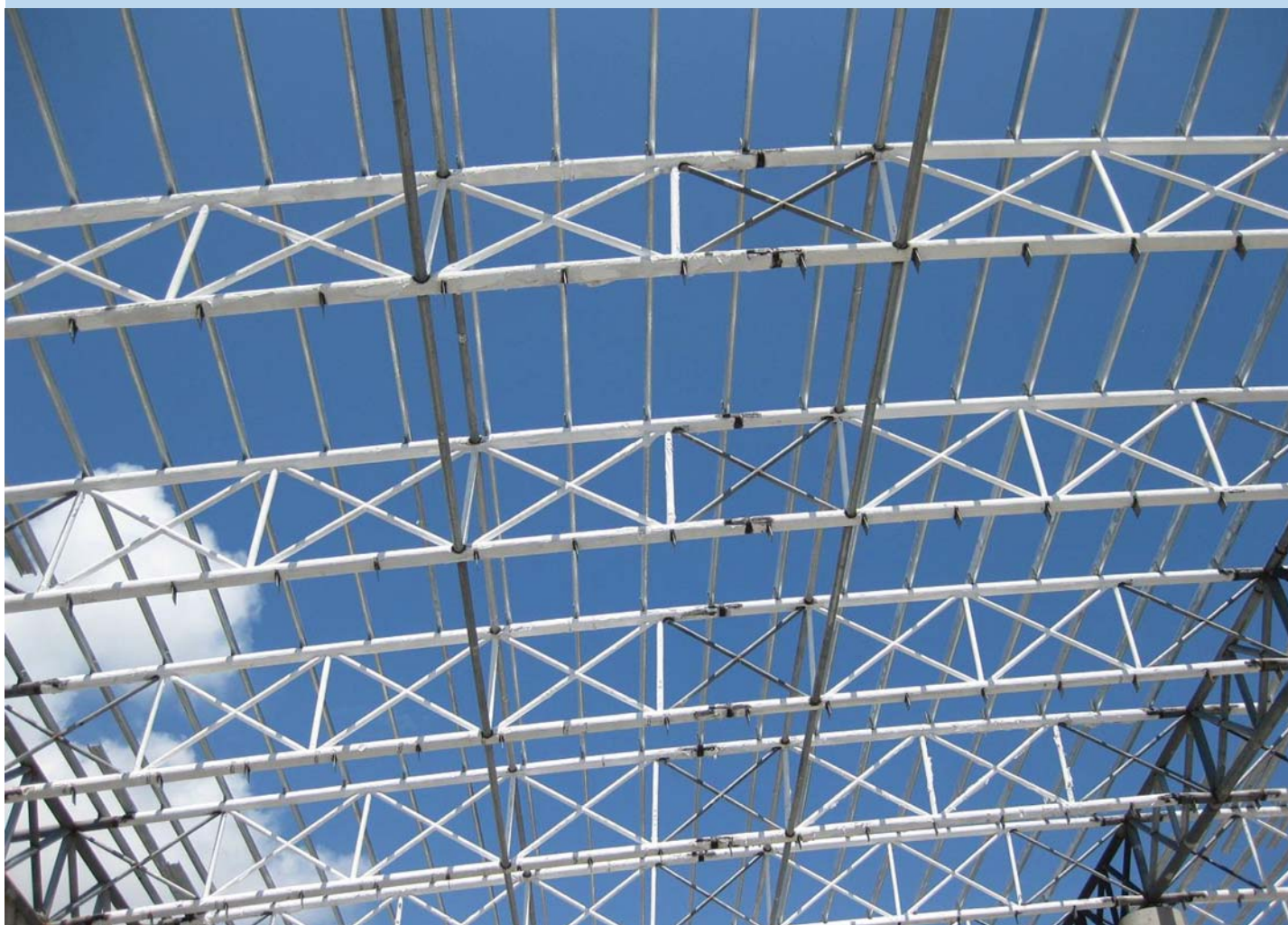


# FASECT<sup>®</sup> 輕而強

冷彎型鋼

Cold-Formed Steel Purlin



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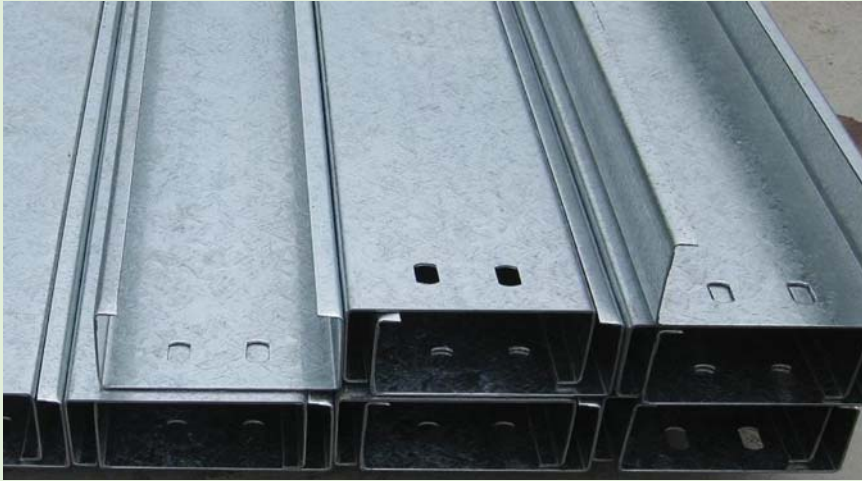
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# 1. 產品簡介 Products

## 1. 產品簡介 Products



FASECT 輕而強使用高強度鍍鋅板為主要材料，應用近代冷彎成型工藝，精密加工冷軋成通用的 C 及 Z 型鋼，一般稱為標條，連接安裝在屋面及外牆結構柱梁上，為鋼結構建築設計常用的主要結構部件。

FASECT cold-formed steel purlins are light-weight materials and suitable for building construction owing to their high structural performance. The most common sections are lipped C and Z sections.

FASECT 輕而強 Z 型鋼由於可在結構連接點作反向搭接安裝，除令連接點結構強度加大，有效減小使用型鋼厚度，更利於縮短施工進度週期，增加整體效益。

FASECT cold-formed steel Z purlin with lap-over feature result in enhanced structural performance and economic design.

FASECT 輕而強主要採用高強度鍍鋅鋼卷（屈服強度 450N/mm<sup>2</sup>）鍍鋅厚度 Z27（275g/m<sup>2</sup>）為生產材料。亦可因客戶要求選用其他級別的鋼卷，而基材厚度為 1.5/1.8/2.0/2.5/3.0 毫米。

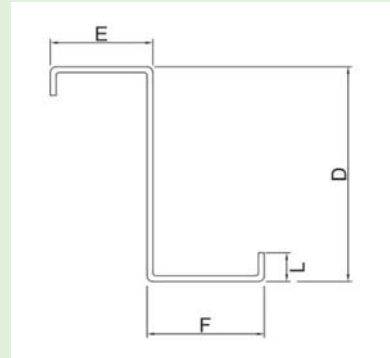
FASECT standard purlin sections are roll-formed from high strength galvanized steel strips of Grade G450 (yield strength 450N/mm<sup>2</sup>) with minimum zinc coating mass Z27 (275g/m<sup>2</sup>). The thickness typically ranges from 1.5mm to 3.0mm. Other steel grade available on request.



## 2. 截面規格 Section specification

### 2. 截面規格 Section specification

Z 型標條 Z Purlin



Z 型鋼	毛截面特性									抗彎有效截面特性					
	t mm	D mm	E mm	F mm	L mm	M Kg/m	A cm <sup>2</sup>	I <sub>x</sub> cm <sup>3</sup>	W <sub>x</sub> cm <sup>3</sup>	P <sub>y</sub> = 346N/mm <sup>2</sup>			P <sub>y</sub> = 450N/mm <sup>2</sup>		
										A <sub>e</sub> cm <sup>2</sup>	I <sub>xe</sub> cm <sup>4</sup>	W <sub>xe</sub> cm <sup>3</sup>	A <sub>e</sub> cm <sup>2</sup>	I <sub>xe</sub> cm <sup>4</sup>	W <sub>xe</sub> cm <sup>3</sup>
Z7510	1.0	75	35	40	10	1.40	1.72	15.24	4.00	1.33	15.01	3.84	1.25	14.79	3.70
Z7512	1.2	75	35	40	10	1.60	2.07	18.15	4.77	1.73	18.09	4.73	1.65	18.00	4.63
Z7515	1.5	75	35	40	10	2.00	2.57	22.34	5.87	2.33	22.34	5.87	2.24	22.32	5.86
Z7520	2.0	75	35	40	10	2.70	3.39	28.88	7.58	3.31	28.88	7.58	3.24	28.88	7.58
Z10012	1.2	100	45	50	10	2.00	2.59	41.41	8.20	1.88	40.55	7.66	1.76	39.82	7.24
Z10015	1.5	100	45	50	10	2.50	3.23	51.22	10.14	2.61	51.05	9.97	2.49	50.77	9.75
Z10020	2.0	100	45	50	10	3.40	4.27	66.78	13.22	3.85	66.78	13.22	3.69	66.76	13.22
Z12520	2.0	125	45	50	10	3.70	4.76	112.81	17.90	3.86	112.80	17.80	3.69	112.77	17.48
Z12525	2.5	125	45	50	10	4.60	5.89	137.88	21.88	5.24	137.88	21.88	4.99	137.88	21.88
Z15015	1.5	150	58	65	13	3.40	4.37	155.02	20.41	2.87	151.25	18.34	2.66	148.45	17.22
Z15020	2.0	150	58	65	13	4.60	5.80	203.72	26.82	4.38	203.24	25.92	4.18	202.38	25.30
Z15025	2.5	150	58	65	13	5.60	7.20	250.23	32.94	5.94	250.21	32.94	5.67	250.10	32.38
Z18015	1.5	180	58	65	13	3.80	4.81	236.98	26.04	2.88	232.25	22.38	2.67	228.66	20.95
Z18018	1.8	180	58	65	13	4.50	5.76	282.36	31.03	3.79	280.87	28.26	3.59	278.92	27.29
Z18020	2.0	180	58	65	13	5.00	6.39	312.00	34.28	4.38	311.40	32.03	4.18	310.35	31.09
Z18025	2.5	180	58	65	13	6.20	7.94	383.94	42.19	5.94	383.91	41.11	5.67	383.78	40.23
Z20015	1.5	200	58	65	13	4.00	5.10	303.51	30.04	2.89	298.24	25.03	2.68	294.18	23.35
Z20018	1.8	200	58	65	13	4.80	6.11	361.85	35.81	3.79	360.20	31.77	3.60	358.03	30.54
Z20020	2.0	200	58	65	13	5.30	6.78	399.98	39.59	4.39	399.33	36.13	4.19	398.16	34.94
Z20025	2.5	200	58	65	13	6.60	8.43	492.72	48.76	5.94	492.69	46.68	5.68	492.54	45.55
Z25018	1.8	250	62	70	14	5.60	7.15	639.91	50.64	3.92	635.86	41.83	3.69	631.48	39.67
Z25020	2.0	250	62	70	14	6.20	7.94	708.05	56.03	4.56	706.23	48.08	4.34	703.57	45.97
Z25025	2.5	250	62	70	14	7.80	9.88	874.37	69.19	6.17	874.23	63.24	5.91	873.76	61.23
Z25030	3.0	250	62	70	14	9.30	11.79	1034.98	81.89	7.91	1034.98	77.84	7.55	1034.94	75.88
Z30020	2.0	300	67	75	15	7.20	9.11	1141.57	75.40	4.73	1137.09	60.58	4.47	1131.77	57.18
Z30025	2.5	300	67	75	15	8.90	11.35	1412.41	93.28	6.44	1411.88	81.23	6.16	1410.59	77.96
Z30030	3.0	300	67	75	15	10.60	13.56	1675.08	110.62	8.23	1675.06	101.19	7.87	1674.90	97.99
Z35025	2.5	350	87	95	20	10.70	13.57	2351.78	133.35	7.28	2338.37	110.11	6.84	2323.32	104.44
Z35030	3.0	350	87	95	20	12.70	16.23	2796.02	158.54	9.40	2793.18	139.26	8.97	2787.74	133.82

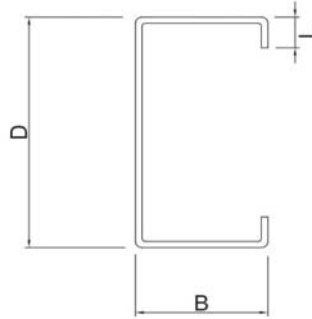
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## 2. 截面規格 Section specification

### 2. 截面規格 Section specification

C 型標條 C Purlin



Ced 型鋼	毛截面特性								抗彎有效截面特性					
	t mm	D mm	B mm	L mm	M Kg/m	A cm <sup>2</sup>	Ix cm <sup>3</sup>	Wx cm <sup>3</sup>	P <sub>y</sub> = 346N/mm <sup>2</sup>			P <sub>y</sub> = 450N/mm <sup>2</sup>		
									Ae cm <sup>2</sup>	Ixe cm <sup>4</sup>	Wxe cm <sup>3</sup>	Ae cm <sup>2</sup>	Ixe cm <sup>4</sup>	Wxe cm <sup>3</sup>
C7510	1.0	75	40	10	1.29	1.64	15.10	4.03	1.32	14.86	3.78	1.23	14.63	3.60
C7512	1.2	75	40	10	1.54	1.96	17.92	4.78	1.73	17.86	4.72	1.64	17.77	4.60
C7515	1.5	75	40	10	1.91	2.43	21.93	5.85	2.32	21.93	5.85	2.24	21.92	5.85
C7520	2.0	75	40	10	2.50	3.18	28.07	7.49	3.17	28.07	7.49	3.14	28.07	7.49
C10012	1.2	100	50	10	1.95	2.48	40.55	8.11	1.89	39.73	7.43	1.75	39.03	7.03
C10015	1.5	100	50	10	2.42	3.09	49.94	9.99	2.64	49.80	9.79	2.51	49.56	9.52
C10020	2.0	100	50	10	3.19	4.07	64.61	12.93	3.88	64.61	12.93	3.74	64.60	12.92
C12520	2.0	125	50	10	3.58	4.56	108.63	17.39	3.98	108.63	17.29	3.79	108.61	16.97
C12525	2.5	125	50	10	4.41	5.62	131.76	21.09	5.35	131.76	21.09	5.15	131.76	21.09
C15015	1.5	150	65	13	3.36	4.29	153.46	20.47	2.96	146.71	17.92	2.73	146.96	16.84
C15020	2.0	150	65	13	4.45	5.67	200.62	26.76	4.59	200.22	25.80	4.36	199.49	25.07
C15025	2.5	150	65	13	5.51	7.02	245.07	32.68	6.25	245.06	32.68	5.96	244.99	32.12
C18015	1.5	180	65	13	3.71	4.72	234.09	26.02	2.97	229.25	21.84	2.75	225.66	20.44
C18018	1.8	180	65	13	4.44	5.65	278.10	30.91	3.95	276.69	27.98	3.73	274.84	26.80
C18020	2.0	180	65	13	4.91	6.26	306.68	34.08	4.60	306.16	31.78	4.37	305.23	30.74
C18025	2.5	180	65	13	6.09	7.76	375.45	41.73	6.30	375.44	40.66	5.99	375.35	39.78
C20015	1.5	200	65	13	3.94	5.02	299.52	29.96	2.99	294.12	24.42	2.76	290.08	22.78
C20018	1.8	200	65	13	4.71	6.00	356.09	35.62	3.97	354.53	31.43	3.74	352.48	30.01
C20020	2.0	200	65	13	5.22	6.65	392.87	39.29	4.61	392.30	35.80	4.38	391.27	34.52
C20025	2.5	200	65	13	6.47	8.25	481.56	48.17	6.31	481.54	46.11	6.00	481.45	44.98
C25018	1.8	250	70	14	5.57	7.09	636.62	50.94	4.15	632.50	41.76	3.89	628.12	39.29
C25020	2.0	250	70	14	6.18	7.87	703.28	56.27	4.84	701.54	48.15	4.59	698.99	45.86
C25025	2.5	250	70	14	7.67	9.77	864.93	69.21	6.62	864.83	63.25	6.31	864.47	61.21
C25030	3.0	250	70	14	9.13	11.64	1019.46	81.57	8.58	1019.46	77.54	8.13	1019.44	75.58
C30020	2.0	300	75	15	7.13	9.08	1140.62	76.05	5.06	1136.32	60.85	4.77	1131.22	57.16
C30025	2.5	300	75	15	8.87	11.30	1406.27	93.76	6.94	1405.87	81.63	6.62	1404.83	78.29
C30030	3.0	300	75	15	10.58	13.47	1661.73	110.80	8.96	1661.72	101.35	8.51	1661.64	98.14
C35025	2.5	350	95	20	10.80	13.76	2403.23	137.34	8.04	2391.65	112.83	7.56	2378.26	106.37
C35030	3.0	350	95	20	12.90	16.43	2849.87	162.87	10.41	2847.87	142.97	9.92	2843.73	137.19

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## 3. 設計說明 Design Statement

### 3. 設計說明 Design Statement

FASECT 輕而強樑條系統是依據 BS5950: Part 5: 1998 設計的, C 型和 Z 型樑條有三個鋼材等級, 也就是 G185, G350 和 G450。

The design of Fasetc purlin systems is in accordance with BS5950:Part 5:1998. Three steel grades of Fasetc C&Z sections are covered, namely, G185,G350 and G450.

