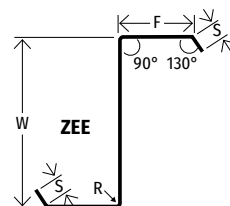


Purlins and EZ-Form® Structural Sections



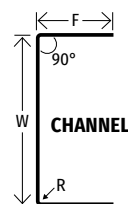
AEP Span is your source for steel components in the solar mounting, residential framing and pre-engineered metal building markets. We offer a broad range of light gauge steel components to meet your project needs.

- Broad range of manufacturing capabilities that encompass several variations in part sizes and punching locations.
- Optimum versatility in custom requested punch patterns and punch placements on web and flange areas.
- Large selection of standard punch shapes and sizes.



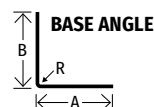
ZEE SECTION CAPABILITIES

Web Height (W): 4" min - 20" max
Flange Size (F): 2 1/4" min - 4 1/2" max
Inside Bend Radius (R): 0.188" typ.
Stiffener Lip Length (S): 5/8" targeted (may vary)
Steel Thickness: 0.059" (16ga) min to 0.128" (10ga) max



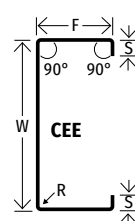
CHANNEL CAPABILITIES

Web Height (W): 4" min - 20" max
Inside Bend Radius (R): 0.188" typ.
Flange Size (F): 1 1/8" min - 4 1/2" max
Steel Thickness: 0.059" (16ga) min to 0.128" (10ga) max



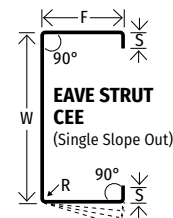
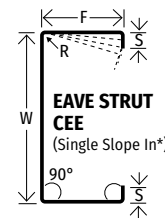
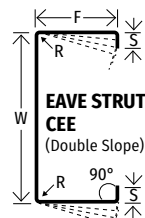
BASE ANGLE CAPABILITIES

Web Size (A): 2" min - 5" max
Leg Size (B): 2" min - 5" max
Inside Bend Radius (R): 0.188" typ.
Steel Thickness: 0.059" (16ga) min to 0.128" (10ga) max



CEE SECTION CAPABILITIES

Web Height (W): 4" min - 20" max
Flange Size (F): 2 1/4" min - 5" max
Inside Bend Radius (R): 0.188" typ.
Stiffener Lip Length (S): 5/8" targeted (may vary)
Steel Thickness: 0.059" (16ga) min to 0.128" (10ga) max



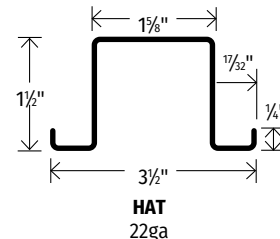
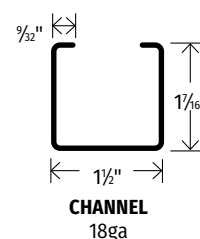
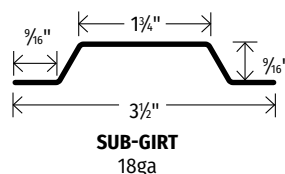
EAVE STRUT CEE CAPABILITIES

Slope: 1:12 - 4:12
Web Height (W): 8" min - 14" max
Flange Size (F): 2 1/2" min to 5" max
Inside Bend Radius (R): 0.188"
Stiffener Lip Length (S): 5/8" targeted (may vary)
Steel Thickness: 0.059" (16ga) min to 0.128" (10ga) max
 *Note: On Single Slope In Eave Strut 8" web not available in 3:12 or 4:12 slope.

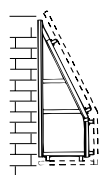
EZ-FORM® STRUCTURAL SECTIONS (Length 20'-0")

EZ-Form structural sections are light gauge framing solution for maximum design flexibility and ease of installation.

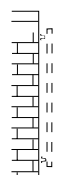
- Nestable hats and channels can be joined without a separate clip angle, increasing speed and reducing cost of on-site fabrication.
- Cost effective alternative to structural steel or wood framing.
- Precision roll formed in twenty foot lengths.
- Hot-dipped galvanized conforming to ASTM A-653, G-60 minimum.



