

Structural studs & track 8"

Member	Thickness in	Area in ²	Weight lb/ft	Gross properties					33 ksi effective properties				50 ksi effective properties				Torsional properties				
				Ix in ⁴	Sx in ³	Rx in	Iy in ⁴	Ry in	Ix in ⁴	Sx in ³	Ma in-k	Va lb	Ix in ⁴	Sx in ³	Ma in-k	Va lb	Jx1000 in ⁴	Cw in ⁶	Xo in	Ro in	Beta
800S137-33 ⁵	0.0346	0.388	1.32	3.198	0.799	2.873	0.073	0.435	2.998	0.622	12.30	474	2.939	0.526	15.75	474	0.155	0.948	-0.709	2.991	0.944
800S137-43	0.0451	0.503	1.71	4.134	1.033	2.866	0.093	0.430	4.001	0.896	17.70	1051	3.912	0.799	23.92	1051	0.341	1.202	-0.700	2.981	0.945
800S137-54	0.0566	0.627	2.13	5.110	1.277	2.855	0.112	0.423	5.077	1.179	23.29	2091	4.974	1.083	32.42	2091	0.670	1.460	-0.691	2.967	0.946
800S137-68	0.0713	0.782	2.66	6.303	1.576	2.839	0.134	0.414	6.303	1.541	30.45	4221	6.285	1.468	43.96	4221	1.325	1.762	-0.680	2.948	0.947
800S137-97	0.1017	1.093	3.72	8.597	2.149	2.805	0.169	0.394	8.597	2.149	53.09	8843	8.597	2.149	64.35	10885	3.767	2.295	-0.658	2.908	0.949
800S162-33 ⁵	0.0346	0.413	1.41	3.582	0.896	2.943	0.125	0.550	3.384	0.710	14.03	474	3.322	0.614	18.39	474	0.165	1.615	-0.951	3.142	0.908
800S162-43	0.0451	0.537	1.83	4.633	1.158	2.937	0.160	0.546	4.500	1.019	20.14	1051	4.428	0.866	25.93	1051	0.364	2.056	-0.941	3.132	0.910
800S162-54	0.0566	0.670	2.28	5.736	1.434	2.927	0.194	0.539	5.702	1.334	26.36	2091	5.600	1.229	36.79	2091	0.715	2.509	-0.932	3.119	0.911
800S162-68	0.0713	0.836	2.84	7.089	1.772	2.913	0.235	0.530	7.089	1.737	34.32	4221	7.070	1.663	49.80	4221	1.416	3.047	-0.921	3.101	0.912
800S162-97	0.1017	1.169	3.98	9.713	2.428	2.883	0.305	0.510	9.713	2.428	58.27	8843	9.713	2.428	72.70	10885	4.030	4.023	-0.899	3.062	0.914
800S200-33 ⁵	0.0346	0.448	1.52	4.096	1.024	3.023	0.227	0.712	4.096	0.812	16.04	474	3.943	0.692	20.72	474	0.179	2.945	-1.306	3.369	0.850
800S200-43	0.0451	0.582	1.98	5.302	1.325	3.018	0.292	0.708	5.302	1.293	25.54	1051	5.302	1.064	31.85	1051	0.395	3.763	-1.295	3.359	0.851
800S200-54	0.0566	0.726	2.47	6.573	1.643	3.009	0.357	0.701	6.573	1.643	35.75	2091	6.573	1.499	44.89	2091	0.775	4.612	-1.286	3.346	0.852
800S200-68	0.0713	0.907	3.09	8.140	2.035	2.996	0.435	0.692	8.140	2.035	45.29	4221	8.140	1.964	65.21	4221	1.537	5.631	-1.275	3.329	0.853
800S200-97	0.1017	1.271	4.32	11.203	2.801	2.969	0.576	0.673	11.203	2.801	65.12	8843	11.203	2.801	96.63	10885	4.381	7.524	-1.253	3.292	0.855
800S250-43	0.0451	0.627	2.13	6.015	1.504	3.097	0.500	0.893	6.015	1.318	26.04	1051	5.902	1.090	32.64	1051	0.425	6.320	-1.695	3.641	0.783
