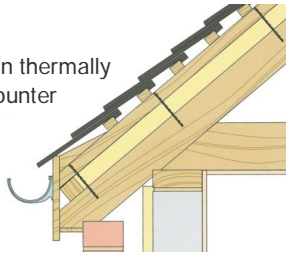


# THOR HELICAL<sup>®</sup> WARM ROOF NAIL FIXINGS



## DESCRIPTION

Warm roof batten fixings are used in thermally efficient construction to secure a counter batten above each rafters without compressing the layer of insulation that is located in-between and without adversely affecting its thermal performance.



The stand-off fastening system utilizes stainless steel helical or spiral nails to withstand the tensile forces of negative wind pressure and the compressive loads applied by roof weight & snow potential. Warm roof nails have a small headless cross section to minimise thermal emissions. They are also sufficiently robust to resist significant bending moments, the force of which is determined by a combination of roof weight, angle of pitch and the distance at which the batten is held above the rafter.

## RIGHT SPEC

[HeliCalc](#)<sup>™</sup> software uses a BRE approved design and calculation method, which is applied to the results of an independent and comprehensive test program carried out by CERAM Building Technology, to select the appropriate length and density of the warm roof nails, given site-specific construction and exposure conditions.



[HeliCalc](#)<sup>™</sup> applies BS6399 Part 2 & Part 3 to calculate wind & snow loads & National Annexes to Euro-codes 0 and 5 to apply partial safety factors in respect of timber connections, dead loads, wind loads and snow loads. CP3 CHAPTER V PT2 was withdrawn in 2001 & should no longer be used

- BRE Approved Design Method
- Independent tested & verified
- Suitable for 150mm deep insulation
- Part L compliant.

## RIGHT FIXING

The new Thor Helical Super-7<sup>™</sup> WR Nails are designed to offer sufficient rigidity to withstand the increased bending moments that are encountered when deep insulation boards of 80mm to 150mm in thickness are deployed.

The robust design of the Super-7<sup>™</sup> warm roof nail, which has been achieved without significant increase in cross-section, enables fixing densities to be reduced by up to 66% compared to traditional 6mm helical nail systems, when correctly calculated & factored using only current Standards and Codes.



The result offers significant labour savings by virtue of reduced nailing and, in addition, an overall reduction in thermal bridging potential.

- Withstands all structural load
- Robust & corrosion free
- Reduced density & cold bridging
- Cost effective - up to 66% less nailing

## RIGHT ANGLE

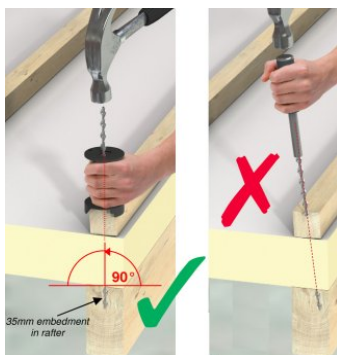
The spiral nails are guided vertically through the batten and insulation layer, using an Alignment & Guide Tool (Patent pending), and are driven into the central section of the hidden rafter to a depth of at least 35mm.



The aligned and squared batten fixing method facilitates improved build quality for deep warm roof insulation, overcoming the technical and practical deficiencies associated in skew fastening, bending or misalignment. Improved nailing accuracy enables use of a single deep layer of over rafter insulation, eliminating the need for less efficient dual-layer systems and the associated difficulties in trimming and sealing insulation placed between rafters.

- Improved build quality & reliability
- Quick to install – prevents buckling
- Alleviates between rafter insulation
- Meets the requirements of

## METHOD STATEMENT



1. Locate batten directly above & perpendicular to the rafter. Apply body weight to hold batten tightly against insulation.
2. Position tool on batten. Feed Super-7 helical nail into bore & adjust tool's seating, using its bubble level, to align spiral nail upon a vertical plane.
- 3 Nail helical fixing through batten & down to top of tool. Remove tool & drive spiral fixing until flush with the top of the counter-batten.

## PRODUCT SPECIFICATION

**Product:** Thor Helical Super-7<sup>™</sup> WR Nail  
**Material:** Austenitic Stainless Steel – (304)  
**Nominal Diameter:** = 7 mm  
**Cross Sectional Area:** < 9 mm<sup>2</sup>  
**Ultimate Tensile Strength:** >1100N/mm<sup>2</sup>  
**Pitch Deviation on Nail:** < 0.5%\*  
**Lengths:** 130-240mm in 10mm increments

\*European Patent No. EP1307303.

## RIGHT SPEC – RIGHT FIXING – RIGHT ANGLE

– LESS NAILING – LESS COST – LESS FUSS – LESS WASTE – 100% RECYCLABLE STAINLESS STEEL –

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