

## CRACK STITCHING



### MASONRY CRACK STITCHING SYSTEM

#### DESCRIPTION

- High tensile 316 grade stainless steel helical reinforcement bars.
- Tensile strength twice that of rebar.
- Use with Thor high performance grout.
- Independently performance tested and CE marked.

#### APPLICATION

- Reconnects and strengthens cracked brickwork.

#### BENEFITS

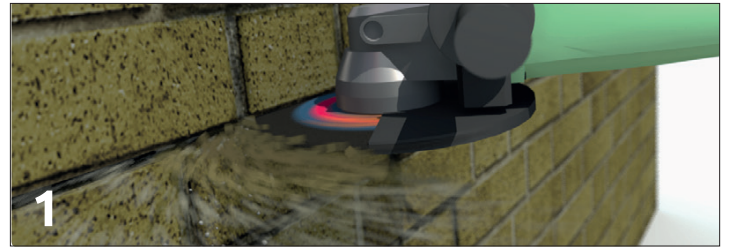
- Deep interlocking helix offers excellent bonding characteristics.
- Increases tensile and shear strength of masonry.
- Accommodated thermal and moisture movement.
- Absorbs stress to redistribute load.
- Minimal disturbance and fully concealed repair.
- Quick, reliable and cost effective.

#### PRODUCT SPECIFICATION

Thor Helical crack stitching bars are available in:  
 6mm Diameter, 1m and 6m length  
 9mm Diameter, 1m and 2m length

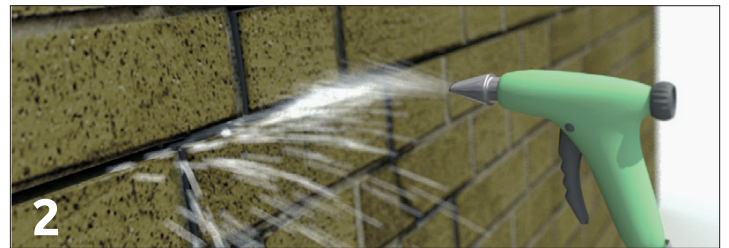
#### Step 1

Grind out mortar bed to a depth of 30mm for half brick wall or 40mm full brick wall, 50mm either side of the crack.



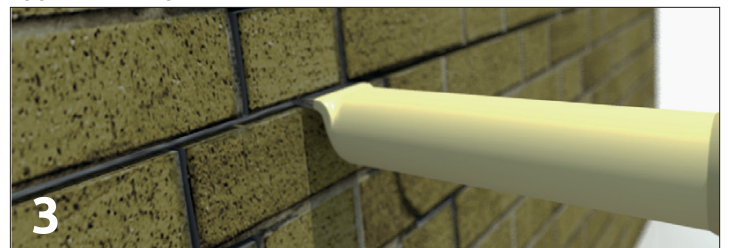
#### Step 2

Clear debris from the slot and thoroughly flush out with water.



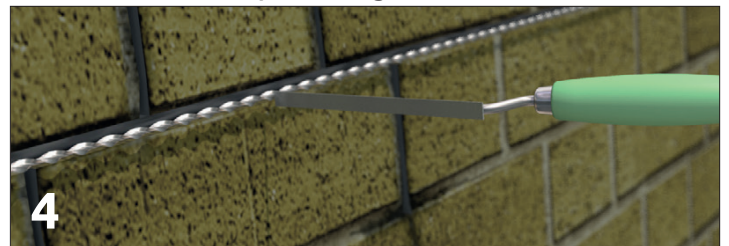
#### Step 3

Pump a bead of Thor grout to the back of the slot to approximately 10mm from the surface.



