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SMART LAM GL17S

DESIGN GUIDE EDITION 1

2026

SMARTFRAME[®]
BY TILLING

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SmartFrame Product Warranty*

Tilling Timber warrants that its SmartFrame Engineered Wood products will be free from manufacturing defects in workmanship and material.

In addition, provided the product is correctly installed and used, Tilling Timber warrants the adequacy of its design for the normal and expected life of the structure.

This warranty is backed by the full resources of Tilling Timber and by underwritten product liability insurance.

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Scope of this publication

This Design Guide and Load Tables assist in the selection of SmartLam GL 17 for some of the common structural arrangements met in domestic construction.

Methods of developing lateral restraint and providing adequate support, adequate anchorage against wind uplift, and overall structural stability are outside the scope of this publication.

Information on the above matters can be obtained from AS 1684 Residential timber-framed construction or from a structural engineer experienced in timber construction.

Tilling Timber Pty Ltd have structural engineers within the SmartFrame Design Centre who can be contacted for advice on matters concerning the use of its SmartFrame engineered timber products in timber construction via the technical support Helpline on 1300 668 690 or e-mail at techsupport@tilling.com

Substitution of other products

All load tables in this document are designed using the characteristic properties of GL 17 defined in table 7.1 of AS 1720.1, manufactured to AS/NZS 1328 by quality producers and distributed by Tilling Timber Pty Ltd.

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Certification

As a professional engineer, qualified and experienced in timber engineering, I certify that the use of the SmartLam GL 17 members as shown in these tables, and installed in accordance with the provisions of this Design Guide, complies to the Building Code of Australia. These Span Tables have been prepared in accordance with standard engineering principles, the relevant test reports and Australian standards, ie:

- AS 1720.3 Residential timber-framed construction
- AS 1720.1 Timber structures - design methods
- AS 4055 Wind loads for houses
- AS/NZS 4063 Characterisation of structural timber
- AS/NZS 1328 Glue laminated structural timber - performance requirements and minimum production requirements



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Principal Structural Engineer-SmartFrame



SmartLam® GL17S

Introduction

SmartLam GL17S beams are manufactured exclusively for Tilling Timber by a Glued Laminated Timber Association of Australia (GLTAA) accredited manufacturer to AS/NZS 1328. SmartLam GL17S GLT beams are engineered timber products with high strength, dimensional stability, great load carrying capacity and superior fire resistance.

All timber used for laminating is carefully selected from production and graded according to specification. After trimming to the desired size, all stock is kiln dried to 12% average moisture content, to ensure efficient bonding in the gluing operations. The laminations are finger jointed by machine, with glue being cured by cold press system and controlled temperature.

Benefits of SmartLam GL17S

Cost Effectiveness - SmartLam GL17S beams high strength to weight ratio allows you to design for maximum loads over large spans with the smallest possible end sections.

Product Quality - All SmartLam GL17S beams are manufactured in accordance with AS/NZS 1328 Glue Laminated Structural Timber and the Glued Laminated Timber Association (GLTAA) Industry standard GLTAA-4-91.

Fire safety - Extensive fire test data shows that large end section timber performs well in fire situations due to the formation of a protective layer of char which usually occurs at a temperature around 250° C. This charred area inhibits the effects of the fire on the inner portion of the timber component, hence it maintains structural load support for measurable periods of time as the fire progresses.

Conversely, steel loses its strength rapidly as the temperature is raised. At about 550°C, it has lost about 50% of its original bending strength, and by 750°C it has lost 90%. Timber does not lose strength in the same way, with the loss of section size through charring the major reason for any strength reduction.

Fast easy erection - Timber is a user friendly building material, requiring no special tools other than those a normal builder would use, and with SmartLam GL17S beams, installation is fast, easy and efficient.

Environmental responsibility - SmartLam GL17S beams are made from timber from sustainable managed Australian plantation timber.

Low maintenance - In most applications, SmartLam GL17S beams will require little or no maintenance other than that which you would ordinarily carry out to any structural material.

Natural beauty - The natural beauty of timber is desired and highly appropriate in many architectural applications. Appearance Grade B SmartLam GL17S beams allow you to build timber's natural warmth and beauty into your designs.

Ordering SmartLam GL17S

Stock SmartLam GL17S GLT has a 600 m radius camber and in Appearance Grade B

AS/NZS 1328.2 defines 3 appearance grades:

- Appearance Grade A - Sanded with any voids filled - intended for applications where appearance is important and clear or painted finishes are used
- Appearance Grade B - intended for applications where appearance is important but where a planed finish is acceptable

- Appearance Grade C - intended for applications where appearance is unimportant

SmartLam GL17S B grade



Protection and handling

Care should be taken during delivery to avoid marking and to avoid damage. Unloading of trucks should be done by hand or with a crane, do not drop or dump members. During unloading with lifting equipment, use fabric or plastic belts or other slings which will not mark the wood. If chains or cables are used, provide protective blocking or padding. Guard against soiling, dirt, footprints, abrasions, or injury to sharp edges or corners.

Installation

Preparatory work

Carefully unload and handle the laminated members at job site to prevent surface marking and damage. If laminated timber is to be stored before erection, place it on blocks well off the ground with individual members separated by strips so that air may circulate around all four sides. The top and the sides of storage pile shall be covered with moisture resistant covering. Wrapping shall be left intact, but individual wrappings shall be slit or punctured on the lower side to permit the drainage of water that may have accumulated. Before erection, the assembly should be checked for any damage from water or handling, prescribed camber, and accuracy of anchorage connections.

Laminated beams can be nailed into place in the same way as solid timber beams. Alternatively, a range of plates are available for end fixing. For larger beams, special purpose, engineer designed end fixing should be used.

Deflection

All structural members deflect downwards when dead loads are applied, and therefore it is important to allow for this deflection structurally and/or aesthetically in the selection of the beam sizes.

Verticality

SmartLam GL17S members must not be installed out of plumb more than height/500.

Holes for services

Horizontal Holes - Like notches, holes in a GLT beam remove wood fibre, reduce the net area of the beam at the hole location, and introduce stress concentrations. For this reason, horizontal holes in GLT beams are limited in size and location to maintain the structural integrity of the beam. The diagram on the next page shows the zones of a uniformly loaded, simply supported beam where field drilling of holes may be considered.

Field drilled horizontal holes should be for access only and should not be used as attachment points for brackets or other load bearing hardware unless specifically designed as such by the Engineer/Designer.

Regardless of the hole location, the net section of the beam remaining should be checked for flexure and horizontal shear.

Vertical holes - As a rule of thumb, vertical holes drilled through the depth of a GLT beam cause a reduction in capacity at that location directly proportional to the ratio of 1½ times the diameter of the hole. For example, a 25 mm hole drilled in a 150 mm wide beam would reduce the capacity of the beam at that section by ¼.

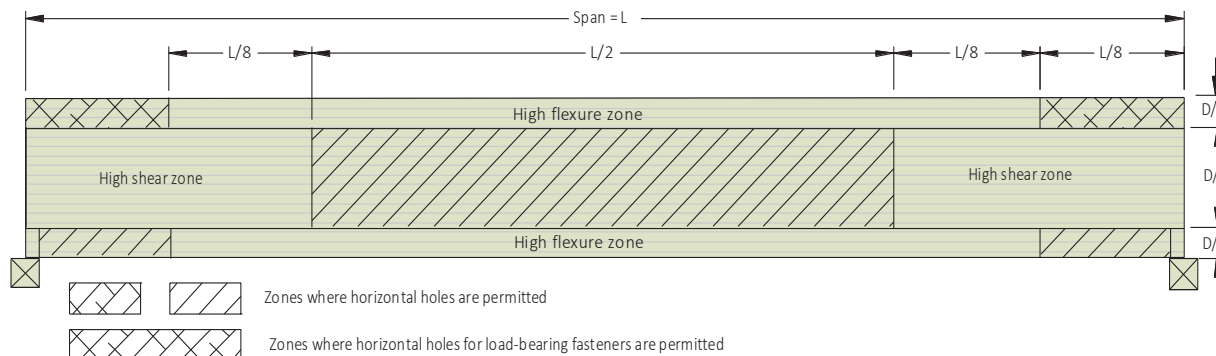
Installation (cont'd)

For this reason, where it is necessary to drill vertical holes through a GLT member, the holes should be positioned in areas of the member that are stressed to less than 50% of the design in bending.

Holes for support of heavy equipment - Heavy equipment or piping suspended from GLT should be attached so that the load is applied

to the top of the member to avoid tension perpendicular to the grain stresses. Any horizontal holes required for support of significant weight, such as suspended heating and cooling units or main water lines, must be located above the neutral axis of the member and in a zone stressed to less than 50% of the design flexural stresses.

Zones where horizontal holes are permitted in a uniformly loaded simply supported beam



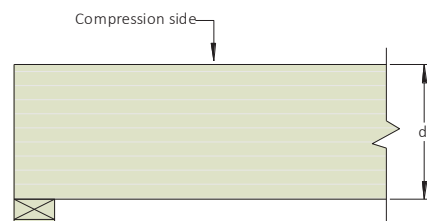
Notches

Notching of bending members should be avoided whenever possible, especially on the tension side of a member.

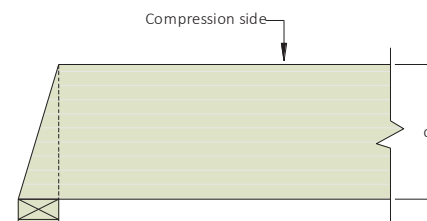
Tension-side notching of GLT beams is not permitted except at end bearings and then only under specific conditions. The notching of a bending member on the tension side results in a decrease in strength caused by stress concentrations which develop around the notch, as well as a reduction of the area resisting the bending and shear forces. Such notches induce perpendicular-to-grain tension stresses which, in conjunction with horizontal shear forces, can cause splitting along the grain, typically starting at the inside corner of the notch.

Where GLT members are notched at the ends for bearing over a support, the notch depth shall not exceed 1/10 of the beam depth. Figure (e) is provided to assist in evaluating the associated reductions to beam strength due to notching on the tension side.

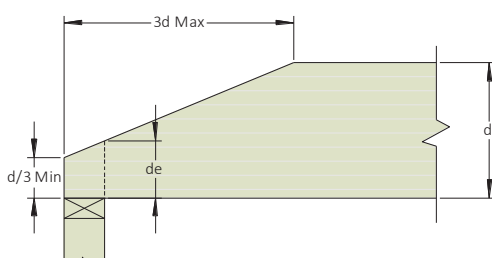
For notches on the compression side, a less severe condition exists and equations for the analysis of the effects of these notches are also given in Figure (a) to (d). The equations given are empirical in nature and were developed for the conditions shown.



(a) Square end bearing



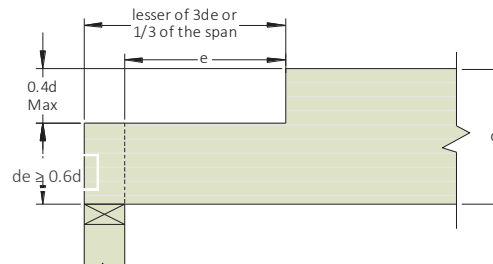
(b) Slope end bearing



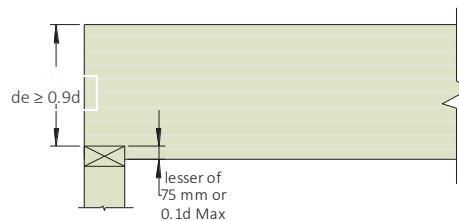
(c) Taper cut end bearing

Where:

f_v = shear stress (MPa)
 V = shear force at notch location (kN)
 b = width of LVL beam (mm)
 d = depth of LVL beam (mm)
 d_e = effective depth as shown (mm)
 e = length of notch as shown (mm)



(d) Compression-side notch



(e) Tension-side notch

As this guideline is limited to single span, simply supported beams, the notches shown in Figure (b) and (c) occur in areas of high shear and effectively zero moment. For this reason, the design equations given are shear equations. In situations where compression side notches extend into areas of significant moment, the bending capacity of the beam should also be checked using the remaining section of the beam and the appropriate allowable

Installation (cont'd)

stresses for those laminations remaining at the notch location.

When it becomes necessary to cut a small notch in the top of a glued laminated timber (in the compression zone) to provide passage for small diameter pipe or conduit, this cut should be made in areas of the beam stressed to less than 50% of the design bending stress. The net section in these areas should be checked for shear and bending stresses to ensure adequate performance.

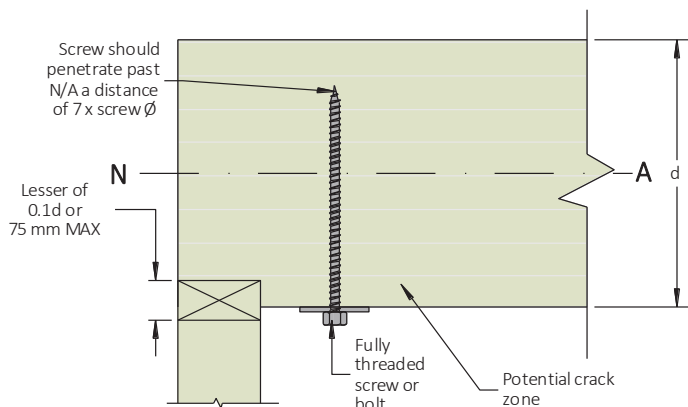
All field notches should be accurately cut. Avoid over-cutting at the root of the notch. Drilling a pilot hole in the member at the interior corner location of a notch as a stop point for the saw blade provides both a rounded corner and minimizes over-cutting at the corner.

Stress concentrations due to notches can be reduced by using a gradually tapered notch configuration in lieu of a square-cornered notch. Rounding the square corner of a notch with a radius of approximately 12 mm is also recommended to reduce stress concentrations in these areas.

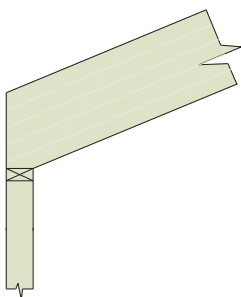
For square-cornered notches occurring at the ends of beams on the tension side, the designer may consider the use of reinforcement, such as full-threaded lag screws, to resist the tendency to split at the notch (See diagram below). A number of design methodologies exist for sizing such screws.

The design methodology selected and subsequent fabrication details are the responsibility of the project designer/engineer. If lag screws are used, lead holes shall be predrilled in accordance with accepted practice. This procedure can also be used as a field remedy to minimize further propagation of an existing crack.

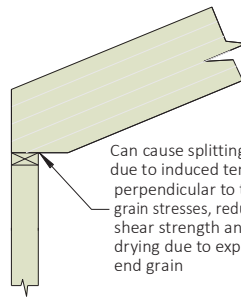
Further information about the use of screw reinforcement can be obtained by contacting the technical support Helpline on 1300 668 690 or e-mail at techsupport@tilling.com.au.



Birdsmouthing



CORRECT

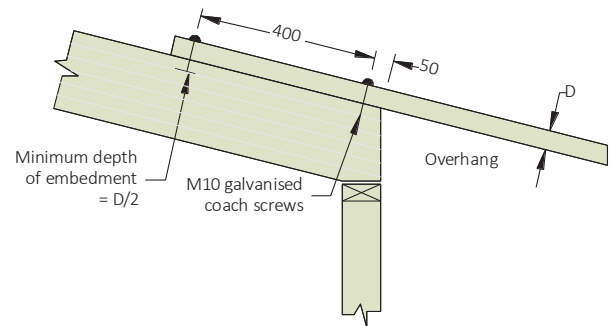


INCORRECT

Figure 3 - Birds mouting details for SmartLam GL17S

Eaves overhang

Figure 4 - Eaves overhang details for SmartLam GL17S



Note: Refer to AS 1684 Residential timber-framed construction code for overhang member size.

Allowable Eaves overhangs

1. Non Cyclonic Areas

Beams for flat or similar roofs - Not Birds mouthed: Eaves overhang shall not exceed 40% of the actual beam span.

Beams with conventional pitched roofs - Birds mouthed to one third their depth:

- I. Sheet roof - 20% of actual beam span
- II. Tiled roof - 30% of actual beam span

2. Cyclonic Areas

Recommendations as per above, but reduced as follows:

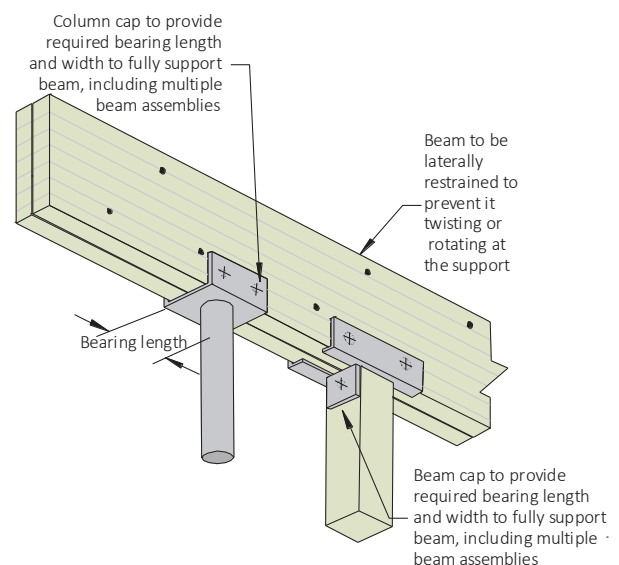
Non Birds mouthed:

- 25% of actual beam span

Birdsmouthed:

- Sheet roof - 10% of actual beam span
- Tiled roof - 20% of actual beam span

Steel and Timber fixing to SmartLam GL17S



Installation (cont'd)

Multiple SmartLam GL17S section beams

Vertical laminations may be achieved by adopting the principle described in clause 2.3 of AS 1684, however, due to the thickness of SmartLam GL17S, nails are NOT suitable for combining SmartLam GL17S beams.

Experience with GLT beams indicates that multiple member laminations individual components may cup as a result of the ingress of moisture between laminates during construction. The suggested method of vertical lamination shown below provides a greater level of fixity between individual components, and combined with

the use of a temporary waterproof membrane and an elastomeric adhesive prevents moisture penetration between the laminates.

Maximum floor load width tables for multiple member laminations of SmartLam GL17S:

1. Type 17 screw lamination
2. Bolt lamination

are shown below.

1. Type 17 screws

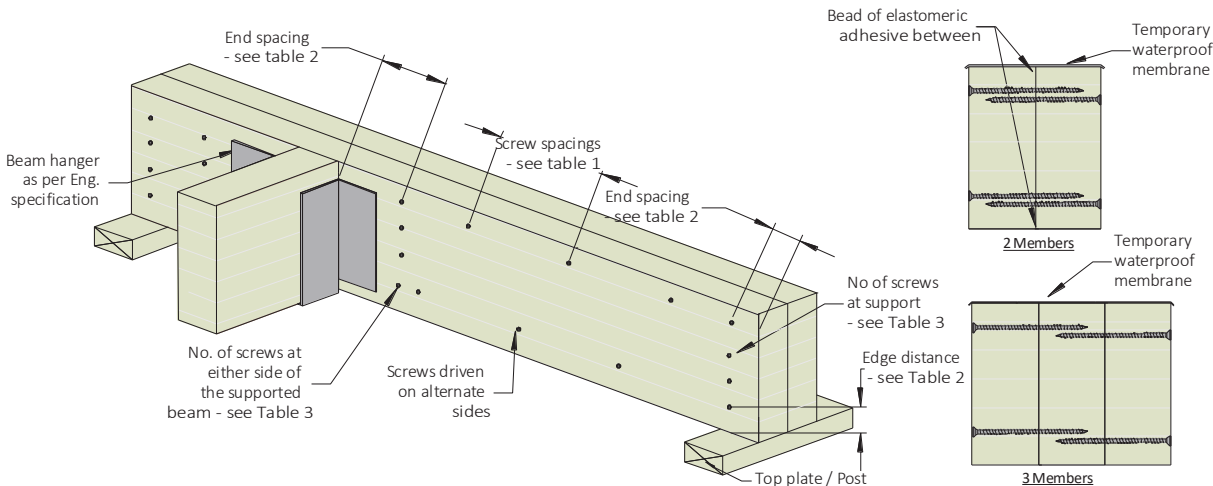


Table 1

Side (non-symmetrically) and top loaded beam				
Section width	Type 17 screw size	No of screw rows (both sides)	Screw spacing (mm)	Max. floor joist span supported by outer member (mm)**
2/75 & 3/75	14g x 125	2 or 3*	300	7700
2/60 & 3/60	14g x 100	2 or 3*	300	6000
* for beam depths ≥ 300 mm, use 3 rows of screws				
** Floor loads G = 1.25 kPa, Q = 2.0 kPa				

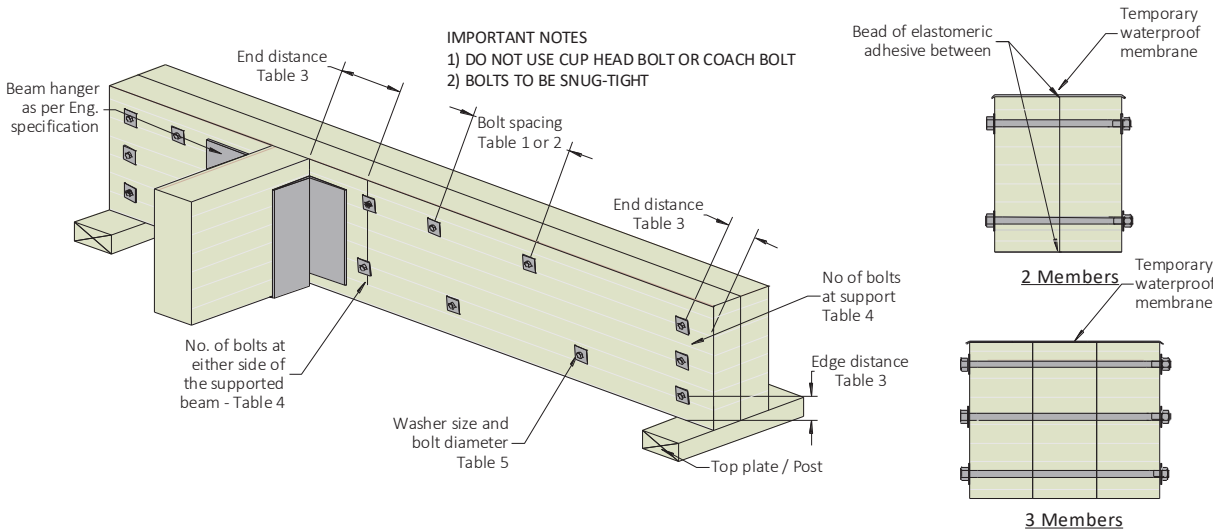
Table 2

Type 17 screw size	Min. edge distance (mm)	Min. end distance (mm)	Min. distance between screws (across the grain) (mm)
14g	40	70	30

Table 3

Beam depth (mm)	Min. number of screws required	
	At support	At either side of supported beam
90 –240	3	3
> 240	4	4

2. Bolts



Installation (cont'd)

2. Bolts (Cont'd)

Table 1

Top (symmetrically) loaded beam - M12 Hex head bolt	
Beam depth ≤ 300 mm	Beam depth > 300 mm
2 rows of bolts at 600 mm ctrs	3 rows of bolts at 600 mm ctrs

Table 2

Side (Non symmetrically) loaded beam - M12 Hex head bolt		
Maximum floor joist span supported by the beam mm*		
2 rows at 600 mm ctrs	2 rows at 300 mm ctrs	3 rows at 600 mm ctrs
11,00 mm	>12	>12

* based upon floor loads of G: 1.25 kPa Q: 2.0 kPa

Table 3

Bolt size	Min. edge distance	Min. end distance	Min. distance between bolts (across grain)
M12 Hex head	60 mm	60 mm	60 mm

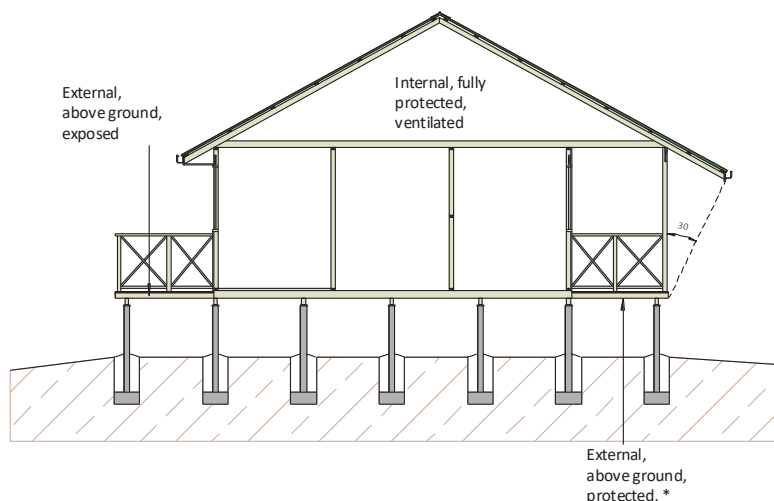
Table 4

Beam depth (mm)	Min. number of bolts required	
	At support	At either side of supported beam
90 –150	1	1
160—240	2	2
> 240	3	3

Table 5

Bolt diameter (mm)	Washer dimensions		
	Thick-ness (mm)	Min. diameter of round washers (mm)	Min. side length of square washers (mm)
M12	3	55	50

SmartLam durability and weather exposure



AS 1684 definitions of exposure zones within a structure

* External timbers are regarded as protected in AS 1684 if they are covered by a roof projection (or similar) at 30° to the vertical and they are well detailed and maintained (painted and kept well ventilated).

SmartLam GL17S's are manufactured from kiln dried timber (MC less than 15%), and therefore need to be protected from moisture cycling that can occur from:

- Exposure to direct sun and rain (including during construction)
- Contact or close exposure with moisture laden porous material (e.g. Concrete blocks)
- Exposure to extreme environments such as dry heating systems (e.g. slow combustion wood heaters), air conditioning, large north or west facing windows or moisture laden environments such as pool enclosures.

SmartLam GL17S protection methods

During Construction (pre-water proof roof)

SmartLam GL17S's are supplied WITHOUT any short term construction sealer. However if SmartLam GL17S is expected to be exposed for an extended period or become wet, it is recommended that the beam be sealed with a construction sealer that is com-

patible with the final paint or varnish finish, or wrapped in plastic to provide protection (plastic must allow for drainage and air circulation to breath).

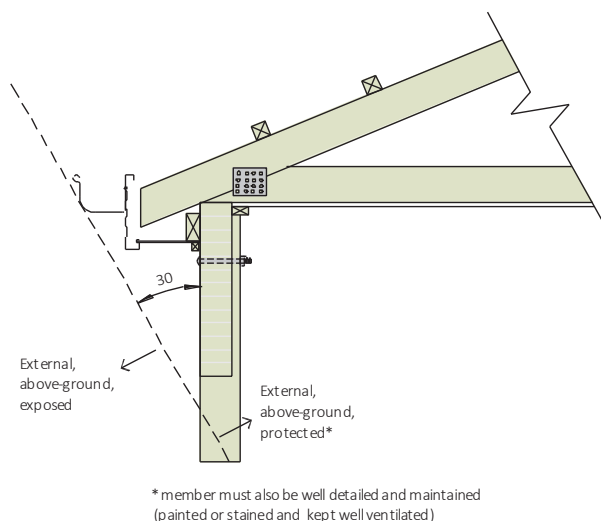
Examples:

- If the SmartLam GL17S is installed inside a building without direct exposure to air-conditioning such as in wall cavity, NO protection to the beam is required.
- If the SmartLam GL17S is installed inside a building with direct exposure to air conditioning or dry heat then a sealer is required.
- If the SmartLam GL17S is under the eaves and protected from direct rain and sun, it is recommended that the construction sealer be lightly sanded and a finish coat of compatible premium quality paint be applied. (In accordance with paint manufacturer's specifications).
- It is NOT recommended that ANY SmartLam GL17S be used in external, above ground, exposed applications.

SmartLam durability and weather exposure (Cont'd)

Covered alfresco beams

Alfresco beams constructed to comply with the diagram below are technically classified in AS 1684 as **External, above-ground, protected**. (see previous page)



SmartLam GL's used in protected exterior applications must be:

- I. Correctly detailed by fully enclosing member with a mechanical barrier such a cement sheet if it is likely to get wet or experiences direct sun
- II. Mechanical barrier correctly painted with a premium quality protective finish (e.g. light coloured pigmented external paint system) to prevent moisture infiltration.

It is important that an inspection and maintenance programme, based on exposure level and the paint manufacturer's recommendations be prepared.

Painting SmartLam GL17S

General

To provide the longest service life of the SmartLam GL17S, it is recommended the SmartLam GL17S's are painted with an exterior paint with a Light Reflectance Value (LRV) greater than 30%. Heat reduction exterior paints should be used where the desired colour is dark or has a LRV of less than 30%. The heat reflective paints colours should be limited to a Total Solar Reflectance (TSR) value greater than 29%.

Any paint or stain must be recommended by the manufacturer as being suitable for the proposed application and must be applied in a manner in strict compliance to the manufacturer's recommendations.

1. The wood must be dry and clean prior to applying any finish coating. If initial cleaning of the treated wood is needed, it is recommended that the project be cleaned with a deck cleaning product and allow to fully dry
2. At this time, a clear water repellent can be added to the project. If applied, allow 8 weeks prior to the application of a semi-transparent stain or paint

Users must always conduct their own tests on coatings in inconspicuous areas of the project to determine acceptability of colour, adhesion and appearance.

Design & Construction detailing tips

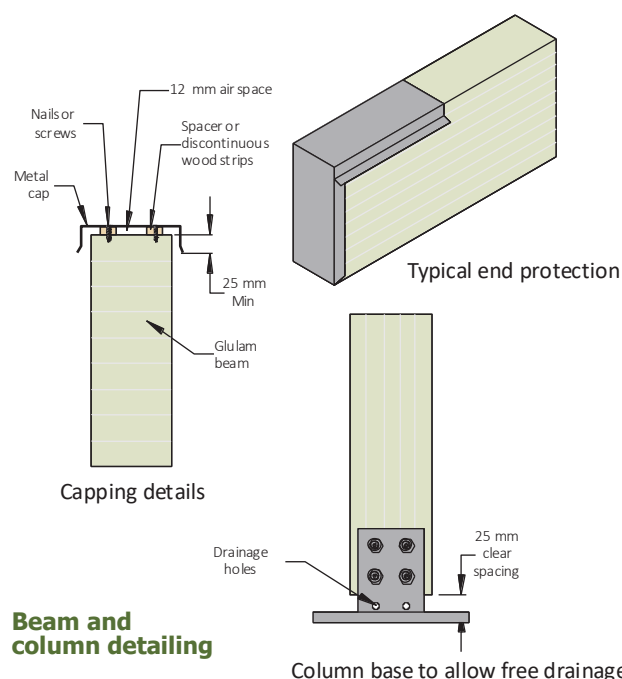
- i. The use of building overhangs and other structures

which protect the beams from excessive moisture movement and sun exposure.

- ii. Shielding of the beam from free moisture or direct sun. The use of metal, fibro or plastic shields on the exposed faces or ends of beams is highly recommended to help maintain the beam in an unstressed dry condition.
- iii. All beams should be provided with adequate ventilation so that moisture content within beams will not exceed 15% and moisture gradients across the beam will not occur.
- iv. The use of arrised or round edges on beams to reduce the likelihood of coating failures on sharp edges.
- v. The use of drip edges or other devices which provide a path for free moisture flow away from the timber beam. Refer to detail below opposite.
- vi. Joint detailing should, wherever possible, comply with the following:

- Keep horizontal contact areas to a minimum, In favour of self draining vertical surfaces.
- Ventilate joint surfaces by using spacers, wherever possible.
- Always use compatible fasteners which have adequate corrosion protection and do not cause splitting during installation e.g. Hot dipped galvanic coatings or stainless steel.
- Ensure any moisture entering a joint is not trapped but can adequately drain away from the joint.

- vii. Allow for thermal expansion/contraction in the joint design.



Beam and column detailing

Designing with SmartLam GL17S

The design information contained within this Design Guide is for the properties of SmartLam GL17 only. Other manufacturers' LVL may have different properties and therefore cannot be designed using this information.

1. Product Specification

Lamella:	Thickness:	30-45 mm
	Species:	Slash pine (Pinus elliottii) Radiata pine (Pinus Radiata)
	Strength Group	SD4
	Joints:	Finger joint
Dimensional tolerances:	Length:	± 10 mm
	Depth:	≤ 100 mm ± 1 mm ≥ 100 ≤ 302 mm ± 3 mm ≥ 301 ≤ 600 mm ± 4 mm ≥ 601 ± 6 mm
	Thickness:	- 0, +4 mm at 12% moisture content
Adhesive:	Complies with AS/NZS 4364:2010	
Treatment options:	Untreated, H2, and H3 treatment to AS 1604.1	

2. Limit State Design Characteristic Properties

Timber Strength Properties: ⁽¹⁾		
Bending	f _b	40 MPa
Tension Parallel to grain	f _t	20 MPa
Tension Perpendicular to grain	f _{tp}	0.5 MPa
Compression Parallel to grain	f _c	33 MPa
Compression Perpendicular to grain - Edge	f _p	13 MPa
Shear	f _s	4.2 MPa
Average Elastic Modulus	E	16,700 MPa
Average Modulus of Rigidity	G	1100 MPa
Average Density		650 kg/m ³
Moisture Content		12-15%

(1) Dry conditions

3. Strength reduction factor

The strength reduction factor for calculating the design capacities of structural members shall be taken from the table below, referenced from AS 1720.1 –2010

Application of SmartLam GL17 as a structural member		
Category 1	Category 2	Category 3
Structural members for houses for which failure would be unlikely to affect an area greater than 25 m ² ; OR secondary members in structures other than houses	Primary structural members in structures other than houses; OR elements in houses for which failure would be likely to affect an area* greater than 25 m ²	Primary structural members in structures intended to fulfil essential services or post disaster function
Strength reduction factor Ø *		
0.95	0.85	0.75

* AS 1720.1:2010 Table 2.1

4. Duration of load

The duration of load factor k₁ for strength is defined within clause 2.4 of AS 1720.1.

Duration	Service class / exposure classification		
	1, 2	3	Severe/ Adverse
Short term ≤ 1 Day	1.0	1.0	1.0
Long term > 12 months	1.5	2.0	3.0*

Notes:

- * Any beams to be used in service class 3 are outside the scope of these span tables, therefore specialist design advice should be sought from an engineer.
- In general, the size of this beam can conservatively be obtained by the following method:
 - Obtain the beam size for service class 1 & 2
 - Obtain the E_{lxx} from the "Section Properties" table for this beam
 - Obtain from the "Section Properties" table a beam size with an E_{lxx} => 2/1.5 x E_{lxx} of the original beam
 - Follow the recommendations of the GLTAA Technical Data Sheet No 2: "Glulam in weather exposed applications"
- Service Classes 1,2 & 3 are defined in AS 1328

SmartLam GL17 is a seasoned timber product, generally k₄ equals 1. Where the glulam is subjected to conditions in which the average moisture content for a 12 month period is expected to exceed 15%, the characteristic capacity shall be decreased. The value of k₄ shall be the greater of:

- $k_4 = 1 - 0.3 \frac{EMC - 15}{10}$;
- $k_4 = 0.7$

Where EMC is the highest value of the annual moisture content (percent) that the timber will attain in service.

