

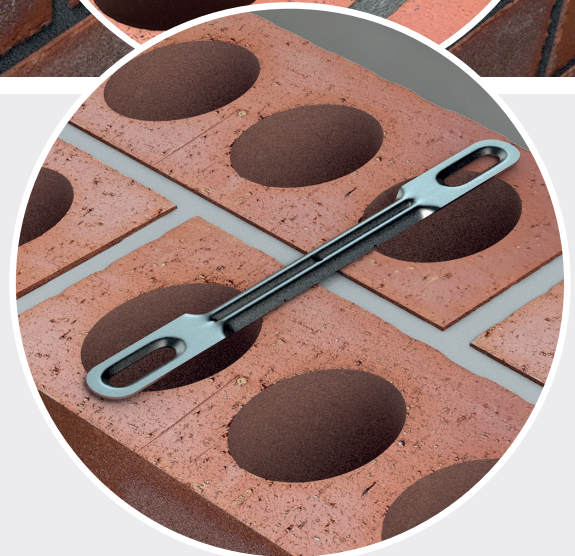
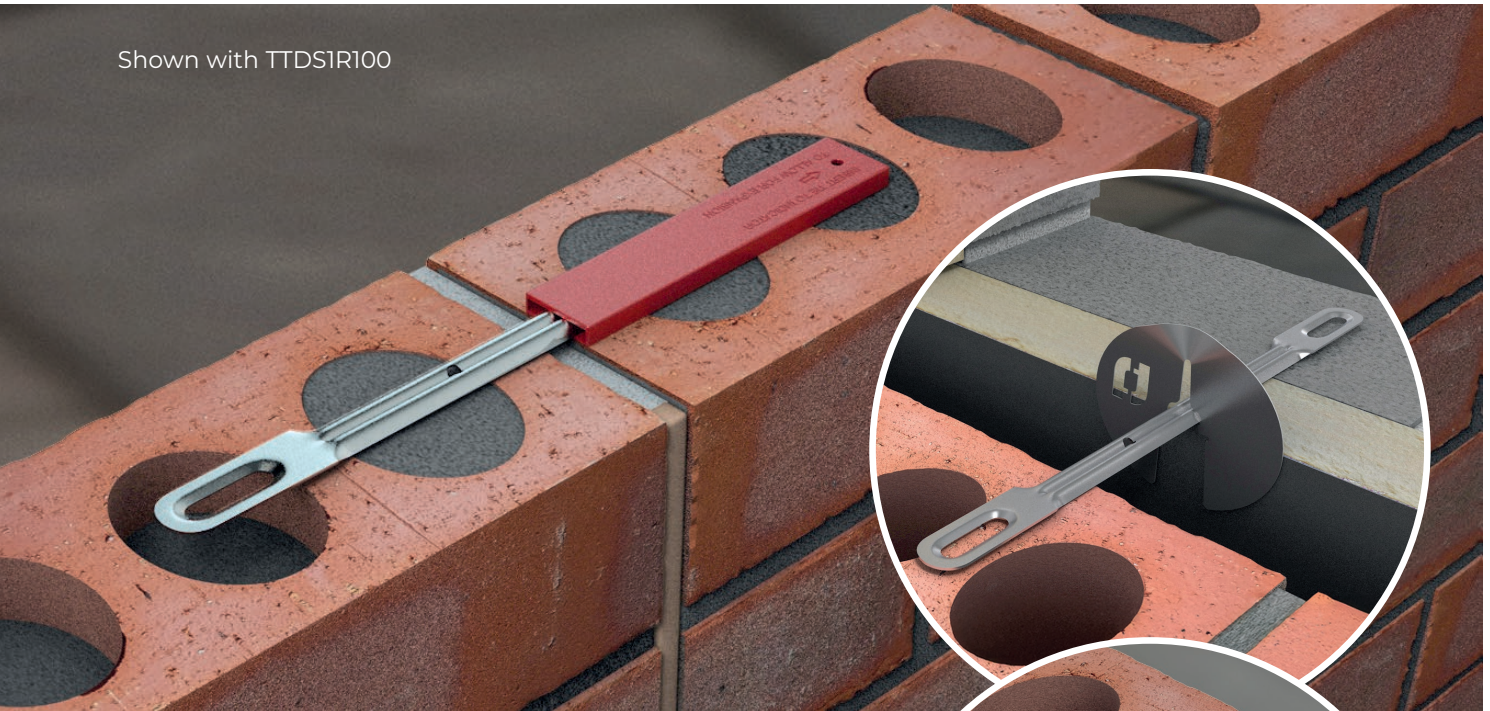


