Roof Bracing Requirements

<table>
<thead>
<tr>
<th>Roof Type</th>
<th>Light Roof</th>
<th>Heavy Roof</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>One roof brace per 50m² of roof area (see rule 8 for minimum requirements).</td>
<td>One roof brace per 25m² of roof area (see rule 8 for minimum requirements).</td>
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Roof Bracing - Rules & Definitions

1. The bracing described in this brochure covers both framed roofs and fully trussed roofs.
2. Roof planes less than 6m² (e.g. dormers & porches) do not require bracing.
3. Roof braces can consist of either
   i) Roof Plane Brace or
   ii) Roof Space Brace or combination of the two.
4. Roof braces are not required on roofs where sarking is installed as per Clause 10.4.4 NZS 3604:2011 or where a ceiling diaphragm is installed and is attached to the rafters.
5. Roof area is the actual plan area of the roof and includes overhangs.
6. A hip or valley rafter running continuously from ridge to top plate can be classed as one roof plane brace.
7. A pair of crossed LUMBERLOK Strip Brace (preferred for ease of installation) can be classed as one roof plane brace and shall be installed as detailed in this brochure.
8. There must be at least one roof plane brace in each roof plane. Each ridge line shall have a minimum of two roof braces.
9. Every design effort should be made to distribute the roof braces as evenly as possible over the entire roof area and run alternately in opposite directions.
Roof Bracing Options

i) ROOF PLANE BRACE

Each roof plane brace can be:

- A hip or valley rafter running continuously from ridge to the top plate in accordance with Clauses 10.2.1.3.2 or 10.2.1.3.3 NZS 3604:2011.

OR

- A pair of tensioned and crossed LUMBERLOK Strip Brace running continuously from ridge to top plate installed as detailed below.

5 x 30mm x 3.15 dia. nails each end

1 x 30mm x 3.15 dia. nail at crossing (after tensioning)

5 x 30mm x 3.15 dia. nails each end

ii) ROOF SPACE BRACE

(A) Less than 2m long

70 x 45 Runner fixed to min. of 3 truss bottom chords with 2 x 90mm skew nails per chord

90 x 45 Roof space brace parallel or within 25° of parallel to ridge line

4 x 90mm nails each end

Fix to truss chords

3 x 90mm nails each end

45° max

90 x 45 Roof space brace parallel or within 25° of parallel to ridge line

300mm max.

(B) More than 2m long (Max. 4.8m)

70 x 45 Runner fixed to min. of 3 truss bottom chords with 2 x 90mm skew nails per chord

2 / 90 x 45 Roof space brace parallel or within 25° of parallel to ridge line

4 x 90mm nails per side and each end

300mm max.

Fix to truss chords

3 x 90mm nails each end

45° max

Fixing between 2 brace members at 1.0m max. crs. Fix with 2 x 90mm nails to each side

(C) Not directly under the ridge - less than 2m long

70 x 45 Runner fixed to min. of 3 truss bottom chords with 2 x 90mm skew nails per chord

90 x 45 Roof space brace parallel or within 25° of parallel to ridge line

Truss

4 x 90mm nails each end

Fix to truss chords

3 x 90mm nails each end

45° max

300mm max.

Internal wall bracing element

(D) Not directly under the ridge - more than 2m long

70 x 45 Runner fixed to min. of 3 truss bottom chords with 2 x 90mm skew nails per chord

2 / 90 x 45 Roof space brace parallel or within 25° of parallel to ridge line

3 x 90mm nails each end

Truss

4 x 90mm nails per side and each end

Fixing between 2 brace members at 1.0m max. crs. Fix with 2 x 90mm nails to each side

2 / 90 x 45 Roof space brace parallel or within 25° of parallel to ridge line

300mm max.

*Not required when a ceiling diaphragm complying with Clause 13.5 NZS 3604:2011 is used.