6. Length and position of bearing

The k₇ bearing factor is defined in clause 2.4.4 of AS 1720.1

7. Load sharing

Because of the reduced variability of strength values of glulam compared to solid timber, the load sharing factor k₉ = 1.0 as defined in clause 7.4.3 of AS 1720.1

8. Stability

The stability factor k₁₂ is defined within section 7 of AS 1720.1 beams. The methods for calculating k₁₂ for solid wood in section 3 of AS 1720.1 shall generally apply except that the material constant (ρ_b or ρ_c) for beams and column shall be as given in Tables 7.2(A) and 7.2(B)

9. Temperature

For covered timber structures under ambient conditions, no modification for strength need be made for the effect of temperature (i.e., k₆ equals 1.0) except that where seasoned timber is used in structures erected in coastal regions of Queensland north of latitude 25°S, and all other regions of Australia north of latitude 16°S, the strength shall be modified by a factor k₆ of 0.9.

SmartLam GL 17S section properties

Nominal Size DxB mm	Beam mass kg/m	Nominal section area 10 ³ mm ²	Major axis			Minor Axis	
			Zxx 10 ³ mm ²	Ixx 10 ⁶ mm ⁴	Elxx 10 ⁹ Nmm ²	Zyy 10 ³ mm ²	Iyy 10 ⁶ mm ⁴
130 x 65	4.6	8.5	183	12	199	91.5	3.0
165 x 65	5.9	10.7	295	24	406	116.2	3.8
195 x 65	7.0	12.7	412	40	671	137.3	4.5
230 x 65	8.2	15.0	573	66	1101	162.0	5.3
260 x 65	9.3	16.9	732	95	1590	183.1	6.0
295 x 65	10.5	19.2	943	139	2322	207.7	6.8
330 x 65	11.8	21.5	1180	195	3251	232.4	7.6
360 x 65	12.9	23.4	1404	253	4220	253.5	8.2
395 x 65	14.1	25.7	1690	334	5575	278.1	9.0
425 x 65	15.2	27.6	1957	416	6944	299.3	9.7
130 x 85	6.1	11.1	239	16	260	156.5	6.7
165 x 85	7.7	14.0	386	32	531	198.7	8.4
195 x 85	9.1	16.6	539	53	877	234.8	10.0
230 x 85	10.8	19.6	749	86	1439	277.0	11.8
295 x 85	13.8	25.1	1233	182	3037	355.2	15.1
330 x 85	15.4	28.1	1543	255	4251	397.4	16.9
360 x 85	16.8	30.6	1836	330	5519	433.5	18.4
395 x 85	18.5	33.6	2210	437	7290	475.6	20.2
425 x 85	19.9	36.1	2559	544	9081	511.8	21.8
460 x 85	21.5	39.1	2998	689	11514	553.9	23.5
495 x 85	23.1	42.1	3471	859	14347	596.1	25.3
525 x 85	24.5	44.6	3905	1025	17117	632.2	26.9
560 x 85	26.2	47.6	4443	1244	20774	674.3	28.7
590 x 85	27.6	50.2	4931	1455	24295	710.5	30.2
295 x 115	18.7	33.9	1668	246	4109	650.2	37.4
330 x 115	20.9	38.0	2087	344	5751	727.4	41.8
360 x 115	22.8	41.4	2484	447	7467	793.5	45.6
395 x 115	25.0	45.4	2990	591	9863	870.6	50.1
425 x 115	26.9	48.9	3462	736	12286	936.8	53.9
460 x 115	29.1	52.9	4056	933	15578	1013.9	58.3
495 x 115	31.3	56.9	4696	1162	19411	1091.1	62.7
525 x 115	33.2	60.4	5283	1387	23159	1157.2	66.5
560 x 115	35.4	64.4	6011	1683	28106	1234.3	71.0
590 x 115	37.3	67.9	6672	1968	32869	1300.5	74.8
295 x 135	21.9	39.8	1958	289	4823	896.1	60.5
330 x 135	24.5	44.6	2450	404	6752	1002.4	67.7
360 x 135	26.7	48.6	2916	525	8765	1093.5	73.8
395 x 135	29.3	53.3	3511	693	11579	1199.8	81.0
425 x 135	31.6	57.4	4064	864	14422	1290.9	87.1
460 x 135	34.2	62.1	4761	1095	18287	1397.3	94.3
495 x 135	36.8	66.8	5513	1364	22787	1503.6	101.5
525 x 135	39.0	70.9	6202	1628	27186	1594.7	107.6
560 x 135	41.6	75.6	7056	1976	32994	1701.0	114.8
590 x 135	43.8	79.7	7832	2311	38586	1792.1	121.0

SmartLam GL17S and fire

Fire resistance

The Fire Resistance Level (FRL) is the performance criteria for fire resistance, i.e. the grading periods (in minutes) for the following criteria as specified in the BCA:

- Structural adequacy: (the duration for which the elements can carry its designated load)
- Integrity: (the duration for which the element can maintain its integrity to prevent the spread of fire to/from the compartment)
- Insulation: (the duration for which the element is insulating the adjacent space from excessive temperature rise)

and is expressed in that order e.g. 30/30/30. The method for determining the structural component of the Fire Resistance Period for timber (including LVL and GLT) is described in AS /NZS

1720.4 - 2019 Timber Structures Part 4: Fire resistance of timber elements.

$$c = 0.4 + \left(\frac{280}{\delta} \right)^2$$

where:

c = notional charring rate, in mm per minute

δ = timber density of SmartLam GL17 - ~ 650 kg/m³

The effective depth of charring (d_e) after a period of time (t) shall be calculated in accordance with Clause 2.6.1 for surfaces exposed to fire and in accordance with Clause 2.6.2 for surfaces behind fire - resistant protective insulation.

Further information about using SmartFrame product in fire rated applications can be obtained by contacting the Techsupport Help-line on 1300 668 690 or email techsupport@tilling.com.au.

Checking in SmartLam GL17S

One of the advantages of glued laminated timber construction is that while seasoning checks may occur for the same reasons that they do in sawn members, checking in glued laminated timber will generally occur to a much lesser degree because of careful control of the moisture content of timber used for laminating. Checks in wood are separations along the fibres normally occurring across the rings of annual growth resulting from stresses developed during changes in moisture content. Checks in glued laminate timber may appear as openings parallel to the grain on the sides of members.

As wood loses moisture to the surrounding atmosphere, the outer fibres of the member lose moisture at a more rapid rate than do the inner fibres. As outer fibres try to shrink, they are restrained by the inner portion of the member that has higher moisture content. The more rapid the rate of drying, the greater will be the differential in shrinkage between the outer and inner fibres resulting in higher shrinkage stresses.

These resultant stresses perpendicular to the grain of the wood can cause characteristic wood seasoning checks. The influence of checks on the structural performance of glued laminated timber members is generally minor. Checking can be minimized by careful installation practices that avoid prolonged exposure of the members during construction.

Identification of checking

Checks occur as transverse separations or openings that are nearly parallel to the grain direction in glued laminated timber and generally follow the grain direction around knots and along sloping grain. Differences in the shrinkage rate of individual laminations used in glued laminated timber tend to concentrate shrinkage stresses at or near glue lines, resulting in checks.

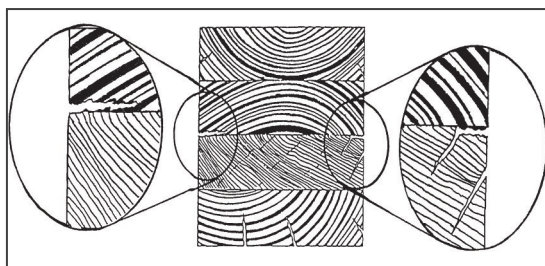
Checks are often confused with delamination that occurs when the glue bond is not adequate. The presence of wood fibre separation in these openings is the key distinguishing characteristic of seasoning checks. Openings due to inadequate adhesive bonding may appear as smooth wood surface separations, possibly darkened by the adhesive film, or as glossy surface areas of adhesive with an absence of torn wood fibres.

Checking often occurs along the first glue line adjacent to the outer lamination that may dry more rapidly because a larger sur-

face area of that lamination is exposed to the air. This condition is sometimes aggravated when the outer lamination tends to cup, creating tension perpendicular to grain stresses along or near the first glue line.

Significance of checking

In general, checks have little effect on the strength of glued laminated members. Glued laminated members are made from laminations that are thin enough to season readily in kiln drying schedules without developing checks. Checks usually appear on the wide faces of the timber and do not materially affect the shear strength of the laminations. In cases where members are designed for loading parallel to the wide face of the laminations, checks may affect the shear strength of the beam their effect may be evaluated in the same manner as for sawn timber. Seasoning checks in bending members affect only the horizontal shear capacity.



In establishing allowable horizontal shear values, normal checking due to seasoning has been considered.

Checks are usually not of structural importance unless they are significant in depth, occur in the mid-height of the member near the supports, and the design of the member is governed by shear. If these conditions exist, the reduction in

shear strength is directly proportional to the ratio of the depth of checks to the width of the bending member. Checks in columns are not of structural importance unless the check develops into a split, thereby increasing the l/d ratio of the column.

Additional information

While checking is not considered to be of structural significance, the reason for the checking and the means by which further checking may be minimized should be determined.

If there is concern regarding structural adequacy, advice can be obtained from engineers from the SmartFrame Design Centre or a structural engineer experienced and qualified in glued laminated timber technology should evaluate the significance of the checking.

The SmartFrame Technical Note - "Evaluation of Checking in Glued Laminated Timber (GLT)" gives detailed analysis of the modification to structural capacity as a result of severe checking.

SmartLam GL17S Design /Effective span

Normal structural analysis uses the centreline representation of the member. The term “span” can be defined in a number of ways and these are defined as follows:

Clear span. This is the distance between the faces of any support. It is generally the one easiest to measure and read from the drawings

Nominal span/centre-line span. This is the distance between the centre of the supports. This span is used to determine bending moments and deflections for continuous spanning members

Diagram (a) shows beam where bearings have been designed appropriately. The effective span is taken as the distance between the centre of each bearing area

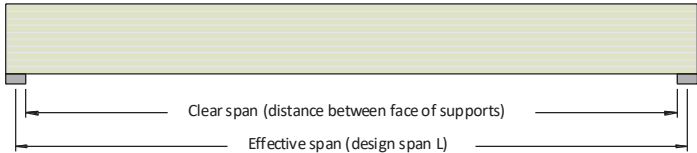
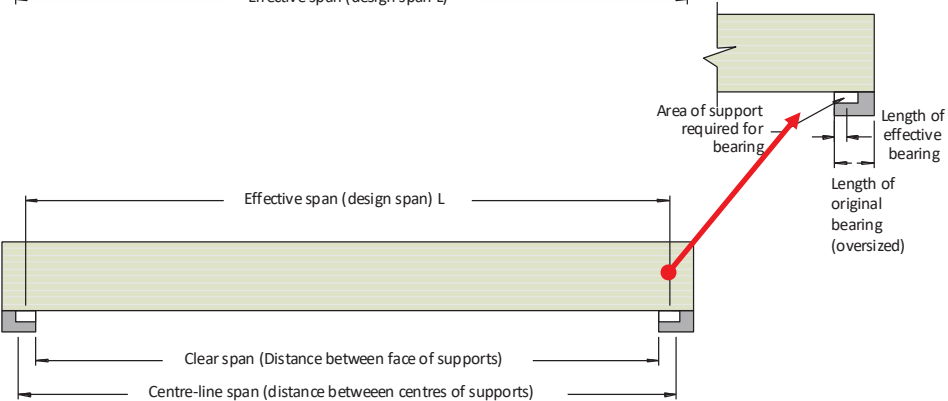


Diagram (b) shows beam where bearings at each end have been oversized. (This is frequently the case for beams that bear onto brickwork or concrete walls where the thickness of the wall is in excess of the area required to give the beam bearing capacity). To find the correct effective span:

- 1. Calculate the minimum bearing required to carry the loads satisfactorily
- 2. Add minimum bearing length to “clear span” distance



span difference	effective span	resultant span description
10% Max	main span	continuous
10 – 30%	1.1 x main span	continuous
Above 30% difference	main span	single

span difference = $\frac{(\text{major span} - \text{minor span})}{(\text{major span} + \text{minor span})} \times 100$

The span to use in the case of unequal continuous spans is the "resultant span description " as shown in the table above. (Note: It is recommended for the most accurate designs, that the SmartFrame software be used.)

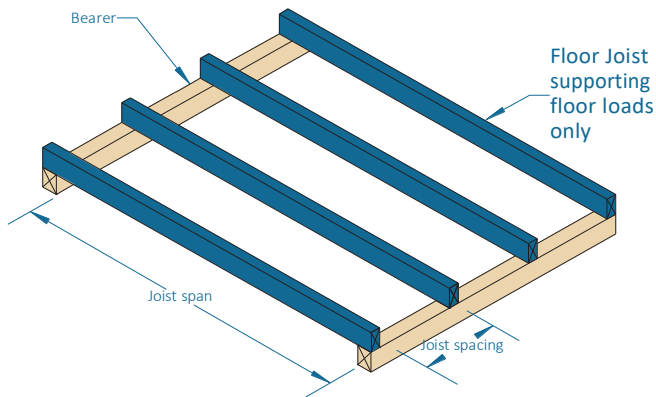
Storage and handling of SmartLam GL17S

- 1. Store SmartLam GL17S's flat on a hard, dry surface
- 2. If surface isn't paved, the ground should be covered with a polythene film
- 3. Keep covered with waterproof material that allows bundles to "breathe"
- 4. Use bearers (bolsters) between the ground and the first bundle (4 metre max spacing)
- 5. Use 100 x 50 timber flat between bundles at same spacing as bolsters
- 6. Take great care to rewrap remaining material after opening bundles
- 7. Timber "grows" in thickness and depth when allowed to get wet....KEEP DRY!
- 8. Timber products with high MC has short term reduction in Characteristic Strengths KEEP DRY!
- 9. Under NO circumstances is stored SmartLam GL17S to be in contact with the ground.



Floor joists supporting floor loads only

Floor mass - 40 kg/m²



EXAMPLE:

domestic floor loads
single span
joist spacing = 450 mm
joist span = 6000 mm

Enter single span table at 450 mm in joist spacing column, read down to a span equal to or greater than 6000 mm

ADOPT:

SmartLam GL 17S - 260 x 65

Loadings: Permanent - Self weight + 40 kg/m² +0.5 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

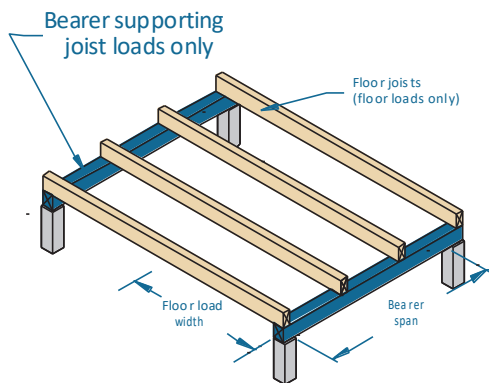
Joist spacing (mm)	300	450	600	300	450	600
Member size (GL17S) DxB (mm)	Maximum recommended joist span (mm)					
	Single span			Continuous span		
130x65	4200	3350	3050	4850	4050	3550
165x65	5000	4400	3950	5800	5250	4600
195x65	5650	5100	4700	6600	5950	5550
230x65	6400	5800	5400	7450	6750	6250
260x65	7050	6350	5900	8150	7400	6850
295x65	7750	7000	6500	8950	8100	7550
330x65	8400	7600	7050	9750	8800	8200
360x65	8950	8100	7550	9950	9400	8750
395x65	9600	8700	8100	10000	9950	9400
425x65	9950	9200	8550	10500	9950	9900
460x65	9950	9750	9050	11100	9950	9950
495x65	10000	9950	9600	11750	9950	9950
525x65	10350	9950	9950	12000	9950	9950
560x65	10800	9950	9950	12000	10300	9950
590x65	10750	9950	9950	12000	10700	10000
130x85	4450	3700	3350	5200	4500	3900
165x85	5350	4850	4350	6200	5600	5100
195x85	6050	5500	5100	7050	6350	5900
230x85	6850	6200	5750	7950	7200	6700
260x85	7500	6800	6300	8750	7900	7350
295x85	8250	7450	6950	9600	8650	8050
330x85	9000	8100	7550	9950	9450	8800
360x85	9600	8650	8050	9950	9950	9350
395x85	9950	9300	8650	10600	9950	9950
425x85	9950	9800	9150	11200	9950	9950
460x85	10000	9950	9700	11850	9950	9950
495x85	10550	9950	9950	12000	10050	9950
525x85	11000	9950	9950	12000	10500	9950
560x85	10700	9950	9950	12000	11000	10250
590x85	10050	10200	9950	12000	11400	10650

NOTES:

- Spans are suitable for solid timber, particle board and ply flooring. floor sheeting glued and nailed to joists will improve floor rigidity. Where heavy overlay material is to be applied, such as a mortar bed tiled or slate floor, the permanent load allowance should be increased to 1.2 kPa. A reduction of joist spacing may be used to accommodate this extra permanent load. A satisfactory result can be achieved by adopting the maximum spans for 600 mm and 450 mm spacing but installing the joists at 450 and 300 mm spacing respectively.
- For beams which are continuous over two unequal spans, the design span and the 'resultant span description' depend upon the percentage span differences between the two spans as shown on page 7
- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum DL of 40 (kg/m²), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members.
- Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Single span floor bearers supporting floor loads only - Single span

Floor mass - 40 kg/m²



EXAMPLE:

single span bearer = 4000 mm
floor load width = 5800 mm

Enter single span table at 6000 mm in floor load width column, read down to a span equal to or greater than 4000 mm

ADOPT:

SmartLam GL 17 S - 360 x 65
(With additional bearing length of 10 mm)

Loadings: permanent - self weight + 40 kg/m² + 0.5 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

Floor load width (mm)	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size (GL17S) DxB (mm)	Maximum recommended Single span bearer span (mm)									
130x65	2850	2500	2250	2100	2000	1850	1800	1700	1600	1500
165x65	3650	3200	2900	2700	2500	2400	2250	2150	2000	1900
195x65	4300	3750	3400	3150	3000	2850	2700	2550	2400	2250
230x65	4950	4400	4050	3750	3500	3350	3150	3000	2800	2700
260x65	5500	4900	4500	4200	4000	3800	3600	3350	3200	3050
295x65	6150	5500	5050	4700	4450	4250	4050	3800	3600 ₅	3450 ₅
330x65	6850	6050	5550	5200	4900	4650	4500 ₅	4250 ₅	4050 ₁₀	3850 ₁₀
360x65	7450	6550	6000	5600	5300	5050	4850 ₅	4650 ₁₀	4400 ₁₅	4200 ₁₅
395x65	8100	7150	6550	6100	5750	5450 ₅	5250 ₁₀	5050 ₁₅	4850 ₂₀	4600 ₂₀
425x65	8550	7700	7000	6500	6150 ₅	5850 ₁₀	5600 ₁₅	5400 ₂₀	5200 ₂₀	4950 ₂₅
460x65	9050	8200	7550	7000	6600 ₅	6300 ₁₀	6000 ₁₅	5800 ₂₀	5600 ₂₅	5350 ₃₀
165x85	4000	3500	3150	2950	2750	2600	2500	2400	2300	2200
195x85	4650	4100	3750	3450	3250	3100	2950	2850	2750	2600
230x85	5350	4750	4350	4100	3850	3650	3500	3350	3200	3050
260x85	5950	5300	4850	4550	4300	4100	3950	3800	3650	3450
295x85	6650	5900	5400	5050	4800	4550	4400	4250	4100	3900
330x85	7400	6550	6000	5600	5300	5050	4850	4650	4500	4350 ₅
360x85	8050	7100	6500	6050	5700	5450	5200	5000	4850 ₅	4700 ₁₀
395x85	8650	7750	7100	6600	6200	5900	5650	5450 ₅	5250 ₁₀	5100 ₁₀
425x85	9150	8250	7600	7050	6650	6350	6050 ₅	5800 ₁₀	5600 ₁₀	5450 ₁₅
460x85	9700	8750	8150	7650	7200	6800 ₅	6500 ₁₀	6250 ₁₀	6050 ₁₅	5850 ₂₀
495x85	10250	9250	8600	8150	7700	7300 ₅	7000 ₁₀	6700 ₁₅	6450 ₂₀	6250 ₂₅
525x85	10700	9700	9000	8500	8150 ₅	7750 ₁₀	7400 ₁₅	7100 ₂₀	6850 ₂₅	6600 ₂₅
295x115	7250	6450	5900	5500	5200	5000	4750	4600	4450	4300
330x115	8100	7150	6550	6100	5750	5500	5250	5050	4900	4750
360x115	8700	7750	7100	6600	6250	5950	5700	5500	5300	5100
395x115	9350	8450	7750	7200	6800	6450	6200	5950	5750	5550
425x115	9850	8900	8300	7750	7300	6950	6650	6350	6150	5950 ₅
460x115	10450	9450	8800	8300	7900	7500	7150	6850	6600 ₅	6400 ₁₀
495x115	11050	10000	9300	8800	8400	8050	7650	7350 ₅	7100 ₁₀	6850 ₁₀
525x115	11550	10450	9700	9200	8800	8450	8150 ₅	7800 ₁₀	7500 ₁₀	7250 ₁₅
560x115	12000	10950	10200	9650	9200	8850 ₅	8550 ₅	8300 ₁₀	8000 ₁₅	7750 ₂₀
590x115	12000	11400	10600	10000	9600	9200 ₅	8900 ₁₀	8650 ₁₅	8450 ₂₀	8150 ₂₀
260x135	6750	6000	5500	5150	4900	4650	4500	4300	4200	4050
295x135	7600	6750	6200	5800	5450	5200	5000	4800	4650	4500
330x135	8450	7500	6850	6400	6050	5750	5500	5300	5150	4950
360x135	9050	8150	7450	6950	6550	6250	5950	5750	5550	5350
395x135	9700	8800	8150	7600	7150	6800	6500	6250	6000	5850
425x135	10250	9250	8650	8150	7650	7300	6950	6700	6450	6250
460x135	10900	9850	9150	8650	8250	7850	7500	7200	6950	6700 ₅
495x135	11500	10400	9650	9150	8750	8400	8050	7750	7450 ₅	7200 ₅
525x135	12000	10850	10100	9550	9150	8800	8500	8200 ₅	7900 ₅	7650 ₁₀
560x135	12000	11400	10600	10050	9600	9200	8900	8650 ₅	8450 ₁₀	8150 ₁₅
590x135	12000	11850	11050	10450	9950	9600	9300 ₅	9000 ₁₀	8750 ₁₀	8550 ₁₅

Continuous span floor bearers supporting floor loads only

Floor mass - 40 kg/m²

Loadings: permanent - self weight + 40 kg/m² +0.5 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

Floor load width (mm)	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size (GL17S) DxB (mm)	Maximum recommended Continuous span bearer span (mm)									
130x65	3500	2950	2550	2300	2100	1900	1800	1700	1600	1500
165x65	4450	3750	3250	2900	2650	2450	2250	2150	2000	1900
195x65	5050	4450	3850	3400	3100	2900	2700	2550	2400 ₅	2250 ₁₀
230x65	5700	5150	4500	4050	3700	3400 ₅	3150 ₁₀	3000 ₁₅	2800 ₁₅	2700 ₂₀
260x65	6250	5650	5100	4550	4150 ₅	3850 ₁₀	3600 ₂₀	3350 ₂₀	3200 ₃₀	3050 ₃₀
295x65	6850	6200	5750	5150 ₁₀	4700 ₁₅	4350 ₂₀	4050 ₃₀	3800 ₃₅	3600 ₄₀	3450 ₄₅
330x65	7400	6750	6250 ₅	5800 ₁₅	5250 ₂₅	4850 ₃₀	4550 ₄₀	4250 ₄₅	4050 ₅₀	3850 ₆₀
360x65	7900	7200	6700 ₁₀	6300 ₂₅	5750 ₃₅	5300 ₄₀	4950 ₅₀	4650 ₅₅	4400 ₆₅	4200 ₇₀
395x65	8450	7700	7150 ₁₅	6750 ₃₀	6300 ₄₀	5800 ₅₀	5400 ₆₀	5100 ₇₀	4850 ₈₀	4600 ₉₅
425x65	8900	8100 ₅	7550 ₂₀	7150 ₃₅	6750 ₅₀	6250 ₆₀	5850 ₇₀	5500 ₈₅	5200 ₁₀₀	4950 ₁₀₅
460x65	9450	8600 ₁₀	8000 ₂₅	7550 ₄₅	7200 ₆₀	6750 ₇₀	6300 ₉₀	5950 ₁₀₅	5600 ₁₁₀	5350 ₁₂₀
165x85	4750	4250	3700	3300	3000	2800	2600	2450	2300	2200
195x85	5400	4850	4400	3900	3550	3300	3050	2900	2750	2600
230x85	6050	5500	5100	4600	4200	3900	3600	3400 ₅	3200 ₅	3050 ₁₀
260x85	6650	6000	5600	5200	4750	4400 ₅	4100 ₅	3850 ₁₀	3650 ₁₅	3450 ₂₀
295x85	7250	6600	6150	5800	5350 ₅	4950 ₁₀	4650 ₁₅	4350 ₂₀	4100 ₂₅	3900 ₃₀
330x85	7900	7150	6700	6300 ₅	6000 ₁₅	5550 ₂₀	5200 ₂₅	4850 ₃₀	4600 ₃₅	4400 ₄₅
360x85	8400	7650	7100	6750 ₁₀	6400 ₂₀	6050 ₃₀	5650 ₃₅	5300 ₄₀	5050 ₄₅	4800 ₅₅
395x85	8950	8150	7600	7200 ₁₅	6900 ₂₅	6600 ₃₅	6200 ₄₅	5800 ₅₀	5500 ₆₀	5250 ₆₅
425x85	9450	8600	8050 ₅	7600 ₂₀	7250 ₃₀	6950 ₄₀	6650 ₅₀	6250 ₆₀	5950 ₇₀	5650 ₈₀
460x85	10000	9100	8500 ₁₀	8050 ₂₅	7700 ₃₅	7400 ₅₀	7150 ₆₀	6800 ₇₅	6400 ₈₅	6100 ₁₀₀
495x85	10500	9600	9000 ₁₅	8500 ₃₀	8100 ₄₀	7800 ₅₅	7550 ₇₀	7300 ₉₅	6900 ₁₀₀	6550 ₁₁₀
525x85	10950	10050 ₅	9350 ₂₀	8900 ₃₅	8500 ₄₅	8150 ₆₀	7850 ₈₀	7600 ₁₀₀	7300 ₁₁₀	6950 ₁₂₀
295x115	7750	7050	6600	6250	5950	5700	5400 ₅	5050 ₁₀	4800 ₁₅	4550 ₂₀
330x115	8400	7650	7150	6800	6450	6200 ₅	6000 ₁₅	5650 ₂₀	5350 ₂₅	5100 ₃₀
360x115	8950	8150	7650	7200	6900 ₅	6650 ₁₀	6400 ₂₀	6150 ₂₅	5850 ₃₀	5550 ₃₅
395x115	9550	8750	8150	7750	7400 ₁₀	7100 ₁₅	6850 ₂₅	6650 ₃₅	6400 ₄₀	6100 ₄₅
425x115	10050	9200	8600	8150	7800 ₁₀	7500 ₂₀	7250 ₃₀	7000 ₄₀	6800 ₄₅	6550 ₅₅
460x115	10600	9750	9100	8650 ₅	8250 ₁₅	7950 ₂₅	7650 ₃₅	7450 ₄₅	7200 ₅₅	7050 ₆₅
495x115	11150	10250	9600	9100 ₁₀	8700 ₂₀	8400 ₃₀	8100 ₄₀	7850 ₅₀	7600 ₆₀	7450 ₇₅
525x115	11650	10700	10000	9500 ₁₅	9100 ₂₅	8750 ₃₅	8450 ₄₅	8200 ₅₅	7950 ₇₀	7750 ₈₅
560x115	12000	11200	10500 ₅	9950 ₂₀	9550 ₃₀	9150 ₄₀	8850 ₅₀	8600 ₆₅	8350 ₈₀	8150 ₁₀₀
590x115	12000	11600	10900 ₁₀	10350 ₂₀	9900 ₃₅	9500 ₄₅	9200 ₅₅	8900 ₇₀	8700 ₉₀	8450 ₁₀₅
260x135	7350	6700	6250	5900	5650	5400	5150	4850	4550	4350 ₅
295x135	8000	7350	6850	6500	6200	5950	5750	5500 ₅	5200 ₁₀	4950 ₁₀
330x135	8700	7950	7450	7050	6700	6450	6250 ₅	6050 ₁₀	5800 ₁₅	5500 ₂₀
360x135	9250	8450	7900	7500	7150	6900 ₅	6650 ₁₀	6450 ₁₅	6250 ₂₅	6000 ₃₀
395x135	9850	9050	8450	8000	7650	7350 ₅	7100 ₁₅	6900 ₂₅	6700 ₃₀	6550 ₃₅
425x135	10350	9500	8900	8450	8100 ₅	7800 ₁₀	7500 ₂₀	7300 ₃₀	7100 ₃₅	6900 ₄₅
460x135	10950	10050	9450	8950	8550 ₁₀	8250 ₁₅	7950 ₂₅	7700 ₃₅	7500 ₄₀	7300 ₅₀
495x135	11500	10600	9950	9450	9050 ₁₀	8700 ₂₀	8400 ₃₀	8150 ₄₀	7900 ₄₅	7700 ₅₅
525x135	12000	11050	10400	9850 ₅	9450 ₁₅	9050 ₂₅	8750 ₃₅	8500 ₄₅	8250 ₅₀	8050 ₆₀
560x135	12000	11550	10850	10300 ₁₀	9900 ₂₀	9500 ₃₀	9200 ₄₀	8900 ₅₀	8650 ₆₀	8450 ₇₀
590x135	12000	12000	11250	10700 ₁₀	10250 ₂₅	9900 ₃₅	9550 ₄₅	9250 ₅₅	9000 ₆₅	8800 ₇₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum DL of 40 (kg/m²), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
3. End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports.
4. Restraint value for slenderness calculations is 600 mm. (floor joist centers at 600 mm max)
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Floor bearers supporting single storey load bearing wall - sheet and tiled roof

Single span

Floor mass - 40 kg/m²

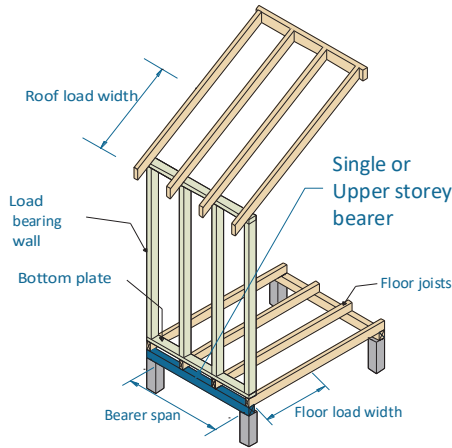
EXAMPLE:

sheet roof - 40 kg/m²
 floor load width = 3500 mm
 roof load width = 1950 mm
 bearer span = 3000 mm (single span)

Enter single span table at 4800 mm in floor load width column, 4500 roof load width column, read down to a span equal to or greater than 3000 mm in the 40 kg/m² row.

