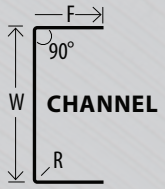
PURLINS C & Z® Structural Sections

LP STEEL INDUSTRIES

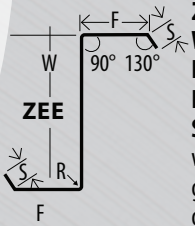
Lp Steel Is Your Source For Cold Formed C & Z Purlins For Use In Pre-engineered Metal Buildings, Carports, And Steel Structures. We Stock A Broad Range Of Both Galvanized And Red Coated Steel To Meet Your Project Needs.

- We Can Provide Cold Formed Members Using Up To 120 KSI Steel
- Wide Range Of Punch Placements To Fit Almost Any Needs With Ability To Punch On The Flange, Web, Or Return
- Most Cold Formed Members Are Also Available In A Stiffened Configuration
- Please inquire special sizes not listed



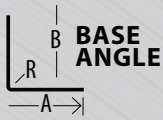
C CHANNEL CAPABILITIES

Web Height (W): 3⅝" min - 24" max
Leg Size (F): 1½" min - 5" max
Inside Bend Radius (R): 0.188" typ.
Steel Thickness: 0.047" (18ga) min to 0.130" (10ga)



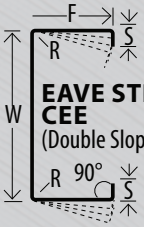
ZEE SECTION CAPABILITIES

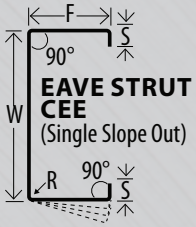
Web Height (W): 4" min - 24" max
Flange Size (F): 1⅝" min - 4½" max
Inside Bend Radius (R): 0.188" typ.
Stiffener Lip Length (S): ¾" max lip with 1⅝" flange, 1¼" max lip with 2" or greater flange. (Maximum stiffener lip length determined by flange width.)
Steel Thickness: 0.047" (18ga) min to 0.013" (10ga)



BASE ANGLE CAPABILITIES

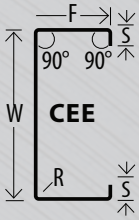
Web Size (A): 2" min - 5" max
Leg Size (B): 2" min - 5" max
Inside Bend Radius (R): 0.188" typ.
Steel Thickness: 0.047" (18ga) min to 0.105" (12ga)





