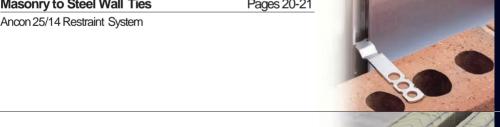




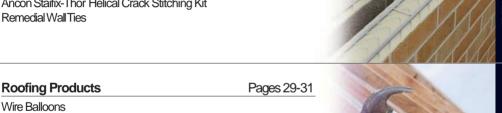
# **Ancon**Staifix Wall Ties & Restraint Fixings







**Other Masonry Products** Ancon AMR Masonry Reinforcement Ancon Staifix Insulated Plasterboard Nails Ancon Staifix-Thor Helical Crack Stitching Kit Remedial Wall Ties



Pages 22-28

Wire Balloons Super-7 Thor-Helical Nail for Pitched Roofs Super-8 Headed Helical Nail for Flat Roofs





# **Stainless Steel Cavity Wall Ties**



for traditional masonry construction with cavities from 50mm to 225mm





#### Ancon Staifix Universal Insulation Retaining Clip (Eco Clip) For use with standard Ancon/Ancon Staifix stainless steel ties in partial fill cavities

# **Application**

These stainless steel wall ties connect the two leaves of a cavity wall. Product selection is based on building type and height, geographical location and cavity width. Specially designed safety ends reduce the risk of injury during handling and installation.



# **Ancon Staifix HRT4 Light Duty Tie**

(Type 4 Tie to PD6697)

Length (mm)	Cavity (mm)
200	50-75
225	76-100
250	101-125
275	126-150

Type 4 wall tie for use in the external walls of houses up to 10 metres in height. Altitude and wind speed restrictions may apply.





Available in packs of 20 or 250

**Ancon Staifix RT2 General Purpose Tie** 

(Type 2 Tie to PD6697)

Length (mm)	Cavity (mm)
200	50-75
225	76-100
250	101-125
275	126-150

Type 2 wall tie for use in the external walls of houses and small commercial developments up to 15 metres in height. Altitude and wind speed restrictions may apply.



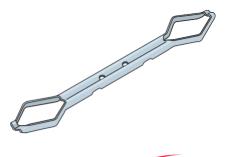
# **Ancon ST1 Heavy Duty Tie**

(Type 1 Tie to PD6697 in M2 mortar)

Length (mm)	Cavity (mm)
200	50-75
225	76-100
250	101-125
275	126-150
300	151-175
325	176-200
350	201-225

Type 1 wall tie for use in the external walls of buildings of any height anywhere in the British Isles.

**Note:** Forintemal separating walls of newbuild attached dwellings use HRT4 only. Check product packaging or contact us for more information.



Available in packs of 250



# **Ancon Teplo Basalt Fibre WallTies**

for ultra energy-efficient buildings with cavities up to 450mm





**Teplo-Clip**Insulation retaining clip for use with all Ancon Teplo wall ties

# Teplo-L-Tie

Features a stainless steel upstand for surface fixing

#### Teplo-BFR

Features a plain end for resin anchoring to existing structure

#### **Application**

Ancon Teplo wall ties are manufactured from pultruded basalt fibres set in a resin matrix. They have a thermal conductivity of just 0.7W/mK and are shown in U-value calculations to reduce insulation thickness and wall footprint.





# Ancon Teplo-BF4 (Type 4 Tie to PD6697)

Length (mm)	Cavity (mm)
200	50-75
225	76-100
250	101-125
550	401-425
575	426-450



Type 4 wall tie for use in external walls of houses up to 10 metres in height. Altitude and wind speed restrictions may apply.

# Ancon Teplo-BF3 (Type 3 Tie to PD6697)

Length (mm)	Cavity (mm)
450	301-325
475	326-350
500	351-375
525	376-400



Type 3 wall tie for use in external walls of houses and small commercial developments up to 15 metres in height. Altitude and wind speed restrictions may apply.

# Ancon Teplo-BF2 (Type 2 Tie to PD6697)

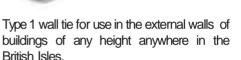
Length (mm)	Cavity (mm)
200	50-75
225	76-100
250	101-125
275	126-150
300	151-175
325	176-200
350	201-225
375	226-250
400	251-275
425	276-300



Type 2 wall tie for use in external walls of houses and small commercial developments up to 15 metres in height. Altitude and wind speed restrictions may apply.

