

# Masonry Repair Strategies

Masonry may deteriorate, crack, delaminate and fail for a variety of reasons. Most problems can be overcome by using various combinations of Helifix's extremely versatile and adaptable remedial ties, fixings and masonry reinforcement products.

Highlighted are some of the most commonly occurring structural faults that can affect every type of residential and commercial property of all ages and construction. Helifix masonry repair

strategies provide reliable and lasting solutions to these and many other situations. If you have a particular problem and require assistance, call our technical support team who will be pleased to help.



1 Repair of bay windows



2 Repairing brick arch lintels



3 Repairing cracks near corners and openings



4 Reconnecting internal walls with external walls



5 Stabilising bowed or disconnected walls into floors



6 Replacing cavity wall ties



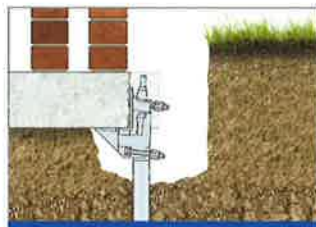
7 Crack stitching



8 Creating masonry beams



9 Repairing or creating flat arch lintels



10 Overcoming foundation settlement



# Applications

Helifix remedial products are extremely versatile and adaptable and have wide ranging applications. Successfully used to overcome most commonly occurring structural faults, they will reliably, economically and sympathetically restore

integrity to virtually every type of structure and have proven to be effective in most common construction materials including bricks, blocks, stone, timber, concrete and a variety of regional materials such as Cob and Wychert.



Crack Stitching

A quick, simple, effective and permanent means of stabilising cracked masonry, Helifix crack stitching involves bonding stainless steel HeliBars into appropriate bed joints or cut slots, in bricks, blocks or stonework, with HeliBond cementitious grout.



Lintel Repair & Creation

Where lintels have lost their load-bearing capabilities the traditional solution is to cut out the brickwork, mechanically support the masonry above and install a new lintel. Helifix systems, for lintel repair and creation using the existing masonry, are less disruptive, time consuming and expensive.



Replacing Failed or Omitted Wall Ties

Wall tie failure is a major cause of masonry cracking and, if not addressed, can lead to catastrophic collapse of the outer masonry leaf. Helifix remedial wall ties, with rapid easy installation, provide a secure and reliable connection between the inner and outer leaves.



Creating Load Bearing Masonry Beams

Where masonry has cracked and failed as a result of ground movement, component failure, weathering or increased loads and stresses, the innovative and versatile HeliBeam System ties the masonry together and creates deep masonry beams within the existing masonry.



Restraining Bowed or Disconnected External Walls

The bowing external walls of a building can be stabilised quickly and simply by securing them to internal floor or roof joists using BowTies or BowTie HDs. The SockFix grouted sock anchor is ideal where there are voids in the substrate, such as hollow concrete floor slabs.



Reconnecting Separated Walls

Cracked internal walls which have separated from the main outer walls can be repaired and reconnected both internally and externally.



Repairing Masonry Arches

The versatile HeliBeam System can be used to reinstate the structural integrity of all forms of arches, from doorways and lintels to tunnels and bridges.



Stabilising Rubble-Filled Walls

As rubble-filled walls age the fill will often settle and the walls bulge outwards. To stabilise the wall fully grouted CemTies are installed to secure the inner and outer leaves.



Overcoming Foundation Settlement

Innovative Dixie micro-piles are simply screwed into the ground, using lightweight hand-held equipment, until they reach load bearing strata and are then secured beneath the foundations to rapidly and economically support the affected area and prevent further settlement.



Bay Windows

Bay windows may crack and separate from the main structure due to foundation movement or because differing materials were used on the bay and the main house building. Helifix systems provide a concealed, non-disruptive means of securing the bay to the main structure.



Securing Parapet Walls

There are a variety of different parapet wall constructions, with both cavity and solid walls, in use on building roofs and bridges. If they are cracked or unstable they can be repaired, strengthened and reconnected using a combination of Helifix remedial products.



Creating Movement Joints

Where movement joints have been omitted and masonry cracking has resulted, Helifix has a simple cost-effective solution. HeliBars are installed across a vertically cut joint and bonded at one end with the other end allowed to move freely inside a bonded sleeve.