

PRODUCT GUIDE



STRUCTURAL REFURBISHMENT AND RESTORATION



For more than twenty years Clan have provided their clients with a complete service in the field of structural engineering and remedial works to both the public and private sectors. Contracts undertaken have been diverse, from tower blocks and listed buildings to water treatment works and local authority housing estates.

SUCCESS BUILT ON INNOVATION

Since the early 1980's, Clan have been at the forefront of remedial cavity wall tie technology designing new remedial wall ties, the Kontrakt tie, lateral restraint systems, the Clanbolt, and the unique isolation process for treatment of corroding wall ties, the Clansleeve.

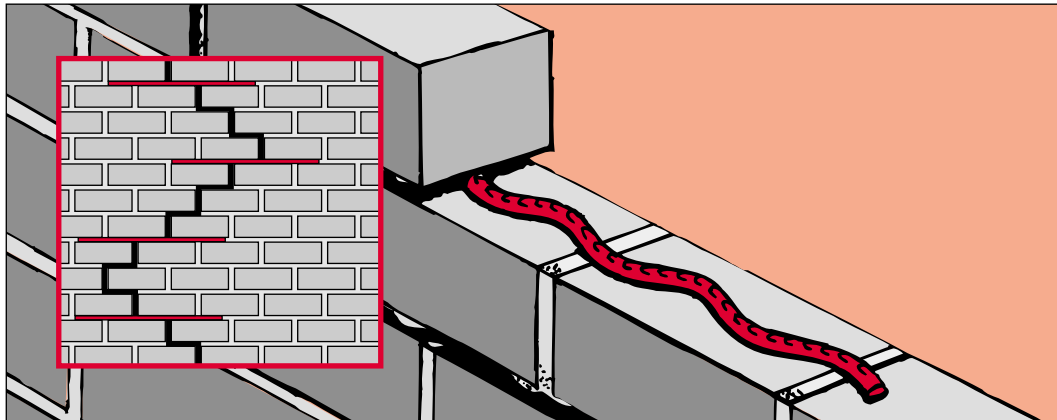
Over the years as we have been confronted with new problems within the refurbishment industry, we have introduced innovative solutions designed in conjunction with our structural engineers, with not just the specifier in mind, but also the contractor. A good product not only overcomes the structural problems but is simple to fix reducing operator error. All of our products are designed in accordance with the basic principles that Clan adhere to; a quick, simple and virtually unobtrusive repair.

In addition to our own range of structural fixings, Clan have brokered relationships with many European companies, exchanging ideas enabling us to introduce new methods of repair, such as Xypex crystalline waterproofing, high strength concrete repair materials and the latest carbon fibre technology for repairing structures.

Our range of services is continuing to grow with our sister company, Thin Joint Technology, which supplies tools, fixings and mortars for construction using thin jointed aerated blockwork. TJT also supply coloured render systems, external wall insulation systems and decorative plasters.

Masonry structures can move for many reasons; ground movement, thermal expansion, corroded steel lintels, reinforcement, etc. This movement almost always results in cracking of the masonry. The remedial treatments can be many and varied, from simple repointing to full demolition and rebuilding of the affected areas.

Whilst demolition and rebuilding is arguably the most comprehensive solution, it is time consuming, costly and when done in isolation can create more problems than it resolves. For this reason, reinforcement of the problem areas can be the most satisfactory solution.

