



SPAN TABLES



GLUED LAMINATED STRUCTURAL TIMBER BEAMS AND LINTELS

Prepared for:



By: *Silvester Clark - Consulting Engineers*



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PRODUCER STATEMENT - DESIGN

Job No: 14943

ISSUED BY: Silvester Clark Ltd

TO: Craftbuilt Industries

IN RESPECT OF: Glue Laminated Structural Timber
Beam & Lintel Span Tables

Silvester Clark Ltd has been engaged by Craftbuilt Industries to provide structural engineering design and documentation services in respect of the requirements of clause B1 of the Building Code for glue laminated structural timber beam and lintel span tables. The design has been prepared in accordance with verification method B1/VM1 - NZS 1170:2004, NZS 3603:1993 & NZS 1328.1:1998 of the compliance documents issued by the Department of Building & Housing. The tables covered by this producer statement were prepared by Silvester Clark Ltd and titled Craftbuilt Laminated Timber Span Tables dated October 2009.

On behalf of Silvester Clark Ltd, and subject to all proprietary products meeting their performance specification requirements, **I believe that on reasonable grounds** the laminated timber span tables will comply with the relevant provisions of the Building Code.

I Peter F. Clark am a member of IPENZ and hold the following qualifications BE, MIPENZ. Silvester Clark Ltd holds a current policy of Professional Indemnity Insurance no less than \$200,000. Silvester Clark Ltd is also a member of ACENZ.



Signed by: Peter F. Clark on behalf of: SILVESTER CLARK LTD

Date: 10 November 2009

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the design firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000.



SILVESTER CLARK LTD
PRINCIPALS: J.E. SILVESTER, NZCE., AIPENZ
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ASSOCIATES: C.A JACK NZCE
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SPECIFICATION

Design Standards

The maximum spans of the laminated glued structural timber beams used in these tables have been prepared in accordance with the following: -

- AS/NZS 1328.1:1998 Glued laminated structural timber. Part 1: Performance requirements and minimum production requirements
- NZS 1170:2004 Code of Practice for General Structural Design and Design Loadings for Buildings
- NZS 3603:1993 Timber Structures Standard

Design Data

Timber characteristic stresses used in the tables are GL8 Glulam Grade.

The following product of modification factors (k) for timber members have been considered:

- Load duration factor, k_1
- Stability factor, k_8
- Size factor, k_{24} (for members with $d > 300\text{mm}$)

Loadings:

Roof

Dead Load	Lightweight roof	0.40 Kpa
	Heavyweight roof	0.80 Kpa
Live Load	All roof criteria	0.25 Kpa

Note: 1) Spans are measured horizontally.
2) Increased roof loadings due to pitch have been taken into account.
3) An overhang of 600mm has been included in lintel tables.

Floor

Dead Load	Particle board floor Joists/Battens, Ceiling	0.42 Kpa
Live Load	Domestic	1.5 Kpa

Walls

Light wall cladding is defined as having a mass not exceeding 30kg/m^2 . A dead load of 0.45 KPa for walls has been included in the tables.

Wind

The tables can be used for wind zones up to High Wind as per NZ 3604. Use the heavyweight roof ridge or lintel tables for Very High Wind.

Deflection Criteria

All maximum span lengths were derived from the minimum of the following criteria:

- Member ultimate bending moment capacity
- Serviceability deflection of $\text{Span}/250$
- Serviceability deflection of 15mm max

A creep factor (K_2) of 1.5 has been taken for the duration of load factor for deflection.

Note

These tables have been prepared to assist designers to determine beam sizes for the particular use. Care should be exercised when using the tables for other uses, where specific requirements including floor vibrations need to be considered.

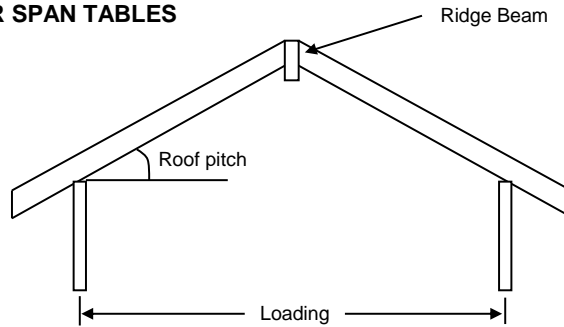
Timber Specification

The characteristic timber stresses used in these tables are GL8 Glulam Grade having the following properties:-

- Bending stress (f_b) = 19 MPa
- Modulus of Elasticity (E) = 8000 MPa

Beam d x b	Area (mm ²)	I x 10 ⁶ mm ⁴	Z x 10 ³ mm ³	øMn Kn-m
135 x 90	12150	18.5	273.4	4.2
180 x 90	16200	43.7	486.0	7.4
225 x 90	20250	85.4	759.4	11.5
270 x 90	24300	147.6	1093.5	16.6
315 x 90	28350	234.4	1488.4	22.4
360 x 90	32400	349.9	1944.0	28.7
405 x 90	36450	498.2	2460.4	35.6
450 x 90	40500	683.4	3037.5	43.1
270 x 130	35100	213.2	1579.5	24.0
315 x 130	40950	338.6	2149.9	32.4
360 x 130	46800	505.4	2808.0	41.4
405 x 130	52650	719.7	3553.9	51.4
450 x 130	58500	987.2	4387.5	62.3
495 x 130	64350	1313.9	5308.9	74.2
540 x 130	70200	1705.9	6318.0	87.1
585 x 130	76050	2168.9	7414.9	100.8

