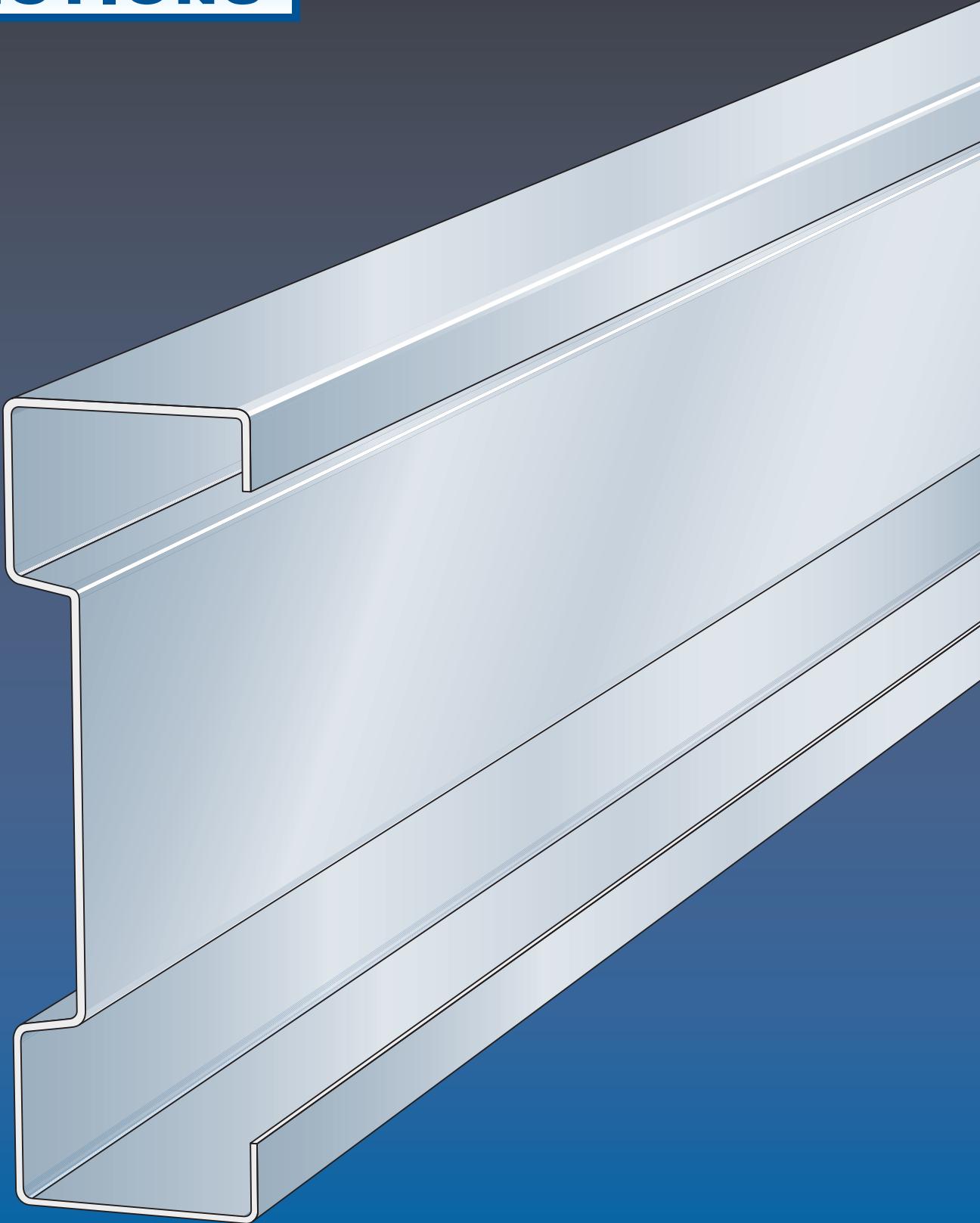


**Albion**  
**SECTIONS**

**Sigma Purlins**  
TECHNICAL MANUAL  
[www.albionsections.co.uk](http://www.albionsections.co.uk)



**RAISING YOUR EXPECTATIONS**

## Introduction

Dear Valued Customer

Albion Sections prides itself on being a customer focused business, and the new products shown within this Sigma Purlin Brochure are a fine example of our continued development, aimed at improving the experience of trading with Albion Sections Ltd.

Albion Sections existing range of Zed Purlins and Cee Sections already presents the largest range of depths available as standard today. It offers solutions from 120mm to 400mm with gauges from 1.2mm to 3.2mm, all fully supported by Strucad and Tekla Structures detailing packages, which also generate Cam Data to reduce the risk of potential errors, and remove the need for the time consuming creation of drawings.

Our new Sigma Beam Purlin generates excellent strength to weight ratio improvements, not to mention the reduction of accessory requirements in common design criteria, saving the additional cost of components and erection time on site. This product has been launched using S450 material rather than the existing industry standard S390, and the Sigma Beam Purlin used with our standard range of C sections as side rails offers practical, flexible and economical solutions for all your purlin and rail needs.

Our high levels of service have played a large part in Albion Sections growth and continued business stability over recent years, with an industry beating lead time of 5-7 working days even in high volume demand periods. This has been achieved following capital expenditures in both manufacturing facilities and internal control systems software. Additional expenditure is planned in 2009, reducing our standard lead time further, and once again raising the benchmark to meet the ever increasing expectation of our customers to improve the services offered by the Steel Construction Industry.

Investment in our technical abilities has already paid dividends as all Albion Sections customers have confidence that any technical questions are answered correctly and swiftly, and backed up by PI insurance. Our customers also benefit from the extensive testing undertaken by Albion Sections to assess and improve the load carrying capacities of our products.

Albion Sections supply other cold rolled solutions as well as Purlin and Rail systems for the industrial building sector. We offer a comprehensive range of Stud and Track profiles for the cold rolled framing, load bearing wall, and specialist cladding industries. Albion Sections have also increased our market share within the modular building industry due to our fully dynamic roll forming and pre punching facilities, which create solutions for factory assembly that previously, have not been available.

To view or use some of our other technical literature and software please contact our sales team or visit [www.albionsections.co.uk](http://www.albionsections.co.uk).

I'd like to take this opportunity to thank you for your interest and assure you that as always we are interested in any ideas, additional needs or feed back you might have.

Yours Sincerely

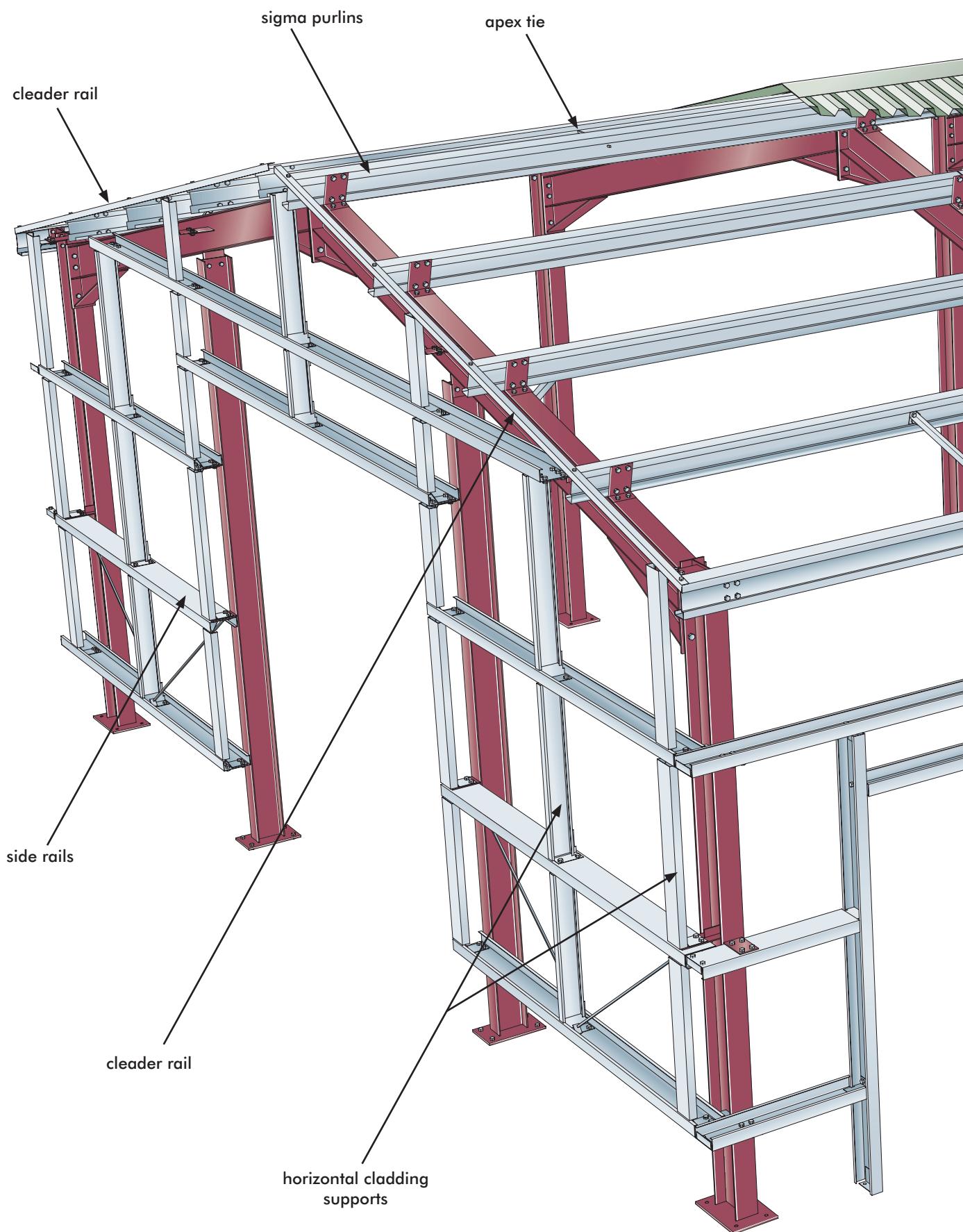


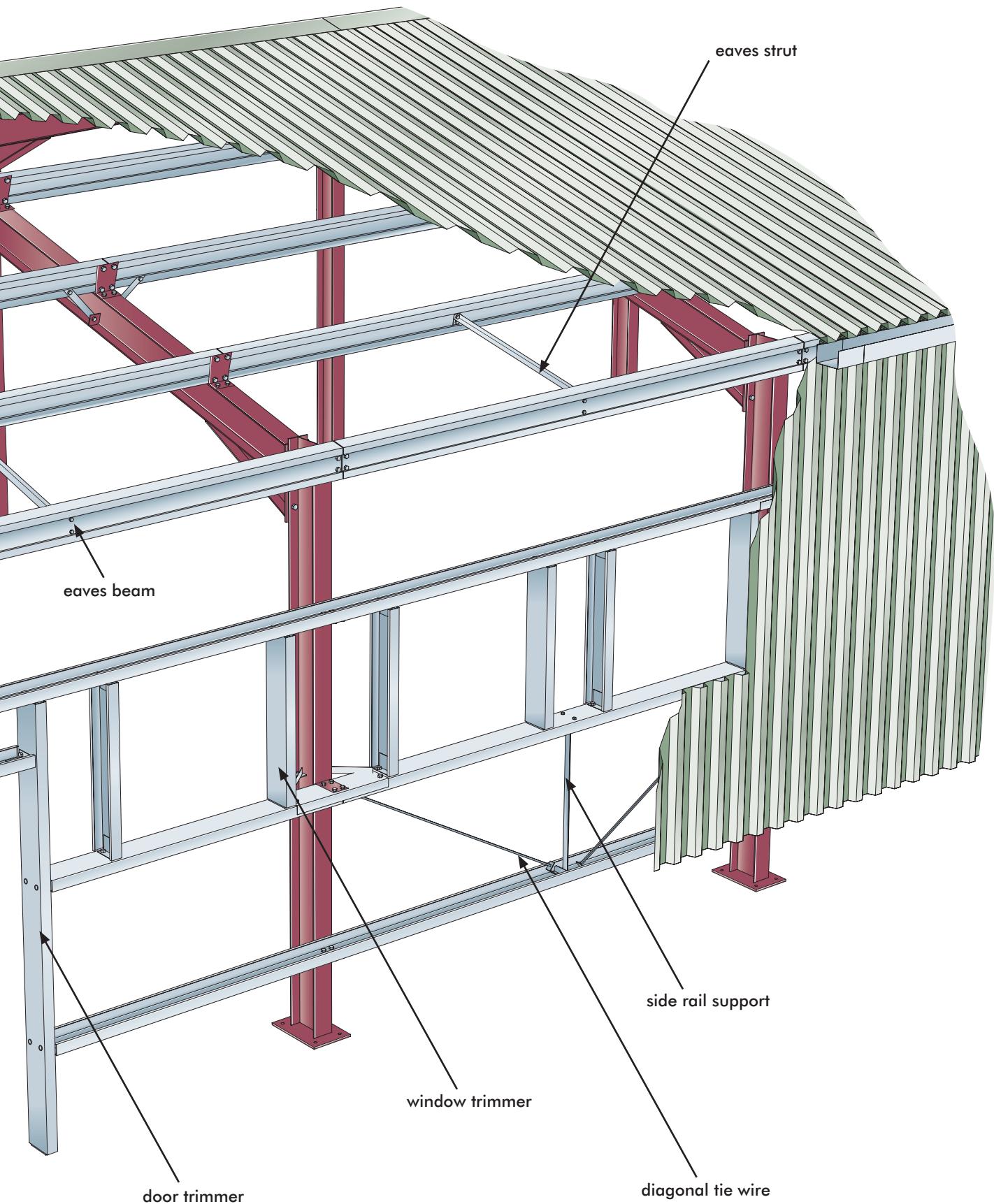
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## Product Range





## Design Specification

The sigma purlin system has been developed in conjunction with Birmingham University and under the supervision of Dr Jian Yang.

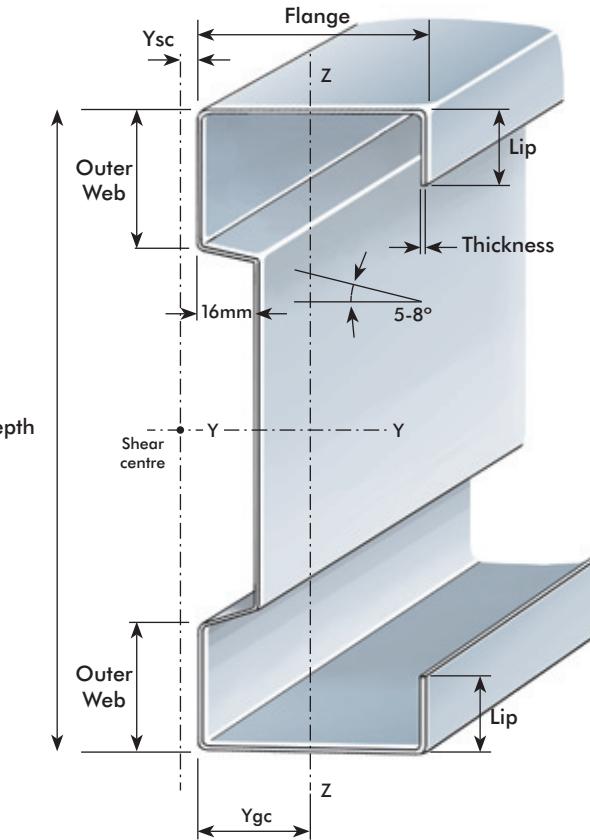
The system is designed primarily for use, on roofs, as secondary sheeting support. Bay widths up to 15m and maximum roof slope of 25 degrees.

Sigma sections are manufactured by cold roll forming pre-hot dipped galvanised steel, grade S450, having a minimum yield stress of 450N/mm<sup>2</sup>

Section properties have been calculated in accordance with Eurocode 3, BS EN 1993-1-3:2006. Calculation of ultimate loads and working deflections are based on the results of full scale testing and finite element analysis.

The top flange of the purlin must have adequate restraint provided by robust steel sheeting (or similar) fixed directly to the top flange.

The steel has an external galvanised coating Z275, giving an approximate coating thickness of 20 microns each side.



### Section Properties

Section	Weight kg/m	Depth mm	Flange mm	Lip mm	Outer Web mm	Thickness mm	Area cm <sup>2</sup>	Iy cm <sup>4</sup>	Wy cm <sup>3</sup>	Iz cm <sup>4</sup>	Wz cm <sup>3</sup>	Ygc cm	Weff,y,c cm <sup>3</sup>	Iw cm <sup>6</sup>	It cm <sup>4</sup>	Ysc cm
ASB20012	3.69	200	62.5	20	45	1.2	4.71	273.41	27.34	19.24	4.62	2.08	20.84	2120.03	0.0226	0.71
ASB20013	4.00	200	62.5	20	45	1.3	5.09	295.55	29.55	20.73	4.97	2.08	23.80	2282.48	0.0287	0.70
ASB20014	4.30	200	62.5	20	45	1.4	5.48	317.58	31.76	22.20	5.32	2.08	26.62	2442.81	0.0358	0.69
ASB20015	4.60	200	62.5	20	45	1.5	5.87	339.52	33.95	23.66	5.66	2.07	29.38	2601.04	0.0440	0.68
ASB20016	4.91	200	62.5	20	45	1.6	6.25	361.36	36.14	25.09	6.00	2.07	32.13	2757.18	0.0533	0.68
ASB20018	5.51	200	62.5	20	45	1.8	7.02	404.75	40.47	27.92	6.67	2.06	37.44	3063.24	0.0758	0.66
ASB20020	6.11	200	62.5	20	45	2.0	7.78	447.74	44.77	30.68	7.32	2.06	42.81	3361.12	0.1037	0.64
ASB20023	7.00	200	62.5	20	45	2.3	8.92	511.51	51.15	34.69	8.26	2.05	50.26	3792.85	0.1573	0.61
ASB20025	7.59	200	62.5	20	45	2.5	9.68	553.53	55.35	37.29	8.86	2.04	54.78	4070.76	0.2016	0.60
ASB22512	3.93	225	62.5	20	45	1.2	5.01	362.90	32.26	19.31	4.60	2.05	24.27	2701.66	0.0240	0.46
ASB22513	4.25	225	62.5	20	45	1.3	5.42	392.34	34.87	20.80	4.95	2.05	27.79	2908.85	0.0305	0.45
ASB22514	4.58	225	62.5	20	45	1.4	5.83	421.66	37.48	22.28	5.30	2.05	31.07	3113.37	0.0381	0.44
ASB22515	4.90	225	62.5	20	45	1.5	6.24	450.86	40.08	23.74	5.65	2.05	34.46	3315.23	0.0468	0.43
ASB22516	5.22	225	62.5	20	45	1.6	6.65	479.93	42.66	25.18	5.98	2.04	37.95	3514.45	0.0567	0.43
ASB22518	5.86	225	62.5	20	45	1.8	7.47	537.72	47.80	28.01	6.65	2.04	44.37	3905.03	0.0806	0.41
ASB22520	6.50	225	62.5	20	45	2.0	8.28	595.03	52.89	30.78	7.29	2.03	50.67	4285.27	0.1104	0.39
ASB22523	7.45	225	62.5	20	45	2.3	9.49	680.08	60.45	34.80	8.23	2.02	59.43	4836.52	0.1674	0.37
ASB22525	8.09	225	62.5	20	45	2.5	10.3	736.18	65.44	37.40	8.83	2.02	64.78	5191.49	0.2146	0.35
ASB24015	5.08	240	62.5	20	50	1.5	6.46	523.43	43.62	24.36	5.72	1.99	37.46	3850.65	0.0485	0.43
ASB24016	5.41	240	62.5	20	50	1.6	6.89	557.22	46.43	25.84	6.07	1.99	41.22	4082.66	0.0588	0.42
ASB24018	6.07	240	62.5	20	50	1.8	7.74	624.39	52.03	28.75	6.74	1.98	48.29	4537.76	0.0836	0.41
ASB24020	6.74	240	62.5	20	50	2.0	8.58	691.01	57.58	31.60	7.40	1.98	55.11	4981.12	0.1144	0.39
ASB24023	7.72	240	62.5	20	50	2.3	9.84	789.93	65.83	35.74	8.35	1.97	64.60	5624.48	0.1735	0.37
ASB24025	8.38	240	62.5	20	50	2.5	10.68	855.20	71.27	38.41	8.96	1.96	70.42	6039.15	0.2224	0.35
ASB24028	9.36	240	62.5	20	50	2.8	11.92	952.10	79.34	42.31	9.85	1.96	79.09	6640.20	0.3116	0.33
ASB26515	5.37	265	62.5	20	60	1.5	6.84	658.41	49.69	25.51	5.87	1.90	41.62	4864.93	0.0513	0.45
ASB26516	5.72	265	62.5	20	60	1.6	7.29	700.98	52.90	27.06	6.22	1.90	46.38	5159.25	0.0622	0.45
ASB26518	6.43	265	62.5	20	60	1.8	8.19	785.61	59.29	30.12	6.91	1.89	54.98	5737.06	0.0884	0.43
ASB26520	7.13	265	62.5	20	60	2.0	9.08	869.59	65.63	33.10	7.59	1.89	62.68	6300.58	0.1211	0.42
ASB26523	8.18	265	62.5	20	60	2.3	10.41	994.34	75.04	37.45	8.57	1.88	73.39	7119.45	0.1836	0.39
ASB26525	8.87	265	62.5	20	60	2.5	11.3	1076.69	81.26	40.27	9.20	1.87	80.02	7648.03	0.2354	0.38
ASB26528	9.91	265	62.5	20	60	2.8	12.62	1198.99	90.49	44.37	10.12	1.86	89.89	8415.33	0.3299	0.36
ASB30018	7.27	300	75	20	60	1.8	9.27	1165.30	77.69	48.00	9.05	2.20	65.70	11222.76	0.1001	0.73
ASB30020	8.07	300	75	20	60	2.0	10.28	1290.47	86.03	52.83	9.95	2.19	76.15	12342.28	0.1371	0.71
ASB30023	9.26	300	75	20	60	2.3	11.79	1476.62	98.44	59.89	11.27	2.18	91.95	13975.76	0.2080	0.69
ASB30025	10.05	300	75	20	60	2.5	12.8	1599.67	106.64	64.48	12.12	2.18	101.73	15034.61	0.2667	0.67
ASB30028	11.23	300	75	20	60	2.8	14.3	1782.64	118.84	71.19	13.35	2.17	115.14	16578.37	0.3738	0.65
ASB30030	12.01	300	75	20	60	3.0	15.3	1903.57	126.90	75.55	14.16	2.16	123.69	17578.24	0.4590	0.64

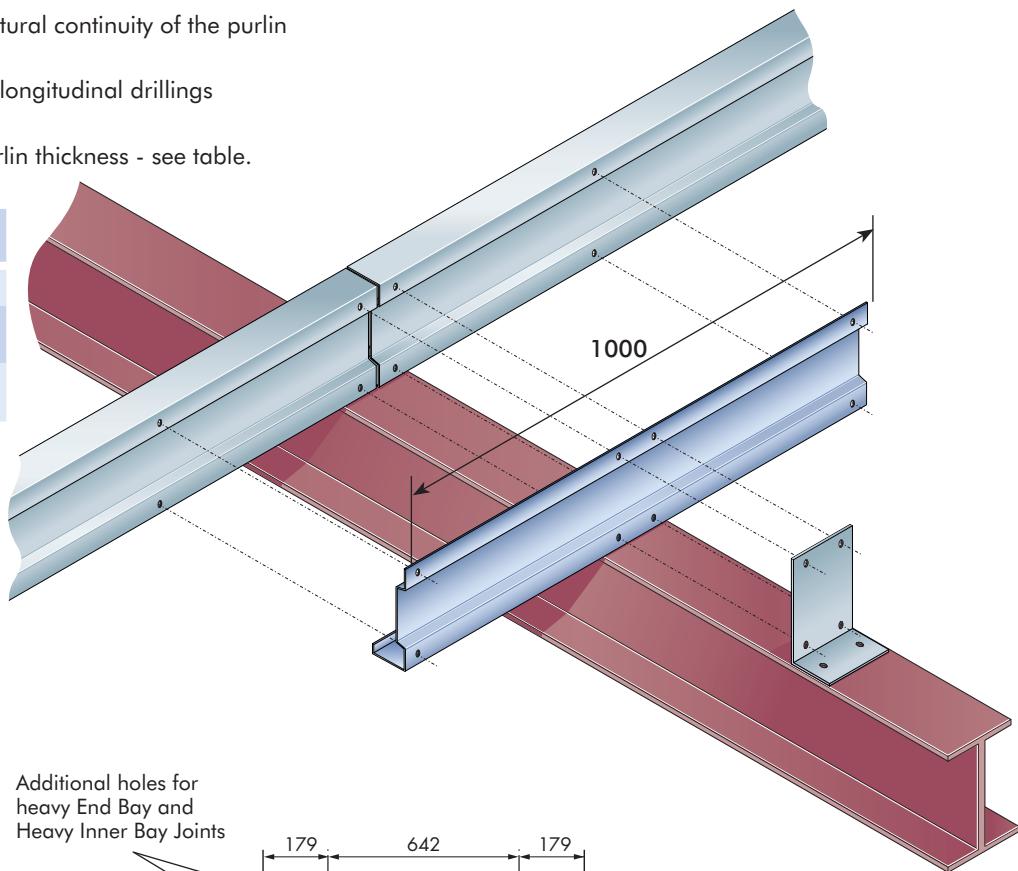
## Sleeve Assembly and Cleat Details

Sleeves are required to provide structural continuity of the purlin section across the supporting rafter.

All sleeves are of similar length and longitudinal drillings consistent.

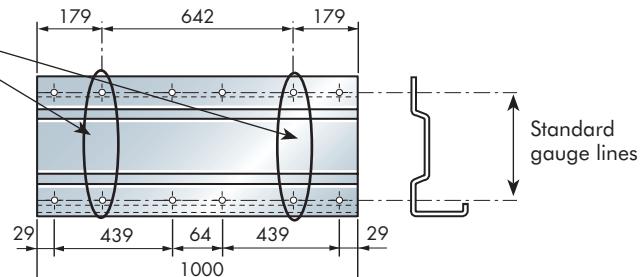
Sleeve thickness is dependent on purlin thickness - see table.

Purlin Thickness	Sleeve Thickness
Up to 1.8mm	2.0mm
Over 1.8mm - 2.3mm	2.5mm
Over 2.3mm - 3.0mm	3.0mm

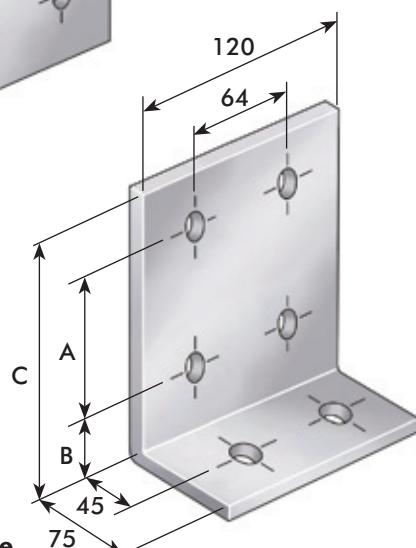
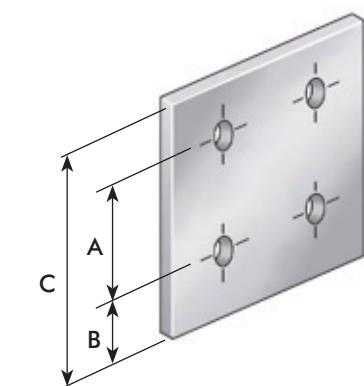


### Albion Tip

Additional holes for heavy End Bay and Heavy Inner Bay Joints



## Purlin Cleat Details



## Standard Sleeve Dimensions

Purlin Series	A	B	C	Thickness	Hole dia
<b>All 200</b>	154	35	209	6	14
<b>22512-22516</b>	179	35	234	6	14
<b>22518-22525</b>	179	35	234	8	14
<b>24015-24018</b>	190	37	247	8	14
<b>24020-24028</b>	190	37	247	10	14
<b>All 265</b>	205	42	272	10	18
<b>All 300</b>	240	42	307	10	18

Material: Mild Steel  
Finish: Natural

Note: Where Albion standard cleats are not provided, take care to ensure that sufficient clearance is provided from the underside of the purlin to the top of the rafter for the installation of the sleeve.

