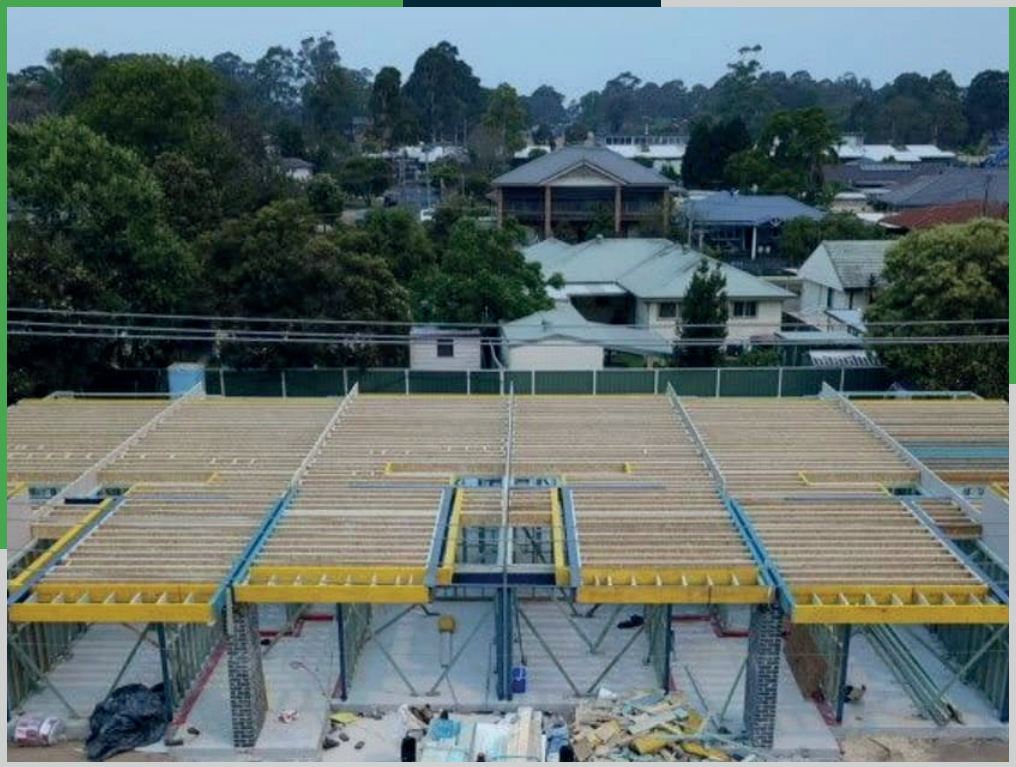
PACIFIC RIM
INDUSTRIES
SUPPLY YOU CAN TRUST

PRO JOIST MAX
INSTALLATION

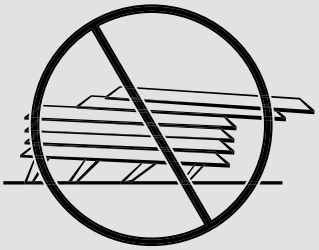




WARNING:
DO NOT walk on joists until braced **INJURY MAY RESULT.**



WARNING:
DO NOT walk on joists that are lying flat.



WARNING:
DO NOT stack building materials on joists. Without fixed flooring stack only over beams or walls.

WARNING: JOISTS ARE UNSTABLE UNTIL BRACED LATERALLY

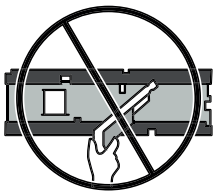
BRACING INCLUDES: Blocking. Hangers, Rim Board, Flooring, Rim Joist.

Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:

1. Properly install all blocking. hangers, rim boards.
2. Safety bracing of must be nailed to a braced end wall & across joists prior to fixing flooring.
3. Ends of cantilevers require safety bracing on both the top and bottom flanges.



