



STRUCTURAL FRAMING PRODUCTS



1325 NW 78th Ave
Doral, FL 33126
305.477.3032
www.clarcompany.com



2018

**STEEL FRAMING INDUSTRY ASSOCIATION
CODE COMPLIANCE CERTIFICATION PROGRAM**

NOTICE OF COMPLIANCE CERTIFICATION

**Structural and Nonstructural
Cold-Formed Framing Products**

ISSUED TO: Clar Company
MANUFACTURING LOCATION: 1325 NW 78th Avenue, Suite 101
Doral, Florida 33126

This facility is hereby authorized to certify structural and nonstructural cold-formed steel framing produced at the above listed location in accordance with the SFIA Code Compliance Certification Program. Application of certification labels may begin immediately. Application of labels shall be permitted as long as the manufacturing location listed above satisfies the certification program requirements and retains its compliance certification.

DATE OF ISSUANCE: January 1, 2018

AUTHORIZED BY:

A handwritten signature in black ink that reads "Holly Mellinger". Below the signature, in very small print, it says "Digitally Signed by: Holly Mellinger".

Holly Mellinger
Program Manager
Intertek

Current certification may be verified by visiting the web listing of certified facilities at
<http://www.intertek.com/building/sfia>



Warranty & limitations

All products presented herein are warranted to the buyer to be free from defects in material and workmanship. The foregoing warranty is non-assignable and in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. All details and specifications presented herein are intended as a general guide for the use of Clar Company products. These products should not be used without evaluation by a qualified engineer or architect to determine their suitability for a specific use.

Clar Company assumes no responsibility for failure resulting from use of its details or specifications, or for failure resulting from improper application or installation of these products.

GENERAL PRODUCT INFORMATION

STIFFENING LIP LENGTH

Section	Flange Width	Design Stiffening Lip Length (in)
S162	1 5/8"	0.500
S200	2"	0.625
S250	2 1/2"	0.625

STEEL THICKNESS TABLE

Designation Thickness (Mils)	Minimum Thickness ¹ (in)	Design Thickness (in)	Design Inside Corner Radii ² (in)	Reference Gauge No.	Minimum Coating
33	0.0329	0.0346	0.0765	20-Structural	G60
43	0.0428	0.0451	0.0712	18	G60
54	0.0538	0.0566	0.0849	16	G60

¹ Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on section A2.4 of the AISI S100-12.

² The tables in this catalog are calculated based on inside corner radii listed in this table.

Definitions of Structural Property Symbols

Gross Properties

I_x: Moment of inertia of gross section about the X-X axis (strong axis).
 S_x: Section modulus about the X-X axis (strong axis).
 R_x: Radius of gyration of the gross section about the X-X axis.
 I_y: Moment of inertia of gross section about the Y-Y axis (weak axis).
 R_y: Radius of gyration of the gross section about the Y-Y axis.

Effective Properties

I_{xe}: Effective moment of inertia about the X-axis.
 S_{xe}: Effective section modulus about the X-X axis (strong axis) stress = F_y.
 M_a: Allowable Bending Moment - Based on the effective section modulus and the allowable stress including the strength increase from the cold-work of forming (Section A7.2) where applicable.
 M_{ad}: Allowable Bending Moment - Based on Distortional Buckling Strength calculated per AISI section C3.1.4
 V_{ag}: Allowable strong axis shear away from punchout, calculated in accordance with AISI Section C3.2.1.
 V_{anet}: Allowable strong axis shear at punchout, calculated in accordance with AISI Section C3.2.2.

Torsional and Other Properties

J: St. Venant Torsional Constant.
 C_w: Torsional warping constant.
 m: Distance from shear center to mid-plane of web.
 X_o: Distance from the shear center to the centroid along the principal X-axis. R_o: Polar radius of gyration about the centroidal principal axis.
 b: $1 - (X_o/R_o)^2$
 L_u: The longest weak axis (L_y) and torsional (L_t) unbraced length at which lateral torsional buckling is restrained in accordance with AISI C3.1.2.1.

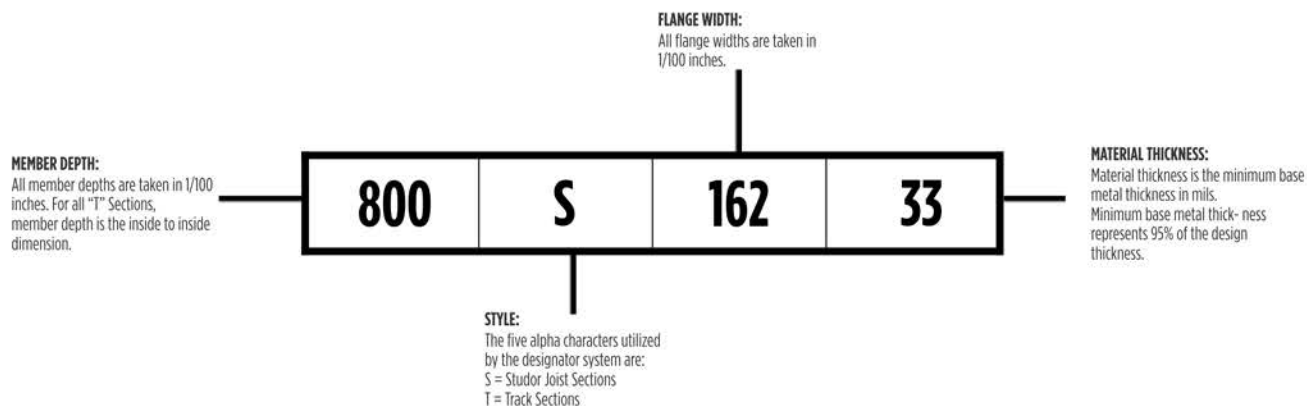
General Notes for all Tables

1. Where AISI S100-12 is referenced, it is the "North American Specification for the Design of Cold-Formed Steel Structural Members", 2012 Edition, with US provisions.
2. The strength increase from cold work of forming has been incorporated for flexural strength per Section A7.2 of AISI S100-12.
3. The effective moment of inertia for deflection is calculated at a stress which results in a section modulus such that the stress times the section modulus at that stress is equal to the allowable moment. AISI S100-12 Specification Procedure 1 for serviceability determination has been used. Increases in the effective moment of Inertia (I_{xe}) may be possible at lower stress levels. Any modified values would be required to be calculated by a qualified engineer.
4. Various sections may be manufactured with yield points of 33 or 50 ksi. The yield point used for calculations are listed in the tables.
5. For sections available in both 33 and 50 ksi, the specifier must clearly indicate which yield point is required. For example: 362S162-68 (50ksi).
6. When provided, factory punchouts will be located along the centerline of the webs of the members and will have a minimum center-to-center spacing of 24 inches. Punchouts for members greater than 2.5 inches deep are a maximum of 1.5 inches wide x 4 inches long. Members with depths 2.5 inches and smaller are maximum of 3/4 inches wide x 4 inches long.

