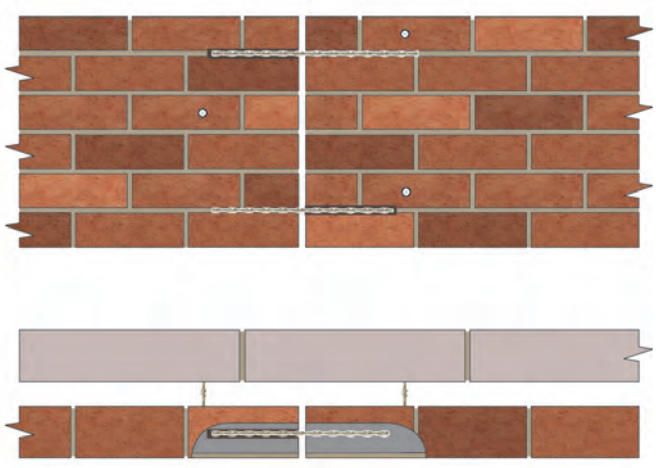
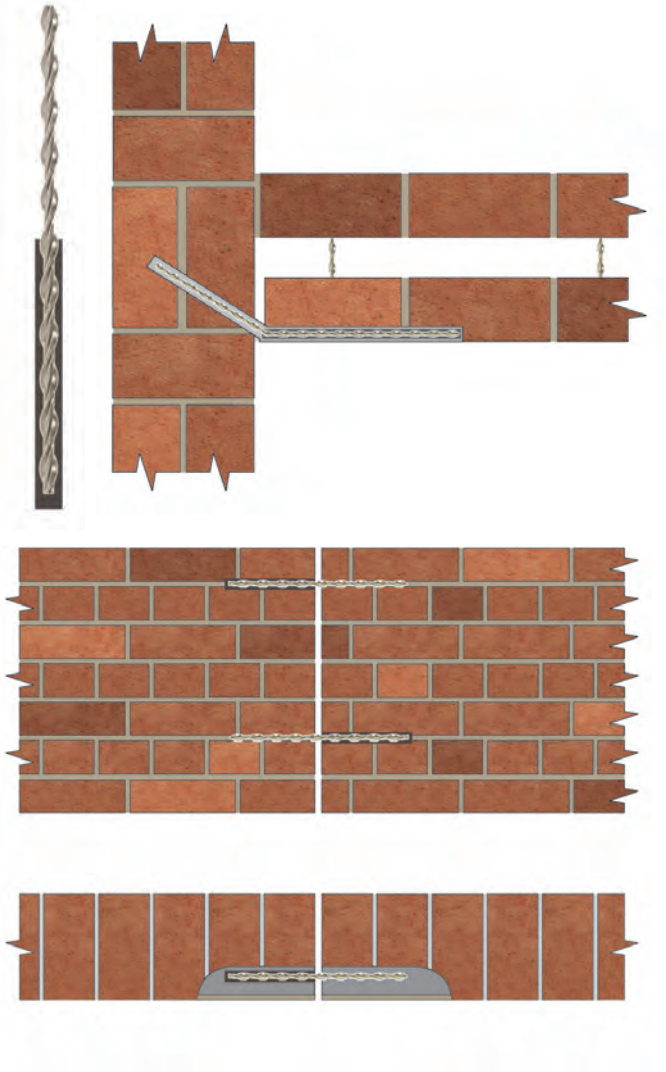
Creating Movement Joints

HeliBar stainless steel helical bars in plastic sleeves for the creation of remedial movement joints

FEATURES

- Rapid economical solution to lack of expansion joints
- Stainless steel helical reinforcing bars
- Accommodates differential building movement
- Fully concealed once installed
- Avoids expensive taking down and rebuilding
- Minimal disruption to building's fabric





Over 100 standard repair specifications are available online, covering all common structural faults.

Relevant Repair Details: MJ01 to MJ03

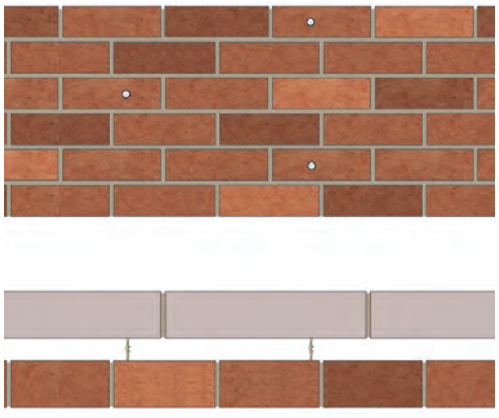
TECHNICAL SPECIFICATIONS

MOVEMENT JOINTS		
Material	HeliBar	Austenitic stainless steel Grade 304 (1.4301) or 316 (1.4401)
	Debond sleeve	Clear plastic sleeve
Diameter	HeliBar	6mm
	Debond sleeve	9mm
Length	HeliBar	400mm
	Debond sleeve	200mm
Height of slot		Full height of bed joint. For thin joints contact Helifix.
Depth of slot		40mm – to accommodate HeliBar and sleeve assembly
Vertical spacing		As specified on site with maximum spacing of 300mm
Bonding agent		PolyPlus resin or HeliBond cementitious grout
Wall tie spacing		To be installed on each side of the newly formed movement joint not more than 225mm away from the joint and at a maximum of 300mm vertical spacing.