DO NOT cut holes in cantilever reinforcement.



DO NOT cut or notch flange.

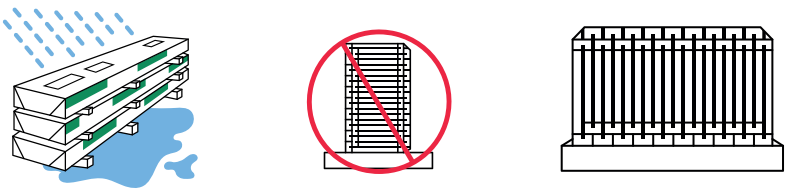


DO NOT bevel cut joist beyond inside face of wall.

PRODUCTS STORAGE

Storage

- PROjoistMAX must be stored on dry & level surface
- PROjoistMAX must be stored on edge not laid flat
- 150mm above ground level supported at max 3.0m ctrs



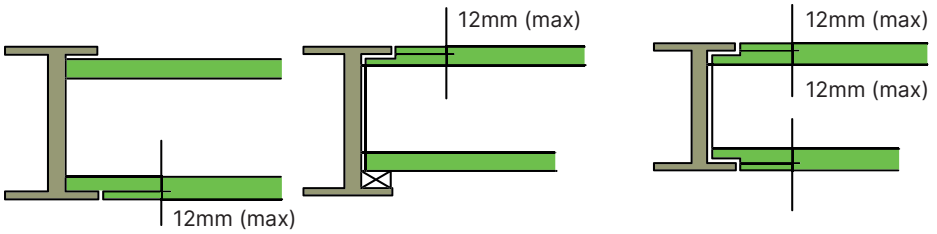
Store and handle joists in vertical orientation

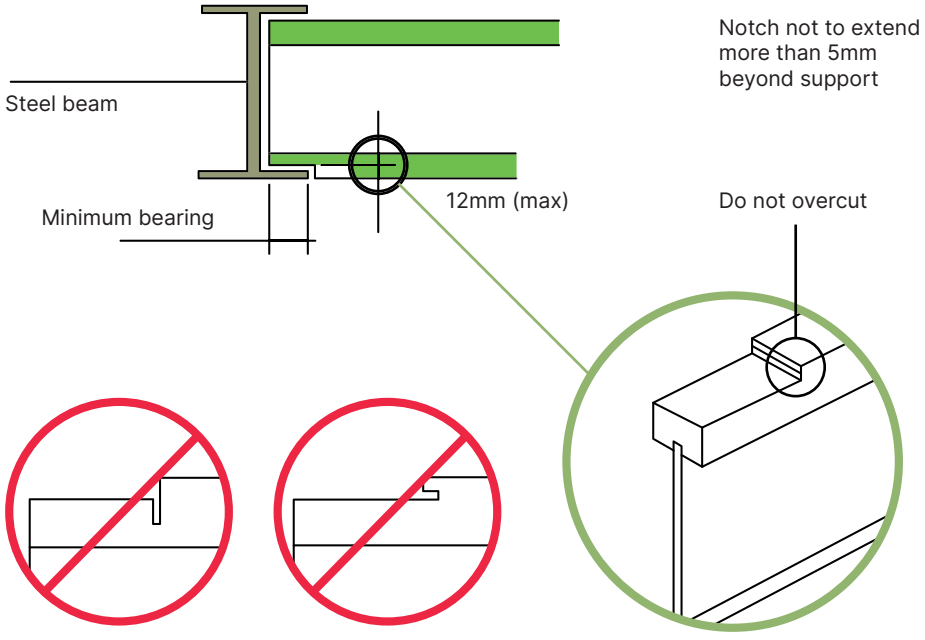
Min Bearing

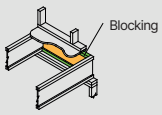
- End Support – 45mm (30mm with use of blocking or rimboard)
- Internal Support – 63mm

Installation

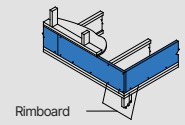
- PROjoistMAX must be installed as per installation guide
- Temporary battens recommended prior to fixing of flooring
- Flooring must be installed as per Manufactures instructions
- Flooring adhesive must be used to reduce floor squeak
- AS1860.2 states that when particleboard flooring is fixed to I-Beam joists, screws (not nails) should be used. If I-Beam flange is less than 45mm thick, nails will penetrate through & may not have sufficient holding strength.





