Installation Guide

Ancon Staifix-Thor Helical Crack Stitching Kit

The high strength, non-disruptive repair solution

This kit contains all the necessary components to permanently repair vertical or stepped cracks in masonry. Experts in the remedial market have designed the kit's contents, guaranteeing the correct specification and the compatibility of reinforcing bar, grout and installation tools required for this application.

Stainless steel helical bars are chemically bonded into horizontal slots cut in bed joints which stitch across the crack. When installed, these bars evenly redistribute tensile forces over the reinforced area to stabilise the structure. On completion, the bars and the grout are concealed, retaining the original character of the wall.

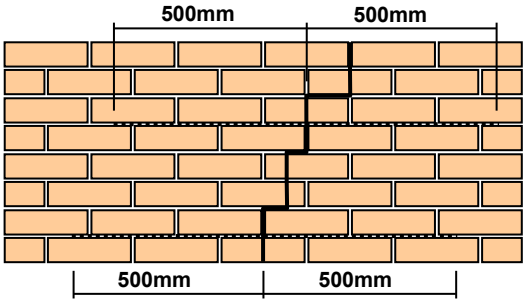
Cracks are repaired with no further damage to the wall, no costly or lengthy re-construction work and no inconvenience to the building's inhabitants.

Recommended Equipment (not included)

- Twin-bladed diamond-tipped wall chaser with vacuum attachment
- Three-jaw chuck power drill
- Personal protection equipment—gloves, eye wear and dust mask

Application Guidance

Wall Thickness	Slot Depth	Helical Bar Depth
102mm	30mm	20mm
215mm	40mm	30mm



Important

It is essential that the cause of the cracking is established by a structural engineer and then eliminated, prior to the installation of this system.

Surface Preparation

1. Proposed substrate must be sound.
2. Substrate surfaces to be bonded must be clean and free from oils, organic growth, dust and debris. The substrate must be wetted and in a moist condition. Standing water to be avoided.
3. In hot conditions and porous substrates ensure the masonry is well wetted before AND after grout application. To wet the substrate after grout application use wetted hessian over the works.
4. If wetting proves ineffective, prime the substrate to prevent premature curing of the grout.

Step-by-Step Installation Guidance

1. Cut a slot in the mortar joint to the specified depth that extends just over 500mm each side of the crack (recommended equipment: Twin-bladed diamond-tipped wall chaser). Ensure the mortar is completely removed to reveal the top and bottom faces of the masonry. Prepare surface for grout (see 'Surface Preparation' above).
2. Connect the paddle to a power drill, blend the components of the grout together in the tub and load into the gun. Apply a continuous bead (approximately 10-15mm thick) to the back of the slot.
3. Push the helical bar into the face of the grout, to the depth specified, so that the bar extends 500mm each side of the crack.
4. Apply a second, continuous bead of grout to the slot, ensuring the bar is covered. With the finger trowel force the grout back into the slot 10mm from the surface, and ensure the bar/grout composite is tightly packed.
5. Make good the bed joint and fill the vertical crack with an appropriate filler or mortar.

Notes

This system is suitable for conventional brickwork and rendered/plastered walls. Vertical spacing is normally every 4 to 6 brick courses (300 - 450mm), however this should be checked with the structural engineer. Where cracks are within 500mm of corners or reveals, the bar should be bent and bonded 100mm around the corner. If two or more cracks are close together, bars can be lapped. Laps should be at least 500mm and the bar should extend 500mm from the outer cracks.

Technical Support

Call +44 (0) 114 238 1238 for technical advice or contact your local Ancon Staifix-Thor Helical distributor.