C 型和 Z 型樑條的毛截面與有效截面特性的計算方法是依據 BS5950: Part 5: 1998 第 3.5 條: 根據中線尺寸以平面截點代替圓角來計算。

The calculation of both the gross and the effective section properties of Fasetc C and Z sections is based on mid-line dimensions with round corners replaced by intersections of flat elements according to Clause 3.5 of BS5950:Part 5.

C 型和 Z 型樑條系統有以下幾種不同的支承形式:

- 單跨樑條系統: 樑條的兩端都是簡支。
- 雙跨樑條系統: 樑條在中間的支撐點連續而兩端簡支。
- 搭接樑條系統——邊跨和中間跨: 條在中間的支撐點中和搭接, 兩端簡支, 設計計算以 4 跨搭接, 重合的長度為 6D, D 是樑條截面高度。

Three purlin systems using Fasetc C and Z sections with different support configurations are provided:

- Single span purlin systems Purlin members are simply supported at both ends.
- Double span purlin systems Purlin members are continuous at the central supports while simply supported at both ends.
- Lapped purlin systems - End span and Internal span Purlin members are lapped over internal supports for partial fixity while simply supported at both ends; the design calculation is based on a four - soan .Lapped system, and the length of overlaps is equal to 6D where D is the section depth of purlin member.



# 4. 設計係數 Design Coefficients

## 4. 設計係數 Design Coefficients

設計係數表給出了彎矩、剪力、撓曲的設計係數。

荷載 Load	均佈荷載 All spans loaded (e.g. Dead load)	集中荷載 Imposed load (sequence of loaded span to give max.bending moment of shear force)
最大彎矩係數 Coefficients for maximum bending moments	等跨 Uniformly - distributed	
	跨中 Concentrated at midspan	
	支座 Concentrated at third points	
最大剪力係數 Coefficients for maximum Shear force	等跨 Uniformly - distributed	

彎矩 = 係數 × 單跨上的荷載總和 × 跨度

剪力 = 係數 × 跨度上的荷載總和

彎矩係數：橫綫上的數值表示支座處的負彎矩，橫綫下的數值表示支座處的正彎矩。

剪力係數：橫綫上的數值表示支座右面的剪力，橫綫下的數值表示支座左面的剪力。

表示係數應用在以下情況：

所有的跨度相等（或最短的與最長的相差不到15%），每跨上作用的荷載相等，所有跨度的剛性相等。

。支座處的彎矩係數（正荷載作用下）當只有相鄰兩跨有荷載作用時使用。

Bending moment=(coefficient) × (total load on one span) × (span)

Shear force=(coefficient) × (total load on span)

Bending moment coefficient:above line apply to negative bending moment at support;below line apply to positive bending moment in span.

Shear force coefficient:above line apply to shearing force at right - hand side of support;below line apply to shearing force at left - hand side of support.

Coefficient apply when all span are equal (or shortest 15% less than longest). Loads on each are equal.

Moment of inertia same through out all spans.

Bending moment coefficient (imposed load) in brackets apply if two span only are loaded.

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## 4. 設計系數 Design Coefficients

### 4. 設計系數 Design Coefficients

C型和Z型標條的承載力表示是通過對標條在正負荷載的作用下的以下失效模式進行彈性分析而推斷出來的：

- 支承處或搭接部分的末端的剪力破壞。
- 跨中附近、支承處或搭接部分的末端的彎矩破壞。
- 支承處或搭接部分的末端在彎矩與剪力復合作用下的破壞。
- 支承與中間約束之間為被約束的受壓翼緣的側向扭轉失穩。
- 連續標條的支承或支承處的螺栓的剪切破壞。

標條在正常使用極限狀態下的撓度也被考慮到，撓度極限是跨度的 1/180。

根據測試數據，搭接標條連接處的彎矩抵抗能力與連續標條的抗彎模量的比值  $m_{con}$  如表所示：

The Load - Span Tables of both Fasetc C and Z sections are derived through the use of elastic analysis on purlin systems under both gravity loads and uplift against the following modes of failure :

- Shear failure at support or end of lapped section.
- Moment failure at near mid - span, supports or end of lapped sections.
- Failure under combined shear and moment at supports or end of lapped section.
- Lateral torsional buckling of purlin members between supports and intermediate restraints where the compression flanges are unrestrained.
- Bearing failure of connected section or shear failure of bolt at supports.

Deflection check under serviceability limit state is also considered, the deflection limit is span 1/180.

Section depth (mm)	$m_{con}$
< 180	0.80
200	0.725
250	0.65
300	0.575
> 300	0.50

根據測試數據，搭接標條連接處的彎矩抵抗能力與連續標條的抗彎模量的比值  $m_{con}$  如表所示：

在編寫搭接標條系統的過程中，考慮到以下情況，將搭接部位的彎矩約束值乘以 0.9 的係數。

- 連續標條的彎矩與剪力係數是彈性分析。
- 搭接標條的彎矩與剪力係數是塑性分析。

而且，在所有情況下搭接部位的剪力抵抗值被保守地認為與連續接點的抗剪能力相等。

Base on test data, the ratio,  $m_{con}$ , of the moment resistances of lapped connections to the moment capacities of connected sections are given as follows :

During the compilation of the Load - Span Tables for lapped purlin systems, a factor of 0.9 is applied to the moment resistances of lapped connections to allow for the following design discrepancies.

- Elastic analysis for moment and shear coefficients on continuous purlin members.
- Plastic analysis for moment and shear coefficients on lapped purlin members.

Moreover, the shear resistance of lapped connections are taken conservatively to be equal to the shear capacities of connected sections in all cases.



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## 4. 設計系數 Design Coefficients

### 4. 設計系數 Design Coefficients

在承載力表中，對於應力極限狀態，重力和風吸力的驗算荷載是設計值，而對於正常使用極限狀態，撓度控制的驗算荷載是標準值，具體如下所示：

- 應力極限狀態 WG：重力驗算荷載設計值。
  - WU0：風吸力驗算跨中沒有約束的荷載設計值。
  - WU1：風吸力驗算跨中有一個約束的荷載設計值。
  - WU2：風吸力驗算跨中有兩個約束的荷載設計值。
  - 正常使用極限狀態。
  - WD：撓度驗算荷載標準值。
- 編寫承載力表時沒有包含檁條的自重。

In Load - Span Tables, the loads for gravity and wind uplift are factored loads for ultimate limit state while the loads for deflection check are unfactored loads for serviceability limit state as follows :

- Ultimate limit state
- WG : Factored load (kN/m) for gravity check.
- WU0: Factored load (kN/m) for uplift check with no intermediate restraint per span.
- WU1: Factored load (kN/m) for uplift check with one intermediate restraint per span.
- WU2: Factored load (kN/m) for uplift check with two intermediate restrains per span.
- Serviceability limit state

WD : Unfactored load (kN/m) for deflection check.

Self - weight of the purlin members has not been incorporated during the compilation of the design tables.

所有螺栓的等級為 8.8 級，以 55Nm 的扭矩安裝。參照沖孔詳圖，不同截面使用的螺栓直徑和響應的邊緣距離如下：

All bolts are M8.8 and they are installed with a torque of 55 Nm. Refer to Holes Details the bolt diameters and the associated distances for various sections are.

截面高度 (mm)	邊緣距離 (mm)	螺栓直徑 (mm)
≤ 200	40	50
≥ 250	12	16



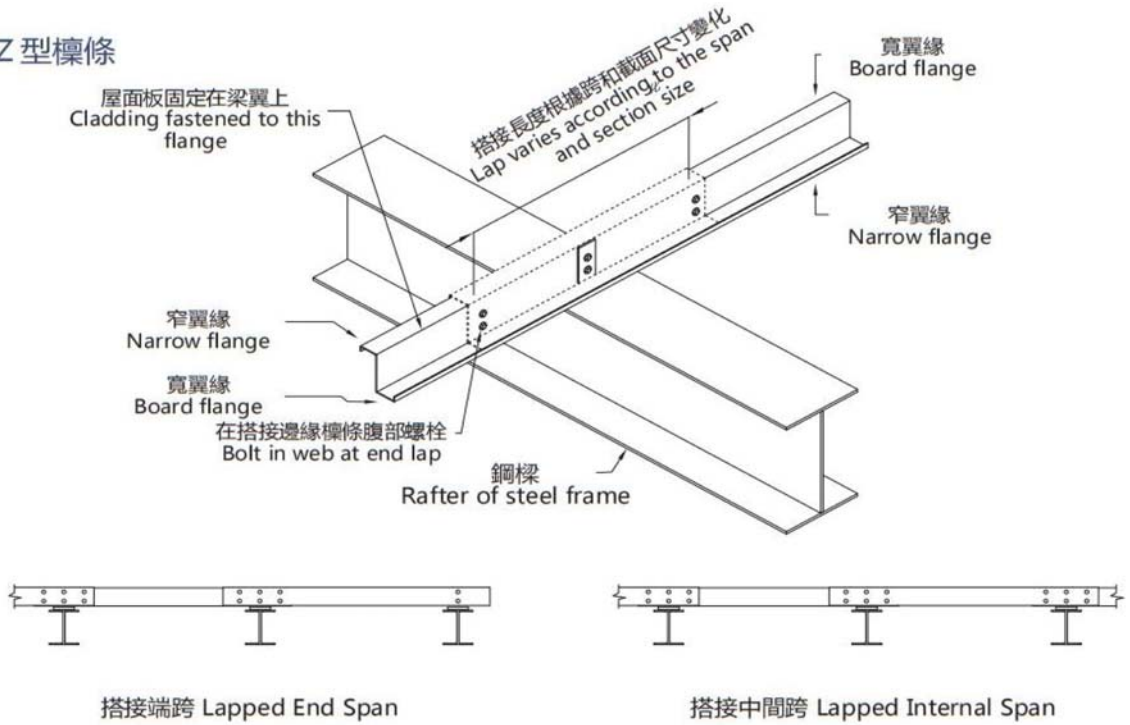
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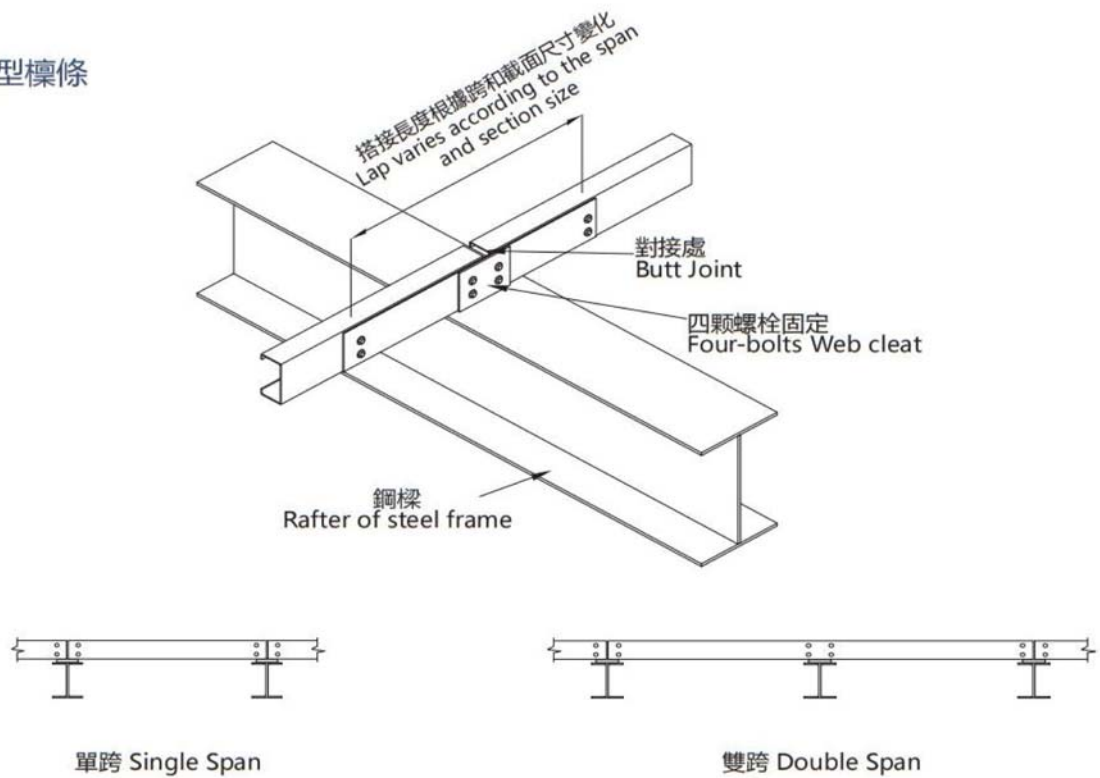
## 5. 搭接節點 Laps & Joints

### 5. 搭接節點 Laps & Joints

#### Z 型檁條



#### C 型檁條

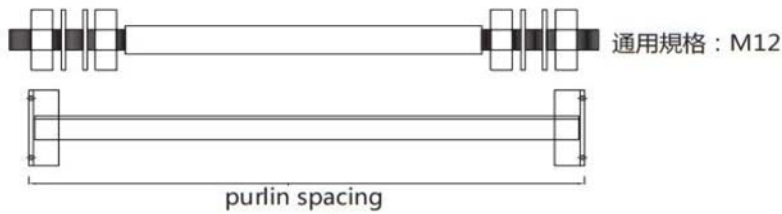
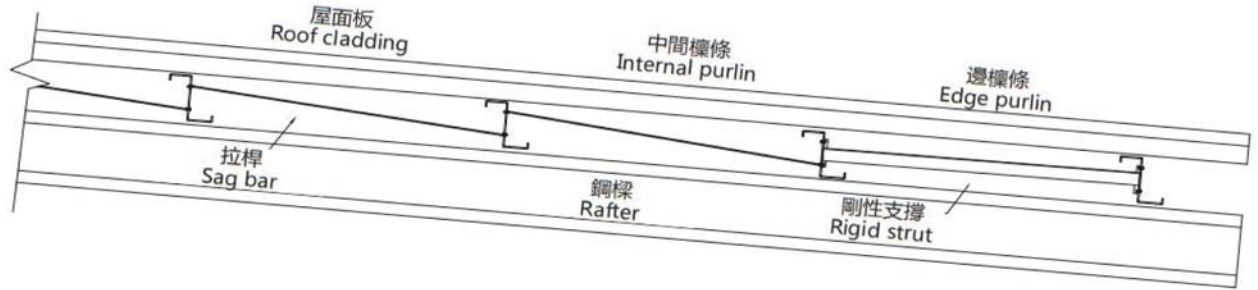