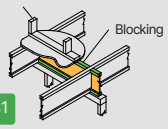


A1 45mm min joist bearing at ends
30mm min with blocking or rimboard



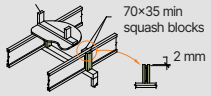
A3 30mm min joist bearing at ends

Load bearing wall above
(must stack over wall below)



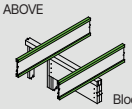
B1

Load bearing wall above
(must stack over wall below)

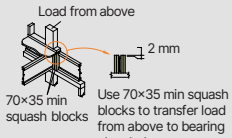


B2 Blocking panels may be required with shear walls above or below - See detail B1

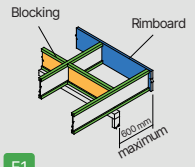
INTERMEDIATE BEARING
NO LOAD BEARING WALL
ABOVE



B3 Blocking panels may be required with shear walls above or below-see detail B1

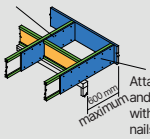


CS Use 70×35 min squash blocks to transfer load from above to bearing plate below

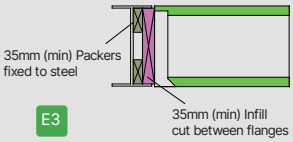


E1

1200 mm length of
Rimboard on one side

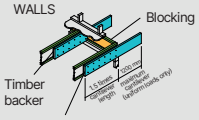


E2 Attach to joist top and bottom flanges with 3.05×75 mm nails at 150 mm ctrs

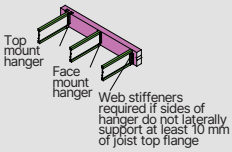


E3

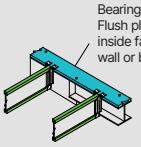
CANTILEVERS NOT
SUPPORTING BEARING
WALLS



F1 Outrigger: Nail through outrigger, timber backer and joist web with 2 rows of nails at 150 mm ctrs

