

# STRUCTURAL PROPERTIES

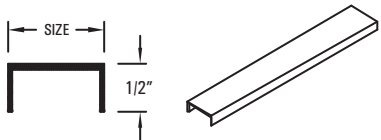
## Physical and Structural Properties

MW Type	Member Physical Properties					Gross Section Properties						Effective Section Properties						Torsional Properties							
	SSMA	Flange/Leg (in.)	Lip (in.)	Design Thickness (in.)	Weight (p/lf.)	Area (in.²)	Ix (in.⁴)	Sx (in.³)	Rx (in.)	Iy (in.⁴)	Ry (in.)	33ksi				50 ksi				J x1000 (in.⁴)	Cw (in.⁶)	Xo (in.)	Ro (in.)	β Beta	
												Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)	Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)						
12" Members																									
12JE14*	1200S250-54	2 1/2"	5/8"	0.0566	3.434	1.009	19.686	3.281	4.417	0.683	0.823	19.680	2.882	53.005	1.377	19.680	2.239	67.024	1.377	1.078	19.354	-1.395	4.7 04	0.912	
12JE14	1200S350-88	2 1/2"	5/8"	0.0713	4.300	1.263	24.490	4.082	4.403	0.836	0.813	24.483	3.963	73.309	2.771	24.483	3.262	97.676	2.771	2.141	23.796	-1.384	4.8 86	0.913	
12JE12	1200S250-97	2 1/2"	5/8"	0.1017	6.055	1.779	34.025	5.871	4.373	1.122	0.784	34.015	5.558	127.807	7.411	34.015	5.445	183.140	7.411	6.134	32.259	-1.361	4.649	0.914	
12JE10	1200S250-118	2 1/2"	5/8"	0.1242	7.479	2.198	41.551	6.925	4.348	1.329	0.778	41.539	6.923	160.949	9.919	41.539	6.776	233.728	11.538	11.816	39.591	-1.3 42	4.617	0.916	
12JX16*	1200S300-54	3"	1"	0.0566	3.771	1.108	22.847	3.808	4.541	1.292	1.080	22.841	3.165	62.532	1.377	22.571	2.680	80.248	1.377	1.183	37.836	-1.986	5.072	0.84 7	
12JX14	1200S300-88	3"	1"	0.0713	4.724	1.388	28.466	4.744	4.528	1.593	1.071	28.459	4.892	92.707	2.771	28.459	4.010	120.054	2.771	2.352	46.706	-1.975	5.055	0.8 47	
12JX12	1200S300-97	3"	1"	0.1017	6.660	1.957	38.678	6.613	4.503	1.553	1.053	38.668	6.811	146.347	7.411	38.668	6.423	212.243	7.411	6.747	63.857	-1.953	5.020	0.849	
12JX10	1200S300-118	3"	1"	0.1242	8.236	2.420	48.591	8.099	4.481	2.608	1.038	48.579	8.097	183.763	9.919	48.579	8.097	273.457	11.538	13.011	76.946	-1.935	4.99 0	0.850	
12JXW16*	1200S350-54	3 1/2"	1"	0.0566	3.964	1.165	24.866	4.144	4.620	1.866	1.266	24.816	3.283	64.881	1.377	24.096	2.776	83.114	1.377	1.244	53.909	-2.386	5.352	0.801	
12JXW14	1200S350-88	3 1/2"	1"	0.0713	4.967	1.480	31.003	5.167	4.609	2.306	1.257	30.995	4.908	96.977	2.771	30.921	4.051	121.294	2.771	2.473	66.669	-2.375	5.33 5	0.802	
12JXW12	1200S350-97	3 1/2"	1"	0.1017	7.006	2.059	43.277	7.213	4.585	3.159	1.239	43.267	7.071	154.210	7.411	43.267	6.590	197.301	7.411	7.098	91.503	-2.352	5.3 00	0.803	
12JXW10	1200S350-118	3 1/2"	1"	0.1242	8.668	2.547	53.067	8.845	4.565	3.811	1.223	53.055	8.842	197.150	9.919	53.055	8.442	280.722	11.538	13.694	110.624	-2.33 4	5.270	0.804	
12T16*	1200T125-54	1 1/4"	none	0.0566	2.791	0.820	13.341	2.187	4.034	0.060	0.271	13.266	1.866	32.914	1.355	13.116	1.364	40.846	1.355	0.876	1.820	-0.337	4.05 7	0.983	
12T14	1200T125-88	1 1/4"	none	0.0713	3.515	1.033	16.833	2.748	4.037	0.074	0.268	16.825	2.862	52.992	2.713	16.799	2.180	65.271	2.713	1.750	2.271	-0.334	4.06 0	0.983	
12T12	1200T125-97	1 1/4"	none	0.1017	5.011	1.472	24.088	3.899	4.045	0.102	0.264	24.077	3.897	88.030	7.902	24.077	3.897	116.885	7.902	5.076	3.173	-0.328	4.0 67	0.984	
12T10	1200T125-118	1 1/4"	none	0.1242	6.255	1.838	30.157	4.847	4.051	0.124	0.260	30.143	4.844	112.623	13.790	30.143	4.844	167.108	15.438	9.881	3.894	-0.32 3	4.072	0.984	