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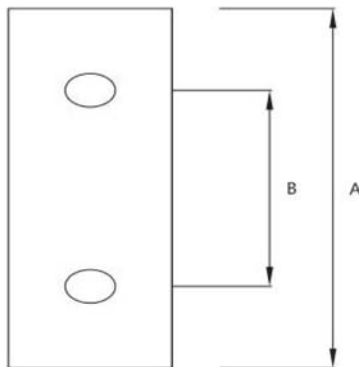
## 6. 拉桿系統 Tie rod system

### 6. 拉桿系統 Tie rod system

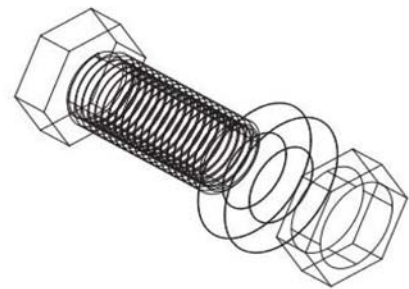


Section size	A	B	L
75	N.A.		Spacing less 2mm
100	90	40	
125	100	50	
150	115	60	
200	160	110	
250	210	160	
300	260	210	
350	310	260	

### 剛性支撐 ( Rigid Strut & Sag Bar )



Fastening gal. cleat 50×55×2mm & gal. angle 50×55×2mm

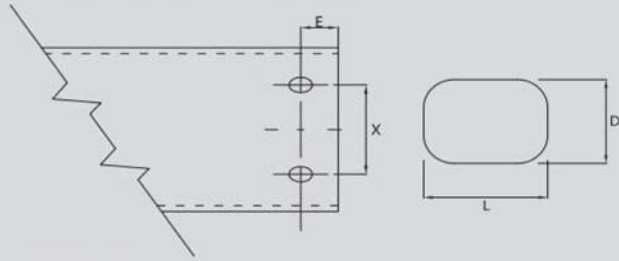


Bolts (Grade 8.8)  
Sections ≤ 200M12×30mm  
Sections ≥ 250M16×45mm

# 7. 冲孔 Punching holes

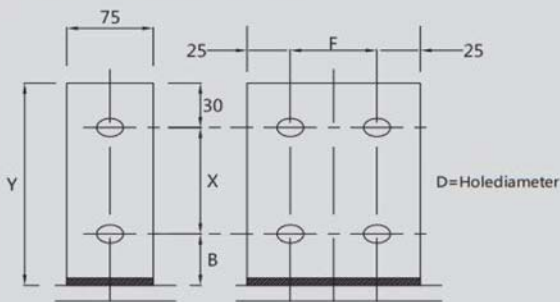
## 7. 冲孔 Punching holes

### Z型和C型標條 (Z and C purlin)

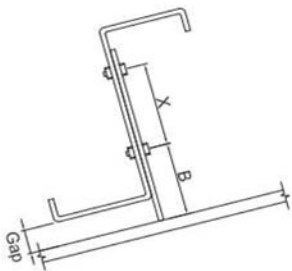


(mm)				
Section size	X	D	L	E
150	60	18	22	40
180	90	18	22	40
200	110	18	22	40
250	160	18	22	40
300	210	22	22	50

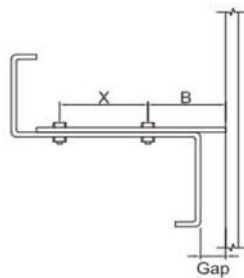
### 標托板衝孔 Cleats & Holes



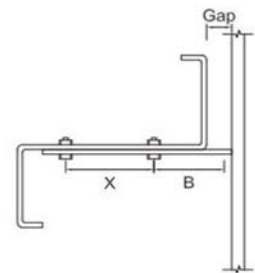
Cleat nominal dimension (mm)						
Section size	X	B	Y	t (thickness)	Gap	F
150	60	55	148	8	10	90
180	90	55	175	8	10	90
200	110	55	195	8	10	90
250	160	55	245	8	10	90
300	210	65	305	12	20	110



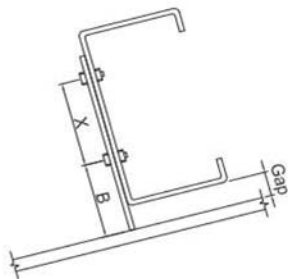
搭接的 Z 型標條  
Z Purlin lapped



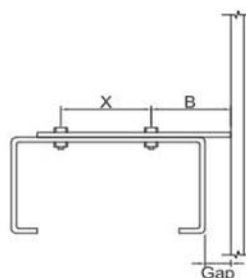
Z 型標條標準安裝方法  
Z Girts standard mode



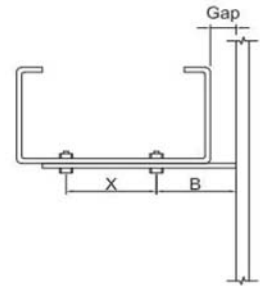
Z 型標條可選安裝方法  
Z Girts optional mode



搭接的 C 型標條  
C Purlin lapped



C 型標條可選安裝方法  
C Girts optional mode



C 型標條標準安裝方法  
C Girts standard mode

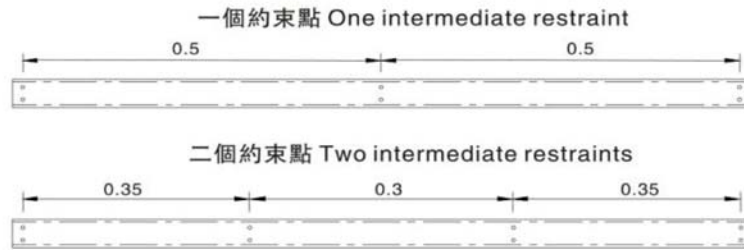
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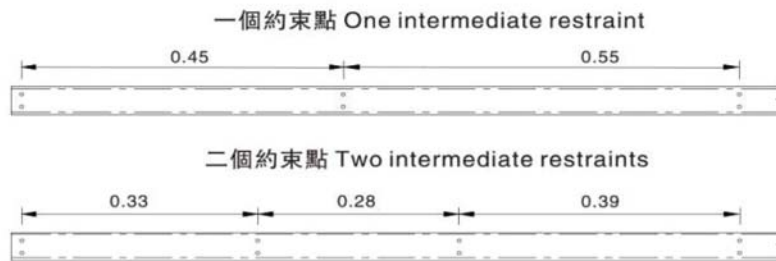
## 8. 冲孔位置 Punching Position

### 8. 冲孔位置 Punching Position

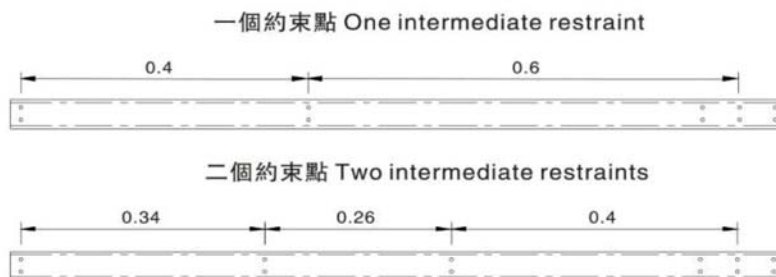
#### 單跨 Single Spans



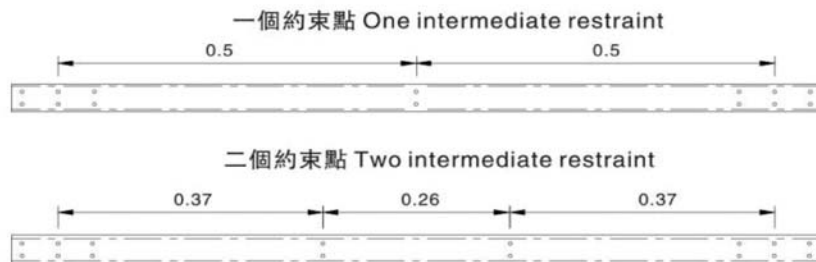
#### 端跨(連續) End Spans (continuous)



#### 端跨(搭接) End Spans (Lapped)



#### 中間跨(搭接或非搭接) Internal Spans (Lapped or unlapped)



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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型樓條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### ■ Z7512(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	8.01	18.37	8.01	8.01	8.01	6.83	4.00	5.43	6.83	6.83	4.17	1.98	2.21	4.17	4.17	4.04	4.77	4.04	4.04	4.04
2500	4.61	9.22	4.61	4.61	4.61	4.36	2.14	2.42	4.36	4.36	2.67	1.01	0.95	2.67	2.67	2.61	2.44	2.61	2.61	2.61
3000	2.99	5.17	2.99	2.99	2.99	3.03	1.26	1.21	3.03	3.03	1.85	0.59	0.48	1.69	1.85	1.83	1.41	1.42	1.83	1.83
3500	2.09	3.12	2.09	2.09	2.09	2.20	0.79	0.67	2.13	2.20	1.36	0.37	0.27	1.02	1.36	1.35	0.89	0.79	1.35	1.35
4000	1.54	2.11	1.54	1.54	1.54	1.62	0.55	0.41	1.44	1.62	1.04	0.25	0.16	0.63	1.00	1.03	0.60	0.48	1.03	1.03

#### ■ Z7515(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	10.27	22.69	10.27	10.27	10.27	8.65	4.95	6.69	8.65	8.65	5.28	2.44	2.75	5.28	5.28	5.15	5.90	5.15	5.15	5.15
2500	5.88	11.39	5.88	5.88	5.88	5.53	2.65	3.00	5.53	5.53	3.38	1.25	1.20	3.32	3.38	3.33	3.02	3.33	3.33	3.33
3000	3.80	6.38	3.80	3.80	3.80	3.83	1.56	1.52	3.81	3.83	2.35	0.72	0.16	2.08	2.35	2.32	1.75	1.77	2.32	2.32
3500	2.66	3.85	2.66	2.66	2.66	2.80	0.97	0.85	2.62	2.80	1.72	0.46	0.34	1.26	1.68	1.71	1.10	1.00	1.71	1.71
4000	1.96	2.61	1.96	1.96	1.96	2.05	0.68	0.52	1.77	2.05	1.32	0.31	0.21	0.78	1.22	1.31	0.74	0.61	1.31	1.31

#### ■ Z7520(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	13.32	29.34	13.32	13.32	13.32	11.18	6.40	8.68	11.18	11.18	6.82	3.16	3.65	6.82	6.82	6.67	7.63	6.67	6.67	6.67
2500	7.62	14.3	7.62	7.62	7.62	7.14	3.42	3.98	7.14	7.14	4.37	1.62	1.62	4.28	4.37	4.30	3.90	4.30	4.30	4.30
3000	4.92	8.26	4.92	4.92	4.92	4.96	2.01	2.05	4.90	4.96	3.03	0.94	0.84	2.68	3.03	3.00	2.26	2.38	3.00	3.00
3500	3.44	4.98	3.44	3.44	3.44	3.63	1.26	1.17	3.37	3.63	2.23	0.59	0.49	1.65	2.16	2.21	1.42	1.36	2.21	2.21
4000	2.54	3.37	2.54	2.54	2.54	2.66	0.88	0.73	2.29	2.66	1.71	0.39	0.31	1.03	1.58	1.70	0.95	0.84	1.70	1.70

#### ■ Z10012(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	12.37	43.51	12.37	12.37	12.37	10.71	8.94	10.71	10.71	10.71	6.52	6.52	4.44	5.05	6.52	5.78	10.73	5.78	5.78	5.78
2500	7.63	21.69	7.63	7.63	7.63	6.84	4.69	5.52	6.84	6.84	4.17	4.17	2.27	2.18	4.17	3.85	5.49	3.85	3.85	3.85
3000	4.97	11.84	4.97	4.97	4.94	4.74	2.67	2.80	4.74	4.74	2.90	2.90	1.32	1.08	2.90	2.74	3.18	2.74	2.74	2.74
3500	3.47	7.23	3.47	3.47	3.47	3.48	1.69	1.55	3.48	3.48	2.13	2.13	0.83	0.60	2.13	2.04	2.00	1.81	2.04	2.04
4000	2.56	4.90	2.56	2.56	2.56	2.66	1.19	0.92	2.66	2.66	1.63	1.63	0.56	0.36	1.42	1.58	1.34	1.08	1.58	1.58

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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型樓條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### ■ Z10015kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	7.04	14.9	7.04	7.04	7.04	6.39	3.35	3.47	6.39	6.39	3.90	1.65	1.35	3.90	3.90	3.80	3.99	3.80	3.80	3.80
3500	4.84	9.07	4.84	4.84	4.84	4.69	2.12	1.93	4.69	4.69	2.87	1.04	0.75	2.69	2.87	2.81	2.51	2.25	2.81	2.81
4000	3.53	6.15	3.53	3.53	3.53	3.59	1.50	1.16	3.56	3.59	2.19	0.70	0.45	1.75	2.19	2.16	1.68	1.35	2.16	2.16
4500	2.69	4.12	2.69	2.69	2.69	2.83	1.03	0.74	2.56	2.83	1.73	4.49	0.29	1.14	1.72	1.71	1.18	0.86	1.71	1.71
5000	2.11	3.03	2.11	2.11	2.11	2.22	0.78	0.49	1.81	2.22	1.40	0.36	0.20	0.77	1.31	1.39	0.86	0.58	1.39	1.39

#### ■ Z10020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	9.70	19.52	9.70	9.70	9.70	8.66	4.38	4.56	8.66	8.66	5.29	2.16	1.81	5.18	5.29	5.20	5.22	5.20	5.20	5.20
3500	6.64	11.88	6.64	6.64	6.64	6.35	2.78	2.56	6.34	6.35	3.88	1.36	1.02	3.48	3.88	3.84	3.29	2.98	3.84	3.84
4000	4.83	8.05	4.83	4.83	4.83	4.86	1.96	1.55	4.61	4.86	2.97	0.91	0.62	2.28	2.92	2.95	2.20	1.81	2.95	2.95
4500	3.67	5.40	3.67	3.67	3.67	3.84	1.35	1.00	3.33	3.84	2.35	0.64	0.41	1.50	2.23	2.33	1.55	1.17	2.33	2.33
5000	2.88	3.94	2.82	2.88	2.88	3.03	1.02	0.68	2.36	2.94	1.90	0.47	0.28	1.02	1.70	1.89	1.13	0.79	1.89	1.89

