MAX-SPAN® PURLINS AND GIRTS

LYSAGHT

DESIGN MANUAL



INSPIRATION TO BUILD BETTER

AUSTRALIAN STANDARDS

Australian Standard	Definition
AS 1397:2021	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS/NZS 4600:2018	Cold formed steel structures

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Product details in this manual

Product	Use	Code prefix
MAX-SPAN® Zeds	General purpose purlins and girts	MZ
MAX-SPAN® Cees	General purpose purlins and girts	MC
MAX-SPAN® Fascia Purlins	Fascia purlins	FP
Esy-Lok Bridging	Flexible bridging system for bracing Zeds & Cees	EL

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BACKGROUND

Lysaght have been proudly supplying the residential and commercial construction market with high quality steel products for over 100 years. As a specialist supplier, Lysaght offers our customers high levels of service delivered through our skilled estimating staff and fast production turn-around times. We boast one of the most efficient and flexible bridging systems on the market and are proud to offer the MAX-SPAN® range of advanced purlins to Victoria. The MAX-SPAN® purlin range has been designed for maximum efficiency and will assist the commercial construction market in producing cost effective structures that don't compromise on strength or safety. Utilising patented web stiffening technology the MAX-SPAN® purlin profile geometry is balanced for ultimate strength and serviceability according to AS/NZS4600.

Research and testing of the MAX-SPAN® purlins system in our NATA-registered laboratory has shown that purlin volumes can be reduced by up to 20% in larger structures*, dramatically reducing the cost of construction. Lysaght are committed to driving innovation and efficiency in the commercial construction sector and offer engineering representation and design software to assist in producing the best outcome, please contact Lysaght to request further information on any design related matter.

SCOPE

This publication has been prepared with a view of providing designers, specifiers, fabricators, builders and erectors the relevant data to enable easy selection, specification and detailing of a roof or wall system using the MAX-SPAN® purlin range.

The information contained herein includes:

- Product features, applications and benefits
- Product ordering
- Product handling
- Product detailing, installation and assembly
- Familiar format of capacity tables, however a greater range of configurations
- More detailed information on design,construction and installation issues including profile orientation, bridging
- Product dimensional data and section properties
- MAX-SPAN® Zed and MAX-SPAN® Cee purlin profiles for 150, 200, 250

These purlin products are available with a wide range of accessories and a bridging system for the full range of purlin profiles.

*Performance comparisons vary by individual purlin size, span and bridging configurations.

DISCLAIMER, WARRANTIES AND LIMITATIONS OF LIABILITY

- This publication is intended to be an aid for all trades and professionals involved with specifying and installing LYSAGHT® products and not be a substitute for professional judgement.
- Terms and conditions of sale are available at lysaght.com/terms
- Except to the extent to which liability may not lawfully be excluded or limited, BlueScope Steel Limited will not be under or incur any liability to you for any direct or indirect loss or damage (including, without limitation, consequential loss or damage such as loss of profit or anticipated profit, loss of use, damage to goodwill and loss due to delay) however caused (including, without limitation, breach of contract, negligence and/or breach of statute), which you may suffer or incur in connection with this publication

GENERAL DATA FOR ZED & CEE SECTIONS

MAX-SPAN® Zed and Cee sections are accurately rollformed from high-strength zinc-coated steel to provide an efficient, lightweight, economical roofing and cladding support system for framed structures. The system, which includes Esy-Lok™ bridging, includes a comprehensive range of accessories and is supplied ready for erection.

APPLICATIONS

MAX-SPAN® Zed sections may be used over single spans, lapped continuous and unlapped continuous spans in multi-bay buildings. Lapped continuous spans result in a considerable capacity increase in the system. MAX-SPAN® Cee sections may be used in single spans and unlapped continuous spans in multi-bay buildings. Cee sections are ideal as eave purlins or where compact sections are required for detailing. Cee sections cannot be lapped

RANGE OF PRODUCTS & SERVICES

Our wide range includes:

- A full range of MAX-SPAN® Zeds and Cees
- A full range of MAX-SPAN® Zeds and Cees with downturned-lip
- Section sizes from 150mm to 250mm
- Technical information for cleatless connections (see Design Notes for capacity tables)
- Esy-Lok™ bridging systems
- Bolting systems to suit project needs
- The BlueScope Steel corrosion warranty
- Advice on improving the life expectancy of purlin systems in corrosive environments
- Access to a national network of experienced engineers

PERFORMANCE

In accordance with the provisions of AS/NZS 4600, load capacities have been calculated for MAX-SPAN® sections using approved Esy-Lok™ bridging systems, bolting and other accessories. Sections chosen using the data provided in the tables will perform as specified when the design, fabrication and erection are carried out in accordance with Lysaght recommendations and accepted building practice.

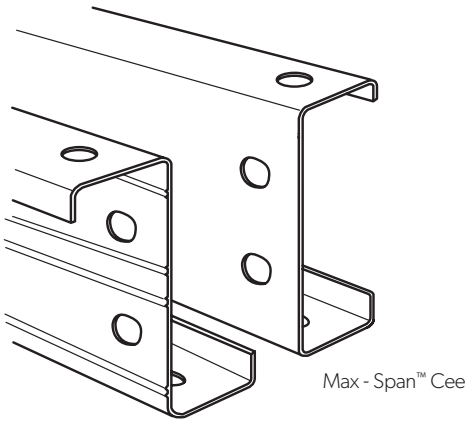
NON-STANDARD SECTIONS

In a competitive market it is essential to have the most efficient structural components for the job, at Lysaght we understand that a standard C and Z configuration is sometimes not the best outcome which is why we encourage innovation by offering a Custom Section service.

We can supply a wide range of non-standard sizes (up to 300mm) and shapes, including Cees and Zeds with downturned lip—the Zeds can also be made to lap.

Lysaght already produce a range of nonstandard profiles in a variety of base metals for use in the construction and manufacturing sectors and have the expertise to help you streamline your construction designs to save time and money!

Call the Lysaght Engineering team today to discuss your construction needs.



Max - Span™ Cee

Max - Span™ Zed

STANDARD RANGE OF MAX-SPAN® ZEDS & CEES

Nominal Section Size (mm)	BMT (mm)
150	1.2, 1.5, 1.9, 2.4
200	1.2, 1.5, 1.9, 2.4
250	1.5, 1.9, 2.4

CORROSION WARRANTY

MAX-SPAN® purlins and girts are manufactured from GALVASPAN® steel. Subject to design, location and intended use, they may be covered by the BlueScope Steel material warranty.

Visit www.bluescopesteel.com.au/warranties for further information

CORROSION PROTECTION & MATERIAL COMPATIBILITY

Some building materials and environmental conditions can be detrimental to coated steel products. These include contact with or exposure to run-off from:

- Industrial, agricultural, marine or other aggressive atmospheric conditions
- Incompatible metals, like lead or copper
- Building materials subject to cycles of dryness and wetness, or which have excessive moisture content such as improperly seasoned timber
- Materials which have been treated with preservatives, like CCA or tanalith-treated timber.

A zinc coating of Z350 (350 g/m^2 minimum coating mass) is the standard coating class provided with MAX-SPAN® Zed and Cee sections. This will provide a long and trouble-free life for enclosed buildings and open-sided rural buildings, in a non-aggressive environment.

A non-aggressive environment is 1000m from rough surf, 750m from industrial emission and fossil fuel combustion, and 300m from calm salt waters. Consideration must be given to the nature of activities performed within the building.

For severe corrosive environments a Z450 (450g/m^2) minimum coating mass) will be required. This heavier coating mass will be available in special circumstances and is subject to a minimum order quantity and extended lead times.

Direct contact of incompatible materials with the coating must be avoided.

In such applications, and in very corrosive environments, suitable paint systems can be obtained from paint manufacturers: you can seek advice from your Sales Representative.

In applications where particular attention is required for corrosion, or the buildup of substances like dust or grain, then consideration should be given to the shape of the sections (either Zed, or Cee, or Zed with downturned lip); orientation of the sections; and coating class. Further information is available from your nearest Lysaght Service Centre.

BOLT SPECIFICATION

Specified purlin bolts and nuts have integral washers.
Tighten all bolts to 55 Nm torque.

Nominal section size (mm)	Bolt specifications
150, 200, 250, FP	M12 purlin bolt with integrated washers standard (grade 4.6) or high strength (grade 8.8)

AVAILABLE LENGTHS

MAX-SPAN® purlins are available custom-cut in any transportable length, however there are some limitations.

For minimum lengths, and lengths over 12000mm, contact your nearest Lysaght office.

For normal deliveries nominal lengths should not exceed 12000mm. Lengths greater than 12000mm require special transportation and on-site handling facilities. Please check local laws regarding permits and requirements for oversize deliveries. Lengths greater than 19500mm require a special transportation permit.

The maximum length of the Fascia Purlin is 15000mm.

Length tolerance for all sections is ±5mm.

PACKING

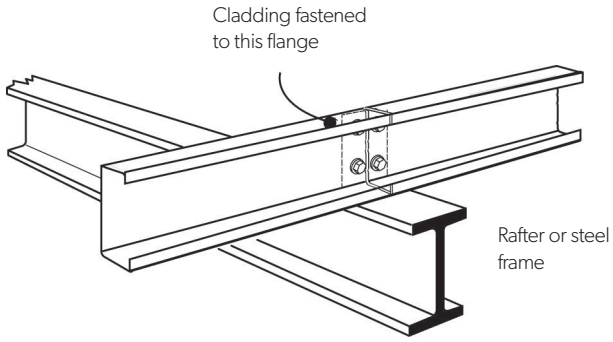
MAX-SPAN® Zed and Cee sections are delivered in strapped bundles. The actual quantity in each bundle will vary with section size, order and length. The bundle mass is generally approximately one tonne.

MAX-SPAN® accessories are delivered in strapped or wired bundles, bags, or packages as appropriate.

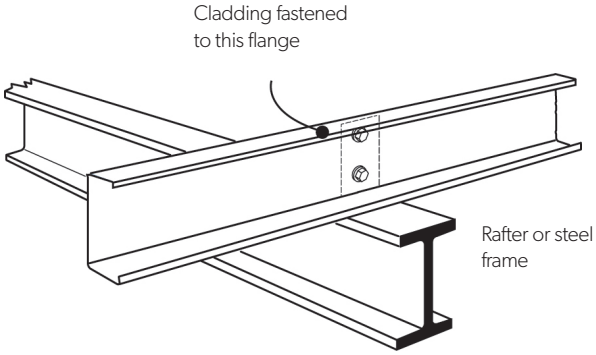
STORAGE ON-SITE

If not required for immediate use, sections should be neatly stacked off the ground and on a slight slope so that water can drain away. Sections and accessories should not be left exposed in the open for extended periods.

Butt Joint with four bolts



Continuous joint with two bolts



ZED & CEE SECTIONS - DIMENSIONS AND PROPERTIES

MAX-SPAN® ZED SECTIONS

MAX-SPAN® Zed sections feature one broad and one narrow flange, sized so that two sections of the same size fit together snugly, making them suitable for lapping.

Continuous lengths of purlin result in better economy, but lapping provides two thicknesses of metal over interior supports. Lapping increases the strength of the sections where bending moments and shear are at a maximum, thus improving the load capacity and rigidity of the system.

MAX-SPAN® Zed sections of the same depth and different thicknesses can be lapped in any combination.

MAX-SPAN® Zed sections may also be used over simple spans. For shorter spans they may be used continuously over two or more spans without laps—thus producing reduced deflection compared with simple spans—but it does not give the strength of a fully lapped system.

MAX-SPAN® Zed sections with one lip turned outward (called downturned lip purlins) may be used in simple or continuous spans with the ends butted.

Typical assemblies are shown later in this manual.

MAX-SPAN® CEE SECTIONS

MAX-SPAN® Cee sections have equal flanges and are suitable for simply supported spans. For shorter spans they may be used continuously over two or more spans with the ends butted, thus producing reduced deflection compared with simple spans. They cannot be lapped.

Typical assemblies are shown later in this manual.