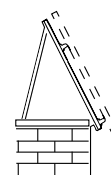
Common Applications



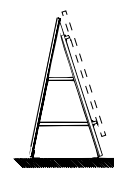
Transitional
Mansard



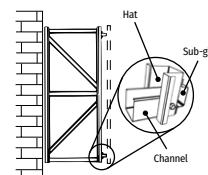
Rainscreen
Furring



Roof
Overhang

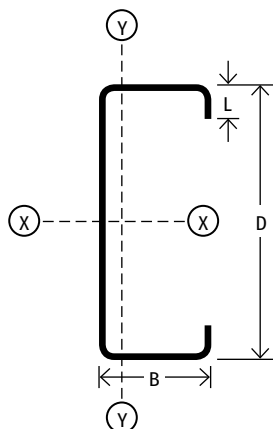


Equipment
Screen



Vertical Fascia

Section Properties



Cee Purlins

Physical Properties						Gross Properties							Effective Properties			Torsional Properties		
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in ²)	X-X Axis			Y-Y Axis				Ae (in ²)	Ixe (in ⁴)	Sxe (in ³)	J (x10 ⁻³) (in ⁴)	Cw (in ⁶)	Xo (in)
						Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Sy _L (in ³)	Sy _R (in ³)	Ry (in)						
4	2.25	16	0.625	1.86	0.539	1.415	0.708	1.620	0.380	0.478	0.261	0.840	0.388	1.412	0.611	0.626	1.354	-1.876
4	2.5	12	0.625	3.39	0.989	2.591	1.295	1.619	0.814	0.904	0.509	0.907	0.921	2.591	1.244	3.634	2.774	-2.051
		14	0.625	2.31	0.671	1.794	0.897	1.635	0.572	0.635	0.358	0.924	0.510	1.774	0.774	1.096	2.012	-2.095
		16	0.625	1.96	0.569	1.530	0.765	1.640	0.491	0.544	0.307	0.929	0.395	1.504	0.630	0.660	1.740	-2.109
5	2	12	0.625	3.39	0.989	3.709	1.484	1.937	0.507	0.814	0.368	0.716	0.899	3.709	1.484	3.634	2.551	-1.465
		14	0.625	2.31	0.671	2.565	1.026	1.955	0.360	0.578	0.261	0.733	0.516	2.565	0.994	1.096	1.858	-1.507
		16	0.625	1.96	0.569	2.187	0.875	1.961	0.310	0.497	0.225	0.738	0.397	2.187	0.814	0.660	1.610	-1.520
6	2.25	14	0.625	2.67	0.776	4.250	1.417	2.340	0.509	0.774	0.320	0.810	0.525	4.250	1.309	1.268	3.625	-1.612
		16	0.625	2.27	0.657	3.618	1.206	2.346	0.437	0.664	0.275	0.816	0.397	3.601	1.054	0.763	3.130	-1.625
6	2.5	12	0.625	4.11	1.199	6.633	2.211	2.352	0.938	1.248	0.537	0.885	0.974	6.633	2.122	4.406	6.505	-1.786
		14	0.625	2.79	0.811	4.558	1.519	2.371	0.659	0.877	0.377	0.902	0.525	4.496	1.327	1.325	4.665	-1.827
		16	0.625	2.37	0.687	3.878	1.293	2.376	0.565	0.751	0.323	0.907	0.404	3.801	1.086	0.797	4.022	-1.840
7	2	14	0.625	2.79	0.811	5.690	1.626	2.649	0.400	0.768	0.271	0.702	0.526	5.690	1.575	1.325	3.833	-1.310
7	3	10	0.625	5.84	1.707	12.939	3.697	2.753	1.846	2.099	0.870	1.040	1.403	12.939	3.541	9.366	16.742	-2.075
		12	0.625	4.83	1.409	10.775	3.079	2.766	1.557	1.770	0.735	1.051	1.032	10.594	2.811	5.177	14.289	-2.103
		14	0.625	3.27	0.951	7.371	2.106	2.784	1.087	1.235	0.513	1.069	0.541	7.047	1.713	1.553	10.138	-2.145
		16	0.625	2.78	0.805	6.263	1.789	2.790	0.929	1.055	0.438	1.074	0.416	5.779	1.403	0.934	8.711	-2.158
8	2.25	12	0.625	4.65	1.356	12.254	3.064	3.006	0.787	1.394	0.467	0.762	0.979	12.254	3.028	4.984	9.524	-1.388
		14	0.625	3.15	0.916	8.394	2.098	3.027	0.556	0.987	0.329	0.779	0.533	8.394	1.950	1.496	6.824	-1.427
		16	0.625	2.67	0.775	7.135	1.784	3.034	0.477	0.848	0.282	0.784	0.402	7.100	1.557	0.900	5.882	-1.439
8	2.5	12	0.625	4.83	1.409	13.073	3.268	3.046	1.026	1.584	0.554	0.853	0.999	13.073	3.142	5.177	12.317	-1.587
		14	0.625	3.27	0.951	8.944	2.236	3.067	0.721	1.115	0.389	0.871	0.532	8.813	1.977	1.553	8.782	-1.627
		16	0.625	2.78	0.805	7.600	1.900	3.073	0.618	0.956	0.333	0.876	0.409	7.452	1.580	0.934	7.558	-1.639
8.5	2.5	14	0.625	3.39	0.986	10.327	2.430	3.236	0.734	1.174	0.391	0.862	0.533	10.174	2.154	1.611	10.059	-1.584
8	2.75	12	0.625	5.01	1.461	13.891	3.473	3.083	1.304	1.778	0.647	0.945	1.040	13.839	3.317	5.370	15.555	-1.790
		14	0.625	3.39	0.986	9.494	2.374	3.103	0.913	1.246	0.453	0.962	0.538	9.278	2.019	1.611	11.046	-1.830