#### ■ Z12520(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	14.42	34.75	14.42	14.42	14.42	11.46	7.40	5.66	11.46	11.46	6.99	3.65	2.21	6.87	6.99	6.83	8.83	6.56	6.83	6.83
3500	9.82	21.47	9.82	9.82	9.82	8.41	4.76	3.15	8.41	8.41	5.14	2.30	1.23	4.49	5.14	5.05	5.56	3.67	5.05	5.05
4000	7.02	13.99	7.02	7.02	7.02	6.43	3.21	1.90	6.06	6.43	3.93	1.54	0.75	2.86	3.91	3.88	3.72	2.21	3.88	3.88
4500	5.26	9.46	5.23	5.26	5.26	5.08	2.23	1.21	4.26	5.08	3.11	1.08	0.48	1.86	2.95	3.07	2.62	1.42	3.07	3.07
5000	4.09	6.69	3.49	4.09	4.09	4.11	1.70	0.82	2.97	3.88	2.52	0.79	0.33	1.25	2.22	2.50	1.91	0.95	2.50	2.50

#### ■ Z12525(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.16	42.48	18.16	18.16	18.16	14.35	9.05	6.95	14.35	14.35	8.75	4.47	2.75	8.35	8.75	8.59	10.79	8.04	8.59	8.59
3500	12.36	26.25	12.36	12.36	12.36	10.53	5.82	3.90	10.30	10.53	6.43	2.81	1.56	5.45	6.40	6.34	6.79	4.53	6.34	6.34
4000	8.82	17.10	8.82	8.82	8.82	8.06	3.92	2.37	7.36	8.06	4.92	1.88	0.96	3.49	4.76	4.87	4.55	2.76	4.87	4.87
4500	6.61	11.57	6.43	6.61	6.61	6.36	2.73	1.53	5.17	6.23	3.89	1.32	0.62	2.28	3.59	3.86	3.20	1.78	3.86	3.86
5000	5.13	8.51	4.32	5.13	5.13	5.15	2.08	1.04	3.61	4.71	3.15	0.96	0.43	1.54	2.69	3.13	2.33	1.21	3.08	3.13

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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型樓條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### ■ Z15015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	12.56	48.17	12.56	12.56	12.56	11.31	9.93	9.54	11.31	11.31	6.89	4.92	3.75	6.89	6.89	5.85	11.87	5.85	5.85	5.85
3500	8.93	29.37	8.93	8.93	8.93	8.30	6.20	5.38	8.30	8.30	5.06	3.10	2.07	5.06	5.06	4.47	7.48	4.47	4.47	4.47
4000	6.61	19.27	6.61	6.61	6.61	6.35	4.20	3.22	6.35	6.35	3.88	2.07	1.23	3.88	3.88	3.51	5.01	3.51	3.51	3.51
4500	5.06	13.14	5.06	5.06	5.06	5.01	2.95	2.04	5.01	5.01	3.06	1.46	0.78	3.04	3.06	2.83	3.52	2.38	2.83	2.83
5000	3.99	9.67	3.99	3.99	3.99	4.06	2.25	1.35	4.06	4.06	2.48	1.06	0.52	2.11	2.48	2.32	2.56	1.58	2.32	2.32
5500	3.22	6.98	3.22	3.22	3.22	3.35	1.66	0.93	3.35	3.35	2.05	0.80	0.36	1.49	2.05	1.94	1.93	1.10	1.94	1.94
6000	2.65	5.42	2.65	2.65	2.65	2.76	1.32	0.67	2.53	2.76	1.72	0.61	0.26	1.07	1.72	1.64	1.48	0.78	1.64	1.64

#### ■ Z15020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.12	64.46	18.12	18.12	18.12	16.62	13.29	12.44	16.62	16.62	10.12	6.58	4.92	10.12	10.12	9.47	15.89	9.47	9.47	9.47
3500	14.77	39.31	14.77	14.77	14.77	12.19	8.29	7.03	12.19	12.19	7.44	4.14	2.73	7.44	7.44	7.07	10.01	7.07	7.07	7.07
4000	10.78	25.79	10.78	10.78	10.78	9.33	5.62	4.23	9.33	9.33	5.69	2.78	1.64	5.62	5.69	5.48	6.70	4.92	5.48	5.48
4500	8.06	17.58	8.06	8.06	8.06	7.36	3.95	2.69	7.36	7.36	4.50	1.95	1.04	3.96	4.50	4.36	4.71	3.14	4.36	4.36
5000	6.25	12.94	6.25	6.25	6.25	5.96	3.01	1.79	5.85	5.96	3.64	1.42	0.70	2.76	3.64	3.55	3.43	2.09	3.55	3.55
5500	4.98	9.35	4.98	4.98	4.98	4.92	2.22	1.24	4.42	4.92	3.01	1.07	0.49	1.94	3.01	2.95	2.58	1.45	2.95	2.95
6000	4.06	7.26	3.89	4.06	4.06	4.13	1.77	0.89	3.30	4.13	2.53	0.82	0.35	1.40	2.40	2.49	1.99	1.04	2.49	2.49

#### ■ Z15025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.12	79.41	18.12	18.12	18.12	18.12	16.37	15.19	18.12	18.12	12.95	8.10	6.05	12.95	12.95	12.58	19.58	12.58	12.58	12.58
3500	15.56	48.43	15.56	15.56	15.56	15.56	10.21	8.62	15.56	15.56	9.52	5.10	3.38	9.52	9.52	9.31	12.33	9.31	9.31	9.31
4000	13.63	31.78	13.63	13.63	13.63	11.94	6.93	5.21	11.94	11.94	7.29	3.42	2.04	6.86	7.29	7.17	8.26	6.05	7.17	7.17
4500	10.64	21.66	10.64	10.64	10.64	9.42	4.86	3.33	9.33	9.42	5.76	2.40	1.31	4.83	5.76	5.68	5.80	3.88	5.68	5.68
5000	8.18	15.95	8.18	8.18	8.18	7.63	3.71	2.23	7.14	7.63	4.66	1.75	0.88	3.37	4.60	4.61	4.23	2.60	4.61	4.61
5500	6.49	11.52	6.49	6.49	6.49	6.30	2.73	1.56	5.39	6.30	3.85	1.32	0.62	2.38	3.68	3.82	3.18	1.82	3.82	3.82
6000	5.27	8.94	4.80	5.27	5.27	5.29	2.18	1.12	4.03	5.12	3.24	1.01	0.45	1.72	2.93	3.21	2.45	1.31	3.21	3.21

#### ■ Z18015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	13.76	74.73	13.76	13.76	13.76	12.58	15.01	11.53	12.58	12.58	8.38	7.54	4.49	8.38	8.38	6.20	18.22	6.20	6.20	6.20
3500	10.09	46.46	10.09	10.09	10.09	9.60	9.49	6.46	9.60	9.60	6.16	4.75	2.47	6.16	6.16	4.86	11.47	4.86	4.86	4.86
4000	7.66	30.83	7.66	7.66	7.66	7.50	6.49	3.86	7.50	7.50	4.71	3.18	1.47	4.71	4.71	3.90	7.69	3.90	3.90	3.90
4500	5.98	21.32	5.98	5.98	5.98	5.96	4.61	2.44	5.96	5.96	3.72	2.23	0.93	3.70	3.72	3.19	5.40	2.85	3.19	3.19
5000	4.78	15.19	4.78	4.78	4.78	4.82	3.36	1.62	4.82	4.82	3.02	1.63	0.62	2.54	3.02	2.65	3.94	1.89	2.65	2.65
5500	3.89	11.06	3.89	3.89	3.89	3.96	2.50	1.11	3.96	3.96	2.49	1.22	0.43	1.78	2.49	2.23	2.96	1.30	2.23	2.23
6000	3.23	8.59	3.23	3.23	3.23	3.30	2.00	0.79	3.06	3.30	2.10	0.94	0.30	1.28	2.10	1.91	2.28	0.93	1.91	1.91

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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型樓條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### ■ Z18018(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.08	90.08	18.08	18.08	18.08	17.94	18.09	13.65	17.94	17.94	10.91	9.09	5.33	10.91	10.91	9.04	21.96	9.04	9.04	9.04
3500	15.03	56.00	15.03	15.03	15.03	13.17	11.44	7.66	13.17	13.17	8.02	5.73	2.94	8.02	8.02	6.94	13.83	6.94	6.94	6.94
4000	11.34	37.17	11.34	11.34	11.34	10.07	7.82	4.58	10.07	10.07	6.14	3.84	1.75	6.14	6.14	5.48	9.26	5.33	5.48	5.48
4500	8.68	25.70	8.68	8.68	8.68	7.95	5.56	2.90	7.95	7.95	4.85	2.69	1.11	4.37	4.85	4.42	6.51	3.38	4.42	4.42
5000	6.80	18.31	6.80	6.80	6.80	6.44	4.05	1.93	6.44	6.44	3.93	1.96	0.74	3.01	3.93	3.64	4.74	2.25	3.64	3.64
5500	5.46	13.33	5.46	5.46	5.46	5.32	3.01	1.33	4.90	5.32	3.25	1.48	0.51	2.11	3.25	3.05	3.56	1.56	3.05	3.05
6000	4.47	10.35	4.24	4.47	4.47	4.46	2.41	0.95	3.62	4.46	2.73	1.14	0.37	1.52	2.70	2.59	2.74	1.11	2.59	2.59

#### ■ Z18020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.08	99.89	18.08	18.08	18.08	18.08	20.06	15.02	18.08	18.08	12.44	10.08	5.87	12.44	12.44	10.86	24.35	10.86	10.86	10.86
3500	15.53	62.10	15.53	15.53	15.53	15.00	12.68	8.43	15.00	15.00	9.14	6.35	3.25	9.14	9.14	8.24	15.33	8.24	8.24	8.24
4000	13.47	41.21	13.47	13.47	13.47	11.48	8.67	5.05	11.48	11.48	7.00	4.25	1.94	6.96	7.00	6.45	10.27	5.87	6.45	6.45
4500	10.40	28.50	10.40	10.40	10.40	9.06	6.16	3.21	9.06	9.06	5.53	2.99	1.23	4.18	5.53	5.18	7.21	3.73	5.18	5.18
5000	8.06	20.31	8.06	8.06	8.06	7.33	4.49	2.13	7.25	7.33	4.48	2.18	0.82	3.31	4.48	4.25	5.26	2.49	4.25	4.25
5500	6.42	14.78	6.42	6.42	6.42	6.06	3.34	1.48	5.39	6.06	3.70	1.64	0.57	2.33	3.70	3.54	3.95	1.72	3.54	3.54
6000	5.23	11.48	4.67	5.23	5.23	5.09	2.67	1.05	3.99	5.09	3.11	1.26	0.41	1.67	2.97	2.99	3.04	1.23	2.99	2.99

#### ■ Z18025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.08	123.22	18.08	18.08	18.08	18.08	24.74	18.08	18.08	18.08	16.09	12.44	7.20	16.09	16.09	15.12	30.04	15.12	15.12	15.12
3500	15.53	76.60	15.53	15.53	15.53	15.53	15.64	10.31	15.53	15.53	11.82	7.83	4.00	11.82	11.82	11.28	18.92	11.28	11.28	11.28
4000	13.60	50.84	13.60	13.60	13.60	13.60	10.70	6.20	13.60	13.60	9.05	5.25	2.40	8.50	9.05	8.73	12.67	7.20	8.73	8.73
4500	12.11	35.16	12.11	12.11	12.11	11.72	7.60	3.95	11.72	11.72	7.15	3.68	1.54	5.87	7.15	6.95	8.90	4.60	6.95	6.95
5000	10.91	25.05	10.91	10.91	10.91	9.49	5.54	2.64	8.85	9.49	5.79	2.69	1.03	4.04	5.79	5.66	6.49	3.07	5.66	5.66
5500	8.66	18.24	8.02	8.66	8.66	7.84	4.12	1.83	6.57	7.84	4.79	2.02	0.72	2.84	4.61	4.70	4.87	2.14	4.70	4.70
6000	6.99	14.16	5.74	6.99	6.99	6.58	3.29	1.32	4.86	6.36	4.02	1.55	0.52	2.05	3.63	3.96	3.75	1.54	3.96	3.96

#### ■ Z20015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	8.02	40.02	8.02	8.02	8.02	7.55	8.25	4.29	7.55	7.55	5.25	4.08	1.63	5.25	5.25	4.01	9.87	4.01	4.01	4.01
4500	6.35	27.82	6.35	6.35	6.35	6.12	5.88	2.71	6.12	6.12	4.15	2.87	1.03	4.13	4.15	3.32	6.93	3.16	3.32	3.32
5000	5.14	19.95	5.14	5.14	5.14	5.03	4.31	1.79	5.03	5.03	3.36	2.09	0.68	2.83	3.36	2.79	5.05	2.10	2.79	2.79
5500	4.22	14.64	4.22	4.22	4.22	4.19	3.23	1.24	4.19	4.19	2.78	1.57	0.47	1.98	2.78	2.37	3.79	1.44	2.37	2.37
6000	3.53	10.92	3.53	3.53	3.53	3.53	2.45	0.88	3.41	3.53	2.34	1.21	0.34	1.42	2.34	2.03	2.92	1.03	2.03	2.03
6500	2.98	8.65	2.90	2.98	2.98	3.01	1.99	0.64	2.54	3.01	1.99	0.95	0.25	1.04	1.99	1.77	2.30	0.75	1.77	1.77
7000	2.55	6.65	2.17	2.55	2.55	2.58	1.55	0.48	1.91	2.58	1.72	0.76	0.19	0.75	1.55	1.55	1.84	0.56	1.55	1.55

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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型樓條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### ■ Z20018(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	12.49	48.20	12.49	12.49	12.49	11.28	9.94	5.09	11.28	11.28	6.87	4.92	1.94	6.87	6.87	5.81	11.88	5.81	5.81	5.81
4500	9.61	33.51	9.61	9.61	9.61	8.91	7.08	3.22	8.91	8.91	5.43	3.45	1.23	4.89	5.43	4.74	8.35	3.75	4.74	4.74
5000	7.59	24.03	7.59	7.59	7.59	7.21	5.19	2.14	7.21	7.21	4.40	2.52	0.82	3.35	4.40	3.93	6.08	2.49	3.93	3.93
5500	6.12	17.63	6.12	6.12	6.12	5.95	3.89	1.47	5.49	5.95	3.63	1.89	0.57	2.34	3.63	3.30	4.57	1.72	3.30	3.30
6000	5.03	13.15	4.72	5.03	5.03	5.00	2.95	1.05	4.04	5.00	3.05	1.46	0.40	1.68	3.05	2.82	3.52	1.23	2.82	2.82
6500	4.20	10.42	3.45	4.20	4.20	4.26	2.40	0.77	3.00	4.16	2.60	1.15	0.30	1.24	2.37	2.43	2.77	0.90	2.43	2.43
7000	3.56	8.00	2.58	3.56	3.56	3.67	1.87	0.58	2.27	3.22	2.24	0.92	0.22	0.93	1.83	2.11	2.22	0.68	1.88	2.11

#### ■ Z20020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	13.59	53.44	13.59	13.59	13.59	12.91	11.02	5.61	12.91	12.91	7.86	5.45	2.14	7.86	7.86	6.97	13.17	6.51	6.97	6.97
4500	11.67	37.16	11.67	11.67	11.67	10.19	7.85	3.55	10.19	10.19	6.21	3.83	1.36	5.38	6.21	5.63	9.25	4.13	5.63	5.63
5000	9.20	26.64	9.20	9.20	9.20	8.25	5.76	2.36	8.20	8.25	5.03	2.79	0.91	3.69	5.03	4.64	6.75	2.75	4.64	4.64
5500	7.35	19.55	7.29	7.35	7.35	6.81	4.31	1.63	6.04	6.81	4.16	2.10	0.63	2.58	4.16	3.89	5.07	1.90	3.89	3.89
6000	5.99	14.58	5.20	5.99	5.99	5.72	3.27	1.16	4.44	5.72	3.49	1.62	0.45	1.85	3.36	3.30	3.90	1.36	3.30	3.30
6500	4.97	11.55	3.80	4.97	4.97	4.87	2.66	0.86	3.30	4.58	2.98	1.27	0.33	1.36	2.61	2.83	3.07	1.00	2.75	2.83
7000	4.19	8.87	2.85	4.19	4.19	4.20	2.08	0.64	2.50	3.55	2.57	1.02	0.25	1.02	2.02	2.46	2.46	0.75	2.07	2.46

