

## REMEDIAL MASONRY REINFORCEMENT

### CRACK STITCHING

Thor Helical 6mm bed joint reinforcement wires are grouted with proprietary Thor DU cementitious grout into slots prepared in existing walls for the purpose of crack repair, increasing flexural strength of masonry to combat the effects of localised ground movement and other forms of distress.

The highly deformed helical profile maximises bonding characteristics between the wire and the Thor DU cementitious grout, providing excellent compressive and axial strength along the full length of the bonded composite. Combining these strengths with the torsional yield characteristics of the wire, the composite unit is utilised to accumulate imposed loads and to disperse them along the full length of the reinforced zone to fully reinstate the structural integrity of distressed masonry and provide resilience against further cracking whilst still accommodating natural masonry movement.

### INSTALLATION

Locations are to be generally as specified, preferably within existing horizontal mortar bed joints although vertical spacing for rendered finishes will be governed by dimension rather than mortar course location. The height of the slot should be a minimum of 10mm

and the minimum slot depth should be as per following table - making allowances for any rendered or plaster finishes.

#### CRACK STITCHING GUIDE

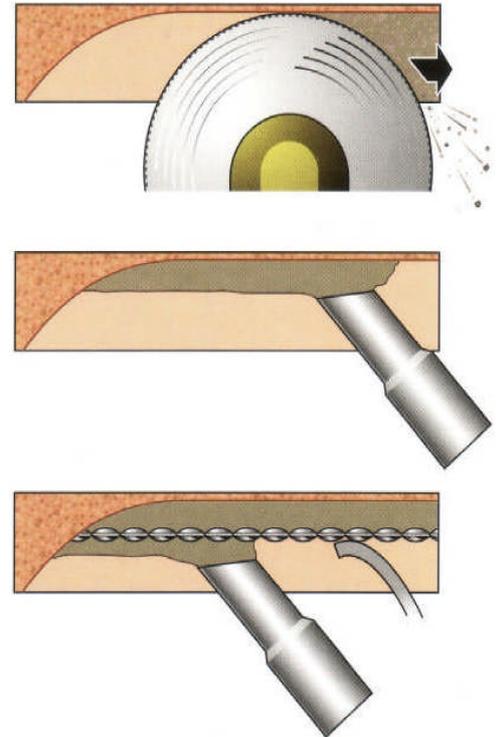
Wall Type	Cavity	Solid
Slot depth	30mm	40mm
Wire depth	25mm	35mm
Grout beads	2	2
Spacing	340mm	340mm

Slots should be free of dust and mortar to ensure the D.U. Grout bonds to exposed upper and lower brick surfaces. Slots should be thoroughly flushed with water or treated with a suitable primer.

Thor D.U. cementitious grout must be applied with a flattened grout nozzle to the back of the slot and, following insertion of the Thor Helical crack stitch wire, a second bead of grout is to be applied to cover the wire and provide a rebated finish, where re-pointing is required, or filled flush with mortar, for a re-plastered finish, in accordance with the specifications.

Thor Reinforcement wires are available in lengths of 1, 1½ and 2 meter and in use they should extend a minimum of 500mm beyond any opening or crack. Where installation occurs within 500mm of an opening or corner the wire must

extend and be bonded a minimum of 100mm around the corner.



### MOVEMENT JOINTS

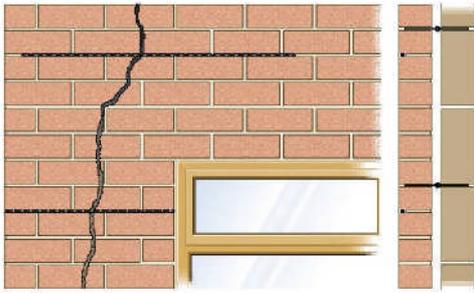
6mm Thor Helical ties can be used for planar reinforcement at expansion joints. The tie is grouted one side only and is sleeved in the other. The tie should extend 250mm either side of joint to permit expansion\contraction whilst providing resilience against out of plane movements.

