



ALUMINIUM

The durable solution
for the toughest conditions

ROLL-FORMED PURLIN SOLUTIONS



Australian Standards

Australian Standard	Definition
AS/NZS 1170.0:2002	Structural design actions - Part 0: General principles
AS/NZS 1170.1:2002	Structural design actions Part 1: Permanent , Imposed and other actions
AS/NZS 1170.2:2021	Structural design actions, Part 2: Wind actions
AS/NZS 1664.1:1999	Aluminium structures Part 1: Limit state design (Reconfirmed 2020)

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1.0 PERMALITE® Rollformed Aluminium Purlins

Many areas of Australia experience very adverse conditions such as marine or severe industrial corrosive environments. In these situations, building structures and cladding can benefit from the corrosion resistance feature of aluminium alloys. Light weight also provides a structural benefit.

Coastal bulk material handling plants such as coal, sugar and grain loaders, as well as water storage reservoirs, agricultural storage sheds, power stations etc all have high corrosion risk structures. Now architects, builders and engineers can extend the application of aluminium beyond the external cladding and windows to include the support framing as well.

Lysaght have created a range of rollformed aluminium sections. Some of the advantages of rollformed purlins and girts versus extruded sections are:

- Sections may be punched and cut to length during the rollforming process, thus eliminating high post processing costs.
- There is some flexibility in section sizes and smaller production runs are possible eliminating costly waste.
- Lead times are significantly reduced ensuring smoother project completions.

A range of PERMALITE® aluminium purlin sections and dedicated accessories are available and can be cut to length and pre-punched if required.

The next section of this design manual provides all the information you need to put PERMALITE® rollformed aluminium purlins to work for you.

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 PERMALITE® aluminium purlin range.

The information contained herein includes:

- Product features, applications and benefits
- Product ordering
- Product handling
- Product detailing, installation and assembly
- Capacity tables
- Information on design, construction and installation issues including profile orientation and bridging
- Product dimensional data and section properties

The standard range of rollformed purlin products available is:

- Standard (traditional) and down-turn lip Zeds and Cees purlin profiles. Contact your local Lysaght sales office for product availability.

Applications

PERMALITE® purlins and girts are commonly used in commercial, industrial and rural buildings, reservoirs and severe marine environments.

Although the PERMALITE® purlins and girts sections have been designed for this specific application, due to their versatile shape there is a vast range of other applications where these sections are equally useful and commonly used. Some of these other applications are:

- Structural frame of small and medium sized buildings
- Floor joists
- Rafters and beams
- Posts

Other special shapes may be produced using extrusion versatility to either omit the flange lips by using thicker flanges, using bulb ends or with downturned lips.

Packing

PERMALITE® 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. PERMALITE® accessories are delivered in strapped or wired bundles, bags, or packages as appropriate.

Storage On-site

Product that has become wet in transport is to be unpacked immediately and each section dried thoroughly prior to repacking. Bundled sections and accessories should not be left exposed in the open for any period as water staining may result between any aluminium surfaces in contact with each other. Mill finish aluminium is particularly susceptible to this type of staining. Contact with moisture, cement dust, lime or abrasive dust is to be avoided. If not required for immediate use, sections should be neatly stacked off the ground, covered and on a slight slope so that water can drain away. It should be noted that whilst water staining is unsightly it will not affect the structural integrity or durability of the product in any way.

Lysaght will accept no responsibility or returns for water stained product.



1.1 Eco-Friendly and Recyclable

Choosing the optimum material for your next project should take account of the full lifetime of the material. This will include construction, use, maintenance and disposal. Materials which can be recycled easily and economically and which do not require landfill disposal should be preferred.

Aluminium's formability, high strength-to-weight ratio, corrosion resistance, and ease of recycling makes it the ideal material for a wide range of building applications. It is almost uniquely suited for harsh industrial and marine projects.

1.2 Material Specification

The standard Cee and Zed purlin shapes listed in Table 2.1 and 3.1 are all rollformed in a well proven marine grade structural aluminium alloy 5052 H36 which combines the properties of high strength with excellent resistance to atmospheric corrosion and is particularly suited to marine structures and water reservoir roofing applications.

Mechanical properties according to AS/NZS 1664.1.

Table 1.1: Material Specifications

Yield	179MPa
Ultimate Tensile Strength	255MPa
Elastic Modulus (for deflection calculations)	69.3GPa

Other tempers would be recommended if members require subsequent bending for curved structures.

Fasteners

Grade 316 SS A4 70 Stainless Steel bolts, nuts and washers (M12 and M16 x 45mm) are recommended. Lysaght offers 316 SS bolts with a Fluoropolymer coating to provide Electrolytic isolation.

In highly corrosive environments additional isolation is recommended via the use of PVC or similar isolation washers. This combination will give the best results in environments in which aluminium purlins are most suited.

Aluminium Standard Purlin Size Range

These profile shapes are the traditional Zed and Cee (or channel). These are the most versatile and economic sections to use for purlin and girt applications.

Traditional Zed and Cee shapes features:

- Single web
- Top and bottom flange
- The Zed profile has the flanges facing in opposite direction and one flange is "wide" and one is "narrow" to allow lapping (Cee profiles cannot be lapped)
- All shapes are available with self-draining downturn lips

The majority of the current standard PERMALITE® purlins and girts shown in Table 2.1 and 3.1 are closely related to the traditional sizes of steel Cee and Zed shapes and a similar code numbering system is used
e.g. C20030 is a 200mm deep Cee shape 3.0mm thick.

The range of Cee sections shown in Table 2.1 are suitable for constructions in which spans are simply supported.

They can also be used over two or more spans, if length is available, to help reduce deflection. The range of lipped Zeds shown in Table 3.1 are designed to nest with themselves to enable end lapping. This produces a structurally continuous line of purlins or girts for multiple bay buildings. This is more economical and gives extra strength when lapped over the support beams improving the load capacity.

Zeds can also be used over single or double spans in the same manner as Cee sections and the load tables shows the different capacities for each of these arrangements. Cee sections can be lapped, back-to-back or joined with a separate splicing piece behind the joint, which is not a 'lapped' joint. It is worth evaluating both Cee and Zed designs for each application to determine the most economical solution.

Extruded purlins, for special applications, are also available as custom orders with extended lead times and minimum order quantities.

Available Lengths

PERMALITE® purlins are available custom-cut in any transportable length, however there are some limitations. Minimum length is 1200mm and maximum length is 17000mm. Length tolerance for all sections is +/- 5mm. Contact your nearest Lysaght office.

Terminology

In the building industry the terms "purlin" and "girt" apply to the structural member that spans between frames onto which cladding is attached. When the member is used in the roof is called a PURLIN, and when used in the wall it is called a GIRT.

The purlins span horizontally and at right angles to, and spanning across, rafter supports or roof truss supports. The roof cladding is fixed to the outside or top face.

The girts spans across horizontally and at right angles to the column supports. The cladding is fixed to the outside face. The purlins and girts are traditionally fixed to the fabricated steel frame supports by the use of cleats.

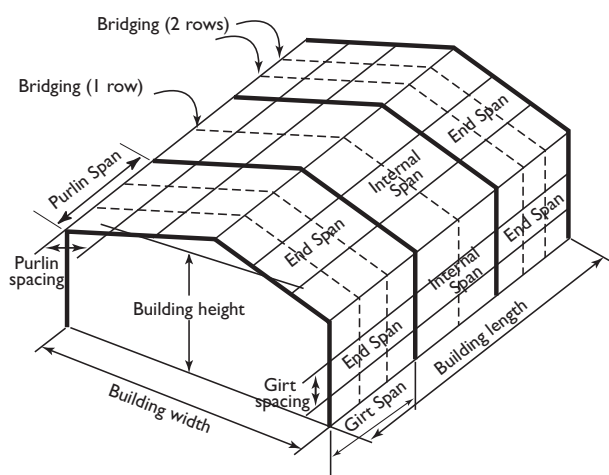
Bridging are stiffening members between the purlins/girts to limit the lateral and rotational movement of the purlins/girts. This movement is a form of buckling, and limitation of this buckling can dramatically increase the load carrying ability of the section.

1.3 Aesthetic Considerations

The following aesthetic factors should be considered when ordering PERMALITE® rollform purlins:

- Mill finish aluminium products are susceptible to water staining if stored wet in pack form. Lysaght arranges for covered transport for these products but cannot control storage on site or in transit. Please ensure that any wet packs are unpacked and dried immediately to minimise water staining. Water staining is purely an aesthetic issue. It does not affect the structural or corrosion performance of the PERMALITE® purlins in any way. Lysaght will therefore honour the full Warranty period for the product supplied. Contact with cement dust, lime or abrasive dust should also be avoided. Best practice is to store neatly off the ground, covered and on a slight slope.
- Rolling marks are common in the manufacture of PERMALITE® rollformed aluminium purlins. These most often exhibit as longitudinal scuffing to the purlin web. If this poses an aesthetic concern for your project, please consult the Lysaght office for other alternatives.

Figure 1.1: Drawing is taken from Figure 5.2 of AS/NZS 1170.2.



2.0 Standard Cee Purlin Product Range

The standard range of Cee purlin products and the associated section properties are detailed below.

Table 2.1: Standard PERMALITE® Cee Purlin Range

Dimensions of PERMALITE® Cees

Section	t (mm)	D (mm)	B (mm)	L (mm)	M (kg/m)
AC15025	2.5	155	62	23.0	2.046
AC15030	3.0	155	63	23.5	2.455
AC20025	2.5	205	76	25.0	2.602
AC20030	3.0	205	77.5	25.0	3.122
AC25025	2.5	255	76	25.5	2.947
AC25030	3.0	255	77	26.0	3.537
AC30025	2.5	300	109	30.0	3.760
AC30030	3.0	300	110.5	30.0	4.512
AC35030	3.0	350	125.5	30.0	5.163
AC40030	3.0	400	125.5	30.0	5.569

Note: Dimensions are subject to change without notice due to rollformer up-grade. Customers should confirm dimensions for each profile.

Figure 2.1: Standard Cee purlin range

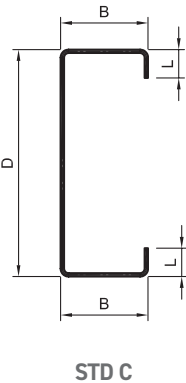


Table 2.2:

Standard Cee Purlin Section Properties

Product Code	Area	Section Properties								Column Properties		
		Second Moment of Area		Section Modulus		Radius of Gyration		Centroid	Shear Centre	Torsion Constant	Warping Constant	Mono-Symmetry Section Constant
	A (mm²)	Ix (10⁶ mm⁴)	Iy (10⁶ mm⁴)	Zx (10³ mm³)	Zy (10³ mm³)	rx (mm)	ry (mm)	xc (mm)	xs (mm)	J (mm⁴)	Iw (10⁶ mm⁶)	βy (mm)
AC15025	755.0	2.755	0.406	36.130	10.050	60.41	23.20	19.08	48.89	1553.0	2153	167.2
AC15030	906.0	3.288	0.496	43.270	12.220	60.24	23.41	19.36	49.54	2672.0	2627	167.3
AC20025	960.0	6.132	0.756	60.560	14.680	79.92	28.06	21.99	56.86	1979.0	6611	218.9
AC20030	1152.0	7.342	0.928	72.690	17.780	79.83	28.38	22.32	57.58	3408.0	8038	219.5
AC25025	1087.5	10.300	0.817	81.570	15.150	97.32	27.40	19.60	52.27	2242.0	10680	269.0
AC25030	1305.0	12.330	0.996	97.860	18.390	97.20	27.63	19.84	52.85	3867.0	12990	268.3
AC30025	1387.5	19.180	2.197	128.900	28.830	117.57	39.79	30.31	78.47	2867.0	39420	323.1
AC30030	1665.0	22.990	2.678	154.800	34.830	117.51	40.10	30.62	79.17	4947.0	47760	323.5
AC35030	1905.0	35.730	3.832	205.900	43.010	136.95	44.85	33.39	86.73	5667.0	90490	378.5
AC40030	2055.0	48.870	3.988	246.200	43.570	154.21	44.05	30.96	82.07	6117.0	121700	431.6

3.0 Standard Zed Purlin Product Range

The standard range of Zed purlin products and the associated section properties are detailed below.

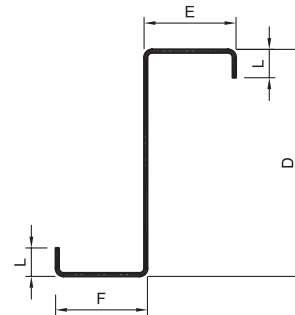
Table 3.1: Standard PERMALITE® Zed Purlin Range

Standard Zed Dimensions

Section	t (mm)	D (mm)	E (mm)	F (mm)	L (mm)	M (kg/m)
AZ15025	2.5	155	66	58	24.0	2.046
AZ15030	3.0	155	67	59	24.5	2.455
AZ20025	2.5	205	81	73	25.0	2.602
AZ20030	3.0	205	82.5	74.5	25.0	3.122
AZ25025	2.5	255	81	73	25.5	2.947
AZ25030	3.0	255	82	74.5	26.0	3.537
AZ30025	2.5	300	114	106	30.0	3.760
AZ30030	3.0	300	115.5	107.5	30.0	4.512
AZ35030	3.0	350	130.5	122.5	30.0	5.163
AZ40030	3.0	400	130.5	122.5	30.0	5.569

Note: Customers should confirm dimensions for each profile.

Figure 3.1: Standard Zed purlin range



STD Z

Table 3.2:

Standard Zed Purlin Section Properties

Product Code	Section Properties																	
	Principal Axes								Axes Perpendicular and Parallel to Web								Column Properties	
	Area	Second Moment of Area		Section Modulus		Radius of Gyration			Second Moment of Area		Product of Moment of Area	Section Modulus		Radius of Gyration		Torsion Constant	Warping Constant	
	A (mm²)	Ix (10⁶ mm⁴)	Iy (10⁶ mm⁴)	Zx (10³ mm³)	Zy (10³ mm³)	rx (mm)	ry (mm)	Alpha (degree)	Ix¹ (10⁶ mm⁴)	Iy¹ (10⁶ mm⁴)	Ix'y¹ (10⁶ mm⁴)	Zx¹ (10³ mm³)	Zy¹ (10³ mm³)	rx¹ (mm)	ry¹ (mm)	J (mm⁴)	Iw (10⁶ mm⁶)	
AZ15025	755.0	3.206	0.264	35.100	7.688	65.16	18.71	22.62	2.771	0.700	1.045	36.340	11.750	60.58	30.44	1563.0	2911	
AZ15030	906.0	3.845	0.322	42.070	9.310	65.15	18.85	22.98	3.308	0.859	1.266	43.520	14.310	60.43	30.79	2691.0	3546	
AZ20025	960.0	6.947	0.502	58.410	11.590	85.07	22.87	20.11	6.185	1.264	2.081	61.080	16.960	80.27	36.29	1990.0	9165	
AZ20030	1152.0	8.348	0.613	70.060	14.010	85.13	23.06	20.42	7.406	1.555	2.530	73.320	20.590	80.18	36.74	3426.0	11160	
AZ25025	1087.5	11.090	0.568	79.330	12.490	100.98	22.85	15.06	10.380	1.278	2.640	82.230	17.150	97.70	34.28	2253.0	14990	
AZ25030	1305.0	13.300	0.691	95.170	15.130	100.95	23.01	15.25	12.430	1.563	3.200	98.640	20.840	97.60	34.61	3885.0	18240	
AZ30025	1387.5	21.400	1.451	123.100	23.140	124.19	32.34	18.96	19.290	3.557	6.130	129.700	33.080	117.91	50.63	2877.0	55030	
AZ30030	1665.0	25.710	1.763	147.700	27.930	124.26	32.54	19.16	23.130	4.343	7.425	155.700	40.020	117.86	51.07	4965.0	66760	
AZ35030	1905.0	39.460	2.533	195.800	34.970	143.92	36.46	18.07	35.910	6.086	10.890	207.000	49.280	137.30	56.52	5685.0	127400	
AZ40030	2055.0	52.470	2.716	236.100	36.210	159.79	36.35	15.09	49.100	6.086	12.500	247.400	49.280	154.57	54.42	6134.0	171500	

The shear centre and monosymmetry constant deviations can be disregarded, that is, taken as zero. Properties have been computed on the basis of mean flange width. The introduced error is negligible.

4.0 Standard Downturn Lip Cee Purlin Product Range

The standard downturn lip range is shown below.

Table 4.1: Standard PERMALITE® Downturn Lip Cee Purlins Range

Dimensions of PERMALITE® Cees DL

Section	t (mm)	D (mm)	E (mm)	F (mm)	L1 (mm)	L2 (mm)	m (kg/m)
AC15025 DL	2.5	155	74	78	18.0	18.0	2.168
AC15030 DL	3.0	155	75	78	19.0	19.0	2.602
AC20025 DL	2.5	205	80	80	21.0	21.0	2.602
AC20030 DL	3.0	205	80	80	24.0	21.0	3.122
AC25025 DL	2.5	255	80	80	22.0	21.0	2.947
AC25030 DL	3.0	255	80	80	25.0	21.0	3.537
AC30025 DL	2.5	300	110	110	33.0	25.0	3.760
AC30030 DL	3.0	300	111	111	34.0	25.0	4.512
AC35030 DL	3.0	350	125.5	125.5	30.0	30.0	5.163
AC40030 DL	3.0	400	125.5	125.5	30.0	30.0	5.569

Figure 4.1: Standard downturned lip purlin range

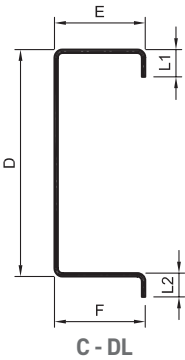


Table 4.2:

Standard Downturn Lip Cee Purlin Section Properties

Product Code	Section Properties																		
	Principal axes									Axes perpendicular and parallel to web						Column Properties			
	Area		Second Moment of Area		Section Modulus		Radius of Gyration			Second Moment of Area		Product of moment of area	Section Modulus		Radius of Gyration	Torsion Constant	Warping Constant	Mono-Symmetry Section Constant	Mono-Symmetry Section Constant
	A mm²	Ix 10⁶ mm⁴	Iy 10⁶ mm⁴	Zx 10³ mm³	Zy 10³ mm³	rx mm	ry mm	Alpha (degree)	Ix' 10⁶ mm⁴	Iy' 10⁶ mm⁴	Ixy' 10⁶ mm⁴	Zx' 10³ mm³	Zy' 10³ mm³	rx' mm	ry' mm	J mm⁴	Iw 10⁶ mm⁴	βx mm	βy mm
AC15025 DL	800.0	3.188	0.601	34.340	11.860	63.13	27.40	1.87	3.185	0.603	0.084	34.930	11.530	63.10	27.46	1643.0	2393	13.10	190.10
AC15030 DL	960.0	3.811	0.728	40.840	14.370	63.01	27.53	1.68	3.808	0.731	0.090	41.460	14.160	62.98	27.59	2828.0	2883	15.74	190.20
AC20025 DL	960.0	6.407	0.796	53.170	14.200	81.69	28.79	0.55	6.407	0.796	0.054	53.400	14.450	81.69	28.80	1976.0	5587	20.29	235.20
AC20030 DL	1152.0	7.634	0.959	63.440	17.500	81.40	28.85	0.20	7.634	0.959	0.024	63.540	17.610	81.40	28.85	3404.0	6822	25.29	233.50
AC25025 DL	1087.5	10.650	0.860	73.160	14.810	98.96	28.12	0.24	10.650	0.860	0.041	73.280	14.950	98.96	28.12	2241.0	9505	21.05	288.40
AC25030 DL	1305.0	12.710	1.037	87.340	18.200	98.69	28.19	0.03	12.710	1.037	0.005	87.320	18.220	98.69	28.19	3863.0	11550	27.27	286.00
AC30025 DL	1387.5	19.630	2.217	113.600	28.470	118.94	39.97	0.25	19.630	2.217	0.076	113.300	28.750	118.94	39.97	2866.0	34930	36.21	336.70
AC30030 DL	1665.0	23.490	2.689	136.200	34.320	118.78	40.19	0.33	23.490	2.690	0.121	135.800	34.780	118.78	40.19	4943.0	42380	37.65	336.10
AC35030 DL	1905.0	36.570	3.831	181.700	42.460	138.55	44.84	0.38	36.570	3.832	0.218	182.200	43.000	138.55	44.85	5662.0	79750	26.20	395.60
AC40030 DL	2055.0	49.830	3.987	220.200	43.110	155.72	44.05	0.28	49.830	3.988	0.224	220.700	43.560	155.72	44.05	6112.0	109300	25.11	451.70

5.0 Standard Downturn Lip Zed Purlin Product Range

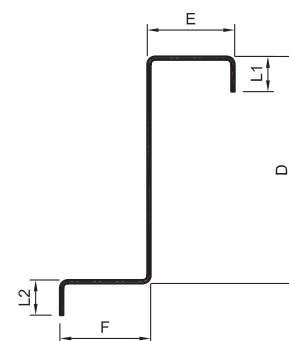
The standard downturn lip range is shown below.

Table 5.1: Standard PERMALITE® Narrow Downturn Lip Zed Purlins Range

Dimensions of PERMALITE® Zeds DL-N

Section	t (mm)	D (mm)	E (mm)	F (mm)	L1 (mm)	L2 (mm)	m (kg/m)
AZ15025 DL-N	2.5	155	66	78	25.0	21.0	2.168
AZ15030 DL-N	3.0	155	69	78	25.0	21.0	2.602
AZ20025 DL-N	2.5	205	75	79	29.0	21.0	2.602
AZ20030 DL-N	3.0	205	75	82	29.0	21.0	3.122
AZ25025 DL-N	2.5	255	75	80	29.0	21.0	2.947
AZ25030 DL-N	3.0	255	76	82	29.0	21.0	3.537
AZ30025 DL-N	2.5	300	107	111	37.5	25.0	3.760
AZ30030 DL-N	3.0	300	107	112	39.5	25.0	4.512
AZ35030 DL-N	3.0	350	126	127	30.0	30.0	5.163
AZ40030 DL-N	3.0	400	126	127	30.0	30.0	5.569

Figure 5.1: Standard narrow downturned lip Zed purlin range



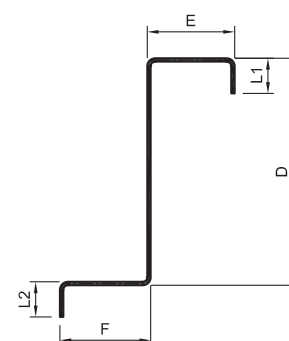
Z - DL NARROW

Table 5.2: Standard PERMALITE® Broad Downturn Lip Zed Purlins Range

Dimensions of PERMALITE® Zeds DL-B

Section	t (mm)	D (mm)	E (mm)	F (mm)	L1 (mm)	L2 (mm)	m (kg/m)
AZ15025 DL-B	2.5	155	74	79	18.0	18.0	2.168
AZ15030 DL-B	3.0	155	77	79	18.0	18.0	2.602
AZ20025 DL-B	2.5	205	83	80	20.0	20.0	2.602
AZ20030 DL-B	3.0	205	83	83	20.0	20.0	3.122
AZ25025 DL-B	2.5	255	83	81	20.0	20.0	2.947
AZ25030 DL-B	3.0	255	84	83	20.0	20.0	3.537
AZ30025 DL-B	2.5	300	115	112	28.0	25.0	3.760
AZ30030 DL-B	3.0	300	115	113	30.0	25.0	4.512
AZ35030 DL-B	3.0	350	134	129	25.0	25.0	5.163
AZ40030 DL-B	3.0	400	134	129	25.0	25.0	5.569

Figure 5.2: Standard broad downturned lip Zed purlin range



Z - DL BROAD

Table 5.3:

Standard Downturn Lip Zed Purlin Section Properties

Product Code	Section Properties																		
	Principal axes									Axes perpendicular and parallel to web								Column Properties	
	Area		Second Moment of Area		Section Modulus		Radius of Gyration			Second Moment of Area		Product of moment of area		Section Modulus		Radius of Gyration		Torsion Constant	Warping Constant
	A mm ²	I _x 10 ⁶ mm ⁴	I _y 10 ⁶ mm ⁴	Z _x 10 ³ mm ³	Z _y 10 ³ mm ³	r _x mm	r _y mm	Alpha (degree)	I _{x'} 10 ⁶ mm ⁴	I _{y'} 10 ⁶ mm ⁴	I _{xy'} 10 ⁶ mm ⁴	Z _{x'} 10 ³ mm ³	Z _{y'} 10 ³ mm ³	r _{x'} mm	r _{y'} mm	J mm ⁴	I _w 10 ⁶ mm ⁶	β _x mm	β _y mm
AZ15025 DL	800.0	3.894	0.331	33.800	9.159	69.77	20.33	26.37	3.191	1.033	1.418	34.750	13.940	63.16	35.93	1647	3502	7.264	27.34
AZ15030 DL	960.0	4.684	0.403	40.470	10.770	69.85	20.48	26.75	3.816	1.270	1.721	41.450	17.060	63.05	36.37	2835	4281	14.72	17.49
AZ20025 DL	960.0	7.210	0.485	51.620	10.990	86.66	22.47	20.23	6.406	1.289	2.182	53.280	16.590	81.69	36.64	1983	8306	32.83	3.671
AZ20030 DL	1152.0	8.657	0.591	62.150	13.570	86.69	22.64	20.54	7.664	1.583	2.650	64.410	19.930	81.56	37.07	3415	10160	22.5	13.4
AZ25025 DL	1087.5	11.420	0.560	71.090	12.090	102.48	22.69	15.25	10.670	1.311	2.756	73.510	16.720	99.05	34.72	2248	14010	28.26	11.02
AZ25030 DL	1305.0	13.710	0.684	85.440	14.730	102.50	22.90	15.47	12.780	1.611	3.349	88.500	20.220	98.96	35.14	3874	17110	23.69	14.32
AZ30025 DL	1387.5	21.930	1.412	109.900	22.330	125.72	31.90	19.03	19.750	3.592	6.323	114.100	32.540	119.31	50.88	2872	51150	45.84	1.027
AZ30030 DL	1665.0	26.250	1.706	131.500	27.070	125.56	32.01	19.16	23.610	4.349	7.609	136.700	39.160	119.08	51.11	4956	61890	47.67	0.8301
AZ35030 DL	1905.0	40.390	2.478	177.000	33.470	145.61	36.07	18.18	36.700	6.170	11.240	184.400	48.760	138.80	56.91	5662	119400	33.43	4.417
AZ40030 DL	2055.0	53.510	2.676	214.800	34.840	161.37	36.09	15.21	50.010	6.172	12.870	223.200	48.760	156.00	54.80	6112	162600	33.37	6.76

Properties have been computed on the basis of mean flange widths and mean lip lengths of upper and lower down turn zed purlins. The introduced error is negligible.

6.0 Non-Standard Purlin Options

Non-standard purlin options are available subject to enquiry. These non-standard options are available on special projects only and will be subject to minimum order quantities and extended lead times.

The non-standard purlin options include:

- variation of material specifications
- variation of profile dimensions
- variation of material thickness

These options could be considered to tailor a profile specifically for project needs.

For special projects please contact your local Lysaght sales office and provide all the relevant project details and design information.

Additional PERMALITE® Aluminium Structural Shapes

In addition to the standard purlin shapes there are many other structural alloy geometric extrusions, mesh and plate which can be used for other parts of the structure such as:

- Industrial Floor Planks
- Bridging channels or angles
- Sag Rods
- Tubular shapes for columns
- Surround framing for access openings
- Stairways, railings, bracing anchor brackets etc.

Please check with your Lysaght sales representative for availability.

7.0 Hole, Cleat and Fastening Details

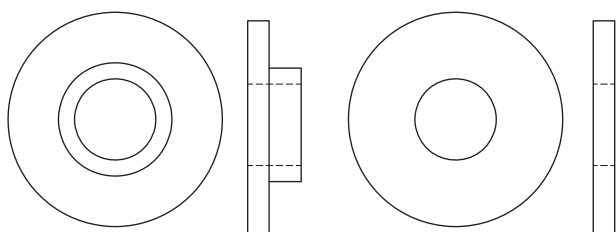
PERMALITE® purlins may be supplied with punched elongated holes for fastening to cleats and lapping. These holes are normally made to the Australian Institute of Steel Construction recommended sizes and gauge lines. They are intended for use with 12 or 16mm diameter Grade 316 Stainless Steel bolts (M12 or M16 x 45mm) with washers at both the head and nut. Reaction loads at fixing points may need checking to determine size of bolt required as, in some cases, larger holes may be required.

Purlin shapes are also available un-punched if preferred for site drilling which is much easier than steel. Slotting for expansion of purlins is recommended as thermal movements of approximately 0.25mm per metre per 10° C is often encountered.

Fixings

The PERMALITE® range of purlin bolts are available in both M12 and M16 sizes in structural grade A4-70 316 stainless steel. For maximum electrolytic protection these bolts, nuts and washers are coated with a fluoropolymer coating to a thickness of 15-25 microns. Rigid plastic grommet washers under bolt heads or washers are recommended to reduce thermal movement, noise and any risk of crevice corrosion in highly corrosive environments. The use of PVC isolation tapes, e.g. any good quality adhesive PVC tape (minimum 250 microns thick) to the full width of the flange should be used to separate dissimilar materials.

Figure 7.1: Plastic grommet washer



Examples of HIGHLY corrosive environments that will require the use of PVC washers to the purlin bolts are:

- Ammonium Nitrate storage facilities
- Sulphur storage facilities
- Fertiliser storage facilities
- Effluent Holding tanks
- Over-water ship loading conveyors such as for coal or sugar
- Swimming pool roofs

Examples of every day corrosive environments where PVC washers are NOT required are:

- Potable water storage roofing
- Desalination plants
- Sewer treatment plants
- Paper mills and pulp mills
- Sugar storage facilities
- Surf lifesaving clubs
- Enclosed marina buildings

Table 7.1: Bolt sizes and holes

316 Stainless Steel Fluoropolymer Coated Bolt Size	Recommended Slotted Hole
M12	18 x 22mm
M12 with nylon grommet washer	18 x 22mm
M16	22mm ϕ
M16 with nylon grommet washer	22mm ϕ

Figure 7.2: Standard Holes for PERMALITE® Cee sections

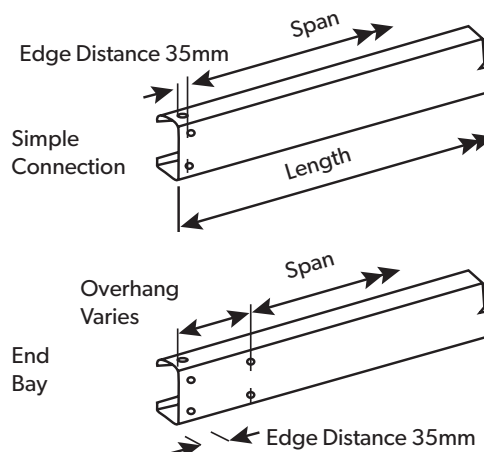
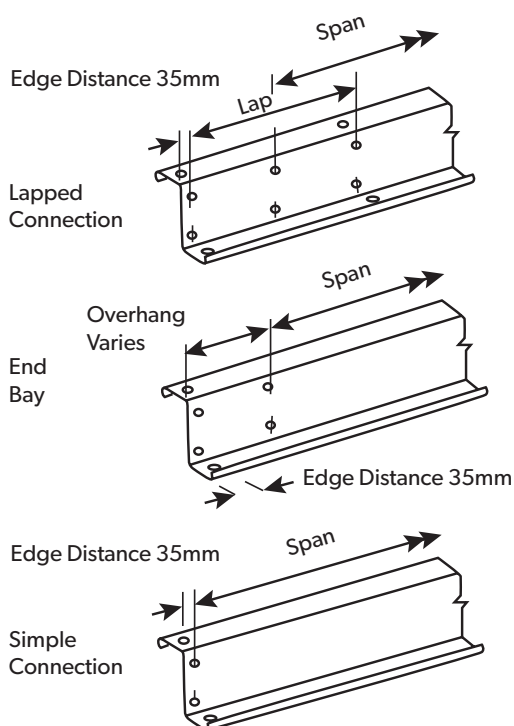


Figure 7.3: Standard Holes for PERMALITE® Zed sections



7.1 Punching of Purlins

General

PERMALITE® aluminium purlin profiles can be supplied punched or un-punched.

Where holes are required, these are done to industry standards at cleats supports (where the purlin is bolted through the web to the cleat at end supports and internal supports), at ends of laps and at bridging points.

Non-standard holing may be available subject to enquiry. Negotiation for special projects will be subject to minimum order quantities and extended lead time. This non-standard holing can consist of no holes (un-punched) or some limited variation of:

- Hole size
- Hole location
- Hole quantity
- Hole pattern

Standard Hole Size

The purlin hole sizes are in accordance with the requirements of Australian Standard AS/NZS 1664.1 Aluminium Structures.

For holes at bridging and lapping location, dimension is either 18x22mm or 20x24mm.

Standard Hole Patterns and Locations

There are two standard punching patterns available and the locations along the length of the purlin will depend upon the purpose of the holes. The patterns/location of the holes are;

- Two (2) holes in the web located at the gauge lines. This is for fixing of the purlin at cleats and for installation of bridging.
- Two (2) holes in the web located at the gauge lines, and two (2) holes in the flanges (one hole per flange). This is largely for fixing at ends of laps, however this is also the standard hole punching at the ends of all purlins. The minimum edge distance of the holes (add centres) from the ends of purlins is 35mm as shown in diagram at right.

Figure 7.4: Hole Details and Gauge lines

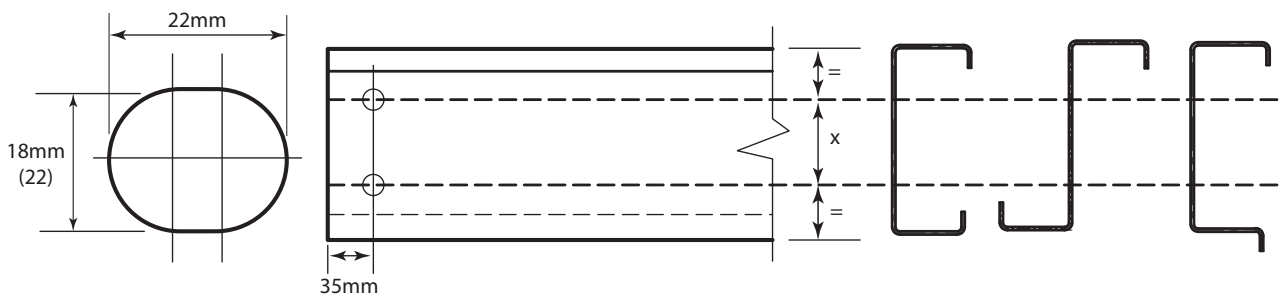


Figure 7.5: Typical purlin to cleat detail

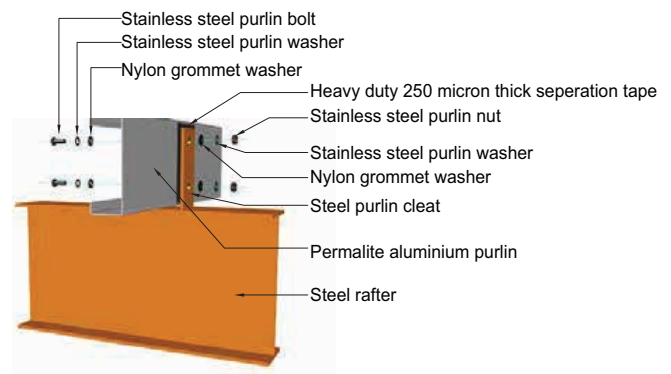
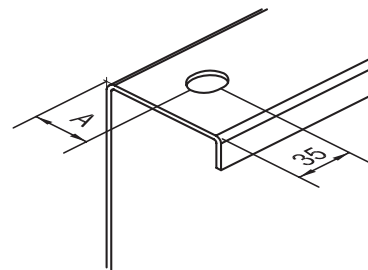


Figure 7.6: Typical purlin flange hole detail



7.2 Holes and Cleats

PERMALITE® 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.

Table 7.2: Hole details and gauge lines for PERMALITE® Zed and Cee section connections to steel cleats.

Nominal Purlin Size c/z (mm)	X	Z (min)	Y	A
150mm	70	53	158	31
150mm DTL	70	73	178	31
200mm	110	58	203	38
200mm DTL	110	78	223	38
250mm	160	58	253	38
250mm DTL	160	78	273	38
300mm	210	55	300	55
300mm DTL	210	79	324	55
350mm	260	55	350	62.5
350mm DTL	260	84	379	62.5
400mm	310	55	400	62.5
400mm DTL	310	84	429	62.5

Note:

1. Cleat thickness recommended is 8mm steel, minimum.
2. Above dimensions are based on the allowance of a 10mm gap between the bottom of the purlin and the steel rafter underneath.
3. When using down turned lipped shapes, longer cleats are needed for clearance.

Figure 7.8: Cleat details

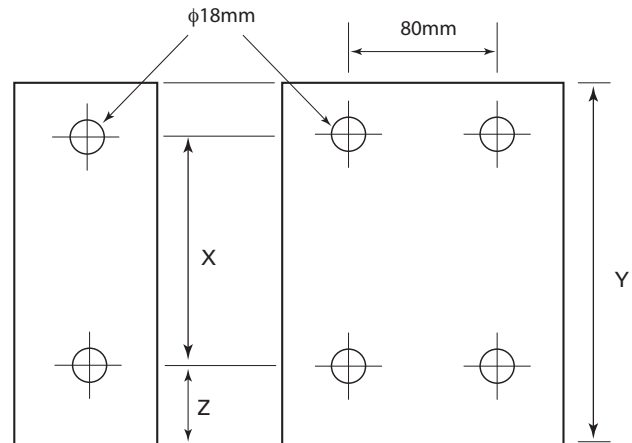
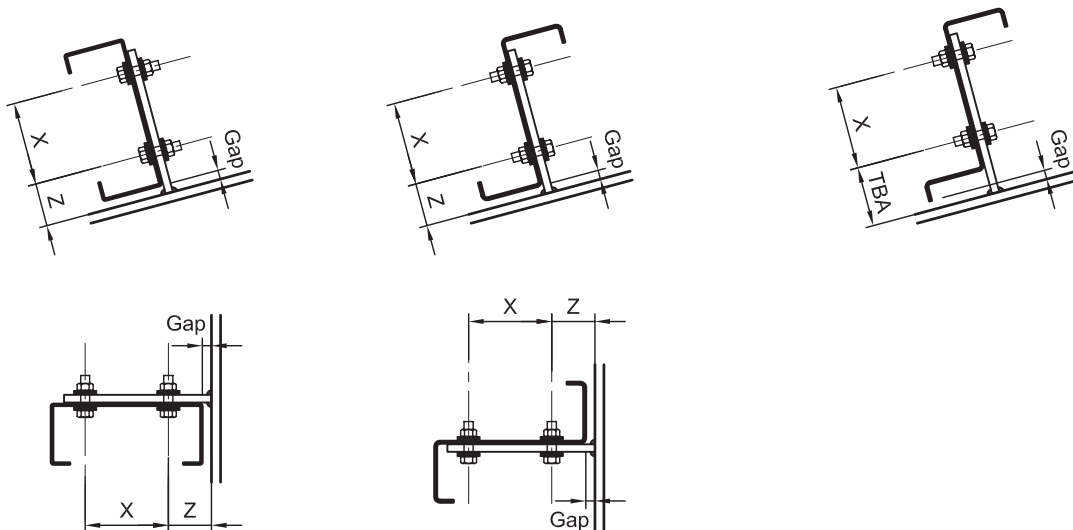


Figure 7.7: Fastening to Cleats

PVC tape required to isolate aluminium purlin from steel cleat.



NOTE

To minimise collection of corrosive materials within the purlins the top flange of Cee purlins should be oriented down the roof slope as shown above. Special design consideration may be required for concealed fix roof claddings.

8.0 EZY-LOK® Bridging Installation

Purlin Bridging

There are a number of ways to install the EZY-LOK® bridging system when erecting a PERMALITE® 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.)

Step 1: (see Option 1) Install the bolted-bolted ridge tie 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. 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 and place the hooks into the hole of the installed female end. The next strut 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 is required to attach the fascia purlin and the bridging installation is complete.

Other methods of bridging exist and include different ridding 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.

Figure 8.1: Bridging design

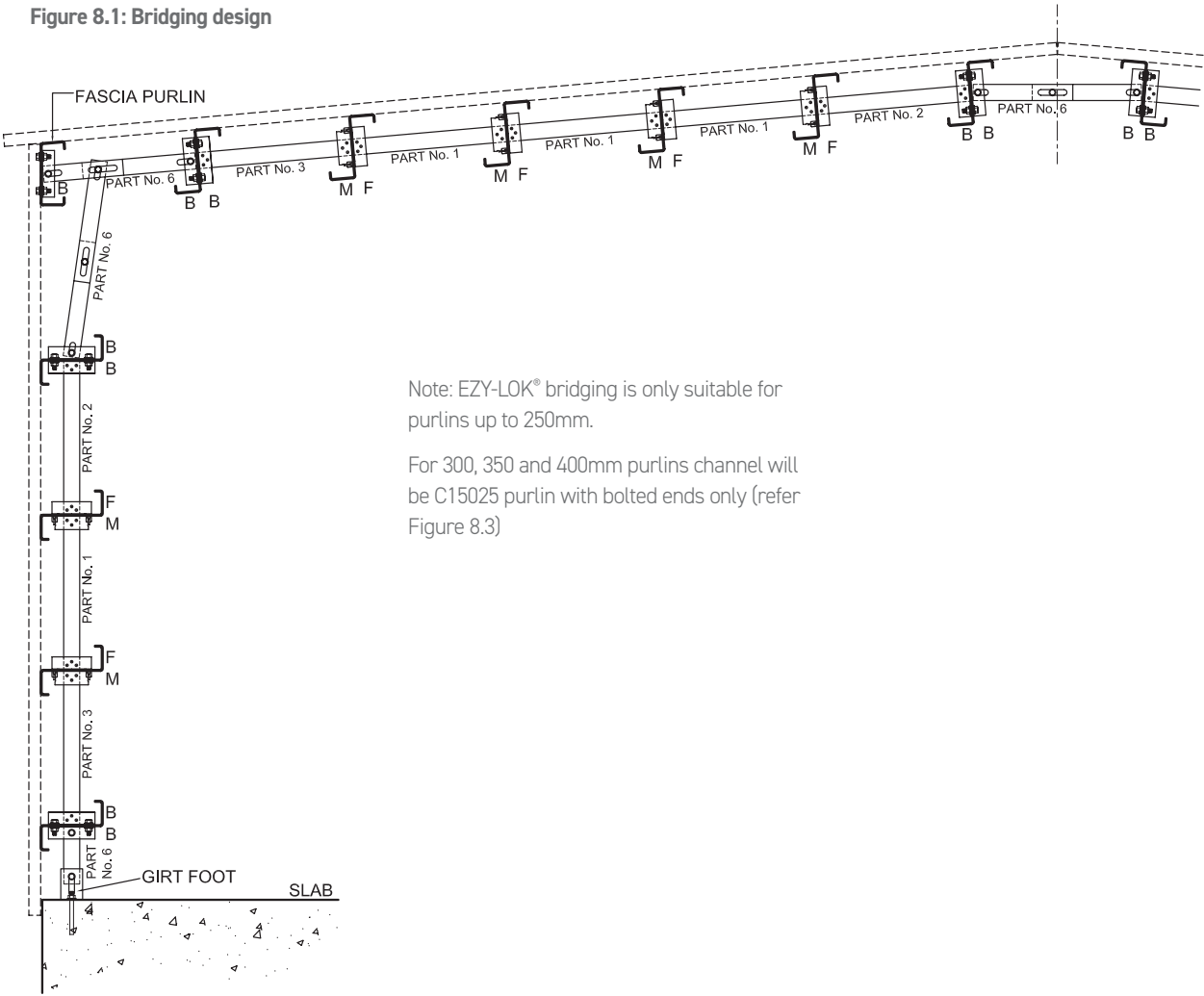


Figure 8.2: PERMALITE® EZY-LOK® Bridging System

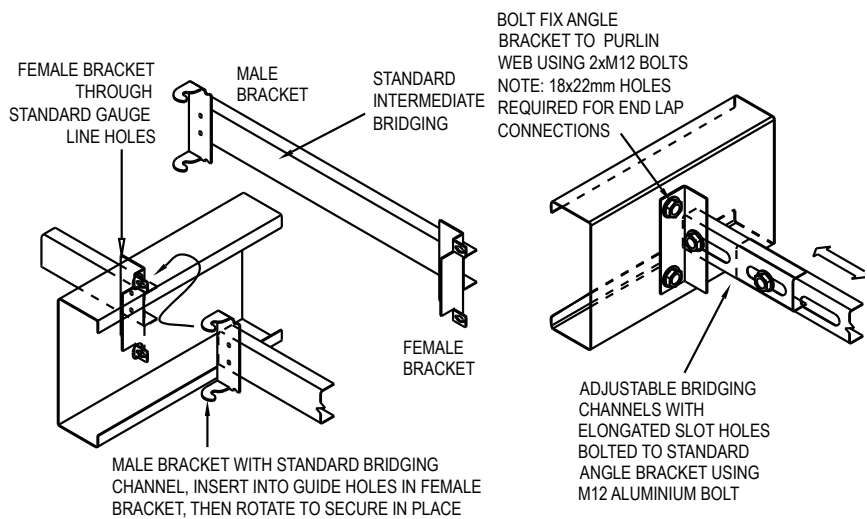


Figure 8.3: C-section bridging for 300, 350 and 400mm purlins and girts

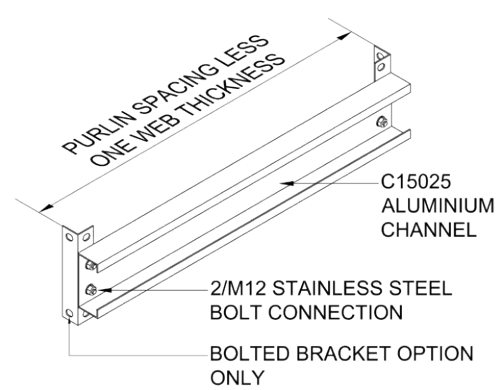


Figure 8.4: Bridging Holes and Cleat Holes

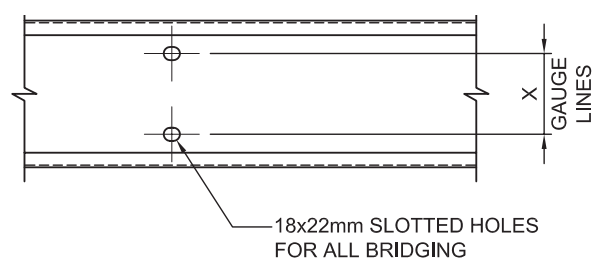
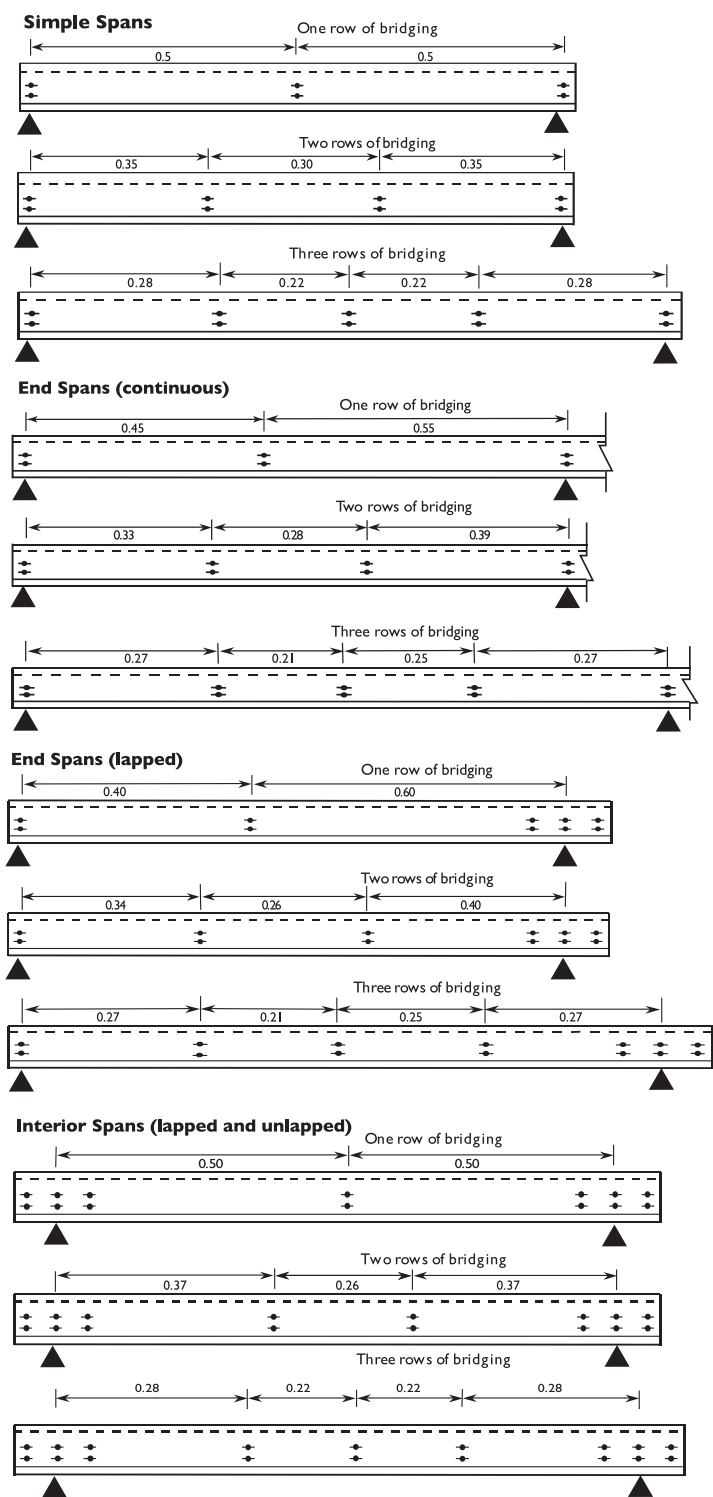


Figure 8.5: Location of Bridging Holes



8.1 Purlin Splicing Details

Lap Splicing Details

Three typical splicing methods are described in these data pages. Some are more effective, or suit the structure more than others and careful evaluation needs to be made, whilst determining the size of the member from tables 3 or 4.

Method 1

Non-Structural Stiffening Splice for Cee Sections

Extra load capacity can be achieved subject to engineering judgement. Roofing screw lines are kept in line.

Method 2

Non-Structural Lap Splice for Cee Sections

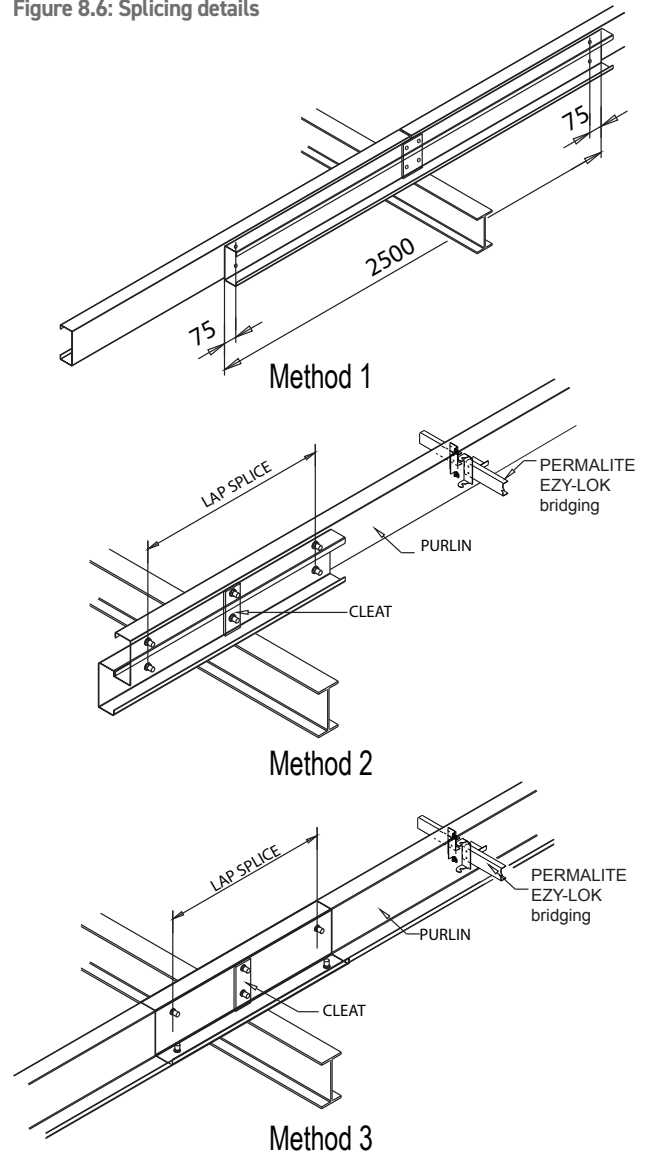
Extra load capacity can be achieved subject to engineering judgement. Roofing screw lines are staggered to pick up the alternate lines of purlins.

Method 3

Structural Lap Splice for Zed Sections

This is the most effective splice as the sections are designed to nest into themselves so screwlines are continuous. The lapped span tables of Table 4 are used when this method is adopted.

Figure 8.6: Splicing details

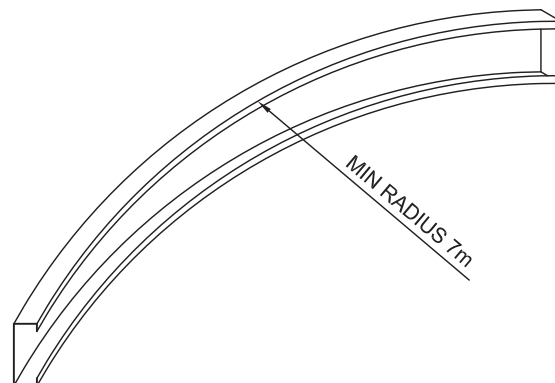


NOTE: Use rigid plastic grommet washer to separate stainless steel bolt from aluminium in highly corrosive environments

8.2 Curved Purlins

PERMALITE® purlins have the capability to be curved to a minimum radius of 7m. These curved purlins are often utilized as ring beams around water reservoirs. Contact PERMALITE® for further information.