800S250-54	0.0566	0.783	2.66	7.465	1.866	3.088	0.614	0.886	7.465	1.713	33.85	2091	7.370	1.543	46.20	2091	0.836	7.769	-1.686	3.628	0.784
800S250-68	0.0713	0.978	3.33	9.261	2.315	3.077	0.752	0.877	9.261	2.220	48.33	4221	9.239	2.062	61.73	4221	1.658	9.526	-1.674	3.611	0.785
800S250-97	0.1017	1.372	4.67	12.789	3.197	3.053	1.009	0.857	12.789	3.191	72.07	8843	12.789	3.054	102.70	10885	4.731	12.838	-1.652	3.575	0.787
800S300-54	0.0566	0.882	3.00	8.790	2.198	3.157	1.145	1.139	8.783	2.009	39.69	2091	8.530	1.797	53.80	2091	0.942	15.946	-2.354	4.100	0.670
800S300-68	0.0713	1.103	3.75	10.926	2.731	3.147	1.411	1.131	10.926	2.696	53.28	4221	10.926	2.505	75.01	4221	1.869	19.634	-2.344	4.084	0.671
800S300-97	0.1017	1.550	5.28	15.151	3.788	3.126	1.922	1.113	15.151	3.788	83.85	8843	15.151	3.675	121.43	10885	5.345	26.701	-2.323	4.051	0.671
800S350-54	0.0566	0.938	3.19	9.683	2.421	3.212	1.646	1.325	9.483	2.112	41.74	2091	9.184	1.853	55.47	2091	1.002	22.719	-2.797	4.460	0.607
800S350-68	0.0713	1.174	4.00	12.046	3.012	3.203	2.034	1.316	12.046	2.837	56.07	4221	11.914	2.584	77.37	4221	1.990	28.029	-2.786	4.445	0.607
800S350-97	0.1017	1.652	5.62	16.737	4.184	3.183	2.784	1.298	16.737	4.101	89.43	8843	16.737	3.785	113.34	10885	5.696	38.275	-2.765	4.412	0.607
800T100-33 ⁵	0.0346	0.346	1.18	2.611	0.641	2.748	0.019	0.232	2.295	0.397	7.84	465	2.119	0.341	10.20	465	0.138	0.246	-0.307	2.774	0.988
800T100-43	0.0451	0.451	1.53	3.401	0.833	2.747	0.024	0.230	3.247	0.620	12.24	1030	3.051	0.538	16.11	1030	0.305	0.317	-0.304	2.774	0.988
800T100-54	0.0566	0.565	1.92	4.276	1.043	2.750	0.030	0.229	4.244	0.900	17.79	2039	4.118	0.796	23.83	2039	0.604	0.394	-0.302	2.776	0.988
800T100-68	0.0713	0.712	2.42	5.402	1.310	2.755	0.036	0.226	5.402	1.263	24.95	4087	5.376	1.160	34.74	4087	1.206	0.491	-0.299	2.780	0.988
800T100-97	0.1017	1.015	3.45	7.747	1.854	2.763	0.049	0.221	7.747	1.854	43.11	8843	7.747	1.854	55.52	10885	3.499	0.685	-0.292	2.787	0.989
800T125-33 ⁵	0.0346	0.363	1.24	2.895	0.711	2.824	0.036	0.313	2.441	0.407	8.03	465	2.243	0.348	10.41	465	0.145	0.456	-0.444	2.875	0.976
800T125-43	0.0451	0.473	1.61	3.773	0.924	2.824	0.046	0.311	3.484	0.640	12.65	1030	3.252	0.552	16.54	1030	0.321	0.588	-0.440	2.875	0.977
800T125-54	0.0566	0.594	2.02	4.745	1.158	2.827	0.057	0.309	4.668	0.940	18.58	2039	4.426	0.824	24.66	2039	0.634	0.734	-0.438	2.878	0.977
800T125-68	0.0713	0.748	2.54	5.998	1.454	2.833	0.070	0.306	5.998	1.356	26.80	4087	5.956	1.216	36.39	4087	1.267	0.919	-0.434	2.882	0.977
