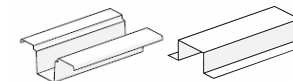


**James Hardie ExoTec® top hat fixing recommendations in a residential application only:**



**ExoTec Galv Top Hat:** is fixed to the timber frame with one M5.5 ITW Buildex class 3 Batten Zip fastener through the channel- 25mm timber embedment (F5/JD4).  
**Intermediate JH Galv Top Hat:** is fixed to the timber frame with two M5.5 ITW Buildex class 3 Batten Zip fasteners, one both side of flange- 25mm timber embedment (F5/JD4).

**DESIGN TABLE FOR TOP HATS INTO RESIDENTIAL TIMBER FRAMED CONSTRUCTION WITHIN AUSTRALIA**

| Design Wind Classification | Top Hat Span Type            |  |  |                              |   |  |
|----------------------------|------------------------------|--|--|------------------------------|---|--|
|                            | Single-Span                  |  |  | Two-Span Continuous          |   |  |
|                            | Maximum Top-Hat Spacing (mm) | Maximum Top Hat Span & panel height (mm) | Maximum fixing centres of top-Hats to timber wall frame (mm) | Maximum Top-Hat Spacing (mm) | Maximum Span and Wall Height (mm)   | Maximum fixing centres of top-hats to timber wall frame (mm) |
| <b>N2</b><br>(covers N1)   | 600                          | 1330                                     | 1330   | 600                          | Max spans 1800mm<br>Max wall height 3600mm<br>(6m wall height can be achieved using three-span continuous or greater)   | 1800mm   |
| <b>N3</b><br>(covers C1)   | 600                          | 1160                                     | 1160   | 600                          | Max spans 1600mm<br>Max wall height 3200mm<br>(6m wall height can be achieved using three-span continuous or greater)   | 1600mm   |
| <b>C2</b><br>(covers N4)   | 600                          | 1020                                     | 1020   | 450                          | Max spans = 1500mm<br>Max wall height 3000mm<br>(6m wall height can be achieved using three-span continuous or greater) | 1500mm   |

**Notes & Design Assumptions:**

- AS 4055: 1992 "Wind Loads for Housing" used as basis for determining design pressures and hence geometrical limits apply to the dimensions of the building.
- Relatively flat topography (eg T1 and T2) assumed – any adverse topographical effects need to be accounted for to ensure that wind classification remains valid.
- Design pressure capacity based on suction within 1200mm of building edges: N2=up to 1.25kPa:N3=up to 2.0kPa:C2=up to 3.0kPa

**Wind Design Assumptions & Location of Building within Australia**

- N2= Wind Region A, TC2, partial shielding or TC2.5 no shielding eg located in southern states capital cities, towns and all rural areas (refer to Figure 2 in code)
- N3= Wind Region B, TC2, no shielding eg located in Brisbane, Northern NSW, Gold Coast, Sunshine Coast up to Bundaberg, Geraldton WA.
- C2= Wind Region C, TC2, no shielding, cyclonic areas eg Darwin and other settlements along Northern Territory and Queensland coastlines above Bundaberg.