#### ■ Z20025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	13.59	65.97	13.59	13.59	13.59	13.59	13.60	6.87	13.59	13.59	10.25	6.73	2.65	9.60	10.25	9.69	16.26	7.97	9.69	9.69
4500	12.09	45.87	12.09	12.09	12.09	12.09	9.69	4.37	12.09	12.09	8.10	4.73	1.69	6.56	8.10	7.74	11.42	5.08	7.74	7.74
5000	10.90	32.89	10.90	10.90	10.90	10.75	7.11	2.91	10.00	10.75	6.56	3.45	1.13	4.50	6.56	6.32	8.33	3.39	6.32	6.32
5500	9.92	24.13	8.92	9.92	9.92	8.88	5.32	2.02	7.36	8.88	5.42	2.59	0.79	3.15	5.24	5.26	6.26	2.36	5.26	5.26
6000	8.23	18.00	6.37	8.23	8.23	7.46	4.04	1.45	5.41	7.19	4.55	1.99	0.57	2.27	4.10	4.44	4.82	1.69	4.44	4.44
6500	6.77	14.26	4.68	6.77	6.77	6.35	3.29	1.07	4.03	5.58	3.88	1.57	0.42	1.67	3.17	3.80	3.79	1.25	3.36	3.80
7000	5.66	10.95	3.51	5.66	5.66	5.47	2.56	0.81	3.05	4.32	3.35	1.26	0.32	1.26	2.46	3.28	3.03	0.94	2.53	3.28

#### ■ Z25018(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	8.90	43.59	8.90	8.90	8.90	8.41	8.98	3.18	8.41	8.41	5.71	4.45	1.21	4.96	5.71	4.42	10.74	3.70	4.42	4.42
5500	7.36	32.36	7.36	7.36	7.36	7.09	6.79	2.19	7.09	7.09	4.72	3.34	0.83	3.48	4.72	3.79	8.07	2.55	3.79	3.79
6000	6.16	24.48	6.16	6.16	6.16	6.03	5.22	1.56	5.97	6.03	3.97	2.57	0.59	2.50	3.97	3.28	6.22	1.82	3.28	3.28
6500	5.23	18.77	5.18	5.23	5.23	5.18	4.06	1.14	4.46	5.18	3.38	2.02	0.44	1.84	3.38	2.86	4.89	1.33	2.86	2.86
7000	4.48	15.13	3.87	4.48	4.48	4.48	3.36	0.85	3.38	4.48	2.91	1.62	0.33	1.38	2.70	2.52	3.92	1.00	2.52	2.52
7500	3.88	11.89	2.95	3.88	3.88	3.90	2.67	0.65	2.59	3.72	2.54	1.32	0.25	1.06	2.12	2.23	3.18	0.76	2.14	2.23
8000	3.38	9.86	2.29	3.38	3.38	3.42	2.26	0.51	2.02	2.93	2.23	1.09	0.20	0.82	1.67	1.99	2.62	0.59	1.66	1.99

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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### ■ Z25020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	11.48	48.39	11.48	11.48	11.48	10.87	9.97	3.51	10.87	10.87	6.62	4.94	1.33	5.46	6.62	5.46	11.93	4.08	5.46	5.46
5500	9.36	35.93	9.36	9.36	9.36	8.98	7.53	2.42	8.86	8.98	5.47	3.71	0.92	3.83	5.47	4.64	8.96	2.82	4.64	4.64
6000	7.75	27.18	7.75	7.75	7.75	7.54	5.79	1.72	6.57	7.54	4.60	2.86	0.66	2.75	4.60	3.99	6.90	2.01	3.99	3.99
6500	6.50	20.84	5.71	6.50	6.50	6.42	4.51	1.26	4.91	6.42	3.92	2.25	0.48	2.02	3.82	3.46	5.43	1.47	3.46	3.46
7000	5.52	16.80	4.27	5.52	5.52	5.53	3.73	0.95	3.71	5.23	3.38	1.80	0.36	1.52	2.98	3.03	4.35	1.10	3.03	3.03
7500	4.74	13.20	3.25	4.74	4.74	4.82	2.96	0.72	2.86	4.09	2.94	1.46	0.28	1.16	2.33	2.68	3.53	0.85	2.36	2.68
8000	4.11	10.94	2.52	4.11	4.11	4.23	2.51	0.56	2.23	3.22	2.59	1.21	0.22	0.91	1.84	2.38	2.91	0.66	1.83	2.38

#### ■ Z25025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	17.10	59.93	17.10	17.10	17.10	14.48	12.35	4.31	14.48	14.48	8.82	6.12	1.65	6.65	8.82	8.00	14.77	5.01	8.00	8.00
5500	14.05	44.50	13.37	14.05	14.05	11.96	9.33	2.98	10.82	11.96	7.29	4.60	1.15	4.67	7.29	6.72	11.10	3.47	6.72	6.72
6000	11.74	33.66	9.54	11.74	11.74	10.04	7.17	2.13	8.01	10.04	6.12	3.54	0.82	3.36	5.96	5.71	8.55	2.48	5.71	5.71
6500	9.66	25.81	6.99	9.66	9.66	8.55	5.58	1.56	5.98	8.18	5.22	2.78	0.61	2.48	4.66	4.91	6.72	1.82	4.91	4.91
7000	8.08	20.80	5.23	8.08	8.08	7.37	4.61	1.18	4.53	6.38	4.50	2.23	0.46	1.86	3.63	4.27	5.38	1.37	3.76	4.27
7500	6.85	16.35	4.00	6.85	6.85	6.41	3.67	0.90	3.49	4.98	3.92	1.81	0.35	1.43	2.84	3.74	4.38	1.05	2.88	3.74
8000	5.88	13.55	3.11	5.88	5.88	5.64	3.11	0.71	2.72	3.93	3.44	1.49	0.28	1.11	2.24	3.31	3.61	0.82	2.25	3.31

#### ■ Z25030(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	20.25	70.96	20.25	20.25	20.25	17.94	14.63	5.09	17.04	17.94	10.93	7.24	1.97	7.78	10.93	10.38	17.49	5.90	10.38	10.38
5500	18.24	52.69	15.66	18.24	18.24	14.82	11.05	3.53	12.66	14.82	9.03	5.44	1.37	5.47	8.88	8.65	13.14	4.10	8.65	8.65
6000	15.33	39.86	11.20	15.33	15.33	12.44	8.49	2.53	9.37	12.23	7.59	4.19	0.99	3.94	6.99	7.32	10.12	2.94	7.32	7.32
6500	12.63	30.57	8.22	12.63	12.63	10.60	6.61	1.86	7.00	9.57	6.47	3.30	0.73	2.91	5.45	6.27	7.96	2.17	5.85	6.27
7000	10.47	24.63	6.17	10.47	10.47	9.13	5.46	1.41	5.31	7.46	5.57	2.64	0.56	2.19	4.24	5.43	6.37	1.64	4.41	5.43
7500	8.81	19.36	4.72	8.81	8.81	7.95	4.35	1.08	4.09	5.83	4.86	2.15	0.43	1.68	3.31	4.74	5.18	1.26	3.39	4.74
8000	7.05	16.05	3.68	7.05	7.05	6.98	3.68	0.85	3.20	4.59	4.27	1.77	0.34	1.31	2.61	4.18	4.27	0.99	2.65	4.18

#### ■ Z30020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
6000	8.66	45.10	8.66	8.66	8.66	8.13	9.30	2.48	8.13	8.13	5.72	4.60	0.94	3.96	5.72	4.35	11.12	2.89	4.35	4.35
6500	7.40	35.02	7.40	7.40	7.40	7.06	7.30	1.82	7.03	7.06	4.87	3.62	0.69	2.92	4.87	3.83	8.74	2.12	3.83	3.83
7000	6.39	27.51	6.20	6.39	6.39	6.18	5.80	1.36	5.34	6.18	4.20	2.90	0.52	2.19	4.20	3.39	7.00	1.58	3.39	3.39
7500	5.56	22.49	4.72	5.56	5.56	5.44	4.86	1.04	4.11	5.44	3.66	2.36	0.40	1.68	3.32	3.02	5.69	1.21	3.02	3.02
8000	4.87	18.05	3.66	4.87	4.87	4.81	3.94	0.81	3.21	4.62	3.22	1.94	0.31	1.30	2.63	2.71	4.69	0.94	2.64	2.71
8500	4.30	15.12	2.88	4.30	4.30	4.28	3.37	0.64	2.54	3.68	2.85	1.62	0.24	1.03	2.10	2.44	3.91	0.74	2.09	2.44
9000	3.82	12.30	2.30	3.82	3.82	3.82	2.76	0.51	2.04	2.97	2.54	1.36	0.20	0.82	1.69	2.21	3.29	0.60	1.67	2.21

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## 9. Z型跨距表 Z-Load Span Table

### 9. Z型樓條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For Z Purlin

#### Z30025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
6000	14.41	56.01	13.84	14.41	14.41	12.80	11.54	3.05	11.42	12.80	7.80	5.72	1.17	4.84	7.80	6.72	13.81	3.55	6.72	6.72
6500	12.16	43.49	10.13	12.16	12.16	10.90	9.07	2.24	8.58	10.90	6.64	4.50	0.86	3.56	6.55	5.84	10.86	2.60	5.84	5.84
7000	10.32	34.16	7.58	10.32	10.32	9.39	7.20	1.68	6.52	9.05	5.73	3.60	0.65	2.68	5.15	5.11	8.69	1.95	5.11	5.11
7500	8.81	27.92	5.79	8.81	8.81	8.18	6.04	1.28	5.02	7.13	4.99	2.93	0.50	2.05	4.06	4.51	7.07	1.50	4.15	4.51
8000	7.60	22.41	4.49	7.60	7.60	7.19	4.89	1.00	3.92	5.64	4.39	2.41	0.39	1.60	3.21	4.01	5.82	1.17	3.23	4.01
8500	6.61	18.78	3.54	6.61	6.61	6.36	4.18	0.79	3.11	4.50	3.88	2.01	0.31	1.26	2.56	3.59	4.86	0.92	2.56	3.59
9000	5.35	15.28	2.83	5.35	5.35	5.67	3.43	0.64	2.49	3.62	3.47	1.69	0.25	1.01	2.06	3.23	4.09	0.74	2.05	3.23

#### Z30030(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
6000	16.87	66.46	16.22	16.87	16.87	16.09	13.70	3.61	13.37	16.09	9.80	6.78	1.39	5.66	9.72	9.02	16.38	4.19	9.02	9.02
6500	15.59	51.60	11.89	15.59	15.59	13.70	10.76	2.65	10.04	13.47	8.35	5.33	1.03	4.18	7.68	7.77	12.89	3.08	7.77	7.77
7000	14.05	40.53	8.91	14.05	14.05	11.81	8.55	1.99	7.63	10.60	7.20	4.27	0.78	3.14	6.04	6.76	10.32	2.32	6.34	6.76
7500	12.03	33.13	6.81	12.03	12.03	10.28	7.16	1.53	5.88	8.34	6.27	3.47	0.60	2.41	4.75	5.94	8.39	1.78	4.87	5.94
8000	9.94	26.59	5.30	9.94	9.94	9.03	5.80	1.20	4.60	6.59	5.51	2.86	0.47	1.88	3.75	5.25	6.91	1.39	3.80	5.25
8500	7.82	22.29	4.18	7.82	7.82	8.00	4.96	0.95	3.64	5.26	4.88	2.39	0.38	1.49	3.00	4.68	5.76	1.11	3.01	4.68
9000	6.23	18.13	3.35	6.23	6.23	7.13	4.07	0.77	2.93	4.24	4.36	2.01	0.30	1.20	2.42	4.19	4.85	0.89	2.41	4.19

#### Z35025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
7000	12.24	58.41	12.24	12.24	12.24	11.64	12.04	3.71	11.64	11.64	7.67	5.96	1.41	5.86	7.67	6.02	14.40	4.32	6.02	6.02
7500	10.64	46.84	10.64	10.64	10.64	10.27	9.73	2.83	10.27	10.27	6.68	4.85	1.08	4.52	6.68	5.38	11.71	3.30	5.38	5.38
8000	9.33	37.84	9.33	9.33	9.33	9.11	7.92	2.20	8.48	9.11	5.87	3.99	0.84	3.53	5.87	4.83	9.65	2.56	4.83	4.83
8500	8.23	31.69	7.90	8.23	8.23	8.11	6.78	1.74	6.78	8.11	5.20	3.33	0.66	2.79	5.20	4.36	8.04	2.03	4.36	4.36
9000	7.30	25.98	6.31	7.30	7.30	7.26	5.60	1.39	5.47	7.26	4.64	2.80	0.53	2.24	4.37	3.96	6.77	1.62	3.96	3.96
9500	6.52	22.20	5.10	6.52	6.52	6.52	4.87	1.12	4.46	6.35	4.17	2.38	0.43	1.82	3.61	3.60	5.76	1.31	3.60	3.60
10000	5.85	19.11	4.17	5.85	5.85	5.88	4.27	0.92	3.66	5.26	3.76	2.04	0.35	1.49	3.00	3.29	4.94	1.08	3.02	3.29

#### Z35030(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
7000	14.46	69.79	14.46	14.46	14.46	14.46	14.38	4.38	14.46	14.46	9.83	7.12	1.67	6.89	9.83	8.50	17.20	5.10	8.50	8.50
7500	13.51	55.95	13.51	13.51	13.51	13.51	11.62	3.35	12.53	13.51	8.56	5.79	1.28	5.31	8.56	7.53	13.98	3.90	7.53	7.53
8000	12.67	45.19	11.79	12.67	12.67	12.35	9.46	2.61	9.97	12.35	7.53	4.77	1.00	4.15	7.52	6.71	11.52	3.04	6.71	6.71
8500	11.93	37.85	9.30	11.93	11.93	10.93	8.10	2.06	7.98	10.93	6.67	3.98	0.79	3.29	6.22	6.02	9.60	2.40	6.02	6.02
9000	10.46	31.03	7.44	10.46	10.46	9.75	6.68	1.65	6.44	9.03	5.95	3.35	0.64	2.64	5.14	5.42	8.09	1.93	5.33	5.42
9500	9.23	26.51	6.02	9.23	9.23	8.75	5.82	1.34	5.24	7.46	5.34	2.85	0.52	2.14	4.25	4.91	6.88	1.56	4.33	4.91
10000	8.21	22.83	4.92	8.21	8.21	7.89	5.10	1.10	4.31	6.19	4.82	2.44	0.43	1.76	3.52	4.46	5.90	1.28	3.55	4.46

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## 10. C型跨距表 C-Load Span Table

