

Double Span C15024 1 row bridging Light steel C Sections

Provide bridging within the span as noted. Where 1 row of bridging is noted it is to be provided midspan.
 Where two rows are noted they are to be provided at third points of the span.
 Where there is also an overhang (cantilever) bridging is only to be provided in the backspan.
 Under no circumstances should any loads (i.e fire services, suspended ceilings, air conditioner units or any other point type loads) be hung directly from the bottom lip of any purlin.
 To the ends of all overhangs / cantilevers there is to be an orthogonal member provided to restrain the cantilever member from twisting.
 All C and Z sections are to be designed and installed strictly in accordance with the manufacturer's requirements. SpanMan should not be used as a substitute for their recommendations.
 If continuous purlins are used the addition of any opening that removes the continuity of the purlin is not allowable.
 Stiffeners are to be provided at internal supports of continuous members.

Depth = 152 mm
 Width = 64 mm
 Thickness = 2.4 mm
 Lip height = 18.5 mm

Computations and certificates produced by SpanMan must be submitted to a building surveyor/certifier for approval of the member sizes prior to installation. Installation can only occur when a Building Permit has been granted.

Country: Australia
 Building type: House - domestic dwelling
 Design working life: 50 years
 Floor Use: General eg living rooms, bedrooms, corridors, kitchen, toilets, study, rumpus
 Distributed live load: 1.5 kPa, Point live load: 1.8 kN

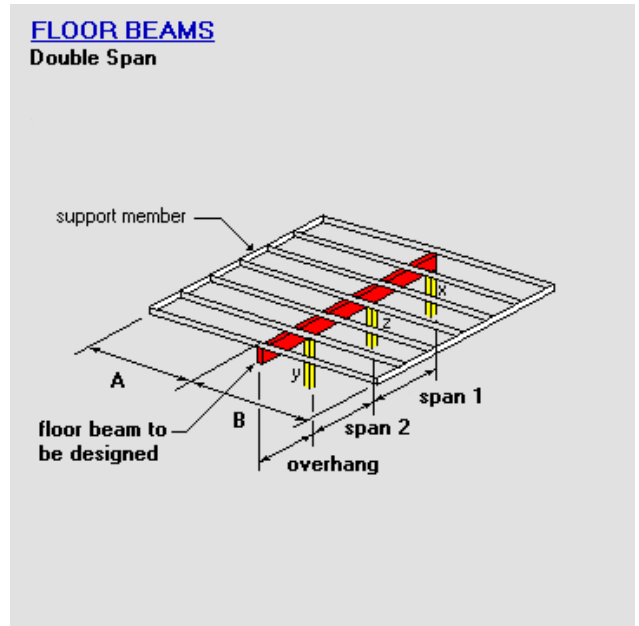
Span 1 = 3,370 mm
 Span 2 = 2,570 mm
 Overhang = 0 mm
 A = 1500 mm (distance from floor beam to next floor support)
 B = 1500 mm (distance from floor beam to next floor support)
 Lower floor weight (NZ 19mm Lightweight Fibre Cement + 13mm tile) = 52 kg/m²
 Lower floor (additional dead load) = 0 kPa
 Ceiling (lower floor) = 0 kg/m²

Design Criteria

- The top of the Floor Beam is to be restrained by joists at 450 mm centres
- The ends of the Floor Beam are to be securely supported and prevented from rotation
- The Floor Beam is to be a single member that is 5,940mm long
- The Floor Beam is to have no notches throughout its length unless referenced in standards or manufacturers literature
- The Floor Beam is to have an end bearing length of 45mm or greater

Serviceability Criteria (+upward, -downward)

	Span Deflection	Allowable Span Deflection
Deflection Dead Load	3.126 mm	span/300 ± 10% and 10 mm ± 10%
Deflection Live Load	3.156 mm	span/360 ± 10% and 9 mm ± 10%



Reactions (+upward, -downward)

Maximum limit state downward reaction = 16.68 kN

Maximum limit state upward reaction (wind uplift) = -0.583 kN

SpanMan complies with the requirements of the following standards:

- AS/NZS 1170.0:2002 Structural design actions, Parts 0 and 1
- AS/NZS 1170.2:2011 Structural design actions, Part 2: Wind Actions
- AS/NZS 1170.3:2003 Structural design actions, Part 3: Snow and ice actions
- AS/NZS 4055 - 2006 Wind loads for housing
- AS/NZS 4600 - 2005 Cold-formed steel structures
- Nash Standard: Residential and Low-Rise Steel Framing Part 1: Design Criteria 2005

Sizes calculated by SpanMan assume that members are installed in a manner that suits their intended structural function for the life of the structure. Members should be maintained in accordance with Australian and New Zealand standards for the life of the structure.

This design certificate is void where there has been a substitution of an alternative product/material not detailed, or if used for an alternative wind or snow loading other than stated.

For further information or advice please contact SpanMan at <http://www.spanman.net/about/contact>