

TTCH
FIXING TO
CONCRETE

TTCH using
Semi rigid
Insulation

TTCH using
Rigid
Insulation

25/14 CHANNEL SYSTEM

The TecTies 25/14 Channel System is designed to tie brickwork to steel columns or concrete structures.

The channel has fixing holes for CFS Concrete fixings screws and it is recommended that they are positioned at 450mm vertical centres. Available in standard lengths of 2700mm.

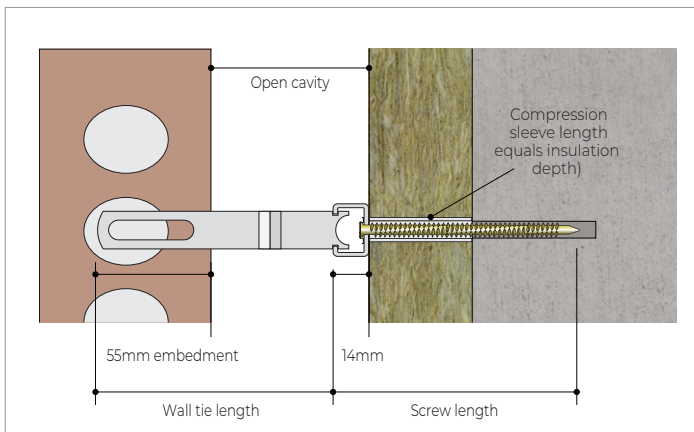


TTCH using Semi Rigid Insulation

Lengths: For an insulation depth up to 267mm

TTCH Wall Ties

Lengths: For open cavities up to 259mm

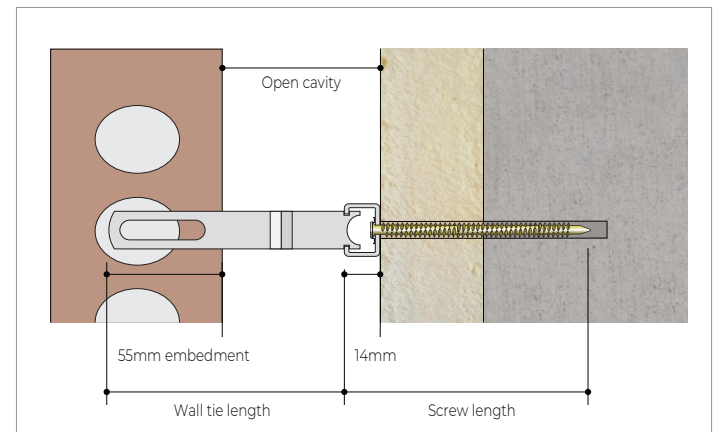


TTCH using Rigid Insulation

Lengths: For an insulation depth up to 220mm

TTCH Wall Ties

Lengths: For open cavities up to 259mm



Channel Tie Cavity Key

35-59mm	60-84mm	85-109mm	110-134mm	135-159mm	160-184mm	185-209mm	210-234mm	235-259mm
TTCH100	TTCH125	TTCH150	TTCH175	TTCH200	TTCH225	TTCH250	TTCH275	TTCH300

The 25/14 Channel Ties are supplied in standard lengths from 100mm to 300mm projections, complete with V Drip. Tecties recommend a minimum embedment of 62.5mm into masonry.

visit www.tecties.co.uk for more information or call **01663 749361**

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CFS Concrete fixings screws

CFS Concrete fixings screws are available to accommodate a combined backing board and insulation thickness of up to 267mm. A 6mm pilot hole is required. A Tecties stainless steel compression sleeve the same depth as the insulation is required with semi rigid insulation. See tables for screw references, technical specifications and fixing centres.

CFS Concrete fixings screws are also available for fixing the channel directly back to concrete where no insulation is present, for further information please contact us.

Note: concrete strength increases with age and care should be taken when fixing CFS Concrete fixings screws into older concrete. For further information and technical queries please contact the office.