Figure 8.7: Curved purlin



9.0 Accessories

There is a range of PERMALITE® accessories available for use with the PERMALITE® purlins. These accessories are an integral part of the PERMALITE® purlin and girt system.

Figure 9.1: Bolt, nut and washers



1) Purlin bolts with PVC Washers/Grommet Washer

Structural Grade A4-70 316 Stainless Steel (M12 x 40mm, M16 x 45mm) with washers at both the head and nut shall be used for all types of connections described in this manual as required by AS/NZS 1664:1. Fluoropolymer coated bolts, nuts and washers are recommended to provide electrical isolation between stainless steel and aluminium.

Rigid PVC washers under bolt heads or washers are recommended to reduce thermal movement, noise and any risk of crevice corrosion in highly corrosive environments.

Purlin Trimming Brackets

A variety of aluminium brackets are available for trimming around wall and roof penetrations such as doors, windows and services. These brackets are for lightly loaded applications, not for highly loaded structural connections.

2) General Purpose Brackets

Figure 9.2: General purpose bracket

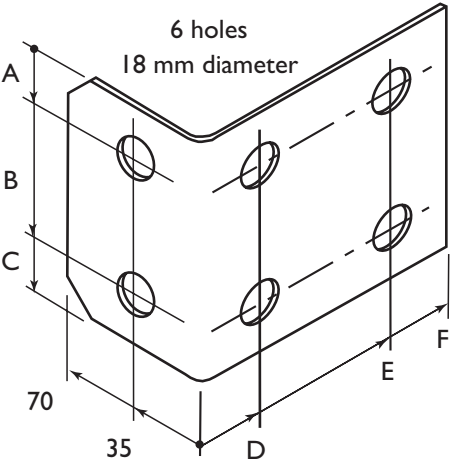


Table 9.1: General purpose brackets

Product 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

3) Angle connectors

The angle connectors are detailed to allow connections of sections of the same size or one size smaller.

Figure 9.3: Angle connectors

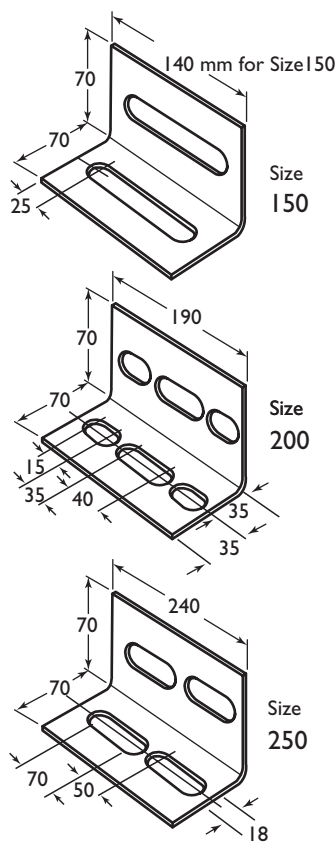


Figure 9.4: Clamp plates

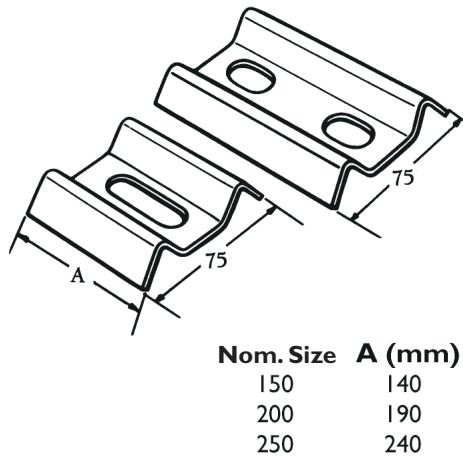


Figure 9.5: Typical purlin to angle connector connection detail

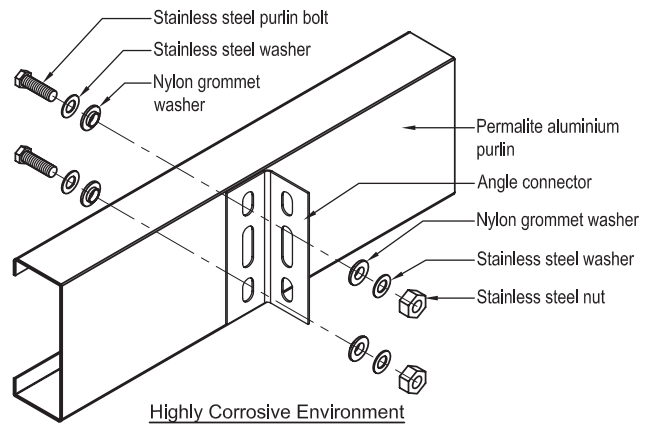
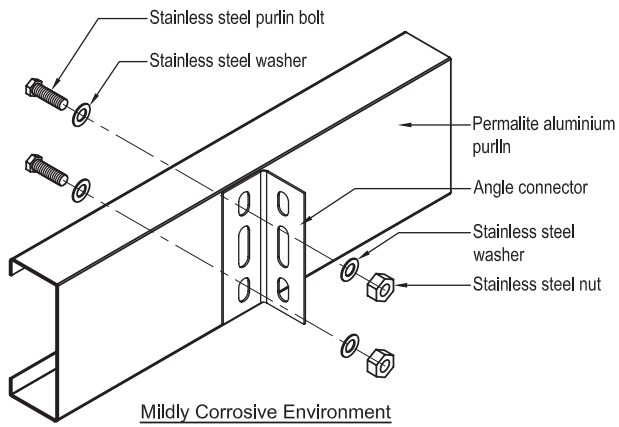


Figure 9.6: Typical purlin to angle connector/clamp plate connection detail

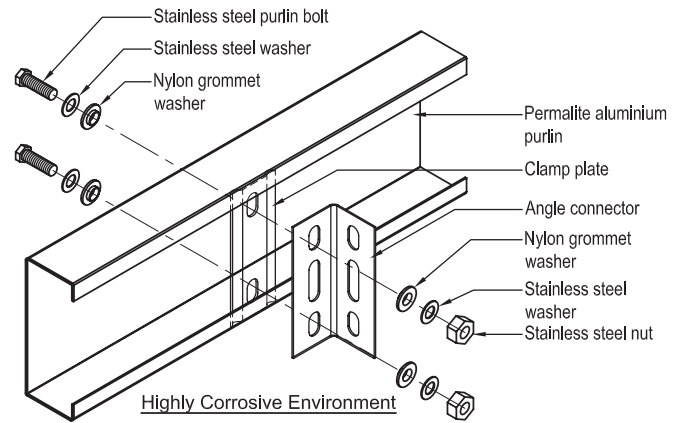
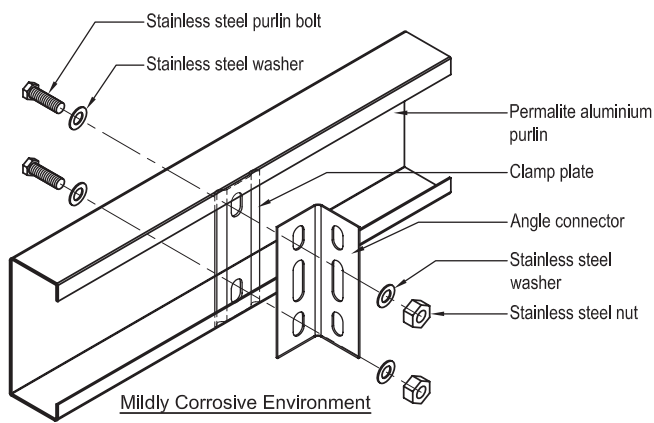
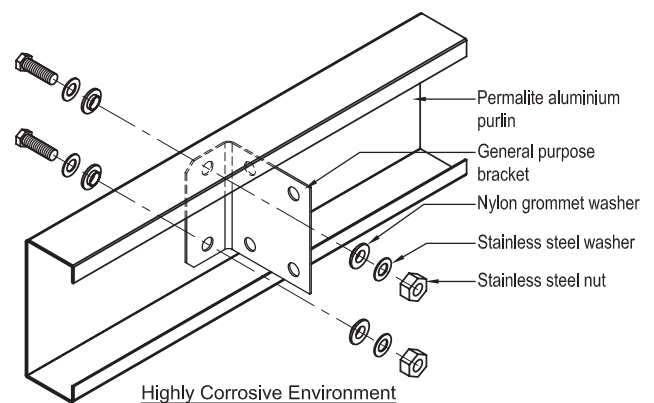
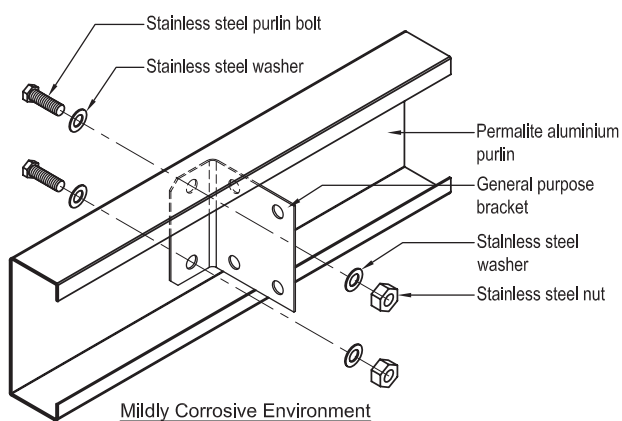


Figure 9.7: Typical purlin to general purpose bracket connection detail



10.0 Design Criteria

Limit State Design

The recommended Load tables have been calculated in accordance with AS/NZS 1664:1, Aluminium Structures Part 1: Limit State Design.

Clause 1.3 of AS/NZS 1664:1 on the increase of the capacity factor for secondary matters, such as purlin and girts, for wind and earthquake loads, has been adopted in deriving the limit state loads. The design engineer may use personal judgement in decreasing the Limit State loads in accordance with this Clause where considered appropriate to do so.

Aluminium Roof Purlins

For both inwards and outwards loading, it has been assumed that PERMALITE® aluminium roofing is screw fastened at a maximum of 254mm centres along each purlin or girt outer flange and is an integral part of the system providing torsional and diaphragm restraint. For both Cee and Zed shapes, the radius of gyration about the axis parallel to the web was used to determine effective length for each span/bracing combination.

The full range of our purlins are available with self-draining down-turned lips, which avoids collection of corrosive material within the purlin.

Purlin systems without braces are not recommended except for short spans as the bracing serves to both align the purlins after installation and prevent twisting during application of the roof cladding.

Aluminium Wall Girts

Maximum height of walls should be checked independently to avoid damage to bridging working as compression struts during wall erection before cladding is attached to wall girts.

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 allowing for different buckling modes of the purlin system.

The purlin buckling analysis assumes that:

- All purlins bend about the axis which is perpendicular to the web
- There is continuity at the laps - 20% laps is assumed
- 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
- Lateral and rotational restraint provided by cladding is ignored.

All design calculations for both strength and serviceability are in accordance with AS/NZS 1664:1 Aluminium Structures Standard for Limit State Design.

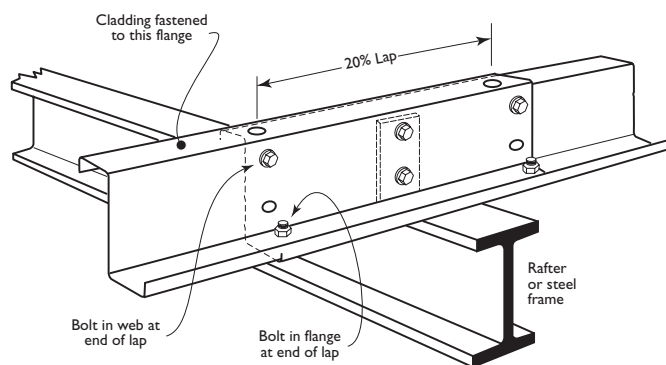
Deflection

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.

Figure 10.1: Lapped continuous joint with two bolts



11.0 Index to Capacity Tables

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:

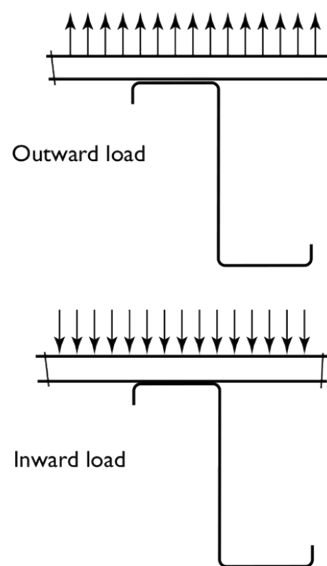
- Bolt specifications and number
- Non-standard purlin profile
- Reduced or enlarged end spans
- Span range
- Cantilevers at one or both ends
- Lap length
- Bridging quantity
- Load distribution

Bridging

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

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

Figure 11.1: Loading conditions



Notes to capacity tables

1. Loads are assumed to be uniformly distributed (see also Point Loads).
2. The capacities assume the use of approved PERMALITE sections, bridging system and bolts.
3. The column, Load for deflection span/150, is the load that will produce this deflection. It is not a design capacity.
4. Forces acting to hold cladding against a structure are defined as inward. Forces acting to remove cladding from a structure are defined as outward.

12.0 Limit State Load Tables - PERMALITE® Purlins

PERMALITE® Cee Single Spans

Single Span: AC15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	11.65	11.65	11.65	11.65	7.74	11.10	12.04	12.60	11.65	12.16
2500	7.45	7.45	7.45	7.45	3.95	6.63	7.38	7.83	7.38	6.23
3000	5.18	5.18	5.18	5.18	2.04	4.28	4.90	5.28	4.90	3.60
3500	3.80	3.80	3.80	3.80	1.10	2.90	3.44	3.76	3.44	2.27
4000	2.91	2.91	2.91	2.91	0.65	2.04	2.51	2.79	2.51	1.52
4500	2.30	2.30	2.30	2.30	0.40	1.47	1.88	2.13	1.88	1.07
5000	1.86	1.86	1.86	1.86		1.07	1.44	1.67	1.44	0.78
5500	1.54	1.54	1.54	1.54		0.79	1.13	1.33	1.13	0.59
6000	1.29	1.29	1.29	1.29		0.58	0.89	1.08	0.89	0.45
6500	1.10	1.10	1.10	1.10		0.43	0.71	0.89	0.71	0.35
7000	0.95	0.95	0.95	0.95			0.57	0.73	0.57	0.28
7500	0.83	0.83	0.83	0.83			0.46	0.61	0.46	0.23
8000	0.73	0.73	0.73	0.73				0.52		0.19
8500	0.65	0.65	0.65	0.65				0.44		0.16
9000	0.58	0.58	0.58	0.58						0.13
9500	0.52	0.52	0.52	0.52						0.11
10000	0.47	0.47	0.47	0.47						0.10
10500	0.42	0.42	0.42	0.42						0.08

Single Span: AC15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.37	14.37	14.37	14.37	9.34	13.33	14.44	15.10	14.33	14.54
2500	9.19	9.19	9.19	9.19	4.78	7.97	8.86	9.39	8.86	7.45
3000	6.38	6.38	6.38	6.38	2.49	5.15	5.89	6.33	5.89	4.31
3500	4.69	4.69	4.69	4.69	1.34	3.50	4.13	4.51	4.13	2.71
4000	3.59	3.59	3.59	3.59	0.79	2.46	3.01	3.35	3.01	1.82
4500	2.84	2.84	2.84	2.84	0.49	1.77	2.26	2.56	2.26	1.28
5000	2.30	2.30	2.30	2.30		1.29	1.74	2.01	1.74	0.93
5500	1.90	1.90	1.90	1.90		0.95	1.36	1.60	1.36	0.70
6000	1.60	1.60	1.60	1.60		0.71	1.08	1.30	1.08	0.54
6500	1.36	1.36	1.36	1.36		0.52	0.86	1.07	0.86	0.42
7000	1.17	1.17	1.17	1.17			0.69	0.88	0.69	0.34
7500	1.02	1.02	1.02	1.02			0.56	0.74	0.56	0.28
8000	0.90	0.90	0.90	0.90			0.46	0.62	0.46	0.23
8500	0.80	0.80	0.80	0.80				0.53		0.19
9000	0.71	0.71	0.71	0.71				0.45		0.16
9500	0.64	0.64	0.64	0.64						0.14
10000	0.58	0.58	0.58	0.58						0.12
10500	0.52	0.52	0.52	0.52						0.10
11000	0.48	0.48	0.48	0.48						0.09
11500	0.43	0.43	0.43	0.43						0.08

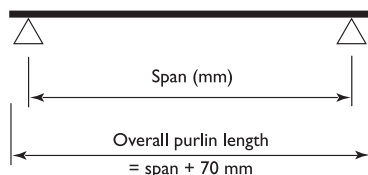
Single Span: AC20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.77	14.77	14.77	14.77	14.81	16.25	16.25	16.25	11.98	26.47
2500	9.46	9.46	9.46	9.46	8.08	10.40	10.40	10.40	9.46	13.55
3000	6.57	6.57	6.57	6.57	4.64	7.22	7.22	7.22	6.57	7.84
3500	4.82	4.82	4.82	4.82	2.70	5.31	5.31	5.31	4.82	4.94
4000	3.69	3.69	3.69	3.69	1.58	3.85	4.06	4.06	3.69	3.31
4500	2.92	2.92	2.92	2.92	0.99	2.84	3.21	3.21	2.92	2.32
5000	2.36	2.36	2.36	2.36	0.65	2.14	2.60	2.60	2.36	1.69
5500	1.95	1.95	1.95	1.95	0.44	1.63	2.10	2.15	1.95	1.27
6000	1.64	1.64	1.64	1.64		1.26	1.69	1.81	1.64	0.98
6500	1.40	1.40	1.40	1.40		0.97	1.37	1.54	1.37	0.77
7000	1.21	1.21	1.21	1.21		0.76	1.13	1.33	1.13	0.62
7500	1.05	1.05	1.05	1.05		0.59	0.93	1.14	0.93	0.50
8000	0.92	0.92	0.92	0.92		0.45	0.78	0.97	0.78	0.41
8500	0.82	0.82	0.82	0.82			0.65	0.83	0.65	0.35
9000	0.73	0.73	0.73	0.73			0.55	0.72	0.55	0.29
9500	0.66	0.66	0.66	0.66			0.46	0.62	0.46	0.25
10000	0.59	0.59	0.59	0.59				0.54		0.21
10500	0.54	0.54	0.54	0.54				0.47		0.18
11000	0.49	0.49	0.49	0.49				0.41		0.16
11500	0.45	0.45	0.45	0.45						0.14
12000	0.41	0.41	0.41	0.41						0.12

Single Span: AC20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.14	19.14	19.14	19.14	17.89	20.15	20.15	20.15	14.36	31.93
2500	12.69	12.69	12.69	12.69	9.79	13.96	13.96	13.96	11.48	16.35
3000	8.81	8.81	8.81	8.81	5.65	9.33	9.69	9.69	8.81	9.46
3500	6.47	6.47	6.47	6.47	3.31	6.46	7.12	7.12	6.47	5.96
4000	4.96	4.96	4.96	4.96	1.94	4.64	5.41	5.45	4.96	3.99
4500	3.92	3.92	3.92	3.92	1.21	3.43	4.12	4.31	3.92	2.80
5000	3.17	3.17	3.17	3.17	0.80	2.59	3.20	3.49	3.17	2.04
5500	2.62	2.62	2.62	2.62	0.54	1.98	2.54	2.87	2.54	1.54
6000	2.20	2.20	2.20	2.20		1.53	2.04	2.35	2.04	1.18
6500	1.88	1.88	1.88	1.88		1.19	1.66	1.94	1.66	0.93
7000	1.62	1.62	1.62	1.62		0.92	1.36	1.63	1.36	0.75
7500	1.41	1.41	1.41	1.41		0.72	1.13	1.38	1.13	0.61
8000	1.24	1.24	1.24	1.24		0.56	0.94	1.17	0.94	0.50
8500	1.10	1.10	1.10	1.10		0.44	0.79	1.01	0.79	0.42
9000	0.98	0.98	0.98	0.98			0.66	0.87	0.66	0.35
9500	0.88	0.88	0.88	0.88			0.56	0.75	0.56	0.30
10000	0.79	0.79	0.79	0.79			0.47	0.66	0.47	0.26
10500	0.72	0.72	0.72	0.72				0.57		0.22
11000	0.66	0.66	0.66	0.66				0.50		0.19
11500	0.60	0.60	0.60	0.60				0.44		0.17
12000	0.55	0.55	0.55	0.55						0.15
12500	0.51	0.51	0.51	0.51						0.13

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Cee Single Spans

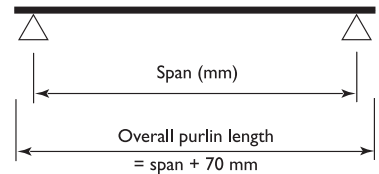
Single Span: AC25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.98	15.98	15.98	15.98	16.82	16.82	16.82	16.82	11.99	44.75
2500	12.78	12.78	12.78	12.78	10.66	13.46	13.46	13.46	9.59	22.91
3000	8.99	8.99	8.99	8.99	6.07	9.89	9.89	9.89	7.99	13.26
3500	6.61	6.61	6.61	6.61	3.47	7.14	7.27	7.27	6.61	8.35
4000	5.06	5.06	5.06	5.06	2.03	5.12	5.56	5.56	5.06	5.59
4500	4.00	4.00	4.00	4.00	1.27	3.76	4.40	4.40	4.00	3.93
5000	3.24	3.24	3.24	3.24	0.83	2.82	3.54	3.56	3.24	2.86
5500	2.68	2.68	2.68	2.68	0.57	2.15	2.80	2.94	2.68	2.15
6000	2.25	2.25	2.25	2.25	0.40	1.65	2.25	2.47	2.25	1.66
6500	1.92	1.92	1.92	1.92		1.27	1.82	2.11	1.82	1.30
7000	1.65	1.65	1.65	1.65		0.98	1.49	1.80	1.49	1.04
7500	1.44	1.44	1.44	1.44		0.76	1.23	1.52	1.23	0.85
8000	1.26	1.26	1.26	1.26		0.58	1.02	1.29	1.02	0.70
8500	1.12	1.12	1.12	1.12		0.46	0.85	1.11	0.85	0.58
9000	1.00	1.00	1.00	1.00			0.71	0.95	0.71	0.49
9500	0.90	0.90	0.90	0.90			0.60	0.82	0.60	0.42
10000	0.81	0.81	0.81	0.81			0.50	0.72	0.50	0.36
10500	0.73	0.73	0.73	0.73			0.42	0.63	0.42	0.31
11000	0.67	0.67	0.67	0.67				0.55		0.27
11500	0.61	0.61	0.61	0.61				0.48		0.24
12000	0.56	0.56	0.56	0.56				0.42		0.21
12500	0.52	0.52	0.52	0.52						0.18

Single Span: AC30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.00	16.00	16.00	16.00	16.84	16.84	16.84	16.84	12.00	81.73
2500	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	41.85
3000	10.67	10.67	10.67	10.67	11.23	11.23	11.23	11.23	8.00	24.22
3500	8.36	8.36	8.36	8.36	8.87	9.20	9.20	9.20	6.86	15.25
4000	6.40	6.40	6.40	6.40	5.97	7.04	7.04	7.04	6.00	10.22
4500	5.06	5.06	5.06	5.06	4.07	5.57	5.57	5.57	5.06	7.18
5000	4.10	4.10	4.10	4.10	2.78	4.51	4.51	4.51	4.10	5.23
5500	3.39	3.39	3.39	3.39	1.90	3.73	3.73	3.73	3.39	3.93
6000	2.85	2.85	2.85	2.85	1.34	3.13	3.13	3.13	2.85	3.03
6500	2.43	2.43	2.43	2.43	0.97	2.67	2.67	2.67	2.43	2.38
7000	2.09	2.09	2.09	2.09	0.72	2.30	2.30	2.30	2.09	1.91
7500	1.82	1.82	1.82	1.82	0.55	1.93	2.00	2.00	1.82	1.55
8000	1.60	1.60	1.60	1.60	0.42	1.60	1.76	1.76	1.60	1.28
8500	1.42	1.42	1.42	1.42		1.33	1.56	1.56	1.42	1.07
9000	1.27	1.27	1.27	1.27		1.12	1.39	1.39	1.27	0.90
9500	1.14	1.14	1.14	1.14		0.93	1.25	1.25	1.14	0.76
10000	1.02	1.02	1.02	1.02		0.78	1.13	1.13	1.02	0.65
10500	0.93	0.93	0.93	0.93		0.65	1.02	1.02	0.93	0.57
11000	0.85	0.85	0.85	0.85		0.54	0.90	0.93	0.85	0.49
11500	0.78	0.78	0.78	0.78		0.46	0.79	0.85	0.78	0.43
12000	0.71	0.71	0.71	0.71			0.70	0.78	0.70	0.38
12500	0.66	0.66	0.66	0.66			0.62	0.72	0.62	0.34

Single span



Single Span: AC25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.16	19.16	19.16	19.16	20.16	20.16	20.16	20.16	14.37	54.03
2500	15.33	15.33	15.33	15.33	12.88	16.13	16.13	16.13	11.49	27.67
3000	12.39	12.39	12.39	12.39	7.35	12.45	13.44	13.44	9.58	16.01
3500	9.10	9.10	9.10	9.10	4.23	8.60	9.81	10.01	8.21	10.08
4000	6.97	6.97	6.97	6.97	2.48	6.16	7.23	7.67	6.97	6.75
4500	5.51	5.51	5.51	5.51	1.55	4.54	5.49	6.05	5.49	4.74
5000	4.46	4.46	4.46	4.46	1.02	3.41	4.26	4.77	4.26	3.46
5500	3.69	3.69	3.69	3.69	0.69	2.60	3.37	3.84	3.37	2.60
6000	3.10	3.10	3.10	3.10	0.49	2.00	2.71	3.13	2.71	2.00
6500	2.64	2.64	2.64	2.64		1.54	2.20	2.59	2.20	1.57
7000	2.28	2.28	2.28	2.28		1.19	1.80	2.17	1.80	1.26
7500	1.98	1.98	1.98	1.98		0.92	1.49	1.83	1.49	1.03
8000	1.74	1.74	1.74	1.74		0.71	1.24	1.56	1.24	0.84
8500	1.54	1.54	1.54	1.54		0.56	1.03	1.33	1.03	0.70
9000	1.38	1.38	1.38	1.38		0.44	0.87	1.15	0.87	0.59
9500	1.24	1.24	1.24	1.24			0.73	0.99	0.73	0.50
10000	1.12	1.12	1.12	1.12			0.61	0.87	0.61	0.43
10500	1.01	1.01	1.01	1.01			0.51	0.76	0.51	0.37
11000	0.92	0.92	0.92	0.92			0.43	0.66	0.43	0.33
11500	0.84	0.84	0.84	0.84				0.58		0.28
12000	0.77	0.77	0.77	0.77				0.51		0.25
12500	0.71	0.71	0.71	0.71				0.45		0.22

Single Span: AC30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.18	19.18	19.18	19.18	20.19	20.19	20.19	20.19	14.39	97.92
2500	15.35	15.35	15.35	15.35	16.15	16.15	16.15	16.15	11.51	50.13
3000	12.79	12.79	12.79	12.79	13.46	13.46	13.46	13.46	9.59	29.01
3500	10.38	10.38	10.38	10.38	10.73	11.41	11.41	11.41	8.22	18.27
4000	7.94	7.94	7.94	7.94	7.24	8.74	8.74	8.74	7.19	12.24
4500	6.28	6.28	6.28	6.28	4.95	6.91	6.91	6.91	6.28	8.60
5000	5.08	5.08	5.08	5.08	3.38	5.59	5.59	5.59	5.08	6.27
5500	4.20	4.20	4.20	4.20	2.31	4.62	4.62	4.62	4.20	4.71
6000	3.53	3.53	3.53	3.53	1.63	3.88	3.88	3.88	3.53	3.63
6500	3.01	3.01	3.01	3.01	1.19	3.31	3.31	3.31	3.01	2.85
7000	2.59	2.59	2.59	2.59	0.88	2.83	2.85	2.85	2.59	2.28
7500	2.26	2.26	2.26	2.26	0.67	2.34	2.49	2.49	2.26	1.86
8000	1.99	1.99	1.99	1.99	0.52	1.94	2.19	2.19	1.99	1.53
8500	1.76	1.76	1.76	1.76	0.41	1.62	1.94	1.94	1.76	1.28
9000	1.57	1.57	1.57	1.57		1.35	1.73	1.73	1.57	1.08
9500	1.41	1.41	1.41	1.41		1.13	1.55	1.55	1.41	0.91
10000	1.27	1.27	1.27	1.27		0.95	1.40	1.40	1.27	0.78
10500	1.15	1.15	1.15	1.15		0.79	1.24	1.27	1.15	0.68
11000	1.05	1.05	1.05	1.05		0.66	1.09	1.16	1.05	0.59
11500	0.96	0.96	0.96	0.96		0.56	0.96	1.06	0.96	0.52
12000	0.88	0.88	0.88	0.88		0.47	0.84	0.97	0.84	0.45
12500	0.81	0.81	0.81	0.81			0.75	0.90	0.75	0.40

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Cee Single Spans

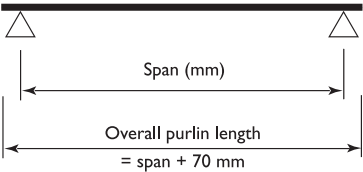
Single Span: AC35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.19	19.19	19.19	19.19	20.20	20.20	20.20	20.20	14.40	150.80
2500	15.35	15.35	15.35	15.35	16.16	16.16	16.16	16.16	11.52	77.21
3000	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	44.68
3500	10.97	10.97	10.97	10.97	11.55	11.55	11.55	11.55	8.23	28.14
4000	9.28	9.28	9.28	9.28	10.10	10.10	10.10	10.10	7.20	18.85
4500	7.33	7.33	7.33	7.33	7.56	8.06	8.06	8.06	6.40	13.24
5000	5.94	5.94	5.94	5.94	5.38	6.53	6.53	6.53	5.76	9.65
5500	4.91	4.91	4.91	4.91	3.83	5.40	5.40	5.40	4.91	7.25
6000	4.12	4.12	4.12	4.12	2.72	4.54	4.54	4.54	4.12	5.59
6500	3.51	3.51	3.51	3.51	1.97	3.86	3.86	3.86	3.51	4.39
7000	3.03	3.03	3.03	3.03	1.47	3.33	3.33	3.33	3.03	3.52
7500	2.64	2.64	2.64	2.64	1.11	2.90	2.90	2.90	2.64	2.86
8000	2.32	2.32	2.32	2.32	0.86	2.55	2.55	2.55	2.32	2.36
8500	2.05	2.05	2.05	2.05	0.68	2.26	2.26	2.26	2.05	1.96
9000	1.83	1.83	1.83	1.83	0.54	2.02	2.02	2.02	1.83	1.66
9500	1.64	1.64	1.64	1.64	0.43	1.72	1.81	1.81	1.64	1.41
10000	1.48	1.48	1.48	1.48		1.47	1.63	1.63	1.48	1.21
10500	1.35	1.35	1.35	1.35		1.25	1.48	1.48	1.35	1.04
11000	1.23	1.23	1.23	1.23		1.07	1.35	1.35	1.23	0.91
11500	1.12	1.12	1.12	1.12		0.91	1.23	1.23	1.12	0.79
12000	1.03	1.03	1.03	1.03		0.78	1.13	1.13	1.03	0.70
12500	0.95	0.95	0.95	0.95		0.66	1.05	1.05	0.95	0.62

Single Span: AC40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.20	19.20	19.20	19.20	20.21	20.21	20.21	20.21	14.40	207.07
2500	15.36	15.36	15.36	15.36	16.17	16.17	16.17	16.17	11.52	106.02
3000	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	61.35
3500	10.97	10.97	10.97	10.97	11.55	11.55	11.55	11.55	8.23	38.64
4000	9.60	9.60	9.60	9.60	10.11	10.11	10.11	10.11	7.20	25.88
4500	8.53	8.53	8.53	8.53	8.86	8.98	8.98	8.98	6.40	18.18
5000	7.10	7.10	7.10	7.10	6.27	7.81	7.81	7.81	5.76	13.25
5500	5.87	5.87	5.87	5.87	4.43	6.45	6.45	6.45	5.24	9.96
6000	4.93	4.93	4.93	4.93	3.13	5.42	5.42	5.42	4.80	7.67
6500	4.20	4.20	4.20	4.20	2.28	4.62	4.62	4.62	4.20	6.03
7000	3.62	3.62	3.62	3.62	1.69	3.98	3.98	3.98	3.62	4.83
7500	3.16	3.16	3.16	3.16	1.28	3.47	3.47	3.47	3.16	3.93
8000	2.77	2.77	2.77	2.77	0.99	3.05	3.05	3.05	2.77	3.24
8500	2.46	2.46	2.46	2.46	0.78	2.70	2.70	2.70	2.46	2.70
9000	2.19	2.19	2.19	2.19	0.62	2.38	2.41	2.41	2.19	2.27
9500	1.97	1.97	1.97	1.97	0.50	2.02	2.16	2.16	1.97	1.93
10000	1.78	1.78	1.78	1.78	0.41	1.72	1.95	1.95	1.78	1.66
10500	1.61	1.61	1.61	1.61		1.46	1.77	1.77	1.61	1.43
11000	1.47	1.47	1.47	1.47		1.24	1.61	1.61	1.47	1.25
11500	1.34	1.34	1.34	1.34		1.06	1.48	1.48	1.34	1.09
12000	1.23	1.23	1.23	1.23		0.90	1.36	1.36	1.23	0.96
12500	1.14	1.14	1.14	1.14		0.76	1.25	1.25	1.14	0.85

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Cee Double Spans Continuous

Double Span Continuous: AC15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.38	6.38	6.38	6.38	6.72	6.72	6.72	6.72	4.79	29.31
2500	4.78	5.11	5.11	5.11	5.37	5.37	5.37	5.37	3.83	15.01
3000	2.85	4.25	4.26	4.26	4.48	4.48	4.48	4.48	3.19	8.69
3500	1.75	2.94	3.27	3.48	3.43	3.84	3.84	3.84	2.74	5.47
4000	1.07	2.12	2.41	2.59	2.11	3.17	3.17	3.17	2.39	3.66
4500	0.67	1.57	1.82	1.99	1.32	2.50	2.50	2.50	1.82	2.57
5000	0.44	1.19	1.41	1.56	0.86	2.03	2.03	2.03	1.41	1.88
5500		0.91	1.12	1.25	0.59	1.54	1.68	1.68	1.12	1.41
6000		0.70	0.89	1.02	0.42	1.15	1.41	1.41	0.89	1.09
6500		0.55	0.73	0.84		0.87	1.20	1.20	0.73	0.85
7000		0.43	0.59	0.70		0.65	1.03	1.03	0.59	0.68
7500			0.49	0.59		0.49	0.87	0.90	0.49	0.56
8000			0.41	0.50			0.71	0.79	0.41	0.46
8500				0.42			0.58	0.70		0.38
9000							0.47	0.63		0.32
9500								0.56		0.27
10000								0.50		0.24
10500								0.43		0.20

Double Span Continuous: AC15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.64	7.64	7.64	7.64	8.05	8.05	8.05	8.05	5.73	35.06
2500	5.76	6.12	6.12	6.12	6.44	6.44	6.44	6.44	4.59	17.95
3000	3.44	5.10	5.10	5.10	5.36	5.36	5.36	5.36	3.82	10.39
3500	2.12	3.54	3.93	4.18	4.16	4.60	4.60	4.60	3.28	6.54
4000	1.31	2.55	2.89	3.11	2.57	3.87	3.87	3.87	2.87	4.38
4500	0.82	1.89	2.19	2.39	1.61	3.06	3.06	3.06	2.19	3.08
5000	0.54	1.43	1.70	1.87	1.05	2.48	2.48	2.48	1.70	2.24
5500		1.10	1.34	1.50	0.72	1.86	2.05	2.05	1.34	1.69
6000		0.85	1.08	1.22	0.51	1.40	1.72	1.72	1.08	1.30
6500		0.67	0.87	1.01		1.06	1.47	1.47	0.87	1.02
7000		0.52	0.72	0.84		0.79	1.26	1.26	0.72	0.82
7500		0.41	0.59	0.71		0.60	1.05	1.10	0.59	0.67
8000			0.49	0.60		0.46	0.86	0.97	0.49	0.55
8500			0.41	0.51			0.70	0.86	0.41	0.46
9000				0.44			0.57	0.77		0.39
9500							0.47	0.69		0.33
10000								0.61		0.28
10500								0.52		0.24
11000								0.45		0.21

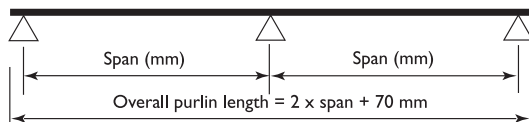
Double Span Continuous: AC20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.79	63.81
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	32.67
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	18.91
3500	3.63	3.65	3.65	3.65	3.84	3.84	3.84	3.84	2.74	11.91
4000	2.42	3.20	3.20	3.20	3.36	3.36	3.36	3.36	2.40	7.98
4500	1.62	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	5.60
5000	1.08	2.24	2.36	2.36	2.12	2.60	2.60	2.60	1.92	4.08
5500	0.74	1.75	1.95	1.95	1.45	2.15	2.15	2.15	1.74	3.07
6000	0.52	1.39	1.64	1.64	1.02	1.81	1.81	1.81	1.60	2.36
6500		1.11	1.36	1.40	0.74	1.54	1.54	1.54	1.36	1.86
7000		0.90	1.12	1.21	0.55	1.33	1.33	1.33	1.12	1.49
7500		0.73	0.94	1.05	0.42	1.16	1.16	1.16	0.94	1.21
8000		0.60	0.79	0.92		0.93	1.02	1.02	0.79	1.00
8500		0.49	0.67	0.79		0.73	0.90	0.90	0.67	0.83
9000			0.57	0.69		0.58	0.80	0.80	0.57	0.70
9500			0.49	0.60		0.47	0.72	0.72	0.49	0.60
10000			0.42	0.52			0.65	0.65	0.42	0.51
10500				0.46			0.59	0.59		0.44
11000				0.40			0.52	0.54		0.38
11500							0.44	0.49		0.34
12000								0.45		0.30
12500								0.42		0.26

Double Span Continuous: AC20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.66	7.66	7.66	7.66	8.06	8.06	8.06	8.06	5.74	76.98
2500	6.13	6.13	6.13	6.13	6.45	6.45	6.45	6.45	4.59	39.42
3000	5.10	5.10	5.10	5.10	5.37	5.37	5.37	5.37	3.83	22.81
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.28	14.36
4000	2.94	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	9.62
4500	1.98	3.40	3.40	3.40	3.58	3.58	3.58	3.58	2.55	6.76
5000	1.32	2.70	3.06	3.06	2.60	3.22	3.22	3.22	2.30	4.93
5500	0.90	2.12	2.46	2.62	1.78	2.88	2.88	2.88	2.09	3.70
6000	0.64	1.68	1.99	2.19	1.25	2.42	2.42	2.42	1.91	2.85
6500	0.46	1.35	1.64	1.82	0.91	2.06	2.06	2.06	1.64	2.24
7000		1.09	1.36	1.53	0.68	1.78	1.78	1.78	1.36	1.80
7500		0.89	1.14	1.30	0.51	1.44	1.55	1.55	1.14	1.46
8000		0.72	0.96	1.11		1.14	1.36	1.36	0.96	1.20
8500		0.59	0.81	0.96		0.90	1.21	1.21	0.81	1.00
9000		0.49	0.69	0.83		0.72	1.08	1.08	0.69	0.85
9500			0.59	0.72		0.58	0.97	0.97	0.59	0.72
10000			0.51	0.63		0.47	0.87	0.87	0.51	0.62
10500			0.44	0.55			0.75	0.79	0.44	0.53
11000				0.49			0.63	0.72		0.46
11500				0.43			0.54	0.66		0.41
12000							0.45	0.61		0.36
12500								0.56		0.32

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Cee Double Spans Continuous

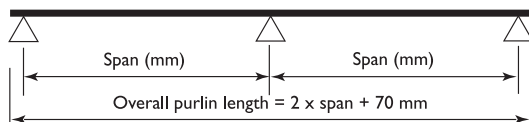
Double Span Continuous: AC25025(kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.79	107.88
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	55.23
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	31.96
3500	3.65	3.65	3.65	3.65	3.85	3.85	3.85	3.85	2.74	20.13
4000	3.16	3.20	3.20	3.20	3.36	3.36	3.36	3.36	2.40	13.49
4500	2.10	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	9.47
5000	1.39	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	6.90
5500	0.95	2.32	2.32	2.32	1.86	2.45	2.45	2.45	1.74	5.19
6000	0.67	1.84	2.13	2.13	1.31	2.24	2.24	2.24	1.60	4.00
6500	0.49	1.47	1.80	1.92	0.95	2.07	2.07	2.07	1.48	3.14
7000		1.18	1.49	1.65	0.71	1.82	1.82	1.82	1.37	2.52
7500		0.96	1.25	1.44	0.54	1.53	1.58	1.58	1.25	2.05
8000		0.78	1.05	1.23	0.42	1.20	1.39	1.39	1.05	1.69
8500		0.63	0.89	1.05		0.94	1.23	1.23	0.89	1.41
9000		0.51	0.76	0.91		0.75	1.10	1.10	0.76	1.18
9500		0.42	0.65	0.79		0.60	0.99	0.99	0.65	1.01
10000			0.55	0.69		0.49	0.89	0.89	0.55	0.86
10500			0.47	0.61		0.40	0.80	0.81	0.47	0.75
11000			0.41	0.53			0.67	0.74	0.41	0.65
11500				0.47			0.56	0.67		0.57
12000				0.42			0.47	0.62		0.50
12500							0.40	0.57		0.44

Double Span Continuous: AC30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.40	6.40	6.40	6.40	6.74	6.74	6.74	6.74	4.80	197.04
2500	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	100.88
3000	4.27	4.27	4.27	4.27	4.49	4.49	4.49	4.49	3.20	58.38
3500	3.66	3.66	3.66	3.66	3.85	3.85	3.85	3.85	2.74	36.77
4000	3.20	3.20	3.20	3.20	3.37	3.37	3.37	3.37	2.40	24.63
4500	2.84	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	17.30
5000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	12.61
5500	2.33	2.33	2.33	2.33	2.45	2.45	2.45	2.45	1.75	9.47
6000	2.12	2.13	2.13	2.13	2.25	2.25	2.25	2.25	1.60	7.30
6500	1.60	1.97	1.97	1.97	2.07	2.07	2.07	2.07	1.48	5.74
7000	1.20	1.83	1.83	1.83	1.93	1.93	1.93	1.93	1.37	4.60
7500	0.91	1.71	1.71	1.71	1.79	1.80	1.80	1.80	1.28	3.74
8000	0.70	1.60	1.60	1.60	1.38	1.68	1.68	1.68	1.20	3.08
8500	0.55	1.42	1.42	1.42	1.09	1.56	1.56	1.56	1.13	2.57
9000	0.44	1.26	1.27	1.27	0.86	1.39	1.39	1.39	1.07	2.16
9500		1.08	1.14	1.14	0.70	1.25	1.25	1.25	1.01	1.84
10000		0.93	1.02	1.02	0.57	1.13	1.13	1.13	0.96	1.58
10500		0.80	0.93	0.93	0.47	1.02	1.02	1.02	0.91	1.36
11000		0.70	0.85	0.85		0.93	0.93	0.93	0.85	1.18
11500		0.60	0.78	0.78		0.85	0.85	0.85	0.78	1.04
12000		0.52	0.71	0.71		0.78	0.78	0.78	0.71	0.91
12500		0.45	0.64	0.66		0.67	0.72	0.72	0.64	0.81

2 Span Continuous



Double Span Continuous: AC25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.66	7.66	7.66	7.66	8.07	8.07	8.07	8.07	5.75	130.27
2500	6.13	6.13	6.13	6.13	6.45	6.45	6.45	6.45	4.60	66.70
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	38.60
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.28	24.31
4000	3.83	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	16.28
4500	2.55	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.55	11.44
5000	1.69	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	8.34
5500	1.15	2.79	2.79	2.79	2.27	2.93	2.93	2.93	2.09	6.26
6000	0.81	2.22	2.55	2.55	1.60	2.69	2.69	2.69	1.92	4.83
6500	0.59	1.77	2.17	2.36	1.16	2.48	2.48	2.48	1.77	3.80
7000	0.44	1.43	1.80	2.04	0.86	2.31	2.31	2.31	1.64	3.04
7500		1.16	1.51	1.73	0.66	1.86	2.15	2.15	1.51	2.47
8000		0.94	1.27	1.48	0.51	1.46	1.92	1.92	1.27	2.04
8500		0.77	1.07	1.27		1.15	1.70	1.70	1.07	1.70
9000		0.63	0.91	1.10		0.91	1.51	1.51	0.91	1.43
9500		0.51	0.78	0.96		0.74	1.36	1.36	0.78	1.22
10000		0.41	0.67	0.84		0.60	1.15	1.23	0.67	1.04
10500			0.57	0.73		0.49	0.97	1.11	0.57	0.90
11000			0.49	0.65		0.41	0.81	1.01	0.49	0.78
11500			0.42	0.57			0.68	0.93	0.42	0.69
12000				0.50			0.58	0.85		0.60
12500				0.45			0.49	0.79		0.53

Double Span Continuous: AC30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.67	7.67	7.67	7.67	8.08	8.08	8.08	8.08	5.75	236.06
2500	6.14	6.14	6.14	6.14	6.46	6.46	6.46	6.46	4.60	120.86
3000	5.12	5.12	5.12	5.12	5.38	5.38	5.38	5.38	3.84	69.94
3500	4.38	4.38	4.38	4.38	4.62	4.62	4.62	4.62	3.29	44.05
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	29.51
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	20.72
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	15.11
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	11.35
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	8.74
6500	1.95	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	6.88
7000	1.47	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.64	5.51
7500	1.11	2.05	2.05	2.05	2.15	2.15	2.15	2.15	1.53	4.48
8000	0.86	1.92	1.92	1.92	1.69	2.02	2.02	2.02	1.44	3.69
8500	0.67	1.76	1.76	1.76	1.32	1.90	1.90	1.90	1.35	3.08
9000	0.54	1.52	1.57	1.57	1.05	1.73	1.73	1.73	1.28	2.59
9500	0.43	1.31	1.41	1.41	0.85	1.55	1.55	1.55	1.21	2.20
10000		1.13	1.27	1.27	0.69	1.40	1.40	1.40	1.15	1.89
10500		0.97	1.15	1.15	0.57	1.27	1.27	1.27	1.10	1.63
11000		0.84	1.05	1.05	0.47	1.16	1.16	1.16	1.05	1.42
11500		0.73	0.96	0.96		1.06	1.06	1.06	0.96	1.24
12000		0.63	0.87	0.88		0.96	0.97	0.97	0.87	1.09
12500		0.55	0.78	0.81		0.82	0.90	0.90	0.78	0.97

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Cee Double Spans Continuous

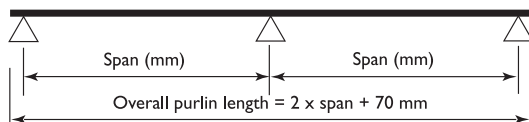
Double Span Continuous: AC35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.68	7.68	7.68	7.68	8.08	8.08	8.08	8.08	5.76	363.56
2500	6.14	6.14	6.14	6.14	6.47	6.47	6.47	6.47	4.61	186.14
3000	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	107.72
3500	4.39	4.39	4.39	4.39	4.62	4.62	4.62	4.62	3.29	67.84
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	45.44
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	31.92
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	23.27
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	17.48
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	13.47
6500	2.36	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	10.59
7000	2.19	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.65	8.48
7500	1.85	2.05	2.05	2.05	2.16	2.16	2.16	2.16	1.54	6.89
8000	1.43	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	5.68
8500	1.12	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.36	4.74
9000	0.89	1.71	1.71	1.71	1.75	1.80	1.80	1.80	1.28	3.99
9500	0.72	1.62	1.62	1.62	1.41	1.70	1.70	1.70	1.21	3.39
10000	0.59	1.48	1.48	1.48	1.15	1.62	1.62	1.62	1.15	2.91
10500	0.48	1.35	1.35	1.35	0.95	1.48	1.48	1.48	1.10	2.51
11000	0.40	1.23	1.23	1.23	0.79	1.35	1.35	1.35	1.05	2.19
11500		1.10	1.12	1.12	0.66	1.23	1.23	1.23	1.00	1.91
12000		0.97	1.03	1.03	0.55	1.13	1.13	1.13	0.96	1.68
12500		0.85	0.95	0.95	0.47	1.05	1.05	1.05	0.92	1.49

Double Span Continuous: AC40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.68	7.68	7.68	7.68	8.08	8.08	8.08	8.08	5.76	499.20
2500	6.14	6.14	6.14	6.14	6.47	6.47	6.47	6.47	4.61	255.59
3000	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	147.91
3500	4.39	4.39	4.39	4.39	4.62	4.62	4.62	4.62	3.29	93.15
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	62.40
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	43.83
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	31.95
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	24.00
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	18.49
6500	2.36	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	14.54
7000	2.19	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.65	11.64
7500	2.05	2.05	2.05	2.05	2.16	2.16	2.16	2.16	1.54	9.47
8000	1.65	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	7.80
8500	1.29	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.36	6.50
9000	1.03	1.71	1.71	1.71	1.80	1.80	1.80	1.80	1.28	5.48
9500	0.83	1.62	1.62	1.62	1.63	1.70	1.70	1.70	1.21	4.66
10000	0.68	1.54	1.54	1.54	1.33	1.62	1.62	1.62	1.15	3.99
10500	0.56	1.46	1.46	1.46	1.09	1.54	1.54	1.54	1.10	3.45
11000	0.46	1.40	1.40	1.40	0.91	1.47	1.47	1.47	1.05	3.00
11500		1.29	1.34	1.34	0.76	1.41	1.41	1.41	1.00	2.63
12000		1.14	1.23	1.23	0.64	1.35	1.35	1.35	0.96	2.31
12500		1.00	1.14	1.14	0.54	1.25	1.25	1.25	0.92	2.05

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

13.0 Limit State Load Tables - PERMALITE® Standard Zed Purlins

PERMALITE® Zed Single Spans

Single Span: AZ15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	11.56	11.56	11.56	11.56	7.85	11.20	12.13	12.69	11.56	12.22
2500	7.40	7.40	7.40	7.40	4.02	6.70	7.44	7.89	7.40	6.26
3000	5.14	5.14	5.14	5.14	2.10	4.33	4.95	5.32	4.95	3.62
3500	3.77	3.77	3.77	3.77	1.13	2.94	3.47	3.79	3.47	2.28
4000	2.89	2.89	2.89	2.89	0.66	2.07	2.53	2.81	2.53	1.53
4500	2.28	2.28	2.28	2.28	0.41	1.49	1.90	2.15	1.90	1.07
5000	1.85	1.85	1.85	1.85		1.09	1.46	1.69	1.46	0.78
5500	1.53	1.53	1.53	1.53		0.80	1.14	1.35	1.14	0.59
6000	1.28	1.28	1.28	1.28		0.59	0.90	1.09	0.90	0.45
6500	1.09	1.09	1.09	1.09		0.44	0.72	0.90	0.72	0.36
7000	0.94	0.94	0.94	0.94			0.58	0.74	0.58	0.29
7500	0.82	0.82	0.82	0.82			0.47	0.62	0.47	0.23
8000	0.72	0.72	0.72	0.72				0.52		0.19
8500	0.64	0.64	0.64	0.64				0.44		0.16
9000	0.57	0.57	0.57	0.57						0.13
9500	0.51	0.51	0.51	0.51						0.11
10000	0.46	0.46	0.46	0.46						0.10
10500	0.42	0.42	0.42	0.42						0.08

Single Span: AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.46	14.46	14.46	14.46	9.47	13.44	14.55	15.21	14.33	14.62
2500	9.25	9.25	9.25	9.25	4.87	8.05	8.93	9.46	8.93	7.49
3000	6.43	6.43	6.43	6.43	2.56	5.20	5.94	6.38	5.94	4.33
3500	4.72	4.72	4.72	4.72	1.38	3.54	4.17	4.55	4.17	2.73
4000	3.61	3.61	3.61	3.61	0.81	2.49	3.04	3.38	3.04	1.83
4500	2.86	2.86	2.86	2.86	0.51	1.80	2.29	2.58	2.29	1.28
5000	2.31	2.31	2.31	2.31		1.32	1.76	2.02	1.76	0.94
5500	1.91	1.91	1.91	1.91		0.97	1.38	1.62	1.38	0.70
6000	1.61	1.61	1.61	1.61		0.72	1.09	1.31	1.09	0.54
6500	1.37	1.37	1.37	1.37		0.53	0.87	1.08	0.87	0.43
7000	1.18	1.18	1.18	1.18			0.70	0.89	0.70	0.34
7500	1.03	1.03	1.03	1.03			0.57	0.75	0.57	0.28
8000	0.90	0.90	0.90	0.90			0.47	0.63	0.47	0.23
8500	0.80	0.80	0.80	0.80				0.54		0.19
9000	0.71	0.71	0.71	0.71				0.46		0.16
9500	0.64	0.64	0.64	0.64						0.14
10000	0.58	0.58	0.58	0.58						0.12
10500	0.52	0.52	0.52	0.52						0.10
11000	0.48	0.48	0.48	0.48						0.09
11500	0.44	0.44	0.44	0.44						0.08
12000	0.40	0.40	0.40	0.40						0.07

