Table Notes

1. The centerline bend radius is based on inside corner radii shown in the steel thickness table on page 5.

2. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI S100 Section A7.2.

3. Tabulated gross properties are based on the full-unreduced cross section of the studs away from punchouts.

4. For deflection calculations, use the effective moment of inertia.

5. Allowable moment is the lesser of M_{al} and M_{ad}. Stud distortional buckling is based on an assumed $K\phi = 0$.

6. See page 5 for additional table notes.

Section	Design Thickness (in)	Fy (ksi)	Gross Properties						Effective Properties						Torsional Properties						Lu (in)
			Area (in²)	Weight (lb/ft)	Ix (in⁴)	Sx (in³)	Rx (in)	Iy (in⁴)	Ry (in)	Ixe (in⁴)	Sxe (in³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in⁴)	Cw (in⁶)	Xo (in)	m (in)	Ro (in)	ß	
162S125-18	0.0188	33	0.080	0.27	0.038	0.046	0.686	0.016	0.447	0.034	0.031	0.61	0.65	302	100	0.009	0.009	-1.029	0.594	1.315	0.388	29.0
162S125-27	0.0283	33	0.120	0.41	0.056	0.068	0.682	0.023	0.443	0.055	0.053	1.05	1.14	494	106	0.032	0.013	-1.017	0.587	1.302	0.390	29.1
162S125-30	0.0312	33	0.131	0.45	0.061	0.075	0.681	0.026	0.441	0.060	0.060	1.19	1.29	543	106	0.043	0.014	-1.014	0.585	1.298	0.390	29.2
162S125-33	0.0346	33	0.145	0.49	0.067	0.083	0.679	0.028	0.440	0.066	0.069	1.37	1.48	601	105	0.058	0.016	-1.010	0.583	1.294	0.391	29.2
250S125-18	0.0188	33	0.097	0.33	0.099	0.079	1.014	0.019	0.439	0.089	0.059	1.17	1.03	258	196	0.011	0.023	-0.904	0.543	1.427	0.599	29.0
250S125-27	0.0283	33	0.144	0.49	0.147	0.118	1.009	0.027	0.434	0.144	0.097	1.92	1.83	685	344	0.039	0.034	-0.893	0.536	1.416	0.602	28.9
250S125-30	0.0312	33	0.159	0.54	0.161	0.129	1.008	0.030	0.433	0.159	0.110	2.17	2.09	832	378	0.052	0.037	-0.889	0.534	1.412	0.603	28.9
250S125-33	0.0346	33	0.176	0.60	0.178	0.142	1.006	0.033	0.431	0.175	0.125	2.48	2.41	975	399	0.070	0.040	-0.885	0.532	1.408	0.605	28.9
250S125-43	0.0451	33	0.227	0.77	0.228	0.182	1.001	0.041	0.426	0.225	0.177	3.49	3.43	1265	394	0.154	0.050	-0.873	0.525	1.396	0.608	28.9
250S125-54	0.0566	33	0.280	0.95	0.277	0.222	0.994	0.049	0.419	0.277	0.218	4.98 [2]	5.07	1553	373	0.299	0.060	-0.859	0.518	1.379	0.612	26.8
250S125-54	0.0566	50	0.280	0.95	0.277	0.222	0.994	0.049	0.419	0.274	0.209	6.25	6.17	2353	565	0.299	0.060	-0.859	0.518	1.379	0.612	23.3
250S125-68	0.0713	33	0.345	1.18	0.334	0.267	0.984	0.057	0.408	0.334	0.266	6.30 [2]	6.32	1891	342	0.585	0.072	-0.839	0.508	1.356	0.617	26.5