C PURLIN DIMENSION USED IN ANALYSIS

Section	t (mm)	D (mm)	kg/m	B (mm)
MC 15012	1.2	152	2.89	56
MC 15015	1.5	152	3.58	56
MC 15019	1.9	152	4.51	56
MC 15024	2.4	152	5.67	56
MC 20012	1.2	203	3.59	70
MC 20015	1.5	203	4.49	70
MC 20019	1.9	203	5.73	70
MC 20024	2.4	203	7.2	70
MC 25015	1.5	254	5.13	71
MC 25019	1.9	254	6.5	71
MC 25024	2.4	254	8.16	71

Z PURLIN DIMENSION USED IN ANALYSIS

Section	t (mm)	D (mm)	kg/m	E (mm)	F (mm)
MZ 15012	1.2	152	2.89	59	55
MZ 15015	1.5	152	3.58	59	55
MZ 15019	1.9	152	4.51	59	55
MZ 15024	2.4	152	5.67	59	55
MZ 20012	1.2	203	3.59	72	67
MZ 20015	1.5	203	4.49	72	67
MZ 20019	1.9	203	5.73	72	67
MZ 20024	2.4	203	7.2	72	67
MZ 25015	1.5	254	5.13	73	68
MZ 25019	1.9	254	6.5	73.5	68.5
MZ 25024	2.4	254	8.16	73.5	68.5

ORDERING

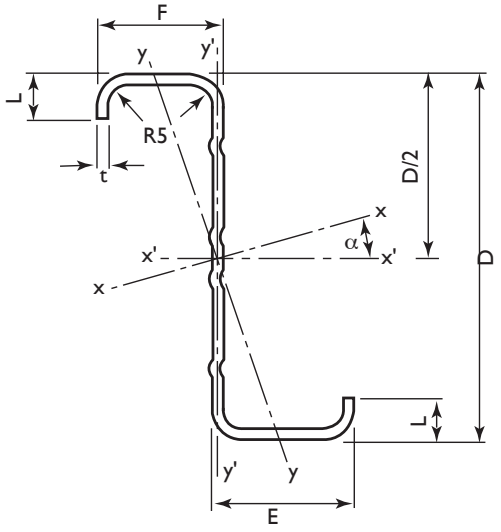
To make ordering of the full purlin and girt system easier, every Lysaght Sales Office has order forms available on request.

MATERIAL SPECIFICATIONS

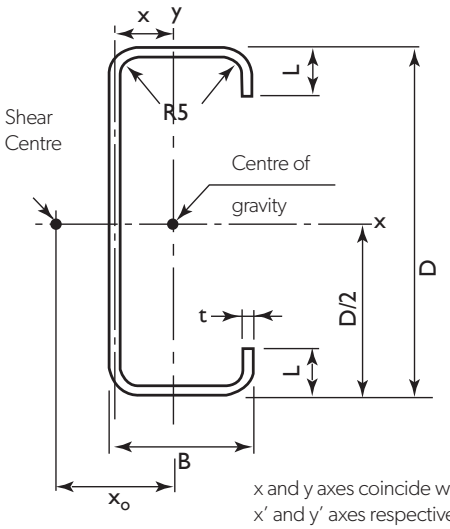
MAX-SPAN® Zed and Cee sections are roll-formed from GALVASPAN® steel complying with AS 1397 In the grades shown, the number prefixed with G indicates minimum yield stress in MPa; and the number prefixed with Z indicates minimum coating mass in g/m^2.

- 1.0 mm BMT: G550, Z350*
- 1.2 mm BMT: G500, Z350*
- 1.5, 1.9, 2.4 and 3.0 mm BMT: G450, Z350

Zed Section



Cee Section



x and y axes coincide with x′ and y′ axes respectively

SECTION PROPERTIES OF MAX-SPAN® ZEDS

		PRINCIPAL AXES							AXES PERPENDICULART & PARALLEL TO WEB							COLUMN PROPERTIES		EFFECTIVE SECTION PROPERTIES AT YIELD STRESS	
Product Code	Area mm^2	Second moment of area		Section Modulus		Radius of Gyration		a	Second moment of area		Product of moment of area	Section Modulus		Radius of Gyration		Torsion Constant	Warping Constant	Section modulus in bending	Area in compression
		Ix 10^6mm^4	Iy 10^6mm^4	Zx 10^3mm^3	Zy 10^3mm^3	rx mm	ry mm	(°)	Ix' 10^6mm^4	Iy' 10^6mm^4	Ix'y' 10^6mm^4	Zx' 10^3mm^3	Zy' 10^3mm^3	rx' mm	ry' mm	J mm^4	Iw 10^6mm^6	Zx'e 10^3mm^3	Aw mm^2
MZ 15012	354	1.427	0.110	15.956	3.325	63.42	17.63	21.26	1.254	0.283	0.445	16.503	5.025	59.45	28.26	169.4	1163	13.65	194.4
MZ 15015	443	1.774	0.137	19.864	4.136	63.23	17.59	21.27	1.559	0.353	0.553	20.509	6.270	59.27	28.19	332.0	1446	18.77	281.6
MZ 15019	561	2.233	0.175	25.033	5.265	63.03	17.66	21.49	1.957	0.451	0.701	25.750	8.053	59.00	28.34	670.3	1859	25.26	417.5
MZ 15024	708	2.796	0.222	31.410	6.653	62.74	17.69	21.66	2.446	0.573	0.883	32.179	10.269	58.67	28.40	1347.3	2367	32.12	576.2
MZ 20012	444	3.059	0.194	26.325	4.729	82.89	20.88	17.95	2.786	0.466	0.840	27.453	6.766	79.12	32.36	213.0	3394	18.90	200.8
MZ 20015	555	3.810	0.243	32.809	5.933	82.76	20.92	18.05	3.467	0.586	1.051	34.159	8.523	78.95	32.46	414.1	4272	27.59	288.3
MZ 20019	713	4.893	0.326	42.087	7.937	82.75	21.37	18.67	4.425	0.794	1.385	43.597	11.584	78.69	33.34	850.1	5863	39.72	429.2
MZ 20024	900	6.125	0.410	52.773	9.961	82.47	21.33	18.71	5.537	0.995	1.737	54.554	14.606	78.41	33.28	1706.0	7363	53.72	642.2
MZ 25015	638	6.312	0.286	45.564	6.584	99.40	21.15	13.68	5.975	0.623	1.385	57.051	8.929	96.71	31.22	476.4	7407	35.27	294.6
MZ 25019	808	7.979	0.364	57.580	8.347	99.29	21.22	13.77	7.548	0.796	1.760	59.434	11.358	96.57	31.35	968.3	9433	50.01	413.5
MZ 25024	1020	10.038	0.462	72.491	10.599	99.07	21.25	13.86	9.488	1.012	2.228	74.709	14.493	96.32	31.45	1948.0	12002	70.80	608.0

SECTION PROPERTIES OF MAX-SPAN® CEES

	FULL SECTION PROPERTIES									COLUMN PROPERTIES			EFFECTIVE SECTION PROPERTIES AT YIELD STRESS	
Product Code	Area mm^2	Second moment of area		Section Modulus		Radius of Gyration		Centriod	Shear Centre	Torsion Constant	Warping Constant	Mono-Symmetry Section Constant	Section modulus in bending	Area in compression
		Ix 10^6mm^4	Iy 10^6mm^4	Zx 10^3mm^3	Zy 10^3mm^3	rx mm	ry mm	xc mm	xo mm	J mm^4	Iw 10^6mm^6	mm	Zx'e 10^3mm^3	Ae mm^2
MC 15012	354	1.244	0.166	16.369	4.416	59.28	21.69	17.70	45.73	168.0	891	161	13.44	191.7
MC 15015	443	1.546	0.207	20.343	5.505	59.11	21.62	17.68	45.70	329.4	1111	160	18.87	285.8
MC 15019	561	1.940	0.263	25.532	7.05	58.83	21.64	17.86	46.21	664.7	1443	159	24.95	412.2
MC 15024	708	2.424	0.331	31.889	8.981	58.50	21.61	17.99	46.58	1334.8	1857	157	31.83	573.9
MC 20012	444	2.784	0.298	27.429	5.976	79.18	25.89	19.59	51.09	211.3	2499	217	18.59	197.2
MC 20015	555	3.466	0.371	34.145	7.460	79.02	25.84	19.58	51.07	413.7	3116	216	27.03	282.0
MC 20019	713	4.423	0.491	43.574	10.067	78.78	26.25	20.29	52.91	852.0	4303	213	38.98	417.7
MC 20024	900	5.545	0.624	54.634	12.938	78.49	26.33	20.57	53.64	1703.3	5586	211	53.10	628.5
MC 25015	638	5.971	0.421	47.016	8.049	96.78	25.71	17.91	48.15	473.4	5446	271	34.78	93.1
MC 25019	808	7.532	0.533	59.308	10.238	96.57	25.69	17.97	48.33	961.9	6925	270	49.85	412.2
MC 25024	1020	9.466	0.675	74.532	13.054	96.33	25.72	18.11	48.69	1933.5	8840	268	70.57	605.3

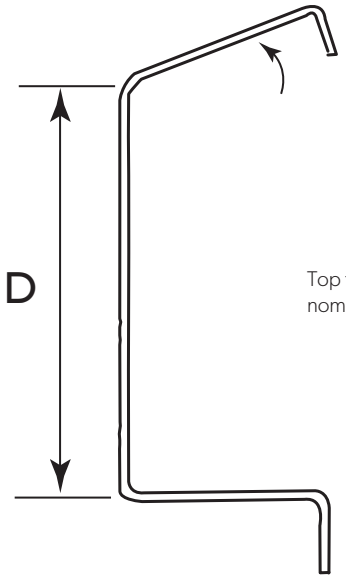
MAX-SPAN® FASCIA PURLINS

The MAX-SPAN® Fascia Purlin is suitable for buildings with bigger portal frame spacings requiring long-length, one-piece fascia purlins.

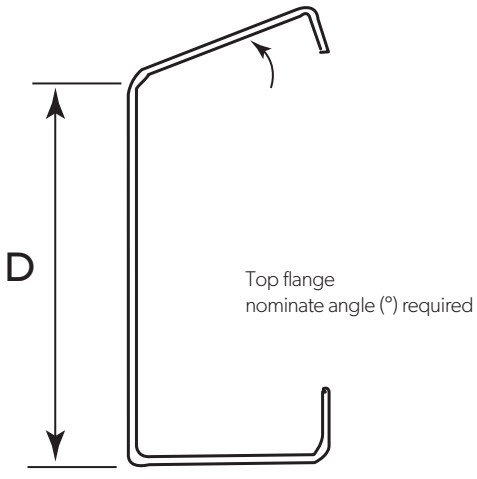
A number of features make MAX-SPAN® Fascia Purlins attractive and economical as a combined eave purlin and fascia:

- It can be supplied without splice plates
- The top flange can be rolled at angles from 84° to 120° for roof pitches from 6° to 30°
- The bottom flange is shaped to provide simple fixing for wall sheeting

FASCIA PURLIN WITH DOWNTURNED LIP



STANDARD FASCIA PURLIN Downturned LIP available if required



D=150, 200, 250mm

ESY-LOK™ BRIDGING INSTALLATION

PURLIN BRIDGING

There are a number of ways to install the Esy-Lok™ bridging system when erecting a MAX-SPAN® purlin design. A common approach is to begin at the ridge and work down the slope. A typical installation procedure may adopt the following steps (see the Bridging Order Form at the back of the Manual for enlarged illustrations of part numbers);

Step 1

(see Option 1) Install the Bolted-Bolted Ridge Tie (Part No.4) by bolting each end plate into place.

Step 2

Following the slope of the roof in the downwards direction, place a Female Bolted strut at the ridge (Part No.:2). Once bolted in place, lock the opposing female end into the punched holes of the next purlin down the slope.

Step 3

With the female or locator end of the strut inserted into the holes of the purlin, take the male or clamp end of the next strut, a Male-Female strut (Part No.: 1) and place the hooks into the hole of the installed female end. The next strut (Part No.: 1) should be at right angles to the adjoining strut before it is swung around and locked into place. The strut should now be in a continuous direction and the opposing female end placed into the holes of the next purlin. In this instance, the end plates are offset in alignment to accommodate the expansion joint in the roof.

Step 4

Continue locking in female to male end plates down the slope until a Male Bolted strut (Part No.: 3) is required to attach the fascia purlin and the bridging installation is complete.

Other methods of bridging exist and include different ridging and adjustable option (see the Bridging Order form for more information). Consideration should be given to the direction of the channels in the bridging (facing up or down the slope) but are primarily a decision based on the aesthetics of the roof as seen from below.

GIRT BRIDGING

The recommended procedure is to commence at floor level and work towards the eaves. A typical installation procedure is:

Step 1

Install the girt foot assembly by engaging the female end into the holes of the bottom girt. Due to the loads transferred to the bridging from the girts, the girt foot assembly must be anchored to the slab.

Step 2

Adjust the girt foot assembly to level off the bottom girt. Where the slab is not yet poured, a temporary support is required to keep the bottom girt level.

Step 3

Install standard intermediate bridging assemblies as described in Step 3 for purlin bridging, working towards the eaves.