Section Properties Table Notes

1. Calculated properties are based on AISI S100-12, "North American Specification for the Design of Cold-Formed Steel Structural Members."
2. The centerline bend radius is based upon inside corner radii shown in the general notes for all tables.
3. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
4. Tabulated gross properties, including torsional properties, are based upon full-unreduced cross section of the studs, away from punchouts.
5. For deflection calculations, use the effective moment of inertia.
6. Allowable moment includes cold-work of forming.
7. For the steels that have both 33 and 50 ksi listing, if the design is based upon 50 ksi, the 50 ksi steel needs to be specified. (Example: 362S137 16-50 (50 ksi)).
8. Web depth for track sections is equal to the nominal stud width plus 2 times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.

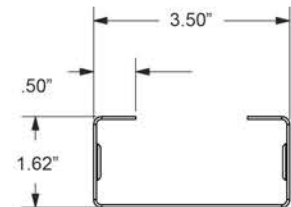
Nomenclature



NOTE: For Structural members 54 mil (16 gauge) and thicker, that have both 33 and 50 ksi yield strength options shown, the designer shall identify which yield strength he has specified and the manufacturer shall label the product with the yield strength.

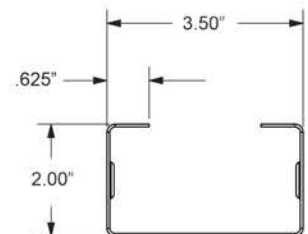
STRUCTURAL STUDS

3.5" DEPTH - FLANGE 162



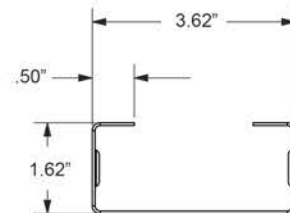
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							L _u (in)
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _{a0} (lb)	V _a net (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	
350S162-33	0.0346	33	0.258	0.88	0.508	0.291	1.404	0.098	0.617	0.508	0.257	5.09	5.22	1024	487	0.103	0.277	-1.324	0.796	2.026	0.573	42.7
350S162-43	0.0451	33	0.334	1.14	0.655	0.374	1.400	0.125	0.612	0.654	0.357	7.05	7.31	1739	631	0.227	0.350	-1.312	0.789	2.014	0.575	42.6
350S162-54	0.0566	33	0.415	1.41	0.805	0.460	1.393	0.152	0.606	0.804	0.447	8.83	9.08	2253	633	0.443	0.426	-1.298	0.782	1.998	0.578	42.7
350S162-54	0.0566	50	0.415	1.41	0.805	0.460	1.393	0.152	0.606	0.804	0.426	12.74	13.05	3372	947	0.443	0.426	-1.298	0.782	1.998	0.578	34.5

3.5" DEPTH - FLANGE 200



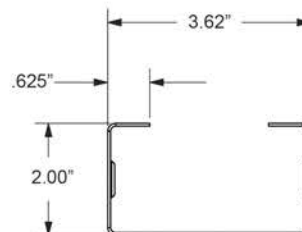
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							L _t (in)
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M ₀ (in-k)	M _{ed} (in-k)	V _{a2} (lb)	V _{aet} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	
350S200-43	0.0451	33	0.379	1.29	0.771	0.441	1.426	0.224	0.768	0.771	0.410	8.09	8.36	1739	631	0.257	0.687	-1.248	1.032	2.383	0.462	53.7
350S200-54	0.0566	33	0.471	1.60	0.950	0.543	1.420	0.274	0.762	0.950	0.530	10.48	10.73	2253	633	0.503	0.838	-1.733	1.024	2.367	0.464	53.8
350S200-54	0.0566	50	0.471	1.60	0.950	0.543	1.420	0.274	0.762	0.950	0.470	14.07	14.87	3372	947	0.503	0.838	-1.733	1.024	2.367	0.464	43.5

3-5/8" DEPTH - FLANGE 162



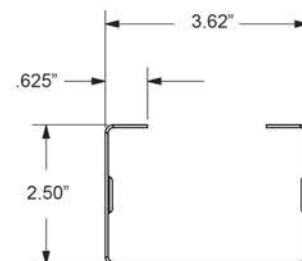
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _a (lb)	V _{ed} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
362S162-33	0.0346	33	0.262	0.89	0.551	0.304	1.450	0.099	0.616	0.551	0.268	5.29	5.43	1024	521	0.105	0.297	-1.308	0.789	2.048	0.592	42.6
362S162-43	0.0451	33	0.340	1.16	0.710	0.392	1.445	0.127	0.611	0.710	0.372	7.34	7.62	1739	676	0.230	0.376	-1.297	0.782	2.036	0.594	42.5
362S162-54	0.0566	33	0.422	1.44	0.873	0.482	1.438	0.154	0.605	0.873	0.467	9.22	9.52	2341	705	0.451	0.457	-1.283	0.774	2.020	0.597	42.5
362S162-54	0.0566	50	0.422	1.44	0.873	0.482	1.438	0.154	0.605	0.873	0.444	13.28	13.60	3372	1016	0.451	0.457	-1.283	0.774	2.020	0.597	34.4