## Sigma Standard Drillings

Standard drillings are shown below for the sigma purlin range.

14mm diameter sleeve and cleat connection holes, to suit M12 bolts, are used for the 200, 225 and 240 series sigma, whilst 18mm diameter, for M16 bolts, are used for the 265 and 300 deep sigmas.

All connecting bolts to be grade 8.8.

Speed fix holes, where required, are 14mm wide \* 20mm rectangular.

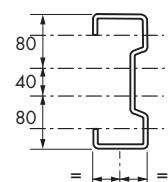
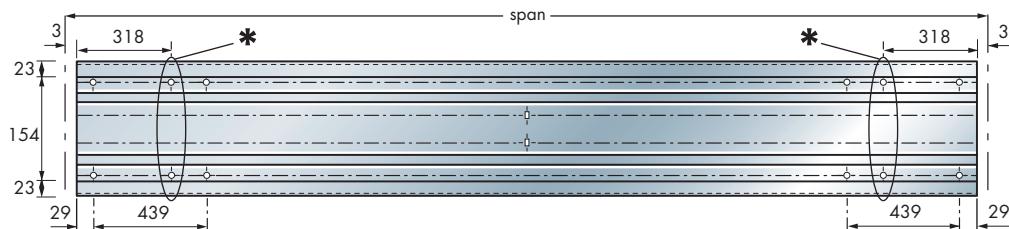
Holes to suit intermediate span angle struts are 14mm diameter for M12 grade 4.6 bolts.

14mm diameter flange holes provided if required.

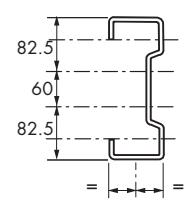
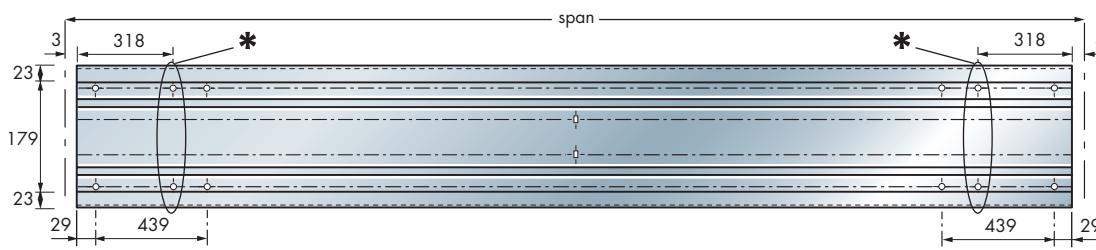
Maximum section length 16m.

\* Additional holes for Heavy End bay  
and Inner Bay joints

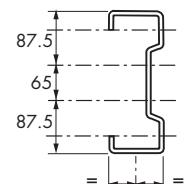
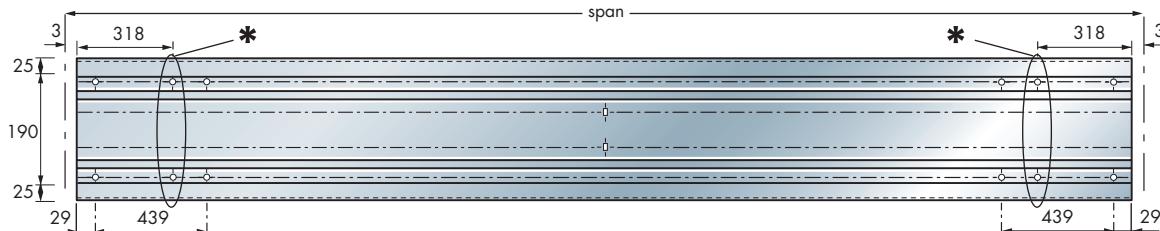
### 200 series



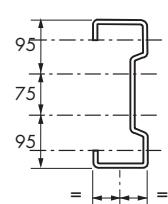
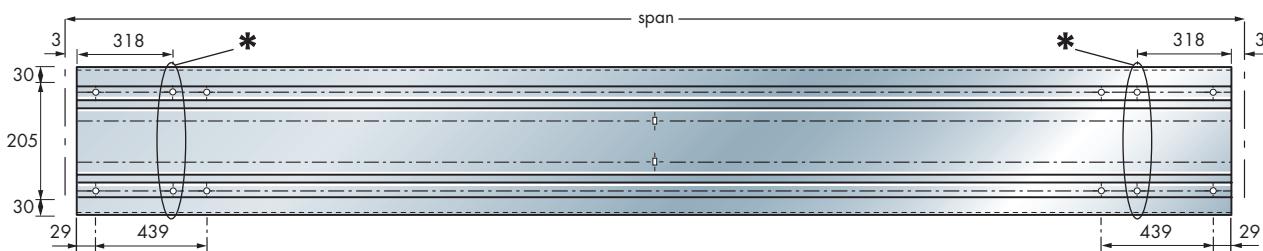
### 225 series



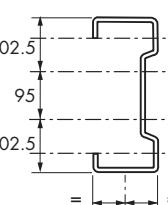
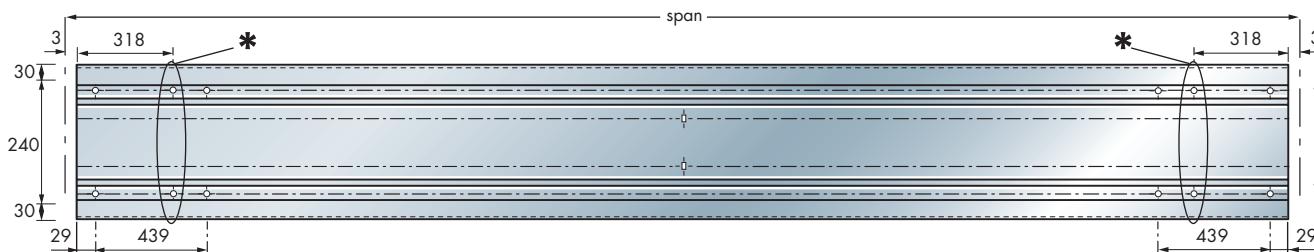
### 240 series



### 265 series



### 300 series



## Sigma Purlin Systems and Joining Layouts

The sigma purlin shape provides an efficient, robust profile that suits both short and long span conditions.

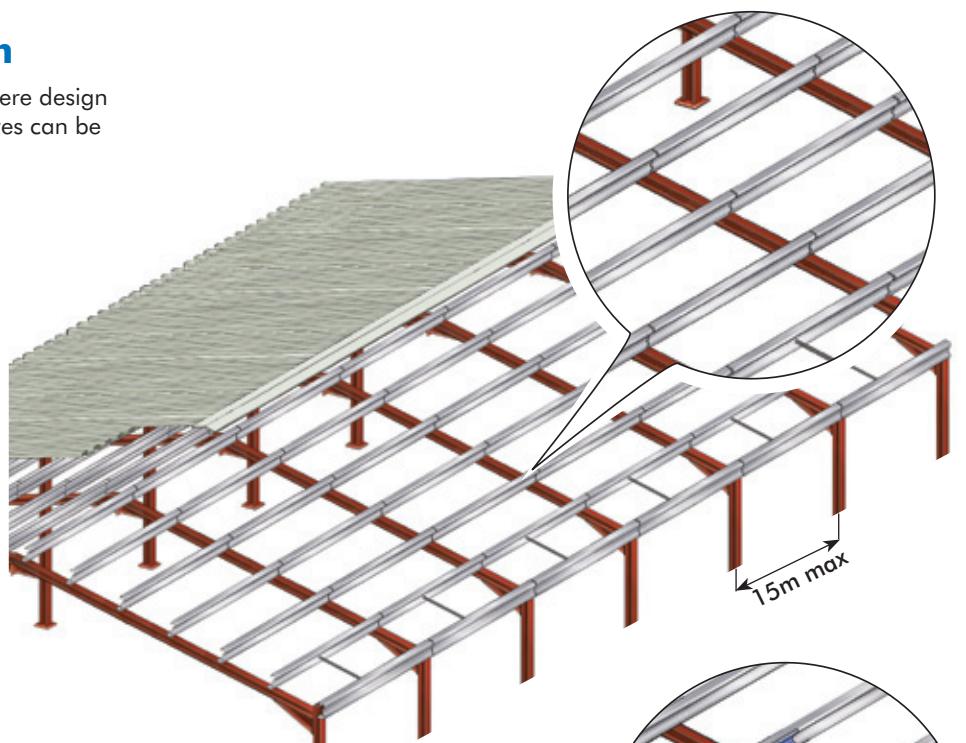
In most cases of popular building type sag rods are not required (subject to wind uplift conditions), see table on page 9.

Sleeves are required to provide continuity to the purlin section across the supporting rafters. The most popular system, double spanning, has been specifically developed to minimise the number of sleeves, thus reducing the number of components and resulting in savings in installation time and component cost.

The sleeve details have also been considered in terms of simplicity and duplication. All sleeves are the same length with identical longitudinal dimensions, uniformity reducing the chance of errors.

### Single Span Butt System

The simplest of the purlin systems. Use where design conditions dictate that no connecting sleeves can be used, i.e. purlin within depth of rafter.



### Double Span Butt System

#### Use with 200, 225, and 240 Series

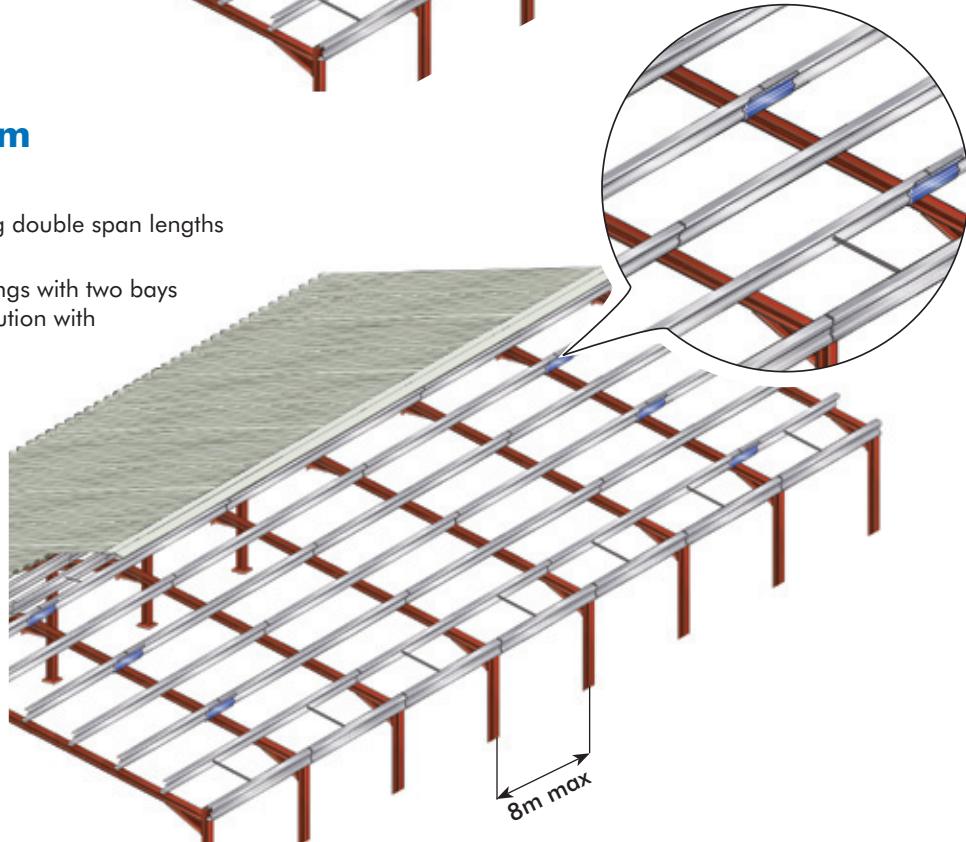
The most popular purlin system combining double span lengths with a minimum of jointing sleeves.

The sleeved system can be used for buildings with two bays or more and combines a cost effective solution with ease of detailing.

Bay widths are limited to 8m  
(Maximum purlin lengths 16m)

Albion recommend the use of this system to minimise material content and the number of system components.

**Albion Tip**



## Sigma Purlin Systems and Joining Layouts

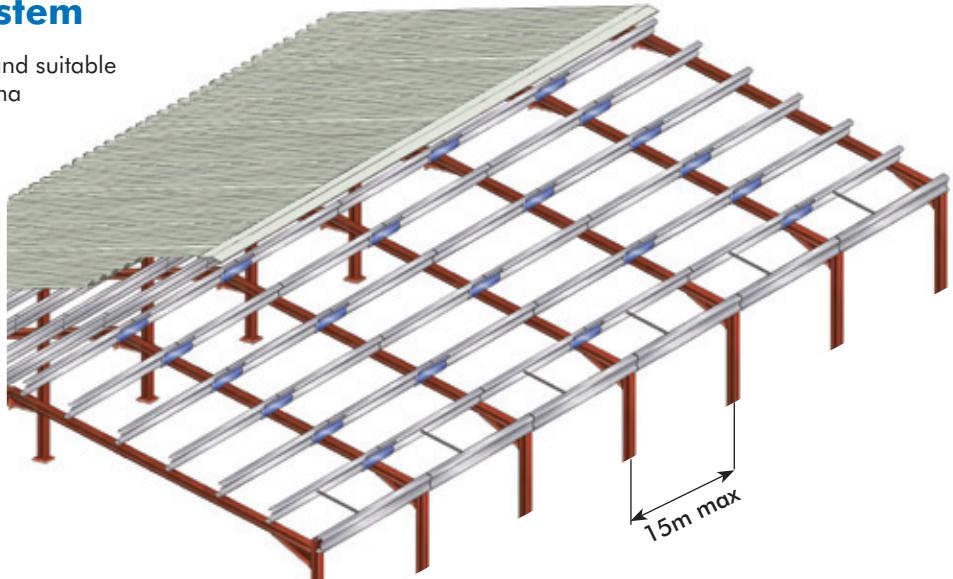
### Single Span Sleeved System

An alternative to the double span system and suitable for all bay sizes. May be used with all Sigma Sections.

Where purlins are required to be single spanning, but still maintaining continuity over the rafters, the single span sleeved system can be employed.

With additional sleeves, as shown, the ultimate capacities of the double span sleeve system can be realised.

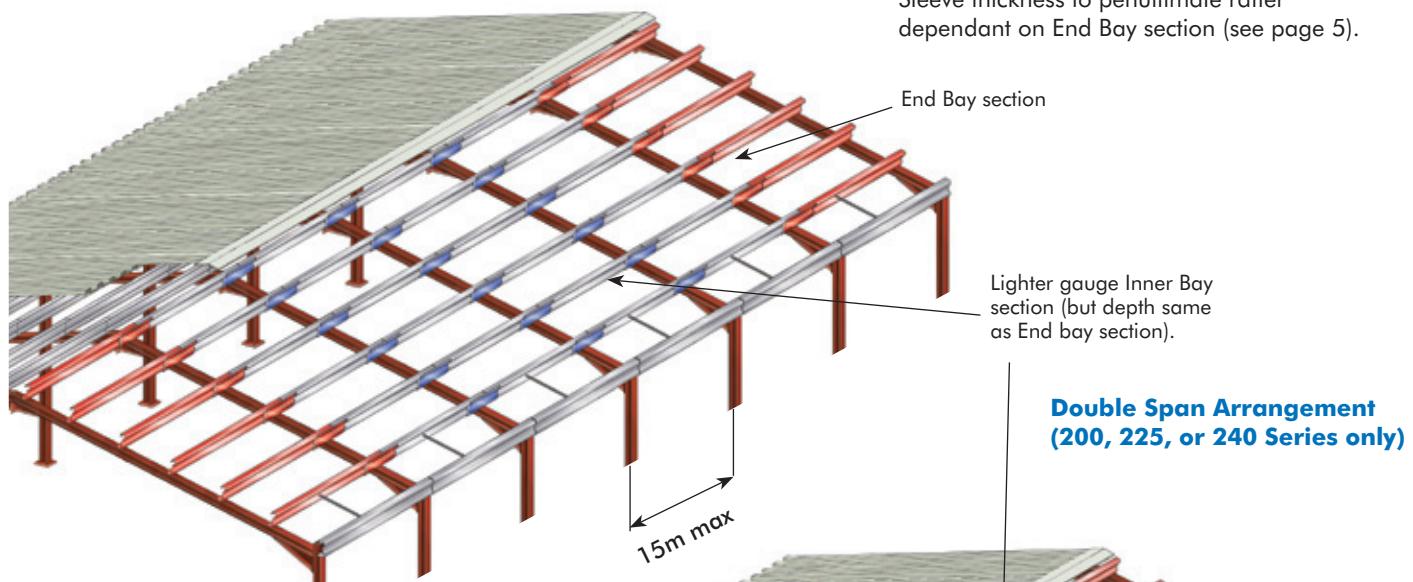
Use also where access may be limited, i.e. purlin lifted in from below.



### Heavy End Bay System

**Suitable on buildings of 5 bays or more**

**Single span arrangement (All Sigma Sections)**

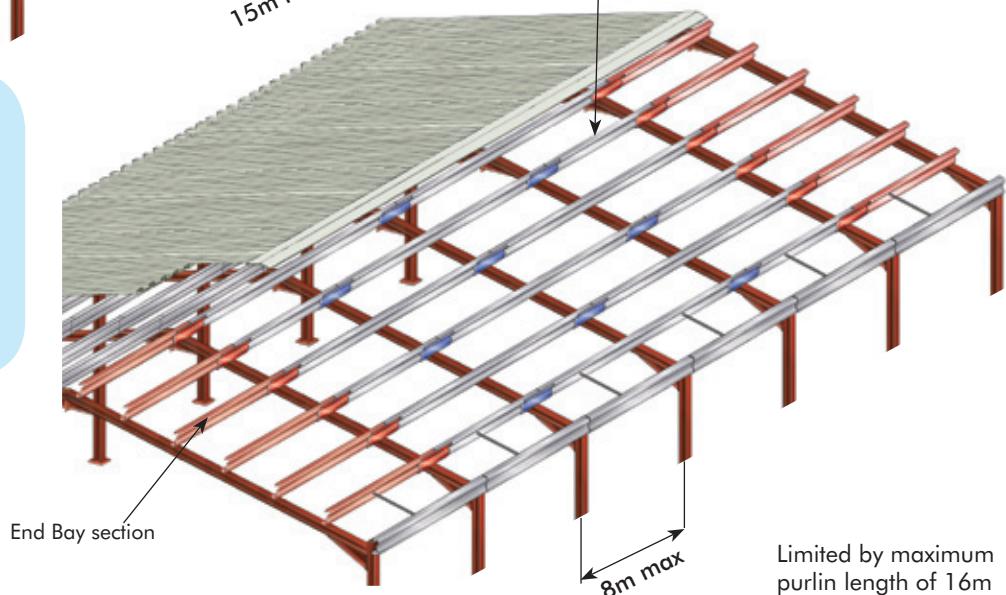


The heavy end bay system offers the economic solution for the larger, multi span type building.

The system utilises the purlin continuity provided by the section or by the connecting sleeves, to reduce the gauge of the inner bay purlins.

#### Albion Tip

Sleeve thickness to penultimate rafter dependant on End Bay section (see page 5).



## Sigma Purlin - Anti-Sag Requirements

Albion Sigma purlins have been specifically developed to minimise components, including mid span restraint requirements. The purlin sections have been analysed, by Birmingham University, using Finite Element Analysis and the minimum construction loads as dictated by BS EN 1991-1-6:2005.

The table below outlines the minimum anti-sag requirements for Albion Sigma purlins, for symmetric, duo pitched roofs.

It can be seen that, for the most popular spans and roof pitches, no mid span restraint is required (subject to wind uplift considerations).

Section Ref.	Roof Slope	Purlin Span						
		3.0m-5.0m	5.1m-6.0m	6.1m-7.0m	7.1m-8.0m	8.1m-9.0m	9.1m-10.0m	10.1m-15.0m
<b>200</b>	>3-10	NONE	NONE	NONE	1 SPEED FIX	2 SPEED FIX	N/A	
	>10-15	NONE	NONE	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	N/A	
	>15-18	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	N/A	
	>18-25	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	N/A	
<b>225</b>	>3-10	NONE	NONE	NONE	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>10-15	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>15-18	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>18-25	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
<b>240</b>	>3-10	NONE	NONE	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>10-15	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>15-18	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>18-25	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
<b>265</b>	>3-10	N/A	NONE	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>10-15	N/A	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>15-18	N/A	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
	>18-25	N/A	1 SPEED FIX	1 SPEED FIX	1 SPEED FIX	2 SPEED FIX	2 STRUTS	
<b>300</b>	>3-10	N/A	N/A	1 STRUT	1 STRUT	2 STRUTS	2 STRUTS	
	>10-15	N/A	N/A	1 STRUT	1 STRUT	2 STRUTS	2 STRUTS	
	>15-18	N/A	N/A	1 STRUT	1 STRUT	2 STRUTS	2 STRUTS	
	>18-25	N/A	N/A	1 STRUT	1 STRUT	2 STRUTS	2 STRUTS	

Consult Albion Technical

### Notes to Anti-Sag requirements.

The above table is based on restraining cladding (direct fix steel systems) to the top flange of the purlin.

When no intermediate restraint is provided then temporary propping of the purlin may be required during the cladding operation.

As well as providing stability during the cladding operation, anti-sag bars and struts also provide lateral restraint under wind uplift conditions. Uplift capacities are provided in the load tables at the rear of this brochure and should be considered before anti-sag positions are finalised.

This table does not apply to monopitch roofs (see pages 13). Also, note the additional requirements for roof slopes in excess of 20m.

For roof slopes in excess of 25 degrees or for unrestrained purlins or tiled roofs please consult Albion Technical.

Apex ties should always be provided on duopitch roofs.

Where required, restraints are provided at mid span or third span positions.

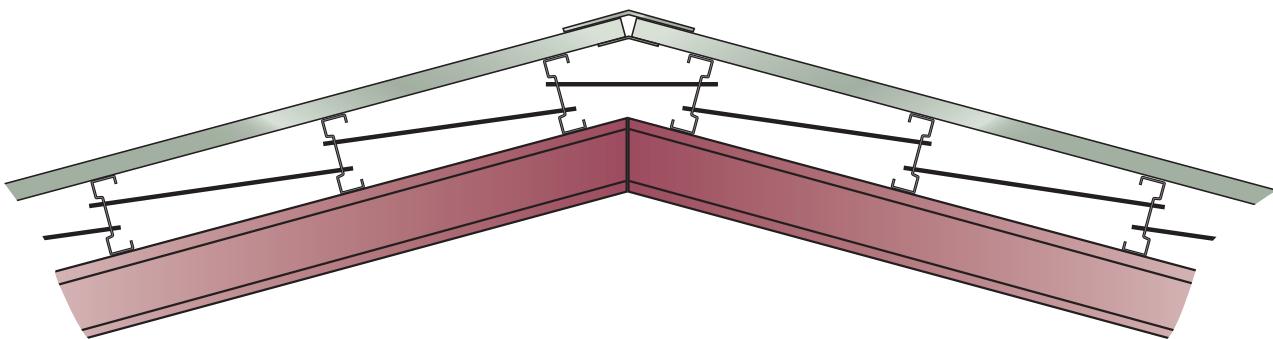
For roof slopes greater than 25° or for tiled roofs consult Albion Technical

## Speed Fix Anti-Sag Bars

Albion speed fix sag bars provide an effective restraint to the purlin both during the cladding operation and under wind uplift (reversal) conditions.

The spring loaded clip fixing system makes installation quick and easy.

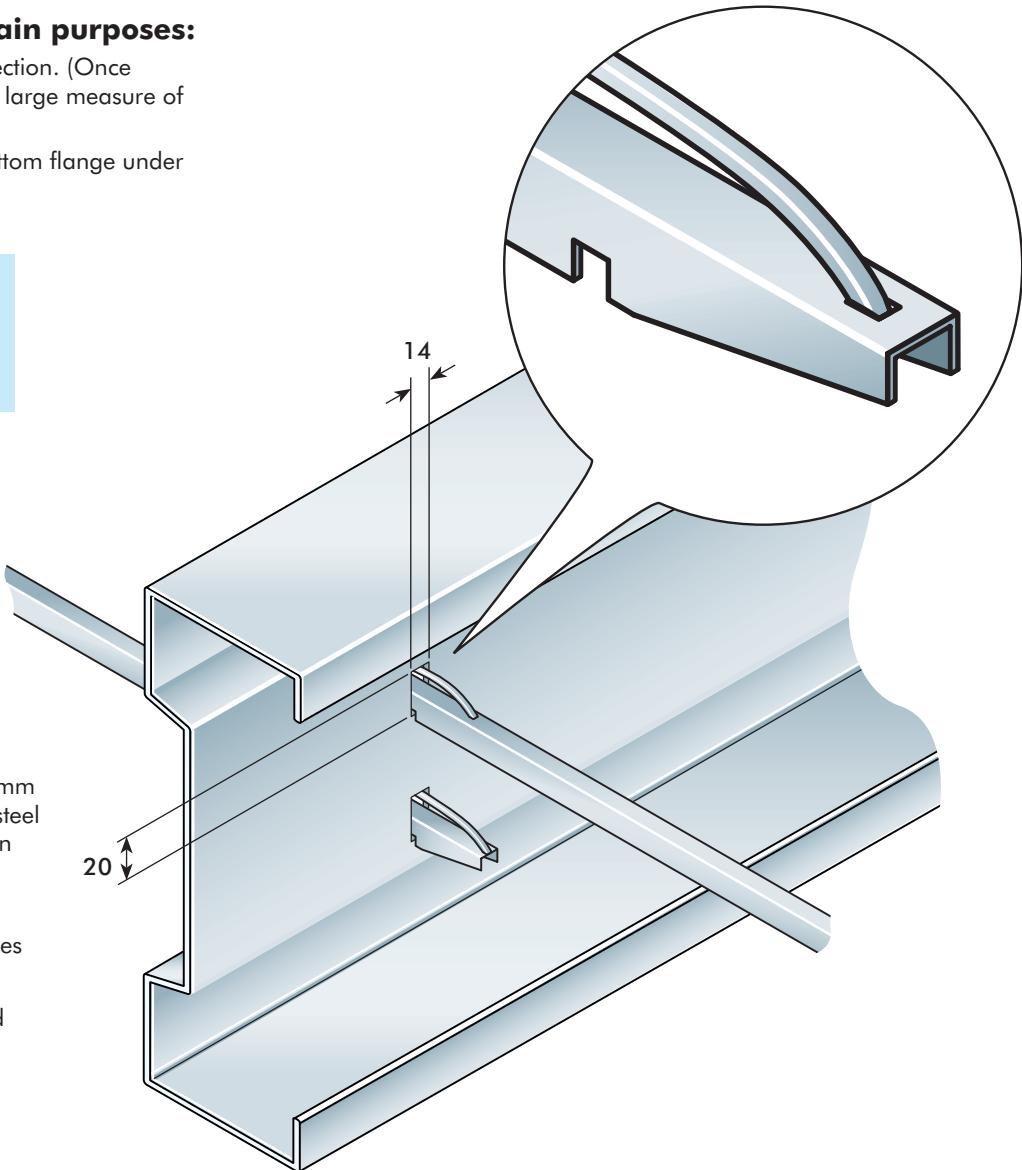
Speed fix should be fixed as shown below



### Anti-Sag bars serve two main purposes:

- To stop the purlin twisting during erection. (Once sheeting is fixed the purlin derives a large measure of stiffness from the roof membrane).
- To provide lateral restraint to the bottom flange under uplift conditions.