Cee Purlins

Physical Properties						Gross Properties							Effective Properties			Torsional Properties		
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in ²)	X-X Axis			Y-Y Axis				Ae	Ixe	Sxe	J (x10 ⁻³)	Cw	Xo
						Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Sy _L (in ³)	Sy _R (in ³)	Ry (in)						
8	3.5	10	0.625	6.72	1.963	19.672	4.918	3.165	2.852	2.834	1.144	1.205	1.448	19.298	4.425	10.774	33.214	-2.391
		12	0.625	5.55	1.619	16.345	4.086	3.178	2.397	2.381	0.962	1.217	1.044	15.976	3.442	5.949	28.193	-2.419
		14	0.625	3.75	1.091	11.145	2.786	3.196	1.663	1.651	0.667	1.235	0.549	10.101	2.120	1.782	19.842	-2.461
		16	0.625	3.18	0.923	9.460	2.365	3.202	1.419	1.409	0.569	1.240	0.420	8.465	1.603	1.071	17.008	-2.475
8	4	12	0.625	5.91	1.724	17.981	4.495	3.230	3.360	2.802	1.200	1.396	1.052	16.982	3.526	6.335	39.316	-2.852
		14	0.625	3.99	1.161	12.246	3.061	3.248	2.321	1.934	0.829	1.414	0.551	10.684	2.128	1.896	27.551	-2.895
		16	0.625	3.39	0.982	10.390	2.598	3.253	1.978	1.648	0.707	1.420	0.420	8.942	1.597	1.139	23.585	-2.908
10	2.25	14	0.625	3.63	1.056	14.370	2.874	3.689	0.589	1.196	0.335	0.747	0.537	14.052	2.336	1.725	11.272	-1.283
		16	0.625	3.08	0.893	12.203	2.441	3.696	0.506	1.028	0.288	0.752	0.404	11.772	1.790	1.037	9.705	-1.294
10	2.5	10	0.625	6.72	1.963	26.867	5.373	3.699	1.286	2.249	0.667	0.809	1.364	26.867	5.301	10.774	23.903	-1.407
		12	0.625	5.55	1.619	22.330	4.466	3.714	1.091	1.912	0.565	0.821	1.013	22.330	4.304	5.949	20.426	-1.432
		14	0.625	3.75	1.091	15.233	3.047	3.736	0.767	1.350	0.397	0.838	0.536	15.050	2.600	1.782	14.514	-1.469
		16	0.625	3.18	0.923	12.931	2.586	3.743	0.657	1.158	0.340	0.844	0.411	12.755	1.949	1.071	12.478	-1.481
10	3.25	12	0.625	6.08	1.776	26.185	5.237	3.839	2.125	2.619	0.872	1.094	1.058	25.637	4.641	6.528	38.932	-2.014
10	3.5	10	0.625	7.59	2.220	33.119	6.624	3.862	3.054	3.402	1.173	1.173	1.474	32.493	6.003	12.182	55.221	-2.189
		12	0.625	6.26	1.829	27.470	5.494	3.876	2.567	2.861	0.986	1.185	1.058	26.858	4.690	6.721	46.766	-2.216
		14	0.625	4.24	1.231	18.684	3.737	3.896	1.780	1.985	0.684	1.203	0.553	17.213	2.652	2.011	32.801	-2.256