# Ancon Teplo-BF1 (Type 1 Tie to PD6697)

Length (mm)	Cavity (mm)
200	50-75
225	76-100
250	101-125
275	126-150



# Ancon Staifix-Thor Helical TJ2 Tie



for thin-ioint blockwork



Length (mm)	Cavity (mm)
205	50
230	<i>7</i> 5
255	100
280	125
305	150

# **Application**

Hammer-driven cavity wall tie, ideal for thin-joint blockwork and other applications where the joints of the inner and outer leaves of masonry do not course.

Suitable for buildings up to 15 metres in height when used with high strength blocks. Contact us for more details.

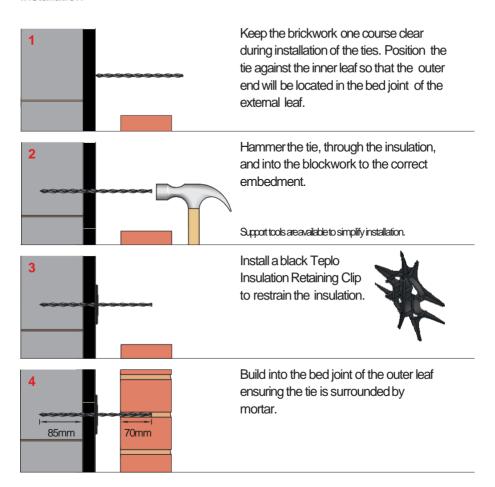
For thin-joint to thin-joint separating walls use the Ancon Staifix HRT4 (see page 5).

Hammers directly into Aircrete blocks

European Patent No. 1307303



#### Installation



#### **Embedment**

Staifix-Thor Helical TJ2 Thin-Joint Ties should have a minimum embedment of 85mm in the inner leaf of blockwork and 70mm in the outer leaf of brickwork.





# Other Standard Ancon Wall Ties

lengths shown in **red italics** refer to items available within 24 hours

#### **Ancon Teplo-L-Tie**

Low thermal conductivity restraint fixing



Lengths 165, 190, 215, 240, 265, 290, 315, 340, 365mm

## Application

Basalt fibre frame cramp with stainless steel upstand, used to join masonry to existing structures.

#### Ancon PPS Movement Tie

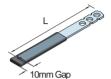
For vertical movement joints



Lengths 175, 225, 250, 275, 300mm

#### **Application**

Flat tie used with a debonding sleeve to allow the masonry to expand or contract.



#### **DT Double Triangle**

Lengths 150\*, 200\*, 225\*, 250\*\*, 300mn\*\*

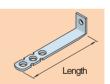
\*Conforms to PD6697 as a Type 2 tie

\*\* Type 3 tie



#### SPR

Lengths 75, 100, 125, 150, 175, 200, 225, 250, 275, 300mm (Heavy duty version also available)



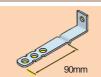
#### RD3

Lengths **250**, **275**mm Conforms to PD6697 as a Type 3 tie



#### **SDB**

Lengths 125, 150, 175, 200, 225, 250, 275, 300mm



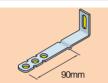
#### HRD4

Lengths **250**, **275**mm Conforms to PD6697 as a Type 4 tie



# SDV

Lengths **125**, **150**, **175**, **200**, 225, 250, 275, 300mm

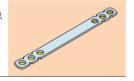


#### SPS

Lengths 150, 200, 225, 250, 275, 300mm

#### SPS CJ

Lengths **150**mm (3mm thickness for collar-jointed construction)



#### **PPB**

Lengths 125, 150, 175, 200, 225mm

#### PP\/

Lengths 125, 150, 175, 200, 225mm

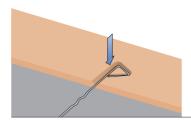




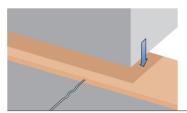
#### Wall Tie Installation

Symmetrical Ancon wall ties (HRT4, RT2, ST1 and Teplo-BF) accommodate some site tolerance in their length, for both cavity width variation and centring of the tie. In line with PD6697: 2010 and Approved Document A, the minimum wall tie embedment is 50mm. Longer wall ties will be required where cavities are outside the tolerance offered.