14" Members																									
MW Type	SSMA	Flange/Leg (in.)	Lip (in.)	Design Thickness (in.)	Weight (p/lf.)	Area (in.²)	Ix (in.⁴)	Sx (in.³)	Rx (in.)	Iy (in.⁴)	Ry (in.)	Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)	Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)	J x1000 (in.⁴)	Cw (in.⁶)	Xo (in.)	Ro (in.)	β Beta	
14SW14																									
14SW12																									
14SW10																									
14J14																									
14J12																									
14J10																									
14JE14																									
14JE12																									
14JE10																									
14JX14																									
14JX12																									
14JX10																									
14JXW14																									
14JXW12																									
14JXW10																									
14T14																									
14T12																									
14T10																									

16" Members																									
MW Type	SSMA	Flange/Leg (in.)	Lip (in.)	Design Thickness (in.)	Weight (p/lf.)	Area (in.²)	Ix (in.⁴)	Sx (in.³)	Rx (in.)	Iy (in.⁴)	Ry (in.)	Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)	Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)	J x1000 (in.⁴)	Cw (in.⁶)	Xo (in.)	Ro (in.)	β Beta	
16SW14*																									
16SW12																									
16SW10																									
16J14*																									
16J12																									
16J10																									
16JE14*																									
16JE12																									
16JE10																									
16JX14*																									
16JX12																									
16JX10																									
16JXW14*																									
16JXW12																									
16JXW10																									
16T14*																									
16T12																									
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CR Channel	Member Physical Properties					Gross Section Properties						Effective Section Properties						Torsional Properties			
	MW Type	SSMA	Flange/Leg (in.)	Lip (in.)	Design Thickness (in.)	Area (in.²)	Ix (in.⁴)	Rx (in.)	Iy (in.⁴)	Ry (in.)	33ksi				J				β Beta		
											Ixe (in.⁴)	Sxe (in.³)	Ma (k-in)	Va (k)	x1000 (in.⁴)	Cw (in.⁶)	Xo (in.)	Ro (in.)			
3/4CR16	75U50-54	1/2"	N/A	0.0566	0.087	0.007	0.289	0.002	0.156	0.007	0.019	0.047	0.093	0.000	-0.354	0.483	0.462				
11/2CR16	150U50-54	1/2"	N/A	0.0566	0.130	0.039	0.549	0.003	0.145	0.039	0.052	1.228	0.138	0.001	-0.266	0.627	0.820				
2CR16	200U50-54	1/2"	N/A	0.0566	0.158	0.080	0.710	0.003	0.137	0.080	0.080	1.881	0.169	0.002	-0.230	0.759	0.908				



\* - Exceeds the H/T ratio of 200  
See notes on page 4