		16	0.625	3.59	1.041	15.847	3.169	3.902	1.519	1.695	0.584	1.208	0.422	14.444	1.998	1.208	28.087	-2.269
10	4	12	0.625	6.62	1.934	30.041	6.008	3.941	3.607	3.356	1.233	1.366	1.066	28.361	4.805	7.107	65.179	-2.627
10	4	12	0.625	6.62	1.934	30.041	6.008	3.941	3.607	3.356	1.233	1.366	1.066	28.361	4.805	7.107	65.179	-2.627
12	2.25	12	0.625	6.08	1.776	32.968	5.495	4.308	0.871	1.964	0.482	0.700	1.003	32.722	5.000	6.528	23.929	-1.133
		14	0.625	4.12	1.196	22.458	3.743	4.333	0.615	1.401	0.340	0.717	0.539	21.410	2.854	1.954	17.050	-1.167
12	2.5	10	0.625	7.59	2.220	41.963	6.994	4.348	1.345	2.620	0.677	0.778	1.381	41.963	6.673	12.182	36.318	-1.283
		12	0.625	6.26	1.829	34.825	5.804	4.364	1.141	2.233	0.574	0.790	1.022	34.623	5.151	6.721	30.989	-1.306
		14	0.625	4.24	1.231	23.703	3.951	4.388	0.802	1.581	0.402	0.807	0.539	22.553	2.869	2.011	21.971	-1.342
		16	0.625	3.59	1.041	20.108	3.351	4.395	0.687	1.357	0.345	0.813	0.413	18.600	2.229	1.208	18.876	-1.353
12	3.5	10	0.625	8.47	2.477	51.005	8.501	4.538	3.214	3.962	1.195	1.139	1.491	50.065	7.755	13.590	84.026	-2.021
		12	0.625	6.98	2.039	42.253	7.042	4.552	2.701	3.334	1.004	1.151	1.068	41.335	6.083	7.493	71.054	-2.047
		14	0.625	4.72	1.371	28.685	4.781	4.574	1.874	2.317	0.696	1.169	0.556	26.886	3.164	2.239	49.724	-2.086
14	2.5	12	0.625	6.98	2.039	50.977	7.282	5.000	1.181	2.546	0.580	0.761	1.029	49.803	6.148	7.493	44.120	-1.202
		14	0.625	4.72	1.371	34.636	4.948	5.026	0.830	1.808	0.407	0.778	0.541	32.137	3.387	2.239	31.236	-1.236
16	3	12	0.625	8.06	2.354	77.840	9.730	5.751	1.945	3.553	0.793	0.909	1.077	73.994	7.538	8.650	94.111	-1.438
16	4	12	0.625	8.78	2.564	91.104	11.388	5.961	4.104	4.983	1.292	1.265	1.087	87.996	8.369	9.422	192.566	-2.139
16	3.5	10	0.625	10.23	2.990	102.151	12.769	5.845	3.452	5.054	1.225	1.074	1.512	99.088	10.398	16.405	163.523	-1.757
		12	0.625	8.42	2.459	84.472	10.559	5.861	2.902	4.262	1.029	1.086	1.079	80.120	7.615	9.036	138.031	-1.781
		14	0.625	5.68	1.651	57.193	7.149	5.886	2.013	2.971	0.713	1.104	0.559	48.585	4.086	2.697	96.337	-1.817

