

# Thin Joint Wall ties

## Description

Thor Helical thin joint ties are hammered directly into Autoclaved Aerated Concrete without a need to pre-drill the block.

The precision profiled stainless steel ties have longitudinal helical blades that are formed using patented "precise pitch" technology to tolerance levels that have not previously been achievable. The blades have sufficient and consistent reactive interface angle to initiate an accurate penetrative path when driven.

The tie has deep, moisture shedding, helical troughs that combine with a narrow cross-sectional profile to accommodate differential movement in all directions.


- Engineered product upgrade
- Patented helix consistency
- Supersedes alternative helical ties
- Combines strength & flexibility
- Robust & Corrosion Free

## Benefits

When under load, the continuous helical blades engage and interact with the host building material to impart an accumulative cone of forces at tangential angles to the helix.

This helical interlock exerts no expansive crushing stress to the gas concrete and does not rely on friction or adhesives. Loads are spread evenly along the full penetrative length of the precisely formed spiral wall tie, providing reliability of connection in the Aircrete (AAC) inner leaf.

The deep winding troughs, at the other end of the helical tie, provide an ideal keying surface to enhance its bond within the outer leaf mortar bed.

- Rapid hammer driven installation
- Precise helical interlock anchorage
- Suitable for use in all makes of AAC
- Complies with Part E as Type B tie
- Meets the requirements of the 

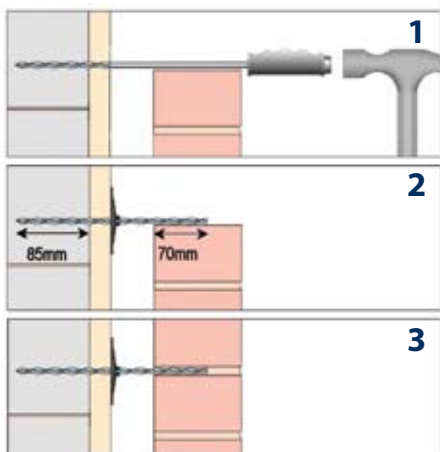
## Distinction

The performance advantage offered by the Thor TJ Tie stems its engineered twisting accuracy (Patent EP1307303), which forms a tightly mating seating groove interface within the Aircrete to provide a consistent full interlock performance.

The alternatives to Thor Helical products tend to have their leading section form helical seating grooves that are widened by the following non-precise helix portion.

TIE CLASSIFICATION TO BS EN 845-1:2003  
USING DD140 PART 2 1987 CRITERIA

BLOCK STRENGTH	85mm INTO BLOCK	75mm IN MORTAR
7.0-10.5N/mm <sup>2</sup>	CLASS 2	CLASS 2
3.5-4.0N/mm <sup>2</sup>	CLASS 3	CLASS 2
2.8N/mm <sup>2</sup>	CLASS 4	CLASS 2



## Method statement

1. DRIVE Thor Helical Super-7 Thin Joint Tie through insulation & directly into autoclaved aerated concrete (AAC).
2. Ensure tie is embedded at least 85mm into Aircrete & slide on insulation retaining CLIP.
3. BUILD outer leaf masonry ensuring at least 70mm of the TJ Tie's helix is fully embedded in the mortar.

## Product specification

- Product:** Thor Helical Super-7 TJ Tie  
**Material:** Austenitic Stainless steel -(304)  
**Tensile Strength:** => 1100N/mm<sup>2</sup>  
**Cross Sectional Area:** < 9mm<sup>2</sup>  
**Pitch Deviation on Tie:** <= 0.5%  
**Density – (Block > 90mm)**= 2.5 ties/m<sup>2</sup>

## THIN JOINT WALL TIE SELECTOR

CAVITY WIDTH	TIE LENGTH
25-50mm	205mm
51-75mm	230mm
76-100mm	255mm
101-125mm	280mm
125-150mm	305mm

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