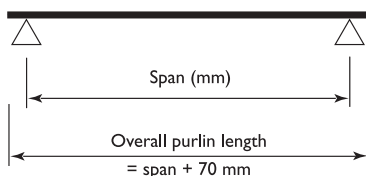
Single Span: AZ20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.58	14.58	14.58	14.58	15.08	16.04	16.04	16.04	11.98	26.64
2500	9.33	9.33	9.33	9.33	8.26	10.26	10.26	10.26	9.33	13.64
3000	6.48	6.48	6.48	6.48	4.78	7.13	7.13	7.13	6.48	7.89
3500	4.76	4.76	4.76	4.76	2.80	5.24	5.24	5.24	4.76	4.97
4000	3.65	3.65	3.65	3.65	1.65	3.91	4.01	4.01	3.65	3.33
4500	2.88	2.88	2.88	2.88	1.03	2.89	3.17	3.17	2.88	2.34
5000	2.33	2.33	2.33	2.33	0.68	2.18	2.57	2.57	2.33	1.71
5500	1.93	1.93	1.93	1.93	0.46	1.67	2.12	2.12	1.93	1.28
6000	1.62	1.62	1.62	1.62		1.29	1.72	1.78	1.62	0.99
6500	1.38	1.38	1.38	1.38		1.00	1.40	1.52	1.38	0.78
7000	1.19	1.19	1.19	1.19		0.78	1.15	1.31	1.15	0.62
7500	1.04	1.04	1.04	1.04		0.61	0.95	1.14	0.95	0.51
8000	0.91	0.91	0.91	0.91		0.47	0.79	0.99	0.79	0.42
8500	0.81	0.81	0.81	0.81			0.67	0.85	0.67	0.35
9000	0.72	0.72	0.72	0.72			0.56	0.73	0.56	0.29
9500	0.65	0.65	0.65	0.65			0.47	0.63	0.47	0.25
10000	0.58	0.58	0.58	0.58				0.55		0.21
10500	0.53	0.53	0.53	0.53				0.48		0.18
11000	0.48	0.48	0.48	0.48				0.42		0.16
11500	0.44	0.44	0.44	0.44						0.14
12000	0.41	0.41	0.41	0.41						0.12

Single Span: AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.14	19.14	19.14	19.14	18.21	20.15	20.15	20.15	14.36	32.15
2500	12.53	12.53	12.53	12.53	10.01	13.78	13.78	13.78	11.48	16.46
3000	8.70	8.70	8.70	8.70	5.81	9.46	9.57	9.57	8.70	9.52
3500	6.39	6.39	6.39	6.39	3.43	6.56	7.03	7.03	6.39	6.00
4000	4.89	4.89	4.89	4.89	2.03	4.72	5.38	5.38	4.89	4.02
4500	3.87	3.87	3.87	3.87	1.26	3.50	4.17	4.25	3.87	2.82
5000	3.13	3.13	3.13	3.13	0.83	2.64	3.25	3.45	3.13	2.06
5500	2.59	2.59	2.59	2.59	0.57	2.02	2.58	2.85	2.58	1.55
6000	2.18	2.18	2.18	2.18	0.40	1.57	2.08	2.38	2.08	1.19
6500	1.85	1.85	1.85	1.85		1.22	1.69	1.97	1.69	0.94
7000	1.60	1.60	1.60	1.60		0.95	1.39	1.65	1.39	0.75
7500	1.39	1.39	1.39	1.39		0.75	1.15	1.40	1.15	0.61
8000	1.22	1.22	1.22	1.22		0.58	0.96	1.19	0.96	0.50
8500	1.08	1.08	1.08	1.08		0.46	0.81	1.02	0.81	0.42
9000	0.97	0.97	0.97	0.97			0.68	0.88	0.68	0.35
9500	0.87	0.87	0.87	0.87			0.57	0.77	0.57	0.30
10000	0.78	0.78	0.78	0.78			0.49	0.67	0.49	0.26
10500	0.71	0.71	0.71	0.71			0.41	0.59	0.41	0.22
11000	0.65	0.65	0.65	0.65				0.51		0.19
11500	0.59	0.59	0.59	0.59				0.45		0.17
12000	0.54	0.54	0.54	0.54						0.15
12500	0.50	0.50	0.50	0.50						0.13

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Single Spans

Single Span: AZ25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.98	15.98	15.98	15.98	16.82	16.82	16.82	16.82	11.99	45.01
2500	12.77	12.77	12.77	12.77	10.90	13.46	13.46	13.46	9.59	23.04
3000	8.87	8.87	8.87	8.87	6.24	9.75	9.75	9.75	7.99	13.34
3500	6.52	6.52	6.52	6.52	3.61	7.17	7.17	7.17	6.52	8.40
4000	4.99	4.99	4.99	4.99	2.12	5.20	5.49	5.49	4.99	5.63
4500	3.94	3.94	3.94	3.94	1.32	3.84	4.34	4.34	3.94	3.95
5000	3.19	3.19	3.19	3.19	0.87	2.88	3.51	3.51	3.19	2.88
5500	2.64	2.64	2.64	2.64	0.59	2.20	2.84	2.90	2.64	2.16
6000	2.22	2.22	2.22	2.22	0.42	1.69	2.28	2.44	2.22	1.67
6500	1.89	1.89	1.89	1.89		1.31	1.86	2.08	1.86	1.31
7000	1.63	1.63	1.63	1.63		1.02	1.52	1.79	1.52	1.05
7500	1.42	1.42	1.42	1.42		0.79	1.26	1.54	1.26	0.85
8000	1.25	1.25	1.25	1.25		0.61	1.05	1.31	1.05	0.70
8500	1.11	1.11	1.11	1.11		0.48	0.88	1.13	0.88	0.59
9000	0.99	0.99	0.99	0.99			0.73	0.97	0.73	0.49
9500	0.88	0.88	0.88	0.88			0.62	0.84	0.62	0.42
10000	0.80	0.80	0.80	0.80			0.52	0.73	0.52	0.36
10500	0.72	0.72	0.72	0.72			0.44	0.64	0.44	0.31
11000	0.66	0.66	0.66	0.66				0.56		0.27
11500	0.60	0.60	0.60	0.60				0.49		0.24
12000	0.55	0.55	0.55	0.55				0.43		0.21
12500	0.51	0.51	0.51	0.51						0.18

Single Span: AZ30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.00	16.00	16.00	16.00	16.84	16.84	16.84	16.84	12.00	82.11
2500	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	42.04
3000	10.67	10.67	10.67	10.67	11.23	11.23	11.23	11.23	8.00	24.33
3500	8.32	8.32	8.32	8.32	9.01	9.16	9.16	9.16	6.86	15.32
4000	6.37	6.37	6.37	6.37	6.09	7.01	7.01	7.01	6.00	10.26
4500	5.04	5.04	5.04	5.04	4.16	5.54	5.54	5.54	5.04	7.21
5000	4.08	4.08	4.08	4.08	2.85	4.49	4.49	4.49	4.08	5.26
5500	3.37	3.37	3.37	3.37	1.95	3.71	3.71	3.71	3.37	3.95
6000	2.83	2.83	2.83	2.83	1.38	3.12	3.12	3.12	2.83	3.04
6500	2.41	2.41	2.41	2.41	1.00	2.66	2.66	2.66	2.41	2.39
7000	2.08	2.08	2.08	2.08	0.74	2.29	2.29	2.29	2.08	1.92
7500	1.81	1.81	1.81	1.81	0.56	1.96	1.99	1.99	1.81	1.56
8000	1.59	1.59	1.59	1.59	0.44	1.63	1.75	1.75	1.59	1.28
8500	1.41	1.41	1.41	1.41		1.36	1.55	1.55	1.41	1.07
9000	1.26	1.26	1.26	1.26		1.14	1.39	1.39	1.26	0.90
9500	1.13	1.13	1.13	1.13		0.95	1.24	1.24	1.13	0.77
10000	1.02	1.02	1.02	1.02		0.80	1.12	1.12	1.02	0.66
10500	0.93	0.93	0.93	0.93		0.67	1.02	1.02	0.93	0.57
11000	0.84	0.84	0.84	0.84		0.56	0.91	0.93	0.84	0.49
11500	0.77	0.77	0.77	0.77		0.47	0.80	0.85	0.77	0.43
12000	0.71	0.71	0.71	0.71			0.71	0.78	0.71	0.38
12500	0.65	0.65	0.65	0.65			0.63	0.72	0.63	0.34

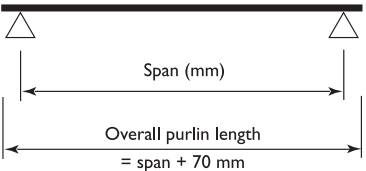
Single Span: AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.16	19.16	19.16	19.16	20.16	20.16	20.16	20.16	14.37	54.37
2500	15.33	15.33	15.33	15.33	13.17	16.13	16.13	16.13	11.49	27.84
3000	12.22	12.22	12.22	12.22	7.57	12.62	13.44	13.44	9.58	16.11
3500	8.98	8.98	8.98	8.98	4.40	8.73	9.88	9.88	8.21	10.14
4000	6.87	6.87	6.87	6.87	2.58	6.27	7.32	7.56	6.87	6.80
4500	5.43	5.43	5.43	5.43	1.61	4.63	5.56	5.98	5.43	4.77
5000	4.40	4.40	4.40	4.40	1.06	3.48	4.33	4.83	4.33	3.48
5500	3.64	3.64	3.64	3.64	0.72	2.66	3.43	3.89	3.43	2.61
6000	3.06	3.06	3.06	3.06	0.51	2.05	2.75	3.17	2.75	2.01
6500	2.60	2.60	2.60	2.60		1.59	2.24	2.63	2.24	1.58
7000	2.25	2.25	2.25	2.25		1.23	1.84	2.20	1.84	1.27
7500	1.96	1.96	1.96	1.96		0.96	1.52	1.86	1.52	1.03
8000	1.72	1.72	1.72	1.72		0.74	1.27	1.58	1.27	0.85
8500	1.52	1.52	1.52	1.52		0.58	1.06	1.36	1.06	0.71
9000	1.36	1.36	1.36	1.36		0.46	0.89	1.17	0.89	0.60
9500	1.22	1.22	1.22	1.22			0.75	1.01	0.75	0.51
10000	1.10	1.10	1.10	1.10			0.63	0.88	0.63	0.44
10500	1.00	1.00	1.00	1.00			0.53	0.77	0.53	0.38
11000	0.91	0.91	0.91	0.91			0.45	0.68	0.45	0.33
11500	0.83	0.83	0.83	0.83				0.59		0.29
12000	0.76	0.76	0.76	0.76				0.52		0.25
12500	0.70	0.70	0.70	0.70				0.46		0.22

Single Span: AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.18	19.18	19.18	19.18	20.19	20.19	20.19	20.19	14.39	98.42
2500	15.35	15.35	15.35	15.35	16.15	16.15	16.15	16.15	11.51	50.39
3000	12.79	12.79	12.79	12.79	13.46	13.46	13.46	13.46	9.59	29.16
3500	10.35	10.35	10.35	10.35	10.89	11.38	11.38	11.38	8.22	18.37
4000	7.92	7.92	7.92	7.92	7.36	8.72	8.72	8.72	7.19	12.30
4500	6.26	6.26	6.26	6.26	5.05	6.89	6.89	6.89	6.26	8.64
5000	5.07	5.07	5.07	5.07	3.47	5.58	5.58	5.58	5.07	6.30
5500	4.19	4.19	4.19	4.19	2.38	4.61	4.61	4.61	4.19	4.73
6000	3.52	3.52	3.52	3.52	1.68	3.87	3.87	3.87	3.52	3.65
6500	3.00	3.00	3.00	3.00	1.22	3.30	3.30	3.30	3.00	2.87
7000	2.59	2.59	2.59	2.59	0.91	2.85	2.85	2.85	2.59	2.30
7500	2.25	2.25	2.25	2.25	0.69	2.37	2.48	2.48	2.25	1.87
8000	1.98	1.98	1.98	1.98	0.53	1.97	2.18	2.18	1.98	1.54
8500	1.75	1.75	1.75	1.75	0.42	1.64	1.93	1.93	1.75	1.28
9000	1.57	1.57	1.57	1.57		1.38	1.72	1.72	1.57	1.08
9500	1.40	1.40	1.40	1.40		1.16	1.55	1.55	1.40	0.92
10000	1.27	1.27	1.27	1.27		0.97	1.39	1.39	1.27	0.79
10500	1.15	1.15	1.15	1.15		0.81	1.25	1.27	1.15	0.68
11000	1.05	1.05	1.05	1.05		0.68	1.10	1.15	1.05	0.59
11500	0.96	0.96	0.96	0.96		0.57	0.97	1.05	0.96	0.52
12000	0.88	0.88	0.88	0.88		0.48	0.86	0.97	0.86	0.46
12500	0.81	0.81	0.81	0.81		0.41	0.76	0.89	0.76	0.40

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Single Spans

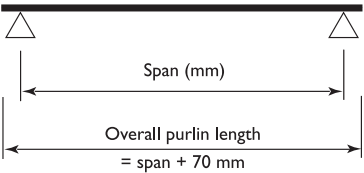
Single Span: AZ35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.19	19.19	19.19	19.19	20.20	20.20	20.20	20.20	14.40	151.42
2500	15.35	15.35	15.35	15.35	16.16	16.16	16.16	16.16	11.52	77.53
3000	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	44.87
3500	10.97	10.97	10.97	10.97	11.55	11.55	11.55	11.55	8.23	28.25
4000	9.24	9.24	9.24	9.24	10.10	10.10	10.10	10.10	7.20	18.93
4500	7.30	7.30	7.30	7.30	7.68	8.03	8.03	8.03	6.40	13.29
5000	5.92	5.92	5.92	5.92	5.48	6.51	6.51	6.51	5.76	9.69
5500	4.89	4.89	4.89	4.89	3.92	5.38	5.38	5.38	4.89	7.28
6000	4.11	4.11	4.11	4.11	2.79	4.52	4.52	4.52	4.11	5.61
6500	3.50	3.50	3.50	3.50	2.02	3.85	3.85	3.85	3.50	4.41
7000	3.02	3.02	3.02	3.02	1.50	3.32	3.32	3.32	3.02	3.53
7500	2.63	2.63	2.63	2.63	1.14	2.89	2.89	2.89	2.63	2.87
8000	2.31	2.31	2.31	2.31	0.88	2.54	2.54	2.54	2.31	2.37
8500	2.05	2.05	2.05	2.05	0.69	2.25	2.25	2.25	2.05	1.97
9000	1.83	1.83	1.83	1.83	0.55	2.01	2.01	2.01	1.83	1.66
9500	1.64	1.64	1.64	1.64	0.44	1.75	1.80	1.80	1.64	1.41
10000	1.48	1.48	1.48	1.48		1.49	1.63	1.63	1.48	1.21
10500	1.34	1.34	1.34	1.34		1.28	1.48	1.48	1.34	1.05
11000	1.22	1.22	1.22	1.22		1.09	1.34	1.34	1.22	0.91
11500	1.12	1.12	1.12	1.12		0.93	1.23	1.23	1.12	0.80
12000	1.03	1.03	1.03	1.03		0.80	1.13	1.13	1.03	0.70
12500	0.95	0.95	0.95	0.95		0.68	1.04	1.04	0.95	0.62

Single Span: AZ40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.20	19.20	19.20	19.20	20.21	20.21	20.21	20.21	14.40	207.90
2500	15.36	15.36	15.36	15.36	16.17	16.17	16.17	16.17	11.52	106.45
3000	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	61.60
3500	10.97	10.97	10.97	10.97	11.55	11.55	11.55	11.55	8.23	38.79
4000	9.60	9.60	9.60	9.60	10.11	10.11	10.11	10.11	7.20	25.99
4500	8.53	8.53	8.53	8.53	8.98	8.98	8.98	8.98	6.40	18.25
5000	7.07	7.07	7.07	7.07	6.39	7.78	7.78	7.78	5.76	13.31
5500	5.84	5.84	5.84	5.84	4.54	6.43	6.43	6.43	5.24	10.00
6000	4.91	4.91	4.91	4.91	3.21	5.40	5.40	5.40	4.80	7.70
6500	4.18	4.18	4.18	4.18	2.33	4.60	4.60	4.60	4.18	6.06
7000	3.61	3.61	3.61	3.61	1.73	3.97	3.97	3.97	3.61	4.85
7500	3.14	3.14	3.14	3.14	1.32	3.46	3.46	3.46	3.14	3.94
8000	2.76	2.76	2.76	2.76	1.02	3.04	3.04	3.04	2.76	3.25
8500	2.45	2.45	2.45	2.45	0.80	2.69	2.69	2.69	2.45	2.71
9000	2.18	2.18	2.18	2.18	0.64	2.40	2.40	2.40	2.18	2.28
9500	1.96	1.96	1.96	1.96	0.51	2.05	2.16	2.16	1.96	1.94
10000	1.77	1.77	1.77	1.77	0.42	1.75	1.95	1.95	1.77	1.66
10500	1.60	1.60	1.60	1.60		1.49	1.76	1.76	1.60	1.44
11000	1.46	1.46	1.46	1.46		1.27	1.61	1.61	1.46	1.25
11500	1.34	1.34	1.34	1.34		1.08	1.47	1.47	1.34	1.09
12000	1.23	1.23	1.23	1.23		0.92	1.35	1.35	1.23	0.96
12500	1.13	1.13	1.13	1.13		0.78	1.24	1.24	1.13	0.85

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Double Spans Continuous

Double Span Continuous: AZ15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.38	6.38	6.38	6.38	6.72	6.72	6.72	6.72	4.79	29.47
2500	4.84	5.11	5.11	5.11	5.37	5.37	5.37	5.37	3.83	15.09
3000	2.90	4.26	4.26	4.26	4.48	4.48	4.48	4.48	3.19	8.73
3500	1.78	2.97	3.30	3.51	3.50	3.84	3.84	3.84	2.74	5.50
4000	1.10	2.14	2.43	2.61	2.16	3.18	3.18	3.18	2.39	3.68
4500	0.69	1.59	1.84	2.00	1.35	2.51	2.51	2.51	1.84	2.59
5000	0.45	1.20	1.43	1.58	0.89	2.03	2.03	2.03	1.43	1.89
5500		0.92	1.13	1.26	0.61	1.56	1.68	1.68	1.13	1.42
6000		0.72	0.91	1.03	0.43	1.18	1.41	1.41	0.91	1.09
6500		0.56	0.73	0.85		0.89	1.20	1.20	0.73	0.86
7000		0.44	0.60	0.71		0.67	1.04	1.04	0.60	0.69
7500			0.50	0.59		0.51	0.88	0.90	0.50	0.56
8000			0.41	0.50			0.72	0.79	0.41	0.46
8500				0.43			0.59	0.70		0.38
9000							0.48	0.63		0.32
9500								0.56		0.28
10000								0.51		0.24
10500								0.44		0.20

Double Span Continuous: AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.64	7.64	7.64	7.64	8.05	8.05	8.05	8.05	5.73	35.25
2500	5.84	6.12	6.12	6.12	6.44	6.44	6.44	6.44	4.59	18.05
3000	3.50	5.10	5.10	5.10	5.36	5.36	5.36	5.36	3.82	10.45
3500	2.16	3.57	3.96	4.21	4.25	4.60	4.60	4.60	3.28	6.58
4000	1.34	2.58	2.92	3.13	2.64	3.90	3.90	3.90	2.87	4.41
4500	0.84	1.91	2.21	2.41	1.65	3.08	3.08	3.08	2.21	3.10
5000	0.55	1.45	1.72	1.89	1.08	2.49	2.49	2.49	1.72	2.26
5500		1.11	1.36	1.52	0.74	1.89	2.06	2.06	1.36	1.70
6000		0.87	1.09	1.23	0.52	1.43	1.73	1.73	1.09	1.31
6500		0.68	0.88	1.02		1.08	1.48	1.48	0.88	1.03
7000		0.53	0.72	0.85		0.81	1.27	1.27	0.72	0.82
7500		0.42	0.60	0.71		0.62	1.07	1.11	0.60	0.67
8000			0.50	0.61		0.48	0.87	0.97	0.50	0.55
8500			0.41	0.52			0.71	0.86	0.41	0.46
9000				0.44			0.59	0.77		0.39
9500							0.48	0.69		0.33
10000								0.62		0.28
10500								0.53		0.24
11000								0.46		0.21

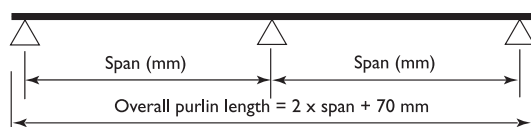
Double Span Continuous: AZ20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.79	64.22
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	32.88
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	19.03
3500	3.65	3.65	3.65	3.65	3.84	3.84	3.84	3.84	2.74	11.98
4000	2.48	3.20	3.20	3.20	3.36	3.36	3.36	3.36	2.40	8.03
4500	1.68	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	5.64
5000	1.12	2.27	2.33	2.33	2.21	2.57	2.57	2.57	1.92	4.11
5500	0.77	1.78	1.93	1.93	1.51	2.12	2.12	2.12	1.74	3.09
6000	0.54	1.42	1.62	1.62	1.06	1.78	1.78	1.78	1.60	2.38
6500		1.14	1.38	1.38	0.77	1.52	1.52	1.52	1.38	1.87
7000		0.92	1.14	1.19	0.57	1.31	1.31	1.31	1.14	1.50
7500		0.75	0.96	1.04	0.44	1.14	1.14	1.14	0.96	1.22
8000		0.61	0.81	0.91		0.97	1.00	1.00	0.81	1.00
8500		0.50	0.69	0.81		0.76	0.89	0.89	0.69	0.84
9000		0.41	0.59	0.70		0.61	0.79	0.79	0.59	0.71
9500			0.50	0.61		0.49	0.71	0.71	0.50	0.60
10000			0.43	0.53			0.64	0.64	0.43	0.51
10500				0.47			0.58	0.58		0.44
11000				0.41			0.53	0.53		0.39
11500							0.45	0.49		0.34
12000								0.45		0.30
12500								0.41		0.26

Double Span Continuous: AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.66	7.66	7.66	7.66	8.06	8.06	8.06	8.06	5.74	77.49
2500	6.13	6.13	6.13	6.13	6.45	6.45	6.45	6.45	4.59	39.68
3000	5.10	5.10	5.10	5.10	5.37	5.37	5.37	5.37	3.83	22.96
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.28	14.46
4000	3.02	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	9.69
4500	2.04	3.40	3.40	3.40	3.58	3.58	3.58	3.58	2.55	6.80
5000	1.38	2.75	3.06	3.06	2.71	3.22	3.22	3.22	2.30	4.96
5500	0.94	2.15	2.49	2.59	1.85	2.85	2.85	2.85	2.09	3.73
6000	0.67	1.71	2.02	2.18	1.31	2.39	2.39	2.39	1.91	2.87
6500	0.48	1.38	1.66	1.85	0.95	2.04	2.04	2.04	1.66	2.26
7000		1.12	1.38	1.55	0.71	1.76	1.76	1.76	1.38	1.81
7500		0.91	1.16	1.32	0.54	1.49	1.53	1.53	1.16	1.47
8000		0.74	0.98	1.13	0.41	1.18	1.35	1.35	0.98	1.21
8500		0.61	0.83	0.97		0.94	1.19	1.19	0.83	1.01
9000		0.50	0.71	0.84		0.75	1.06	1.06	0.71	0.85
9500		0.41	0.61	0.73		0.60	0.95	0.95	0.61	0.72
10000			0.52	0.64		0.49	0.86	0.86	0.52	0.62
10500			0.45	0.57		0.40	0.77	0.78	0.45	0.54
11000				0.50			0.66	0.71		0.47
11500				0.44			0.56	0.65		0.41
12000							0.47	0.60		0.36
12500								0.55		0.32

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Double Spans Continuous

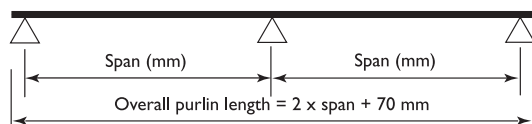
Double Span Continuous: AZ25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.79	108.50
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	55.55
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	32.15
3500	3.65	3.65	3.65	3.65	3.85	3.85	3.85	3.85	2.74	20.25
4000	3.20	3.20	3.20	3.20	3.36	3.36	3.36	3.36	2.40	13.56
4500	2.17	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	9.53
5000	1.44	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	6.94
5500	0.99	2.32	2.32	2.32	1.94	2.45	2.45	2.45	1.74	5.22
6000	0.70	1.87	2.13	2.13	1.37	2.24	2.24	2.24	1.60	4.02
6500	0.51	1.50	1.83	1.89	0.99	2.07	2.07	2.07	1.48	3.16
7000		1.21	1.52	1.63	0.74	1.79	1.79	1.79	1.37	2.53
7500		0.98	1.27	1.42	0.56	1.56	1.56	1.56	1.27	2.06
8000		0.80	1.07	1.25	0.43	1.25	1.37	1.37	1.07	1.70
8500		0.65	0.91	1.07		0.98	1.22	1.22	0.91	1.41
9000		0.53	0.77	0.93		0.78	1.08	1.08	0.77	1.19
9500		0.43	0.66	0.81		0.63	0.97	0.97	0.66	1.01
10000			0.57	0.71		0.51	0.88	0.88	0.57	0.87
10500			0.49	0.62		0.42	0.80	0.80	0.49	0.75
11000			0.42	0.55			0.69	0.73	0.42	0.65
11500				0.48			0.58	0.66		0.57
12000				0.43			0.49	0.61		0.50
12500							0.42	0.56		0.44

Double Span Continuous: AZ30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.40	6.40	6.40	6.40	6.74	6.74	6.74	6.74	4.80	197.94
2500	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	101.35
3000	4.27	4.27	4.27	4.27	4.49	4.49	4.49	4.49	3.20	58.65
3500	3.66	3.66	3.66	3.66	3.85	3.85	3.85	3.85	2.74	36.93
4000	3.20	3.20	3.20	3.20	3.37	3.37	3.37	3.37	2.40	24.74
4500	2.84	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	17.38
5000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	12.67
5500	2.33	2.33	2.33	2.33	2.45	2.45	2.45	2.45	1.75	9.52
6000	2.13	2.13	2.13	2.13	2.25	2.25	2.25	2.25	1.60	7.33
6500	1.64	1.97	1.97	1.97	2.07	2.07	2.07	2.07	1.48	5.77
7000	1.24	1.83	1.83	1.83	1.93	1.93	1.93	1.93	1.37	4.62
7500	0.94	1.71	1.71	1.71	1.80	1.80	1.80	1.80	1.28	3.75
8000	0.73	1.59	1.59	1.59	1.42	1.68	1.68	1.68	1.20	3.09
8500	0.57	1.41	1.41	1.41	1.12	1.55	1.55	1.55	1.13	2.58
9000	0.45	1.26	1.26	1.26	0.89	1.39	1.39	1.39	1.07	2.17
9500		1.10	1.13	1.13	0.72	1.24	1.24	1.24	1.01	1.85
10000		0.95	1.02	1.02	0.58	1.12	1.12	1.12	0.96	1.58
10500		0.82	0.93	0.93	0.48	1.02	1.02	1.02	0.91	1.37
11000		0.71	0.84	0.84		0.93	0.93	0.93	0.84	1.19
11500		0.62	0.77	0.77		0.85	0.85	0.85	0.77	1.04
12000		0.53	0.71	0.71		0.78	0.78	0.78	0.71	0.92
12500		0.46	0.65	0.65		0.69	0.72	0.72	0.65	0.81

2 Span Continuous



Double Span Continuous: AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.66	7.66	7.66	7.66	8.07	8.07	8.07	8.07	5.75	131.06
2500	6.13	6.13	6.13	6.13	6.45	6.45	6.45	6.45	4.60	67.11
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	38.83
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.28	24.46
4000	3.83	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	16.38
4500	2.64	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.55	11.51
5000	1.76	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	8.39
5500	1.20	2.79	2.79	2.79	2.36	2.93	2.93	2.93	2.09	6.30
6000	0.85	2.26	2.55	2.55	1.67	2.69	2.69	2.69	1.92	4.85
6500	0.62	1.81	2.21	2.36	1.21	2.48	2.48	2.48	1.77	3.82
7000	0.46	1.46	1.83	2.07	0.90	2.31	2.31	2.31	1.64	3.06
7500		1.19	1.53	1.75	0.68	1.93	2.15	2.15	1.53	2.49
8000		0.97	1.29	1.50	0.53	1.52	1.89	1.89	1.29	2.05
8500		0.79	1.10	1.29	0.41	1.20	1.67	1.67	1.10	1.71
9000		0.65	0.93	1.12		0.95	1.49	1.49	0.93	1.44
9500		0.53	0.80	0.97		0.77	1.34	1.34	0.80	1.22
10000		0.43	0.69	0.85		0.62	1.18	1.21	0.69	1.05
10500			0.59	0.75		0.51	1.00	1.10	0.59	0.91
11000			0.51	0.66		0.43	0.84	1.00	0.51	0.79
11500			0.44	0.58			0.71	0.92	0.44	0.69
12000				0.52			0.60	0.84		0.61
12500				0.46			0.51	0.77		0.54

Double Span Continuous: AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.67	7.67	7.67	7.67	8.08	8.08	8.08	8.08	5.75	237.28
2500	6.14	6.14	6.14	6.14	6.46	6.46	6.46	6.46	4.60	121.49
3000	5.12	5.12	5.12	5.12	5.38	5.38	5.38	5.38	3.84	70.30
3500	4.38	4.38	4.38	4.38	4.62	4.62	4.62	4.62	3.29	44.27
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	29.66
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	20.83
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	15.19
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	11.41
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	8.79
6500	2.00	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	6.91
7000	1.51	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.64	5.53
7500	1.14	2.05	2.05	2.05	2.15	2.15	2.15	2.15	1.53	4.50
8000	0.88	1.92	1.92	1.92	1.74	2.02	2.02	2.02	1.44	3.71
8500	0.69	1.75	1.75	1.75	1.36	1.90	1.90	1.90	1.35	3.09
9000	0.55	1.54	1.57	1.57	1.08	1.72	1.72	1.72	1.28	2.60
9500	0.44	1.33	1.40	1.40	0.87	1.55	1.55	1.55	1.21	2.21
10000		1.14	1.27	1.27	0.71	1.39	1.39	1.39	1.15	1.90
10500		0.99	1.15	1.15	0.59	1.27	1.27	1.27	1.10	1.64
11000		0.86	1.05	1.05	0.49	1.15	1.15	1.15	1.05	1.43
11500		0.75	0.96	0.96	0.41	1.05	1.05	1.05	0.96	1.25
12000		0.65	0.88	0.88		0.97	0.97	0.97	0.88	1.10
12500		0.56	0.79	0.81		0.84	0.89	0.89	0.79	0.97

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Double Spans Continuous

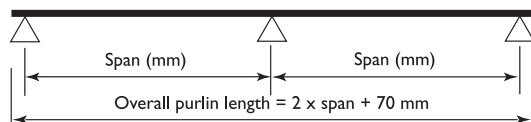
Double Span Continuous: AZ35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.68	7.68	7.68	7.68	8.08	8.08	8.08	8.08	5.76	365.04
2500	6.14	6.14	6.14	6.14	6.47	6.47	6.47	6.47	4.61	186.90
3000	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	108.16
3500	4.39	4.39	4.39	4.39	4.62	4.62	4.62	4.62	3.29	68.11
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	45.63
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	32.05
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	23.36
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	17.55
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	13.52
6500	2.36	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	10.63
7000	2.19	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.65	8.51
7500	1.89	2.05	2.05	2.05	2.16	2.16	2.16	2.16	1.54	6.92
8000	1.47	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	5.70
8500	1.15	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.36	4.76
9000	0.92	1.71	1.71	1.71	1.80	1.80	1.80	1.80	1.28	4.01
9500	0.74	1.62	1.62	1.62	1.45	1.70	1.70	1.70	1.21	3.41
10000	0.60	1.48	1.48	1.48	1.18	1.62	1.62	1.62	1.15	2.92
10500	0.49	1.34	1.34	1.34	0.97	1.48	1.48	1.48	1.10	2.52
11000	0.41	1.22	1.22	1.22	0.81	1.34	1.34	1.34	1.05	2.19
11500		1.12	1.12	1.12	0.67	1.23	1.23	1.23	1.00	1.92
12000		0.98	1.03	1.03	0.57	1.13	1.13	1.13	0.96	1.69
12500		0.87	0.95	0.95	0.48	1.04	1.04	1.04	0.92	1.50

Double Span Continuous: AZ40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.68	7.68	7.68	7.68	8.08	8.08	8.08	8.08	5.76	501.21
2500	6.14	6.14	6.14	6.14	6.47	6.47	6.47	6.47	4.61	256.62
3000	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	148.51
3500	4.39	4.39	4.39	4.39	4.62	4.62	4.62	4.62	3.29	93.52
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	62.65
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	44.00
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	32.08
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	24.10
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	18.56
6500	2.36	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	14.60
7000	2.19	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.65	11.69
7500	2.05	2.05	2.05	2.05	2.16	2.16	2.16	2.16	1.54	9.50
8000	1.69	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	7.83
8500	1.33	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.36	6.53
9000	1.06	1.71	1.71	1.71	1.80	1.80	1.80	1.80	1.28	5.50
9500	0.85	1.62	1.62	1.62	1.67	1.70	1.70	1.70	1.21	4.68
10000	0.69	1.54	1.54	1.54	1.36	1.62	1.62	1.62	1.15	4.01
10500	0.57	1.46	1.46	1.46	1.12	1.54	1.54	1.54	1.10	3.46
11000	0.47	1.40	1.40	1.40	0.93	1.47	1.47	1.47	1.05	3.01
11500	0.40	1.31	1.34	1.34	0.78	1.41	1.41	1.41	1.00	2.64
12000		1.15	1.23	1.23	0.66	1.35	1.35	1.35	0.96	2.32
12500		1.01	1.13	1.13	0.56	1.24	1.24	1.24	0.92	2.05

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Double Spans Lapped

Double Span Lapped: AZ15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.47	12.47	12.47	12.47	13.12	13.12	13.12	13.12	9.35	35.92
2500	7.68	9.97	9.97	9.97	10.50	10.50	10.50	10.50	7.48	18.39
3000	4.64	6.66	7.17	7.53	6.55	8.72	8.72	8.72	6.23	10.64
3500	2.90	4.63	5.07	5.37	4.09	6.00	6.41	6.41	5.07	6.70
4000	1.83	3.34	3.73	3.99	2.58	4.27	4.90	4.90	3.73	4.49
4500	1.15	2.48	2.83	3.06	1.63	3.11	3.78	3.87	2.83	3.15
5000	0.76	1.88	2.19	2.40	1.07	2.31	2.91	3.14	2.19	2.30
5500	0.52	1.45	1.73	1.92	0.73	1.74	2.27	2.59	1.73	1.73
6000		1.13	1.39	1.56	0.51	1.31	1.80	2.16	1.39	1.33
6500		0.88	1.12	1.29		0.99	1.44	1.77	1.12	1.05
7000		0.70	0.92	1.07		0.75	1.16	1.47	0.92	0.84
7500		0.55	0.76	0.90		0.57	0.94	1.24	0.76	0.68
8000		0.43	0.63	0.76		0.44	0.77	1.04	0.63	0.56
8500			0.52	0.65			0.63	0.89	0.52	0.47
9000			0.43	0.55			0.51	0.76	0.43	0.39
9500				0.47			0.42	0.64		0.34
10000				0.41				0.55		0.29
10500								0.47		0.25
11000								0.40		0.22

Double Span Lapped: AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.93	14.93	14.93	14.93	15.72	15.72	15.72	15.72	11.20	42.98
2500	9.26	11.94	11.94	11.94	12.57	12.57	12.57	12.57	8.96	22.01
3000	5.60	7.99	8.61	9.03	7.91	10.48	10.48	10.48	7.47	12.73
3500	3.51	5.56	6.09	6.45	4.96	7.22	7.85	7.85	6.09	8.02
4000	2.23	4.02	4.48	4.79	3.14	5.14	6.01	6.01	4.48	5.37
4500	1.41	2.99	3.40	3.68	1.98	3.75	4.55	4.75	3.40	3.77
5000	0.92	2.27	2.63	2.89	1.30	2.79	3.50	3.85	2.63	2.75
5500	0.63	1.75	2.08	2.31	0.89	2.10	2.74	3.18	2.08	2.07
6000	0.44	1.36	1.67	1.88	0.63	1.59	2.17	2.59	1.67	1.59
6500		1.07	1.35	1.55	0.46	1.21	1.74	2.13	1.35	1.25
7000		0.84	1.11	1.29		0.91	1.41	1.77	1.11	1.00
7500		0.67	0.91	1.08		0.69	1.14	1.49	0.91	0.82
8000		0.53	0.76	0.91		0.54	0.93	1.26	0.76	0.67
8500		0.41	0.63	0.78		0.42	0.76	1.07	0.63	0.56
9000			0.53	0.67			0.62	0.91	0.53	0.47
9500			0.44	0.57			0.51	0.78	0.44	0.40
10000				0.49			0.41	0.67		0.34
10500				0.43				0.57		0.30
11000								0.49		0.26
11500								0.42		0.23

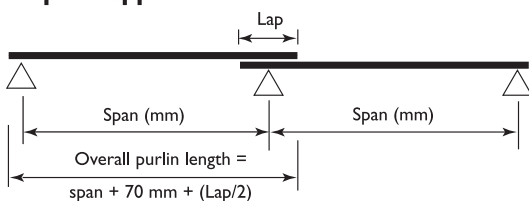
Double Span Lapped: AZ20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.48	12.48	12.48	12.48	13.14	13.14	13.14	13.14	9.36	78.30
2500	9.99	9.99	9.99	9.99	10.51	10.51	10.51	10.51	7.49	40.09
3000	8.32	8.32	8.32	8.32	8.76	8.76	8.76	8.76	6.24	23.20
3500	5.94	7.13	7.13	7.13	7.51	7.51	7.51	7.51	5.35	14.61
4000	4.01	5.63	5.63	5.63	5.66	6.19	6.19	6.19	4.68	9.79
4500	2.74	4.44	4.44	4.44	3.87	4.89	4.89	4.89	4.16	6.87
5000	1.88	3.55	3.60	3.60	2.65	3.96	3.96	3.96	3.60	5.01
5500	1.28	2.78	2.98	2.98	1.81	3.27	3.27	3.27	2.98	3.77
6000	0.91	2.22	2.50	2.50	1.28	2.73	2.75	2.75	2.50	2.90
6500	0.66	1.78	2.11	2.13	0.93	2.16	2.34	2.34	2.11	2.28
7000	0.49	1.45	1.75	1.84	0.69	1.71	2.02	2.02	1.75	1.83
7500		1.18	1.47	1.60	0.52	1.36	1.76	1.76	1.47	1.49
8000		0.97	1.24	1.41	0.41	1.08	1.55	1.55	1.24	1.22
8500		0.80	1.05	1.22		0.86	1.33	1.37	1.05	1.02
9000		0.65	0.89	1.06		0.68	1.12	1.22	0.89	0.86
9500		0.54	0.76	0.92		0.55	0.95	1.10	0.76	0.73
10000		0.44	0.66	0.80		0.45	0.80	0.99	0.66	0.63
10500			0.56	0.70			0.68	0.90	0.56	0.54
11000			0.49	0.62			0.57	0.82	0.49	0.47
11500			0.42	0.55			0.48	0.74	0.42	0.41
12000				0.48			0.41	0.65		0.36
12500				0.43				0.57		0.32

Double Span Lapped: AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.95	14.95	14.95	14.95	15.74	15.74	15.74	15.74	11.22	94.47
2500	11.96	11.96	11.96	11.96	12.59	12.59	12.59	12.59	8.97	48.37
3000	9.97	9.97	9.97	9.97	10.49	10.49	10.49	10.49	7.48	27.99
3500	7.20	8.55	8.55	8.55	9.00	9.00	9.00	9.00	6.41	17.63
4000	4.87	7.35	7.48	7.48	6.88	7.87	7.87	7.87	5.61	11.81
4500	3.34	5.55	5.97	5.97	4.72	6.56	6.56	6.56	4.98	8.29
5000	2.30	4.28	4.79	4.83	3.25	5.32	5.32	5.32	4.49	6.05
5500	1.58	3.36	3.83	4.00	2.23	4.22	4.39	4.39	3.83	4.54
6000	1.11	2.68	3.10	3.36	1.57	3.31	3.69	3.69	3.10	3.50
6500	0.81	2.16	2.55	2.82	1.14	2.62	3.15	3.15	2.55	2.75
7000	0.60	1.75	2.12	2.36	0.85	2.08	2.71	2.71	2.12	2.20
7500	0.46	1.43	1.77	2.00	0.64	1.66	2.30	2.36	1.77	1.79
8000		1.18	1.49	1.71	0.50	1.32	1.92	2.08	1.49	1.48
8500		0.97	1.27	1.47		1.05	1.61	1.84	1.27	1.23
9000		0.80	1.08	1.28		0.84	1.36	1.64	1.08	1.04
9500		0.66	0.93	1.11		0.67	1.15	1.47	0.93	0.88
10000		0.54	0.80	0.97		0.55	0.97	1.33	0.80	0.76
10500		0.45	0.69	0.85		0.45	0.82	1.17	0.69	0.65
11000			0.59	0.75			0.70	1.03	0.59	0.57
11500			0.51	0.66			0.59	0.90	0.51	0.50
12000			0.44	0.59			0.50	0.79	0.44	0.44
12500				0.52			0.42	0.70		0.39

2 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Double Spans Lapped

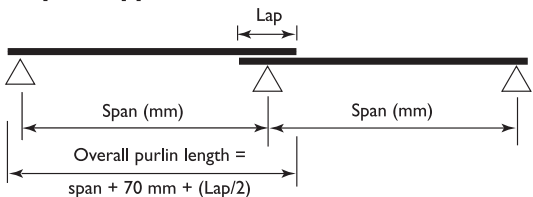
Double Span Lapped: AZ25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.49	12.49	12.49	12.49	13.14	13.14	13.14	13.14	9.36	132.27
2500	9.99	9.99	9.99	9.99	10.51	10.51	10.51	10.51	7.49	67.72
3000	8.32	8.32	8.32	8.32	8.76	8.76	8.76	8.76	6.24	39.19
3500	7.13	7.13	7.13	7.13	7.51	7.51	7.51	7.51	5.35	24.68
4000	5.26	6.24	6.24	6.24	6.57	6.57	6.57	6.57	4.68	16.53
4500	3.57	5.55	5.55	5.55	5.04	5.84	5.84	5.84	4.16	11.61
5000	2.42	4.72	4.73	4.73	3.41	5.20	5.20	5.20	3.75	8.47
5500	1.65	3.70	4.01	4.01	2.33	4.41	4.41	4.41	3.41	6.36
6000	1.16	2.93	3.42	3.42	1.64	3.60	3.76	3.76	3.12	4.90
6500	0.85	2.36	2.81	2.92	1.19	2.83	3.21	3.21	2.81	3.85
7000	0.63	1.91	2.33	2.51	0.89	2.24	2.77	2.77	2.33	3.09
7500	0.48	1.55	1.94	2.19	0.67	1.77	2.41	2.41	1.94	2.51
8000		1.27	1.64	1.89	0.52	1.40	2.09	2.12	1.64	2.07
8500		1.04	1.38	1.62	0.41	1.10	1.75	1.88	1.38	1.72
9000		0.85	1.18	1.40		0.88	1.47	1.67	1.18	1.45
9500		0.69	1.01	1.22		0.71	1.24	1.50	1.01	1.23
10000		0.57	0.86	1.06		0.58	1.04	1.36	0.86	1.06
10500		0.47	0.74	0.93		0.47	0.88	1.23	0.74	0.91
11000			0.63	0.82			0.74	1.12	0.63	0.80
11500			0.55	0.72			0.62	0.98	0.55	0.70
12000			0.47	0.64			0.52	0.86	0.47	0.61
12500			0.40	0.56			0.44	0.75	0.40	0.54

Double Span Lapped: AZ30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.50	12.50	12.50	12.50	13.16	13.16	13.16	13.16	9.37	241.31
2500	10.00	10.00	10.00	10.00	10.53	10.53	10.53	10.53	7.50	123.55
3000	8.33	8.33	8.33	8.33	8.77	8.77	8.77	8.77	6.25	71.50
3500	7.14	7.14	7.14	7.14	7.52	7.52	7.52	7.52	5.36	45.03
4000	6.25	6.25	6.25	6.25	6.58	6.58	6.58	6.58	4.69	30.16
4500	5.56	5.56	5.56	5.56	5.85	5.85	5.85	5.85	4.17	21.19
5000	5.00	5.00	5.00	5.00	5.26	5.26	5.26	5.26	3.75	15.44
5500	4.52	4.52	4.52	4.52	4.78	4.78	4.78	4.78	3.41	11.60
6000	3.53	3.94	3.94	3.94	4.34	4.34	4.34	4.34	3.13	8.94
6500	2.70	3.47	3.47	3.47	3.81	3.81	3.81	3.81	2.88	7.03
7000	2.06	3.07	3.07	3.07	2.91	3.37	3.37	3.37	2.68	5.63
7500	1.57	2.73	2.73	2.73	2.22	3.00	3.00	3.00	2.50	4.58
8000	1.21	2.44	2.44	2.44	1.71	2.69	2.69	2.69	2.34	3.77
8500	0.95	2.18	2.18	2.18	1.34	2.40	2.40	2.40	2.18	3.14
9000	0.76	1.94	1.94	1.94	1.07	2.14	2.14	2.14	1.94	2.65
9500	0.61	1.72	1.74	1.74	0.86	1.92	1.92	1.92	1.74	2.25
10000	0.50	1.49	1.57	1.57	0.70	1.73	1.73	1.73	1.57	1.93
10500	0.41	1.29	1.43	1.43	0.58	1.49	1.57	1.57	1.43	1.67
11000		1.12	1.30	1.30	0.48	1.27	1.43	1.43	1.30	1.45
11500		0.97	1.19	1.19	0.40	1.08	1.31	1.31	1.19	1.27
12000		0.85	1.09	1.09		0.91	1.20	1.20	1.09	1.12
12500		0.74	1.00	1.01		0.78	1.11	1.11	1.00	0.99

2 Span Lapped



Double Span Lapped: AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.97	14.97	14.97	14.97	15.75	15.75	15.75	15.75	11.22	159.78
2500	11.97	11.97	11.97	11.97	12.60	12.60	12.60	12.60	8.98	81.81
3000	9.98	9.98	9.98	9.98	10.50	10.50	10.50	10.50	7.48	47.34
3500	8.55	8.55	8.55	8.55	9.00	9.00	9.00	9.00	6.41	29.81
4000	6.37	7.48	7.48	7.48	7.88	7.88	7.88	7.88	5.61	19.97
4500	4.33	6.65	6.65	6.65	6.12	7.00	7.00	7.00	4.99	14.03
5000	2.94	5.68	5.99	5.99	4.16	6.30	6.30	6.30	4.49	10.23
5500	2.01	4.45	5.09	5.44	2.84	5.57	5.73	5.73	4.08	7.68
6000	1.42	3.54	4.13	4.53	2.00	4.35	5.19	5.19	3.74	5.92
6500	1.03	2.84	3.38	3.75	1.46	3.42	4.42	4.42	3.38	4.65
7000	0.77	2.30	2.80	3.15	1.08	2.71	3.66	3.81	2.80	3.73
7500	0.58	1.88	2.34	2.67	0.82	2.15	3.03	3.32	2.34	3.03
8000	0.45	1.53	1.97	2.27	0.63	1.70	2.53	2.92	1.97	2.50
8500		1.26	1.67	1.96	0.50	1.34	2.12	2.58	1.67	2.08
9000		1.03	1.42	1.69		1.07	1.78	2.31	1.42	1.75
9500		0.85	1.22	1.47		0.86	1.50	2.02	1.22	1.49
10000		0.69	1.04	1.28		0.70	1.26	1.76	1.04	1.28
10500		0.57	0.89	1.12		0.58	1.06	1.54	0.89	1.10
11000		0.47	0.77	0.99		0.48	0.90	1.35	0.77	0.96
11500			0.66	0.87		0.40	0.75	1.18	0.66	0.84
12000			0.57	0.77			0.64	1.04	0.57	0.74
12500			0.49	0.68			0.54	0.91	0.49	0.65

Double Span Lapped: AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.99	14.99	14.99	14.99	15.77	15.77	15.77	15.77	11.24	289.26
2500	11.99	11.99	11.99	11.99	12.62	12.62	12.62	12.62	8.99	148.10
3000	9.99	9.99	9.99	9.99	10.52	10.52	10.52	10.52	7.49	85.71
3500	8.56	8.56	8.56	8.56	9.01	9.01	9.01	9.01	6.42	53.97
4000	7.49	7.49	7.49	7.49	7.89	7.89	7.89	7.89	5.62	36.16
4500	6.66	6.66	6.66	6.66	7.01	7.01	7.01	7.01	5.00	25.40
5000	5.99	5.99	5.99	5.99	6.31	6.31	6.31	6.31	4.50	18.51
5500	5.45	5.45	5.45	5.45	5.74	5.74	5.74	5.74	4.09	13.91
6000	4.28	5.00	5.00	5.00	5.26	5.26	5.26	5.26	3.75	10.71
6500	3.28	4.61	4.61	4.61	4.63	4.85	4.85	4.85	3.46	8.43
7000	2.51	3.99	3.99	3.99	3.54	4.39	4.39	4.39	3.21	6.75
7500	1.91	3.48	3.48	3.48	2.70	3.83	3.83	3.83	3.00	5.49
8000	1.48	3.06	3.06	3.06	2.09	3.36	3.36	3.36	2.81	4.52
8500	1.16	2.71	2.71	2.71	1.64	2.98	2.98	2.98	2.64	3.77
9000	0.92	2.42	2.42	2.42	1.30	2.66	2.66	2.66	2.42	3.17
9500	0.74	2.08	2.17	2.17	1.05	2.38	2.38	2.38	2.17	2.70
10000	0.61	1.80	1.96	1.96	0.86	2.12	2.15	2.15	1.96	2.31
10500	0.50	1.56	1.77	1.77	0.70	1.81	1.95	1.95	1.77	2.00
11000	0.41	1.35	1.62	1.62	0.58	1.54	1.78	1.78	1.62	1.74
11500		1.18	1.48	1.48	0.49	1.31	1.63	1.63	1.48	1.52
12000		1.03	1.35	1.36	0.41	1.11	1.49	1.49	1.35	1.34
12500		0.90	1.20	1.25		0.95	1.38	1.38	1.20	1.19

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Double Spans Lapped

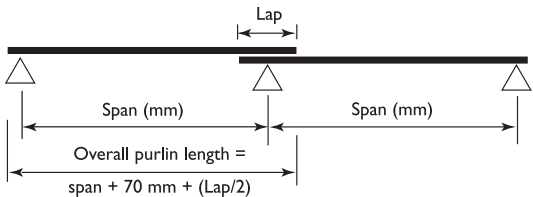
Double Span Lapped: AZ35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.99	14.99	14.99	14.99	15.78	15.78	15.78	15.78	11.25	445.02
2500	12.00	12.00	12.00	12.00	12.63	12.63	12.63	12.63	9.00	227.85
3000	10.00	10.00	10.00	10.00	10.52	10.52	10.52	10.52	7.50	131.86
3500	8.57	8.57	8.57	8.57	9.02	9.02	9.02	9.02	6.43	83.04
4000	7.50	7.50	7.50	7.50	7.89	7.89	7.89	7.89	5.62	55.63
4500	6.66	6.66	6.66	6.66	7.02	7.02	7.02	7.02	5.00	39.07
5000	6.00	6.00	6.00	6.00	6.31	6.31	6.31	6.31	4.50	28.48
5500	5.45	5.45	5.45	5.45	5.74	5.74	5.74	5.74	4.09	21.40
6000	5.00	5.00	5.00	5.00	5.26	5.26	5.26	5.26	3.75	16.48
6500	4.61	4.61	4.61	4.61	4.86	4.86	4.86	4.86	3.46	12.96
7000	3.95	4.28	4.28	4.28	4.51	4.51	4.51	4.51	3.21	10.38
7500	3.12	4.00	4.00	4.00	4.21	4.21	4.21	4.21	3.00	8.44
8000	2.45	3.57	3.57	3.57	3.46	3.92	3.92	3.92	2.81	6.95
8500	1.93	3.16	3.16	3.16	2.72	3.48	3.48	3.48	2.65	5.80
9000	1.53	2.82	2.82	2.82	2.16	3.10	3.10	3.10	2.50	4.88
9500	1.23	2.53	2.53	2.53	1.74	2.78	2.78	2.78	2.37	4.15
10000	1.01	2.28	2.28	2.28	1.42	2.51	2.51	2.51	2.25	3.56
10500	0.83	2.07	2.07	2.07	1.17	2.28	2.28	2.28	2.07	3.08
11000	0.69	1.89	1.89	1.89	0.97	2.08	2.08	2.08	1.89	2.68
11500	0.57	1.73	1.73	1.73	0.81	1.90	1.90	1.90	1.73	2.34
12000	0.49	1.55	1.59	1.59	0.68	1.74	1.74	1.74	1.59	2.06
12500	0.41	1.37	1.46	1.46	0.58	1.54	1.61	1.61	1.46	1.82

Double Span Lapped: AZ40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.00	15.00	15.00	15.00	15.79	15.79	15.79	15.79	11.25	611.02
2500	12.00	12.00	12.00	12.00	12.63	12.63	12.63	12.63	9.00	312.84
3000	10.00	10.00	10.00	10.00	10.53	10.53	10.53	10.53	7.50	181.04
3500	8.57	8.57	8.57	8.57	9.02	9.02	9.02	9.02	6.43	114.01
4000	7.50	7.50	7.50	7.50	7.89	7.89	7.89	7.89	5.63	76.38
4500	6.67	6.67	6.67	6.67	7.02	7.02	7.02	7.02	5.00	53.64
5000	6.00	6.00	6.00	6.00	6.32	6.32	6.32	6.32	4.50	39.11
5500	5.45	5.45	5.45	5.45	5.74	5.74	5.74	5.74	4.09	29.38
6000	5.00	5.00	5.00	5.00	5.26	5.26	5.26	5.26	3.75	22.63
6500	4.62	4.62	4.62	4.62	4.86	4.86	4.86	4.86	3.46	17.80
7000	4.29	4.29	4.29	4.29	4.51	4.51	4.51	4.51	3.21	14.25
7500	3.62	4.00	4.00	4.00	4.21	4.21	4.21	4.21	3.00	11.59
8000	2.83	3.74	3.74	3.74	3.95	3.95	3.95	3.95	2.81	9.55
8500	2.22	3.39	3.39	3.39	3.13	3.72	3.72	3.72	2.65	7.96
9000	1.77	3.09	3.09	3.09	2.49	3.40	3.40	3.40	2.50	6.71
9500	1.42	2.82	2.82	2.82	2.01	3.10	3.10	3.10	2.37	5.70
10000	1.16	2.59	2.59	2.59	1.64	2.85	2.85	2.85	2.25	4.89
10500	0.95	2.38	2.38	2.38	1.35	2.62	2.62	2.62	2.14	4.22
11000	0.79	2.20	2.20	2.20	1.12	2.41	2.41	2.41	2.05	3.67
11500	0.66	2.03	2.03	2.03	0.94	2.23	2.23	2.23	1.96	3.21
12000	0.56	1.82	1.88	1.88	0.79	2.07	2.07	2.07	1.88	2.83
12500	0.48	1.60	1.75	1.75	0.67	1.79	1.92	1.92	1.75	2.50