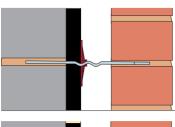
For walls in which both leaves are 90mm or thicker, ties should be installed at not less than 2.5 per square metre (900mm x 450mm vertical centres).



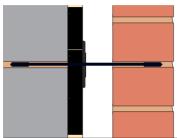
Wall ties should be pressed down in, and then surrounded by, fresh mortar. Symmetrical wall ties should be centred from the middle of the cavity to ensure equal embedment in each leaf



Toensure cavity wall ties are effective at tying the leaves together they should be installed as the inner leaf is constructed and not simply pushed into a joint.



Ties should be installed level or with a slight fall to the outer leaf, never towards the inner leaf as this could provide a path for moisture to cross the cavity.



Installed ties should be clear of mortar droppings to allow the drip to function and prevent water from crossing to the inner leaf of masonry.

Ancon



# **Ancon Staifix Universal Wall Starter System**

for joining new walls to existing masonry



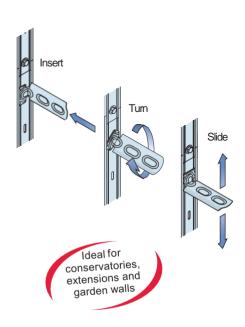
# **Application**

Wall starter system with all the necessary fixings to join a single skin of masonry 2.4 metres high to an existing wall.

#### Suitable for:

- Brickwork and blockwork
- Imperial and metric masonry units
- Single leaf and cavity walls
- Internal and external use
- Wall widths from 60mm to 250mm
- Masonry up to 8 metres in height

Wall ties slide within the fixing strip to course with the bed joints of any masonry unit.

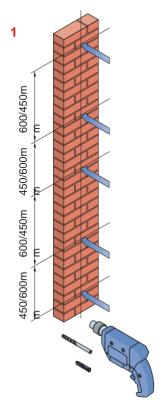


#### Universal Wall Starter Installation

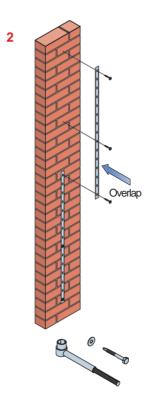
contantec

Prior to installation remove any render, debris etc from the existing wall where the new wall will be joined.

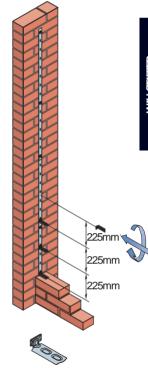
3



- Mark the position of the five fixing holes so that the Wall Starter System will be central to the new wall. When overlapped, the strips should be fixed through the first and last slot, at the point of overlap and at two other points in between (alternate 450mm and 600mm centres are recommended).
- Drill 10mm diameter holes and install wall plugs.



- Loosely fix first strip at the bottom two fixing points.
- Insert second strip into the top of the first strip and loosely fix at the remaining three fixing points.
- Fully tighten screws, in any order, when both strips are in position.



 Insert wall ties by turning 90° clockwise in the fixing strip and build into the bed joints of the new wall, ensuring they are surrounded by mortar (225mm vertical centres are recommended).

# **Ancon Staifix Starter Ties**



for joining new walls to existing masonry





#### **Wall Starter Tie**

Screw-in tie supplied with an 8mm nylon plug for joining new masonry to existing walls without the need for jointing.

Ideal for the construction of conservatories.

extensions and garden walls.





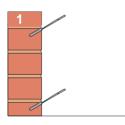
Screw-in tie that simplifies the build of an inner leaf of blockwork within an existing structure. Supplied with an 8mm nylon plug and a neoprene 'o' ring.

Length (mm)	Cavity (mm)
180	50-70
200	75 <del>.9</del> 5
230	100-120

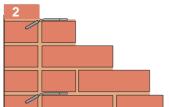
**Note:** Embedment depth for above tie lengths should be 65-85mm in mortar joint.



#### Ancon Staifix Wall Starter Tie Installation



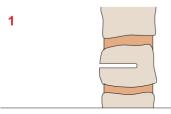
Starter Ties should be fixed at 225mm vertical centres in a line central to the new leaf. Drill 8mm diameter holes, 45mm deep into the existing wall at an angle of 30° to the horizontal. Insert wall plugs provided and screw in ties.