### 10. C型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For C Purlin

#### ■ C7512(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	6.55	5.69	6.55	6.55	6.55	6.45	4.01	3.07	6.45	6.45	4.14	1.95	2.16	4.14	4.14	4.01	4.71	4.01	4.01	4.01
2500	4.28	2.91	4.28	4.28	4.28	4.24	2.06	1.43	4.24	4.24	2.65	1.00	0.96	2.50	2.65	2.60	2.41	2.60	2.60	2.60
3000	3.01	1.69	3.01	3.01	3.01	2.98	1.19	0.74	2.86	2.98	1.84	0.58	0.5	1.54	1.83	1.81	1.40	1.42	1.81	1.81
3500	2.23	1.06	2.23	2.23	2.23	2.19	0.75	0.42	1.93	2.18	1.35	0.36	0.28	0.95	1.29	1.34	0.88	0.81	1.34	1.34
4000	1.63	0.71	1.63	1.63	1.63	1.67	0.5	0.26	1.31	1.57	1.03	0.24	0.18	0.60	0.92	1.03	0.59	0.50	1.03	1.03

#### ■ C7515(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	8.43	6.99	8.43	8.43	8.43	8.32	4.93	3.77	8.32	8.32	5.26	2.40	2.70	5.12	5.26	5.14	5.79	5.14	5.14	5.14
2500	5.49	3.58	5.49	5.49	5.49	5.44	2.53	1.79	5.30	5.44	3.37	1.23	1.23	3.05	3.32	3.32	2.96	3.32	3.32	3.32
3000	3.85	2.07	3.85	3.85	3.85	3.79	1.46	0.94	3.49	3.73	2.34	0.71	0.64	1.89	2.24	2.31	1.72	1.79	2.31	2.31
3500	2.84	1.3	2.84	2.84	2.84	2.78	0.92	0.54	2.36	2.66	1.72	0.45	0.37	1.18	1.57	1.70	1.08	1.03	1.70	1.70
4000	2.08	0.87	2.08	2.08	2.08	2.13	0.62	0.34	1.61	1.92	1.32	0.30	0.24	0.75	1.13	1.31	0.72	0.64	1.31	1.31

#### ■ C7520(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	10.84	8.95	10.84	10.84	10.84	10.71	6.31	4.88	10.71	10.71	6.74	3.07	3.61	6.53	6.74	6.59	7.41	6.59	6.59	6.59
2500	7.05	4.58	7.05	7.05	7.05	6.98	3.23	2.38	6.76	6.98	4.31	1.57	1.69	3.90	4.24	4.25	3.80	4.25	4.25	4.25
3000	4.94	2.65	4.94	4.94	4.94	4.85	1.87	1.28	4.45	4.77	3.00	0.91	0.91	2.42	2.85	2.97	2.20	2.42	2.97	2.97
3500	3.64	1.67	3.64	3.64	3.64	3.56	1.18	0.76	3.02	3.39	2.20	0.57	0.55	1.53	2.01	2.18	1.38	1.43	2.18	2.18
4000	2.66	1.12	2.66	2.66	2.66	2.73	0.79	0.48	2.08	2.45	1.68	0.38	0.35	1.00	1.44	1.68	0.93	0.91	1.68	1.68

#### ■ C10012 (kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
2000	8.60	12.7	8.60	8.60	8.60	8.20	8.95	6.24	8.20	8.20	6.33	4.35	4.86	6.33	6.33	5.64	10.51	5.64	5.64	5.64
2500	5.88	6.50	5.88	5.88	5.88	5.68	4.58	3.20	5.68	5.68	4.05	2.23	2.20	4.05	4.05	3.75	5.38	3.75	3.75	3.75
3000	4.25	3.76	4.25	4.25	4.25	4.14	2.65	1.69	4.14	4.14	2.81	1.29	1.12	2.81	2.81	2.66	3.11	2.66	2.66	2.66
3500	3.21	2.37	3.21	3.21	3.21	3.14	1.67	0.96	3.14	3.14	2.07	0.81	0.63	1.99	2.07	1.98	1.96	1.84	1.98	1.98
4000	2.50	1.59	2.50	2.50	2.50	2.46	1.12	0.59	2.46	2.46	1.58	0.54	0.38	1.33	1.58	1.53	1.31	1.12	1.53	1.53

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## 10. C型跨距表 C-Load Span Table

### 10. C型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For C Purlin

#### ■ C10015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	6.08	4.70	6.08	6.08	6.08	6.00	3.32	2.10	6.00	6.00	3.81	1.61	1.41	3.65	3.81	3.71	3.89	3.71	3.71	3.71
3500	4.53	2.96	4.53	4.53	4.53	4.48	2.09	1.20	4.45	4.48	2.80	1.01	0.80	2.44	2.80	2.75	2.45	2.30	2.75	2.75
4000	3.50	1.98	3.50	3.50	3.50	3.47	1.40	0.74	3.21	3.47	2.14	0.68	0.49	1.64	2.10	2.11	1.64	1.41	2.11	2.11
4500	2.78	1.39	2.78	2.78	2.78	2.74	0.98	0.48	2.33	2.69	1.69	0.48	0.32	1.11	1.59	1.67	1.15	0.92	1.67	1.67
5000	2.20	1.02	2.20	2.20	2.20	2.22	0.72	0.33	1.69	2.06	1.37	0.35	0.22	0.77	1.21	1.36	0.84	0.62	1.36	1.36
5500	1.77	0.76	1.5	1.77	1.77	1.83	0.54	0.23	1.23	1.58	1.13	0.26	0.16	0.55	0.93	1.12	0.63	0.44	1.08	1.12

#### ■ C10020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	8.41	6.11	8.41	8.41	8.41	8.33	4.31	2.77	8.14	8.33	5.17	2.09	1.91	4.70	5.10	5.08	5.06	5.08	5.08	5.08
3500	6.23	3.85	6.23	6.23	6.23	6.15	2.71	1.61	5.73	6.09	3.80	1.32	1.11	3.15	3.66	3.75	3.18	3.06	3.75	3.75
4000	4.80	2.58	4.80	4.80	4.80	4.71	1.82	1.00	4.13	4.56	2.91	0.88	0.69	2.12	2.71	2.88	2.13	1.91	2.88	2.88
4500	3.81	1.81	3.81	3.81	3.81	3.72	1.28	0.66	3.00	3.46	2.30	0.62	0.46	1.45	2.05	2.28	1.50	1.26	2.28	2.28
5000	3.01	1.32	2.83	3.01	3.01	3.01	0.93	0.46	2.19	2.65	1.86	0.45	0.32	1.02	1.56	1.85	1.09	0.87	1.85	1.85
5500	2.41	0.99	2.02	2.41	2.41	2.49	0.7	0.33	1.61	2.04	1.54	0.34	0.23	0.73	1.19	1.53	0.82	0.62	1.43	1.53
6000	1.97	0.76	1.48	1.97	1.97	2.06	0.54	0.24	1.20	1.57	1.29	0.26	0.17	0.54	0.92	1.29	0.63	0.46	1.06	1.29

#### ■ C12520(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	10.93	10.27	10.93	10.93	10.93	10.79	7.24	3.62	10.79	10.79	6.79	3.52	2.45	6.27	6.79	6.64	8.50	6.64	6.64	6.64
3500	8.12	6.47	8.12	8.12	8.12	8.05	4.56	2.09	7.67	8.05	4.99	2.22	1.40	1.48	4.90	4.91	5.35	3.97	4.91	4.91
4000	6.26	4.33	6.26	6.26	6.26	6.18	3.05	1.29	5.51	6.12	3.82	1.48	0.87	2.81	3.63	3.77	3.59	2.45	3.77	3.77
4500	4.97	3.04	4.97	4.97	4.97	4.89	2.15	0.84	3.99	4.63	3.02	1.04	0.57	1.91	2.74	2.99	2.52	1.60	2.99	2.99
5000	4.04	2.22	3.67	4.04	4.04	3.96	1.56	0.57	2.89	3.53	2.44	0.76	0.39	1.32	2.08	2.42	1.84	1.09	2.42	2.42
5500	3.35	1.67	2.60	3.35	3.35	3.27	1.17	0.41	2.12	2.70	2.02	0.57	0.28	0.94	1.59	2.01	1.38	0.78	1.87	2.01
6000	2.79	1.28	1.90	2.79	2.79	2.75	0.91	0.30	1.57	2.08	1.70	0.44	0.21	0.69	1.21	1.69	1.06	0.57	1.37	1.69

#### ■ C12525(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	13.68	12.45	13.68	13.68	13.68	13.55	8.78	4.44	13.18	13.55	8.44	4.27	3.07	7.57	8.28	8.29	10.31	8.29	8.29	8.29
3500	10.15	7.84	10.15	10.15	10.15	10.03	5.53	2.59	9.25	9.88	6.20	2.69	1.78	5.05	5.92	6.12	6.49	4.92	6.12	6.12
4000	7.82	5.25	7.82	7.82	7.82	7.68	3.71	1.62	6.64	7.39	4.74	1.80	1.12	3.40	4.38	4.70	4.35	3.07	4.70	4.70
4500	6.20	3.69	6.20	6.20	6.20	6.07	2.6	1.07	4.81	5.58	3.75	1.26	0.75	2.33	3.30	3.72	3.05	2.03	3.72	3.72
5000	5.04	2.69	4.55	5.04	5.04	4.92	1.9	0.74	3.51	4.26	3.04	0.92	0.52	1.63	2.51	3.02	2.23	1.40	3.02	3.02
5500	4.18	2.02	3.25	4.18	4.18	4.06	1.43	0.53	2.58	3.27	2.51	0.69	0.38	1.17	1.91	2.50	1.67	1.01	2.29	2.50
6000	3.47	1.56	2.39	3.47	3.47	3.41	1.10	0.4	1.93	2.52	2.11	0.53	0.28	0.86	1.47	2.09	1.29	0.75	1.69	2.10

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## 10. C型跨距表 C-Load Span Table

### 10. C型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For C Purlin

#### ■ C15015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	8.52	14.2	8.52	8.52	8.52	8.03	10.01	6.00	8.03	8.03	6.74	4.87	4.22	6.74	6.74	5.75	11.75	5.75	5.75	5.75
3500	6.66	8.94	6.66	6.66	6.66	6.34	6.31	3.57	6.34	6.34	4.95	3.06	2.39	4.95	4.95	4.39	7.40	4.39	4.39	4.39
4000	5.33	5.99	5.33	5.33	5.33	5.11	4.22	2.21	5.11	5.11	3.79	2.05	1.45	3.79	3.79	3.45	4.96	3.45	3.45	3.45
4500	4.35	4.21	4.35	4.35	4.35	4.20	2.97	1.43	4.20	4.20	2.99	1.44	0.93	2.99	2.99	2.77	3.48	2.74	2.77	2.77
5000	3.61	3.07	3.61	3.61	3.61	3.50	2.16	0.96	3.50	3.50	2.42	1.05	0.62	2.18	2.42	2.28	2.54	1.85	2.28	2.28
5500	3.04	2.30	3.04	3.04	3.04	2.96	1.62	0.67	2.96	2.96	2.00	0.79	0.44	1.59	2.00	1.90	1.91	1.29	1.90	1.90
6000	2.59	1.77	2.59	2.59	2.59	2.54	1.25	0.48	2.54	2.54	1.68	0.61	0.31	1.18	1.68	1.61	1.47	0.93	1.61	1.61

#### ■ C15020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	14.85	18.91	14.85	14.85	14.85	14.39	13.33	7.8	14.39	14.39	10.03	6.48	5.53	10.03	10.03	9.39	15.65	9.39	9.39	9.39
3500	11.25	11.91	11.25	11.25	11.25	10.98	8.40	4.67	10.98	10.98	7.37	4.08	3.16	7.37	7.37	7.01	9.86	7.01	7.01	7.01
4000	8.80	7.98	8.80	8.80	8.80	8.62	5.63	2.90	8.62	8.62	5.64	2.73	1.93	5.34	5.64	5.43	6.60	5.43	5.43	5.43
4500	7.06	5.60	7.06	7.06	7.06	6.94	3.95	1.89	6.94	6.94	4.46	1.92	1.25	3.89	4.46	4.32	4.64	3.61	4.32	4.32
5000	5.78	4.08	5.78	5.78	5.78	5.70	2.88	1.28	5.52	5.70	3.61	1.40	0.85	2.84	3.61	3.52	3.38	2.45	3.52	3.52
5500	4.81	3.07	4.81	4.81	4.81	4.76	2.16	0.9	4.28	4.76	2.98	1.05	0.60	2.08	2.89	2.92	2.54	1.72	2.92	2.92
6000	4.07	2.36	4.07	4.07	4.07	4.03	1.67	0.65	3.32	3.94	2.51	0.81	0.44	1.54	2.33	2.46	1.96	1.25	2.46	2.46

#### ■ C15025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.45	23.16	18.45	18.45	18.45	18.45	16.33	9.49	18.45	18.45	12.85	7.94	6.80	12.75	12.85	12.48	19.17	12.48	12.48	12.48
3500	15.21	14.59	15.21	15.21	15.21	15.03	10.29	5.71	15.03	15.03	9.44	5.00	3.92	8.99	9.44	9.24	12.07	9.24	9.24	9.24
4000	11.76	9.77	11.76	11.76	11.76	11.65	6.89	3.58	11.42	11.65	7.23	3.35	2.42	6.49	7.20	7.11	8.09	6.80	7.11	7.11
4500	9.35	6.86	9.35	9.35	9.35	9.24	4.84	2.34	8.70	9.24	5.71	2.35	1.58	4.73	5.57	5.64	5.68	4.47	5.64	5.64
5000	7.61	5.00	7.61	7.61	7.61	7.49	3.53	1.60	6.71	7.40	4.62	1.71	1.08	3.46	4.39	4.58	4.14	3.05	4.58	4.58
5500	6.32	3.76	6.32	6.32	6.32	6.19	2.65	1.14	5.20	5.93	3.82	1.29	0.77	2.54	3.51	3.79	3.11	2.16	3.79	3.79
6000	5.32	2.90	5.28	5.32	5.32	5.20	2.04	0.83	4.04	4.79	3.21	0.99	0.57	1.89	2.83	3.12	2.40	1.58	3.19	3.19

#### ■ C18015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	8.48	21.73	8.48	8.48	8.48	7.81	15.32	7.55	7.81	7.81	8.18	7.45	5.30	8.18	8.18	6.12	17.99	6.12	6.12	6.12
3500	6.82	13.68	6.82	6.82	6.82	6.34	9.65	4.49	6.34	6.34	6.01	4.69	3.00	6.01	6.01	4.78	11.33	4.78	4.78	4.78
4000	5.59	9.17	5.59	5.59	5.59	5.24	6.46	2.77	5.24	5.24	4.60	3.14	1.81	4.60	4.60	3.83	7.59	3.83	3.83	3.83
4500	4.65	6.44	4.65	4.65	4.65	4.40	4.54	1.79	4.40	4.40	3.63	2.21	1.16	3.63	3.63	3.13	5.33	3.13	3.13	3.13
5000	3.93	4.69	3.93	3.93	3.93	3.74	3.31	1.20	3.74	3.74	2.94	1.61	0.78	2.75	2.94	2.60	3.89	2.31	2.60	2.60
5500	3.36	3.53	3.36	3.36	3.36	3.21	2.49	0.84	3.21	3.21	2.43	1.21	0.54	2.00	2.43	2.19	2.92	1.61	2.19	2.19
6000	2.90	2.72	2.90	2.90	2.90	2.78	1.92	0.6	2.78	2.78	2.04	0.93	0.39	1.48	2.04	1.87	2.25	1.16	1.87	1.87

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## 10. C型跨距表 C-Load Span Table