2 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Three Spans Lapped

Three Span Lapped: AZ15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.39	14.39	14.39	14.39	15.14	15.15	15.15	15.15	10.79	27.36
2500	10.44	11.51	11.51	11.51	8.34	11.41	12.12	12.12	8.63	14.01
3000	6.08	8.56	8.56	8.56	4.86	7.40	8.47	8.91	7.19	8.11
3500	3.61	6.09	6.29	6.29	2.88	5.06	5.95	6.35	5.95	5.11
4000	2.14	4.43	4.76	4.82	1.71	3.58	4.35	4.72	4.35	3.42
4500	1.33	3.23	3.61	3.80	1.07	2.60	3.27	3.61	3.27	2.40
5000	0.88	2.38	2.80	3.00	0.70	1.92	2.52	2.83	2.52	1.75
5500	0.60	1.78	2.22	2.40	0.48	1.43	1.97	2.27	1.97	1.32
6000	0.42	1.33	1.78	1.94		1.07	1.56	1.84	1.56	1.01
6500		1.00	1.45	1.60		0.80	1.25	1.51	1.25	0.80
7000		0.74	1.18	1.32		0.60	1.01	1.26	1.01	0.64
7500		0.56	0.98	1.11		0.45	0.82	1.05	0.82	0.52
8000		0.44	0.81	0.94			0.67	0.89	0.67	0.43
8500			0.68	0.79			0.55	0.75	0.55	0.36
9000			0.57	0.68			0.45	0.64	0.45	0.30
9500			0.48	0.58				0.55		0.26
10000				0.50				0.48		0.22
10500				0.43				0.41		0.19

Three Span Lapped: AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.23	17.23	17.23	17.23	18.14	18.14	18.14	18.14	12.93	32.74
2500	12.59	13.79	13.79	13.79	10.07	13.71	14.51	14.51	10.34	16.76
3000	7.36	10.44	10.71	10.71	5.88	8.90	10.17	10.68	8.62	9.70
3500	4.39	7.32	7.76	7.87	3.51	6.09	7.15	7.62	7.15	6.11
4000	2.61	5.33	5.72	6.01	2.09	4.31	5.23	5.66	5.23	4.09
4500	1.63	3.90	4.34	4.60	1.30	3.13	3.93	4.34	3.93	2.87
5000	1.07	2.88	3.37	3.60	0.85	2.32	3.03	3.40	3.03	2.10
5500	0.73	2.15	2.67	2.88	0.58	1.73	2.37	2.72	2.37	1.57
6000	0.52	1.62	2.14	2.34	0.41	1.30	1.88	2.21	1.88	1.21
6500		1.21	1.74	1.92		0.98	1.51	1.82	1.51	0.95
7000		0.91	1.43	1.59		0.73	1.22	1.51	1.22	0.76
7500		0.69	1.18	1.34		0.55	1.00	1.27	1.00	0.62
8000		0.53	0.98	1.13		0.43	0.81	1.07	0.81	0.51
8500		0.42	0.82	0.96			0.67	0.91	0.67	0.43
9000			0.69	0.82			0.55	0.78	0.55	0.36
9500			0.58	0.70			0.45	0.67	0.45	0.31
10000			0.49	0.60				0.57		0.26
10500			0.41	0.52				0.50		0.23
11000				0.45				0.43		0.20

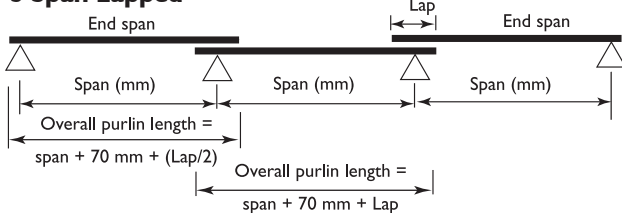
Three Span Lapped: AZ20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.41	14.41	14.41	14.41	15.17	15.17	15.17	15.17	10.81	59.64
2500	11.53	11.53	11.53	11.53	12.13	12.13	12.13	12.13	8.65	30.53
3000	9.61	9.61	9.61	9.61	9.85	10.11	10.11	10.11	7.20	17.67
3500	7.86	7.93	7.93	7.93	6.29	8.67	8.67	8.67	6.18	11.13
4000	5.11	6.08	6.08	6.08	4.09	6.68	6.68	6.68	5.40	7.45
4500	3.32	4.80	4.80	4.80	2.66	4.99	5.28	5.28	4.80	5.24
5000	2.18	3.89	3.89	3.89	1.74	3.78	4.28	4.28	3.89	3.82
5500	1.49	3.21	3.21	3.21	1.19	2.91	3.53	3.53	3.21	2.87
6000	1.05	2.70	2.70	2.70	0.84	2.27	2.96	2.97	2.70	2.21
6500	0.76	2.21	2.30	2.30	0.61	1.78	2.41	2.53	2.30	1.74
7000	0.57	1.74	1.98	1.98	0.45	1.40	1.99	2.18	1.98	1.39
7500	0.43	1.38	1.73	1.73		1.11	1.65	1.90	1.65	1.13
8000		1.08	1.52	1.52		0.87	1.38	1.67	1.38	0.93
8500		0.85	1.35	1.35		0.68	1.16	1.43	1.16	0.78
9000		0.68	1.15	1.20		0.54	0.98	1.24	0.98	0.65
9500		0.55	0.99	1.08		0.44	0.82	1.08	0.82	0.56
10000		0.44	0.85	0.97			0.70	0.94	0.70	0.48
10500			0.74	0.86			0.59	0.82	0.59	0.41
11000			0.64	0.76			0.50	0.72	0.50	0.36
11500			0.55	0.67			0.42	0.64	0.42	0.31
12000			0.48	0.59				0.56		0.28
12500			0.41	0.52				0.50		0.24

Three Span Lapped: AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.26	17.26	17.26	17.26	18.17	18.17	18.17	18.17	12.94	71.96
2500	13.81	13.81	13.81	13.81	14.53	14.53	14.53	14.53	10.36	36.84
3000	11.51	11.51	11.51	11.51	11.92	12.11	12.11	12.11	8.63	21.32
3500	9.55	9.86	9.86	9.86	7.63	10.38	10.38	10.38	7.40	13.43
4000	6.23	8.16	8.16	8.16	4.98	8.11	8.97	8.97	6.47	9.00
4500	4.08	6.45	6.45	6.45	3.26	6.03	7.09	7.09	5.75	6.32
5000	2.68	5.22	5.22	5.22	2.14	4.57	5.58	5.74	5.18	4.61
5500	1.83	4.31	4.31	4.31	1.46	3.53	4.43	4.75	4.31	3.46
6000	1.29	3.42	3.63	3.63	1.03	2.75	3.57	3.99	3.57	2.67
6500	0.94	2.69	3.09	3.09	0.75	2.16	2.91	3.32	2.91	2.10
7000	0.70	2.12	2.66	2.66	0.56	1.71	2.40	2.79	2.40	1.68
7500	0.53	1.68	2.28	2.32	0.42	1.35	2.00	2.36	2.00	1.37
8000	0.41	1.33	1.92	2.04		1.07	1.67	2.01	1.67	1.12
8500		1.04	1.64	1.81		0.84	1.40	1.73	1.40	0.94
9000		0.83	1.40	1.58		0.67	1.18	1.50	1.18	0.79
9500		0.67	1.20	1.37		0.54	1.00	1.30	1.00	0.67
10000		0.55	1.03	1.19		0.44	0.85	1.14	0.85	0.58
10500		0.45	0.89	1.05			0.72	1.00	0.72	0.50
11000			0.77	0.92			0.61	0.88	0.61	0.43
11500			0.67	0.81			0.52	0.77	0.52	0.38
12000			0.58	0.71			0.44	0.68	0.44	0.33
12500			0.50	0.63				0.60		0.30

3 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

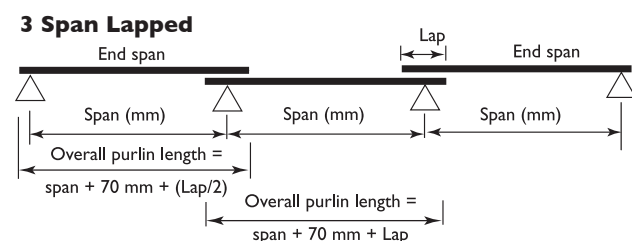
PERMALITE® Zed Three Spans Lapped

Three Span Lapped: AZ25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.41	14.41	14.41	14.41	15.17	15.17	15.17	15.17	10.81	100.75
2500	11.53	11.53	11.53	11.53	12.14	12.14	12.14	12.14	8.65	51.58
3000	9.61	9.61	9.61	9.61	10.11	10.11	10.11	10.11	7.21	29.85
3500	8.23	8.23	8.23	8.23	8.25	8.67	8.67	8.67	6.18	18.80
4000	6.65	7.21	7.21	7.21	5.32	7.58	7.58	7.58	5.40	12.59
4500	4.27	6.40	6.40	6.40	3.41	6.62	6.74	6.74	4.80	8.85
5000	2.80	5.32	5.32	5.32	2.24	5.01	5.85	5.85	4.32	6.45
5500	1.91	4.40	4.40	4.40	1.53	3.84	4.84	4.84	3.93	4.84
6000	1.35	3.70	3.70	3.70	1.08	2.98	3.93	4.06	3.60	3.73
6500	0.98	2.90	3.15	3.15	0.78	2.33	3.20	3.46	3.15	2.94
7000	0.73	2.27	2.72	2.72	0.58	1.83	2.63	2.99	2.63	2.35
7500	0.55	1.78	2.37	2.37	0.44	1.43	2.18	2.60	2.18	1.91
8000	0.43	1.39	2.08	2.08		1.12	1.82	2.22	1.82	1.57
8500		1.09	1.79	1.84		0.88	1.52	1.90	1.52	1.31
9000		0.87	1.52	1.64		0.70	1.28	1.64	1.28	1.11
9500		0.70	1.30	1.47		0.56	1.08	1.43	1.08	0.94
10000		0.57	1.12	1.31		0.46	0.91	1.24	0.91	0.81
10500		0.47	0.96	1.14			0.77	1.09	0.77	0.70
11000			0.83	1.00			0.65	0.95	0.65	0.61
11500			0.72	0.88			0.54	0.84	0.54	0.53
12000			0.62	0.77			0.46	0.74	0.46	0.47
12500			0.53	0.68				0.65		0.41

Three Span Lapped: AZ30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.43	14.43	14.43	14.43	15.19	15.19	15.19	15.19	10.82	183.80
2500	11.54	11.54	11.54	11.54	12.15	12.15	12.15	12.15	8.66	94.11
3000	9.62	9.62	9.62	9.62	10.12	10.12	10.12	10.12	7.21	54.46
3500	8.24	8.24	8.24	8.24	8.68	8.68	8.68	8.68	6.18	34.30
4000	7.21	7.21	7.21	7.21	7.59	7.59	7.59	7.59	5.41	22.98
4500	6.41	6.41	6.41	6.41	6.75	6.75	6.75	6.75	4.81	16.14
5000	5.77	5.77	5.77	5.77	6.07	6.07	6.07	6.07	4.33	11.76
5500	5.25	5.25	5.25	5.25	4.76	5.52	5.52	5.52	3.93	8.84
6000	4.39	4.72	4.72	4.72	3.51	5.06	5.06	5.06	3.61	6.81
6500	3.23	4.02	4.02	4.02	2.58	4.43	4.43	4.43	3.33	5.35
7000	2.40	3.47	3.47	3.47	1.92	3.82	3.82	3.82	3.09	4.29
7500	1.82	3.02	3.02	3.02	1.46	3.32	3.32	3.32	2.89	3.49
8000	1.41	2.66	2.66	2.66	1.12	2.85	2.92	2.92	2.66	2.87
8500	1.10	2.35	2.35	2.35	0.88	2.39	2.59	2.59	2.35	2.39
9000	0.88	2.10	2.10	2.10	0.70	2.01	2.31	2.31	2.10	2.02
9500	0.71	1.88	1.88	1.88	0.57	1.70	2.07	2.07	1.88	1.72
10000	0.58	1.70	1.70	1.70	0.46	1.44	1.87	1.87	1.70	1.47
10500	0.47	1.51	1.54	1.54		1.21	1.70	1.70	1.54	1.27
11000		1.27	1.40	1.40		1.03	1.55	1.55	1.40	1.11
11500		1.08	1.29	1.29		0.86	1.39	1.41	1.29	0.97
12000		0.91	1.18	1.18		0.73	1.23	1.30	1.18	0.85
12500		0.77	1.09	1.09		0.62	1.09	1.20	1.09	0.75



Three Span Lapped: AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.27	17.27	17.27	17.27	18.18	18.18	18.18	18.18	12.96	121.70
2500	13.82	13.82	13.82	13.82	14.55	14.55	14.55	14.55	10.36	62.31
3000	11.52	11.52	11.52	11.52	12.12	12.12	12.12	12.12	8.64	36.06
3500	9.87	9.87	9.87	9.87	9.99	10.39	10.39	10.39	7.40	22.71
4000	8.08	8.64	8.64	8.64	6.46	9.09	9.09	9.09	6.48	15.21
4500	5.20	7.68	7.68	7.68	4.16	7.98	8.08	8.08	5.76	10.68
5000	3.41	6.91	6.91	6.91	2.73	6.04	7.27	7.27	5.18	7.79
5500	2.33	5.77	6.06	6.06	1.86	4.64	5.89	6.53	4.71	5.85
6000	1.65	4.49	5.09	5.09	1.32	3.61	4.74	5.34	4.32	4.51
6500	1.20	3.51	4.34	4.34	0.96	2.82	3.86	4.42	3.86	3.55
7000	0.89	2.76	3.60	3.74	0.71	2.22	3.18	3.71	3.18	2.84
7500	0.67	2.17	3.02	3.26	0.54	1.74	2.63	3.14	2.63	2.31
8000	0.52	1.70	2.54	2.82	0.42	1.37	2.20	2.67	2.20	1.90
8500	0.41	1.33	2.16	2.42		1.07	1.84	2.30	1.84	1.59
9000		1.06	1.84	2.09		0.85	1.55	1.98	1.55	1.34
9500		0.85	1.58	1.81		0.69	1.31	1.72	1.31	1.14
10000		0.70	1.35	1.58		0.56	1.10	1.50	1.10	0.97
10500		0.57	1.17	1.38		0.46	0.93	1.31	0.93	0.84
11000		0.48	1.01	1.21			0.79	1.15	0.79	0.73
11500			0.87	1.06			0.66	1.01	0.66	0.64
12000			0.75	0.94			0.56	0.89	0.56	0.56
12500			0.65	0.83			0.48	0.79	0.48	0.50

Three Span Lapped: AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.30	17.30	17.30	17.30	18.21	18.21	18.21	18.21	12.97	220.32
2500	13.84	13.84	13.84	13.84	14.57	14.57	14.57	14.57	10.38	112.81
3000	11.53	11.53	11.53	11.53	12.14	12.14	12.14	12.14	8.65	65.28
3500	9.88	9.88	9.88	9.88	10.40	10.40	10.40	10.40	7.41	41.11
4000	8.65	8.65	8.65	8.65	9.10	9.10	9.10	9.10	6.49	27.54
4500	7.69	7.69	7.69	7.69	8.09	8.09	8.09	8.09	5.77	19.34
5000	6.92	6.92	6.92	6.92	7.28	7.28	7.28	7.28	5.19	14.10
5500	6.29	6.29	6.29	6.29	5.77	6.62	6.62	6.62	4.72	10.59
6000	5.34	5.77	5.77	5.77	4.27	6.07	6.07	6.07	4.32	8.16
6500	3.93	5.00	5.00	5.00	3.14	5.50	5.50	5.50	3.99	6.42
7000	2.92	4.31	4.31	4.31	2.34	4.74	4.74	4.74	3.71	5.14
7500	2.22	3.76	3.76	3.76	1.77	4.12	4.13	4.13	3.46	4.18
8000	1.71	3.30	3.30	3.30	1.37	3.44	3.63	3.63	3.24	3.44
8500	1.35	2.92	2.92	2.92	1.08	2.89	3.22	3.22	2.92	2.87
9000	1.07	2.61	2.61	2.61	0.86	2.43	2.87	2.87	2.61	2.42
9500	0.86	2.34	2.34	2.34	0.69	2.06	2.58	2.58	2.34	2.06
10000	0.70	2.11	2.11	2.11	0.56	1.74	2.32	2.32	2.11	1.76
10500	0.58	1.83	1.92	1.92	0.46	1.47	2.11	2.11	1.92	1.52
11000	0.48	1.55	1.75	1.75		1.25	1.91	1.92	1.75	1.32
11500	0.40	1.31	1.60	1.60		1.05	1.68	1.76	1.60	1.16
12000		1.10	1.47	1.47		0.89	1.49	1.61	1.47	1.02
12500		0.94	1.35	1.35		0.75	1.32	1.49	1.32	0.90

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Three Spans Lapped

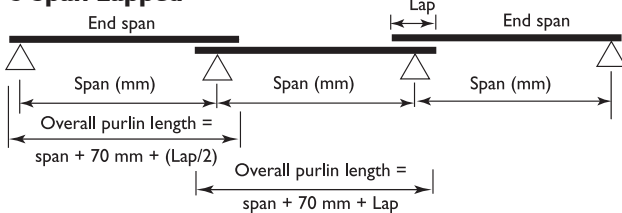
Three Span Lapped: AZ35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.31	17.31	17.31	17.31	18.22	18.22	18.22	18.22	12.98	338.96
2500	13.85	13.85	13.85	13.85	14.57	14.57	14.57	14.57	10.38	173.55
3000	11.54	11.54	11.54	11.54	12.15	12.15	12.15	12.15	8.65	100.43
3500	9.89	9.89	9.89	9.89	10.41	10.41	10.41	10.41	7.42	63.25
4000	8.65	8.65	8.65	8.65	9.11	9.11	9.11	9.11	6.49	42.37
4500	7.69	7.69	7.69	7.69	8.10	8.10	8.10	8.10	5.77	29.76
5000	6.92	6.92	6.92	6.92	7.29	7.29	7.29	7.29	5.19	21.69
5500	6.29	6.29	6.29	6.29	6.62	6.62	6.62	6.62	4.72	16.30
6000	5.77	5.77	5.77	5.77	6.07	6.07	6.07	6.07	4.33	12.55
6500	5.33	5.33	5.33	5.33	5.07	5.61	5.61	5.61	3.99	9.87
7000	4.84	4.95	4.95	4.95	3.87	5.21	5.21	5.21	3.71	7.91
7500	3.68	4.38	4.38	4.38	2.94	4.82	4.82	4.82	3.46	6.43
8000	2.84	3.85	3.85	3.85	2.27	4.24	4.24	4.24	3.25	5.30
8500	2.23	3.41	3.41	3.41	1.78	3.75	3.75	3.75	3.05	4.42
9000	1.78	3.04	3.04	3.04	1.42	3.35	3.35	3.35	2.88	3.72
9500	1.43	2.73	2.73	2.73	1.14	3.00	3.00	3.00	2.73	3.16
10000	1.17	2.47	2.47	2.47	0.93	2.64	2.71	2.71	2.47	2.71
10500	0.96	2.24	2.24	2.24	0.77	2.27	2.46	2.46	2.24	2.34
11000	0.80	2.04	2.04	2.04	0.64	1.95	2.24	2.24	2.04	2.04
11500	0.67	1.86	1.86	1.86	0.53	1.68	2.05	2.05	1.86	1.78
12000	0.56	1.71	1.71	1.71	0.45	1.45	1.88	1.88	1.71	1.57
12500	0.48	1.55	1.58	1.58		1.25	1.74	1.74	1.58	1.39

Three Span Lapped: AZ40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.31	17.31	17.31	17.31	18.22	18.22	18.22	18.22	12.98	465.40
2500	13.85	13.85	13.85	13.85	14.58	14.58	14.58	14.58	10.39	238.28
3000	11.54	11.54	11.54	11.54	12.15	12.15	12.15	12.15	8.66	137.90
3500	9.89	9.89	9.89	9.89	10.41	10.41	10.41	10.41	7.42	86.84
4000	8.66	8.66	8.66	8.66	9.11	9.11	9.11	9.11	6.49	58.17
4500	7.69	7.69	7.69	7.69	8.10	8.10	8.10	8.10	5.77	40.86
5000	6.93	6.93	6.93	6.93	7.29	7.29	7.29	7.29	5.19	29.79
5500	6.30	6.30	6.30	6.30	6.63	6.63	6.63	6.63	4.72	22.38
6000	5.77	5.77	5.77	5.77	6.07	6.07	6.07	6.07	4.33	17.24
6500	5.33	5.33	5.33	5.33	5.61	5.61	5.61	5.61	4.00	13.56
7000	4.95	4.95	4.95	4.95	4.47	5.21	5.21	5.21	3.71	10.86
7500	4.24	4.62	4.62	4.62	3.39	4.86	4.86	4.86	3.46	8.83
8000	3.28	4.33	4.33	4.33	2.62	4.56	4.56	4.56	3.25	7.27
8500	2.57	4.07	4.07	4.07	2.06	4.29	4.29	4.29	3.06	6.06
9000	2.05	3.64	3.64	3.64	1.64	4.00	4.00	4.00	2.89	5.11
9500	1.65	3.27	3.27	3.27	1.32	3.59	3.59	3.59	2.73	4.34
10000	1.34	2.95	2.95	2.95	1.07	3.09	3.24	3.24	2.60	3.72
10500	1.11	2.67	2.67	2.67	0.88	2.65	2.94	2.94	2.47	3.22
11000	0.92	2.44	2.44	2.44	0.73	2.28	2.68	2.68	2.36	2.80
11500	0.77	2.23	2.23	2.23	0.61	1.96	2.45	2.45	2.23	2.45
12000	0.65	2.05	2.05	2.05	0.52	1.68	2.25	2.25	2.05	2.16
12500	0.55	1.79	1.89	1.89	0.44	1.44	2.07	2.07	1.89	1.91

3 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Four Spans Lapped

Four Span Lapped: AZ15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.67	13.67	13.67	13.67	14.39	14.39	14.39	14.39	10.25	29.79
2500	9.46	10.94	10.94	10.94	9.24	11.51	11.51	11.51	8.20	15.25
3000	5.62	7.94	8.33	8.66	5.49	8.00	8.88	9.41	6.84	8.83
3500	3.43	5.55	5.89	6.18	3.35	5.49	6.24	6.71	5.86	5.56
4000	2.09	3.95	4.34	4.59	2.04	3.90	4.56	4.99	4.34	3.72
4500	1.31	2.88	3.29	3.51	1.27	2.85	3.43	3.82	3.29	2.62
5000	0.86	2.14	2.55	2.75	0.84	2.12	2.64	2.99	2.55	1.91
5500	0.59	1.61	2.02	2.20	0.57	1.59	2.06	2.39	2.02	1.43
6000	0.41	1.22	1.62	1.78	0.40	1.20	1.64	1.94	1.62	1.10
6500		0.92	1.31	1.47		0.91	1.31	1.60	1.31	0.87
7000		0.70	1.07	1.22		0.69	1.06	1.33	1.06	0.70
7500		0.53	0.89	1.02		0.52	0.86	1.11	0.86	0.57
8000		0.41	0.74	0.86		0.40	0.70	0.94	0.70	0.47
8500			0.61	0.73			0.57	0.80	0.57	0.39
9000			0.51	0.62			0.47	0.68	0.47	0.33
9500			0.43	0.53				0.58		0.28
10000				0.46				0.50		0.24
10500								0.43		0.21

Four Span Lapped: AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.38	16.38	16.38	16.38	17.24	17.24	17.24	17.24	12.28	35.64
2500	11.41	13.10	13.10	13.10	11.13	13.79	13.79	13.79	9.83	18.25
3000	6.80	9.53	10.00	10.39	6.63	9.62	10.67	11.29	8.19	10.56
3500	4.16	6.68	7.07	7.41	4.06	6.60	7.50	8.05	7.02	6.65
4000	2.55	4.76	5.21	5.51	2.49	4.70	5.48	5.98	5.21	4.46
4500	1.59	3.48	3.95	4.22	1.56	3.44	4.12	4.58	3.95	3.13
5000	1.05	2.59	3.07	3.31	1.02	2.56	3.17	3.60	3.07	2.28
5500	0.71	1.95	2.43	2.64	0.70	1.92	2.48	2.88	2.43	1.71
6000	0.50	1.48	1.95	2.15	0.49	1.46	1.97	2.34	1.95	1.32
6500		1.12	1.58	1.76		1.11	1.58	1.92	1.58	1.04
7000		0.85	1.30	1.47		0.84	1.28	1.60	1.28	0.83
7500		0.65	1.07	1.23		0.64	1.04	1.34	1.04	0.68
8000		0.50	0.89	1.04		0.49	0.85	1.13	0.85	0.56
8500			0.74	0.88			0.69	0.96	0.69	0.46
9000			0.62	0.75			0.57	0.82	0.57	0.39
9500			0.52	0.65			0.46	0.71	0.46	0.33
10000			0.44	0.56				0.61		0.29
10500				0.48				0.52		0.25
11000				0.41				0.45		0.21

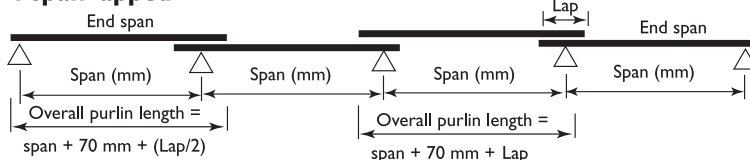
Four Span Lapped: AZ20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.69	13.69	13.69	13.69	14.41	14.41	14.41	14.41	10.27	64.92
2500	10.95	10.95	10.95	10.95	11.53	11.53	11.53	11.53	8.22	33.24
3000	9.13	9.13	9.13	9.13	9.61	9.61	9.61	9.61	6.85	19.24
3500	7.23	7.82	7.82	7.82	7.06	8.24	8.24	8.24	5.87	12.11
4000	4.80	6.42	6.42	6.42	4.68	7.06	7.06	7.06	5.13	8.12
4500	3.21	5.07	5.07	5.07	3.13	5.43	5.58	5.58	4.56	5.70
5000	2.13	4.11	4.11	4.11	2.08	4.13	4.52	4.52	4.11	4.16
5500	1.46	3.23	3.39	3.39	1.42	3.20	3.73	3.73	3.39	3.12
6000	1.03	2.53	2.85	2.85	1.00	2.50	3.10	3.14	2.85	2.41
6500	0.75	2.00	2.43	2.43	0.73	1.98	2.53	2.67	2.43	1.89
7000	0.56	1.59	2.04	2.10	0.54	1.57	2.08	2.31	2.04	1.51
7500	0.42	1.26	1.71	1.83	0.41	1.25	1.73	2.01	1.71	1.23
8000		1.01	1.44	1.60		0.99	1.44	1.76	1.44	1.01
8500		0.80	1.23	1.39		0.79	1.21	1.51	1.21	0.85
9000		0.64	1.05	1.20		0.63	1.02	1.31	1.02	0.71
9500		0.51	0.90	1.04		0.51	0.86	1.14	0.86	0.61
10000		0.42	0.77	0.91		0.41	0.73	0.99	0.73	0.52
10500			0.66	0.80			0.62	0.87	0.62	0.45
11000			0.57	0.70			0.52	0.76	0.52	0.39
11500			0.50	0.62			0.44	0.67	0.44	0.34
12000			0.43	0.54				0.59		0.30
12500				0.48				0.53		0.27

Four Span Lapped: AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.40	16.40	16.40	16.40	17.27	17.27	17.27	17.27	12.30	78.34
2500	13.12	13.12	13.12	13.12	13.81	13.81	13.81	13.81	9.84	40.11
3000	10.93	10.93	10.93	10.93	11.51	11.51	11.51	11.51	8.20	23.21
3500	8.77	9.37	9.37	9.37	8.56	9.87	9.87	9.87	7.03	14.62
4000	5.84	8.20	8.20	8.20	5.70	8.63	8.63	8.63	6.15	9.79
4500	3.92	6.63	6.81	6.81	3.83	6.55	7.49	7.49	5.47	6.88
5000	2.62	5.05	5.51	5.51	2.55	4.99	5.85	6.07	4.92	5.01
5500	1.79	3.91	4.45	4.56	1.75	3.87	4.64	5.01	4.45	3.77
6000	1.26	3.07	3.61	3.83	1.23	3.03	3.74	4.21	3.61	2.90
6500	0.92	2.43	2.97	3.22	0.89	2.40	3.05	3.51	2.97	2.28
7000	0.68	1.93	2.47	2.70	0.67	1.91	2.52	2.94	2.47	1.83
7500	0.52	1.54	2.07	2.29	0.50	1.52	2.09	2.49	2.07	1.49
8000		1.23	1.75	1.95		1.22	1.75	2.13	1.75	1.22
8500		0.98	1.48	1.68		0.97	1.47	1.83	1.47	1.02
9000		0.78	1.27	1.45		0.77	1.24	1.58	1.24	0.86
9500		0.63	1.09	1.26		0.62	1.05	1.37	1.05	0.73
10000		0.51	0.94	1.10		0.51	0.89	1.20	0.89	0.63
10500		0.42	0.81	0.96		0.42	0.75	1.05	0.75	0.54
11000			0.70	0.85			0.64	0.93	0.64	0.47
11500			0.60	0.75			0.54	0.82	0.54	0.41
12000			0.52	0.66			0.46	0.72	0.46	0.36
12500			0.45	0.58			0.64			0.32

4 span lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Four Spans Lapped

Four Span Lapped: AZ25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.69	13.69	13.69	13.69	14.41	14.41	14.41	14.41	10.27	109.68
2500	10.96	10.96	10.96	10.96	11.53	11.53	11.53	11.53	8.22	56.16
3000	9.13	9.13	9.13	9.13	9.61	9.61	9.61	9.61	6.85	32.50
3500	7.83	7.83	7.83	7.83	8.24	8.24	8.24	8.24	5.87	20.47
4000	6.27	6.85	6.85	6.85	6.12	7.21	7.21	7.21	5.14	13.71
4500	4.15	6.09	6.09	6.09	4.05	6.41	6.41	6.41	4.56	9.63
5000	2.74	5.48	5.48	5.48	2.67	5.47	5.77	5.77	4.11	7.02
5500	1.87	4.27	4.65	4.65	1.83	4.22	5.11	5.11	3.74	5.27
6000	1.32	3.33	3.90	3.90	1.29	3.30	4.12	4.29	3.42	4.06
6500	0.96	2.62	3.28	3.33	0.94	2.59	3.35	3.66	3.16	3.20
7000	0.71	2.07	2.72	2.87	0.70	2.05	2.76	3.15	2.72	2.56
7500	0.54	1.64	2.27	2.50	0.53	1.62	2.28	2.75	2.27	2.08
8000	0.42	1.30	1.91	2.15	0.41	1.29	1.90	2.35	1.90	1.71
8500		1.02	1.62	1.85		1.01	1.59	2.01	1.59	1.43
9000		0.82	1.38	1.59		0.81	1.34	1.74	1.34	1.20
9500		0.66	1.18	1.38		0.65	1.13	1.51	1.13	1.02
10000		0.54	1.01	1.20		0.53	0.95	1.31	0.95	0.88
10500		0.44	0.87	1.05		0.44	0.80	1.15	0.80	0.76
11000			0.75	0.92			0.67	1.01	0.67	0.66
11500			0.64	0.81			0.57	0.89	0.57	0.58
12000			0.56	0.71			0.48	0.78	0.48	0.51
12500			0.48	0.63			0.41	0.69	0.41	0.45

Four Span Lapped: AZ30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.71	13.71	13.71	13.71	14.43	14.43	14.43	14.43	10.28	200.10
2500	10.97	10.97	10.97	10.97	11.54	11.54	11.54	11.54	8.23	102.45
3000	9.14	9.14	9.14	9.14	9.62	9.62	9.62	9.62	6.85	59.29
3500	7.83	7.83	7.83	7.83	8.25	8.25	8.25	8.25	5.88	37.34
4000	6.85	6.85	6.85	6.85	7.22	7.22	7.22	7.22	5.14	25.01
4500	6.09	6.09	6.09	6.09	6.41	6.41	6.41	6.41	4.57	17.57
5000	5.48	5.48	5.48	5.48	5.77	5.77	5.77	5.77	4.11	12.81
5500	4.99	4.99	4.99	4.99	5.25	5.25	5.25	5.25	3.74	9.62
6000	4.18	4.57	4.57	4.57	4.08	4.81	4.81	4.81	3.43	7.41
6500	3.14	4.07	4.07	4.07	3.06	4.44	4.44	4.44	3.16	5.83
7000	2.35	3.60	3.60	3.60	2.29	3.96	3.96	3.96	2.94	4.67
7500	1.78	3.19	3.19	3.19	1.74	3.51	3.51	3.51	2.74	3.79
8000	1.38	2.81	2.81	2.81	1.34	3.09	3.09	3.09	2.57	3.13
8500	1.08	2.49	2.49	2.49	1.05	2.64	2.73	2.73	2.42	2.61
9000	0.86	2.22	2.22	2.22	0.84	2.23	2.44	2.44	2.22	2.20
9500	0.69	1.91	1.99	1.99	0.68	1.89	2.19	2.19	1.99	1.87
10000	0.56	1.63	1.80	1.80	0.55	1.61	1.98	1.98	1.80	1.60
10500	0.46	1.38	1.63	1.63	0.45	1.37	1.79	1.79	1.63	1.38
11000		1.18	1.48	1.48		1.16	1.63	1.63	1.48	1.20
11500		1.00	1.36	1.36		0.99	1.46	1.49	1.36	1.05
12000		0.85	1.25	1.25		0.84	1.29	1.37	1.25	0.93
12500		0.72	1.15	1.15		0.71	1.14	1.26	1.14	0.82

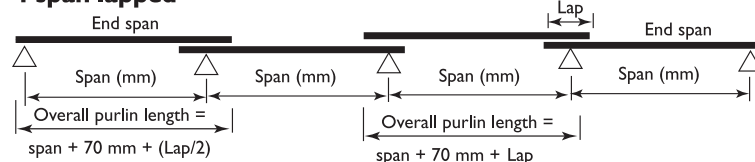
Four Span Lapped: AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.42	16.42	16.42	16.42	17.28	17.28	17.28	17.28	12.31	132.49
2500	13.13	13.13	13.13	13.13	13.82	13.82	13.82	13.82	9.85	67.84
3000	10.94	10.94	10.94	10.94	11.52	11.52	11.52	11.52	8.21	39.26
3500	9.38	9.38	9.38	9.38	9.87	9.87	9.87	9.87	7.04	24.72
4000	7.60	8.21	8.21	8.21	7.42	8.64	8.64	8.64	6.16	16.56
4500	5.05	7.30	7.30	7.30	4.93	7.68	7.68	7.68	5.47	11.63
5000	3.34	6.57	6.57	6.57	3.26	6.60	6.91	6.91	4.92	8.48
5500	2.28	5.16	5.93	5.97	2.23	5.10	6.17	6.28	4.48	6.37
6000	1.61	4.03	4.81	5.19	1.57	3.98	4.97	5.64	4.10	4.91
6500	1.17	3.17	3.95	4.30	1.14	3.14	4.04	4.67	3.79	3.86
7000	0.87	2.51	3.27	3.60	0.85	2.48	3.32	3.92	3.27	3.09
7500	0.66	2.00	2.74	3.04	0.64	1.97	2.75	3.31	2.74	2.51
8000	0.51	1.58	2.31	2.59	0.50	1.56	2.30	2.82	2.30	2.07
8500	0.40	1.25	1.96	2.23		1.24	1.92	2.43	1.92	1.73
9000		0.99	1.67	1.92		0.98	1.62	2.09	1.62	1.45
9500		0.80	1.43	1.67		0.79	1.36	1.82	1.36	1.24
10000		0.65	1.22	1.45		0.64	1.15	1.58	1.15	1.06
10500		0.54	1.05	1.27		0.53	0.97	1.39	0.97	0.92
11000		0.45	0.91	1.11		0.44	0.82	1.22	0.82	0.80
11500			0.78	0.98			0.69	1.07	0.69	0.70
12000			0.67	0.86			0.58	0.95	0.58	0.61
12500			0.58	0.76			0.49	0.83	0.49	0.54

Four Span Lapped: AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.44	16.44	16.44	16.44	17.30	17.30	17.30	17.30	12.33	239.86
2500	13.15	13.15	13.15	13.15	13.84	13.84	13.84	13.84	9.86	122.81
3000	10.96	10.96	10.96	10.96	11.53	11.53	11.53	11.53	8.22	71.07
3500	9.39	9.39	9.39	9.39	9.89	9.89	9.89	9.89	7.04	44.76
4000	8.22	8.22	8.22	8.22	8.65	8.65	8.65	8.65	6.16	29.98
4500	7.31	7.31	7.31	7.31	7.69	7.69	7.69	7.69	5.48	21.06
5000	6.58	6.58	6.58	6.58	6.92	6.92	6.92	6.92	4.93	15.35
5500	5.98	5.98	5.98	5.98	6.29	6.29	6.29	6.29	4.48	11.53
6000	5.07	5.48	5.48	5.48	4.95	5.77	5.77	5.77	4.11	8.88
6500	3.82	5.06	5.06	5.06	3.73	5.32	5.32	5.32	3.79	6.99
7000	2.86	4.55	4.55	4.55	2.79	4.94	4.94	4.94	3.52	5.59
7500	2.17	3.97	3.97	3.97	2.12	4.36	4.36	4.36	3.29	4.55
8000	1.68	3.49	3.49	3.49	1.64	3.78	3.84	3.84	3.08	3.75
8500	1.32	3.09	3.09	3.09	1.28	3.19	3.40	3.40	2.90	3.13
9000	1.05	2.73	2.76	2.76	1.02	2.70	3.03	3.03	2.74	2.63
9500	0.84	2.32	2.47	2.47	0.82	2.29	2.72	2.72	2.47	2.24
10000	0.69	1.97	2.23	2.23	0.67	1.95	2.46	2.46	2.23	1.92
10500	0.57	1.68	2.02	2.02	0.55	1.66	2.23	2.23	2.02	1.66
11000	0.47	1.43	1.84	1.84	0.46	1.41	2.00	2.03	1.84	1.44
11500		1.22	1.69	1.69		1.20	1.76	1.86	1.69	1.26
12000		1.04	1.55	1.55		1.02	1.56	1.71	1.55	1.11
12500		0.88	1.41	1.43		0.87	1.38	1.57	1.38	0.98

4 span lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Four Spans Lapped

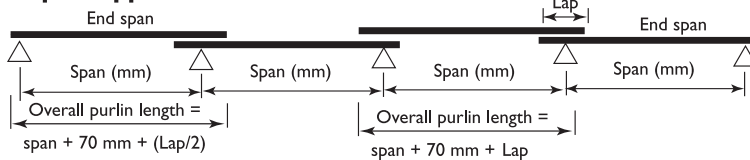
Four Span Lapped: AZ35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.45	16.45	16.45	16.45	17.31	17.31	17.31	17.31	12.34	369.01
2500	13.16	13.16	13.16	13.16	13.85	13.85	13.85	13.85	9.87	188.93
3000	10.96	10.96	10.96	10.96	11.54	11.54	11.54	11.54	8.22	109.34
3500	9.40	9.40	9.40	9.40	9.89	9.89	9.89	9.89	7.05	68.85
4000	8.22	8.22	8.22	8.22	8.66	8.66	8.66	8.66	6.17	46.13
4500	7.31	7.31	7.31	7.31	7.69	7.69	7.69	7.69	5.48	32.40
5000	6.58	6.58	6.58	6.58	6.93	6.93	6.93	6.93	4.93	23.62
5500	5.98	5.98	5.98	5.98	6.30	6.30	6.30	6.30	4.49	17.74
6000	5.48	5.48	5.48	5.48	5.77	5.77	5.77	5.77	4.11	13.67
6500	5.06	5.06	5.06	5.06	5.33	5.33	5.33	5.33	3.80	10.75
7000	4.65	4.70	4.70	4.70	4.53	4.95	4.95	4.95	3.52	8.61
7500	3.60	4.39	4.39	4.39	3.51	4.62	4.62	4.62	3.29	7.00
8000	2.78	4.07	4.07	4.07	2.72	4.33	4.33	4.33	3.08	5.77
8500	2.18	3.60	3.60	3.60	2.13	3.96	3.96	3.96	2.90	4.81
9000	1.74	3.22	3.22	3.22	1.70	3.54	3.54	3.54	2.74	4.05
9500	1.40	2.89	2.89	2.89	1.37	3.17	3.17	3.17	2.60	3.44
10000	1.14	2.60	2.60	2.60	1.11	2.86	2.86	2.86	2.47	2.95
10500	0.94	2.36	2.36	2.36	0.92	2.52	2.60	2.60	2.35	2.55
11000	0.78	2.15	2.15	2.15	0.76	2.18	2.37	2.37	2.15	2.22
11500	0.65	1.91	1.97	1.97	0.64	1.89	2.17	2.17	1.97	1.94
12000	0.55	1.66	1.81	1.81	0.54	1.64	1.99	1.99	1.81	1.71
12500	0.47	1.43	1.67	1.67	0.46	1.42	1.83	1.83	1.67	1.51

Four Span Lapped: AZ40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.45	16.45	16.45	16.45	17.32	17.32	17.32	17.32	12.34	506.66
2500	13.16	13.16	13.16	13.16	13.85	13.85	13.85	13.85	9.87	259.41
3000	10.97	10.97	10.97	10.97	11.55	11.55	11.55	11.55	8.23	150.12
3500	9.40	9.40	9.40	9.40	9.90	9.90	9.90	9.90	7.05	94.54
4000	8.23	8.23	8.23	8.23	8.66	8.66	8.66	8.66	6.17	63.33
4500	7.31	7.31	7.31	7.31	7.70	7.70	7.70	7.70	5.48	44.48
5000	6.58	6.58	6.58	6.58	6.93	6.93	6.93	6.93	4.94	32.43
5500	5.98	5.98	5.98	5.98	6.30	6.30	6.30	6.30	4.49	24.36
6000	5.48	5.48	5.48	5.48	5.77	5.77	5.77	5.77	4.11	18.77
6500	5.06	5.06	5.06	5.06	5.33	5.33	5.33	5.33	3.80	14.76
7000	4.70	4.70	4.70	4.70	4.95	4.95	4.95	4.95	3.53	11.82
7500	4.16	4.39	4.39	4.39	4.06	4.62	4.62	4.62	3.29	9.61
8000	3.21	4.11	4.11	4.11	3.13	4.33	4.33	4.33	3.09	7.92
8500	2.52	3.87	3.87	3.87	2.46	4.08	4.08	4.08	2.90	6.60
9000	2.00	3.62	3.62	3.62	1.96	3.85	3.85	3.85	2.74	5.56
9500	1.61	3.31	3.31	3.31	1.57	3.64	3.64	3.64	2.60	4.73
10000	1.31	3.03	3.03	3.03	1.28	3.33	3.33	3.33	2.47	4.05
10500	1.08	2.79	2.79	2.79	1.06	2.95	3.06	3.06	2.35	3.50
11000	0.90	2.57	2.57	2.57	0.88	2.55	2.82	2.82	2.24	3.05
11500	0.75	2.23	2.35	2.35	0.73	2.20	2.59	2.59	2.15	2.67
12000	0.63	1.93	2.16	2.16	0.62	1.90	2.38	2.38	2.06	2.35
12500	0.54	1.66	1.99	1.99	0.53	1.65	2.19	2.19	1.97	2.08

4 span lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Five Spans Lapped

Five Span Lapped: AZ15025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.87	13.87	13.87	13.87	14.61	14.61	14.61	14.61	10.41	29.03
2500	9.54	11.10	11.10	11.10	8.63	11.68	11.68	11.68	8.33	14.86
3000	5.58	8.18	8.61	8.79	5.04	7.75	8.71	9.15	6.94	8.60
3500	3.32	5.72	6.10	6.36	3.00	5.31	6.12	6.53	5.95	5.42
4000	1.98	4.13	4.49	4.72	1.79	3.78	4.47	4.85	4.47	3.63
4500	1.23	3.01	3.41	3.61	1.12	2.75	3.37	3.71	3.37	2.55
5000	0.81	2.23	2.65	2.83	0.73	2.04	2.59	2.91	2.59	1.86
5500	0.55	1.67	2.10	2.26	0.50	1.53	2.03	2.33	2.03	1.40
6000		1.26	1.69	1.83		1.16	1.61	1.89	1.61	1.08
6500		0.96	1.37	1.51		0.87	1.29	1.55	1.29	0.85
7000		0.72	1.12	1.25		0.66	1.04	1.29	1.04	0.68
7500		0.55	0.93	1.05		0.50	0.85	1.08	0.85	0.55
8000		0.42	0.77	0.88			0.69	0.91	0.69	0.45
8500			0.65	0.75			0.57	0.78	0.57	0.38
9000			0.54	0.64			0.46	0.66	0.46	0.32
9500			0.45	0.55				0.57		0.27
10000				0.47				0.49		0.23
10500				0.41				0.42		0.20

Five Span Lapped: AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.62	16.62	16.62	16.62	17.49	17.49	17.49	17.49	12.46	34.73
2500	11.51	13.30	13.30	13.30	10.41	13.99	13.99	13.99	9.97	17.78
3000	6.75	9.82	10.34	10.69	6.10	9.32	10.46	10.98	8.31	10.29
3500	4.04	6.88	7.32	7.63	3.65	6.39	7.35	7.84	7.12	6.48
4000	2.41	4.97	5.40	5.66	2.18	4.55	5.38	5.82	5.38	4.34
4500	1.50	3.63	4.10	4.34	1.36	3.32	4.05	4.46	4.05	3.05
5000	0.99	2.69	3.19	3.40	0.89	2.47	3.12	3.50	3.12	2.22
5500	0.67	2.03	2.52	2.72	0.61	1.85	2.44	2.80	2.44	1.67
6000	0.48	1.53	2.03	2.21	0.43	1.40	1.94	2.27	1.94	1.29
6500		1.16	1.65	1.81		1.06	1.56	1.87	1.56	1.01
7000		0.88	1.35	1.51		0.80	1.26	1.55	1.26	0.81
7500		0.67	1.12	1.26		0.61	1.03	1.30	1.03	0.66
8000		0.51	0.93	1.07		0.47	0.84	1.10	0.84	0.54
8500		0.40	0.78	0.91			0.69	0.94	0.69	0.45
9000			0.65	0.77			0.56	0.80	0.56	0.38
9500			0.55	0.66			0.46	0.69	0.46	0.32
10000			0.46	0.57				0.59		0.28
10500				0.49				0.51		0.24
11000				0.42				0.44		0.21

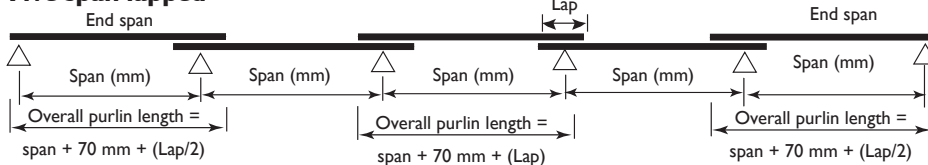
Five Span Lapped: AZ20025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.89	13.89	13.89	13.89	14.63	14.63	14.63	14.63	10.42	63.27
2500	11.12	11.12	11.12	11.12	11.70	11.70	11.70	11.70	8.34	32.40
3000	9.26	9.26	9.26	9.26	9.75	9.75	9.75	9.75	6.95	18.75
3500	7.21	7.94	7.94	7.94	6.52	8.36	8.36	8.36	5.95	11.81
4000	4.70	6.24	6.24	6.24	4.25	6.87	6.87	6.87	5.21	7.91
4500	3.07	4.93	4.93	4.93	2.77	5.25	5.42	5.42	4.63	5.56
5000	2.01	3.99	3.99	3.99	1.82	3.99	4.39	4.39	3.99	4.05
5500	1.38	3.30	3.30	3.30	1.24	3.09	3.63	3.63	3.30	3.04
6000	0.97	2.64	2.77	2.77	0.88	2.41	3.05	3.05	2.77	2.34
6500	0.71	2.08	2.36	2.36	0.64	1.90	2.48	2.60	2.36	1.84
7000	0.52	1.65	2.04	2.04	0.47	1.51	2.05	2.24	2.04	1.48
7500		1.31	1.78	1.78		1.20	1.70	1.95	1.70	1.20
8000		1.04	1.51	1.56		0.95	1.42	1.72	1.42	0.99
8500		0.82	1.28	1.38		0.75	1.19	1.47	1.19	0.82
9000		0.66	1.10	1.23		0.60	1.01	1.27	1.01	0.69
9500		0.53	0.94	1.07		0.48	0.85	1.11	0.85	0.59
10000		0.43	0.81	0.93			0.72	0.97	0.72	0.51
10500			0.70	0.82			0.61	0.85	0.61	0.44
11000			0.61	0.72			0.52	0.74	0.52	0.38
11500			0.52	0.63			0.44	0.66	0.44	0.33
12000			0.45	0.56				0.58		0.29
12500				0.49				0.51		0.26

Five Span Lapped: AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.64	16.64	16.64	16.64	17.52	17.52	17.52	17.52	12.48	76.35
2500	13.32	13.32	13.32	13.32	14.02	14.02	14.02	14.02	9.99	39.09
3000	11.10	11.10	11.10	11.10	11.68	11.68	11.68	11.68	8.32	22.62
3500	8.75	9.51	9.51	9.51	7.91	10.01	10.01	10.01	7.13	14.25
4000	5.73	8.32	8.32	8.32	5.18	8.50	8.76	8.76	6.24	9.54
4500	3.76	6.62	6.62	6.62	3.40	6.34	7.28	7.28	5.55	6.70
5000	2.47	5.27	5.36	5.36	2.23	4.83	5.74	5.90	4.99	4.89
5500	1.69	4.08	4.43	4.43	1.53	3.74	4.56	4.88	4.43	3.67
6000	1.19	3.20	3.72	3.72	1.08	2.93	3.68	4.10	3.68	2.83
6500	0.87	2.52	3.09	3.17	0.78	2.31	3.00	3.41	3.00	2.22
7000	0.64	2.01	2.57	2.74	0.58	1.84	2.47	2.86	2.47	1.78
7500	0.49	1.60	2.16	2.35	0.44	1.46	2.05	2.42	2.05	1.45
8000		1.27	1.82	2.01		1.16	1.72	2.07	1.72	1.19
8500		1.01	1.55	1.72		0.93	1.45	1.78	1.45	1.00
9000		0.80	1.33	1.49		0.74	1.22	1.54	1.22	0.84
9500		0.65	1.14	1.29		0.59	1.03	1.34	1.03	0.71
10000		0.53	0.98	1.13		0.48	0.88	1.17	0.88	0.61
10500		0.43	0.85	0.99			0.74	1.02	0.74	0.53
11000			0.74	0.87			0.63	0.90	0.63	0.46
11500			0.64	0.77			0.54	0.79	0.54	0.40
12000			0.55	0.68			0.45	0.70	0.45	0.35
12500			0.48	0.60				0.62		0.31

Five span lapped



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Five Spans Lapped

Five Span Lapped: AZ25025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.90	13.90	13.90	13.90	14.63	14.63	14.63	14.63	10.42	106.89
2500	11.12	11.12	11.12	11.12	11.70	11.70	11.70	11.70	8.34	54.73
3000	9.26	9.26	9.26	9.26	9.75	9.75	9.75	9.75	6.95	31.67
3500	7.94	7.94	7.94	7.94	8.36	8.36	8.36	8.36	5.96	19.95
4000	6.12	6.95	6.95	6.95	5.53	7.31	7.31	7.31	5.21	13.36
4500	3.94	6.18	6.18	6.18	3.56	6.50	6.50	6.50	4.63	9.38
5000	2.59	5.47	5.47	5.47	2.34	5.29	5.85	5.85	4.17	6.84
5500	1.77	4.46	4.52	4.52	1.60	4.08	4.97	4.97	3.79	5.14
6000	1.25	3.47	3.80	3.80	1.13	3.18	4.05	4.18	3.47	3.96
6500	0.91	2.73	3.23	3.23	0.82	2.50	3.30	3.56	3.21	3.11
7000	0.67	2.15	2.79	2.79	0.61	1.97	2.71	3.07	2.71	2.49
7500	0.51	1.70	2.37	2.43	0.46	1.56	2.25	2.67	2.25	2.03
8000		1.34	2.00	2.14		1.23	1.87	2.28	1.87	1.67
8500		1.06	1.70	1.89		0.97	1.57	1.96	1.57	1.39
9000		0.84	1.45	1.64		0.77	1.32	1.69	1.32	1.17
9500		0.68	1.24	1.42		0.62	1.11	1.47	1.11	1.00
10000		0.55	1.07	1.24		0.51	0.94	1.28	0.94	0.86
10500		0.45	0.92	1.08		0.42	0.79	1.12	0.79	0.74
11000			0.79	0.95			0.67	0.98	0.67	0.64
11500			0.68	0.83			0.56	0.86	0.56	0.56
12000			0.59	0.73			0.47	0.76	0.47	0.50
12500			0.51	0.65			0.40	0.67	0.40	0.44