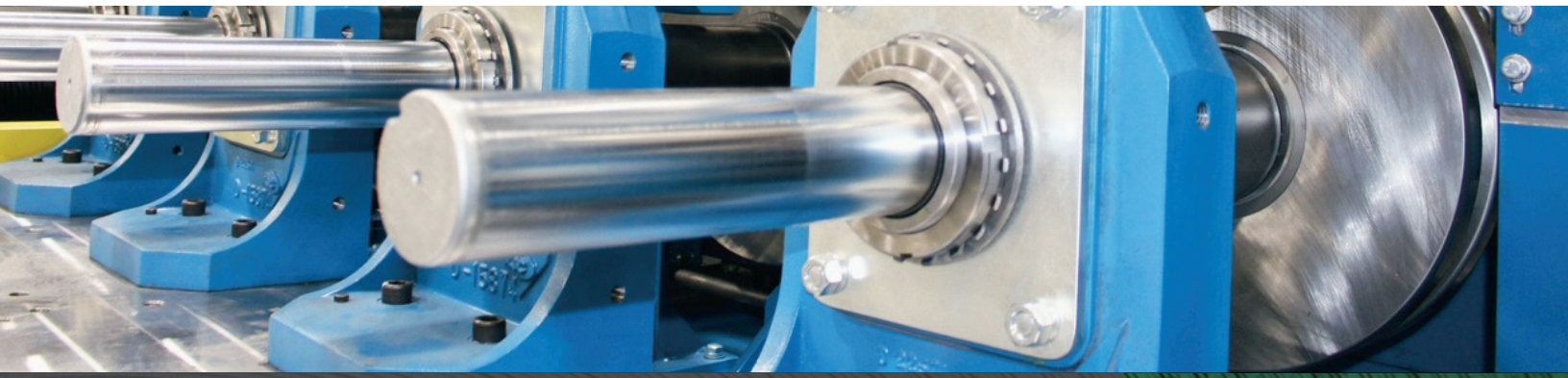
EAVE STRUT CEE CAPABILITIES

Slope: 1:12 - 4:12
Web Height (W): 8" min - 14" max
Flange Size (F): 2½" min to 5" max
Inside Bend Radius (R): 0.188"
Stiffener Lip Length (S): ⅞"
Steel Thickness: 0.047" (18ga) min to 0.105" (12ga)
*Note: On Single Slope In Eave Strut 8" web not available in 3:12 or 4:12 slope.



CEE SECTION CAPABILITIES

Web Height (W): 3⅝" min - 24" max
Flange Size (F): 1⅝" min - 5" max
Inside Bend Radius (R): 0.188" typ.
Stiffener Lip Length (S): ⅝" max lip with 1⅝" flange, ¼" max lip with 3" or greater flange.
(Maximum stiffener lip length determined by flange width.)
Steel Thickness: 0.047" (18ga) min to 0.130" (10ga)



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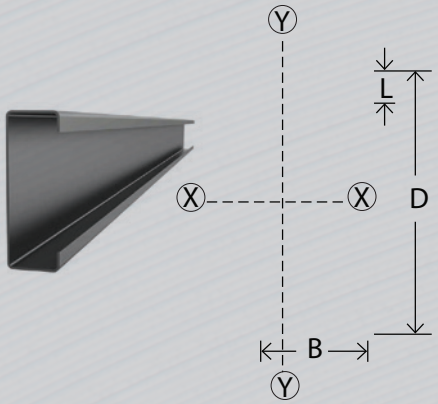
Section Properties



Cee Purlins

Physical Properties					
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in 2)
4	2.25	12	1.17	3.57	1.050
		14	1.08	2.38	0.700
		16	1.05	2.01	0.590
4	2.5	12	0.92	3.57	1.050
		14	0.83	2.38	0.700
		16	0.81	2.01	0.590
5	2	12	0.92	3.57	1.050
		14	0.83	2.38	0.700
		16	0.81	2.01	0.590
5	2.125	12	0.79	3.57	1.050
		14	0.71	2.38	0.700
		16	0.68	2.01	0.590
6	2.25	12	1.17	4.28	1.260
		14	1.08	2.86	0.840
		16	1.05	2.41	0.708
6	2.5	12	0.92	4.28	1.260
		14	0.83	2.86	0.840
		16	0.80	2.41	0.708
7	2	12	0.92	4.28	1.260
		14	0.83	2.86	0.840
		16	0.80	2.41	0.708
7	2.125	12	0.79	4.28	1.260
		14	0.71	2.86	0.840
		16	0.68	2.41	0.708
7	3	12	0.92	5.00	1.470
		14	0.83	3.33	0.980
		16	0.80	2.81	0.826
8	2.25	12	1.17	5.00	1.470
		14	1.08	3.33	0.980
		16	1.05	2.81	0.826
8	2.5	12	0.92	5.00	1.470
		14	0.83	3.33	0.980
		16	0.80	2.81	0.80

