

INTERIOR NON-STRUCTURAL SECTION PROPERTIES - STUDS (S)

GROSS PROPERTIES									EFFECTIVE PROPERTIES							TORSIONAL PROPERTIES						
Section	Thickness (in)	Fy (ksi)	Area (in ²)	Weight (lb/ft)	Ixx (in ⁴)	Rx (in)	Iyy (in ⁴)	Ry (in)	Ixx (in ⁴)	Sxx (in ³)	Ma-L (in-k)	Ma-D (in-k)	Kfc (in-lb/in)	Vag (lb)	VaNet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	β	Lu (in)
162S125-18	0.0188	33	0.08	0.27	0.038	0.686	0.016	0.447	0.034	0.031	0.61	0.65	0.0	302	100	0.009	0.009	-1.029	0.594	1.315	0.388	29.0
162S125-27	0.0283	33	0.12	0.41	0.056	0.682	0.023	0.443	0.055	0.053	1.05	1.14	0.0	494	106	0.032	0.013	-1.017	0.587	1.302	0.390	29.1
162S125-30	0.0312	33	0.13	0.45	0.061	0.681	0.026	0.441	0.060	0.060	1.19	1.29	0.0	543	106	0.043	0.014	-1.014	0.585	1.298	0.390	29.2
162S125-33	0.0346	33	0.15	0.49	0.067	0.679	0.028	0.440	0.066	0.069	1.37	1.48	0.0	601	105	0.058	0.016	-1.010	0.583	1.294	0.391	29.2
250S125-18	0.0188	33	0.10	0.33	0.099	1.014	0.019	0.439	0.089	0.059	1.17	1.03	20.9	258	196	0.011	0.023	-0.904	0.543	1.427	0.599	29.0
250S125-27	0.0283	33	0.14	0.49	0.147	1.009	0.027	0.434	0.144	0.097	1.92	1.82	30.3	685	344	0.039	0.034	-0.893	0.536	1.416	0.602	28.9
250S125-30	0.0312	33	0.16	0.54	0.161	1.008	0.030	0.433	0.159	0.110	2.17	2.09	31.6	832	378	0.052	0.037	-0.889	0.534	1.412	0.603	28.9
250S125-33	0.0346	33	0.18	0.60	0.178	1.006	0.033	0.431	0.175	0.125	2.48	2.41	33.3	975	399	0.070	0.040	-0.885	0.532	1.408	0.605	28.9
250S125-43	0.0451	33	0.23	0.77	0.228	1.001	0.041	0.426	0.225	0.177	3.49	3.43	49.4	1265	394	0.154	0.050	-0.873	0.525	1.396	0.608	28.9
250S125-54	0.0566	33	0.28	0.95	0.277	0.994	0.049	0.419	0.277	0.218	4.98	5.07	0.0	1553	373	0.299	0.060	-0.859	0.518	1.379	0.612	26.8
250S125-54	0.0566	50	0.28	0.95	0.277	0.994	0.049	0.419	0.274	0.209	6.25	6.16	82.5	2353	565	0.299	0.060	-0.859	0.518	1.379	0.612	23.3
250S125-68	0.0713	33	0.35	1.18	0.334	0.984	0.057	0.408	0.334	0.266	6.30	6.32	0.0	1891	342	0.585	0.072	-0.839	0.508	1.356	0.617	26.5
250S125-68	0.0713	50	0.35	1.18	0.334	0.984	0.057	0.408	0.334	0.262	7.84	8.01	0.0	2866	519	0.585	0.072	-0.839	0.508	1.356	0.617	23.3
350S125-18	0.0188	33	0.12	0.39	0.215	1.366	0.021	0.423	0.203	0.072	1.42	1.47	0.0	180	159	0.014	0.050	-0.797	0.495	1.637	0.763	28.8