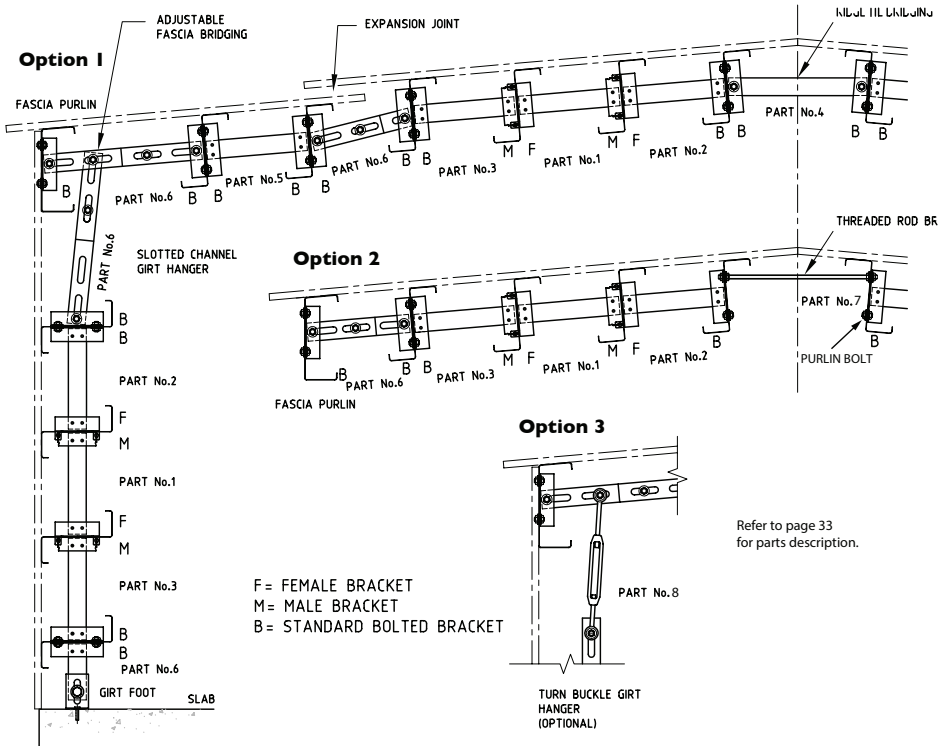
Step 4

At the top girt, the angle bracket is secured into position with two bolts. If appearance is a consideration ensure the girt and purlin bridging are installed facing the same direction. Where a girt hanger is used it is installed by fitting the male end over the last installed female end and swinging the bridging around, then bolting the turnbuckle to the fascia bridging.

In projects where no girt foot assembly is used, particular care in design and construction is required.

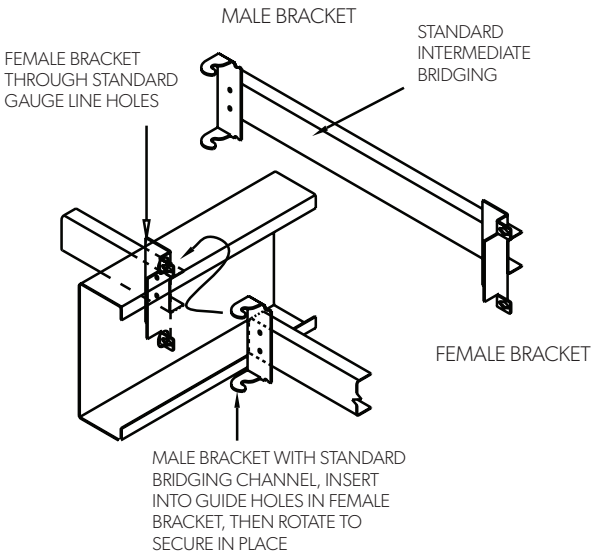
We recommended the following precautions during construction:

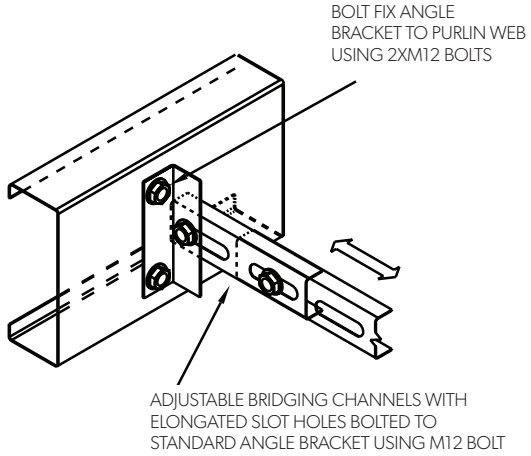
1. The roof sheeting should be installed before the turnbuckle of the girt hanger is used to level the girts,which would impose loads on the fascia system; and
2. Provide a temporary girt support under the bottom girt until the installation of the wall cladding is complete for that section.



Refer to page 33 for parts description.

BRIDGING COMPONENT DETAILS





HOLES & CLEATS

MAX-SPAN® Zed and Cee sections are normally supplied with holes punched to the Australian Institute of Steel Construction (AISC) gauge lines, except the 150 series sections, which are punched to the Structural Steel Fabricators Association, Victoria, recommended gauge lines.

HOLE DETAILS AND GAUGE LINES FOR MAX-SPAN® ZED AND CEE SECTIONS

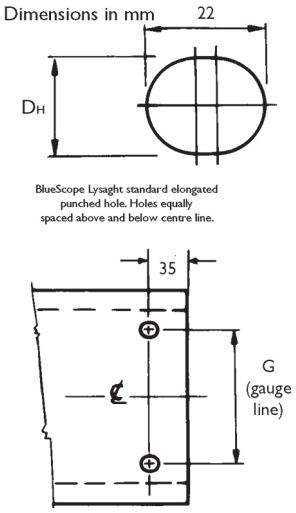
The holes are required at cleat supports at ends of laps and at bridging points.

For the 150, 200 and 250 deep sections the holes are elongated with dimensions of 18mm x 22mm suitable for M12 bolts. Sections are also available unpunched if required.

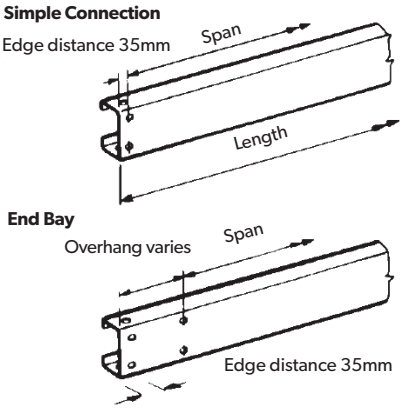
For special projects the size of the hole, the number of holes, and the gauge lines may be modified by negotiation. These projects will be subject to minimum order quantities and extended lead times.

With regard to wall heights and girt spans, please contact Lysaght for guidance.

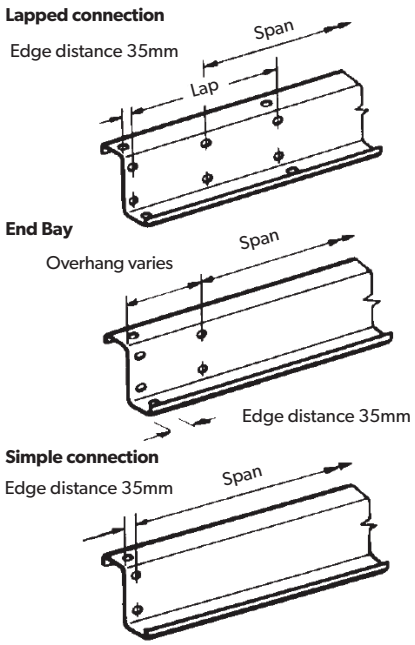
Nominal section size (mm)	G (mm)	D_H
150	70	18
200	110	18
250	160	18



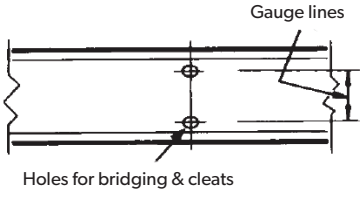
STANDARD HOLES FOR MAX-SPAN® CEE SECTIONS



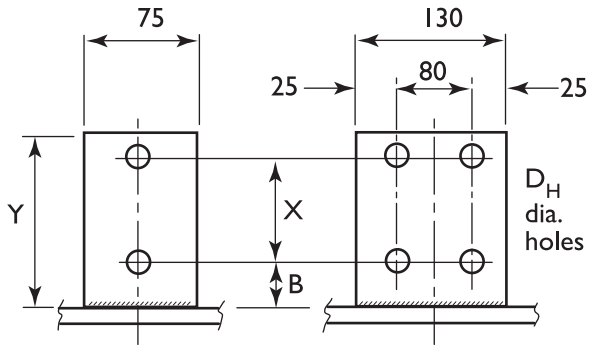
STANDARD HOLES FOR MAX-SPAN® ZED SECTIONS



BRIDGING HOLES AND CLEAT HOLES



HOLE DETAILS OF CLEATS



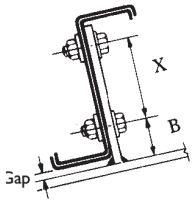
CLEAT NOMINAL DIMENSIONS

Nominal section size (mm)	X	B	Y	t (thickness)	Gap	D_H
150	70	50	145	8	10	18
200	110	55	195	8	10	18
250	160	55	245	8	10	18

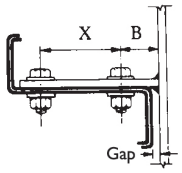
When using Zed sections with downturned lips, longer cleats are required to give clearance form the main supports.

FASTENING TO CLEATS

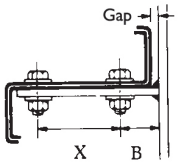
Zed purlins lapped



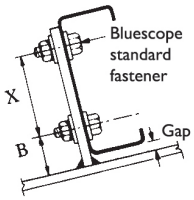
Zed girts standard mode



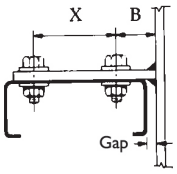
Zed girts optional mode



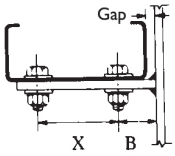
Cee purlins



Cee girts standard mode



Cee girts optional mode



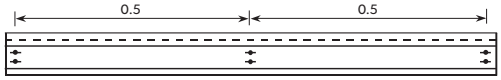
NOTE

To minimise the tendency of Zeds and Cees to rotate when used as purlins, it is necessary to have the top flange pointing up the slope. Purlin orientation may be a consideration in certain projects.

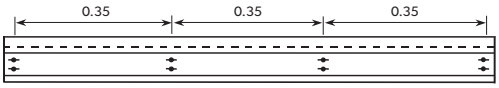
SINGLE SPANS

Simple spans

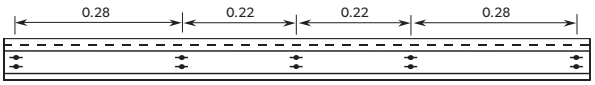
One row of bridging



Two rows of bridging

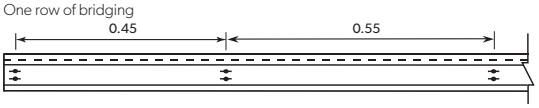


Three rows of bridging

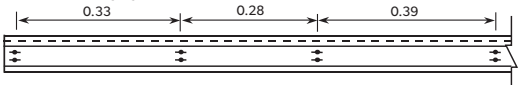


End spans (continuous)

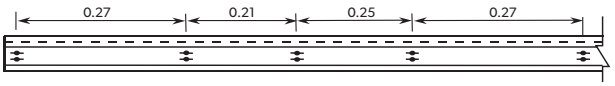
One row of bridging



Two rows of bridging

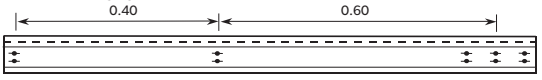


Three rows of bridging

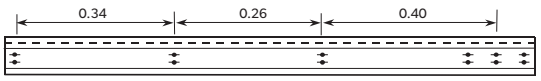


End spans (lapped)

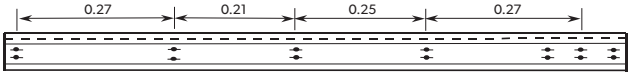
One row of bridging



Two rows of bridging

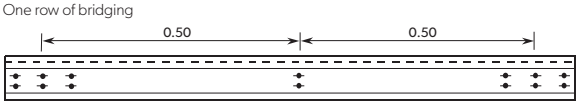


Three rows of bridging

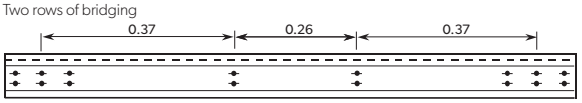


Interior Spans (lapped and unlapped)

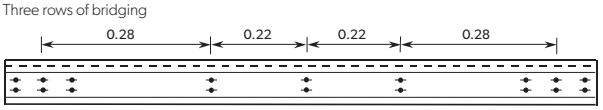
One row of bridging



Two rows of bridging



Three rows of bridging



DESIGN NOTES FOR CAPACITY TABLES

When determining a design, consideration should be given to load combinations for both strength and for serviceability.

DESIGN PHILOSOPHY

The limit state capacity tables have been compiled using a finite element flexural torsional buckling analysis for modelling the whole purlin system. The model considers both in-plane distribution of axial force, shear force and bending moments, as well as out of plane buckling modes.