LAMINATED TIMBER SPAN TABLES

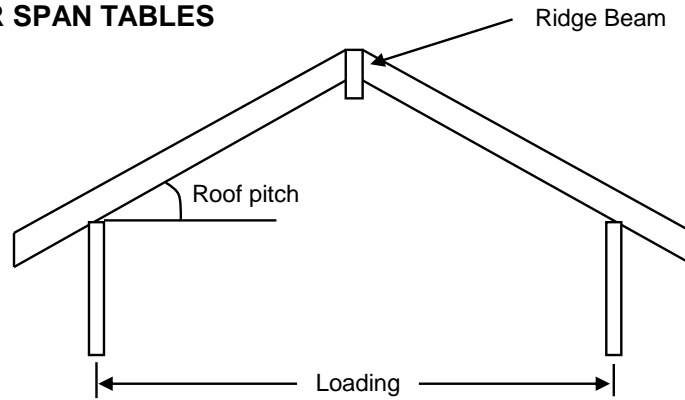


RIDGE BEAMS

Roof Pitch = Up to 25 °

MAXIMUM SPANS OF RIDGE BEAMS

Beam d x b	Roof	Loading Dimension (m)									
		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
270 x 130	Light	6.20	5.80	5.60	5.40	5.20	5.00	4.90	4.80	4.70	4.60
	Heavy	5.40	5.00	4.80	4.60	4.40	4.30	4.20	4.10	4.00	3.90
315 x 130	Light	6.90	6.50	6.20	6.00	5.80	5.60	5.50	5.30	5.20	5.10
	Heavy	6.00	5.60	5.30	5.10	4.90	4.80	4.70	4.50	4.40	4.40
360 x 130	Light	7.50	7.10	6.80	6.60	6.40	6.20	6.00	5.90	5.80	5.70
	Heavy	6.60	6.20	5.90	5.70	5.50	5.30	5.20	5.00	4.90	4.80
405 x 130	Light	8.20	7.70	7.40	7.20	6.90	6.70	6.60	6.40	6.30	6.20
	Heavy	7.20	6.70	6.40	6.20	6.00	5.80	5.60	5.50	5.40	5.30
450 x 130	Light	8.70	8.30	8.00	7.70	7.50	7.30	7.10	6.90	6.80	6.70
	Heavy	7.70	7.30	6.90	6.70	6.40	6.20	6.10	5.90	5.80	5.70
495 x 130	Light	9.30	8.90	8.50	8.20	8.00	7.80	7.60	7.40	7.30	7.10
	Heavy	8.20	7.80	7.40	7.10	6.90	6.70	6.50	6.40	6.20	6.10
540 x 130	Light	9.90	9.40	9.10	8.80	8.50	8.30	8.10	7.90	7.70	7.60
	Heavy	8.80	8.30	7.90	7.60	7.30	7.10	6.90	6.80	6.60	6.50
585 x 130	Light	-	9.90	9.60	9.30	9.00	8.80	8.50	8.40	8.20	8.00
	Heavy	9.30	8.80	8.40	8.00	7.80	7.60	7.40	7.20	7.00	6.90

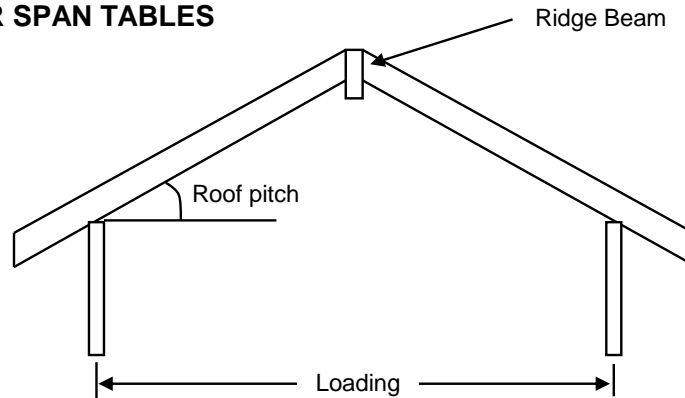


RIDGE BEAMS

Roof Pitch = 26° to 35°

MAXIMUM SPANS OF RIDGE BEAMS

Beam d x b	Roof	Loading Dimension (m)									
		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
270 x 130	Light	6.10	5.70	5.50	5.20	5.10	4.90	4.80	4.70	4.60	4.50
	Heavy	5.20	4.90	4.70	4.50	4.30	4.20	4.10	4.00	3.90	3.80
315 x 130	Light	6.70	6.40	6.10	5.90	5.70	5.50	5.40	5.20	5.10	5.00
	Heavy	5.90	5.50	5.20	5.00	4.80	4.70	4.60	4.40	4.30	4.20
360 x 130	Light	7.40	7.00	6.70	6.40	6.20	6.10	5.90	5.80	5.60	5.50
	Heavy	6.40	6.10	5.80	5.50	5.30	5.20	5.00	4.90	4.80	4.70
405 x 130	Light	8.00	7.60	7.30	7.00	6.80	6.60	6.40	6.30	6.10	6.00
	Heavy	7.00	6.60	6.30	6.00	5.80	5.60	5.50	5.40	5.20	5.10
450 x 130	Light	8.60	8.20	7.80	7.60	7.30	7.10	6.90	6.80	6.60	6.50
	Heavy	7.60	7.10	6.80	6.50	6.30	6.10	5.90	5.80	5.70	5.50
495 x 130	Light	9.20	8.70	8.40	8.10	7.80	7.60	7.40	7.30	7.10	7.00
	Heavy	8.10	7.60	7.30	7.00	6.70	6.50	6.40	6.20	6.10	5.90
540 x 130	Light	9.70	9.30	8.90	8.60	8.30	8.10	7.90	7.70	7.60	7.40
	Heavy	8.60	8.10	7.70	7.40	7.20	7.00	6.80	6.60	6.50	6.30
585 x 130	Light	-	9.80	9.40	9.10	8.80	8.60	8.40	8.20	8.00	7.90
	Heavy	9.10	8.60	8.20	7.90	7.60	7.40	7.20	7.00	6.90	6.70