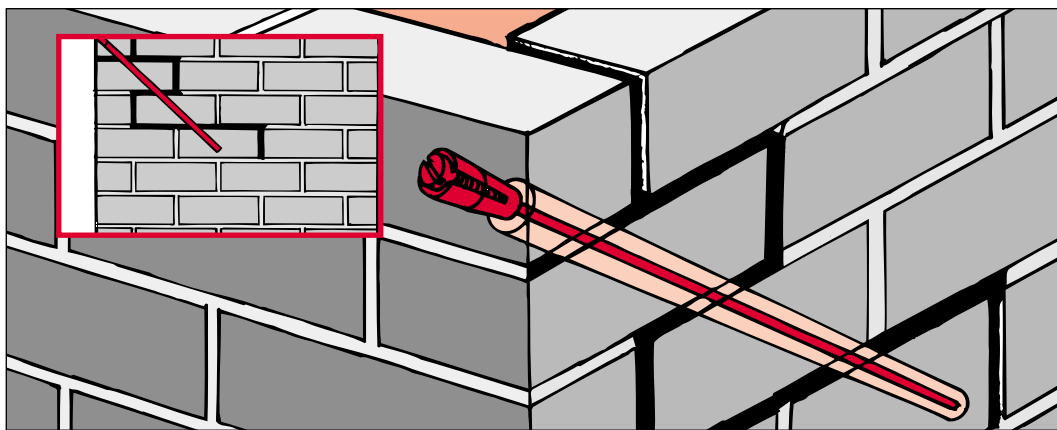


CRACKTIE

Grade A2 stainless steel 6mm reinforced anchor, 750mm long, deformed along its length to enhance the bond between resin/grout and brickwork. Used in conjunction with Clan GP3, EP4 and GT4 high performance mortars to suit on-site conditions. Non standard lengths of Clan Cracktie are available on request.

The Clan Cracktie is used to reinforce brickwork suffering from vertical or diagonal cracking and presents an alternative to traditional rebuild methods. Insertion of Clan Crackties into the mortar joint together with the appropriate resin/grout, restores the bond without the need to remove/replace whole areas of brickwork.

40mm Embedment - SPACING 300mm Vertical Centre



CLANSTITCH

Grade A4 stainless steel 9mm reinforcing anchor, 500mm or 750mm long, complete with RT12 expansion shell in accordance with BS1234. The Clanstitch is an adaptation of masonry reinforcement techniques first developed abroad to provide secret strengthening of fragile masonry structures. The Clanstitch is used in conjunction with Clan EP4 epoxy resin or GT4 cementitious grout, depending on the substrate encountered.

The Clanstitch is used to enhance the connection between masonry walls where the original bond is inadequate or has failed due to structural movement. The expanding shell is capable of connection to a wide variety of dense substrates. The RT12 is suitable for both solid and cavity construction and is virtually undetectable when fitted. Specially designed diffusers are available for weak or hollow substrates.

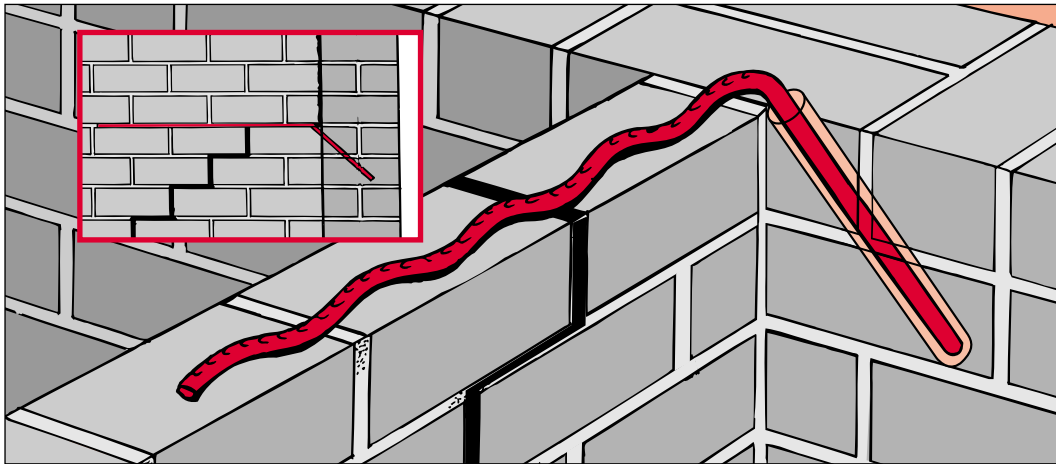
MASONRY DRILL 12mm - SPACING 900mm Vertical Centre

See Page 27 for further technical information on the Cracktie and Clanstitch.

