

9mm CD Wall Tie System

Description

- 9mm Remedial Wall Tie for all types of masonry.
- Rapid SDS hammer insertion system.
- Work hardened helix induces self-tapping corkscrew action.
- Mechanical masonry-screw connection.
- Corrosion resistant stainless steel 304 and 316 grade.
- Independently performance tested and CE marked.

Applications

- Replacing Cavity Wall Ties.
- Secures Solid Walls of Double-leaf or Collar-jointed Construction.
- Ties Rubble-filled Walls.

Benefits

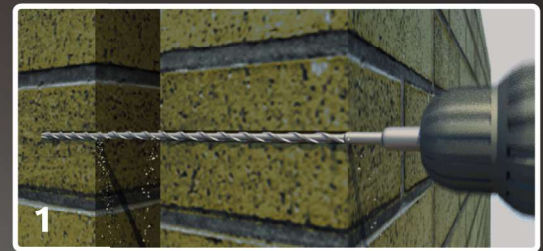
- Patented driving shank system for speed and simplicity.
- Patented precise pitch engineering for unrivalled reliability.
- Patented SDS tool for reduced tooling costs.
- Small pilot hole for minimal disturbance and visual impact.
- No adhesives - fire resistant and cold temperature tolerant.
- Quick, easy and cost effective installation.

PRODUCT SPECIFICATION

Thor Helical 9mm CD Ties are available in standard lengths of: 155mm to 455mm (6" to 18") in 25mm (1") increments

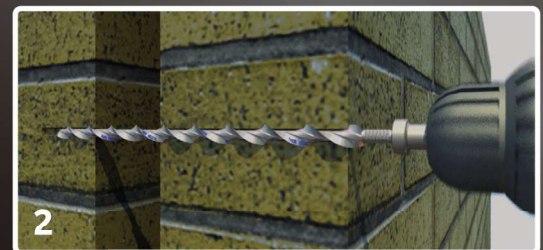
Step 1*

Drill pilot hole to a depth at least 10mm longer than length of the tie; refer to performance table for drill diameter.



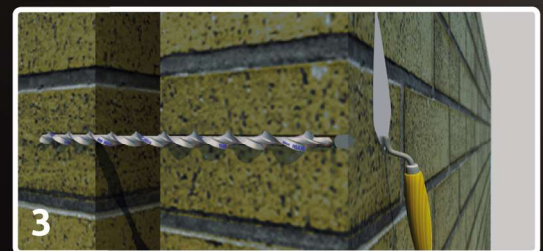
Step 2*

Insert driving shank of the tie into SDS tool and drive tie straight into both walls using a lightweight hammer-drill.

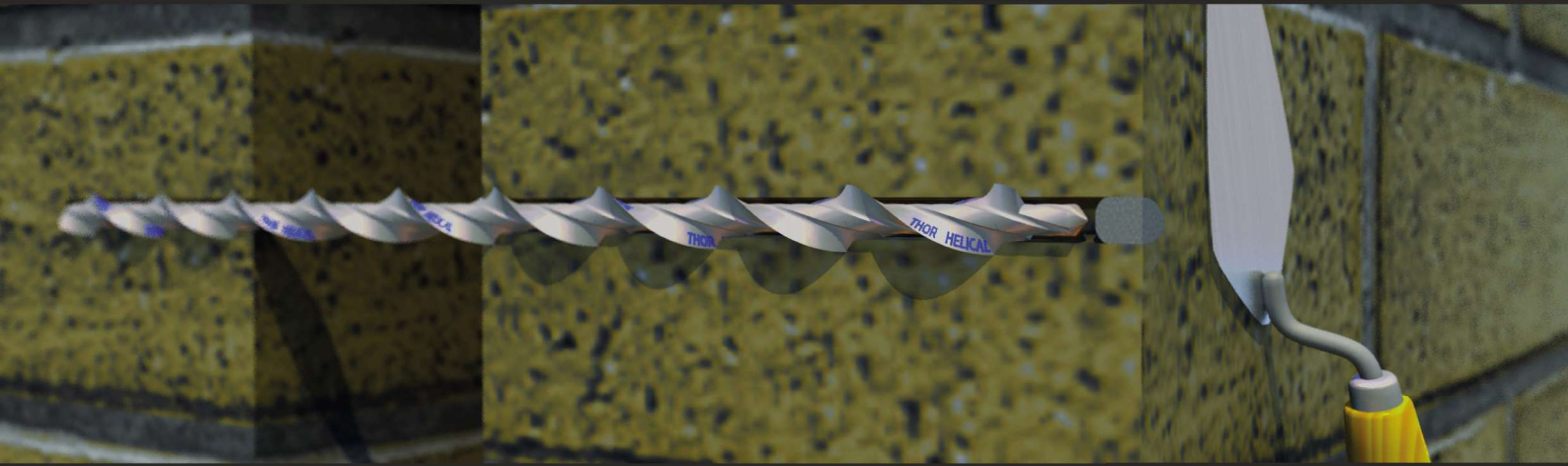


Step 3

Patch pilot hole of recessed tie with colour matched mortar.



* Good practice - Check tools & drills periodically for wear.



TYPICAL AXIAL PERFORMANCE – CE MARK TESTING TO BS EN 845-1

Substrate Type	Comprehensive Strength (N/mm ²)	Pilot Hole Diameter (mm)	Tie Embedment (mm)	Cavity Width (mm)	Mean Load at 5mm deflection (N)		Mean Displacement at 1/3 rd of Mean Load (mm)	
					Tension	Compression	Tension	Compression
Aircrete	3.5	0	85	225	1490	1500	0.66	0.28
Dense Aggregate Concrete	7	6	60	150	2870	2700	0.83	0.46
Common Brick	30	6	60	150	1940	2680	0.75	0.27
Perforated Brick	40	5	60	150	1990	2790	0.72	0.57
Structural Concrete C30	30	7	40	150	2370	2690	0.37	0.28

EFFECT OF CYCLIC & SEISMIC MOVEMENT – BRICK WALLS – 75mm CAVITY

Test Purpose	Cam-Cycling Representing	Applied Movements	Mean Tensile Load at 2mm Deflection	
			Before Cycles	After Cycles
Performance after 100 years service cycles	Thermal & Moisture Movement +/-2mm	48,000 cycles	2.9kN	2.4kN
Seismic performance in cracked brickwork	Seismic Event +/-10mm	5.3Hz for 3 minutes	2.9kN	2.9kN

TYPICAL PROPERTIES OF THOR HELICAL CD TIES

Diameter	CSA (mm ²)	0.2% Proof Stress	Ult Tensile Strength*	Mean Tensile Capacity #
9mm	16mm ²	>850N/mm ²	1025-1225N/mm ²	17kN

* Ultimate Tensile Strength is measured within a calibrated tolerance of +/- 2%
Mean Tensile Capacity is an indicative value derived from CSA x Mean UTS