Note: These details apply to roof slopes up to and including 25°.  
For roof slopes greater than 25° consult our Technical Department.



Speed Fix are manufactured from 1.6mm thick pre-hot dipped galvanised mild steel and cold formed into a channel section 15mm deep \* 12mm wide.

Each end is notched to locate in the standard pre-punched rectangular holes at mid span or third points.

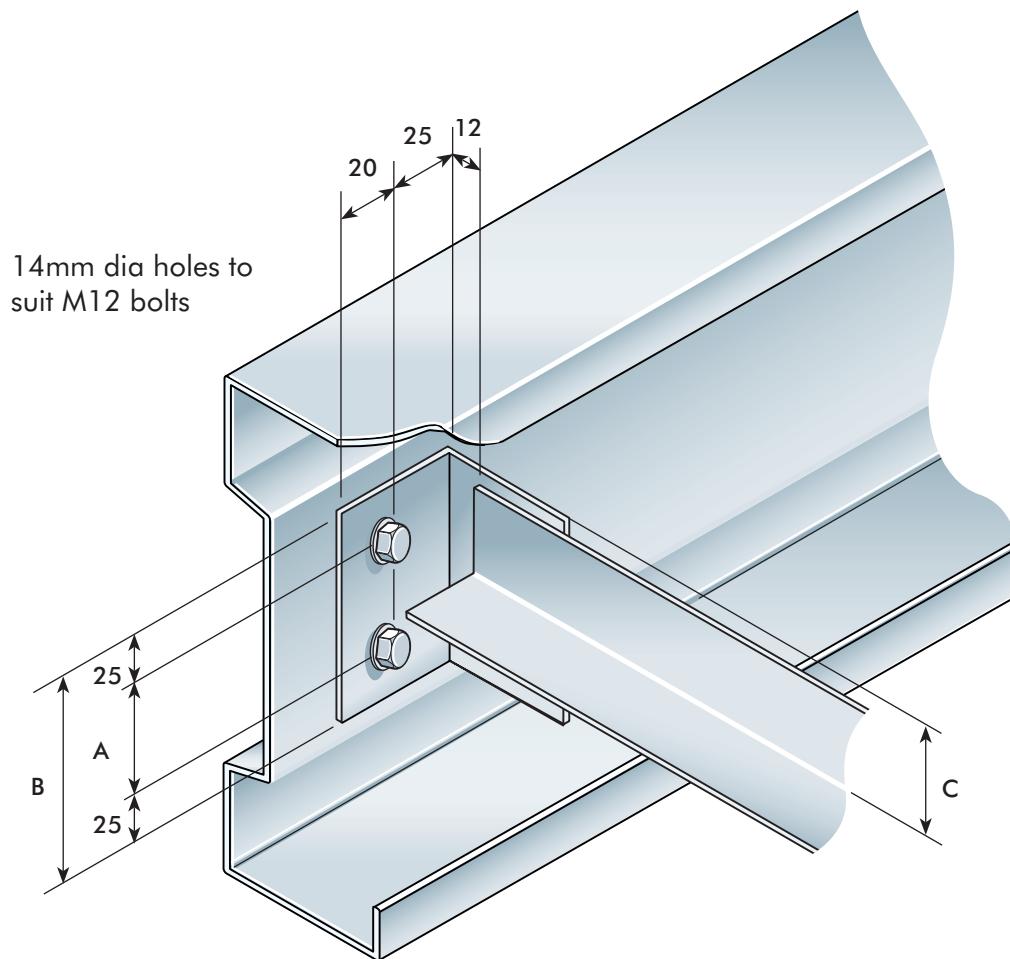
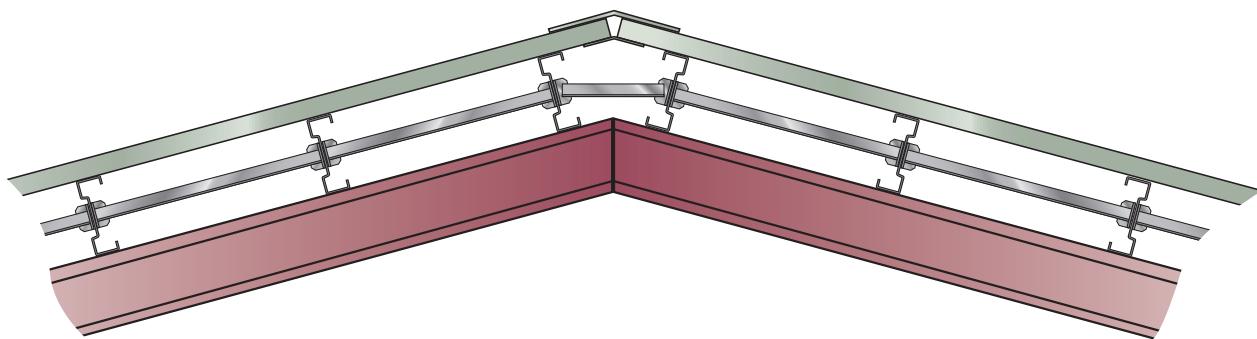
Alternative apex ties are manufactured from 12mm diameter allthread, zinc plated finish.

## Angle Strut Purlin Restraints

For larger spans or deeper sections, angle struts are used to provide stability during the cladding operation and under wind reversal conditions.

Angle struts are manufactured from 45\*45\*2mm pre-hot dipped galvanised angle.

Holes in the struts are all 14mm diameter to suit M12 bolts.

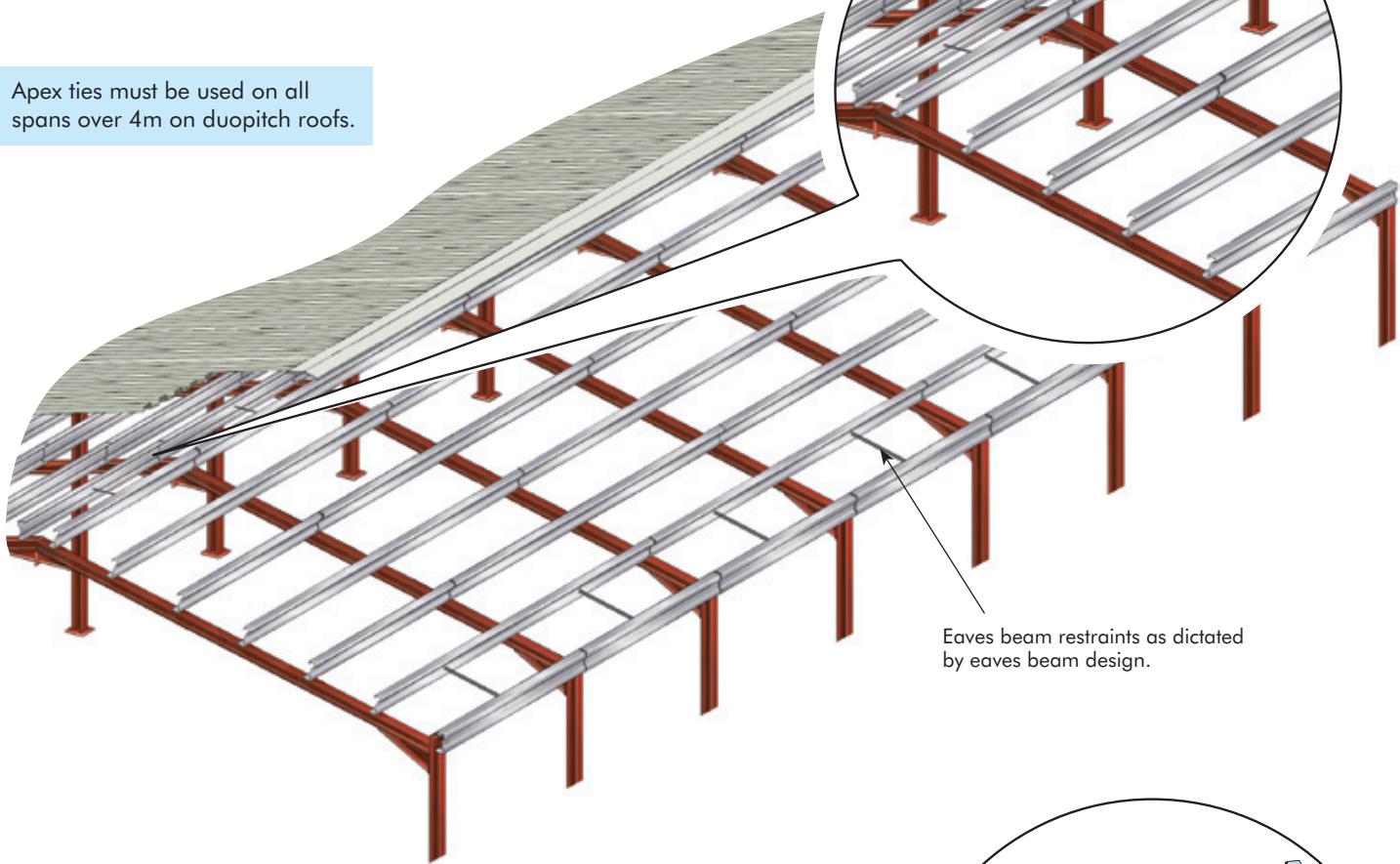


SECTION	A	B	C
<b>AS200</b>	40	90	45
<b>AS225</b>	60	110	55
<b>AS240</b>	65	115	57.5
<b>AS265</b>	75	125	62.5
<b>AS300</b>	95	145	72.5

45 x 45 x 2mm restraint angle manufactured from pre-hot dipped galvanised mild steel.

## Anti-Sag Minimum Requirements

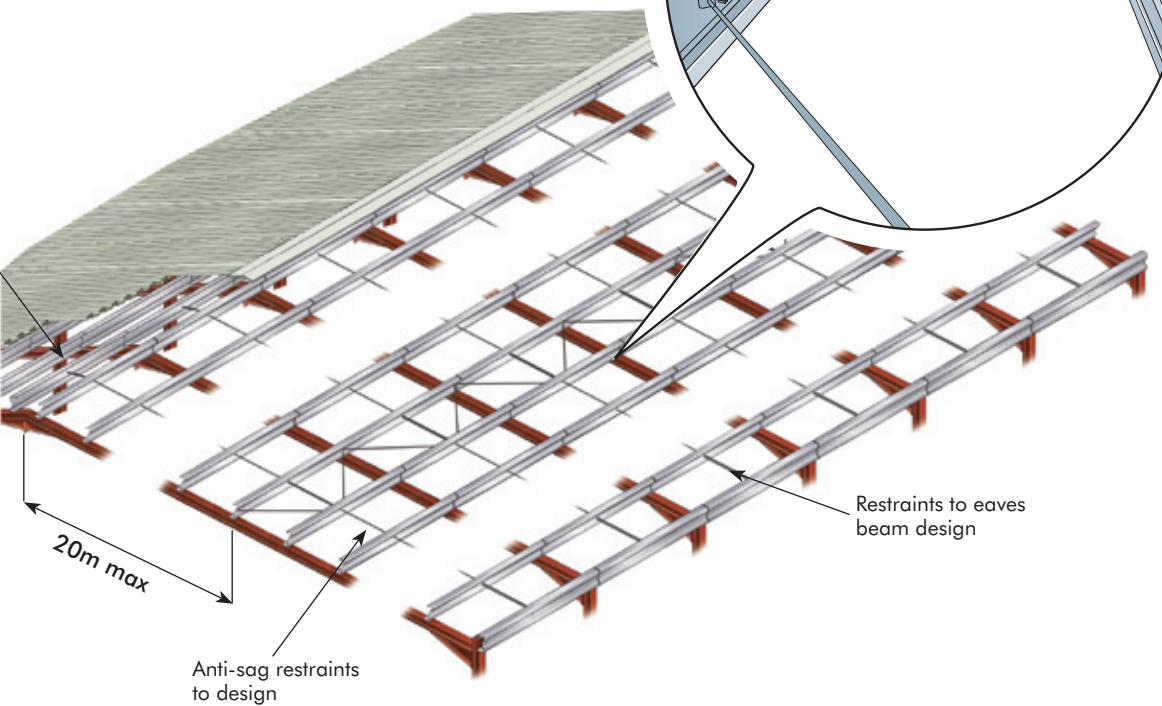
Apex ties must be used on all spans over 4m on duopitch roofs.



## Long Roof Slopes

Where roof slope exceeds 20m, intermediate span restraint is required to resist down slope loadings. This is provided by a strut and tie system as shown.

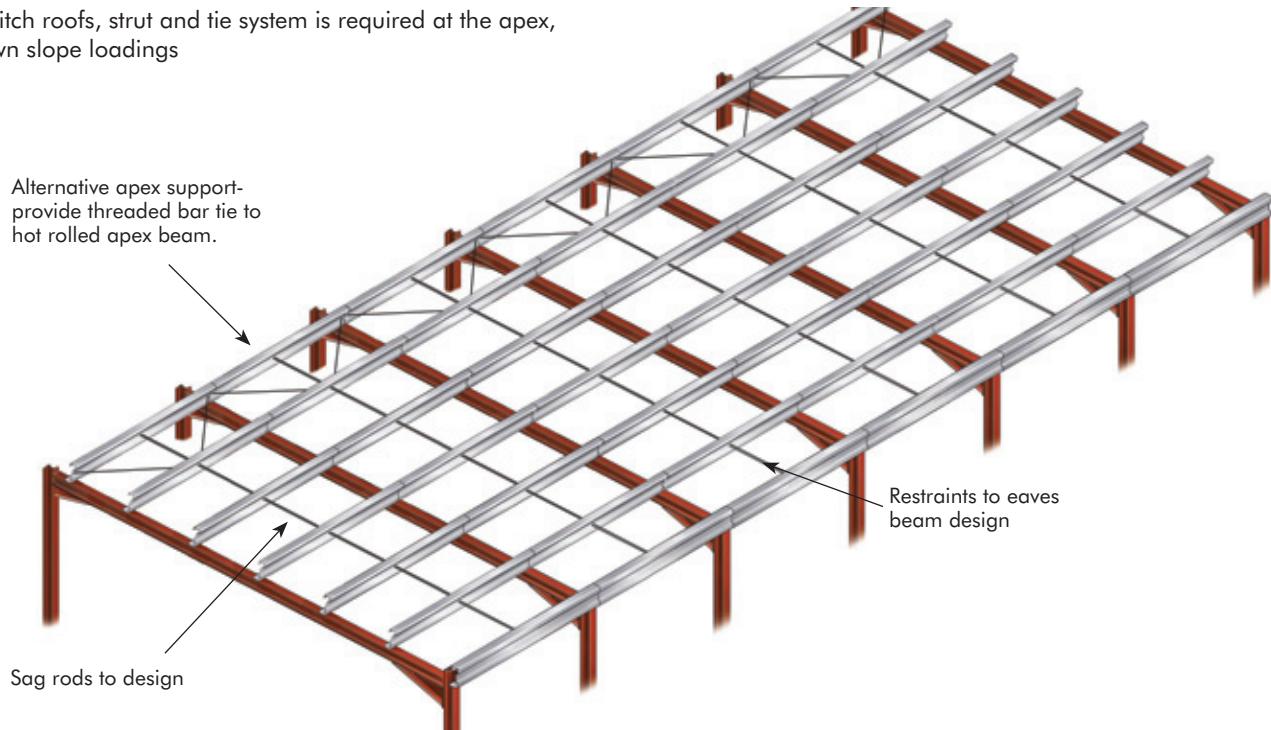
Apex ties all bays



## Anti-Sag Minimum Requirements

### Mono Pitch Roofs

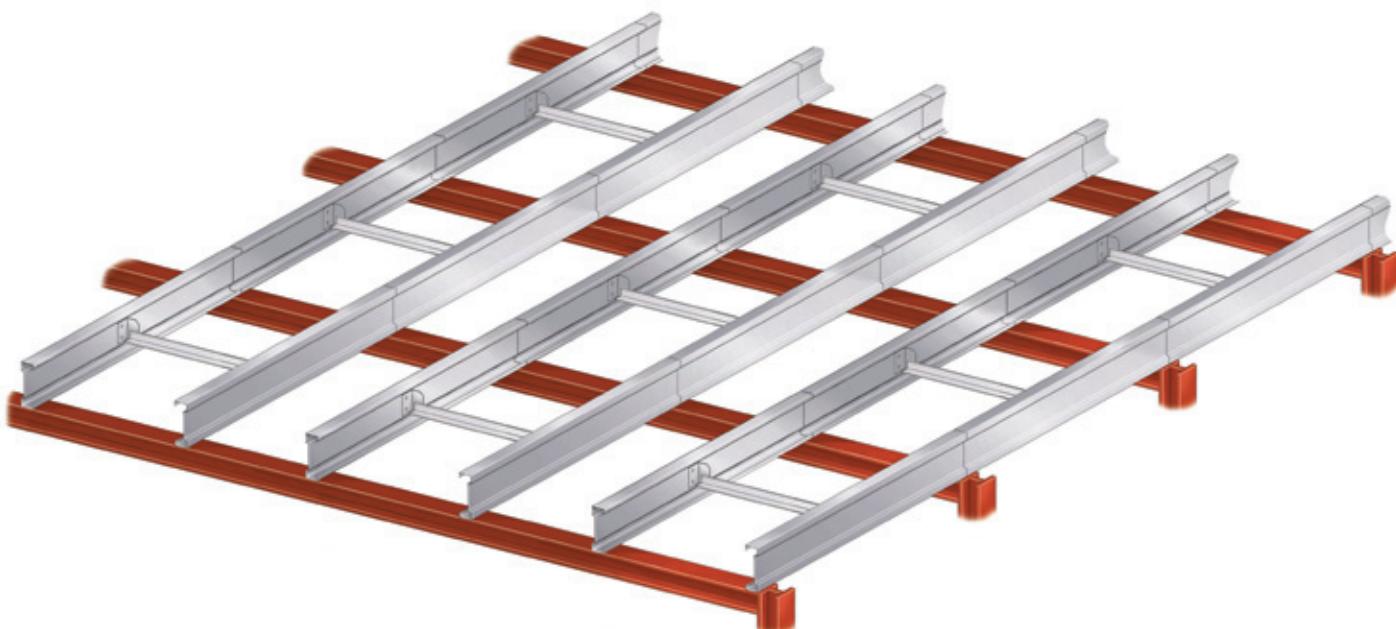
On mono pitch roofs, strut and tie system is required at the apex, to resist down slope loadings



### Flat Roofs (Slope less than 3°)

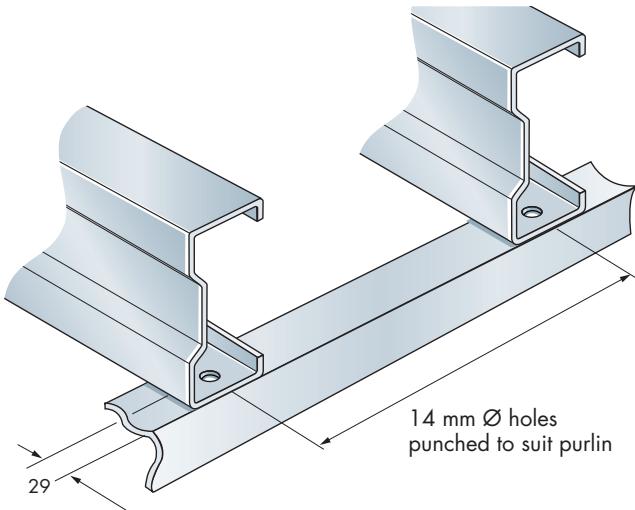
For very low pitch or flat roofs the Sigma purlins are installed in facing pairs, as shown below

Angle struts provided at mid span for spans in excess of 4m and third span positions for span in excess of 7.1m.



## Cleader Angles & Rafter Stays

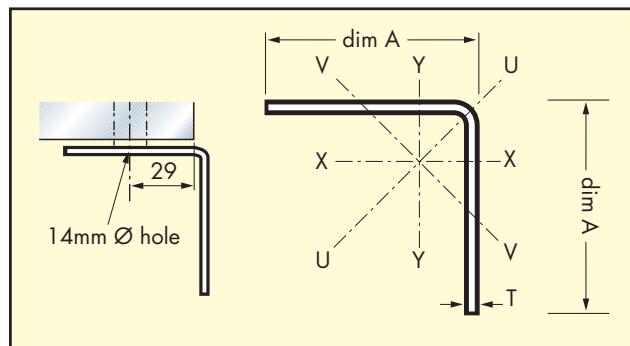
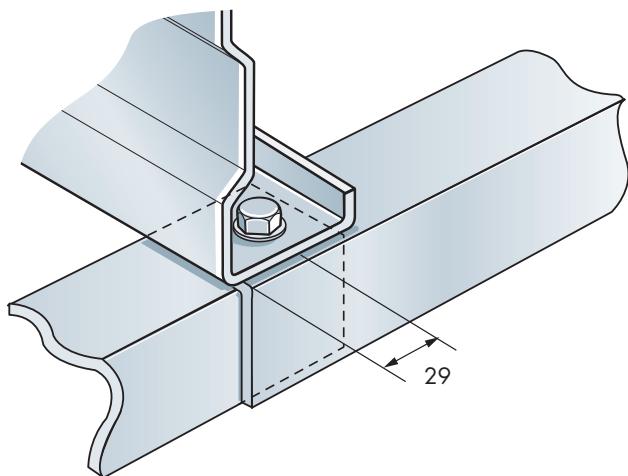
Cleader angles are manufactured from pre-hot dipped galvanized mild steel and cold roll formed into an angle section 45 x 45 x 2.0mm thickness and 75 x 75 x 2.0mm thickness



14mm Ø hole 29mm from end of purlin in bottom flange only.  
Alternatively leave plain and use Tek screw attachments.

### Cleader Joint Detail

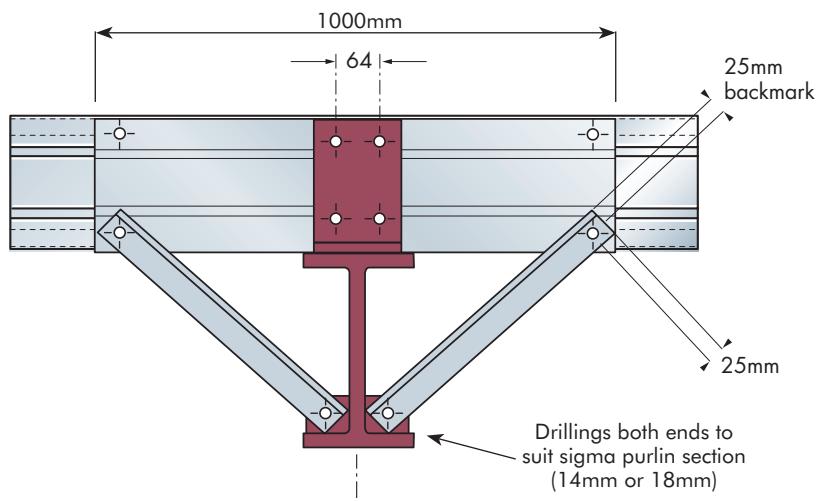
Detail shows typical Albion Sections connections. Other arrangements can be supplied to suit individual requirements.



Section Properties						
dia. A mm	t mm	wt Kg/m	I <sub>xx</sub> /I <sub>yy</sub> cm <sup>4</sup>	I <sub>vv</sub> cm <sup>4</sup>	I <sub>uu</sub> cm <sup>4</sup>	Z <sub>xx</sub> /Z <sub>yy</sub> cm <sup>3</sup>
45	2	1.36	3.52	1.35	5.68	1.07
75	2	2.29	16.80	6.57	27.02	3.04

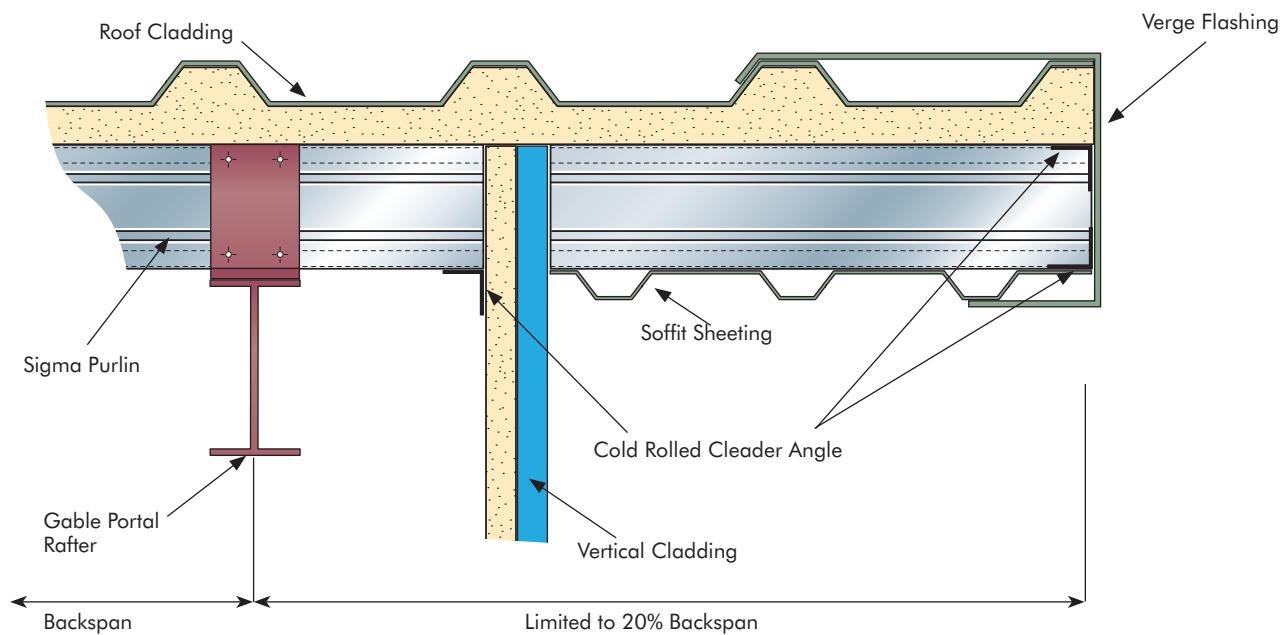
## Rafter Stays/Column Stays

Rafter Stays are manufactured from pre-hot dipped galvanised mild steel and cold roll formed into angle section 45mm x 45mm x 2.0mm thickness.



