



Installing lengths of strategically placed Thor Helical bars above door and window openings is a quick and easy way of creating or repairing brick arch lintels in buildings. The high tensile stainless steel bars can be utilises existing brickwork to form a reinforced brick lintel over a flat soldier course or curved masonry arch.

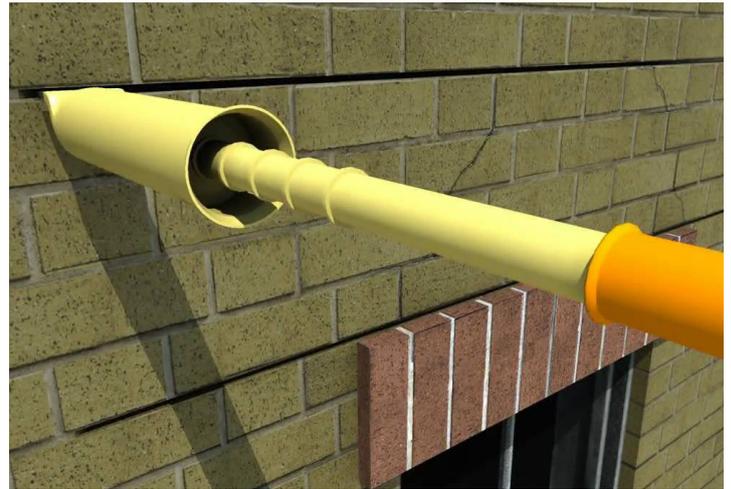
Lintel failure occurs for a variety of reasons. Shallow or flat brick arches can fail due to inadequate buttressing on either side of the arch, concrete lintels have a tendency to rotate, whilst timber and steel lintels may degrade over time as rot or corrosion sets in.

It is not uncommon for old timber or steel window frame to forms a fortuitous lintel, which helps to support the brickwork above. When these load bearing windows and doors are replaced with non-structural uPVC units, support from the fortuitous lintel is lost and the masonry may begin to crack as the brickwork sags.

For many years Thor Helical bars have been successfully used reinforcing and repairing brick arch lintels over openings. A section of the mortar bed is cut out immediately above the existing arch or lintel and another is cut out further up the wall. The slots extend at least 500mm either side of the opening. Two helical bars are grouted into each slot using Thor grout. When set the reinforced layers create the upper and lower flanges of a reinforced brick beam. The brick beam supports the masonry above and spreads the structural loads.

Independent testing has been carried out on this brick lintel system by the Building Research Establishment. The BRE has issued a report on creating or repairing brick arch lintels in buildings using Thor Helical bars. The report includes load tables for the masonry beams given the width of the span and the depth of brickwork between top and bottom layer of reinforcement.

Where lintels sag, this method of strengthen and repairing brick arch lintels can be supplemented by the provision of remedial pinning ties installed vertically up through the arch and into the reinforced zone of the masonry beam. Where cracks have appeared above opening they can be stitched with shorter lengths of helical bars and the cracks can be filled with a low viscosity epoxy resin injection system.



WHAT MAKES THE THOR HELICAL REINFORCING BARS A CUT ABOVE THE REST?

- BRE report load tables.
- Fully concealed masonry reinforcement for forming brick beam lintels.
- Patented manufacturing process delivers consistency in tensile strength (1025-1225N/mm² band).
- Highly deformed helical bar combines with Thor grout to produce an excellent bond within wall.
- Quick and easy to install.
- Conforms to conditions for CE marking according to BS EN 845-1 2013, mean tensile greater than 8k/N at 400mm embedment.