3-5/8" DEPTH - FLANGE 200



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _a (lb)	V _{ed} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
362S200-33	0.0346	33	0.297	1.01	0.648	0.358	1.478	0.177	0.772	0.642	0.294	5.81	6.19	1024	521	0.118	0.577	-1.741	1.030	2.411	0.478	53.6
362S200-43	0.0451	33	0.385	1.31	0.836	0.461	1.474	0.227	0.767	0.836	0.427	8.43	8.70	1739	676	0.261	0.734	-1.729	1.024	2.398	0.480	53.5
362S200-54	0.0566	33	0.479	1.63	1.030	0.568	1.467	0.277	0.761	1.030	0.553	10.93	11.23	2341	705	0.511	0.896	-1.715	1.016	2.382	0.482	53.6
362S200-54	0.0566	50	0.479	1.63	1.030	0.568	1.467	0.277	0.761	1.030	0.490	14.66	15.48	3372	1016	0.511	0.896	-1.715	1.016	2.382	0.482	43.3

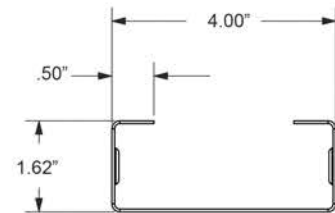
3-5/8" DEPTH - FLANGE 250



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _a (lb)	V _{ed} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
362S250-332	0.0346	33	0.331	1.13	0.760	0.419	1.514	0.299	0.951				6.59	1024	521	0.132	0.965	-2.211	1.284	2.844	0.395	64.2
362S250-43	0.0451	33	0.430	1.46	0.980	0.541	1.510	0.385	0.946	0.980	0.449	8.88	9.36	1739	676	0.292	1.230	-2.199	1.277	2.830	0.396	64.1
362S250-54	0.0566	33	0.535	1.82	1.210	0.668	1.504	0.473	0.940	1.210	0.582	11.51	12.46	2341	705	0.571	1.506	-2.184	1.269	2.813	0.397	64.3
362S250-54	0.0566	50	0.535	1.82	1.210	0.668	1.504	0.473	0.940	1.198	0.514	15.40	16.55	3372	1016	0.571	1.506	-2.184	1.269	2.813	0.397	52.0

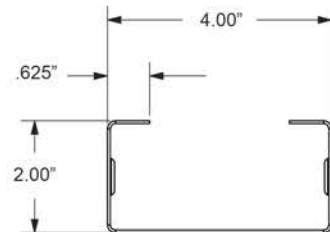
† When web height-to-thickness ratio exceeds 260, or flange width-to-thickness ratio exceeds 60, effective properties are not calculated (limitations in AISI Section B1).

4" DEPTH - FLANGE 162



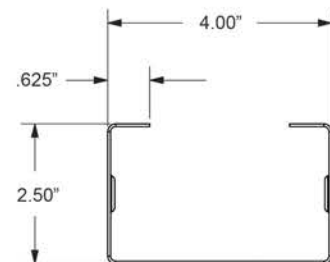
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _a (lb)	V _{ad} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β	L ₀ (in)
400S162-33	0.0346	33	0.275	0.94	0.692	0.346	1.586	0.103	0.611	0.692	0.299	5.91	6.07		595	0.110	0.363	-1.263	0.768	2.118	0.644	42.3
400S162-43	0.0451	33	0.357	1.21	0.892	0.446	1.581	0.131	0.606	0.892	0.417	8.23	8.55		810	0.242	0.460	-1.252	0.761	2.106	0.647	42.2
400S162-54	0.0566	33	0.443	1.51	1.098	0.549	1.574	0.159	0.600	1.098	0.526	10.39	10.85		944	0.473	0.560	-1.238	0.754	2.090	0.649	42.2
400S162-54	0.0566	50	0.443	1.51	1.098	0.549	1.574	0.159	0.600	1.098	0.498	14.90	15.25		1223	0.473	0.560	-1.238	0.754	2.090	0.649	34.1

4" DEPTH - FLANGE 200



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _a (lb)	V _{ad} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β	L ₀ (in)
400S200-33	0.0346	33	0.310	1.05	0.812	0.406	1.619	0.183	0.769	0.804	0.329	6.49	6.90		595	0.124	0.697	-1.688	1.007	2.462	0.530	53.1
400S200-43	0.0451	33	0.402	1.37	1.048	0.524	1.615	0.235	0.764	1.048	0.478	9.45	9.74		810	0.272	0.886	-1.676	1.000	2.450	0.532	53.0
400S200-54	0.0566	33	0.500	1.70	1.292	0.646	1.608	0.287	0.758	1.292	0.623	12.30	12.77		944	0.534	1.083	-1.662	0.993	2.433	0.534	53.0
400S200-54	0.0566	50	0.500	1.70	1.292	0.646	1.608	0.287	0.758	1.292	0.549	16.43	17.32		1223	0.534	1.083	-1.662	0.993	2.433	0.534	42.9

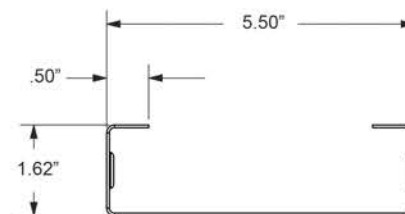
4" DEPTH - FLANGE 250



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _a (lb)	V _{ad} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β	L ₀ (in)
400S250-332	0.0346	33	0.344	1.17	0.948	0.474	1.660	0.310	0.949							0.137	1.165	-2.151	1.259	2.878	0.441	63.7
400S250-43	0.0451	33	0.447	1.52	1.224	0.612	1.655	0.399	0.945							0.303	1.486	-2.139	1.252	2.865	0.443	63.7
400S250-54	0.0566	33	0.556	1.89	1.512	0.756	1.649	0.490	0.938	1.512	0.653	12.91	13.92		944	0.594	1.821	-2.124	1.244	2.848	0.444	63.8
400S250-54	0.0566	50	0.556	1.89	1.512	0.756	1.649	0.490	0.938	1.496	0.576	17.24	18.43		1223	0.594	1.821	-2.124	1.244	2.848	0.444	51.6