250S125-68	0.0713	50	0.345	1.18	0.334	0.267	0.984	0.057	0.408	0.334	0.262	7.84	8.01	2866	519	0.585	0.072	-0.839	0.508	1.356	0.617	23.3
350S125-18	0.0188	33	0.115	0.39	0.215	0.123	1.366	0.021	0.423	0.203	0.072	1.42	1.47	180	159	0.014	0.050	-0.797	0.495	1.637	0.763	28.8
350S125-27	0.0283	33	0.173	0.59	0.320	0.183	1.361	0.030	0.418	0.315	0.130	2.57	2.65	614	359	0.046	0.072	-0.787	0.489	1.627	0.766	28.7
350S125-30	0.0312	33	0.190	0.65	0.351	0.201	1.359	0.033	0.417	0.346	0.150	2.96	3.04	824	436	0.062	0.079	-0.784	0.487	1.624	0.767	28.6
350S125-33	0.0346	33	0.210	0.72	0.387	0.221	1.358	0.036	0.415	0.382	0.175	3.45	3.53	1024	487	0.084	0.087	-0.780	0.485	1.620	0.768	28.6
350S125-43	0.0451	33	0.272	0.93	0.498	0.284	1.352	0.046	0.410	0.495	0.258	5.10	5.11	1739	631	0.184	0.109	-0.769	0.479	1.609	0.771	28.4
350S125-54	0.0566	33	0.337	1.15	0.608	0.348	1.344	0.055	0.402	0.608	0.328	6.49	6.87	2253	633	0.360	0.131	-0.755	0.471	1.593	0.775	28.4
350S125-54	0.0566	50	0.337	1.15	0.608	0.348	1.344	0.055	0.402	0.604	0.308	9.22	9.25	3372	947	0.360	0.131	-0.755	0.471	1.593	0.775	22.9
350S125-68	0.0713	33	0.417	1.42	0.739	0.422	1.332	0.064	0.391	0.737	0.409	9.67 [2]	9.98	2774	592	0.706	0.156	-0.737	0.462	1.571	0.780	25.7
350S125-68	0.0713	50	0.417	1.42	0.739	0.422	1.332	0.064	0.391	0.737	0.400	11.97	12.54	4202	897	0.706	0.156	-0.737	0.462	1.571	0.780	22.8
362S125-18	0.0188	33	0.118	0.40	0.234	0.129	1.409	0.021	0.421	0.221	0.075	1.48	1.52	173	163	0.014	0.054	-0.786	0.490	1.667	0.778	28.8
362S125-27	0.0283	33	0.176	0.60	0.347	0.192	1.404	0.031	0.416	0.342	0.135	2.67	2.75	592	370	0.047	0.079	-0.776	0.484	1.657	0.781	28.6
362S125-30	0.0312	33	0.194	0.66	0.381	0.210	1.402	0.033	0.415	0.376	0.156	3.08	3.17	794	449	0.063	0.086	-0.773	0.482	1.654	0.782	28.6
362S125-33	0.0346	33	0.215	0.73	0.421	0.232	1.400	0.037	0.413	0.415	0.182	3.59	3.67	1024	521	0.086	0.094	-0.769	0.480	1.650	0.783	28.5
362S125-43	0.0451	33	0.278	0.95	0.540	0.298	1.395	0.046	0.408	0.537	0.269	5.31	5.33	1739	676	0.188	0.118	-0.758	0.473	1.639	0.786	28.4
362S125-54	0.0566	33	0.344	1.17	0.661	0.365	1.386	0.055	0.400	0.661	0.343	6.78	7.19	2341	705	0.367	0.142	-0.744	0.466	1.623	0.790	28.3
362S125-54	0.0566	50	0.344	1.17	0.661	0.365	1.386	0.055	0.400	0.656	0.321	9.62	9.65	3372	1016	0.367	0.142	-0.744	0.466	1.623	0.790	22.8
362S125-68	0.0713	33	0.426	1.45	0.803	0.443	1.374	0.065	0.389	0.802	0.430	8.51	8.76	2884	662	0.721	0.169	-0.726	0.457	1.602	0.795	28.2