800T125-97	0.1017	1.066	3.63	8.613	2.062	2.843	0.096	0.301	8.613	2.062	40.74	8843	8.613	2.062	61.72	10885	3.674	1.293	-0.427	2.891	0.978
800T150-33 ⁵	0.0346	0.380	1.29	3.180	0.781	2.891	0.060	0.397	2.569	0.414	8.18	465	2.350	0.353	10.57	465	0.152	0.750	-0.593	2.978	0.960
800T150-43	0.0451	0.496	1.69	4.144	1.015	2.891	0.077	0.395	3.689	0.655	12.95	1030	3.427	0.563	16.85	1030	0.336	0.970	-0.590	2.977	0.961
800T150-54	0.0566	0.622	2.12	5.214	1.272	2.896	0.096	0.393	4.976	0.969	19.15	2039	4.692	0.844	25.27	2039	0.664	1.213	-0.587	2.980	0.961
800T150-68	0.0713	0.783	2.67	6.594	1.599	2.902	0.119	0.390	6.527	1.412	27.91	4087	6.361	1.255	37.58	4087	1.327	1.522	-0.583	2.985	0.962
800T150-97	0.1017	1.116	3.80	9.479	2.269	2.914	0.165	0.384	9.479	2.269	44.83	8843	9.479	2.192	65.62	10885	3.849	2.155	-0.576	2.995	0.963
800T200-33 ⁵	0.0346	0.415	1.41	3.749	0.921	3.005	0.135	0.571	2.788	0.424	8.37	465	2.532	0.360	10.77	465	0.166	1.635	-0.925	3.196	0.916
800T200-43	0.0451	0.541	1.84	4.887	1.197	3.006	0.175	0.569	4.043	0.676	13.35	1030	3.728	0.577	17.28	1030	0.367	2.119	-0.921	3.195	0.917
800T200-54	0.0566	0.679	2.31	6.152	1.501	3.011	0.218	0.567	5.505	1.009	19.93	2039	5.149	0.871	26.09	2039	0.725	2.657	-0.917	3.198	0.918
800T200-68	0.0713	0.854	2.91	7.786	1.888	3.019	0.272	0.564	7.306	1.490	29.45	4087	7.051	1.310	39.22	4087	1.448	3.346	-0.913	3.204	0.919
800T200-97	0.1017	1.218	4.15	11.212	2.683	3.034	0.379	0.558	11.176	2.491	49.22	8843	10.833	2.347	70.27	10885	4.200	4.770	-0.905	3.215	0.921
800T250-43	0.0451	0.586	1.99	5.629	1.380	3.100	0.326	0.746	4.593	0.739	14.60	1030	4.485	0.607	18.18	1030	0.397	3.869	-1.282	3.437	0.861
800T250-54	0.0566	0.735	2.50	7.090	1.730	3.106	0.407	0.744	5.948	1.193	23.57	2039	5.816	0.959	28.71	2039	0.785	4.858	-1.279	3.440	0.862
800T250-68	0.0713	0.926	3.15	8.978	2.177	3.114	0.509	0.741	7.917	1.648	32.57	4087	7.588	1.560	46.72	4087	1.569	6.131	-1.274	3.445	0.863
800T250-97	0.1017	1.320	4.49	12.944	3.098	3.132	0.713	0.735	12.361	2.641	52.19	8843	11.872	2.487	74.47	10885	4.550	8.778	-1.265	3.457	0.866
800T300-54	0.0566	0.792	2.69	8.028	1.958	3.184	0.675	0.923	6.396	1.178	23.28	2039	6.237	0.956	28.62	2039	0.845	7.942	-1.663	3.709	0.799
800T300-68	0.0713	0.997	3.39	10.171	2.466	3.194	0.844	0.920	8.497	1.709	33.76	4087	8.160	1.548	46.36	4087	1.690	10.037	-1.659	3.715	0.801
800T300-97	0.1017	1.422	4.84	14.676	3.513	3.213	1.188	0.914	13.395	2.757	54.49	8843	12.794	2.586	77.43	10885	4.901	14.412	-1.649	3.726	0.804