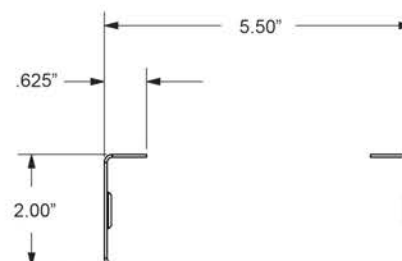


5.50" DEPTH - FLANGE 162



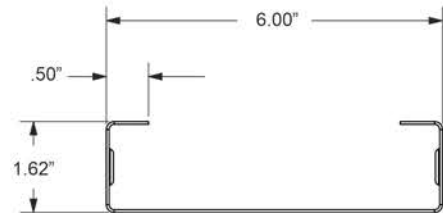
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _{a0} (lb)	V _{a0} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β	L _U (in)
550S162-33	0.0346	33	0.327	1.11	1.459	0.530	2.112	0.113	0.589	1.459	0.512	10.11	8.63		699	0.130	0.713	-1.114	0.697	2.459	0.795	41.4
550S162-43	0.0451	33	0.424	1.44	1.884	0.685	2.107	0.145	0.584	1.883	0.681	14.80	13.14		1199	0.288	0.905	-1.103	0.691	2.449	0.797	41.2
550S162-54	0.0566	33	0.528	1.80	2.325	0.845	2.098	0.176	0.577	2.324	0.845	18.76	17.88		1666	0.564	1.105	-1.090	0.684	2.434	0.800	41.0
550S162-54	0.0566	50	0.528	1.80	2.325	0.845	2.098	0.176	0.577	2.324	0.811	26.86	25.53		1881	0.564	1.105	-1.090	0.684	2.434	0.800	33.2

5.50" DEPTH - FLANGE 200



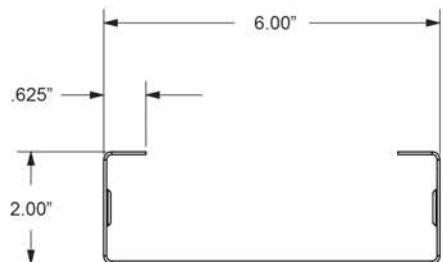
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _{a0} (lb)	V _{a0} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β	L _U (in)
550S200-33	0.0346	33	0.352	1.23	1.694	0.616	2.164	0.204	0.751	1.678	0.559	11.05	9.80		699	0.144	1.326	-1.508	0.925	2.743	0.698	51.9
550S200-43	0.0451	33	0.469	1.60	2.189	0.796	2.159	0.261	0.746	2.189	0.776	15.34	13.97		1199	0.318	1.691	-1.496	0.918	2.731	0.700	51.7
550S200-54	0.0566	33	0.585	1.99	2.707	0.984	2.152	0.320	0.739	2.707	0.984	21.41	18.67		1666	0.624	2.072	-1.483	0.911	2.716	0.702	51.6
550S200-54	0.0566	50	0.585	1.99	2.707	0.984	2.152	0.320	0.739	2.707	0.901	26.99	24.85		1881	0.624	2.072	-1.483	0.911	2.716	0.702	41.8

6" DEPTH - FLANGE 162



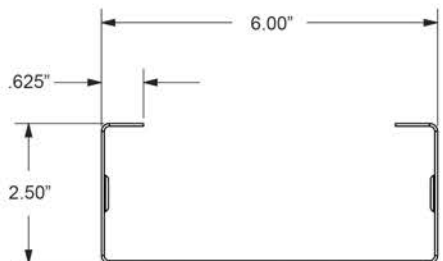
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _{ag} (lb)	V _{net} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
600S162-33	0.0346	33	0.344	1.17	1.793	0.598	2.282	0.116	0.581	1.793	0.577	11.41	9.47	638	638	0.137		-1.072	0.677	2.588	0.828	41.1
600S162-43	0.0451	33	0.447	1.52	2.316	0.772	2.277	0.148	0.576	2.316	0.767	16.68	14.47	1416	1240	0.303		-1.062	0.670	2.577	0.830	40.9
600S162-54	0.0566	33	0.556	1.89	2.861	0.954	2.268	0.180	0.570	2.860	0.953	21.17	19.76	2739	1890	0.594		-1.049	0.663	2.563	0.833	40.7
600S162-54	0.0566	50	0.556	1.89	2.861	0.954	2.268	0.180	0.570	2.860	0.916	30.33	25.91	2823	1947	0.594		-1.049	0.663	2.563	0.833	33.0

6" DEPTH - FLANGE 200



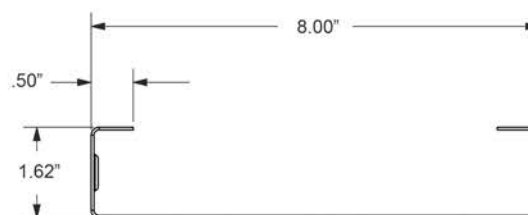
Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _{ag} (lb)	V _{net} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
600S200-33	0.0346	33	0.379	1.29	2.076	0.692	2.340	0.209	0.743	2.058	0.621	12.28	10.77	638	638	0.151		-1.457	0.901	2.855	0.740	51.6
600S200-43	0.0451	33	0.492	1.67	2.683	0.894	2.335	0.268	0.739	2.683	0.873	17.24	15.39	1416	1240	0.334		-1.446	0.894	2.844	0.742	51.4
600S200-54	0.0566	33	0.613	2.09	3.320	1.107	2.327	0.329	0.732	3.319	1.106	24.07	22.08	2739	1890	0.655		-1.432	0.887	2.829	0.744	51.3
600S200-54	0.0566	50	0.613	2.09	3.320	1.107	2.327	0.329	0.732	3.319	1.015	30.40	27.39	2823	1947	0.655		-1.432	0.887	2.829	0.744	41.6

6" DEPTH - FLANGE 250



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ed} (in-k)	V _{ag} (lb)	V _{net} (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
600S250-43	0.0451	33	0.537	1.83	3.083	1.028	2.396	0.458	0.923	3.083	0.918	18.14	16.21	1416	1240	0.364		-1.874	1.136	3.179	0.652	62.4
600S250-54	0.0566	33	0.670	2.28	3.820	1.273	2.389	0.562	0.917	3.819	1.159	22.90	21.90	2739	1890	0.715		-1.860	1.129	3.163	0.654	62.3
600S250-54	0.0566	50	0.670	2.28	3.820	1.273	2.389	0.562	0.917	3.766	1.069	32.00	28.72	2823	1947	0.715		-1.860	1.129	3.163	0.654	50.5