The finite element flexural torsional buckling analysis assumes that:

- All purlins bend about the axis which is perpendicular to the web
- There is continuity at the laps
- There is minor axis translation and twisting restraint at the bridging points
- There is lateral stability in the plane of the roof at internal supports and the ends of cantilevers
- Both screw-fastened and concealed-fixed claddings provide restraint

All design calculations for both strength and serviceability are in accordance with AS/NZS 4600.

DEFLECTION

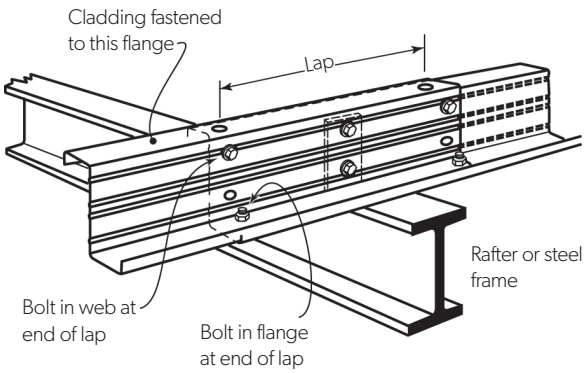
There are no specific rules governing acceptable deflections, though structural codes give guidance. You need to consider the specific requirements of any structure. It may be necessary to design for deflection under more than one load combination. See also Assumptions used in tables.

AXIAL LOADS

Where a section is not loaded to its full capacity in bending, it has a reserve of strength to carry some axial load. This reserve in purlins and girts can be used to transmit forces due to wind loading on end walls, or to resist forces due to bracing of wall and roof structures.

Where required, the combined bending and axial load capacity should be calculated using AS/NZS 4600. Advice is available from our information line.

Lapped continuous joint with two bolts



POINT LOADS

The values in this publication assume uniformly distributed loading. However, in many applications (like the mounting of services and maintenance equipment) the loads applied to a structure are point loads. Thus, to use these tables for point loadings, the loads must be converted to equivalent distributed loads.

DESIGN OPTIMISATION

The capacity tables provide economical design solutions for most projects. Designs can be optimised by varying:

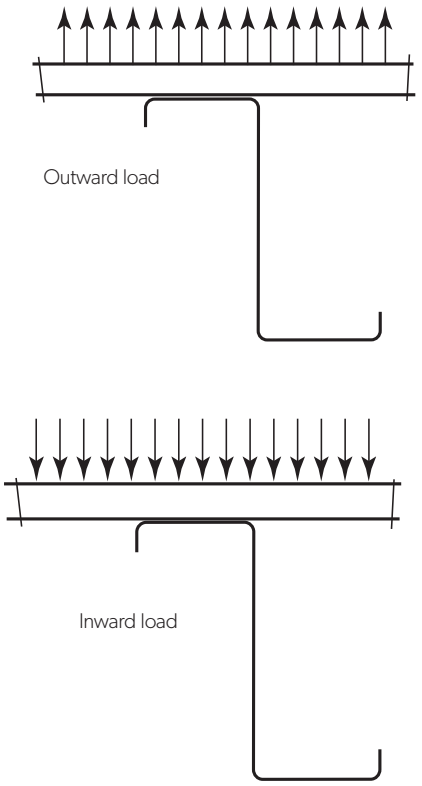
- Material specifications
- Bolt specifications and number
- Non-standard purlin profile
- Reduced or enlarged end spans
- Span range
- Cantilevers at one or both ends
- Lap length
- Bridging quantity
- Load distribution

BRIDGING

The capacity tables give solutions for an equal number of rows of bridging in each span. Provision is made for 1, 2 or 3 rows of bridging.

With regard to wall heights and girt spans, please contact Lysaght for guidance.

Loading conditions



LIMIT STATE CAPACITY TABLES - MAX-SPAN® CEE SINGLE SPANS

Single Span: MAX-SPAN® Cee 20012 (kN/m)

	IN			OUT			Load for Deflection Span/150
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
4000	2.74	2.74	2.74	2.74	2.74	2.74	1.88
4500	2.16	2.16	2.16	2.01	2.16	2.16	1.32
5000	1.75	1.75	1.75	1.49	1.75	1.75	0.96
5500	1.45	1.45	1.45	1.10	1.45	1.45	0.72

Span (mm)

Single Span: MAX-SPAN® Cee 15015 (kN/m)

	IN			OUT			Load for Deflection Span/150
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
4500	2.75	2.75	2.75	2.52	2.75	2.75	1.70
5000	2.23	2.23	2.23	1.89	2.23	2.23	1.24
5500	1.84	1.84	1.84	1.42	1.84	1.84	0.93
6000	1.55	1.55	1.55	1.06	1.50	1.55	0.72
6500	1.32	1.32	1.32	0.79	1.22	1.32	0.56

Span (mm)

Single Span: MAX-SPAN® Cee 15019 (kN/m)

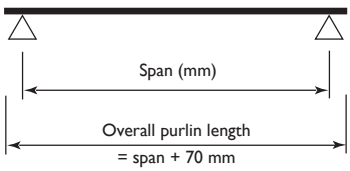
	IN			OUT			Load for Deflection Span/150
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
5000	3.07	3.07	3.07	2.50	3.07	3.07	1.58
5500	2.53	2.53	2.53	1.87	2.45	2.53	1.18
6000	2.13	2.13	2.13	1.40	1.98	2.13	0.91
6500	1.81	1.81	1.81	1.04	1.62	2.81	0.72
7000	1.55	1.56	1.56	0.78	1.33	1.54	0.58
7500	1.34	1.36	1.36	0.60	1.09	1.31	0.47
8000	1.18	1.20	1.20	0.47	0.90	1.12	0.39

Span (mm)

Single Span: MAX-SPAN® Cee 15024 (kN/m)

	IN			OUT			Load for Deflection Span/150
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
5500	3.18	3.39	3.41	2.41	3.12	3.40	1.49
6000	2.64	2.82	2.87	1.82	2.52	2.80	1.15
6500	2.23	2.38	2.44	1.38	2.05	2.33	0.90
7000	1.91	2.03	2.11	1.05	1.69	1.96	0.72
7500	1.65	1.75	1.83	0.81	1.39	1.66	0.59
8000	1.44	1.53	1.59	0.64	1.15	1.42	0.48
8500	1.27	1.35	1.40	0.51	0.95	1.22	0.40
8750	1.19	1.26	1.32	0.46	0.87	1.13	0.37

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

Single Span: MAX-SPAN® Cee 20012 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	6000	1.67	1.67	1.67	1.45	1.67	1.67	1.18
	6500	1.43	1.43	1.43	1.15	1.43	1.46	0.93
	7000	1.23	1.23	1.23	0.91	1.21	1.23	0.74
	7500	1.07	1.07	1.07	0.72	1.02	1.07	0.60
	8000	0.94	0.94	0.94	0.57	0.87	0.94	0.50

Single Span: MAX-SPAN® Cee 20015 (kN/m)

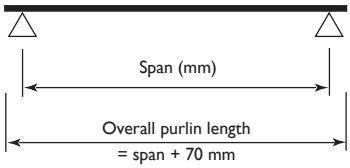
		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	6500	1.85	1.85	1.85	1.54	1.85	1.85	1.20
	7000	1.59	1.59	1.59	1.20	1.59	1.59	0.96
	7500	1.39	1.39	1.39	0.94	1.38	1.39	0.78
	8000	1.22	1.22	1.22	0.76	1.19	1.22	0.65

Single Span: MAX-SPAN® Cee 20019 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	7000	2.32	2.32	2.32	1.74	2.30	2.32	1.28
	7500	2.02	2.02	2.02	1.34	1.94	2.02	1.04
	8000	1.78	1.78	1.78	1.04	1.65	1.78	0.85
	8500	1.58	1.58	1.58	0.83	1.41	1.58	0.71

Single Span: MAX-SPAN® Cee 20024 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	7500	2.75	2.81	2.81	1.76	2.66	2.81	1.33
	8000	2.39	2.47	2.47	1.38	2.24	2.47	1.10
	8500	2.10	2.19	2.19	1.09	1.90	2.19	0.92
	9000	1.85	1.95	1.95	0.88	1.61	1.95	0.77
	95000	1.65	1.75	1.75	0.72	1.36	1.71	0.66
	10000	1.48	1.58	1.58	0.59	1.15	1.50	0.56



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

Single Span: MAX-SPAN® Cee 25015 (kN/m)

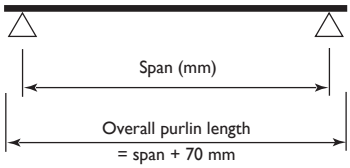
		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	8000	1.58	1.58	1.58	1.04	1.51	1.58	1.09
	8500	1.40	1.40	1.40	0.83	1.30	1.40	0.91
	9000	1.25	1.25	1.25	0.67	1.12	1.25	0.77
	9250	1.18	1.18	1.18	0.60	1.04	1.18	0.71

Single Span: MAX-SPAN® Cee 25019 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	8000	2.23	2.23	2.23	1.36	2.18	2.23	1.43
	8500	1.97	1.97	1.97	1.08	1.86	1.97	1.19
	9000	1.76	1.76	1.76	0.86	1.60	1.76	1.00
	9500	1.58	1.58	1.58	0.70	1.37	1.58	0.85
	9750	1.50	1.50	1.50	0.63	1.27	1.50	0.79
	10000	1.43	1.43	1.43	0.57	1.18	1.43	0.73

Single Span: MAX-SPAN® Cee 25024 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	8500	2.77	2.77	2.77	1.40	2.53	2.77	1.55
	9000	2.46	2.47	2.47	1.12	2.13	2.47	1.31
	9500	2.19	2.21	2.21	0.91	1.80	2.21	1.11
	9750	2.07	2.10	2.10	0.82	1.65	2.10	1.03
	10000	1.96	2.00	2.00	0.75	1.51	2.00	0.95
	10250	1.85	1.90	1.90	0.68	1.39	1.88	0.88
	10500	1.76	1.81	1.81	0.62	1.27	1.76	0.82
	10750	1.67	1.73	1.73	0.57	1.16	1.65	0.77
	11000	1.59	1.65	1.65	0.52	1.06	1.55	0.72



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

LIMIT STATE CAPACITY TABLES - MAX-SPAN® CEE DOUBLE CONTINUOUS SPAN

Double Span Continuous: MAX-SPAN® Cee 15012 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	4000	2.57	2.57	2.57	2.57	2.57	2.57	4.53
	4500	2.11	2.11	2.11	2.11	2.11	2.11	3.18
	5000	1.75	1.75	1.75	1.75	1.75	1.75	2.32
	5500	1.45	1.45	1.45	1.45	1.45	1.45	1.74

Double Span Continuous: MAX-SPAN® Cee 15015 (kN/m)

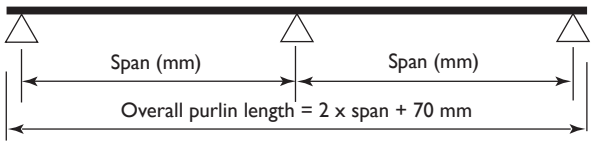
		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	4500	2.75	2.75	2.75	2.75	2.75	2.75	4.09
	5000	2.23	2.23	2.23	2.23	2.23	2.23	2.98
	5500	1.84	1.84	1.84	1.84	1.84	1.84	2.24
	6000	1.55	1.55	1.55	1.55	1.55	1.55	1.72
	6500	1.32	1.32	1.32	1.32	1.32	1.32	1.36

Double Span Continuous: MAX-SPAN® Cee 15019 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	5000	3.07	3.07	3.07	3.07	3.07	3.07	3.79
	5500	2.53	2.53	2.53	2.53	2.53	2.53	2.85
	6000	2.13	2.13	2.13	2.07	2.13	2.13	2.19
	6500	1.81	1.81	1.81	1.71	1.81	1.81	1.73
	7000	1.56	1.56	1.56	1.42	1.56	1.56	1.38
	7500	1.36	1.36	1.36	1.19	1.36	1.36	1.12
	8000	1.19	1.20	1.20	1.00	1.18	1.20	0.93

Double Span Continuous: MAX-SPAN® Cee 15024 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	5500	3.36	3.41	3.41	3.23	3.41	3.41	3.58
	6000	2.79	2.87	2.87	2.63	2.87	2.87	2.76
	6500	2.35	2.44	2.44	2.17	2.41	2.44	2.17
	7000	2.00	2.11	2.11	1.81	2.04	2.11	1.74
	7500	1.72	1.83	1.83	1.51	1.74	1.83	1.41
	8000	1.50	1.61	1.61	1.28	1.50	1.60	1.16
	8500	1.31	1.41	1.43	1.08	1.30	1.40	0.97
	8750	1.22	1.32	1.35	1.00	1.21	1.31	0.89



