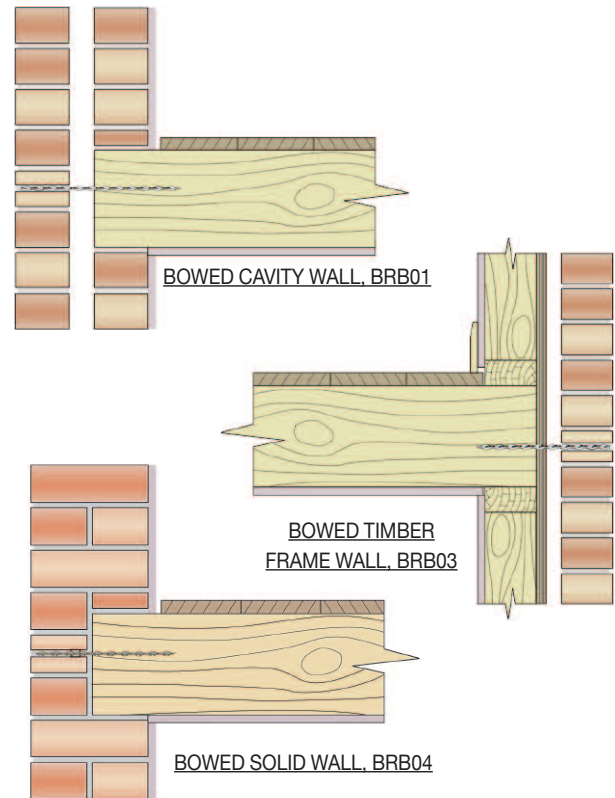
# Restraining a bowed cavity, timber frame or solid wall using BowTies into joist ends

Product	Description	Code
<b>BowTie</b>	Grade 316 stainless steel remedial wall tie	HBT
<b>EpoxyPlus</b>	High performance pure epoxy resin	HTE

## METHOD STATEMENT

1. Mark the positions of the joists on the external wall.
2. Drill the clearance holes for the BowTies (normally 12mm  $\varnothing$ ) through the masonry only and in line with the centre of the joists.
3. Clean out the hole to clear any dust or debris.
4. Insert the BowTie power support tool into an SDS rotary hammer drill and place the BowTie into the support tool.
5. Drive the BowTie into the timber to the required depth. (Refer to the Specification Notes for typical depth requirements.)
6. Place the end of the nozzle of the resin applicator over the exposed end of the BowTie. Masking tape may be placed around the hole to protect the surface of the wall from resin spillage. Cloth may also be wrapped around the nozzle to help seal the opening during installation and protect the wall face from resin spillage.
7. Pump the resin applicator to inject Helifix EpoxyPlus resin into the hole. The resin will track down the tie, following its helical profile. Inject resin until the hole in the near skin is filled completely.
8. Allow the resin to gel (normally 15 to 20 minutes).
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.

**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 and insertion of BowTies .....SDS rotary hammer drill 650/850w  
 For installation of BowTies .....BowTie support tool  
 For injection of Helifix EpoxyPlus resin .....Applicator gun with nozzle

## \* Specification Notes

The following criteria are to be used unless specified otherwise:

- A. BowTie penetration into the end grain of the timber joist must be a minimum of 70mm.
- B. Each joist in the area of concern is to be secured with a BowTie (i.e. spacing of BowTies is to correspond with the original joist spacing).
- C. Ensure that all joists into which BowTies are to be installed are both sound and secure.
- D. 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.

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.