Cee Purlins

Physical Properties					
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in 2)
8.5	2.5	12	0.67	5.00	1.470
		14	0.58	3.33	0.980
		16	0.55	2.81	0.826
8	2.75	12	1.17	5.36	1.575
		14	1.08	3.57	1.050
		16	1.05	3.01	0.885
8	3.5	12	0.92	5.71	1.680
		14	0.83	3.81	1.120
		16	0.80	3.21	0.944
8	4	12	0.92	6.07	1.785
		14	0.83	4.05	1.190
9	2.25	12	1.17	5.36	1.575
		14	1.08	3.57	1.050
		16	1.05	3.01	0.885
9	2.75	12	1.17	5.71	1.680
		14	1.08	3.81	1.120
9	3	12	0.92	5.71	1.680
		14	0.83	3.81	1.120
		16	0.80	3.21	0.944
10	2.25	12	1.17	5.71	1.680
		14	1.08	3.81	1.120
		16	1.06	3.21	0.944
10	2.5	12	0.92	5.71	1.680
		14	0.83	3.81	1.120
		16	0.81	3.21	0.944
10	3.25	12	1.17	6.43	1.890
		14	1.08	4.28	1.260
10	3.5	12	0.92	6.43	1.890
		14	0.83	4.28	1.260
10 [A]	4	12	1.17	6.96	2.048
		14	1.08	4.64	1.365
10 [B]	4	12	1.42	7.14	2.100
		14	1.33	4.76	1.400
11	3	12	0.92	6.43	1.890
		14	0.83	4.28	1.260
12	2.25	12	1.17	6.43	1.890
		14	1.08	4.28	1.260
12	2.5	12	0.92	6.43	1.890
		14	0.83	4.28	1.260
12	3.5	12	0.92	7.14	2.100
		14	0.83	4.76	1.400
13	2	12	0.92	6.43	1.890
		14	0.83	4.28	1.260

[A] This product produced from 19.5" feed.
[B] This product produced from 20" feed.

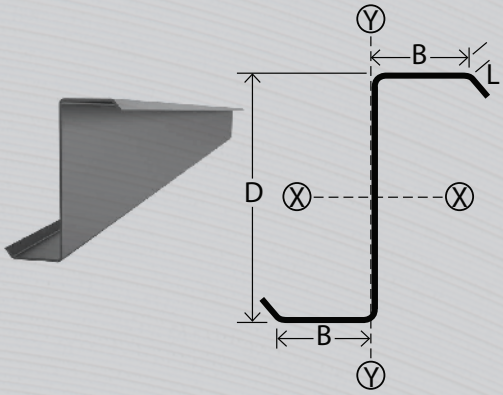
Cee Purlins

Physical Properties					
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in 2)
13	2.125	12	0.79	6.43	1.890
		14	0.71	4.28	1.260
13	3	12	0.92	7.14	2.100
		14	0.83	4.76	1.400
14	2.5	12	0.92	7.14	2.100
		14	0.83	4.76	1.400
15	2	12	0.92	7.14	2.100
		14	0.83	4.76	1.400
15	2.125	12	0.79	7.14	2.100
		14	0.71	4.76	1.400
15	2.25	12	0.67	7.14	2.100
		14	0.58	4.76	1.400
16	3	12	1.04	8.30	2.441
16	4	12	1.04	9.01	2.651
16	3.5	12	0.92	8.57	2.520
17	3	12	0.92	8.57	2.520
18	2.5	12	0.92	8.57	2.520
19	2	12	0.92	8.57	2.520
19	2.125	12	0.79	8.57	2.520
19	2.25	12	0.67	8.57	2.520
20	4.5	12	0.92	10.71	3.150
21	4.5	12	0.92	11.06	3.25
22	4.5	12	0.92	11.4	3.35
23	4.5	12	0.92	11.76	3.45
24	4.5	12	0.92	12.09	3.55

Notes:

1. Materials conform to ASTM A653 Grade 55 Class 1 or ASTM A1011 Grade 55 (Fy = 55 ksi, Fu = 70 ksi); G60 minimum galvanized.
2. Section Properties in accordance to the American Iron and Steel Institute Cold Formed Steel Design Manual (AISI S100-12).
3. Lip (L) based on theoretical feed width; actual dimension may vary.
4. Design Base Metal Thickness per nominal Gauge:18ga = 0.047"16ga = 0.059"14ga = 0.070"12ga = 0.105"