Five Span Lapped: AZ30025 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.91	13.91	13.91	13.91	14.64	14.64	14.64	14.64	10.43	195.01
2500	11.13	11.13	11.13	11.13	11.72	11.72	11.72	11.72	8.35	99.85
3000	9.27	9.27	9.27	9.27	9.76	9.76	9.76	9.76	6.96	57.78
3500	7.95	7.95	7.95	7.95	8.37	8.37	8.37	8.37	5.96	36.39
4000	6.96	6.96	6.96	6.96	7.32	7.32	7.32	7.32	5.22	24.38
4500	6.18	6.18	6.18	6.18	6.51	6.51	6.51	6.51	4.64	17.12
5000	5.56	5.56	5.56	5.56	5.86	5.86	5.86	5.86	4.17	12.48
5500	5.06	5.06	5.06	5.06	4.94	5.33	5.33	5.33	3.79	9.38
6000	4.05	4.64	4.64	4.64	3.66	4.88	4.88	4.88	3.48	7.22
6500	2.98	4.13	4.13	4.13	2.70	4.51	4.51	4.51	3.21	5.68
7000	2.22	3.56	3.56	3.56	2.00	3.92	3.92	3.92	2.98	4.55
7500	1.68	3.10	3.10	3.10	1.52	3.42	3.42	3.42	2.78	3.70
8000	1.30	2.73	2.73	2.73	1.17	3.00	3.00	3.00	2.61	3.05
8500	1.02	2.42	2.42	2.42	0.92	2.54	2.66	2.66	2.42	2.54
9000	0.81	2.16	2.16	2.16	0.73	2.15	2.37	2.37	2.16	2.14
9500	0.65	1.94	1.94	1.94	0.59	1.82	2.13	2.13	1.94	1.82
10000	0.53	1.69	1.75	1.75	0.48	1.55	1.92	1.92	1.75	1.56
10500	0.44	1.44	1.58	1.58		1.31	1.74	1.74	1.58	1.35
11000		1.22	1.44	1.44		1.12	1.59	1.59	1.44	1.17
11500		1.04	1.32	1.32		0.95	1.44	1.45	1.32	1.03
12000		0.88	1.21	1.21		0.80	1.27	1.33	1.21	0.90
12500		0.74	1.12	1.12		0.68	1.12	1.23	1.12	0.80

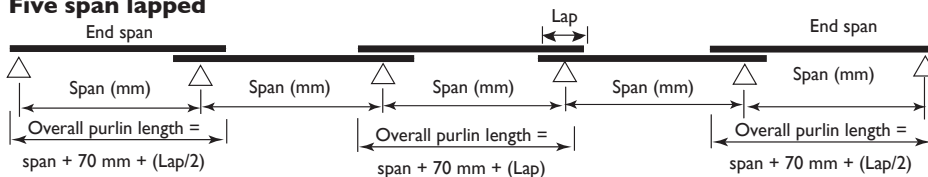
Five Span Lapped: AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.66	16.66	16.66	16.66	17.53	17.53	17.53	17.53	12.49	129.12
2500	13.33	13.33	13.33	13.33	14.03	14.03	14.03	14.03	9.99	66.11
3000	11.11	11.11	11.11	11.11	11.69	11.69	11.69	11.69	8.33	38.26
3500	9.52	9.52	9.52	9.52	10.02	10.02	10.02	10.02	7.14	24.09
4000	7.43	8.33	8.33	8.33	6.71	8.77	8.77	8.77	6.25	16.14
4500	4.81	7.40	7.40	7.40	4.35	7.79	7.79	7.79	5.55	11.34
5000	3.15	6.66	6.66	6.66	2.85	6.38	7.01	7.01	5.00	8.26
5500	2.15	5.38	6.06	6.06	1.95	4.92	6.06	6.38	4.54	6.21
6000	1.52	4.20	4.99	5.23	1.37	3.84	4.88	5.49	4.16	4.78
6500	1.10	3.30	4.10	4.42	1.00	3.02	3.97	4.55	3.84	3.76
7000	0.82	2.61	3.41	3.70	0.74	2.39	3.27	3.81	3.27	3.01
7500	0.62	2.07	2.86	3.13	0.56	1.89	2.71	3.22	2.71	2.45
8000	0.48	1.64	2.41	2.67	0.44	1.50	2.26	2.75	2.26	2.02
8500		1.29	2.05	2.29		1.18	1.90	2.36	1.90	1.68
9000		1.03	1.75	1.97		0.94	1.60	2.04	1.60	1.42
9500		0.83	1.50	1.71		0.76	1.35	1.77	1.35	1.21
10000		0.67	1.29	1.49		0.62	1.14	1.54	1.14	1.03
10500		0.55	1.11	1.30		0.51	0.96	1.35	0.96	0.89
11000		0.46	0.96	1.14		0.42	0.81	1.19	0.81	0.78
11500			0.83	1.01			0.69	1.04	0.69	0.68
12000			0.72	0.89			0.58	0.92	0.58	0.60
12500			0.62	0.78			0.49	0.81	0.49	0.53

Five Span Lapped: AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.68	16.68	16.68	16.68	17.56	17.56	17.56	17.56	12.51	233.76
2500	13.34	13.34	13.34	13.34	14.05	14.05	14.05	14.05	10.01	119.69
3000	11.12	11.12	11.12	11.12	11.71	11.71	11.71	11.71	8.34	69.26
3500	9.53	9.53	9.53	9.53	10.03	10.03	10.03	10.03	7.15	43.62
4000	8.34	8.34	8.34	8.34	8.78	8.78	8.78	8.78	6.26	29.22
4500	7.41	7.41	7.41	7.41	7.80	7.80	7.80	7.80	5.56	20.52
5000	6.67	6.67	6.67	6.67	7.02	7.02	7.02	7.02	5.00	14.96
5500	6.07	6.07	6.07	6.07	5.99	6.38	6.38	6.38	4.55	11.24
6000	4.92	5.56	5.56	5.56	4.45	5.85	5.85	5.85	4.17	8.66
6500	3.64	5.13	5.13	5.13	3.29	5.40	5.40	5.40	3.85	6.81
7000	2.70	4.43	4.43	4.43	2.44	4.87	4.87	4.87	3.57	5.45
7500	2.05	3.86	3.86	3.86	1.85	4.24	4.24	4.24	3.34	4.43
8000	1.58	3.39	3.39	3.39	1.43	3.65	3.73	3.73	3.13	3.65
8500	1.24	3.00	3.00	3.00	1.12	3.08	3.31	3.31	2.94	3.05
9000	0.99	2.68	2.68	2.68	0.89	2.60	2.95	2.95	2.68	2.57
9500	0.80	2.41	2.41	2.41	0.72	2.20	2.65	2.65	2.41	2.18
10000	0.65	2.05	2.17	2.17	0.59	1.87	2.39	2.39	2.17	1.87
10500	0.53	1.74	1.97	1.97	0.48	1.59	2.17	2.17	1.97	1.62
11000	0.44	1.48	1.79	1.79	0.40	1.36	1.97	1.97	1.79	1.41
11500		1.26	1.64	1.64		1.15	1.73	1.81	1.64	1.23
12000		1.07	1.51	1.51		0.98	1.53	1.66	1.51	1.08
12500		0.91	1.39	1.39		0.83	1.36	1.53	1.36	0.96

Five span lapped



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Five Spans Lapped

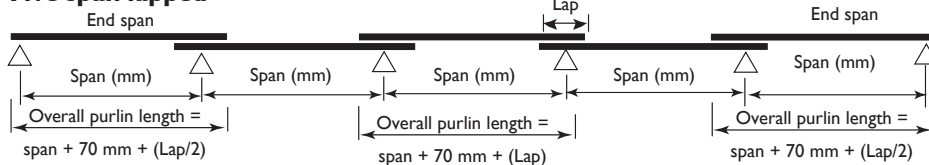
Five Span Lapped: AZ35030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.69	16.69	16.69	16.69	17.57	17.57	17.57	17.57	12.52	359.63
2500	13.35	13.35	13.35	13.35	14.05	14.05	14.05	14.05	10.01	184.13
3000	11.13	11.13	11.13	11.13	11.71	11.71	11.71	11.71	8.35	106.56
3500	9.54	9.54	9.54	9.54	10.04	10.04	10.04	10.04	7.15	67.10
4000	8.35	8.35	8.35	8.35	8.78	8.78	8.78	8.78	6.26	44.95
4500	7.42	7.42	7.42	7.42	7.81	7.81	7.81	7.81	5.56	31.57
5000	6.68	6.68	6.68	6.68	7.03	7.03	7.03	7.03	5.01	23.02
5500	6.07	6.07	6.07	6.07	6.39	6.39	6.39	6.39	4.55	17.29
6000	5.56	5.56	5.56	5.56	5.86	5.86	5.86	5.86	4.17	13.32
6500	5.14	5.14	5.14	5.14	5.28	5.41	5.41	5.41	3.85	10.48
7000	4.47	4.77	4.77	4.77	4.04	5.02	5.02	5.02	3.58	8.39
7500	3.40	4.45	4.45	4.45	3.08	4.69	4.69	4.69	3.34	6.82
8000	2.63	3.96	3.96	3.96	2.38	4.35	4.35	4.35	3.13	5.62
8500	2.06	3.51	3.51	3.51	1.86	3.86	3.86	3.86	2.95	4.69
9000	1.64	3.13	3.13	3.13	1.48	3.44	3.44	3.44	2.78	3.95
9500	1.32	2.81	2.81	2.81	1.19	3.09	3.09	3.09	2.64	3.36
10000	1.08	2.53	2.53	2.53	0.97	2.79	2.79	2.79	2.50	2.88
10500	0.89	2.30	2.30	2.30	0.80	2.43	2.53	2.53	2.30	2.49
11000	0.74	2.09	2.09	2.09	0.66	2.10	2.30	2.30	2.09	2.16
11500	0.62	1.92	1.92	1.92	0.56	1.81	2.11	2.11	1.92	1.89
12000	0.52	1.72	1.76	1.76	0.47	1.57	1.94	1.94	1.76	1.67
12500	0.44	1.48	1.62	1.62		1.36	1.78	1.78	1.62	1.47

Five Span Lapped: AZ40030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.70	16.70	16.70	16.70	17.57	17.57	17.57	17.57	12.52	493.78
2500	13.36	13.36	13.36	13.36	14.06	14.06	14.06	14.06	10.02	252.82
3000	11.13	11.13	11.13	11.13	11.72	11.72	11.72	11.72	8.35	146.31
3500	9.54	9.54	9.54	9.54	10.04	10.04	10.04	10.04	7.16	92.13
4000	8.35	8.35	8.35	8.35	8.79	8.79	8.79	8.79	6.26	61.72
4500	7.42	7.42	7.42	7.42	7.81	7.81	7.81	7.81	5.57	43.35
5000	6.68	6.68	6.68	6.68	7.03	7.03	7.03	7.03	5.01	31.60
5500	6.07	6.07	6.07	6.07	6.39	6.39	6.39	6.39	4.55	23.74
6000	5.57	5.57	5.57	5.57	5.86	5.86	5.86	5.86	4.17	18.29
6500	5.14	5.14	5.14	5.14	5.41	5.41	5.41	5.41	3.85	14.38
7000	4.77	4.77	4.77	4.77	4.67	5.02	5.02	5.02	3.58	11.52
7500	3.92	4.45	4.45	4.45	3.55	4.69	4.69	4.69	3.34	9.36
8000	3.03	4.17	4.17	4.17	2.74	4.39	4.39	4.39	3.13	7.72
8500	2.38	3.93	3.93	3.93	2.15	4.14	4.14	4.14	2.95	6.43
9000	1.89	3.71	3.71	3.71	1.71	3.91	3.91	3.91	2.78	5.42
9500	1.52	3.35	3.35	3.35	1.38	3.69	3.69	3.69	2.64	4.61
10000	1.24	3.03	3.03	3.03	1.12	3.30	3.33	3.33	2.50	3.95
10500	1.02	2.75	2.75	2.75	0.92	2.84	3.02	3.02	2.39	3.41
11000	0.85	2.50	2.50	2.50	0.77	2.45	2.75	2.75	2.28	2.97
11500	0.71	2.29	2.29	2.29	0.64	2.12	2.52	2.52	2.18	2.60
12000	0.60	2.00	2.10	2.10	0.54	1.83	2.31	2.31	2.09	2.29
12500	0.51	1.72	1.94	1.94	0.46	1.58	2.13	2.13	1.94	2.02

Five span lapped



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Four Spans Lapped Mixed

Four Span Lapped Mixed: AZ15025 / AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.10	15.10	15.10	15.10	15.90	15.90	15.90	15.90	11.33	34.99
2500	10.05	12.08	12.08	12.08	10.90	12.72	12.72	12.72	9.06	17.92
3000	6.27	8.18	8.58	8.92	6.47	9.46	10.38	10.38	7.55	10.37
3500	4.02	5.72	6.07	6.36	3.95	6.49	7.42	7.63	6.07	6.53
4000	2.45	4.17	4.47	4.73	2.41	4.62	5.43	5.84	4.47	4.37
4500	1.53	3.12	3.39	3.62	1.50	3.37	4.09	4.52	3.39	3.07
5000	1.00	2.39	2.63	2.84	0.99	2.51	3.14	3.55	2.63	2.24
5500	0.69	1.86	2.08	2.27	0.67	1.88	2.46	2.84	2.08	1.68
6000	0.48	1.43	1.67	1.84	0.48	1.43	1.96	2.30	1.67	1.30
6500		1.09	1.35	1.51		1.08	1.57	1.89	1.35	1.02
7000		0.82	1.11	1.26		0.82	1.27	1.58	1.11	0.82
7500		0.62	0.91	1.05		0.62	1.03	1.32	0.91	0.66
8000		0.48	0.76	0.89		0.48	0.84	1.12	0.76	0.55
8500			0.63	0.75			0.69	0.95	0.63	0.46
9000			0.53	0.64			0.57	0.81	0.53	0.38
9500			0.44	0.55			0.46	0.70	0.44	0.33
10000				0.47				0.60		0.28
10500				0.41				0.52		0.24
11000								0.45		0.21

Four Span Lapped Mixed: AZ20025 / AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.12	15.12	15.12	15.12	15.92	15.92	15.92	15.92	11.34	76.92
2500	12.10	12.10	12.10	12.10	12.74	12.74	12.74	12.74	9.08	39.38
3000	10.08	10.08	10.08	10.08	10.61	10.61	10.61	10.61	7.56	22.79
3500	7.96	8.64	8.64	8.64	8.36	9.10	9.10	9.10	6.48	14.35
4000	5.55	6.70	6.70	6.70	5.55	7.37	7.37	7.37	5.67	9.62
4500	3.77	5.29	5.29	5.29	3.71	5.82	5.82	5.82	5.04	6.75
5000	2.51	4.29	4.29	4.29	2.47	4.72	4.72	4.72	4.29	4.92
5500	1.71	3.50	3.54	3.54	1.69	3.79	3.90	3.90	3.54	3.70
6000	1.21	2.81	2.98	2.98	1.19	2.97	3.28	3.28	2.98	2.85
6500	0.88	2.28	2.54	2.54	0.86	2.35	2.79	2.79	2.54	2.24
7000	0.65	1.87	2.11	2.19	0.64	1.87	2.41	2.41	2.11	1.79
7500	0.50	1.49	1.77	1.91	0.49	1.49	2.07	2.10	1.77	1.46
8000		1.19	1.49	1.67		1.19	1.73	1.84	1.49	1.20
8500		0.95	1.27	1.43		0.94	1.46	1.63	1.27	1.00
9000		0.75	1.08	1.24		0.75	1.23	1.46	1.08	0.84
9500		0.61	0.93	1.08		0.60	1.04	1.31	0.93	0.72
10000		0.49	0.80	0.94		0.49	0.88	1.18	0.80	0.62
10500		0.41	0.69	0.82		0.41	0.75	1.04	0.69	0.53
11000			0.59	0.72			0.63	0.91	0.59	0.46
11500			0.51	0.64			0.54	0.80	0.51	0.41
12000			0.44	0.56			0.45	0.71	0.44	0.36
12500				0.50			0.63			0.32

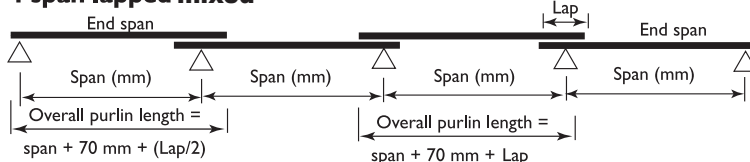
Four Span Lapped Mixed: AZ25025 / AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.13	15.13	15.13	15.13	15.93	15.93	15.93	15.93	11.35	130.10
2500	12.11	12.11	12.11	12.11	12.74	12.74	12.74	12.74	9.08	66.61
3000	10.09	10.09	10.09	10.09	10.62	10.62	10.62	10.62	7.57	38.55
3500	8.65	8.65	8.65	8.65	9.10	9.10	9.10	9.10	6.49	24.27
4000	7.33	7.57	7.57	7.57	7.22	7.96	7.96	7.96	5.67	16.26
4500	4.85	6.73	6.73	6.73	4.77	7.08	7.08	7.08	5.04	11.42
5000	3.20	5.67	5.67	5.67	3.15	6.23	6.23	6.23	4.54	8.33
5500	2.19	4.66	4.80	4.80	2.15	5.00	5.28	5.28	4.13	6.26
6000	1.54	3.73	4.08	4.08	1.52	3.91	4.48	4.48	3.78	4.82
6500	1.12	3.02	3.38	3.47	1.10	3.07	3.82	3.82	3.38	3.79
7000	0.83	2.44	2.80	2.99	0.82	2.43	3.29	3.29	2.80	3.03
7500	0.63	1.94	2.34	2.61	0.62	1.93	2.73	2.87	2.34	2.47
8000	0.49	1.53	1.97	2.22	0.48	1.53	2.28	2.52	1.97	2.03
8500		1.21	1.67	1.90		1.20	1.91	2.23	1.67	1.70
9000		0.96	1.43	1.64		0.96	1.61	1.99	1.43	1.43
9500		0.77	1.22	1.43		0.77	1.36	1.79	1.22	1.21
10000		0.63	1.05	1.24		0.63	1.15	1.56	1.05	1.04
10500		0.52	0.90	1.09		0.52	0.97	1.37	0.90	0.90
11000		0.43	0.77	0.95		0.43	0.82	1.20	0.77	0.78
11500			0.67	0.84			0.69	1.06	0.67	0.68
12000			0.57	0.74			0.58	0.93	0.57	0.60
12500			0.49	0.65			0.49	0.83	0.49	0.53

Four Span Lapped Mixed: AZ30025 / AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.15	15.15	15.15	15.15	15.95	15.95	15.95	15.95	11.36	235.52
2500	12.12	12.12	12.12	12.12	12.76	12.76	12.76	12.76	9.09	120.59
3000	10.10	10.10	10.10	10.10	10.63	10.63	10.63	10.63	7.58	69.79
3500	8.66	8.66	8.66	8.66	9.11	9.11	9.11	9.11	6.49	43.95
4000	7.58	7.58	7.58	7.58	7.97	7.97	7.97	7.97	5.68	29.44
4500	6.73	6.73	6.73	6.73	7.09	7.09	7.09	7.09	5.05	20.68
5000	6.06	6.06	6.06	6.06	6.38	6.38	6.38	6.38	4.55	15.07
5500	5.44	5.44	5.44	5.44	5.80	5.80	5.80	5.80	4.13	11.33
6000	4.74	4.74	4.74	4.74	4.81	5.22	5.22	5.22	3.79	8.72
6500	3.67	4.16	4.16	4.16	3.61	4.58	4.58	4.58	3.50	6.86
7000	2.74	3.68	3.68	3.68	2.70	4.05	4.05	4.05	3.25	5.49
7500	2.08	3.27	3.27	3.27	2.05	3.60	3.60	3.60	3.03	4.47
8000	1.61	2.93	2.93	2.93	1.58	3.22	3.22	3.22	2.84	3.68
8500	1.26	2.59	2.59	2.59	1.24	2.85	2.85	2.85	2.59	3.07
9000	1.00	2.31	2.31	2.31	0.99	2.55	2.55	2.55	2.31	2.59
9500	0.81	2.08	2.08	2.08	0.80	2.24	2.29	2.29	2.08	2.20
10000	0.66	1.88	1.88	1.88	0.65	1.91	2.06	2.06	1.88	1.88
10500	0.54	1.63	1.70	1.70	0.53	1.62	1.87	1.87	1.70	1.63
11000	0.45	1.39	1.55	1.55	0.44	1.38	1.70	1.70	1.55	1.42
11500		1.18	1.42	1.42		1.17	1.56	1.56	1.42	1.24
12000		1.00	1.30	1.30		1.00	1.43	1.43	1.30	1.09
12500		0.85	1.20	1.20		0.85	1.32	1.32	1.20	0.97

4 span lapped mixed



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Zed Five Spans Lapped Mixed

Five Span Lapped Mixed: AZ15025 / AZ15030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.33	15.33	15.33	15.33	16.13	16.13	16.13	16.13	11.50	34.11
2500	10.51	12.26	12.26	12.26	10.57	12.91	12.91	12.91	9.20	17.46
3000	6.60	8.43	8.89	9.19	6.23	9.21	10.41	10.70	7.66	10.11
3500	4.02	5.90	6.30	6.55	3.77	6.31	7.32	7.83	6.30	6.36
4000	2.42	4.30	4.64	4.87	2.27	4.48	5.35	5.82	4.64	4.26
4500	1.51	3.22	3.53	3.73	1.41	3.26	4.03	4.46	3.53	2.99
5000	0.99	2.47	2.74	2.92	0.93	2.42	3.10	3.50	2.74	2.18
5500	0.68	1.92	2.17	2.33	0.63	1.81	2.43	2.80	2.17	1.64
6000	0.48	1.45	1.74	1.89	0.45	1.37	1.93	2.27	1.74	1.26
6500		1.10	1.42	1.56		1.03	1.55	1.87	1.42	0.99
7000		0.82	1.16	1.29		0.78	1.25	1.55	1.16	0.80
7500		0.62	0.96	1.08		0.59	1.02	1.30	0.96	0.65
8000		0.48	0.80	0.91		0.45	0.83	1.10	0.80	0.53
8500			0.67	0.78			0.68	0.93	0.67	0.44
9000			0.56	0.66			0.56	0.80	0.56	0.37
9500			0.47	0.57			0.46	0.69	0.46	0.32
10000				0.49				0.59		0.27
10500				0.42				0.51		0.24
11000								0.44		0.21

Five Span Lapped Mixed: AZ20025 / AZ20030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.35	15.35	15.35	15.35	16.16	16.16	16.16	16.16	11.51	74.97
2500	12.28	12.28	12.28	12.28	12.93	12.93	12.93	12.93	9.21	38.39
3000	10.23	10.23	10.23	10.23	10.77	10.77	10.77	10.77	7.67	22.21
3500	8.36	8.77	8.77	8.77	8.07	9.23	9.23	9.23	6.58	13.99
4000	5.67	6.90	6.90	6.90	5.32	7.59	7.59	7.59	5.76	9.37
4500	3.76	5.45	5.45	5.45	3.52	6.00	6.00	6.00	5.12	6.58
5000	2.48	4.42	4.42	4.42	2.32	4.75	4.86	4.86	4.42	4.80
5500	1.69	3.62	3.65	3.65	1.59	3.67	4.02	4.02	3.65	3.61
6000	1.20	2.90	3.07	3.07	1.12	2.87	3.38	3.38	3.07	2.78
6500	0.87	2.36	2.61	2.61	0.81	2.26	2.88	2.88	2.61	2.18
7000	0.65	1.90	2.20	2.25	0.61	1.79	2.46	2.48	2.20	1.75
7500	0.49	1.51	1.85	1.96	0.46	1.42	2.04	2.16	1.85	1.42
8000		1.20	1.56	1.72		1.13	1.71	1.90	1.56	1.17
8500		0.95	1.33	1.47		0.89	1.44	1.68	1.33	0.98
9000		0.75	1.14	1.27		0.71	1.21	1.50	1.14	0.82
9500		0.61	0.98	1.11		0.57	1.03	1.34	0.98	0.70
10000		0.49	0.84	0.96		0.47	0.87	1.17	0.84	0.60
10500		0.41	0.73	0.84		0.74	1.02		0.73	0.52
11000			0.63	0.74			0.63	0.90	0.63	0.45
11500			0.55	0.65			0.53	0.79	0.53	0.39
12000			0.47	0.58			0.45	0.70	0.45	0.35
12500			0.41	0.51			0.62			0.31

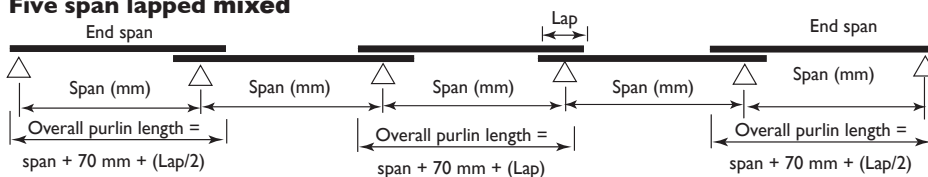
Five Span Lapped Mixed: AZ25025 / AZ25030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.36	15.36	15.36	15.36	16.17	16.17	16.17	16.17	11.52	126.80
2500	12.29	12.29	12.29	12.29	12.93	12.93	12.93	12.93	9.21	64.92
3000	10.24	10.24	10.24	10.24	10.78	10.78	10.78	10.78	7.68	37.57
3500	8.78	8.78	8.78	8.78	9.24	9.24	9.24	9.24	6.58	23.66
4000	7.37	7.68	7.68	7.68	6.90	8.08	8.08	8.08	5.76	15.85
4500	4.82	6.83	6.83	6.83	4.51	7.18	7.18	7.18	5.12	11.13
5000	3.16	5.84	5.84	5.84	2.96	6.28	6.42	6.42	4.61	8.12
5500	2.16	4.81	4.94	4.94	2.02	4.84	5.44	5.44	4.19	6.10
6000	1.53	3.85	4.20	4.20	1.43	3.77	4.62	4.62	3.84	4.70
6500	1.11	3.12	3.52	3.58	1.04	2.96	3.94	3.94	3.52	3.69
7000	0.82	2.47	2.93	3.09	0.77	2.33	3.25	3.39	2.93	2.96
7500	0.63	1.95	2.45	2.68	0.59	1.84	2.69	2.96	2.45	2.40
8000	0.48	1.54	2.07	2.28	0.45	1.45	2.25	2.60	2.07	1.98
8500		1.21	1.76	1.96		1.14	1.88	2.30	1.76	1.65
9000		0.96	1.50	1.69		0.91	1.58	2.04	1.50	1.39
9500		0.77	1.29	1.47		0.73	1.34	1.77	1.29	1.18
10000		0.63	1.11	1.28		0.59	1.13	1.54	1.11	1.01
10500		0.52	0.95	1.12		0.49	0.95	1.35	0.95	0.88
11000		0.43	0.82	0.98		0.41	0.81	1.18	0.81	0.76
11500			0.71	0.86			0.68	1.04	0.68	0.67
12000			0.62	0.76			0.57	0.92	0.57	0.59
12500			0.53	0.67			0.49	0.81	0.49	0.52

Five Span Lapped Mixed: AZ30025 / AZ30030 (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.38	15.38	15.38	15.38	16.19	16.19	16.19	16.19	11.53	229.56
2500	12.30	12.30	12.30	12.30	12.95	12.95	12.95	12.95	9.23	117.53
3000	10.25	10.25	10.25	10.25	10.79	10.79	10.79	10.79	7.69	68.02
3500	8.79	8.79	8.79	8.79	9.25	9.25	9.25	9.25	6.59	42.83
4000	7.69	7.69	7.69	7.69	8.09	8.09	8.09	8.09	5.77	28.70
4500	6.83	6.83	6.83	6.83	7.19	7.19	7.19	7.19	5.13	20.15
5000	6.15	6.15	6.15	6.15	6.47	6.47	6.47	6.47	4.61	14.69
5500	5.59	5.59	5.59	5.59	5.89	5.89	5.89	5.89	4.19	11.04
6000	4.89	4.89	4.89	4.89	4.58	5.37	5.37	5.37	3.84	8.50
6500	3.64	4.29	4.29	4.29	3.41	4.72	4.72	4.72	3.55	6.69
7000	2.71	3.79	3.79	3.79	2.54	4.17	4.17	4.17	3.30	5.35
7500	2.06	3.37	3.37	3.37	1.93	3.71	3.71	3.71	3.08	4.35
8000	1.59	3.02	3.02	3.02	1.49	3.32	3.32	3.32	2.88	3.59
8500	1.25	2.67	2.67	2.67	1.17	2.94	2.94	2.94	2.67	2.99
9000	0.99	2.38	2.38	2.38	0.93	2.55	2.62	2.62	2.38	2.52
9500	0.80	2.14	2.14	2.14	0.75	2.16	2.35	2.35	2.14	2.14
10000	0.65	1.93	1.93	1.93	0.61	1.83	2.12	2.12	1.93	1.84
10500	0.54	1.65	1.75	1.75	0.50	1.55	1.93	1.93	1.75	1.59
11000	0.44	1.40	1.60	1.60	0.42	1.32	1.76	1.76	1.60	1.38
11500		1.18	1.46	1.46		1.12	1.61	1.61	1.46	1.21
12000		1.00	1.34	1.34		0.94	1.48	1.48	1.34	1.06
12500		0.85	1.24	1.24		0.80	1.35	1.36	1.24	0.94

Five span lapped mixed



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

14.0 Limit State Load Tables - PERMALITE® Downturned Lip Cee Purlins

PERMALITE® Downturned Lip Cee Single Span

Single Span: AC15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.84	7.84	7.84	7.84	8.35	8.35	8.35	8.35	7.84	13.42
2500	5.02	5.02	5.02	5.02	4.68	5.34	5.34	5.34	5.02	6.87
3000	3.48	3.48	3.48	3.48	2.69	3.71	3.71	3.71	3.48	3.98
3500	2.56	2.56	2.56	2.56	1.57	2.73	2.73	2.73	2.56	2.50
4000	1.96	1.96	1.96	1.96	0.92	2.09	2.09	2.09	1.96	1.68
4500	1.55	1.55	1.55	1.55	0.57	1.64	1.65	1.65	1.55	1.18
5000	1.25	1.25	1.25	1.25		1.24	1.34	1.34	1.25	0.86
5500	1.04	1.04	1.04	1.04		0.94	1.10	1.10	1.04	0.65
6000	0.87	0.87	0.87	0.87		0.73	0.93	0.93	0.87	0.50
6500	0.74	0.74	0.74	0.74		0.56	0.79	0.79	0.74	0.39
7000	0.64	0.64	0.64	0.64		0.44	0.65	0.68	0.64	0.31
7500	0.56	0.56	0.56	0.56			0.54	0.59	0.54	0.25
8000	0.49	0.49	0.49	0.49			0.45	0.52	0.45	0.21
8500	0.43	0.43	0.43	0.43				0.46		0.18
9000								0.41		0.15

Single Span: AC15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	11.09	11.09	11.09	11.09	10.15	11.98	11.98	11.98	11.09	16.29
2500	7.10	7.10	7.10	7.10	5.54	7.67	7.67	7.67	7.10	8.34
3000	4.93	4.93	4.93	4.93	3.19	5.31	5.33	5.33	4.93	4.83
3500	3.62	3.62	3.62	3.62	1.85	3.67	3.91	3.91	3.62	3.04
4000	2.77	2.77	2.77	2.77	1.09	2.64	3.00	3.00	2.77	2.04
4500	2.19	2.19	2.19	2.19	0.68	1.95	2.34	2.37	2.19	1.43
5000	1.78	1.78	1.78	1.78	0.45	1.46	1.82	1.92	1.78	1.04
5500	1.47	1.47	1.47	1.47		1.12	1.44	1.59	1.44	0.78
6000	1.23	1.23	1.23	1.23		0.86	1.16	1.33	1.16	0.60
6500	1.05	1.05	1.05	1.05		0.67	0.94	1.11	0.94	0.48
7000	0.91	0.91	0.91	0.91		0.52	0.77	0.93	0.77	0.38
7500	0.79	0.79	0.79	0.79		0.40	0.64	0.78	0.64	0.31
8000	0.69	0.69	0.69	0.69			0.53	0.67	0.53	0.26
8500	0.61	0.61	0.61	0.61			0.45	0.57	0.45	0.21
9000	0.55	0.55	0.55	0.55				0.49		0.18
9500	0.49	0.49	0.49	0.49				0.43		0.15
10000	0.44	0.44	0.44	0.44						0.13
10500	0.40	0.40	0.40	0.40						0.11

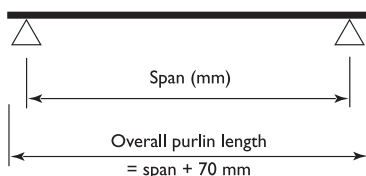
Single Span: AC20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.32	12.32	12.32	12.32	13.26	13.82	13.82	13.82	11.98	27.27
2500	7.88	7.88	7.88	7.88	7.29	8.85	8.85	8.85	7.88	13.96
3000	5.48	5.48	5.48	5.48	4.23	6.14	6.14	6.14	5.48	8.08
3500	4.02	4.02	4.02	4.02	2.49	4.51	4.51	4.51	4.02	5.09
4000	3.08	3.08	3.08	3.08	1.47	3.44	3.46	3.46	3.08	3.41
4500	2.43	2.43	2.43	2.43	0.92	2.54	2.73	2.73	2.43	2.39
5000	1.97	1.97	1.97	1.97	0.60	1.92	2.21	2.21	1.97	1.75
5500	1.63	1.63	1.63	1.63	0.41	1.47	1.83	1.83	1.63	1.31
6000	1.37	1.37	1.37	1.37		1.14	1.51	1.54	1.37	1.01
6500	1.17	1.17	1.17	1.17		0.89	1.23	1.31	1.17	0.79
7000	1.01	1.01	1.01	1.01		0.69	1.01	1.13	1.01	0.64
7500	0.88	0.88	0.88	0.88		0.54	0.84	0.98	0.84	0.52
8000	0.77	0.77	0.77	0.77		0.42	0.70	0.86	0.70	0.43
8500	0.68	0.68	0.68	0.68			0.59	0.75	0.59	0.36
9000	0.61	0.61	0.61	0.61			0.50	0.64	0.50	0.30
9500	0.55	0.55	0.55	0.55			0.42	0.56	0.42	0.25
10000	0.49	0.49	0.49	0.49				0.49		0.22
10500	0.45	0.45	0.45	0.45				0.43		0.19
11000	0.41	0.41	0.41	0.41						0.16

Single Span: AC20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	18.58	18.58	18.58	18.58	15.70	18.54	18.54	18.54	14.35	32.94
2500	11.89	11.89	11.89	11.89	8.61	11.87	11.87	11.87	11.48	16.86
3000	8.26	8.26	8.26	8.26	4.98	8.18	8.24	8.24	8.24	9.76
3500	6.07	6.07	6.07	6.07	2.92	5.66	6.06	6.06	6.06	6.15
4000	4.65	4.65	4.65	4.65	1.72	4.07	4.64	4.64	4.64	4.12
4500	3.67	3.67	3.67	3.67	1.07	3.01	3.61	3.66	3.61	2.89
5000	2.97	2.97	2.97	2.97	0.71	2.27	2.81	2.97	2.81	2.11
5500	2.46	2.46	2.46	2.46	0.48	1.74	2.22	2.45	2.22	1.58
6000	2.07	2.07	2.07	2.07		1.34	1.79	2.06	1.79	1.22
6500	1.76	1.76	1.76	1.76		1.05	1.46	1.70	1.46	0.96
7000	1.52	1.52	1.52	1.52		0.82	1.20	1.43	1.20	0.77
7500	1.32	1.32	1.32	1.32		0.64	0.99	1.21	0.99	0.63
8000	1.16	1.16	1.16	1.16		0.49	0.83	1.03	0.83	0.52
8500	1.03	1.03	1.03	1.03			0.69	0.88	0.69	0.43
9000	0.92	0.92	0.92	0.92			0.58	0.76	0.58	0.36
9500	0.82	0.82	0.82	0.82			0.49	0.66	0.49	0.31
10000	0.74	0.74	0.74	0.74			0.42	0.58	0.42	0.26
10500	0.67	0.67	0.67	0.67				0.50		0.23
11000	0.61	0.61	0.61	0.61				0.44		0.20
11500	0.56	0.56	0.56	0.56						0.17
12000	0.52	0.52	0.52	0.52						0.15
12500	0.48	0.48	0.48	0.48						0.14

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Cee Single Span

Single Span: AC25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.98	15.98	15.98	15.98	16.82	16.82	16.82	16.82	11.98	45.63
2500	10.99	10.99	10.99	10.99	9.77	11.77	11.77	11.77	9.59	23.36
3000	7.63	7.63	7.63	7.63	5.61	8.17	8.17	8.17	7.63	13.52
3500	5.61	5.61	5.61	5.61	3.26	6.00	6.00	6.00	5.61	8.52
4000	4.29	4.29	4.29	4.29	1.91	4.60	4.60	4.60	4.29	5.70
4500	3.39	3.39	3.39	3.39	1.19	3.43	3.63	3.63	3.39	4.01
5000	2.75	2.75	2.75	2.75	0.78	2.58	2.94	2.94	2.75	2.92
5500	2.27	2.27	2.27	2.27	0.53	1.97	2.43	2.43	2.27	2.19
6000	1.91	1.91	1.91	1.91		1.52	2.04	2.04	1.91	1.69
6500	1.63	1.63	1.63	1.63		1.18	1.66	1.74	1.63	1.33
7000	1.40	1.40	1.40	1.40		0.91	1.36	1.50	1.36	1.06
7500	1.22	1.22	1.22	1.22		0.71	1.13	1.31	1.13	0.87
8000	1.07	1.07	1.07	1.07		0.55	0.94	1.15	0.94	0.71
8500	0.95	0.95	0.95	0.95		0.43	0.78	1.01	0.78	0.59
9000	0.85	0.85	0.85	0.85			0.66	0.87	0.66	0.50
9500	0.76	0.76	0.76	0.76			0.55	0.75	0.55	0.43
10000	0.69	0.69	0.69	0.69			0.47	0.65	0.47	0.37
10500	0.62	0.62	0.62	0.62				0.57		0.32
11000	0.57	0.57	0.57	0.57				0.50		0.27
11500	0.52	0.52	0.52	0.52				0.44		0.24
12000	0.48	0.48	0.48	0.48						0.21
12500	0.44	0.44	0.44	0.44						0.19

Single Span: AC30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.00	16.00	16.00	16.00	16.84	16.84	16.84	16.84	12.00	83.66
2500	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	42.83
3000	10.66	10.66	10.66	10.66	10.71	10.71	10.71	10.71	8.00	24.79
3500	9.14	9.14	9.14	9.14	7.70	7.87	7.87	7.87	6.86	15.61
4000	7.02	7.02	7.02	7.02	5.16	6.02	6.02	6.02	6.00	10.46
4500	5.55	5.55	5.55	5.55	3.50	4.76	4.76	4.76	4.76	7.34
5000	4.49	4.49	4.49	4.49	2.37	3.86	3.86	3.86	3.86	5.35
5500	3.71	3.71	3.71	3.71	1.62	3.19	3.19	3.19	3.19	4.02
6000	3.12	3.12	3.12	3.12	1.14	2.68	2.68	2.68	2.68	3.10
6500	2.66	2.66	2.66	2.66	0.83	2.28	2.28	2.28	2.28	2.44
7000	2.29	2.29	2.29	2.29	0.62	1.97	1.97	1.97	1.97	1.95
7500	2.00	2.00	2.00	2.00	0.47	1.68	1.71	1.71	1.71	1.59
8000	1.76	1.76	1.76	1.76		1.39	1.51	1.51	1.51	1.31
8500	1.56	1.56	1.56	1.56		1.15	1.33	1.33	1.33	1.09
9000	1.39	1.39	1.39	1.39		0.96	1.19	1.19	1.19	0.92
9500	1.25	1.25	1.25	1.25		0.80	1.07	1.07	1.07	0.78
10000	1.12	1.12	1.12	1.12		0.67	0.96	0.96	0.96	0.67
10500	1.02	1.02	1.02	1.02		0.56	0.87	0.87	0.87	0.58
11000	0.93	0.93	0.93	0.93		0.46	0.78	0.80	0.78	0.50
11500	0.85	0.85	0.85	0.85			0.68	0.73	0.68	0.44
12000	0.78	0.78	0.78	0.78			0.60	0.67	0.60	0.39
12500	0.72	0.72	0.72	0.72			0.53	0.62	0.53	0.34

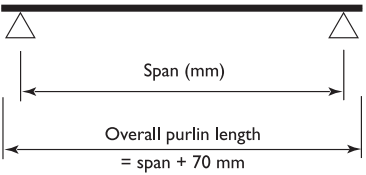
Single Span: AC25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.15	19.15	19.15	19.15	20.16	20.16	20.16	20.16	14.36	55.10
2500	15.32	15.32	15.32	15.32	11.55	15.83	15.83	15.83	11.49	28.21
3000	11.48	11.48	11.48	11.48	6.61	10.99	10.99	10.99	9.57	16.33
3500	8.43	8.43	8.43	8.43	3.82	7.69	8.08	8.08	8.08	10.28
4000	6.46	6.46	6.46	6.46	2.24	5.52	6.18	6.18	6.18	6.89
4500	5.10	5.10	5.10	5.10	1.40	4.06	4.89	4.89	4.89	4.84
5000	4.13	4.13	4.13	4.13	0.92	3.06	3.81	3.96	3.81	3.53
5500	3.42	3.42	3.42	3.42	0.63	2.33	3.02	3.27	3.02	2.65
6000	2.87	2.87	2.87	2.87	0.44	1.79	2.42	2.75	2.42	2.04
6500	2.45	2.45	2.45	2.45		1.39	1.97	2.32	1.97	1.61
7000	2.11	2.11	2.11	2.11		1.07	1.61	1.94	1.61	1.29
7500	1.84	1.84	1.84	1.84		0.83	1.33	1.64	1.33	1.05
8000	1.61	1.61	1.61	1.61		0.64	1.11	1.39	1.11	0.86
8500	1.43	1.43	1.43	1.43		0.50	0.93	1.19	0.93	0.72
9000	1.28	1.28	1.28	1.28		0.40	0.78	1.03	0.78	0.61
9500	1.14	1.14	1.14	1.14			0.65	0.89	0.65	0.51
10000	1.03	1.03	1.03	1.03			0.55	0.77	0.55	0.44
10500	0.94	0.94	0.94	0.94			0.46	0.68	0.46	0.38
11000	0.85	0.85	0.85	0.85				0.59		0.33
11500	0.78	0.78	0.78	0.78				0.52		0.29
12000	0.72	0.72	0.72	0.72				0.46		0.26
12500	0.66	0.66	0.66	0.66				0.40		0.23

Single Span: AC30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.18	19.18	19.18	19.18	20.19	20.19	20.19	20.19	14.38	100.27
2500	15.34	15.34	15.34	15.34	16.15	16.15	16.15	16.15	11.51	51.34
3000	12.78	12.78	12.78	12.78	13.44	13.44	13.44	13.44	9.59	29.71
3500	10.96	10.96	10.96	10.96	9.25	9.87	9.87	9.87	8.22	18.71
4000	8.93	8.93	8.93	8.93	6.20	7.56	7.56	7.56	7.19	12.53
4500	7.05	7.05	7.05	7.05	4.21	5.97	5.97	5.97	5.97	8.80
5000	5.71	5.71	5.71	5.71	2.85	4.84	4.84	4.84	4.84	6.42
5500	4.72	4.72	4.72	4.72	1.95	4.00	4.00	4.00	4.00	4.82
6000	3.97	3.97	3.97	3.97	1.38	3.36	3.36	3.36	3.36	3.71
6500	3.38	3.38	3.38	3.38	1.00	2.86	2.86	2.86	2.86	2.92
7000	2.92	2.92	2.92	2.92	0.74	2.44	2.47	2.47	2.47	2.34
7500	2.54	2.54	2.54	2.54	0.56	2.01	2.15	2.15	2.15	1.90
8000	2.23	2.23	2.23	2.23	0.44	1.67	1.89	1.89	1.89	1.57
8500	1.98	1.98	1.98	1.98		1.39	1.67	1.67	1.67	1.31
9000	1.76	1.76	1.76	1.76		1.16	1.49	1.49	1.49	1.10
9500	1.58	1.58	1.58	1.58		0.97	1.34	1.34	1.34	0.94
10000	1.43	1.43	1.43	1.43		0.81	1.21	1.21	1.21	0.80
10500	1.30	1.30	1.30	1.30		0.67	1.07	1.10	1.07	0.69
11000	1.18	1.18	1.18	1.18		0.56	0.94	1.00	0.94	0.60
11500	1.08	1.08	1.08	1.08		0.47	0.82	0.91	0.82	0.53
12000	0.99	0.99	0.99	0.99			0.72	0.84	0.72	0.46
12500	0.91	0.91	0.91	0.91			0.64	0.77	0.64	0.41

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Cee Single Span

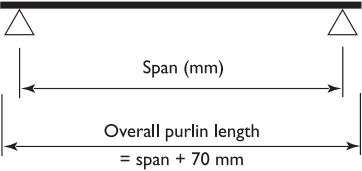
Single Span: AC35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.19	19.19	19.19	19.19	20.20	20.20	20.20	20.20	14.39	155.13
2500	15.35	15.35	15.35	15.35	16.16	16.16	16.16	16.16	11.51	79.43
3000	12.79	12.79	12.79	12.79	13.47	13.47	13.47	13.47	9.59	45.97
3500	10.96	10.96	10.96	10.96	11.54	11.54	11.54	11.54	8.22	28.95
4000	9.35	9.35	9.35	9.35	9.49	10.10	10.10	10.10	7.20	19.39
4500	7.38	7.38	7.38	7.38	6.69	8.24	8.24	8.24	6.40	13.62
5000	5.98	5.98	5.98	5.98	4.76	6.68	6.68	6.68	5.76	9.93
5500	4.94	4.94	4.94	4.94	3.39	5.52	5.52	5.52	4.94	7.46
6000	4.15	4.15	4.15	4.15	2.41	4.64	4.64	4.64	4.15	5.75
6500	3.54	3.54	3.54	3.54	1.75	3.95	3.95	3.95	3.54	4.52
7000	3.05	3.05	3.05	3.05	1.30	3.41	3.41	3.41	3.05	3.62
7500	2.66	2.66	2.66	2.66	0.99	2.97	2.97	2.97	2.66	2.94
8000	2.34	2.34	2.34	2.34	0.76	2.51	2.61	2.61	2.34	2.42
8500	2.07	2.07	2.07	2.07	0.60	2.12	2.31	2.31	2.07	2.02
9000	1.85	1.85	1.85	1.85	0.48	1.79	2.06	2.06	1.85	1.70
9500	1.66	1.66	1.66	1.66		1.52	1.85	1.85	1.66	1.45
10000	1.50	1.50	1.50	1.50		1.30	1.67	1.67	1.50	1.24
10500	1.36	1.36	1.36	1.36		1.11	1.51	1.51	1.36	1.07
11000	1.24	1.24	1.24	1.24		0.95	1.38	1.38	1.24	0.93
11500	1.13	1.13	1.13	1.13		0.81	1.23	1.26	1.13	0.82
12000	1.04	1.04	1.04	1.04		0.69	1.10	1.16	1.04	0.72
12500	0.96	0.96	0.96	0.96		0.59	0.98	1.07	0.96	0.64

Single Span: AC40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.19	19.19	19.19	19.19	20.20	20.20	20.20	20.20	14.40	212.06
2500	15.36	15.36	15.36	15.36	16.16	16.16	16.16	16.16	11.52	108.57
3000	12.80	12.80	12.80	12.80	13.47	13.47	13.47	13.47	9.60	62.83
3500	10.97	10.97	10.97	10.97	11.55	11.55	11.55	11.55	8.23	39.57
4000	9.60	9.60	9.60	9.60	10.10	10.10	10.10	10.10	7.20	26.51
4500	8.53	8.53	8.53	8.53	7.94	8.98	8.98	8.98	6.40	18.62
5000	7.14	7.14	7.14	7.14	5.62	7.95	7.95	7.95	5.76	13.57
5500	5.90	5.90	5.90	5.90	3.98	6.57	6.57	6.57	5.24	10.20
6000	4.96	4.96	4.96	4.96	2.81	5.52	5.52	5.52	4.80	7.85
6500	4.23	4.23	4.23	4.23	2.04	4.70	4.70	4.70	4.23	6.18
7000	3.64	3.64	3.64	3.64	1.52	4.06	4.06	4.06	3.64	4.95
7500	3.17	3.17	3.17	3.17	1.15	3.53	3.53	3.53	3.17	4.02
8000	2.79	2.79	2.79	2.79	0.89	3.00	3.11	3.11	2.79	3.31
8500	2.47	2.47	2.47	2.47	0.70	2.52	2.75	2.75	2.47	2.76
9000	2.20	2.20	2.20	2.20	0.56	2.13	2.45	2.45	2.20	2.33
9500	1.98	1.98	1.98	1.98	0.45	1.81	2.20	2.20	1.98	1.98
10000	1.79	1.79	1.79	1.79		1.54	1.99	1.99	1.79	1.70
10500	1.62	1.62	1.62	1.62		1.31	1.80	1.80	1.62	1.47
11000	1.48	1.48	1.48	1.48		1.12	1.64	1.64	1.48	1.28
11500	1.35	1.35	1.35	1.35		0.95	1.47	1.50	1.35	1.12
12000	1.24	1.24	1.24	1.24		0.81	1.31	1.38	1.24	0.98
12500	1.14	1.14	1.14	1.14		0.68	1.16	1.27	1.14	0.87

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Cee Double Span Continuous

Double Span Continuous: AC15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.38	6.38	6.38	6.38	6.72	6.72	6.72	6.72	4.78	32.35
2500	4.86	4.86	4.86	4.86	5.37	5.37	5.37	5.37	3.83	16.56
3000	3.24	3.37	3.37	3.37	3.83	3.83	3.83	3.83	3.19	9.59
3500	2.10	2.48	2.48	2.48	2.82	2.82	2.82	2.82	2.48	6.04
4000	1.40	1.90	1.90	1.90	2.16	2.16	2.16	2.16	1.90	4.04
4500	0.94	1.50	1.50	1.50	1.70	1.70	1.70	1.70	1.50	2.84
5000	0.63	1.21	1.21	1.21	1.23	1.38	1.38	1.38	1.21	2.07
5500	0.43	1.00	1.00	1.00	0.84	1.14	1.14	1.14	1.00	1.56
6000		0.80	0.84	0.84	0.59	0.96	0.96	0.96	0.84	1.20
6500		0.64	0.72	0.72	0.43	0.82	0.82	0.82	0.72	0.94
7000		0.52	0.62	0.62		0.70	0.70	0.70	0.62	0.75
7500		0.42	0.54	0.54		0.61	0.61	0.61	0.54	0.61
8000			0.46	0.47		0.54	0.54	0.54	0.46	0.51
8500				0.42		0.43	0.48	0.48		0.42
9000							0.43	0.43		0.36

Double Span Continuous: AC15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.64	7.64	7.64	7.64	8.04	8.04	8.04	8.04	5.73	39.27
2500	6.11	6.11	6.11	6.11	6.44	6.44	6.44	6.44	4.59	20.11
3000	3.84	4.84	4.84	4.84	5.36	5.36	5.36	5.36	3.82	11.64
3500	2.49	3.56	3.56	3.56	3.98	3.98	3.98	3.98	3.28	7.33
4000	1.66	2.65	2.72	2.72	3.05	3.05	3.05	3.05	2.72	4.91
4500	1.11	1.99	2.15	2.15	2.18	2.41	2.41	2.41	2.15	3.45
5000	0.74	1.53	1.74	1.74	1.46	1.95	1.95	1.95	1.74	2.51
5500	0.51	1.20	1.40	1.44	0.99	1.61	1.61	1.61	1.40	1.89
6000		0.95	1.13	1.21	0.70	1.36	1.36	1.36	1.13	1.46
6500		0.76	0.93	1.03	0.51	1.16	1.16	1.16	0.93	1.14
7000		0.62	0.77	0.87		1.00	1.00	1.00	0.77	0.92
7500		0.50	0.65	0.74		0.81	0.87	0.87	0.65	0.75
8000		0.41	0.54	0.63		0.64	0.76	0.76	0.54	0.61
8500			0.46	0.54		0.50	0.68	0.68	0.46	0.51
9000				0.47		0.40	0.60	0.60		0.43
9500				0.41			0.54	0.54		0.37
10000							0.49	0.49		0.31
10500							0.42	0.44		0.27
11000							0.40			0.24

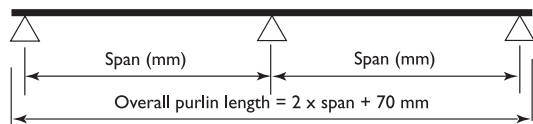
Double Span Continuous: AC20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.72	6.72	6.72	6.72	4.79	65.74
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	33.66
3000	4.26	4.26	4.26	4.26	4.48	4.48	4.48	4.48	3.19	19.48
3500	3.28	3.65	3.65	3.65	3.84	3.84	3.84	3.84	2.74	12.27
4000	2.20	3.14	3.14	3.14	3.36	3.36	3.36	3.36	2.40	8.22
4500	1.49	2.48	2.48	2.48	2.68	2.68	2.68	2.68	2.13	5.77
5000	1.00	2.00	2.01	2.01	1.97	2.17	2.17	2.17	1.92	4.21
5500	0.68	1.57	1.66	1.66	1.34	1.79	1.79	1.79	1.66	3.16
6000	0.48	1.25	1.40	1.40	0.95	1.51	1.51	1.51	1.40	2.44
6500		1.00	1.19	1.19	0.69	1.28	1.28	1.28	1.19	1.92
7000		0.81	1.01	1.03	0.51	1.11	1.11	1.11	1.01	1.53
7500		0.66	0.84	0.89		0.96	0.96	0.96	0.84	1.25
8000		0.54	0.71	0.79		0.85	0.85	0.85	0.71	1.03
8500		0.44	0.60	0.70		0.68	0.75	0.75	0.60	0.86
9000			0.52	0.61		0.54	0.67	0.67	0.52	0.72
9500			0.44	0.53		0.44	0.60	0.60	0.44	0.61
10000				0.47			0.54	0.54		0.53
10500				0.41			0.49	0.49		0.45
11000							0.45	0.45		0.40
11500							0.40	0.41		0.35

Double Span Continuous: AC20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.65	7.65	7.65	7.65	8.06	8.06	8.06	8.06	5.74	79.41
2500	6.12	6.12	6.12	6.12	6.44	6.44	6.44	6.44	4.59	40.66
3000	5.10	5.10	5.10	5.10	5.37	5.37	5.37	5.37	3.83	23.53
3500	3.87	4.37	4.37	4.37	4.60	4.60	4.60	4.60	3.28	14.82
4000	2.59	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	9.93
4500	1.75	3.07	3.33	3.33	3.43	3.58	3.58	3.58	2.55	6.97
5000	1.17	2.37	2.69	2.70	2.30	3.22	3.22	3.22	2.30	5.08
5500	0.80	1.86	2.15	2.23	1.57	2.70	2.70	2.70	2.09	3.82
6000	0.57	1.47	1.75	1.87	1.11	2.27	2.27	2.27	1.75	2.94
6500	0.41	1.18	1.43	1.60	0.81	1.94	1.94	1.94	1.43	2.31
7000		0.96	1.19	1.34	0.60	1.60	1.67	1.67	1.19	1.85
7500		0.78	1.00	1.14	0.46	1.27	1.45	1.45	1.00	1.51
8000		0.64	0.84	0.97		1.01	1.28	1.28	0.84	1.24
8500		0.52	0.71	0.84		0.80	1.13	1.13	0.71	1.03
9000		0.43	0.61	0.73		0.63	1.01	1.01	0.61	0.87
9500			0.52	0.63		0.51	0.91	0.91	0.52	0.74
10000			0.45	0.55		0.42	0.78	0.82	0.45	0.64
10500				0.49			0.66	0.74		0.55
11000				0.43			0.56	0.68		0.48
11500							0.47	0.62		0.42
12000								0.57		0.37
12500								0.52		0.33