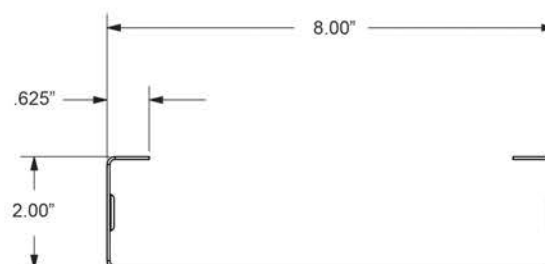
8" DEPTH - FLANGE 162



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _a (lb)	V _a (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
800S162-33	0.0346	33	0.413	1.41	3.583	0.896	2.944	0.125	0.550	3.385	0.710	14.03	12.61	474	474	0.165		-0.936	0.607	3.138	0.911	40.1
800S162-43	0.0451	33	0.537	1.83	4.635	1.159	2.938	0.160	0.546	4.500	1.019	20.14	18.34	1051	1051	0.364		-0.926	0.601	3.128	0.912	39.8
800S162-54	0.0566	33	0.670	2.28	5.737	1.434	2.927	0.194	0.539	5.702	1.334	26.36	24.99	2091	2091	0.715		-0.914	0.594	3.114	0.914	39.6
800S162-54	0.0566	50	0.670	2.28	5.737	1.434	2.927	0.194	0.539	5.600	1.229	36.79	32.83	2091	2091	0.715		-0.914	0.594	3.114	0.914	32.1

Web height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

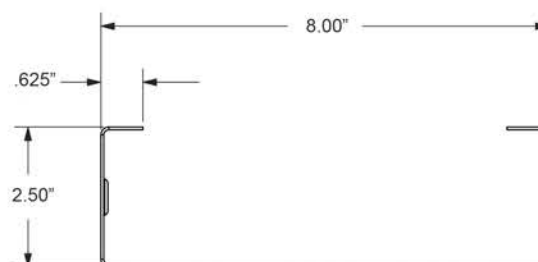
8" DEPTH - FLANGE 200



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _a (lb)	V _a (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
800S200-33	0.0346	33	0.448	1.52	4.097	1.024	3.024	0.227	0.712	4.096	0.816	16.12	14.53	474	474	0.179		-1.288	0.817	3.363	0.853	50.6
800S200-43	0.0451	33	0.582	1.98	5.305	1.326	3.018	0.292	0.708	5.302	1.293	25.54	20.99	1051	1051	0.395		-1.277	0.811	3.353	0.855	50.3
800S200-54	0.0566	33	0.726	2.47	6.514	1.644	3.009	0.357	0.701	6.513	1.643	35.75	30.39	2091	2091	0.775		-1.265	0.804	3.338	0.856	47.8
800S200-54	0.0566	50	0.726	2.47	6.514	1.644	3.009	0.357	0.701	6.513	1.499	44.87	37.39	2091	2091	0.775		-1.265	0.804	3.338	0.856	40.7

Web height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

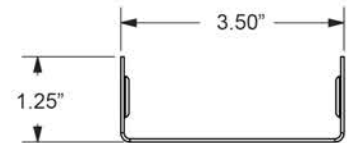
8" DEPTH - FLANGE 250



Member	Design Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Gross Properties					Effective Properties					Torsional Properties							
					I (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I (in ⁴)	S (in ³)	M _a (in-k)	M _{ad} (in-k)	V _a (lb)	V _a (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β	L _u (in)
800S250-43	0.0451	33	0.627	2.13	6.017	1.504	3.097	0.500	0.893	6.015	1.314	25.96	22.07	1051	1051	0.425		-1.675	1.043	3.632	0.787	61.5
800S250-54	0.0566	33	0.783	2.66	7.467	1.867	3.089	0.614	0.886	7.466	1.712	33.82	30.08	2091	2091	0.836		-1.661	1.036	3.617	0.789	61.4
800S250-54	0.0566	50	0.783	2.66	7.467	1.867	3.089	0.614	0.886	7.378	1.525	45.66	39.14	2091	2091	0.836		-1.661	1.036	3.617	0.789	49.8

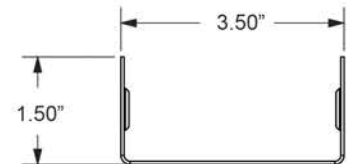
STRUCTURAL TRACKS

3.5" DEPTH - FLANGE 125



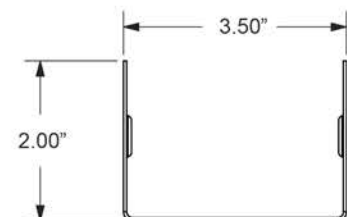
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in)	R _y (in)	I _x (in4)	S _X (in3)	M ₃ (in-k)	V _a (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
350T125-33	0.0346	33	0.207	0.71	0.405	0.222	1.397	0.030	0.379	0.355	0.165	3.27	1024	0.0828	0.070	-0.668	0.414	1.594	0.824
350T125-43	0.0451	33	0.270	0.92	0.528	0.288	1.398	0.038	0.377	0.490	0.233	4.61	1739	0.1832	0.090	-0.663	0.412	1.592	0.826
350T125-54	0.0566	33	0.339	1.15	0.668	0.361	1.404	0.048	0.375	0.651	0.317	6.26	2392	0.3619	0.114	-0.658	0.408	1.595	0.830
350T125-54	0.0566	50	0.339	1.15	0.668	0.361	1.404	0.048	0.375	0.626	0.297	8.90	3372	0.3619	0.114	-0.658	0.408	1.595	0.830

3.5" DEPTH - FLANGE 150



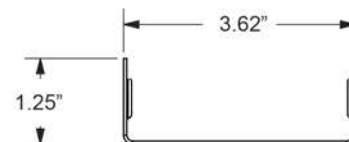
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _a (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
350T150-33	0.0346	33	0.225	0.76	0.461	0.253	1.432	0.049	0.469	0.382	0.171	3.39	1024	0.0897	0.114	-0.866	0.527	1.738	0.752
350T150-43	0.0451	33	0.293	1.00	0.601	0.329	1.433	0.064	0.467	0.531	0.243	4.80	1739	0.1985	0.148	-0.861	0.525	1.736	0.754
350T150-54	0.0566	33	0.367	1.25	0.762	0.412	1.440	0.079	0.465	0.712	0.332	6.57	2392	0.3921	0.187	-0.855	0.521	1.738	0.758
350T150-54	0.0566	50	0.367	1.25	0.762	0.412	1.440	0.079	0.465	0.679	0.310	9.28	3372	0.3921	0.187	-0.855	0.521	1.738	0.758