350S125-27	0.0283	33	0.17	0.59	0.320	1.361	0.030	0.418	0.315	0.130	2.57	2.65	0.0	614	359	0.046	0.072	-0.787	0.489	1.627	0.766	28.7
350S125-30	0.0312	33	0.19	0.65	0.351	1.359	0.033	0.417	0.346	0.150	2.96	3.04	0.0	824	436	0.062	0.079	-0.784	0.487	1.624	0.767	28.6
350S125-33	0.0346	33	0.21	0.72	0.387	1.358	0.036	0.415	0.382	0.175	3.45	3.53	0.0	1024	487	0.084	0.087	-0.780	0.485	1.620	0.768	28.6
350S125-43	0.0451	33	0.27	0.93	0.498	1.352	0.046	0.410	0.495	0.258	5.10	5.11	0.0	1739	631	0.184	0.109	-0.769	0.479	1.609	0.771	28.4
350S125-54	0.0566	33	0.34	1.15	0.608	1.344	0.055	0.402	0.608	0.328	6.49	6.87	0.0	2253	633	0.360	0.131	-0.755	0.471	1.593	0.775	28.4
350S125-54	0.0566	50	0.34	1.15	0.608	1.344	0.055	0.402	0.604	0.308	9.22	9.25	0.0	3372	947	0.360	0.131	-0.755	0.471	1.593	0.775	22.9
350S125-68	0.0713	33	0.42	1.42	0.739	1.332	0.064	0.391	0.737	0.409	9.67	9.98	0.0	2774	592	0.706	0.156	-0.737	0.462	1.571	0.780	25.7
350S125-68	0.0713	50	0.42	1.42	0.739	1.332	0.064	0.391	0.737	0.400	11.97	12.54	0.0	4202	897	0.706	0.156	-0.737	0.462	1.571	0.780	22.8
362S125-18	0.0188	33	0.12	0.40	0.234	1.409	0.021	0.421	0.221	0.075	1.48	1.52	0.0	173	163	0.014	0.054	-0.786	0.490	1.667	0.778	28.8
362S125-27	0.0283	33	0.18	0.60	0.347	1.404	0.031	0.416	0.342	0.135	2.67	2.75	0.0	592	370	0.047	0.079	-0.776	0.484	1.657	0.781	28.6
362S125-30	0.0312	33	0.19	0.66	0.381	1.402	0.033	0.415	0.376	0.156	3.08	3.17	0.0	794	449	0.063	0.086	-0.773	0.482	1.654	0.782	28.6
362S125-33	0.0346	33	0.22	0.73	0.421	1.400	0.037	0.413	0.415	0.182	3.59	3.67	0.0	1024	521	0.086	0.094	-0.769	0.480	1.650	0.783	28.5
362S125-43	0.0451	33	0.28	0.95	0.540	1.395	0.046	0.408	0.537	0.269	5.31	5.33	0.0	1739	676	0.188	0.118	-0.758	0.473	1.639	0.786	28.4
362S125-54	0.0566	33	0.34	1.17	0.661	1.386	0.055	0.400	0.661	0.343	6.78	7.19	0.0	2341	705	0.367	0.142	-0.744	0.466	1.623	0.790	28.3
362S125-54	0.0566	50	0.34	1.17	0.661	1.386	0.055	0.400	0.656	0.321	9.62	9.65	0.0	3372	1016	0.367	0.142	-0.744	0.466	1.623	0.790	22.8
362S125-68	0.0713	33	0.43	1.45	0.803	1.374	0.065	0.389	0.802	0.430	8.51	8.76	0.0	2884	662	0.721	0.169	-0.726	0.457	1.602	0.795	28.2
362S125-68	0.0713	50	0.43	1.45	0.803	1.374	0.065	0.389	0.802	0.418	12.52	13.11	0.0	4370	1004	0.721	0.169	-0.726	0.457	1.602	0.795	22.7