Bend the tie into the bed joint of the new brickwork. Build the tie in ensuring it is surrounded by mortar.

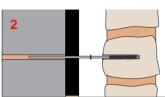
Thistie is suitable for use in masony up to 8 metres in height. For buildings in particularly exposed areas, especially if the wall is higher than 5 metres or the construction is single leaf, it would be ackisable to carryout acheok calculation using the wind code and in a case the density of starter ties if necessary.

# **Ancon Staifix Cavity Starter Tie Installation**



Drill an 8mm diameter hole horizontally into existing outer leaf of masonry.

Position the hole such that when the tie is installed the safety end will be located in the bed joint of the new inner leaf of blockwork



Insert the nylon plug. Slide the neoprene 'o' ring on the tie and screw into the plug. Build the tie into the inner leaf of blockwork ensuring it is surrounded by mortar.

Ancon



# **Ancon Staifix Timber Frame Ties**

for fixing masonry to timber frames up to four storeys in height





#### STF6 Timber Frame Tie

Cranked cavity wall tie for use in the construction of timber-framed buildings. Supplied complete with an annular ring shank nail. Available in three lengths to suit cavities of 50, 75 and 100mm.

#### TIM6 Helical Timber Frame Tie

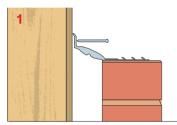
Hammers directly into timber frames without a pilot hole, through insulation where necessary. Available in four lengths to suit cavities from 50mm to 150mm

# Ancon Teplo-L-Tie

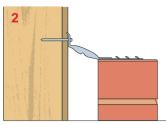
For applications where a low thermal conductivity restraint fixing is required between masonry and a timber frame. Available in 9 lengths to suit cavities from 100mm to 300mm.



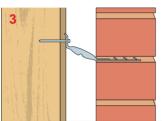




Position the tie on fresh mortar in the bed joint of the outer leaf of masonry with the upstand against the timber.



Hammer the nail, through the hole in the upstand, into the timber framework.

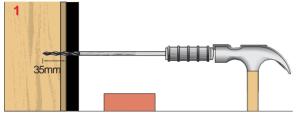


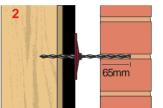
Build the tie into the bed joint of the new masonry ensuring it is surrounded by mortar.

# **Density of Timber Frame Ties**

Timber Frame Ties should be installed at a density of 4.4 ties per square metre in buildings where the basic wind speed does not exceed 25m/s (BS6399-2: 1997 Code of Practice for Wind Loads). The density should be increased to 7 ties per square metre in more severe situations

#### **TIM6 Installation**







# **Ancon Staifix Frame Tie**

for fixing timber door and window frames to brickwork



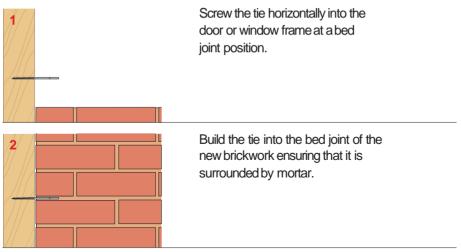
# **Application**

Screw-in tie used to join timber door and window frames to brickwork.





#### Installation



The Amon Staifix Fame Tie should not be used as a wall starter tie (see page 14).

## **Vertical spacing of Ancon Staifix Frame Ties**

Width of Openin g(mm)	Required Vertical Spacing  Modified for Coursing (mm)
<1001	300
1001-1400	225
1401-2100	150
>2100	75

Suitable for buildings up to 15 min height on flat sites where the basic wind speed obes not exceed 31 m/s.



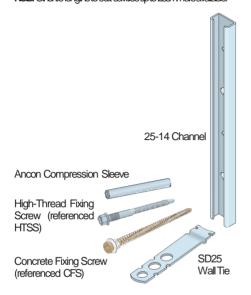


for tying masonry to steel, concrete or timber frames through any insulation type



ie LeTingh(mm)	Open Cavity (mm)
100	35 - 59
125	60-84
150	85 - 109

Note: Othertie lengths to suit cavities up to 259mm are available.



# **Applications**

Channel-and-tie system for fixing masonry to an in-situ structure through an insulation layer.

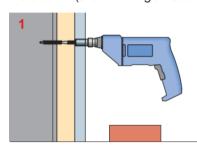
For fixing to steel or timber frames, Ancon self-drilling high-thread screws should be used through the channel and insulation and into the frame. They are suitable for an insulation depth up to 220mm.