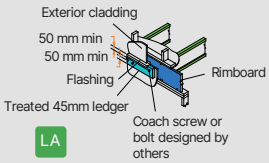


H1 Hanger height must be a min of 60% of joist depth



H3

EXTERIOR DECK
ATTACHMENT



LA

CONNECTION OF MULTIPLE
PIECES OF TOP-LOADED BEAMS

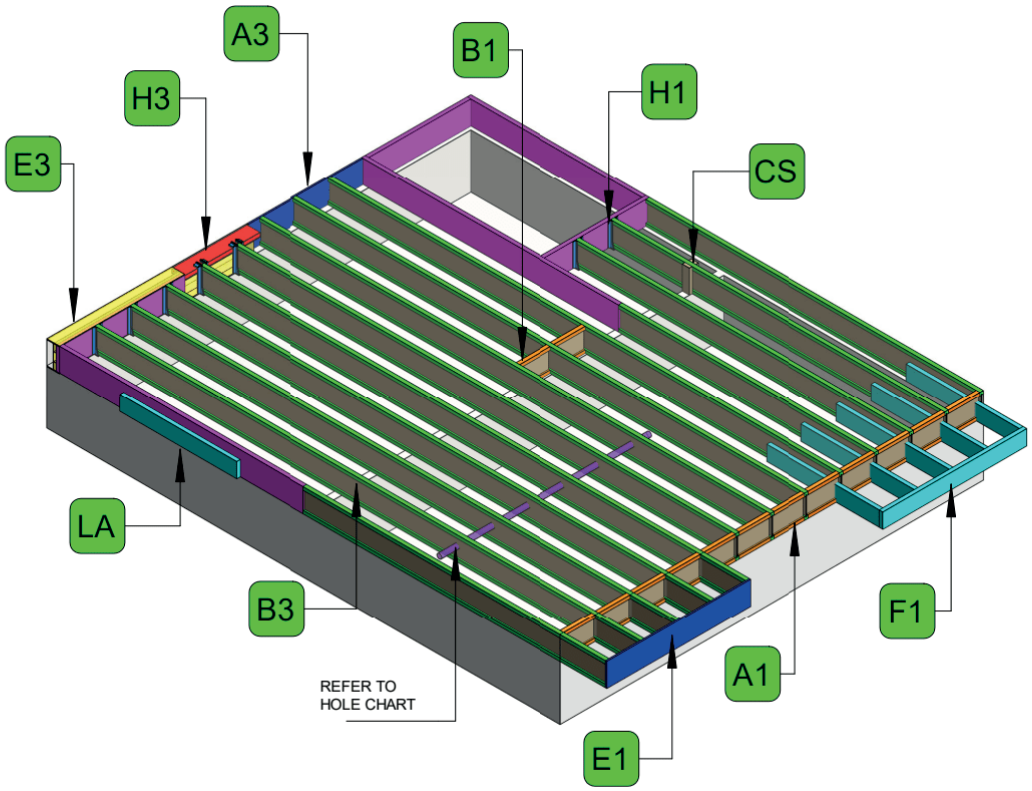
45 mm Pro LVL Max
- Minimum of 2 rows 3.75×70 mm nails at 300 mm centres; 3 rows for 360 mm and deeper beams



63 mm Pro LVL Max
- Minimum of 2 rows M12 bolts at 600 mm centres, staggered

L6 Additional nailing or bolting may be required with side-loaded multiple member beams

Multiple members beams should consist entirely of Pro LVL Max



PROIJOISTMAX

PACIFIC RIM INDUSTRIES
SUPPLY YOU CAN TRUST

Pacific Rim Industries – Ijoist Single and Continuous Spans

Member Type = Floor Joist
Span Type = Single Span

Basic Loading Data:
Flooring = Particle board (30)
Underfloor Ceiling = 10mm P'Board (12)
Floor Live Load = Domestic Std (1.5,1.8)
Standard AS1720.3 Dynamics for 1.0 kN static load
Min. End Bearing Length = 30mm
Min. Intermediate Bearing = 63mm

PROIJOISTMAX
Single Span

Size	Joist Spacing 0.450mm
200x45	3800
240x45	4600
300x45	5400
360x45	6000
240x63	5100
300x63	5900
360x63	6500
400x63	6900
240x90	5600
300x90	6400
360x90	7100
400x90	7500

Table values relate to allowable maximum joist spans.

Member Type = Floor Joist
Span Type = Continuous Span

Basic Loading Data:
Flooring = Particle board (30)
Underfloor Ceiling = 10mm P'Board (12)
Floor Live Load = Domestic Std (1.5,1.8)
Standard AS1720.3 Dynamics for 1.0 kN static load
Min. End Bearing Length = 30mm
Min. Intermediate Bearing = 45mm

PROIJOISTMAX
Continuous Span

Size	Joist Spacing 0.450mm
200x45	4600
240x45	5200#
300x45	5900#
360x45	5900#
240x63	5600
300x63	6400*
360x63	7100#
400x63	7500#
240x90	6000
300x90	6900
360x90	7700
400x90	8200*

Table values relate to allowable maximum joist spans.