#### EXPANSION JOINT GUIDE

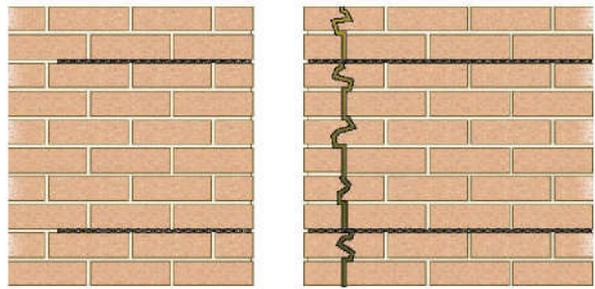
Wall Type	Cavity	Solid
Slot depth	40mm	70mm
Wire depth	35mm	65mm
Grout beads	2	2
Spacing	255mm	255mm



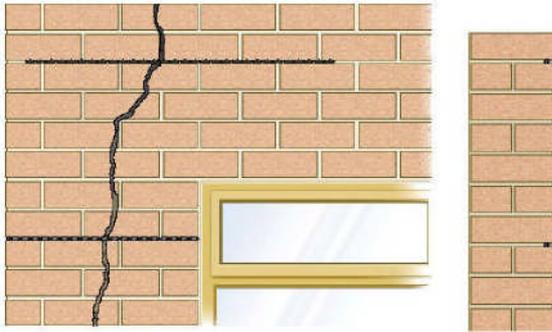
Graphics for Illustrative Purposes Only.



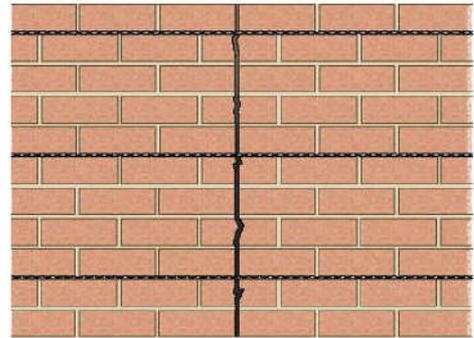
Cavity Wall – Additional wall ties may be required



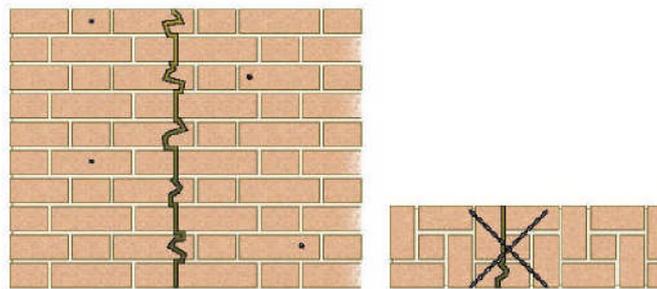
Corner Crack Stitching Solid 230mm wall



Solid 230mm Wall

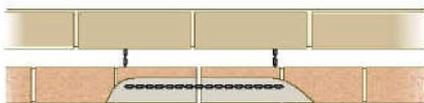
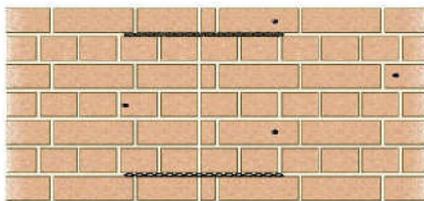


Solid 230mm wall



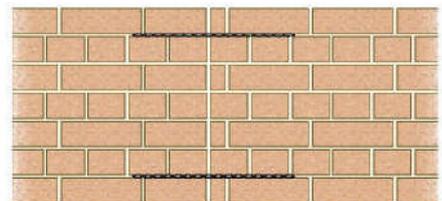
Thor 9mm D.U. Grouted Ties Cross Stitching a Cracked 350mm Solid Wall  
(Cosmetic crack repair to walls having architectural patch resistant renders)

**Thor 6mm Remedial Expansion Ties.**



Cavity Walls

(Additional Thor Remedial Wall Ties Recommended.)



Solid Walls

Further information is available on [www.thorhelical.com.au](http://www.thorhelical.com.au)

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