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Cee Double Span Continuous

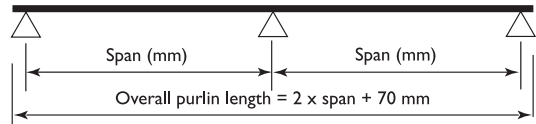
Double Span Continuous: AC25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
	0	1	2	3	0	1	2	3		
Bridging >										
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.79	110.01
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	56.33
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	32.60
3500	3.65	3.65	3.65	3.65	3.84	3.84	3.84	3.84	2.74	20.53
4000	2.92	3.20	3.20	3.20	3.36	3.36	3.36	3.36	2.40	13.75
4500	1.95	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	9.66
5000	1.30	2.56	2.56	2.56	2.56	2.69	2.69	2.69	1.92	7.04
5500	0.89	2.12	2.21	2.21	1.75	2.45	2.45	2.45	1.74	5.29
6000	0.63	1.68	1.86	1.86	1.23	2.10	2.10	2.10	1.60	4.07
6500	0.46	1.34	1.58	1.58	0.90	1.79	1.79	1.79	1.48	3.21
7000		1.09	1.36	1.36	0.67	1.54	1.54	1.54	1.36	2.57
7500		0.88	1.14	1.19	0.51	1.34	1.34	1.34	1.14	2.09
8000		0.72	0.96	1.05		1.12	1.18	1.18	0.96	1.72
8500		0.59	0.81	0.93		0.88	1.05	1.05	0.81	1.43
9000		0.48	0.69	0.83		0.70	0.93	0.93	0.69	1.21
9500			0.59	0.72		0.57	0.84	0.84	0.59	1.03
10000			0.51	0.63		0.46	0.76	0.76	0.51	0.88
10500			0.44	0.55			0.69	0.69	0.44	0.76
11000				0.49			0.62	0.62		0.66
11500				0.43			0.53	0.57		0.58
12000							0.44	0.52		0.51
12500								0.48		0.45

Double Span Continuous: AC30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
	0	1	2	3	0	1	2	3		
Bridging >										
2000	6.40	6.40	6.40	6.40	6.74	6.74	6.74	6.74	4.80	201.68
2500	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	103.26
3000	4.27	4.27	4.27	4.27	4.49	4.49	4.49	4.49	3.20	59.76
3500	3.66	3.66	3.66	3.66	3.85	3.85	3.85	3.85	2.74	37.63
4000	3.20	3.20	3.20	3.20	3.37	3.37	3.37	3.37	2.40	25.21
4500	2.84	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	17.71
5000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	12.91
5500	2.33	2.33	2.33	2.33	2.25	2.45	2.45	2.45	1.75	9.70
6000	1.83	2.13	2.13	2.13	2.45	2.25	2.25	2.25	1.60	7.47
6500	1.37	1.97	1.97	1.97	2.07	2.07	2.07	2.07	1.48	5.88
7000	1.02	1.79	1.79	1.79	1.92	1.92	1.92	1.92	1.37	4.70
7500	0.78	1.56	1.56	1.56	1.53	1.80	1.80	1.80	1.28	3.82
8000	0.60	1.37	1.37	1.37	1.18	1.68	1.68	1.68	1.20	3.15
8500	0.47	1.21	1.21	1.21	0.92	1.59	1.59	1.59	1.13	2.63
9000		1.08	1.08	1.08	0.74	1.50	1.50	1.50	1.07	2.21
9500		0.94	0.97	0.97	0.59	1.37	1.37	1.37	0.97	1.88
10000		0.81	0.88	0.88	0.48	1.24	1.24	1.24	0.88	1.61
10500		0.69	0.80	0.80		1.12	1.12	1.12	0.80	1.39
11000		0.60	0.72	0.72		0.95	1.02	1.02	0.72	1.21
11500		0.52	0.66	0.66		0.80	0.93	0.93	0.66	1.06
12000		0.45	0.61	0.61		0.67	0.86	0.86	0.61	0.93
12500			0.56	0.56		0.57	0.79	0.79	0.56	0.83

2 Span Continuous



Double Span Continuous: AC25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
	0	1	2	3	0	1	2	3		
Bridging >										
2000	7.66	7.66	7.66	7.66	8.06	8.06	8.06	8.06	5.74	132.84
2500	6.13	6.13	6.13	6.13	6.45	6.45	6.45	6.45	4.60	68.01
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	39.36
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.28	24.79
4000	3.44	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	16.61
4500	2.29	3.40	3.40	3.40	3.58	3.58	3.58	3.58	2.55	11.66
5000	1.52	3.06	3.06	3.06	2.99	3.23	3.23	3.23	2.30	8.50
5500	1.04	2.51	2.79	2.79	2.04	2.93	2.93	2.93	2.09	6.39
6000	0.73	1.99	2.37	2.50	1.44	2.69	2.69	2.69	1.92	4.92
6500	0.53	1.59	1.94	2.13	1.05	2.48	2.48	2.48	1.77	3.87
7000		1.28	1.61	1.82	0.78	2.12	2.30	2.30	1.61	3.10
7500		1.04	1.35	1.55	0.59	1.68	2.02	2.02	1.35	2.52
8000		0.85	1.13	1.32	0.46	1.32	1.78	1.78	1.13	2.08
8500		0.69	0.96	1.14		1.04	1.57	1.57	0.96	1.73
9000		0.56	0.82	0.98		0.82	1.40	1.40	0.82	1.46
9500		0.46	0.70	0.86		0.66	1.23	1.26	0.70	1.24
10000			0.60	0.75		0.54	1.03	1.14	0.60	1.06
10500			0.52	0.66		0.44	0.87	1.03	0.52	0.92
11000			0.44	0.58			0.73	0.94	0.44	0.80
11500				0.51			0.62	0.86		0.70
12000				0.45			0.52	0.79		0.62
12500				0.40			0.44	0.73		0.54

Double Span Continuous: AC30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
	0	1	2	3	0	1	2	3		
Bridging >										
2000	7.67	7.67	7.67	7.67	8.07	8.07	8.07	8.07	5.75	241.73
2500	6.14	6.14	6.14	6.14	6.46	6.46	6.46	6.46	4.60	123.77
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	71.62
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.29	45.10
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	30.22
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	21.22
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	15.47
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	11.62
6000	2.20	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	8.95
6500	1.65	2.36	2.36	2.36	2.48	2.48	2.48	2.48	1.77	7.04
7000	1.23	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.64	5.64
7500	0.94	1.96	1.96	1.96	1.84	2.15	2.15	2.15	1.53	4.58
8000	0.72	1.72	1.72	1.72	1.42	2.02	2.02	2.02	1.44	3.78
8500	0.57	1.52	1.52	1.52	1.11	1.90	1.90	1.90	1.35	3.15
9000	0.45	1.31	1.36	1.36	0.89	1.79	1.79	1.79	1.28	2.65
9500		1.13	1.22	1.22	0.71	1.70	1.70	1.70	1.21	2.26
10000		0.97	1.10	1.10	0.58	1.57	1.57	1.57	1.10	1.93
10500		0.84	1.00	1.00	0.48	1.35	1.43	1.43	1.00	1.67
11000		0.72	0.91	0.91		1.14	1.30	1.30	0.91	1.45
11500		0.62	0.83	0.83		0.96	1.19	1.19	0.83	1.27
12000		0.54	0.75	0.76		0.81	1.09	1.09	0.75	1.12
12500		0.47	0.67	0.70		0.69	1.01	1.01	0.67	0.99

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Cee Double Span Continuous

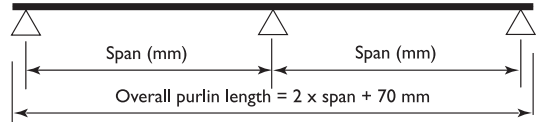
Double Span Continuous: AC35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.68	7.68	7.68	7.68	8.08	8.08	8.08	8.08	5.76	373.99
2500	6.14	6.14	6.14	6.14	6.46	6.46	6.46	6.46	4.61	191.48
3000	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	110.81
3500	4.39	4.39	4.39	4.39	4.62	4.62	4.62	4.62	3.29	69.78
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	46.75
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	32.83
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	23.94
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	17.98
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	13.85
6500	2.36	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	10.89
7000	2.10	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.65	8.72
7500	1.63	2.05	2.05	2.05	2.15	2.15	2.15	2.15	1.54	7.09
8000	1.27	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	5.84
8500	0.99	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.35	4.87
9000	0.79	1.71	1.71	1.71	1.55	1.80	1.80	1.80	1.28	4.10
9500	0.64	1.62	1.62	1.62	1.25	1.70	1.70	1.70	1.21	3.49
10000	0.52	1.46	1.52	1.52	1.02	1.62	1.62	1.62	1.15	2.99
10500	0.43	1.27	1.38	1.38	0.84	1.49	1.49	1.49	1.10	2.59
11000		1.11	1.25	1.25	0.70	1.36	1.36	1.36	1.05	2.25
11500		0.98	1.15	1.15	0.58	1.24	1.24	1.24	1.00	1.97
12000		0.86	1.05	1.05	0.49	1.14	1.14	1.14	0.96	1.73
12500		0.75	0.97	0.97	0.42	1.05	1.05	1.05	0.92	1.53

Double Span Continuous: AC40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.68	7.68	7.68	7.68	8.08	8.08	8.08	8.08	5.76	511.22
2500	6.14	6.14	6.14	6.14	6.47	6.47	6.47	6.47	4.61	261.74
3000	5.12	5.12	5.12	5.12	5.39	5.39	5.39	5.39	3.84	151.47
3500	4.39	4.39	4.39	4.39	4.62	4.62	4.62	4.62	3.29	95.39
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	63.90
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	44.88
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	32.72
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	24.58
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	18.93
6500	2.36	2.36	2.36	2.36	2.49	2.49	2.49	2.49	1.77	14.89
7000	2.19	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.65	11.92
7500	1.91	2.05	2.05	2.05	2.16	2.16	2.16	2.16	1.54	9.69
8000	1.48	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	7.99
8500	1.16	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.36	6.66
9000	0.92	1.71	1.71	1.71	1.80	1.80	1.80	1.80	1.28	5.61
9500	0.74	1.62	1.62	1.62	1.46	1.70	1.70	1.70	1.21	4.77
10000	0.61	1.54	1.54	1.54	1.19	1.62	1.62	1.62	1.15	4.09
10500	0.50	1.46	1.46	1.46	0.98	1.54	1.54	1.54	1.10	3.53
11000	0.41	1.33	1.40	1.40	0.81	1.47	1.47	1.47	1.05	3.07
11500		1.16	1.34	1.34	0.68	1.41	1.41	1.41	1.00	2.69
12000		1.02	1.26	1.26	0.57	1.35	1.35	1.35	0.96	2.37
12500		0.89	1.16	1.16	0.49	1.26	1.26	1.26	0.92	2.09

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

15.0 Limit State Load Tables - PERMALITE® Downturned Lip Zed Purlins

PERMALITE® Downturned Lip Zed Single Span

Single Span: AZ15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	9.80	9.80	9.80	9.80	8.60	8.95	8.95	8.95	8.95	13.64
2500	6.27	6.27	6.27	6.27	4.72	5.73	5.73	5.73	5.73	6.99
3000	4.36	4.36	4.36	4.36	2.73	3.98	3.98	3.98	3.98	4.04
3500	3.20	3.20	3.20	3.20	1.61	2.92	2.92	2.92	2.92	2.55
4000	2.45	2.45	2.45	2.45	0.95	2.23	2.24	2.24	2.24	1.71
4500	1.94	1.94	1.94	1.94	0.59	1.65	1.77	1.77	1.77	1.20
5000	1.57	1.57	1.57	1.57		1.24	1.43	1.43	1.43	0.87
5500	1.30	1.30	1.30	1.30		0.95	1.18	1.18	1.18	0.66
6000	1.09	1.09	1.09	1.09		0.74	0.98	0.99	0.98	0.51
6500	0.93	0.93	0.93	0.93		0.57	0.80	0.85	0.80	0.40
7000	0.80	0.80	0.80	0.80		0.45	0.66	0.73	0.66	0.32
7500	0.70	0.70	0.70	0.70			0.54	0.64	0.54	0.26
8000	0.61	0.61	0.61	0.61			0.45	0.56	0.45	0.21
8500	0.54	0.54	0.54	0.54				0.48		0.18
9000	0.48	0.48	0.48	0.48				0.42		0.15
9500	0.43	0.43	0.43	0.43						0.13

Single Span: AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.76	12.76	12.76	12.76	10.21	12.17	12.17	12.17	12.17	16.45
2500	8.17	8.17	8.17	8.17	5.59	7.79	7.79	7.79	7.79	8.42
3000	5.67	5.67	5.67	5.67	3.22	5.32	5.41	5.41	5.41	4.87
3500	4.17	4.17	4.17	4.17	1.89	3.69	3.97	3.97	3.97	3.07
4000	3.19	3.19	3.19	3.19	1.11	2.65	3.04	3.04	3.04	2.06
4500	2.52	2.52	2.52	2.52	0.69	1.96	2.35	2.40	2.35	1.44
5000	2.04	2.04	2.04	2.04	0.45	1.48	1.83	1.95	1.83	1.05
5500	1.69	1.69	1.69	1.69		1.13	1.45	1.61	1.45	0.79
6000	1.42	1.42	1.42	1.42		0.87	1.16	1.34	1.16	0.61
6500	1.21	1.21	1.21	1.21		0.68	0.95	1.11	0.95	0.48
7000	1.04	1.04	1.04	1.04		0.53	0.78	0.93	0.78	0.38
7500	0.91	0.91	0.91	0.91		0.41	0.64	0.79	0.64	0.31
8000	0.80	0.80	0.80	0.80			0.54	0.67	0.54	0.26
8500	0.71	0.71	0.71	0.71			0.45	0.57	0.45	0.21
9000	0.63	0.63	0.63	0.63				0.50		0.18
9500	0.57	0.57	0.57	0.57				0.43		0.15
10000	0.51	0.51	0.51	0.51						0.13
10500	0.46	0.46	0.46	0.46						0.11
11000	0.42	0.42	0.42	0.42						0.10

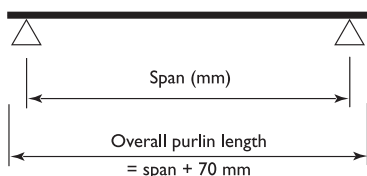
Single Span: AZ20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.19	14.19	14.19	14.19	13.16	13.53	13.53	13.53	11.97	27.42
2500	9.08	9.08	9.08	9.08	7.21	8.66	8.66	8.66	8.66	14.04
3000	6.31	6.31	6.31	6.31	4.17	6.02	6.02	6.02	6.02	8.13
3500	4.64	4.64	4.64	4.64	2.45	4.42	4.42	4.42	4.42	5.12
4000	3.55	3.55	3.55	3.55	1.44	3.38	3.38	3.38	3.38	3.43
4500	2.80	2.80	2.80	2.80	0.90	2.52	2.67	2.67	2.67	2.41
5000	2.27	2.27	2.27	2.27	0.59	1.90	2.17	2.17	2.17	1.76
5500	1.88	1.88	1.88	1.88	0.40	1.46	1.79	1.79	1.79	1.32
6000	1.58	1.58	1.58	1.58		1.13	1.50	1.50	1.50	1.02
6500	1.34	1.34	1.34	1.34		0.88	1.22	1.28	1.22	0.80
7000	1.16	1.16	1.16	1.16		0.68	1.00	1.11	1.00	0.64
7500	1.01	1.01	1.01	1.01		0.53	0.83	0.96	0.83	0.52
8000	0.89	0.89	0.89	0.89		0.41	0.69	0.85	0.69	0.43
8500	0.79	0.79	0.79	0.79			0.58	0.74	0.58	0.36
9000	0.70	0.70	0.70	0.70			0.49	0.64	0.49	0.30
9500	0.63	0.63	0.63	0.63			0.41	0.55	0.41	0.26
10000	0.57	0.57	0.57	0.57				0.48		0.22
10500	0.52	0.52	0.52	0.52				0.42		0.19
11000	0.47	0.47	0.47	0.47						0.17
11500	0.43	0.43	0.43	0.43						0.14

Single Span: AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.13	19.13	19.13	19.13	16.17	17.53	17.53	17.53	14.35	33.02
2500	12.31	12.31	12.31	12.31	8.93	11.22	11.22	11.22	11.22	16.90
3000	8.55	8.55	8.55	8.55	5.22	7.79	7.79	7.79	7.79	9.78
3500	6.28	6.28	6.28	6.28	3.11	5.72	5.72	5.72	5.72	6.16
4000	4.81	4.81	4.81	4.81	1.85	4.19	4.38	4.38	4.38	4.13
4500	3.80	3.80	3.80	3.80	1.15	3.11	3.46	3.46	3.46	2.90
5000	3.08	3.08	3.08	3.08	0.76	2.35	2.81	2.81	2.81	2.11
5500	2.54	2.54	2.54	2.54	0.52	1.81	2.28	2.32	2.28	1.59
6000	2.14	2.14	2.14	2.14		1.40	1.84	1.95	1.84	1.22
6500	1.82	1.82	1.82	1.82		1.10	1.50	1.66	1.50	0.96
7000	1.57	1.57	1.57	1.57		0.86	1.24	1.43	1.24	0.77
7500	1.37	1.37	1.37	1.37		0.68	1.03	1.24	1.03	0.63
8000	1.20	1.20	1.20	1.20		0.53	0.86	1.06	0.86	0.52
8500	1.07	1.07	1.07	1.07		0.42	0.72	0.91	0.72	0.43
9000	0.95	0.95	0.95	0.95			0.61	0.79	0.61	0.36
9500	0.85	0.85	0.85	0.85			0.52	0.68	0.52	0.31
10000	0.77	0.77	0.77	0.77			0.44	0.60	0.44	0.26
10500	0.70	0.70	0.70	0.70				0.52		0.23
11000	0.64	0.64	0.64	0.64				0.46		0.20
11500	0.58	0.58	0.58	0.58				0.40		0.17
12000	0.53	0.53	0.53	0.53						0.15
12500	0.49	0.49	0.49	0.49						0.14

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Single Span

Single Span: AZ25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.98	15.98	15.98	15.98	16.82	16.82	16.82	16.82	11.98	45.86
2500	12.16	12.16	12.16	12.16	9.82	11.48	11.48	11.48	9.59	23.48
3000	8.45	8.45	8.45	8.45	5.64	7.97	7.97	7.97	7.97	13.59
3500	6.21	6.21	6.21	6.21	3.28	5.86	5.86	5.86	5.86	8.56
4000	4.75	4.75	4.75	4.75	1.93	4.48	4.48	4.48	4.48	5.73
4500	3.75	3.75	3.75	3.75	1.20	3.45	3.54	3.54	3.54	4.03
5000	3.04	3.04	3.04	3.04	0.79	2.60	2.87	2.87	2.87	2.94
5500	2.51	2.51	2.51	2.51	0.54	1.98	2.37	2.37	2.37	2.21
6000	2.11	2.11	2.11	2.11		1.53	1.99	1.99	1.99	1.70
6500	1.80	1.80	1.80	1.80		1.19	1.67	1.70	1.67	1.34
7000	1.55	1.55	1.55	1.55		0.92	1.37	1.46	1.37	1.07
7500	1.35	1.35	1.35	1.35		0.71	1.13	1.28	1.13	0.87
8000	1.19	1.19	1.19	1.19		0.55	0.94	1.12	0.94	0.72
8500	1.05	1.05	1.05	1.05		0.43	0.79	0.99	0.79	0.60
9000	0.94	0.94	0.94	0.94			0.66	0.87	0.66	0.50
9500	0.84	0.84	0.84	0.84			0.56	0.76	0.56	0.43
10000	0.76	0.76	0.76	0.76			0.47	0.66	0.47	0.37
10500	0.69	0.69	0.69	0.69				0.57		0.32
11000	0.63	0.63	0.63	0.63				0.50		0.28
11500	0.58	0.58	0.58	0.58				0.44		0.24
12000	0.53	0.53	0.53	0.53						0.21
12500	0.49	0.49	0.49	0.49						0.19

Single Span: AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.14	19.14	19.14	19.14	20.15	20.15	20.15	20.15	14.36	55.19
2500	15.32	15.32	15.32	15.32	12.00	14.97	14.97	14.97	11.49	28.26
3000	11.29	11.29	11.29	11.29	6.94	10.40	10.40	10.40	9.57	16.35
3500	8.30	8.30	8.30	8.30	4.08	7.64	7.64	7.64	7.64	10.30
4000	6.35	6.35	6.35	6.35	2.40	5.68	5.85	5.85	5.85	6.90
4500	5.02	5.02	5.02	5.02	1.50	4.20	4.62	4.62	4.62	4.85
5000	4.07	4.07	4.07	4.07	0.98	3.17	3.74	3.74	3.74	3.53
5500	3.36	3.36	3.36	3.36	0.67	2.42	3.09	3.09	3.09	2.65
6000	2.82	2.82	2.82	2.82	0.48	1.87	2.49	2.60	2.49	2.04
6500	2.41	2.41	2.41	2.41		1.46	2.03	2.21	2.03	1.61
7000	2.07	2.07	2.07	2.07		1.14	1.67	1.91	1.67	1.29
7500	1.81	1.81	1.81	1.81		0.89	1.38	1.66	1.38	1.05
8000	1.59	1.59	1.59	1.59		0.69	1.15	1.43	1.15	0.86
8500	1.41	1.41	1.41	1.41		0.54	0.97	1.23	0.97	0.72
9000	1.26	1.26	1.26	1.26		0.43	0.81	1.06	0.81	0.61
9500	1.13	1.13	1.13	1.13			0.69	0.92	0.69	0.52
10000	1.02	1.02	1.02	1.02			0.58	0.80	0.58	0.44
10500	0.92	0.92	0.92	0.92			0.49	0.70	0.49	0.38
11000	0.84	0.84	0.84	0.84			0.41	0.62	0.41	0.33
11500	0.77	0.77	0.77	0.77				0.54		0.29
12000	0.71	0.71	0.71	0.71				0.48		0.26
12500	0.65	0.65	0.65	0.65				0.42		0.23

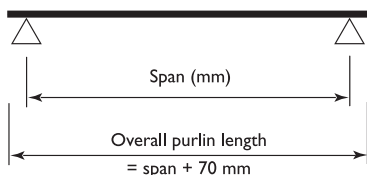
Single Span: AZ30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.99	15.99	15.99	15.99	16.83	16.83	16.83	16.83	11.99	84.03
2500	12.79	12.79	12.79	12.79	13.46	13.46	13.46	13.46	9.59	43.02
3000	10.66	10.66	10.66	10.66	10.61	10.61	10.61	10.61	7.99	24.90
3500	9.05	9.05	9.05	9.05	7.80	7.80	7.80	7.80	6.85	15.68
4000	6.93	6.93	6.93	6.93	5.28	5.97	5.97	5.97	5.97	10.50
4500	5.48	5.48	5.48	5.48	3.60	4.72	4.72	4.72	4.72	7.38
5000	4.44	4.44	4.44	4.44	2.45	3.82	3.82	3.82	3.82	5.38
5500	3.67	3.67	3.67	3.67	1.67	3.16	3.16	3.16	3.16	4.04
6000	3.08	3.08	3.08	3.08	1.18	2.65	2.65	2.65	2.65	3.11
6500	2.62	2.62	2.62	2.62	0.86	2.26	2.26	2.26	2.26	2.45
7000	2.26	2.26	2.26	2.26	0.64	1.95	1.95	1.95	1.95	1.96
7500	1.97	1.97	1.97	1.97	0.48	1.70	1.70	1.70	1.70	1.59
8000	1.73	1.73	1.73	1.73		1.42	1.49	1.49	1.49	1.31
8500	1.54	1.54	1.54	1.54		1.18	1.32	1.32	1.32	1.10
9000	1.37	1.37	1.37	1.37		0.98	1.18	1.18	1.18	0.92
9500	1.23	1.23	1.23	1.23		0.82	1.06	1.06	1.06	0.78
10000	1.11	1.11	1.11	1.11		0.69	0.96	0.96	0.96	0.67
10500	1.01	1.01	1.01	1.01		0.58	0.87	0.87	0.87	0.58
11000	0.92	0.92	0.92	0.92		0.48	0.79	0.79	0.79	0.51
11500	0.84	0.84	0.84	0.84		0.40	0.70	0.72	0.70	0.44
12000	0.77	0.77	0.77	0.77			0.62	0.66	0.62	0.39
12500	0.71	0.71	0.71	0.71			0.54	0.61	0.54	0.34

Single Span: AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.17	19.17	19.17	19.17	20.18	20.18	20.18	20.18	14.38	100.80
2500	15.33	15.33	15.33	15.33	16.14	16.14	16.14	16.14	11.50	51.61
3000	12.78	12.78	12.78	12.78	13.35	13.35	13.35	13.35	9.58	29.87
3500	10.95	10.95	10.95	10.95	9.42	9.81	9.81	9.81	8.21	18.81
4000	9.12	9.12	9.12	9.12	6.34	7.51	7.51	7.51	7.19	12.60
4500	7.21	7.21	7.21	7.21	4.33	5.94	5.94	5.94	5.94	8.85
5000	5.84	5.84	5.84	5.84	2.95	4.81	4.81	4.81	4.81	6.45
5500	4.83	4.83	4.83	4.83	2.02	3.97	3.97	3.97	3.97	4.85
6000	4.05	4.05	4.05	4.05	1.42	3.34	3.34	3.34	3.34	3.73
6500	3.45	3.45	3.45	3.45	1.03	2.84	2.84	2.84	2.84	2.94
7000	2.98	2.98	2.98	2.98	0.77	2.45	2.45	2.45	2.45	2.35
7500	2.60	2.60	2.60	2.60	0.58	2.05	2.14	2.14	2.14	1.91
8000	2.28	2.28	2.28	2.28	0.45	1.70	1.88	1.88	1.88	1.58
8500	2.02	2.02	2.02	2.02		1.42	1.66	1.66	1.66	1.31
9000	1.80	1.80	1.80	1.80		1.18	1.48	1.48	1.48	1.11
9500	1.62	1.62	1.62	1.62		0.99	1.33	1.33	1.33	0.94
10000	1.46	1.46	1.46	1.46		0.83	1.20	1.20	1.20	0.81
10500	1.32	1.32	1.32	1.32		0.69	1.09	1.09	1.09	0.70
11000	1.21	1.21	1.21	1.21		0.58	0.95	0.99	0.95	0.61
11500	1.10	1.10	1.10	1.10		0.48	0.84	0.91	0.84	0.53
12000	1.01	1.01	1.01	1.01		0.41	0.74	0.83	0.74	0.47
12500	0.93	0.93	0.93	0.93			0.65	0.77	0.65	0.41

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Single Span

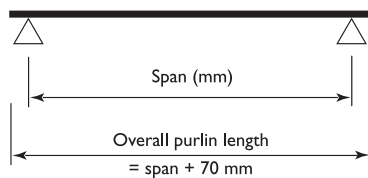
Single Span: AZ35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.17	19.17	19.17	19.17	20.18	20.18	20.18	20.18	14.38	154.08
2500	15.33	15.33	15.33	15.33	16.14	16.14	16.14	16.14	11.50	78.89
3000	12.78	12.78	12.78	12.78	13.45	13.45	13.45	13.45	9.58	45.65
3500	10.95	10.95	10.95	10.95	11.53	11.53	11.53	11.53	8.21	28.75
4000	8.43	8.43	8.43	8.43	9.50	9.50	9.50	9.50	7.19	19.26
4500	6.66	6.66	6.66	6.66	6.83	7.50	7.50	7.50	6.39	13.53
5000	5.40	5.40	5.40	5.40	4.88	6.08	6.08	6.08	5.40	9.86
5500	4.46	4.46	4.46	4.46	3.48	5.02	5.02	5.02	4.46	7.41
6000	3.75	3.75	3.75	3.75	2.48	4.22	4.22	4.22	3.75	5.71
6500	3.19	3.19	3.19	3.19	1.80	3.60	3.60	3.60	3.19	4.49
7000	2.75	2.75	2.75	2.75	1.34	3.10	3.10	3.10	2.75	3.59
7500	2.40	2.40	2.40	2.40	1.02	2.70	2.70	2.70	2.40	2.92
8000	2.11	2.11	2.11	2.11	0.78	2.37	2.37	2.37	2.11	2.41
8500	1.87	1.87	1.87	1.87	0.62	2.10	2.10	2.10	1.87	2.01
9000	1.67	1.67	1.67	1.67	0.49	1.83	1.88	1.88	1.67	1.69
9500	1.49	1.49	1.49	1.49		1.56	1.68	1.68	1.49	1.44
10000	1.35	1.35	1.35	1.35		1.33	1.52	1.52	1.35	1.23
10500	1.22	1.22	1.22	1.22		1.13	1.38	1.38	1.22	1.07
11000	1.11	1.11	1.11	1.11		0.97	1.26	1.26	1.11	0.93
11500	1.02	1.02	1.02	1.02		0.83	1.15	1.15	1.02	0.81
12000	0.94	0.94	0.94	0.94		0.71	1.06	1.06	0.94	0.71
12500	0.86	0.86	0.86	0.86		0.60	0.97	0.97	0.86	0.63

Single Span: AZ40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	19.18	19.18	19.18	19.18	20.18	20.18	20.18	20.18	14.38	210.78
2500	15.34	15.34	15.34	15.34	16.15	16.15	16.15	16.15	11.51	107.92
3000	12.78	12.78	12.78	12.78	13.46	13.46	13.46	13.46	9.59	62.45
3500	10.96	10.96	10.96	10.96	11.53	11.53	11.53	11.53	8.22	39.33
4000	9.59	9.59	9.59	9.59	10.09	10.09	10.09	10.09	7.19	26.35
4500	7.95	7.95	7.95	7.95	8.11	8.94	8.94	8.94	6.39	18.51
5000	6.44	6.44	6.44	6.44	5.75	7.24	7.24	7.24	5.75	13.49
5500	5.32	5.32	5.32	5.32	4.08	5.98	5.98	5.98	5.23	10.14
6000	4.47	4.47	4.47	4.47	2.89	5.03	5.03	5.03	4.47	7.81
6500	3.81	3.81	3.81	3.81	2.10	4.28	4.28	4.28	3.81	6.14
7000	3.29	3.29	3.29	3.29	1.56	3.69	3.69	3.69	3.29	4.92
7500	2.86	2.86	2.86	2.86	1.18	3.22	3.22	3.22	2.86	4.00
8000	2.52	2.52	2.52	2.52	0.92	2.83	2.83	2.83	2.52	3.29
8500	2.23	2.23	2.23	2.23	0.72	2.51	2.51	2.51	2.23	2.75
9000	1.99	1.99	1.99	1.99	0.57	2.18	2.24	2.24	1.99	2.31
9500	1.78	1.78	1.78	1.78	0.46	1.85	2.01	2.01	1.78	1.97
10000	1.61	1.61	1.61	1.61		1.57	1.81	1.81	1.61	1.69
10500	1.46	1.46	1.46	1.46		1.34	1.64	1.64	1.46	1.46
11000	1.33	1.33	1.33	1.33		1.14	1.50	1.50	1.33	1.27
11500	1.22	1.22	1.22	1.22		0.97	1.37	1.37	1.22	1.11
12000	1.12	1.12	1.12	1.12		0.83	1.26	1.26	1.12	0.98
12500	1.03	1.03	1.03	1.03		0.70	1.16	1.16	1.03	0.86

Single span



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Double Span Continuous

Double Span Continuous: AZ15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.38	6.38	6.38	6.38	6.71	6.71	6.71	6.71	4.78	32.89
2500	5.10	5.10	5.10	5.10	5.37	5.37	5.37	5.37	3.83	16.84
3000	3.26	3.62	3.62	3.62	4.47	4.47	4.47	4.47	3.19	9.75
3500	2.12	2.66	2.66	2.66	3.52	3.52	3.52	3.52	2.66	6.14
4000	1.42	2.03	2.03	2.03	2.70	2.70	2.70	2.70	2.03	4.11
4500	0.96	1.61	1.61	1.61	1.88	2.13	2.13	2.13	1.61	2.89
5000	0.64	1.30	1.30	1.30	1.27	1.73	1.73	1.73	1.30	2.11
5500	0.44	1.02	1.08	1.08	0.86	1.43	1.43	1.43	1.08	1.58
6000		0.81	0.90	0.90	0.61	1.20	1.20	1.20	0.90	1.22
6500		0.65	0.77	0.77	0.44	1.02	1.02	1.02	0.77	0.96
7000		0.53	0.65	0.66		0.88	0.88	0.88	0.65	0.77
7500		0.43	0.55	0.58		0.70	0.77	0.77	0.55	0.62
8000			0.46	0.51		0.55	0.67	0.67	0.46	0.51
8500				0.45		0.44	0.60	0.60		0.43
9000							0.53	0.53		0.36
9500							0.48	0.48		0.31
10000							0.43	0.43		0.26

Double Span Continuous: AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.64	7.64	7.64	7.64	8.04	8.04	8.04	8.04	5.73	39.66
2500	6.11	6.11	6.11	6.11	6.43	6.43	6.43	6.43	4.58	20.31
3000	3.86	4.92	4.92	4.92	5.36	5.36	5.36	5.36	3.82	11.75
3500	2.51	3.61	3.61	3.61	4.56	4.56	4.56	4.56	3.27	7.40
4000	1.68	2.66	2.77	2.77	3.29	3.49	3.49	3.49	2.77	4.96
4500	1.13	2.00	2.19	2.19	2.22	2.76	2.76	2.76	2.19	3.48
5000	0.76	1.54	1.75	1.77	1.48	2.23	2.23	2.23	1.75	2.54
5500	0.52	1.21	1.40	1.46	1.01	1.85	1.85	1.85	1.40	1.91
6000		0.96	1.14	1.23	0.72	1.55	1.55	1.55	1.14	1.47
6500		0.77	0.93	1.04	0.52	1.31	1.32	1.32	0.93	1.16
7000		0.62	0.77	0.87		1.04	1.14	1.14	0.77	0.93
7500		0.51	0.65	0.74		0.82	0.99	0.99	0.65	0.75
8000		0.41	0.55	0.63		0.65	0.87	0.87	0.55	0.62
8500			0.46	0.55		0.51	0.77	0.77	0.46	0.52
9000				0.47		0.41	0.69	0.69		0.44
9500				0.41			0.60	0.62		0.37
10000							0.51	0.56		0.32
10500							0.43	0.51		0.27
11000							0.46			0.24
11500							0.42			0.21

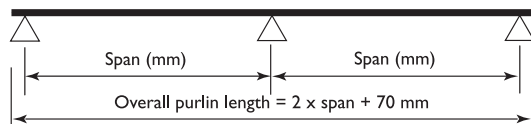
Double Span Continuous: AZ20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.72	6.72	6.72	6.72	4.79	66.11
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	33.85
3000	4.26	4.26	4.26	4.26	4.48	4.48	4.48	4.48	3.19	19.59
3500	3.25	3.65	3.65	3.65	3.84	3.84	3.84	3.84	2.74	12.34
4000	2.17	3.08	3.08	3.08	3.36	3.36	3.36	3.36	2.40	8.26
4500	1.46	2.43	2.43	2.43	2.87	2.99	2.99	2.99	2.13	5.80
5000	0.98	1.97	1.97	1.97	1.93	2.50	2.50	2.50	1.92	4.23
5500	0.67	1.56	1.63	1.63	1.32	2.06	2.06	2.06	1.63	3.18
6000	0.47	1.24	1.37	1.37	0.93	1.74	1.74	1.74	1.37	2.45
6500		0.99	1.17	1.17	0.67	1.48	1.48	1.48	1.17	1.93
7000		0.80	1.00	1.00	0.50	1.27	1.27	1.27	1.00	1.54
7500		0.65	0.84	0.88		1.06	1.11	1.11	0.84	1.25
8000		0.53	0.71	0.77		0.84	0.98	0.98	0.71	1.03
8500		0.44	0.60	0.68		0.67	0.86	0.86	0.60	0.86
9000			0.51	0.61		0.53	0.77	0.77	0.51	0.73
9500			0.44	0.53		0.43	0.69	0.69	0.44	0.62
10000				0.46			0.62	0.62		0.53
10500				0.41			0.55	0.57		0.46
11000							0.47	0.52		0.40
11500								0.47		0.35
12000								0.43		0.31
12500								0.40		0.27

Double Span Continuous: AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.65	7.65	7.65	7.65	8.05	8.05	8.05	8.05	5.74	79.59
2500	6.12	6.12	6.12	6.12	6.44	6.44	6.44	6.44	4.59	40.75
3000	5.10	5.10	5.10	5.10	5.37	5.37	5.37	5.37	3.83	23.58
3500	4.03	4.37	4.37	4.37	4.60	4.60	4.60	4.60	3.28	14.85
4000	2.71	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	9.95
4500	1.85	3.15	3.15	3.15	3.58	3.58	3.58	3.58	2.55	6.99
5000	1.26	2.44	2.55	2.55	2.47	3.22	3.22	3.22	2.30	5.09
5500	0.86	1.91	2.11	2.11	1.69	2.80	2.80	2.80	2.09	3.83
6000	0.61	1.52	1.77	1.77	1.19	2.35	2.35	2.35	1.77	2.95
6500	0.44	1.23	1.47	1.51	0.86	2.00	2.00	2.00	1.47	2.32
7000		1.00	1.23	1.30	0.64	1.68	1.73	1.73	1.23	1.86
7500		0.81	1.03	1.13	0.49	1.34	1.50	1.50	1.03	1.51
8000		0.67	0.87	1.00		1.07	1.32	1.32	0.87	1.24
8500		0.55	0.74	0.86		0.85	1.17	1.17	0.74	1.04
9000		0.45	0.63	0.75		0.68	1.05	1.05	0.63	0.87
9500			0.54	0.65		0.55	0.94	0.94	0.54	0.74
10000			0.47	0.57		0.45	0.82	0.85	0.47	0.64
10500			0.40	0.50			0.70	0.77	0.40	0.55
11000				0.44			0.59	0.70		0.48
11500							0.51	0.64		0.42
12000							0.43	0.59		0.37
12500							0.54			0.33

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Double Span Continuous

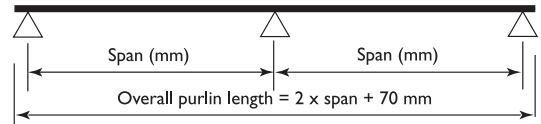
Double Span Continuous: AZ25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.79	110.56
2500	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	56.61
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	32.76
3500	3.65	3.65	3.65	3.65	3.84	3.84	3.84	3.84	2.74	20.63
4000	2.94	3.20	3.20	3.20	3.36	3.36	3.36	3.36	2.40	13.82
4500	1.97	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	9.71
5000	1.31	2.56	2.56	2.56	2.58	2.69	2.69	2.69	1.92	7.08
5500	0.90	2.13	2.16	2.16	1.76	2.45	2.45	2.45	1.74	5.32
6000	0.63	1.69	1.81	1.81	1.24	2.24	2.24	2.24	1.60	4.10
6500	0.46	1.35	1.54	1.54	0.90	1.98	1.98	1.98	1.48	3.22
7000		1.09	1.33	1.33	0.67	1.71	1.71	1.71	1.33	2.58
7500		0.89	1.14	1.16	0.51	1.44	1.49	1.49	1.14	2.10
8000		0.72	0.96	1.02		1.13	1.31	1.31	0.96	1.73
8500		0.59	0.82	0.90		0.89	1.16	1.16	0.82	1.44
9000		0.48	0.70	0.81		0.71	1.03	1.03	0.70	1.21
9500			0.60	0.72		0.57	0.93	0.93	0.60	1.03
10000			0.51	0.63		0.47	0.84	0.84	0.51	0.88
10500			0.44	0.56			0.75	0.76	0.44	0.76
11000				0.49			0.63	0.69		0.67
11500				0.43			0.53	0.63		0.58
12000							0.45	0.58		0.51
12500								0.54		0.45

Double Span Continuous: AZ30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	6.39	6.39	6.39	6.39	6.73	6.73	6.73	6.73	4.80	202.57
2500	5.12	5.12	5.12	5.12	5.38	5.38	5.38	5.38	3.84	103.71
3000	4.26	4.26	4.26	4.26	4.49	4.49	4.49	4.49	3.20	60.02
3500	3.65	3.65	3.65	3.65	3.85	3.85	3.85	3.85	2.74	37.80
4000	3.20	3.20	3.20	3.20	3.37	3.37	3.37	3.37	2.40	25.32
4500	2.84	2.84	2.84	2.84	2.99	2.99	2.99	2.99	2.13	17.78
5000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	12.96
5500	2.33	2.33	2.33	2.33	2.45	2.45	2.45	2.45	1.74	9.74
6000	1.88	2.13	2.13	2.13	2.24	2.24	2.24	2.24	1.60	7.50
6500	1.41	1.97	1.97	1.97	2.07	2.07	2.07	2.07	1.48	5.90
7000	1.06	1.77	1.77	1.77	1.92	1.92	1.92	1.92	1.37	4.73
7500	0.80	1.54	1.54	1.54	1.58	1.80	1.80	1.80	1.28	3.84
8000	0.62	1.36	1.36	1.36	1.22	1.68	1.68	1.68	1.20	3.17
8500	0.49	1.20	1.20	1.20	0.96	1.58	1.58	1.58	1.13	2.64
9000		1.07	1.07	1.07	0.76	1.50	1.50	1.50	1.07	2.22
9500		0.96	0.96	0.96	0.61	1.35	1.35	1.35	0.96	1.89
10000		0.82	0.87	0.87	0.50	1.22	1.22	1.22	0.87	1.62
10500		0.71	0.79	0.79	0.41	1.11	1.11	1.11	0.79	1.40
11000		0.61	0.72	0.72		0.98	1.01	1.01	0.72	1.22
11500		0.53	0.66	0.66		0.83	0.92	0.92	0.66	1.07
12000		0.46	0.60	0.60		0.70	0.85	0.85	0.60	0.94
12500		0.40	0.56	0.56		0.59	0.78	0.78	0.56	0.83

2 Span Continuous



Double Span Continuous: AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.66	7.66	7.66	7.66	8.06	8.06	8.06	8.06	5.74	133.06
2500	6.13	6.13	6.13	6.13	6.45	6.45	6.45	6.45	4.60	68.13
3000	5.11	5.11	5.11	5.11	5.37	5.37	5.37	5.37	3.83	39.42
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.28	24.83
4000	3.61	3.83	3.83	3.83	4.03	4.03	4.03	4.03	2.87	16.63
4500	2.44	3.40	3.40	3.40	3.58	3.58	3.58	3.58	2.55	11.68
5000	1.64	3.06	3.06	3.06	3.21	3.22	3.22	3.22	2.30	8.52
5500	1.12	2.59	2.79	2.79	2.19	2.93	2.93	2.93	2.09	6.40
6000	0.79	2.06	2.36	2.36	1.55	2.69	2.69	2.69	1.91	4.93
6500	0.57	1.65	2.00	2.01	1.13	2.48	2.48	2.48	1.77	3.88
7000	0.43	1.34	1.66	1.74	0.84	2.24	2.28	2.28	1.64	3.10
7500		1.09	1.39	1.51	0.64	1.77	1.99	1.99	1.39	2.52
8000		0.89	1.17	1.33	0.49	1.41	1.75	1.75	1.17	2.08
8500		0.73	1.00	1.17		1.11	1.55	1.55	1.00	1.73
9000		0.60	0.85	1.01		0.88	1.38	1.38	0.85	1.46
9500		0.49	0.73	0.88		0.71	1.24	1.24	0.73	1.24
10000			0.63	0.77		0.58	1.09	1.12	0.63	1.06
10500			0.54	0.68		0.48	0.92	1.01	0.54	0.92
11000			0.47	0.60			0.78	0.92	0.47	0.80
11500			0.40	0.53			0.66	0.85	0.40	0.70
12000				0.47			0.56	0.78		0.62
12500				0.42			0.47	0.72		0.55

Double Span Continuous: AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.67	7.67	7.67	7.67	8.07	8.07	8.07	8.07	5.75	243.00
2500	6.13	6.13	6.13	6.13	6.46	6.46	6.46	6.46	4.60	124.41
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	72.00
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.29	45.34
4000	3.83	3.83	3.83	3.83	4.04	4.04	4.04	4.04	2.88	30.37
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	21.33
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	15.55
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	11.68
6000	2.26	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	9.00
6500	1.70	2.36	2.36	2.36	2.48	2.48	2.48	2.48	1.77	7.08
7000	1.28	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.64	5.67
7500	0.97	1.94	1.94	1.94	1.90	2.15	2.15	2.15	1.53	4.61
8000	0.75	1.71	1.71	1.71	1.47	2.02	2.02	2.02	1.44	3.80
8500	0.59	1.51	1.51	1.51	1.15	1.90	1.90	1.90	1.35	3.17
9000	0.47	1.34	1.35	1.35	0.92	1.79	1.79	1.79	1.28	2.67
9500		1.15	1.21	1.21	0.74	1.70	1.70	1.70	1.21	2.27
10000		0.99	1.09	1.09	0.60	1.61	1.61	1.61	1.09	1.94
10500		0.85	0.99	0.99	0.50	1.39	1.46	1.46	0.99	1.68
11000		0.74	0.90	0.90	0.41	1.18	1.33	1.33	0.90	1.46
11500		0.64	0.83	0.83		0.99	1.21	1.21	0.83	1.28
12000		0.56	0.76	0.76		0.84	1.12	1.12	0.76	1.13
12500		0.48	0.68	0.70		0.71	1.03	1.03	0.68	1.00

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Double Span Continuous

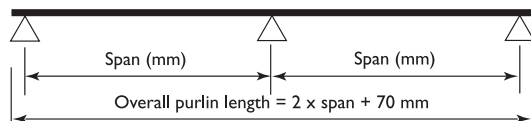
Double Span Continuous: AZ35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.67	7.67	7.67	7.67	8.07	8.07	8.07	8.07	5.75	371.46
2500	6.13	6.13	6.13	6.13	6.46	6.46	6.46	6.46	4.60	190.19
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.83	110.06
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.29	69.31
4000	3.83	3.83	3.83	3.83	4.04	4.04	4.04	4.04	2.88	46.43
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	32.61
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	23.77
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	17.86
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	13.76
6500	2.36	2.36	2.36	2.36	2.48	2.48	2.48	2.48	1.77	10.82
7000	2.15	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.64	8.66
7500	1.68	2.04	2.04	2.04	2.15	2.15	2.15	2.15	1.53	7.04
8000	1.30	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	5.80
8500	1.02	1.80	1.80	1.80	1.90	1.90	1.90	1.90	1.35	4.84
9000	0.81	1.70	1.70	1.70	1.60	1.79	1.79	1.79	1.28	4.08
9500	0.66	1.53	1.53	1.53	1.29	1.64	1.64	1.64	1.21	3.47
10000	0.53	1.38	1.38	1.38	1.05	1.48	1.48	1.48	1.15	2.97
10500	0.44	1.25	1.25	1.25	0.86	1.35	1.35	1.35	1.10	2.57
11000		1.13	1.14	1.14	0.72	1.23	1.23	1.23	1.05	2.23
11500		1.00	1.04	1.04	0.60	1.12	1.12	1.12	1.00	1.95
12000		0.88	0.96	0.96	0.51	1.03	1.03	1.03	0.96	1.72
12500		0.77	0.88	0.88	0.43	0.95	0.95	0.95	0.88	1.52

Double Span Continuous: AZ40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	7.67	7.67	7.67	7.67	8.07	8.07	8.07	8.07	5.75	508.15
2500	6.14	6.14	6.14	6.14	6.46	6.46	6.46	6.46	4.60	260.17
3000	5.11	5.11	5.11	5.11	5.38	5.38	5.38	5.38	3.84	150.56
3500	4.38	4.38	4.38	4.38	4.61	4.61	4.61	4.61	3.29	94.81
4000	3.84	3.84	3.84	3.84	4.04	4.04	4.04	4.04	2.88	63.52
4500	3.41	3.41	3.41	3.41	3.59	3.59	3.59	3.59	2.56	44.61
5000	3.07	3.07	3.07	3.07	3.23	3.23	3.23	3.23	2.30	32.52
5500	2.79	2.79	2.79	2.79	2.94	2.94	2.94	2.94	2.09	24.43
6000	2.56	2.56	2.56	2.56	2.69	2.69	2.69	2.69	1.92	18.82
6500	2.36	2.36	2.36	2.36	2.48	2.48	2.48	2.48	1.77	14.80
7000	2.19	2.19	2.19	2.19	2.31	2.31	2.31	2.31	1.64	11.85
7500	1.97	2.05	2.05	2.05	2.15	2.15	2.15	2.15	1.53	9.64
8000	1.52	1.92	1.92	1.92	2.02	2.02	2.02	2.02	1.44	7.94
8500	1.19	1.81	1.81	1.81	1.90	1.90	1.90	1.90	1.35	6.62
9000	0.95	1.70	1.70	1.70	1.79	1.79	1.79	1.79	1.28	5.58
9500	0.76	1.62	1.62	1.62	1.50	1.70	1.70	1.70	1.21	4.74
10000	0.62	1.53	1.53	1.53	1.22	1.62	1.62	1.62	1.15	4.07
10500	0.51	1.46	1.46	1.46	1.01	1.54	1.54	1.54	1.10	3.51
11000	0.43	1.35	1.36	1.36	0.84	1.46	1.46	1.46	1.05	3.05
11500		1.18	1.24	1.24	0.70	1.34	1.34	1.34	1.00	2.67
12000		1.04	1.14	1.14	0.59	1.23	1.23	1.23	0.96	2.35
12500		0.91	1.05	1.05	0.50	1.13	1.13	1.13	0.92	2.08

2 Span Continuous



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Double Span Lapped

Double Span Lapped: AZ15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.45	12.45	12.45	12.45	13.11	13.11	13.11	13.11	9.34	40.10
2500	8.04	8.04	8.04	8.04	10.49	10.49	10.49	10.49	7.47	20.53
3000	5.16	5.58	5.58	5.58	7.29	7.40	7.40	7.40	5.58	11.88
3500	3.39	4.10	4.10	4.10	4.79	5.43	5.43	5.43	4.10	7.48
4000	2.29	3.14	3.14	3.14	3.24	4.16	4.16	4.16	3.14	5.01
4500	1.57	2.48	2.48	2.48	2.22	3.29	3.29	3.29	2.48	3.52
5000	1.08	2.01	2.01	2.01	1.52	2.57	2.66	2.66	2.01	2.57
5500	0.74	1.59	1.66	1.66	1.04	1.99	2.20	2.20	1.66	1.93
6000	0.52	1.26	1.40	1.40	0.73	1.56	1.85	1.85	1.40	1.49
6500		1.02	1.19	1.19	0.53	1.23	1.58	1.58	1.19	1.17
7000		0.83	1.00	1.03		0.98	1.31	1.36	1.00	0.94
7500		0.67	0.84	0.89		0.78	1.09	1.18	0.84	0.76
8000		0.55	0.71	0.79		0.62	0.91	1.04	0.71	0.63
8500		0.46	0.60	0.70		0.49	0.76	0.92	0.60	0.52
9000			0.51	0.60			0.64	0.82	0.51	0.44
9500			0.44	0.52			0.54	0.72	0.44	0.37
10000				0.46			0.46	0.63		0.32
10500				0.40				0.55		0.28
11000								0.48		0.24

Double Span Lapped: AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.91	14.91	14.91	14.91	15.70	15.70	15.70	15.70	11.18	48.35
2500	9.76	10.92	10.92	10.92	12.56	12.56	12.56	12.56	8.95	24.76
3000	6.12	7.59	7.59	7.59	8.65	9.57	9.57	9.57	7.46	14.33
3500	4.02	5.57	5.57	5.57	5.67	7.03	7.03	7.03	5.57	9.02
4000	2.71	4.13	4.27	4.27	3.83	5.38	5.38	5.38	4.27	6.04
4500	1.85	3.11	3.37	3.37	2.61	4.01	4.25	4.25	3.37	4.25
5000	1.26	2.40	2.69	2.73	1.78	3.05	3.45	3.45	2.69	3.09
5500	0.86	1.88	2.15	2.26	1.22	2.36	2.85	2.85	2.15	2.33
6000	0.61	1.50	1.74	1.90	0.86	1.85	2.32	2.39	1.74	1.79
6500	0.44	1.21	1.43	1.58	0.63	1.46	1.89	2.04	1.43	1.41
7000		0.98	1.19	1.33	0.47	1.15	1.55	1.76	1.19	1.13
7500		0.80	0.99	1.13		0.92	1.29	1.53	0.99	0.92
8000		0.65	0.84	0.96		0.73	1.07	1.33	0.84	0.76
8500		0.54	0.71	0.83		0.58	0.90	1.14	0.71	0.63
9000		0.44	0.60	0.71		0.46	0.76	0.98	0.60	0.53
9500			0.52	0.62			0.64	0.86	0.52	0.45
10000			0.44	0.54			0.54	0.75	0.44	0.39
10500				0.48			0.46	0.65		0.33
11000				0.42				0.57		0.29
11500								0.50		0.25
12000								0.44		0.22