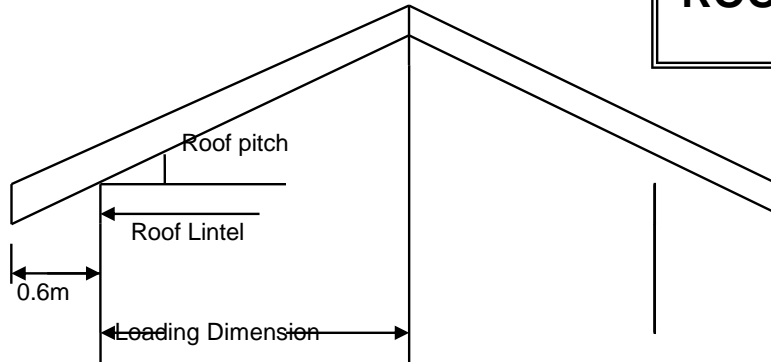
RIDGE BEAMS

Roof Pitch = 36° to 45°

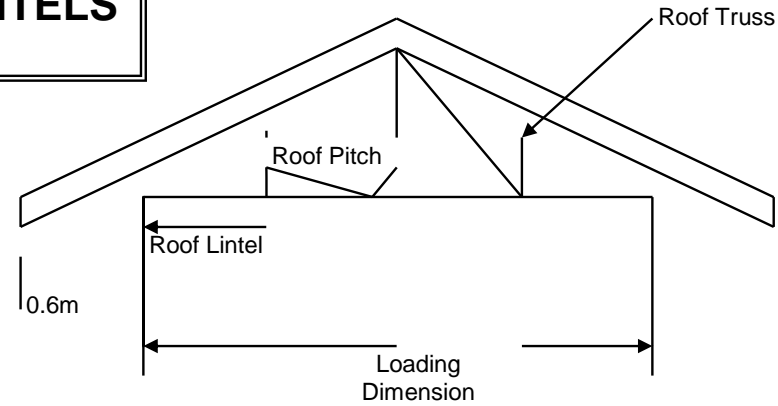
MAXIMUM SPANS OF RIDGE BEAMS

Beam d x b	Roof	Loading Dimension (m)									
		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
270 x 130	Light	5.90	5.50	5.30	5.10	4.90	4.70	4.60	4.50	4.40	4.30
	Heavy	5.10	4.70	4.50	4.30	4.20	4.00	3.90	3.80	3.70	3.60
315 x 130	Light	6.60	6.20	5.90	5.70	5.50	5.30	5.20	5.10	4.90	4.80
	Heavy	5.70	5.30	5.10	4.80	4.70	4.50	4.40	4.30	4.20	4.10
360 x 130	Light	7.20	6.80	6.50	6.20	6.00	5.90	5.70	5.60	5.50	5.30
	Heavy	6.20	5.90	5.60	5.30	5.20	5.00	4.90	4.70	4.60	4.50
405 x 130	Light	7.80	7.40	7.10	6.80	6.60	6.40	6.20	6.10	5.90	5.80
	Heavy	6.80	6.40	6.10	5.80	5.60	5.40	5.30	5.20	5.10	4.90
450 x 130	Light	8.40	8.00	7.60	7.30	7.10	6.90	6.70	6.60	6.40	6.30
	Heavy	7.30	6.90	6.60	6.30	6.10	5.90	5.70	5.60	5.50	5.40
495 x 130	Light	8.90	8.50	8.10	7.80	7.60	7.40	7.20	7.00	6.90	6.80
	Heavy	7.80	7.40	7.00	6.80	6.50	6.30	6.10	6.00	5.90	5.70
540 x 130	Light	9.50	9.00	8.60	8.30	8.10	7.90	7.70	7.50	7.30	7.20
	Heavy	8.30	7.90	7.50	7.20	6.90	6.70	6.60	6.40	6.30	6.10
585 x 130	Light	10.00	9.50	9.10	8.80	8.60	8.30	8.10	7.90	7.80	7.60
	Heavy	8.80	8.30	7.90	7.60	7.40	7.10	7.00	6.80	6.60	6.50

ROOF LINTELS



Case 1



Case 2

Roof Pitch = Up to 25°

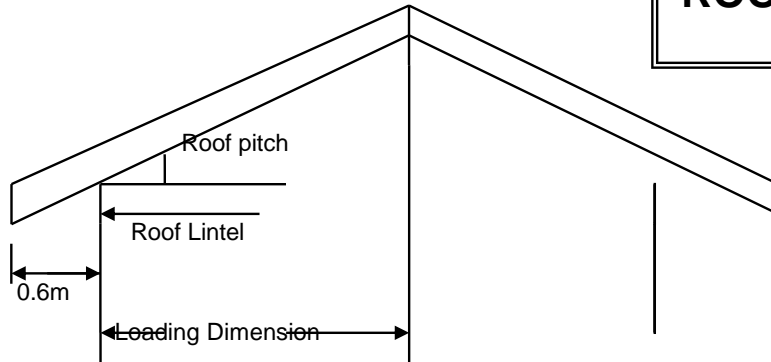
MAXIMUM SPANS OF ROOF LINTELS

Beam d x b	Roof	Loading Dimension (m)									
		3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
135 x 90	Light	3.10	2.90	2.70	2.60	2.50	2.40	2.30	2.10	2.10	2.00
	Heavy	2.50	2.30	2.20	2.10	2.00	1.90	1.80	1.70	1.60	1.50
180 x 90	Light	4.00	3.80	3.60	3.40	3.30	3.20	3.10	3.00	2.80	2.70
	Heavy	3.30	3.10	2.90	2.70	2.60	2.50	2.40	2.40	2.20	2.20
225 x 90	Light	4.70	4.50	4.30	4.10	4.00	3.90	3.80	3.60	3.50	3.40
	Heavy	4.00	3.80	3.60	3.40	3.30	3.20	3.10	2.90	2.80	2.70
270 x 90	Light	5.30	5.10	4.90	4.70	4.60	4.50	4.30	4.20	4.00	3.90
	Heavy	4.60	4.30	4.20	4.00	3.90	3.70	3.60	3.40	3.30	3.20
315 x 90	Light	-	5.70	5.50	5.30	5.10	4.90	4.70	4.60	4.40	4.30
	Heavy	5.10	4.90	4.70	4.50	4.30	4.10	4.00	3.80	3.70	3.60
360 x 90	Light	-	-	5.90	5.60	5.40	5.20	5.00	4.80	4.70	4.60
	Heavy	5.60	5.40	5.10	4.80	4.60	4.40	4.20	4.10	3.90	3.80
405 x 90	Light	-	-	-	5.80	5.60	5.40	5.20	5.10	4.90	4.80
	Heavy	-	5.60	5.30	5.00	4.80	4.60	4.40	4.30	4.20	4.00
450 x 90	Light	-	-	-	-	5.80	5.60	5.40	5.20	5.10	4.90
	Heavy	-	5.80	5.40	5.20	5.00	4.80	4.60	4.50	4.30	4.20