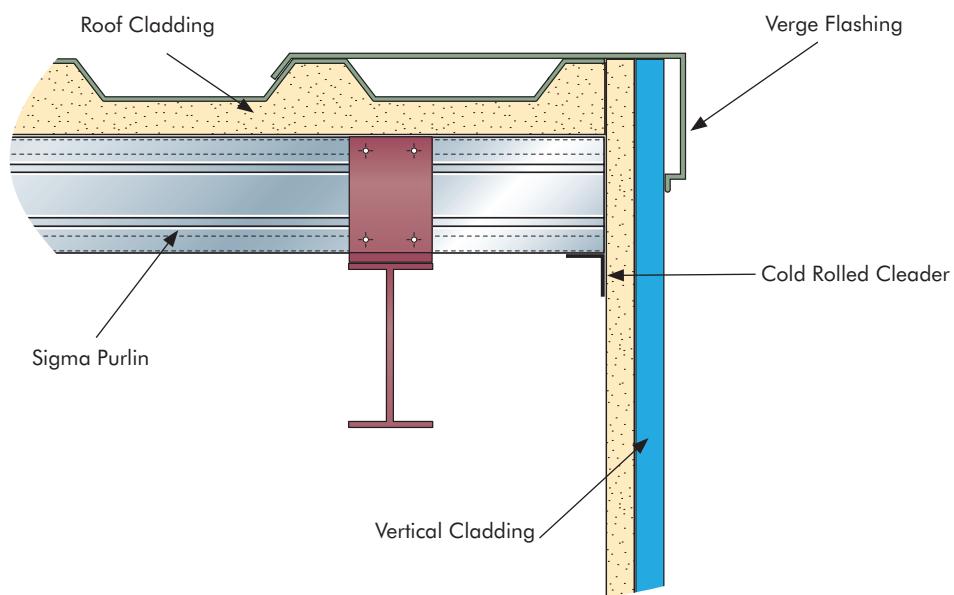
## Typical Details

### Purlin Gable Overhang/Cantilever Detail



For cantilever length in excess of 20% backspan consult Albion Technical

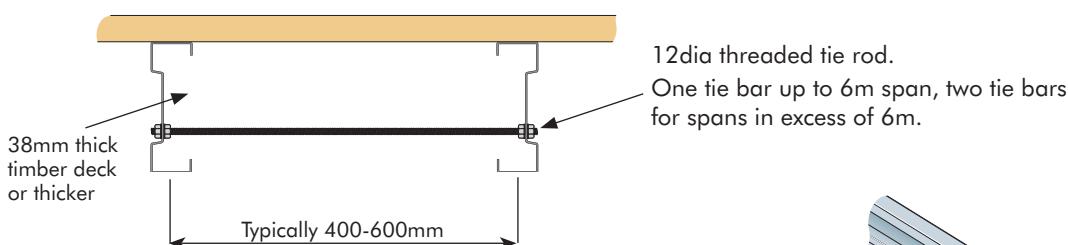
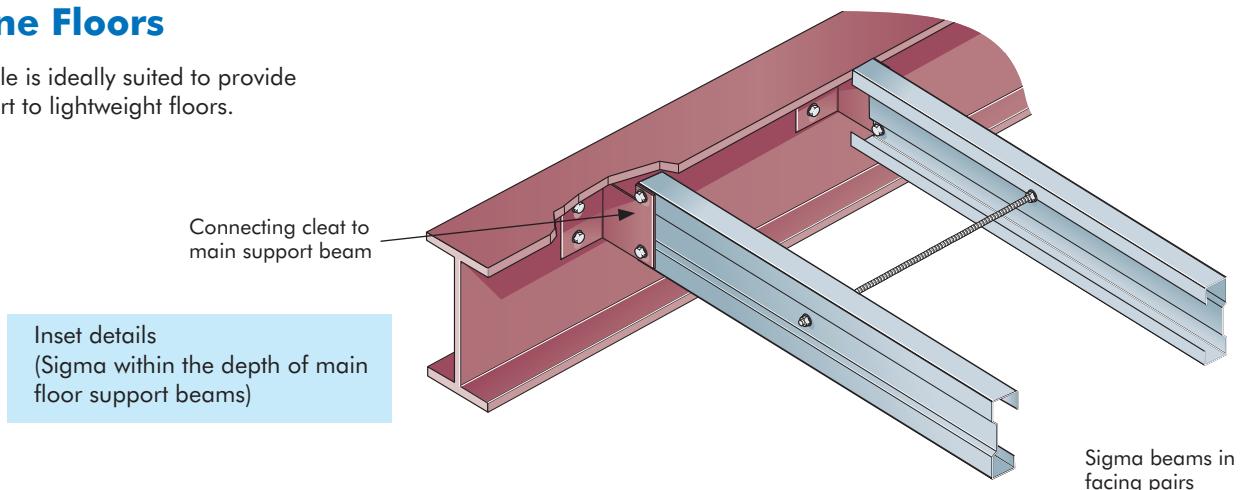
### Gable Verge Detail



## Further applications of Albion Sigma beams

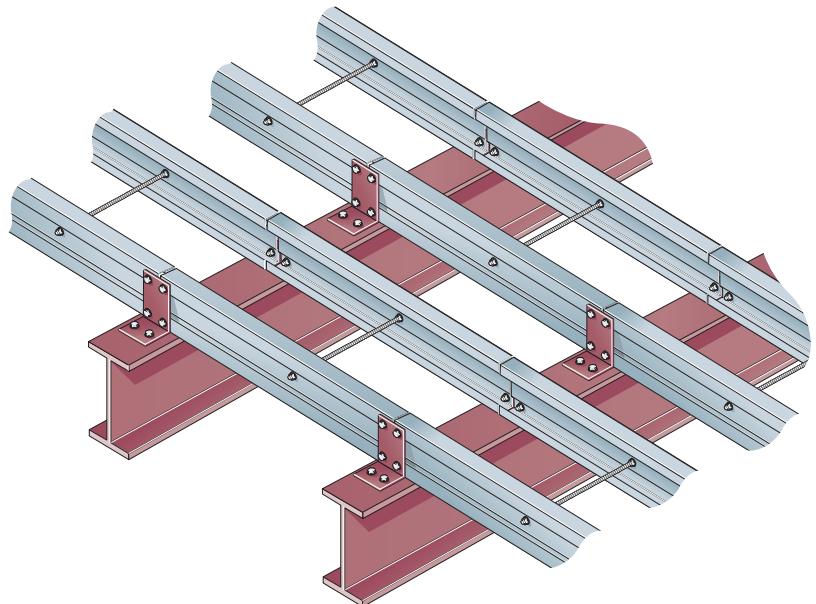
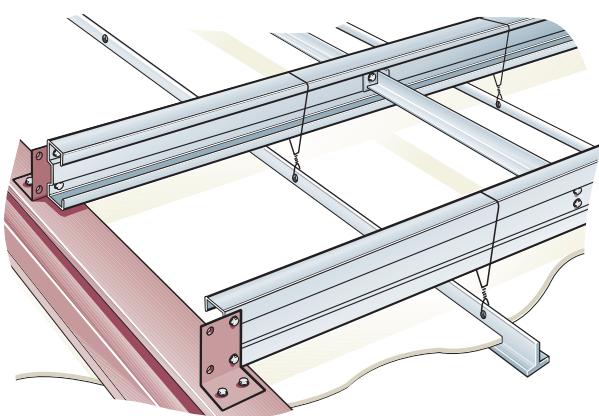
### Mezzanine Floors

The Sigma profile is ideally suited to provide structural support to lightweight floors.

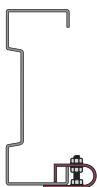


Oversail details  
(Sigma oversail main floor support beams)

Suspended Ceiling Systems



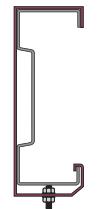
### Service Support purlin clips



Light weight services



Light/Medium weight services



Medium weight services

Diagrams are typical only and application depends on purlin size and clip capacity. Consult Albion Technical for further advice

## Load Tables

### Introduction to load tables

Albion Sections Limited are grateful to Birmingham University for their help and full scale testing in the compilation of these tables.

All calculations in this design manual are in accordance with BS EN 1993-1-3:2006 and are calibrated and proven by Birmingham University.

Spans are indicated by the highlighted figures behind loads.

#### load factors

dead load	<b>1.40</b>
dead load restraining uplift	<b>1.00</b>
dead load + wind + imposed load	<b>1.20</b>
imposed load	<b>1.60</b>
imposed load + wind load	<b>1.20</b>
wind load	<b>1.40</b>
drifting snow	<b>1.05</b>

## Double Span/Single Span Sleeved System

The preferred system in terms of strength/weight ratio and the number of system components. Suitable for purlins spanning over two bays or more.

- Loads have been calibrated on the basis of full scale tests carried out under the supervision of Dr Jian Yang at Birmingham University.
- Section properties calculated in accordance with Eurocode 3, BS EN 1993-1-3:2006.
- Purlins must be installed exactly as described in this Technical Manual.
- Ultimate loads do not include self weight of purlin
- Working loads are the lesser of ultimate load reduced by a load factor of 1.6 or deflection span/180 limitation, and have the self weight of the purlin deducted.

- Tables are valid for roof pitches up to 25 degrees.
- When using ultimate loads appropriate load factors must be applied.
- Ultimate wind uplift capacities are based on screw fixed cladding, for hook bolt type fixings consult our technical department.

Note that double spanning purlins are limited to 8m maximum span (maximum purlin length 16m).

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres									Gravity	Ultimate Loads (kN)			Deflection
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0	Uplift Lateral Restraints		0 Rows	1 Rows	2 Rows	
			Allowable Loadings (kN/m <sup>2</sup> )													
<b>ASB20012</b>	3.69	14.935	3.32	2.41	2.21	1.98	1.84	1.66	1.33	1.11	<b>24.124</b>	<b>17.283</b>	<b>21.859</b>	<b>23.995</b>	19.305	
<b>ASB20013</b>	4.00	17.067	3.79	2.76	2.53	2.26	2.11	1.90	1.52	1.26	<b>27.555</b>	<b>19.839</b>	<b>24.974</b>	<b>27.408</b>	21.650	
<b>ASB20014</b>	4.30	19.091	4.24	3.09	2.83	2.53	2.36	2.12	1.70	1.41	<b>30.812</b>	<b>22.260</b>	<b>27.929</b>	<b>30.648</b>	23.920	
<b>ASB20015</b>	4.60	21.077	4.68	3.41	3.12	2.80	2.60	2.34	1.87	1.56	<b>34.008</b>	<b>24.622</b>	<b>30.827</b>	<b>33.827</b>	26.165	
<b>ASB20016</b>	4.91	23.055	5.12	3.73	3.42	3.06	2.85	2.56	2.05	1.71	<b>37.191</b>	<b>26.956</b>	<b>33.709</b>	<b>36.993</b>	28.370	
<b>ASB20018</b>	5.51	26.876	5.97	4.34	3.98	3.57	3.32	2.99	2.39	1.99	<b>43.342</b>	<b>31.410</b>	<b>39.272</b>	<b>43.111</b>	32.730	
<b>ASB22512</b>	3.93	17.405	3.87	2.81	2.58	2.31	2.15	1.93	1.55	1.29	<b>28.091</b>	<b>19.581</b>	<b>25.425</b>	<b>27.941</b>	24.310	
<b>ASB22513</b>	4.25	19.941	4.43	3.22	2.95	2.65	2.46	2.22	1.77	1.48	<b>32.168</b>	<b>22.536</b>	<b>29.120</b>	<b>31.997</b>	27.305	
<b>ASB22514</b>	4.58	22.301	4.96	3.60	<b>3.30</b>	2.96	2.75	2.48	1.98	1.65	<b>35.964</b>	<b>25.286</b>	<b>32.559</b>	<b>35.773</b>	30.230	
<b>ASB22515</b>	4.90	24.742	5.50	4.00	3.67	3.28	3.05	2.75	2.20	1.83	<b>39.890</b>	<b>28.113</b>	<b>36.113</b>	<b>39.678</b>	33.220	
<b>ASB22516</b>	5.22	27.257	6.06	4.41	4.04	3.62	3.37	3.03	2.42	2.02	<b>43.934</b>	<b>31.006</b>	<b>39.771</b>	<b>43.700</b>	36.120	
<b>ASB22518</b>	5.86	31.880	7.08	5.15	4.72	4.23	3.94	3.54	2.83	2.36	<b>51.371</b>	<b>36.269</b>	<b>46.489</b>	<b>51.097</b>	41.695	
<b>ASB20012</b>	3.69	13.376	2.68	1.95	1.78	1.60	1.49	1.34	1.07	0.89	<b>21.655</b>	<b>14.970</b>	<b>19.073</b>	<b>21.540</b>	16.310	
<b>ASB20013</b>	4.00	15.288	3.06	2.22	2.04	1.83	1.70	1.53	1.22	1.02	<b>24.735</b>	<b>17.203</b>	<b>21.796</b>	<b>24.603</b>	18.280	
<b>ASB20014</b>	4.30	17.102	3.42	2.49	2.28	2.04	1.90	1.71	1.37	1.14	<b>27.659</b>	<b>19.317</b>	<b>24.379</b>	<b>27.511</b>	20.200	
<b>ASB20015</b>	4.60	18.882	3.78	2.75	2.52	2.25	2.10	1.89	1.51	1.26	<b>30.528</b>	<b>21.378</b>	<b>26.911</b>	<b>30.365</b>	22.080	
<b>ASB20016</b>	4.91	20.655	4.13	3.00	2.75	<b>2.47</b>	2.29	2.07	1.65	1.38	<b>33.384</b>	<b>23.411</b>	<b>29.429</b>	<b>33.207</b>	23.945	
<b>ASB20018</b>	5.51	24.080	4.82	3.50	3.21	2.88	2.68	2.41	1.93	1.61	<b>38.906</b>	<b>27.282</b>	<b>34.284</b>	<b>38.699</b>	27.620	
<b>ASB20020</b>	6.11	27.545	5.51	4.01	<b>3.67</b>	3.29	3.06	2.75	2.20	1.84	<b>44.492</b>	<b>31.116</b>	<b>39.180</b>	<b>44.255</b>	31.095	
<b>ASB22512</b>	3.93	15.591	3.12	2.27	2.08	1.86	1.73	1.56	1.25	1.04	<b>25.216</b>	<b>16.849</b>	<b>22.157</b>	<b>25.082</b>	20.495	
<b>ASB22513</b>	4.25	17.865	3.57	2.60	<b>2.38</b>	2.13	1.98	1.79	1.43	1.19	<b>28.875</b>	<b>19.417</b>	<b>25.382</b>	<b>28.722</b>	23.025	
<b>ASB22514</b>	4.58	19.981	4.00	2.91	<b>2.66</b>	2.39	2.22	2.00	1.60	1.33	<b>32.283</b>	<b>21.807</b>	<b>28.384</b>	<b>32.112</b>	25.495	
<b>ASB22515</b>	4.90	22.169	4.43	3.22	2.96	2.65	2.46	2.22	1.77	1.48	<b>35.807</b>	<b>24.260</b>	<b>31.485</b>	<b>35.617</b>	27.985	
<b>ASB22516</b>	5.22	24.424	4.88	3.55	3.26	2.92	2.71	2.44	1.95	1.63	<b>39.438</b>	<b>26.767</b>	<b>34.676</b>	<b>39.228</b>	30.415	
<b>ASB20012</b>	3.69	12.103	2.20	1.60	1.47	1.31	1.22	1.10	0.88	0.73	<b>19.644</b>	<b>13.189</b>	<b>16.805</b>	<b>19.540</b>	14.020	
<b>ASB20013</b>	4.00	13.835	2.52	1.83	1.68	1.50	1.40	1.26	1.01	0.84	<b>22.438</b>	<b>15.170</b>	<b>19.211</b>	<b>22.319</b>	15.710	
<b>ASB20014</b>	4.30	15.479	2.81	2.05	1.88	1.68	1.56	1.41	1.13	0.94	<b>25.091</b>	<b>17.045</b>	<b>21.492</b>	<b>24.957</b>	17.365	
<b>ASB20015</b>	4.60	17.091	3.11	2.26	2.07	1.86	1.73	1.55	1.24	1.04	<b>27.693</b>	<b>18.870</b>	<b>23.728</b>	<b>27.546</b>	18.970	
<b>ASB20016</b>	4.91	18.696	3.40	2.47	2.27	2.03	1.89	1.70	1.36	1.13	<b>30.285</b>	<b>20.670</b>	<b>25.950</b>	<b>30.124</b>	20.575	
<b>ASB20018</b>	5.51	21.799	3.96	2.88	2.64	2.37	<b>2.20</b>	1.98	1.59	1.32	<b>35.294</b>	<b>24.090</b>	<b>30.231</b>	<b>35.106</b>	23.725	
<b>ASB20020</b>	6.11	24.937	4.53	3.30	3.02	2.71	2.52	2.27	1.81	1.51	<b>40.361</b>	<b>27.469</b>	<b>34.541</b>	<b>40.146</b>	26.650	
<b>ASB22512</b>	3.93	14.111	2.57	1.87	1.71	1.53	1.43	1.28	1.03	<b>0.86</b>	<b>22.875</b>	<b>14.763</b>	<b>19.487</b>	<b>22.753</b>	17.590	
<b>ASB22513</b>	4.25	16.171	2.94	2.14	1.96	1.76	1.63	1.47	1.18	0.98	<b>26.194</b>	<b>17.032</b>	<b>22.330</b>	<b>26.055</b>	19.765	
<b>ASB22514</b>	4.58	18.088	3.29	2.39	<b>2.19</b>	1.96	1.83	1.64	1.32	1.10	<b>29.286</b>	<b>19.143</b>	<b>24.977</b>	<b>29.130</b>	21.885	
<b>ASB22515</b>	4.90	20.071	3.65	2.65	2.43	<b>2.18</b>	2.03	1.82	1.46	1.22	<b>32.483</b>	<b>21.308</b>	<b>27.710</b>	<b>32.310</b>	23.985	
<b>ASB22516</b>	5.22	22.114	4.02	2.92	2.68	2.40	2.23	2.01	1.61	1.34	<b>35.776</b>	<b>23.517</b>	<b>30.521</b>	<b>35.586</b>	26.075	
<b>ASB22518</b>	5.86	25.868	4.70	3.42	3.14	2.81	2.61	2.35	1.88	1.57	<b>41.832</b>	<b>27.522</b>	<b>35.676</b>	<b>41.609</b>	30.105	

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Gravity	Ultimate Loads (kN)			Deflection	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0		Uplift Lateral Restraints				
			Allowable Loadings (kN/m²)									0 Rows	1 Rows	2 Rows		
<b>ASB20012</b>	3.69	11.044	1.84	1.34	1.23	1.10	1.02	0.92	0.74	0.61	<b>17.975</b>	<b>11.780</b>	<b>14.932</b>	<b>17.880</b>	12.220	
<b>ASB20013</b>	4.00	12.627	2.10	1.53	1.40	1.26	1.17	1.05	0.84	0.70	<b>20.532</b>	<b>13.559</b>	<b>17.077</b>	<b>20.423</b>	13.700	
<b>ASB20014</b>	4.30	14.128	2.35	1.71	1.57	1.41	1.31	1.18	0.94	0.78	<b>22.959</b>	<b>15.243</b>	<b>19.112</b>	<b>22.837</b>	15.135	
<b>ASB20015</b>	4.60	15.601	2.60	1.89	1.73	1.55	1.44	1.30	1.04	0.87	<b>25.340</b>	<b>16.881</b>	<b>21.104</b>	<b>25.206</b>	16.540	
<b>ASB20016</b>	4.91	17.067	2.84	2.07	1.90	1.70	1.58	1.42	1.14	0.95	<b>27.712</b>	<b>18.494</b>	<b>23.083</b>	<b>27.564</b>	17.940	
<b>ASB20018</b>	5.51	19.901	3.32	2.41	2.21	1.98	1.84	1.66	1.33	1.11	<b>32.295</b>	<b>21.556</b>	<b>26.891</b>	<b>32.123</b>	20.650	
<b>ASB20020</b>	6.11	22.768	3.79	2.76	2.53	2.27	2.11	1.90	1.52	1.26	<b>36.932</b>	<b>24.575</b>	<b>30.719</b>	<b>36.735</b>	23.180	
<b>ASB22512</b>	3.93	12.880	2.15	1.56	1.43	1.28	1.19	1.07	0.86	0.72	<b>20.931</b>	<b>13.129</b>	<b>17.273</b>	<b>20.820</b>	15.315	
<b>ASB22513</b>	4.25	14.762	2.46	1.79	1.64	1.47	1.37	1.23	0.98	0.82	<b>23.969</b>	<b>15.159</b>	<b>19.803</b>	<b>23.842</b>	17.215	
<b>ASB22514</b>	4.58	16.513	2.75	2.00	1.83	1.64	1.53	1.38	1.10	0.92	<b>26.798</b>	<b>17.049</b>	<b>22.156</b>	<b>26.655</b>	19.060	
<b>ASB22515</b>	4.90	18.325	3.05	2.22	2.04	1.82	1.70	1.53	1.22	1.02	<b>29.723</b>	<b>18.985</b>	<b>24.586</b>	<b>29.565</b>	20.865	
<b>ASB22516</b>	5.22	20.191	3.37	2.45	2.24	2.01	1.87	1.68	1.35	1.12	<b>32.736</b>	<b>20.960</b>	<b>27.083</b>	<b>32.562</b>	22.690	
<b>ASB22518</b>	5.86	23.622	3.94	2.86	2.62	2.35	2.19	1.97	1.57	1.31	<b>38.278</b>	<b>24.534</b>	<b>31.659</b>	<b>38.074</b>	26.195	
<b>ASB22520</b>	6.50	26.985	4.50	3.27	3.00	2.69	2.50	2.25	1.80	1.50	<b>43.711</b>	<b>27.951</b>	<b>36.122</b>	<b>43.479</b>	29.435	
<b>ASB24015</b>	5.08	19.933	3.32	2.42	2.21	1.98	1.85	1.66	1.33	1.11	<b>32.311</b>	<b>20.161</b>	<b>26.634</b>	<b>32.139</b>	23.590	
<b>ASB24016</b>	5.41	21.942	3.66	2.66	2.44	2.18	2.03	1.83	1.46	1.22	<b>35.553</b>	<b>22.242</b>	<b>29.312</b>	<b>35.363</b>	25.635	
<b>ASB20012</b>	3.69	10.149	1.56	1.14	1.04	0.93	0.87	0.78	0.62	0.52	<b>16.568</b>	<b>10.640</b>	<b>13.371</b>	<b>16.480</b>	10.785	
<b>ASB20013</b>	4.00	11.605	1.79	1.30	1.19	1.07	0.99	0.89	0.71	0.60	<b>18.924</b>	<b>12.254</b>	<b>15.300</b>	<b>18.824</b>	12.090	
<b>ASB20014</b>	4.30	12.986	2.00	1.45	1.33	1.19	1.11	1.00	0.80	0.67	<b>21.161</b>	<b>13.781</b>	<b>17.130</b>	<b>21.048</b>	13.355	
<b>ASB20015</b>	4.60	14.301	2.20	1.60	1.47	1.31	1.22	1.10	0.88	0.73	<b>23.356</b>	<b>15.266</b>	<b>18.920</b>	<b>23.232</b>	14.595	
<b>ASB20016</b>	4.91	15.522	2.39	1.74	1.59	1.43	1.33	1.19	0.96	0.80	<b>25.542</b>	<b>16.727</b>	<b>20.697</b>	<b>25.406</b>	15.835	
<b>ASB20018</b>	5.51	17.854	2.75	2.00	1.83	1.64	1.53	1.37	1.10	0.92	<b>29.766</b>	<b>19.498</b>	<b>24.111</b>	<b>29.608</b>	18.205	
<b>ASB20020</b>	6.11	20.031	3.08	2.24	2.05	1.84	1.71	1.54	1.23	1.03	<b>34.040</b>	<b>22.225</b>	<b>27.537</b>	<b>33.859</b>	20.420	
<b>ASB22512</b>	3.93	11.838	1.82	1.32	1.21	1.09	1.01	0.91	0.73	0.61	<b>19.292</b>	<b>11.818</b>	<b>15.422</b>	<b>19.189</b>	13.495	
<b>ASB22513</b>	4.25	13.570	2.09	1.52	1.39	1.25	1.16	1.04	0.84	0.70	<b>22.092</b>	<b>13.655</b>	<b>17.689</b>	<b>21.975</b>	15.175	
<b>ASB22514</b>	4.58	15.182	2.34	1.70	1.56	1.39	1.30	1.17	0.93	0.78	<b>24.699</b>	<b>15.365</b>	<b>19.799</b>	<b>24.568</b>	16.795	
<b>ASB22515</b>	4.90	16.849	2.59	1.89	1.73	1.55	1.44	1.30	1.04	0.86	<b>27.396</b>	<b>17.115</b>	<b>21.976</b>	<b>27.250</b>	18.380	
<b>ASB22516</b>	5.22	18.567	2.86	2.08	1.90	1.71	1.59	1.43	1.14	0.95	<b>30.173</b>	<b>18.899</b>	<b>24.212</b>	<b>30.012</b>	19.990	
<b>ASB22518</b>	5.86	21.723	3.34	2.43	2.23	2.00	1.86	1.67	1.34	1.11	<b>35.280</b>	<b>22.125</b>	<b>28.305</b>	<b>35.093</b>	23.050	
<b>ASB22520</b>	6.50	24.818	3.82	2.78	2.55	2.28	2.12	1.91	1.53	1.27	<b>40.288</b>	<b>25.204</b>	<b>32.289</b>	<b>40.074</b>	25.870	
<b>ASB24015</b>	5.08	18.330	2.82	2.05	1.88	1.68	1.57	1.41	1.13	0.94	<b>29.781</b>	<b>18.140</b>	<b>23.771</b>	<b>29.622</b>	20.755	
<b>ASB24016</b>	5.41	20.179	3.10	2.26	2.07	1.85	1.72	1.55	1.24	1.03	<b>32.768</b>	<b>20.018</b>	<b>26.164</b>	<b>32.594</b>	22.560	
<b>ASB24018</b>	6.07	23.658	3.64	2.65	2.43	2.17	2.02	1.82	1.46	1.21	<b>38.395</b>	<b>23.497</b>	<b>30.653</b>	<b>38.191</b>	26.055	
<b>ASB20012</b>	3.69	9.361	1.34	0.97	0.89	0.80	0.74	0.67	0.53	0.45	<b>15.365</b>	<b>9.699</b>	<b>12.059</b>	<b>15.185</b>	9.615	
<b>ASB20013</b>	4.00	10.505	1.50	1.09	1.00	0.90	0.83	0.75	0.60	0.50	<b>17.550</b>	<b>11.175</b>	<b>13.808</b>	<b>17.345</b>	10.780	
<b>ASB20014</b>	4.30	11.615	1.66	1.21	1.11	0.99	0.92	0.83	0.66	0.55	<b>19.624</b>	<b>12.571</b>	<b>15.466</b>	<b>19.394</b>	11.910	
<b>ASB20015</b>	4.60	12.699	1.81	1.32	1.21	1.08	1.01	0.91	0.73	0.60	<b>21.660</b>	<b>13.928</b>	<b>17.087</b>	<b>21.404</b>	13.015	
<b>ASB20016</b>	4.91	13.783	1.97	1.43	1.31	1.18	1.09	0.98	0.79	0.66	<b>23.687</b>	<b>15.264</b>	<b>18.695</b>	<b>23.405</b>	14.120	
<b>ASB20018</b>	5.51	15.822	2.26	1.64	1.51	1.35	1.26	1.13	0.90	0.75	<b>27.605</b>	<b>17.792</b>	<b>21.779</b>	<b>27.272</b>	16.200	
<b>ASB20020</b>	6.11	17.766	2.54	1.85	1.69	1.52	1.41	1.27	1.02	0.85	<b>31.568</b>	<b>20.279</b>	<b>24.869</b>	<b>31.180</b>	18.185	
<b>ASB22512</b>	3.93	10.946	1.56	1.14	1.04	0.93	0.87	0.78	0.63	0.52	<b>17.891</b>	<b>10.743</b>	<b>13.862</b>	<b>17.685</b>	12.020	
<b>ASB22513</b>	4.25	12.549	1.79	1.30	1.20	1.07	1.00	0.90	0.72	0.60	<b>20.488</b>	<b>12.420</b>	<b>15.910</b>	<b>20.251</b>	13.515	
<b>ASB22514</b>	4.58	14.041	2.01	1.46	1.34	1.20	1.11	1.00	0.80	0.67	<b>22.906</b>	<b>13.980</b>	<b>17.816</b>	<b>22.640</b>	14.945	
<b>ASB22515</b>	4.90	15.584	2.23	1.62	1.48	1.33	1.24	1.11	0.89	0.74	<b>25.406</b>	<b>15.577</b>	<b>19.781</b>	<b>25.110</b>	16.360	
<b>ASB22516</b>	5.22	17.175	2.45	1.78	1.64	1.46	1.36	1.23	0.98	0.82	<b>27.982</b>	<b>17.204</b>	<b>21.798</b>	<b>27.653</b>	17.795	
<b>ASB22518</b>	5.86	20.093	2.87	2.09	1.91	1.71	1.59	1.44	1.15	0.96	<b>32.718</b>	<b>20.143</b>	<b>25.485</b>	<b>32.328</b>	20.495	
<b>ASB22520</b>	6.50	22.544	3.22	2.34	2.15	1.92	1.79	1.61	1.29	1.07	<b>37.363</b>	<b>22.944</b>	<b>29.068</b>	<b>36.910</b>	22.990	
<b>ASB24015</b>	5.08	16.956	2.42	1.76	1.61	1.45	1.35	1.21	0.97	0.81	<b>27.618</b>	<b>16.486</b>	<b>21.358</b>	<b>27.296</b>	18.455	
<b>ASB24016</b>	5.41	18.668	2.67	1.94	1.78	1.59	1.48	1.33	1.07	0.89	<b>30.389</b>	<b>18.196</b>	<b>23.514</b>	<b>30.033</b>	20.065	
<b>ASB24018</b>	6.07	21.889	3.13	2.27	2.08	1.87	1.74	1.56	1.25	1.04	<b>35.607</b>	<b>21.362</b>	<b>27.551</b>	<b>35.184</b>	23.150	