FOR SALES AND TECHNICAL ADVICE, PHONE: 0151 422 8000

Before reinforcement of cracked masonry can be contemplated, the reasons for the cracking must be diagnosed and rectified. This, however, may leave areas of cracked unsupported masonry which must be repaired.

Clan products have devised a system of repair techniques which can be used to overcome the problem of cracked masonry. Consideration should be given to the original construction prior to designing the appropriate repair technique. ie. buildings constructed using lime mortar should be repaired using lime grouts.



CRANKTIE

Grade A2 stainless steel 6mm reinforcing anchor, 500mm long deformed for 400mm with cranked 100mm end.

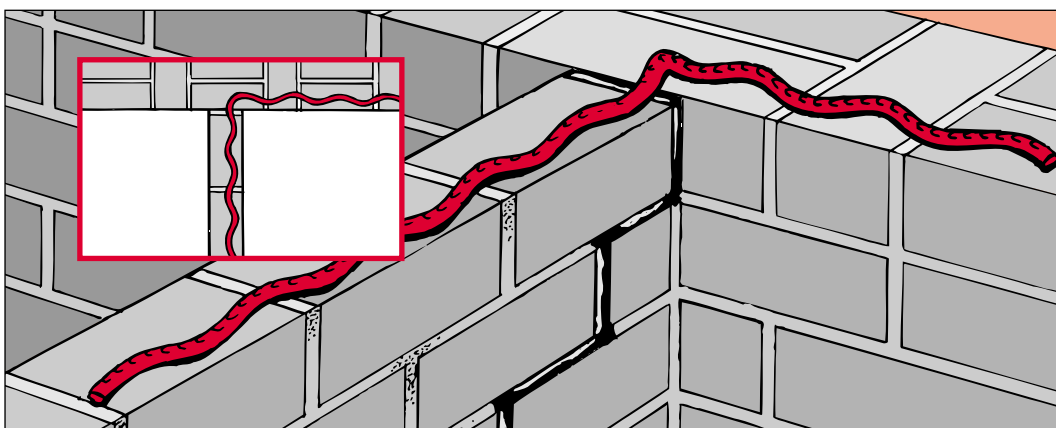
Used in conjunction with GP3, EP4 and GT4 high performance mortars to suit on-site conditions.

Non standard lengths are available on request.

The Clan Cranktie is used to reinforce masonry suffering from cracking at wall to wall junctions which have stepped cracks. The Cranktie is inserted into both the horizontal mortar joint, spanning the crack, and into a pre-drilled hole into the adjacent wall as shown above.

Insertion of the Clan Cranktie with the appropriate resin/grout restores the bond quickly and efficiently.

MASONRY DRILL 12mm - SPACING 300mm Vertical Centre



CORNER CRACKTIE

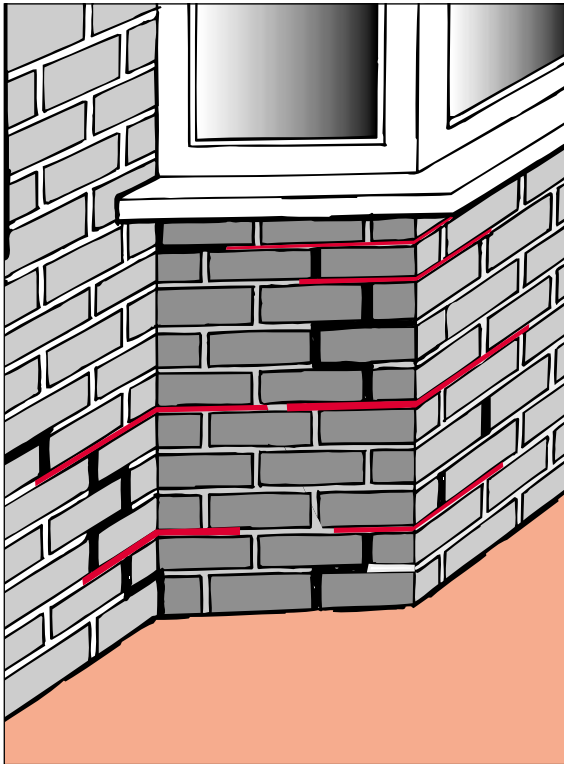
Grade A2 stainless steel 6mm reinforcing anchor, 800mm long, bent to 90° with each leg deformed along its length to enhance the bond between the resin/grout and brickwork. Used in conjunction with Clan GP3, EP4 and GT4 high performance mortars to suit on-site conditions. Non standard lengths are available on request.

