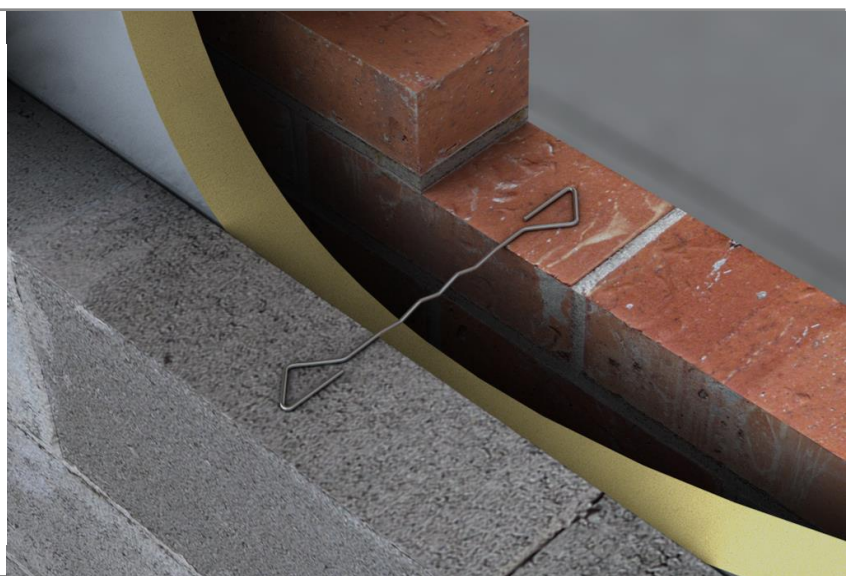
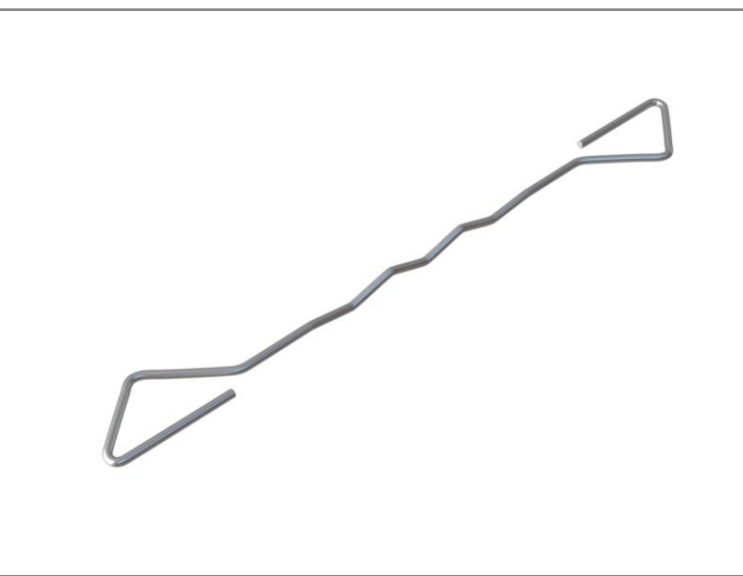


## Masonry to Masonry Wall Ties

These products act to secure two leaves of a cavity wall to each other, allowing them to act as one structurally. A cavity tie usually incorporates some mechanism, (usually a change of shape) to discourage moisture moving across the tie. Most cavity ties are available with a dedicated clip to secure insulation (usually in sheet form) within the cavity.



### Product

#### VE4 Light Duty Housing Tie

Multidrip feature to prevent moisture travelling across the cavity. The design means that the tie can be installed either way up. Its categorisation as a Type 4 tie means the VE4 has a maximum building height of 10m and is suitable for buildings on flat sites where the basic wind speed does not exceed 25m/s and altitude is not > 150m above sea level.

275mm and 250mm long 2.8mm & 225mm and 200mm long 2.3 diameter stainless steel Wall Ties supplied by Vista Engineering Limited, were tested in tension and compression over a nominal cavity width of 150mm, 125mm, 100mm & 75mm respectively in accordance with BS EN 846-6 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).

#### Part E - Type A ties for party or external walls

These ties must either be butterfly ties to BS1243 (only used in 50mm-75mm cavities) or ties with a measured dynamic stiffness of <math><4.8\text{MN}/\text{m}^3</math> taking both cavity width and tie density into account. Tests at Ceram Building Technology have proved that the Vista VE4 Housing Tie has a measured dynamic stiffness of  $2.77\text{MN}/\text{m}^3$  in a 75mm cavity and is therefore more than suitable for party walls at a standard density of 2.5 per square metre, the dynamic stiffness in a 100mm cavity will be similar or less. The VE4 Housing Tie 275mm and 250mm have also been tested and have a measured dynamic stiffness of  $4.65\text{MN}/\text{m}^3$  for use in a 150mm cavity (275mm) and 125mm (250mm) cavity, meaning they are classed as a Type A tie in Part E. Therefore our VE4 tie meets the robust detail requirements.

### Test Results

Summary of Declared Values of Vista Engineering Limited, 2.8mm diameter, 275mm and 250mm long & 2.3mm diameter, 225mm and 200mm long ties tested in tension and compression at a standard cavity width of 150mm, 125mm, 100mm & 75mm respectively.

Load Direction	Maximum Declared Value at Ultimate load (N)
275mm	
Tension	1220
Compression	514
250mm	
Tension	1879
Compression	638
225mm & 200mm	
Tension	1259
Compression	557