Section Properties



Zee Purlins

Physical Properties					
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in ^{2})
4	2.25	12	1.02	3.57	1.050
		14	0.96	2.38	0.700
		16	0.94	2.01	0.590
4	2.5	12	0.77	3.57	1.050
		14	0.71	2.38	0.700
		16	0.69	2.01	0.590
5	2	12	0.77	3.57	1.050
		14	0.71	2.38	0.700
		16	0.69	2.01	0.590
5	2.125	12	0.65	3.57	1.050
		14	0.59	2.38	0.700
		16	0.57	2.01	0.590
6	2.25	12	1.02	4.28	1.260
		14	0.96	2.86	0.840
		16	0.94	2.41	0.708
6	2.5	12	0.77	4.28	1.260
		14	0.71	2.86	0.840
		16	0.69	2.41	0.708
7	2	12	0.77	4.28	1.260
		14	0.71	2.86	0.840
		16	0.69	2.41	0.708
7	2.125	12	0.65	4.28	1.260
		14	0.59	2.86	0.840
		16	0.57	2.41	0.708
7	3	12	0.77	5.00	1.470
		14	0.71	3.33	0.980
		16	0.69	2.81	0.826
8	2.25	12	1.02	5.00	1.470
		14	0.96	3.33	0.980
		16	0.94	2.81	0.826

Zee Purlins

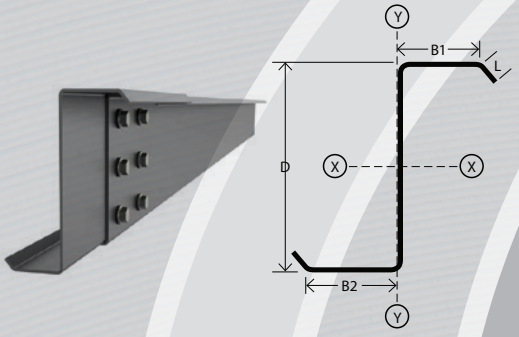
Physical Properties					
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in ^{2})
8	2.5	12	0.77	5.00	1.470
		14	0.71	3.33	0.980
		16	0.69	2.81	0.826
8.5	2.5	12	0.52	5.00	1.470
		14	0.46	3.33	0.980
		16	0.44	2.81	0.826
8	2.75	12	1.02	5.36	1.575
		14	0.96	3.57	1.050
		16	0.94	3.01	0.885
8	3.5	12	0.77	5.71	1.680
		14	0.71	3.81	1.120
		16	0.69	3.21	0.944
8	4	12	0.77	6.07	1.785
		14	0.71	4.05	1.190
9	2.25	12	1.02	5.36	1.575
		14	0.96	3.57	1.050
		16	0.94	3.01	0.885
9	2.75	12	1.02	5.71	1.680
		14	0.96	3.81	1.120
9	3	12	0.77	5.71	1.680
		14	0.71	3.81	1.120
		16	0.69	3.21	0.944
10	2.25	12	1.02	5.71	1.680
		14	0.96	3.81	1.120
		16	0.94	3.21	0.944
10	2.5	12	0.77	5.71	1.680
		14	0.71	3.81	1.120
		16	0.69	3.21	0.944
10	3.25	12	1.02	6.43	1.890
		14	0.96	4.28	1.260
10	3.5	12	0.77	6.43	1.890
		14	0.71	4.28	1.260
10 [A]	4	12	1.02	6.96	2.048
		14	0.96	4.64	1.365
10 [B]	4	12	1.27	7.14	2.100
		14	1.21	4.76	1.400
11	3	12	0.77	6.43	1.890
		14	0.71	4.28	1.260
12	2.25	12	1.02	6.43	1.890
		14	0.96	4.28	1.260

[A] This product produced from 19.5" feed.
[B] This product produced from 20" feed.