362S125-68	0.0713	50	0.426	1.45	0.803	0.443	1.374	0.065	0.389	0.802	0.418	12.52	13.11	4370	1004	0.721	0.169	-0.726	0.457	1.602	0.795	22.7
400S125-18 [1]	0.0188	33	0.125	0.42	0.294	0.147	1.536	0.021	0.414	0.281	0.083	1.64	1.68	156	156	0.015	0.068	-0.754	0.475	1.760	0.816	28.7
400S125-27	0.0283	33	0.187	0.64	0.438	0.219	1.531	0.031	0.410	0.431	0.151	2.97	3.07	533	398	0.050	0.098	-0.744	0.469	1.751	0.819	28.5
400S125-30	0.0312	33	0.206	0.70	0.481	0.240	1.529	0.034	0.408	0.474	0.174	3.44	3.53	715	484	0.067	0.107	-0.741	0.467	1.748	0.820	28.5
400S125-33	0.0346	33	0.228	0.77	0.531	0.265	1.527	0.038	0.407	0.524	0.203	4.01	4.10	976	595	0.091	0.118	-0.738	0.465	1.744	0.821	28.4
400S125-43	0.0451	33	0.295	1.00	0.682	0.341	1.521	0.048	0.402	0.680	0.301	5.96	5.99	1739	810	0.200	0.148	-0.727	0.459	1.733	0.824	28.2
400S125-54	0.0566	33	0.365	1.24	0.835	0.418	1.512	0.057	0.394	0.835	0.387	7.65	8.12	2603	944	0.390	0.178	-0.713	0.451	1.718	0.828	28.1
400S125-54	0.0566	50	0.365	1.24	0.835	0.418	1.512	0.057	0.394	0.830	0.361	10.81	10.87	3372	1223	0.390	0.178	-0.713	0.451	1.718	0.828	22.7
400S125-68	0.0713	33	0.452	1.54	1.017	0.509	1.499	0.066	0.383	1.015	0.492	9.72	10.05	3215	895	0.767	0.213	-0.695	0.442	1.696	0.832	28.0
400S125-68	0.0713	50	0.452	1.54	1.017	0.509	1.499	0.066	0.383	1.015	0.474	14.18	14.84	4871	1356	0.767	0.213	-0.695	0.442	1.696	0.832	22.5
550S125-18 [1,3]	0.0188	33	0.153	0.52	0.630	0.229	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	0.229	0.78	0.938	0.341	2.023	0.034	0.385	0.898	0.246	4.86	4.26	382	382	0.061	0.205	-0.641	0.417	2.157	0.912	27.9
550S125-30	0.0312	33	0.252	0.86	1.031	0.375	2.021	0.037	0.384	0.996	0.286	5.65	4.95	512	512	0.082	0.224	-0.639	0.415	2.154	0.912	27.9
550S125-33	0.0346	33	0.279	0.95	1.139	0.414	2.019	0.041	0.382	1.111	0.335	6.62	5.78	699	699	0.112	0.246	-0.635	0.413	2.151	0.913	27.8
550S125-43	0.0451	33	0.362	1.23	1.468	0.534	2.013	0.052	0.377	1.458	0.500	9.88	8.61	1550	1199	0.246	0.309	-0.625	0.407	2.141	0.915	27.6
550S125-54	0.0566	33	0.450	1.53	1.805	0.656	2.002	0.061	0.369	1.805	0.647	12.79	11.92	2739	1666	0.481	0.374	-0.613	0.401	2.126	0.917	27.3
550S125-54	0.0566	50	0.450	1.53	1.805	0.656	2.002	0.061	0.369	1.791	0.606	18.13	15.75	3093	1881	0.481	0.374	-0.613	0.401	2.126	0.917	22.1
550S125-68	0.0713	33	0.559	1.90	2.209	0.803	1.987	0.072	0.358	2.205	0.801	18.94 [2]	18.59	4347	2057	0.948	0.448	-0.597	0.392	2.106	0.920	24.6
550S125-68	0.0713	50	0.559	1.90	2.209	0.803	1.987	0.072	0.358	2.205	0.791	23.68	21.98	5350	2532	0.948	0.448	-0.597	0.392	2.106	0.920	21.8
