

Alternatively the installation of heavy-duty drive pins can be used for reinforcing external corners, tying to tie the corner junction to its flanking walls at regular intervals.

Vertical cracks are common at corners of masonry buildings. These fractures can occur for a variety of reasons including thermal/ moisture movement. Perpendicular walls may expand towards each other in the direction of the corner, causing rotation of the brickwork and eventual cracking in the masonry at the near the corner. Alternatively fractures can occur because of differential movements in a wall, for example where a bulging flank wall meets a straight and stable corner.

### Reinforcing external corners with crack stitching bars

A series of helical bars, bent at a right angle are bonded into slots with Thor Grout a highly durable thixotropic cementitious grout. The bars form layers of concealed reinforcement for stitching cracks at a corner of a building, wrapping around the corner to improve buttressing.

### Stitching cracks at a corner of a building with long drive pins

A series of long drive-in helical wall ties are driven from the corner of a building into the both flanking walls to form a succession of perpendicular tie straps. The 9mm diameter ties corkscrew into small 6mm pilot holes when driven with the impact action from an SDS hammer-drill. The tie grips the brickwork along the entire length of the helix to provide a tension strap that reconnects and strengthens masonry adjacent to the cracked corner.

Both methods of stitching cracks at a corner of a wall have been independently tested in accordance with BS EN 846-4:2002 'Methods of Test for Ancillary.



### COMPONENTS FOR MASONRY – PART 4

Determination of load capacity and load-deflection characteristics of straps'. BS EN 845-1:2013 National Annex NA states that the strap needs to provide an equivalent performance to 30mm x 5mm tension straps and that the fitted straps should have a tensile load capacity of at least 8kN. This performance criterion is exceeded when reinforcing external corners of brickwork using either the Thor Helical bed-joint reinforcement bars or the heavy duty drive pins.