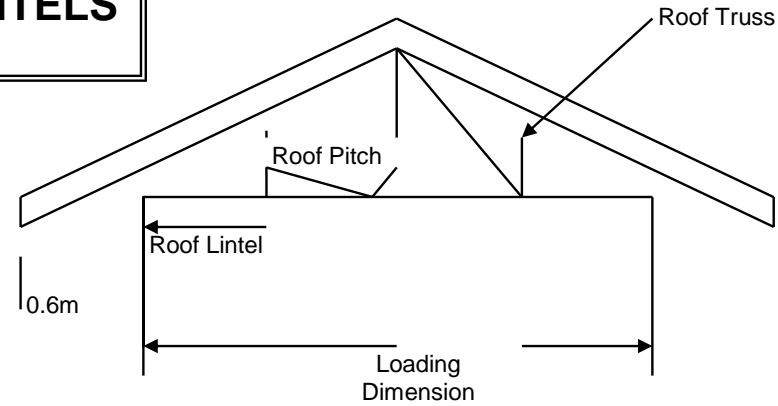


LAMINATED TIMBER SPAN TABLES

ROOF LINTELS



Case 1



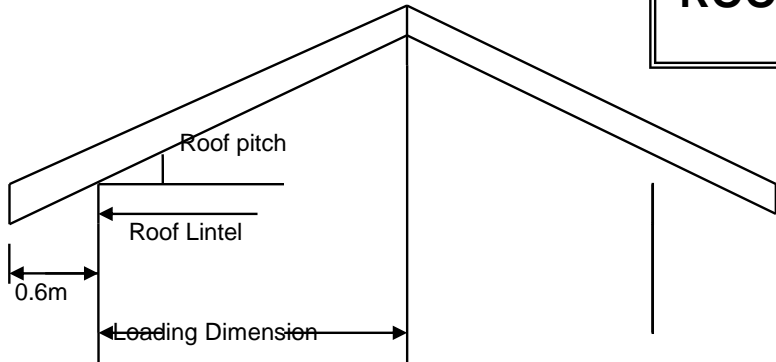
Case 2

Roof Pitch = 26° to 35°

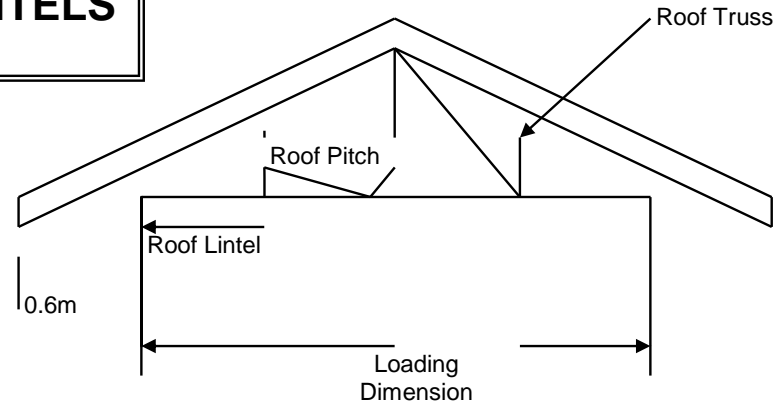
MAXIMUM SPANS OF ROOF LINTELS

Beam d x b	Roof	Loading Dimension (m)									
		3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
135 x 90	Light	3.00	2.80	2.60	2.50	2.40	2.30	2.20	2.10	2.00	1.90
	Heavy	2.40	2.20	2.10	2.00	1.90	1.80	1.70	1.60	1.50	1.50
180 x 90	Light	3.90	3.70	3.50	3.30	3.20	3.10	3.00	2.90	2.80	2.70
	Heavy	3.20	3.00	2.80	2.70	2.50	2.50	2.40	2.30	2.20	2.10
225 x 90	Light	4.60	4.40	4.20	4.00	3.90	3.80	3.70	3.50	3.40	3.30
	Heavy	3.90	3.70	3.50	3.30	3.20	3.10	3.00	2.80	2.70	2.60
270 x 90	Light	5.20	5.00	4.80	4.60	4.50	4.40	4.20	4.10	3.90	3.80
	Heavy	4.50	4.20	4.10	3.90	3.80	3.60	3.50	3.30	3.20	3.10
315 x 90	Light	5.80	5.60	5.40	5.20	5.00	4.80	4.60	4.50	4.30	4.20
	Heavy	5.00	4.80	4.60	4.40	4.20	4.00	3.80	3.70	3.60	3.40
360 x 90	Light	-	-	5.80	5.50	5.30	5.10	4.90	4.70	4.60	4.50
	Heavy	5.50	5.20	4.90	4.70	4.50	4.30	4.10	4.00	3.80	3.70
405 x 90	Light	-	-	-	5.70	5.50	5.30	5.10	4.90	4.80	4.70
	Heavy	5.80	5.50	5.10	4.90	4.70	4.50	4.30	4.20	4.00	3.90
450 x 90	Light	-	-	-	5.90	5.70	5.50	5.30	5.10	5.00	4.80
	Heavy	-	5.60	5.30	5.10	4.80	4.70	4.50	4.40	4.20	4.10