For fixing to concrete, Ancon concrete fixing screws should be used through the channel and a stainless steel compression sleeve, located in the insulation, and into a pilot hole in the concrete. They are suitable for an insulation depth up to 267mm.

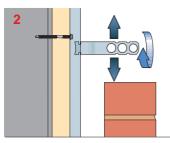


# **Installation** (shown with rigid insulation and a steel frame)

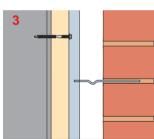




Fix channel to steel frame with Ancon self-drilling screws. Contact us for fixing centres. Ancon 25/14 channel is supplied with pre-punched holes at close centres to ensure a fixing position is always located near the end when the channel is cut on site.



The spacing of ties is based on the height of the building and geographical location. Contact us for details. SD25 wall ties can be positioned at any point along the channel's length. Ties should achieve a minimum embedment of 50mm in the outer leaf and be pressed down in fresh mortar.



Build the tie into the bed joint of the new masonry ensuring it is surrounded by mortar

Ancon<sup>a</sup>

**Notes:**Soews are available in various lengths to accommodate an insulation thickness of up to 220mm. Walties are available in lengths from 100mm to 300mm to suit open cavities up to 259mm.

Contact us for installation details for other frame and insulation types.



# **Ancon AMR Masonry Reinforcement**

to strengthen masonry panels



	<b>AMRWidth</b>	WallThickness
0mm	6	100-125mmBrick/Block
	100mm	140-150mm Block
	150mm	190-200mm Block
	175mm	215mmBlock

# **AMR Applications**

Stainless steel reinforcement, installed in a bed joint to strengthen masonry walls. Manufactured in lengths of 2700mm.

Available in five wire diameters and four widths, AMR suits the majority of wall conditions.

For collar-jointed walls use Ancon AMR-CJ.

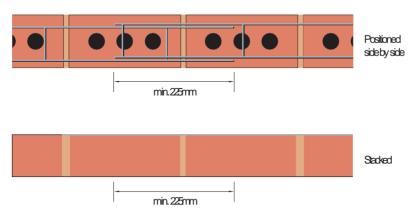
Suitable for internal and external leaves



#### Laps and Positioning

The position of laps should be staggered throughout the masonry panel.

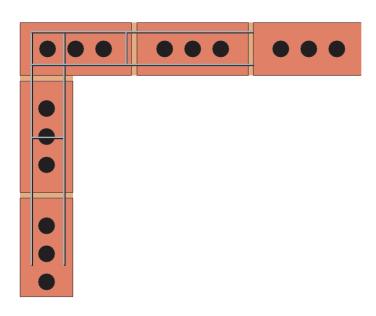
Laps should be a minimum of 225mm in length and include one cross wire. Laps can be achieved by either stacking the product or positioning lengths side by side.



Note: Overall thickness of AVR when stacked is less than 6mm.

#### Corners

Prefabricated corner units can be manufactured to provide true continuity of reinforcement. Alternatively, Ancon AMR can be cut and bent on site.





# Insulated Plasterboard Nails

Fire-proof steel fixing for securing insulated plasterboards



## Available Lengths

65,85,105,125,145mm

# **Application**

A one piece steel fastener (referenced ISF18A) with a dish-profiled head for mechanically securing drywall and insulated plasterboard panels to walls.

This fire-proof steel fastener has a selftapping helical shank with work-hardened blades that cut into a wide range of masonry and timber substrates.





#### Installation

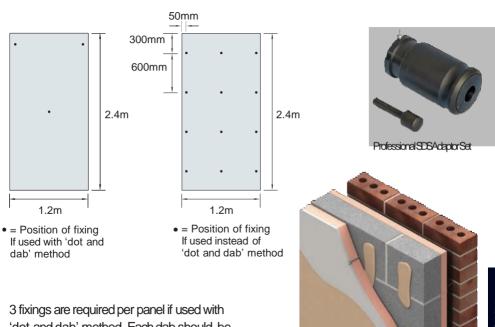
The fixings are driven-in by an adaptor, which is powered by a standard SDS hammer drill.

The anchor drives directly into aircrete blocks and softwood timber. A 5mm pilot hole is recommended for brick, concrete block and hardwood.