ADOPT:

SmartLam GL 17S— 260 x 65



Floor load width (mm)	Roof mass (kg/m ²)	1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) DxB (mm)		Maximum recommended single span bearer span (mm)								
130x65	40	2200	1900	1750	1950	1750	1650	1600	1500	1450
	75	2050	1700	1500	1850	1600	1450	1550	1450	1300
165x65	40	2800	2450	2250	2450	2250	2100	2050	1950	1850
	75	2650	2200	1950	2350	2050	1850	2000	1850	1700
195x65	40	3350	2950	2700	2950	2700	2500	2450	2350	2200
	75	3150	2600	2300	2800	2450	2200	2400	2200	2000
230x65	40	3900	3500	3200	3500	3200	2950	2950	2750	2650
	75	3700	3100	2750	3350	2900	2650	2850	2600	2400
260x65	40	4300	3900	3600	3900	3650	3400	3350	3150	3000
	75	4100	3550	3150	3750	3300	3000	3250	2950	2750
295x65	40	4800	4350	4000	4350	4050	3800	3750	3600	3400 ₅
	75	4550	3950	3600	4200	3750	3400	3700	3350 ₅	3150 ₅
330x65	40	5300	4750	4400	4800	4450	4200	4150 ₅	3950 ₅	3800 ₁₀
	75	5050	4350	3950	4600	4100	3800	4050 ₅	3750 ₁₀	3500 ₁₀
360x65	40	5700	5150	4750	5150	4750	4500	4450 ₁₀	4250 ₁₀	4100 ₁₀
	75	5450	4650	4250	4950	4400	4100 ₅	4350 ₁₀	4050 ₁₅	3800 ₁₅
395x65	40	6250	5600	5150	5600	5200	4850	4850 ₁₀	4600 ₁₅	4400 ₁₅
	75	5900	5050	4600	5400	4800	4400 ₅	4700 ₁₅	4350 ₁₅	4100 ₂₀
425x65	40	6650	5950	5500	6000	5500	5200	5150 ₁₅	4900 ₂₀	4700 ₂₀
	75	6300	5400	4900 ₅	5750	5100	4700 ₁₀	5050 ₁₅	4650 ₂₀	4350 ₂₅
165x85	40	3050	2700	2450	2700	2450	2300	2250	2150	2050
	75	2900	2400	2150	2600	2250	2050	2200	2000	1850
195x85	40	3650	3250	2950	3250	2950	2750	2700	2550	2450
	75	3450	2850	2550	3100	2700	2450	2650	2400	2200
230x85	40	4200	3800	3500	3800	3500	3250	3200	3050	2900
	75	4000	3400	3050	3650	3200	2900	3150	2850	2650
260x85	40	4650	4200	3900	4200	3900	3700	3650	3450	3300
	75	4400	3800	3450	4050	3650	3300	3550	3250	3000
295x85	40	5200	4650	4350	4650	4350	4100	4050	3850	3700
	75	4900	4250	3850	4500	4050	3700	3950	3700	3450
330x85	40	5700	5150	4750	5150	4800	4500	4450	4250	4100
	75	5450	4700	4250	4950	4450	4100	4350	4050	3800 ₅
360x85	40	6200	5550	5150	5550	5150	4850	4800	4600	4400 ₅
	75	5900	5050	4600	5350	4750	4400	4700	4350 ₅	4100 ₅
395x85	40	6750	6050	5600	6050	5600	5250	5200 ₅	4950 ₅	4750 ₅
	75	6400	5500	4950	5850	5150	4750	5100 ₅	4700 ₅	4450 ₁₀
425x85	40	7250	6450	6000	6500	6000	5600	5550 ₅	5300 ₁₀	5100 ₁₀
	75	6850	5850	5300	6250	5500	5100	5450 ₅	5000 ₁₀	4700 ₁₅
460x85	40	7800	7000	6450	7000	6450	6050	6000 ₁₀	5700 ₁₀	5450 ₁₅
	75	7400	6300	5700	6700	5950	5450 ₅	5850 ₁₀	5400 ₁₅	5050 ₂₀
495x85	40	8400	7500	6900	7500	6900	6450	6400 ₁₅	6100 ₁₅	5800 ₁₅
	75	7950	6750	6050 ₅	7200	6350	5800 ₁₀	6250 ₁₅	5750 ₂₀	5400 ₂₀

Floor bearers supporting single storey load bearing wall - sheet and tiled roof Single span (cont'd)

Floor load width (mm)	Roof mass (kg/m ²)	1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) DxB (mm)		Maximum recommended single span bearer span (mm)								
230x115	40	4550	4100	3800	4100	3850	3600	3600	3400	3200
	75	4350	3750	3350	4000	3550	3200	3500	3150	2950
260x115	40	5050	4550	4250	4550	4250	4000	3950	3800	3650
	75	4800	4150	3800	4400	3950	3650	3900	3600	3350
295x115	40	5650	5100	4700	5100	4700	4450	4400	4200	4050
	75	5350	4600	4200	4900	4400	4050	4300	4000	3750
330x115	40	6250	5600	5200	5600	5200	4900	4850	4650	4450
	75	5950	5100	4600	5400	4800	4450	4750	4400	4150
360x115	40	6750	6050	5600	6100	5600	5300	5250	5000	4800
	75	6400	5500	5000	5850	5200	4800	5150	4750	4450
395x115	40	7400	6600	6100	6600	6100	5750	5700	5400	5200
	75	7000	6000	5400	6400	5650	5200	5550	5150	4800
425x115	40	7950	7100	6550	7100	6550	6150	6100	5800	5550
	75	7500	6400	5800	6850	6050	5550	5950	5500	5150 ₅
460x115	40	8600	7650	7050	7650	7050	6600	6550	6250	5950 ₅
	75	8100	6900	6200	7350	6500	5950	6400	5900 ₅	5500 ₅
495x115	40	9250	8250	7550	8250	7600	7100	7050 ₅	6650 ₅	6400 ₅
	75	8750	7400	6650	7900	6950	6350	6850 ₅	6300 ₅	5900 ₁₀
525x115	40	9850	8750	8000	8750	8050	7500	7450 ₅	7050 ₁₀	6750 ₁₀
	75	9300	7850	7050	8400	7350	6750	7250 ₅	6650 ₁₀	6250 ₁₅
560x115	40	10550	9350	8550	9350	8550	8000	7950 ₁₀	7500 ₁₀	7200 ₁₅
	75	9950	8350	7500	8950	7850	7150 ₅	7750 ₁₀	7100 ₁₅	6600 ₁₅
230x135	40	4750	4300	4000	4300	4000	3750	3750	3550	3400
	75	4500	3900	3550	4150	3700	3400	3650	3350	3100
260x135	40	5300	4750	4450	4750	4450	4200	4150	3950	3800
	75	5000	4350	3950	4600	4100	3800	4050	3750	3550
295x135	40	5900	5300	4950	5300	4950	4650	4600	4400	4250
	75	5600	4850	4400	5150	4600	4200	4500	4200	3950
330x135	40	6550	5900	5450	5900	5450	5150	5100	4850	4650
	75	6200	5350	4850	5700	5050	4650	4950	4600	4350
360x135	40	7100	6350	5900	6350	5900	5550	5500	5250	5000
	75	6750	5750	5200	6150	5450	5000	5350	4950	4650
395x135	40	7750	6950	6400	6950	6400	6000	5950	5700	5450
	75	7350	6300	5650	6700	5900	5450	5850	5400	5050
425x135	40	8350	7450	6850	7450	6850	6450	6400	6050	5800
	75	7900	6700	6050	7150	6350	5800	6250	5750	5400
460x135	40	9050	8050	7400	8050	7400	6950	6900	6550	6250
	75	8550	7250	6500	7750	6800	6250	6700	6200	5800
495x135	40	9750	8650	7950	8650	7950	7450	7400	7000	6700
	75	9200	7800	7000	8350	7300	6700	7200	6600	6200 ₅
525x135	40	10350	9200	8450	9200	8450	7900	7800	7400 ₅	7100 ₅
	75	9800	8250	7400	8850	7750	7100	7650	7000 ₅	6550 ₁₀
560x135	40	11100	9850	9000	9850	9050	8450	8350 ₅	7900 ₅	7550 ₅
	75	10500	8800	7900	9450	8250	7550	8150 ₅	7450 ₁₀	6950 ₁₀
590x135	40	11750	10400	9500	10400	9550	8900	8800 ₅	8350 ₁₀	7950 ₁₀
	75	11100	9300	8300	10000	8700	7950 ₅	8600 ₁₀	7850 ₁₀	7300 ₁₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum DL of 40 (kg/m²), Total ground floor mass of 40 (kg/m²), Total wall mass of 37 kg/m², floor live load of 1.5 kPa, floor point load of 1.8 kN.
3. The above table was based on a wall height of 2700.
4. End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports.
5. Restraint value for slenderness calculations is 600 mm.
6. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Floor bearers supporting single storey load bearing wall - sheet and tiled roof
Continuous span

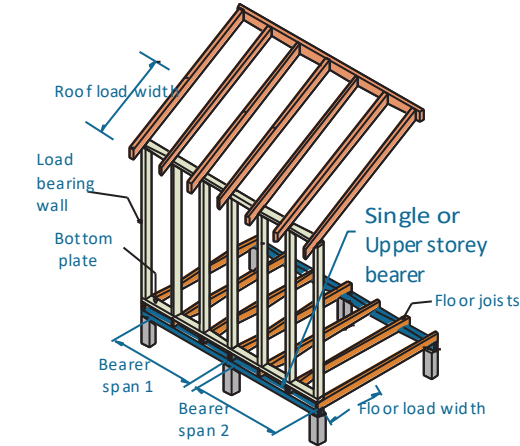
Floor mass - 40 kg/m²

EXAMPLE:

sheet roof - 40 kg/m²
floor load width = 3500 mm
roof load width = 1950 mm
bearer span = 3000 mm (single span)

Enter single span table at 4800 mm in floor load width column, 4500 roof load width column, read down to a span equal to or greater than 3000 mm in the 40 kg/m² row.

ADOPT:
SmartLam GL 17S- 260 x 65



Floor load width (mm)	Roof mass (kg/m²)	1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) DxB (mm)		Maximum recommended continuous span bearer span (mm)								
130x65	40	2850	2500	2250	2250	2100	1950	1700	1600	1550
	75	2700	2150	1800	2200	1900	1700	1650	1500	1450
165x65	40	3600	3200	2850	2850	2650	2500	2150	2050	1950
	75	3400	2750	2300	2750	2450	2150	2100	1950	1800
195x65	40	4100	3750	3350	3400	3150	2950	2500	2400 ₅	2300 ₅
	75	3900	3250	2750	3250	2900	2550	2450	2300 ₁₀	2150 ₁₅
230x65	40	4600	4200	3950	4000	3700	3450	2950 ₁₅	2850 ₁₅	2750 ₂₀
	75	4400	3800	3200 ₅	3850	3400 ₅	3000 ₁₅	2900 ₁₅	2700 ₂₀	2550 ₂₅
260x65	40	5050	4600	4350	4500	4200 ₅	3900 ₁₀	3350 ₂₅	3200 ₂₅	3100 ₃₀
	75	4850	4250 ₅	3650 ₁₅	4350 ₅	3850 ₁₀	3350 ₂₀	3300 ₂₅	3050 ₃₀	2850 ₃₅
295x65	40	5550	5100	4750 ₅	5100 ₁₀	4750 ₁₅	4450 ₂₀	3800 ₃₅	3650 ₄₀	3500 ₄₅
	75	5300	4700 ₁₀	4150 ₂₅	4950 ₁₀	4350 ₂₀	3800 ₃₅	3750 ₃₅	3450 ₄₅	3250 ₅₀
330x65	40	6050	5500	5150 ₁₀	5500 ₁₅	5200 ₂₅	4900 ₃₀	4250 ₄₅	4050 ₅₀	3900 ₅₅
	75	5800	5100 ₁₅	4600 ₃₅	5350 ₂₀	4850 ₃₀	4250 ₄₅	4150 ₅₀	3850 ₅₅	3600 ₆₅
360x65	40	6450	5900 ₅	5500 ₂₀	5900 ₂₀	5500 ₃₀	5250 ₃₅	4650 ₅₅	4450 ₆₀	4250 ₆₅
	75	6150	5400 ₂₀	5000 ₄₅	5700 ₂₅	5150 ₄₀	4650 ₅₅	4550 ₆₀	4200 ₇₀	3950 ₈₅
395x65	40	6900	6300 ₁₀	5900 ₂₅	6300 ₂₅	5900 ₃₅	5600 ₄₅	5100 ₇₀	4850 ₈₀	4700 ₉₀
	75	6600	5800 ₃₀	5350 ₅₅	6100 ₃₀	5550 ₄₅	5100 ₇₀	5000 ₇₅	4600 ₉₅	4350 ₁₀₅
425x65	40	7250	6650 ₁₅	6250 ₃₀	6650 ₃₀	6250 ₄₀	5950 ₅₀	5450 ₈₅	5250 ₁₀₀	5050 ₁₀₅
	75	6950 ₅	6150 ₃₅	5650 ₆₀	6450 ₃₅	5850 ₅₀	5450 ₈₅	5350 ₉₅	5000 ₁₀₅	4650 ₁₁₅
165x85	40	3850	3500	3200	3300	3050	2850	2450	2350	2250
	75	3700	3100	2650	3150	2800	2450	2400	2200	2050
195x85	40	4350	4000	3750	3850	3600	3350	2900	2750	2650
	75	4150	3650	3100	3750	3300	2900	2800	2600	2450 ₅
230x85	40	4900	4500	4200	4500	4200	3950	3400 ₅	3250 ₅	3100 ₁₀
	75	4700	4150	3700	4350	3900	3400 ₅	3350 ₅	3100 ₁₀	2900 ₁₅
260x85	40	5400	4950	4600	4950	4650	4400	3850 ₁₀	3650 ₁₅	3500 ₂₀
	75	5150	4550	4150 ₅	4800	4350	3850 ₁₀	3750 ₁₅	3500 ₂₀	3250 ₂₅
295x85	40	5900	5400	5100	5400	5100	4850 ₅	4350 ₂₀	4150 ₂₅	4000 ₃₀
	75	5650	5000	4600 ₁₅	5250	4750 ₁₀	4350 ₂₀	4250 ₂₅	3950 ₃₀	3700 ₃₅
330x85	40	6450	5900	5500	5900	5500 ₅	5250 ₁₅	4850 ₃₀	4650 ₃₅	4450 ₄₀
	75	6150	5450	5000 ₂₀	5700 ₅	5150 ₁₅	4800 ₃₀	4750 ₃₅	4400 ₄₀	4150 ₅₀
360x85	40	6850	6300	5900 ₅	6300 ₅	5900 ₁₀	5600 ₂₀	5300 ₄₀	5050 ₄₅	4850 ₅₀
	75	6550	5800 ₅	5300 ₂₅	6100 ₁₀	5500 ₂₀	5150 ₃₅	5200 ₄₅	4800 ₅₀	4500 ₆₀
395x85	40	7350	6750	6300 ₁₀	6750 ₁₀	6300 ₁₅	6000 ₂₅	5800 ₅₀	5550 ₅₅	5350 ₆₀
	75	7050	6200 ₁₀	5700 ₃₅	6550 ₁₅	5900 ₂₅	5500 ₄₅	5700 ₅₅	5300 ₆₅	4950 ₇₅
425x85	40	7750	7100	6650 ₁₀	7100 ₁₅	6650 ₂₀	6350 ₃₀	6250 ₆₀	6000 ₆₅	5750 ₇₅
	75	7400	6550 ₁₅	6000 ₄₀	6900 ₂₀	6250 ₃₀	5800 ₅₀	6100 ₆₅	5700 ₇₅	5300 ₉₅
460x85	40	8200	7550 ₅	7050 ₁₅	7550 ₂₀	7050 ₂₅	6700 ₃₅	6650 ₇₀	6400 ₈₀	6200 ₉₅
	75	7850	6950 ₂₀	6400 ₄₅	7300 ₂₅	6600 ₃₅	6150 ₆₀	6550 ₇₅	6100 ₉₅	5750 ₁₁₀
495x85	40	8650	7950 ₁₀	7450 ₂₀	7950 ₂₅	7450 ₃₀	7100 ₄₀	7050 ₈₅	6750 ₉₅	6500 ₁₀₅
	75	8300	7350 ₂₅	6750 ₅₀	7700 ₃₀	7000 ₄₅	6500 ₆₅	6900 ₉₀	6450 ₁₀₅	6100 ₁₂₀

Floor bearers supporting single storey load bearing wall - sheet and tiled roof Continuous span

Floor load width (mm)	Roof mass (kg/m ²)	1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) DxB (mm)		Maximum recommended continuous span bearer span (mm)								
230x115	40	5300	4850	4550	4850	4550	4300	3950	3750	3600
	75	5050	4450	4100	4700	4250	3950	3850	3600	3350 ₅
260x115	40	5800	5300	5000	5300	5000	4750	4450	4250 ₅	4100 ₅
	75	5550	4900	4500	5150	4650	4350	4350 ₅	4050 ₁₀	3800 ₁₅
295x115	40	6350	5850	5450	5850	5450	5200	5050 ₁₀	4850 ₁₅	4650 ₁₅
	75	6100	5350	4950	5650	5100	4750 ₅	4950 ₁₀	4600 ₂₀	4300 ₂₅
330x115	40	6900	6350	5950	6350	5950	5650	5600 ₂₀	5400 ₂₅	5200 ₂₅
	75	6600	5850	5350 ₅	6150	5550	5200 ₁₀	5500 ₂₀	5150 ₂₅	4800 ₃₅
360x115	40	7350	6750	6350	6750	6350	6000	6000 ₂₅	5750 ₃₀	5550 ₃₀
	75	7050	6250	5750 ₁₀	6550	5950 ₅	5550 ₂₀	5850 ₂₅	5500 ₃₅	5200 ₄₀
395x115	40	7850	7200	6800	7250	6800	6450 ₅	6400 ₃₀	6150 ₃₅	5950 ₄₀
	75	7550	6650	6150 ₁₅	7000	6350 ₁₀	5950 ₂₅	6300 ₃₀	5900 ₄₀	5550 ₅₀
425x115	40	8300	7600	7150	7650	7150 ₅	6800 ₁₀	6750 ₃₅	6500 ₄₀	6250 ₄₅
	75	7950	7050	6500 ₂₀	7400	6700 ₁₀	6250 ₃₀	6650 ₄₀	6200 ₄₅	5900 ₅₅
460x115	40	8800	8100	7600	8100 ₅	7600 ₁₀	7200 ₁₅	7150 ₄₀	6900 ₄₅	6650 ₅₀
	75	8450	7450 ₅	6850 ₂₅	7850 ₅	7100 ₁₅	6650 ₃₅	7050 ₄₅	6600 ₅₅	6250 ₆₅
495x115	40	9250	8500	8000 ₅	8550 ₅	8000 ₁₅	7600 ₂₀	7550 ₅₀	7250 ₅₅	7000 ₆₀
	75	8900	7900 ₁₀	7250 ₃₀	8300 ₁₀	7500 ₂₀	7000 ₄₀	7450 ₅₀	6950 ₆₀	6600 ₇₀
525x115	40	9650	8900	8350 ₁₀	8900 ₁₀	8350 ₁₅	7950 ₂₅	7900 ₅₅	7600 ₆₀	7350 ₆₅
	75	9300	8200 ₁₀	7600 ₃₅	8650 ₁₅	7850 ₂₅	7300 ₄₅	7750 ₅₅	7250 ₆₅	6900 ₈₅
560x115	40	10150	9350	8750 ₁₅	9350 ₁₅	8750 ₂₀	8350 ₃₀	8300 ₆₀	7950 ₆₅	7700 ₇₅
	75	9750	8600 ₁₅	7950 ₄₀	9050 ₁₅	8250 ₃₀	7700 ₅₀	8150 ₆₀	7600 ₇₅	7200 ₉₅
230x135	40	5500	5050	4700	5050	4750	4500	4250	4100	3900
	75	5250	4650	4250	4900	4450	4100	4200	3900	3650
260x135	40	6000	5500	5150	5500	5200	4900	4800	4600	4450
	75	5750	5100	4700	5350	4850	4500	4700	4400 ₅	4100 ₅
295x135	40	6600	6050	5700	6050	5700	5400	5350 ₅	5150 ₅	4950 ₁₀
	75	6350	5600	5150	5900	5350	4950	5250 ₅	4900 ₁₀	4650 ₁₅
330x135	40	7150	6550	6150	6600	6150	5850	5850 ₁₀	5600 ₁₅	5400 ₁₅
	75	6850	6050	5600	6400	5800	5400 ₅	5700 ₁₀	5350 ₁₅	5050 ₂₅
360x135	40	7600	7000	6600	7000	6600	6250	6200 ₁₅	5950 ₂₀	5750 ₂₀
	75	7300	6450	5950	6800	6150	5750 ₁₀	6100 ₁₅	5700 ₂₅	5400 ₃₀
395x135	40	8150	7500	7050	7500	7050	6700	6650 ₂₀	6400 ₂₅	6150 ₃₀
	75	7850	6950	6400 ₅	7300	6600	6150 ₁₅	6550 ₂₀	6100 ₃₀	5800 ₃₅
425x135	40	8600	7900	7450	7900	7450	7100 ₅	7050 ₂₅	6750 ₃₀	6500 ₃₅
	75	8250	7300	6750 ₁₀	7700	7000 ₅	6500 ₂₀	6900 ₂₅	6450 ₃₅	6100 ₄₀
460x135	40	9100	8400	7900	8400	7900	7500 ₅	7450 ₃₀	7150 ₃₅	6900 ₄₀
	75	8750	7750	7150 ₁₅	8150	7400 ₁₀	6900 ₂₅	7300 ₃₀	6850 ₄₀	6500 ₅₀
495x135	40	9600	8850	8300	8850	8300 ₅	7900 ₁₀	7850 ₃₅	7550 ₄₀	7300 ₄₅
	75	9250	8200	7550 ₂₀	8600	7800 ₁₀	7300 ₃₀	7700 ₄₀	7200 ₄₅	6850 ₅₅
525x135	40	10000	9250	8700	9250	8700 ₁₀	8250 ₁₅	8200 ₄₀	7900 ₄₅	7600 ₅₀
	75	9650	8550 ₅	7900 ₂₅	9000 ₅	8150 ₁₅	7600 ₃₅	8050 ₄₀	7550 ₅₀	7150 ₆₀
560x135	40	10500	9650	9100 ₅	9700 ₅	9100 ₁₀	8650 ₂₀	8600 ₄₅	8250 ₅₀	8000 ₅₅
	75	10100	8950 ₁₀	8250 ₂₅	9400 ₁₀	8550 ₂₀	8000 ₄₀	8450 ₅₀	7900 ₆₀	7500 ₇₀
590x135	40	10900	10050	9450 ₅	10050 ₁₀	9450 ₁₅	9000 ₂₀	8950 ₅₀	8600 ₅₅	8300 ₆₀
	75	10500	9300 ₁₀	8600 ₃₀	9750 ₁₀	8900 ₂₅	8300 ₄₀	8800 ₅₅	8200 ₆₅	7800 ₇₅

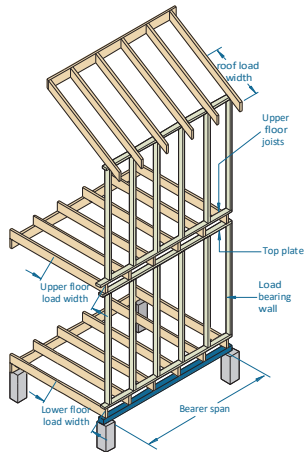
NOTES:

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum DL of 40 (kg/m²), Total g^round floor mass of 40 (kg/m²), Total wall mass of 37 (kg/m²), floor live load of 1.5 kPa, floor point load of 1.8 kN
- The above table was based on a wall height of 2700.
- End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports.
- Restraint value for slenderness calculations is 600 mm.
- Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Floor bearers supporting two floors and roof - sheet and tiled roof

Single span

Floor mass - 40 kg/m²



EXAMPLE:

sheet roof - 40 kg/m²

lower floor load width = 3500 mm

upper floor load width = 1500 mm

roof load width = 1950 mm

bearer span = 3100 mm (single span)

Enter single span table at 3600 mm in lower floor load width column, 1800 mm in upper floor width column, 4500 mm roof load width column, read down to a span equal to or greater than 3100 mm in the 40 kg/m² row.

ADOPT:

SmartLam GL 17S- 260 x 65

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) Dx8 (mm)	Roof mass (kg/m ²)	Maximum recommended single span bearer span (mm)											
130x65	40	1400	1300	1300	1300	1200	1200	1200	1100	1100	1100	1100	1100
	75	1300	1200	1200	1300	1200	1100	1200	1100	1000	1100	1100	1000
165x65	40	1800	1700	1600	1600	1600	1500	1500	1500	1400	1400	1400	1400
	75	1700	1600	1500	1600	1500	1400	1500	1400	1300	1400	1400	1300
195x65	40	2100	2000	1900	2000	1900	1800	1800	1800	1700	1700	1700	1600
	75	2100	1900	1800	1900	1800	1700	1800	1700	1600	1700	1600	1600
230x65	40	2500	2400	2300	2300	2300	2200	2200	2100	2000	2100	2000	1900
	75	2500	2300	2100	2300	2200	2000	2100	2000	1900	2000	1900	1900
260x65	40	2900	2700	2600	2700	2600	2500	2500	2400	2300	2300	2300	2200
	75	2800	2600	2400	2600	2500	2300	2400	2300	2200	2300	2200	2100
295x65	40	3300	3100	3000	3100	2900	2800	2800	2700	2700	2700	2600	2500
	75	3200	3000	2800	3000	2800	2700	2800	2600	2500	2700	2500	2400
330x65	40	3700	3500	3400	3500	3300	3200	3200	3100	3000	3000	2900	2900
	75	3600	3400	3100	3400	3200	3000	3100	3000	2800	3000	2800	2700
360x65	40	4100	3900	3700	3800	3600	3500	3500	3400	3300	3300	3200	3200
	75	4000	3700	3400	3700	3500	3300	3400	3300	3100	3300	3100	3000
395x65	40	4500	4300	4100	4200	4000	3900	3900	3700	3600	3700	3600	3500
	75	4400	4100	3800	4100	3900	3600	3800	3600	3400	3600	3500	3300 ₅
425x65	40	4900	4700	4500	4500	4400	4200	4200	4100	3900	4000	3900	3800 ₅
	75	4800	4400	4100	4400	4200	3900 ₅	4100	3900	3700	3900	3700 ₅	3600 ₁₀
460x65	40	5300	5000	4900	4800	4700	4500 ₅	4600	4400	4300	4300 ₅	4200 ₅	4100 ₁₀
	75	5200	4800	4500	4700	4500 ₅	4300 ₁₀	4500	4300	4100 ₁₀	4300 ₅	4100 ₁₀	3900 ₂₀
165x85	40	1900	1800	1800	1800	1700	1700	1700	1600	1600	1600	1500	1500
	75	1900	1800	1600	1800	1700	1600	1600	1600	1500	1600	1500	1400
195x85	40	2300	2200	2100	2200	2100	2000	2000	1900	1900	1900	1800	1800
	75	2300	2100	2000	2100	2000	1900	2000	1900	1800	1900	1800	1700
230x85	40	2800	2600	2500	2600	2500	2400	2400	2300	2200	2300	2200	2100
	75	2700	2500	2300	2500	2400	2200	2300	2200	2100	2200	2100	2000
260x85	40	3200	3000	2900	2900	2800	2700	2700	2600	2500	2600	2500	2400
	75	3100	2900	2700	2900	2700	2600	2700	2500	2400	2500	2400	2300
295x85	40	3600	3400	3300	3400	3200	3100	3100	3000	2900	3000	2900	2800
	75	3500	3300	3100	3300	3100	2900	3100	2900	2800	2900	2800	2700
330x85	40	4100	3900	3700	3800	3700	3500	3500	3400	3300	3300	3200	3200
	75	4000	3700	3500	3700	3500	3300	3400	3300	3100	3300	3100	3000
360x85	40	4500	4300	4100	4200	4000	3900	3800	3700	3600	3700	3600	3500
	75	4400	4100	3800	4100	3800	3600	3800	3600	3400	3600	3400	3300
395x85	40	5000	4700	4500	4600	4400	4300	4300	4100	4000	4100	3900	3800
	75	4900	4500	4200	4500	4200	4000	4200	4000	3800	4000	3800	3700
425x85	40	5300	5100	4900	4900	4700	4600	4600	4500	4300	4400	4300	4200
	75	5200	4800	4600	4800	4500	4300	4500	4300	4100	4300	4100	4000
460x85	40	5700	5500	5300	5200	5000	4900	5000	4900	4700	4800	4700	4500
	75	5600	5200	4900	5100	4900	4600	5000	4700	4500	4700	4500	4300 ₅
495x85	40	6100	5800	5600	5600	5400	5200	5400	5300	5100	5200	5000	4900 ₅
	75	6000	5600	5200	5500	5200	4900 ₅	5400	5100	4800	5100	4900 ₅	4700 ₁₀

Floor bearers supporting two floors and roof - sheet and tiled roof Single span (Cont'd)

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended single span bearer span (mm)											
230x115	40	3100	2900	2800	2900	2800	2700	2600	2600	2500	2500	2400	2400
	75	3000	2800	2600	2800	2600	2500	2600	2500	2400	2500	2400	2300
260x115	40	3500	3400	3200	3300	3100	3000	3000	2900	2800	2900	2800	2700
	75	3400	3200	3000	3200	3000	2800	3000	2800	2700	2800	2700	2600
295x115	40	4000	3800	3700	3800	3600	3500	3500	3300	3200	3300	3200	3100
	75	3900	3600	3400	3700	3400	3300	3400	3200	3100	3300	3100	3000
330x115	40	4600	4300	4200	4200	4100	3900	3900	3800	3700	3700	3600	3500
	75	4500	4100	3900	4200	3900	3700	3800	3600	3500	3700	3500	3300
360x115	40	5000	4800	4600	4600	4400	4300	4300	4200	4000	4100	4000	3900
	75	4900	4500	4200	4500	4300	4000	4200	4000	3800	4000	3800	3700
395x115	40	5400	5200	5000	5000	4800	4700	4700	4600	4500	4500	4400	4300
	75	5300	5000	4700	4900	4600	4400	4700	4400	4200	4500	4300	4100
425x115	40	5800	5600	5400	5300	5100	5000	5100	5000	4800	4900	4800	4600
	75	5700	5300	5000	5200	4900	4700	5100	4800	4600	4800	4600	4400
460x115	40	6300	6000	5800	5700	5500	5300	5600	5400	5300	5300	5200	5000
	75	6100	5700	5400	5600	5300	5100	5500	5200	5000	5200	5000	4800
495x115	40	6700	6400	6200	6100	5900	5700	6100	5900	5700	5700	5500	5400
	75	6600	6100	5700	6000	5700	5400	6000	5700	5400	5600	5400	5100
525x115	40	7100	6800	6500	6400	6200	6000	6400	6200	6000	6000	5800	5700
	75	6900	6400	6100	6300	6000	5700	6300	6000	5700	5900	5600	5400
230x135	40	3300	3100	3000	3000	2900	2800	2800	2700	2600	2700	2600	2500
	75	3200	2900	2800	3000	2800	2600	2800	2600	2500	2600	2500	2400
260x135	40	3700	3500	3400	3500	3300	3200	3200	3100	3000	3000	3000	2900
	75	3600	3400	3100	3400	3200	3000	3100	3000	2800	3000	2900	2700
295x135	40	4300	4100	3900	4000	3800	3700	3700	3500	3400	3500	3400	3300
	75	4200	3900	3600	3900	3600	3400	3600	3400	3300	3400	3300	3100
330x135	40	4800	4600	4400	4400	4300	4200	4100	4000	3900	3900	3800	3700
	75	4700	4400	4100	4400	4100	3900	4100	3900	3700	3900	3700	3500
360x135	40	5200	5000	4800	4800	4600	4500	4500	4400	4300	4300	4200	4100
	75	5100	4800	4500	4700	4500	4300	4500	4200	4000	4300	4100	3900
395x135	40	5700	5500	5300	5200	5000	4900	5000	4900	4700	4800	4700	4500
	75	5600	5200	4900	5100	4900	4600	5000	4700	4500	4700	4500	4300
425x135	40	6100	5800	5600	5600	5400	5200	5400	5300	5100	5200	5000	4900
	75	6000	5600	5200	5500	5200	4900	5400	5100	4800	5100	4900	4700
460x135	40	6600	6300	6000	6000	5800	5600	5900	5800	5600	5600	5400	5300
	75	6400	6000	5600	5900	5600	5300	5900	5500	5300	5500	5300	5100
495x135	40	7000	6700	6500	6400	6200	6000	6400	6200	6000	5900	5800	5700
	75	6900	6400	6000	6300	5900	5700	6300	5900	5700	5900	5600	5400
525x135	40	7500	7100	6800	6800	6500	6300	6800	6500	6300	6300	6100	6000
	75	7300	6800	6400	6700	6300	6000	6700	6300	6000	6200	5900	5700
560x135	40	7900	7600	7300	7200	6900	6700	7200	6900	6700	6700	6500	6300
	75	7800	7200	6800	7100	6700	6400	7100	6700	6400	6600	6300	6000
590x135	40	8400	8000	7700	7600	7300	7100	7600	7300	7100	7000	6800	6700
	75	8200	7600	7100	7500	7000	6700	7500	7000	6700	6900	6600	6300

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on total upper floor mass of 40 kg/m², total ground floor mass of 40 kg/m², floor live load of 1.5 kPa, floor point load of 1.8 kN, wall mass of 32 kg/m², & permanent floor live load of 0.5 kPa.
3. The above table was based on a wall height of 5400 mm
4. End bearing lengths = 70 mm at end supports and 90 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 70 mm at end supports and 90 mm at internal supports.
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Floor bearers supporting two floors and roof - sheet and tiled roof