DATASHEET/DECLARATION OF PERFORMANCE

# TTSM1 HEAVY DUTY WALL TIE / DEBONDABLE MOVEMENT TIE

TEC/DD/1001

Shown with TTDS1R100



The Tec Ties TTSM1 is a multi purpose tie for use as a Type 1 heavy duty cavity tie in line with PD6697 and a debondable movement tie for use in vertical movement joints.

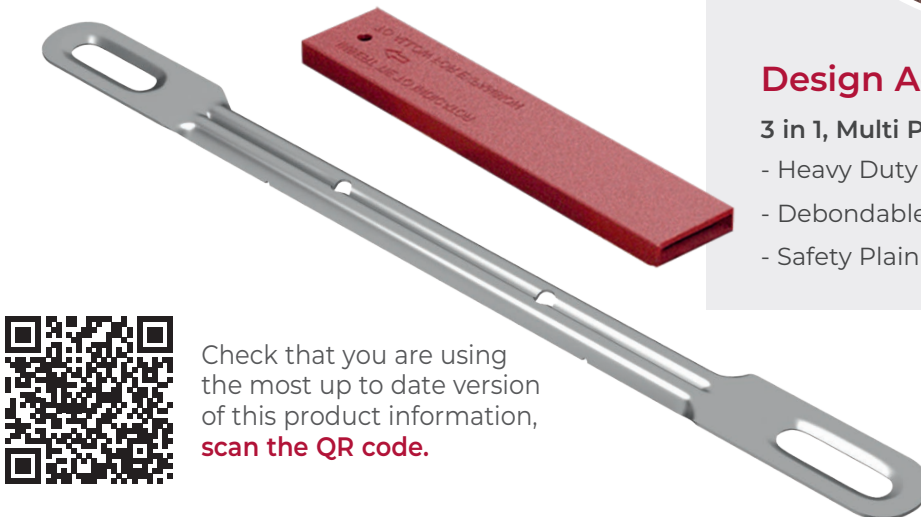
This symmetrical Type 1 / Type B wall tie is specifically designed to connect two leaves of a cavity wall in masonry construction.

When used with its own specific de-bonding sleeve, it provides exceptional movement tolerance, meeting the requirements of BS EN 845-1:2013 + A1:2016.

## Design Advantages

### 3 in 1, Multi Purpose Tie

- Heavy Duty Wall Tie
- Debondable Movement Tie
- Safety Plain Safety Tie




Check that you are using the most up to date version of this product information, **scan the QR code.**



## TTSM1 PRODUCT ATTRIBUTES

Product Category	Heavy Duty Wall Tie / Debondable Movement Tie
Product Description	S/Steel Type 1 / Safety Movement Tie
Product Code	TTSM1
Product Brand Name	S/Steel Type 1 / Safety Movement Tie

	TTSM1200	TTSM1225	TTSM1250
Cavity Width	50mm to 75mm	76mm to 100mm	101mm to 125mm
Product Finish	Mill Finish	Mill Finish	Mill Finish
Length	200mm	225mm	250mm
Material Thickness	19x1mm	19x1mm	19x1mm
Material	Stainless Steel Grade 304	Stainless Steel Grade 304	Stainless Steel Grade 304
Drip Function	Multi Drip	Multi Drip	Multi Drip
Packaging Box / Bundle	Box	Box	Box
Package Qty	250no.	250no.	250no.
Tag / Label	Label	Label	Label
Individual Weight	0.025 KG	0.029 KG	0.033 KG
Package Weight	6.6 KG	7.6 KG	8.5 KG