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Gravity	Ultimate Loads (kN)			Deflection	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0		Uplift Lateral Restraints				
			Allowable Loadings (kN/m²)									0 Rows	1 Rows	2 Rows		
<b>ASB20012</b>	3.69	8.373	1.12	0.81	0.74	0.67	0.62	0.56	0.45	0.37	<b>14.324</b>	<b>8.908</b>	<b>10.951</b>	<b>14.029</b>	8.645	
<b>ASB20013</b>	4.00	9.406	1.25	0.91	0.84	0.75	0.70	0.63	0.50	0.42	<b>16.362</b>	<b>10.267</b>	<b>12.548</b>	<b>16.024</b>	9.700	
<b>ASB20014</b>	4.30	10.394	1.39	1.01	0.92	0.83	0.77	0.69	0.55	0.46	<b>18.296</b>	<b>11.553</b>	<b>14.061</b>	<b>17.917</b>	10.710	
<b>ASB20015</b>	4.60	11.371	1.52	1.10	1.01	0.91	0.84	0.76	0.61	0.51	<b>20.193</b>	<b>12.802</b>	<b>15.539</b>	<b>19.774</b>	11.710	
<b>ASB20016</b>	4.91	12.344	1.65	1.20	1.10	0.98	0.91	0.82	0.66	0.55	<b>22.083</b>	<b>14.031</b>	<b>17.004</b>	<b>21.623</b>	12.705	
<b>ASB20018</b>	5.51	14.145	1.89	1.37	1.26	1.13	1.05	0.94	0.75	0.63	<b>25.736</b>	<b>16.356</b>	<b>19.811</b>	<b>25.194</b>	14.550	
<b>ASB20020</b>	6.11	15.896	2.12	1.54	1.41	1.27	1.18	1.06	0.85	0.71	<b>29.430</b>	<b>18.640</b>	<b>22.615</b>	<b>28.805</b>	16.345	
<b>ASB22512</b>	3.93	10.172	1.36	0.99	0.90	0.81	0.75	0.68	0.54	0.45	<b>16.680</b>	<b>9.846</b>	<b>12.542</b>	<b>16.337</b>	10.795	
<b>ASB22513</b>	4.25	11.664	1.56	1.13	1.04	0.93	0.86	0.78	0.62	0.52	<b>19.101</b>	<b>11.388</b>	<b>14.405</b>	<b>18.708</b>	12.145	
<b>ASB22514</b>	4.58	13.052	1.74	1.27	1.16	1.04	0.97	0.87	0.70	0.58	<b>21.355</b>	<b>12.823</b>	<b>16.139</b>	<b>20.915</b>	13.420	
<b>ASB22515</b>	4.90	14.330	1.91	1.39	1.27	1.14	1.06	0.96	0.76	0.64	<b>23.686</b>	<b>14.290</b>	<b>17.925</b>	<b>23.196</b>	14.690	
<b>ASB22516</b>	5.22	15.601	2.08	1.51	1.39	1.24	1.16	1.04	0.83	0.69	<b>26.087</b>	<b>15.784</b>	<b>19.757</b>	<b>25.546</b>	15.985	
<b>ASB22518</b>	5.86	17.954	2.39	1.74	1.60	1.43	1.33	1.20	0.96	0.80	<b>30.503</b>	<b>18.483</b>	<b>23.101</b>	<b>29.864</b>	18.385	
<b>ASB22520</b>	6.50	20.147	2.69	1.95	1.79	1.60	1.49	1.34	1.07	0.90	<b>34.833</b>	<b>21.052</b>	<b>26.345</b>	<b>34.096</b>	20.625	
<b>ASB24015</b>	5.08	15.766	2.10	1.53	1.40	1.25	1.17	1.05	0.84	0.70	<b>25.748</b>	<b>15.106</b>	<b>19.317</b>	<b>25.215</b>	16.560	
<b>ASB24016</b>	5.41	17.359	2.31	1.68	1.54	1.38	1.29	1.16	0.93	0.77	<b>28.331</b>	<b>16.676</b>	<b>21.271</b>	<b>27.743</b>	18.005	
<b>ASB24018</b>	6.07	20.308	2.71	1.97	1.81	1.62	1.50	1.35	1.08	0.90	<b>33.196</b>	<b>19.580</b>	<b>24.927</b>	<b>32.501</b>	20.755	
<b>ASB24020</b>	6.74	22.794	3.04	2.21	2.03	1.81	1.69	1.52	1.22	1.01	<b>37.885</b>	<b>22.300</b>	<b>28.414</b>	<b>37.083</b>	23.290	
<b>ASB20014</b>	4.30	9.372	1.17	0.85	0.78	0.70	0.65	0.59	0.47	0.39	<b>17.135</b>	<b>10.684</b>	<b>12.866</b>	<b>16.626</b>	9.710	
<b>ASB20015</b>	4.60	10.254	1.28	0.93	0.85	0.77	0.71	0.64	0.51	0.43	<b>18.913</b>	<b>11.841</b>	<b>14.223</b>	<b>18.350</b>	10.615	
<b>ASB20016</b>	4.91	11.135	1.39	1.01	0.93	0.83	0.77	0.70	0.56	0.46	<b>20.683</b>	<b>12.978</b>	<b>15.567</b>	<b>20.065</b>	11.520	
<b>ASB20018</b>	5.51	12.743	1.59	1.16	1.06	0.95	0.88	0.80	0.64	0.53	<b>24.104</b>	<b>15.129</b>	<b>18.137</b>	<b>23.379</b>	13.175	
<b>ASB20020</b>	6.11	14.326	1.79	1.30	1.19	1.07	0.99	0.90	0.72	0.60	<b>27.564</b>	<b>17.240</b>	<b>20.700</b>	<b>26.729</b>	14.805	
<b>ASB22512</b>	3.93	9.467	1.18	0.86	0.79	0.71	0.66	0.59	0.47	0.39	<b>15.622</b>	<b>9.086</b>	<b>11.420</b>	<b>15.159</b>	9.775	
<b>ASB22513</b>	4.25	10.666	1.33	0.97	0.89	0.80	0.74	0.67	0.53	0.44	<b>17.889</b>	<b>10.512</b>	<b>13.126</b>	<b>17.358</b>	11.000	
<b>ASB22514</b>	4.58	11.781	1.47	1.07	0.98	0.88	0.82	0.74	0.59	0.49	<b>20.001</b>	<b>11.840</b>	<b>14.713</b>	<b>19.406</b>	12.140	
<b>ASB22515</b>	4.90	12.911	1.61	1.17	1.08	0.96	0.90	0.81	0.65	0.54	<b>22.184</b>	<b>13.197</b>	<b>16.348</b>	<b>21.523</b>	13.295	
<b>ASB22516</b>	5.22	14.060	1.76	1.28	1.17	1.05	0.98	0.88	0.70	0.59	<b>24.433</b>	<b>14.578</b>	<b>18.022</b>	<b>23.703</b>	14.470	
<b>ASB22518</b>	5.86	16.160	2.02	1.47	1.35	1.21	1.12	1.01	0.81	0.67	<b>28.569</b>	<b>17.071</b>	<b>21.075</b>	<b>27.710</b>	16.620	
<b>ASB22520</b>	6.50	18.140	2.27	1.65	1.51	1.35	1.26	1.13	0.91	0.76	<b>32.624</b>	<b>19.444</b>	<b>24.031</b>	<b>31.636</b>	18.650	
<b>ASB24015</b>	5.08	14.577	1.82	1.33	1.21	1.09	1.01	0.91	0.73	0.61	<b>24.115</b>	<b>13.938</b>	<b>17.581</b>	<b>23.396</b>	14.975	
<b>ASB24016</b>	5.41	15.861	1.98	1.44	1.32	1.18	1.10	0.99	0.79	0.66	<b>26.535</b>	<b>15.388</b>	<b>19.364</b>	<b>25.741</b>	16.285	
<b>ASB24018</b>	6.07	18.283	2.29	1.66	1.52	1.36	1.27	1.14	0.91	0.76	<b>31.091</b>	<b>18.069</b>	<b>22.697</b>	<b>30.155</b>	18.760	
<b>ASB24020</b>	6.74	20.511	2.56	1.86	1.71	1.53	1.42	1.28	1.03	0.85	<b>35.482</b>	<b>20.579</b>	<b>25.869</b>	<b>34.406</b>	21.040	
<b>ASB26515</b>	5.37	16.376	2.05	1.49	1.36	1.22	1.14	1.02	0.82	0.68	<b>26.792</b>	<b>14.802</b>	<b>19.226</b>	<b>25.988</b>	17.835	
<b>ASB26516</b>	5.72	18.268	2.28	1.66	1.52	1.36	1.27	1.14	0.91	0.76	<b>29.857</b>	<b>16.560</b>	<b>21.448</b>	<b>28.959</b>	19.490	
<b>ASB20020</b>	6.11	12.996	1.53	1.11	1.02	0.91	0.85	0.76	0.61	0.51	<b>25.920</b>	<b>16.030</b>	<b>19.061</b>	<b>24.898</b>	13.505	
<b>ASB20023</b>	7.00	16.471	1.94	1.41	1.29	1.16	1.08	0.97	0.78	0.65	<b>31.720</b>	<b>19.824</b>	<b>23.443</b>	<b>30.398</b>	17.055	
<b>ASB20025</b>	7.59	17.897	2.11	1.53	1.40	1.26	1.17	1.05	0.84	0.70	<b>34.577</b>	<b>21.451</b>	<b>25.452</b>	<b>33.125</b>	18.530	
<b>ASB22514</b>	4.58	10.678	1.26	0.91	0.84	0.75	0.70	0.63	0.50	0.42	<b>18.808</b>	<b>10.994</b>	<b>13.495</b>	<b>18.076</b>	11.060	
<b>ASB22515</b>	4.90	11.707	1.38	1.00	0.92	0.82	0.77	0.69	0.55	0.46	<b>20.861</b>	<b>12.256</b>	<b>14.999</b>	<b>20.048</b>	12.115	
<b>ASB22516</b>	5.22	12.755	1.50	1.09	1.00	0.90	0.83	0.75	0.60	0.50	<b>22.976</b>	<b>13.540</b>	<b>16.539</b>	<b>22.078</b>	13.190	
<b>ASB22518</b>	5.86	14.636	1.72	1.25	1.15	1.03	0.96	0.86	0.69	0.57	<b>26.865</b>	<b>15.856</b>	<b>19.344</b>	<b>25.810</b>	15.125	
<b>ASB22520</b>	6.50	16.438	1.93	1.41	1.29	1.15	1.07	0.97	0.77	0.64	<b>30.679</b>	<b>18.059</b>	<b>22.053</b>	<b>29.466</b>	16.980	
<b>ASB24015</b>	5.08	13.212	1.55	1.13	1.04	0.93	0.86	0.78	0.62	0.52	<b>22.677</b>	<b>12.934</b>	<b>16.099</b>	<b>21.790</b>	13.635	
<b>ASB24016</b>	5.41	14.379	1.69	1.23	1.13	1.01	0.94	0.85	0.68	0.56	<b>24.952</b>	<b>14.281</b>	<b>17.736</b>	<b>23.975</b>	14.830	
<b>ASB24018</b>	6.07	16.554	1.95	1.42	1.30	1.16	1.08	0.97	0.78	0.65	<b>29.237</b>	<b>16.772</b>	<b>20.792</b>	<b>28.085</b>	17.060	
<b>ASB24020</b>	6.74	18.578	2.19	1.59	1.46	1.30	1.21	1.09	0.87	0.73	<b>33.367</b>	<b>19.100</b>	<b>23.695</b>	<b>32.044</b>	19.140	
<b>ASB26515</b>	5.37	15.355	1.81	1.31	1.20	1.08	1.00	0.90	0.72	0.60	<b>25.195</b>	<b>13.720</b>	<b>17.550</b>	<b>24.203</b>	16.215	
<b>ASB26516</b>	5.72	17.131	2.02	1.47	1.34	1.20	1.12	1.01	0.81	0.67	<b>28.077</b>	<b>15.352</b>	<b>19.584</b>	<b>26.969</b>	17.725	
<b>ASB26518</b>	6.43	19.989	2.35	1.71	1.57	1.40	1.31	1.18	0.94	0.78	<b>33.285</b>	<b>18.260</b>	<b>23.235</b>	<b>31.965</b>	20.525	
<b>ASB30018</b>	7.27	24.329	2.86	2.08	1.91	1.71	1.59	1.43	1.14	0.95	<b>39.775</b>	<b>23.168</b>	<b>30.230</b>	<b>39.161</b>	27.230	
<b>ASB30020</b>	8.07	28.227	3.32	2.42	2.21	1.98	1.84	1.66	1.33	1.11	<b>46.105</b>	<b>26.979</b>	<b>35.070</b>	<b>45.388</b>	31.090	

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Gravity	Ultimate Loads (kN)			Deflection	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0		Uplift Lateral Restraints				
			Allowable Loadings (kN/m²)									0 Rows	1 Rows	2 Rows		
<b>ASB22514</b>	4.58	9.736	1.08	0.79	0.72	0.65	0.60	0.54	0.43	0.36	<b>17.750</b>	<b>10.258</b>	<b>12.448</b>	<b>16.893</b>	10.140	
<b>ASB22515</b>	4.90	10.678	1.19	0.86	0.79	0.71	0.66	0.59	0.47	0.40	<b>19.687</b>	<b>11.437</b>	<b>13.840</b>	<b>18.736</b>	11.110	
<b>ASB22516</b>	5.22	11.634	1.29	0.94	0.86	0.77	0.72	0.65	0.52	0.43	<b>21.683</b>	<b>12.636</b>	<b>15.265</b>	<b>20.634</b>	12.095	
<b>ASB22518</b>	5.86	13.338	1.48	1.08	0.99	0.88	0.82	0.74	0.59	0.49	<b>25.353</b>	<b>14.798</b>	<b>17.856</b>	<b>24.121</b>	13.855	
<b>ASB22520</b>	6.50	14.986	1.67	1.21	1.11	0.99	0.93	0.83	0.67	0.56	<b>28.952</b>	<b>16.854</b>	<b>20.354</b>	<b>27.537</b>	15.560	
<b>ASB22523</b>	7.45	18.932	2.10	1.53	1.40	1.26	1.17	1.05	0.84	0.70	<b>35.399</b>	<b>20.918</b>	<b>25.073</b>	<b>33.603</b>	19.590	
<b>ASB24015</b>	5.08	12.042	1.34	0.97	0.89	0.80	0.74	0.67	0.54	0.45	<b>21.401</b>	<b>12.063</b>	<b>14.826</b>	<b>20.363</b>	12.490	
<b>ASB24016</b>	5.41	13.112	1.46	1.06	0.97	0.87	0.81	0.73	0.58	0.49	<b>23.548</b>	<b>13.321</b>	<b>16.338</b>	<b>22.404</b>	13.590	
<b>ASB24018</b>	6.07	15.074	1.67	1.22	1.12	1.00	0.93	0.84	0.67	0.56	<b>27.592</b>	<b>15.644</b>	<b>19.156</b>	<b>26.246</b>	15.610	
<b>ASB24020</b>	6.74	16.930	1.88	1.37	1.25	1.12	1.05	0.94	0.75	0.63	<b>31.489</b>	<b>17.816</b>	<b>21.829</b>	<b>29.944</b>	17.525	
<b>ASB26515</b>	5.37	14.356	1.60	1.16	1.06	0.95	0.89	0.80	0.64	0.53	<b>23.777</b>	<b>12.784</b>	<b>16.113</b>	<b>22.615</b>	14.830	
<b>ASB26516</b>	5.72	15.715	1.75	1.27	1.16	1.04	0.97	0.87	0.70	0.58	<b>26.497</b>	<b>14.306</b>	<b>17.986</b>	<b>25.200</b>	16.220	
<b>ASB26518</b>	6.43	18.203	2.02	1.47	1.35	1.21	1.12	1.01	0.81	0.67	<b>31.412</b>	<b>17.018</b>	<b>21.344</b>	<b>29.868</b>	18.770	
<b>ASB26520</b>	7.13	20.441	2.27	1.65	1.51	1.36	1.26	1.14	0.91	0.76	<b>35.814</b>	<b>19.379</b>	<b>24.309</b>	<b>34.044</b>	21.070	
<b>ASB30018</b>	7.27	22.899	2.54	1.85	1.70	1.52	1.41	1.27	1.02	0.85	<b>37.537</b>	<b>21.549</b>	<b>27.788</b>	<b>36.668</b>	24.885	
<b>ASB30020</b>	8.07	26.570	2.95	2.15	1.97	1.76	1.64	1.48	1.18	0.98	<b>43.510</b>	<b>25.099</b>	<b>32.247</b>	<b>42.498</b>	28.415	
<b>ASB24015</b>	5.08	11.032	1.16	0.84	0.77	0.69	0.65	0.58	0.46	0.39	<b>20.261</b>	<b>11.300</b>	<b>13.726</b>	<b>19.085</b>	11.505	
<b>ASB24016</b>	5.41	12.011	1.26	0.92	0.84	0.75	0.70	0.63	0.51	0.42	<b>22.294</b>	<b>12.478</b>	<b>15.130</b>	<b>20.998</b>	12.515	
<b>ASB24018</b>	6.07	13.799	1.45	1.06	0.97	0.87	0.81	0.73	0.58	0.48	<b>26.122</b>	<b>14.656</b>	<b>17.743</b>	<b>24.598</b>	14.365	
<b>ASB24020</b>	6.74	15.502	1.63	1.19	1.09	0.97	0.91	0.82	0.65	0.54	<b>29.811</b>	<b>16.690</b>	<b>20.217</b>	<b>28.064</b>	16.130	
<b>ASB24023</b>	7.72	19.570	2.06	1.50	1.37	1.23	1.14	1.03	0.82	0.69	<b>36.427</b>	<b>20.764</b>	<b>24.937</b>	<b>34.237</b>	20.290	
<b>ASB26515</b>	5.37	13.140	1.38	1.01	0.92	0.83	0.77	0.69	0.55	0.46	<b>22.510</b>	<b>11.966</b>	<b>14.875</b>	<b>21.193</b>	13.640	
<b>ASB26516</b>	5.72	14.387	1.51	1.10	1.01	0.90	0.84	0.76	0.61	0.50	<b>25.085</b>	<b>13.391</b>	<b>16.608</b>	<b>23.615</b>	14.920	
<b>ASB26518</b>	6.43	16.666	1.75	1.28	1.17	1.05	0.97	0.88	0.70	0.58	<b>29.738</b>	<b>15.931</b>	<b>19.715</b>	<b>27.989</b>	17.265	
<b>ASB26520</b>	7.13	18.706	1.97	1.43	1.31	1.18	1.09	0.98	0.79	0.66	<b>33.906</b>	<b>18.142</b>	<b>22.453</b>	<b>31.903</b>	19.370	
<b>ASB30018</b>	7.27	21.617	2.28	1.65	1.52	1.36	1.26	1.14	0.91	0.76	<b>35.537</b>	<b>20.140</b>	<b>25.658</b>	<b>34.437</b>	22.860	
<b>ASB30020</b>	8.07	25.087	2.64	1.92	1.76	1.58	1.47	1.32	1.06	0.88	<b>41.192</b>	<b>23.461</b>	<b>29.784</b>	<b>39.912</b>	26.110	
<b>ASB30023</b>	9.26	31.651	3.33	2.42	2.22	1.99	1.85	1.67	1.33	1.11	<b>51.850</b>	<b>30.277</b>	<b>37.883</b>	<b>50.116</b>	33.055	
<b>ASB24020</b>	6.74	14.259	1.43	1.04	0.95	0.85	0.79	0.71	0.57	0.48	<b>28.303</b>	<b>15.693</b>	<b>18.816</b>	<b>26.370</b>	14.920	
<b>ASB24023</b>	7.72	18.057	1.81	1.31	1.20	1.08	1.00	0.90	0.72	0.60	<b>34.584</b>	<b>19.535</b>	<b>23.226</b>	<b>32.182</b>	18.815	
<b>ASB24025</b>	8.38	19.628	1.96	1.43	1.31	1.17	1.09	0.98	0.79	0.65	<b>37.701</b>	<b>21.149</b>	<b>25.205</b>	<b>35.067</b>	20.450	
<b>ASB26516</b>	5.72	13.234	1.32	0.96	0.88	0.79	0.74	0.66	0.53	0.44	<b>23.816</b>	<b>12.584</b>	<b>15.415</b>	<b>22.187</b>	13.795	
<b>ASB26518</b>	6.43	15.320	1.53	1.11	1.02	0.91	0.85	0.77	0.61	0.51	<b>28.234</b>	<b>14.972</b>	<b>18.302</b>	<b>26.296</b>	15.950	
<b>ASB26520</b>	7.13	17.196	1.72	1.25	1.15	1.03	0.96	0.86	0.69	0.57	<b>32.191</b>	<b>17.049</b>	<b>20.843</b>	<b>29.972</b>	17.895	
<b>ASB26523</b>	8.18	21.648	2.16	1.57	1.44	1.29	1.20	1.08	0.87	0.72	<b>39.294</b>	<b>21.289</b>	<b>25.758</b>	<b>36.543</b>	22.450	
<b>ASB30018</b>	7.27	20.391	2.04	1.48	1.36	1.22	1.13	1.02	0.82	0.68	<b>33.739</b>	<b>18.902</b>	<b>23.794</b>	<b>32.430</b>	21.105	
<b>ASB30020</b>	8.07	23.313	2.33	1.70	1.55	1.39	1.30	1.17	0.93	0.78	<b>39.108</b>	<b>22.022</b>	<b>27.628</b>	<b>37.585</b>	24.105	
<b>ASB30023</b>	9.26	29.662	2.97	2.16	1.98	1.77	1.65	1.48	1.19	0.99	<b>49.227</b>	<b>28.441</b>	<b>35.185</b>	<b>47.208</b>	30.570	
<b>ASB24025</b>	8.38	16.901	1.54	1.12	1.02	0.92	0.85	0.77	0.61	0.51	<b>34.237</b>	<b>18.898</b>	<b>22.133</b>	<b>31.190</b>	17.805	
<b>ASB24028</b>	9.36	18.915	1.72	1.25	1.15	1.03	0.96	0.86	0.69	0.57	<b>38.455</b>	<b>20.978</b>	<b>24.650</b>	<b>35.002</b>	19.925	
<b>ASB26520</b>	7.13	14.706	1.34	0.97	0.89	0.80	0.74	0.67	0.53	0.45	<b>29.234</b>	<b>15.209</b>	<b>18.208</b>	<b>26.630</b>	15.475	
<b>ASB26523</b>	8.18	18.618	1.69	1.23	1.13	1.01	0.94	0.85	0.68	0.56	<b>35.684</b>	<b>19.013</b>	<b>22.540</b>	<b>32.492</b>	19.500	
<b>ASB26525</b>	8.87	20.238	1.84	1.34	1.23	1.10	1.02	0.92	0.74	0.61	<b>38.905</b>	<b>20.595</b>	<b>24.461</b>	<b>35.407</b>	21.195	
<b>ASB26528</b>	9.91	22.641	2.06	1.50	1.37	1.23	1.14	1.03	0.82	0.69	<b>43.706</b>	<b>22.881</b>	<b>27.265</b>	<b>39.744</b>	23.710	
<b>ASB30018</b>	7.27	17.435	1.59	1.15	1.06	0.95	0.88	0.79	0.63	0.53	<b>30.640</b>	<b>16.827</b>	<b>20.713</b>	<b>28.958</b>	18.220	
<b>ASB30020</b>	8.07	19.934	1.81	1.32	1.21	1.08	1.01	0.91	0.72	0.60	<b>35.515</b>	<b>19.607</b>	<b>24.065</b>	<b>33.562</b>	20.805	
<b>ASB30023</b>	9.26	25.481	2.32	1.68	1.54	1.38	1.29	1.16	0.93	0.77	<b>44.704</b>	<b>25.356</b>	<b>30.719</b>	<b>42.182</b>	26.480	
<b>ASB30025</b>	10.05	27.961	2.54	1.85	1.69	1.52	1.41	1.27	1.02	0.85	<b>49.463</b>	<b>27.979</b>	<b>33.930</b>	<b>46.661</b>	29.045	