Continuous span

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended continuous span bearer span (mm)											
130x65	40	1800	1700	1600	1500	1400	1400	1500	1400	1400	1300	1300	1200
	75	1700	1500	1400	1500	1400	1300	1500	1400	1300	1300	1200	1100
165x65	40	2300	2100	2000	1900	1800	1800	1900	1800	1800	1700	1600	1600
	75	2200	2000	1800	1900	1700	1600	1900	1700	1600	1700	1600	1500
195x65	40	2700	2500	2400	2300	2200	2100	2300	2200	2100	2000	2000	1900
	75	2600	2300	2100	2300	2100	1900	2200	2100	1900	2000	1900	1700
230x65	40	3200	3000	2800	2700	2600	2500	2700	2600	2500	2400	2300	2200 ₅
	75	3100	2800	2500	2700	2400	2300 ₅	2600	2400	2300 ₅	2400	2200 ₅	2100 ₁₅
260x65	40	3600	3400	3200	3100	2900 ₅	2800 ₅	3000	2900 ₅	2800 ₅	2700 ₁₀	2600 ₁₅	2500 ₂₀
	75	3500	3100	2800 ₅	3000	2800 ₁₀	2600 ₂₀	3000	2800 ₁₀	2600 ₂₀	2700 ₁₀	2500 ₂₀	2300 ₃₀
295x65	40	4200	3900 ₅	3600 ₁₀	3500 ₁₀	3300 ₁₅	3200 ₂₀	3400 ₁₀	3300 ₁₅	3200 ₂₀	3100 ₂₅	3000 ₃₀	2900 ₃₅
	75	4000	3500 ₁₀	3200 ₂₀	3400 ₁₅	3100 ₂₅	2900 ₃₅	3400 ₁₅	3100 ₂₅	2900 ₃₅	3100 ₃₀	2800 ₃₅	2700 ₅₅
330x65	40	4700 ₁₀	4400 ₁₅	4100 ₂₀	4000 ₂₅	3700 ₃₀	3600 ₄₀	3800 ₂₅	3700 ₃₀	3600 ₄₀	3500 ₄₀	3300 ₅₀	3200 ₆₅
	75	4600 ₁₅	4000 ₂₅	3600 ₃₅	3900 ₃₀	3500 ₄₀	3200 ₆₅	3800 ₃₀	3500 ₄₀	3200 ₆₅	3400 ₄₅	3200 ₆₅	3000 ₇₅
360x65	40	5000 ₁₅	4800 ₃₀	4500 ₃₅	4400 ₄₀	4100 ₅₀	3900 ₆₅	4200 ₃₅	4000 ₄₅	3900 ₆₀	3800 ₆₅	3600 ₇₀	3500 ₇₅
	75	4900 ₂₀	4400 ₄₀	4000 ₆₀	4300 ₄₅	3900 ₆₅	3500 ₇₅	4100 ₄₀	3800 ₆₅	3500 ₇₅	3700 ₆₅	3500 ₈₀	3300 ₉₀
395x65	40	5400 ₂₅	5200 ₄₀	5000 ₆₀	4800 ₆₅	4600 ₇₅	4300 ₈₀	4600 ₆₅	4400 ₇₀	4200 ₇₅	4200 ₈₀	4000 ₈₅	3800 ₉₅
	75	5300 ₃₀	4900 ₆₅	4400 ₈₀	4700 ₆₅	4300 ₈₀	3900 ₉₅	4500 ₆₅	4200 ₈₀	3900 ₉₀	4100 ₈₅	3800 ₉₅	3600 ₁₁₀
425x65	40	5700 ₃₀	5500 ₅₅	5300 ₇₀	5200 ₈₀	5000 ₉₀	4700 ₉₅	5000 ₇₅	4800 ₈₀	4600 ₉₀	4500 ₉₅	4300 ₁₀₀	4100 ₁₀₅
	75	5600 ₄₀	5200 ₇₅	4800 ₉₀	5100 ₈₀	4600 ₉₅	4300 ₁₁₀	4900 ₈₀	4500 ₉₀	4200 ₁₀₅	4400 ₉₅	4100 ₁₁₀	3800 ₁₂₀
460x65	40	6000 ₄₀	5800 ₇₀	5600 ₈₀	5600 ₉₀	5400 ₁₀₀	5100 ₁₁₀	5400 ₉₀	5200 ₉₅	4900 ₁₀₅	4800 ₁₀₅	4600 ₁₁₅	4500 ₁₂₅
	75	5900 ₅₀	5600 ₈₅	5200 ₁₁₀	5500 ₉₅	5100 ₁₁₅	4700 ₁₃₀	5300 ₉₀	4900 ₁₀₅	4500 ₁₂₀	4800 ₁₁₀	4400 ₁₂₅	4200 ₁₄₀
165x85	40	2600	2400	2300	2200	2100	2000	2200	2100	2000	2000	1900	1800
	75	2500	2300	2000	2200	2000	1800	2200	2000	1800	1900	1800	1700
195x85	40	3100	2900	2700	2600	2500	2400	2600	2500	2400	2300	2200	2200
	75	3000	2700	2400	2600	2400	2200	2500	2400	2200	2300	2100	2000
230x85	40	3700	3400	3200	3100	3000	2800	3100	3000	2800	2800	2700	2600
	75	3500	3200	2900	3000	2800	2600	3000	2800	2600	2700	2500	2400
260x85	40	4200	3900	3600	3500	3400	3200	3500	3300	3200	3100	3000	2900 ₅
	75	4100	3600	3200	3400	3200	2900 ₅	3400	3200	2900 ₅	3100	2900 ₅	2700 ₁₀
295x85	40	4600	4400	4200	4100	3800 ₅	3600 ₅	3900	3800 ₅	3600 ₅	3600 ₁₀	3400 ₁₅	3300 ₂₀
	75	4500	4100	3700 ₅	4000	3600 ₁₀	3300 ₁₅	3900	3600 ₁₀	3300 ₁₅	3500 ₁₀	3200 ₂₀	3000 ₃₀
330x85	40	5000	4800	4700 ₁₀	4600 ₁₀	4300 ₁₅	4100 ₂₀	4400 ₁₀	4200 ₁₅	4100 ₂₀	4000 ₂₅	3800 ₂₅	3700 ₃₅
	75	4900	4600 ₁₀	4200 ₂₀	4500 ₁₅	4100 ₂₅	3700 ₃₀	4300 ₁₀	4000 ₂₀	3700 ₃₀	3900 ₂₅	3600 ₃₅	3400 ₄₅
360x85	40	5300	5200 ₅	5000 ₁₅	5000 ₂₀	4800 ₃₀	4500 ₃₅	4800 ₂₀	4600 ₂₅	4400 ₃₀	4300 ₃₅	4200 ₄₀	4000 ₅₀
	75	5300	5000 ₂₀	4600 ₃₅	4900 ₂₅	4500 ₃₅	4100 ₅₅	4700 ₂₀	4400 ₃₅	4000 ₄₅	4300 ₃₅	4000 ₅₅	3700 ₆₅
395x85	40	5700	5500 ₁₅	5400 ₂₅	5300 ₃₀	5200 ₄₀	5000 ₆₀	5300 ₃₅	5100 ₄₀	4900 ₅₀	4800 ₅₅	4600 ₆₅	4400 ₇₀
	75	5600 ₅	5300 ₃₀	5100 ₅₅	5200 ₃₀	5000 ₆₅	4600 ₇₅	5200 ₃₅	4800 ₅₀	4400 ₇₀	4700 ₆₀	4300 ₇₀	4100 ₈₅
425x85	40	6100 ₁₀	5800 ₂₀	5700 ₃₀	5600 ₃₅	5500 ₅₅	5300 ₇₀	5600 ₄₀	5500 ₆₀	5200 ₆₅	5100 ₇₀	4900 ₇₅	4700 ₈₀
	75	6000 ₁₅	5600 ₃₅	5300 ₆₅	5500 ₄₀	5300 ₇₅	4900 ₉₀	5500 ₅₀	5100 ₇₀	4800 ₈₀	5000 ₇₅	4700 ₈₅	4400 ₉₅
460x85	40	6400 ₁₅	6200 ₂₅	6000 ₄₀	6000 ₅₅	5800 ₇₀	5700 ₈₀	5900 ₆₀	5800 ₇₀	5600 ₈₀	5500 ₈₅	5300 ₉₀	5100 ₉₅
	75	6300 ₂₀	6000 ₄₅	5700 ₇₅	5900 ₆₅	5600 ₈₅	5400 ₁₀₅	5900 ₆₅	5600 ₈₀	5200 ₉₅	5400 ₈₅	5100 ₁₀₀	4700 ₁₁₀
495x85	40	6800 ₂₀	6600 ₃₅	6300 ₅₅	6300 ₆₅	6100 ₈₀	6000 ₉₀	6300 ₇₀	6100 ₈₀	6000 ₉₀	5900 ₁₀₀	5700 ₁₀₅	5500 ₁₁₀
	75	6700 ₂₅	6300 ₆₅	6000 ₈₅	6200 ₇₀	5900 ₉₅	5700 ₁₁₅	6200 ₇₅	5900 ₉₅	5600 ₁₁₀	5800 ₁₀₀	5400 ₁₁₅	5100 ₁₂₅

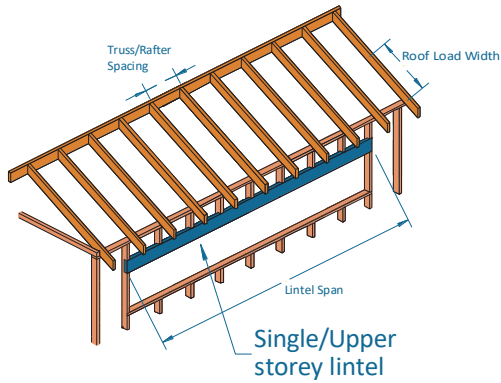
Floor bearers supporting two floors and roof - sheet and tiled roof Continuous span (Cont'd)

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended continuous span bearer span (mm)											
230x115	40	4100	4000	3800	3600	3400	3300	3600	3400	3300	3200	3100	3000
	75	4000	3700	3300	3500	3200	3000	3500	3200	3000	3200	2900	2800
260x115	40	4500	4400	4200	4200	3900	3700	4000	3900	3700	3600	3500	3400
	75	4400	4200	3800	4100	3700	3400	4000	3700	3400	3600	3300	3100
295x115	40	5000	4800	4600	4600	4500	4300	4600	4400	4200	4100	4000	3800
	75	4900	4600	4400	4500	4200	3900	4500	4200	3900	4100	3800 ₅	3500 ₁₀
330x115	40	5400	5200	5000	5000	4900	4700 ₅	5000	4900	4700 ₅	4600 ₅	4400 ₁₀	4300 ₁₅
	75	5300	5000	4800	4900	4700 ₅	4400 ₁₅	4900	4600 ₅	4300 ₁₀	4500 ₅	4200 ₁₅	4000 ₂₅
360x115	40	5800	5600	5400	5300	5200 ₅	5100 ₁₀	5300	5200 ₅	5100 ₁₀	5000 ₁₅	4800 ₂₀	4600 ₂₅
	75	5700	5300	5100 ₁₀	5300	5000 ₁₅	4800 ₃₀	5300	5000 ₁₅	4700 ₂₀	4900 ₁₅	4600 ₂₅	4300 ₃₅
395x115	40	6200	6000	5800	5700 ₅	5600 ₁₀	5400 ₂₀	5700 ₅	5600 ₁₀	5400 ₂₀	5400 ₂₅	5300 ₃₀	5100 ₃₅
	75	6100	5700	5400 ₁₅	5600 ₅	5400 ₂₀	5200 ₃₅	5700 ₁₀	5400 ₂₅	5200 ₃₅	5300 ₂₅	5000 ₄₀	4700 ₅₅
425x115	40	6500	6300	6100 ₅	6000 ₁₀	5900 ₂₀	5700 ₂₅	6000 ₁₀	5900 ₂₀	5700 ₂₅	5700 ₃₀	5600 ₄₀	5500 ₅₅
	75	6400	6000 ₁₀	5800 ₂₅	6000 ₁₅	5700 ₃₀	5500 ₅₀	6000 ₁₅	5700 ₃₀	5500 ₅₀	5600 ₃₅	5400 ₆₀	5100 ₇₀
460x115	40	6900	6700	6500 ₁₀	6400 ₁₅	6200 ₂₅	6100 ₃₅	6400 ₂₀	6200 ₂₅	6100 ₃₅	6000 ₄₀	5900 ₆₀	5800 ₇₀
	75	6800	6400 ₁₅	6100 ₃₀	6300 ₂₀	6000 ₄₀	5800 ₆₅	6300 ₂₀	6000 ₄₀	5800 ₆₅	6000 ₄₅	5800 ₇₀	5500 ₈₅
495x115	40	7300	7100 ₁₀	6800 ₂₀	6800 ₂₅	6600 ₃₅	6400 ₄₅	6800 ₂₅	6600 ₃₅	6400 ₄₅	6400 ₅₅	6300 ₇₀	6100 ₈₀
	75	7200	6800 ₂₀	6500 ₄₀	6700 ₂₅	6400 ₅₅	6100 ₇₅	6700 ₃₀	6400 ₅₅	6100 ₇₅	6300 ₆₀	6100 ₈₀	5900 ₉₅
525x115	40	7600	7400 ₁₅	7100 ₂₅	7100 ₃₀	6900 ₄₀	6700 ₆₀	7100 ₃₅	6900 ₄₀	6700 ₆₀	6700 ₆₅	6500 ₇₅	6400 ₈₅
	75	7500 ₅	7100 ₂₅	6700 ₅₅	7000 ₃₅	6700 ₆₅	6400 ₈₀	7000 ₃₅	6700 ₆₅	6400 ₈₀	6600 ₇₀	6400 ₉₀	6200 ₁₀₅
230x135	40	4300	4100	4000	4000	3800	3600	3900	3700	3600	3500	3300	3200
	75	4200	4000	3600	3900	3500	3300	3800	3500	3300	3400	3200	3000
260x135	40	4700	4500	4400	4300	4200	4100	4300	4200	4000	3900	3800	3600
	75	4600	4300	4100	4300	4000	3700	4300	4000	3700	3900	3600	3400
295x135	40	5200	5000	4800	4800	4700	4500	4800	4700	4500	4500	4300	4100
	75	5100	4800	4600	4700	4500	4300	4700	4500	4200	4400	4100	3800
330x135	40	5600	5400	5200	5200	5100	4900	5200	5100	4900	4900	4800	4600 ₅
	75	5500	5200	5000	5100	4900	4700 ₅	5100	4900	4700 ₅	4900	4600 ₅	4300 ₁₅
360x135	40	6000	5800	5600	5600	5400	5300	5500	5400	5300	5200 ₅	5100 ₁₀	5000 ₁₅
	75	5900	5500	5300	5500	5200	5000 ₁₅	5500	5200	5000 ₁₅	5200 ₅	5000 ₁₅	4700 ₂₅
395x135	40	6400	6200	6000	6000	5800	5700 ₅	5900	5800	5700 ₅	5600 ₁₀	5500 ₁₅	5400 ₂₅
	75	6300	5900	5700 ₅	5900	5600 ₁₀	5400 ₂₀	5900	5600 ₁₀	5400 ₂₀	5600 ₁₅	5400 ₂₅	5100 ₃₅
425x135	40	6800	6500	6300	6300	6100 ₅	6000 ₁₀	6300	6100 ₅	6000 ₁₀	5900 ₁₅	5800 ₂₅	5700 ₃₀
	75	6700	6300	6000 ₁₀	6200	5900 ₁₅	5700 ₃₀	6200	5900 ₁₅	5700 ₃₀	5900 ₂₀	5700 ₃₅	5500 ₅₀
460x135	40	7200	6900	6700	6700 ₅	6500 ₁₀	6300 ₂₀	6700 ₅	6500 ₁₀	6300 ₂₀	6300 ₂₅	6200 ₃₀	6000 ₄₀
	75	7100	6700	6400 ₁₅	6600 ₅	6300 ₂₀	6100 ₃₅	6600 ₁₀	6300 ₂₀	6100 ₃₅	6200 ₂₅	6000 ₄₅	5800 ₆₅
495x135	40	7600	7300	7100 ₅	7000 ₁₀	6900 ₂₀	6700 ₂₅	7000 ₁₀	6900 ₂₀	6700 ₂₅	6600 ₃₀	6500 ₄₀	6400 ₅₅
	75	7500	7000 ₁₀	6700 ₂₅	6900 ₁₀	6600 ₃₀	6400 ₅₀	7000 ₁₅	6600 ₃₀	6400 ₅₀	6600 ₃₅	6300 ₆₀	6100 ₇₅
525x135	40	7900	7700	7400 ₁₀	7400 ₁₅	7200 ₂₅	7000 ₃₀	7300 ₁₅	7200 ₂₅	7000 ₃₀	6900 ₃₅	6800 ₅₀	6700 ₆₅
	75	7800	7400 ₁₅	7000 ₃₀	7300 ₂₀	6900 ₃₅	6700 ₆₅	7300 ₂₀	6900 ₃₅	6700 ₆₅	6900 ₄₅	6600 ₇₀	6400 ₈₅
560x135	40	8300	8000 ₅	7800 ₁₅	7700 ₂₀	7500 ₃₀	7300 ₄₀	7700 ₂₀	7500 ₃₀	7300 ₄₀	7300 ₅₀	7100 ₆₅	7000 ₇₅
	75	8200	7700 ₂₀	7400 ₃₅	7600 ₂₅	7300 ₄₅	7000 ₇₀	7600 ₂₅	7300 ₄₅	7000 ₇₀	7200 ₅₅	7000 ₇₅	6700 ₉₅
590x135	40	8600	8400 ₁₀	8100 ₂₀	8000 ₂₅	7800 ₃₅	7600 ₅₀	8000 ₂₅	7800 ₃₅	7600 ₅₀	7600 ₆₀	7400 ₇₀	7300 ₈₀
	75	8500 ₅	8000 ₂₅	7700 ₄₅	7900 ₃₀	7600 ₅₅	7300 ₇₅	7900 ₃₀	7600 ₅₅	7300 ₇₅	7500 ₆₅	7200 ₈₅	7000 ₁₀₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on total upper floor mass of 40 kg/m², total ground floor mass of 40 kg/m², floor live load of 1.5 kPa, floor point load of 1.8 kN, wall mass of 32 kg/m², & permanent floor live load of 0.5 kPa.
3. The above table was based on a wall height of 5400 mm
4. End bearing lengths = 70 mm at end supports and 90 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 70 mm at end supports and 90 mm at internal supports.
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Single span lintels in single/upper storey walls AS 4055 Classification N1, N2, N3 & N4



EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m²
roof load width = 3900 mm
rafter/truss spacing = 600 mm
lintel span = 3500 mm

Enter span table at 4500 roof load width column, rafter/truss spacing 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

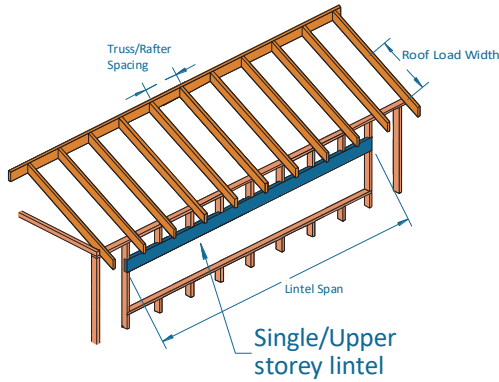
SmartLam GL 17S 260 x 65

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Lintel span (mm)									
		Single span - Wind speed N1, N2, N3 & N4									
130x65	40	3400	3350	2850	2850	2500	2450	2150	2050	1900	1650
	90	2750	2750	2150	2150	1900	1900	1700	1550	1550	1250
165x65	40	4150	4150	3450	3400	3100	3050	2750	2700	2500	2350
	90	3350	3300	2750	2800	2400	2450	2200	2150	2050	2000
195x65	40	4800	4800	3950	3950	3550	3500	3250	3150	2900	2800
	90	3850	3800	3200	3150	2850	2850	2650	2700	2400	2450 ₅
230x65	40	5550	5550	4600	4550	4100	4050	3750	3700	3500	3300
	90	4450	4400	3650	3600	3250	3250	3000	3000	2850	2850 ₅
260x65	40	6200	6200	5100	5100	4550	4500	4200	4200	3900	3750
	90	4950	4950	4050	4050	3600	3600	3350	3300	3150	3100 ₅
295x65	40	7000	7000	5750	5700	5100	5100	4700	4650	4400	4400 ₅
	90	5550	5500	4550	4500	4050	4000	3700	3700	3500 ₁₀	3450 ₅
330x65	40	7850	7850	6350	6350	5650	5600	5200	5200 ₅	4850 ₁₀	4850 ₁₅
	90	6150	6150	5000	5000	4450	4450	4100 ₅	4100 ₁₀	3850 ₁₀	3800 ₁₀
360x65	40	8550	8550	6950	6900	6150	6100	5600 ₅	5600 ₅	5250 ₁₀	5250 ₁₅
	90	6700	6700	5400	5400	4800	4800 ₅	4400 ₅	4400 ₁₀	4150 ₁₅	4150 ₂₀
395x65	40	9450	9400	7600	7600	6700	6700 ₅	6150 ₁₀	6100 ₅	5750 ₁₀	5700 ₁₅
	90	7350	7300	5950	5900	5250	5250 ₅	4800 ₁₀	4750 ₅	4500 ₁₅	4500 ₂₀
425x65	40	10200	10200	8200	8200	7200 ₅	7200 ₅	6600 ₁₀	6600 ₁₀	6150 ₂₀	6100 ₁₅
	90	7900	7900	6350	6350	5600 ₅	5600 ₅	5150 ₁₀	5100 ₁₅	4800 ₂₀	4750 ₁₅
460x65	40	11150	11100	8900	8900	7800 ₅	7800 ₅	7150 ₁₀	7100 ₁₅	6650 ₂₀	6650 ₁₅
	90	8600	8550	6850	6850	6050 ₁₀	6000 ₅	5500 ₁₅	5500 ₂₀	5150 ₂₀	5150 ₃₀
495x65	40	11950	11900	9650	9650	8450 ₁₀	8400 ₁₀	7650 ₁₅	7650 ₂₀	7150 ₂₀	7100 ₂₅
	90	9300	9300	7400	7350	6500 ₁₀	6450 ₅	5950 ₁₅	5900 ₂₀	5500 ₂₅	5500 ₃₀
130x85	40	3650	3600	3050	3000	2750	2750	2500	2400	2200	2100
	90	2950	2950	2400	2450	2100	2050	1850	1850	1700	1600
165x85	40	4450	4450	3700	3650	3300	3300	3050	3050	2800	2750
	90	3600	3550	2950	2950	2650	2700	2400	2450	2250	2200
195x85	40	5150	5150	4250	4250	3850	3800	3550	3500	3350	3200
	90	4150	4100	3400	3400	3050	3050	2850	2850	2650	2700
230x85	40	6000	5950	4950	4950	4400	4400	4050	4050	3800	3800
	90	4750	4750	3950	3900	3500	3450	3250	3200	3050	3050
260x85	40	6700	6700	5500	5500	4900	4900	4500	4500	4250	4250
	90	5300	5350	4350	4350	3900	3850	3600	3550	3400	3350
295x85	40	7600	7600	6200	6200	5500	5500	5050	5050	4750	4700
	90	6000	5950	4900	4850	4350	4350	4000	4000	3750	3750
330x85	40	8500	8450	6900	6900	6100	6100	5600	5600	5250	5250 ₅
	90	6650	6650	5400	5400	4800	4800	4400	4400	4150 ₅	4150 ₁₀
360x85	40	9250	9250	7550	7500	6650	6650	6100	6050	5700	5650 ₅
	90	7250	7250	5900	5850	5200	5200	4800	4750	4500	4450 ₅
395x85	40	10200	10200	8300	8250	7300	7250	6650	6650 ₅	6200 ₅	6200 ₅
	90	7950	7950	6400	6400	5650	5650	5200	5200 ₅	4900 ₁₀	4850 ₁₅
425x85	40	11100	11050	8950	8900	7850	7850	7200 ₅	7150	6700 ₁₀	6700 ₁₅
	90	8600	8600	6900	6900	6100	6050	5550 ₅	5550 ₁₀	5200 ₁₀	5200 ₁₅
460x85	40	12000	12000	9750	9700	8550	8500	7750 ₅	7750 ₁₀	7250 ₁₅	7200 ₁₅
	90	9350	9350	7500	7450	6550	6550	6000 ₁₀	5950 ₅	5600 ₁₅	5600 ₂₀
495x85	40	12000	12000	10550	10500	9200	9200 ₅	8400 ₁₀	8350 ₁₀	7800 ₁₅	7800 ₁₅
	90	10150	10150	8050	8050	7050	7050 ₅	6450 ₁₀	6450 ₅	6000 ₂₀	6000 ₁₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
3. Restraint value for slenderness calculations is 600 mm.
4. Not all sizes of SmartLam GL17 in this table are stocked in each state. Please check with your supplier before ordering

Single span lintels in single/upper storey walls AS 4055 classification C1, C2 and C3



EXAMPLE:

wind speed = C3

sheet roof - 40 kg/m²

roof load width = 3900 mm

rafter/truss spacing = 600 mm

lintel span = 3500 mm

Enter span table at 4500 roof load width column, rafter/truss spacing 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

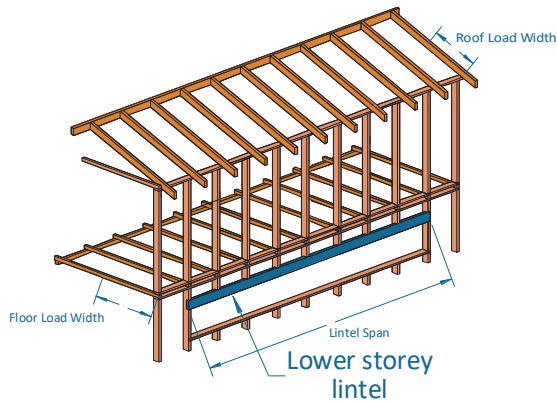
SmartLam GL 17S - 295 x 65 (requires additional 5 mm bearing length)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended Lintel span (mm)									
		Single Span - Wind speed C1, C2 & C3									
130x65	40	2850	2800	2000	1750	1600	1200	1400	NS	1250	NS
	90	2750	2750	2000	1850	1600	1200	1400	NS	1250	NS
165x65	40	3700	3500	2600	2500	2050	1900	1750	1450	1550	NS
	90	3350	3300	2600	2550	2100	1950	1800	1500 ₅	1600	1000
195x65	40	4350	4300	3050	2950	2500	2400	2150	2000	1850	1550 ₁₀
	90	3850	3800	3100	2950	2550	2450 ₅	2200 ₅	2050 ₅	1900	1600 ₁₅
230x65	40	5150	5100	3650	3450	2900	2850	2550 ₅	2450 ₁₀	2250 ₅	2200 ₁₀
	90	4450	4400	3650	3500	2950	2850 ₅	2600 ₁₀	2500 ₁₅	2300 ₁₀	2200 ₁₅
260x65	40	5850	5750	4100	3950	3350	3200	2850 ₅	2800 ₁₅	2600 ₁₀	2500 ₂₀
	90	4950	4950	4050	4050 ₅	3400 ₁₀	3250 ₅	2900 ₁₀	2800 ₂₅	2600 ₂₀	2550 ₃₀
295x65	40	6650	6600	4700	4650	3800 ₅	3650	3250 ₅	3100 ₁₀	2900 ₁₅	2800 ₂₀
	90	5550	5500	4550	4500	3850 ₁₀	3700 ₁₀	3350 ₁₀	3150 ₂₀	2950 ₂₅	2850 ₄₀
330x65	40	7450	7400	5200	5200 ₅	4250 ₁₀	4150 ₁₅	3700 ₁₅	3500 ₁₀	3250 ₁₅	3100 ₂₅
	90	6150	6150	5000 ₅	5000 ₁₀	4300 ₁₅	4200 ₂₀	3750 ₂₅	3550 ₂₀	3350 ₂₀	3150 ₃₅
360x65	40	8150	8050	5700	5600 ₅	4650 ₅	4650 ₁₀	4000 ₁₅	3850 ₁₅	3600 ₃₀	3400 ₂₀
	90	6700	6700	5400 ₁₀	5400 ₁₀	4700 ₁₀	4700 ₁₅	4050 ₂₅	3950 ₂₅	3650 ₄₀	3450 ₃₀
395x65	40	8900	8850	6250 ₅	6200 ₅	5100 ₁₅	5050 ₂₀	4400 ₂₀	4350 ₃₀	3950 ₃₀	3800 ₂₅
	90	7350	7300	5950 ₅	5900 ₁₀	5150 ₂₅	5100 ₃₀	4450 ₃₀	4400 ₄₀	4000 ₄₀	3850 ₃₅
425x65	40	9650	9600	6750 ₁₀	6700 ₁₅	5500 ₂₀	5400 ₂₀	4750 ₂₀	4750 ₂₅	4250 ₄₀	4150 ₂₅
	90	7900	7900	6350 ₁₅	6350 ₁₀	5550 ₃₀	5500 ₃₅	4850 ₄₀	4850 ₅₀	4300 ₅₀	4200 ₃₅
460x65	40	10400	10350	7300 ₁₅	7300 ₁₅	5950 ₁₅	5850 ₂₅	5150 ₃₀	5100 ₄₀	4600 ₃₅	4550 ₄₅
	90	8600	8550	6850 ₁₅	6850 ₂₀	6050 ₃₅	5900 ₃₀	5200 ₄₀	5150 ₅₀	4650 ₄₅	4600 ₅₅
495x65	40	11200	11150	7850 ₁₅	7800 ₁₅	6400 ₂₅	6350 ₂₀	5550 ₄₀	5450 ₄₀	4950 ₅₀	4950 ₅₅
	90	9300	9300 ₅	7400 ₂₀	7350 ₂₅	6450 ₃₅	6400 ₃₀	5600 ₅₀	5550 ₆₀	5000 ₆₀	5000 ₇₀
130x85	40	3300	3150	2350	2200	1850	1550	1550	1150	1400	NS
	90	2950	2950	2350	2250	1850	1600	1600	1200	1450	NS
165x85	40	4200	4100	2950	2850	2400	2300	2050	1850	1800	1500
	90	3600	3550	2950	2900	2450	2350	2100	1950	1850	1550
195x85	40	5000	4950	3550	3350	2850	2750	2500	2350	2200	2100
	90	4150	4100	3400	3400	2900	2800	2500	2400 ₅	2250	2150 ₅
230x85	40	5950	5800	4150	4050	3400	3200	2900	2800 ₅	2600	2500 ₁₀
	90	4750	4750	3950	3900	3450	3250	2950	2850 ₁₀	2650 ₅	2550 ₁₅
260x85	40	6700	6650	4700	4650	3850	3650	3300	3150	2900 ₅	2850 ₁₀
	90	5300	5350	4350	4350	3900	3700	3350	3200 ₅	2950 ₁₀	2900 ₂₀
295x85	40	7600	7600	5350	5300	4350	4250	3750 ₅	3600 ₅	3350	3200 ₁₀
	90	6000	5950	4900	4850	4350	4350 ₅	3800 ₁₀	3650 ₁₀	3400 ₁₀	3250 ₁₅
330x85	40	8500	8450	6000	5900	4900 ₅	4850 ₁₀	4200 ₁₀	4100 ₁₅	3750 ₁₅	3600 ₁₀
	90	6650	6650	5400	5400	4800 ₁₀	4800 ₁₅	4250 ₁₅	4150 ₂₅	3800 ₂₀	3650 ₂₀
360x85	40	9250	9250	6550	6450	5300 ₅	5250 ₁₀	4600 ₅	4550 ₁₀	4100 ₁₅	4000 ₁₅
	90	7250	7250	5900	5850	5200 ₁₀	5200 ₁₅	4650 ₁₀	4650 ₂₀	4150 ₃₀	4050 ₂₀
395x85	40	10200	10200	7200 ₅	7200 ₅	5850 ₅	5750 ₁₀	5050 ₁₅	5050 ₂₀	4500 ₂₀	4450 ₂₅
	90	7950	7950	6400	6400	5650 ₁₀	5650 ₂₀	5100 ₂₅	5100 ₃₀	4600 ₂₅	4550 ₃₅
425x85	40	11050	11000	7750 ₅	7700 ₅	6300 ₁₀	6200 ₁₀	5450 ₂₀	5350 ₂₀	4900 ₃₀	4850 ₃₅
	90	8600	8600	6900 ₅	6900 ₁₀	6100 ₂₀	6050 ₁₅	5500 ₃₀	5450 ₄₀	4950 ₄₀	4900 ₄₅
460x85	40	11950	11950	8400 ₁₀	8300 ₅	6800 ₁₅	6800 ₂₀	5900 ₂₀	5800 ₂₅	5250 ₃₀	5200 ₃₅
	90	9350	9350	7500 ₁₀	7450 ₁₀	6550 ₂₀	6550 ₂₀	6000 ₃₅	5850 ₃₅	5300 ₄₀	5250 ₄₅
495x85	40	12000	12000	9000 ₁₀	9000 ₅	7350 ₂₀	7350 ₂₅	6350 ₂₅	6250 ₂₀	5650 ₃₅	5600 ₄₅
	90	10150	10150	8050 ₁₀	8050 ₁₅	7050 ₂₅	7050 ₃₀	6400 ₃₅	6350 ₃₀	5750 ₄₅	5650 ₅₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
3. Restraint value for slenderness calculations is 600 mm.
4. Not all sizes of SmartLam GL17 in this table are stocked in each state. Please check with your supplier before ordering

Single span lintels in lower storey walls AS 4055 classification N1, N2, N3 & C1



EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m²
roof load width = 3900 mm
floor load width = 1200 mm
rafter/truss spacing = 600 mm
lintel span = 3500 mm

Enter span table at 4500 roof load width column, floor load width 1200 mm, and read down to a span equal to or greater than 3500 mm

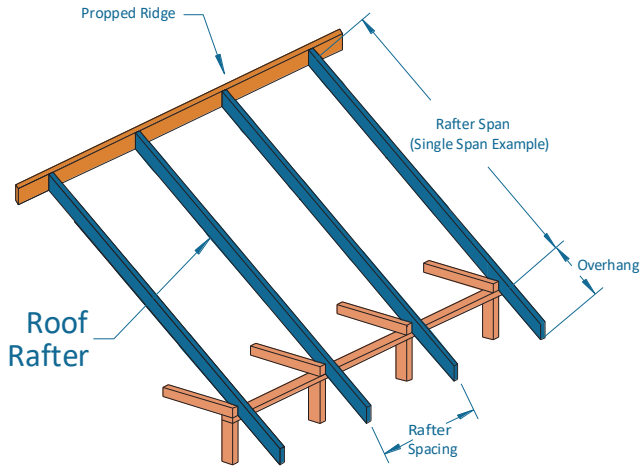
ADOPT: SmartLam GL 17S - 260 x 65

Roof load width (mm)		1500			3000			4500			6000		
Floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended single span lintel span (mm)											
130x65	40	2100	1850	1700	1950	1800	1650	1850	1700	1600	1800	1650	1550
	90	1950	1750	1650	1750	1650	1550	1600	1500	1450	1500	1450	1350
165x65	40	2700	2400	2200	2500	2300	2100	2400	2200	2050	2300	2100	2000
	90	2500	2250	2100	2250	2100	1950	2050	1950	1850	1950	1850	1750
195x65	40	3050	2800	2600	2950	2700	2500	2800	2600	2450	2700	2550	2350
	90	2900	2700	2500	2650	2500	2350	2450	2350	2200	2300	2200	2100
230x65	40	3550	3200	3000	3350	3100	2900	3200	3000	2850	3100	2950	2800
	90	3300	3100	2900	3050	2900	2750	2850	2750	2600	2750	2600	2500
260x65	40	3900	3550	3350	3700	3450	3250	3550	3350	3150	3450	3250	3100
	90	3700	3400	3200	3400	3200	3050	3200	3050	2900	3000	2900	2800
295x65	40	4350	4000	3700	4150	3850	3600	4000	3700	3500	3850	3600	3400
	90	4100	3800	3550	3750	3550	3400	3550	3350	3250 ₅	3350	3200	3100 ₅
330x65	40	4800	4400	4050	4600	4200	3950 ₅	4400	4100	3850 ₅	4200	3950	3750 ₅
	90	4550	4200	3950 ₅	4150	3900	3700 ₅	3900	3700	3550 ₁₀	3700	3550 ₅	3400 ₁₀
360x65	40	5200	4750	4400 ₅	4950	4550	4250 ₅	4750	4400	4150 ₅	4550	4300	4050 ₁₀
	90	4900	4500	4250 ₅	4500	4200	4000 ₁₀	4200	4000 ₅	3850 ₁₀	3950 ₅	3800 ₁₀	3700 ₁₅
395x65	40	5700	5150	4750 ₁₀	5400	4950	4650 ₁₀	5150	4800	4500 ₁₀	4950	4650 ₅	4400 ₁₀
	90	5300	4900	4600 ₁₀	4850	4600 ₅	4350 ₁₀	4550 ₅	4350 ₁₀	4150 ₁₅	4300 ₁₀	4150 ₁₀	4000 ₁₅
425x65	40	6100	5500	5100 ₁₀	5750	5300 ₅	4950 ₁₅	5500	5100 ₅	4800 ₁₅	5300	4950 ₅	4700 ₁₅
	90	5700	5250 ₅	4900 ₁₅	5200	4900 ₅	4650 ₁₅	4850 ₅	4600 ₁₀	4400 ₂₀	4600 ₁₀	4400 ₁₅	4250 ₂₀
460x65	40	6600	5950 ₅	5500 ₁₅	6200	5700 ₅	5300 ₁₅	5950	5500 ₅	5150 ₁₅	5700	5350 ₁₀	5050 ₂₀
	90	6150	5650 ₅	5300 ₁₅	5600	5250 ₁₀	5000 ₂₀	5200 ₁₀	4950 ₁₅	4750 ₂₀	4950 ₁₅	4750 ₂₀	4550 ₂₅
165x85	40	2900	2650	2400	2750	2500	2300	2650	2400	2250	2500	2350	2200
	90	2700	2500	2300	2450	2300	2150	2250	2150	2050	2150	2050	1950
195x85	40	3300	3050	2800	3150	2900	2750	3000	2850	2700	2900	2750	2600
	90	3100	2900	2750	2850	2700	2550	2700	2550	2400	2550	2400	2300
230x85	40	3800	3450	3250	3600	3350	3150	3450	3250	3050	3350	3150	3000
	90	3600	3300	3100	3300	3100	2950	3100	2950	2850	2950	2850	2750
260x85	40	4200	3850	3600	4000	3700	3500	3850	3600	3400	3700	3500	3300
	90	3950	3700	3450	3650	3450	3300	3400	3250	3150	3250	3150	3000
295x85	40	4700	4300	4000	4500	4150	3900	4300	4000	3800	4150	3900	3700
	90	4450	4100	3850	4050	3850	3650	3800	3650	3500	3600	3450	3350
330x85	40	5200	4750	4400	4950	4550	4250	4750	4400	4150	4550	4300	4050
	90	4900	4500	4250	4500	4200	4000	4200	4000	3850	4000	3800	3700 ₅
360x85	40	5650	5150	4750	5350	4950	4600	5100	4750	4500	4950	4600	4400
	90	5300	4900	4600	4850	4550	4350	4550	4300	4150 ₅	4300	4100	3950 ₅
395x85	40	6150	5600	5150	5850	5350	5000	5600	5200	4900 ₅	5350	5050	4750 ₅
	90	5800	5300	5000 ₅	5250	4950	4700 ₅	4900	4700	4500 ₅	4650	4450 ₅	4300 ₁₀
425x85	40	6650	6000	5550 ₅	6250	5750	5350 ₅	6000	5550	5200 ₅	5750	5400	5100 ₅
	90	6200	5700	5300 ₅	5650	5300	5000 ₅	5250	5000 ₅	4800 ₁₀	4950 ₅	4750 ₅	4600 ₁₀
460x85	40	7150	6450	5950 ₅	6800	6200	5750 ₁₀	6450	6000	5600 ₁₀	6200	5800	5450 ₁₀
	90	6700	6150	5750 ₁₀	6100	5700	5400 ₁₀	5650	5400 ₅	5150 ₁₅	5350 ₅	5100 ₁₀	4950 ₁₅
495x85	40	7750	6950	6400 ₁₀	7300	6650	6200 ₁₀	6950	6400 ₅	6000 ₁₀	6650	6200 ₅	5850 ₁₅
	90	7200	6600	6150 ₁₀	6550	6100 ₅	5800 ₁₅	6050 ₅	5750 ₁₀	5500 ₁₅	5750 ₁₀	5500 ₁₅	5250 ₂₀
525x85	40	8200	7400 ₅	6800 ₁₅	7750	7050 ₅	6550 ₁₅	7350	6800 ₅	6350 ₁₅	7050	6600 ₅	6200 ₁₅
	90	7650	7000 ₅	6500 ₁₅	6950	6500 ₅	6100 ₁₅	6450 ₅	6100 ₁₀	5800 ₂₀	6050 ₁₀	5800 ₁₅	5550 ₂₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Total upper floor mass of 40 kg/m², floor live load of 1.5 kPa, floor point load of 1.8 kN.
3. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
4. Restraint value for slenderness calculations is 600 mm.
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Single/continuous span roof rafter with ceiling attached - AS 4055 classification N1, N2, N3 & N4



EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m²
Rafter spacing = 600
rafter span = 5800 mm

Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm

ADOPT:

SmartLam GL 17S - 165 x 65

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x65	30	5750	5300	4700	4300	6750	6400	5850	5300
	40	5300	4850	4300	3900	6400	6050	5400	4950
	75	4400	4000	3500	3200	5500	5050	4450	4050
	90	4150	3750	3300	3000	5200	4750	4200	3850
165x65	30	7000	6600	6000	5500	7950	7550	6950	6550
	40	6600	6150	5500	5000	7550	7150	6550	6150
	75	5600	5100	4500	4100	6650	6250	5600	5150
	90	5300	4850	4250	3850	6400	6000	5300	4850
195x65	30	8050	7550	6900	6450	8900	8450	7850	7400
	40	7550	7100	6450	6000	8450	8000	7400	6950
	75	6550	6100	5350	4850	7500	7050	6450	6050
	90	6250	5750	5050	4600	7200	6800	6200	5700
230x65	30	9250	8700	7950	7400	9900	9450	8800	8300
	40	8700	8150	7400	6900	9450	9000	8300	7800
	75	7500	7000	6300	5800	8400	7950	7250	6800
	90	7200	6650	6000	5450	8100	7650	6950	6550
260x65	30	10300	9700	8800	8200	10750	10250	9550	9050
	40	9700	9050	8200	7650	10250	9750	9050	8550
	75	8350	7750	7000	6500	9150	8650	7950	7450
	90	8000	7400	6650	6150	8850	8350	7600	7150
295x65	30	11500	10850	9900	9200	11650	11150	10400	9900
	40	10850	10150	9200	8550	11150	10650	9900	9350
	75	9350	8700	7800	7250	10000	9450	8700	8150
	90	8950	8300	7450	6900	9650	9100	8350	7850
330x65	30	12000	12000	10950	10200	12000	12000	11250	10700
	40	12000	11250	10200	9450	12000	11450	10700	10100
	75	10350	9650	8650	8000	10800	10250	9400	8850
	90	9900	9200	8200	7600	10450	9850	9050	8500
360x65	30	12000	12000	11900	11050	12000	12000	11900	11350
	40	12000	12000	11050	10250	12000	12000	11350	10750
	75	11250	10450	9350	8650	11450	10850	10000	9400
	90	10750	9950	8900	8200	11100	10500	9650	9050
395x65	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	11200	12000	12000	12000	11450
	75	12000	11400	10200	9450	12000	11600	10700	10050
	90	11750	10850	9700	8950	11800	11200	10300	9650
425x65	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	75	12000	12000	10950	10100	12000	12000	11250	10600
	90	12000	11650	10400	9600	12000	11750	10850	10200
460x65	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	75	12000	12000	11850	10900	12000	12000	11900	11200
	90	12000	12000	11250	10350	12000	12000	11450	10800 ₅

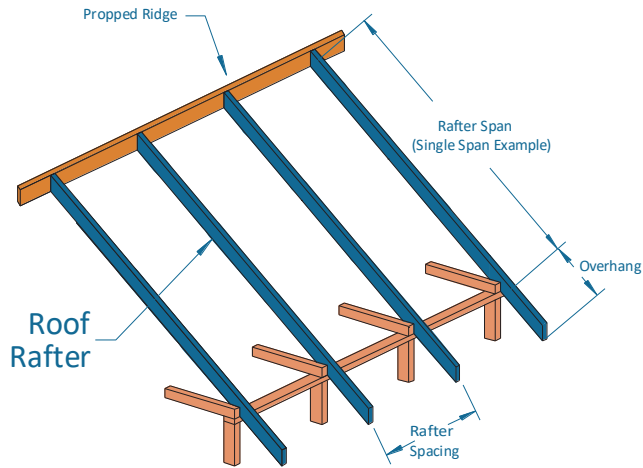
Single/continuous span roof rafter with ceiling attached - AS 4055 classification N1, N2, N3 & N4 (Cont'd)

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x85	30	6150	5700	5100	4650	7100	6750	6250	5800
	40	5700	5250	4650	4250	6750	6400	5800	5350
	75	4750	4350	3800	3500	5950	5450	4850	4400
	90	4500	4100	3600	3250	5650	5150	4550	4200
165x85	30	7400	7000	6400	5950	8300	7900	7350	6950
	40	7000	6550	5950	5450	7900	7500	6950	6550
	75	6050	5600	4900	4450	7050	6650	6050	5600
	90	5750	5250	4600	4200	6800	6350	5750	5300
195x85	30	8500	8000	7350	6850	9250	8850	8250	7800
	40	8000	7550	6850	6400	8850	8450	7800	7350
	75	6950	6500	5850	5300	7900	7450	6850	6400
	90	6650	6200	5500	5000	7600	7200	6550	6150
230x85	30	9750	9200	8450	7900	10300	9900	9250	8750
	40	9200	8650	7900	7350	9900	9450	8750	8250
	75	8000	7500	6750	6250	8850	8400	7700	7250
	90	7650	7150	6450	5950	8550	8100	7400	6950
260x85	30	10800	10250	9400	8800	11150	10700	10050	9550
	40	10250	9650	8800	8200	10700	10250	9550	9000
	75	8900	8300	7500	6950	9650	9150	8400	7900
	90	8550	7950	7150	6650	9300	8800	8100	7600
295x85	30	12000	11450	10500	9850	12000	11600	10900	10400
	40	11450	10800	9850	9150	11600	11100	10400	9850
	75	10000	9300	8400	7750	10500	9950	9200	8650
	90	9550	8900	8000	7400	10150	9600	8850	8300
330x85	30	12000	12000	11650	10900	12000	12000	11750	11200
	40	12000	11950	10900	10150	12000	11950	11200	10650
	75	11050	10300	9300	8600	11350	10750	9950	9350
	90	10600	9850	8850	8200	11000	10400	9600	9000
360x85	30	12000	12000	12000	11850	12000	12000	12000	11900
	40	12000	12000	11850	11000	12000	12000	11900	11300
	75	12000	11200	10050	9300	12000	11450	10600	9950
	90	11500	10700	9600	8850	11650	11050	10200	9600
395x85	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	75	12000	12000	11000	10150	12000	12000	11300	10650
	90	12000	11700	10450	9650	12000	11750	10900	10250
425x85	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	75	12000	12000	11800	10900	12000	12000	11850	11200
	90	12000	12000	11250	10350	12000	12000	11450	10800
460x85	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	75	12000	12000	12000	11800	12000	12000	12000	11850
	90	12000	12000	12000	11200	12000	12000	12000	11400
495x85	30	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	75	12000	12000	12000	12000	12000	12000	12000	12000
	90	12000	12000	12000	12000	12000	12000	12000	12000

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports
5. Construction loads shall not be applied to overhangs until a 190 x 19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Single/continuous span roof rafter with ceiling attached - AS 4055 classification C1, C2 and C3



EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m²
Rafter spacing = 600 mm
rafter span = 5800 mm

Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm

ADOPT:

SmartLam GL 17S - 165 x 65

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x65	30	5500	5000	4000	3350	5900	5050	4000	3350
	40	5300	4850	4050	3400	5950	5100	4050	3400
	75	4400	4000	3500	3200	5500	5050	4150	3500
	90	4150	3750	3300	3000	5200	4750	4100	3450
165x65	30	6950	6300	5150	4350	7500	6450	5150	4350
	40	6600	6150	5200	4400	7550	6500	5200	4400
	75	5600	5100	4500	4100	6650	6250	5350	4550
	90	5300	4850	4250	3850	6400	6000	5200	4450
195x65	30	8050	7450	6150	5200	8900	7650	6150	5200
	40	7550	7100	6200	5250	8450	7750	6200	5250
	75	6550	6100	5350	4850	7500	7050	6350	5400
	90	6250	5750	5050	4600	7200	6800	6200	5300
230x65	30	9250	8700	7300	6200	9900	9050	7300	6200
	40	8700	8150	7350	6250	9450	9000	7350	6250
	75	7500	7000	6300	5800	8400	7950	7250	6400
	90	7200	6650	6000	5450	8100	7650	6950	6300
260x65	30	10300	9700	8250	7050	10750	10250	8250	7050
	40	9700	9050	8200	7100	10250	9750	8350	7100
	75	8350	7750	7000	6500	9150	8650	7950	7300 ₅
	90	8000	7400	6650	6150	8850	8350	7600	7100 ₅
295x65	30	11500	10850	9400	8050	11650	11150	9400	8050 ₅
	40	10850	10150	9200	8100	11150	10650	9500	8100 ₅
	75	9350	8700	7800	7250	10000	9450	8700	8150 ₁₀
	90	8950	8300	7450	6900	9650	9100	8350	7850 ₁₀
330x65	30	12000	12000	10550	9050	12000	12000	10550 ₅	9050 ₁₀
	40	12000	11250	10200	9150	12000	11450	10700 ₅	9150 ₁₀
	75	10350	9650	8650	8000	10800	10250	9400 ₅	8850 ₁₅
	90	9900	9200	8200	7600	10450	9850	9050 ₅	8500 ₁₅
360x65	30	12000	12000	11550	9900	12000	12000	11550 ₁₀	9900 ₁₅
	40	12000	12000	11050	10000	12000	12000	11350 ₁₀	10000 ₂₀
	75	11250	10450	9350	8650	11450	10850	10000 ₅	9400 ₂₀
	90	10750	9950	8900	8200	11100	10500	9650 ₁₀	9050 ₂₀
395x65	30	12000	12000	12000	10900	12000	12000	12000 ₁₀	10900 ₂₀
	40	12000	12000	12000	11000	12000	12000	12000 ₁₀	11000 ₂₅
	75	12000	11400	10200	9450	12000	11600	10700 ₁₀	10050 ₂₅
	90	11750	10850	9700	8950	11800	11200	10300 ₁₀	9650 ₂₅
425x65	30	12000	12000	12000	11750	12000	12000	12000 ₁₀	11750 ₂₅
	40	12000	12000	12000	11850	12000	12000	12000 ₁₀	11850 ₃₀
	75	12000	12000	10950	10100	12000	12000	11250 ₁₅	10600 ₃₀
	90	12000	11650	10400	9600	12000	11750	10850 ₁₅	10200 ₃₀
460x65	30	12000	12000	12000	12000	12000	12000	12000 ₁₀	12000 ₃₀
	40	12000	12000	12000	12000	12000	12000	12000 ₁₀	12000 ₃₀
	75	12000	12000	11850	10900	12000	12000	11900 ₂₀	11200 ₃₅
	90	12000	12000	11250	10350	12000	12000	11450 ₂₀	10800 ₃₅

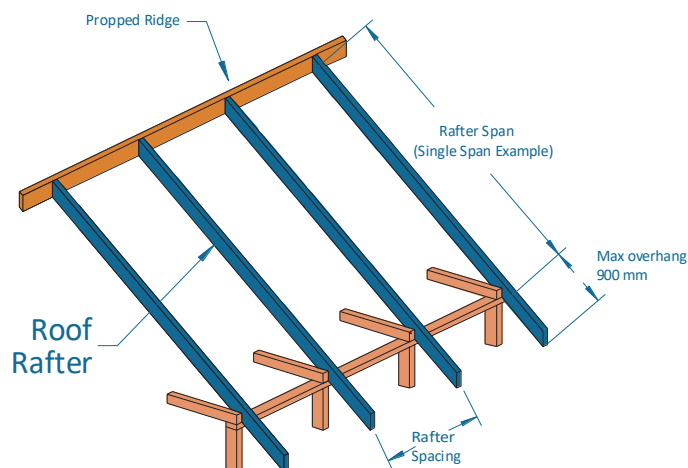
Single/continuous span roof rafter with ceiling attached - AS 4055 classification C1, C2 and C3 (Cont'd)

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x85	30	6000	5450	4600	3900	6750	5800	4600	3900
	40	5700	5250	4650	3950	6750	5850	4650	3950
	75	4750	4350	3800	3500	5950	5450	4800	4050
	90	4500	4100	3600	3250	5650	5150	4550	3950
165x85	30	7400	6900	5950	5000	8300	7400	5950	5000
	40	7000	6550	5950	5100	7900	7500	6000	5100
	75	6050	5600	4900	4450	7050	6650	6050	5200
	90	5750	5250	4600	4200	6800	6350	5750	5100
195x85	30	8500	8000	7050	6000	9250	8800	7050	6000
	40	8000	7550	6850	6050	8850	8450	7150	6050
	75	6950	6500	5850	5300	7900	7450	6850	6200
	90	6650	6200	5500	5000	7600	7200	6550	6050
230x85	30	9750	9200	8400	7150	10300	9900	8400	7150
	40	9200	8650	7900	7200	9900	9450	8450	7200
	75	8000	7500	6750	6250	8850	8400	7700	7250
	90	7650	7150	6450	5950	8550	8100	7400	6950
260x85	30	10800	10250	9400	8100	11150	10700	9500	8100
	40	10250	9650	8800	8200	10700	10250	9550	8200
	75	8900	8300	7500	6950	9650	9150	8400	7900
	90	8550	7950	7150	6650	9300	8800	8100	7600
295x85	30	12000	11450	10500	9250	12000	11600	10850	9250
	40	11450	10800	9850	9150	11600	11100	10400	9350
	75	10000	9300	8400	7750	10500	9950	9200	8650
	90	9550	8900	8000	7400	10150	9600	8850	8300
330x85	30	12000	12000	11650	10400	12000	12000	11750	10400 ₅
	40	12000	11950	10900	10150	12000	11950	11200	10500 ₅
	75	11050	10300	9300	8600	11350	10750	9950	9350 ₅
	90	10600	9850	8850	8200	11000	10400	9600	9000 ₅
360x85	30	12000	12000	12000	11400	12000	12000	12000	11400 ₁₀
	40	12000	12000	11850	11000	12000	12000	11900	11300 ₁₀
	75	12000	11200	10050	9300	12000	11450	10600	9950 ₁₀
	90	11500	10700	9600	8850	11650	11050	10200	9600 ₁₀
395x85	30	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	75	12000	12000	11000	10150	12000	12000	11300	10650 ₁₀
	90	12000	11700	10450	9650	12000	11750	10900	10250 ₁₀
425x85	30	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	75	12000	12000	11800	10900	12000	12000	11850 ₅	11200 ₁₅
	90	12000	12000	11250	10350	12000	12000	11450 ₅	10800 ₁₅
460x85	30	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	75	12000	12000	12000	11800	12000	12000	12000 ₅	11850 ₂₀
	90	12000	12000	12000	11200	12000	12000	12000 ₅	11400 ₂₀
495x85	30	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	75	12000	12000	12000	12000	12000	12000	12000 ₅	12000 ₂₀
	90	12000	12000	12000	12000	12000	12000	12000 ₅	12000 ₂₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports
5. Construction loads shall not be applied to overhangs until a 190 x 19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Single/continuous span roof rafter without ceiling attached AS 4055 classification N1, N2, N3 & N4



EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m²
rafter/truss spacing = 600 mm
rafter span = 5800 mm

Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm

ADOPT:

SmartLam GL 17S - 165 x 65

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x65	10	5900	5650	4950	4500	6950	6950	5950	5050
	20	5900	5650	4950	4500	6950	6900	6100	5150
	40	5300	4850	4300	3900	6400	6050	5400	4950
	60	4700	4300	3750	3450	5850	5400	4750	4350
165x65	10	7900	7200	6300	5700	9300	9000	7600	6500
	20	7600	7200	6300	5700	8500	8100	7550	6650
	40	6600	6150	5500	5000	7550	7150	6550	6150
	60	6000	5500	4850	4400	6950	6550	6000	5500
195x65	10	9350	8500	7400	6750	10250	9950	9050	7700
	20	8700	8250	7400	6750	9450	9050	8450	7900
	40	7550	7100	6450	6000	8450	8000	7400	6950
	60	6900	6450	5750	5250	7850	7400	6800	6350
230x65	10	11050	10000	8750	7950	11300	11000	10500	9200
	20	9950	9450	8700	7950	10500	10100	9450	9000
	40	8700	8150	7400	6900	9450	9000	8300	7800
	60	7950	7400	6650	6200	8800	8300	7650	7150
260x65	10	12000	11350	9900	9000	12000	11850	11350	10450
	20	11100	10500	9700	9000	11350	10900	10250	9750
	40	9700	9050	8200	7650	10250	9750	9050	8550
	60	8800	8200	7400	6900	9550	9050	8350	7800
295x65	10	12000	12000	11250	10200	12000	12000	12000	11850
	20	12000	11750	10850	10150	12000	11850	11150	10650
	40	10850	10150	9200	8550	11150	10650	9900	9350
	60	9900	9200	8300	7700	10400	9900	9100	8550
330x65	10	12000	12000	12000	11400	12000	12000	12000	12000
	20	12000	12000	12000	11250	12000	12000	12000	11450
	40	12000	11250	10200	9450	12000	11450	10700	10100
	60	10950	10200	9200	8500	11250	10700	9850	9300
360x65	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	11050	10250	12000	12000	11350	10750
	60	11900	11050	9950	9200	11900	11350	10500	9900
395x65	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	11200	12000	12000	12000	11450
	60	12000	12000	10850	10050	12000	12000	11200	10550
425x65	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	60	12000	12000	11650	10750	12000	12000	11750	11100
460x65	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	60	12000	12000	12000	11650	12000	12000	12000	11750

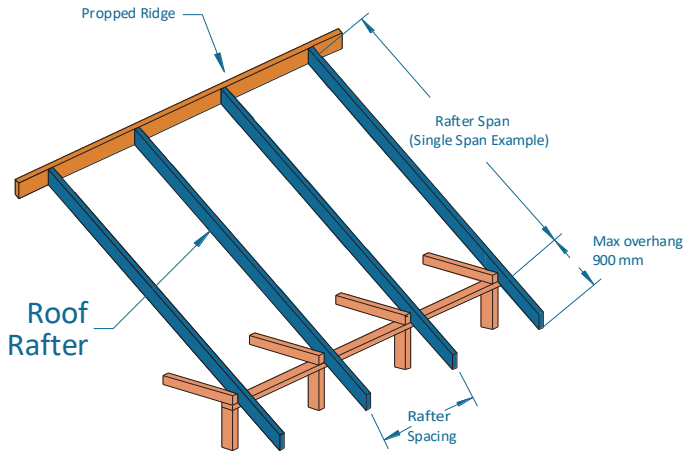
Single/continuous span roof rafter without ceiling attached AS 4055 classification N1, N2, N3 & N4 (Cont'd)

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x85	10	6750	6200	5400	4900	7950	7950	6850	5800
	20	6600	6200	5400	4900	7550	7250	6750	5950
	40	5700	5250	4650	4250	6750	6400	5800	5350
	60	5100	4650	4100	3750	6250	5800	5150	4750
165x85	10	8650	7850	6850	6250	9550	9250	8800	7450
	20	7950	7550	6850	6250	8800	8450	7900	7500
	40	7000	6550	5950	5450	7900	7500	6950	6550
	60	6400	5950	5250	4800	7350	6950	6350	5950
195x85	10	10000	9300	8100	7350	10500	10250	9800	8900
	20	9100	8650	8000	7350	9800	9450	8850	8450
	40	8000	7550	6850	6400	8850	8450	7800	7350
	60	7350	6850	6200	5700	8250	7800	7200	6750
230x85	10	11400	10950	9550	8700	11550	11300	10850	10450
	20	10400	9950	9200	8650	10850	10450	9900	9450
	40	9200	8650	7900	7350	9900	9450	8750	8250
	60	8450	7900	7150	6650	9250	8750	8100	7600
260x85	10	12000	12000	10800	9850	12000	12000	11700	11300
	20	11550	11050	10250	9650	11700	11300	10700	10250
	40	10250	9650	8800	8200	10700	10250	9550	9000
	60	9400	8800	7950	7400	10050	9550	8800	8300
295x85	10	12000	12000	12000	11150	12000	12000	12000	12000
	20	12000	12000	11450	10800	12000	12000	11600	11100
	40	11450	10800	9850	9150	11600	11100	10400	9850
	60	10500	9850	8900	8250	10900	10400	9600	9050
330x85	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	11950	12000	12000	12000	11950
	40	12000	11950	10900	10150	12000	11950	11200	10650
	60	11650	10900	9850	9150	11750	11200	10400	9800
360x85	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	11850	11000	12000	12000	11900	11300
	60	12000	11850	10700	9900	12000	11900	11050	10450
395x85	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	60	12000	12000	11700	10800	12000	12000	11750	11150
425x85	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	60	12000	12000	12000	11600	12000	12000	12000	11700
460x85	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	60	12000	12000	12000	12000	12000	12000	12000	12000
495x85	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	12000	12000	12000	12000	12000	12000
	40	12000	12000	12000	12000	12000	12000	12000	12000
	60	12000	12000	12000	12000	12000	12000	12000	12000

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports
5. Construction loads shall not be applied to overhangs until a 190 x 19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Single/continuous span roof rafter without ceiling attached AS 4055 classification C1, C2 and C3



EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m²
rafter/truss spacing = 600 mm
rafter span = 5800 mm

Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm

ADOPT:

SmartLam GL 17S - 165 x 65

Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x65	10	5500	4950	3900	3300	5750	4950	3900	3300
	20	5500	5000	3950	3300	5800	5000	3950	3300
	40	5300	4850	4050	3400	5950	5100	4050	3400
	60	4700	4300	3750	3450	5850	5200	4150	3450
165x65	10	6950	6300	5050	4250	7350	6300	5050	4250
	20	6950	6300	5100	4300	7450	6400	5100	4300
	40	6600	6150	5200	4400	7550	6500	5200	4400
	60	6000	5500	4850	4400	6950	6550	5300	4500
195x65	10	8200	7450	6000	5100	8750	7500	6000	5100
	20	8200	7450	6050	5150	8850	7550	6050	5150
	40	7550	7100	6200	5250	8450	7750	6200	5250
	60	6900	6450	5750	5250	7850	7400	6350	5350
230x65	10	9700	8800	7150	6050	10350	8900	7150	6050
	20	9700	8800	7200	6100	10450	8950	7200	6100
	40	8700	8150	7350	6250	9450	9000	7350	6250
	60	7950	7400	6650	6200	8800	8300	7500	6400
260x65	10	10950	9950	8100	6900	11750	10100	8100	6900
	20	10950	9950	8200	6950	11350	10200	8200	6950
	40	9700	9050	8200	7100	10250	9750	8350	7100
	60	8800	8200	7400	6900	9550	9050	8350	7300 ₅
295x65	10	12000	11300	9200	7850	12000	11500	9200	7850
	20	12000	11300	9300	7950	12000	11600	9300	7950
	40	10850	10150	9200	8100	11150	10650	9500	8100 ₅
	60	9900	9200	8300	7700	10400	9900	9100	8300 ₁₀
330x65	10	12000	12000	10350	8850	12000	12000	10350	8850 ₅
	20	12000	12000	10450	8950	12000	12000	10450	8950 ₅
	40	12000	11250	10200	9150	12000	11450	10700 ₅	9150 ₁₀
	60	10950	10200	9200	8500	11250	10700	9850 ₅	9300 ₁₅
360x65	10	12000	12000	11350	9700	12000	12000	11350 ₅	9700 ₁₀
	20	12000	12000	11450	9800	12000	12000	11450 ₅	9800 ₁₀
	40	12000	12000	11050	10000	12000	12000	11350 ₁₀	10000 ₂₀
	60	11900	11050	9950	9200	11900	11350	10500 ₁₀	9900 ₂₀
395x65	10	12000	12000	12000	10650	12000	12000	12000 ₅	10650 ₁₅
	20	12000	12000	12000	10750	12000	12000	12000 ₁₀	10750 ₂₀
	40	12000	12000	12000	11000	12000	12000	12000 ₁₀	11000 ₂₅
	60	12000	12000	10850	10050	12000	12000	11200 ₁₀	10550 ₂₅
425x65	10	12000	12000	12000	11500	12000	12000	12000 ₅	11500 ₂₀
	20	12000	12000	12000	11600	12000	12000	12000 ₁₀	11600 ₂₅
	40	12000	12000	12000	11850	12000	12000	12000 ₁₀	11850 ₃₀
	60	12000	12000	11650	10750	12000	12000	11750 ₁₅	11100 ₃₀
460x65	10	12000	12000	12000	12000	12000	12000	12000 ₅	12000 ₂₅
	20	12000	12000	12000	12000	12000	12000	12000 ₁₀	12000 ₂₅
	40	12000	12000	12000	12000	12000	12000	12000 ₁₀	12000 ₃₀
	60	12000	12000	12000	11650	12000	12000	12000 ₁₅	11750 ₃₅

Single/continuous span roof rafter without ceiling attached AS 4055 classification C1, C2 and C3 (Cont'd)

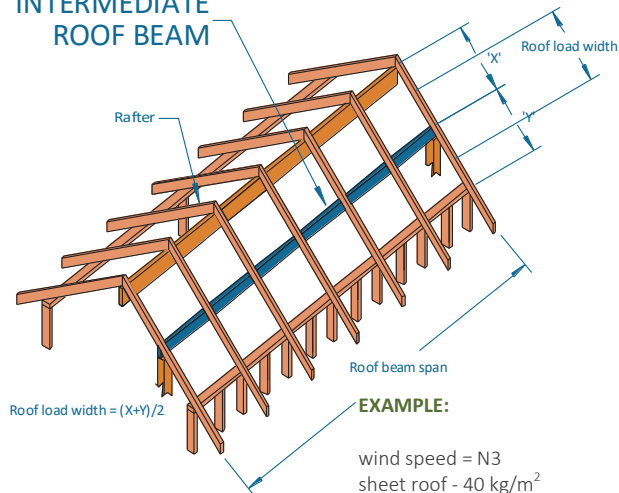
Rafter spacing (mm)		450	600	900	1200	450	600	900	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended rafter span (mm)							
		Single Span				Continuous Span			
130x85	10	6000	5450	4500	3800	6650	5650	4500	3800
	20	6000	5450	4550	3850	6700	5750	4550	3850
	40	5700	5250	4650	3950	6750	5850	4650	3950
	60	5100	4650	4100	3750	6250	5800	4750	4000
165x85	10	7600	6900	5800	4900	8450	7250	5800	4900
	20	7600	6900	5850	4950	8550	7350	5850	4950
	40	7000	6550	5950	5100	7900	7500	6000	5100
	60	6400	5950	5250	4800	7350	6950	6150	5200
195x85	10	9000	8150	6900	5850	10050	8600	6900	5850
	20	9000	8150	7000	5950	9800	8700	7000	5950
	40	8000	7550	6850	6050	8850	8450	7150	6050
	60	7350	6850	6200	5700	8250	7800	7200	6200
230x85	10	10600	9650	8200	7000	11550	10200	8200	7000
	20	10400	9650	8300	7050	10850	10350	8300	7050
	40	9200	8650	7900	7200	9900	9450	8450	7200
	60	8450	7900	7150	6650	9250	8750	8100	7400
260x85	10	12000	10900	9300	7950	12000	11600	9300	7950
	20	11550	10900	9400	8050	11700	11300	9400	8050
	40	10250	9650	8800	8200	10700	10250	9550	8200
	60	9400	8800	7950	7400	10050	9550	8800	8300
295x85	10	12000	12000	10600	9050	12000	12000	10600	9050
	20	12000	12000	10750	9150	12000	12000	10750	9150
	40	11450	10800	9850	9150	11600	11100	10400	9350
	60	10500	9850	8900	8250	10900	10400	9600	9050
330x85	10	12000	12000	11900	10200	12000	12000	11900	10200
	20	12000	12000	12000	10300	12000	12000	12000	10300
	40	12000	11950	10900	10150	12000	11950	11200	10500 ₅
	60	11650	10900	9850	9150	11750	11200	10400	9800 ₅
360x85	10	12000	12000	12000	11150	12000	12000	12000	11150 ₅
	20	12000	12000	12000	11250	12000	12000	12000	11250 ₅
	40	12000	12000	11850	11000	12000	12000	11900	11300 ₁₀
	60	12000	11850	10700	9900	12000	11900	11050	10450 ₁₀
395x85	10	12000	12000	12000	12000	12000	12000	12000	12000 ₅
	20	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	60	12000	12000	11700	10800	12000	12000	11750	11150 ₁₀
425x85	10	12000	12000	12000	12000	12000	12000	12000	12000 ₅
	20	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	60	12000	12000	12000	11600	12000	12000	12000	11700 ₁₅
460x85	10	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	20	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	60	12000	12000	12000	12000	12000	12000	12000	12000 ₂₀
495x85	10	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	20	12000	12000	12000	12000	12000	12000	12000	12000 ₁₀
	40	12000	12000	12000	12000	12000	12000	12000	12000 ₁₅
	60	12000	12000	12000	12000	12000	12000	12000 ₅	12000 ₂₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports
5. Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Ridge/Intermediate roof beam AS 4055 Classification N1, N2, N3 & N4

INTERMEDIATE ROOF BEAM



EXAMPLE:

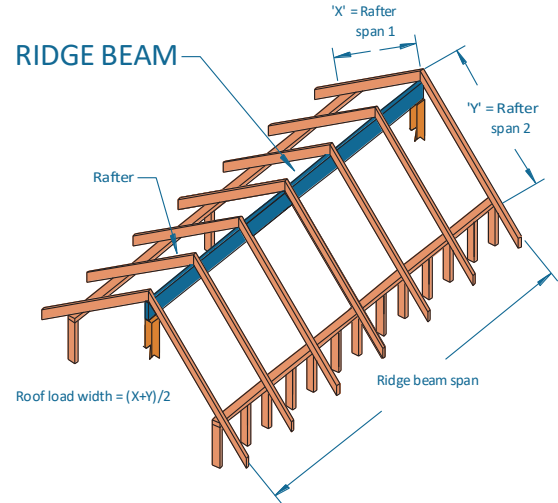
wind speed = N3
sheet roof - 40 kg/m²
beam span = 4500 mm
X = 2000 mm Y = 3000 mm
roof load width = $(X+Y)/2 = 2500$ mm

Enter single span table at 3000 roof load width with column and read down to span equal to or greater than 4500 mm

ADOPT:

SmartLam GL 17S - 230 x 65 mm

RIDGE BEAM



Roof load width (mm)		1800	3000	4200	5400	6600	7800	1800	3000	4200	5400	6600	7800
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended Ridge/Intermediate beam span (mm)											
		Single span						Continuous span					
130x65	40	3350	2750	2400	2150	2000	1850	4000	3050	2550	2250	2050	1850
	75	2750	2250	2000	1800	1700	1550	3500	2800	2350	2050	1850	1700
165x65	40	4250	3550	3100	2800	2550	2350	5250	3900	3250	2850	2550	2350
	75	3500	2900	2550	2350	2150	2000	4450	3550	2950	2600	2350	2150
195x65	40	5100	4200	3700	3350	3050	2800	6250	4600	3850	3400	3050	2800
	75	4200	3450	3050	2800	2550	2400	5250	4150	3500	3100	2750	2550
230x65	40	6050	5000	4400	3950	3600	3250	7000	5400	4550	4000	3600	3250
	75	5000	4150	3650	3300	3050	2850	6150	4900	4150	3600	3250	3000
260x65	40	6700	5700	5000	4500	4050	3700	7700	6100	5150	4500	4050	3700 ₅
	75	5650	4700	4150	3750	3450	3250	6700	5550	4650	4100	3700 ₅	3350 ₁₀
295x65	40	7500	6450	5750	5100	4600	4200 ₅	8400	7050	5800	5100	4600 ₅	4200 ₁₅
	75	6400	5400	4750	4300	3950 ₅	3700 ₅	7350	6300	5300	4650 ₅	4200 ₁₅	3850 ₂₀
330x65	40	8300	7100	6350	5700	5150 ₅	4700 ₁₀	9100	7950	6500	5700 ₅	5150 ₁₅	4700 ₂₅
	75	7050	6050	5350	4850	4500 ₅	4200 ₁₀	8000	7050	5900 ₅	5200 ₁₅	4700 ₂₅	4300 ₃₅
360x65	40	9000	7650	6900	6200 ₅	5600 ₁₀	5100 ₁₅	9700	8550	7100 ₅	6200 ₁₅	5600 ₂₅	5100 ₃₅
	75	7600	6550	5900	5350 ₅	4900 ₁₀	4600 ₁₅	8500	7500	6450 ₁₀	5650 ₂₀	5100 ₃₅	4650 ₄₅
395x65	40	9800	8350	7450	6800 ₁₀	6150 ₁₅	5600 ₁₅	10350	9150	7750 ₁₀	6800 ₂₀	6150 ₃₅	5600 ₄₅
	75	8300	7100	6400 ₅	5900 ₁₀	5450 ₁₅	5050 ₂₀	9100	8050	7050 ₂₀	6200 ₃₀	5600 ₄₅	5100 ₅₅
425x65	40	10500	8950	8000 ₅	7300 ₁₀	6600 ₁₅	6050 ₂₀	10900	9650	8350 ₁₅	7350 ₃₀	6600 ₄₀	6050 ₅₅
	75	8850	7600	6800 ₅	6300 ₁₅	5900 ₂₀	5500 ₂₅	9600	8450 ₅	7600 ₂₅	6700 ₄₀	6000 ₅₅	5500 ₇₅
460x65	40	11350	9650	8600 ₅	7850 ₁₅	7150 ₂₀	6500 ₂₅	11550	10200 ₅	9100 ₂₅	7950 ₄₀	7150 ₅₀	6500 ₇₀
	75	9550	8150	7300 ₁₀	6750 ₁₅	6300 ₂₅	5950 ₃₀	10150	9000 ₁₀	8200 ₃₅	7200 ₅₀	6500 ₇₀	5950 ₉₀
495x65	40	12000	10350	9200 ₁₀	8400 ₂₀	7650 ₂₅	7000 ₃₀	12000	10800 ₁₀	9900 ₃₅	8500 ₅₀	7650 ₆₅	7000 ₉₀
	75	10250	8700	7800 ₁₀	7200 ₂₀	6750 ₃₀	6400 ₃₅	10700	9500 ₁₅	8700 ₄₀	7750 ₆₀	7000 ₉₀	6400 ₁₀₅

