THORHELICAL®

PRECISION ENGINEERED HELICAL BARS, WALL TIES & FIXINGS

# HEAVY DUTY MASONRY PINNING

CI / SFB

Xt6

NOVEMBER 2016

CE

## Heavy Duty Masonry Pinning System

### Description

- 12mm hammer-driven 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 316 grade stainless steel.
- Independently performance tested and CE marked.

### Applications

- Tying Masonry Facades to Party Walls.
- Secures Quoins or Stitching Cracks at the Corner of a Wall.
- Ties Thick or Rubble-filled Walls.
- Provides Vertical Reinforcement to Parapet Wall.

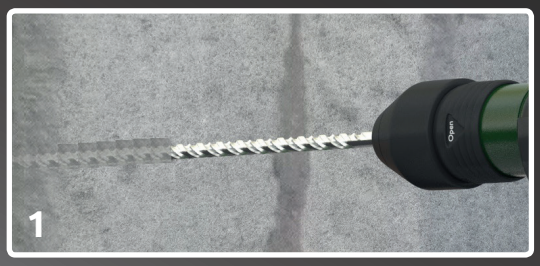
### Benefits

- 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.
- Longer and stronger than any other helical tie system.
- No adhesives - fire resistant and cold temperature tolerant.
- Quick, easy and cost effective installation.

| PRODUCT SPECIFICATION |
| --- |
| Thor Helical 12mm Deep Pinning Ties are available in standard lengths of: 610mm to 1370mm (24" to 54") in 150mm (6") increments |

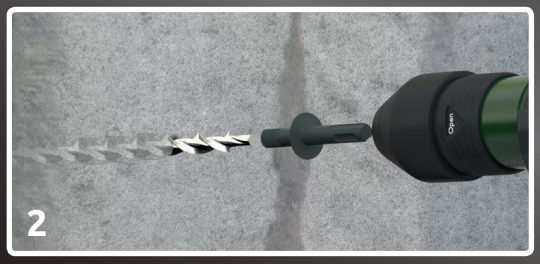
### Step 1*

Drill 8mm pilot hole to a depth at least 15mm longer than length of the tie; use 10mm bit for hard masonry.



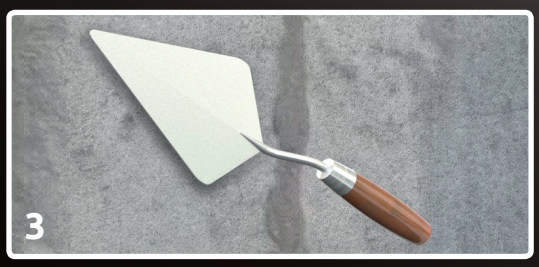

### Step 2*

Insert driving shank of the tie into SDS tool and hammer home using a light to medium-weight SDS drill.




### Step 3

Patch pilot hole with colour matched mortar.




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

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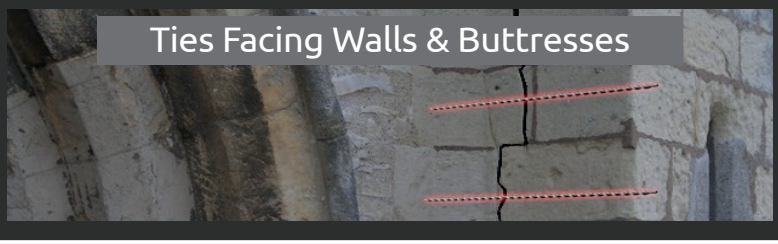


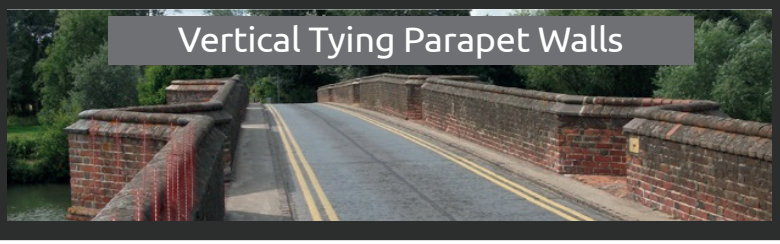


## TYPICAL TENSILE PERFORMANCE – CE MARK TESTING TO BS EN 845-1

| Wall Diameter | Strength of Masonry | Pilot Hole Diameter | Tested Embedment Depth | Mean Tensile Load Capacity | Displacement at 1/3rd of Mean Tensile Load |
|---|---|---|---|---|---|
| 12mm | 30.N/mm$^2$ | 8mm | 215mm | 8.45kN | <2mm |

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

| Wall Tie Diameter | Strength of Masonry | Pilot Hole Diameter | Offset Shear (Gap) | Mean Load Capacity |
|---|---|---|---|---|
| 12mm | 30.N/mm$^2$ | 8mm | 10-12mm | 6.71kN |

## TYPICAL PROPERTIES OF THOR HELICAL DEEP PINNING TIES

| Diameter | CSA (mm$^2$) | 0.2% Proof Stress | Ult Tensile Strength* | Mean Tensile Capacity # |
|---|---|---|---|---|
| 12mm | 28mm$^2$ | >820N/mm2 | 1025-1225N/mm2 | 30kN |

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