3.5" DEPTH - FLANGE 200



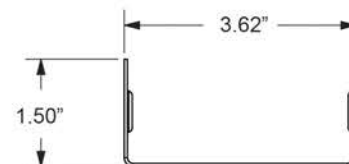
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _a (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
350T200-33	0.0346	33	0.259	0.88	0.574	0.315	1.488	0.108	0.646	0.428	0.181	3.57	1024	0.1035	0.249	-1.285	0.761	2.069	0.614
350T200-43	0.0451	33	0.338	1.15	0.749	0.409	1.489	0.140	0.645	0.601	0.257	5.09	1739	0.2291	0.323	-1.280	0.758	2.067	0.616
350T200-54	0.0566	33	0.424	1.44	0.949	0.513	1.497	0.175	0.642	0.814	0.355	7.01	2392	0.4526	0.409	-1.273	0.754	2.067	0.621
350T200-54	0.0566	50	0.424	1.44	0.949	0.513	1.497	0.175	0.642	0.770	0.329	9.85	3372	0.4526	0.409	-1.273	0.754	2.067	0.621

3-5/8" DEPTH - FLANGE 125



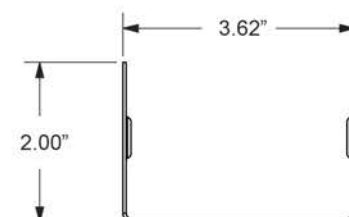
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _a g (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
362T125-33	0.0346	33	0.212	0.72	0.438	0.232	1.439	0.030	0.377	0.385	0.174	3.44	1024	0.0845	0.076	-0.658	0.410	1.626	0.836
362T125-43	0.0451	33	0.276	0.94	0.571	0.302	1.439	0.039	0.375	0.531	0.245	4.84	1739	0.1870	0.098	-0.654	0.407	1.625	0.838
362T125-54	0.0566	33	0.346	1.18	0.723	0.378	1.445	0.048	0.373	0.705	0.332	6.57	2480	0.3695	0.123	-0.648	0.404	1.627	0.841
362T125-54	0.0566	50	0.346	1.18	0.723	0.378	1.445	0.048	0.373	0.678	0.312	9.34	3372	0.3695	0.123	-0.648	0.404	1.627	0.841

3-5/8" DEPTH - FLANGE 150



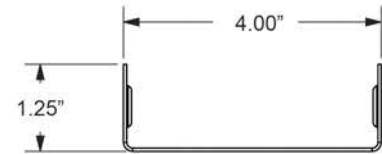
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	V _a (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
362T150-33	0.0346	33	0.229	0.78	0.499	0.264	1.475	0.050	0.467	0.414	0.180	3.56	1024	0.0914	0.124	-0.854	0.522	1.768	0.766
362T150-43	0.0451	33	0.298	1.02	0.650	0.344	1.476	0.064	0.465	0.575	0.255	5.04	1739	0.2023	0.160	-0.850	0.519	1.766	0.768
362T150-54	0.0566	33	0.374	1.27	0.823	0.431	1.483	0.080	0.462	0.770	0.349	6.89	2480	0.3997	0.202	-0.844	0.516	1.768	0.772
362T150-54	0.0566	50	0.374	1.27	0.823	0.431	1.483	0.080	0.462	0.735	0.325	9.74	3372	0.3997	0.202	-0.844	0.516	1.768	0.772

3-5/8" DEPTH - FLANGE 200



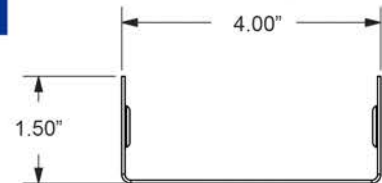
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _a g (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
362T200-33	0.0346	33	0.264	0.90	0.619	0.329	1.533	0.110	0.645	0.464	0.190	3.76	1024	0.1052	0.269	-1.270	0.754	2.092	0.631
362T200-43	0.0451	33	0.343	1.17	0.808	0.427	1.534	0.142	0.643	0.650	0.270	5.34	1739	0.2329	0.350	-1.265	0.752	2.090	0.633
362T200-54	0.0566	33	0.431	1.47	1.024	0.536	1.542	0.177	0.640	0.879	0.372	7.36	2480	0.4601	0.442	-1.259	0.748	2.091	0.638
362T200-54	0.0566	50	0.431	1.47	1.024	0.536	1.542	0.177	0.640	0.832	0.345	10.34	3372	0.4601	0.442	-1.259	0.748	2.091	0.638

4" DEPTH - FLANGE 125



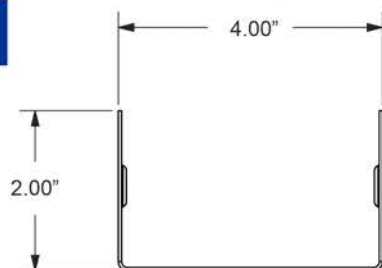
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	V _a (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
400T125-33	0.0346	33	0.225	0.76	0.549	0.265	1.563	0.031	0.371	0.484	0.201	3.97	940	0.0897	0.095	-0.630	0.396	1.725	0.867
400T125-43	0.0451	33	0.293	1.00	0.716	0.344	1.564	0.040	0.369	0.666	0.282	5.57	1739	0.1985	0.122	-0.626	0.394	1.724	0.868
400T125-54	0.0566	33	0.367	1.25	0.904	0.431	1.569	0.049	0.366	0.883	0.381	7.53	2739	0.3921	0.154	-0.621	0.390	1.727	0.871
400T125-54	0.0566	50	0.367	1.25	0.904	0.431	1.569	0.049	0.366	0.850	0.359	10.74	3372	0.3921	0.154	-0.621	0.390	1.727	0.871