Ridge/Intermediate roof beam AS 4055 Classification N1, N2, N3 & N4 (Cont'd)

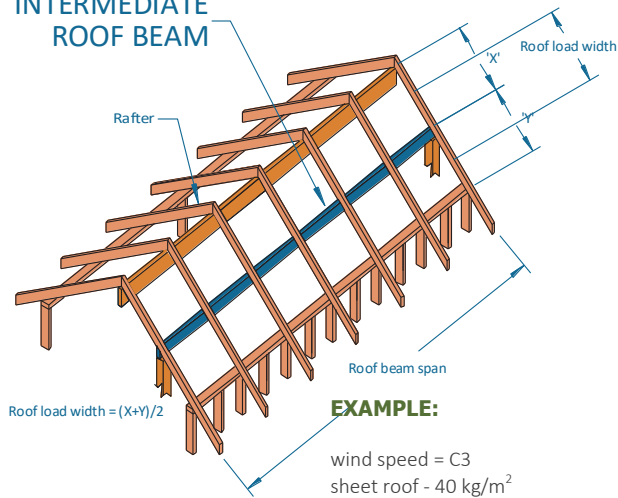
Roof load width (mm)		1800	3000	4200	5400	6600	7800	1800	3000	4200	5400	6600	7800
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended Ridge/Intermediate beam span (mm)											
		Single span						Continuous span					
130x85	40	3650	3000	2650	2400	2200	2050	4600	3500	2950	2600	2300	2100
	75	3000	2500	2200	2000	1850	1700	3850	3200	2650	2350	2100	1950
165x85	40	4650	3850	3400	3050	2800	2600	5800	4450	3750	3250	2950	2700
	75	3850	3200	2800	2550	2350	2200	4850	4050	3400	3000	2700	2450
195x85	40	5550	4600	4050	3650	3350	3100	6600	5250	4400	3850	3450	3150
	75	4600	3800	3350	3050	2800	2650	5700	4750	4000	3500	3150	2900
230x85	40	6500	5500	4800	4350	4000	3700	7450	6200	5200	4550	4100	3750
	75	5450	4550	4000	3600	3350	3150	6500	5600	4700	4150	3750	3400
260x85	40	7200	6200	5500	4950	4550	4200	8150	7100	5850	5150	4600	4200
	75	6150	5150	4550	4150	3800	3550	7150	6300	5350	4700	4200	3850
295x85	40	8050	6900	6250	5650	5200	4800	8900	7850	6650	5800	5250	4800
	75	6900	5900	5200	4700	4350	4100	7800	6900	6050	5300	4800 ₅	4350 ₁₀
330x85	40	8900	7650	6850	6300	5850	5350 ₅	9650	8550	7400	6500	5850 ₅	5350 ₁₀
	75	7600	6550	5900	5350	4900	4600 ₅	8500	7500	6750	5950 ₅	5350 ₁₀	4900 ₂₀
360x85	40	9650	8250	7400	6800	6350 ₅	5850 ₅	10250	9100	8100	7100 ₅	6400 ₁₀	5850 ₂₀
	75	8200	7050	6350	5850	5400 ₅	5050 ₁₀	9050	8000	7350	6450 ₁₀	5800 ₂₀	5350 ₃₀
395x85	40	10550	9000	8050	7400	6900 ₅	6400 ₁₀	10950	9700	8900	7800 ₁₀	7000 ₂₀	6400 ₃₀
	75	8950	7650	6900	6400 ₅	6000 ₁₀	5600 ₁₅	9650	8550	7850 ₅	7100 ₂₀	6400 ₃₀	5850 ₄₀
425x85	40	11350	9650	8650	7900 ₅	7350 ₁₀	6900 ₁₅	11550	10250	9400 ₅	8350 ₁₅	7500 ₂₅	6900 ₃₅
	75	9600	8200	7350	6800 ₅	6350 ₁₀	6050 ₁₅	10200	9000	8300 ₁₀	7600 ₂₅	6850 ₃₅	6300 ₅₀
460x85	40	12000	10400	9300	8500 ₅	7900 ₁₀	7450 ₂₀	12000	10850	9950 ₁₀	9050 ₂₅	8150 ₃₅	7450 ₄₅
	75	10350	8800	7900	7300 ₁₀	6850 ₁₅	6450 ₂₀	10800	9550	8800 ₁₅	8200 ₃₅	7400 ₄₅	6800 ₆₀
495x85	40	12000	11200	9950 ₅	9100 ₁₀	8450 ₁₅	7950 ₂₀	12000	11450	10500 ₁₅	9700 ₃₀	8750 ₄₅	8000 ₅₅
	75	11100	9450	8450 ₅	7800 ₁₀	7300 ₁₅	6900 ₂₅	11350	10100	9250 ₂₀	8650 ₄₀	8000 ₅₅	7300 ₈₀
525x85	40	12000	11900	10550 ₅	9650 ₁₀	8950 ₂₀	8400 ₂₅	12000	11900	10950 ₂₀	10250 ₄₀	9300 ₅₀	8500 ₇₀
	75	11800	10000	8950 ₅	8250 ₁₅	7700 ₂₀	7250 ₂₅	11850	10500	9650 ₂₅	9050 ₄₅	8450 ₇₀	7750 ₉₀
560x85	40	12000	12000	11250 ₁₀	10250 ₁₅	9500 ₂₀	8900 ₃₀	12000	12000	11500 ₂₅	10750 ₄₅	9900 ₆₅	9050 ₈₅
	75	12000	10650	9500 ₁₀	8750 ₁₅	8150 ₂₅	7700 ₃₀	12000	11050 ₅	10150 ₃₀	9500 ₅₀	9000 ₈₅	8250 ₁₀₀
590x85	40	12000	12000	11900 ₁₀	10800 ₂₀	10000 ₂₅	9400 ₃₀	12000	12000	11900 ₂₅	11150 ₅₀	10400 ₈₀	9550 ₉₅
	75	12000	11250	10000 ₁₀	9200 ₂₀	8550 ₂₅	8100 ₃₅	12000	11450 ₁₀	10550 ₃₅	9850 ₅₅	9350 ₉₅	8700 ₁₁₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. rafter spacing up to 1200 mm
4. Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Ridge/Intermediate roof beam AS 4055 Classification C1, C2 & C3

INTERMEDIATE ROOF BEAM



EXAMPLE:

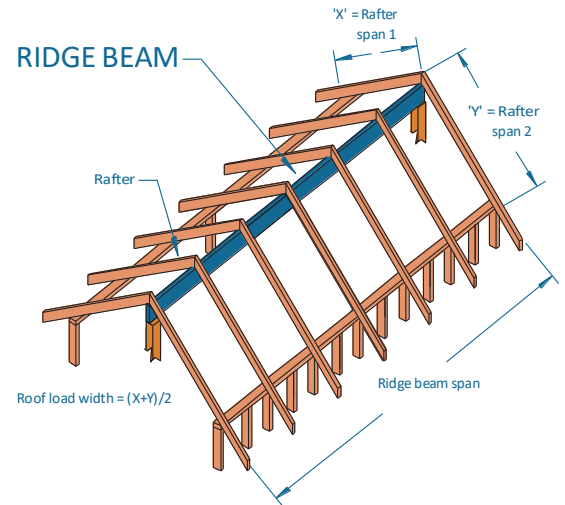
wind speed = C3
sheet roof - 40 kg/m²
beam span = 4500 mm
X = 2000 mm Y = 3000 mm
roof load width = $(X+Y)/2 = 2500$ mm

Enter single span table at 3000 roof load width with column
and read down to span equal to or greater than 4500 mm

ADOPT:

SmartLam GL 17S - 295 x 65 mm

RIDGE BEAM



Roof load width (mm)		1800	3000	4200	5400	6600	7800	1800	3000	4200	5400	6600	7800
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended Ridge/Intermediate beam span (mm)											
		Single span						Continuous span					
130x65	40	2700	2100	1750	1550	1400	1300	2700	2100	1750	1550	1400	1300
	75	2750	2100	1800	1550	1400	1300	2750	2100	1800	1550	1400	1300
165x65	40	3400	2650	2250	1950	1800	1650	3400	2650	2250	1950	1800	1650
	75	3500	2700	2250	2000	1800	1650	3500	2700	2250	2000	1800	1650
195x65	40	4100	3100	2650	2350	2100	1950	4100	3100	2650	2350	2100	1950
	75	4200	3200	2700	2350	2150	1950	4200	3200	2700	2350	2150	1950 ₁₀
230x65	40	4900	3700	3100	2750	2500	2300 ₅	4900	3700	3100	2750	2500 ₅	2300 ₁₅
	75	5000	3750	3150	2800	2500 ₅	2300 ₁₀	5000	3750	3150	2800 ₅	2500 ₁₅	2300 ₂₅
260x65	40	5600	4150	3500	3100	2800 ₅	2600 ₁₀	5600	4150	3500	3100 ₅	2800 ₁₅	2600 ₂₅
	75	5650	4250	3550	3150 ₅	2850 ₁₀	2600 ₁₅	5750	4250	3550 ₅	3150 ₁₅	2850 ₂₅	2600 ₃₅
295x65	40	6450	4700	4000	3550 ₅	3200 ₁₀	2950 ₁₅	6450	4700	4000 ₅	3550 ₂₀	3200 ₃₀	2950 ₄₀
	75	6400	4800	4050 ₅	3550 ₁₀	3200 ₁₅	2950 ₂₀	6550	4800	4050 ₁₅	3550 ₃₀	3200 ₄₀	2950 ₅₀
330x65	40	7250	5300	4450 ₅	3950 ₁₀	3600 ₁₅	3300 ₂₀	7250	5300	4450 ₁₅	3950 ₃₀	3600 ₄₀	3300 ₅₀
	75	7050	5350 ₅	4550 ₁₀	4000 ₁₅	3600 ₂₀	3300 ₂₅	7400	5350 ₁₀	4550 ₂₅	4000 ₄₀	3600 ₅₅	3300 ₇₅
360x65	40	7950	5750	4900 ₁₀	4300 ₁₅	3900 ₂₀	3600 ₂₅	7950	5750 ₁₀	4900 ₂₅	4300 ₄₀	3900 ₅₀	3600 ₇₀
	75	7600	5850 ₅	4950 ₁₅	4350 ₂₀	3900 ₂₅	3600 ₃₀	8100 ₅	5850 ₂₀	4950 ₃₅	4350 ₅₀	3900 ₇₅	3600 ₉₅
395x65	40	8800	6400 ₅	5350 ₁₅	4750 ₂₀	4300 ₂₅	3950 ₃₀	8800	6400 ₁₅	5350 ₃₅	4750 ₅₀	4300 ₇₀	3950 ₉₀
	75	8300	6500 ₁₀	5400 ₂₀	4750 ₂₅	4300 ₃₀	3950 ₄₀	8900 ₁₀	6500 ₃₀	5400 ₅₀	4750 ₇₀	4300 ₉₅	3950 ₁₁₀
425x65	40	9500	6950 ₁₀	5750 ₁₅	5100 ₂₅	4600 ₃₀	4250 ₃₅	9500 ₁₀	6950 ₂₅	5750 ₄₀	5100 ₆₀	4600 ₉₀	4250 ₁₀₅
	75	8850 ₅	7050 ₁₅	5850 ₂₅	5150 ₃₀	4650 ₃₅	4250 ₄₅	9600 ₂₀	7050 ₄₀	5850 ₆₀	5150 ₉₀	4650 ₁₀₅	4250 ₁₂₀
460x65	40	10300 ₅	7600 ₁₅	6250 ₂₀	5500 ₃₀	5000 ₃₅	4600 ₄₀	10300 ₁₅	7600 ₃₅	6250 ₅₅	5500 ₈₅	5000 ₁₀₀	4600 ₁₁₅
	75	9550 ₅	7700 ₂₀	6300 ₂₅	5550 ₃₅	5000 ₄₅	4600 ₅₀	10150 ₂₅	7700 ₅₀	6300 ₈₀	5550 ₁₀₀	5000 ₁₂₀	4600 ₁₄₀
495x65	40	11150 ₁₀	8200 ₁₅	6700 ₂₅	5950 ₃₅	5400 ₄₀	4950 ₄₅	11150 ₂₀	8200 ₄₅	6700 ₆₅	5950 ₉₅	5400 ₁₁₅	4950 ₁₃₀
	75	10250 ₁₀	8300 ₂₅	6800 ₃₀	5950 ₄₀	5400 ₅₀	4950 ₅₅	10700 ₃₀	8300 ₆₀	6800 ₉₅	5950 ₁₁₅	5400 ₁₃₅	4950 ₁₅₅

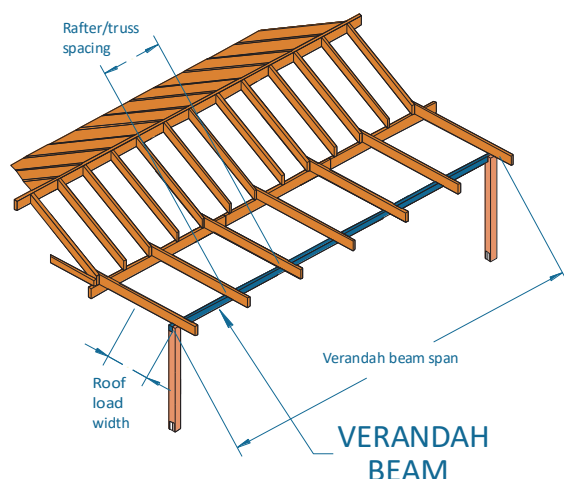
Single span Ridge/Intermediate roof beam AS 4055 Classification C1, C2 & C3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800	1800	3000	4200	5400	6600	7800
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Ridge/Intermediate beam span (mm)											
		Single span						Continuous span					
130x85	40	3050	2400	2000	1800	1600	1500	3050	2400	2000	1800	1600	1500
	75	3000	2450	2050	1800	1600	1500	3150	2450	2050	1800	1600	1500
165x85	40	3950	3000	2550	2250	2050	1900	3950	3000	2550	2250	2050	1900
	75	3850	3100	2600	2300	2050	1900	4050	3100	2600	2300	2050	1900
195x85	40	4750	3550	3000	2650	2400	2250	4750	3550	3000	2650	2400	2250
	75	4600	3650	3050	2700	2450	2250	4850	3650	3050	2700	2450	2250
230x85	40	5700	4200	3550	3150	2850	2650	5700	4200	3550	3150	2850	2650
	75	5450	4300	3600	3200	2850	2650 ₅	5800	4300	3600	3200	2850 ₅	2650 ₁₀
260x85	40	6500	4750	4050	3550	3250	3000 ₅	6500	4750	4050	3550	3250 ₅	3000 ₁₅
	75	6150	4850	4100	3600	3250 ₅	2950 ₁₀	6600	4850	4100	3600 ₅	3250 ₁₅	2950 ₂₀
295x85	40	7450	5400	4550	4050	3650 ₅	3400 ₁₀	7450	5400	4550	4050 ₅	3650 ₁₅	3400 ₂₅
	75	6900	5500	4650	4050 ₅	3700 ₁₀	3350 ₁₅	7550	5500	4650 ₅	4050 ₁₅	3700 ₂₅	3350 ₃₅
330x85	40	8400	6050	5100	4500 ₅	4100 ₁₀	3800 ₁₅	8400	6050	5100 ₅	4500 ₁₅	4100 ₂₅	3800 ₃₅
	75	7600	6150	5200 ₅	4550 ₁₀	4100 ₁₅	3750 ₂₀	8500	6150	5200 ₁₅	4550 ₂₅	4100 ₄₀	3750 ₅₀
360x85	40	9200	6700	5600 ₅	4950 ₁₀	4450 ₁₅	4100 ₂₀	9200	6700	5600 ₁₀	4950 ₂₅	4450 ₃₅	4100 ₄₅
	75	8200	6800 ₅	5650 ₁₀	4950 ₁₅	4500 ₂₀	4100 ₂₅	9050	6800 ₁₀	5650 ₂₀	4950 ₃₅	4500 ₅₀	4100 ₆₀
395x85	40	10150	7450	6150 ₁₀	5400 ₁₅	4900 ₂₀	4500 ₂₅	10150	7450 ₁₀	6150 ₂₀	5400 ₃₅	4900 ₄₅	4500 ₆₀
	75	8950	7500 ₅	6200 ₁₀	5450 ₂₀	4900 ₂₅	4500 ₃₀	9650	7500 ₂₀	6200 ₃₀	5450 ₄₅	4900 ₆₅	4500 ₈₅
425x85	40	10950	8050 ₅	6600 ₁₀	5850 ₁₅	5300 ₂₀	4850 ₂₅	10950	8050 ₁₅	6600 ₃₀	5850 ₄₅	5300 ₅₅	4850 ₈₀
	75	9600	8150 ₁₀	6650 ₁₅	5850 ₂₀	5300 ₃₀	4850 ₃₅	10200	8150 ₂₅	6650 ₄₀	5850 ₅₅	5300 ₈₅	4850 ₁₀₀
460x85	40	11900	8800 ₁₀	7150 ₁₅	6300 ₂₀	5700 ₂₅	5250 ₃₀	11900 ₅	8800 ₂₅	7150 ₃₅	6300 ₅₅	5700 ₈₀	5250 ₉₅
	75	10350	8800 ₁₅	7200 ₂₀	6350 ₂₅	5700 ₃₅	5250 ₄₀	10800 ₅	8900 ₃₅	7200 ₅₀	6350 ₈₀	5700 ₉₅	5250 ₁₁₀
495x85	40	12000	9550 ₁₀	7700 ₂₀	6800 ₂₅	6150 ₃₀	5650 ₃₅	12000 ₅	9550 ₃₀	7700 ₄₅	6800 ₇₀	6150 ₉₀	5650 ₁₀₅
	75	11100	9450 ₁₅	7750 ₂₅	6800 ₃₀	6150 ₄₀	5650 ₄₅	11350 ₁₀	9600 ₄₅	7750 ₆₅	6800 ₉₀	6150 ₁₁₀	5650 ₁₂₅
525x85	40	12000	10150 ₁₅	8150 ₂₀	7200 ₃₀	6550 ₃₅	6000 ₄₀	12000 ₅	10150 ₄₀	8150 ₅₅	7200 ₈₅	6550 ₁₀₀	6000 ₁₂₀
	75	11800 ₅	10000 ₂₀	8200 ₂₅	7250 ₃₅	6500 ₄₅	6000 ₅₀	11850 ₁₅	10250 ₅₅	8200 ₈₀	7250 ₁₀₀	6500 ₁₂₀	6000 ₁₄₀
560x85	40	12000	10900 ₂₀	8750 ₂₅	7700 ₃₅	6950 ₄₀	6400 ₄₅	12000 ₅	10900 ₄₅	8750 ₇₀	7700 ₉₅	6950 ₁₁₅	6400 ₁₃₀
	75	12000 ₅	10650 ₂₅	8800 ₃₀	7700 ₄₀	6950 ₅₀	6400 ₅₅	12000 ₁₅	10950 ₆₅	8800 ₉₅	7700 ₁₁₅	6950 ₁₃₅	6400 ₁₅₀
590x85	40	12000	11550 ₂₀	9300 ₃₀	8100 ₃₅	7350 ₄₅	6750 ₅₀	12000 ₅	11550 ₅₅	9300 ₈₅	8100 ₁₀₅	7350 ₁₂₅	6750 ₁₄₀
	75	12000 ₅	11250 ₂₅	9350 ₃₅	8100 ₄₅	7350 ₅₀	6700 ₆₀	12000 ₁₅	11450 ₈₀	9350 ₁₀₅	8100 ₁₂₅	7350 ₁₄₅	6700 ₁₆₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. rafter spacing up to 1200 mm
4. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Single span Verandah beam AS 4055 Classification N1, N2, N3 & N4



EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m²
roof load width = 3900 mm
rafter/truss spacing = 600 mm
verandah span = 3500 mm

Enter span table at 4500 roof load width column, rafter spacing of 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLam GL 17S - 195 x 65

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended verandah span (mm)									
		Single span									
130x65	40	2700	2800	1900	1900	1500	1300	1300	NS	1100	NS
	75	2400	2400	1700	1600	1400	1200	1100	NS	NS	NS
165x65	40	3500	3500	2400	2500	1900	1900	1600	1500	1400 ₅	NS
	75	3100	3100	2200	2200	1800	1700	1500	1300	1300 ₅	NS
195x65	40	4200	4200	2900	2900	2300	2300	1900	1900	1700	1500 ₂₀
	75	3700	3600	2600	2700	2100	2100	1800	1800 ₅	1600 ₁₀	1000 ₅
230x65	40	4800	4800	3500	3500	2800	2800 ₅	2300	2300 ₅	2000 ₅	1800 ₁₀
	75	4300	4300	3200	3100	2500	2600 ₅	2200 ₁₀	2100 ₁₀	1900 ₁₀	1600 ₃₀
260x65	40	5400	5400	4000	4000	3200	3100	2600 ₅	2700 ₁₅	2300 ₁₅	2200 ₂₀
	75	4800	4800	3600	3600	2900	2900 ₅	2500 ₁₅	2400 ₂₀	2200 ₃₀	1800 ₂₅
295x65	40	6100	6000	4500	4400	3600 ₅	3600 ₅	3000 ₁₀	3000 ₂₀	2600 ₂₅	2600 ₃₅
	75	5400	5400	4100	4100	3300	3300 ₅	2800 ₂₀	2800 ₃₀	2500 ₃₅	2400 ₄₅
330x65	40	6700	6700	4900	4900	4100 ₁₀	4100 ₁₅	3500 ₂₀	3400 ₁₅	3000 ₃₀	3000 ₄₀
	75	6000	5900	4500	4500	3800 ₁₀	3700 ₅	3200 ₁₅	3200 ₂₅	2800 ₃₅	2800 ₄₅
360x65	40	7300	7300	5300	5300 ₅	4400 ₁₀	4400 ₁₅	3800 ₂₅	3700 ₂₀	3300 ₂₅	3200 ₃₅
	75	6500	6500	4900	4900 ₅	4100 ₁₀	4100 ₁₀	3500 ₃₀	3500 ₂₀	3100 ₄₀	3000 ₅₅
395x65	40	8000	8000	5800	5800	4800 ₁₅	4700 ₂₀	4100 ₂₅	4100 ₂₀	3600 ₄₅	3600 ₃₅
	75	7100	7100	5300	5300 ₅	4400 ₁₀	4400 ₂₀	3900 ₃₀	3900 ₂₅	3400 ₃₅	3400 ₅₀
425x65	40	8700	8700	6200 ₅	6200	5100 ₁₅	5100 ₂₀	4400 ₃₀	4400 ₄₀	3900 ₄₅	3900 ₄₀
	75	7600	7600	5700 ₅	5700 ₅	4800 ₂₀	4700 ₁₅	4200 ₃₀	4200 ₃₀	3700 ₆₀	3600 ₄₅
460x65	40	9400	9400	6700 ₅	6700 ₁₀	5500 ₂₀	5500 ₃₀	4700 ₄₀	4700 ₃₅	4200 ₄₅	4200 ₄₀
	75	8300	8300	6100 ₁₀	6100 ₅	5100 ₂₀	5100 ₃₀	4500 ₄₀	4400 ₅₀	4000 ₆₀	4000 ₅₀
495x65	40	10200	10200	7300 ₁₀	7200 ₁₅	5900 ₂₀	5800 ₂₅	5000 ₄₀	5000 ₄₅	4500 ₅₅	4500 ₆₅
	75	8900	8900	6600 ₁₀	6600 ₅	5500 ₂₀	5400 ₃₀	4800 ₅₀	4700 ₆₀	4300 ₆₀	4300 ₅₅

Single span Verandah beam AS 4055 Classification N1, N2, N3 & N4 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended verandah span (mm)									
		Single span									
130x85	40	3000	3000	2100	2100	1600	1600	1400	1200	1200	NS
	75	2600	2700	1900	1900	1500	1400	1300	1100	1100	NS
165x85	40	3900	3900	2700	2700	2100	2100	1800	1800	1500	1400 ₅
	75	3400	3300	2400	2500	1900	1900	1600	1600	1500	1100
195x85	40	4500	4500	3200	3200	2500	2600	2100	2100	1800	1800
	75	4000	4000	2900	2900	2300	2300	2000	1900	1700	1600 ₁₀
230x85	40	5200	5200	3900	3800	3000	3000	2500	2600 ₅	2200 ₅	2200 ₅
	75	4600	4600	3500	3400	2800	2800	2400	2300 ₁₀	2100	2000 ₁₀
260x85	40	5800	5800	4300	4300	3500	3400	2900	2900 ₅	2500 ₁₀	2500 ₂₀
	75	5200	5200	4000	3900	3200	3200	2700	2700 ₁₅	2400 ₁₅	2300 ₂₅
295x85	40	6500	6500	4800	4800	4000	4000	3400	3300 ₅	2900 ₁₅	2900 ₂₅
	75	5800	5800	4400	4400	3700	3600	3100 ₅	3100 ₁₀	2700 ₁₅	2800 ₂₅
330x85	40	7300	7300	5300	5300	4400	4400	3800 ₁₀	3700 ₁₀	3300 ₁₀	3200 ₂₀
	75	6500	6500	4900	4900	4100 ₅	4100 ₁₀	3500 ₁₅	3500 ₁₀	3100 ₂₀	3100 ₃₅
360x85	40	7900	7900	5800	5800	4800 ₅	4700	4100 ₁₀	4100 ₁₀	3600 ₂₅	3600 ₂₀
	75	7000	7000	5300	5300	4400	4400 ₅	3900 ₁₅	3800 ₁₅	3400 ₂₀	3300 ₃₀
395x85	40	8700	8700	6300	6300	5200 ₅	5200 ₁₀	4500 ₁₅	4400 ₂₀	4000 ₂₅	4000 ₂₅
	75	7700	7700	5800	5700	4800 ₁₀	4800 ₁₅	4200 ₂₅	4200 ₃₀	3800 ₃₅	3700 ₃₀
425x85	40	9400	9400	6800	6800	5500 ₁₀	5500 ₁₅	4800 ₂₀	4700 ₃₀	4200 ₃₅	4200 ₄₅
	75	8300	8300	6200	6200	5100 ₁₀	5100 ₁₅	4500 ₂₀	4500 ₃₀	4000 ₄₀	4000 ₃₅
460x85	40	10300	10200	7300	7300 ₅	6000 ₁₅	5900 ₁₀	5100 ₂₀	5100 ₃₀	4600 ₃₀	4500 ₄₀
	75	9000	9000	6700	6700 ₅	5500 ₁₅	5500 ₂₀	4800 ₃₀	4800 ₃₅	4300 ₄₅	4300 ₆₀
495x85	40	11100	11100	7900	7900 ₅	6400 ₁₅	6400 ₁₀	5500 ₂₀	5500 ₃₀	4900 ₄₅	4800 ₅₀
	75	9800	9700	7200 ₅	7200 ₅	5900 ₂₀	5900 ₁₅	5200 ₃₀	5100 ₃₅	4600 ₄₅	4600 ₅₅
525x85	40	11900	11800	8400 ₅	8400 ₅	6800 ₂₀	6800 ₂₅	5800 ₃₀	5800 ₃₅	5100 ₄₅	5100 ₅₀
	75	10400	10400	7600 ₅	7600 ₅	6300 ₂₀	6200 ₁₅	5400 ₃₀	5400 ₃₅	4900 ₆₀	4800 ₇₀
560x85	40	12000	12000	9000 ₅	9000 ₅	7200 ₂₀	7200 ₂₅	6200 ₃₅	6100 ₃₀	5400 ₄₅	5400 ₅₅
	75	11200	11100	8100 ₁₀	8100 ₁₀	6700 ₂₀	6700 ₁₅	5800 ₄₀	5800 ₄₅	5200 ₆₀	5200 ₇₀
590x85	40	12000	12000	9500 ₁₀	9500 ₁₀	7600 ₂₅	7600 ₂₅	6500 ₃₅	6500 ₃₀	5700 ₅₅	5700 ₆₅
	75	11900	11800	8600 ₁₀	8600 ₁₀	7000 ₂₅	7000 ₃₀	6100 ₄₅	6100 ₄₅	5400 ₆₀	5400 ₇₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

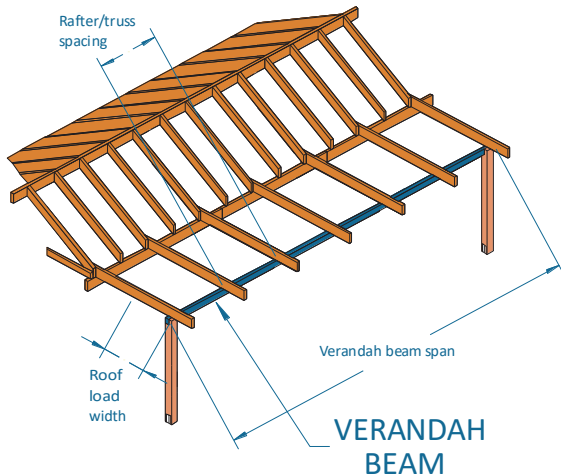
Continuous span Verandah beam AS 4055 Classification N1, N2, N3 & N4

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended verandah span (mm)									
		Continuous span									
130x65	40	3400	3400	2300	2300	1800	1700	1500	1200	1300	NS
	75	3000	3000	2200	2100	1700	1500	1400	NS	NS	NS
165x65	40	4300	4300	3000	2900	2300	2200	1900	1600	1500	1000
	75	3800	3800	2800	2800	2200	2100	1600	1400	1400	NS
195x65	40	4800	4800	3500	3400	2700	2700	2200	2100	1700	1400 ₅
	75	4400	4400	3300	3200	2600	2600	2100	1600 ₅	1500 ₅	1000
230x65	40	5500	5500	4100	4100	3200	3200	2700 ₁₀	2700 ₁₀	2100 ₂₀	1800 ₁₀
	75	5000	5000	3900	3900	3000	3000	2400 ₁₅	2500 ₁₅	1700 ₁₅	1400 ₁₅
260x65	40	6000	6000	4700	4600	3600 ₅	3600 ₅	3000 ₂₀	3000 ₂₀	2500 ₃₅	2600 ₄₀
	75	5400	5400	4300	4300	3500 ₁₀	3400 ₅	2800 ₂₅	2800 ₃₀	2000 ₃₀	1600 ₁₀
295x65	40	6500	6500	5100	5100	4100 ₁₅	4100 ₁₅	3400 ₃₀	3400 ₂₅	2800 ₅₀	2900 ₅₅
	75	6000	6000	4800	4700	3900 ₂₀	3900 ₂₀	3200 ₄₀	3200 ₄₀	2600 ₇₅	2600 ₆₀
330x65	40	7000	7100	5600	5600	4600 ₂₅	4600 ₂₅	3800 ₄₅	3800 ₄₅	3200 ₈₀	3100 ₇₀
	75	6500	6500	5200	5200	4400 ₃₀	4400 ₃₀	3600 ₅₅	3300 ₅₀	2700 ₈₅	2800 ₉₀
360x65	40	7400	7600	5900 ₅	6000 ₅	5000 ₃₅	5000 ₃₅	4200 ₆₀	4200 ₆₀	3400 ₉₅	3200 ₈₀
	75	6800	6900	5500 ₅	5500 ₅	4800 ₄₀	4700 ₄₀	3900 ₇₅	3500 ₅₅	3200 ₁₁₀	3000 ₁₀₀
395x65	40	7800	8100	6400 ₁₀	6400 ₁₀	5400 ₄₅	5400 ₄₀	4600 ₈₅	4600 ₈₅	3900 ₁₁₀	3400 ₉₀
	75	7200	7400	5900 ₁₀	5900 ₁₀	5100 ₅₀	5100 ₅₀	4300 ₉₅	4300 ₉₅	3400 ₁₂₀	3100 ₁₀₅
425x65	40	8100	8600	6700 ₁₅	6700 ₁₅	5700 ₅₀	5700 ₅₀	4900 ₉₅	4900 ₉₅	4200 ₁₂₅	3600 ₁₀₅
	75	7500	7800	6200 ₂₀	6200 ₂₀	5400 ₅₅	5400 ₅₅	4600 ₁₀₅	4600 ₁₀₅	3600 ₁₃₅	3600 ₁₃₅
460x65	40	8500	9000	7000 ₁₅	7100 ₃₀	6100 ₆₀	6100 ₆₀	5300 ₁₁₀	5300 ₁₁₀	4500 ₁₄₀	4300 ₁₃₅
	75	7900	8300	6600 ₂₀	6600 ₂₀	5700 ₇₀	5700 ₇₀	5000 ₁₂₀	4900 ₁₂₀	3900 ₁₄₅	3700 ₁₄₀
495x65	40	8900	9500	7300 ₂₀	7500 ₂₅	6400 ₇₅	6400 ₇₀	5700 ₁₂₀	5700 ₁₂₀	4900 ₁₆₀	4800 ₁₅₅
	75	8200	8700	6900 ₂₅	7000 ₃₀	6000 ₈₅	6000 ₈₅	5300 ₁₃₅	5300 ₁₃₅	4300 ₁₆₅	3800 ₁₄₅
130x85	40	3800	3800	2700	2600	2100	2000	1700	1500	1400	NS
	75	3300	3200	2400	2400	1900	1900	1500	1500	1300	NS
165x85	40	4500	4500	3400	3300	2600	2700	2200	2100	1700	1600
	75	4100	4100	3100	3000	2500	2500	2000	1900	1600	1300
195x85	40	5100	5200	4000	4000	3100	3100	2600	2600	2200	1700
	75	4700	4700	3600	3600	2900	2900	2400	2400 ₅	1700	1600
230x85	40	5800	5800	4500	4500	3700	3600	3000	3000	2600 ₁₀	2600 ₁₅
	75	5300	5300	4200	4200	3500	3400	2800 ₅	2800 ₅	2300 ₁₅	1800
260x85	40	6300	6300	5000	5000	4200	4200	3500 ₁₀	3400 ₁₀	2900 ₂₀	2900 ₂₅
	75	5800	5800	4600	4600	4000	3900	3200 ₁₅	3100 ₁₅	2500 ₃₀	2700 ₃₅
295x85	40	6900	6900	5500	5500	4600	4600	3900 ₂₀	3900 ₂₀	3300 ₃₅	3200 ₃₅
	75	6300	6300	5100	5100	4400 ₅	4300 ₅	3600 ₂₅	3600 ₂₅	3000 ₄₅	3000 ₄₅
330x85	40	7300	7500	5900	5900	5000 ₁₀	5000 ₁₀	4400 ₃₀	4400 ₃₀	3700 ₅₀	3400 ₄₀
	75	6800	6900	5500	5500	4800 ₁₅	4700 ₁₅	4100 ₄₀	4100 ₄₀	3300 ₆₅	3300 ₅₅
360x85	40	7700	8000	6300	6300	5400 ₁₅	5400 ₁₅	4800 ₄₀	4700 ₄₀	4000 ₆₅	4000 ₆₅
	75	7200	7300	5900	5900	5100 ₂₀	5100 ₂₀	4400 ₅₀	4400 ₅₀	3700 ₈₅	3400 ₆₅
395x85	40	8100	8600	6700	6700	5800 ₂₀	5800 ₂₀	5100 ₅₀	5100 ₅₀	4400 ₉₀	4400 ₉₀
	75	7600	7800	6300	6300	5400 ₂₅	5400 ₂₅	4900 ₆₅	4800 ₆₅	4100 ₁₀₅	3600 ₈₅
425x85	40	8500	9000	7000	7100	6100 ₂₅	6100 ₂₅	5400 ₅₅	5400 ₅₅	4800 ₁₀₀	4700 ₁₀₀
	75	7900	8300	6600	6600	5700 ₃₀	5800 ₃₀	5100 ₈₅	5100 ₈₀	4400 ₁₁₅	4400 ₁₁₅
460x85	40	8900	9600	7400	7600	6500 ₃₅	6500 ₃₅	5700 ₇₅	5700 ₇₀	5200 ₁₁₅	5100 ₁₁₅
	75	8300	8800	7000 ₅	7000 ₅	6100 ₄₀	6100 ₄₀	5500 ₉₅	5400 ₉₅	4800 ₁₃₀	4600 ₁₂₅
495x85	40	9300	10100	7700 ₅	8000 ₅	6800 ₄₀	6800 ₄₀	6000 ₈₅	6100 ₈₅	5500 ₁₂₅	5500 ₁₃₀
	75	8700	9200	7300 ₁₀	7400 ₁₀	6400 ₄₅	6500 ₄₅	5800 ₁₀₀	5800 ₁₀₀	5100 ₁₄₅	5000 ₁₄₅
525x85	40	9600	10500	8000 ₅	8300 ₁₀	7000 ₄₅	7100 ₄₅	6300 ₉₅	6400 ₉₅	5700 ₁₃₅	5700 ₁₄₀
	75	9000	9600	7600 ₁₀	7800 ₁₅	6700 ₅₀	6700 ₅₀	6000 ₁₁₀	6000 ₁₁₀	5400 ₁₆₀	5100 ₁₅₀
560x85	40	10000	11000	8300 ₁₀	8700 ₁₅	7300 ₄₅	7500 ₅₀	6600 ₁₀₀	6600 ₁₀₀	6000 ₁₄₅	6000 ₁₄₅
	75	9300	10100	7800 ₁₅	8100 ₁₅	7000 ₅₅	7100 ₆₀	6300 ₁₂₀	6400 ₁₂₀	5800 ₁₇₅	5700 ₁₇₀
590x85	40	10400	11400	8500 ₁₀	9100 ₁₅	7600 ₅₀	7800 ₅₅	6900 ₁₁₀	6900 ₁₁₀	6200 ₁₅₅	6300 ₁₅₅
	75	9600	10500	8100 ₁₅	8500 ₂₀	7200 ₆₀	7300 ₆₅	6600 ₁₂₅	6600 ₁₂₅	6000 ₁₈₅	6000 ₁₈₅