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Ultimate Loads (kN)				Deflection	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0	Gravity	Uplift Lateral Restraints				
			Allowable Loadings (kN/m <sup>2</sup> )									0 Rows	1 Rows	2 Rows		
<b>ASB26525</b>	8.87	17.631	1.47	1.07	0.98	0.88	0.82	0.73	0.59	0.49	<b>35.631</b>	<b>18.591</b>	<b>21.723</b>	<b>31.711</b>	18.675	
<b>ASB26528</b>	9.91	19.734	1.64	1.20	1.10	0.98	0.91	0.82	0.66	0.55	<b>40.028</b>	<b>20.595</b>	<b>24.195</b>	<b>35.588</b>	20.900	
<b>ASB30018</b>	7.27	15.099	1.26	0.92	0.84	0.75	0.70	0.63	0.50	0.42	<b>28.062</b>	<b>15.153</b>	<b>18.297</b>	<b>26.060</b>	15.955	
<b>ASB30020</b>	8.07	17.255	1.44	1.05	0.96	0.86	0.80	0.72	0.58	0.48	<b>32.527</b>	<b>17.659</b>	<b>21.270</b>	<b>30.203</b>	18.205	
<b>ASB30023</b>	9.26	22.175	1.85	1.34	1.23	1.10	1.03	0.92	0.74	0.62	<b>40.943</b>	<b>22.863</b>	<b>27.208</b>	<b>37.985</b>	23.265	
<b>ASB30025</b>	10.05	24.332	2.03	1.47	1.35	1.21	1.13	1.01	0.81	0.68	<b>45.301</b>	<b>25.228</b>	<b>30.046</b>	<b>42.017</b>	25.515	
<b>ASB30028</b>	11.23	27.343	2.28	1.66	1.52	1.36	1.27	1.14	0.91	0.76	<b>51.273</b>	<b>28.358</b>	<b>33.851</b>	<b>47.533</b>	28.665	
<b>ASB30030</b>	12.01	29.291	2.44	1.78	1.63	1.46	1.36	1.22	0.98	0.81	<b>55.080</b>	<b>30.291</b>	<b>36.229</b>	<b>51.045</b>	30.705	
<b>ASB30018</b>	7.27	13.212	1.02	0.74	0.68	0.61	0.56	0.51	0.41	0.34	<b>25.884</b>	<b>13.774</b>	<b>16.369</b>	<b>23.600</b>	14.140	
<b>ASB30020</b>	8.07	15.096	1.16	0.84	0.77	0.69	0.65	0.58	0.46	0.39	<b>30.002</b>	<b>16.053</b>	<b>19.038</b>	<b>27.353</b>	16.125	
<b>ASB30023</b>	9.26	19.509	1.50	1.09	1.00	0.90	0.83	0.75	0.60	0.50	<b>37.765</b>	<b>20.805</b>	<b>24.398</b>	<b>34.425</b>	20.690	
<b>ASB30025</b>	10.05	21.399	1.65	1.20	1.10	0.98	0.91	0.82	0.66	0.55	<b>41.785</b>	<b>22.956</b>	<b>26.938</b>	<b>38.077</b>	22.680	
<b>ASB30028</b>	11.23	24.058	1.85	1.35	1.23	1.10	1.03	0.93	0.74	0.62	<b>47.293</b>	<b>25.802</b>	<b>30.335</b>	<b>43.072</b>	25.490	
<b>ASB30030</b>	12.01	25.773	1.98	1.44	1.32	1.18	1.10	0.99	0.79	0.66	<b>50.805</b>	<b>27.560</b>	<b>32.453</b>	<b>46.251</b>	27.305	
<b>ASB30018</b>	7.27	11.661	0.83	0.61	0.56	0.50	0.46	0.42	0.33	0.28	<b>24.019</b>	<b>12.617</b>	<b>14.803</b>	<b>21.486</b>	12.660	
<b>ASB30020</b>	8.07	13.322	0.95	0.69	0.63	0.57	0.53	0.48	0.38	0.32	<b>27.842</b>	<b>14.706</b>	<b>17.223</b>	<b>24.904</b>	14.430	
<b>ASB30023</b>	9.26	17.308	1.24	0.90	0.82	0.74	0.69	0.62	0.49	0.41	<b>35.045</b>	<b>19.076</b>	<b>22.107</b>	<b>31.366</b>	18.580	
<b>ASB30025</b>	10.05	18.985	1.36	0.99	0.90	0.81	0.75	0.68	0.54	0.45	<b>38.776</b>	<b>21.048</b>	<b>24.405</b>	<b>34.692</b>	20.365	
<b>ASB30028</b>	11.23	21.353	1.53	1.11	1.02	0.91	0.85	0.76	0.61	0.51	<b>43.887</b>	<b>23.657</b>	<b>27.472</b>	<b>39.237</b>	22.895	
<b>ASB30030</b>	12.01	22.880	1.63	1.19	1.09	0.98	0.91	0.82	0.65	0.54	<b>47.146</b>	<b>25.267</b>	<b>29.381</b>	<b>42.129</b>	24.530	
<b>ASB30018</b>	7.27	10.365	0.69	0.50	0.46	0.41	0.38	0.35	0.28	0.23	<b>22.406</b>	<b>11.633</b>	<b>13.508</b>	<b>19.650</b>	11.435	
<b>ASB30020</b>	8.07	11.838	0.79	0.57	0.53	0.47	0.44	0.39	0.32	0.26	<b>25.971</b>	<b>13.560</b>	<b>15.722</b>	<b>22.776</b>	13.025	
<b>ASB30023</b>	9.26	15.463	1.03	0.75	0.69	0.62	0.57	0.52	0.41	0.34	<b>32.691</b>	<b>17.604</b>	<b>20.208</b>	<b>28.710</b>	16.825	
<b>ASB30025</b>	10.05	16.966	1.13	0.82	0.75	0.68	0.63	0.57	0.45	0.38	<b>36.170</b>	<b>19.423</b>	<b>22.306</b>	<b>31.751</b>	18.445	
<b>ASB30028</b>	11.23	19.088	1.27	0.93	0.85	0.76	0.71	0.64	0.51	0.42	<b>40.938</b>	<b>21.830</b>	<b>25.101</b>	<b>35.906</b>	20.740	
<b>ASB30030</b>	12.01	20.458	1.36	0.99	0.91	0.81	0.76	0.68	0.55	0.45	<b>43.979</b>	<b>23.315</b>	<b>26.838</b>	<b>38.548</b>	22.225	

## Heavy end bay system

This heavy end bay system offers an economic solution to larger buildings, of five bays or more.

- Loads have been calibrated on the basis of full scale tests carried out under the supervision of Dr Jian Yang at Birmingham University.
- Section properties calculated in accordance with Eurocode 3, BS EN 1993-1-3:2006.
- Purlins must be installed exactly as described in this Technical Manual.
- Ultimate loads do not include self weight of purlin

- Working loads are the lesser of ultimate load reduced by a load factor of 1.6 or deflection span/180 limitation, and have the self weight of the purlin deducted
- Tables are valid for roof pitches up to 25 degrees.
- When using ultimate loads appropriate load factors must be applied
- Ultimate wind uplift capacities are based on screw fixed cladding, for hook bolt type fixings consult our technical department.

Section Ref.	Weight Kg/m	Allowable loads (kN)		Ultimate Loads (kN)								Deflection	
		Gravity				Uplift Lateral Supports							
		End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay
<b>ASB20012</b>	3.69	11.044	13.514	17.975	21.927	11.780	17.976	14.932	18.788	17.880	21.736	12.220	16.660
<b>ASB20013</b>	4.00	12.627	15.448	20.532	25.046	13.559	20.571	17.077	21.482	20.423	24.828	13.700	18.785
<b>ASB20014</b>	4.30	14.128	17.283	22.959	28.007	15.243	23.032	19.112	24.038	22.837	27.762	15.135	20.835
<b>ASB20015</b>	4.60	15.601	19.083	25.340	30.912	16.881	25.440	21.104	26.541	25.206	30.642	16.540	22.850
<b>ASB20016</b>	4.91	17.067	20.875	27.712	33.804	18.494	27.830	23.083	29.028	27.564	33.510	17.940	24.845
<b>ASB20018</b>	5.51	19.901	24.339	32.295	39.396	21.556	32.424	26.891	33.819	32.123	39.052	20.650	28.755
<b>ASB20020</b>	6.11	22.768	27.843	36.932	45.051	24.575	37.036	30.719	38.642	36.735	44.658	23.180	32.560
<b>ASB20023</b>	7.00	27.886	34.804	45.195	56.263	30.305	46.738	37.667	48.658	44.811	55.802	28.785	41.855
<b>ASB20025</b>	7.59	30.400	37.941	49.266	61.331	32.830	50.849	40.992	52.973	48.847	60.828	31.255	45.500
<b>ASB22512</b>	3.93	12.880	15.756	20.931	25.533	13.129	20.723	17.273	21.764	20.820	25.310	15.315	20.485
<b>ASB22513</b>	4.25	14.762	18.055	23.969	29.239	15.159	23.773	19.803	24.945	23.842	28.984	17.215	23.140
<b>ASB22514</b>	4.58	16.513	20.195	26.798	32.690	17.049	26.612	22.156	27.906	26.655	32.405	19.060	25.690
<b>ASB22515</b>	4.90	18.325	22.409	29.723	36.258	18.985	29.540	24.586	30.963	29.565	35.942	20.865	28.280
<b>ASB22516</b>	5.22	20.191	24.690	32.736	39.934	20.960	32.548	27.083	34.107	32.562	39.586	22.690	30.860
<b>ASB22518</b>	5.86	23.622	28.881	38.278	46.693	24.534	38.054	31.659	39.871	38.074	46.286	26.195	35.765
<b>ASB22520</b>	6.50	26.985	32.991	43.711	53.322	27.951	43.416	36.122	45.499	43.479	52.857	29.435	40.490
<b>ASB22523</b>	7.45	33.019	41.200	53.445	66.534	34.545	54.798	44.280	57.278	52.991	65.988	36.350	51.805
<b>ASB22525</b>	8.09	35.995	44.912	58.258	72.525	37.438	59.628	48.197	62.365	57.762	71.931	39.465	56.310
<b>ASB20012</b>	3.69	10.149	12.425	16.568	20.210	10.640	16.172	13.371	16.925	16.480	20.034	10.785	14.885
<b>ASB20013</b>	4.00	11.605	14.205	18.924	23.085	12.254	18.516	15.300	19.360	18.824	22.883	12.090	16.785
<b>ASB20014</b>	4.30	12.986	15.893	21.161	25.813	13.781	20.738	17.130	21.669	21.048	25.588	13.355	18.620
<b>ASB20015</b>	4.60	14.301	17.550	23.356	28.491	15.266	22.912	18.920	23.931	23.232	28.243	14.595	20.420
<b>ASB20016</b>	4.91	15.522	19.200	25.542	31.157	16.727	25.068	20.697	26.176	25.406	30.886	15.835	22.205
<b>ASB20018</b>	5.51	17.854	22.387	29.766	36.311	19.498	29.206	24.111	30.497	29.608	35.994	18.205	25.705
<b>ASB20020</b>	6.11	20.031	25.611	34.040	41.523	22.225	33.354	27.537	34.840	33.859	41.161	20.420	29.100
<b>ASB20023</b>	7.00	25.009	32.020	41.656	51.857	27.425	42.144	33.790	43.920	41.302	51.432	25.455	37.515
<b>ASB20025</b>	7.59	27.161	34.906	45.408	56.528	29.699	45.833	36.755	47.799	45.022	56.065	27.645	40.790
<b>ASB22512</b>	3.93	11.838	14.489	19.292	23.534	11.818	18.588	15.422	19.560	19.189	23.328	13.495	18.265
<b>ASB22513</b>	4.25	13.570	16.606	22.092	26.949	13.655	21.336	17.689	22.429	21.975	26.714	15.175	20.640
<b>ASB22514</b>	4.58	15.182	18.576	24.699	30.130	15.365	23.893	19.799	25.098	24.568	29.867	16.795	22.920
<b>ASB22515</b>	4.90	16.849	20.613	27.396	33.419	17.115	26.530	21.976	27.854	27.250	33.127	18.380	25.220
<b>ASB22516</b>	5.22	18.567	22.713	30.173	36.807	18.899	29.236	24.212	30.686	30.012	36.486	19.990	27.525
<b>ASB22518</b>	5.86	21.723	26.571	35.280	43.037	22.125	34.184	28.305	35.874	35.093	42.662	23.050	31.910
<b>ASB22520</b>	6.50	24.818	30.354	40.288	49.146	25.204	38.995	32.289	40.933	40.074	48.718	25.870	36.110
<b>ASB22523</b>	7.45	30.372	37.911	49.260	61.324	31.177	49.292	39.619	51.599	48.841	60.821	32.070	46.335
<b>ASB22525</b>	8.09	33.109	41.328	53.696	66.846	33.775	53.618	43.106	56.165	53.239	66.298	34.825	50.370

Section Ref.	Weight Kg/m	Allowable loads (kN)		Ultimate Loads (kN)								Deflection	
				Gravity		Uplift Lateral Supports							
				0 Rows		1 Rows		2 Rows		Span/180			
		End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay
<b>ASB20012</b>	3.69	9.361	11.492	15.365	18.743	9.699	14.664	12.059	15.356	15.185	18.482	9.615	13.425
<b>ASB20013</b>	4.00	10.505	13.140	17.550	21.408	11.175	16.798	13.808	17.573	17.345	21.110	10.780	15.140
<b>ASB20014</b>	4.30	11.615	14.703	19.624	23.939	12.571	18.821	15.466	19.676	19.394	23.604	11.910	16.800
<b>ASB20015</b>	4.60	12.699	16.237	21.660	26.422	13.928	20.799	17.087	21.734	21.404	26.051	13.015	18.425
<b>ASB20016</b>	4.91	13.783	17.764	23.687	28.895	15.264	22.759	18.695	23.777	23.405	28.487	14.120	20.040
<b>ASB20018</b>	5.51	15.822	20.715	27.605	33.674	17.792	26.517	21.779	27.702	27.272	33.194	16.200	23.200
<b>ASB20020</b>	6.11	17.766	23.701	31.568	38.508	20.279	30.278	24.869	31.641	31.180	37.953	18.185	26.260
<b>ASB20023</b>	7.00	22.269	29.636	38.631	48.091	25.038	38.301	30.535	39.930	38.033	47.427	22.750	33.950
<b>ASB20025</b>	7.59	24.183	32.308	42.110	52.423	27.106	41.639	33.199	43.440	41.449	51.690	24.705	36.915
<b>ASB22512</b>	3.93	10.946	13.404	17.891	21.825	10.743	16.805	13.862	17.700	17.685	21.524	12.020	16.440
<b>ASB22513</b>	4.25	12.549	15.364	20.488	24.992	12.420	19.300	15.910	20.305	20.251	24.647	13.515	18.585
<b>ASB22514</b>	4.58	14.041	17.189	22.906	27.942	13.980	21.622	17.816	22.731	22.640	27.554	14.945	20.645
<b>ASB22515</b>	4.90	15.584	19.076	25.406	30.992	15.577	24.015	19.781	25.232	25.110	30.560	16.360	22.710
<b>ASB22516</b>	5.22	17.175	21.020	27.982	34.134	17.204	26.469	21.798	27.801	27.653	33.656	17.795	24.795
<b>ASB22518</b>	5.86	20.093	24.592	32.718	39.911	20.143	30.952	25.485	32.504	32.328	39.348	20.495	28.745
<b>ASB22520</b>	6.50	22.544	28.095	37.363	45.577	22.944	35.304	29.068	37.083	36.910	44.926	22.990	32.520
<b>ASB22523</b>	7.45	28.088	35.096	45.683	56.870	28.404	44.690	35.697	46.807	44.983	56.093	28.600	41.845
<b>ASB22525</b>	8.09	30.505	38.259	49.796	61.991	30.763	48.595	38.823	50.933	49.024	61.134	31.060	45.495
<b>ASB20012</b>	3.69	8.373	10.683	14.324	17.474	8.908	13.393	10.951	14.025	14.029	17.102	8.645	12.205
<b>ASB20013</b>	4.00	9.406	12.217	16.362	19.959	10.267	15.350	12.548	16.058	16.024	19.534	9.700	13.765
<b>ASB20014</b>	4.30	10.394	13.672	18.296	22.318	11.553	17.204	14.061	17.986	17.917	21.842	10.710	15.280
<b>ASB20015</b>	4.60	11.371	15.099	20.193	24.633	12.802	19.016	15.539	19.872	19.774	24.106	11.710	16.755
<b>ASB20016</b>	4.91	12.344	16.521	22.083	26.938	14.031	20.811	17.004	21.742	21.623	26.361	12.705	18.230
<b>ASB20018</b>	5.51	14.145	19.267	25.736	31.394	16.356	24.249	19.811	25.332	25.194	30.716	14.550	21.105
<b>ASB20020</b>	6.11	15.896	22.045	29.430	35.901	18.640	27.683	22.615	28.929	28.805	35.119	16.345	23.880
<b>ASB20023</b>	7.00	20.000	27.571	36.015	44.835	23.027	35.056	27.785	36.544	35.146	43.904	20.515	30.970
<b>ASB20025</b>	7.59	21.726	30.057	39.259	48.874	24.924	38.098	30.194	39.742	38.302	47.849	22.285	33.675
<b>ASB22512</b>	3.93	10.172	12.464	16.680	20.347	9.846	15.304	12.542	16.121	16.337	19.916	10.795	14.925
<b>ASB22513</b>	4.25	11.664	14.289	19.101	23.300	11.388	17.586	14.405	18.503	18.708	22.806	12.145	16.875
<b>ASB22514</b>	4.58	13.052	15.987	21.355	26.050	12.823	19.710	16.139	20.721	20.915	25.496	13.420	18.750
<b>ASB22515</b>	4.90	14.330	17.743	23.686	28.893	14.290	21.897	17.925	23.007	23.196	28.278	14.690	20.615
<b>ASB22516</b>	5.22	15.601	19.553	26.087	31.823	15.784	24.139	19.757	25.354	25.546	31.142	15.985	22.515
<b>ASB22518</b>	5.86	17.954	22.878	30.503	37.209	18.483	28.230	23.101	29.645	29.864	36.408	18.385	26.110
<b>ASB22520</b>	6.50	20.147	26.139	34.833	42.491	21.052	32.195	26.345	33.818	34.096	41.569	20.625	29.530
<b>ASB22523</b>	7.45	25.192	32.657	42.590	53.020	26.080	40.809	32.380	42.738	41.566	51.924	25.740	38.100
<b>ASB22525</b>	8.09	27.360	35.601	46.425	57.794	28.240	44.361	35.199	46.490	45.299	56.589	27.955	41.430
<b>ASB24015</b>	5.08	15.766	19.304	25.748	31.409	15.106	23.567	19.317	24.841	25.215	30.739	16.560	23.005
<b>ASB24016</b>	5.41	17.359	21.252	28.331	34.560	16.676	25.957	21.271	27.349	27.743	33.821	18.005	25.100
<b>ASB22512</b>	3.93	9.467	11.641	15.622	19.057	9.086	14.031	11.420	14.771	15.159	18.510	9.775	13.640
<b>ASB22513</b>	4.25	10.666	13.347	17.889	21.822	10.512	16.131	13.126	16.964	17.358	21.196	11.000	15.430
<b>ASB22514</b>	4.58	11.781	14.935	20.001	24.398	11.840	18.086	14.713	19.004	19.406	23.697	12.140	17.145
<b>ASB22515</b>	4.90	12.911	16.577	22.184	27.061	13.197	20.098	16.348	21.107	21.523	26.282	13.295	18.850
<b>ASB22516</b>	5.22	14.060	18.269	24.433	29.805	14.578	22.159	18.022	23.264	23.703	28.945	14.470	20.595
<b>ASB22518</b>	5.86	16.160	21.379	28.569	34.850	17.071	25.918	21.075	27.205	27.710	33.839	16.620	23.885
<b>ASB22520</b>	6.50	18.140	24.427	32.624	39.797	19.444	29.555	24.031	31.030	31.636	38.635	18.650	27.010
<b>ASB22523</b>	7.45	22.760	30.524	39.889	49.658	24.103	37.509	29.560	39.261	38.579	48.280	23.345	34.935
<b>ASB22525</b>	8.09	24.725	33.276	43.481	54.129	26.095	40.762	32.119	42.693	42.042	52.616	25.360	37.990
<b>ASB24015</b>	5.08	14.577	18.037	24.115	29.417	13.938	21.600	17.581	22.755	23.396	28.569	14.975	21.020
<b>ASB24016</b>	5.41	15.861	19.859	26.535	32.369	15.388	23.795	19.364	25.057	25.741	31.433	16.285	22.940
<b>ASB24018</b>	6.07	18.283	23.287	31.091	37.927	18.069	27.896	22.697	29.367	30.155	36.825	18.760	26.635
<b>ASB24020</b>	6.74	20.511	26.590	35.482	43.284	20.579	31.798	25.869	33.481	34.406	42.018	21.040	30.110
<b>ASB24023</b>	7.72	25.644	33.203	43.356	53.974	25.552	40.377	31.828	42.372	41.931	52.475	26.250	38.850
<b>ASB24025</b>	8.38	27.857	36.199	47.264	58.839	27.673	43.890	34.592	46.087	45.698	57.193	28.515	42.245
<b>ASB24028</b>	9.36	31.145	40.662	53.086	66.087	30.743	49.064	38.664	51.575	51.308	64.218	31.880	47.305
<b>ASB26515</b>	5.37	16.376	20.058	26.792	32.683	14.802	23.590	19.226	24.974	25.988	31.736	17.835	24.545
<b>ASB26516</b>	5.72	18.268	22.371	29.857	36.422	16.560	26.322	21.448	27.853	28.959	35.364	19.490	26.980

Section Ref.	Weight Kg/m	Allowable loads (kN)		Ultimate Loads (kN)										Deflection	
				Gravity		Uplift Lateral Supports									
				0 Rows		1 Rows		2 Rows				Span/180			
		End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay
ASB22512	3.93	8.582	10.913	14.690	17.920	8.433	12.942	10.461	13.613	14.119	17.271	8.910	12.545		
ASB22513	4.25	9.665	12.515	16.823	20.521	9.759	14.886	12.033	15.642	16.168	19.777	10.020	14.200		
ASB22514	4.58	10.678	14.006	18.808	22.943	10.994	16.696	13.495	17.530	18.076	22.111	11.060	15.770		
ASB22515	4.90	11.707	15.547	20.861	25.448	12.256	18.557	14.999	19.475	20.048	24.523	12.115	17.345		
ASB22516	5.22	12.755	17.136	22.976	28.027	13.540	20.463	16.539	21.469	22.078	27.007	13.190	18.955		
ASB22518	5.86	14.636	20.055	26.865	32.772	15.856	23.937	19.344	25.108	25.810	31.573	15.125	21.985		
ASB22520	6.50	16.438	22.916	30.679	37.424	18.059	27.294	22.053	28.635	29.466	36.047	16.980	24.850		
ASB24015	5.08	13.212	16.919	22.677	27.663	12.934	19.918	16.099	20.964	21.790	26.655	13.635	19.325		
ASB24016	5.41	14.379	18.629	24.952	30.438	14.281	21.946	17.736	23.089	23.975	29.328	14.830	21.095		
ASB24018	6.07	16.554	21.848	29.237	35.665	16.772	25.731	20.792	27.065	28.085	34.358	17.060	24.495		
ASB24020	6.74	18.578	24.948	33.367	40.702	19.100	29.329	23.695	30.854	32.044	39.202	19.140	27.690		
ASB24023	7.72	23.306	31.159	40.771	50.756	23.733	37.290	29.179	39.095	39.066	48.981	23.950	35.805		
ASB26515	5.37	15.355	18.817	25.195	30.734	13.720	21.708	17.550	22.955	24.203	29.608	16.215	22.535		
ASB26516	5.72	17.131	20.989	28.077	34.250	15.352	24.227	19.584	25.608	26.969	32.993	17.725	24.775		
ASB26518	6.43	19.989	24.908	33.285	40.603	18.260	28.750	23.235	30.376	31.965	39.106	20.525	28.960		
ASB26520	7.13	22.456	28.413	37.950	46.294	20.794	32.751	26.463	34.605	36.436	44.578	23.050	32.720		
ASB24015	5.08	12.042	15.924	21.401	26.106	12.063	18.468	14.826	19.417	20.363	24.954	12.490	17.860		
ASB24016	5.41	13.112	17.536	23.548	28.725	13.321	20.351	16.338	21.390	22.404	27.456	13.590	19.505		
ASB24018	6.07	15.074	20.567	27.592	33.658	15.644	23.865	19.156	25.076	26.246	32.165	15.610	22.650		
ASB24020	6.74	16.930	23.487	31.489	38.412	17.816	27.200	21.829	28.585	29.944	36.700	17.525	25.605		
ASB24023	7.72	21.303	29.340	38.476	47.899	22.152	34.625	26.904	36.261	36.518	45.875	21.985	33.185		
ASB26515	5.37	14.356	17.713	23.777	29.004	12.784	20.091	16.113	21.214	22.615	27.716	14.830	20.800		
ASB26516	5.72	15.715	19.759	26.497	32.322	14.306	22.426	17.986	23.670	25.200	30.885	16.220	22.875		
ASB26518	6.43	18.203	23.452	31.412	38.318	17.018	26.617	21.344	28.083	29.868	36.607	18.770	26.745		
ASB26520	7.13	20.441	26.755	35.814	43.688	19.379	30.321	24.309	31.993	34.044	41.728	21.070	30.220		
ASB26523	8.18	25.583	33.383	43.717	54.423	24.166	38.643	29.982	40.614	41.478	52.110	26.305	39.025		
ASB30018	7.27	22.899	28.057	37.537	45.790	21.549	33.940	27.788	35.841	36.668	44.721	24.885	34.265		
ASB30020	8.07	26.570	32.549	43.510	53.076	25.099	39.398	32.247	41.581	42.498	51.832	28.415	39.340		
ASB30023	9.26	33.514	41.897	54.767	68.180	32.362	51.651	40.962	54.282	53.347	66.666	35.915	51.705		
ASB30025	10.05	37.097	46.372	60.597	75.438	35.715	57.082	45.266	60.003	59.016	73.753	39.375	56.855		
ASB22514	4.58	8.919	12.438	16.804	20.498	9.612	14.451	11.542	15.148	15.834	19.439	9.345	13.560		
ASB22515	4.90	9.783	13.811	18.638	22.736	10.718	16.069	12.838	16.836	17.562	21.561	10.240	14.920		
ASB22516	5.22	10.659	15.225	20.528	25.041	11.842	17.724	14.162	18.566	19.341	23.745	11.145	16.310		
ASB22518	5.86	12.214	17.822	24.002	29.280	13.869	20.736	16.568	21.717	22.609	27.759	12.760	18.910		
ASB22520	6.50	13.729	20.367	27.410	33.436	15.795	23.641	18.883	24.764	25.810	31.691	14.335	21.380		
ASB24015	5.08	11.032	15.033	20.261	24.715	11.300	17.209	13.726	18.073	19.085	23.432	11.505	16.595		
ASB24016	5.41	12.011	16.556	22.294	27.195	12.478	18.966	15.130	19.913	20.998	25.781	12.515	18.120		
ASB24018	6.07	13.799	19.420	26.122	31.865	14.656	22.242	17.743	23.347	24.598	30.203	14.365	21.040		
ASB24020	6.74	15.502	22.179	29.811	36.365	16.690	25.350	20.217	26.613	28.064	34.460	16.130	23.790		
ASB24023	7.72	19.570	27.712	36.427	45.347	20.764	32.305	24.937	33.796	34.237	43.096	20.290	30.900		
ASB26515	5.37	13.140	16.724	22.510	27.459	11.966	18.689	14.875	19.704	21.193	26.022	13.640	19.295		
ASB26516	5.72	14.387	18.659	25.085	30.600	13.391	20.865	16.608	21.990	23.615	28.997	14.920	21.230		
ASB26518	6.43	16.666	22.149	29.738	36.276	15.931	24.768	19.715	26.095	27.989	34.369	17.265	24.825		
ASB26520	7.13	18.706	25.269	33.906	41.361	18.142	28.215	22.453	29.727	31.903	39.177	19.370	28.050		
ASB26523	8.18	23.478	31.536	41.388	51.524	22.638	36.006	27.721	37.786	38.882	48.947	24.240	36.295		
ASB30018	7.27	21.617	26.501	35.537	43.350	20.140	31.535	25.658	33.282	34.437	42.062	22.860	31.755		
ASB30020	8.07	25.087	30.747	41.192	50.248	23.461	36.615	29.784	38.621	39.912	48.750	26.110	36.460		
ASB30023	9.26	31.651	39.587	51.850	64.547	30.277	48.076	37.883	50.492	50.116	62.726	33.055	48.015		
ASB30025	10.05	35.036	43.817	57.369	71.418	33.412	53.126	41.857	55.809	55.441	69.393	36.245	52.805		

