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TECHNICAL INFORMATION AND QUICK GUIDE

Remedial Timber Frame Wall Ties

Description

Impact driven timber frame wall ties are designed for remedial applications to tie defective walls.

The tying system utilises a tiny 6mm entry hole to minimise disruption and defacement to masonry facades. The tie has deep, moisture shedding, helical troughs that are combined with a narrow cross-sectional profile to accommodate differential movement in all directions.

Suitable for cavity widths of 75, 100 & 125mm, the precise pitch timber frame tie is manufactured with to tolerances levels that have not previously been achievable.

- Engineered product upgrade.
- Patented helix consistency.
- Minimal disruption.
- Corrosion free stainless steel.

Benefits

When under load, continuous helical blades engage, interlock and interact with the host building material to impart an accumulative cone of forces at tangential angles to the helix. The interlock exerts no expansive splitting stress or point loadings.

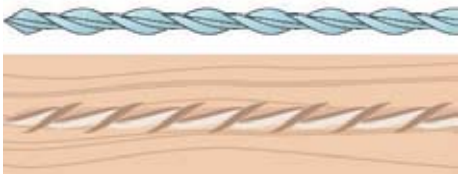
Axial loads are spread evenly along the full penetrative length of the precisely formed helix, providing reliability of connection.

Proven through independent testing programs and 25 years of use, helical screw drive ties are the only remedial tie type able to accommodate differential movement potential between masonry clad façades and timber frame structures.

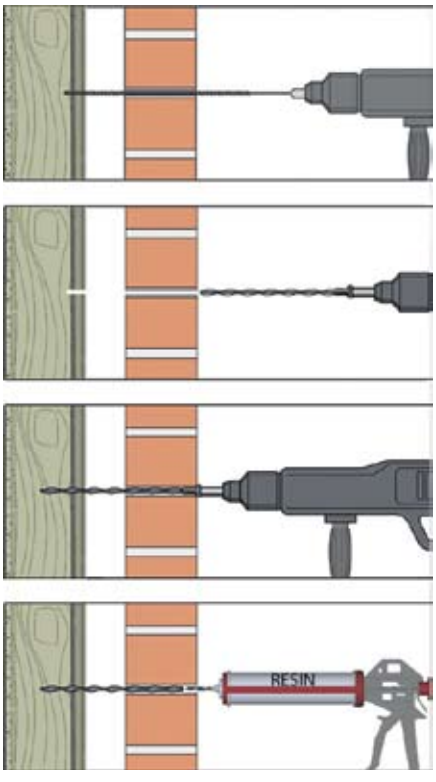
- Rapid hammer driven installation
- Precise helical interlock anchorage
- Accommodates differential movement
- Stable, cost effective & unobtrusive

Performance

The performance advantage offered by Thor Helical ties stems from its highly engineered twisting accuracy, which forms a tightly mating seating groove interface within the timber to provide a consistent and full interlock performance. European Patent EP1307303.



The replacement timber frame wall tie driver is designed to fit into a standard SDS hammer drill. The setting tool houses the tie in its hollow nose end. The knurls on the outer face of the nose enables the tie to be countersunk in the mortar joint as the tie is power driven into the timber stud.



Method statement

1. Establish timber spacing. Locate studs lines and drill through mortar & sheathing with 6mm bit. Allow drill to stop rotating prior to contacting the remote wall layer.

2. Insert 5mm Timber Frame Wall Ties into AirTwist SDS support tool and feed tie though the 6mm outer leaf clearance bore.

3. Push tie against timber stud and drive ties 40mm into timber using the impact action of a lightweight roto-hammer drill.

4. Apply polyester or epoxy resin injection around tie to form outer leaf masonry connection and make good at bore positions.

Product Specification

Material: Austenitic Stainless steel - grade 304

Ultimate Tensile Strength:	=>	1100kN/mm^2
Cross Sectional Area	<=	6.25mm^2
Pitch Deviation on Tie:	<=	0.5%

TIE CLASSIFICATION USING DD140 PART 2 1987

40mm In Timber	CLASS 5
90mm In Mortar	CLASS 3
Tie Density	4.4 ties/m2

CAVITYWIDTH	TIE LENGTH
75mm	205mm
100mm	230mm
125mm	255mm

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