NOTES:

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
- Restraint value for slenderness calculations is 1200 mm
- Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Single span Verandah beam AS 4055 Classification C1, C2 & C3



EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m²
roof load width = 3900 mm
rafter/truss spacing = 600 mm
verandah span = 3500 mm

Enter span table at 4500 roof load width column, rafter spacing of 1200 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLam GL 17S - 260 x 65

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum verandah span (mm)									
		Single span									
130x65	40	2700	2800	1900	1800	1500	1100	1300	NS	NS	NS
	75	2400	2400	1700	1600	1400	1000	1100	NS	NS	NS
165x65	40	3500	3500	2400	2500	1900	1800	1600	1200	1400 ₅	NS
	75	3100	3100	2200	2200	1800	1600	1500	NS	1300 ₁₀	NS
195x65	40	4200	4200	2900	2900	2300	2300	1900	1600 ₁₀	1600 ₁₀	NS
	75	3700	3600	2600	2700	2100	2100	1800	1500 ₁₅	1600 ₁₅	NS
230x65	40	4800	4800	3500	3500	2800 ₅	2700 ₁₀	2300 ₁₀	2200 ₁₅	2000 ₁₀	1600 ₃₀
	75	4300	4300	3200	3100	2500 ₅	2600 ₁₀	2200 ₁₅	2100 ₁₅	1900 ₁₀	1400 ₁₀
260x65	40	5400	5400	4000	4000 ₅	3200	3100 ₁₀	2600 ₁₅	2600 ₂₅	2300 ₂₅	1800 ₂₅
	75	4800	4800	3600	3600	2900 ₁₀	2900 ₁₅	2500 ₂₀	2400 ₃₀	2200 ₃₅	1700 ₃₀
295x65	40	6100	6000	4500	4400	3600 ₁₅	3500 ₁₀	3000 ₂₀	2900 ₃₅	2600 ₃₅	2500 ₄₅
	75	5400	5400	4100 ₅	4100 ₁₀	3300 ₅	3300 ₁₅	2800 ₃₀	2800 ₃₀	2500 ₄₀	2000 ₂₅
330x65	40	6700	6700	4900 ₅	4900 ₁₀	4100 ₂₀	4000 ₁₅	3400 ₁₅	3200 ₃₀	2900 ₄₅	2800 ₄₅
	75	6000	5900	4500	4500 ₅	3800 ₂₀	3700 ₁₅	3200 ₂₅	3100 ₃₅	2800 ₄₀	2700 ₅₅
360x65	40	7300	7300	5300 ₁₀	5300 ₁₅	4400 ₂₀	4400 ₂₅	3700 ₃₅	3600 ₃₀	3200 ₄₀	3100 ₅₅
	75	6500	6500	4900 ₁₀	4900 ₁₅	4100 ₂₀	4100 ₂₀	3500 ₄₀	3400 ₃₅	3100 ₄₅	2900 ₆₅
395x65	40	8000	8000	5800 ₅	5800 ₁₀	4800 ₃₀	4700 ₃₅	4100 ₃₅	4000 ₃₅	3500 ₃₅	3400 ₅₀
	75	7100	7100	5300 ₁₀	5300 ₁₅	4400 ₂₅	4400 ₃₀	3900 ₄₀	3800 ₃₅	3400 ₄₀	3200 ₆₀
425x65	40	8700	8700	6200 ₁₅	6200 ₁₀	5100 ₃₀	5100 ₃₅	4400 ₄₅	4300 ₅₅	3800 ₆₀	3600 ₄₅
	75	7600	7600	5700 ₁₀	5700 ₁₅	4800 ₃₅	4700 ₃₀	4200 ₄₀	4100 ₄₀	3700 ₆₅	3500 ₅₅
460x65	40	9400	9400	6700 ₂₀	6700 ₂₅	5500 ₃₅	5500 ₄₅	4700 ₅₅	4700 ₅₀	4100 ₆₀	4000 ₅₀
	75	8300	8300	6100 ₂₀	6100 ₁₅	5100 ₃₅	5100 ₄₀	4500 ₅₀	4400 ₆₀	3900 ₆₅	3800 ₅₅
495x65	40	10200	10200 ₅	7300 ₂₅	7200 ₂₅	5900 ₃₅	5800 ₄₀	5000 ₅₅	5000 ₆₅	4400 ₇₅	4400 ₉₀
	75	8900	8900	6600 ₂₀	6600 ₁₅	5500 ₃₅	5400 ₄₀	4800 ₆₅	4700 ₇₅	4200 ₆₅	4200 ₆₀

Single span Verandah beam AS 4055 Classification C1, C2 & C3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended verandah span (mm)									
		Single span									
130x85	40	3000	3000	2100	2100	1600	1400	1400	1000	1200	NS
	75	2600	2700	1900	1900	1500	1300	1300	NS	1100	NS
165x85	40	3900	3900	2700	2700	2100	2100	1800	1600	1500	1100
	75	3400	3300	2400	2500	1900	1900	1600	1500 ₅	1500 ₅	NS
195x85	40	4500	4500	3200	3200	2500	2600	2100	2100	1800	1600 ₁₀
	75	4000	4000	2900	2900	2300	2300	2000	1900 ₅	1700	1500 ₂₀
230x85	40	5200	5200	3900	3800	3000	3000	2500 ₅	2600 ₁₅	2200 ₁₀	2200 ₁₅
	75	4600	4600	3500	3400	2800	2800 ₅	2400 ₁₀	2300 ₁₅	2100 ₅	2000 ₁₅
260x85	40	5800	5800	4300	4300	3500	3400	2900 ₁₀	2900 ₁₅	2500 ₂₀	2500 ₃₀
	75	5200	5200	4000	3900	3200	3200	2700 ₁₀	2700 ₂₅	2400 ₂₀	2300 ₃₅
295x85	40	6500	6500	4800	4800	4000 ₅	4000 ₅	3400 ₅	3300 ₁₅	2900 ₂₅	2900 ₃₅
	75	5800	5800	4400	4400	3700 ₁₀	3600 ₅	3100 ₁₀	3100 ₂₀	2700 ₂₀	2800 ₃₅
330x85	40	7300	7300	5300	5300	4400 ₅	4400 ₁₀	3800 ₂₀	3700 ₁₅	3300 ₂₀	3200 ₃₀
	75	6500	6500	4900	4900 ₅	4100 ₁₀	4100 ₂₀	3500 ₂₅	3500 ₂₀	3100 ₂₅	3100 ₄₀
360x85	40	7900	7900	5800	5800	4800 ₁₅	4700 ₁₀	4100 ₂₀	4100 ₂₀	3600 ₄₀	3500 ₃₀
	75	7000	7000	5300	5300 ₅	4400 ₁₀	4400 ₁₅	3900 ₂₅	3800 ₂₀	3400 ₂₀	3300 ₃₅
395x85	40	8700	8700	6300 ₅	6300	5200 ₁₅	5200 ₂₀	4500 ₂₅	4400 ₃₀	4000 ₄₀	3900 ₃₅
	75	7700	7700	5800	5700 ₅	4800 ₂₀	4800 ₂₅	4200 ₃₀	4200 ₄₀	3800 ₄₅	3700 ₃₅
425x85	40	9400	9400	6800 ₅	6800 ₁₀	5500 ₂₀	5500 ₂₅	4800 ₃₅	4700 ₄₅	4200 ₅₀	4200 ₃₅
	75	8300	8300	6200 ₅	6200 ₅	5100 ₂₀	5100 ₂₅	4500 ₃₀	4500 ₄₀	4000 ₄₅	4000 ₄₀
460x85	40	10300	10200	7300 ₁₀	7300 ₁₅	6000 ₂₅	5900 ₂₀	5100 ₃₅	5100 ₄₅	4600 ₄₅	4500 ₅₅
	75	9000	9000	6700 ₁₀	6700 ₁₅	5500 ₂₅	5500 ₃₀	4800 ₄₀	4800 ₅₀	4300 ₅₅	4300 ₆₅
495x85	40	11100	11100	7900 ₁₀	7900 ₁₅	6400 ₂₅	6400 ₂₀	5500 ₃₅	5500 ₄₅	4900 ₆₀	4800 ₇₀
	75	9800	9700	7200 ₁₅	7200 ₂₀	5900 ₃₀	5900 ₃₀	5200 ₄₀	5100 ₅₀	4600 ₅₀	4600 ₆₅
525x85	40	11900	11800	8400 ₁₅	8400 ₁₅	6800 ₃₀	6800 ₄₀	5800 ₄₅	5800 ₅₀	5100 ₆₀	5100 ₇₀
	75	10400	10400	7600 ₁₅	7600 ₂₀	6300 ₃₀	6200 ₂₅	5400 ₄₀	5400 ₅₀	4900 ₆₅	4800 ₇₅
560x85	40	12000	12000	9000 ₁₅	9000 ₁₅	7200 ₃₅	7200 ₄₀	6200 ₅₀	6100 ₄₅	5400 ₆₀	5400 ₇₀
	75	11200	11100	8100 ₂₀	8100 ₂₅	6700 ₃₀	6700 ₂₅	5800 ₅₀	5800 ₆₀	5200 ₆₅	5200 ₇₅
590x85	40	12000	12000	9500 ₂₅	9500 ₂₅	7600 ₄₀	7600 ₄₀	6500 ₅₀	6500 ₄₅	5700 ₇₀	5700 ₈₅
	75	11900	11800 ₅	8600 ₂₀	8600 ₂₀	7000 ₃₅	7000 ₄₅	6100 ₆₀	6100 ₅₅	5400 ₆₅	5400 ₇₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

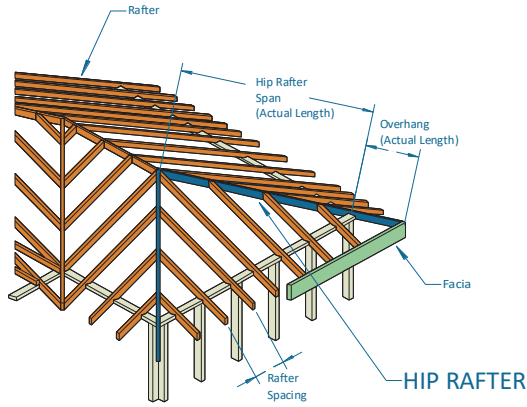
Continuous span Verandah beam AS 4055 Classification C1, C2 & C3

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended verandah span (mm)									
		Continuous span									
130x65	40	3000	3000	2000	2000	1500	1500	1300	NS	NS	NS
	75	2900	2900	1900	1900	1500	1300	1300	NS	NS	NS
165x65	40	3800	3800	2600	2700	2000	2000	1600	1300	1400	NS
	75	3700	3600	2500	2600	1900	1600	1600	1200	1000	NS
195x65	40	4500	4500	3100	3100	2400	2400 ₅	1800	1600	1500 ₅	1000
	75	4300	4300	2900	2900	2300	2100	1700	1400	1500 ₁₀	NS
230x65	40	5300	5300	3600	3600	2800 ₅	2800 ₅	2300 ₁₅	1800	1800 ₂₅	1800 ₂₅
	75	5000	5000	3500	3400	2700 ₅	2800 ₁₀	2200 ₂₀	1800 ₅	1800 ₃₅	1800 ₃₀
260x65	40	6000	6000	4100	4100	3200 ₁₅	3100 ₁₀	2600 ₂₅	2700 ₃₅	1900 ₃₀	1900 ₃₀
	75	5400	5400	3900	3900	3100 ₁₅	3100 ₁₅	2500 ₃₅	2600 ₄₀	1900 ₃₅	1900 ₄₀
295x65	40	6500	6500	4700 ₅	4600 ₅	3700 ₂₅	3600 ₂₅	3000 ₄₅	3000 ₄₅	2400 ₆₀	2000 ₃₅
	75	6000	6000	4500 ₁₀	4400 ₁₀	3500 ₃₀	3300 ₂₅	2900 ₅₀	2900 ₅₀	2100 ₅₀	2000 ₄₅
330x65	40	7000	7100	5200 ₁₅	5200 ₁₅	4100 ₃₅	4100 ₄₀	3400 ₆₀	3300 ₅₅	2700 ₈₅	2800 ₉₀
	75	6500	6500	5000 ₂₀	5000 ₁₅	3900 ₄₀	3900 ₄₀	3300 ₇₅	3200 ₆₅	2500 ₈₀	2100 ₅₀
360x65	40	7400	7600	5700 ₂₀	5700 ₂₀	4500 ₅₀	4500 ₅₀	3700 ₈₅	3400 ₆₅	3200 ₁₁₀	2900 ₁₀₀
	75	6800	6900	5400 ₂₅	5400 ₂₅	4300 ₅₅	4300 ₅₅	3500 ₉₀	3300 ₇₅	2800 ₁₀₅	2800 ₁₀₅
395x65	40	7800	8100	6300 ₃₀	6200 ₃₀	4900 ₆₅	4900 ₆₅	4100 ₁₀₀	3600 ₈₀	3300 ₁₂₀	3100 ₁₀₅
	75	7200	7400	5900 ₃₅	5900 ₃₅	4700 ₇₅	4700 ₇₅	3900 ₁₁₀	3400 ₈₅	3200 ₁₃₀	3000 ₁₁₅
425x65	40	8100	8600	6700 ₄₀	6700 ₄₀	5300 ₈₅	5300 ₈₅	4400 ₁₁₅	4400 ₁₁₅	3600 ₁₃₅	3600 ₁₄₀
	75	7500	7800	6200 ₄₀	6200 ₄₀	5100 ₉₀	5100 ₉₀	4200 ₁₂₀	3700 ₁₀₀	3300 ₁₃₅	3100 ₁₂₀
460x65	40	8500	9000	7000 ₄₅	7100 ₄₅	5700 ₉₅	5700 ₉₅	4800 ₁₃₀	4600 ₁₂₀	3800 ₁₄₀	3500 ₁₂₅
	75	7900	8300	6600 ₅₀	6600 ₅₀	5500 ₁₀₅	5500 ₁₀₅	4600 ₁₃₅	4500 ₁₃₅	3700 ₁₆₀	3700 ₁₆₀
495x65	40	8900	9500	7300 ₅₀	7500 ₅₅	6200 ₁₁₀	6100 ₁₁₀	5100 ₁₄₅	5000 ₁₄₀	4400 ₁₇₅	3800 ₁₄₅
	75	8200	8700	6900 ₅₅	7000 ₅₅	5900 ₁₁₅	5800 ₁₂₀	5000 ₁₅₅	4900 ₁₅₀	3900 ₁₆₅	3800 ₁₆₅
130x85	40	3400	3400	2300	2400	1800	1700	1500	1300	1300	NS
	75	3300	3200	2200	2200	1700	1500	1400	1200	1300	NS
165x85	40	4400	4400	3000	3000	2300	2300	1900	1600	1600	1300
	75	4100	4100	2800	2800	2200	2100	1800	1600	1500	1200
195x85	40	5100	5200	3500	3400	2800	2800	2300	2100	1700	1500
	75	4700	4700	3400	3300	2600	2700	2200	1900 ₅	1700	1400 ₅
230x85	40	5800	5800	4200	4100	3300	3200	2700 ₅	2700 ₁₀	2300 ₁₅	1800
	75	5300	5300	4000	4000	3100	3100	2600 ₁₀	2700 ₁₅	2200 ₂₀	1800 ₁₀
260x85	40	6300	6300	4700	4600	3700	3600	3100 ₂₀	3100 ₂₀	2500 ₃₀	2700 ₃₅
	75	5800	5800	4500	4500	3500 ₅	3500 ₅	2900 ₂₀	2900 ₂₀	2500 ₃₅	2600 ₄₀
295x85	40	6900	6900	5300	5300	4200 ₁₅	4200 ₁₅	3500 ₃₀	3300 ₂₅	3000 ₄₅	3000 ₄₅
	75	6300	6300	5100	5100	4000 ₁₅	4000 ₁₅	3400 ₃₅	3200 ₃₀	2900 ₅₀	2900 ₅₅
330x85	40	7300	7500	5900	5900	4700 ₂₅	4600 ₂₀	3900 ₄₅	3900 ₄₀	3300 ₆₅	3200 ₆₀
	75	6800	6900	5500 ₅	5500 ₅	4500 ₃₀	4500 ₃₀	3800 ₅₀	3500 ₄₀	3300 ₈₀	3100 ₇₀
360x85	40	7700	8000	6300 ₅	6300 ₅	5100 ₃₀	5100 ₃₀	4300 ₅₅	4300 ₅₅	3700 ₉₀	3400 ₇₀
	75	7200	7300	5900 ₁₀	5900 ₁₀	4900 ₄₀	4900 ₄₀	4100 ₆₀	4100 ₆₅	3400 ₉₀	3300 ₈₀
395x85	40	8100	8600	6700 ₁₀	6700 ₁₀	5600 ₄₅	5600 ₄₅	4700 ₇₅	4600 ₇₅	4000 ₁₀₅	3500 ₈₅
	75	7600	7800	6300 ₁₅	6300 ₁₅	5400 ₅₀	5400 ₅₀	4500 ₈₅	4500 ₈₅	3900 ₁₁₀	3400 ₉₀
425x85	40	8500	9000	7000 ₁₅	7100 ₂₀	6100 ₅₅	6000 ₅₀	5000 ₉₀	5000 ₉₀	4400 ₁₁₅	4400 ₁₂₀
	75	7900	8300	6600 ₂₀	6600 ₂₀	5700 ₆₀	5800 ₆₀	4900 ₁₀₀	4800 ₉₅	4200 ₁₂₅	3600 ₁₀₀
460x85	40	8900	9600	7400 ₂₀	7600 ₂₅	6500 ₇₀	6500 ₇₀	5400 ₁₀₅	5400 ₁₀₅	4700 ₁₃₀	4600 ₁₂₅
	75	8300	8800	7000 ₂₅	7000 ₂₅	6100 ₇₅	6100 ₇₅	5200 ₁₁₀	5200 ₁₁₀	4500 ₁₃₅	4500 ₁₃₅
495x85	40	9300	10100	7700 ₂₅	8000 ₃₀	6800 ₈₀	6800 ₈₅	5900 ₁₂₀	5800 ₁₁₅	5100 ₁₄₅	5000 ₁₄₅
	75	8700	9200	7300 ₃₀	7400 ₃₀	6400 ₉₀	6500 ₉₀	5600 ₁₂₅	5600 ₁₂₅	4900 ₁₅₅	4800 ₁₅₅
525x85	40	9600	10500	8000 ₃₀	8300 ₃₅	7000 ₉₀	7100 ₉₀	6200 ₁₃₀	6200 ₁₃₀	5400 ₁₆₀	5100 ₁₅₀
	75	9000	9600	7600 ₃₅	7800 ₃₅	6700 ₉₅	6700 ₉₅	6000 ₁₃₅	5900 ₁₃₅	5200 ₁₇₀	5100 ₁₆₅
560x85	40	10000	11000	8300 ₃₅	8700 ₄₀	7300 ₉₅	7500 ₁₀₀	6600 ₁₄₀	6600 ₁₄₀	5700 ₁₇₅	5700 ₁₇₅
	75	9300	10100	7800 ₄₀	8100 ₄₀	7000 ₁₀₀	7100 ₁₀₅	6300 ₁₅₀	6300 ₁₅₀	5500 ₁₈₅	5200 ₁₇₀
590x85	40	10400	11400	8500 ₃₅	9100 ₄₅	7600 ₁₀₀	7800 ₁₀₅	6900 ₁₅₀	6900 ₁₅₀	6100 ₁₉₀	6000 ₁₈₅
	75	9600	10500	8100 ₄₀	8500 ₅₀	7200 ₁₀₅	7300 ₁₁₀	6600 ₁₆₀	6600 ₁₆₀	5800 ₁₉₅	5700 ₁₉₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Hip rafter - sheet and tile roof AS 4055 Classification N1, N2, N3, N4, C1, C2 & C3



EXAMPLE:

wind speed = N3
 roof load = 40 kg/m² (sheet roof)
 hip rafter span = 4500 mm (single span)
 rafter spacing = 600 mm

Enter column at (N1,N2 & N3) wind speed, 600 mm rafter spacing and read down to span equal to or greater than 4500 mm for a 40 kg/m² roof load

ADOPT:

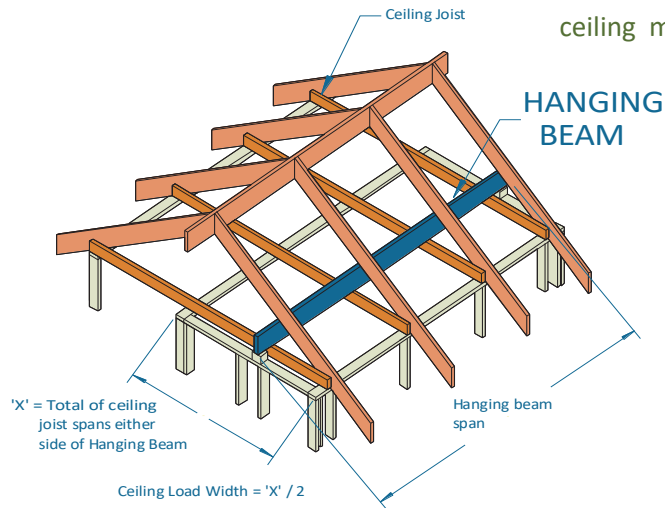
SmartLam GL 17S - 230 x 65

Wind speed		N1, N2, N3 & N4				C1, C2 & C3			
Rafter spacing (mm)		600		1200		600		1200	
Member size (GL17S) DxB (mm)	Roof & ceiling mass (kg/m ²)	Maximum recommended rafter span + overhang span (mm)							
		Span	Overhang	Span	Overhang	Span	Overhang	Span	Overhang
130x65	40	3800	750	3800	750	3300	650	3300	650
	75	3250	650	3250	650	3250	650	3250	650
165x65	40	4550	900	4550	900	3900	775	3900	775
	75	3900	775	3900	775	3900	775	3900	775
195x65	40	5200	1000	5200	1000	4350	850	4350	850
	75	4450	850	4450	850	4450	850	4450	850
230x65	40	5950	1150	5950	1150	4850	950	4850	950
	75	5050	1000	5050	1000	4950	950	4950	950
260x65	40	6450	1250	6450	1250	5250	1050	5250	1050
	75	5600	1100	5600	1100	5350	1050	5350	1050
295x65	40	7050	1400	7050	1400	5700	1100	5700	1100
	75	6150	1225	6150	1225	5850	1150	5850	1150
330x65	40	7600	1500	7600	1500	6150	1225	6150	1225
	75	6650	1325	6650	1325	6300	1250	6300	1250
360x65	40	8100	1600	8100	1600	6550	1300	6550	1300
	75	7050	1400	7050	1400	6650	1325	6650	1325
395x65	40	8650	1725	8650	1725	6950	1350	6950	1350
	75	7500	1500	7500	1500	7100	1400	7100	1400
425x65	40	9100	1800	9100	1800	7300	1450	7300	1450
	75	7900	1575	7900	1575	7450	1450	7450	1450
130x85	40	4050	800	4050	800	3600	700	3600	700
	75	3450	650	3450	650	3450	650	3450	650
165x85	40	4850	950	4850	950	4250	850	4250	850
	75	4150	825	4150	825	4150	825	4150	825
195x85	40	5550	1100	5550	1100	4750	950	4750	950
	75	4750	950	4750	950	4750	950	4750	950
230x85	40	6300	1250	6300	1250	5300	1050	5300	1050
	75	5400	1075	5400	1075	5400	1075	5400	1075
260x85	40	6850	1350	6850	1350	5750	1150	5750	1150
	75	6000	1200	6000	1200	5850	1150	5850	1150
295x85	40	7450	1450	7450	1450	6250	1250	6250	1250
	75	6500	1300	6500	1300	6350	1250	6350	1250
330x85	40	8050	1600	8050	1600	6750	1350	6750	1350
	75	7050	1400	7050	1400	6850	1350	6850	1350
360x85	40	8600	1700	8600	1700	7150	1425	7150	1425
	75	7450	1450	7450	1450	7250	1450	7250	1450
395x85	40	9150	1825	9150	1825	7600	1500	7600	1500
	75	7950	1550	7950	1550	7750	1550	7750	1550
425x85	40	9700	1900	9700	1900	8000	1600	8000	1600
	75	8400	1675	8400	1675	8100	1600	8100	1600

NOTES:

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a batten spacing of 900 mm
- Minimum Backspan = 200 % of overhang
- Maximum Birdsmouth depth = 30 % of depth
- End bearing length = 35 at end supports and 35 mm. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end support.
- Construction loads shall not be applied to overhangs until a 190 x 19 mm (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
- Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Hanging beam supporting ceiling loads only AS 4055 Classification N1, N2, N3 & N4



EXAMPLE:

Wind speed = N3

X = 5000 mm

Ceiling load width = X/2 = 5000/2 = 2500 mm

Hanging beam span = 4200 mm

Enter column at 3000 mm ceiling load width & read down to a span greater than or equal to 4200 mm

ADOPT:

SmartLam GL 17S - 195 x 65

Ceiling load width (mm)	1800	2400	3000	3600	4200	4800
Member size (GL17S) DxB (mm)	Maximum recommended Hanging beam span (mm)					
130x65	4050	3650	3350	3100	2900	2750
165x65	5050	4650	4300	3950	3700	3500
195x65	5800	5350	4950	4700	4450	4150
230x65	6700	6150	5700	5400	5100	4850
260x65	7500	6850	6350	6000	5650	5400
295x65	8400	7650	7100	6700	6300	6000
330x65	9350	8500	7900	7400	7000	6650
360x65	10150	9250	8550	8000	7600	7200
395x65	11150	10150	9350	8750	8250	7850
425x65	12000	10900	10100	9400	8900	8450
460x65	12000	11850	10900	10200	9600	9100
495x65	12000	12000	11800	11000	10350	9800
130x85	4450	4000	3650	3400	3150	3000
165x85	5400	4950	4650	4350	4050	3850
195x85	6200	5700	5350	5000	4750	4550
230x85	7200	6600	6150	5800	5500	5250
260x85	8000	7350	6850	6450	6100	5800
295x85	9000	8250	7650	7200	6800	6500
330x85	10000	9150	8500	8000	7550	7200
360x85	10900	9950	9250	8650	8200	7800
395x85	11950	10900	10100	9500	8950	8500
425x85	12000	11750	10900	10200	9600	9150
460x85	12000	12000	11800	11050	10400	9900
495x85	12000	12000	12000	11950	11250	10650
525x85	12000	12000	12000	12000	11950	11300
560x85	12000	12000	12000	12000	12000	12000
590x85	12000	12000	12000	12000	12000	12000

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. The above table was based on a maximum ceiling mass of 20 (kg/m²)
3. Minimum bearing length = 70 mm at end supports
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Hanging beam supporting ceiling loads only AS 4055 Classification C1, C2 & C3

Ceiling mass - 20 kg/m²

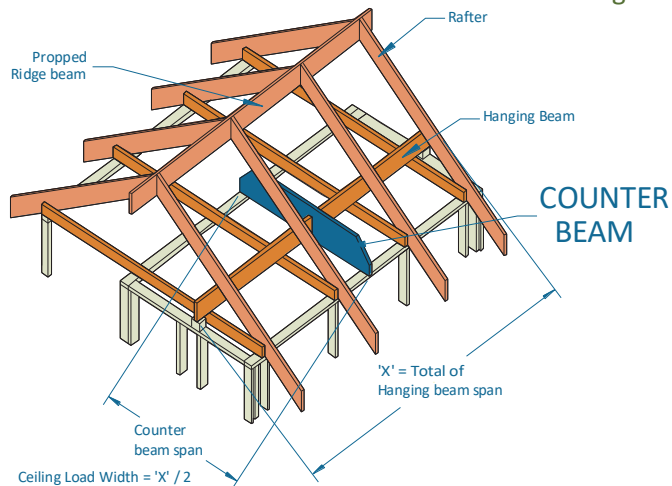
Ceiling load width (mm)	1800	2400	300	3600	4200	4800
Member size (GL17S) DxB (mm)	Maximum recommended Hanging beam span (mm)					
130x65	3450	2950	2650	2400	2250	2100
165x65	4350	3750	3350	3050	2850	2650
195x65	5150	4450	4000	3600	3350	3100
230x65	6050	5250	4700	4250	3950	3700
260x65	6850	5900	5300	4800	4450	4150
295x65	7750	6700	6000	5450	5050	4700
330x65	8650	7500	6700	6100	5650	5300
360x65	9400	8150	7300	6650	6150	5750
395x65	10300	8950	8000	7300	6750	6300
425x65	11100	9650	8600	7850	7250	6800
460x65	12000	10400	9300	8500	7850	7350
495x65	12000	11200	10000	9150	8450	7900
130x85	3900	3400	3050	2750	2550	2400
165x85	4950	4300	3850	3500	3250	3000
195x85	5850	5100	4550	4150	3800	3550
230x85	6900	6000	5350	4900	4500	4200
260x85	7800	6750	6050	5500	5100	4750
295x85	8800	7650	6850	6250	5750	5400
330x85	9850	8550	7650	6950	6450	6000
360x85	10700	9300	8350	7600	7050	6550
395x85	11750	10200	9150	8350	7700	7200
425x85	12000	10950	9800	8950	8300	7750
460x85	12000	11850	10600	9700	8950	8350
495x85	12000	12000	11400	10400	9650	9000
525x85	12000	12000	12000	11050	10200	9550
560x85	12000	12000	12000	11750	10900	10150
590x85	12000	12000	12000	12000	11450	10700

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. The above table was based on a maximum ceiling mass of 20 kg/m²
3. Minimum bearing length = 70 mm at end supports
4. Restraint value for slenderness calculations is 1500 mm
5. Value in subscript indicate extra bearing length required
6. Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Counter beam supporting hanging beam AS 4055 Classification N1, N2, N3 & N4

Ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
total of hanging beam SPAN = 6400 mm
ceiling load width = 'X' / 2 = 6400 / 2 = 3200 mm
counter beam span = 4500 mm

Enter column at 3600 mm ceiling load width and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLam GL 17S - 165 x 65