4" DEPTH - FLANGE 150



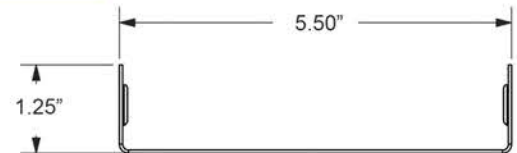
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _a g (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
400T150-33	0.0346	33	0.242	0.82	0.622	0.300	1.603	0.051	0.460	0.519	0.208	4.12	940	0.0966	0.155	-0.821	0.507	1.859	0.805
400T150-43	0.0451	33	0.315	1.07	0.811	0.390	1.604	0.066	0.458	0.719	0.293	5.80	1739	0.2138	0.200	-0.817	0.504	1.857	0.807
400T150-54	0.0566	33	0.396	1.35	1.026	0.489	1.610	0.082	0.456	0.960	0.399	7.89	2739	0.4223	0.252	-0.811	0.501	1.860	0.810
400T150-54	0.0566	50	0.396	1.35	1.026	0.489	1.610	0.082	0.456	0.918	0.374	11.19	3372	0.4223	0.252	-0.811	0.501	1.860	0.810

4" DEPTH - FLANGE 200



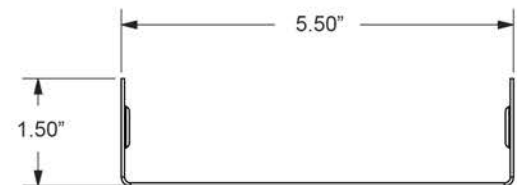
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _a g (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
400T200-33	0.0346	33	0.277	0.94	0.768	0.371	1.666	0.113	0.639	0.581	0.220	4.34	940	0.1104	0.336	-1.229	0.737	2.167	0.678
400T200-43	0.0451	33	0.360	1.23	1.002	0.482	1.668	0.146	0.637	0.811	0.311	6.14	1739	0.2443	0.436	-1.224	0.734	2.164	0.680
400T200-54	0.0566	33	0.452	1.54	1.268	0.604	1.675	0.182	0.635	1.093	0.426	8.42	2739	0.4828	0.551	-1.217	0.730	2.166	0.684
400T200-54	0.0566	50	0.452	1.54	1.268	0.604	1.675	0.182	0.635	1.037	0.397	11.88	3372	0.4828	0.551	-1.217	0.730	2.166	0.684

5.5" DEPTH - FLANGE 125



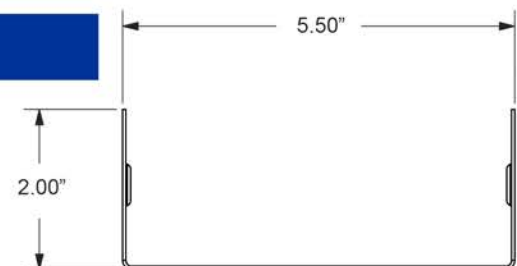
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	V _a (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
550T125-43	0.0451	33	0.360	1.23	1.510	0.534	2.047	0.043	0.344	1.428	0.417	8.23	1504	0.2443	0.252	-0.537	0.348	2.144	0.937
550T125-54	0.0566	33	0.452	1.54	1.904	0.668	2.052	0.053	0.342	1.862	0.597	11.80	2739	0.4828	0.315	-0.532	0.345	2.147	0.939
550T125-54	0.0566	50	0.452	1.54	1.904	0.668	2.052	0.053	0.342	1.811	0.535	16.01	2980	0.4828	0.315	-0.532	0.345	2.147	0.939

5.5" DEPTH - FLANGE 150



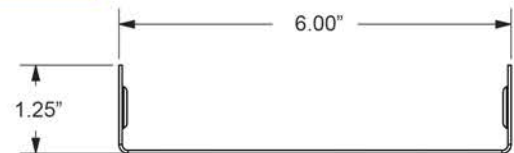
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	V _a (in)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
550T150-43	0.0451	33	0.383	1.30	1.688	0.596	2.100	0.072	0.432	1.516	0.468	9.25	1504	0.2596	0.414	-0.709	0.452	2.258	0.901
550T150-54	0.0566	33	0.480	1.63	2.129	0.747	2.105	0.089	0.430	2.005	0.628	12.41	2739	0.5130	0.519	-0.704	0.449	2.261	0.903
550T150-54	0.0566	50	0.480	1.63	2.129	0.747	2.105	0.089	0.430	1.928	0.595	17.81	2980	0.5130	0.519	-0.704	0.449	2.261	0.903

5.5" DEPTH - FLANGE 200



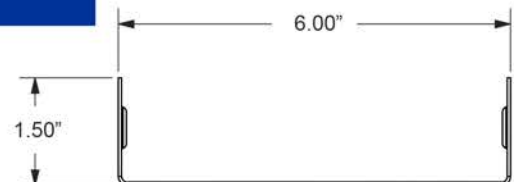
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	V _a (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β
550T200-43	0.0451	33	0.428	1.46	2.044	0.722	2.185	0.160	0.611	1.690	0.495	9.79	1504	0.2902	0.900	-1.083	0.671	2.514	0.814
550T200-54	0.0566	33	0.537	1.83	2.579	0.905	2.191	0.199	0.609	2.254	0.669	13.21	2739	0.5734	1.133	-1.077	0.668	2.517	0.817
550T200-54	0.0566	50	0.537	1.83	2.579	0.905	2.191	0.199	0.609	2.153	0.630	18.86	2980	0.5734	1.133	-1.077	0.668	2.517	0.817

6" DEPTH - FLANGE 125



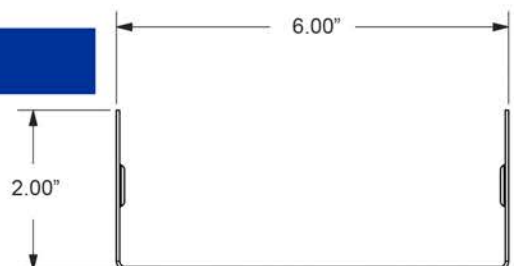
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	Va _g (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
600T125-33	0.0346	33	0.294	1.00	1.429	0.465	2.205	0.034	0.339	1.258	0.297	5.87	622	0.1173	0.238	-0.516	0.337	2.289	0.949
600T125-43	0.0451	33	0.383	1.30	1.862	0.604	2.205	0.044	0.337	1.768	0.461	9.11	1377	0.2596	0.307	-0.513	0.335	2.289	0.950
600T125-54	0.0566	33	0.480	1.63	2.345	0.757	2.209	0.054	0.335	2.299	0.666	13.15	2728	0.5130	0.384	-0.508	0.332	2.292	0.951
600T125-54	0.0566	50	0.480	1.63	2.345	0.757	2.209	0.054	0.335	2.241	0.592	17.74	2728	0.5130	0.384	-0.508	0.332	2.292	0.951