Section Properties

Zee Purlins

Physical Properties					
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in^2)
12	2.5	12	0.77	6.43	1.890
		14	0.71	4.28	1.260
12	3.5	12	0.77	7.14	2.100
		14	0.71	4.76	1.400
13	2	12	0.77	6.43	1.890
		14	0.71	4.28	1.260
13	2.125	12	0.65	6.43	1.890
		14	0.59	4.28	1.260
13	3	12	0.77	7.14	2.100
		14	0.71	4.76	1.400
14	2.5	12	0.77	7.14	2.100
		14	0.71	4.76	1.400
15	2	12	0.77	7.14	2.100
		14	0.71	4.76	1.400
15	2.125	12	0.65	7.14	2.100
		14	0.59	4.76	1.400
15	2.25	12	0.52	7.14	2.100
		14	0.46	4.76	1.400
16	3	12	0.90	8.30	2.441
16	4	12	0.90	9.01	2.651
16	3.5	12	0.77	8.57	2.520
17	3	12	0.77	8.57	2.520
18	2.5	12	0.77	8.57	2.520
19	2	12	0.77	8.57	2.520
19	2.125	12	0.65	8.57	2.520
19	2.25	12	0.52	8.57	2.520
20	4.5	12	0.77	10.71	3.150

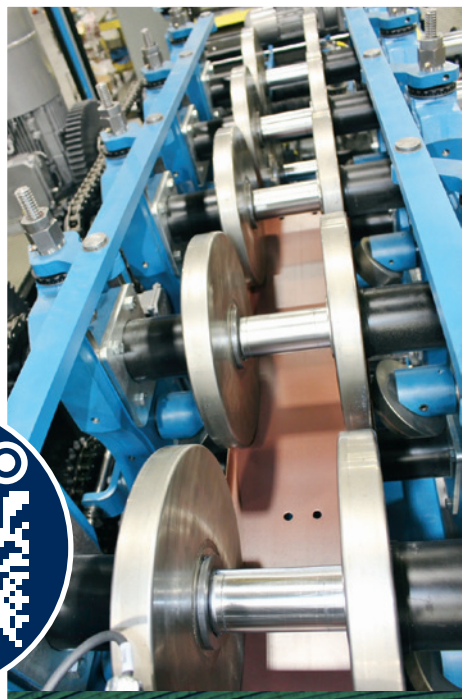


'Easy Lap' Zee Purlins

Physical Properties							
D (web) (in)	B1 (flange) (in)	B2 (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in^2)
4	2.125	2.375	14	0.48	2.38	0.700
			16	0.47	2.01	0.590
6	2.125	2.375	14	0.48	2.86	0.840
			16	0.47	2.41	0.708
8	2.125	2.375	12	0.51	5.00	1.470
			14	0.48	3.33	0.980
			16	0.47	2.81	0.826
8	3.125	3.375	12	0.51	5.71	1.680
			14	0.48	3.81	1.120
			16	0.47	3.21	0.944
10	2.125	2.375	12	0.51	5.71	1.680
			14	0.48	3.81	1.120
			16	0.47	3.21	0.944
10	3.125	3.375	12	0.51	6.43	1.890
			14	0.48	4.28	1.260
12	2.125	2.375	12	0.51	6.43	1.890
			14	0.48	4.28	1.260
12	3.125	3.375	12	0.51	7.14	2.100
			14	0.48	4.76	1.400

Notes:

1. Materials conform to ASTM A653 Grade 55 Class 1 or ASTM A1011 Grade 55 (Fy = 55 ksi, Fu = 70 ksi); G60 minimum galvanized.
2. Section Properties in accordance to the American Iron and Steel Institute Cold Formed Steel Design Manual (AISI S100-12).
3. Lip (L) based on theoretical feed width; actual dimension may vary.
4. Design Base Metal Thickness per nominal Gauge:
   - 18ga = 0.047"
   - 16ga = 0.059"
   - 14ga = 0.070"
   - 12ga = 0.105"
   - 10 ga = 0.125"



Creating Value with Dedication

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