Ceiling load width (mm)	600	1800	2400	3000	3600	4200	4800	5400	6600
Member size (GL17S) DxB (mm)	Maximum recommended Counter beam span (mm)								
130x65	4700	4600	4200	3900	3700	3500	3350	3200	3000
165x65	5950	5550	5200	4900	4700	4500	4300	4150	3850
195x65	7000	6400	5950	5650	5400	5150	5000	4850	4600
230x65	8250	7400	6900	6500	6200	5950	5750	5550	5250
260x65	9350	8250	7700	7250	6900	6600	6400	6200	5850
295x65	10600	9300	8600	8150	7750	7400	7150	6900	6550
330x65	11850	10350	9600	9050	8600	8250	7950	7650	7250
360x65	12000	11250	10450	9800	9350	8950	8600	8300	7850
395x65	12000	12000	11450	10750	10250	9800	9400	9100	8600
425x65	12000	12000	12000	11600	11000	10550	10100	9800	9200
460x65	12000	12000	12000	12000	11950	11400	10950	10600	9950
495x65	10500	12000	12000	12000	12000	12000	11850	11400	10750
130x85	5100	4900	4550	4250	4050	3850	3650	3550	3300
165x85	6500	5950	5550	5250	5000	4800	4650	4500	4250
195x85	7650	6850	6400	6050	5750	5550	5350	5200	4900
230x85	9050	7900	7350	6950	6650	6400	6150	5950	5650
260x85	10200	8800	8200	7750	7400	7100	6850	6650	6300
295x85	11600	9900	9250	8750	8300	8000	7700	7450	7050
330x85	12000	11050	10300	9700	9250	8850	8550	8250	7800
360x85	12000	12000	11200	10550	10050	9650	9300	9000	8500
395x85	12000	12000	12000	11600	11000	10550	10150	9850	9300
425x85	12000	12000	12000	12000	11850	11350	10950	10600	9950
460x85	11350	12000	12000	12000	12000	12000	11850	11450	10800
495x85	10100	12000	12000	12000	12000	12000	12000	12000	11650
525x85	9750	12000	12000	12000	12000	12000	12000	12000	12000
560x85	9450	10950	12000	12000	12000	12000	12000	12000	12000
590x85	9300	10150	11350	12000	12000	12000	12000	12000	12000

Counter beam supporting Hanging beam AS 4055 Classification C1, C2 and C3

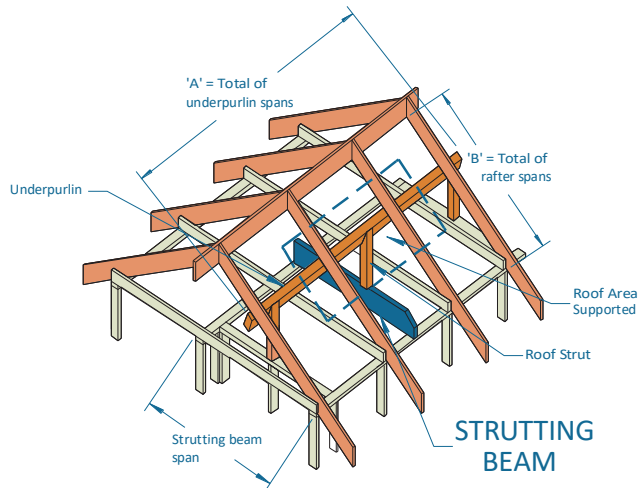
Ceiling mass - 20 kg/m²

Ceiling load width (mm)	600	1800	2400	3000	3600	4200	4800	5400	6600
Member size (GL17S) DxB (mm)	Maximum recommended Counter beam span (mm)								
130x65	4700	3450	3000	2700	2450	2300	2150	2000	1800
165x65	5950	4400	3800	3400	3100	2900	2700	2550	2300
195x65	7000	5200	4500	4050	3700	3400	3200	3000	2750
230x65	8250	6100	5300	4750	4350	4000	3750	3550	3200
260x65	9350	6900	6000	5350	4900	4550	4250	4000	3650
295x65	10600	7800	6800	6100	5550	5150	4800	4550	4100
330x65	11850	8700	7600	6800	6200	5750	5400	5100	4600
360x65	12000	9500	8250	7400	6750	6300	5900	5550	5000
395x65	12000	10400	9050	8100	7450	6900	6450	6100	5500
425x65	12000	11200	9750	8750	8000	7400	6950	6550	5900
460x65	12000	12000	10500	9450	8650	8000	7500	7100	6400
495x65	10500	12000	11300	10150	9300	8600	8050	7600	6900
130x85	5100	3950	3450	3100	2800	2600	2450	2300	2100
165x85	6500	5000	4350	3900	3550	3300	3100	2900	2650
195x85	7650	5900	5150	4600	4200	3900	3650	3450	3100
230x85	9050	6950	6050	5400	4950	4600	4300	4050	3650
260x85	10200	7850	6850	6100	5600	5200	4850	4600	4150
295x85	11600	8900	7750	6950	6350	5900	5500	5200	4700
330x85	12000	9900	8650	7750	7100	6550	6150	5800	5250
360x85	12000	10800	9400	8450	7750	7150	6700	6350	5750
395x85	12000	11850	10300	9250	8450	7850	7350	6950	6300
425x85	12000	12000	11100	9950	9100	8450	7900	7450	6750
460x85	11300	12000	11950	10750	9850	9150	8550	8050	7300
495x85	10100	12000	12000	11550	10600	9800	9200	8700	7850
525x85	9750	12000	12000	12000	11200	10400	9750	9200	8350
560x85	9450	10950	12000	12000	11950	11100	10400	9800	8900
590x85	9300	10150	11350	12000	12000	11650	10950	10350	9350

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
3. The above table was based on a maximum ceiling mass of 20 kg/m²
4. Minimum bearing length = 70 mm at end supports
1. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Strutting beam supporting underpurlins AS 4055 Classification N1, N2, N3 & N4



EXAMPLE:

wind speed = N3
sheet roof = 20 kg/m²
total of underpurlin span 'A' = 5000 mm
total of rafter span 'B' = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm² (convert to m²)
= 5250000/1000000 = 5.25 m²

strutting beam span = 4500 mm

Enter column at 6m² roof area supported and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLam GL 17S - 195 x 65

Roof area supported (m ²)		2	4	6	8	10	12
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting beam span (mm)					
130x65	20	5050	3600	2350	1800	1400	1200
	60	3600	2550	2050	1550	1250	1050
165x65	20	6500	5250	3850	2850	2300	1900
	60	5000	3700	3000	2500	2000	1650
195x65	20	7750	6350	5400	4000	3200	2650
	60	6000	4700	3900	3350	2750	2300
230x65	20	9300	7650	6700	5600	4500	3700
	60	7300	5700	4900	4400	3850	3200
260x65	20	10600	8850	7750	7000	5750	4750
	60	8450	6600	5650	5100	4700	4100
295x65	20	12000	10300	9050	8200	7450	6150
	60	9850	7700	6600	5900	5450	5050
330x65	20	12000	11800	10450	9450	8700	7750
	60	11300	8900	7600	6800	6200	5800
360x65	20	12000	12000	11700	10600	9750	9100
	60	12000	10000	8550	7600	6950	6450
395x65	20	12000	12000	12000	12000	11050	10300
	60	12000	11350	9700	8600	7850	7250
425x65	20	10400	10950	12000	12000	12000	11450
	60	11200	12000	10750	9550	8650	8000
460x65	20	9850	10150	10500	10900	11500	12000
	60	10250	11300	12000	10700	9700	8950
130x85	20	5450	4400	3100	2350	1850	1550
	60	4100	2900	2350	2000	1600	1350
165x85	20	7000	5750	5000	3750	3000	2500
	60	5450	4250	3450	2950	2600	2150
195x85	20	8300	6900	6050	5300	4200	3500
	60	6550	5200	4500	3850	3450	3000
230x85	20	9850	8300	7300	6650	5900	4900
	60	7950	6300	5400	4900	4500	4100
260x85	20	11200	9550	8450	7700	7100	6300
	60	9150	7300	6300	5650	5200	4850
295x85	20	12000	11100	9900	9000	8300	7750
	60	10650	8500	7350	6550	6000	5600
330x85	20	12000	12000	11350	10350	9600	9000
	60	12000	9850	8450	7550	6900	6450
360x85	20	12000	12000	12000	11600	10750	10100
	60	12000	11050	9500	8500	7750	7200
395x85	20	11500	12000	12000	12000	12000	11450
	60	12000	12000	10800	9600	8800	8150
425x85	20	10300	10700	11200	12000	12000	12000
	60	10850	12000	11950	10650	9700	9000
460x85	20	9800	10000	10250	10500	10850	11250
	60	10100	10700	11750	11950	10900	10050

Strutting beam supporting underpurlins AS 4055 Classification C1, C2 & C3

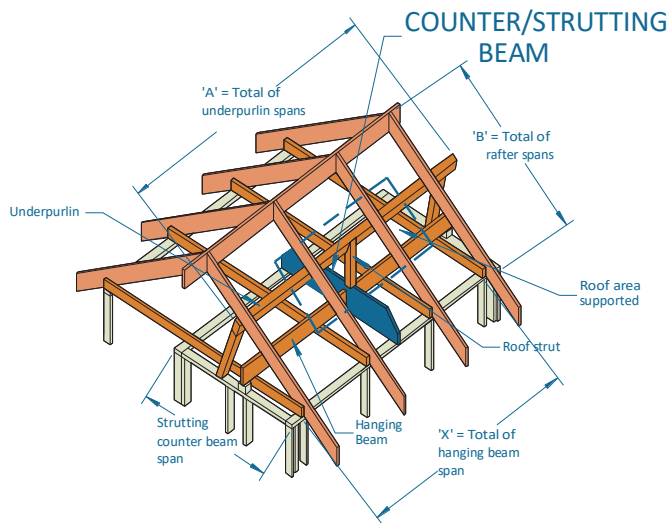
Roof area supported (m ²)		2	4	6	8	10	12
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting beam span (mm)					
130x65	20	3150	1550	1050	NS	NS	NS
	60	3400	1700	1150	NS	NS	NS
165x65	20	5100	2500	1700	1250	NS	NS
	60	5000	2750	1850	1350	NS	NS
195x65	20	7200	3550	2350	1750	1200	NS
	60	6000	3850	2550	1900	1550	NS
230x65	20	9300	4950	3250	2450	1950	1350
	60	7300	5400	3550	2650	2150	1750
260x65	20	10600	6350	4200	3150	2500	2100
	60	8450	6600	4550	3400	2700	2250
295x65	20	12000	8200	5400	4050	3200	2700
	60	9850	7700	5900	4400	3500	2900
330x65	20	12000	10400	6800	5050	4050	3350
	60	11300	8900	7400	5500	4400	3650
360x65	20	12000	12000	8100	6050	4800	4000
	60	12000	10000	8550	6600	5250	4350
395x65	20	12000	12000	9850	7300	5800	4850
	60	12000	11350	9700	7950	6350	5250
425x65	20	10400	10950	11450	8500	6750	5600
	60	11200	12000	10750	9150	7350	6100
460x65	20	9850	10150	10500	9950	7900	6550
	60	10250	11300	12000	10650	8600	7150
130x85	20	4150	2050	1350	1000	NS	NS
	60	4100	2250	1500	1100	NS	NS
165x85	20	6750	3300	2200	1650	1300	NS
	60	5450	3600	2400	1800	1450	1000
195x85	20	8300	4650	3050	2300	1850	1550
	60	6550	5050	3350	2500	2000	1650
230x85	20	9850	6500	4300	3200	2550	2150
	60	7950	6300	4650	3500	2800	2300
260x85	20	11200	8400	5500	4100	3300	2750
	60	9150	7300	6000	4450	3550	2950
295x85	20	12000	10900	7100	5300	4250	3500
	60	10650	8500	7350	5800	4600	3850
330x85	20	12000	12000	8950	6650	5300	4400
	60	12000	9850	8450	7250	5800	4800
360x85	20	12000	12000	10750	7950	6300	5250
	60	12000	11050	9500	8500	6900	5700
395x85	20	11500	12000	12000	9650	7650	6350
	60	12000	12000	10800	9600	8300	6900
425x85	20	10300	10700	11200	11200	8900	7350
	60	10800	12000	11950	10650	9550	8000
460x85	20	9800	10000	10250	10500	10450	8650
	60	10100	10700	11750	11950	10900	9350

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports.
3. Restraint value for slenderness calculations is 1500 mm
4. Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 Classification N1, N2, N3 & N4

Ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
sheet roof = 40kg/m²
total of underpurlin span 'A' = 5000 mm
total of rafter span 'B' = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm² (convert to m²)
= 5250000/1000000 = 5.25 m²

total of hanging beam span 'X' = 4500 mm
effective beam spacing = 'X' / 2 = 4500 / 2 = 2250 mm
strutting/counter beam span = 4500 mm

Enter column at 3600 mm effective beam spacing, 6m² roof area supported and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLam GL 17S - 260 x 65

Effective beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting/Counter beam span (mm)											
130x65	40	3350	2700	2200	1700	1350	1150	2950	2500	2150	1650	1350	1150
	75	2850	2150	1800	1400	1150	NS	2600	2050	1750	1400	1100	NS
165x65	40	4300	3700	3250	2700	2150	1850	3850	3400	3000	2600	2150	1800
	75	3850	3100	2600	2250	1800	1500	3550	2900	2500	2200	1800	1500
195x65	40	5050	4400	3950	3650	3000	2550	4500	4050	3750	3450	2900	2500
	75	4550	3850	3300	2900	2500	2100	4150	3650	3150	2800	2450	2100
230x65	40	5900	5200	4750	4350	4100	3500	5200	4750	4400	4150	3900	3400
	75	5400	4600	4050	3700	3400	2900	4900	4300	3900	3600	3250	2850
260x65	40	6700	5950	5400	5000	4700	4400	5850	5400	5000	4700	4450	4250
	75	6150	5250	4650	4250	3950	3700	5500	4900	4450	4100	3850	3600
295x65	40	7650	6850	6250	5750	5400	5100	6650	6150	5700	5400	5100	4850
	75	7050	6050	5350	4900	4550	4250	6300	5600	5100	4700	4400	4150
330x65	40	8600	7750	7100	6550	6150	5800	7400	6900	6450	6100	5800	5500
	75	8000	6850	6100	5600	5200	4850	7050	6300	5750	5350	5000	4700
360x65	40	9450	8550	7850	7300	6850	6450	8100	7550	7100	6700	6400	6100
	75	8800	7600	6800	6200	5750	5400	7700	6950	6350	5900	5500	5200
395x65	40	10450	9550	8800	8150	7650	7250	8950	8350	7900	7450	7100	6800
	75	9800	8500	7600	6950	6450	6050	8500	7700	7050	6550	6150	5800
425x65	40	11350	10400	9600	8950	8400	7950	9650	9050	8550	8100	7750	7400
	75	10650	9350	8350	7650	7050	6600	9250	8400	7700	7150	6700	6350
460x65	40	12000	11450	10600	9900	9300	8800	10500	9900	9400	8900	8500	8150
	75	11700	10300	9250	8450	7850	7350	10100	9200	8450	7900	7400	7000
495x65	40	12000	12000	11650	10900	10300	9750	11400	10800	10250	9750	9300	8950
	75	12000	11350	10200	9350	8650	8100	10950	10050	9300	8650	8150	7700

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 Classification N1, N2, N3 & N4 [Cont'd]

Ceiling mass - 20 kg/m²

Effective beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting/Counter beam span (mm)											
130x85	40	3700	3050	2600	2200	1750	1500	3250	2800	2450	2150	1750	1450
	75	3200	2450	2050	1800	1500	1250	2900	2350	2000	1750	1450	1250
165x85	40	4650	4050	3650	3300	2800	2350	4150	3750	3400	3100	2750	2300
	75	4200	3500	2950	2600	2300	2000	3850	3250	2800	2500	2250	1950
195x85	40	5450	4800	4350	4000	3750	3300	4850	4400	4100	3800	3600	3200
	75	4950	4200	3750	3350	3000	2750	4550	3950	3600	3200	2900	2700
230x85	40	6400	5700	5200	4800	4500	4250	5650	5200	4850	4550	4300	4100
	75	5900	5000	4450	4100	3800	3550	5300	4700	4250	3950	3700	3450
260x85	40	7250	6500	5950	5500	5150	4850	6350	5850	5500	5150	4900	4650
	75	6700	5750	5100	4700	4350	4100	6000	5350	4850	4500	4200	4000
295x85	40	8300	7450	6850	6350	5950	5650	7200	6700	6250	5900	5600	5350
	75	7700	6650	5900	5400	5050	4700	6850	6100	5600	5200	4850	4600
330x85	40	9300	8450	7800	7250	6800	6450	8050	7500	7050	6700	6350	6100
	75	8700	7550	6750	6200	5750	5400	7650	6900	6350	5900	5500	5200
360x85	40	10250	9350	8650	8050	7550	7150	8800	8250	7800	7400	7050	6700
	75	9600	8400	7550	6900	6400	6000	8400	7600	7000	6500	6100	5750
395x85	40	11350	10450	9650	9050	8500	8050	9700	9150	8650	8200	7850	7500
	75	10700	9400	8450	7750	7200	6750	9300	8450	7800	7250	6800	6450
425x85	40	12000	11350	10600	9900	9350	8850	10500	9900	9400	8950	8550	8200
	75	11650	10300	9300	8500	7900	7400	10100	9200	8500	7950	7450	7050
460x85	40	12000	12000	11700	11000	10350	9850	11400	10850	10300	9850	9400	9050
	75	12000	11400	10300	9450	8800	8200	11000	10100	9400	8750	8250	7800
495x85	40	12000	12000	12000	12000	11450	10850	12000	11800	11250	10750	10300	9900
	75	12000	12000	11350	10450	9700	9100	11950	11050	10300	9600	9050	8600

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. Minimum bearing length = 70 mm at end supports
3. The above table was based on a maximum ceiling mass of 20 (kg/m²)
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 Classification C1, C2 & C3

Ceiling mass - 20 kg/m²

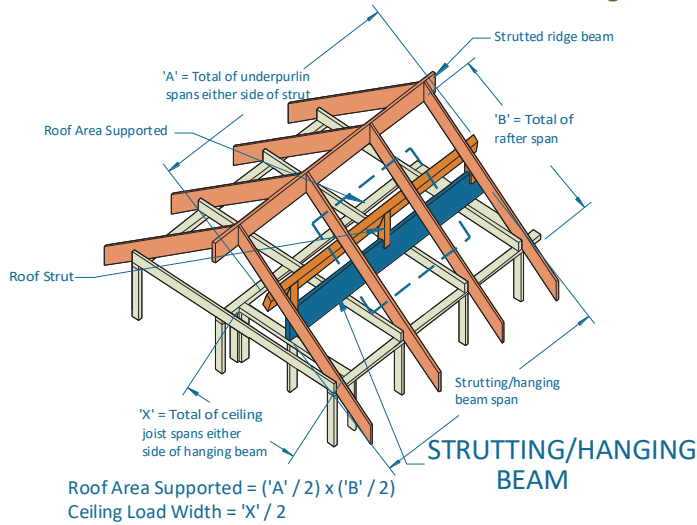
Effective beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting/Counter beam span (mm)											
130x65	40	3350	1650	1100	NS	NS	NS	2950	1700	1100	NS	NS	NS
	75	2850	1650	1100	NS	NS	NS	2600	1600	1100	NS	NS	NS
165x65	40	4300	2700	1750	1300	1050	NS	3850	2750	1800	1350	1050	NS
	75	3850	2600	1750	1350	1050	NS	3550	2500	1750	1350	1050	NS
195x65	40	5050	3850	2500	1850	1450	NS	4500	3750	2550	1850	1500	NS
	75	4550	3550	2450	1850	1500	1250	4150	3450	2400	1850	1500	1250
230x65	40	5900	5200	3500	2600	2050	1700	5200	4750	3600	2600	2050	1700
	75	5400	4600	3400	2600	2100	1750	4900	4300	3300	2550	2050	1700
260x65	40	6700	5950	4500	3300	2650	2200	5850	5400	4500	3400	2650	2200
	75	6150	5250	4250	3250	2650	2200	5500	4900	4150	3200	2600	2200
295x65	40	7650	6850	5900	4300	3400	2800	6650	6150	5650	4400	3450	2850
	75	7050	6050	5350	4150	3400	2850	6300	5600	5100	4050	3300	2800
330x65	40	8600	7750	7100	5450	4300	3550	7400	6900	6450	5500	4350	3600
	75	8000	6850	6100	5150	4200	3550	7050	6300	5750	5000	4100	3500
360x65	40	9450	8550	7850	6500	5150	4250	8100	7550	7100	6400	5250	4300
	75	8800	7600	6800	6100	4950	4200	7700	6950	6350	5900	4850	4100
395x65	40	10450	9550	8800	7950	6200	5100	8950	8350	7900	7450	6300	5200
	75	9800	8500	7600	6950	5950	5000	8500	7700	7050	6550	5750	4900
425x65	40	11350	10400	9600	8950	7250	5950	9650	9050	8550	8100	7200	6100
	75	10650	9350	8350	7650	6800	5750	9250	8400	7700	7150	6600	5650
460x65	40	12000	11450	10600	9900	8600	7000	10500	9900	9400	8900	8300	7150
	75	11700	10300	9250	8450	7850	6700	10100	9200	8450	7900	7400	6500
495x65	40	12000	12000	11650	10900	9900	8200	11400	10800	10250	9750	9300	8150
	75	12000	11350	10200	9350	8650	7700	10950	10050	9300	8650	8150	7450
130x85	40	3700	2200	1450	1050	NS	NS	3250	2250	1450	1050	NS	NS
	75	3200	2150	1450	1100	NS	NS	2900	2050	1450	1100	NS	NS
165x85	40	4650	3600	2300	1750	1400	1150	4150	3500	2350	1750	1400	1150
	75	4200	3350	2300	1750	1400	1150	3850	3250	2250	1750	1400	1150
195x85	40	5450	4800	3300	2450	1950	1600	4850	4400	3350	2450	1950	1600
	75	4950	4200	3200	2400	1950	1650	4550	3950	3100	2400	1950	1600
230x85	40	6400	5700	4600	3400	2700	2250	5650	5200	4600	3450	2750	2250
	75	5900	5000	4350	3350	2700	2250	5300	4700	4200	3250	2650	2250
260x85	40	7250	6500	5950	4400	3450	2850	6350	5850	5500	4500	3500	2900
	75	6700	5750	5100	4250	3450	2900	6000	5350	4850	4100	3350	2850
295x85	40	8300	7450	6850	5700	4500	3700	7200	6700	6250	5700	4600	3750
	75	7700	6650	5900	5400	4400	3700	6850	6100	5600	5200	4300	3650
330x85	40	9300	8450	7800	7200	5650	4650	8050	7500	7050	6700	5800	4750
	75	8700	7550	6750	6200	5450	4600	7650	6900	6350	5900	5300	4500
360x85	40	10250	9350	8650	8050	6800	5600	8800	8250	7800	7400	6800	5700
	75	9600	8400	7550	6900	6400	5400	8400	7600	7000	6500	6100	5300
395x85	40	11350	10450	9650	9050	8250	6750	9700	9150	8650	8200	7850	6900
	75	10700	9400	8450	7750	7200	6450	9300	8450	7800	7250	6800	6300
425x85	40	12000	11350	10600	9900	9350	7900	10500	9900	9400	8950	8550	7900
	75	11650	10300	9300	8500	7900	7400	10100	9200	8500	7950	7450	7050
460x85	40	12000	12000	11700	11000	10350	9350	11400	10850	10300	9850	9400	9050
	75	12000	11400	10300	9450	8800	8200	11000	10100	9400	8750	8250	7800
495x85	40	12000	12000	12000	12000	11450	10800	12000	11800	11250	10750	10300	9900
	75	12000	12000	11350	10450	9700	9100	11950	11050	10300	9600	9050	8600

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports
3. The above table was based on a maximum ceiling mass of 20 (kg/m²)
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLam GL 17S in this table are stocked in each state. Please check with your supplier before ordering

Strutting/hanging beam AS 4055 classification N1, N2, N3 & N4

Ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
sheet roof = 40 kg/m²
A = 5000 mm, B = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm² (convert to m²)
= 5250000/1000000 = 5.25 m²
strutting/hanging beam span = 4200 mm
ceiling joist span ('X') = 4400 mm
ceiling load width = ('X' / 2) = 4400/2 = 2200 mm

Enter column at 3600 mm ceiling load width, 6 m² roof area supported and read down to a span greater than or equal to 4200 mm

ADOPT:

SmartLam GL 17S - 260 x 65

Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting/Hanging beam span (mm)											
130x65	40	3150	2600	2200	1700	1350	1150	2600	2300	2050	1650	1350	1100
	75	2700	2100	1750	1400	1150	NS	2400	1950	1700	1350	1100	NS
165x65	40	4050	3600	3150	2650	2150	1800	3500	3100	2800	2550	2100	1800
	75	3700	3000	2550	2250	1800	1500	3200	2700	2350	2100	1750	1500
195x65	40	4750	4250	3850	3600	3000	2500	4100	3800	3500	3250	2850	2450
	75	4400	3750	3250	2850	2500	2100	3850	3400	3000	2700	2450	2050
230x65	40	5600	5000	4600	4250	4000	3450	4750	4400	4150	3950	3750	3300
	75	5200	4450	4000	3650	3350	2900	4500	4050	3750	3450	3150	2800
260x65	40	6350	5700	5250	4900	4600	4350	5300	4950	4700	4450	4250	4050
	75	5900	5100	4550	4200	3900	3700	5050	4600	4250	3950	3700	3500
295x65	40	7200	6550	6000	5600	5300	5000	6000	5600	5300	5050	4850	4650
	75	6700	5850	5250	4800	4500	4250	5750	5200	4800	4500	4250	4050
330x65	40	8100	7400	6850	6350	6000	5700	6650	6300	6000	5700	5450	5250
	75	7600	6650	5950	5500	5100	4800	6400	5850	5450	5100	4800	4550
360x65	40	8900	8150	7550	7050	6650	6300	7300	6900	6550	6250	6000	5750
	75	8350	7350	6600	6050	5650	5300	7000	6450	5950	5600	5300	5050
395x65	40	9850	9050	8400	7900	7450	7050	8000	7600	7250	6900	6650	6400
	75	9300	8200	7400	6800	6350	5950	7700	7100	6600	6200	5900	5600
425x65	40	10700	9900	9200	8650	8150	7750	8650	8200	7850	7500	7200	6950
	75	10100	8950	8100	7450	6950	6500	8350	7700	7200	6750	6400	6100
460x65	40	11700	10850	10150	9550	9000	8550	9400	8950	8600	8250	7900	7650
	75	11100	9900	8950	8250	7700	7200	9100	8450	7900	7400	7050	6700
495x65	40	12000	11900	11150	10500	9950	9450	10200	9750	9350	8950	8650	8350
	75	12000	10850	9900	9100	8450	7950	9850	9200	8600	8100	7700	7350

Strutting/hanging beam AS 4055 Classification N1, N2, N3 & N4 [Cont'd]

Ceiling mass - 20 kg/m²

Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size (GL17S) Dx B (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting/Hanging beam span (mm)											
130x85	40	3500	2900	2550	2200	1750	1500	2900	2550	2300	2100	1700	1450
	75	3050	2400	2000	1750	1450	1250	2650	2200	1900	1700	1450	1200
165x85	40	4400	3900	3550	3200	2800	2350	3800	3450	3150	2900	2700	2300
	75	4050	3400	2900	2550	2300	1950	3600	3050	2700	2400	2200	1950
195x85	40	5150	4650	4250	3950	3700	3250	4400	4100	3850	3650	3400	3150
	75	4750	4100	3650	3300	2950	2700	4200	3750	3400	3050	2800	2600
230x85	40	6100	5500	5050	4700	4400	4200	5100	4800	4500	4300	4100	3950
	75	5650	4900	4400	4000	3750	3500	4900	4400	4100	3800	3600	3350
260x85	40	6850	6250	5750	5350	5050	4800	5750	5400	5100	4850	4650	4450
	75	6400	5600	5000	4600	4300	4050	5500	5000	4650	4350	4100	3900
295x85	40	7800	7150	6600	6150	5800	5500	6500	6100	5800	5550	5300	5100
	75	7350	6400	5800	5300	4950	4650	6250	5700	5300	4950	4700	4450
330x85	40	8800	8100	7500	7000	6650	6300	7250	6850	6550	6250	6000	5750
	75	8300	7300	6600	6050	5650	5300	7000	6400	5950	5600	5300	5050
360x85	40	9700	8900	8300	7800	7350	7000	7900	7500	7150	6850	6600	6350
	75	9150	8100	7300	6750	6250	5900	7650	7050	6550	6150	5850	5550
395x85	40	10700	9950	9300	8700	8250	7850	8700	8300	7950	7600	7300	7050
	75	10150	9050	8200	7550	7050	6600	8400	7800	7300	6850	6500	6200
425x85	40	11650	10850	10150	9550	9050	8600	9400	9000	8600	8250	7950	7700
	75	11050	9900	9000	8300	7750	7250	9100	8450	7950	7500	7100	6750
460x85	40	12000	11900	11200	10550	10000	9550	10250	9800	9450	9050	8750	8450
	75	12000	10950	9950	9200	8600	8050	9950	9300	8700	8200	7800	7450
495x85	40	12000	12000	12000	11600	11050	10550	11100	10700	10250	9900	9550	9250
	75	12000	12000	11000	10150	9500	8900	10800	10100	9500	9000	8550	8150
525x85	40	12000	12000	12000	12000	11950	11400	11900	11450	11000	10600	10250	9950
	75	12000	12000	11900	11000	10300	9700	11550	10850	10250	9700	9200	8800
560x85	40	12000	12000	12000	12000	12000	12000	12000	12000	11900	11500	11150	10800
	75	12000	12000	12000	12000	11300	10600	12000	11750	11100	10550	10000	9600
590x85	40	11400	12000	12000	12000	12000	12000	12000	12000	12000	12000	11900	11550
	75	12000	12000	12000	12000	12000	11450	12000	12000	11850	11250	10750	10250

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 kg/m²
3. Minimum bearing length = 70 mm at end supports
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLam GL 17 in this table are stocked in each state. Please check with your supplier before ordering

Strutting/hanging beam AS 4055 classification C1, C2 & C3

Ceiling mass - 20 kg/m²

Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size (GL17S) DxB (mm)	Roof mass (kg/m ²)	Maximum recommended Strutting/Hanging beam span (mm0)											
130x65	40	3150	1650	1100	NS	NS	NS	2600	1700	1100	NS	NS	NS
	75	2700	1650	1100	NS	NS	NS	2400	1600	1100	NS	NS	NS
165x65	40	4050	2700	1750	1300	NS	NS	3500	2700	1800	1350	NS	NS
	75	3700	2600	1750	1350	1050	NS	3200	2500	1750	1300	1050	NS
195x65	40	4750	3850	2500	1850	1450	NS	4100	3650	2550	1900	1500	NS
	75	4400	3550	2450	1850	1500	1250	3850	3350	2400	1850	1500	1250
230x65	40	5600	5000	3500	2600	2050	1700	4750	4400	3550	2650	2100	1700
	75	5200	4450	3350	2550	2050	1750	4500	4050	3250	2500	2050	1700
260x65	40	6350	5700	4500	3350	2650	2200	5300	4950	4400	3400	2700	2200
	75	5900	5100	4250	3250	2650	2200	5050	4600	4050	3150	2600	2200
295x65	40	7200	6550	5900	4300	3400	2850	6000	5600	5300	4400	3500	2850
	75	6700	5850	5250	4150	3350	2850	5750	5200	4800	4000	3300	2800
330x65	40	8100	7400	6850	5450	4300	3550	6650	6300	6000	5400	4400	3600
	75	7600	6650	5950	5150	4200	3550	6400	5850	5450	4950	4050	3450
360x65	40	8900	8150	7550	6550	5150	4250	7300	6900	6550	6250	5250	4350
	75	8350	7350	6600	6050	4950	4200	7000	6450	5950	5600	4800	4050
395x65	40	9850	9050	8400	7900	6250	5150	8000	7600	7250	6900	6200	5300
	75	9300	8200	7400	6800	5900	5000	7700	7100	6600	6200	5700	4850
425x65	40	10700	9900	9200	8650	7250	5950	8650	8200	7850	7500	7100	6100
	75	10100	8950	8100	7450	6800	5750	8350	7700	7200	6750	6400	5550
460x65	40	11700	10850	10150	9550	8600	7050	9400	8950	8600	8250	7900	7050
	75	11100	9900	8950	8250	7700	6700	9100	8450	7900	7400	7050	6450
495x65	40	12000	11900	11150	10500	9900	8200	10200	9750	9350	8950	8650	8050
	75	12000	10850	9900	9100	8450	7700	9850	9200	8600	8100	7700	7350
130x85	40	3500	2200	1450	1050	NS	NS	2900	2250	1450	1100	NS	NS
	75	3050	2100	1450	1100	NS	NS	2650	2050	1400	1050	NS	NS
165x85	40	4400	3600	2350	1750	1400	1150	3800	3450	2400	1750	1400	1150
	75	4050	3350	2300	1750	1400	1150	3600	3050	2250	1700	1400	1150
195x85	40	5150	4650	3300	2450	1950	1600	4400	4100	3350	2500	1950	1600
	75	4750	4100	3150	2400	1950	1650	4200	3750	3050	2350	1900	1600
230x85	40	6100	5500	4650	3400	2700	2250	5100	4800	4500	3500	2750	2250
	75	5650	4900	4350	3350	2700	2250	4900	4400	4100	3250	2650	2250
260x85	40	6850	6250	5750	4400	3450	2850	5750	5400	5100	4450	3550	2900
	75	6400	5600	5000	4200	3400	2900	5500	5000	4650	4050	3350	2800
295x85	40	7800	7150	6600	5700	4500	3700	6500	6100	5800	5550	4650	3800
	75	7350	6400	5800	5300	4350	3700	6250	5700	5300	4950	4250	3600
330x85	40	8800	8100	7500	7000	5700	4700	7250	6850	6550	6250	5700	4800
	75	8300	7300	6600	6050	5400	4550	7000	6400	5950	5600	5200	4450
360x85	40	9700	8900	8300	7800	6800	5600	7900	7500	7150	6850	6600	5750
	75	9150	8100	7300	6750	6250	5400	7650	7050	6550	6150	5850	5250
395x85	40	10700	9950	9300	8700	8250	6800	8700	8300	7950	7600	7300	6800
	75	10150	9050	8200	7550	7050	6450	8400	7800	7300	6850	6500	6200
425x85	40	11650	10850	10150	9550	9050	7900	9400	9000	8600	8250	7950	7700
	75	11050	9900	9000	8300	7750	7250	9100	8450	7950	7500	7100	6750
460x85	40	12000	11900	11200	10550	10000	9350	10250	9800	9450	9050	8750	8450
	75	12000	10950	9950	9200	8600	8050	9950	9300	8700	8200	7800	7450
495x85	40	12000	12000	12000	11600	11050	10550	11100	10700	10250	9900	9550	9250
	75	12000	12000	11000	10150	9500	8900	10800	10100	9500	9000	8550	8150
525x85	40	12000	12000	12000	12000	11950	11400	11900	11450	11000	10600	10250	9950
	75	12000	12000	11900	11000	10300	9700	11550	10850	10250	9700	9200	8800
560x85	40	12000	12000	12000	12000	12000	12000	12000	12000	11900	11500	11150	10800
	75	12000	12000	12000	12000	11300	10600	12000	11750	11100	10550	10000	9600
590x85	40	11400	12000	12000	12000	12000	12000	12000	12000	12000	12000	11900	11550
	75	12000	12000	12000	12000	12000	11450	12000	12000	11850	11250	10750	10250

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 kg/m²
3. Minimum bearing length = 70 mm at end supports
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SmartFrame Warranty

All SmartFrame Engineered Wood Products (EWP) are covered by our SmartFrame warranty against material and workmanship defects and are guaranteed to perform as specified when stored, installed, and finished in accordance with SmartFrame installation instructions.



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