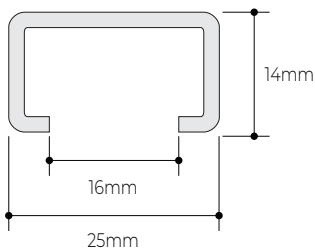
* For fixing channel directly back to concrete where no insulation is present. Shoulder washer & compression sleeve not required, standard M8 nylon washer supplied to be used between screw and channel.

CFS Concrete fixings screws

Insulation Thickness (mm)	Screw Length (mm)	Minimum Concrete Embedment (mm)	Pilot Hole Dia. x Depth (mm)
0	60	65	65
35-45	100		
45-55	110		
55-65	120		
65-75	130		
75-95	150		
95-125	180		
125-145	200	30	6 x 40
145-177	212		
177-217	252		
217-267	302		

Tecties 25/14 Channel

25/14 channel is available in lengths of 2700mm. It features pre-punched holes at close centres to ensure a fixing position is always located near the end, even when it is cut on site. The channel has a 16mm opening to easily accommodate a drive socket and washer for the CFS Concrete fixings screws.



Tecties 25/14 channel features alternate 6mm and 8mm diameter holes to accept different fixings.

The smaller diameter holes should be used when fixing to steel or timber.

The larger diameter holes are to accommodate fixings for concrete.

Note: Using the incorrect hole and fixing screw combination invalidates the system performance.

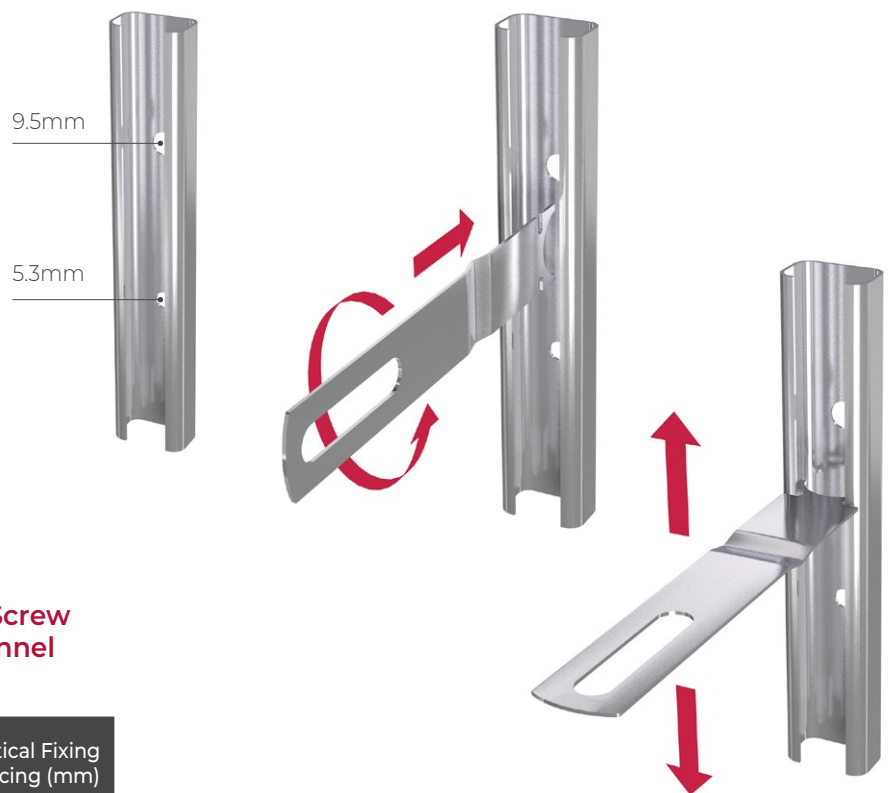
Recommended Wall Tie and Fixing Screw Vertical Centres, based on 25/14 Channel at 600mm Horizontal Centres

Tie Type	Insulation Thickness ¹ (mm)	Vertical Tie Spacing (mm)	Vertical Fixing Spacing (mm)
1	Max 220	225	225
2	Max 220	450	337.5
3	Max 220	450	337.5/450*
4	Max 220	450	337.5/450*

Notes: Centres shown achieve equivalent tie performances to PD 6697 6.2.2.5 Table 12 (M2 Mortar). Min C20/25 Concrete.

