

Wall ties at movement joints

(March 2024) (Third issue – supersedes January 2016)

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Question

Can slip ties be used in place of additional wall ties at movement joints in masonry walls?

Considerations

- A vertical movement joint can affect the structural stability of a masonry wall. To maintain the stability of the masonry wall, on either side of the joint, additional wall ties should be provided.
- NHBC Standards clause 6.1.18 and PD 6697 *Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2*, describe the provision of additional wall ties on either side of a vertical movement joint which passes through one leaf of a cavity wall.

Answer

Structural stability of a wall on either side of a vertical movement joint, through one leaf of a masonry cavity wall, can be maintained by the provision of additional wall ties on either side of the joint. These ties should be located across the cavity within 225mm of each side of the joint and at maximum 300mm centres vertically (see Figure 1).

Alternatively, stability can be provided by the use of slip ties (see Figure 3) across the movement joint spaced at maximum 300mm centres vertically (see Figure 2). In this case, additional wall ties, across the cavity, are not required and wall ties can be spaced at normal spacings as if the movement joint was not there.

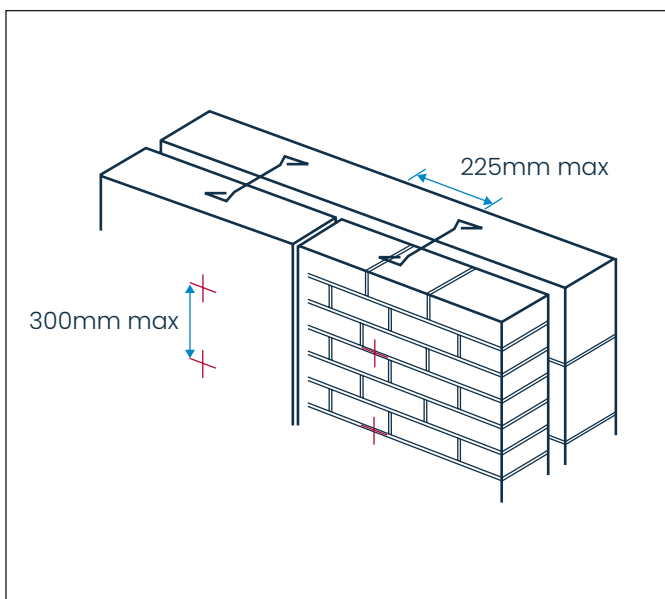


Figure 1

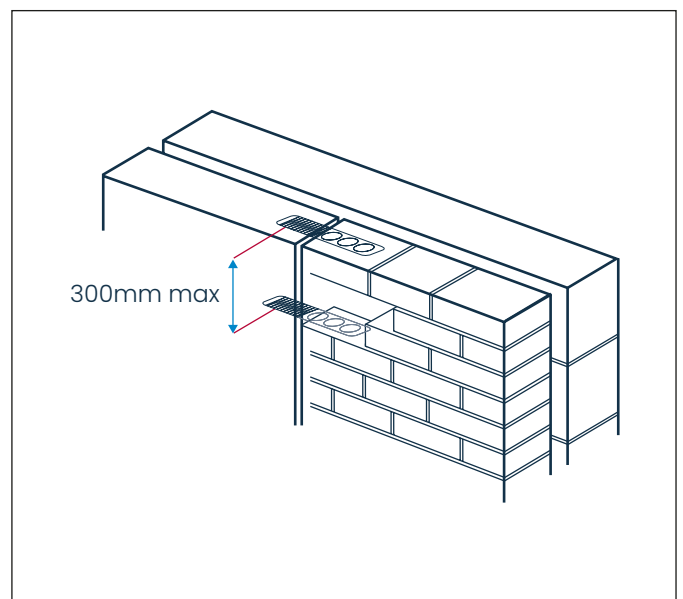


Figure 2

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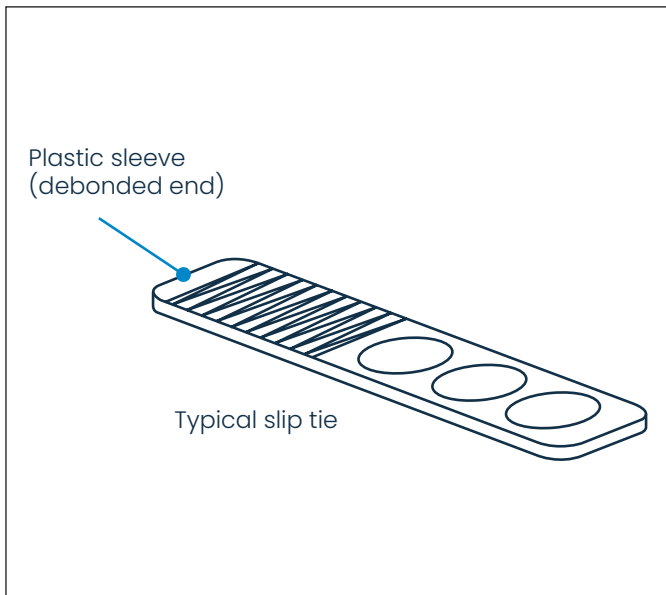


Figure 3