600S125-18 [1,3]	0.0188	33	0.162	0.55	0.778	0.259	2.189	0.024	0.382	-	-	-	-	-	-	0.019	0.172	-0.623	0.408	2.308	0.927	22.7
600S125-27 [1]	0.0283	33	0.243	0.83	1.160	0.387	2.183	0.035	0.377	1.097	0.271	5.35	4.63	349	349	0.065	0.251	-0.614	0.402	2.299	0.929	27.7
600S125-30	0.0312	33	0.268	0.91	1.275	0.425	2.181	0.038	0.376	1.218	0.315	6.22	5.39	468	468	0.087	0.274	-0.611	0.401	2.296	0.929	27.6
600S125-33	0.0346	33	0.297	1.01	1.409	0.470	2.179	0.042	0.374	1.361	0.369	7.30	6.32	638	638	0.118	0.300	-0.608	0.399	2.293	0.930	27.6
600S125-43	0.0451	33	0.385	1.31	1.817	0.606	2.173	0.053	0.369	1.807	0.555	10.96	9.46	1416	1240	0.261	0.378	-0.598	0.393	2.284	0.931	27.3
600S125-54	0.0566	33	0.479	1.63	2.236	0.745	2.161	0.063	0.362	2.236	0.727	14.37	13.18	2739	1890	0.511	0.457	-0.586	0.386	2.269	0.933	27.1
600S125-54	0.0566	50	0.479	1.63	2.236	0.745	2.161	0.063	0.362	2.220	0.673	20.15	17.34	2823	1947	0.511	0.457	-0.586	0.386	2.269	0.933	21.9
600S125-68	0.0713	33	0.595	2.02	2.740	0.913	2.146	0.073	0.351	2.735	0.911	21.53 [2]	20.65	4347	2339	1.008	0.548	-0.570	0.378	2.248	0.936	24.4
600S125-68	0.0713	50	0.595	2.02	2.740	0.913	2.146	0.073	0.351	2.735	0.898	26.88	24.34	5350	2879	1.008	0.548	-0.570	0.378	2.248	0.936	21.6
800S125-33 [1]	0.0346	33	0.366	1.25	2.881	0.720	2.806	0.044	0.347	2.656	0.507	10.02	8.22	474	474	0.146	0.582	-0.519	0.349	2.875	0.967	26.6
800S125-43	0.0451	33	0.475	1.62	3.721	0.930	2.799	0.056	0.342	3.581	0.773	15.27	12.56	1051	1051	0.322	0.735	-0.510	0.344	2.865	0.968	26.3
800S125-54	0.0566	33	0.592	2.01	4.593	1.148	2.786	0.066	0.335	4.566	1.035	20.46	17.87	2091	2091	0.632	0.889	-0.499	0.338	2.850	0.969	26.0
800S125-54	0.0566	50	0.592	2.01	4.593	1.148	2.786	0.066	0.335	4.431	0.942	28.21	23.18	2091	2091	0.632	0.889	-0.499	0.338	2.850	0.969	21.1
800S125-68	0.0713	33	0.738	2.51	5.653	1.413	2.768	0.078	0.324	5.644	1.375	27.18	25.21	4221	3367	1.250	1.068	-0.485	0.330	2.829	0.971	25.6
800S125-68	0.0713	50	0.738	2.51	5.653	1.413	2.768	0.078	0.324	5.632	1.287	38.54	33.22	4221	3367	1.250	1.068	-0.485	0.330	2.829	0.971	20.8

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

[2] Allowable moment includes cold work of forming.

[3] Where web height-to-thickness ratio exceeds 260 or flange width-to-thickness ratio exceeds 60, effective properties are not calculated. See AISI S100 Section B1. Application of these products in a non-composite design shall be approved by a design professional.