Section Properties

Cee Purlins

Physical Properties						Gross Properties							Effective Properties			Torsional Properties		
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in ²)	X-X Axis			Y-Y Axis				Ae (in ²)	Ixe (in ⁴)	Sxe (in ³)	J (x10 ⁻³) (in ⁴)	Cw (in ⁶)	Xo (in)
						Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Sy _L (in ³)	Sy _R (in ³)	Ry (in)						
18	2.5	10	0.625	10.23	2.990	115.947	12.883	6.227	1.461	3.675	0.695	0.699	1.409	111.703	10.757	16.405	92.105	-1.018
		12	0.625	8.42	2.459	95.935	10.659	6.246	1.240	3.151	0.589	0.710	1.037	89.854	8.139	9.036	78.421	-1.039
20	4.5	10	0.625	12.86	3.760	202.548	20.255	7.340	7.033	8.260	1.928	1.368	1.534	190.063	13.605	20.629	517.451	-2.228
		12	0.625	10.58	3.089	167.141	16.714	7.356	5.881	6.924	1.611	1.380	1.100	146.330	9.946	11.351	434.044	-2.252

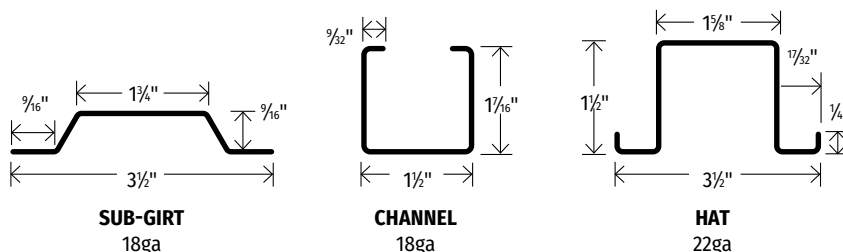
Notes:

- Materials conform to ASTM A653 Grade 55 Class 1 or ASTM A1011 Grade 55 (Fy = 55 ksi, Fu = 70 ksi); G60 minimum galvanized.
- Section Properties in accordance to the American Iron and Steel Institute Cold Formed Steel Design Manual (AISI S100-16/S3-22).
- Lip (L) length is targeted dimension. Final Product may vary.
- Design Base Metal Thickness per nominal Gauge:
 16ga = 0.059"
 14ga = 0.070"
 12ga = 0.105"
 10ga = 0.128"