ROOF LINTELS



Case 1



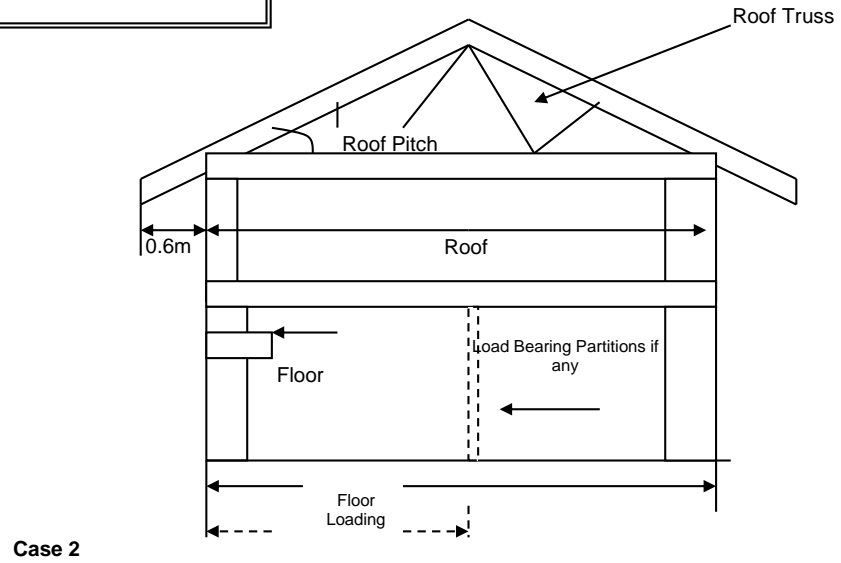
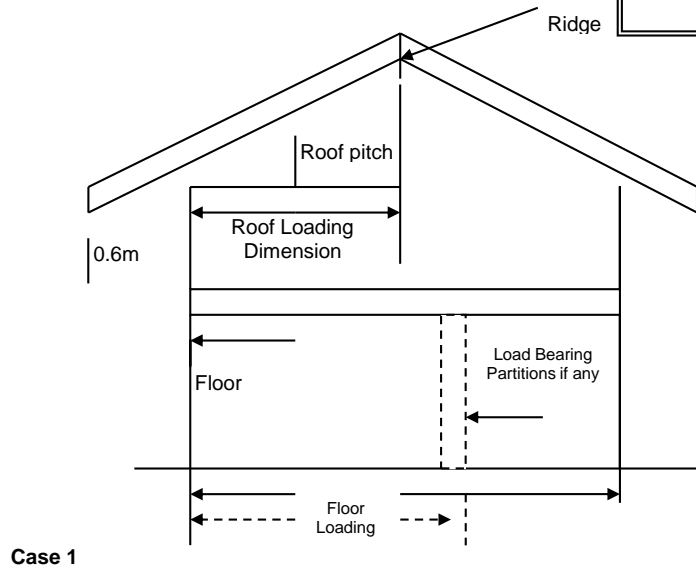
Case 2

Roof Pitch = 36° to 45°

MAXIMUM SPANS OF ROOF LINTELS

Beam d x b	Roof	Loading Dimension (m)									
		3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
135 x 90	Light	2.80	2.60	2.50	2.40	2.30	2.20	2.10	2.00	1.90	1.80
	Heavy	2.30	2.10	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.40
180 x 90	Light	3.80	3.50	3.30	3.20	3.00	2.90	2.80	2.80	2.60	2.50
	Heavy	3.00	2.80	2.70	2.50	2.40	2.30	2.20	2.10	2.00	2.00
225 x 90	Light	4.40	4.20	4.00	3.90	3.80	3.70	3.50	3.40	3.30	3.10
	Heavy	3.80	3.50	3.30	3.20	3.00	2.90	2.80	2.70	2.60	2.50
270 x 90	Light	5.10	4.80	4.60	4.50	4.30	4.20	4.10	3.90	3.80	3.60
	Heavy	4.30	4.10	3.90	3.80	3.60	3.40	3.30	3.10	3.00	2.90
315 x 90	Light	5.70	5.40	5.20	5.00	4.80	4.60	4.50	4.30	4.20	4.00
	Heavy	4.80	4.60	4.40	4.20	4.00	3.80	3.70	3.50	3.40	3.30
360 x 90	Light	-	5.90	5.60	5.40	5.10	4.90	4.70	4.60	4.40	4.30
	Heavy	5.30	5.00	4.70	4.50	4.30	4.10	3.90	3.80	3.70	3.50
405 x 90	Light	-	-	5.80	5.60	5.30	5.10	4.90	4.80	4.70	4.50
	Heavy	5.60	5.30	4.90	4.70	4.50	4.30	4.10	4.00	3.90	3.80
450 x 90	Light	-	-	-	5.70	5.50	5.30	5.10	5.00	4.80	4.70
	Heavy	5.80	5.40	5.10	4.90	4.70	4.50	4.30	4.20	4.10	3.90

FLOOR LINTELS

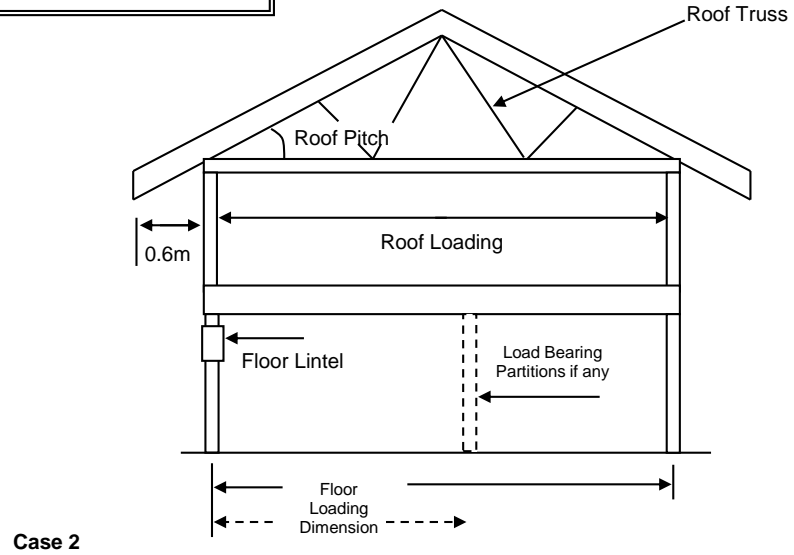
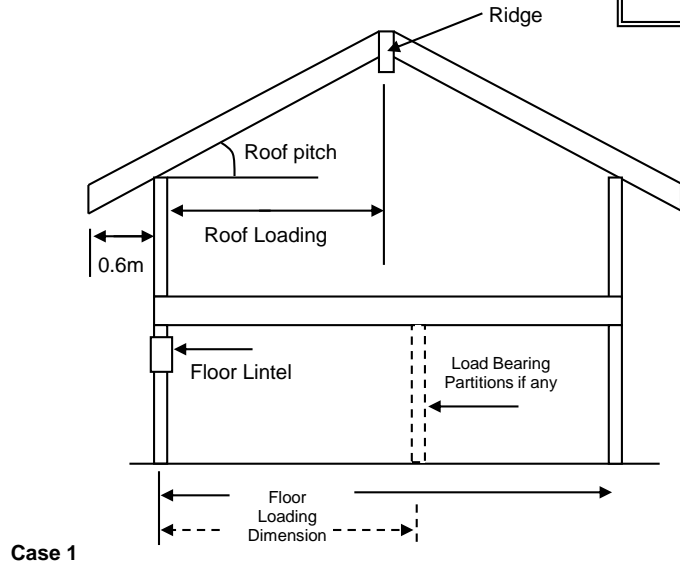