Section Ref.	Weight Kg/m	Allowable loads (kN)		Ultimate Loads (kN)										Deflection	
				Gravity		Uplift Lateral Supports									
		0 Rows		1 Rows		2 Rows		Span/180							
		End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay
<b>ASB24015</b>	5.08	10.147	14.230	19.236	23.465	10.624	16.106	12.771	16.898	17.934	22.061	10.645	15.480		
<b>ASB24016</b>	5.41	11.054	15.673	21.166	25.819	11.733	17.753	14.080	18.621	19.732	24.273	11.585	16.910		
<b>ASB24018</b>	6.07	12.689	18.387	24.800	30.253	13.781	20.822	16.515	21.835	23.115	28.435	13.285	19.635		
<b>ASB24020</b>	6.74	14.259	21.001	28.303	34.526	15.693	23.730	18.816	24.888	26.370	32.443	14.920	22.195		
<b>ASB24023</b>	7.72	18.057	26.245	34.584	43.053	19.535	30.272	23.226	31.636	32.182	40.593	18.815	28.895		
<b>ASB24025</b>	8.38	19.628	28.614	37.701	46.934	21.149	32.878	25.205	34.373	35.067	44.236	20.450	31.435		
<b>ASB24028</b>	9.36	21.957	32.144	42.345	52.716	23.480	36.701	28.099	38.397	39.362	49.660	22.875	35.210		
<b>ASB26515</b>	5.37	12.078	15.833	21.371	26.070	11.244	17.466	13.802	18.387	19.911	24.496	12.605	17.980		
<b>ASB26516</b>	5.72	13.234	17.667	23.816	29.052	12.584	19.502	15.415	20.524	22.187	27.297	13.795	19.785		
<b>ASB26518</b>	6.43	15.320	20.974	28.234	34.441	14.972	23.154	18.302	24.359	26.296	32.354	15.950	23.140		
<b>ASB26520</b>	7.13	17.196	23.931	32.191	39.269	17.049	26.375	20.843	27.750	29.972	36.879	17.895	26.150		
<b>ASB26523</b>	8.18	21.648	29.872	39.294	48.918	21.289	33.698	25.758	35.315	36.543	46.099	22.450	33.900		
<b>ASB26525</b>	8.87	23.525	32.571	42.841	53.333	23.063	36.617	27.969	38.387	39.825	50.244	24.395	36.880		
<b>ASB26528</b>	9.91	26.318	36.596	48.128	59.914	25.626	40.903	31.204	42.909	44.711	56.416	27.290	41.310		
<b>ASB30018</b>	7.27	20.391	25.099	33.739	41.157	18.902	29.429	23.794	31.032	32.430	39.668	21.105	29.560		
<b>ASB30020</b>	8.07	23.313	29.124	39.108	47.707	22.022	34.176	27.628	36.018	37.585	45.975	24.105	33.940		
<b>ASB30023</b>	9.26	29.662	37.507	49.227	61.282	28.441	44.938	35.185	47.157	47.208	59.180	30.570	44.785		
<b>ASB30025</b>	10.05	32.539	41.516	54.467	67.806	31.385	49.655	38.872	52.118	52.223	65.470	33.525	49.260		
<b>ASB30028</b>	11.23	36.584	47.001	61.647	76.744	35.288	56.026	43.847	58.839	59.089	74.081	37.685	55.555		
<b>ASB30030</b>	12.01	39.177	50.496	66.225	82.443	37.702	60.037	46.977	63.082	63.463	79.568	40.355	59.620		
<b>ASB26515</b>	5.37	10.326	14.290	19.408	23.675	10.028	15.438	12.047	16.210	17.692	21.856	10.905	15.790		
<b>ASB26516</b>	5.72	11.318	15.949	21.628	26.383	11.225	17.242	13.460	18.100	19.714	24.355	11.935	17.385		
<b>ASB26518</b>	6.43	13.087	18.941	25.640	31.277	13.355	20.475	15.989	21.489	23.365	28.866	13.780	20.335		
<b>ASB26520</b>	7.13	14.706	21.615	29.234	35.661	15.209	23.324	18.208	24.480	26.630	32.902	15.475	22.990		
<b>ASB26523</b>	8.18	18.618	26.993	35.684	44.423	19.013	29.862	22.540	31.218	32.492	41.171	19.500	29.910		
<b>ASB26525</b>	8.87	20.238	29.433	38.905	48.433	20.595	32.441	24.461	33.922	35.407	44.868	21.195	32.540		
<b>ASB26528</b>	9.91	22.641	33.070	43.706	54.409	22.881	36.222	27.265	37.894	39.744	50.374	23.710	36.460		
<b>ASB30018</b>	7.27	17.435	22.673	30.640	37.376	16.827	25.930	20.713	27.286	28.958	35.532	18.220	25.920		
<b>ASB30020</b>	8.07	19.934	26.315	35.515	43.324	19.607	30.124	24.065	31.684	33.562	41.181	20.805	29.755		
<b>ASB30023</b>	9.26	25.481	33.908	44.704	55.652	25.356	39.712	30.719	41.591	42.182	53.054	26.480	39.405		
<b>ASB30025</b>	10.05	27.961	37.536	49.463	61.576	27.979	43.874	33.930	45.959	46.661	58.690	29.045	43.355		
<b>ASB30028</b>	11.23	31.418	42.498	55.983	69.693	31.454	49.487	38.248	51.863	52.791	66.406	32.630	48.905		
<b>ASB30030</b>	12.01	33.649	45.659	60.141	74.869	33.601	53.014	40.955	55.581	56.696	71.322	34.945	52.490		
<b>ASB26515</b>	5.37	8.933	12.999	17.775	21.683	9.043	13.829	10.679	14.493	15.835	19.649	9.565	14.045		
<b>ASB26516</b>	5.72	9.801	14.513	19.808	24.163	10.122	15.448	11.937	16.187	17.646	21.896	10.475	15.475		
<b>ASB26518</b>	6.43	11.328	17.241	23.483	28.645	12.044	18.348	14.185	19.223	20.914	25.952	12.085	18.105		
<b>ASB26520</b>	7.13	12.741	19.636	26.774	32.660	13.716	20.901	16.153	21.897	23.834	29.578	13.580	20.475		
<b>ASB26523</b>	8.18	16.218	24.586	32.682	40.686	17.165	26.808	20.026	27.975	29.104	37.052	17.180	26.725		
<b>ASB26525</b>	8.87	17.631	26.810	35.631	44.357	18.591	29.117	21.723	30.389	31.711	40.376	18.675	29.080		
<b>ASB26528</b>	9.91	19.734	30.124	40.028	49.831	20.595	32.500	24.195	33.930	35.588	45.323	20.900	32.585		
<b>ASB30018</b>	7.27	15.099	20.645	28.062	34.231	15.153	23.156	18.297	24.317	26.060	32.080	15.955	23.015		
<b>ASB30020</b>	8.07	17.255	23.968	32.527	39.678	17.659	26.909	21.270	28.248	30.203	37.181	18.205	26.435		
<b>ASB30023</b>	9.26	22.175	30.902	40.943	50.969	22.863	35.552	27.208	37.166	37.985	47.942	23.265	35.120		
<b>ASB30025</b>	10.05	24.332	34.212	45.301	56.395	25.228	39.275	30.046	41.063	42.017	53.034	25.515	38.650		
<b>ASB30028</b>	11.23	27.343	38.737	51.273	63.829	28.358	44.287	33.851	46.320	47.533	60.002	28.665	43.605		
<b>ASB30030</b>	12.01	29.291	41.619	55.080	68.569	30.291	47.431	36.229	49.625	51.045	64.441	30.705	46.785		

Section Ref.	Weight Kg/m	Allowable loads (kN)		Ultimate Loads (kN)								Deflection			
		Gravity		Uplift Lateral Supports											
		End Bay Inner Bay		End Bay Inner Bay		End Bay Inner Bay		End Bay Inner Bay		End Bay Inner Bay		End Bay Inner Bay			
		End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay	End Bay	Inner Bay		
<b>ASB26515</b>	5.37	7.810	11.901	16.395	20.000	8.215	12.523	9.589	13.107	14.259	17.776	8.495	12.630		
<b>ASB26516</b>	5.72	8.570	13.195	18.271	22.288	9.206	13.991	10.722	14.642	15.890	19.810	9.300	13.925		
<b>ASB26518</b>	6.43	9.905	15.470	21.660	26.422	10.960	16.620	12.744	17.391	18.833	23.480	10.725	16.290		
<b>ASB26520</b>	7.13	11.151	17.516	24.696	30.125	12.481	18.932	14.513	19.811	21.461	26.759	12.060	18.425		
<b>ASB26523</b>	8.18	14.277	22.543	30.145	37.528	15.608	24.321	18.016	25.347	26.228	33.560	15.320	24.125		
<b>ASB26525</b>	8.87	15.519	24.582	32.866	40.915	16.879	26.412	19.536	27.529	28.572	36.565	16.650	26.255		
<b>ASB26528</b>	9.91	17.371	27.622	36.922	45.964	18.701	29.474	21.745	30.724	32.058	41.037	18.635	29.460		
<b>ASB30018</b>	7.27	13.212	18.922	25.884	31.574	13.774	20.910	16.369	21.922	23.600	29.153	14.140	20.660		
<b>ASB30020</b>	8.07	15.096	21.974	30.002	36.599	16.053	24.305	19.038	25.475	27.353	33.790	16.125	23.735		
<b>ASB30023</b>	9.26	19.509	28.350	37.765	47.014	20.805	32.172	24.398	33.582	34.425	43.610	20.690	31.630		
<b>ASB30025</b>	10.05	21.399	31.390	41.785	52.018	22.956	35.539	26.938	37.100	38.077	48.239	22.680	34.825		
<b>ASB30028</b>	11.23	24.058	35.544	47.293	58.875	25.802	40.065	30.335	41.836	43.072	54.573	25.490	39.295		
<b>ASB30030</b>	12.01	25.773	38.189	50.805	63.247	27.560	42.902	32.453	44.809	46.251	58.607	27.305	42.150		
<b>ASB26515</b>	5.37	6.878	10.723	15.215	18.560	7.509	11.442	8.701	11.965	12.904	16.168	7.615	11.460		
<b>ASB26516</b>	5.72	7.544	11.854	16.955	20.683	8.414	12.784	9.731	13.369	14.382	18.019	8.330	12.640		
<b>ASB26518</b>	6.43	8.737	13.907	20.100	24.519	10.021	15.188	11.569	15.882	17.046	21.358	9.620	14.790		
<b>ASB26520</b>	7.13	9.841	15.751	22.917	27.956	11.409	17.302	13.175	18.092	19.424	24.340	10.820	16.730		
<b>ASB26523</b>	8.18	12.667	20.122	27.974	34.825	14.283	22.255	16.373	23.176	23.759	30.562	13.790	21.245		
<b>ASB26525</b>	8.87	13.777	21.787	30.499	37.968	15.447	24.167	17.750	25.167	25.877	33.294	14.995	23.005		
<b>ASB26528</b>	9.91	15.424	24.254	34.263	42.653	17.116	26.964	19.748	28.080	29.024	37.357	16.785	25.615		
<b>ASB30018</b>	7.27	11.661	17.439	24.019	29.300	12.617	19.058	14.803	19.956	21.486	26.640	12.660	18.720		
<b>ASB30020</b>	8.07	13.322	20.257	27.842	33.963	14.706	22.157	17.223	23.196	24.904	30.877	14.430	21.510		
<b>ASB30023</b>	9.26	17.308	26.155	35.045	43.628	19.076	29.376	22.107	30.630	31.366	39.889	18.580	28.745		
<b>ASB30025</b>	10.05	18.985	28.962	38.776	48.272	21.048	32.448	24.405	33.835	34.692	44.122	20.365	31.655		
<b>ASB30028</b>	11.23	21.353	32.798	43.887	54.635	23.657	36.575	27.472	38.145	39.237	49.910	22.895	35.725		
<b>ASB30030</b>	12.01	22.880	35.239	47.146	58.692	25.267	39.159	29.381	40.847	42.129	53.595	24.530	38.310		
<b>ASB26515</b>	5.37	6.100	9.690	14.192	17.313	6.909	10.532	7.963	11.008	11.731	14.776	6.890	10.480		
<b>ASB26516</b>	5.72	6.688	10.718	15.816	19.293	7.742	11.769	8.908	12.301	13.075	16.468	7.530	11.560		
<b>ASB26518</b>	6.43	7.759	12.589	18.750	22.872	9.221	13.982	10.593	14.615	15.498	19.521	8.705	13.535		
<b>ASB26520</b>	7.13	8.746	14.261	21.377	26.077	10.498	15.928	12.063	16.649	17.659	22.245	9.795	15.310		
<b>ASB26523</b>	8.18	11.322	17.302	26.095	32.485	13.156	20.513	15.006	21.352	21.619	27.965	12.525	18.505		
<b>ASB26525</b>	8.87	12.315	18.735	28.450	35.417	14.230	22.273	16.264	23.183	23.542	30.461	13.620	20.040		
<b>ASB26528</b>	9.91	13.787	20.857	31.961	39.788	15.769	24.848	18.088	25.861	26.396	34.168	15.245	22.315		
<b>ASB30018</b>	7.27	10.365	16.020	22.406	27.332	11.633	17.505	13.508	18.315	19.650	24.457	11.435	17.090		
<b>ASB30020</b>	8.07	11.838	18.458	25.971	31.681	13.560	20.355	15.722	21.294	22.776	28.348	13.025	19.645		
<b>ASB30023</b>	9.26	15.463	24.243	32.691	40.696	17.604	27.026	20.208	28.158	28.710	36.660	16.825	26.325		
<b>ASB30025</b>	10.05	16.966	26.849	36.170	45.029	19.423	29.851	22.306	31.103	31.751	40.547	18.445	28.990		
<b>ASB30028</b>	11.23	19.088	30.407	40.938	50.964	21.830	33.643	25.101	35.057	35.906	45.862	20.740	32.715		
<b>ASB30030</b>	12.01	20.458	32.672	43.979	54.749	23.315	36.016	26.838	37.534	38.548	49.243	22.225	35.115		

## Single Span Butt System

Used where continuity of the purlin cannot be achieved.

- Loads have been calibrated on the basis of full scale tests carried out under the supervision of Dr Jian Yang at Birmingham University.
- Section properties calculated in accordance with Eurocode 3, BS EN 1993-1-3:2006
- Purlins must be installed exactly as described in this Technical Manual.
- Ultimate loads do not include self weight of purlin

- Working loads are the lesser of ultimate load reduced by a load factor of 1.6 or deflection span/180 limitation, and have the self weight of the purlin deducted
- Tables are valid for roof pitches up to 25 degrees.
- When using ultimate loads appropriate load factors must be applied.
- Ultimate wind uplift capacities are based on screw fixed cladding, for hook bolt type fixings consult our technical department.

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Gravity	Ultimate Loads (kN)				Deflection Span/180	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0		Uplift Lateral Restraints					
			Allowable Loadings (kN/m <sup>2</sup> )									0 Rows	1 Rows	2 Rows			
<b>ASB20012</b>	3.69	11.620	2.58	1.88	1.72	1.54	1.43	1.29	1.03	0.86	<b>18.820</b>	<b>9.963</b>	<b>15.613</b>	<b>18.820</b>	12.295		
<b>ASB20013</b>	4.00	13.281	2.95	2.15	1.97	1.76	1.64	1.48	1.18	0.98	<b>21.497</b>	<b>11.535</b>	<b>17.840</b>	<b>21.497</b>	13.640		
<b>ASB20014</b>	4.30	14.765	3.28	2.39	2.19	1.96	1.82	1.64	1.31	1.09	<b>24.038</b>	<b>13.020</b>	<b>19.953</b>	<b>24.038</b>	14.955		
<b>ASB20015</b>	4.60	16.037	3.56	2.59	2.38	2.13	1.98	1.78	1.43	1.19	<b>26.531</b>	<b>14.456</b>	<b>22.024</b>	<b>26.531</b>	16.240		
<b>ASB20016</b>	4.91	17.313	3.85	2.80	2.56	2.30	2.14	1.92	1.54	1.28	<b>29.014</b>	<b>15.860</b>	<b>24.082</b>	<b>29.014</b>	17.530		
<b>ASB20018</b>	5.51	19.657	4.37	3.18	2.91	2.61	2.43	2.18	1.75	1.46	<b>33.813</b>	<b>18.491</b>	<b>28.048</b>	<b>33.813</b>	19.900		
<b>ASB20020</b>	6.11	21.745	4.83	3.51	3.22	2.88	2.68	2.42	1.93	1.61	<b>38.667</b>	<b>21.037</b>	<b>32.044</b>	<b>38.667</b>	22.015		
<b>ASB20023</b>	7.00	24.841	5.52	4.01	3.68	3.30	3.07	2.76	2.21	1.84	<b>45.387</b>	<b>24.357</b>	<b>37.548</b>	<b>45.387</b>	25.150		
<b>ASB20025</b>	7.59	26.880	5.97	4.34	3.98	3.57	3.32	2.99	2.39	1.99	<b>49.475</b>	<b>26.252</b>	<b>40.879</b>	<b>49.475</b>	27.215		
<b>ASB22512</b>	3.93	13.545	3.01	2.19	2.01	1.80	1.67	1.50	1.20	1.00	<b>21.915</b>	<b>10.730</b>	<b>18.147</b>	<b>21.915</b>	15.970		
<b>ASB22513</b>	4.25	15.520	3.45	2.51	2.30	2.06	1.92	1.72	1.38	1.15	<b>25.095</b>	<b>12.472</b>	<b>20.786</b>	<b>25.095</b>	17.800		
<b>ASB22514</b>	4.58	17.359	3.86	2.81	2.57	2.30	2.14	1.93	1.54	1.29	<b>28.057</b>	<b>14.093</b>	<b>23.241</b>	<b>28.057</b>	19.610		
<b>ASB22515</b>	4.90	19.261	4.28	3.11	2.85	2.56	2.38	2.14	1.71	1.43	<b>31.120</b>	<b>15.743</b>	<b>25.777</b>	<b>31.120</b>	21.315		
<b>ASB20012</b>	3.69	9.914	1.98	1.44	1.32	1.18	1.10	0.99	0.79	0.66	<b>16.894</b>	<b>8.663</b>	<b>13.302</b>	<b>16.842</b>	10.095		
<b>ASB20013</b>	4.00	10.999	2.20	1.60	1.47	1.31	1.22	1.10	0.88	0.73	<b>19.297</b>	<b>10.041</b>	<b>15.209</b>	<b>19.236</b>	11.195		
<b>ASB20014</b>	4.30	12.039	2.41	1.75	1.61	1.44	1.34	1.20	0.96	0.80	<b>21.578</b>	<b>11.342</b>	<b>17.017</b>	<b>21.508</b>	12.250		
<b>ASB20015</b>	4.60	13.069	2.61	1.90	1.74	1.56	1.45	1.31	1.05	0.87	<b>23.816</b>	<b>12.599</b>	<b>18.788</b>	<b>23.737</b>	13.295		
<b>ASB20016</b>	4.91	14.104	2.82	2.05	1.88	1.68	1.57	1.41	1.13	0.94	<b>26.044</b>	<b>13.827</b>	<b>20.546</b>	<b>25.956</b>	14.345		
<b>ASB20018</b>	5.51	15.850	3.17	2.31	2.11	1.89	1.76	1.58	1.27	1.06	<b>30.352</b>	<b>16.122</b>	<b>23.929</b>	<b>30.242</b>	16.120		
<b>ASB20020</b>	6.11	17.535	3.51	2.55	2.34	2.09	1.95	1.75	1.40	1.17	<b>34.710</b>	<b>18.337</b>	<b>27.329</b>	<b>34.575</b>	17.835		
<b>ASB20023</b>	7.00	20.027	4.01	2.91	2.67	2.39	2.23	2.00	1.60	1.34	<b>40.742</b>	<b>21.212</b>	<b>31.998</b>	<b>40.568</b>	20.370		
<b>ASB20025</b>	7.59	21.672	4.33	3.15	2.89	2.59	2.41	2.17	1.73	1.44	<b>44.412</b>	<b>22.846</b>	<b>34.814</b>	<b>44.211</b>	22.045		
<b>ASB22512</b>	3.93	12.126	2.43	1.76	1.62	1.45	1.35	1.21	0.97	0.81	<b>19.672</b>	<b>9.262</b>	<b>15.417</b>	<b>19.618</b>	13.140		
<b>ASB22513</b>	4.25	13.897	2.78	2.02	1.85	1.66	1.54	1.39	1.11	0.93	<b>22.527</b>	<b>10.782</b>	<b>17.667</b>	<b>22.463</b>	14.635		
<b>ASB22514</b>	4.58	15.545	3.11	2.26	2.07	1.86	1.73	1.55	1.24	1.04	<b>25.186</b>	<b>12.197</b>	<b>19.761</b>	<b>25.113</b>	16.065		
<b>ASB22515</b>	4.90	17.210	3.44	2.50	2.29	2.05	1.91	1.72	1.38	1.15	<b>27.935</b>	<b>13.635</b>	<b>21.922</b>	<b>27.851</b>	17.450		
<b>ASB22516</b>	5.22	18.584	3.72	2.70	2.48	2.22	2.06	1.86	1.49	1.24	<b>30.767</b>	<b>15.089</b>	<b>24.144</b>	<b>30.671</b>	18.840		
<b>ASB22518</b>	5.86	21.128	4.23	3.07	2.82	2.52	2.35	2.11	1.69	1.41	<b>35.975</b>	<b>17.686</b>	<b>28.214</b>	<b>35.855</b>	21.415		
<b>ASB20012</b>	3.69	8.246	1.50	1.09	1.00	0.90	0.83	0.75	0.60	0.50	<b>15.325</b>	<b>7.661</b>	<b>11.442</b>	<b>15.037</b>	8.445		
<b>ASB20013</b>	4.00	9.134	1.66	1.21	1.11	0.99	0.92	0.83	0.66	0.55	<b>17.505</b>	<b>8.886</b>	<b>13.094</b>	<b>17.175</b>	9.350		
<b>ASB20014</b>	4.30	9.988	1.82	1.32	1.21	1.08	1.01	0.91	0.73	0.61	<b>19.574</b>	<b>10.042</b>	<b>14.660</b>	<b>19.204</b>	10.220		
<b>ASB20015</b>	4.60	10.847	1.97	1.43	1.31	1.18	1.10	0.99	0.79	0.66	<b>21.605</b>	<b>11.158</b>	<b>16.193</b>	<b>21.194</b>	11.095		
<b>ASB20016</b>	4.91	11.630	2.11	1.54	1.41	1.26	1.17	1.06	0.85	0.70	<b>23.626</b>	<b>12.248</b>	<b>17.712</b>	<b>23.175</b>	11.895		
<b>ASB20018</b>	5.51	13.028	2.37	1.72	1.58	1.41	1.32	1.18	0.95	0.79	<b>27.534</b>	<b>14.282</b>	<b>20.628</b>	<b>27.001</b>	13.325		
<b>ASB20020</b>	6.11	14.410	2.62	1.91	1.75	1.56	1.46	1.31	1.05	0.87	<b>31.487</b>	<b>16.241</b>	<b>23.550</b>	<b>30.869</b>	14.740		
<b>ASB20023</b>	7.00	16.457	2.99	2.18	1.99	1.79	1.66	1.50	1.20	1.00	<b>36.959</b>	<b>18.777</b>	<b>27.544</b>	<b>36.217</b>	16.835		
<b>ASB22512</b>	3.93	10.798	1.96	1.43	1.31	1.17	1.09	0.98	0.79	0.65	<b>17.845</b>	<b>8.151</b>	<b>13.201</b>	<b>17.514</b>	11.010		
<b>ASB22513</b>	4.25	12.021	2.19	1.59	1.46	1.30	1.21	1.09	0.87	0.73	<b>20.435</b>	<b>9.498</b>	<b>15.140</b>	<b>20.055</b>	12.250		
<b>ASB22514</b>	4.58	13.163	2.39	1.74	1.60	1.43	1.33	1.20	0.96	0.80	<b>22.847</b>	<b>10.752</b>	<b>16.944</b>	<b>22.420</b>	13.410		
<b>ASB22515</b>	4.90	14.296	2.60	1.89	1.73	1.55	1.44	1.30	1.04	0.87	<b>25.341</b>	<b>12.026</b>	<b>18.804</b>	<b>24.865</b>	14.560		
<b>ASB22516</b>	5.22	15.428	2.81	2.04	1.87	1.67	1.56	1.40	1.12	0.94	<b>27.910</b>	<b>13.312</b>	<b>20.714</b>	<b>27.382</b>	15.710		
<b>ASB22518</b>	5.86	17.384	3.16	2.30	2.11	1.89	1.76	1.58	1.26	1.05	<b>32.635</b>	<b>15.606</b>	<b>24.208</b>	<b>32.009</b>	17.700		
<b>ASB22520</b>	6.50	19.234	3.50	2.54	2.33	2.09	1.94	1.75	1.40	1.17	<b>37.267</b>	<b>17.745</b>	<b>27.606</b>	<b>36.543</b>	19.585		

