

# 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

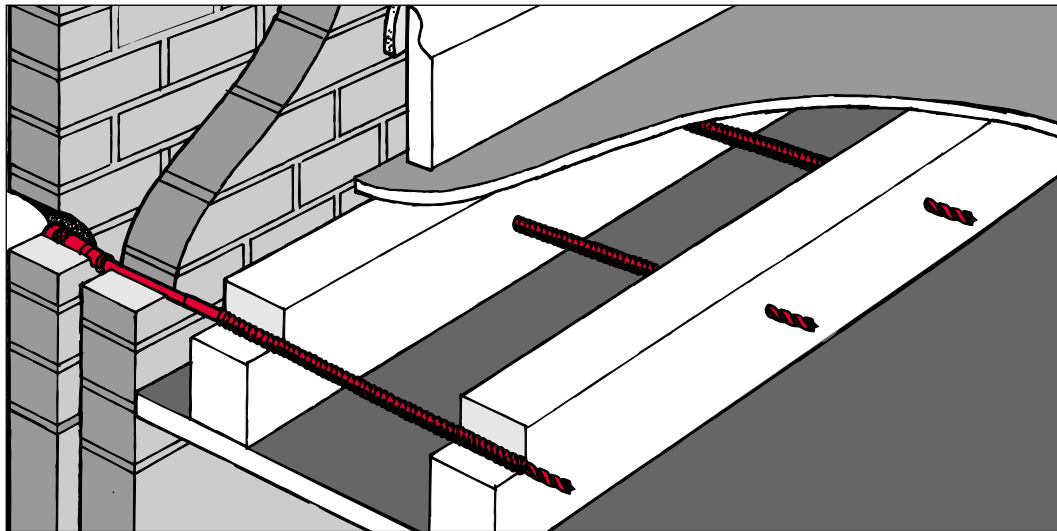
Since the early 1980's, Clan have been at the forefront of remedial cavity wall tie technology designing new remedial wall ties, the Kontrakt tie, lateral restraint systems, the Clanbolt, and the unique isolation process for treatment of corroding wall ties, the Clansleeve.

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.

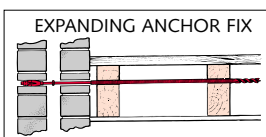
Lateral restraints are used to tie the external walls of a building to the internal floor diaphragm and internal crosswalls. Where lateral restraints have been omitted they can reduce the robustness of a building, resulting in bulging walls or possibly even collapse. In new construction the provision of lateral restraint is covered by BS5628 Pt 2 1989, and usually involves the introduction of a lightweight galvanised strap hooked into the cavity and fixed to the joists. Crosswalls are generally bonded, or simply tied together using strip ties.



## CLANBOLT

### THE UNIQUE LOW-COST WAY TO LATERAL RESTRAINT

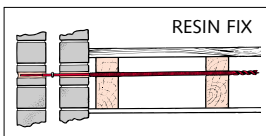
- Hidden wall to floor restraint
- No disturbance to internal decorations
- Single plane restraint
- Can be fully tested after installation
- Quality controlled restraint to ISO 9000



#### CLANBOLT RT12

Grade A4 stainless steel body, 9mm woodscrew thread with integral pilot drill. Overall length 1000mm, complete with RT12 expansion shell in accordance with BS1243.

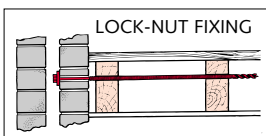
The Clanbolt RT12 is used to connect parallel joists to the external wall. The expanding shell is capable of connection to a wide variety of dense substrates. The RT12 is suitable for both solid and cavity construction and is virtually undetectable when fixed.



#### CLANBOLT RF1

Grade A4 stainless steel body, 9mm woodscrew thread with integral pilot drill. Overall length 1000mm, complete with Clan GP3 two part resin in lieu of RT12 expansion shell.

The Clanbolt RF1 is used to connect parallel joists to the external wall. The use of Clan GP3 resin provides a high performance solution to the problem of soft or perforated brick/block.



#### CLANBOLT WT1

Grade A4 stainless steel body, 9mm woodscrew thread with integral pilot drill. Overall length 1000mm, complete with 75x75x3mm Stainless Steel plate washer and lock nuts in accordance with BS1243.

The Clanbolt WT1 is used to connect parallel joists to the external wall. This highly adaptable fixing is generally used when the outer leaf of a cavity wall is to be rebuilt. The stainless steel plate washer to the inner leaf can be augmented by the use of a WT4 frame cramp which can be incorporated in the outer leaf brickwork.