Roof Pitch = up to 25 °

MAXIMUM SPANS OF FLOOR LINTELS

Beam d x b	Roof	Loading Dimension (m)																					
		Roof Floor	2.5				5.0				7.5				10.0				12.0				
			1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	
180 x 90	Light	2.90	2.70	2.40	2.10	2.80	2.50	2.30	2.10	2.60	2.40	2.20	2.00	2.50	2.30	2.10	1.90	2.40	2.20	2.00	1.90		
405 x 90	Light	3.60	3.30	2.90	2.70	3.40	3.10	2.80	2.60	3.30	3.00	2.70	2.50	3.20	2.90	2.60	2.40	3.10	2.80	2.60	2.40		
270 x 90	Light	4.20	3.80	3.40	3.10	4.00	3.60	3.30	3.00	3.90	3.50	3.20	3.00	3.70	3.40	3.10	2.90	3.60	3.30	3.00	2.80		
315 x 90	Light	4.70	4.20	3.80	3.50	4.50	4.00	3.70	3.40	4.30	3.90	3.60	3.30	4.10	3.80	3.50	3.20	4.00	3.70	3.40	3.20		
360 x 90	Light	5.00	4.50	4.10	3.80	4.80	4.30	4.00	3.70	4.60	4.20	3.90	3.60	4.40	4.00	3.80	3.50	4.30	3.90	3.70	3.40		
		5.20	4.70	4.30	4.00	5.00	4.50	4.20	3.90	4.80	4.40	4.10	3.80	4.60	4.20	4.00	3.70	4.50	4.10	3.90	3.70		
		5.40	4.90	4.50	4.20	5.10	4.70	4.40	4.10	4.90	4.50	4.20	4.00	4.80	4.40	4.10	3.90	4.60	4.30	4.10	3.80		

FLOOR LINTELS

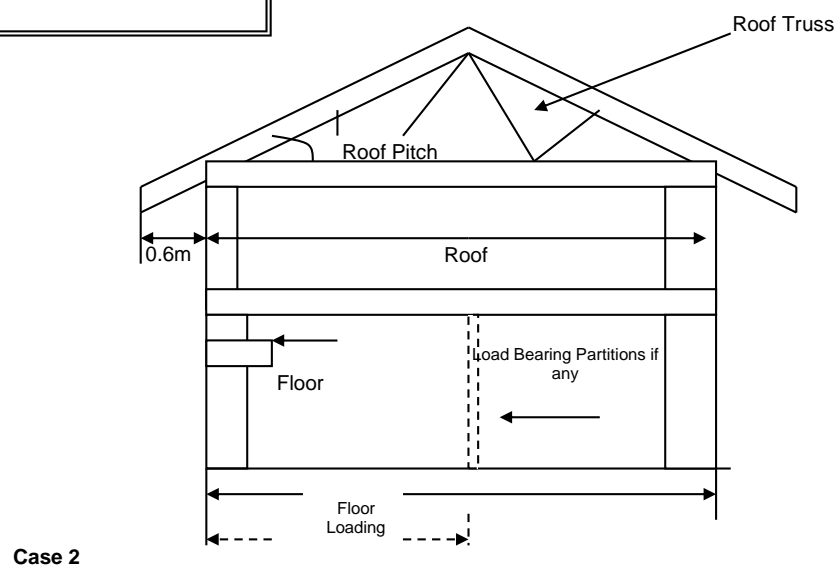
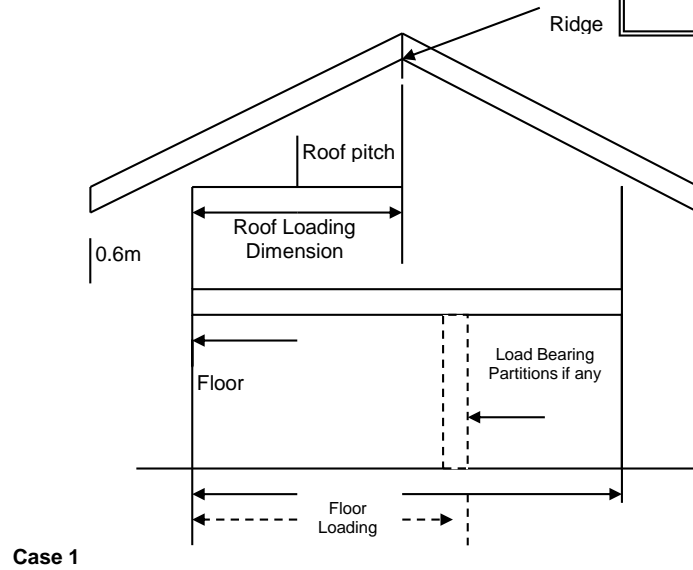


