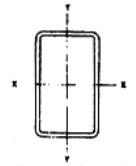


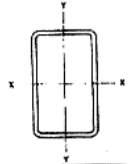
Rectangular



Imperial units

Section size		Wall thickness t		Unit weight M		Section area A	Moment of inertia		Radius of gyration		Modulus of section	
in	mm	in	mm	lb/ft	kg/m	in ²	I _x in ⁴	I _y in ⁴	i _x in	i _y in	Z _x in ³	Z _y in ³
1 x 1/2	25.4 x 12.7	0.039	1.0	0.373	0.555	0.110	0.013	0.004	0.355	0.204	0.027	0.018
		0.047	1.2	0.448	0.670	0.131	0.015	0.005	0.344	0.198	0.031	0.020
		0.063	1.6	0.580	0.863	0.167	0.018	0.006	0.335	0.191	0.037	0.024
1 1/2 x 1	38.1 x 25.4	0.039	1.0	0.638	0.949	0.188	0.059	0.031	0.564	0.412	0.079	0.063
		0.047	1.2	0.767	1.141	0.229	0.070	0.037	0.555	0.405	0.094	0.075
		0.063	1.6	1.010	1.500	0.297	0.088	0.047	0.546	0.398	0.118	0.094
2 x 1	50.8 x 25.4	0.047	1.2	0.915	1.362	0.288	0.144	0.049	0.726	0.422	0.144	0.097
		0.0598	1.5	1.128	1.683	0.365	0.179	0.060	0.721	0.416	0.179	0.120
		0.063	1.6	1.200	1.785	0.384	0.187	0.062	0.720	0.415	0.187	0.125
		0.091	2.3	1.666	2.480	0.505	0.257	0.083	0.713	0.407	0.257	0.167
		0.095	2.4	1.740	2.592	0.526	0.260	0.085	0.702	0.401	0.260	0.170
		0.120	3.0	2.100	3.125	0.626	0.285	0.093	0.680	0.390	0.285	0.187
2 1/2 x 1 1/2	63.5 x 38.1	0.063	1.6	1.626	2.424	0.480	0.416	0.189	0.920	0.620	0.333	0.252
		0.091	2.3	2.282	3.396	0.692	0.55	0.248	0.912	0.611	0.439	0.331
		0.095	2.4	2.380	3.542	0.700	0.572	0.257	0.903	0.606	0.457	0.343
		0.120	3.0	2.904	4.322	0.870	0.685	0.306	0.889	0.595	0.548	0.409
3 x 1 1/2	76.2 x 38.1	0.063	1.6	1.860	2.70	0.527	0.60	0.209	1.07	0.63	0.40	0.279
		0.075	1.9	2.166	3.224	0.629	0.72	0.246	1.06	0.623	0.48	0.328
		0.091	2.3	2.590	3.855	0.762	0.86	0.293	1.06	0.62	0.573	0.391
		0.095	2.4	2.700	4.018	0.795	0.901	0.304	1.06	0.619	0.601	0.406
		0.120	3.0	3.306	4.920	0.985	1.086	0.364	1.050	0.607	0.724	0.485
3 x 2	76.2 x 50.8	0.075	1.9	2.421	3.603	0.714	0.88	0.486	1.12	0.825	0.587	0.486
		0.091	2.3	2.898	4.313	0.863	1.06	0.578	1.112	0.818	0.707	0.578
		0.095	2.4	3.030	4.509	0.900	1.102	0.589	1.112	0.813	0.734	0.589
		0.120	3.0	3.760	5.560	1.110	1.33	0.707	1.097	0.800	0.886	0.707
		0.125	3.2	3.910	5.819	1.150	1.372	0.730	1.094	0.797	0.915	0.730
		0.156	4.0	4.760	7.090	1.400	1.62	0.860	1.08	0.782	1.080	0.860
		0.180	4.6	5.400	8.036	1.587	1.81	0.952	1.07	0.775	1.200	0.952
		0.1875	4.8	5.590	8.320	1.644	1.86	0.977	1.06	0.771	1.240	0.977
		0.250	6.4	7.100	10.600	2.089	2.21	1.150	1.03	0.742	1.47	1.150
		4 x 2	101.6 x 50.8	0.075	1.9	2.930	4.361	0.85	1.77	0.612	1.44	0.848
0.091	2.3			3.515	5.231	1.03	2.14	0.732	1.44	0.843	1.07	0.732
0.095	2.4			3.670	5.480	1.080	2.233	0.761	1.44	0.840	1.116	0.761
0.120	3.0			4.511	6.714	1.346	2.72	0.920	1.421	0.830	1.360	0.919
0.125	3.2			4.790	7.129	1.400	2.81	0.950	1.42	0.824	1.405	0.950
0.156	4.0			5.820	8.660	1.711	3.35	1.121	1.40	0.809	1.674	1.121
0.180	4.6			6.620	9.851	1.947	3.75	1.25	1.39	0.802	1.88	1.25
0.1875	4.8			6.860	10.209	2.019	3.87	1.29	1.38	0.798	1.93	1.29
4 x 3	101.6 x 76.2	0.120	3.0	5.390	8.021	1.582	3.63	2.33	1.51	1.21	1.81	1.55
		0.125	3.2	5.647	8.404	1.651	3.75	2.41	1.51	1.21	1.88	1.61
		0.156	4.0	6.880	10.240	2.024	4.52	2.90	1.50	1.20	2.26	1.93