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

Double Span Continuous: MAX-SPAN® Cee 20012 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	6000	1.42	1.42	1.42	1.42	1.42	1.42	2.83
	6500	1.25	1.25	1.25	1.25	1.25	1.25	2.23
	7000	1.11	1.11	1.11	1.11	1.11	1.11	1.78
	7500	0.99	0.99	0.99	0.99	0.99	0.99	1.45
	8000	0.89	0.89	0.89	0.89	0.89	0.89	1.19

Double Span Continuous: MAX-SPAN® Cee 20015 (kN/m)

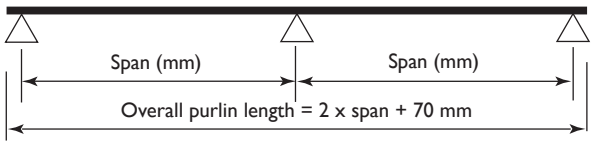
		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	6500	1.85	1.85	1.85	1.85	1.85	1.85	2.89
	7000	1.59	1.59	1.59	1.59	1.59	1.59	2.32
	7500	1.39	1.39	1.39	1.39	1.39	1.39	1.88
	8000	1.22	1.22	1.22	1.22	1.22	1.22	1.55

Double Span Continuous: MAX-SPAN® Cee 20019 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	7000	2.32	2.32	2.32	2.32	2.32	2.32	3.07
	7500	2.02	2.02	2.02	2.02	2.02	2.02	2.49
	8000	1.78	1.78	1.78	1.73	1.78	1.78	2.05
	8500	1.58	1.58	1.58	1.49	1.58	1.58	1.71

Double Span Continuous: MAX-SPAN® Cee 20024 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	7500	2.81	2.81	2.81	2.80	2.81	2.81	3.21
	8000	2.47	2.47	2.47	2.38	2.47	2.47	2.64
	8500	2.19	2.19	2.19	2.04	2.19	2.19	2.20
	9000	1.95	1.95	1.95	1.75	1.95	1.95	1.86
	9500	1.75	1.75	1.75	1.51	1.75	1.75	1.58
	10000	1.57	1.58	1.58	1.31	1.58	1.58	1.35



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

Double Span Continuous: MAX-SPAN® Cee 25015 (kN/m)

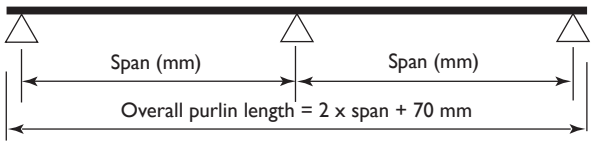
		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	8000	1.45	1.45	1.45	1.45	1.45	1.45	2.62
	8500	1.31	1.31	1.31	1.31	1.31	1.31	2.19
	9000	1.19	1.19	1.19	1.18	1.19	1.19	1.84
	9250	1.14	1.14	1.14	1.10	1.14	1.14	1.70

Double Span Continuous: MAX-SPAN® Cee 25019 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	8000	2.23	2.23	2.23	2.23	2.23	2.23	3.43
	8500	1.97	1.97	1.97	1.97	1.97	1.97	2.86
	9000	1.76	1.76	1.76	1.70	1.76	1.76	2.41
	9500	1.58	1.58	1.58	1.48	1.58	1.58	2.05
	9750	1.50	1.50	1.50	1.38	1.50	1.50	1.89
	10000	1.43	1.43	1.43	1.29	1.43	1.43	1.76

Double Span Continuous: MAX-SPAN® Cee 25024 (kN/m)

		IN			OUT			Load for Deflection
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
Span (mm)	8500	2.77	2.77	2.77	2.73	2.77	2.77	3.73
	9000	2.47	2.47	2.47	2.34	2.47	2.47	3.14
	9500	2.21	2.21	2.21	2.01	2.21	2.21	2.67
	9750	2.10	2.10	2.10	1.86	2.10	2.10	2.47
	10000	2.00	2.00	2.00	1.72	2.00	2.00	2.29
	10250	1.90	1.90	1.90	1.60	1.90	1.90	2.13
	10500	1.81	1.81	1.81	1.48	1.81	1.81	1.98
	10750	1.73	1.73	1.73	1.38	1.73	1.73	1.84
	11000	1.65	1.65	1.65	1.28	1.65	1.65	1.72



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

LIMIT STATE CAPACITY TABLES - MAX-SPAN® ZED LAPPED SPANS

5 Spans 15% Lapped: MAX-SPAN® Zed 15012 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	4000	3.95	3.95	3.95	3.95	3.95	3.95	4.08
	4500	3.31	3.31	3.31	3.31	3.31	3.31	2.87
	5000	2.78	2.78	2.78	2.78	2.78	2.78	2.09
	5500	1.30	2.30	2.30	2.28	2.30	2.30	1.57
	6000	1.93	1.93	1.93	1.81	1.93	1.93	1.21

5 Spans 15% Lapped: MAX-SPAN® Zed 15015 (kN/m)

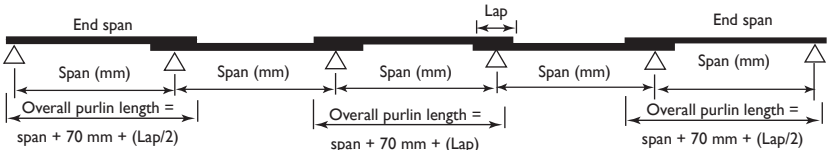
		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	4500	4.38	4.38	4.38	4.38	4.38	4.38	3.65
	5000	3.55	3.55	3.55	3.55	3.55	3.55	2.66
	5500	2.93	2.93	2.93	2.81	2.93	2.93	2.00
	6000	2.46	2.46	2.46	2.26	2.46	2.46	1.54
	6500	2.10	2.10	2.10	1.81	2.10	2.10	1.21

5 Spans 15% Lapped: MAX-SPAN® Zed 15019 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	5000	4.90	4.90	4.90	4.75	4.90	4.90	3.41
	5500	4.05	4.05	4.05	3.75	4.05	4.05	2.56
	6000	3.39	3.40	3.40	2.98	3.40	3.40	1.98
	6500	2.85	2.90	2.90	2.38	2.85	2.90	1.55
	7000	2.43	2.50	2.50	1.90	2.38	2.50	1.24
	7500	2.08	2.18	2.18	1.53	2.00	2.18	1.01

5 Spans 15% Lapped: MAX-SPAN® Zed 15024 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	5500	**5.08**	**5.50**	**5.50**	4.74	**5.35**	**5.50**	3.22
	6000	4.20	**4.62**	**4.62**	3.78	4.37	**4.62**	2.48
	6500	3.52	3.91	3.94	3.03	3.61	3.88	1.95
	7000	2.99	3.34	3.40	2.44	3.01	3.27	1.56
	7500	2.56	2.88	2.96	1.95	2.53	2.79	1.27
	8000	2.22	2.51	2.60	1.60	2.13	2.39	1.05
	8500	1.93	2.20	2.29	1.29	1.81	2.06	0.87



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 15% Lapped: MAX-SPAN® Zed 20012 (kN/m)

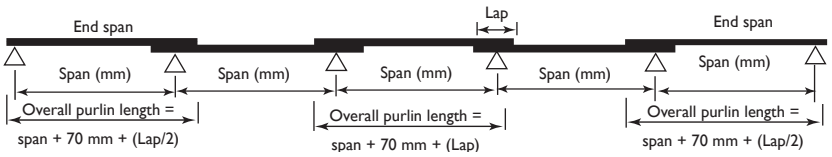
	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	2.11	2.11	2.11	2.11	2.56
6500	1.89	1.89	1.89	1.89	2.00
7000	1.70	1.70	1.70	1.70	1.60
7500	1.54	1.54	1.54	1.54	1.30
8000	1.40	1.40	1.40	1.40	1.07
8500	1.27	1.27	1.27	1.27	0.89
9000	1.16	1.16	1.16	1.16	0.75
9500	1.07	1.07	1.07	1.07	0.64
9750	1.02	1.02	0.94	1.02	0.59
10000	0.98	0.98	0.87	0.98	0.55
10250	0.93	0.93	0.82	0.93	0.51
10500	0.89	0.89	0.76	0.87	0.47
10750	0.85	0.85	0.71	0.82	0.44
11000	0.81	0.81	0.66	0.78	0.41
11250	0.78	0.78	0.62	0.74	0.39
11500	0.74	0.74	0.58	0.69	0.36
11750	0.71	0.71	0.54	0.66	0.34
12000	0.68	0.68	0.50	0.62	0.32

Span (mm)

5 Span 15% Lapped: MAX-SPAN® Zed 20015 (kN/m)

	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	3.43	3.43	3.43	3.43	3.31
6500	3.02	3.02	3.02	3.02	2.60
7000	2.60	2.60	2.60	2.60	2.08
7500	2.27	2.27	2.27	2.27	1.69
8000	1.99	1.99	1.99	1.99	1.39
8500	1.76	1.76	1.76	1.76	1.16
9000	1.57	1.57	1.57	1.57	0.98
9500	1.41	1.41	1.37	1.14	0.83
9750	1.34	1.34	1.28	1.34	0.77
10000	1.28	1.28	1.19	1.28	0.71
10250	1.21	1.21	1.11	1.21	0.66
10500	1.16	1.16	1.03	1.16	0.62
10750	1.10	1.10	0.96	1.10	0.58
11000	1.05	1.05	0.90	1.05	0.54
11250	1.01	1.01	0.84	1.00	0.50
11500	0.96	0.96	0.78	0.95	0.47
11750	0.92	0.92	0.72	0.89	0.44
12000	0.89	0.89	0.67	0.84	0.41

Span (mm)



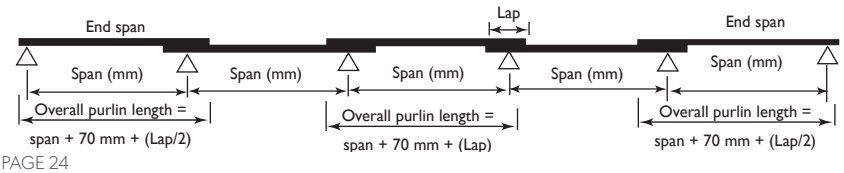
Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 15% Lapped: MAX-SPAN® Zed 20019 (kN/m)

		IN		OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	6000	**5.15**	**5.15**	**5.15**	**5.15**	4.37
	6500	**4.39**	**4.39**	**4.39**	**4.39**	3.44
	7000	**3.79**	**3.79**	**3.79**	**3.79**	2.75
	7500	3.30	3.30	3.30	3.30	2.24
	8000	2.90	2.90	2.90	2.90	1.84
	8500	2.57	2.57	2.53	2.57	1.54
	9000	2.29	2.29	2.29	2.29	1.30
	9500	2.06	2.06	1.90	2.06	1.10
	9750	1.95	1.95	1.80	1.95	1.02
	10000	1.86	1.86	1.68	1.86	0.94
	10250	1.77	1.77	1.57	1.76	0.88
	10500	1.68	1.68	1.46	1.66	0.82
	10750	1.61	1.61	1.37	1.56	0.76
	11000	1.53	1.53	1.28	1.48	0.71
	11250	1.47	1.47	1.19	1.40	0.66
	11500	1.40	1.40	1.11	1.32	0.62
	11750	1.34	1.34	1.03	1.26	0.58
	12000	1.29	1.29	0.96	1.19	0.55

5 Span 15% Lapped: MAX-SPAN® Zed 20024 (kN/m)

		IN		OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	6000	**7.08**	**7.08**	**7.08**	**7.08**	5.60
	6500	**6.03**	**6.03**	**6.03**	**6.03**	4.40
	7000	**5.20**	**5.20**	**5.20**	**5.20**	3.52
	7500	**4.53**	**4.53**	**4.53**	**4.53**	2.87
	8000	**3.98**	**3.98**	**3.94**	**3.98**	2.36
	8500	**3.53**	**3.53**	**3.38**	**3.53**	1.97
	9000	**3.15**	**3.15**	2.91	**3.15**	1.66
	9500	**2.82**	**2.82**	2.52	**2.82**	1.41
	9750	2.68	2.68	2.34	2.67	1.30
	10000	2.55	2.55	2.18	2.51	1.21
	10250	2.43	2.43	2.03	2.36	1.12
	10500	2.31	2.31	1.89	2.22	1.04
	10750	2.21	2.21	1.64	1.96	0.97
	11000	2.11	2.11	1.64	1.96	0.91
	11250	2.02	2.02	1.53	1.85	0.85
	11500	1.93	1.93	1.43	1.74	0.80
	11750	1.81	1.85	1.33	1.65	0.75
	12000	1.75	1.77	1.24	1.55	0.70



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 15 % Lapped: MAX-SPAN® Zed 25015 (kN/m)