Roof Pitch = up to 25 °

MAXIMUM SPANS OF FLOOR LINTELS

Beam d x b	Roof	Loading Dimension (m)																			
		Roof Floor	2.5				5.0				7.5				10.0				12.0		
180 x 90	Heavy	2.70	2.50	2.20	2.00	2.50	2.30	2.10	1.90	2.30	2.10	1.90	1.80	2.10	2.00	1.80	1.70	2.00	1.90	1.80	1.60
225 x 90	Heavy	3.40	3.10	2.80	2.60	3.10	2.80	2.60	2.40	2.90	2.70	2.50	2.30	2.70	2.50	2.30	2.20	2.60	2.40	2.20	2.10
270 x 90	Heavy	4.00	3.60	3.30	3.00	3.60	3.30	3.10	2.80	3.40	3.10	2.90	2.70	3.20	2.90	2.80	2.60	3.00	2.80	2.70	2.50
315 x 90	Heavy	4.40	4.00	3.60	3.40	4.00	3.70	3.40	3.20	3.80	3.50	3.30	3.10	3.50	3.30	3.10	2.90	3.40	3.20	3.00	2.80
360 x 90	Heavy	4.70	4.20	3.90	3.60	4.30	4.00	3.70	3.50	4.00	3.80	3.50	3.30	3.80	3.60	3.40	3.20	3.60	3.40	3.30	3.10
405 x 90	Heavy	4.90	4.50	4.10	3.90	4.50	4.20	3.90	3.70	4.30	4.00	3.70	3.50	4.00	3.80	3.60	3.40	3.90	3.70	3.50	3.30
450 x 90	Heavy	5.10	4.60	4.30	4.00	4.70	4.40	4.10	3.90	4.40	4.20	3.90	3.70	4.20	4.00	3.80	3.60	4.10	3.80	3.70	3.50

FLOOR LINTELS

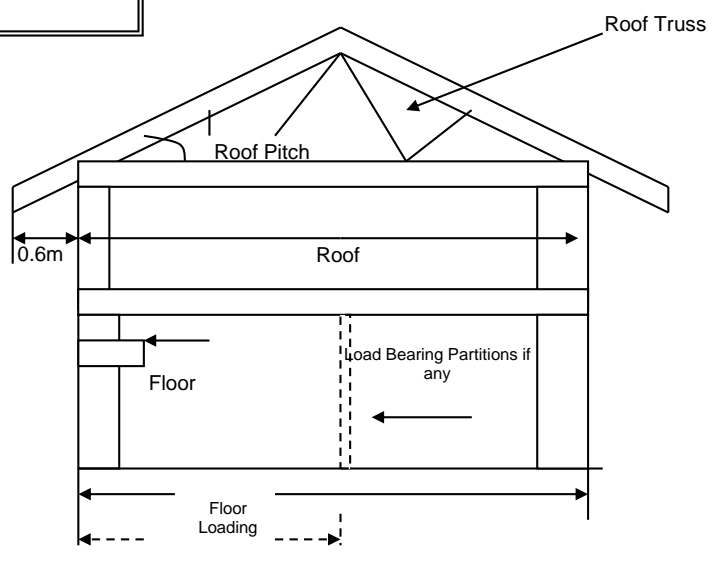
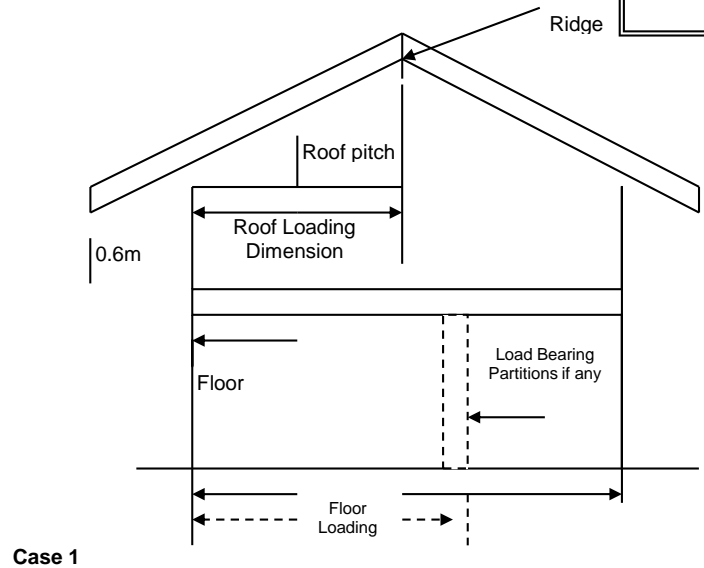


Roof Pitch = 26° to 35°

MAXIMUM SPANS OF FLOOR LINTELS

Beam d x b	Roof	Loading Dimension (m)																					
		Roof Floor	2.5				5.0				7.5				10.0				12.0				
			1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	
180 x 90	Light	2.90	2.60	2.30	2.10	2.70	2.50	2.20	2.00	2.60	2.40	2.10	2.00	2.50	2.30	2.10	1.90	2.40	2.20	2.00	1.80		
405 x 90	Light	3.60	3.30	2.90	2.70	3.40	3.10	2.80	2.60	3.20	3.00	2.70	2.50	3.10	2.80	2.60	2.40	3.00	2.80	2.50	2.40		
270 x 90	Light	4.20	3.80	3.40	3.10	4.00	3.60	3.30	3.00	3.80	3.50	3.20	2.90	3.60	3.30	3.10	2.80	3.50	3.20	3.00	2.80		
315 x 90	Light	4.70	4.20	3.80	3.50	4.40	4.00	3.70	3.40	4.20	3.80	3.50	3.30	4.00	3.70	3.40	3.20	3.90	3.60	3.40	3.10		
360 x 90	Light	4.90	4.40	4.10	3.80	4.70	4.30	3.90	3.70	4.50	4.10	3.80	3.60	4.30	4.00	3.70	3.50	4.20	3.90	3.60	3.40		
		5.20	4.70	4.30	4.00	4.90	4.50	4.20	3.90	4.70	4.30	4.00	3.80	4.50	4.20	3.90	3.70	4.40	4.10	3.80	3.60		
		5.30	4.80	4.50	4.20	5.10	4.60	4.30	4.10	4.90	4.50	4.20	4.00	4.70	4.40	4.10	3.90	4.60	4.30	4.00	3.80		