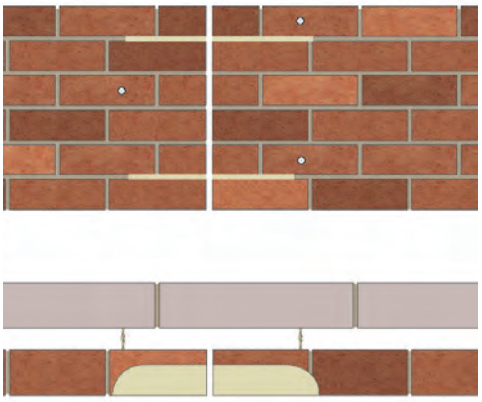
RECOMMENDED TOOLING	
For cutting slots up to 40mm deep	Twin-bladed cutter with vacuum attachment
For drilling pilot hole	Rotary percussion 3-jaw-chuck drill
For installing DryFix	DryFix power-driver attachment fitted to SDS rotary hammer drill 650w/700w
For injection of PolyPlus into slots	PolyPlus Applicator Gun and extension nozzle
For injection of HeliBond into slots	Crack Stitching Pointing Gun and mortar nozzle
For smoothing pointing	HeliBond Insertion Tool

INSTALLATION PROCEDURES

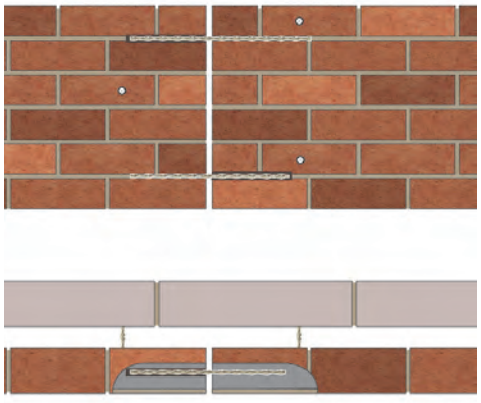
1. With a cavity wall, install the specified number of appropriate Helifix wall ties both sides of the intended new movement joint.
2. Using a twin-bladed, diamond-tipped wall chaser and vacuum attachment, cut slots into the horizontal mortar joints either side of the movement joint, to the specified depth and at the required vertical spacing. Ensure NO mortar is left attached to the exposed brick surfaces in order to provide a good masonry/resin bond.
3. Cut the vertical movement joint to the specified width and at the required location.
4. Clean out slots and inject a bead of PolyPlus resin or HeliBond grout, approx. 10mm deep, to back of slot.
5. Fit the de-bond sleeve over one half of the 6mm HeliBar and push the complete assembly into the resin ensuring a good bond between the PolyPlus / HeliBond and the sleeve within the slot. Ensure that no resin / grout comes into contact with the end of the HeliBar covered by the sleeve, as this end must be free to move.
6. Inject a second bead of PolyPlus resin or HeliBond grout up against the HeliBar and tube assembly to obtain good coverage of both.
7. Repeat steps 5 & 6, inserting the debond sleeve to the left and right of the movement joint in the cut slots.
8. Point up the open slot with a matching mortar to suit.
9. Seal the joint with a suitable flexible mastic type material.



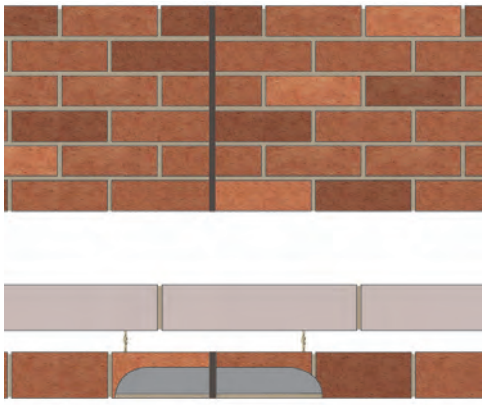
1. Install wall ties both sides of the intended vertical movement joint in a grid pattern.



2. Cut horizontal slots in the mortar beds. Cut the vertical movement joint.



3. Inject resin or grout into the slot and insert the HeliBar/sleeve assembly.



4. Make good the slots and wall ties holes. Seal the joint with a flexible mastic material.