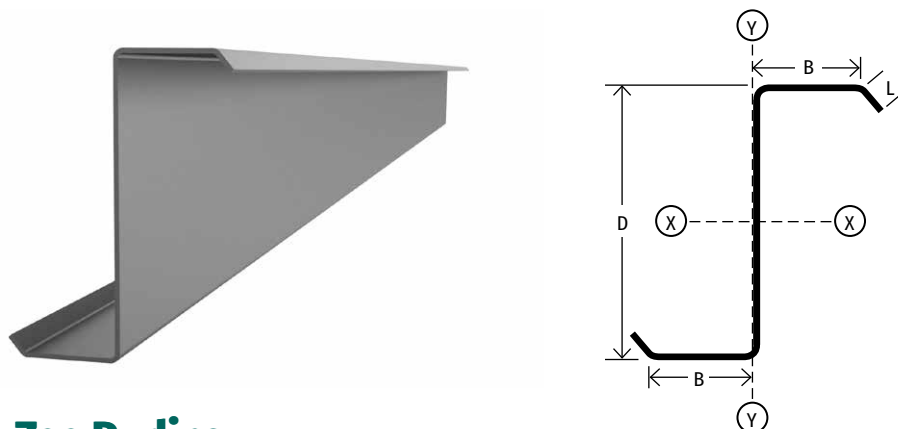
Symbols and Abbreviations

- Ae - Effective area at nominal compressive strength
- Cw - Torsional warping constant
- Ix - Moment of inertia about the X axis
- Ixe - Effective moment of inertia about the X axis at allowable bending strength
- Iy - Moment of inertia about the Y axis
- J - Torsion constant (St. Venant)
- rx - Radius of gyration about the X axis
- ry - Radius of gyration about the Y axis
- Sx - Section modulus about the X axis for the extreme fiber
- Sxe - Effective section modulus about the X axis for the extreme fiber
- Sy(l) - Section modulus about the Y axis for the extreme left fiber
- Sy(r) - Section modulus about the Y axis for the extreme right fiber
- Xo - Horizontal coordinate of the shear center relative to the centroid

EZ-Form Sections



	Physical Properties					Full Properties					
	Nominal Ga. (in)	Min. Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Weight (lb/ft)	X-X Axis			Y-Y Axis		
						Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Sy (in ³)	Ry (in)
Hat Channel Sub Girt	22	0.027	33	45	0.59	0.061	0.080	0.593	0.151	0.100	0.931
	18	0.044	33	45	0.70	0.056	0.059	0.522	0.098	0.120	0.689
	18	0.044	33	45	0.51	0.009	0.027	0.252	0.079	0.063	0.724



Zee Purlins

Physical Properties						Gross Properties							Effective Properties			Torsional Properties	
						X-X Axis			Y-Y Axis								
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in²)	Ix (in⁴)	Sx (in³)	Rx (in)	Iy (in⁴)	Sy _L (in³)	Sy _R (in³)	Ry (in)	Ae (in²)	Ixe (in⁴)	Sxe (in³)	J (x10 ⁻³) (in⁴)	Cw (in⁶)
4	2.25	16	0.625	1.91	0.552	1.480	0.740	1.637	0.833	0.318	0.318	1.228	0.388	1.480	0.619	0.641	2.009
4	2.5	12	0.625	3.49	1.019	2.725	1.362	1.635	1.843	0.647	0.647	1.345	0.933	2.725	1.284	3.746	4.193
		14	0.625	2.37	0.688	1.874	0.937	1.651	1.271	0.443	0.443	1.359	0.505	1.853	0.777	1.124	2.952
		16	0.625	2.01	0.582	1.595	0.797	1.655	1.082	0.377	0.377	1.364	0.394	1.559	0.637	0.675	2.531
5	2	16	0.625	2.01	0.582	2.286	0.914	1.982	0.624	0.263	0.263	1.036	0.392	2.286	0.818	0.675	2.560
7	2	14	0.625	2.85	0.828	5.921	1.692	2.674	0.731	0.309	0.309	0.940	0.532	5.921	1.613	1.352	6.330