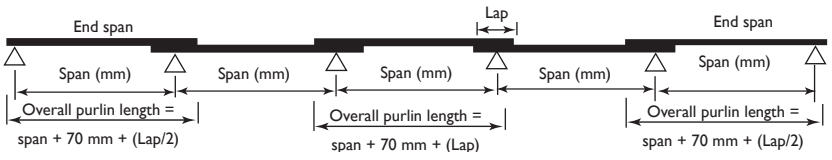
		IN		OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	**10000**	1.59	1.59	1.53	1.59	1.20
	10250	1.53	1.53	1.44	1.53	1.12
	10500	1.47	1.47	1.35	1.47	1.04
	10750	1.41	1.14	1.27	1.41	0.97
	11000	1.36	1.36	1.19	1.34	0.90
	11250	1.31	1.31	1.12	1.27	0.85
	11500	1.25	1.25	1.05	1.20	0.79
	11750	1.20	1.20	0.99	1.14	0.74
	12000	1.15	1.15	0.93	1.08	0.70

5 Span 15 % Lapped: MAX-SPAN® Zed 25019 (kN/m)

		IN		OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	**10000**	2.32	2.32	2.16	2.32	1.57
	10250	2.20	2.20	2.03	2.20	1.46
	10500	2.10	2.10	1.90	2.10	1.36
	10750	2.00	2.00	1.78	2.00	1.26
	11000	1.91	1.91	1.66	1.91	1.18
	11250	1.83	1.83	1.56	1.81	1.10
	11500	1.75	1.75	1.46	1.71	1.03
	11750	1.68	1.68	1.36	1.62	0.97
	12000	1.61	1.61	1.26	1.53	0.91

5 Span 15 % Lapped: MAX-SPAN® Zed 25024 (kN/m)

		IN		OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	**10000**	**3.24**	**3.24**	**2.92**	**3.24**	2.05
	10250	**3.09**	**3.09**	**2.72**	**3.09**	1.90
	10500	**2.94**	**2.94**	**2.52**	**2.94**	1.77
	10750	**2.81**	**2.81**	2.35	**2.81**	1.65
	11000	**2.68**	**2.68**	2.18	**2.65**	1.54
	11250	**2.56**	**2.56**	2.03	**2.49**	1.44
	11500	**2.45**	**2.45**	1.88	**2.35**	1.35
	11750	**2.35**	**2.35**	1.75	2.21	1.26
	12000	**2.25**	**2.25**	1.62	2.08	1.19



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Spans 20% Lapped: MAX-SPAN® Zed 15012 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	4000	4.34	4.34	4.34	4.34	4.34	4.34	4.16
	4500	3.63	3.63	3.63	3.63	3.63	3.63	2.92
	5000	2.94	2.94	2.94	2.94	2.94	2.94	2.13
	5500	2.43	2.43	2.43	2.39	2.43	2.43	1.60
	6000	2.04	2.04	2.04	1.89	2.04	2.04	1.23

5 Spans 20% Lapped: MAX-SPAN® Zed 15015 (kN/m)

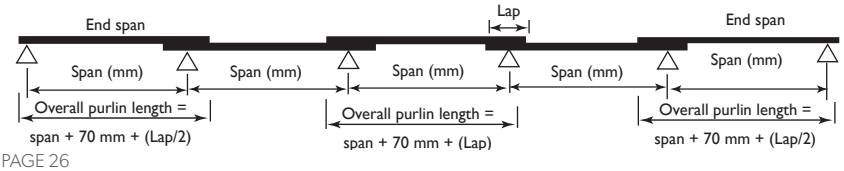
		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	4500	4.63	4.63	4.63	4.63	4.63	4.63	3.73
	5000	3.75	3.75	3.75	3.74	3.75	3.75	2.72
	5500	3.10	3.10	3.10	2.93	3.10	3.10	2.04
	6000	2.61	2.61	2.61	2.36	2.61	2.61	1.57
	6500	2.22	2.22	2.22	1.88	2.22	2.22	1.24

5 Spans 20% Lapped: MAX-SPAN® Zed 15019 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	5000	5.18	5.18	5.18	4.99	5.18	5.18	3.48
	5500	4.28	4.28	4.28	3.93	4.28	4.28	2.61
	6000	3.56	3.60	3.60	3.11	3.60	3.60	2.01
	6500	2.99	3.07	3.07	2.48	2.99	3.07	1.58
	7000	2.54	2.64	2.64	1.98	2.49	2.64	1.27
	7500	2.18	2.30	2.30	1.57	2.08	2.30	1.03

5 Spans 20% Lapped: MAX-SPAN® Zed 15024 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	5500	**5.33**	**5.82**	**5.82**	**4.97**	**5.62**	**5.82**	3.28
	6000	**4.40**	**4.89**	**4.89**	3.95	**4.59**	**4.89**	2.53
	6500	**3.68**	**4.12**	**4.17**	3.16	3.79	**4.08**	1.99
	7000	3.12	3.52	3.59	2.54	3.15	3.44	1.59
	7500	2.67	3.03	3.13	2.04	2.64	2.92	1.30
	8000	2.31	2.64	2.75	1.64	2.22	2.50	1.07
	8500	2.01	2.21	2.41	1.32	1.88	2.16	0.89



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 20% Lapped: MAX-SPAN® Zed 20012 (kN/m)

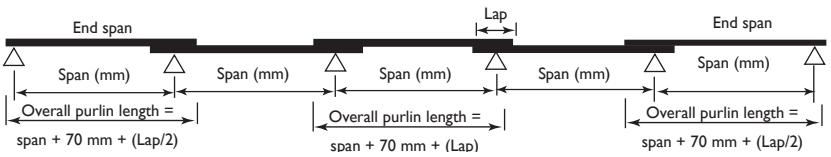
	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	2.30	2.30	2.30	2.30	2.59
6500	2.06	2.06	2.06	2.06	2.04
7000	1.87	1.87	1.87	1.87	1.63
7500	1.69	1.69	1.69	1.69	1.33
8000	1.54	1.55	1.54	1.55	1.09
8500	1.41	1.41	1.40	1.41	0.91
9000	1.28	1.28	1.21	1.28	0.77
9500	1.15	1.15	1.05	1.15	0.65
9750	1.09	1.09	0.98	1.09	0.60
10000	1.04	1.04	0.91	1.03	0.56
10250	0.99	0.99	0.85	0.97	0.52
10500	0.94	0.94	0.79	0.91	0.48
10750	0.90	0.90	0.74	0.86	0.45
11000	0.86	0.86	0.69	0.82	0.42
11250	0.82	0.82	0.64	0.77	0.39
11500	0.78	0.78	0.60	0.73	0.37
11750	0.75	0.75	0.56	0.68	0.35
12000	0.72	0.72	0.52	0.65	0.32

Span (mm)

5 Span 20% Lapped: MAX-SPAN® Zed 20015 (kN/m)

	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	3.75	3.75	3.75	3.75	3.37
6500	3.19	3.19	3.19	3.19	2.65
7000	2.75	2.75	2.75	2.75	2.12
7500	2.40	2.40	2.40	2.40	1.73
8000	2.11	2.11	2.11	2.11	1.42
8500	1.87	1.87	1.87	1.87	1.19
9000	1.67	1.67	1.65	1.67	1.00
9500	1.49	1.49	1.43	1.49	0.85
9750	1.42	1.42	1.33	1.42	0.79
10000	1.35	1.35	1.24	1.35	0.73
10250	1.28	1.28	1.15	1.28	0.68
10500	1.22	1.22	1.07	1.22	0.63
10750	1.17	1.17	1.00	1.17	0.59
11000	1.11	1.11	0.93	1.11	0.55
11250	1.07	1.07	0.86	1.05	0.51
11500	1.02	1.02	0.80	0.99	0.48
11750	0.98	0.98	0.74	0.93	0.45
12000	0.94	0.94	0.69	0.88	0.42

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 20% Lapped: MAX-SPAN® Zed 20019 (kN/m)

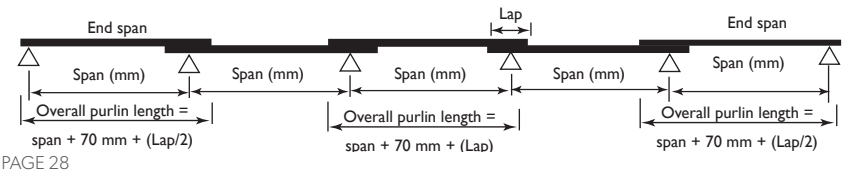
	IN		OUT		Load for Deflection Span/150
Bridging >	**2**	**3**	**2**	**3**	
6000	**5.45**	**5.45**	**5.45**	**5.45**	4.46
6500	**4.65**	**4.65**	**4.65**	**4.65**	3.50
7000	**4.01**	**4.01**	**4.01**	**4.01**	2.81
7500	3.49	3.49	3.49	3.49	2.28
8000	3.07	3.07	3.07	3.07	1.88
8500	2.72	2.72	2.65	2.72	1.57
9000	2.42	2.42	2.30	2.42	1.32
9500	2.17	2.17	2.01	2.17	1.12
9750	2.06	2.06	1.88	2.06	1.04
10000	1.96	1.96	1.75	1.96	0.96
10250	1.87	1.87	1.63	1.84	0.89
10500	1.78	1.78	1.52	1.74	0.83
10750	1.70	1.70	1.41	1.64	0.78
11000	1.62	1.62	1.32	1.55	0.72
11250	1.55	1.55	1.23	1.46	6.68
11500	1.48	1.48	1.14	1.39	0.63
11750	1.42	1.42	1.06	1.32	0.59
12000	1.36	1.36	0.99	1.24	0.56

Span (mm)

5 Span 20% Lapped: MAX-SPAN® Zed 20024 (kN/m)

	IN		OUT		Load for Deflection Span/150
Bridging >	**2**	**3**	**2**	**3**	
6000	**7.49**	**7.49**	**7.49**	**7.49**	5.70
6500	**6.38**	**6.38**	**6.38**	**6.38**	4.49
7000	**5.50**	**5.50**	**5.50**	**5.50**	3.59
7500	**4.80**	**4.80**	**4.80**	**4.80**	2.92
8000	**4.21**	**4.21**	**4.13**	**4.21**	2.41
8500	**3.73**	**3.73**	**3.53**	**3.73**	2.01
9000	**3.33**	**3.33**	**3.04**	**3.33**	1.69
9500	**2.99**	**2.99**	2.62	**2.98**	1.44
9750	**2.84**	**2.84**	2.44	**2.80**	1.33
10000	**2.70**	**2.70**	2.27	2.63	1.23
10250	**2.57**	**2.57**	2.11	2.47	1.14
10500	2.45	2.45	1.96	2.32	1.06
10750	2.33	2.33	1.82	2.18	0.99
11000	2.23	2.23	1.70	2.05	0.93
11250	2.12	2.13	1.58	1.93	0.87
11500	2.01	2.04	1.47	1.82	0.81
11750	1.92	1.95	1.36	1.71	0.76
12000	1.82	1.87	1.27	1.61	0.71

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

Five Span 20 % Lapped: MAX-SPAN® Zed 25015 (kN/m)

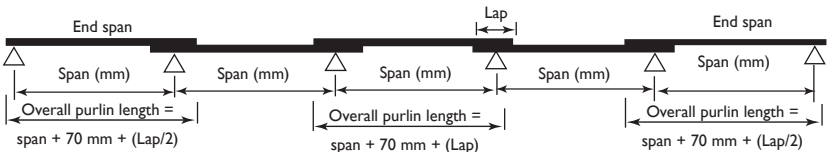
	IN			OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	10000	1.75	1.75	1.60	1.75	1.23
	10250	1.66	1.66	1.50	1.66	1.14
	10500	1.59	1.59	1.41	1.57	1.06
	10750	1.51	1.51	1.32	1.48	0.99
	11000	1.44	1.44	1.24	1.40	0.92
	11250	1.38	1.38	1.17	1.33	0.86
	11500	1.32	1.32	1.09	1.26	0.81
	11750	1.27	1.27	1.02	1.19	0.76
	12000	1.21	1.21	0.96	1.13	0.71

Five Span 20 % Lapped: MAX-SPAN® Zed 25019 (kN/m)

	IN			OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	10000	2.45	2.45	2.26	2.45	1.60
	10250	2.33	2.33	2.11	2.33	1.49
	10500	2.22	2.22	1.97	2.22	1.38
	10750	2.12	2.12	1.85	2.12	1.29
	11000	2.02	2.02	1.73	2.00	1.20
	11250	1.94	1.94	1.62	1.89	1.12
	11500	1.85	1.85	1.50	1.79	1.05
	11750	1.77	1.77	1.39	1.69	0.99
	12000	1.70	1.70	1.28	1.60	0.93

Five Span 20 % Lapped: MAX-SPAN® Zed 25024 (kN/m)

	IN			OUT		Load for Deflection Span/150
	Bridging >	**2**	**3**	**2**	**3**	
Span (mm)	10000	**3.43**	**3.43**	**3.03**	**3.43**	2.09
	10250	**3.26**	**3.26**	**2.81**	**3.26**	1.94
	10500	**3.11**	**3.11**	**2.61**	**3.11**	1.80
	10750	**2.97**	**2.97**	2.42	**2.94**	1.68
	11000	**2.83**	**2.83**	2.24	**2.76**	1.57
	11250	**2.71**	**2.71**	2.08	**2.60**	1.47
	11500	**2.59**	**2.59**	1.93	**2.44**	1.37
	11750	**2.48**	**2.48**	1.79	**2.30**	1.29
	12000	**2.38**	**2.38**	1.65	2.16	1.21