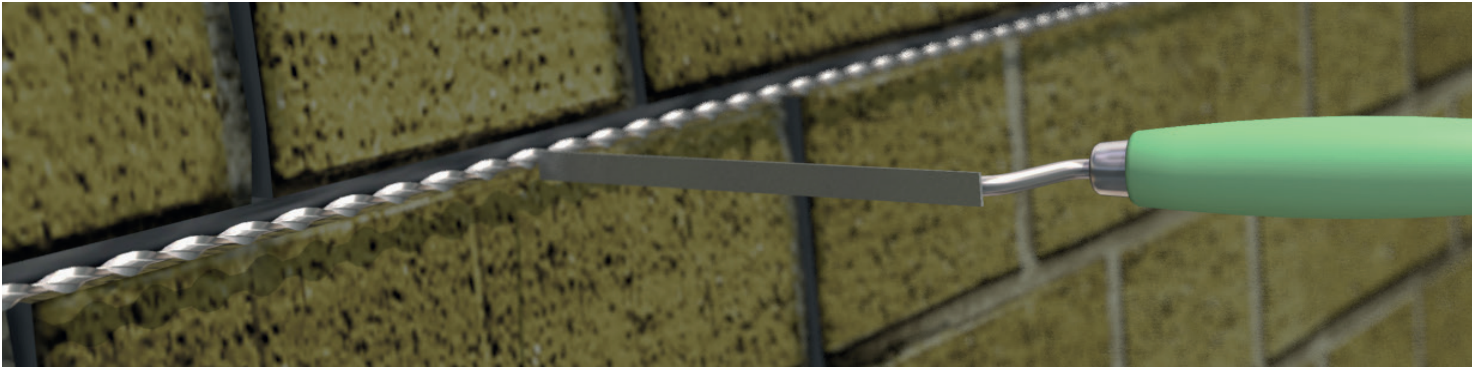
#### Step 4

Push Thor bar half way into the grout-filled slot, trowel back.



Conforms to BS EN 845-1: 2013 and conditions for CE marking

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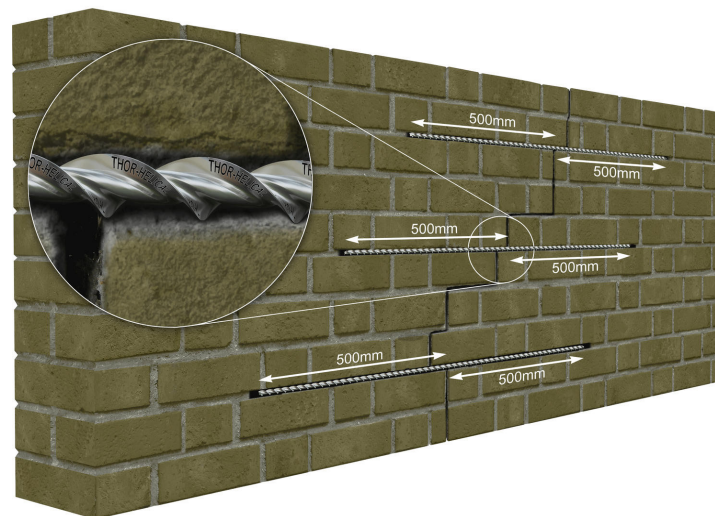


BS EN 845-1:2013 National Annex NA states that the bars need to provide an equivalent performance to the prescription 30mm x 5mm lateral restraint straps and the tension straps should have a declared mean tensile load capacity of at least 8kN.

TYPICAL TENSILE PERFORMANCE -CE MARK TESTING TO BS EN 845-1			
Thor Helical Bed Joint Reinforcement in Thor Grout			
Bar Diameter	No. of Bars/Joint	Mean UTL (kN)	Mean Load at 2mm Deflection (kN)
6mm	1	8.39kN	6.26kN
9mm	1	11.50kN	9.40kN
6mm	2	16.00kN	10.86kN
Depth of test slot: 30mm for single bar - 40mm for multi-bars			
Height of test slot: 3mm greater than diameter of crack stitching bars			
Position of test bars: 400mm embedment with multiple bars space 10mm apart			

TYPICAL PROPERTIES OF THOR HELICAL BARS				
Diameter	CSA (mm <sup>2</sup> )	0.2% Proof Stress (N/mm <sup>2</sup> )	Ult Tensile Strength (N/mm <sup>2</sup> )	Mean Tensile Capacity (kN)#
6mm	8mm <sup>2</sup>	>870	1025-1225	9
9mm	16mm <sup>2</sup>	>850	1025-1225	17
#Ultimate Tensile Strength is measured within a calibrated tolerance of +/-2%				
#Mean Tensile Capacity is an indicative value derived from CSA x Mean UTS				

PHYSICAL PROPERTIES	COMPREHENSIVE STRENGTH
24 Hours	20 MPa
7 Days	60 MPa
28 Days	80 MPa



THOR NTC GROUT TUBS INDICATIVE USAGE RATES	
Thor NTC 1.5 litre grout tub	Approximate usage = 5 lineal metres
Thor NTC 3.0 litre grout tub	Approximate usage = 10 lineal metres
Thor NTC 4.5 litre grout tub	Approximate usage = 15 lineal metres
Thor NTC 12.0 litre grout tub	Approximate usage = 40 lineal metres