7	3	12	0.625	4.93	1.439	11.173	3.192	2.786	2.949	0.880	0.880	1.431	1.033	10.965	2.842	5.289	22.766
		14	0.625	3.33	0.968	7.602	2.172	2.803	2.024	0.601	0.601	1.446	0.537	7.171	1.716	1.581	15.797
		16	0.625	2.82	0.818	6.449	1.843	2.808	1.721	0.510	0.510	1.451	0.412	5.888	1.398	0.949	13.482
8	2.5	12	0.625	4.93	1.439	13.589	3.397	3.073	1.843	0.647	0.647	1.132	1.011	13.589	3.216	5.289	20.212
		14	0.625	3.33	0.968	9.242	2.311	3.090	1.271	0.443	0.443	1.146	0.528	9.090	1.982	1.581	14.066
		16	0.625	2.82	0.818	7.839	1.960	3.096	1.083	0.377	0.377	1.150	0.407	7.649	1.576	0.949	12.016
8.5	2.5	14	0.625	3.45	1.003	10.662	2.509	3.261	1.271	0.443	0.443	1.126	0.529	10.483	2.159	1.638	16.114
8	2.75	12	0.625	5.11	1.492	14.407	3.602	3.108	2.353	0.759	0.759	1.256	1.045	14.407	3.370	5.482	25.197
		14	0.625	3.45	1.003	9.793	2.448	3.125	1.618	0.519	0.519	1.270	0.536	9.501	2.030	1.638	17.492
8	3.5	10	0.625	6.86	2.005	20.359	5.090	3.187	5.313	1.385	1.385	1.628	1.458	19.853	4.497	11.001	52.961
		12	0.625	5.65	1.649	16.862	4.215	3.198	4.423	1.149	1.149	1.638	1.042	16.331	3.462	6.061	44.371
		14	0.625	3.81	1.108	11.443	2.861	3.214	3.025	0.782	0.782	1.652	0.544	10.262	2.118	1.810	30.633
		16	0.625	3.23	0.936	9.699	2.425	3.219	2.570	0.664	0.664	1.657	0.415	8.610	1.585	1.086	26.102
8	4	12	0.625	6.01	1.754	18.498	4.625	3.247	6.318	1.453	1.453	1.898	1.052	17.376	3.552	6.447	60.977
		14	0.625	4.05	1.178	12.544	3.136	3.263	4.309	0.987	0.987	1.913	0.545	10.855	2.105	1.924	41.986
		16	0.625	3.43	0.995	10.629	2.657	3.268	3.657	0.836	0.836	1.917	0.415	9.377	1.577	1.155	35.748
10	2.25	16	0.625	3.13	0.906	12.568	2.514	3.724	0.833	0.318	0.318	0.958	0.404	12.156	1.799	1.052	15.552
10	2.5	10	0.625	6.86	2.005	27.934	5.587	3.733	2.202	0.776	0.776	1.048	1.400	27.934	5.499	11.001	39.657
		12	0.625	5.65	1.649	23.129	4.626	3.745	1.843	0.647	0.647	1.057	1.025	23.129	4.395	6.061	33.356
		14	0.625	3.81	1.108	15.690	3.138	3.763	1.271	0.443	0.443	1.071	0.532	15.515	2.578	1.810	23.162
		16	0.625	3.23	0.936	13.297	2.659	3.769	1.083	0.377	0.377	1.075	0.410	13.094	1.946	1.086	19.772

