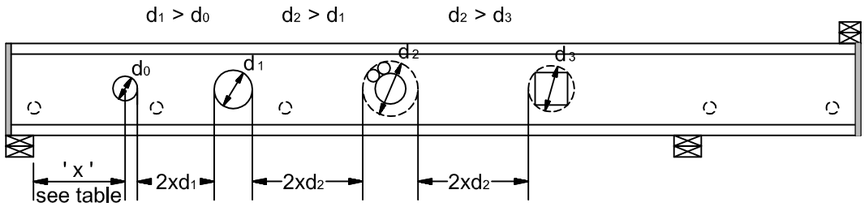
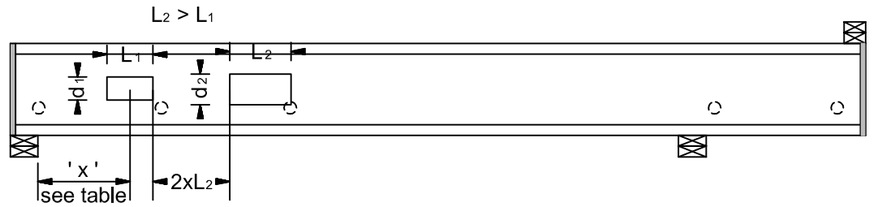
Round & Square Holes



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

ProJoistMax	Minimum distance from inside face of support to center of hole ("x" mm) 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

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STRUCTURAL ENGINEERING
CONSULTANTS AUSTRALIA Pty Ltd

Project : Penetrations in PRI I Joists

Client :

Structural Design Certification
Darryl Robinson RPEQ 3740 NT204699ES
MIEAust CPEng NRE IntPE(Aust)
12-Sep-24 24183

PACIFIC RIM INDUSTRIES

Job No. 24183

Dwg No. S01 - A