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Spans 15% Lapped: MAX-SPAN® Zed 15012/15015 (kN/m)

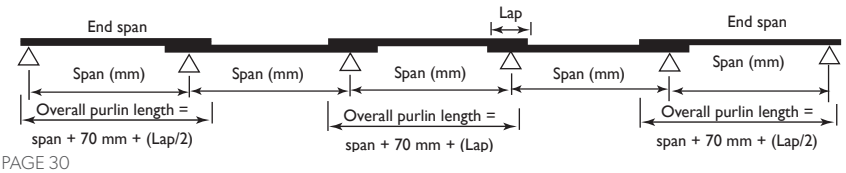
		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	4000	4.17	4.17	4.17	4.17	4.17	4.17	5.03
	4500	3.44	3.44	3.44	3.44	3.44	3.44	3.53
	5000	2.87	2.87	2.87	2.87	2.87	2.87	2.57
	5500	2.37	2.37	2.37	2.37	2.37	2.37	1.93
	6000	1.99	1.99	1.99	1.98	1.99	1.99	1.49

Spans 15% Lapped: MAX-SPAN® Zed 15015/15019 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	4500	4.51	4.51	4.51	4.51	4.51	4.51	4.53
	5000	3.66	3.66	3.66	3.66	3.66	3.66	3.30
	5500	3.02	3.02	3.02	3.02	3.02	3.02	2.48
	6000	2.54	2.54	2.54	2.46	2.54	2.54	1.91
	6500	2.16	2.16	2.16	2.02	2.16	2.16	1.50

5 Spans 15% Lapped: MAX-SPAN® Zed 15019/15024 (kN/m)

		IN			OUT			Load for Deflection Span/150
	Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	
Span (mm)	5000	5.05	5.05	5.05	5.05	5.05	5.05	4.18
	5500	4.17	4.17	4.17	4.07	4.17	4.17	3.14
	6000	3.51	3.51	3.51	3.29	3.51	3.51	2.42
	6500	2.98	2.99	2.99	2.68	2.99	2.99	1.90
	7000	2.54	2.58	2.58	2.19	2.57	2.58	1.52
	7500	2.19	2.24	2.24	1.80	2.18	2.24	1.24



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

Span 15% Lapped: MAX-SPAN® Zed 20012/20015 (kN/m)

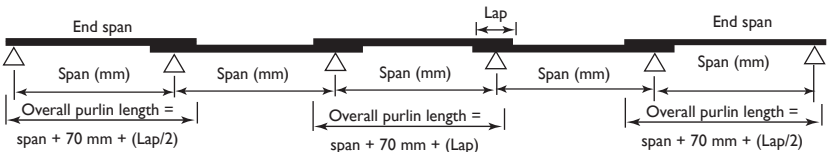
	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	2.28	2.28	2.28	2.28	3.17
6500	2.02	2.02	2.02	2.02	2.49
7000	1.81	1.81	1.81	1.81	2.00
7500	1.62	1.62	1.62	1.62	1.62
8000	1.46	1.46	1.46	1.46	1.34
8500	1.32	1.32	1.32	1.32	1.12
9000	1.20	1.20	1.20	1.20	0.94
9500	1.10	1.10	1.09	1.10	0.80
9750	1.05	1.05	1.02	1.05	0.74
10000	1.01	1.01	0.96	1.01	0.68
10250	0.96	0.96	0.90	0.96	0.64
10500	0.92	0.92	0.85	0.92	0.59
10750	0.87	0.87	0.79	0.87	0.55
11000	0.84	0.84	0.75	0.84	0.51
11250	0.80	0.80	0.70	0.79	0.48
11500	0.76	0.76	0.66	0.75	0.45
11750	0.73	0.73	0.62	0.71	0.42
12000	0.70	0.70	0.58	0.68	0.40

Span (mm)

5 Span 15% Lapped: MAX-SPAN® Zed 20015/20019 (kN/m)

	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	3.55	3.55	3.55	3.55	4.20
6500	3.10	3.10	3.10	3.10	3.30
7000	2.69	2.69	2.69	2.69	2.64
7500	2.34	2.34	2.34	2.34	2.15
8000	2.06	2.06	2.06	2.06	1.77
8500	1.82	1.82	1.82	1.82	1.48
9000	1.63	1.63	1.63	1.63	1.24
9500	1.46	1.46	1.46	1.46	1.06
9750	1.39	1.39	1.39	1.39	0.98
10000	1.32	1.32	1.32	1.32	0.91
10250	1.25	1.25	1.25	1.25	0.84
10500	1.20	1.20	1.19	1.20	0.78
10750	1.14	1.14	1.12	1.14	0.73
11000	1.09	1.09	1.05	1.09	0.68
11250	1.04	1.04	0.99	1.04	0.64
11500	1.00	1.00	0.93	1.00	0.60
11750	0.95	0.95	0.87	0.95	0.56
12000	0.92	0.92	0.82	0.92	0.53

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 15% Lapped: MAX-SPAN® Zed 20019/20024 (kN/m)

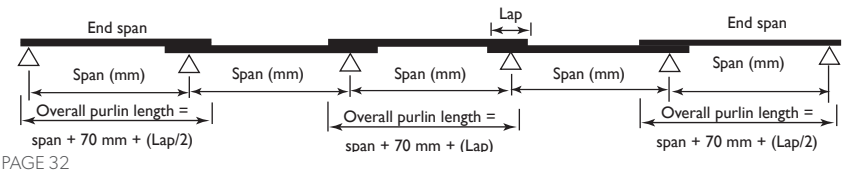
	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	**5.31**	**5.31**	**5.31**	**5.31**	5.41
6500	**4.53**	**4.53**	**4.53**	**4.53**	4.26
7000	**3.90**	**3.90**	**3.90**	**3.90**	3.41
7500	3.40	3.40	3.40	3.40	2.77
8000	2.99	2.99	2.99	2.99	2.28
8500	2.65	2.65	2.65	2.65	1.90
9000	2.12	2.12	2.36	2.36	1.60
9500	2.01	2.01	2.08	2.12	1.36
9750	1.91	1.91	1.95	2.01	1.26
10000	1.82	1.82	1.83	1.91	1.17
10250	1.73	1.73	1.72	1.82	1.09
10500	1.66	1.66	1.62	1.73	1.01
10750	1.58	1.58	1.53	1.66	0.94
11000	1.51	1.51	1.44	1.58	0.88
11250	1.45	1.45	1.36	1.51	0.82
11500	1.39	1.39	1.28	1.43	0.77
11750	1.39	1.39	1.20	1.36	0.72
12000	1.33	1.33	1.13	1.29	0.68

Span (mm)

5 Span 15 % Lapped: MAX-SPAN® Zed 25015/25019 (kN/m)

	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
10000	1.64	1.64	1.64	1.64	1.51
10250	1.57	1.57	1.56	1.57	1.40
10500	1.51	1.51	1.47	1.51	1.31
10750	1.45	1.45	1.39	1.45	1.22
11000	1.39	1.39	1.31	1.39	1.14
11250	1.34	1.34	1.24	1.34	1.06
11500	1.29	1.29	1.17	1.29	0.99
11750	1.24	1.24	1.11	1.23	0.93
12000	1.18	1.18	1.05	1.17	0.87

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 15 % Lapped: MAX-SPAN® Zed 25019/25024 (kN/m)

	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
10000	2.39	2.39	2.38	2.39	1.97
10250	2.27	2.27	2.23	2.27	1.83
10500	2.17	2.17	2.09	2.17	1.70
10750	2.07	2.07	1.97	2.07	1.58
11000	1.97	1.97	1.86	1.97	1.48
11250	1.89	1.89	1.75	1.89	1.38
11500	1.81	1.81	1.65	1.81	1.29
11750	1.73	1.73	1.56	1.73	1.21
12000	1.66	1.66	1.47	1.66	1.14

Span (mm)

5 Spans 20% Lapped : MAX-SPAN® Zed 15012/15015 (kN/m)

	IN			OUT			Load for Deflection
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
4000	4.57	4.57	4.57	4.57	4.57	4.57	5.12
4500	3.80	3.80	3.80	3.80	3.80	3.80	3.60
5000	3.20	3.20	3.20	3.20	3.20	3.20	2.62
5500	2.68	2.68	2.68	2.68	2.68	2.68	1.97
6000	2.25	2.25	2.25	2.16	2.25	2.25	1.52

Span (mm)

5 Spans 20% Lapped : MAX-SPAN® Zed 15015/15019 (kN/m)

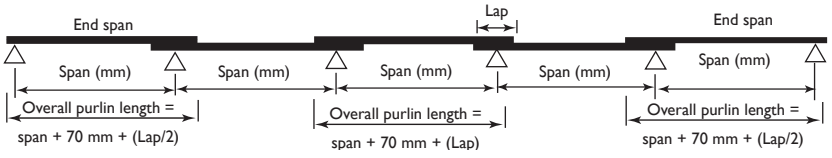
	IN			OUT			Load for Deflection
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
4500	5.11	5.11	5.11	5.11	5.11	5.11	4.62
5000	4.14	4.14	4.14	4.14	4.14	4.14	3.37
5500	3.42	3.42	3.42	3.36	3.42	3.42	2.53
6000	2.87	2.87	2.87	2.72	2.87	2.87	1.95
6500	2.45	2.45	2.45	2.21	2.45	2.45	1.53

Span (mm)

5 Spans 20% Lapped : MAX-SPAN® Zed 15019/15024 (kN/m)

	IN			OUT			Load for Deflection
Bridging >	**1**	**2**	**3**	**1**	**2**	**3**	**Span/150**
5000	**5.71**	**5.71**	**5.71**	**5.66**	**5.71**	**5.71**	4.26
5500	4.72	4.72	4.72	4.50	4.72	4.72	3.20
6000	3.93	3.97	3.97	3.61	3.97	3.97	2.46
6500	3.30	3.38	3.38	2.91	3.38	3.38	1.94
7000	2.80	2.91	2.91	2.37	2.84	2.91	1.55
7500	2.41	2.54	2.54	1.93	2.40	2.54	1.26

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 15% Lapped: MAX-SPAN® Zed 20019/20024 (kN/m)

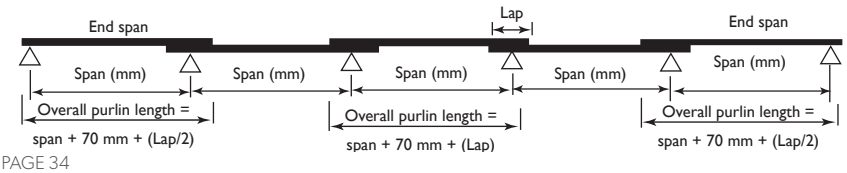
	IN		OUT		Load for Deflection Span/150
Bridging >	**2**	**3**	**2**	**3**	
6000	2.48	2.48	2.48	2.48	3.23
6500	2.21	2.21	2.21	2.21	2.54
7000	1.98	1.98	1.98	1.98	2.03
7500	1.78	1.78	1.78	1.78	1.65
8000	1.61	1.61	1.61	1.61	1.36
8500	1.46	1.46	1.46	1.46	1.14
9000	1.33	1.33	1.33	1.33	0.96
9500	1.21	1.21	1.20	1.21	0.81
9750	1.16	1.16	1.12	1.16	0.75
10000	1.11	1.11	1.05	1.11	0.70
10250	1.07	1.07	0.98	1.07	0.65
10500	1.03	1.03	0.92	1.03	0.60
10750	0.99	0.99	0.86	0.98	0.56
11000	0.94	0.94	0.81	0.92	0.52
11250	0.90	0.90	0.75	0.87	0.49
11500	0.86	0.86	0.71	0.83	0.46
11750	0.83	0.83	0.66	0.79	0.43
12000	0.79	0.79	0.62	0.74	0.40

Span (mm)

5 Span 20% Lapped: MAX-SPAN® Zed 20015/20019 (kN/m)

	IN		OUT		Load for Deflection Span/150
Bridging >	**2**	**3**	**2**	**3**	
6000	3.93	3.93	3.93	3.93	4.28
6500	3.44	3.44	3.44	3.44	3.36
7000	3.04	3.04	3.04	3.04	2.69
7500	2.65	2.65	2.65	2.65	2.19
8000	2.33	2.33	2.33	2.33	1.80
8500	2.06	2.06	2.06	2.06	1.50
9000	1.84	1.84	1.84	1.84	1.27
9500	1.65	1.65	1.65	1.65	1.08
9750	1.57	1.57	1.57	1.57	1.00
10000	1.49	1.49	1.47	1.49	0.92
10250	1.42	1.42	1.38	1.42	0.86
10500	1.35	1.35	1.29	1.35	0.80
10750	1.29	1.29	1.21	1.29	0.74
11000	1.23	1.23	1.14	1.23	0.69
11250	1.18	1.18	1.07	1.18	0.65
11500	1.13	1.13	1.00	1.13	0.61
11750	1.08	1.08	0.94	1.08	0.57
12000	1.04	1.04	0.88	1.04	0.54

Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 20% Lapped: MAX-SPAN® Zed 20019/20024 (kN/m)

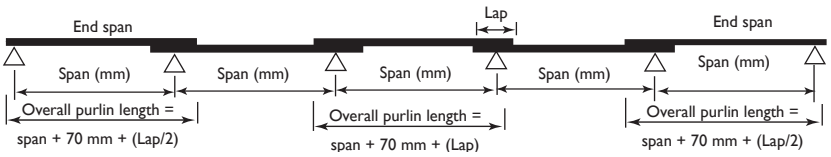
	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
6000	**6.01**	**6.01**	**6.01**	**6.01**	5.51
6500	**5.12**	**5.12**	**5.12**	**5.12**	4.34
7000	**4.41**	**4.41**	**4.41**	**4.41**	3.47
7500	**3.85**	**3.85**	**3.85**	**3.85**	2.82
8000	**3.38**	**3.38**	**3.38**	**3.38**	2.33
8500	2.99	2.99	2.99	2.99	1.94
9000	2.67	2.67	2.61	2.67	1.63
9500	2.40	2.40	2.29	2.40	1.39
9750	2.28	2.28	2.15	2.28	1.29
10000	2.16	2.16	2.02	2.16	1.19
10250	2.06	2.06	1.90	2.06	1.11
10500	1.96	1.96	1.78	1.96	1.03
10750	1.87	1.87	1.66	1.86	0.96
11000	1.79	1.79	1.56	1.76	0.90
11250	1.71	1.71	1.46	1.66	0.84
11500	1.64	1.64	1.37	1.58	0.78
11750	1.57	1.57	1.28	1.50	0.73
12000	1.50	1.50	1.20	1.42	0.69

Span (mm)

5 Span 20 % Lapped: MAX-SPAN® Zed 25015/25019 (kN/m)

	IN		OUT		Load for Deflection
Bridging >	**2**	**3**	**2**	**3**	**Span/150**
10000	1.81	1.81	1.81	1.81	1.54
10250	1.74	1.74	1.72	1.74	1.43
10500	1.67	1.67	1.62	1.67	1.33
10750	1.60	1.60	1.53	1.60	1.24
11000	1.54	1.54	1.44	1.54	1.16
11250	1.49	1.49	1.35	1.49	1.08
11500	1.43	1.43	1.28	1.43	1.01
11750	1.38	1.38	1.20	1.36	0.95
12000	1.33	1.33	1.14	1.29	0.89

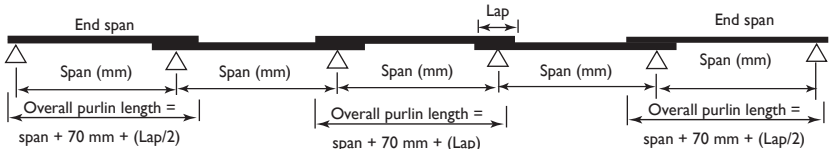
Span (mm)



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

5 Span 20 % Lapped: MAX-SPAN® Zed 25019/25024 (kN/m)

	IN		OUT		Load for Deflection Span/150
Span (mm)	**Bridging >**	**2**	**3**	**2**	**3**
	10000	**2.70**	**2.70**	2.60	**2.70**	2.01
	10250	2.57	2.57	2.44	2.57	1.86
	10500	2.45	2.45	2.29	2.45	1.73
	10750	2.34	2.34	2.15	2.34	1.61
	11000	2.23	2.23	2.02	2.23	1.51
	11250	2.13	2.13	1.90	2.13	1.41
	11500	2.04	2.04	1.79	2.04	1.32
	11750	1.96	1.96	1.68	1.94	1.24
	12000	1.88	1.88	1.58	1.84	1.16



Bold capacities require grade 8.8 purlin bolts
IN = Inward load capacity
OUT = Outward load capacity
In mixed spans, the thicker section is used in the end span

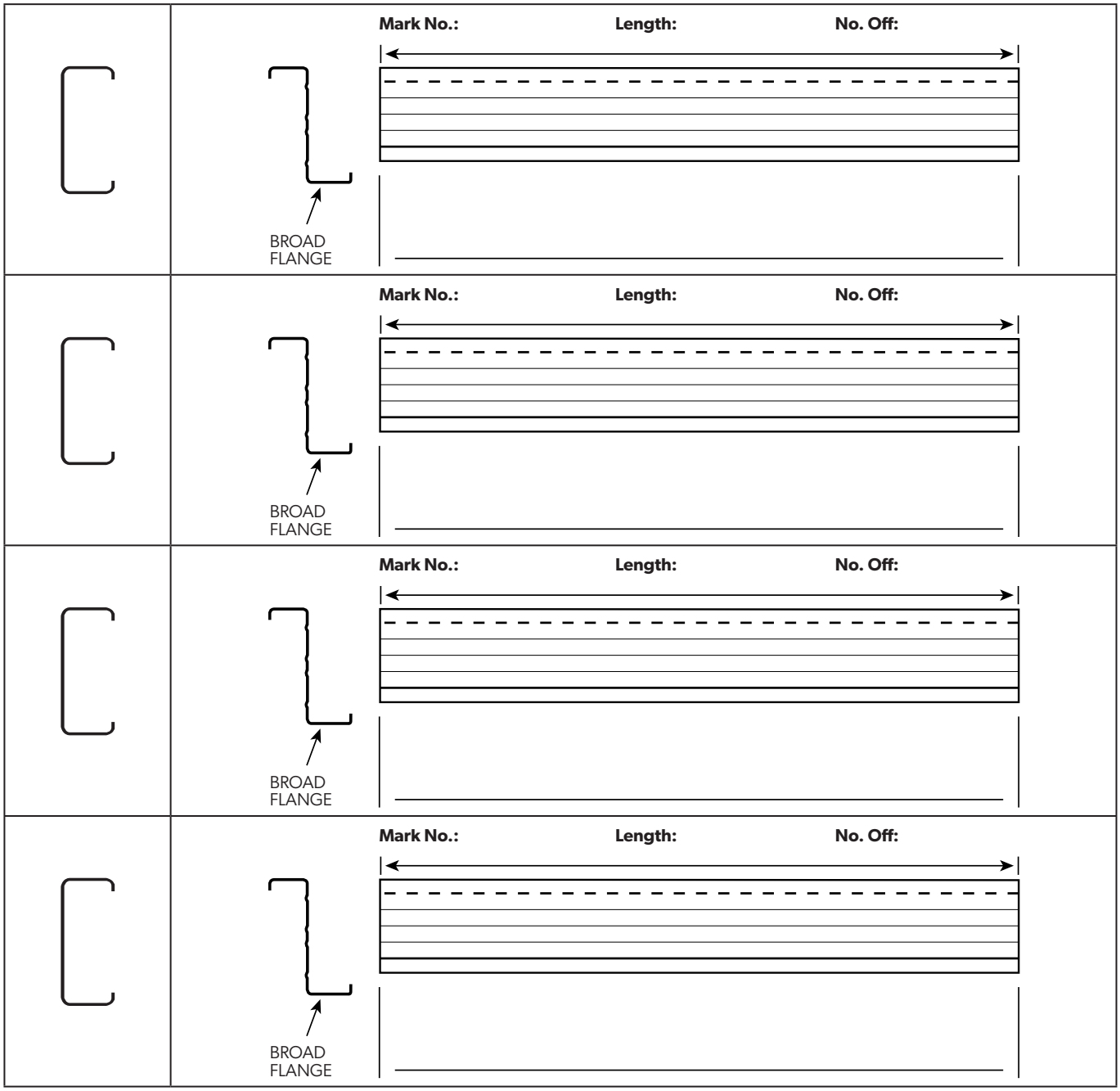
PURLIN ORDER FORM

DELIVERY DATE: .....

PURLIN SECTION	

Sheet	or
PAINTED:	
COLOUR:	
Z350:	**Z450:**

CLIENT:			
PROJECT:			
DRN:	**CHECKED:**	**DATE:**	**HOLES:**



NOTE:
WHEN EZY LOK BRIDGING IS REQUIRED FOR 'C' AND 'Z' 250 PURLINS, ALL HOLE CENTRES HAVE TO BE DRAWN.

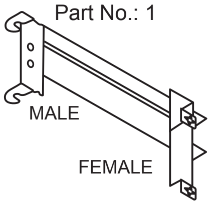
BRIDGING ORDER FORM

DELIVERY DATE: ....

PROJECT: ....

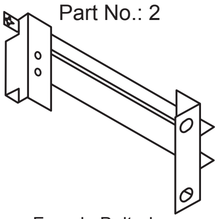
CUSTOMER:				Sheet or
ADDRESS:				**JOB No.:**
DRAWN:	**FINISH:**	**DATE:**	**HOLES:**	**PURCHASE ORDER No.:**

Part No.: 1



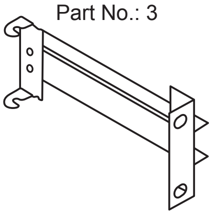
Male-Female

Part No.: 2



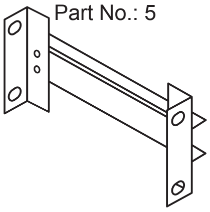
Female Bolted

Part No.: 3



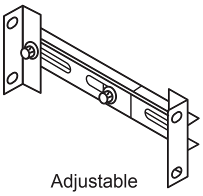
Male Bolted

Part No.: 5



Bolted-Bolted (alt.)

Part No.: 6



Adjustable
Bolted-Bolted

INSTRUCTIONS				**ROOF PITCH**
PART No.	**PURLIN SIZE**	**PURLIN CENTRES**	**No. REQUIRED**	**MARK No.**

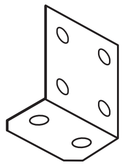
NOTES
- Ends can be ordered individually.
- All end combinations can be manufactured adjustable to suit
- Additional accessories details/advice available on request
- Please contact Lysaght directly.

Part No.: 7



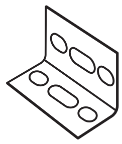
Threaded rod

Part No.: 10



G P Bracket
150, 200, 250

Part No.: 11

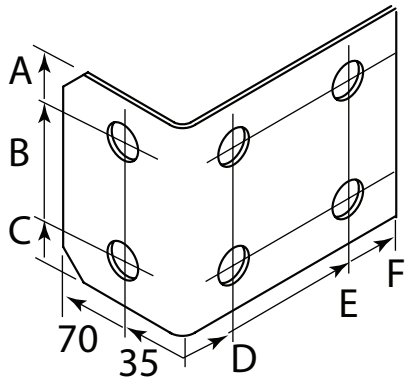


Angle
Connector

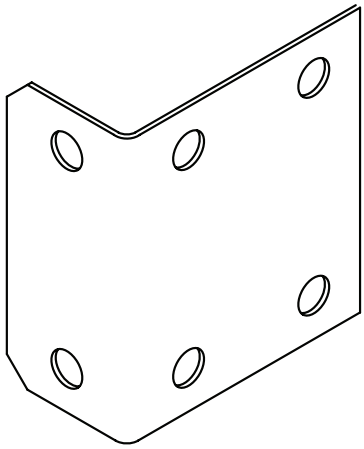
Install bridging in direction of locator

GENERAL PURPOSE BRACKETS

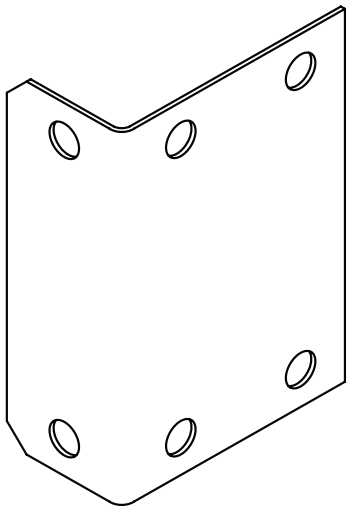
GENERAL PURPOSE BRACKET - 150



GENERAL PURPOSE BRACKET - 200



GENERAL PURPOSE BRACKET - 250



Size	A	B	C	D	E	F
150	22.5	82.5	105	30	97	125
200	22	132	154	36	109	136
250	20	180	200	36	109	136

OTHER BUILDING MATERIALS

Contact Lysaghtfor the availability of other related building materials not specified in the above order forms including: purlin bolts, fascia purlins, other adjustable bridging assemblies, as well as other special purpose clamps, brackets and fasteners.

Contact Lysaght for full product availability information.

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BLY0257_B 06/2026

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