Section Properties

Zee Purlins

Physical Properties						Gross Properties							Effective Properties			Torsional Properties	
D (web) (in)	B (flange) (in)	Ga. (nom)	L (lip) (in)	Weight (lb/ft)	Area (in ²)	X-X Axis			Y-Y Axis				Ae (in ²)	I _{xe} (in ⁴)	S _{xe} (in ³)	J (x10 ⁻³) (in ⁴)	C _w (in ⁶)
						I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	S _{y_L} (in ³)	S _{y_R} (in ³)	R _y (in)					
10	3.5	10	0.625	7.73	2.262	34.186	6.837	3.888	5.314	1.385	1.385	1.533	1.484	33.343	6.093	12.409	88.264
		12	0.625	6.37	1.859	28.270	5.654	3.899	4.423	1.149	1.149	1.542	1.056	27.397	4.717	6.833	73.833
		14	0.625	4.29	1.248	19.141	3.828	3.917	3.025	0.782	0.782	1.557	0.548	17.494	2.628	2.038	50.855
		16	0.625	3.63	1.054	16.212	3.242	3.922	2.570	0.664	0.664	1.561	0.417	14.677	1.978	1.223	43.303
10	4	12	0.625	6.73	1.964	30.840	6.168	3.962	6.318	1.453	1.453	1.794	1.066	28.950	4.838	7.218	101.769
		12	0.625	6.73	1.964	30.840	6.168	3.962	6.318	1.453	1.453	1.794	1.066	28.950	4.838	7.218	101.769
12	2.25	12	0.625	6.19	1.807	34.110	5.685	4.345	1.412	0.543	0.543	0.884	1.025	33.873	5.152	6.640	39.119
		14	0.625	4.17	1.213	23.108	3.851	4.365	0.977	0.373	0.373	0.897	0.535	22.112	2.848	1.981	27.208
12	2.5	10	0.625	7.73	2.262	43.494	7.249	4.385	2.203	0.776	0.776	0.987	1.417	43.494	6.905	12.409	59.551
		12	0.625	6.37	1.859	35.967	5.995	4.398	1.844	0.647	0.647	0.996	1.034	35.790	5.247	6.833	50.041
		14	0.625	4.29	1.248	24.354	4.059	4.418	1.271	0.443	0.443	1.009	0.535	23.405	2.860	2.038	34.699
		16	0.625	3.63	1.054	20.627	3.438	4.424	1.083	0.377	0.377	1.013	0.411	19.110	2.231	1.223	29.607
12	3.5	10	0.625	8.61	2.518	52.535	8.756	4.568	5.314	1.385	1.385	1.453	1.501	51.270	7.863	13.817	133.495
		12	0.625	7.09	2.069	43.396	7.233	4.580	4.423	1.149	1.149	1.462	1.065	42.095	6.115	7.604	111.558
		14	0.625	4.77	1.388	29.335	4.889	4.598	3.025	0.782	0.782	1.476	0.551	27.238	3.138	2.267	76.725
14	2.5	12	0.625	7.09	2.069	52.524	7.503	5.038	1.844	0.647	0.647	0.944	1.041	51.397	6.256	7.604	70.311
		14	0.625	4.77	1.388	35.513	5.073	5.058	1.271	0.443	0.443	0.957	0.537	33.340	3.374	2.267	48.707
16	3	12	0.625	8.17	2.384	79.851	9.981	5.787	2.950	0.881	0.881	1.112	1.078	76.442	7.575	8.762	145.938
16	4	12	0.625	8.89	2.594	93.116	11.639	5.991	6.319	1.453	1.453	1.561	1.087	89.700	8.369	9.534	294.862
16	3.5	10	0.625	10.37	3.031	104.857	13.107	5.881	5.315	1.385	1.385	1.324	1.522	101.552	10.512	16.633	254.444
		12	0.625	8.53	2.489	86.483	10.810	5.894	4.424	1.149	1.149	1.333	1.076	81.615	7.625	9.148	212.380
		14	0.625	5.74	1.668	58.330	7.291	5.914	3.025	0.782	0.782	1.347	0.554	49.114	4.060	2.724	145.809
18	2.5	10	0.625	10.37	3.031	119.365	13.263	6.275	2.204	0.777	0.777	0.853	1.445	115.136	11.092	16.633	145.045
		12	0.625	8.53	2.489	98.473	10.941	6.290	1.844	0.647	0.647	0.861	1.049	92.521	8.270	9.148	121.705
20	4.5	10	0.625	13.00	3.801	206.761	20.676	7.375	10.473	2.165	2.165	1.660	1.543	194.672	13.725	20.857	782.126
		12	0.625	10.69	3.119	170.265	17.027	7.388	8.688	1.792	1.792	1.669	1.100	148.924	9.970	11.463	650.229

Notes:

- Materials conform to ASTM A653 Grade 55 Class 1 or ASTM A1011 Grade 55 (F_y = 55 ksi, F_u = 70 ksi); G60 minimum galvanized.
- Section Properties in accordance to the American Iron and Steel Institute Cold Formed Steel Design Manual (AISI S100-16/S3-22).
- Lip (L) based on theoretical feed width; actual dimension may vary.
- Design Base Metal Thickness per nominal Gauge:
16ga = 0.059"
14ga = 0.070"
12ga = 0.105"
10ga = 0.128"

Symbols and Abbreviations

- Ae - Effective area at nominal compressive strength
- C_w - Torsional warping constant
- I_x - Moment of inertia about the X axis
- I_{xe} - Effective moment of inertia about the X axis at allowable bending strength
- I_y - Moment of inertia about the Y axis
- J - Torsion constant (St. Venant)
- r_x - Radius of gyration about the X axis
- r_y - Radius of gyration about the Y axis
- S_x - Section modulus about the X axis for the extreme fiber
- S_{xe} - Effective section modulus about the X axis for the extreme fiber
- S_{y(l)} - Section modulus about the Y axis for the extreme left fiber
- S_{y(r)} - Section modulus about the Y axis for the extreme right fiber
- X_o - Horizontal coordinate of the shear center relative to the centroid