



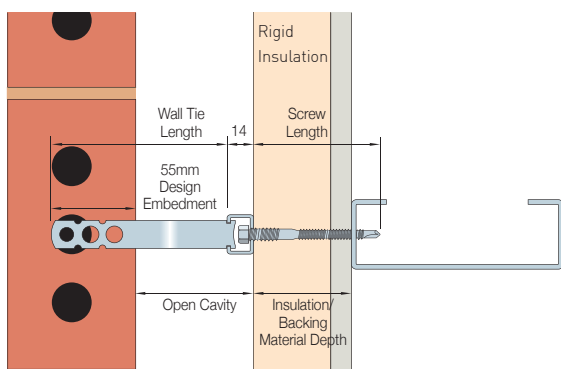
SHAPING THE FUTURE IN METAL

UltraBrickTie Channel

Information Sheet

UltraBrickTie Channel Fixing To Steel

Hadley UltraBrickTie Channel is designed to be used with TecTies TTCH series masonry ties to tie masonry cladding to a primary structure through a layer of rigid insulation. Typical applications are timber or light gauge structural steel framing (LGSF) systems, but the system can also be utilised with traditional hot rolled steel frames.



The system comprises of the Hadley UltraBrickTie 25/14 cold roll-formed steel channel, TecTies TTCH series wall ties and 'high thread stand-off' self-drilling/tapping fasteners.

The UltraBrickTie Channel incorporates alternate 5.3mm and 9.5mm diameter holes each at 112.5mm spacing. The 5.3mm holes accept 'high thread stand-off' self-drilling/tapping fasteners and it is only these holes that should be used with this fastener.

Fastener and tie spacing recommendations below are dependent upon the equivalent required tie type performance and are based upon a density recommendation of evenly distributed ties being 2.5 ties per m² of wall cladding - other restrictions on tie spacing may also apply such as horizontal and vertical spacing, provisions for openings, movement joints, free edges, non-standard facades and extreme wind loads. It is recommended that the minimum number of wall ties per unit area is calculated by a suitably qualified structural engineer on a project specific basis in accordance with BS EN 1996-1-1.

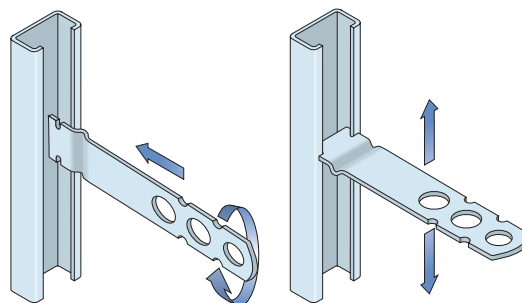
The declared value of the UltraBrickTie system incorporating TecTies TTCH series ties is shown in the table opposite. These values should be divided by γ_M to obtain the design value in accordance with BS EN 1996-1-1 and Table NA.1 of the National Annex.

UltraBrickTie system incorporating TecTies TTCH series ties has been independently tested in accordance with the requirements of BS EN 846-6 and is CE marked to BS EN 845-1. UltraBrickTie Channel is manufactured from 1.4301 grade stainless steel.

Hadley UltraBrickTie Channel is available in 2700mm lengths, other lengths are available upon request. With holes pre-punched at 112.5mm centres, adequate end fixing positions are always assured even when the channel is cut on site. The channel has a 16mm opening to easily accommodate a drive socket and washer for the fixing screws.

UltraBrickTie wall ties

Masonry ties for use with Hadley UltraBrickTie Channel are available in a variety of lengths to suit open cavities from 35mm to 259mm (see wall tie lengths/reference table).



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	Distance Between Fixing Centres (mm)	Mean Load Capacity (N)	Mean Displacement at One Third of the Mean Load Capacity (mm)
Tension	450	830	1.63
Compression	450	1470	0.27
Tension	225	2630	1.03

Wall tie lengths/references:

Open Cavity (mm)	Tie Lengths (mm)	Hadley UltraBrickTie Reference
35-59	100	TTCH100
60-84	125	TTCH125
85-109	150	TTCH150
110-134	175	TTCH175
135-159	200	TTCH200
160-184	225	TTCH225
185-209	250	TTCH250
210-234	275	TTCH275
235-259	300	TTCH300

Recommended Vertical Centres for wall ties and fasteners based upon horizontal spacing of 600mm with rigid insulation fixed to steel or timber primary structure			
Tie Type	Maximum Insulation and Backing Board Thickness (mm)	Vertical Tie Spacing (mm)	Vertical Screw Spacing (mm)
1	220 (steel) 180 (timber)	225	225
2		450	337.5
3		450	*337.5/450
4		450	*337.5/450

* Max centres where insulation is >114mm = 337.5mm.
Centres shown achieved equivalent tie type performance (unfactored) to PD6697 Table 12 (M2 mortar) based upon minimum 2.5 per m². Other restrictions on tie spacing may also apply such as horizontal and vertical spacing, provisions for openings, movement joints, free edges, non-standard facades and extreme wind loads.

For all channel tie enquiries please contact TecTies on **01663 749361**
or email **sales@tecties.co.uk**

Masonry wall tie classification by end use:

Classification	Range of Use Hadley UltraBrickTie Reference	
	Typical Application	Typical Loading
Type 1 (heavy duty)	Suitable for most building sizes and types. No height restriction applies.	Most sites within the UK. For areas of exceptional wind speeds such as found in the north western fringes - particularly around the coast and for unusual shaped building. The tie provision should always be calculated and advice from a suitably qualified structural engineer should be sought.
Type 2 (general purpose)	Suitable for small commercial buildings and domestic dwellings. Max height above ground level 15m. May be suitable for building types above 15m but should only be used in these situations if proven suitable by calculation.	Most buildings where the basic wind speed is not more than 31m/s providing the site is flat and the site altitude is less than 150m above sea level. For higher altitudes and sloping sites the tie provision should always be calculated and advice from a suitably qualified structural engineer should be sought.
Type 3 (basic)	Suitable for small commercial buildings and domestic dwellings. Max height above ground level 15m. May be suitable for building types above 15m but should only be used in these situations if proven suitable by calculation.	As Type 2 above but the basic wind speed should not exceed 27 m/s. To ensure correct tie spacing the tie provision should always be calculated and advice from a suitably qualified structural engineer should be sought.
Type 4 (light duty)	Suitable for box form domestic dwellings up to 10m in height.	Suitable for most flat sites in towns and cities not limited by the restrictions outlined in Types 1 - 3 above. If in doubt correct tie spacing should always be calculated and advice from a suitably qualified structural engineer should be sought.

The above descriptions are for general guidance only. Reference to PD 6697:2010 and BS EN 1991-1-4 (Wind actions) should be made for complete information. The advice of a suitably qualified structural engineer should be sought to determine correct tie selection and spacing.

For more information about our products and services please contact us.

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