10. C型標條跨距表  $P_y=450\text{N/mm}^2$  Load Span Tables For C Purlin

### ■ C18018(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	13.04	26.13	13.04	13.04	13.04	12.23	18.43	8.93	12.23	12.23	10.72	8.96	6.28	10.72	10.72	8.93	21.63	8.93	8.93	8.93
3500	10.25	16.46	10.25	10.25	10.25	9.70	11.61	5.32	9.70	9.70	7.88	5.64	3.56	7.88	7.88	6.85	13.62	6.85	6.85	6.85
4000	8.24	11.02	8.24	8.24	8.24	7.87	7.77	3.29	7.87	7.87	6.03	3.78	2.16	6.03	6.03	5.40	9.13	5.40	5.40	5.40
4500	6.76	7.74	6.76	6.76	6.76	6.50	5.46	2.13	6.50	6.50	4.76	2.65	1.39	4.46	4.76	4.36	6.41	4.08	4.36	4.36
5000	5.63	5.64	5.63	5.63	5.63	5.44	3.98	1.43	5.44	5.44	3.86	1.93	0.93	3.25	3.86	3.59	4.67	2.75	3.59	3.59
5500	4.76	4.24	4.76	4.76	4.76	4.62	2.99	1.00	4.62	4.62	3.19	1.45	0.65	2.37	3.19	3.00	3.51	1.92	3.00	3.00
6000	4.07	3.27	4.07	4.07	4.07	3.96	2.30	0.72	3.80	3.96	2.68	1.12	0.74	1.75	2.67	2.54	2.70	1.39	2.54	2.54

### ■ C18020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	16.20	28.92	16.20	16.20	16.20	15.37	20.39	9.82	15.37	15.37	12.30	9.91	6.92	12.3	12.3	10.77	23.94	10.77	10.77	10.77
3500	12.56	18.21	12.56	12.56	12.56	12.03	12.84	5.85	12.03	12.03	9.03	6.24	3.93	9.03	9.03	8.17	15.08	8.17	8.17	8.17
4000	10.00	12.20	10.00	10.00	10.00	9.64	8.60	3.63	9.64	9.94	6.92	4.18	2.39	6.75	6.92	6.39	10.10	6.39	6.39	6.39
4500	8.13	8.57	8.13	8.13	8.13	7.88	6.04	2.35	7.88	7.88	5.46	2.94	1.54	4.91	5.46	5.13	7.09	4.50	5.13	5.13
5000	6.72	6.25	6.72	6.72	6.72	6.55	4.41	1.59	6.55	6.55	4.43	2.14	1.04	3.57	4.43	4.20	5.17	3.04	4.20	4.20
5500	5.65	4.69	5.65	5.65	5.65	5.52	3.31	1.11	5.40	5.52	3.66	1.61	0.73	2.61	3.66	3.50	3.89	2.13	3.50	3.50
6000	4.81	3.61	4.81	4.81	4.81	4.72	2.55	0.80	4.18	4.72	3.07	1.24	0.53	1.93	2.94	2.96	2.99	1.54	2.96	2.96

### ■ C18025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
3000	18.45	35.48	18.45	18.45	18.45	18.45	25.02	11.94	18.45	18.45	15.91	12.16	8.47	15.91	15.91	14.97	29.37	14.97	14.97	14.97
3500	15.82	22.35	15.82	15.82	15.82	15.82	15.76	7.14	15.82	15.82	11.69	7.66	4.85	11.41	11.69	11.17	18.50	11.17	11.17	11.17
4000	13.84	14.97	13.84	13.84	13.84	13.77	10.56	4.45	13.77	13.77	8.95	5.13	2.97	8.22	8.95	8.64	12.39	8.47	8.64	8.64
4500	11.24	10.51	11.24	11.24	11.24	11.07	7.41	2.90	11.04	11.07	7.07	3.60	1.93	5.97	7.07	6.88	8.70	5.54	6.88	6.88
5000	9.20	7.66	9.20	9.20	9.20	9.08	5.40	1.97	8.49	9.08	5.73	2.63	1.31	4.34	5.58	5.60	6.34	3.77	5.60	5.60
5500	7.66	5.76	7.66	7.66	7.66	7.58	4.06	1.39	6.57	7.52	4.73	1.97	0.93	3.18	4.46	4.65	4.77	2.65	4.65	4.65
6000	6.48	4.44	6.48	6.48	6.48	6.42	3.13	1.01	5.09	6.06	3.98	1.52	0.68	2.36	3.58	3.91	3.67	1.93	3.91	3.91

### ■ C20015(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	5.32	11.76	5.32	5.32	5.32	4.96	8.29	3.16	4.96	4.96	5.13	4.03	2.06	5.13	5.13	3.96	9.73	3.96	3.96	3.96
4500	4.46	8.26	4.46	4.46	4.46	4.19	5.82	2.04	4.19	4.19	4.05	2.83	1.32	4.05	4.05	3.27	6.83	3.27	3.27	3.27
5000	3.79	6.02	3.79	3.79	3.79	3.58	4.24	1.37	3.58	3.58	3.28	2.06	0.88	3.14	3.28	2.74	4.98	2.63	2.74	2.74
5500	3.26	4.52	3.26	3.26	3.26	3.09	3.19	0.95	3.09	3.09	2.71	1.55	0.61	2.29	2.71	2.33	3.74	1.83	2.33	2.33
6000	2.82	3.48	2.82	2.82	2.82	2.69	2.46	0.68	2.69	2.69	2.28	1.19	0.44	1.69	2.28	2.00	2.88	1.32	2.00	2.00
6500	2.47	2.74	2.47	2.47	2.47	2.37	1.93	0.50	2.37	2.37	1.94	0.94	0.32	1.26	1.94	1.73	2.27	0.97	1.73	1.73
7000	2.17	2.19	2.17	2.17	2.17	2.09	1.55	0.38	2.09	2.09	1.67	0.75	0.24	0.96	1.67	1.51	1.82	0.73	1.51	1.51

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## 10. C型跨距表 C-Load Span Table

### 10. C型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For C Purlin

#### ■ C 20018(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	8.01	14.13	8.01	8.01	8.01	7.59	9.96	3.75	7.59	7.59	6.75	4.84	2.45	6.75	6.75	5.74	11.7	5.74	5.74	5.74
4500	6.61	9.92	6.61	6.61	6.61	6.30	7.00	2.42	6.30	6.30	5.33	3.40	1.57	5.11	5.33	4.67	8.21	4.64	4.67	4.67
5000	5.53	7.23	5.53	5.53	5.53	5.31	5.10	1.63	5.31	5.31	4.32	2.48	1.06	3.71	4.32	3.87	5.99	3.13	3.87	3.87
5500	4.69	5.43	4.69	4.69	4.69	4.53	3.83	1.14	4.53	4.53	3.57	1.86	0.74	2.71	3.57	3.26	4.50	2.18	3.26	3.26
6000	4.03	4.19	4.03	4.03	4.03	3.90	2.95	0.82	3.90	3.90	3.00	1.43	0.53	2.00	3.00	2.77	3.47	1.57	2.77	2.77
6500	3.49	3.29	3.49	3.49	3.49	3.39	2.32	0.60	3.37	3.39	2.56	1.13	0.39	1.50	2.47	2.39	2.73	1.16	2.39	2.39
7000	3.05	2.64	3.05	3.05	3.05	2.98	1.86	0.46	2.62	2.98	2.20	0.90	0.30	1.14	1.99	2.08	2.18	0.88	2.08	2.08

#### ■ C20020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	9.82	15.63	9.82	9.82	9.82	9.41	11.03	4.13	9.41	9.41	7.77	5.36	2.71	7.74	7.77	6.90	12.94	6.90	6.90	6.90
4500	8.03	10.98	8.03	8.03	8.03	7.74	7.74	2.67	7.74	7.74	6.14	3.76	1.74	5.61	6.14	5.58	9.09	5.12	5.58	5.58
5000	6.67	8.00	6.67	6.67	6.67	6.47	5.64	1.80	6.47	6.47	4.97	2.74	1.17	4.08	4.97	4.60	6.63	3.45	4.60	4.60
5500	5.63	6.01	5.63	5.63	5.63	5.48	4.24	1.26	5.48	5.48	4.11	2.06	0.82	2.98	4.11	3.85	4.98	2.42	3.85	3.85
6000	4.80	4.63	4.80	4.80	4.80	4.69	3.27	0.91	4.69	4.69	3.45	1.59	0.59	2.20	3.37	3.26	3.83	1.74	3.26	3.26
6500	4.14	3.64	4.14	4.14	4.14	4.06	2.57	0.67	3.70	4.06	2.94	1.25	0.44	1.65	2.72	2.80	3.02	1.29	2.80	2.80
7000	3.61	2.92	3.43	3.61	3.61	3.54	2.06	0.51	2.88	3.54	2.54	1.00	0.34	1.26	2.19	2.43	2.41	0.98	2.43	2.43

#### ■ C20025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
4000	13.84	19.2	13.84	13.84	13.84	13.78	13.54	5.05	13.78	13.78	10.12	6.58	3.35	9.43	10.12	9.58	15.9	9.58	9.58	9.58
4500	11.34	13.49	11.34	11.34	11.34	11.13	9.51	3.28	11.13	11.13	8.00	4.62	2.17	6.83	8.00	7.65	11.16	6.27	7.65	7.65
5000	9.31	9.83	9.31	9.31	9.31	9.16	6.93	2.23	9.16	9.16	6.48	3.37	1.47	4.96	6.42	6.25	8.14	4.26	6.25	6.25
5500	7.77	7.39	7.77	7.77	7.77	7.66	5.21	1.57	7.52	7.66	5.35	2.53	1.04	3.62	5.12	5.20	6.11	2.99	5.20	5.20
6000	6.58	5.69	6.58	6.58	6.58	6.50	4.01	1.14	5.81	6.50	4.50	1.95	0.76	2.68	4.11	4.39	4.71	2.17	4.39	4.39
6500	5.64	4.47	5.55	5.64	5.64	5.58	3.16	0.85	4.50	5.58	3.83	1.53	0.57	2.02	3.31	3.75	3.70	1.62	3.75	3.75
7000	4.88	3.58	4.23	4.88	4.88	4.84	2.53	0.65	3.51	4.53	3.30	1.23	0.43	1.54	2.66	3.24	2.97	1.23	3.07	3.24

#### ■ C25018(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	5.61	12.91	5.61	5.61	5.61	5.26	9.1	2.6	5.26	5.26	5.66	4.42	1.68	5.66	5.66	4.39	10.69	4.39	4.39	4.39
5500	4.84	9.70	4.84	4.84	4.84	4.57	6.84	1.81	4.57	4.57	4.68	3.32	1.16	4.21	4.68	3.76	8.03	3.48	3.76	3.76
6000	4.21	7.47	4.21	4.21	4.21	4.00	5.27	1.30	4.00	4.00	3.93	2.56	0.84	3.14	3.93	3.26	6.19	2.50	3.26	3.26
6500	3.70	5.88	3.70	3.70	3.70	3.52	4.14	0.96	3.52	3.52	3.35	2.01	0.62	2.37	3.35	2.84	4.86	1.85	2.84	2.84
7000	3.27	4.71	3.27	3.27	3.27	3.13	3.32	0.72	3.13	3.13	2.89	1.61	0.46	1.81	2.89	2.50	3.90	1.39	2.50	2.50
7500	2.90	3.83	2.90	2.90	2.90	2.79	2.70	0.56	2.79	2.79	2.51	1.31	0.36	1.41	2.47	2.21	3.17	1.07	2.21	2.21
8000	2.60	3.15	2.60	2.60	2.60	2.51	2.22	0.43	2.51	2.51	2.21	1.08	0.28	1.1	2.02	1.97	2.61	0.84	1.97	1.97

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## 10. C型跨距表 C-Load Span Table

### 10. C型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For C Purlin

#### ■ C25020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	7.04	14.32	7.04	7.04	7.04	6.68	10.09	2.87	6.68	6.68	6.60	4.91	1.85	6.25	6.60	5.45	11.85	5.45	5.45	5.45
5500	6.03	10.76	6.03	6.03	6.03	5.75	7.58	2.00	5.75	5.75	5.46	3.69	1.29	4.64	5.46	4.63	8.90	3.84	4.63	4.63
6000	5.21	8.28	5.21	5.21	5.21	5.00	5.84	1.44	5.00	5.00	4.59	2.84	0.93	3.46	4.59	3.98	6.86	2.77	3.98	3.98
6500	4.55	6.52	4.55	4.55	4.55	4.38	4.59	1.06	4.38	4.38	3.91	2.23	0.69	2.61	3.91	3.46	5.39	2.04	3.46	3.46
7000	4.00	5.22	4.00	4.00	4.00	3.86	3.68	0.80	3.86	3.86	3.37	1.79	0.52	2.00	3.33	3.03	4.32	1.54	3.03	3.03
7500	3.54	4.24	3.54	3.54	3.54	3.43	2.99	0.62	3.43	3.43	2.93	1.45	0.40	1.55	2.72	2.67	3.51	1.19	2.67	2.67
8000	3.15	3.49	3.15	3.15	3.15	3.06	2.46	0.48	2.84	3.06	2.58	1.20	0.31	1.22	2.22	2.37	2.89	0.93	2.37	2.37

#### ■ C25025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	10.60	17.65	10.60	10.60	10.60	10.27	12.45	3.52	10.27	10.27	8.81	6.05	2.3	7.62	8.81	8.00	14.61	6.74	8.00	8.00
5500	8.93	13.26	8.93	8.93	8.93	8.69	9.35	2.46	8.69	8.69	7.28	4.55	1.61	5.65	7.28	6.71	10.98	4.72	6.71	6.71
6000	7.63	10.22	7.63	7.63	7.63	7.45	7.20	1.78	7.45	7.45	6.12	3.50	1.16	4.21	6.11	5.71	8.46	3.41	5.71	5.71
6500	6.58	8.04	6.58	6.58	6.58	6.45	5.67	1.32	6.45	6.45	5.22	2.75	0.86	3.18	4.97	4.91	6.65	2.53	4.91	4.91
7000	5.73	6.43	5.73	5.73	5.73	5.63	4.54	1.00	5.49	5.63	4.50	2.21	0.66	2.44	4.06	4.27	5.33	1.91	4.27	4.27
7500	5.04	5.23	5.04	5.04	5.04	4.96	3.69	0.77	4.34	4.96	3.92	1.79	0.51	1.90	3.31	3.74	4.33	1.48	3.74	3.74
8000	4.46	4.31	4.06	4.46	4.46	4.39	3.04	0.61	3.46	4.39	3.44	1.48	0.40	1.49	2.70	3.31	3.57	1.16	2.99	3.31

#### ■ C25030(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
5000	13.89	20.81	13.89	13.89	13.89	13.64	14.68	4.15	13.64	13.64	10.88	7.13	2.74	8.90	10.88	10.34	17.23	7.93	10.34	10.34
5500	11.61	15.64	11.61	11.61	11.61	11.43	11.03	2.92	11.43	11.43	8.99	5.36	1.93	6.59	8.84	8.62	12.95	5.58	8.62	8.62
6000	9.84	12.05	9.84	9.84	9.84	9.71	8.49	2.11	9.71	9.71	7.56	4.13	1.40	4.93	7.16	7.29	9.97	4.04	7.29	7.29
6500	8.44	9.47	8.44	8.44	8.44	8.35	6.68	1.57	8.14	8.35	6.44	3.25	1.05	3.73	5.82	6.24	7.84	3.01	6.24	6.24
7000	7.32	7.59	7.32	7.32	7.32	7.25	5.35	1.20	6.41	7.25	5.55	2.60	0.80	2.86	4.74	5.41	6.28	2.29	5.41	5.41
7500	6.41	6.17	6.10	6.41	6.41	6.35	4.35	0.93	5.08	6.35	4.84	2.11	0.63	2.23	3.86	4.73	5.11	1.78	4.43	4.73
8000	5.65	5.08	4.81	5.65	5.65	5.61	3.58	0.74	4.06	5.38	4.25	1.74	0.50	1.76	3.15	4.16	4.21	1.40	3.51	4.16