Member Type = Floor Joist
Span Type = Single Span

Basic Loading Data:
Flooring = Heavy Floor (75)
Underfloor Ceiling = 10mm P'Board (12)
Floor Live Load = Domestic Std (1.5,1.8)
Standard AS1720.3 Dynamics for 1.0 kN static load
Min. End Bearing Length = 30mm
Min. Intermediate Bearing = 63mm

PROIJOISTMAX
Single Span

Size	Joist Spacing 450mm
200x45	3900
240x45	4500
300x45	5100
360x45	5700
240x63	4800
300x63	5500
360x63	6200
400x63	6500
240x90	5200
300x90	6000
360x90	6000
400x90	7000

Table values relate to allowable maximum joist spans.

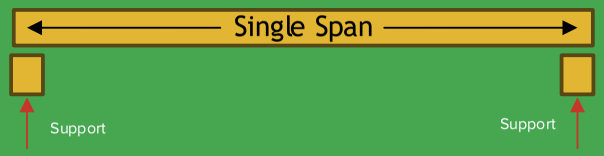
Member Type = Floor Joist
Span Type = Continuous Span

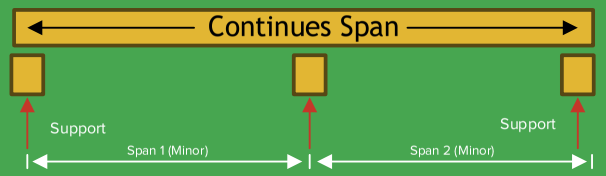
Basic Loading Data:
Flooring = Heavy Floor (75)
Underfloor Ceiling = 10mm P'Board (12)
Floor Live Load = Domestic Std (1.5,1.8)
Standard AS1720.3 Dynamics for 1.0 kN static load
Min. End Bearing Length = 30mm
Min. Intermediate Bearing = 63mm

PROIJOISTMAX
Continuous Span

Size	Joist Spacing 0.450mm
200x45	4600#
240x45	5200#
300x45	5200#
360x45	5200#
240x63	5600#
300x63	6400#
360x63	7100#
400x63	7200#
240x90	6000
300x90	6900*
360x90	7700*
400x90	8200#

Table values relate to allowable maximum joist spans.

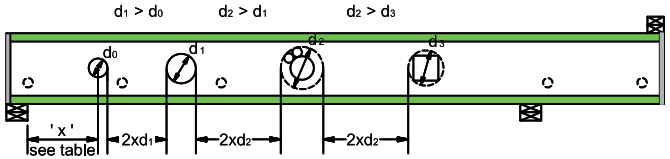




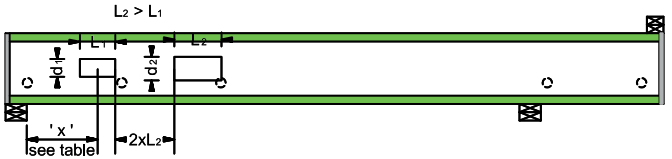
For a member to be considered 'continuous' it shall span at least 2 adjacent spans such that span 1 is greater than or equal to 0.75 x span 2.
The major span is taken from the continuous span table e.g. if span 2 = 6.0 then span 1 is greater or equal to 4.5m, otherwise each span is to be considered 'single'.


Brand / Identifying Name
Adehsive Bond
Formaldehyde Emission Class
Standard, product conforms to.
Treatment Plant
Preservative Treatment Type
ROimMAX E14/F17 AS/NZS 4357.0 A BOND E0
SHIFT 06/03/2024
400 73 H2S
Strucutral Properties
Production date
3rd Party product certification details
Preservative Code
Penetration pattern Code (Glueline for LVL)
Limitations of end use.