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Gravity	Ultimate Loads (kN)			Deflection	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0		Uplift Lateral Restraints				
			Allowable Loadings (kN/m²)									0 Rows	1 Rows	2 Rows		
<b>ASB20018</b>	5.51	10.871	1.81	1.32	1.21	1.08	1.01	0.91	0.72	0.60	<b>25.195</b>	<b>12.805</b>	<b>17.976</b>	<b>24.309</b>	11.195	
<b>ASB20020</b>	6.11	12.026	2.00	1.46	1.34	1.20	1.11	1.00	0.80	0.67	<b>28.812</b>	<b>14.559</b>	<b>20.513</b>	<b>27.789</b>	12.385	
<b>ASB20023</b>	7.00	13.738	2.29	1.67	1.53	1.37	1.27	1.14	0.92	0.76	<b>33.819</b>	<b>16.826</b>	<b>23.963</b>	<b>32.600</b>	14.150	
<b>ASB22512</b>	3.93	9.139	1.52	1.11	1.02	0.91	0.85	0.76	0.61	0.51	<b>16.329</b>	<b>7.275</b>	<b>11.399</b>	<b>15.764</b>	9.370	
<b>ASB22513</b>	4.25	10.150	1.69	1.23	1.13	1.01	0.94	0.85	0.68	0.56	<b>18.699</b>	<b>8.484</b>	<b>13.087</b>	<b>18.051</b>	10.400	
<b>ASB22514</b>	4.58	11.096	1.85	1.34	1.23	1.10	1.03	0.92	0.74	0.62	<b>20.906</b>	<b>9.608</b>	<b>14.658</b>	<b>20.180</b>	11.365	
<b>ASB22515</b>	4.90	12.047	2.01	1.46	1.34	1.20	1.12	1.00	0.80	0.67	<b>23.188</b>	<b>10.750</b>	<b>16.276</b>	<b>22.381</b>	12.335	
<b>ASB22516</b>	5.22	12.968	2.16	1.57	1.44	1.29	1.20	1.08	0.86	0.72	<b>25.539</b>	<b>11.902</b>	<b>17.936</b>	<b>24.647</b>	13.275	
<b>ASB22518</b>	5.86	14.530	2.42	1.76	1.61	1.45	1.35	1.21	0.97	0.81	<b>29.862</b>	<b>13.955</b>	<b>20.965</b>	<b>28.811</b>	14.875	
<b>ASB24015</b>	5.08	13.921	2.32	1.69	1.55	1.39	1.29	1.16	0.93	0.77	<b>25.207</b>	<b>11.107</b>	<b>17.555</b>	<b>24.328</b>	14.220	
<b>ASB24016</b>	5.41	15.022	2.50	1.82	1.67	1.49	1.39	1.25	1.00	0.83	<b>27.736</b>	<b>12.295</b>	<b>19.326</b>	<b>26.766</b>	15.340	
<b>ASB24018</b>	6.07	16.913	2.82	2.05	1.88	1.68	1.57	1.41	1.13	0.94	<b>32.499</b>	<b>14.465</b>	<b>22.638</b>	<b>31.354</b>	17.270	
<b>ASB24020</b>	6.74	18.714	3.12	2.27	2.08	1.86	1.73	1.56	1.25	1.04	<b>37.089</b>	<b>16.450</b>	<b>25.796</b>	<b>35.771</b>	19.110	
<b>ASB24023</b>	7.72	21.395	3.57	2.59	2.38	2.13	1.98	1.78	1.43	1.19	<b>43.469</b>	<b>19.018</b>	<b>30.125</b>	<b>41.904</b>	21.850	
<b>ASB24025</b>	8.38	23.162	3.86	2.81	2.57	2.30	2.14	1.93	1.54	1.29	<b>47.387</b>	<b>20.479</b>	<b>32.746</b>	<b>45.665</b>	23.655	
<b>ASB20015</b>	4.60	7.711	1.19	0.86	0.79	0.71	0.66	0.59	0.47	0.40	<b>18.221</b>	<b>9.054</b>	<b>12.426</b>	<b>17.297</b>	8.005	
<b>ASB20016</b>	4.91	8.202	1.26	0.92	0.84	0.75	0.70	0.63	0.50	0.42	<b>19.926</b>	<b>9.940</b>	<b>13.601</b>	<b>18.914</b>	8.515	
<b>ASB20018</b>	5.51	9.189	1.41	1.03	0.94	0.84	0.79	0.71	0.57	0.47	<b>23.222</b>	<b>11.592</b>	<b>15.843</b>	<b>22.036</b>	9.540	
<b>ASB20020</b>	6.11	10.166	1.56	1.14	1.04	0.93	0.87	0.78	0.63	0.52	<b>26.556</b>	<b>13.178</b>	<b>18.071</b>	<b>25.190</b>	10.555	
<b>ASB22512</b>	3.93	7.824	1.20	0.88	0.80	0.72	0.67	0.60	0.48	0.40	<b>15.051</b>	<b>6.565</b>	<b>9.935</b>	<b>14.284</b>	8.075	
<b>ASB22513</b>	4.25	8.664	1.33	0.97	0.89	0.80	0.74	0.67	0.53	0.44	<b>17.235</b>	<b>7.659</b>	<b>11.422</b>	<b>16.357</b>	8.935	
<b>ASB22514</b>	4.58	9.468	1.46	1.06	0.97	0.87	0.81	0.73	0.58	0.49	<b>19.269</b>	<b>8.677</b>	<b>12.806</b>	<b>18.287</b>	9.760	
<b>ASB22515</b>	4.90	10.268	1.58	1.15	1.05	0.94	0.88	0.79	0.63	0.53	<b>21.372</b>	<b>9.710</b>	<b>14.230</b>	<b>20.282</b>	10.580	
<b>ASB22516</b>	5.22	10.977	1.69	1.23	1.13	1.01	0.94	0.84	0.68	0.56	<b>23.539</b>	<b>10.752</b>	<b>15.688</b>	<b>22.336</b>	11.310	
<b>ASB22518</b>	5.86	12.301	1.89	1.38	1.26	1.13	1.05	0.95	0.76	0.63	<b>27.524</b>	<b>12.608</b>	<b>18.341</b>	<b>26.109</b>	12.675	
<b>ASB22520</b>	6.50	13.611	2.09	1.52	1.40	1.25	1.16	1.05	0.84	0.70	<b>31.431</b>	<b>14.333</b>	<b>20.902</b>	<b>29.804</b>	14.025	
<b>ASB24015</b>	5.08	11.886	1.83	1.33	1.22	1.09	1.02	0.91	0.73	0.61	<b>23.233</b>	<b>10.019</b>	<b>15.287</b>	<b>22.043</b>	12.210	
<b>ASB24016</b>	5.41	12.785	1.97	1.43	1.31	1.17	1.09	0.98	0.79	0.66	<b>25.564</b>	<b>11.093</b>	<b>16.837</b>	<b>24.252</b>	13.130	
<b>ASB24018</b>	6.07	14.328	2.20	1.60	1.47	1.32	1.22	1.10	0.88	0.73	<b>29.954</b>	<b>13.052</b>	<b>19.729</b>	<b>28.409</b>	14.715	
<b>ASB24020</b>	6.74	15.856	2.44	1.77	1.63	1.46	1.36	1.22	0.98	0.81	<b>34.184</b>	<b>14.843</b>	<b>22.475</b>	<b>32.410</b>	16.285	
<b>ASB20018</b>	5.51	7.847	1.12	0.82	0.75	0.67	0.62	0.56	0.45	0.37	<b>21.536</b>	<b>10.576</b>	<b>14.122</b>	<b>20.094</b>	8.225	
<b>ASB20020</b>	6.11	8.681	1.24	0.90	0.83	0.74	0.69	0.62	0.50	0.41	<b>24.627</b>	<b>12.022</b>	<b>16.099</b>	<b>22.967</b>	9.100	
<b>ASB20023</b>	7.00	9.914	1.42	1.03	0.94	0.85	0.79	0.71	0.57	0.47	<b>28.907</b>	<b>13.886</b>	<b>18.756</b>	<b>26.936</b>	10.395	
<b>ASB20025</b>	7.59	10.728	1.53	1.11	1.02	0.92	0.85	0.77	0.61	0.51	<b>31.511</b>	<b>14.935</b>	<b>20.324</b>	<b>29.344</b>	11.250	
<b>ASB22512</b>	3.93	6.760	0.97	0.70	0.64	0.58	0.54	0.48	0.39	0.32	<b>13.958</b>	<b>5.975</b>	<b>8.747</b>	<b>13.016</b>	7.030	
<b>ASB22513</b>	4.25	7.468	1.07	0.78	0.71	0.64	0.59	0.53	0.43	0.36	<b>15.983</b>	<b>6.973</b>	<b>10.073</b>	<b>14.906</b>	7.760	
<b>ASB22514</b>	4.58	8.161	1.17	0.85	0.78	0.70	0.65	0.58	0.47	0.39	<b>17.870</b>	<b>7.902</b>	<b>11.306</b>	<b>16.666</b>	8.475	
<b>ASB22515</b>	4.90	8.829	1.26	0.92	0.84	0.75	0.70	0.63	0.50	0.42	<b>19.820</b>	<b>8.844</b>	<b>12.573</b>	<b>18.485</b>	9.165	
<b>ASB22516</b>	5.22	9.397	1.34	0.98	0.89	0.80	0.75	0.67	0.54	0.45	<b>21.830</b>	<b>9.794</b>	<b>13.868</b>	<b>20.357</b>	9.755	
<b>ASB22518</b>	5.86	10.528	1.50	1.09	1.00	0.90	0.84	0.75	0.60	0.50	<b>25.525</b>	<b>11.485</b>	<b>16.219</b>	<b>23.795</b>	10.930	
<b>ASB22520</b>	6.50	11.644	1.66	1.21	1.11	0.99	0.92	0.83	0.67	0.55	<b>29.148</b>	<b>13.057</b>	<b>18.478</b>	<b>27.161</b>	12.090	
<b>ASB24015</b>	5.08	10.246	1.46	1.06	0.98	0.87	0.81	0.73	0.59	0.49	<b>21.546</b>	<b>9.117</b>	<b>13.448</b>	<b>20.085</b>	10.595	
<b>ASB24016</b>	5.41	10.954	1.56	1.14	1.04	0.93	0.87	0.78	0.63	0.52	<b>23.708</b>	<b>10.095</b>	<b>14.819</b>	<b>22.098</b>	11.325	
<b>ASB24018</b>	6.07	12.273	1.75	1.28	1.17	1.05	0.97	0.88	0.70	0.58	<b>27.778</b>	<b>11.879</b>	<b>17.371</b>	<b>25.885</b>	12.690	
<b>ASB24020</b>	6.74	13.577	1.94	1.41	1.29	1.16	1.08	0.97	0.78	0.65	<b>31.702</b>	<b>13.508</b>	<b>19.785</b>	<b>29.529</b>	14.040	

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Gravity	Ultimate Loads (kN)			Deflection	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0		Uplift Lateral Restraints				
			Allowable Loadings (kN/m <sup>2</sup> )									0 Rows	1 Rows	2 Rows		
<b>ASB20023</b>	7.00	8.540	1.14	0.83	0.76	0.68	0.63	0.57	0.46	0.38	<b>26.950</b>	<b>12.749</b>	<b>16.868</b>	<b>24.680</b>	9.055	
<b>ASB20025</b>	7.59	9.241	1.23	0.90	0.82	0.74	0.68	0.62	0.49	0.41	<b>29.378</b>	<b>13.710</b>	<b>18.258</b>	<b>26.882</b>	9.800	
<b>ASB22515</b>	4.90	7.620	1.02	0.74	0.68	0.61	0.56	0.51	0.41	0.34	<b>18.478</b>	<b>8.111</b>	<b>11.229</b>	<b>16.929</b>	7.980	
<b>ASB22516</b>	5.22	8.111	1.08	0.79	0.72	0.65	0.60	0.54	0.43	0.36	<b>20.352</b>	<b>8.984</b>	<b>12.392</b>	<b>18.644</b>	8.495	
<b>ASB22518</b>	5.86	9.089	1.21	0.88	0.81	0.72	0.67	0.61	0.48	0.40	<b>23.797</b>	<b>10.535</b>	<b>14.497</b>	<b>21.793</b>	9.520	
<b>ASB22520</b>	6.50	10.057	1.34	0.98	0.89	0.80	0.74	0.67	0.54	0.45	<b>27.175</b>	<b>11.976</b>	<b>16.511</b>	<b>24.874</b>	10.535	
<b>ASB22523</b>	7.45	11.492	1.53	1.11	1.02	0.91	0.85	0.77	0.61	0.51	<b>31.870</b>	<b>13.833</b>	<b>19.219</b>	<b>29.145</b>	12.040	
<b>ASB22525</b>	8.09	12.435	1.66	1.21	1.11	0.99	0.92	0.83	0.66	0.55	<b>34.740</b>	<b>14.881</b>	<b>20.819</b>	<b>31.748</b>	13.030	
<b>ASB24015</b>	5.08	8.892	1.19	0.86	<b>0.79</b>	0.71	0.66	0.59	0.47	0.40	<b>20.087</b>	<b>8.355</b>	<b>11.955</b>	<b>18.388</b>	9.265	
<b>ASB24016</b>	5.41	9.467	1.26	0.92	0.84	0.75	0.70	0.63	0.50	0.42	<b>22.102</b>	<b>9.253</b>	<b>13.181</b>	<b>20.232</b>	9.865	
<b>ASB24018</b>	6.07	10.608	1.41	1.03	0.94	0.84	0.79	0.71	0.57	0.47	<b>25.898</b>	<b>10.889</b>	<b>15.458</b>	<b>23.698</b>	11.055	
<b>ASB24020</b>	6.74	11.739	1.57	1.14	1.04	<b>0.93</b>	0.87	0.78	0.63	0.52	<b>29.556</b>	<b>12.382</b>	<b>17.602</b>	<b>27.033</b>	12.235	
<b>ASB24023</b>	7.72	13.417	1.79	1.30	1.19	1.07	0.99	0.89	0.72	0.60	<b>34.640</b>	<b>14.305</b>	<b>20.490</b>	<b>31.656</b>	13.985	
<b>ASB24025</b>	8.38	14.523	1.94	1.41	1.29	1.16	1.08	0.97	0.77	0.65	<b>37.762</b>	<b>15.393</b>	<b>22.208</b>	<b>34.487</b>	15.140	
<b>ASB24028</b>	9.36	16.166	2.16	1.57	1.44	1.29	1.20	1.08	0.86	0.72	<b>42.414</b>	<b>16.914</b>	<b>24.710</b>	<b>38.698</b>	16.855	
<b>ASB22523</b>	7.45	9.995	1.25	0.91	0.83	0.75	0.69	0.62	0.50	0.42	<b>29.849</b>	<b>12.761</b>	<b>17.330</b>	<b>26.799</b>	10.580	
<b>ASB22525</b>	8.09	10.820	1.35	0.98	0.90	0.81	0.75	0.68	0.54	0.45	<b>32.537</b>	<b>13.725</b>	<b>18.754</b>	<b>29.188</b>	11.455	
<b>ASB24015</b>	5.08	7.747	0.97	0.70	0.65	0.58	0.54	0.48	0.39	0.32	<b>18.813</b>	<b>7.704</b>	<b>10.737</b>	<b>16.904</b>	8.145	
<b>ASB24016</b>	5.41	8.246	1.03	0.75	0.69	0.62	0.57	0.52	0.41	0.34	<b>20.701</b>	<b>8.532</b>	<b>11.845</b>	<b>18.599</b>	8.670	
<b>ASB24018</b>	6.07	9.238	1.15	0.84	0.77	0.69	0.64	0.58	0.46	0.38	<b>24.255</b>	<b>10.041</b>	<b>13.897</b>	<b>21.787</b>	9.715	
<b>ASB24020</b>	6.74	10.221	1.28	0.93	0.85	0.76	0.71	0.64	0.51	0.43	<b>27.681</b>	<b>11.417</b>	<b>15.822</b>	<b>24.851</b>	10.750	
<b>ASB24023</b>	7.72	11.684	1.46	1.06	0.97	0.87	0.81	0.73	0.58	0.49	<b>32.444</b>	<b>13.189</b>	<b>18.399</b>	<b>29.096</b>	12.290	
<b>ASB24025</b>	8.38	12.647	1.58	1.15	1.05	<b>0.94</b>	0.88	0.79	0.63	0.53	<b>35.367</b>	<b>14.190</b>	<b>19.922</b>	<b>31.693</b>	13.305	
<b>ASB24028</b>	9.36	14.080	1.76	1.28	1.17	1.05	0.98	0.88	0.70	0.59	<b>39.724</b>	<b>15.588</b>	<b>22.130</b>	<b>35.555</b>	14.815	
<b>ASB26515</b>	5.37	9.779	1.22	0.89	0.81	<b>0.73</b>	0.68	0.61	0.49	0.41	<b>20.902</b>	<b>7.838</b>	<b>11.495</b>	<b>18.748</b>	10.200	
<b>ASB26516</b>	5.72	10.456	1.31	0.95	0.87	0.78	0.73	0.65	0.52	0.44	<b>23.293</b>	<b>8.805</b>	<b>12.845</b>	<b>20.891</b>	10.905	
<b>ASB26518</b>	6.43	11.721	1.47	1.07	<b>0.98</b>	0.87	0.81	0.73	0.59	0.49	<b>27.613</b>	<b>10.508</b>	<b>15.255</b>	<b>24.759</b>	12.225	
<b>ASB26520</b>	7.13	12.971	1.62	1.18	1.08	0.97	0.90	0.81	0.65	0.54	<b>31.484</b>	<b>11.956</b>	<b>17.363</b>	<b>28.215</b>	13.530	
<b>ASB26523</b>	8.18	14.828	1.85	1.35	1.24	1.11	1.03	0.93	0.74	0.62	<b>36.862</b>	<b>13.817</b>	<b>20.195</b>	<b>33.004</b>	15.470	
<b>ASB26525</b>	8.87	16.054	2.01	1.46	1.34	1.20	1.11	1.00	0.80	0.67	<b>40.189</b>	<b>14.853</b>	<b>21.887</b>	<b>35.958</b>	16.750	
<b>ASB24025</b>	8.38	11.086	1.30	0.95	0.87	0.78	0.72	0.65	0.52	0.43	<b>33.258</b>	<b>13.149</b>	<b>18.046</b>	<b>29.231</b>	11.785	
<b>ASB24028</b>	9.36	12.340	1.45	1.06	0.97	0.87	0.81	0.73	0.58	0.48	<b>37.356</b>	<b>14.442</b>	<b>20.015</b>	<b>32.783</b>	13.120	
<b>ASB26515</b>	5.37	8.627	1.01	0.74	0.68	0.61	0.56	0.51	0.41	0.34	<b>19.655</b>	<b>7.243</b>	<b>10.352</b>	<b>17.283</b>	9.075	
<b>ASB26516</b>	5.72	9.183	1.08	0.79	0.72	0.64	0.60	0.54	0.43	0.36	<b>21.904</b>	<b>8.153</b>	<b>11.576</b>	<b>19.260</b>	9.660	
<b>ASB26518</b>	6.43	10.294	1.21	0.88	0.81	0.72	0.67	0.61	0.48	0.40	<b>25.967</b>	<b>9.732</b>	<b>13.756</b>	<b>22.826</b>	10.830	
<b>ASB26520</b>	7.13	11.391	1.34	0.97	<b>0.89</b>	0.80	0.74	0.67	0.54	0.45	<b>29.606</b>	<b>11.073</b>	<b>15.656</b>	<b>26.011</b>	11.985	
<b>ASB26523</b>	8.18	13.023	1.53	1.11	1.02	0.91	0.85	0.77	0.61	0.51	<b>34.664</b>	<b>12.766</b>	<b>18.194</b>	<b>30.421</b>	13.705	
<b>ASB26525</b>	8.87	14.100	1.66	1.21	1.11	<b>0.99</b>	0.92	0.83	0.66	0.55	<b>37.793</b>	<b>13.701</b>	<b>19.701</b>	<b>33.139</b>	14.840	
<b>ASB26528</b>	9.91	15.699	1.85	1.34	1.23	1.10	1.03	0.92	0.74	0.62	<b>42.457</b>	<b>14.978</b>	<b>21.881</b>	<b>37.179</b>	16.525	
<b>ASB30018</b>	7.27	15.228	1.79	1.30	1.19	<b>1.07</b>	1.00	0.90	0.72	0.60	<b>31.030</b>	<b>12.599</b>	<b>18.772</b>	<b>28.700</b>	15.835	
<b>ASB30020</b>	8.07	17.062	2.01	1.46	1.34	1.20	1.12	1.00	0.80	0.67	<b>35.968</b>	<b>14.744</b>	<b>21.810</b>	<b>33.261</b>	17.735	
<b>ASB30023</b>	9.26	19.578	2.30	1.68	1.54	1.38	1.28	1.15	0.92	0.77	<b>43.426</b>	<b>17.819</b>	<b>26.313</b>	<b>40.142</b>	20.350	
<b>ASB30025</b>	10.05	21.207	2.49	1.81	1.66	1.49	1.39	1.25	1.00	0.83	<b>48.049</b>	<b>19.616</b>	<b>29.046</b>	<b>44.399</b>	22.045	
<b>ASB30028</b>	11.23	23.629	2.78	2.02	1.85	1.66	1.54	1.39	1.11	0.93	<b>54.383</b>	<b>21.918</b>	<b>32.707</b>	<b>50.222</b>	24.565	
<b>ASB30030</b>	12.01	25.229	2.97	2.16	1.98	1.77	1.65	1.48	1.19	0.99	<b>58.421</b>	<b>23.294</b>	<b>34.994</b>	<b>53.929</b>	26.230	

Section Ref.	Weight Kg/m	UDL kN	Purlin centres in metres								Ultimate Loads (kN)				Deflection Span/180	
			1.0	1.375	1.5	1.675	1.8	2.0	2.5	3.0	Gravity	Uplift Lateral Restraints				
			Allowable Loadings (kN/m²)									0 Rows	1 Rows	2 Rows		
<b>ASB24028</b>	9.36	10.879	1.21	0.88	0.81	0.72	0.67	0.60	0.48	0.40	<b>35.253</b>	<b>13.441</b>	<b>18.264</b>	<b>30.324</b>	11.705	
<b>ASB26515</b>	5.37	7.621	0.85	0.62	0.56	0.51	0.47	0.42	0.34	0.28	<b>18.549</b>	<b>6.714</b>	<b>9.409</b>	<b>15.982</b>	8.095	
<b>ASB26516</b>	5.72	8.115	0.90	0.66	0.60	0.54	0.50	0.45	0.36	0.30	<b>20.671</b>	<b>7.558</b>	<b>10.527</b>	<b>17.812</b>	8.620	
<b>ASB26518</b>	6.43	9.093	1.01	0.73	0.67	0.60	0.56	0.51	0.40	0.34	<b>24.506</b>	<b>9.037</b>	<b>12.518</b>	<b>21.110</b>	9.660	
<b>ASB26520</b>	7.13	10.061	1.12	0.81	0.75	0.67	0.62	0.56	0.45	0.37	<b>27.940</b>	<b>10.276</b>	<b>14.246</b>	<b>24.055</b>	10.690	
<b>ASB26523</b>	8.18	11.503	1.28	0.93	0.85	0.76	0.71	0.64	0.51	0.43	<b>32.714</b>	<b>11.835</b>	<b>16.543</b>	<b>28.127</b>	12.225	
<b>ASB26525</b>	8.87	12.452	1.38	1.01	0.92	0.83	0.77	0.69	0.55	0.46	<b>35.666</b>	<b>12.701</b>	<b>17.899</b>	<b>30.634</b>	13.235	
<b>ASB26528</b>	9.91	13.865	1.54	1.12	1.03	0.92	0.86	0.77	0.62	0.51	<b>40.067</b>	<b>13.885</b>	<b>19.851</b>	<b>34.358</b>	14.740	
<b>ASB30018</b>	7.27	13.558	1.51	1.10	1.00	0.90	0.84	0.75	0.60	0.50	<b>29.284</b>	<b>11.720</b>	<b>17.002</b>	<b>26.662</b>	14.200	
<b>ASB30020</b>	8.07	15.148	1.68	1.22	1.12	1.00	0.94	0.84	0.67	0.56	<b>33.944</b>	<b>13.716</b>	<b>19.767</b>	<b>30.901</b>	15.860	
<b>ASB30023</b>	9.26	17.333	1.93	1.40	1.28	1.15	1.07	0.96	0.77	0.64	<b>40.982</b>	<b>16.578</b>	<b>23.852</b>	<b>37.292</b>	18.150	
<b>ASB30025</b>	10.05	18.778	2.09	1.52	1.39	1.25	1.16	1.04	0.83	0.70	<b>45.345</b>	<b>18.248</b>	<b>26.322</b>	<b>41.245</b>	19.665	
<b>ASB30028</b>	11.23	20.924	2.32	1.69	1.55	1.39	1.29	1.16	0.93	0.77	<b>51.322</b>	<b>20.387</b>	<b>29.615</b>	<b>46.649</b>	21.915	
<b>ASB30030</b>	12.01	22.340	2.48	1.81	1.65	1.48	1.38	1.24	0.99	0.83	<b>55.134</b>	<b>21.665</b>	<b>31.664</b>	<b>50.089</b>	23.400	
<b>ASB24025</b>	8.38	8.654	0.91	0.66	0.61	0.54	0.51	0.46	0.36	0.30	<b>29.715</b>	<b>11.439</b>	<b>15.187</b>	<b>25.104</b>	9.435	
<b>ASB24028</b>	9.36	9.633	1.01	0.74	0.68	0.61	0.56	0.51	0.41	0.34	<b>33.375</b>	<b>12.560</b>	<b>16.799</b>	<b>28.134</b>	10.505	
<b>ASB26515</b>	5.37	6.765	0.71	0.52	0.47	0.43	0.40	0.36	0.28	0.24	<b>17.561</b>	<b>6.252</b>	<b>8.622</b>	<b>14.820</b>	7.265	
<b>ASB26516</b>	5.72	7.202	0.76	0.55	0.51	0.45	0.42	0.38	0.30	0.25	<b>19.570</b>	<b>7.038</b>	<b>9.653</b>	<b>16.519</b>	7.735	
<b>ASB26518</b>	6.43	8.071	0.85	0.62	0.57	0.51	0.47	0.42	0.34	0.28	<b>23.200</b>	<b>8.415</b>	<b>11.485</b>	<b>19.579</b>	8.670	
<b>ASB26520</b>	7.13	8.931	0.94	0.68	0.63	0.56	0.52	0.47	0.38	0.31	<b>26.452</b>	<b>9.569</b>	<b>13.070</b>	<b>22.308</b>	9.595	
<b>ASB26523</b>	8.18	10.208	1.07	0.78	0.72	0.64	0.60	0.54	0.43	0.36	<b>30.971</b>	<b>11.020</b>	<b>15.166</b>	<b>26.079</b>	10.970	
<b>ASB26525</b>	8.87	11.053	1.16	0.85	0.78	0.69	0.65	0.58	0.47	0.39	<b>33.766</b>	<b>11.826</b>	<b>16.398</b>	<b>28.397</b>	11.880	
<b>ASB26528</b>	9.91	12.307	1.30	0.94	0.86	0.77	0.72	0.65	0.52	0.43	<b>37.933</b>	<b>12.927</b>	<b>18.162</b>	<b>31.838</b>	13.230	
<b>ASB30018</b>	7.27	12.122	1.28	0.93	0.85	0.76	0.71	0.64	0.51	0.43	<b>27.724</b>	<b>10.948</b>	<b>15.512</b>	<b>24.839</b>	12.800	
<b>ASB30020</b>	8.07	13.488	1.42	1.03	0.95	0.85	0.79	0.71	0.57	0.47	<b>32.136</b>	<b>12.814</b>	<b>18.047</b>	<b>28.789</b>	14.240	
<b>ASB30023</b>	9.26	15.427	1.62	1.18	1.08	0.97	0.90	0.81	0.65	0.54	<b>38.799</b>	<b>15.487</b>	<b>21.781</b>	<b>34.742</b>	16.290	
<b>ASB30025</b>	10.05	16.714	1.76	1.28	1.17	1.05	0.98	0.88	0.70	0.59	<b>42.929</b>	<b>17.047</b>	<b>24.029</b>	<b>38.423</b>	17.650	
<b>ASB30028</b>	11.23	18.619	1.96	1.43	1.31	1.17	1.09	0.98	0.78	0.65	<b>48.588</b>	<b>19.044</b>	<b>27.013</b>	<b>43.452</b>	19.665	
<b>ASB30030</b>	12.01	19.881	2.09	1.52	1.40	1.25	1.16	1.05	0.84	0.70	<b>52.196</b>	<b>20.235</b>	<b>28.862</b>	<b>46.651</b>	21.000	
<b>ASB30018</b>	7.27	10.861	1.09	0.79	0.72	0.65	0.60	0.54	0.43	0.36	<b>26.322</b>	<b>10.264</b>	<b>14.250</b>	<b>23.198</b>	11.575	
<b>ASB30020</b>	8.07	12.058	1.21	0.88	0.80	0.72	0.67	0.60	0.48	0.40	<b>30.510</b>	<b>12.015</b>	<b>16.591</b>	<b>26.889</b>	12.850	
<b>ASB30023</b>	9.26	13.797	1.38	1.00	0.92	0.82	0.77	0.69	0.55	0.46	<b>36.836</b>	<b>14.522</b>	<b>20.027</b>	<b>32.449</b>	14.705	
<b>ASB30025</b>	10.05	14.944	1.49	1.09	1.00	0.89	0.83	0.75	0.60	0.50	<b>40.758</b>	<b>15.984</b>	<b>22.088</b>	<b>35.884</b>	15.930	
<b>ASB30028</b>	11.23	16.649	1.66	1.21	1.11	0.99	0.92	0.83	0.67	0.55	<b>46.130</b>	<b>17.854</b>	<b>24.812</b>	<b>40.575</b>	17.750	
<b>ASB30030</b>	12.01	17.777	1.78	1.29	1.19	1.06	0.99	0.89	0.71	0.59	<b>49.556</b>	<b>18.970</b>	<b>26.494</b>	<b>43.557</b>	18.955	

## Albion Development Program

Albion Sections are committed to the development of structural profiles which result in the most economic strength/weight ratio.

This commitment, together with the use of high tensile steel, has resulted in an engineered, cost effective purlin solution that employs the minimum steel material content.

Working in Partnership with Birmingham University, and under the supervision of Dr Jian Yang, the Sigma Purlin has been developed utilising both full scale testing and sophisticated Finite Element Analysis.

The sigma profile has a higher strength/ weight ratio than comparable zed systems, uses less components and does not require sag bars for the most popular roof types.

### Full scale testing rigs at Birmingham University



Load tests with cladding fixed to flanges



Internal support tests



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