The Clan Corner Cracktie is used to reinforce masonry suffering from cracking at wall to wall junctions.

Corresponding mortar joints should be raked out to a depth of at least 40mm to each of the adjacent walls.

Insertion of the Clan Corner Cracktie into the mortar joints, together with the appropriate resin/grout, provides a strong repair which is virtually undetectable.

SPACING 300mm Vertical Centre



BAY CRACKTIE

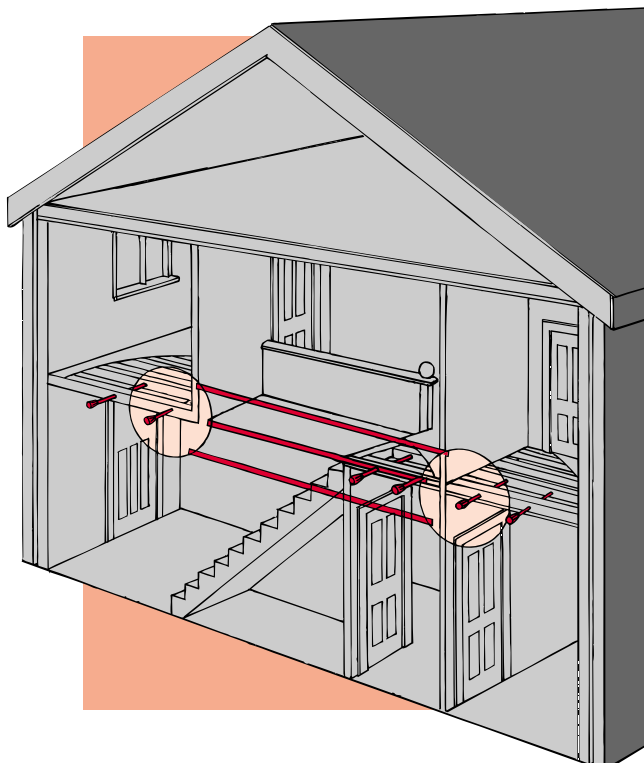
Grade A2 stainless steel 6mm reinforcing anchor, 800mm long bent to 135° with each leg deformed along its length to enhance the bond between the resin/grout and brickwork. Used in conjunction with Clan GP3, EP4 and GT4 high performance mortars to suit on-site conditions. Non standard lengths are available on request.

The Clan Bay Cracktie is used to reinforce masonry bay structures suffering from vertical and diagonal cracking.

Corresponding mortar joints should be raked out to a depth of at least 40mm to each of the adjacent walls.

Insertion of the Clan Bay Cracktie into the mortar joints, together with the appropriate resin/grout, restores the bond quickly and efficiently.

SPACING 300mm Vertical Centre



CLANBOLT AND BEAM FIX

The Clanbeam combines the Clanbolt lateral restraint and Clan Cracktie to help improve lateral stability where normal floor to wall restraints cannot be used, such as stairwells against gable walls.

The Crackties extend to at least within 1000mm diameter of Clanbolt utilising the restraint effect of the Clanbolt thus producing a bracing effect across the wall.

40mm Embedment - (Cracktie)

MASONRY DRILL 12mm - (Clanbolt)

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