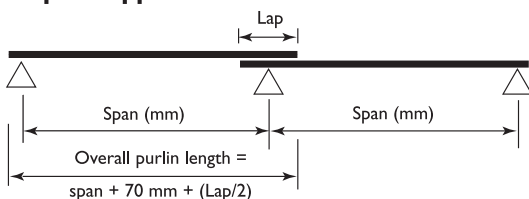
Double Span Lapped: AZ20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.47	12.47	12.47	12.47	13.13	13.13	13.13	13.13	9.36	80.59
2500	9.98	9.98	9.98	9.98	10.50	10.50	10.50	10.50	7.48	41.26
3000	7.90	8.32	8.32	8.32	8.75	8.75	8.75	8.75	6.24	23.88
3500	5.19	6.20	6.20	6.20	7.32	7.50	7.50	7.50	5.35	15.04
4000	3.50	4.75	4.75	4.75	4.94	6.02	6.02	6.02	4.68	10.07
4500	2.39	3.75	3.75	3.75	3.38	4.76	4.76	4.76	3.75	7.08
5000	1.64	3.04	3.04	3.04	2.31	3.86	3.86	3.86	3.04	5.16
5500	1.12	2.43	2.51	2.51	1.58	3.05	3.19	3.19	2.51	3.88
6000	0.79	1.93	2.11	2.11	1.12	2.38	2.68	2.68	2.11	2.99
6500	0.57	1.56	1.80	1.80	0.81	1.88	2.28	2.28	1.80	2.35
7000	0.43	1.26	1.53	1.55	0.60	1.49	1.97	1.97	1.53	1.88
7500		1.03	1.28	1.35	0.46	1.19	1.66	1.71	1.28	1.53
8000		0.84	1.08	1.19		0.94	1.38	1.51	1.08	1.26
8500		0.69	0.91	1.05		0.75	1.16	1.33	0.91	1.05
9000		0.57	0.78	0.92		0.60	0.98	1.19	0.78	0.88
9500		0.47	0.67	0.80		0.48	0.82	1.07	0.67	0.75
10000			0.57	0.70			0.70	0.96	0.57	0.65
10500			0.49	0.61			0.59	0.84	0.49	0.56
11000			0.42	0.54			0.50	0.74	0.42	0.48
11500				0.48			0.42	0.65		0.42
12000				0.42				0.57		0.37
12500								0.50		0.33

Double Span Lapped: AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.94	14.94	14.94	14.94	15.73	15.73	15.73	15.73	11.21	97.03
2500	11.95	11.95	11.95	11.95	12.58	12.58	12.58	12.58	8.97	49.68
3000	9.72	9.96	9.96	9.96	10.49	10.49	10.49	10.49	7.47	28.75
3500	6.42	8.03	8.03	8.03	8.99	8.99	8.99	8.99	6.40	18.11
4000	4.36	6.15	6.15	6.15	6.16	7.87	7.87	7.87	5.60	12.13
4500	3.01	4.86	4.86	4.86	4.25	6.35	6.45	6.45	4.86	8.52
5000	2.09	3.80	3.94	3.94	2.95	4.85	5.22	5.22	3.94	6.21
5500	1.44	2.99	3.25	3.25	2.03	3.76	4.32	4.32	3.25	4.67
6000	1.02	2.38	2.73	2.73	1.43	2.95	3.63	3.63	2.73	3.59
6500	0.74	1.92	2.26	2.33	1.04	2.34	2.99	3.09	2.26	2.83
7000	0.55	1.56	1.88	2.01	0.77	1.87	2.47	2.67	1.88	2.26
7500	0.42	1.28	1.57	1.75	0.59	1.49	2.05	2.32	1.57	1.84
8000		1.06	1.33	1.52	0.45	1.20	1.71	2.04	1.33	1.52
8500		0.87	1.13	1.31		0.96	1.44	1.80	1.13	1.26
9000		0.72	0.96	1.13		0.76	1.22	1.56	0.96	1.07
9500		0.60	0.83	0.99		0.62	1.03	1.36	0.83	0.91
10000		0.49	0.71	0.86		0.50	0.88	1.19	0.71	0.78
10500		0.41	0.61	0.76		0.41	0.74	1.04	0.61	0.67
11000			0.53	0.67			0.63	0.92	0.53	0.58
11500			0.46	0.59			0.54	0.81	0.46	0.51
12000				0.52			0.45	0.71		0.45
12500				0.47				0.63		0.40

2 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Double Span Lapped

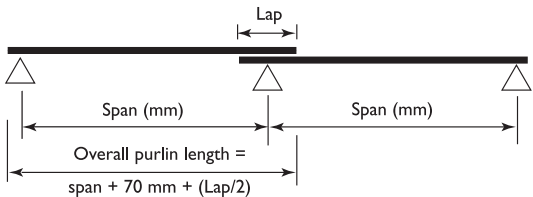
Double Span Lapped: AZ25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.48	12.48	12.48	12.48	13.14	13.14	13.14	13.14	9.36	134.78
2500	9.99	9.99	9.99	9.99	10.51	10.51	10.51	10.51	7.49	69.01
3000	8.32	8.32	8.32	8.32	8.76	8.76	8.76	8.76	6.24	39.94
3500	7.06	7.13	7.13	7.13	7.51	7.51	7.51	7.51	5.35	25.15
4000	4.75	6.24	6.24	6.24	6.57	6.57	6.57	6.57	4.68	16.85
4500	3.23	4.97	4.97	4.97	4.56	5.84	5.84	5.84	4.16	11.83
5000	2.20	4.03	4.03	4.03	3.10	5.16	5.16	5.16	3.75	8.63
5500	1.50	3.32	3.33	3.33	2.12	4.15	4.27	4.27	3.33	6.48
6000	1.06	2.64	2.80	2.80	1.50	3.24	3.59	3.59	2.80	4.99
6500	0.77	2.12	2.38	2.38	1.09	2.55	3.05	3.05	2.38	3.93
7000	0.57	1.72	2.05	2.05	0.81	2.02	2.63	2.63	2.05	3.14
7500	0.43	1.40	1.75	1.79	0.61	1.60	2.26	2.29	1.75	2.56
8000		1.14	1.47	1.57	0.47	1.27	1.88	2.02	1.47	2.11
8500		0.94	1.25	1.39		1.00	1.58	1.79	1.25	1.76
9000		0.77	1.06	1.24		0.80	1.33	1.59	1.06	1.48
9500		0.63	0.91	1.10		0.64	1.12	1.43	0.91	1.26
10000		0.52	0.78	0.96		0.52	0.94	1.29	0.78	1.08
10500		0.42	0.67	0.84		0.43	0.79	1.15	0.67	0.93
11000			0.57	0.74			0.67	1.01	0.57	0.81
11500			0.49	0.65			0.56	0.88	0.49	0.71
12000			0.42	0.57			0.47	0.77	0.42	0.62
12500				0.51			0.40	0.68		0.55

Double Span Lapped: AZ30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	12.49	12.49	12.49	12.49	13.15	13.15	13.15	13.15	9.37	246.95
2500	9.99	9.99	9.99	9.99	10.52	10.52	10.52	10.52	7.49	126.44
3000	8.33	8.33	8.33	8.33	8.76	8.76	8.76	8.76	6.24	73.17
3500	7.14	7.14	7.14	7.14	7.51	7.51	7.51	7.51	5.35	46.08
4000	6.24	6.24	6.24	6.24	6.57	6.57	6.57	6.57	4.68	30.87
4500	5.55	5.55	5.55	5.55	5.84	5.84	5.84	5.84	4.16	21.68
5000	5.00	5.00	5.00	5.00	5.26	5.26	5.26	5.26	3.75	15.81
5500	4.02	4.43	4.43	4.43	4.78	4.78	4.78	4.78	3.41	11.87
6000	3.05	3.72	3.72	3.72	4.31	4.36	4.38	4.38	3.12	9.15
6500	2.33	3.17	3.17	3.17	3.29	3.83	3.85	3.85	2.88	7.19
7000	1.77	2.74	2.74	2.74	2.50	3.39	3.41	3.41	2.68	5.76
7500	1.35	2.38	2.38	2.38	1.90	3.02	3.04	3.04	2.38	4.68
8000	1.04	2.09	2.09	2.09	1.47	2.71	2.72	2.72	2.09	3.86
8500	0.82	1.86	1.86	1.86	1.15	2.44	2.45	2.45	1.86	3.22
9000	0.65	1.65	1.65	1.65	0.92	2.11	2.22	2.22	1.65	2.71
9500	0.52	1.49	1.49	1.49	0.74	1.79	2.01	2.01	1.49	2.30
10000	0.43	1.29	1.34	1.34	0.60	1.52	1.84	1.84	1.34	1.98
10500		1.12	1.22	1.22	0.49	1.29	1.68	1.68	1.22	1.71
11000		0.97	1.11	1.11	0.41	1.09	1.54	1.54	1.11	1.48
11500		0.84	1.01	1.01		0.93	1.39	1.41	1.01	1.30
12000		0.73	0.93	0.93		0.78	1.23	1.30	0.93	1.14
12500		0.64	0.86	0.86		0.66	1.09	1.19	0.86	1.01

2 Span Lapped



Double Span Lapped: AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.96	14.96	14.96	14.96	15.74	15.74	15.74	15.74	11.22	162.21
2500	11.97	11.97	11.97	11.97	12.60	12.60	12.60	12.60	8.97	83.05
3000	9.97	9.97	9.97	9.97	10.50	10.50	10.50	10.50	7.48	48.06
3500	8.55	8.55	8.55	8.55	9.00	9.00	9.00	9.00	6.41	30.27
4000	5.83	7.48	7.48	7.48	7.87	7.87	7.87	7.87	5.61	20.28
4500	3.99	6.48	6.48	6.48	5.63	7.00	7.00	7.00	4.99	14.24
5000	2.73	5.14	5.25	5.25	3.86	6.30	6.30	6.30	4.49	10.38
5500	1.87	4.04	4.34	4.34	2.64	5.07	5.70	5.70	4.08	7.80
6000	1.32	3.22	3.65	3.65	1.86	3.97	4.79	4.79	3.65	6.01
6500	0.96	2.59	3.06	3.11	1.35	3.13	4.04	4.08	3.06	4.73
7000	0.71	2.10	2.54	2.68	1.01	2.49	3.33	3.52	2.54	3.78
7500	0.54	1.71	2.13	2.33	0.76	1.98	2.76	3.07	2.13	3.08
8000	0.42	1.41	1.79	2.05	0.59	1.57	2.30	2.70	1.79	2.53
8500		1.16	1.52	1.77	0.46	1.25	1.93	2.39	1.52	2.11
9000		0.95	1.30	1.53		0.99	1.63	2.11	1.30	1.78
9500		0.78	1.11	1.33		0.80	1.37	1.83	1.11	1.51
10000		0.64	0.95	1.16		0.65	1.16	1.60	0.95	1.30
10500		0.53	0.82	1.02		0.54	0.98	1.40	0.82	1.12
11000		0.44	0.71	0.90		0.45	0.83	1.23	0.71	0.98
11500			0.61	0.79			0.70	1.08	0.61	0.85
12000			0.53	0.70			0.59	0.95	0.53	0.75
12500			0.45	0.62			0.50	0.83	0.45	0.66

Double Span Lapped: AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.97	14.97	14.97	14.97	15.76	15.76	15.76	15.76	11.23	296.23
2500	11.98	11.98	11.98	11.98	12.61	12.61	12.61	12.61	8.98	151.67
3000	9.98	9.98	9.98	9.98	10.51	10.51	10.51	10.51	7.49	87.77
3500	8.56	8.56	8.56	8.56	9.01	9.01	9.01	9.01	6.42	55.27
4000	7.49	7.49	7.49	7.49	7.88	7.88	7.88	7.88	5.62	37.03
4500	6.66	6.66	6.66	6.66	7.01	7.01	7.01	7.01	4.99	26.01
5000	5.99	5.99	5.99	5.99	6.31	6.31	6.31	6.31	4.49	18.96
5500	4.83	5.45	5.45	5.45	5.73	5.73	5.73	5.73	4.08	14.24
6000	3.67	4.68	4.68	4.68	5.19	5.25	5.25	5.25	3.74	10.97
6500	2.80	3.99	3.99	3.99	3.96	4.85	4.85	4.85	3.46	8.63
7000	2.13	3.44	3.44	3.44	3.01	4.50	4.50	4.50	3.21	6.91
7500	1.62	3.00	3.00	3.00	2.29	4.17	4.17	4.17	3.00	5.62
8000	1.25	2.63	2.63	2.63	1.77	3.58	3.67	3.67	2.63	4.63
8500	0.98	2.33	2.33	2.33	1.39	3.01	3.25	3.25	2.33	3.86
9000	0.78	2.08	2.08	2.08	1.10	2.54	2.90	2.90	2.08	3.25
9500	0.63	1.80	1.87	1.87	0.89	2.15	2.60	2.60	1.87	2.76
10000	0.51	1.55	1.69	1.69	0.72	1.82	2.35	2.35	1.69	2.37
10500	0.42	1.34	1.53	1.53	0.60	1.55	2.13	2.13	1.53	2.05
11000		1.17	1.39	1.39	0.50	1.31	1.90	1.94	1.39	1.78
11500		1.01	1.28	1.28	0.41	1.11	1.68	1.78	1.28	1.56
12000		0.88	1.17	1.17		0.94	1.48	1.63	1.17	1.37
12500		0.77	1.04	1.08		0.80	1.31	1.50	1.04	1.21

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Double Span Lapped

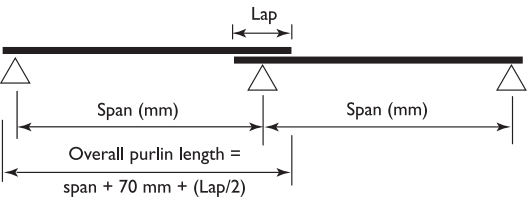
Double Span Lapped: AZ35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.97	14.97	14.97	14.97	15.76	15.76	15.76	15.76	11.23	452.84
2500	11.98	11.98	11.98	11.98	12.61	12.61	12.61	12.61	8.99	231.86
3000	9.98	9.98	9.98	9.98	10.51	10.51	10.51	10.51	7.49	134.18
3500	8.56	8.56	8.56	8.56	9.01	9.01	9.01	9.01	6.42	84.50
4000	7.49	7.49	7.49	7.49	7.88	7.88	7.88	7.88	5.62	56.61
4500	6.66	6.66	6.66	6.66	7.01	7.01	7.01	7.01	4.99	39.76
5000	5.99	5.99	5.99	5.99	6.31	6.31	6.31	6.31	4.49	28.98
5500	5.45	5.45	5.45	5.45	5.73	5.73	5.73	5.73	4.08	21.78
6000	4.99	4.99	4.99	4.99	5.25	5.25	5.25	5.25	3.74	16.77
6500	4.47	4.61	4.61	4.61	4.85	4.85	4.85	4.85	3.46	13.19
7000	3.52	4.28	4.28	4.28	4.50	4.50	4.50	4.50	3.21	10.56
7500	2.77	3.79	3.79	3.79	3.91	4.07	4.07	4.07	3.00	8.59
8000	2.18	3.33	3.33	3.33	3.08	3.58	3.58	3.58	2.81	7.08
8500	1.71	2.95	2.95	2.95	2.42	3.17	3.17	3.17	2.64	5.90
9000	1.36	2.63	2.63	2.63	1.92	2.83	2.83	2.83	2.50	4.97
9500	1.10	2.36	2.36	2.36	1.55	2.54	2.54	2.54	2.36	4.23
10000	0.89	2.13	2.13	2.13	1.26	2.29	2.29	2.29	2.13	3.62
10500	0.74	1.93	1.93	1.93	1.04	2.08	2.08	2.08	1.93	3.13
11000	0.61	1.76	1.76	1.76	0.86	1.89	1.89	1.89	1.76	2.72
11500	0.51	1.57	1.61	1.61	0.72	1.73	1.73	1.73	1.61	2.38
12000	0.43	1.38	1.48	1.48	0.61	1.59	1.59	1.59	1.48	2.10
12500		1.22	1.36	1.36	0.52	1.37	1.47	1.47	1.36	1.86

Double Span Lapped: AZ40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.98	14.98	14.98	14.98	15.77	15.77	15.77	15.77	11.24	619.47
2500	11.98	11.98	11.98	11.98	12.62	12.62	12.62	12.62	8.99	317.17
3000	9.99	9.99	9.99	9.99	10.51	10.51	10.51	10.51	7.49	183.55
3500	8.56	8.56	8.56	8.56	9.01	9.01	9.01	9.01	6.42	115.59
4000	7.49	7.49	7.49	7.49	7.88	7.88	7.88	7.88	5.62	77.43
4500	6.66	6.66	6.66	6.66	7.01	7.01	7.01	7.01	4.99	54.39
5000	5.99	5.99	5.99	5.99	6.31	6.31	6.31	6.31	4.49	39.65
5500	5.45	5.45	5.45	5.45	5.73	5.73	5.73	5.73	4.09	29.79
6000	4.99	4.99	4.99	4.99	5.26	5.26	5.26	5.26	3.75	22.94
6500	4.61	4.61	4.61	4.61	4.85	4.85	4.85	4.85	3.46	18.05
7000	4.15	4.28	4.28	4.28	4.51	4.51	4.51	4.51	3.21	14.45
7500	3.26	4.00	4.00	4.00	4.21	4.21	4.21	4.21	3.00	11.75
8000	2.55	3.75	3.75	3.75	3.60	3.94	3.94	3.94	2.81	9.68
8500	2.00	3.40	3.41	3.41	2.82	3.71	3.71	3.71	2.64	8.07
9000	1.59	3.10	3.11	3.11	2.24	3.37	3.37	3.37	2.50	6.80
9500	1.28	2.81	2.81	2.81	1.81	3.03	3.03	3.03	2.37	5.78
10000	1.04	2.54	2.54	2.54	1.47	2.73	2.73	2.73	2.25	4.96
10500	0.86	2.30	2.30	2.30	1.21	2.48	2.48	2.48	2.14	4.28
11000	0.71	2.10	2.10	2.10	1.01	2.26	2.26	2.26	2.04	3.72
11500	0.60	1.86	1.92	1.92	0.84	2.07	2.07	2.07	1.92	3.26
12000	0.50	1.64	1.76	1.76	0.71	1.87	1.90	1.90	1.76	2.87
12500	0.43	1.44	1.63	1.63	0.60	1.61	1.75	1.75	1.63	2.54

2 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Three Span Lapped

Three Span Lapped: AZ15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.37	14.37	14.37	14.37	14.92	14.92	14.92	14.92	10.78	30.54
2500	10.17	10.17	10.17	10.17	9.15	9.55	9.55	9.55	8.62	15.64
3000	7.03	7.06	7.06	7.06	5.62	6.63	6.63	6.63	6.63	9.05
3500	4.49	5.19	5.19	5.19	3.59	4.87	4.87	4.87	4.87	5.70
4000	2.93	3.97	3.97	3.97	2.34	3.73	3.73	3.73	3.73	3.82
4500	1.91	3.14	3.14	3.14	1.52	2.85	2.95	2.95	2.95	2.68
5000	1.25	2.54	2.54	2.54	1.00	2.16	2.39	2.39	2.39	1.96
5500	0.85	2.07	2.10	2.10	0.68	1.66	1.97	1.97	1.97	1.47
6000	0.60	1.61	1.77	1.77	0.48	1.30	1.66	1.66	1.66	1.13
6500	0.44	1.26	1.50	1.50		1.02	1.38	1.41	1.38	0.89
7000		1.00	1.28	1.30		0.80	1.13	1.22	1.13	0.71
7500		0.79	1.08	1.13		0.63	0.94	1.06	0.94	0.58
8000		0.62	0.91	0.99		0.50	0.79	0.93	0.79	0.48
8500		0.49	0.77	0.86			0.66	0.82	0.66	0.40
9000			0.66	0.74			0.56	0.71	0.56	0.34
9500			0.57	0.65			0.47	0.61	0.47	0.29
10000			0.49	0.56				0.54		0.24
10500			0.42	0.49				0.47		0.21
11000				0.43				0.41		0.18

Three Span Lapped: AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.21	17.21	17.21	17.21	18.12	18.12	18.12	18.12	12.91	36.83
2500	13.28	13.61	13.61	13.61	10.85	12.98	12.98	12.98	10.33	18.86
3000	8.33	9.45	9.45	9.45	6.66	9.01	9.01	9.01	8.61	10.91
3500	5.31	6.95	6.95	6.95	4.25	6.30	6.62	6.62	6.62	6.87
4000	3.45	5.32	5.32	5.32	2.76	4.55	5.07	5.07	5.07	4.60
4500	2.24	4.11	4.20	4.20	1.79	3.38	4.01	4.01	4.01	3.23
5000	1.47	3.18	3.40	3.40	1.17	2.56	3.14	3.24	3.14	2.36
5500	1.00	2.45	2.75	2.81	0.80	1.97	2.49	2.68	2.49	1.77
6000	0.71	1.91	2.23	2.36	0.57	1.53	2.00	2.25	2.00	1.36
6500	0.51	1.49	1.83	1.98	0.41	1.20	1.63	1.87	1.63	1.07
7000		1.18	1.52	1.65		0.95	1.34	1.56	1.34	0.86
7500		0.93	1.28	1.40		0.75	1.12	1.32	1.12	0.70
8000		0.73	1.08	1.19		0.59	0.93	1.13	0.93	0.58
8500		0.57	0.91	1.02		0.46	0.78	0.97	0.78	0.48
9000		0.46	0.78	0.88			0.66	0.84	0.66	0.40
9500			0.67	0.77			0.56	0.73	0.56	0.34
10000			0.58	0.67			0.47	0.64	0.47	0.30
10500			0.50	0.58				0.56		0.25
11000			0.43	0.51				0.49		0.22
11500				0.45				0.43		0.19

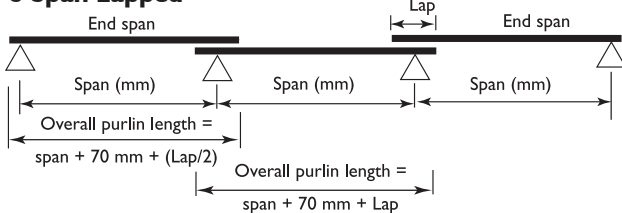
Three Span Lapped: AZ20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.40	14.40	14.40	14.40	15.15	15.15	15.15	15.15	10.80	61.39
2500	11.52	11.52	11.52	11.52	12.12	12.12	12.12	12.12	8.64	31.43
3000	9.60	9.60	9.60	9.60	8.59	10.03	10.03	10.03	7.20	18.19
3500	6.86	7.72	7.72	7.72	5.49	7.37	7.37	7.37	6.17	11.45
4000	4.46	5.91	5.91	5.91	3.57	5.64	5.64	5.64	5.40	7.67
4500	2.90	4.67	4.67	4.67	2.32	4.35	4.46	4.46	4.46	5.39
5000	1.90	3.79	3.79	3.79	1.52	3.30	3.61	3.61	3.61	3.93
5500	1.30	3.13	3.13	3.13	1.04	2.54	2.98	2.98	2.98	2.95
6000	0.92	2.46	2.63	2.63	0.73	1.98	2.51	2.51	2.51	2.27
6500	0.67	1.93	2.24	2.24	0.53	1.55	2.11	2.14	2.11	1.79
7000	0.50	1.52	1.93	1.93		1.22	1.73	1.84	1.73	1.43
7500		1.20	1.64	1.68		0.97	1.44	1.60	1.44	1.16
8000		0.95	1.39	1.48		0.76	1.20	1.41	1.20	0.96
8500		0.74	1.18	1.31		0.60	1.01	1.25	1.01	0.80
9000		0.59	1.01	1.14		0.48	0.85	1.08	0.85	0.67
9500		0.48	0.86	0.99			0.72	0.94	0.72	0.57
10000			0.74	0.86			0.61	0.82	0.61	0.49
10500			0.64	0.75			0.52	0.72	0.52	0.42
11000			0.55	0.66			0.44	0.63	0.44	0.37
11500			0.48	0.58				0.56		0.32
12000			0.42	0.51				0.49		0.28
12500				0.45				0.43		0.25

Three Span Lapped: AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.25	17.25	17.25	17.25	18.16	18.16	18.16	18.16	12.94	73.91
2500	13.80	13.80	13.80	13.80	14.52	14.52	14.52	14.52	10.35	37.84
3000	11.50	11.50	11.50	11.50	10.62	12.10	12.10	12.10	8.62	21.90
3500	8.55	9.86	9.86	9.86	6.83	9.54	9.54	9.54	7.39	13.79
4000	5.62	7.78	7.78	7.78	4.49	7.18	7.30	7.30	6.47	9.24
4500	3.70	6.15	6.15	6.15	2.96	5.35	5.77	5.77	5.75	6.49
5000	2.44	4.98	4.98	4.98	1.95	4.07	4.68	4.68	4.68	4.73
5500	1.67	3.91	4.12	4.12	1.33	3.14	3.86	3.86	3.86	3.55
6000	1.18	3.06	3.46	3.46	0.94	2.46	3.17	3.25	3.17	2.74
6500	0.85	2.41	2.89	2.95	0.68	1.94	2.59	2.77	2.59	2.15
7000	0.64	1.91	2.41	2.54	0.51	1.54	2.14	2.39	2.14	1.72
7500	0.48	1.52	2.02	2.21		1.22	1.78	2.08	1.78	1.40
8000		1.20	1.71	1.88		0.97	1.49	1.78	1.49	1.16
8500		0.95	1.46	1.62		0.77	1.25	1.53	1.25	0.96
9000		0.76	1.25	1.40		0.61	1.06	1.33	1.06	0.81
9500		0.61	1.07	1.22		0.49	0.90	1.16	0.90	0.69
10000		0.50	0.92	1.06		0.40	0.76	1.01	0.76	0.59
10500		0.41	0.80	0.93			0.65	0.89	0.65	0.51
11000			0.69	0.82			0.55	0.78	0.55	0.44
11500			0.60	0.72			0.47	0.69	0.47	0.39
12000			0.52	0.64			0.40	0.61	0.40	0.34
12500			0.46	0.57				0.54		0.30

3 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

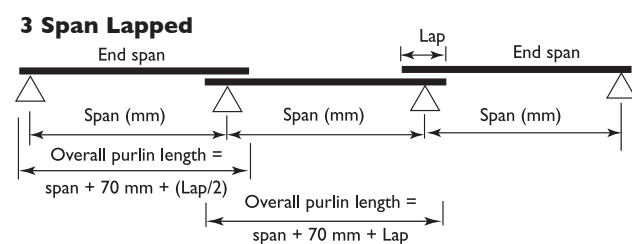
PERMALITE® Downturned Lip Zed Three Span Lapped

Three Span Lapped: AZ25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.41	14.41	14.41	14.41	15.16	15.16	15.16	15.16	10.81	102.66
2500	11.53	11.53	11.53	11.53	12.13	12.13	12.13	12.13	8.64	52.56
3000	9.60	9.60	9.60	9.60	10.11	10.11	10.11	10.11	7.20	30.42
3500	8.23	8.23	8.23	8.23	7.45	8.67	8.67	8.67	6.17	19.16
4000	6.02	7.20	7.20	7.20	4.81	7.47	7.47	7.47	5.40	12.83
4500	3.88	6.26	6.26	6.26	3.10	5.90	5.90	5.90	4.80	9.01
5000	2.55	5.07	5.07	5.07	2.04	4.50	4.78	4.78	4.32	6.57
5500	1.74	4.19	4.19	4.19	1.39	3.46	3.95	3.95	3.93	4.94
6000	1.23	3.34	3.52	3.52	0.98	2.69	3.32	3.32	3.32	3.80
6500	0.89	2.62	3.00	3.00	0.71	2.11	2.83	2.83	2.83	2.99
7000	0.66	2.06	2.59	2.59	0.53	1.65	2.37	2.44	2.37	2.39
7500	0.50	1.62	2.25	2.25	0.40	1.30	1.96	2.13	1.96	1.95
8000		1.27	1.90	1.98		1.02	1.64	1.87	1.64	1.60
8500		0.99	1.61	1.75		0.80	1.37	1.65	1.37	1.34
9000		0.79	1.37	1.56		0.64	1.16	1.48	1.16	1.13
9500		0.64	1.18	1.35		0.51	0.97	1.28	0.97	0.96
10000		0.52	1.01	1.18		0.42	0.82	1.12	0.82	0.82
10500		0.43	0.87	1.03		0.70	0.98		0.70	0.71
11000			0.75	0.90			0.59	0.86	0.59	0.62
11500			0.65	0.79			0.50	0.76	0.50	0.54
12000			0.56	0.70			0.42	0.67	0.42	0.48
12500			0.48	0.62				0.59		0.42

Three Span Lapped: AZ30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.41	14.41	14.41	14.41	15.17	15.17	15.17	15.17	10.81	188.09
2500	11.53	11.53	11.53	11.53	12.14	12.14	12.14	12.14	8.65	96.30
3000	9.61	9.61	9.61	9.61	10.12	10.12	10.12	10.12	7.21	55.73
3500	8.24	8.24	8.24	8.24	8.67	8.67	8.67	8.67	6.18	35.10
4000	7.21	7.21	7.21	7.21	7.59	7.59	7.59	7.59	5.41	23.51
4500	6.41	6.41	6.41	6.41	6.74	6.74	6.74	6.74	4.81	16.51
5000	5.77	5.77	5.77	5.77	5.60	6.07	6.07	6.07	4.32	12.04
5500	5.14	5.24	5.24	5.24	4.11	5.26	5.26	5.26	3.93	9.04
6000	3.78	4.71	4.71	4.71	3.02	4.42	4.42	4.42	3.60	6.97
6500	2.76	4.01	4.01	4.01	2.21	3.77	3.77	3.77	3.33	5.48
7000	2.06	3.46	3.46	3.46	1.64	3.25	3.25	3.25	3.09	4.39
7500	1.56	3.02	3.02	3.02	1.25	2.83	2.83	2.83	2.83	3.57
8000	1.20	2.65	2.65	2.65	0.96	2.48	2.49	2.49	2.49	2.94
8500	0.95	2.35	2.35	2.35	0.76	2.08	2.20	2.20	2.20	2.45
9000	0.75	2.09	2.09	2.09	0.60	1.74	1.97	1.97	1.97	2.06
9500	0.61	1.83	1.88	1.88	0.48	1.47	1.76	1.76	1.76	1.76
10000	0.49	1.54	1.70	1.70		1.24	1.59	1.59	1.59	1.51
10500	0.41	1.30	1.54	1.54		1.05	1.44	1.44	1.44	1.30
11000		1.10	1.40	1.40		0.88	1.32	1.32	1.32	1.13
11500		0.92	1.28	1.28		0.74	1.20	1.20	1.20	0.99
12000		0.78	1.18	1.18		0.62	1.07	1.11	1.07	0.87
12500		0.66	1.09	1.09		0.53	0.95	1.02	0.95	0.77



Three Span Lapped: AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.26	17.26	17.26	17.26	18.17	18.17	18.17	18.17	12.95	123.55
2500	13.81	13.81	13.81	13.81	14.54	14.54	14.54	14.54	10.36	63.26
3000	11.51	11.51	11.51	11.51	12.11	12.11	12.11	12.11	8.63	36.61
3500	9.86	9.86	9.86	9.86	9.13	10.38	10.38	10.38	7.40	23.05
4000	7.44	8.63	8.63	8.63	5.94	9.09	9.09	9.09	6.47	15.44
4500	4.84	7.67	7.67	7.67	3.87	7.24	7.70	7.70	5.75	10.85
5000	3.17	6.65	6.65	6.65	2.54	5.49	6.24	6.24	5.18	7.91
5500	2.17	5.26	5.49	5.49	1.73	4.23	5.16	5.16	4.71	5.94
6000	1.53	4.10	4.61	4.61	1.22	3.29	4.29	4.33	4.29	4.58
6500	1.11	3.21	3.93	3.93	0.89	2.58	3.50	3.69	3.50	3.60
7000	0.83	2.53	3.26	3.39	0.66	2.04	2.88	3.18	2.88	2.88
7500	0.63	2.00	2.74	2.95	0.50	1.61	2.39	2.77	2.39	2.34
8000	0.48	1.58	2.31	2.55		1.27	2.00	2.42	2.00	1.93
8500		1.24	1.96	2.19		1.00	1.68	2.08	1.68	1.61
9000		0.99	1.68	1.89		0.79	1.42	1.80	1.42	1.36
9500		0.79	1.44	1.64		0.64	1.20	1.56	1.20	1.15
10000		0.65	1.24	1.43		0.52	1.01	1.36	1.01	0.99
10500		0.53	1.07	1.25		0.43	0.86	1.19	0.86	0.85
11000		0.44	0.92	1.10			0.73	1.05	0.73	0.74
11500			0.80	0.97			0.62	0.92	0.62	0.65
12000			0.69	0.85			0.52	0.82	0.52	0.57
12500			0.60	0.76			0.44	0.72	0.44	0.51

Three Span Lapped: AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.28	17.28	17.28	17.28	18.19	18.19	18.19	18.19	12.96	225.63
2500	13.83	13.83	13.83	13.83	14.55	14.55	14.55	14.55	10.37	115.53
3000	11.52	11.52	11.52	11.52	12.13	12.13	12.13	12.13	8.64	66.86
3500	9.88	9.88	9.88	9.88	10.40	10.40	10.40	10.40	7.41	42.10
4000	8.64	8.64	8.64	8.64	9.10	9.10	9.10	9.10	6.48	28.20
4500	7.68	7.68	7.68	7.68	8.09	8.09	8.09	8.09	5.76	19.81
5000	6.91	6.91	6.91	6.91	6.73	7.28	7.28	7.28	5.19	14.44
5500	6.19	6.29	6.29	6.29	4.95	6.62	6.62	6.62	4.71	10.85
6000	4.55	5.76	5.76	5.76	3.64	5.56	5.56	5.56	4.32	8.36
6500	3.33	5.05	5.05	5.05	2.66	4.74	4.74	4.74	3.99	6.57
7000	2.48	4.36	4.36	4.36	1.98	4.09	4.09	4.09	3.70	5.26
7500	1.88	3.79	3.79	3.79	1.50	3.56	3.56	3.56	3.46	4.28
8000	1.45	3.33	3.33	3.33	1.16	2.98	3.13	3.13	3.13	3.53
8500	1.14	2.95	2.95	2.95	0.91	2.49	2.77	2.77	2.77	2.94
9000	0.91	2.61	2.63	2.63	0.72	2.10	2.47	2.47	2.47	2.48
9500	0.73	2.20	2.36	2.36	0.58	1.77	2.22	2.22	2.22	2.11
10000	0.60	1.85	2.13	2.13	0.48	1.49	2.00	2.00	2.00	1.81
10500	0.49	1.57	1.94	1.94		1.26	1.82	1.82	1.82	1.56
11000	0.41	1.32	1.76	1.76		1.06	1.65	1.66	1.65	1.36
11500		1.11	1.61	1.61		0.89	1.46	1.51	1.46	1.19
12000		0.94	1.48	1.48		0.75	1.29	1.39	1.29	1.05
12500		0.79	1.35	1.37		0.64	1.14	1.28	1.14	0.92

Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Three Span Lapped

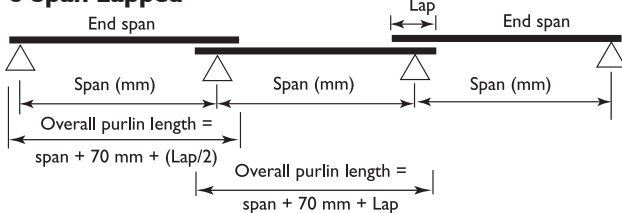
Three Span Lapped: AZ35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.28	17.28	17.28	17.28	18.19	18.19	18.19	18.19	12.96	344.92
2500	13.83	13.83	13.83	13.83	14.55	14.55	14.55	14.55	10.37	176.60
3000	11.52	11.52	11.52	11.52	12.13	12.13	12.13	12.13	8.64	102.20
3500	9.88	9.88	9.88	9.88	10.40	10.40	10.40	10.40	7.41	64.36
4000	8.64	8.64	8.64	8.64	9.10	9.10	9.10	9.10	6.48	43.12
4500	7.68	7.68	7.68	7.68	8.09	8.09	8.09	8.09	5.76	30.28
5000	6.91	6.91	6.91	6.91	7.28	7.28	7.28	7.28	5.19	22.08
5500	6.29	6.29	6.29	6.29	6.62	6.62	6.62	6.62	4.71	16.59
6000	5.76	5.76	5.76	5.76	5.91	6.06	6.06	6.06	4.32	12.78
6500	5.32	5.32	5.32	5.32	4.51	5.60	5.60	5.60	3.99	10.05
7000	4.31	4.59	4.59	4.59	3.44	5.17	5.17	5.17	3.70	8.05
7500	3.27	4.00	4.00	4.00	2.62	4.50	4.50	4.50	3.46	6.54
8000	2.53	3.51	3.51	3.51	2.02	3.96	3.96	3.96	3.24	5.39
8500	1.98	3.11	3.11	3.11	1.59	3.51	3.51	3.51	3.05	4.49
9000	1.58	2.78	2.78	2.78	1.26	3.13	3.13	3.13	2.78	3.79
9500	1.27	2.49	2.49	2.49	1.02	2.74	2.81	2.81	2.49	3.22
10000	1.04	2.25	2.25	2.25	0.83	2.35	2.53	2.53	2.25	2.76
10500	0.85	2.04	2.04	2.04	0.68	2.02	2.30	2.30	2.04	2.38
11000	0.71	1.86	1.86	1.86	0.57	1.74	2.09	2.09	1.86	2.07
11500	0.59	1.70	1.70	1.70	0.47	1.50	1.92	1.92	1.70	1.81
12000	0.50	1.56	1.56	1.56		1.29	1.76	1.76	1.56	1.60
12500	0.42	1.38	1.44	1.44		1.11	1.62	1.62	1.44	1.41

Three Span Lapped: AZ40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	17.29	17.29	17.29	17.29	18.20	18.20	18.20	18.20	12.97	471.84
2500	13.83	13.83	13.83	13.83	14.56	14.56	14.56	14.56	10.37	241.58
3000	11.53	11.53	11.53	11.53	12.13	12.13	12.13	12.13	8.65	139.80
3500	9.88	9.88	9.88	9.88	10.40	10.40	10.40	10.40	7.41	88.04
4000	8.65	8.65	8.65	8.65	9.10	9.10	9.10	9.10	6.48	58.98
4500	7.69	7.69	7.69	7.69	8.09	8.09	8.09	8.09	5.76	41.42
5000	6.92	6.92	6.92	6.92	7.28	7.28	7.28	7.28	5.19	30.20
5500	6.29	6.29	6.29	6.29	6.62	6.62	6.62	6.62	4.72	22.69
6000	5.76	5.76	5.76	5.76	6.07	6.07	6.07	6.07	4.32	17.48
6500	5.32	5.32	5.32	5.32	5.31	5.60	5.60	5.60	3.99	13.75
7000	4.94	4.94	4.94	4.94	4.02	5.20	5.20	5.20	3.71	11.01
7500	3.82	4.61	4.61	4.61	3.05	4.85	4.85	4.85	3.46	8.95
8000	2.95	4.19	4.19	4.19	2.36	4.55	4.55	4.55	3.24	7.37
8500	2.32	3.71	3.71	3.71	1.85	4.18	4.18	4.18	3.05	6.15
9000	1.84	3.31	3.31	3.31	1.47	3.73	3.73	3.73	2.88	5.18
9500	1.48	2.97	2.97	2.97	1.19	3.25	3.34	3.34	2.73	4.40
10000	1.21	2.68	2.68	2.68	0.97	2.78	3.02	3.02	2.59	3.78
10500	0.99	2.43	2.43	2.43	0.80	2.39	2.74	2.74	2.43	3.26
11000	0.83	2.22	2.22	2.22	0.66	2.05	2.49	2.49	2.22	2.84
11500	0.69	2.03	2.03	2.03	0.55	1.76	2.28	2.28	2.03	2.48
12000	0.58	1.86	1.86	1.86	0.47	1.51	2.10	2.10	1.86	2.18
12500	0.50	1.61	1.72	1.72		1.30	1.93	1.93	1.72	1.93

3 Span Lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Four Span Lapped

Four Span Lapped: AZ15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.66	13.66	13.66	13.66	14.38	14.38	14.38	14.38	10.24	33.25
2500	9.30	9.30	9.30	9.30	9.99	10.08	10.08	10.08	8.19	17.02
3000	6.37	6.46	6.46	6.46	6.21	7.00	7.00	7.00	6.46	9.85
3500	4.13	4.74	4.74	4.74	4.03	5.15	5.15	5.15	4.74	6.20
4000	2.74	3.63	3.63	3.63	2.68	3.94	3.94	3.94	3.63	4.16
4500	1.84	2.87	2.87	2.87	1.79	3.09	3.11	3.11	2.87	2.92
5000	1.22	2.32	2.32	2.32	1.19	2.36	2.52	2.52	2.32	2.13
5500	0.84	1.85	1.92	1.92	0.82	1.82	2.08	2.08	1.92	1.60
6000	0.59	1.45	1.61	1.61	0.58	1.43	1.75	1.75	1.61	1.23
6500	0.43	1.14	1.38	1.38	0.42	1.13	1.44	1.49	1.38	0.97
7000		0.91	1.17	1.19		0.90	1.19	1.29	1.17	0.78
7500		0.72	0.98	1.03		0.71	0.98	1.12	0.98	0.63
8000		0.58	0.82	0.91		0.57	0.82	0.99	0.82	0.52
8500		0.46	0.70	0.79		0.45	0.69	0.86	0.69	0.43
9000			0.60	0.68			0.58	0.75	0.58	0.37
9500			0.51	0.59			0.49	0.65	0.49	0.31
10000			0.44	0.52			0.42	0.57	0.42	0.27
10500				0.45				0.50		0.23
11000								0.44		0.20

Four Span Lapped: AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.36	16.36	16.36	16.36	17.22	17.22	17.22	17.22	12.27	40.09
2500	12.11	12.64	12.64	12.64	11.86	13.71	13.71	13.71	9.81	20.53
3000	7.55	8.78	8.78	8.78	7.37	9.52	9.52	9.52	8.18	11.88
3500	4.89	6.45	6.45	6.45	4.77	6.81	6.99	6.99	6.45	7.48
4000	3.24	4.94	4.94	4.94	3.16	4.93	5.36	5.36	4.94	5.01
4500	2.16	3.72	3.90	3.90	2.11	3.67	4.22	4.23	3.90	3.52
5000	1.43	2.83	3.13	3.16	1.40	2.79	3.29	3.43	3.13	2.57
5500	0.98	2.19	2.50	2.61	0.96	2.16	2.61	2.83	2.50	1.93
6000	0.69	1.71	2.03	2.19	0.68	1.69	2.10	2.38	2.03	1.49
6500	0.50	1.35	1.67	1.81	0.49	1.33	1.71	1.97	1.67	1.17
7000		1.07	1.38	1.52		1.06	1.41	1.65	1.38	0.94
7500		0.85	1.16	1.28		0.84	1.17	1.40	1.16	0.76
8000		0.68	0.98	1.10		0.67	0.97	1.19	0.97	0.63
8500		0.54	0.83	0.94		0.53	0.82	1.03	0.82	0.52
9000		0.43	0.71	0.81		0.42	0.69	0.89	0.69	0.44
9500			0.61	0.71			0.58	0.77	0.58	0.37
10000			0.52	0.62			0.49	0.67	0.49	0.32
10500			0.45	0.54			0.42	0.59	0.42	0.28
11000				0.47				0.52		0.24
11500				0.42				0.46		0.21
12000								0.40		0.19

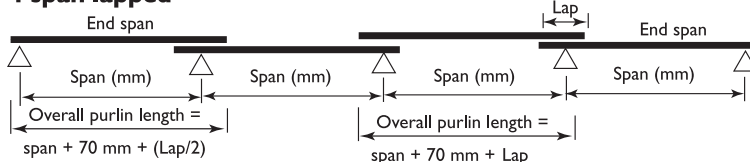
Four Span Lapped: AZ20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.68	13.68	13.68	13.68	14.40	14.40	14.40	14.40	10.26	66.83
2500	10.95	10.95	10.95	10.95	11.52	11.52	11.52	11.52	8.21	34.22
3000	9.12	9.12	9.12	9.12	9.50	9.60	9.60	9.60	6.84	19.80
3500	6.31	7.17	7.17	7.17	6.16	7.78	7.78	7.78	5.86	12.47
4000	4.19	5.49	5.49	5.49	4.09	5.96	5.96	5.96	5.13	8.35
4500	2.80	4.34	4.34	4.34	2.73	4.71	4.71	4.71	4.34	5.87
5000	1.86	3.52	3.52	3.52	1.82	3.60	3.81	3.81	3.52	4.28
5500	1.27	2.82	2.91	2.91	1.24	2.79	3.15	3.15	2.91	3.21
6000	0.90	2.21	2.44	2.44	0.88	2.18	2.65	2.65	2.44	2.48
6500	0.65	1.74	2.08	2.08	0.64	1.72	2.20	2.26	2.08	1.95
7000	0.48	1.38	1.78	1.79	0.47	1.37	1.81	1.95	1.78	1.56
7500		1.10	1.49	1.56		1.09	1.51	1.69	1.49	1.27
8000		0.88	1.26	1.37		0.87	1.26	1.49	1.26	1.04
8500		0.70	1.07	1.21		0.69	1.06	1.32	1.06	0.87
9000		0.55	0.91	1.05		0.55	0.89	1.14	0.89	0.73
9500		0.45	0.78	0.91		0.44	0.75	0.99	0.75	0.62
10000			0.67	0.79			0.64	0.87	0.64	0.54
10500			0.58	0.69			0.54	0.76	0.54	0.46
11000			0.50	0.61			0.46	0.67	0.46	0.40
11500			0.43	0.54				0.59		0.35
12000				0.47				0.52		0.31
12500				0.42				0.46		0.27

Four Span Lapped: AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.39	16.39	16.39	16.39	17.25	17.25	17.25	17.25	12.29	80.46
2500	13.11	13.11	13.11	13.11	13.80	13.80	13.80	13.80	9.83	41.20
3000	10.93	10.93	10.93	10.93	11.50	11.50	11.50	11.50	8.20	23.84
3500	7.84	9.29	9.29	9.29	7.65	9.86	9.86	9.86	7.02	15.01
4000	5.24	7.11	7.11	7.11	5.12	7.72	7.72	7.72	6.15	10.06
4500	3.55	5.62	5.62	5.62	3.46	5.81	6.10	6.10	5.46	7.06
5000	2.39	4.49	4.55	4.55	2.33	4.44	4.94	4.94	4.55	5.15
5500	1.63	3.48	3.76	3.76	1.59	3.44	4.08	4.08	3.76	3.87
6000	1.15	2.74	3.16	3.16	1.12	2.71	3.32	3.43	3.16	2.98
6500	0.84	2.17	2.63	2.69	0.82	2.15	2.71	2.92	2.63	2.34
7000	0.62	1.73	2.19	2.32	0.61	1.71	2.24	2.52	2.19	1.88
7500	0.47	1.39	1.84	2.02	0.46	1.37	1.86	2.20	1.84	1.53
8000		1.11	1.55	1.73		1.10	1.56	1.89	1.55	1.26
8500		0.89	1.32	1.49		0.88	1.31	1.62	1.31	1.05
9000		0.71	1.13	1.29		0.70	1.11	1.40	1.11	0.88
9500		0.57	0.97	1.12		0.57	0.94	1.22	0.94	0.75
10000		0.47	0.84	0.98		0.46	0.80	1.07	0.80	0.64
10500			0.72	0.86			0.68	0.94	0.68	0.56
11000			0.63	0.75			0.58	0.82	0.58	0.48
11500			0.54	0.67			0.49	0.73	0.49	0.42
12000			0.47	0.59			0.42	0.64	0.42	0.37
12500			0.41	0.52			0.57			0.33

4 span lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturn Lip Zed Four Spans Lapped

Four Span Lapped: AZ25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.69	13.69	13.69	13.69	14.41	14.41	14.41	14.41	10.27	111.76
2500	10.95	10.95	10.95	10.95	11.53	11.53	11.53	11.53	8.21	57.22
3000	9.13	9.13	9.13	9.13	9.61	9.61	9.61	9.61	6.85	33.12
3500	7.82	7.82	7.82	7.82	8.24	8.24	8.24	8.24	5.87	20.85
4000	5.67	6.85	6.85	6.85	5.53	7.21	7.21	7.21	5.13	13.97
4500	3.77	5.75	5.75	5.75	3.68	6.24	6.24	6.24	4.56	9.81
5000	2.49	4.66	4.66	4.66	2.43	4.92	5.05	5.05	4.11	7.15
5500	1.70	3.85	3.85	3.85	1.66	3.80	4.17	4.17	3.73	5.37
6000	1.20	3.01	3.23	3.23	1.17	2.97	3.51	3.51	3.23	4.14
6500	0.87	2.37	2.76	2.76	0.85	2.34	2.99	2.99	2.76	3.26
7000	0.65	1.87	2.38	2.38	0.63	1.85	2.48	2.58	2.38	2.61
7500	0.49	1.49	2.04	2.07	0.48	1.47	2.05	2.25	2.04	2.12
8000		1.18	1.72	1.82		1.17	1.71	1.97	1.71	1.75
8500		0.93	1.46	1.61		0.92	1.43	1.75	1.43	1.46
9000		0.74	1.24	1.43		0.73	1.21	1.56	1.21	1.23
9500		0.60	1.06	1.24		0.59	1.02	1.36	1.02	1.04
10000		0.49	0.91	1.08		0.48	0.86	1.18	0.86	0.89
10500		0.40	0.79	0.95			0.73	1.03	0.73	0.77
11000			0.68	0.83			0.61	0.91	0.61	0.67
11500			0.58	0.73			0.51	0.80	0.51	0.59
12000			0.50	0.64			0.43	0.71	0.43	0.52
12500			0.43	0.57				0.62		0.46

Four Span Lapped: AZ30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.70	13.70	13.70	13.70	14.42	14.42	14.42	14.42	10.27	204.77
2500	10.96	10.96	10.96	10.96	11.54	11.54	11.54	11.54	8.22	104.84
3000	9.13	9.13	9.13	9.13	9.61	9.61	9.61	9.61	6.85	60.67
3500	7.83	7.83	7.83	7.83	8.24	8.24	8.24	8.24	5.87	38.21
4000	6.85	6.85	6.85	6.85	7.21	7.21	7.21	7.21	5.14	25.60
4500	6.09	6.09	6.09	6.09	6.41	6.41	6.41	6.41	4.57	17.98
5000	5.48	5.48	5.48	5.48	5.77	5.77	5.77	5.77	4.11	13.11
5500	4.82	4.98	4.98	4.98	4.70	5.24	5.24	5.24	3.74	9.85
6000	3.61	4.31	4.31	4.31	3.52	4.67	4.67	4.67	3.42	7.58
6500	2.70	3.67	3.67	3.67	2.63	3.98	3.98	3.98	3.16	5.97
7000	2.01	3.16	3.16	3.16	1.96	3.43	3.43	3.43	2.94	4.78
7500	1.53	2.76	2.76	2.76	1.49	2.99	2.99	2.99	2.74	3.88
8000	1.18	2.42	2.42	2.42	1.15	2.63	2.63	2.63	2.42	3.20
8500	0.93	2.15	2.15	2.15	0.90	2.29	2.33	2.33	2.15	2.67
9000	0.74	1.91	1.91	1.91	0.72	1.94	2.08	2.08	1.91	2.25
9500	0.59	1.66	1.72	1.72	0.58	1.64	1.86	1.86	1.72	1.91
10000	0.48	1.41	1.55	1.55	0.47	1.39	1.68	1.68	1.55	1.64
10500		1.20	1.41	1.41		1.18	1.53	1.53	1.41	1.42
11000		1.01	1.28	1.28		1.00	1.39	1.39	1.28	1.23
11500		0.86	1.17	1.17		0.85	1.27	1.27	1.17	1.08
12000		0.73	1.08	1.08		0.72	1.12	1.17	1.08	0.95
12500		0.62	0.99	0.99		0.61	0.99	1.08	0.99	0.84

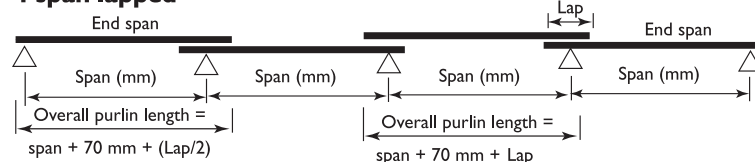
Four Span Lapped: AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.41	16.41	16.41	16.41	17.27	17.27	17.27	17.27	12.30	134.50
2500	13.12	13.12	13.12	13.12	13.81	13.81	13.81	13.81	9.84	68.87
3000	10.94	10.94	10.94	10.94	11.51	11.51	11.51	11.51	8.20	39.85
3500	9.37	9.37	9.37	9.37	9.87	9.87	9.87	9.87	7.03	25.10
4000	6.97	8.20	8.20	8.20	6.81	8.63	8.63	8.63	6.15	16.81
4500	4.67	7.29	7.29	7.29	4.56	7.68	7.68	7.68	5.47	11.81
5000	3.11	6.06	6.08	6.08	3.03	5.99	6.59	6.59	4.92	8.61
5500	2.12	4.69	5.02	5.02	2.07	4.64	5.45	5.45	4.47	6.47
6000	1.50	3.67	4.22	4.22	1.46	3.63	4.50	4.58	4.10	4.98
6500	1.09	2.90	3.57	3.60	1.06	2.87	3.67	3.90	3.57	3.92
7000	0.81	2.31	2.97	3.10	0.79	2.28	3.02	3.36	2.97	3.14
7500	0.61	1.84	2.48	2.70	0.60	1.82	2.50	2.93	2.48	2.55
8000	0.47	1.46	2.10	2.35	0.46	1.45	2.09	2.56	2.09	2.10
8500		1.16	1.78	2.02		1.15	1.76	2.20	1.76	1.75
9000		0.92	1.52	1.74		0.91	1.48	1.90	1.48	1.48
9500		0.74	1.30	1.51		0.74	1.25	1.65	1.25	1.26
10000		0.61	1.12	1.32		0.60	1.06	1.44	1.06	1.08
10500		0.50	0.96	1.16		0.49	0.90	1.26	0.90	0.93
11000		0.41	0.83	1.01		0.41	0.76	1.11	0.76	0.81
11500			0.72	0.89			0.64	0.98	0.64	0.71
12000			0.62	0.79			0.54	0.86	0.54	0.62
12500			0.54	0.70			0.46	0.76	0.46	0.55