<b>Packaging Material</b> 	Stainless Steel, Cardboard Box <b>Widely Recyclable - Check with your local council guidelines</b> Please visit the Environmental Commitment page <a href="#">here</a>
<b>Storage</b>	Boxes of stainless steel wall ties to be stored indoors, Individual wall ties can be stored outdoors provided they are protected from contamination. Regular checks should be carried out to ensure packaging remains intact, ties remain clean, and there are no signs of corrosion, damage, or foreign material that could affect product quality or performance.
<b>Safe Handling</b>	Please visit the Handling Safety Information page <a href="#">here</a>
<b>Fire Rating</b>	Euroclass A1

## DECLARATION OF PERFORMANCE

TecTies Ltd hereby declares that the Type 1 Heavy Duty Wall Tie / Debondable Movement Tie – TTSM1 are in conformity with the provisions of **ZA Annex of EN 845—1 : 2013+A1:2016**

### Intended Use

Symmetrical Wall Tie Type 1/Type B designed to connect two leaves of a cavity wall in masonry construction. The tie is also a shear/slip tie and is symmetrical and movement tolerant when used with a de bonding sleeve as defined in BS EN 845-1:2013+A1:2016. Can also be used as a safety plain safety tie.

### Suitable for

See table below

### Notified Body

Lucideon Limited, Queens Road, Penkhull, Stoke on Trent ST4 7LQ Tel. +44 (0)1782 764428

**Notified Body Number** 1289

**Underwritten by TZUS – Prague**

**Notified Body Number** 1020

The system of assessment and verification of constancy of performance for this construction product conforms to **System 3**

## TTSM1 Essential Characteristics

CAVITY WALL TIE	200mm	225mm	250mm
Cavity Width	50-75mm	76-100mm	101-125mm
Compressive Load Capacity	2110N	2110N	2110N
Tensile Load Capacity	3960N	3960N	3960N
Displacement at 1/3 Load - Compression	0.22mm	0.22mm	0.22mm
Displacement at 1/3 Load - Tensile	0.45mm	0.45mm	0.45mm
Building Heights	Suitable for any heights		
Water Shedding Capability	Resistant		
Durability - Material Reference 3	Austenitic Stainless Steel		
Durability - Grade	304 18/8 comp. to BS EN 10088/1		
Embedment Depth	62.5mm		
Drip function	Multi drip		
Minimum Mortar Designation	(iv)		
Minimum Mortar Joint Width	10mm		
Conformity Assessment	UKCA/CE+UKNI marked		
Testing	Tests were carried out by Lucideon Limited (UKAB No. 1289) in accordance with BS EN 846-5:2012: Methods of Test for Ancillary Components for Masonry – Part 5: Determination of Tensile and Compressive Load Capacity and Load Displacement Characteristics of Wall Ties (couplet test).		

All tested product information is available on request. Please contact us for more information.

# TTSM1 HEAVY DUTY WALL TIE / DEBONDABLE MOVEMENT TIE

TEC/DD/1001

## DECLARATION OF PERFORMANCE (CONTINUED)

### TTSM1 Essential Characteristics

MOVEMENT / SHEAR	200mm	225mm	250mm
Shear	Horizontal Direction over gap width of 10mm 1880N		
Displacement at one third of mean capacity (mm)	0.68		
Embedment depth of the tie	62.5 mm		
Embedment depth of the plastic sleeve	100 mm		
Water Shedding Capability	Resistant		
Durability - Material Reference 3	Austenitic Stainless Steel		
Durability - Grade	304 18/8 comp. to BS EN 10088/1		
Minimum Mortar Designation	(iv)		
Minimum Mortar Joint Width	10mm		
Conformity Assessment	UKCA/CE+UKNI marked		
Testing	Tests were carried out by Lucideon Limited (UKAB No. 1289), in accordance with BS EN 846-7:2012: Methods of Test for Ancillary Components for Masonry – Part 7: Determination of Shear Load Capacity and Load Displacement Characteristics of Shear Ties and Slip Ties (couplet test for mortar joint connections).		

All tested product information is available on request. Please contact us for more information.