A 6mm pilot hole is required for structural concrete and engineered brick.

Substrate	Embadmentdepth
Aircrete Block	50-75mm
Brick/Concrete Block	4060mm
Saftwood	3550mm





'dot and dab' method. Each dab should be 50mm to 75mm wide and approx.

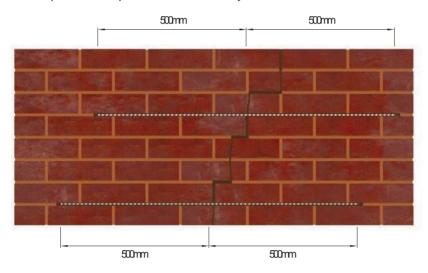
250mm long.

12 fixings are required per panel if used instead of 'dot and dab'.



# **Ancon Staifix-Thor Helical Crack Stitching Kit**

for the permanent repair of cracked masonry



all W Thick ness	Slot De pth	Bar De pth
102	30m	20m
mm	m	m
215	40m	30m
mm	m	m



#### **Application**

This kit contains all the necessary components to permanently repair vertical or stepped cracks in masonry.

- Grout mixing paddle
- Cementitious grout (3 litres)
- Grout applicator gun with flat nozzle
- Ten stainless steel helical bars (6mmøx 1000mm)
- Finger trowel

#### Notes:

- 1. This system is also suitable for rendered/blastered walls
- Vertical spacing is normally every 4to 6 brick courses (300 - 450mm), however this should be checked with the structural engineer
- Where cracks are within 500mm from corners or reveals, the bar should be bent and bonded 100mm around the corner
- If two or more aads are do se together, bars can be lapped.
   Laps should be at least 500 mm and the barshould extend
   500 mm from the outer aads.



#### Installation

It is essential that the cause of the cracking is established by a structural engineer and then eliminated, prior to the installation of this system.



Cut a slot in the mortar joint to the specified depth that extends just over 500mm each side of the crack (recommended equipment: Twin-bladed diamond-tipped wall chaser). Ensure the mortar is completely removed to reveal the top and bottom faces of the masonry. Remove all loose mortar from the slot and flush with clean water.



Connect the paddle to a power drill, blend the components of the grout together in the tub and load into the gun. Apply a continuous bead (approximately 10-15mm thick) to the back of the slot.



Push the helical bar into the face of the grout, to the depth specified, so that the bar extends 500mm each side of the crack.



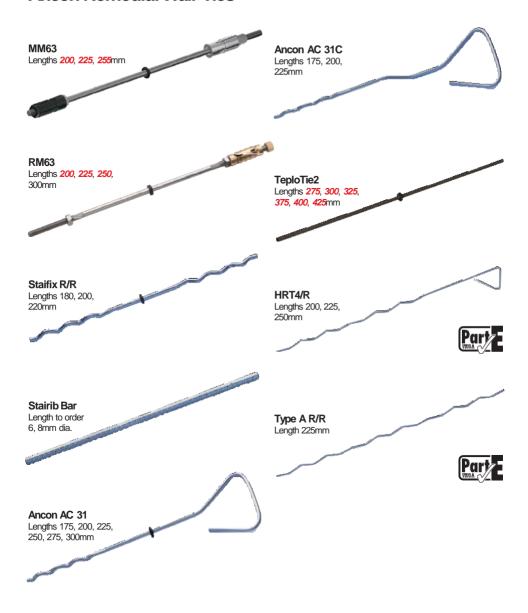
Apply a second, continuous bead of grout to the slot, ensuring the bar is covered. With the finger trowel, force the grout back into the slot 10mm from the surface, and ensure the bar/grout composite is tightly packed.



Make good the bed joint and fill the vertical crack with an appropriate filler or mortar.

# **Ancon Remedial Wall Ties**





Lengths in *red italics* refer to items available within 24 hours.

Setting tools, resin cartridges, resin guns and mixing nozzles are all available. Contact us for more details on our range of remedial wall ties and ancillary products.

# **Ancon Staifix Wire Balloons**





A simple and effective way of keeping chimneys and downpipes clear from nesting birds, leaves and other debris.

Available in six standard sizes, wire balloons are manufactured from stainless steel or galvanised steel mesh.