#### ■ C30020(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
6000	5.18	13.42	5.18	5.18	5.18	4.88	9.46	2.16	4.88	4.88	5.72	4.60	1.38	5.08	5.72	4.35	11.11	4.14	4.35	4.35
6500	4.56	10.56	4.56	4.56	4.56	4.32	7.44	1.59	4.32	4.32	4.87	3.62	1.02	3.86	4.87	3.82	8.74	3.06	3.82	3.82
7000	4.05	8.45	4.05	4.05	4.05	3.85	5.96	1.20	3.85	3.85	4.20	2.90	0.77	2.97	4.20	3.39	7.00	2.30	3.39	3.39
7500	3.61	6.87	3.61	3.61	3.61	3.45	4.85	0.92	3.45	3.45	3.66	2.36	0.59	2.31	3.66	3.02	5.69	1.77	3.02	3.02
8000	3.24	5.66	3.24	3.24	3.24	3.11	3.99	0.72	3.11	3.11	3.22	1.94	0.46	1.82	3.21	2.71	4.69	1.38	2.71	2.71
8500	2.92	4.72	2.92	2.92	2.92	2.81	3.33	0.57	2.81	2.81	2.85	1.62	0.37	1.45	2.66	2.44	3.91	1.10	2.44	2.44
9000	2.65	3.98	2.65	2.65	2.65	2.55	2.80	0.46	2.55	2.55	2.54	1.36	0.30	1.17	2.20	2.21	3.29	0.88	2.21	2.21

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## 10. C型跨距表 C-Load Span Table

### 10. C型標條跨距表 $P_y=450\text{N/mm}^2$ Load Span Tables For C Purlin

#### ■ C30025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
6000	8.07	16.61	8.07	8.07	8.07	7.77	11.71	2.65	7.77	7.77	7.83	5.69	1.71	6.19	7.83	6.74	13.75	5.08	6.74	6.74
6500	7.02	13.06	7.02	7.02	7.02	6.79	9.21	1.96	6.79	6.79	6.67	4.48	1.27	4.71	6.67	5.85	10.81	3.76	5.85	5.85
7000	6.16	10.46	6.16	6.16	6.16	5.98	7.37	1.48	5.98	5.98	5.75	3.58	0.96	3.63	5.75	5.13	8.66	2.84	5.13	5.13
7500	5.44	8.50	5.44	5.44	5.44	5.30	6.00	1.14	5.30	5.30	5.01	2.91	0.74	2.82	4.75	4.53	7.04	2.19	4.53	4.53
8000	4.84	7.01	4.84	4.84	4.84	4.72	4.94	0.89	4.72	4.72	4.40	2.40	0.58	2.23	3.92	4.03	5.80	1.71	4.03	4.03
8500	4.33	5.84	4.33	4.33	4.33	4.23	4.12	0.71	4.14	4.23	3.90	2.00	0.46	1.78	3.24	3.60	4.84	1.36	3.56	3.60
9000	3.89	4.92	3.89	3.89	3.89	3.82	3.47	0.57	3.37	3.82	3.48	1.69	0.38	1.44	2.68	3.24	4.07	1.10	2.88	3.24

#### ■ C30030(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
6000	10.86	19.63	10.86	10.86	10.86	10.61	13.85	3.13	10.61	10.61	9.81	6.73	2.05	7.24	9.81	9.03	16.25	5.99	9.03	9.03
6500	9.37	15.44	9.37	9.37	9.37	9.18	10.89	2.32	9.18	9.18	8.36	5.29	1.52	5.51	8.19	7.78	12.78	4.44	7.78	7.78
7000	8.16	12.36	8.16	8.16	8.16	8.01	8.72	1.76	8.01	8.01	7.21	4.24	1.16	4.24	6.74	6.77	10.24	3.37	6.77	6.77
7500	7.16	10.05	7.16	7.16	7.16	7.05	7.09	1.36	7.05	7.05	6.28	3.45	0.90	3.31	5.56	5.95	8.32	2.60	5.95	5.95
8000	6.34	8.28	6.34	6.34	6.34	6.25	5.84	1.07	5.99	6.25	5.52	2.84	0.71	2.61	4.58	5.26	6.86	2.05	5.21	5.26
8500	5.65	6.91	5.65	5.65	5.65	5.58	4.87	0.85	4.85	5.58	4.89	2.37	0.57	2.09	3.79	4.68	5.72	1.63	4.18	4.68
9000	5.06	5.82	4.60	5.06	5.06	5.00	4.10	0.69	3.95	5.00	4.36	1.99	0.46	1.69	3.13	4.20	4.82	1.32	3.38	4.20

#### ■ C35025(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
7000	6.66	17.79	6.66	6.66	6.66	6.35	12.54	3.41	6.35	6.35	7.82	6.10	2.19	7.59	7.82	6.09	14.73	6.09	6.09	6.09
7500	5.93	14.46	5.93	5.93	5.93	5.68	10.2	2.62	5.68	5.68	6.81	4.96	1.69	6.10	6.81	5.45	11.97	5.04	5.45	5.45
8000	5.32	11.92	5.32	5.32	5.32	5.11	8.40	2.05	5.11	5.11	5.98	4.08	1.32	4.92	5.98	4.89	9.87	3.95	4.89	4.89
8500	4.79	9.94	4.79	4.79	4.79	4.62	7.01	1.63	4.62	4.62	5.3	3.41	1.05	3.98	5.30	4.42	8.22	3.13	4.42	4.42
9000	4.33	8.37	4.33	4.33	4.33	4.19	5.90	1.31	4.19	4.19	4.73	2.87	0.84	3.25	4.37	4.01	6.93	2.52	4.01	4.01
9500	3.94	7.12	3.94	3.94	3.94	3.82	5.02	1.07	3.82	3.82	4.24	2.44	0.69	2.67	4.24	3.65	5.89	2.05	3.65	3.65
10000	3.59	6.10	3.59	3.59	3.59	3.49	4.30	0.88	3.49	3.49	3.83	2.09	0.56	2.21	3.82	3.34	5.05	1.69	3.34	3.34

#### ■ C35030(kN/m)

Span	Lapped Internal Span					Lapped End Span					Single Span					Double Span				
	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$	$W_G$	$W_D$	$W_{U0}$	$W_{U1}$	$W_{U2}$
7000	9.34	21.18	9.34	9.34	9.34	9.06	14.94	4.03	9.06	9.06	10.08	7.26	2.61	8.94	10.08	8.66	17.53	7.73	8.66	8.66
7500	8.26	17.22	8.26	8.26	8.26	8.03	12.14	3.11	8.03	8.03	8.78	5.90	2.01	7.18	8.78	7.68	14.26	5.97	7.68	7.68
8000	7.35	14.19	7.35	7.35	7.35	7.16	10.01	2.44	7.16	7.16	7.72	4.86	1.58	5.79	7.72	6.84	11.75	4.68	6.84	6.84
8500	6.58	11.83	6.58	6.58	6.58	6.43	8.34	1.94	6.43	6.43	6.84	4.05	1.26	4.69	6.84	6.14	9.79	3.72	6.14	6.14
9000	5.92	9.97	5.92	5.92	5.92	5.80	7.03	1.56	5.80	5.80	6.1	3.42	1.01	3.83	6.06	5.53	8.25	3.00	5.53	5.53
9500	5.35	8.47	5.35	5.35	5.35	5.25	5.98	1.27	5.25	5.25	5.47	2.90	0.83	3.15	5.23	5.01	7.02	2.44	5.01	5.01
10000	4.86	7.27	4.86	4.86	4.86	4.78	5.12	1.05	4.78	4.78	4.94	2.49	0.68	2.61	4.50	4.56	6.01	2.01	4.56	4.56

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# 11. 設計範例 Design Example

## 11. 設計範例 Design Example

### 屋面設計

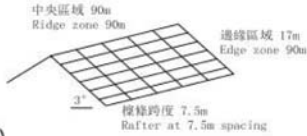
基本風壓  $q=2.2\text{Kpa}$

風壓係數 = 1.4

屋面弧度  $<10^\circ$

風力參數  $c_f$

$c_f = 2.2$  (邊緣區域)  
 $= -1.4$  (中央區域及其他)



求設計風壓值  $q'$

$q' = \gamma_f \times (c_f \times q)$   
 $= 1.4 \times (-2.2 \times 2.2) = 6.78\text{kN/m}^2$  (邊緣區域)  
 $= 1.4 \times (-1.4 \times 2.2) = 4.31\text{kN/m}^2$  (中央區域及其他)

選用 Fasect Z Z25025 G450 搭接標條系統

最小搭接長度 1.5m 的 7.5m 搭接跨，驗算荷載值  $W$

$W_{U1} = 6.85\text{kN/m}^2$  帶一根拉桿的中間跨  
 $W_{U2} = 4.98\text{kN/m}^2$  兩根拉桿的端跨

而最小搭接長度 1.5m 的 7.5m 雙跨，驗算荷載值  $W$

$W_{U2} = 3.74\text{kN/m}^2$  兩根拉桿的雙跨  
中央及其他區域標條間距是  
 $B_{ro} = 6.85/4.31 = 1.589\text{m}$  則  $B_{ro} = 1.500\text{m}$   
邊緣區域的標條間距為  
 $B_e = 4.98/6.78 = 0.735\text{m}$  則  $B_e = 0.700\text{m}$

另外，為了安裝方便，也可將雙跨標條用於搭接標條的邊緣及其他區域 Alte，這樣標條間距就變成  $B_e$ 。  
 $B_e = 3.74/6.78 = 0.552\text{m}$  則  $B_e = 0.550\text{m}$  ( $B_{ro}$  的一半)

撓度驗算符合。  
牆面設計

基本風壓  $q=2.2\text{kPa}$

風壓係數 = 1.4

風壓參數  $c_f$

$c_f = 1.4$  邊緣區域

$= -1.0$  其他區域

為簡單起見，全部區域均採用  $c_f = 1.4$



求設計風壓值  $q'$

$q' = \gamma_f \times (c_f \times q) = 1.4 \times (-1.4 \times 2.2) = 4.31\text{kN/m}^2$

選用 Fasect Z Z25025 G450 搭接標條系統

最新搭接長度 1.5m 的 7.5m 搭接跨，驗算荷載值  $W$

$W_{U1} = 6.85\text{kN/m}^2$  帶一根拉桿的中間跨  
 $W_{U2} = 4.98\text{kN/m}^2$  兩根拉桿的端跨

全部區域,  $B$  值  
 $B_{ro} = 4.98/4.31 = 1.155\text{m}$  則  $B = 1.100\text{m}$   
撓度驗算符合。

### Design on roof

Basic wind pressure  $q=2.2\text{Kpa}$

Load factor for wind load = 1.4

Pitched roof angle  $<10^\circ$

Pressure coefficient  $c_f$

$c_f = 2.2$  for edge zone  
 $= -1.4$  for ridge and other zone

Design Wind Pressure  $q'$  is given by

$q' = \gamma_f \times (c_f \times q)$   
 $= 1.4 \times (-2.2 \times 2.2) = 6.78\text{kN/m}^2$  for edge zone  
 $= 1.4 \times (-1.4 \times 2.2) = 4.31\text{kN/m}^2$  for ridge and other zone

Try Fasect Z Z25025 G450 section-lapped system

For lapped spans 7.5m with min. lap length 15.m; factored load carrying capacity  $W$  is given by

$W_{U1} = 6.85\text{kN/m}^2$  for internal spans with one anti-sag rod  
 $W_{U2} = 4.98\text{kN/m}^2$  for end spans with two anti-sag rods

Moreover, for double spans 7.5m with min. lap length 1.5m,  $W$  is given by

$W_{U2} = 3.74\text{kN/m}^2$  for double span with two anti-sag rod  
the purlin spacing,  $B_{ro}$  for ridge and other zones is given by  
 $B_{ro} = 6.85/4.31 = 1.589\text{m}$  Use  $B_{ro} = 1.500\text{m}$   
The purlin spacing,  $B_e$  for edge zones is given by  
 $B_e = 4.98/6.78 = 0.735\text{m}$  Use  $B_e = 0.700\text{m}$

Alternative, for ease of installation, an additional row of double spans may be installed in between the lapped sections within the edge zone, and thus, the purlin spacing,  $B_e$  is given by  
 $B_e = 3.74/6.78 = 0.552\text{m}$  則  $B_e = 0.550\text{m}$  (i.e. half of  $B_{ro}$ )

Deflection is checked to be not critical.  
Design on wall

Basic wind Pressure  $q=2.2\text{kPa}$

Load factor for wind load = 1.4

Pressure coefficient  $c_f$

$c_f = 1.4$  for edge zone

$= -1.0$  for other zone

For simplicity, use  $c_f = 1.4$  for all zones

Design Wind Pressure  $q'$  is given by

$q' = \gamma_f \times (c_f \times q) = 1.4 \times (-1.4 \times 2.2) = 4.31\text{kN/m}^2$

Try Fasect Z Z25025 G450 section-lapped system

For lapped spans 7.5m with min. lap length 15.m; factored load carrying capacity  $W$  is given by

$W_{U1} = 6.85\text{kN/m}^2$  for internal spans with one anti-sag rod  
 $W_{U2} = 4.98\text{kN/m}^2$  for end spans with two anti-sag rods

For all zones,  $B$  is given by  
 $B_{ro} = 4.98/4.31 = 1.155\text{m}$  Use  $B = 1.100\text{m}$   
Deflection is checked to be not critical.

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## 12. 設計參考 Reference

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- American Iron and Steel Institute (1996). AISI Specification for the design of cold formed steel structural members.
- British Standards Institution (1998). BS5950: Structural use of steel work in buildings Part 5: Code of practice for the design of cold-formed sections.
- Chung K.F. and Lau L. (1999). Experimental investigation on bolted moment connections among cold-formed steel members. *Engineering Structures*, 21(10), 898-911.
- Chung K.F. and Ip K.H. (2000). Finite element modeling of bolted connections between cold-formed steel strip and hot rolled steel plants under static shear loading. *Engineering Structures*, 22(10), 1271-1284.
- Chung K.F. and Ip K.H. (2000). Finite element investigation on the structural behavior of cold-formed steel bolted connections. *Engineering Structures* 23, 1115-1125.
- Chung K.F. (2004). Structural performance of cold-formed steel structures with bolted connections. *ProCdngs of international Symposium on Innovation and Advances in Steel Structures, Singapore, 30-31 August 2004*, 15-32.
- Chung K.F. , Ho H.C. and Wang A.J.(2005). An investigation into deformation characteristic of lapped connections between cold-formed steel Z sections. *Special Issue on Cold-formed Steel Structures, International Journal of Steel Structures*, 5, 23-32.
- European Committee for Standardization (1993). Eurocode 3: Design of steel structures: Part 1.3: General rules Supplementary rules for cold-formed thin gauge members and sheeting, ENV 1993-1-3.
- Ho H.C. and Chung K.F. (2004). Experimental investigation into the structural behavior lapped connections between cold-formed steel Z section. *Thin-Walled Structures*, 42, 1013-1033.
- Hong Kong Steel Code (2005). Chapter 11: Cold-formed steel structures. Code of practice for the structural use of steel. The Building Department of the Government of the Hong Kong Special Administration Region.
- Standards Australia/Standards New Zealand. (1996), Cold-formed steel structure code AS/NZ 4600:1996.

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冷彎型鋼

Cold-Formed Steel Purlin



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