Technical data sheet

WTS
Stainless Steel Wire Wall Tie

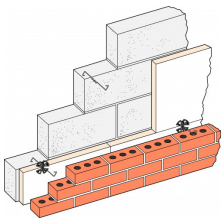
Types 2, 3 and 4 Stainless Steel Masonry to Masonry Wall Ties.

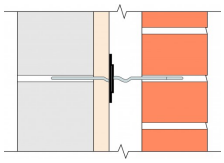
WTS2: Type 2 Wall Ties: Masonry General Purpose
Type 2 wall ties are suitable for general purpose applications such as domestic and small commercial buildings up to 15m in height. They can also be used in buildings with heights exceeding 15m, but should only be used in those situations if shown to be of adequate performance by calculation. Use in flat sites where the basic wind speed is up to 31 m/s and the altitude is not more than 150m above sea level.

WTS3: *Type 3 Wall Ties: Masonry General Purpose*
As Type 2 but fundamental basic wind velocity limited to 27 m/s

WTS4: Type 4 Wall Ties: Masonry Light Duty
Type 4 wall ties are light duty, suitable for box-form dwellings up to 10 metres high with leaves of similar thickness, including internal separating cavity walls. Use in flat sites in towns and cities where the basic wind speed does not exceed 25 m/s and the altitude is not more than 150m above sea level.

WTS4: Type A Approval
WTS4-200 and WTS4-225 ties meet the requirements of Approved Document E: Resistance to the Passage of Sound and are suitable for use in separating party walls of new build attached dwellings.





Features

Material

- Austenitic stainless steel.

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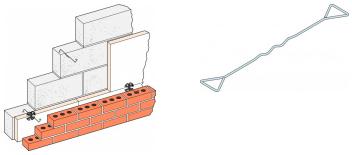
Product Dimensions



References	Tie Length [mm]	Type Classification	Cavity Width [mm]	B [mm]
WTS2-200	200	Type 2	50 - 75	200
WTS2-225	225	Type 2	76 - 100	225
WTS2-250	250	Type 2	101 - 125	250
WTS2-275	275	Type 2	126 - 150	275
WTS3-300	300	Type 3	151 - 175	300
WTS4-200	200	Type 4	50 - 75	200
WTS4-225	225	Type 4	76 - 100	225
WTS4-250	250	Type 4	101 - 125	250
WTS4-275	275	Type 4	126 - 150	275

Installation

Recommended Positioning and Density

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

The ties should be evenly distributed throughout the wall area, with the exception of around openings and should be staggered where possible.

Insulation Board
Where insulation board is installed within the cavity and restrained by ties with insulation retaining clips (Simpson Strong-Tie ref. IRC001), it may be necessary to reduce the horizontal spacing of the ties to 600mm.

At vertical edges of an opening, unreturned or unbonded edges, and vertical expansion joints - additional ties should be used at a rate of one per 300mm (height) and located not more than 225mm from the edge.

Length of Tie and Embedment

Wall ties should be of the correct length to ensure they are fully embedded in the masonry.
The tie should have a minimum embedment of 50mm in each leaf, but also allow for site tolerances relating to the cavity width and centring of the tie.

The recommended tie lengths will therefore achieve an embedment of between 62.5mm and 75mm.

For the most suitable tie length, see the "Recommended Masonry to Masonry Tie Length" table.

Sound Resistance

As stated within the Approved Document E 2003 - Resistance to the Passage of Sound - wall ties used in external and separating cavity walls have to have a minimum value of dynamic stiffness to reduce the transmission of airborne noise. Ties are separated into Type A and Type B.

- Type A: Can be used in separating walls and external walls subject to them also having the required structural capacity. They can be butterfly ties or other ties with a dynamic stiffness of less than 4.8 MN/m3.
- Type B: Can only be used in external cavity walls subject to them also having the required structural capacity. They can be butterfly ties or other ties with a dynamic stiffness of less than 113 MN/m3.

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