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Timber Spans



Timber Span Tables

The information below is for guidance use only! Please be advised that a structural engineer should be sought for advice on structural loading and capacities, please note that these tables cannot be used as proof of span adequacies

Strutting

Joist Span (m)	Rows of Strutting Between Supports
$x < 2.5$	None
$2.5 \leq x < 4.5$	1 at mid span
$4.5 \leq x$	2 at one third span positions

Floor Joists

This table shows C16 Grade, maximum timber spans in (meters) for a dead load of 0.25 - 0.50 kN/m². For higher grade timbers or different loadings then I guess you will have to look somewhere else.

Size of Joist (mm)		Spacing of Joists (mm)		
Breadth	Depth	400	450	600
38	97	1.7	1.5	1.2
38	120	2.3	2.1	1.7
38	145	2.8	2.6	2.3
38	170	3.3	3.1	2.7
38	195	3.7	3.5	3.0
38	220	4.2	3.9	3.4
47	97	1.9	1.8	1.4
47	120	2.5	2.4	2.0
47	145	3.0	2.9	2.5
47	170	3.5	3.4	3.0
47	195	4.0	3.9	3.4
47	220	4.5	4.3	3.8
63	97	2.2	2.0	1.8
63	120	2.7	2.6	2.4
63	145	3.3	3.2	2.9
63	170	3.9	3.7	3.4
63	195	4.4	4.3	3.9
63	220	4.9	4.8	4.4

75	120	2.9	2.8	2.5
75	145	3.5	3.4	3.1
75	170	4.1	3.9	3.6
75	195	4.7	4.5	4.1
75	220	5.1	5.0	4.6

Ceiling Joists

This table shows C16 Grade, maximum timber spans in (meters) for a dead load of not more than 0.25 kN/m². For higher grade timbers or different loadings then I guess you will have to look somewhere else.

Size of Joist (mm)		Spacing of Joists (mm)		
Breadth	Depth	400	450	600
38	72	1.1	1.1	1.1
38	97	1.7	1.7	1.6
38	120	2.3	2.2	2.2
38	145	2.9	2.9	2.8
38	170	3.6	3.6	3.4
38	195	4.3	4.2	4.0
38	220	5.0	4.9	4.6
47	72	1.2	1.2	1.2
47	97	1.9	1.9	1.8
47	120	2.5	2.5	2.4
47	145	3.2	3.2	3.0
47	170	4.0	3.9	3.7
47	195	4.7	4.6	4.4
47	220	5.4	5.3	5.0

Rafters

This table shows C16 Grade, maximum timber spans in (meters) for a dead load of 0.50 - 0.75 kN/m² and an imposed load of 0.75 kN/m². For higher grade timbers or different loadings then I guess you will have to look somewhere else.

15° < x° < 22.5°					22.5° < x° < 30°					30° < x° < 40°				
Size of Rafter (mm)		Spacing of Rafters (mm)			Size of Rafter (mm)		Spacing of Rafters (mm)			Size of Rafter (mm)		Spacing of Rafters (mm)		
Breadth	Depth	400	450	600	Breadth	Depth	400	450	600	Breadth	Depth	400	450	600
38	100	1.9	1.8	1.7	38	100	2.0	1.9	1.8	38	100	2.1	2.0	1.9
38	125	2.6	2.5	2.3	38	125	2.7	2.6	2.4	38	125	2.8	2.7	2.5
38	150	3.2	3.1	2.8	38	150	3.3	3.2	2.9	38	150	3.4	3.3	3.0
47	100	2.2	2.2	2.0	47	100	2.3	2.2	2.1	47	100	2.4	2.3	2.1
47	125	2.9	2.8	2.5	47	125	3.0	2.8	2.6	47	125	3.1	2.9	2.7
47	150	3.5	3.3	3.0	47	150	3.6	3.4	3.1	47	150	3.7	3.5	3.2