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

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Section	Thickness (in)	Fy (ksi)	Area (in2)	Weight (lb/ft)	Ixx (in4)	Rx (in)	Iyy (in4)	Ry (in)	Ixx (in4)	Sxx (in3)	Ma-L (in-k)	Ma-D (in-k)	Kfc (in-lb/in)	Vag (lb)	VaNet (lb)	Jx1000 (in4)	Cw (in6)	Xo (in)	m (in)	Ro (in)	β	Lu (in)
400S125-18 ¹	0.0188	33	0.13	0.42	0.294	1.536	0.021	0.414	0.281	0.083	1.64	1.68	0.0	156	156	0.015	0.068	-0.754	0.475	1.760	0.816	28.7
400S125-27	0.0283	33	0.19	0.64	0.438	1.531	0.031	0.410	0.431	0.151	2.97	3.06	0.0	533	398	0.050	0.098	-0.744	0.469	1.751	0.819	28.5
400S125-30	0.0312	33	0.21	0.70	0.481	1.529	0.034	0.408	0.474	0.174	3.44	3.53	0.0	715	484	0.067	0.107	-0.741	0.467	1.748	0.820	28.5
400S125-33	0.0346	33	0.23	0.77	0.531	1.527	0.038	0.407	0.524	0.203	4.01	4.10	0.0	976	595	0.091	0.118	-0.738	0.465	1.744	0.821	28.4
400S125-43	0.0451	33	0.30	1.00	0.682	1.521	0.048	0.402	0.680	0.301	5.96	5.99	0.0	1739	810	0.200	0.148	-0.727	0.459	1.733	0.824	28.2
400S125-54	0.0566	33	0.37	1.24	0.835	1.512	0.057	0.394	0.835	0.387	7.65	8.12	0.0	2603	944	0.390	0.178	-0.713	0.451	1.718	0.828	28.1
400S125-54	0.0566	50	0.37	1.24	0.835	1.512	0.057	0.394	0.830	0.361	10.81	10.87	0.0	3372	1223	0.390	0.178	-0.713	0.451	1.718	0.828	22.7
400S125-68	0.0713	33	0.45	1.54	1.017	1.499	0.066	0.383	1.015	0.492	9.72	10.05	0.0	3215	895	0.767	0.213	-0.695	0.442	1.696	0.832	28.0
400S125-68	0.0713	50	0.45	1.54	1.017	1.499	0.066	0.383	1.015	0.474	14.18	14.84	0.0	4871	1356	0.767	0.213	-0.695	0.442	1.696	0.832	22.5
550S125-18 ¹	0.0188	33	0.15	0.52	0.630	2.029	0.023	0.390								0.018	0.140	-0.651	0.423	2.166	0.910	22.9
550S125-27	0.0283	33	0.23	0.78	0.938	2.023	0.034	0.385	0.898	0.246	4.86	4.27	39.4	382	382	0.061	0.205	-0.641	0.417	2.157	0.912	27.9
550S125-30	0.0312	33	0.25	0.86	1.031	2.021	0.037	0.384	0.996	0.286	5.65	4.95	57.2	512	512	0.082	0.224	-0.639	0.415	2.154	0.912	27.9
550S125-33	0.0346	33	0.28	0.95	1.139	2.019	0.041	0.382	1.111	0.335	6.62	5.78	85.9	699	699	0.112	0.246	-0.635	0.413	2.151	0.913	27.8
550S125-43	0.0451	33	0.36	1.23	1.468	2.013	0.052	0.377	1.458	0.500	9.88	8.61	251.4	1550	1199	0.246	0.309	-0.625	0.407	2.141	0.915	27.6
550S125-54	0.0566	33	0.45	1.53	1.805	2.002	0.061	0.369	1.805	0.647	12.79	11.92	283.8	2739	1666	0.481	0.374	-0.613	0.401	2.126	0.917	27.3
550S125-54	0.0566	50	0.45	1.53	1.805	2.002	0.061	0.369	1.791	0.606	18.13	15.76	548.9	3093	1881	0.481	0.374	-0.613	0.401	2.126	0.917	22.1
550S125-68	0.0713	33	0.56	1.90	2.209	1.987	0.072	0.358	2.205	0.801	18.94	18.59	164.3	4347	2057	0.948	0.448	-0.597	0.392	2.106	0.920	24.6
550S125-68	0.0713	50	0.56	1.90	2.209	1.987	0.072	0.358	2.205	0.791	23.68	21.98	667.3	5350	2532	0.948	0.448	-0.597	0.392	2.106	0.920	21.8
600S125-18 ¹	0.0188	33	0.16	0.55	0.778	2.189	0.024	0.382								0.019	0.172	-0.623	0.408	2.308	0.927	
600S125-27 ¹	0.0283	33	0.24	0.83	1.160	2.183	0.035	0.377	1.097	0.271	5.35	4.64	40.2	349	349	0.065	0.251	-0.614	0.402	2.299	0.929	27.7
600S125-30	0.0312	33	0.27	0.91	1.275	2.181	0.038	0.376	1.218	0.315	6.22	5.39	58.0	468	468	0.087	0.274	-0.611	0.401	2.296	0.929	27.6
600S125-33	0.0346	33	0.30	1.01	1.409	2.179	0.042	0.374	1.361	0.369	7.30	6.32	86.5	638	638	0.118	0.300	-0.608	0.399	2.293	0.930	27.6
600S125-43	0.0451	33	0.39	1.31	1.817	2.173	0.053	0.369	1.807	0.555	10.96	9.46	249.4	1416	1240	0.261	0.378	-0.598	0.393	2.284	0.931	27.3
600S125-54	0.0566	33	0.48	1.63	2.236	2.161	0.063	0.362	2.236	0.727	14.37	13.18	334.1	2739	1890	0.511	0.457	-0.586	0.386	2.269	0.933	27.1
600S125-54	0.0566	50	0.48	1.63	2.236	2.161	0.063	0.362	2.220	0.673	20.15	17.34	545.4	2823	1947	0.511	0.457	-0.586	0.386	2.269	0.933	21.9
600S125-68	0.0713	33	0.60	2.02	2.740	2.146	0.073	0.351	2.735	0.911	21.53	20.64	359.5	4347	2339	1.008	0.548	-0.570	0.378	2.248	0.936	24.4
600S125-68	0.0713	50	0.60	2.02	2.740	2.146	0.073	0.351	2.735	0.898	26.88	24.34	857.4	5350	2879	1.008	0.548	-0.570	0.378	2.248	0.936	21.6

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