# TTSM1 HEAVY DUTY WALL TIE / DEBONDABLE MOVEMENT TIE

TEC/DD/1001

## CONSTRUCTION ORDER

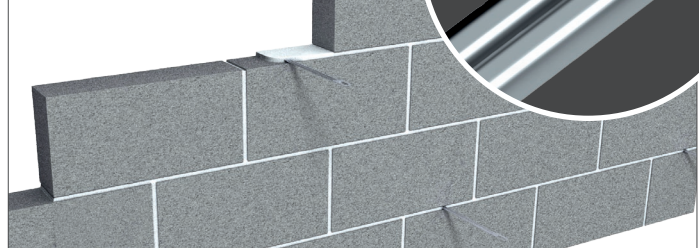
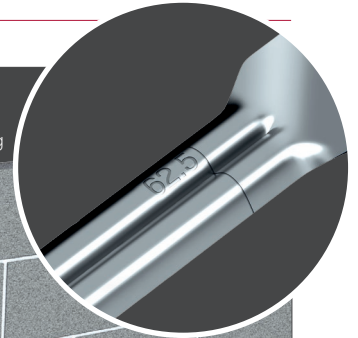
- 1 Build the Inner Leaf
- 2 Position the Tie in mortar [Install Insulation (if applicable)]
- 3 Build the Outer Leaf

**Note: do not cut, bend or shape ties, this will affect the product performance.**

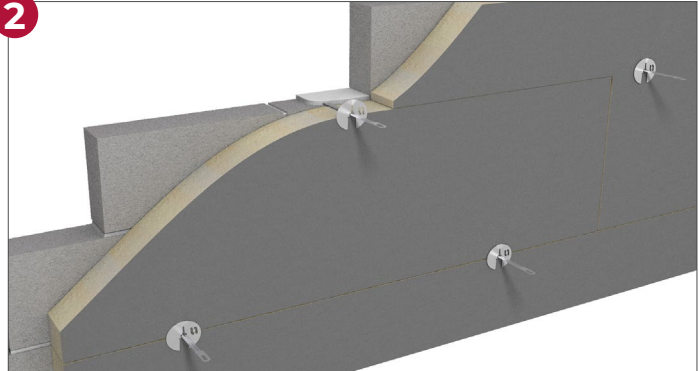
Images shown are using partial fill insulation. Ties can also be used with full fill insulation.

1

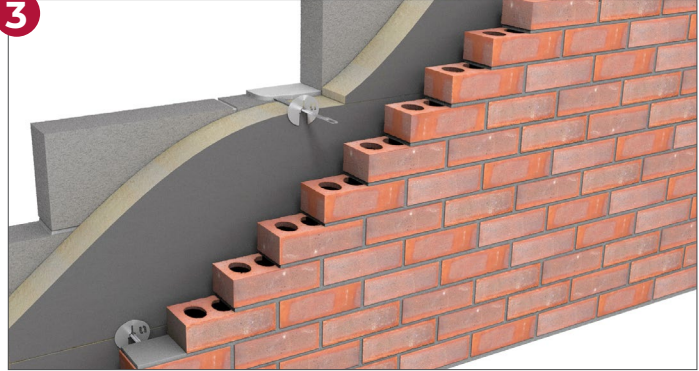
The TTSM1 must be installed in the correct orientation, with the flat side facing downward and the profile facing upward showing the 62.5 embedment line, as shown.



2



3



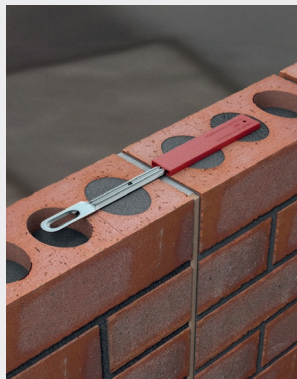
Minimum embedment depth  
**62.5mm**



### Movement Tie

Insert the tie into the debonding sleeve with a small gap left at the end of the sleeve of 5 to 10mm. This allows for expansion and contraction.

Install with the flat side facing downward and the profile facing upward showing the 62.5 embedment line.