Wire BalloonSize	Stainless MeshSize	Galvan ised MeshSize
21/2"	1"	1/2"
3"	1"	1/2"
4"	1"	1/2"
6"	3/4"	3/,"
8"	1"	3/,"
Q"	1"	3/,"

**Note:** Stainless steel balloons are manufactured to order.

Galvanisedsteel balloons are available ex-stock.

Maintenance-free

and easy

to install

# **Helical Nails for Warm Roof Construction**



Helical nails are a quick and reliable fixing for use in warm roof applications. Unlike traditional nails, they rotate as they are driven in, inducing a self-tapping action and consequently do not split or bounce timbers.

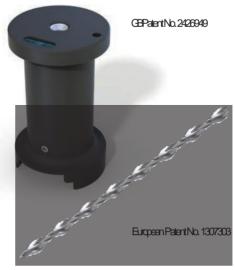
# Super-7™ Thor-Helical Nail for Pitched Roofs

Stocked Lengths:

140, 150, 160, 165, 175, 185mm

Note: Otherlengths are available in increments of 5mm. Wecommendaminimum counter batten thickness of 39mm

# Super-7<sup>™</sup> Alignment Tool for Pitched Roofs



#### **HeliCalc Calculator**

HeliCalc is a free web-based program which calculates the length, density and quantity of Super-7 nails required for a specific project. Visit www.helicalc.co.uk or contact us for more information.



# Super-8 Headed Helical Nail for Flat Roofs

Standard Lengths:

145, 170, 195mm

Note: Oherlengths are available on request (min. 135mm)



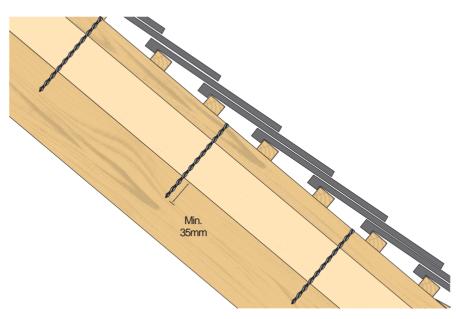


Formation on the above products please refer to the 'Helical Nails for Warm Roof Construction' brochure

# **Applications**



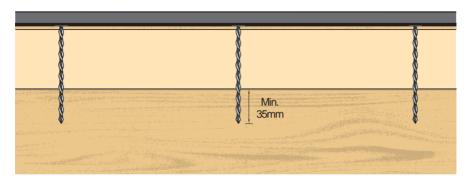
#### Pitched Roofs



Helical nails fix counterbattens to rafters, without compressing the layer of insulation in-between.

#### Ancon<sup>a</sup>

#### Flat Roofs



Headed helical nails fix plywood/insulation composite roof panels to joists.



# **Product Approvals & Certifications**

From the 1st January 2021 there will be a number of changes to the product approvals on our products due to changes to product marking.

The table below highlights the relevant markings for each of our Ancon Staifix Wall Tie & Restraint Fixings range. Full DoPs can be downloaded from our website at: www.ancon.co.uk/approvals

# **UKCA Marking**

The UKCA (UK Conformity Assessed) marking is the new UK product marking that will be used for goods being placed on the market in Great Britain.

# **CE UKNI Marking**

The UKNI marking is a new conformity marking for products placed on the market in Northern Ireland which will be used on products that have undergone mandatory third-party conformity assessment by a body based in the UK.

# **CE Marking**

For products used in Europe the existing CE mark will still remain. Our DoPs have been updated, please visit www.ancon.co.uk/approvals for the latest version for the products highlighted below.

Product	CA UK	CENT	CE
HRI4		-	
RI2		-	
ST1		-	
SDB125300mm		-	
SPB75300mm		-	
PPS150300mm		-	
PPB125-225mm		-	
SPV75300mm			-
PPV125-225mm			-
Cavity Starter Tie			-
FiameTie			-
StarterTie			-
STF650rm,75rm,100rm			-
TJ2 205, 230, 255, 280, 305mmlong			-
DT150300mm			-
SPS150300mm		-	
SPSCJ150mm			-
THMT750-150mmcavity			-
TIM6175,200,225,250mm			-
SDV125300mm			-





Email: geral@cortartec.net

Telefone: (+351) 219 824 133

Office: Rua Casal dos Mortais, №10B Loja esquerda, 2625-692 Vialonga