Tecties TTCH Wall Ties

Tecties TTCH wall ties are available in various lengths to suit open cavities from 35mm to 259mm (see selection table). They are located in the channel by rotating through 90 degrees and can be easily moved to the required position where they are built into the masonry bed joint. See tables for correct tie references and fixing centres.



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For semi-rigid/flexible insulations, we offer compression Sleeves which correspond to the thickness of the insulation specified. The tubes are designed to ensure that the compressive strength and stability of the channel tie system are both achieved and maintained by preventing the channel deflecting into and compressing the insulation during installation, and whilst under normal load.

TTCH Test Results

Test 100 - 200mm	Distance between Fixing Centres (mm)	Mean Load Capacity (N)	Mean Displacement at One Third of the Mean Load Capacity (mm)
Tension	450	1150	1.38
Compression	450	1160	0.43
Tension	225	2810	1.20

Test 225 - 300mm	(mm)	(N)	(mm)
Tension	450	830	1.63
Compression	450	1470	0.27
Tension	225	2630	1.03

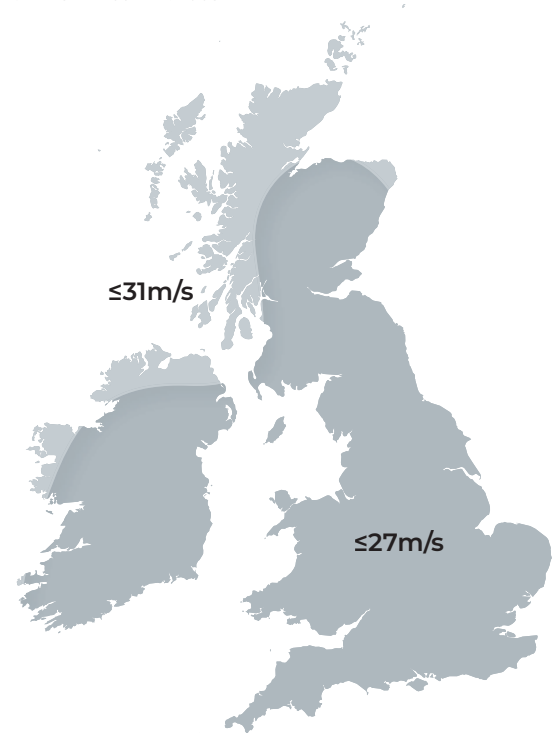
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Wall Tie Types

Required Wall Tie Type	Application	Maximum Building Height (m)	Geographical Location
Type 4	Light duty tie, suitable for box-form domestic dwellings	10	Suitable for flat sites in towns/cities where basic wind speed does not exceed 27m/s and altitude is not more than 150m above sea level
Type 3	Basic wall ties, suitable for residential and small commercial buildings	15	Suitable for flat sites where basic wind speed is up to 27m/s and altitude is not more than 150m above sea level
Type 2	General purpose tie, suitable for residential and small commercial buildings	15	Suitable for flat sites where basic wind speed is up to 31m/s and altitude is not more than 150m above sea level
Type 1	Heavy duty tie, suitable for most building types	Any height	Suitable for most sites. However, for relatively small or unusually shaped buildings in vulnerable areas, tie provision should be calculated

Wind Speed Map

from BS EN 1991-1-4: 2005



Notes: Refer to PD 6697: 2010 and BS EN 1991-1-4: 2005 for complete information. For information on the certified management systems and standards see Tecties.co.uk



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