Four Span Lapped: AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.42	16.42	16.42	16.42	17.29	17.29	17.29	17.29	12.32	245.64
2500	13.14	13.14	13.14	13.14	13.83	13.83	13.83	13.83	9.85	125.77
3000	10.95	10.95	10.95	10.95	11.53	11.53	11.53	11.53	8.21	72.78
3500	9.39	9.39	9.39	9.39	9.88	9.88	9.88	9.88	7.04	45.83
4000	8.21	8.21	8.21	8.21	8.64	8.64	8.64	8.64	6.16	30.71
4500	7.30	7.30	7.30	7.30	7.68	7.68	7.68	7.68	5.47	21.57
5000	6.57	6.57	6.57	6.57	6.92	6.92	6.92	6.92	4.93	15.72
5500	5.79	5.97	5.97	5.97	5.65	6.29	6.29	6.29	4.48	11.81
6000	4.34	5.42	5.42	5.42	4.23	5.76	5.76	5.76	4.11	9.10
6500	3.25	4.62	4.62	4.62	3.17	5.01	5.01	5.01	3.79	7.16
7000	2.42	3.98	3.98	3.98	2.37	4.32	4.32	4.32	3.52	5.73
7500	1.84	3.47	3.47	3.47	1.80	3.76	3.76	3.76	3.29	4.66
8000	1.42	3.05	3.05	3.05	1.39	3.27	3.31	3.31	3.05	3.84
8500	1.11	2.70	2.70	2.70	1.09	2.75	2.93	2.93	2.70	3.20
9000	0.89	2.35	2.41	2.41	0.87	2.33	2.61	2.61	2.41	2.70
9500	0.71	1.99	2.16	2.16	0.70	1.97	2.34	2.34	2.16	2.29
10000	0.58	1.69	1.95	1.95	0.57	1.67	2.12	2.12	1.95	1.97
10500	0.48	1.44	1.77	1.77	0.47	1.42	1.92	1.92	1.77	1.70
11000		1.22	1.61	1.61		1.21	1.73	1.75	1.61	1.48
11500		1.04	1.48	1.48		1.02	1.52	1.60	1.48	1.29
12000		0.88	1.36	1.36		0.87	1.34	1.47	1.34	1.14
12500		0.75	1.22	1.25		0.74	1.19	1.35	1.19	1.01

4 span lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Four Span Lapped

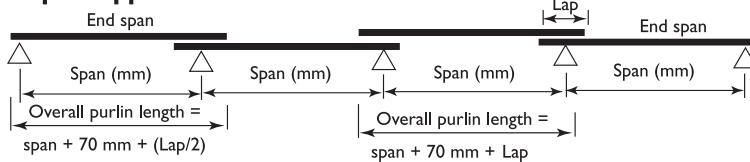
Four Span Lapped: AZ35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.42	16.42	16.42	16.42	17.29	17.29	17.29	17.29	12.32	375.50
2500	13.14	13.14	13.14	13.14	13.83	13.83	13.83	13.83	9.86	192.26
3000	10.95	10.95	10.95	10.95	11.53	11.53	11.53	11.53	8.21	111.26
3500	9.39	9.39	9.39	9.39	9.88	9.88	9.88	9.88	7.04	70.06
4000	8.21	8.21	8.21	8.21	8.64	8.64	8.64	8.64	6.16	46.94
4500	7.30	7.30	7.30	7.30	7.68	7.68	7.68	7.68	5.48	32.97
5000	6.57	6.57	6.57	6.57	6.92	6.92	6.92	6.92	4.93	24.03
5500	5.97	5.97	5.97	5.97	6.29	6.29	6.29	6.29	4.48	18.06
6000	5.48	5.48	5.48	5.48	5.76	5.76	5.76	5.76	4.11	13.91
6500	5.05	5.05	5.05	5.05	5.20	5.32	5.32	5.32	3.79	10.94
7000	4.13	4.69	4.69	4.69	4.03	4.94	4.94	4.94	3.52	8.76
7500	3.20	4.22	4.22	4.22	3.12	4.61	4.61	4.61	3.29	7.12
8000	2.47	3.71	3.71	3.71	2.41	4.14	4.14	4.14	3.08	5.87
8500	1.94	3.29	3.29	3.29	1.89	3.67	3.67	3.67	2.90	4.89
9000	1.54	2.93	2.93	2.93	1.51	3.27	3.27	3.27	2.74	4.12
9500	1.24	2.63	2.63	2.63	1.21	2.94	2.94	2.94	2.59	3.50
10000	1.01	2.37	2.37	2.37	0.99	2.60	2.65	2.65	2.37	3.00
10500	0.83	2.15	2.15	2.15	0.81	2.24	2.40	2.40	2.15	2.60
11000	0.69	1.96	1.96	1.96	0.68	1.94	2.19	2.19	1.96	2.26
11500	0.58	1.70	1.80	1.80	0.57	1.68	2.00	2.00	1.80	1.98
12000	0.49	1.47	1.65	1.65	0.48	1.46	1.84	1.84	1.65	1.74
12500	0.42	1.28	1.52	1.52	0.41	1.26	1.70	1.70	1.52	1.54

Four Span Lapped: AZ40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.43	16.43	16.43	16.43	17.30	17.30	17.30	17.30	12.32	513.67
2500	13.15	13.15	13.15	13.15	13.84	13.84	13.84	13.84	9.86	263.00
3000	10.95	10.95	10.95	10.95	11.53	11.53	11.53	11.53	8.22	152.20
3500	9.39	9.39	9.39	9.39	9.88	9.88	9.88	9.88	7.04	95.85
4000	8.22	8.22	8.22	8.22	8.65	8.65	8.65	8.65	6.16	64.21
4500	7.30	7.30	7.30	7.30	7.69	7.69	7.69	7.69	5.48	45.10
5000	6.57	6.57	6.57	6.57	6.92	6.92	6.92	6.92	4.93	32.88
5500	5.98	5.98	5.98	5.98	6.29	6.29	6.29	6.29	4.48	24.70
6000	5.48	5.48	5.48	5.48	5.77	5.77	5.77	5.77	4.11	19.03
6500	5.06	5.06	5.06	5.06	5.32	5.32	5.32	5.32	3.79	14.96
7000	4.69	4.69	4.69	4.69	4.74	4.94	4.94	4.94	3.52	11.98
7500	3.74	4.38	4.38	4.38	3.65	4.61	4.61	4.61	3.29	9.74
8000	2.89	4.11	4.11	4.11	2.82	4.32	4.32	4.32	3.08	8.03
8500	2.27	3.87	3.87	3.87	2.21	4.07	4.07	4.07	2.90	6.69
9000	1.80	3.50	3.50	3.50	1.76	3.84	3.84	3.84	2.74	5.64
9500	1.45	3.14	3.14	3.14	1.42	3.50	3.50	3.50	2.59	4.79
10000	1.18	2.83	2.83	2.83	1.15	3.09	3.16	3.16	2.47	4.11
10500	0.97	2.57	2.57	2.57	0.95	2.66	2.87	2.87	2.35	3.55
11000	0.81	2.32	2.34	2.34	0.79	2.30	2.61	2.61	2.24	3.09
11500	0.68	2.01	2.14	2.14	0.66	1.98	2.39	2.39	2.14	2.70
12000	0.57	1.73	1.97	1.97	0.56	1.71	2.20	2.20	1.97	2.38
12500	0.48	1.50	1.81	1.81	0.47	1.48	2.02	2.02	1.81	2.10

4 span lapped



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Five Span Lapped

Five Span: AZ15025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.86	13.86	13.86	13.86	14.59	14.59	14.59	14.59	10.39	32.41
2500	9.57	9.57	9.57	9.57	9.44	9.81	9.81	9.81	8.32	16.59
3000	6.43	6.65	6.65	6.65	5.81	6.81	6.81	6.81	6.65	9.60
3500	4.12	4.88	4.88	4.88	3.72	5.00	5.00	5.00	4.88	6.05
4000	2.69	3.74	3.74	3.74	2.43	3.83	3.83	3.83	3.74	4.05
4500	1.76	2.95	2.95	2.95	1.59	2.99	3.03	3.03	2.95	2.85
5000	1.16	2.39	2.39	2.39	1.04	2.28	2.45	2.45	2.39	2.07
5500	0.79	1.92	1.98	1.98	0.71	1.76	2.03	2.03	1.98	1.56
6000	0.56	1.51	1.66	1.66	0.50	1.38	1.70	1.70	1.66	1.20
6500	0.40	1.19	1.42	1.42		1.09	1.42	1.45	1.42	0.94
7000		0.94	1.21	1.22		0.86	1.17	1.25	1.17	0.76
7500		0.75	1.02	1.06		0.69	0.97	1.09	0.97	0.61
8000		0.60	0.86	0.94		0.55	0.81	0.96	0.81	0.51
8500		0.47	0.73	0.81		0.43	0.68	0.84	0.68	0.42
9000			0.63	0.70			0.57	0.73	0.57	0.36
9500			0.54	0.61			0.49	0.63	0.49	0.30
10000			0.46	0.53			0.41	0.55	0.41	0.26
10500			0.40	0.47				0.48		0.22
11000				0.41				0.42		0.20

Five Span: AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.60	16.60	16.60	16.60	17.47	17.47	17.47	17.47	12.45	39.07
2500	12.39	13.01	13.01	13.01	11.21	13.33	13.33	13.33	9.96	20.01
3000	7.62	9.04	9.04	9.04	6.89	9.26	9.26	9.26	8.30	11.58
3500	4.87	6.64	6.64	6.64	4.40	6.60	6.80	6.80	6.64	7.29
4000	3.17	5.08	5.08	5.08	2.87	4.77	5.21	5.21	5.08	4.88
4500	2.07	3.87	4.02	4.02	1.87	3.55	4.12	4.12	4.02	3.43
5000	1.35	2.95	3.25	3.25	1.22	2.70	3.23	3.33	3.23	2.50
5500	0.93	2.28	2.60	2.69	0.84	2.09	2.56	2.76	2.56	1.88
6000	0.65	1.78	2.11	2.25	0.59	1.63	2.06	2.31	2.06	1.45
6500	0.47	1.40	1.73	1.86	0.43	1.29	1.68	1.92	1.68	1.14
7000		1.11	1.44	1.56		1.02	1.38	1.61	1.38	0.91
7500		0.88	1.21	1.32		0.81	1.15	1.36	1.15	0.74
8000		0.70	1.02	1.13		0.64	0.96	1.16	0.96	0.61
8500		0.55	0.87	0.97		0.51	0.81	1.00	0.81	0.51
9000		0.44	0.74	0.84		0.40	0.68	0.86	0.68	0.43
9500			0.64	0.72			0.57	0.75	0.57	0.37
10000			0.55	0.63			0.49	0.65	0.49	0.31
10500			0.47	0.55			0.41	0.57	0.41	0.27
11000			0.41	0.49				0.50		0.24
11500				0.43				0.44		0.21

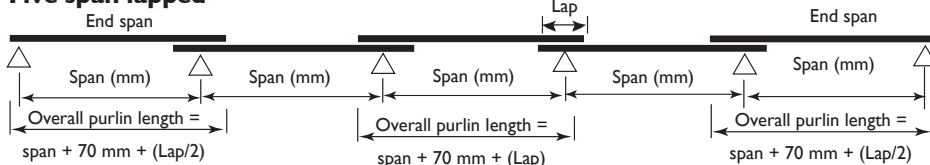
Five Span: AZ20025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.88	13.88	13.88	13.88	14.61	14.61	14.61	14.61	10.41	65.13
2500	11.11	11.11	11.11	11.11	11.69	11.69	11.69	11.69	8.33	33.35
3000	9.26	9.26	9.26	9.26	8.89	9.74	9.74	9.74	6.94	19.30
3500	6.29	7.39	7.39	7.39	5.69	7.57	7.57	7.57	5.95	12.15
4000	4.10	5.65	5.65	5.65	3.71	5.79	5.79	5.79	5.21	8.14
4500	2.68	4.47	4.47	4.47	2.42	4.58	4.58	4.58	4.47	5.72
5000	1.76	3.62	3.62	3.62	1.59	3.48	3.71	3.71	3.62	4.17
5500	1.20	2.94	2.99	2.99	1.09	2.69	3.06	3.06	2.99	3.13
6000	0.85	2.30	2.51	2.51	0.77	2.11	2.58	2.58	2.51	2.41
6500	0.62	1.81	2.14	2.14	0.56	1.66	2.17	2.19	2.14	1.90
7000	0.46	1.44	1.85	1.85	0.41	1.32	1.78	1.89	1.78	1.52
7500		1.14	1.56	1.61		1.05	1.48	1.65	1.48	1.24
8000		0.91	1.32	1.41		0.83	1.24	1.45	1.24	1.02
8500		0.72	1.12	1.25		0.66	1.04	1.28	1.04	0.85
9000		0.57	0.96	1.08		0.52	0.88	1.11	0.88	0.72
9500		0.46	0.82	0.93		0.42	0.74	0.97	0.74	0.61
10000			0.71	0.81			0.63	0.84	0.63	0.52
10500			0.61	0.71			0.53	0.74	0.53	0.45
11000			0.53	0.63			0.45	0.65	0.45	0.39
11500			0.46	0.55				0.57		0.34
12000				0.49				0.51		0.30
12500				0.43				0.45		0.27

Five Span: AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.63	16.63	16.63	16.63	17.51	17.51	17.51	17.51	12.47	78.42
2500	13.31	13.31	13.31	13.31	14.01	14.01	14.01	14.01	9.98	40.15
3000	11.09	11.09	11.09	11.09	10.98	11.67	11.67	11.67	8.32	23.23
3500	7.83	9.50	9.50	9.50	7.08	9.80	9.80	9.80	7.13	14.63
4000	5.16	7.32	7.32	7.32	4.66	7.50	7.50	7.50	6.24	9.80
4500	3.42	5.79	5.79	5.79	3.09	5.62	5.93	5.93	5.54	6.88
5000	2.25	4.69	4.69	4.69	2.04	4.29	4.80	4.80	4.69	5.02
5500	1.54	3.64	3.87	3.87	1.39	3.33	3.97	3.97	3.87	3.77
6000	1.09	2.85	3.26	3.26	0.98	2.61	3.26	3.34	3.26	2.90
6500	0.79	2.26	2.74	2.77	0.71	2.07	2.66	2.84	2.66	2.28
7000	0.59	1.80	2.28	2.39	0.53	1.65	2.20	2.45	2.20	1.83
7500	0.45	1.44	1.91	2.08	0.40	1.32	1.83	2.13	1.83	1.49
8000		1.15	1.62	1.78		1.05	1.53	1.83	1.53	1.23
8500		0.92	1.38	1.53		0.84	1.29	1.58	1.29	1.02
9000		0.73	1.18	1.32		0.67	1.09	1.37	1.09	0.86
9500		0.59	1.02	1.15		0.54	0.93	1.19	0.93	0.73
10000		0.48	0.88	1.01		0.44	0.79	1.04	0.79	0.63
10500			0.76	0.88			0.67	0.91	0.67	0.54
11000			0.66	0.78			0.57	0.80	0.57	0.47
11500			0.57	0.68			0.49	0.71	0.49	0.41
12000			0.50	0.61			0.41	0.63	0.41	0.36
12500			0.44	0.54			0.56			0.32

Five span lapped



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Five Span Lapped

Five Span: AZ25025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.89	13.89	13.89	13.89	14.62	14.62	14.62	14.62	10.42	108.92
2500	11.11	11.11	11.11	11.11	11.70	11.70	11.70	11.70	8.34	55.77
3000	9.26	9.26	9.26	9.26	9.75	9.75	9.75	9.75	6.95	32.27
3500	7.94	7.94	7.94	7.94	7.72	8.36	8.36	8.36	5.95	20.32
4000	5.54	6.95	6.95	6.95	5.01	7.31	7.31	7.31	5.21	13.62
4500	3.59	5.92	5.92	5.92	3.24	6.07	6.07	6.07	4.63	9.56
5000	2.35	4.79	4.79	4.79	2.13	4.76	4.91	4.91	4.17	6.97
5500	1.61	3.96	3.96	3.96	1.45	3.67	4.06	4.06	3.79	5.24
6000	1.13	3.13	3.33	3.33	1.03	2.86	3.41	3.41	3.33	4.03
6500	0.82	2.46	2.84	2.84	0.75	2.25	2.91	2.91	2.84	3.17
7000	0.61	1.95	2.45	2.45	0.55	1.78	2.44	2.51	2.44	2.54
7500	0.47	1.54	2.13	2.13	0.42	1.41	2.02	2.18	2.02	2.07
8000		1.22	1.80	1.87		1.12	1.69	1.92	1.69	1.70
8500		0.96	1.53	1.66		0.88	1.41	1.70	1.41	1.42
9000		0.77	1.30	1.47		0.70	1.19	1.52	1.19	1.20
9500		0.62	1.12	1.28		0.56	1.00	1.32	1.00	1.02
10000		0.50	0.96	1.11		0.46	0.85	1.15	0.85	0.87
10500		0.41	0.83	0.97		0.72	1.01	1.07	0.72	0.75
11000			0.72	0.85			0.61	0.88	0.61	0.66
11500			0.62	0.75			0.51	0.78	0.51	0.57
12000			0.54	0.66			0.43	0.69	0.43	0.50
12500			0.46	0.58				0.61		0.45

Five Span: AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.65	16.65	16.65	16.65	17.52	17.52	17.52	17.52	12.49	131.09
2500	13.32	13.32	13.32	13.32	14.02	14.02	14.02	14.02	9.99	67.12
3000	11.10	11.10	11.10	11.10	11.68	11.68	11.68	11.68	8.32	38.84
3500	9.51	9.51	9.51	9.51	9.47	10.01	10.01	10.01	7.13	24.46
4000	6.83	8.32	8.32	8.32	6.18	8.76	8.76	8.76	6.24	16.39
4500	4.47	7.40	7.40	7.40	4.04	7.62	7.79	7.79	5.55	11.51
5000	2.93	6.25	6.25	6.25	2.65	5.79	6.41	6.41	4.99	8.39
5500	2.00	4.89	5.17	5.17	1.81	4.48	5.30	5.30	4.54	6.30
6000	1.41	3.83	4.34	4.34	1.28	3.50	4.42	4.45	4.16	4.86
6500	1.03	3.02	3.70	3.70	0.93	2.76	3.60	3.79	3.60	3.82
7000	0.76	2.40	3.09	3.19	0.69	2.19	2.97	3.27	2.97	3.06
7500	0.58	1.90	2.59	2.78	0.52	1.74	2.46	2.85	2.46	2.49
8000	0.45	1.51	2.19	2.41	0.40	1.39	2.06	2.49	2.06	2.05
8500		1.20	1.86	2.07		1.10	1.73	2.14	1.73	1.71
9000		0.95	1.59	1.79		0.87	1.46	1.85	1.46	1.44
9500		0.77	1.37	1.55		0.70	1.23	1.61	1.23	1.22
10000		0.63	1.18	1.36		0.57	1.05	1.40	1.05	1.05
10500		0.52	1.02	1.19		0.47	0.89	1.23	0.89	0.91
11000		0.43	0.88	1.04			0.75	1.08	0.75	0.79
11500			0.76	0.92			0.64	0.95	0.64	0.69
12000			0.66	0.81			0.54	0.84	0.54	0.61
12500			0.57	0.72			0.46	0.74	0.46	0.54

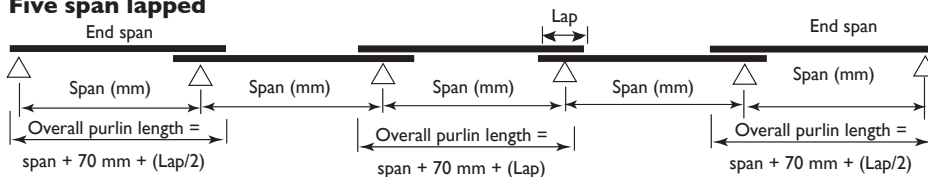
Five Span: AZ30025DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	13.90	13.90	13.90	13.90	14.63	14.63	14.63	14.63	10.43	199.57
2500	11.12	11.12	11.12	11.12	11.71	11.71	11.71	11.71	8.34	102.18
3000	9.27	9.27	9.27	9.27	9.76	9.76	9.76	9.76	6.95	59.13
3500	7.94	7.94	7.94	7.94	8.36	8.36	8.36	8.36	5.96	37.24
4000	6.95	6.95	6.95	6.95	7.32	7.32	7.32	7.32	5.21	24.95
4500	6.18	6.18	6.18	6.18	6.50	6.50	6.50	6.50	4.63	17.52
5000	5.56	5.56	5.56	5.56	5.81	5.85	5.85	5.85	4.17	12.77
5500	4.73	5.06	5.06	5.06	4.27	5.32	5.32	5.32	3.79	9.60
6000	3.48	4.43	4.43	4.43	3.15	4.54	4.54	4.54	3.48	7.39
6500	2.55	3.78	3.78	3.78	2.31	3.87	3.87	3.87	3.21	5.81
7000	1.90	3.26	3.26	3.26	1.72	3.34	3.34	3.34	2.98	4.66
7500	1.44	2.84	2.84	2.84	1.30	2.91	2.91	2.91	2.78	3.78
8000	1.11	2.49	2.49	2.49	1.01	2.56	2.56	2.56	2.49	3.12
8500	0.87	2.21	2.21	2.21	0.79	2.21	2.26	2.26	2.21	2.60
9000	0.70	1.97	1.97	1.97	0.63	1.87	2.02	2.02	1.97	2.19
9500	0.56	1.72	1.77	1.77	0.51	1.58	1.81	1.81	1.77	1.86
10000	0.46	1.46	1.60	1.60	0.41	1.34	1.64	1.64	1.60	1.60
10500		1.24	1.45	1.45		1.13	1.48	1.48	1.45	1.38
11000		1.05	1.32	1.32		0.96	1.35	1.35	1.32	1.20
11500		0.89	1.21	1.21		0.81	1.24	1.24	1.21	1.05
12000		0.75	1.11	1.11		0.69	1.10	1.14	1.10	0.92
12500		0.64	1.02	1.02		0.58	0.98	1.05	0.98	0.82

Five Span: AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.67	16.67	16.67	16.67	17.54	17.54	17.54	17.54	12.50	239.40
2500	13.33	13.33	13.33	13.33	14.04	14.04	14.04	14.04	10.00	122.57
3000	11.11	11.11	11.11	11.11	11.70	11.70	11.70	11.70	8.33	70.93
3500	9.52	9.52	9.52	9.52	10.03	10.03	10.03	10.03	7.14	44.67
4000	8.33	8.33	8.33	8.33	8.77	8.77	8.77	8.77	6.25	29.93
4500	7.41	7.41	7.41	7.41	7.80	7.80	7.80	7.80	5.56	21.02
5000	6.67	6.67	6.67	6.67	6.98	7.02	7.02	7.02	5.00	15.32
5500	5.68	6.06	6.06	6.06	5.14	6.38	6.38	6.38	4.55	11.51
6000	4.19	5.56	5.56	5.56	3.79	5.72	5.72	5.72	4.17	8.87
6500	3.08	4.75	4.75	4.75	2.78	4.87	4.87	4.87	3.85	6.97
7000	2.29	4.10	4.10	4.10	2.07	4.20	4.20	4.20	3.57	5.58
7500	1.74	3.57	3.57	3.57	1.57	3.66	3.66	3.66	3.33	4.54
8000	1.34	3.14	3.14	3.14	1.21	3.16	3.22	3.22	3.13	3.74
8500	1.05	2.78	2.78	2.78	0.95	2.66	2.85	2.85	2.78	3.12
9000	0.84	2.45	2.48	2.48	0.76	2.24	2.54	2.54	2.48	2.63
9500	0.67	2.07	2.23	2.23	0.61	1.90	2.28	2.28	2.23	2.23
10000	0.55	1.76	2.01	2.01	0.50	1.61	2.06	2.06	2.01	1.92
10500	0.45	1.49	1.82	1.82	0.41	1.36	1.87	1.87	1.82	1.65
11000		1.26	1.66	1.66		1.16	1.70	1.70	1.66	1.44
11500		1.07	1.52	1.52		0.98	1.50	1.56	1.50	1.26
12000		0.90	1.40	1.40		0.83	1.32	1.43	1.32	1.11
12500		0.77	1.28	1.29		0.70	1.17	1.32	1.17	0.98

Five span lapped



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Five Span Lapped

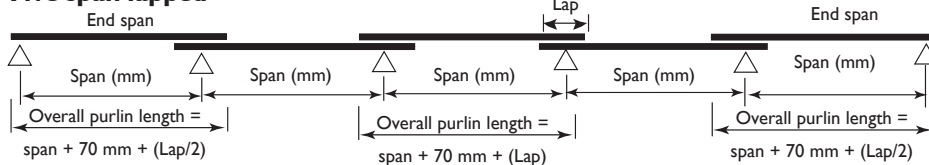
Five Span: AZ35030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.67	16.67	16.67	16.67	17.54	17.54	17.54	17.54	12.50	365.96
2500	13.33	13.33	13.33	13.33	14.04	14.04	14.04	14.04	10.00	187.37
3000	11.11	11.11	11.11	11.11	11.70	11.70	11.70	11.70	8.33	108.43
3500	9.52	9.52	9.52	9.52	10.03	10.03	10.03	10.03	7.14	68.28
4000	8.33	8.33	8.33	8.33	8.77	8.77	8.77	8.77	6.25	45.75
4500	7.41	7.41	7.41	7.41	7.80	7.80	7.80	7.80	5.56	32.13
5000	6.67	6.67	6.67	6.67	7.02	7.02	7.02	7.02	5.00	23.42
5500	6.06	6.06	6.06	6.06	6.38	6.38	6.38	6.38	4.55	17.60
6000	5.56	5.56	5.56	5.56	5.85	5.85	5.85	5.85	4.17	13.55
6500	5.13	5.13	5.13	5.13	4.70	5.40	5.40	5.40	3.85	10.66
7000	3.97	4.71	4.71	4.71	3.59	5.01	5.01	5.01	3.57	8.54
7500	3.02	4.11	4.11	4.11	2.73	4.63	4.63	4.63	3.33	6.94
8000	2.34	3.61	3.61	3.61	2.11	4.07	4.07	4.07	3.13	5.72
8500	1.83	3.20	3.20	3.20	1.66	3.60	3.60	3.60	2.94	4.77
9000	1.46	2.85	2.85	2.85	1.32	3.21	3.21	3.21	2.78	4.02
9500	1.17	2.56	2.56	2.56	1.06	2.88	2.88	2.88	2.56	3.42
10000	0.96	2.31	2.31	2.31	0.87	2.50	2.60	2.60	2.31	2.93
10500	0.79	2.10	2.10	2.10	0.71	2.16	2.36	2.36	2.10	2.53
11000	0.65	1.91	1.91	1.91	0.59	1.87	2.15	2.15	1.91	2.20
11500	0.55	1.75	1.75	1.75	0.49	1.61	1.97	1.97	1.75	1.93
12000	0.46	1.53	1.60	1.60	0.42	1.40	1.81	1.81	1.60	1.69
12500		1.32	1.48	1.48		1.21	1.67	1.67	1.48	1.50

Five Span: AZ40030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	16.67	16.67	16.67	16.67	17.55	17.55	17.55	17.55	12.51	500.62
2500	13.34	13.34	13.34	13.34	14.04	14.04	14.04	14.04	10.00	256.32
3000	11.12	11.12	11.12	11.12	11.70	11.70	11.70	11.70	8.34	148.33
3500	9.53	9.53	9.53	9.53	10.03	10.03	10.03	10.03	7.15	93.41
4000	8.34	8.34	8.34	8.34	8.78	8.78	8.78	8.78	6.25	62.58
4500	7.41	7.41	7.41	7.41	7.80	7.80	7.80	7.80	5.56	43.95
5000	6.67	6.67	6.67	6.67	7.02	7.02	7.02	7.02	5.00	32.04
5500	6.06	6.06	6.06	6.06	6.38	6.38	6.38	6.38	4.55	24.07
6000	5.56	5.56	5.56	5.56	5.85	5.85	5.85	5.85	4.17	18.54
6500	5.13	5.13	5.13	5.13	5.40	5.40	5.40	5.40	3.85	14.58
7000	4.65	4.76	4.76	4.76	4.20	5.02	5.02	5.02	3.57	11.68
7500	3.53	4.45	4.45	4.45	3.19	4.68	4.68	4.68	3.34	9.49
8000	2.73	4.17	4.17	4.17	2.46	4.39	4.39	4.39	3.13	7.82
8500	2.14	3.82	3.82	3.82	1.93	4.13	4.13	4.13	2.94	6.52
9000	1.70	3.40	3.40	3.40	1.54	3.83	3.83	3.83	2.78	5.49
9500	1.37	3.05	3.05	3.05	1.24	3.44	3.44	3.44	2.63	4.67
10000	1.12	2.76	2.76	2.76	1.01	2.98	3.10	3.10	2.50	4.01
10500	0.92	2.50	2.50	2.50	0.83	2.56	2.81	2.81	2.38	3.46
11000	0.76	2.28	2.28	2.28	0.69	2.21	2.56	2.56	2.27	3.01
11500	0.64	2.08	2.08	2.08	0.58	1.91	2.34	2.34	2.08	2.63
12000	0.54	1.80	1.91	1.91	0.49	1.64	2.15	2.15	1.91	2.32
12500	0.46	1.55	1.76	1.76	0.41	1.42	1.98	1.98	1.76	2.05

Five span lapped



Bold capacities require:

M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Four Span Lapped Mixed

Four Span Lapped Mixed: AZ15025DL / AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	14.96	14.96	14.96	14.96	15.88	15.88	15.88	15.88	11.31	39.37
2500	9.57	9.57	9.57	9.57	11.63	12.69	12.69	12.69	9.05	20.16
3000	6.65	6.65	6.65	6.65	7.21	8.81	8.81	8.81	6.65	11.66
3500	4.54	4.88	4.88	4.88	4.66	6.47	6.47	6.47	4.88	7.35
4000	3.14	3.74	3.74	3.74	3.08	4.85	4.96	4.96	3.74	4.92
4500	2.09	2.95	2.95	2.95	2.04	3.61	3.92	3.92	2.95	3.46
5000	1.38	2.39	2.39	2.39	1.35	2.74	3.17	3.17	2.39	2.52
5500	0.94	1.98	1.98	1.98	0.92	2.12	2.58	2.62	1.98	1.89
6000	0.67	1.60	1.66	1.66	0.65	1.66	2.08	2.20	1.66	1.46
6500	0.48	1.30	1.42	1.42	0.47	1.31	1.70	1.88	1.42	1.15
7000		1.04	1.20	1.22		1.04	1.40	1.62	1.20	0.92
7500		0.83	1.01	1.06		0.82	1.16	1.38	1.01	0.75
8000		0.66	0.85	0.94		0.65	0.97	1.18	0.85	0.62
8500		0.52	0.72	0.82		0.52	0.81	1.01	0.72	0.51
9000		0.41	0.62	0.71		0.41	0.68	0.87	0.62	0.43
9500			0.53	0.61			0.58	0.76	0.53	0.37
10000			0.45	0.54			0.49	0.66	0.45	0.32
10500				0.47			0.41	0.58		0.27
11000				0.41				0.51		0.24
11500								0.45		0.21

Four Span Lapped Mixed: AZ20025DL / AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.11	15.11	15.11	15.11	15.91	15.91	15.91	15.91	11.34	79.01
2500	12.09	12.09	12.09	12.09	12.73	12.73	12.73	12.73	9.07	40.45
3000	10.05	10.05	10.05	10.05	10.61	10.61	10.61	10.61	7.56	23.41
3500	6.95	7.39	7.39	7.39	7.47	9.09	9.09	9.09	6.48	14.74
4000	4.84	5.65	5.65	5.65	4.99	7.18	7.18	7.18	5.65	9.88
4500	3.40	4.47	4.47	4.47	3.36	5.67	5.67	5.67	4.47	6.94
5000	2.28	3.62	3.62	3.62	2.25	4.36	4.59	4.59	3.62	5.06
5500	1.56	2.99	2.99	2.99	1.54	3.38	3.80	3.80	2.99	3.80
6000	1.10	2.45	2.51	2.51	1.09	2.65	3.19	3.19	2.51	2.93
6500	0.80	1.99	2.14	2.14	0.79	2.10	2.69	2.72	2.14	2.30
7000	0.59	1.63	1.84	1.85	0.59	1.68	2.22	2.34	1.84	1.84
7500	0.45	1.34	1.54	1.61	0.44	1.34	1.84	2.04	1.54	1.50
8000		1.07	1.30	1.41		1.07	1.54	1.79	1.30	1.23
8500		0.86	1.10	1.25		0.86	1.30	1.59	1.10	1.03
9000		0.68	0.94	1.08		0.68	1.10	1.38	0.94	0.87
9500		0.55	0.81	0.94		0.55	0.93	1.20	0.81	0.74
10000		0.45	0.69	0.82		0.45	0.79	1.05	0.69	0.63
10500			0.60	0.72			0.68	0.92	0.60	0.55
11000			0.52	0.63			0.57	0.81	0.52	0.48
11500			0.45	0.55			0.49	0.72	0.45	0.42
12000				0.49			0.41	0.64		0.37
12500				0.43				0.56		0.32

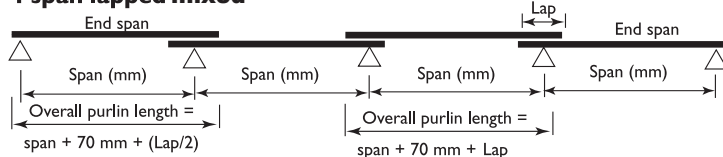
Four Span Lapped Mixed: AZ25025DL / AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.13	15.13	15.13	15.13	15.92	15.92	15.92	15.92	11.34	132.07
2500	12.10	12.10	12.10	12.10	12.74	12.74	12.74	12.74	9.08	67.62
3000	10.08	10.08	10.08	10.08	10.61	10.61	10.61	10.61	7.56	39.13
3500	8.64	8.64	8.64	8.64	9.10	9.10	9.10	9.10	6.48	24.64
4000	6.60	7.49	7.49	7.49	6.63	7.96	7.96	7.96	5.67	16.51
4500	4.48	5.92	5.92	5.92	4.42	7.08	7.08	7.08	5.04	11.60
5000	2.97	4.79	4.79	4.79	2.93	5.89	6.15	6.15	4.54	8.45
5500	2.03	3.96	3.96	3.96	2.00	4.55	5.08	5.08	3.96	6.35
6000	1.43	3.33	3.33	3.33	1.41	3.56	4.27	4.27	3.33	4.89
6500	1.04	2.72	2.84	2.84	1.03	2.81	3.63	3.64	2.84	3.85
7000	0.77	2.22	2.45	2.45	0.76	2.23	2.99	3.14	2.45	3.08
7500	0.59	1.78	2.11	2.13	0.58	1.77	2.48	2.73	2.11	2.50
8000	0.45	1.42	1.78	1.87	0.45	1.41	2.08	2.40	1.78	2.06
8500		1.12	1.51	1.66		1.12	1.74	2.13	1.51	1.72
9000		0.89	1.28	1.48		0.89	1.47	1.87	1.28	1.45
9500		0.72	1.10	1.28		0.72	1.24	1.63	1.10	1.23
10000		0.59	0.94	1.12		0.58	1.05	1.42	0.94	1.06
10500		0.48	0.81	0.98		0.48	0.89	1.24	0.81	0.91
11000		0.40	0.70	0.86			0.76	1.09	0.70	0.79
11500			0.60	0.75			0.64	0.96	0.60	0.70
12000			0.52	0.67			0.54	0.85	0.52	0.61
12500			0.45	0.59			0.46	0.75	0.45	0.54

Four Span Lapped Mixed: AZ30025DL / AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.14	15.14	15.14	15.14	15.94	15.94	15.94	15.94	11.35	241.20
2500	12.11	12.11	12.11	12.11	12.75	12.75	12.75	12.75	9.08	123.49
3000	10.09	10.09	10.09	10.09	10.62	10.62	10.62	10.62	7.57	71.47
3500	8.65	8.65	8.65	8.65	9.11	9.11	9.11	9.11	6.49	45.01
4000	7.57	7.57	7.57	7.57	7.97	7.97	7.97	7.97	5.68	30.15
4500	6.73	6.73	6.73	6.73	7.08	7.08	7.08	7.08	5.05	21.18
5000	6.06	6.06	6.06	6.06	6.37	6.37	6.37	6.37	4.54	15.44
5500	5.28	5.28	5.28	5.28	5.50	5.80	5.80	5.80	4.13	11.60
6000	4.19	4.43	4.43	4.43	4.11	5.27	5.27	5.27	3.79	8.93
6500	3.12	3.78	3.78	3.78	3.07	4.63	4.63	4.63	3.49	7.03
7000	2.33	3.26	3.26	3.26	2.28	4.09	4.09	4.09	3.24	5.63
7500	1.76	2.84	2.84	2.84	1.73	3.64	3.64	3.64	2.84	4.57
8000	1.36	2.49	2.49	2.49	1.34	3.21	3.26	3.26	2.49	3.77
8500	1.07	2.21	2.21	2.21	1.05	2.70	2.89	2.89	2.21	3.14
9000	0.85	1.97	1.97	1.97	0.84	2.28	2.58	2.58	1.97	2.65
9500	0.69	1.77	1.77	1.77	0.67	1.93	2.31	2.31	1.77	2.25
10000	0.56	1.60	1.60	1.60	0.55	1.64	2.09	2.09	1.60	1.93
10500	0.46	1.40	1.45	1.45	0.45	1.39	1.89	1.89	1.45	1.67
11000		1.18	1.32	1.32		1.18	1.71	1.72	1.32	1.45
11500		1.00	1.21	1.21		1.00	1.51	1.58	1.21	1.27
12000		0.85	1.11	1.11		0.84	1.33	1.45	1.11	1.12
12500		0.72	1.02	1.02		0.72	1.18	1.34	1.02	0.99

4 span lapped mixed



Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

PERMALITE® Downturned Lip Zed Five Span Lapped Mixed

Five Span Lapped Mixed: AZ15025DL / AZ15030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.34	15.34	15.34	15.34	16.15	16.15	16.15	16.15	11.50	77.00
2500	12.27	12.27	12.27	12.27	12.92	12.92	12.92	12.92	9.20	39.43
3000	10.23	10.23	10.23	10.23	10.76	10.76	10.76	10.76	7.67	22.82
3500	7.30	7.61	7.61	7.61	7.21	9.23	9.23	9.23	6.57	14.37
4000	5.09	5.83	5.83	5.83	4.78	7.39	7.39	7.39	5.75	9.63
4500	3.40	4.60	4.60	4.60	3.19	5.55	5.84	5.84	4.60	6.76
5000	2.25	3.73	3.73	3.73	2.12	4.23	4.73	4.73	3.73	4.93
5500	1.54	3.08	3.08	3.08	1.45	3.27	3.91	3.91	3.08	3.70
6000	1.09	2.53	2.59	2.59	1.02	2.56	3.24	3.29	2.59	2.85
6500	0.79	2.06	2.21	2.21	0.74	2.03	2.65	2.80	2.21	2.24
7000	0.59	1.68	1.90	1.90	0.55	1.61	2.19	2.41	1.90	1.80
7500	0.45	1.36	1.61	1.66	0.42	1.28	1.82	2.10	1.61	1.46
8000		1.08	1.36	1.46		1.02	1.52	1.83	1.36	1.20
8500		0.86	1.16	1.29		0.81	1.28	1.58	1.16	1.00
9000		0.69	0.99	1.11		0.65	1.08	1.36	0.99	0.85
9500		0.55	0.85	0.97		0.52	0.92	1.19	0.85	0.72
10000		0.45	0.73	0.84		0.43	0.78	1.04	0.73	0.62
10500			0.63	0.74			0.67	0.91	0.63	0.53
11000			0.55	0.65			0.57	0.80	0.55	0.46
11500			0.48	0.57			0.48	0.71	0.48	0.41
12000			0.41	0.50			0.41	0.63	0.41	0.36
12500				0.45				0.56		0.32

Five Span Lapped Mixed: AZ20025DL / AZ20030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.31	15.31	15.31	15.31	16.11	16.11	16.11	16.11	11.48	38.37
2500	9.86	9.86	9.86	9.86	11.33	12.89	12.89	12.89	9.19	19.65
3000	6.85	6.85	6.85	6.85	6.99	9.08	9.08	9.08	6.85	11.37
3500	4.77	5.03	5.03	5.03	4.49	6.52	6.67	6.67	5.03	7.16
4000	3.15	3.85	3.85	3.85	2.94	4.71	5.11	5.11	3.85	4.80
4500	2.07	3.04	3.04	3.04	1.94	3.50	4.03	4.03	3.04	3.37
5000	1.36	2.47	2.47	2.47	1.27	2.66	3.21	3.27	2.47	2.46
5500	0.93	2.04	2.04	2.04	0.87	2.05	2.55	2.70	2.04	1.85
6000	0.66	1.65	1.71	1.71	0.61	1.60	2.05	2.27	1.71	1.42
6500	0.48	1.34	1.46	1.46	0.45	1.26	1.67	1.92	1.46	1.12
7000		1.06	1.26	1.26		0.99	1.38	1.61	1.26	0.90
7500		0.84	1.05	1.10		0.79	1.14	1.36	1.05	0.73
8000		0.66	0.89	0.96		0.62	0.95	1.16	0.89	0.60
8500		0.52	0.76	0.84		0.49	0.80	1.00	0.76	0.50
9000		0.41	0.65	0.73			0.67	0.86	0.65	0.42
9500			0.56	0.63			0.57	0.75	0.56	0.36
10000			0.48	0.55			0.48	0.65	0.48	0.31
10500			0.42	0.48			0.41	0.57	0.41	0.27
11000				0.42				0.50		0.23
11500								0.44		0.20

Five Span Lapped Mixed: AZ25025DL / AZ25030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.35	15.35	15.35	15.35	16.16	16.16	16.16	16.16	11.51	128.73
2500	12.28	12.28	12.28	12.28	12.93	12.93	12.93	12.93	9.21	65.91
3000	10.23	10.23	10.23	10.23	10.77	10.77	10.77	10.77	7.68	38.14
3500	8.77	8.77	8.77	8.77	9.23	9.23	9.23	9.23	6.58	24.02
4000	6.76	7.68	7.68	7.68	6.34	8.08	8.08	8.08	5.76	16.09
4500	4.46	6.10	6.10	6.10	4.19	7.18	7.18	7.18	5.12	11.30
5000	2.94	4.94	4.94	4.94	2.76	5.70	6.34	6.34	4.61	8.24
5500	2.01	4.08	4.08	4.08	1.88	4.40	5.24	5.24	4.08	6.19
6000	1.42	3.43	3.43	3.43	1.33	3.44	4.40	4.40	3.43	4.77
6500	1.03	2.81	2.92	2.92	0.97	2.71	3.58	3.75	2.92	3.75
7000	0.77	2.27	2.52	2.52	0.72	2.14	2.95	3.23	2.52	3.00
7500	0.58	1.80	2.20	2.20	0.54	1.70	2.45	2.82	2.20	2.44
8000	0.45	1.42	1.86	1.93	0.42	1.34	2.05	2.48	1.86	2.01
8500		1.12	1.58	1.71		1.06	1.72	2.14	1.58	1.68
9000		0.89	1.35	1.52		0.84	1.45	1.85	1.35	1.41
9500		0.72	1.16	1.32		0.68	1.23	1.60	1.16	1.20
10000		0.59	1.00	1.15		0.55	1.04	1.40	1.00	1.03
10500		0.48	0.86	1.00		0.46	0.88	1.23	0.86	0.89
11000		0.40	0.74	0.88			0.75	1.08	0.74	0.77
11500			0.64	0.78			0.63	0.95	0.63	0.68
12000			0.56	0.68			0.53	0.84	0.53	0.60
12500			0.48	0.60			0.45	0.74	0.45	0.53

Five Span Lapped Mixed: AZ30025DL / AZ30030DL (kN/m)

Span (mm)	IN				OUT				IN, OUT with M12	Load for Deflection Span/150
Bridging >	0	1	2	3	0	1	2	3	2	
2000	15.36	15.36	15.36	15.36	16.17	16.17	16.17	16.17	11.52	235.09
2500	12.29	12.29	12.29	12.29	12.94	12.94	12.94	12.94	9.22	120.37
3000	10.24	10.24	10.24	10.24	10.78	10.78	10.78	10.78	7.68	69.66
3500	8.78	8.78	8.78	8.78	9.24	9.24	9.24	9.24	6.58	43.87
4000	7.68	7.68	7.68	7.68	8.09	8.09	8.09	8.09	5.76	29.39
4500	6.83	6.83	6.83	6.83	7.19	7.19	7.19	7.19	5.12	20.64
5000	6.15	6.15	6.15	6.15	6.47	6.47	6.47	6.47	4.61	15.05
5500	5.44	5.44	5.44	5.44	5.27	5.88	5.88	5.88	4.19	11.30
6000	4.18	4.57	4.57	4.57	3.91	5.39	5.39	5.39	3.84	8.71
6500	3.09	3.89	3.89	3.89	2.90	4.77	4.77	4.77	3.55	6.85
7000	2.30	3.36	3.36	3.36	2.15	4.20	4.20	4.20	3.29	5.48
7500	1.74	2.92	2.92	2.92	1.63	3.66	3.66	3.66	2.92	4.46
8000	1.35	2.57	2.57	2.57	1.26	3.10	3.22	3.22	2.57	3.67
8500	1.06	2.28	2.28	2.28	0.99	2.60	2.85	2.85	2.28	3.06
9000	0.84	2.03	2.03	2.03	0.79	2.19	2.54	2.54	2.03	2.58
9500	0.68	1.82	1.82	1.82	0.63	1.85	2.28	2.28	1.82	2.19
10000	0.55	1.64	1.64	1.64	0.52	1.57	2.06	2.06	1.64	1.88
10500	0.45	1.41	1.49	1.49	0.43	1.33	1.87	1.87	1.49	1.63
11000		1.19	1.36	1.36		1.12	1.69	1.70	1.36	1.41
11500		1.01	1.24	1.24		0.95	1.49	1.56	1.24	1.24
12000		0.85	1.14	1.14		0.80	1.32	1.43	1.14	1.09
12500		0.72	1.05	1.05		0.68	1.16	1.32	1.05	0.96

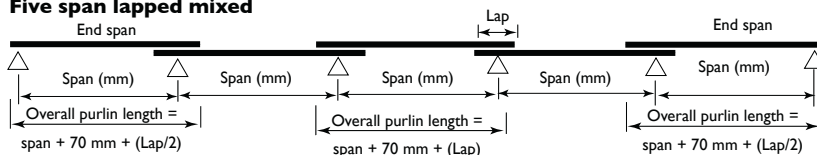
Bold capacities require: M16 bolts (316 SS A4 70)

IN = Inward load capacity

OUT = Outward load capacity

In mixed spans, the thicker section is used in the end span.

Five span lapped mixed



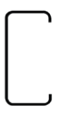
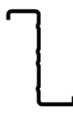
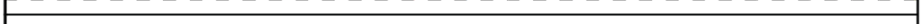
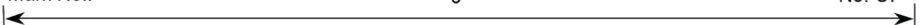
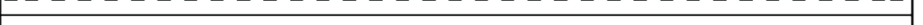
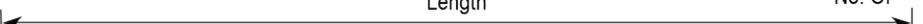
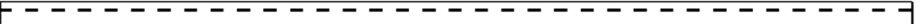
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Delivery Date: _____

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Section**

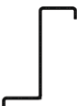
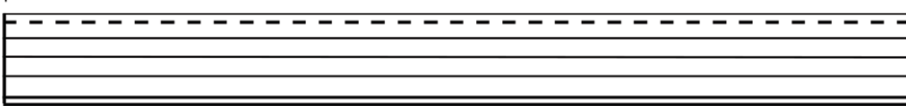
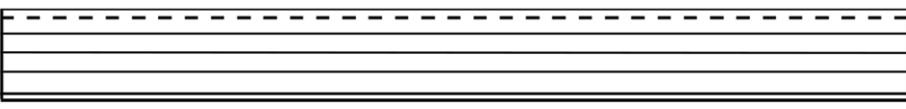
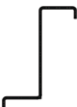
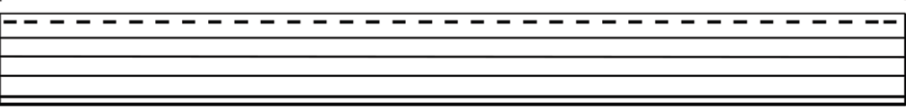
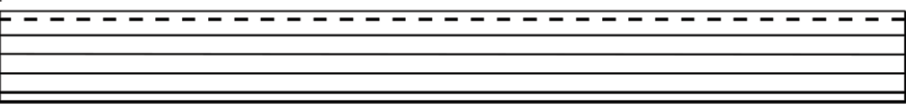
Client:				Sheet ____ of ____	
Project:				Painted _____	
				Colour _____	
Drn:	Checked:	Date:	Holes:		

		Mark No.: _____	Length _____	No. Of _____
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				
				

Delivery Date:_____

Purlin Section	
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Client:				Sheet ____ of ____	
Project:				Painted	
				Colour	
Drn:	Checked:	Date:	Holes:		

		Mark No.:	Length	No. Of
[]				
				
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Bridging Order Form

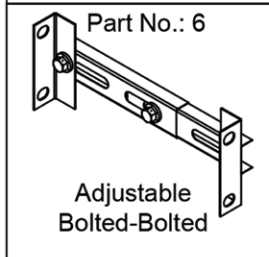
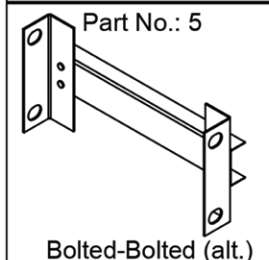
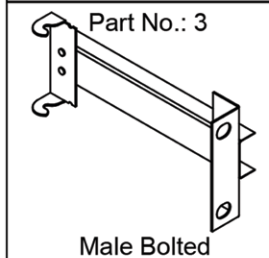
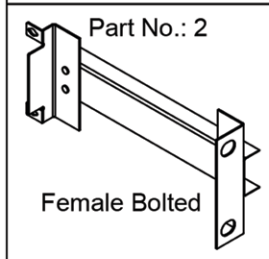
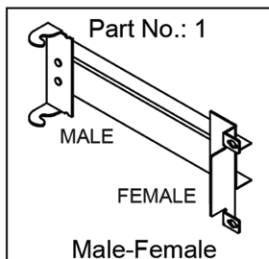
(For use with Permalite purlins)

Delivery Date:_____

Project:_____

Customer:				Sheet of
Address:				Job No:
Drawn:	Finish:	Date:	Holes:	Purchase Order No:

Intermediate Fixed Bridging Assemblies

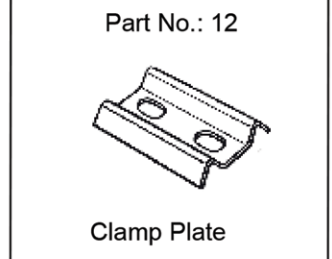
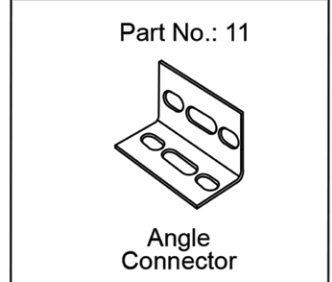
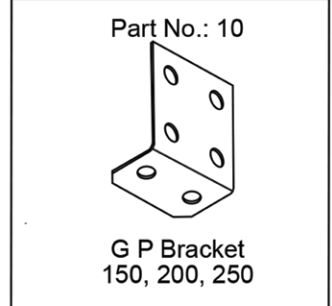
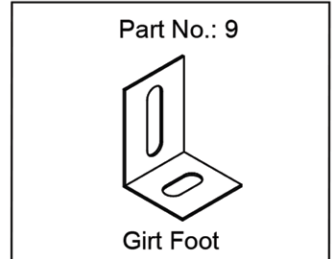


Instructions:

[illegible]

NOTES: • Ends can be ordered individually.
• All end combinations can be manufactured adjustable to suit.
• Additional accessories details/advice available on request
- please contact Permalite directly. Details above.

Fascia Bridging Assemblies
Fascia Size: _____



Install bridging in
direction of locator.



BlueScope Steel Limited
ABN 16 000 011 058

Lysaght Building Solutions Pty Ltd trading as Ranbuild
27 Sterling Road, MINCHINBURY NSW, 2770
Telephone +612 8887 5114
Facsimile +612 9675 4911
www.bluescopesteel.com

Certificate of compliance – Design

Monday, 10 February 2025

Project: Permalite Aluminium Purlin Solutions

Extent of Certificate: This Structural Design Certificate hereby certifies the design of “**Permalite Aluminium Purlins**” as detailed in reference Documentation: **Permalite Aluminium Purlin Solutions**

Limit State Capacity tables contained within **Permalite Aluminium Purlin Solutions** are structurally adequate, meet serviceability requirements and comply with relevant regulations, including:

- AS/NZS 1170.0:2002 Structural design actions Part 0: General principles
- AS/NZS 1170.1:2002 Structural design actions Part 1: Permanent, imposed and other actions
- AS/NZS 1170.2:2021 Structural design actions Part 2: Wind actions
- AS/NZS 1664.1:1997 Aluminium Structures
- NCC 2022

I further certify that designs utilising data from Permalite Aluminium Purlin Solutions will be structurally adequate subject to the following conditions:

1. Compliance with design data and connections contained within Permalite Aluminium Purlin Solutions
2. Installation and Construction shall be in accordance with the attached specifications and accepted good practice
3. All input data of this Project is excluded from this Certificate
4. This Certification becomes invalid if there are any pertinent changes to the relevant Australian Standards or the Building Code of Australia or relevant technical data which post-dates this Certificate

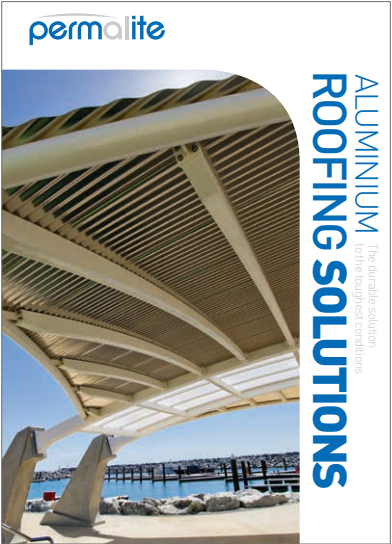
Signed

A handwritten signature in blue ink, appearing to read "A. Filonov", with a long horizontal stroke extending to the right.

Alexander Filonov
MIE Aust CPEng NER 1296608
RPEQ 8094; CC 4719P; PE 0003374
BlueScope Steel Lysaght Building Solutions Engineering Manager

MIEAust, CPEng, NPER, RPEQ 8094, CC4719P, PE 0003374

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