6" DEPTH - FLANGE 150



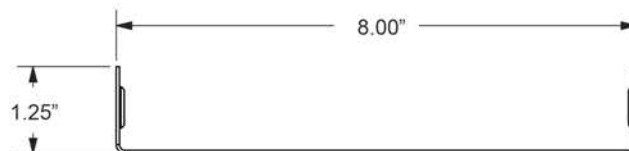
Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	Va _g (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
600T150-33	0.0346	33	0.311	1.06	1.590	0.517	2.260	0.057	0.426	1.335	0.303	5.99	622	0.1242	0.390	-0.684	0.439	2.400	0.919
600T150-43	0.0451	33	0.405	1.38	2.073	0.673	2.261	0.073	0.424	1.890	0.474	9.36	1377	0.2749	0.504	-0.680	0.437	2.399	0.920
600T150-54	0.0566	33	0.509	1.73	2.612	0.843	2.266	0.091	0.422	2.473	0.689	13.62	2728	0.5432	0.632	-0.675	0.434	2.402	0.921
600T150-54	0.0566	50	0.509	1.73	2.612	0.843	2.266	0.091	0.422	2.400	0.609	18.24	2728	0.5432	0.632	-0.675	0.434	2.402	0.921

6" DEPTH - FLANGE 200



Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	S _x (in ³)	M _a (in-k)	Va _g (lb)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
600T200-33	0.0346	33	0.346	1.18	1.913	0.623	2.352	0.126	0.604	1.542	0.333	6.59	622	0.1380	0.847	-1.048	0.655	2.645	0.843
600T200-43	0.0451	33	0.451	1.53	2.494	0.810	2.353	0.163	0.602	2.076	0.565	11.16	1377	0.3055	1.098	-1.044	0.652	2.644	0.844
600T200-54	0.0566	33	0.565	1.92	3.146	1.015	2.359	0.203	0.600	2.760	0.759	15.00	2728	0.6037	1.381	-1.038	0.649	2.646	0.846
600T200-54	0.0566	50	0.565	1.92	3.146	1.015	2.359	0.203	0.600	2.641	0.717	21.48	2728	0.6037	1.381	-1.038	0.649	2.646	0.846

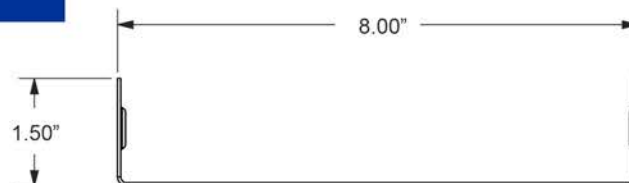
8" DEPTH - FLANGE 125



Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _{a9} (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
800T125-331	0.0346	33	0.363	1.24	2.897	0.711	2.824	0.036	0.313	2.442	0.407	8.03	465	0.1449	0.456	-0.439	0.294	2.875	0.977
800T125-43	0.0451	33	0.473	1.61	3.774	0.925	2.824	0.046	0.311	3.484	0.640	12.65	1030	0.3208	0.589	-0.436	0.292	2.875	0.977
800T125-54	0.0566	33	0.594	2.02	4.747	1.158	2.828	0.057	0.309	4.668	0.940	18.58	2039	0.6339	0.735	-0.432	0.289	2.877	0.977
800T125-54	0.0566	50	0.594	2.02	4.747	1.158	2.828	0.057	0.309	4.427	0.824	24.66	2039	0.6339	0.735	-0.432	0.289	2.877	0.977

† Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

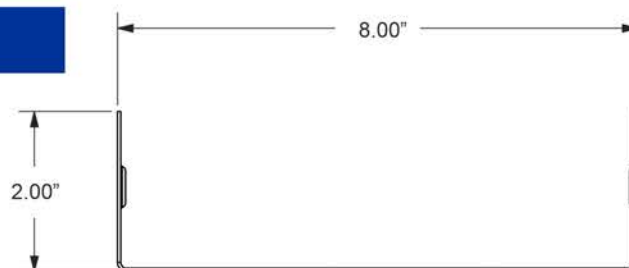
8" DEPTH - FLANGE 150



Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _k (in4)	S _k (in3)	M _a (in-k)	V _{a3} (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
800T150-331	0.0346	33	0.380	1.29	3.181	0.781	2.892	0.060	0.397	2.570	0.414	8.18	465	0.1518	0.751	-0.588	0.388	2.977	0.961
800T150-43	0.0451	33	0.496	1.69	4.145	1.016	2.892	0.077	0.395	3.690	0.655	12.95	1030	0.3361	0.972	-0.584	0.386	2.977	0.961
800T150-54	0.0566	33	0.622	2.12	5.216	1.272	2.896	0.096	0.393	4.977	0.969	19.15	2039	0.6641	1.215	-0.580	0.383	2.980	0.962
800T150-54	0.0566	50	0.622	2.12	5.216	1.272	2.896	0.096	0.393	4.693	0.844	25.27	2039	0.6641	1.215	-0.580	0.383	2.980	0.962

† Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

8" DEPTH - FLANGE 200



Member	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties				Torsional Properties					
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in4)	S _x (in3)	M _a (in-k)	V _{a3} (lib)	J x 1000 (in ⁴)	C _w (in ⁶)	X ₀ (in)	m (in)	R ₀ (in)	β
800T200-331	0.0346	33	0.415	1.41	3.750	0.921	3.006	0.135	0.571	2.789	0.424	8.37	465	0.1656	1.638	-0.917	0.589	3.194	0.918
800T200-43	0.0451	33	0.541	1.84	4.888	1.198	3.006	0.175	0.569	4.044	0.676	13.35	1030	0.3667	2.124	-0.913	0.587	3.193	0.918
800T200-54	0.0566	33	0.679	2.31	6.154	1.501	3.012	0.218	0.567	5.506	1.009	19.93	2039	0.7245	2.664	-0.908	0.584	3.196	0.919
800T200-54	0.0566	50	0.679	2.31	6.154	1.501	3.012	0.218	0.567	5.151	0.872	26.09	2039	0.7245	2.664	-0.908	0.584	3.196	0.919

† Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

**1325 NW 78th Ave
Doral, FL 33126
305.477.3032
www.clarcompany.com**