FLOOR LINTELS



Roof Pitch = 36° to 45°

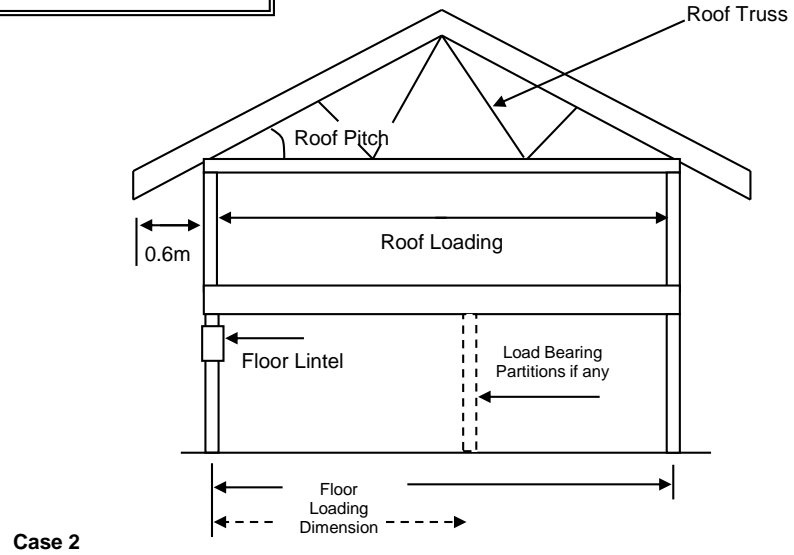
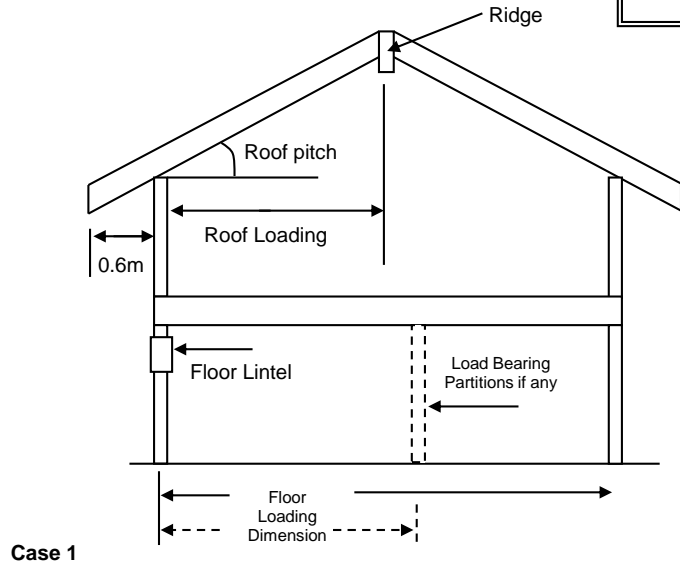
MAXIMUM SPANS OF FLOOR LINTELS

Beam d x b	Roof	Loading Dimension (m)																			
		Roof Floor	2.5				5.0				7.5				10.0				12.0		
		1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20	1.50	2.70	3.90	5.20
180 x 90	Light	2.80	2.60	2.30	2.10	2.70	2.40	2.20	2.00	2.50	2.30	2.10	1.90	2.40	2.20	2.00	1.90	2.30	2.10	1.90	1.80
405 x 90	Light	3.60	3.20	2.90	2.60	3.30	3.00	2.80	2.50	3.20	2.90	2.70	2.40	3.00	2.80	2.50	2.40	2.90	2.70	2.50	2.30
270 x 90	Light	4.10	3.70	3.40	3.10	3.90	3.50	3.20	3.00	3.70	3.40	3.10	2.90	3.50	3.20	3.00	2.80	3.40	3.10	2.90	2.70
315 x 90	Light	4.60	4.10	3.80	3.50	4.30	3.90	3.60	3.30	4.10	3.80	3.50	3.20	3.90	3.60	3.40	3.10	3.80	3.50	3.30	3.10
360 x 90	Light	4.90	4.40	4.00	3.70	4.60	4.20	3.90	3.60	4.40	4.00	3.80	3.50	4.20	3.90	3.60	3.40	4.10	3.80	3.50	3.30
		5.10	4.60	4.30	4.00	4.80	4.40	4.10	3.80	4.60	4.20	4.00	3.70	4.40	4.10	3.80	3.60	4.30	4.00	3.80	3.60
		5.30	4.80	4.40	4.10	5.00	4.60	4.30	4.00	4.80	4.40	4.10	3.90	4.60	4.30	4.00	3.80	4.40	4.20	3.90	3.70



LAMINATED TIMBER SPAN TABLES

FLOOR LINTELS



Roof Pitch = 36° to 45°

MAXIMUM SPANS OF FLOOR LINTELS

Beam d x b	Roof	Loading Dimension (m)																			
		Roof Floor	2.5				5.0				7.5				10.0				12.0		
180 x 90	Heavy	2.60	2.40	2.20	2.00	2.40	2.10	2.00	1.80	2.10	2.00	1.80	1.70	2.00	1.80	1.70	1.60	1.80	1.70	1.60	1.50
225 x 90	Heavy	3.20	3.00	2.70	2.50	3.00	2.70	2.50	2.30	2.70	2.50	2.30	2.20	2.50	2.30	2.20	2.10	2.40	2.20	2.10	2.00
270 x 90	Heavy	3.80	3.50	3.20	2.90	3.50	3.20	2.90	2.80	3.20	2.90	2.80	2.60	2.90	2.80	2.60	2.50	2.80	2.60	2.50	2.40
315 x 90	Heavy	4.20	3.80	3.50	3.30	3.80	3.50	3.30	3.10	3.50	3.30	3.10	2.90	3.30	3.10	2.90	2.80	3.10	3.00	2.80	2.70
360 x 90	Heavy	4.50	4.10	3.80	3.60	4.10	3.80	3.60	3.40	3.80	3.60	3.40	3.20	3.60	3.40	3.20	3.10	3.40	3.20	3.10	3.00
405 x 90	Heavy	4.70	4.30	4.00	3.80	4.30	4.00	3.80	3.60	4.00	3.80	3.60	3.40	3.80	3.60	3.40	3.30	3.60	3.50	3.30	3.20
450 x 90	Heavy	4.90	4.50	4.20	4.00	4.50	4.20	4.00	3.80	4.20	4.00	3.80	3.60	4.00	3.80	3.60	3.50	3.80	3.60	3.50	3.30