

# Crack Stitching Wall Repair

## Description

Helical crack stitching rods are available in 1, 1.5 and 2 meter lengths.

The crack stitching ties are grouted into existing masonry to repair cracks in walls and to increase their flexural strength.

WHO60<sup>®</sup> is a thixotropic, shrink compensated cement-based grout with polymer additives. The grout sets in and around the troughs of the helix and rapidly develops compressive strength to restrict axial deflection of the rod under load conditions.

## Benefits

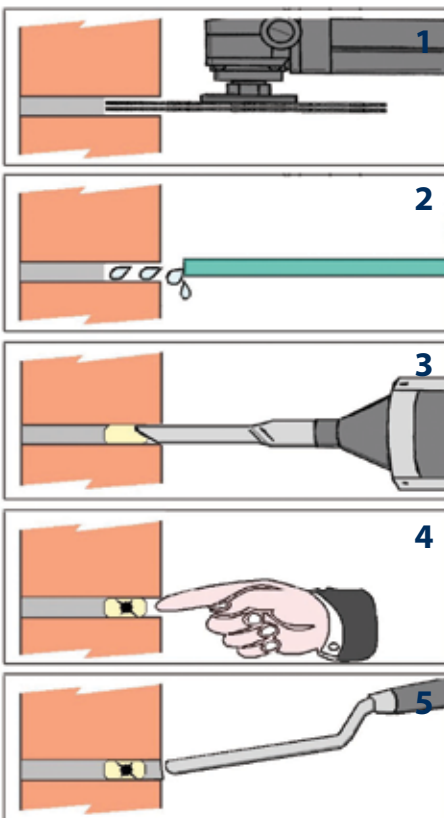
Retrospectively applied helical bed joint reinforcement enables crack repairs to be made discreetly and with minimum disturbance. The repair restores the structural integrity of masonry and provides resilience against further cracking.

Rendered walls can have crack stitch ties installed directly into masonry units to bind them together and, where shear strength is an issue, to permit use of diagonal reinforcement and/or use of heavy duty rods.

## Distinction

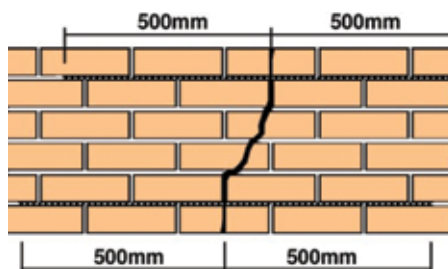
Radial fins and ribs are formed on stainless steel wire in a cold rolling process that significantly increases its tensile strength.

The profiled wire is twisted via torsional stresses that are so evenly applied that the resulting helix is formed with precise pitch accuracy, (European Patent No 1307303) making Thor Helical crack repair rods the most consistent and reliable helical wire products available



## Method statement

1. Chase slots at 300mm intervals along a length of wall that extends 500mm each side of crack.
2. Clear loose detritus from slots and flush thoroughly with water,
3. Pump bead of WHO60<sup>®</sup> cement grout to rear of slot, filling it evenly to approximately two thirds full.
4. Push helical crack stitching tie into grout to approximately two thirds of slot depth. Trowel displaced grout to firmly encapsulate rod.
5. Make good wall chase to disguise slot. Repair cracks between the helically reinforced masonry with appropriate and discreet filler.



## Product specification Reinforcing Bar

**Material:** Austenitic Stainless steel -(304)  
**Ultimate Tensile Strength:**  
= 1050-1200N/mm<sup>2</sup>  
5mm Rod – Nom. CSA = 6 mm<sup>2</sup>  
6mm Rod – Nom. CSA = 7mm<sup>2</sup>  
7mm Rod – Nom. CSA = 9mm<sup>2</sup>  
8mm Rod – Nom. CSA = 12mm<sup>2</sup>  
9mm Rod – Nom. CSA = 15mm<sup>2</sup>

**WHO60<sup>®</sup> Grout at 28 Days at 20°c**  
**Compressive Strength:** = 55N/mm<sup>2</sup>  
**Tensile Strength:** = 5N/mm<sup>2</sup>  
**Flexural Strength:** = 12N/mm<sup>2</sup>

### CRACK REPAIR GUIDE

Tolerances = + 5mm / - 0mm

MASONRY	DEPTH OF		
	SLOT	GROUT	ROD
102mm	30mm	20mm	20mm
215mm	45mm	30mm	30mm

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