Round & Square Holes



Rectangular Holes



Design Limits
Dead Loads - 42kg/m² ; Live loads - 1.5 kPa & 1.8 kN
Joist Centers - 450mm max.
Building Importance - Level 2 ; Structural Member Category 1

HOLE CHART NOTES

1. Except for trimming to length, Do **NOT** cut drill or notch I Joist Flanges.
2. Whenever possible, center holes vertically in the middle of the web, however, holes can be located anywhere in the web, provided a minimun of 5mm of the web remains between the edge of the hole and the flange.
3. The sides of square holes shall not exceed $\frac{3}{4}$ of the maximum round hole permitted at that location. Do **NOT** overcut the sides of square / rectangular holes, rather locate a 25mm round hole at the corners of the square and cut between.
4. Where multiple holes are to be placed in the web, the distance between hole edges must be twice the largest hole diameter. NO more than a maximum of three hole groups are to be place in the joist span.
5. Up to 40mmØ holes maybe placed anywhere in the lower $\frac{1}{3}$ of the web, over the joist span.
6. Square or circular holes **over** 40mmØ, are NOT permitted in cantilevers. For these holes, consult a Structural Engineer experienced in I Joist design.
7. With plumbing penetrations the web should be protected for moisture.

ROUND & SQUARE HOLES

	Minimum distance from inside face of support to center of hole ("x" mm)								
	Max. Circular hole diameter (mm)								
	75	100	125	150	175	200	225	250	275
ProJoistMax	Max. Square hole Size (mm)								
Joist Size	50	75	90	110	130	150	160	180	200
200x45	0.3	0.3							
240x45	0.3	0.3	0.4	0.4					
300x45	0.3	0.3	0.4	0.4	0.5	0.6			
360x45	0.3	0.3	0.4	0.4	0.5	0.6	0.6		
240x63	0.3	0.3	0.4	0.4					
300x63	0.3	0.3	0.4	0.4	0.5	0.6			
360x63	0.3	0.3	0.4	0.4	0.5	0.6	0.65	0.75	
400x63	0.3	0.3	0.4	0.4	0.5	0.6	0.65	0.75	0.8
240x90	0.3	0.3	0.4	0.4					
300x90	0.3	0.3	0.4	0.4	0.5	0.6			
360x90	0.3	0.3	0.4	0.4	0.5	0.6	0.65	0.75	
400x90	0.3	0.3	0.4	0.4	0.5	0.6	0.65	0.75	0.8

RECTANGULAR HOLES

	Minimum distance from inside face of support to center of hole ("x" mm)							
ProJoistMax	Maximun Rectagular holes size (mm x mm)							
Joist Size	50x100	60x120	75x150	100x200	120x240	130x260	150x300	180x300
200x45	0.4	0.4	0.5	0.7				
240x45	0.4	0.4	0.5	0.7	0.7	0.8		
300x45	0.4	0.4	0.5	0.7	0.8	0.8	1	
360x45	0.4	0.4	0.5	0.7	0.8	0.8	1.6	
240x63	0.4	0.4	0.5	0.7	0.7	0.8		
300x63	0.4	0.4	0.5	0.7	0.8	0.8	1.4	
360x63	0.4	0.4	0.5	0.7	0.8	0.8	1.4	2
400x63	0.4	0.4	0.5	0.7	0.8	0.8	1.3	2.2
240x90	0.4	0.4	0.5	0.7	0.8	0.8		
300x90	0.4	0.4	0.5	0.7	0.8	0.8	1.4	
360x90	0.4	0.4	0.5	0.7	0.8	0.8	1.5	2.2
400x90	0.4	0.4	0.5	0.7	0.8	0.8	1.5	2.3

SECA
P.O. Box 2393, Palmerston, NT 0831
ph 08 8947 4999
Em seca@secaust.com.au
STRUCTURAL ENGINEERING
CONSULTANTS AUSTRALIA Pty Ltd

Project : Penetrations in PRI I Joists

Client :

Structural Design Certification
Darryl Robinson BPEQ 3740 NT2699ES
MIEAust CPEng NRE (Int Aust)
12-Sep-24 183

PACIFIC RIM INDUSTRIES

Job No. 24183

Dwg No. S01 - A