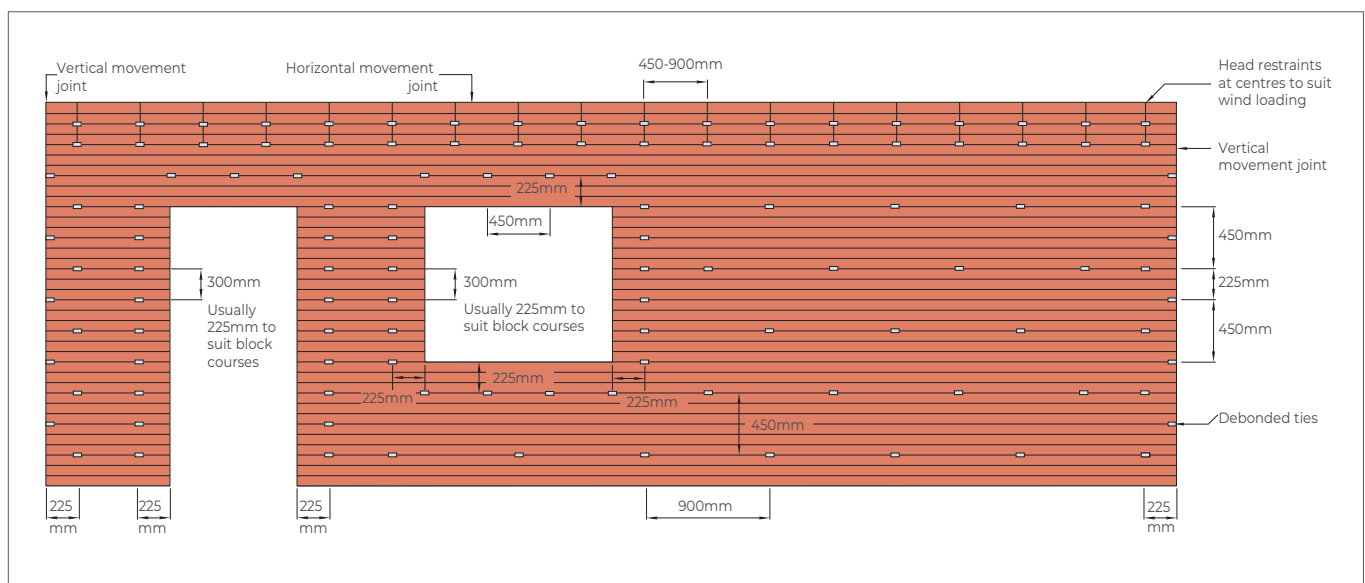
### Safety Plain Safety

Install with the flat side facing downward and the profile facing upward showing the 62.5 embedment line.



## WALL TIE SPACING AND POSITIONING

In cavity walls where both leaves are 90mm or thicker there should be a minimum of 2.5 ties per square metre. The maximum horizontal spacing is 900mm and the maximum vertical spacing is 450mm, although this may be varied if required by the Building Regulations. The ties should be evenly distributed over the wall area, in a staggered pattern, except around openings.



### Standard spacing for cavity brickwork 900mm x 450mm centres in a staggered pattern (2.5 ties per square metre)

Change the wall tie pattern around openings such as windows, doors, roof verges, unreturned or unbonded edges and un-tied vertical movement joints. Here the vertical spacing is reduced to a maximum of 300mm and ties should not be more than 225mm from the edge of the opening. This often means there is a wall tie every course of blocks within 225mm of the opening. Spacing at vertical movement joints may be relaxed where the joint has a debonded tie.

### Installation

TecTies Limited products must be installed in accordance with the relevant product specifications, Declaration of Performance (DOP), and current building regulations to ensure full compliance with performance and safety requirements.

Only competent and trained personnel should carry out installation work. Working in accordance with the current HSE manual handling legislation.

Products must be checked prior to installation to confirm that they are undamaged, of the correct type, and suitable for the intended application. Any damaged or

non-conforming items must not be installed and should be reported immediately to the supplier or site supervisor.

Installation must be carried out using appropriate tools, equipment, and Personal Protective Equipment (PPE). Care should be taken when handling or fitting components with sharp edges or when working at height or in restricted areas. All products must be installed in line with current building regulations, project specifications, and site safety procedures.

Once installation is complete, the work area should be checked to ensure all fixings are correctly secured, and waste materials are recycled or disposed of safely and responsibly.