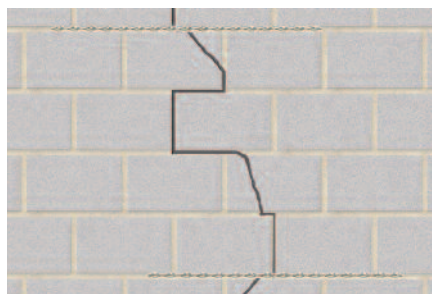
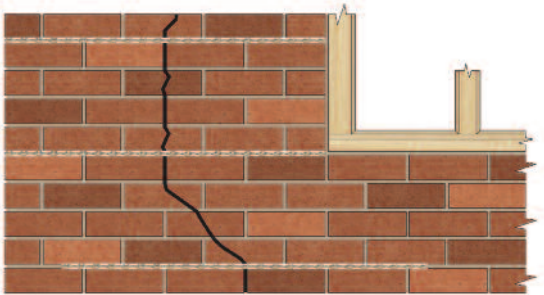


# Crack Stitching

A reliable and cost-effective means of repairing and stabilising cracked masonry

## Applications

- Rapid and permanent solution to cracked masonry
- Suitable for all forms of masonry structure



## Features

- Fully concealed, non-disruptive repair solution
- More reliable than crack injection methods
- HeliBond cementitious grout is injectable and rapidly produces high compressive strength
- HeliBars and HeliBond grout combine to create excellent tensile strength within the masonry
- No additional stresses are introduced during installation
- Masonry remains flexible enough to accommodate normal building movement
- Tensile loads are redistributed
- Reduces likelihood of further cracking nearby
- Avoids costly and disruptive taking down and rebuilding



HeliBar is inserted into HeliBond grout within a cut slot

Over 50 standard repair specifications are available online, covering all common structural faults.

Relevant Repair Details: CS01 to CS03



Scan the QR Code for full Product Information, Case Studies and downloadable Repair Details

# Installation Procedures

1. HeliBar to be long enough to extend a minimum of 500mm either side of the crack or 500mm beyond the outer cracks if two or more adjacent cracks are being stitched using one rod.
2. Where a crack is less than 500mm from the end of a wall or an opening, the HeliBar is to be continued for at least 200mm around the corner and bonded into the adjoining wall or bent back and fixed into the reveal, avoiding any DPC.
3. For solid masonry in excess of 230mm thick and in a cavity wall where both leaves are cracked, the wall must be crack stitched on both sides.
4. If there is render, this thickness must be added to the depth of slot. Crack stitching must be installed in the masonry and never in the render.
5. Ensure the masonry is well wetted or primed to prevent premature drying of the HeliBond due to rapid de-watering, especially in hot conditions. Ideally additional wetting of the slot should be carried out 1 to 2 minutes prior to injecting the HeliBond grout.
6. Do not use HeliBond when the air temperature is +4°C and falling or apply over ice. In all instances the slot must be thoroughly damp or primed prior to injection of the HeliBond grout.



1. Rake out or cut slots into the horizontal mortar beds, a minimum of 500mm either side of the crack



4. Using the HeliBar Insertion Tool, push one HeliBar into the grout to obtain good coverage



2. Clean out slots and flush with clean water and thoroughly soak the substrate within the slot



5. Insert a further bead of HeliBond over the exposed HeliBar, finishing 10 – 15mm from the face, and 'iron' firmly into the slot using the HeliBar Finger Trowel



3. Using the Helifix Pointing Gun, inject a bead of HeliBond along the back of the slot



6. Re-point the mortar bed and make good the vertical crack with CrackBond TE

## Slot Depth and Spacing

	Single leaf	Solid /multi-leaf masonry		
		Up to 110mm	110mm to 230mm	Over 230mm
Depth of slot	25 – 35mm	25 – 40 mm	25 – 40mm On both sides	
Vertical Spacing	Every 4 courses (approx. 340mm)			

# Characteristic Material Properties

HeliBar Diameter	4.5mm	6.0mm	SuperSix	8.0mm	10.0mm
Product Code	HBR45	HBR60	HBR60S	HBR80	HBR10
Cross Sectional Area (mm <sup>2</sup> )	5.6	8.1	9.4	10.0	15.0
Stock Length (m)	7.0	7.0	7.0	7.0	7.0
Pitch (mm)	25	29	30	39	45
Ultimate Tensile Strength (MPa)	1400	1112	1200	1100	1088
Tensile Strength (kN)	8.0	9.5	11.2	11.4	16.7
0.2% Proof Stress (MPa)	1150	840	1000	860	770
Shear Strength — Averaged (MPa)	900	650	770	700	750
Grade of Stainless Steel	ASTM304	ASTM316	ASTM304	ASTM316	ASTM316
Weight (g/m)	53	58	73	80	120

### RECOMMENDED TOOLING

For cutting slots:	Chisel, mortar saw or angle grinder with chest guard and vacuum
For mixing HeliBond grout:	3-jaw-chuck drill with mixing paddle
For injection of HeliBond into slots:	Helifix Pointing Gun CS with mortar nozzle
For smoothing pointing:	Standard finger trowel



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