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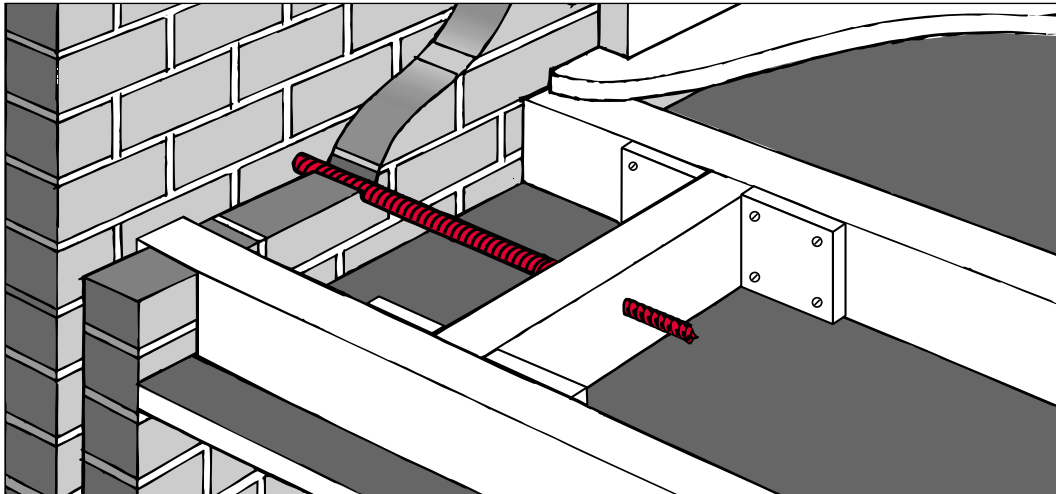
### MASONRY DRILL 12mm - SPACING 1m Horizontal

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See Page 27 for further technical information.

**FOR SALES AND TECHNICAL ADVICE, PHONE: 0151 422 8000**

Lateral restraints were first widely used in this country with the introduction of the Building Regulations third amendment in 1978. Many domestic and commercial buildings in the UK were built without lateral restraint, leaving a legacy that we must now rectify.



**CLANSTUD**

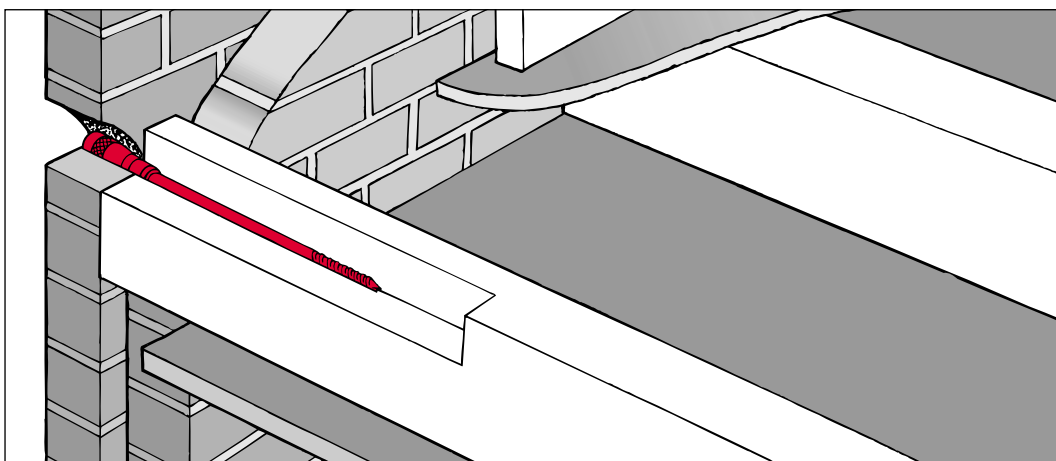
Grade A4 Stainless Steel body, 9mm woodscrew thread with integral pilot drill. Overall length 1000mm, complete with RT12 expansion shell, GP3 resin or 75mm plate washer and lock nuts to suit application.

The Clanstud is fixed through a 100x75 noggin which is in turn fixed to the joist with 4 No 19mm 75x75

plywood pads, screw fixed either side of the noggin.

The Clanstud provides secret lateral restraint to masonry walls with floor joists spanning at right angles. The Clanstud can be supplied in the RT12, RF1 or WT1 configuration, providing a comprehensive fixing for all substrates.

**MASONRY DRILL 12mm - SPACING 1m Horizontal**



**CLAN FB JOIST FIXING**

Grade A2 stainless steel body 6mm, 10mm woodscrew thread. Overall length 300mm, complete with RT12 expansion shell, GP3 resin or plate washer.

The FB joist fixing provides secret lateral restraint to masonry with floor joists that span at 90° to the wall where access to the property is restricted.

**PILOT DRILL 8.5mm - MASONRY DRILL 12mm - SPACING 600mm Horizontal**

SEE PAGE 14-16 FOR RESIN FIXING SYSTEMS



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