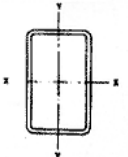
Rectangular



Imperial units

Section size		Wall thickness t		Unit weight M		Section area A	Moment of inertia		Radius of gyration		Modulus of section	
in	mm	in	mm	lb/ft	kg/m	in ²	I _x in ⁴	I _y in ⁴	r _x in	r _y in	Z _x in ³	Z _y in ³
4 x 3	101.6x76.2	0.177	4.5	7.739	11.517	2.27	4.99	3.19	1.48	1.19	2.50	2.13
		0.180	4.6	7.850	11.682	2.310	5.07	3.24	1.48	1.19	2.53	2.16
		0.1875	4.8	8.140	12.113	2.394	5.23	3.34	1.48	1.18	2.62	2.23
		0.236	6.0	10.006	14.891	2.99	6.43	4.07	1.46	1.16	3.21	2.71
		0.250	6.4	10.500	15.630	3.089	6.45	4.10	1.45	1.15	3.23	2.74
5 x 2	127 x 50.8	0.120	3.0	5.390	8.021	1.585	4.79	1.14	1.74	0.846	1.92	1.14
		0.125	3.2	5.647	8.404	1.647	4.96	1.17	1.73	0.844	1.98	1.17
		0.156	4.0	6.880	10.240	2.024	5.96	1.40	1.72	0.83	2.38	1.40
		0.177	4.5	7.739	11.518	2.27	6.57	1.52	1.70	0.82	2.63	1.52
		0.180	4.6	7.850	11.682	2.307	6.67	1.55	1.70	0.82	2.67	1.55
		0.1875	4.8	8.140	12.100	2.394	6.89	1.60	1.70	0.816	2.75	1.60
		0.236	6.0	10.006	14.891	2.99	8.50	1.91	1.68	0.799	3.39	1.91
		0.250	6.4	10.400	15.626	3.089	8.48	1.92	1.66	0.789	3.40	1.92
5 x 3	127 x 76.2	0.120	3.0	6.210	9.241	1.825	6.22	2.83	1.85	1.25	2.49	1.89
		0.125	3.2	6.505	9.781	1.902	6.44	2.93	1.84	1.24	2.58	1.95
		0.156	4.0	7.950	11.831	2.340	7.76	3.14	1.82	1.23	3.11	2.34
		0.177	4.5	8.945	13.312	2.63	8.63	3.90	1.81	1.22	3.45	2.60
		0.180	4.6	9.070	13.498	2.667	8.77	3.96	1.81	1.22	3.51	2.64
		0.1875	4.8	9.410	14.004	2.769	9.06	4.08	1.81	1.21	3.62	2.72
		0.236	6.0	11.614	17.284	3.47	11.2	4.98	1.79	1.19	4.48	3.32
		0.250	6.4	12.200	18.156	3.589	11.3	5.05	1.77	1.19	4.52	3.37
		0.3125	8.0	14.800	22.025	4.358	13.2	5.85	1.74	1.16	5.27	3.90
		0.375	9.5	17.300	25.745	5.075	14.7	6.48	1.70	1.13	5.89	4.32
6 x 2	152.4x50.8	0.120	3.0	6.210	9.241	1.825	7.64	1.35	2.05	0.859	2.55	1.35
		0.125	3.2	6.505	9.680	1.897	7.92	1.39	2.04	0.857	2.64	1.39
		0.156	4.0	7.950	11.831	2.340	9.56	1.66	2.02	0.843	3.19	1.66
		0.177	4.5	8.945	13.312	2.63	10.5	1.82	2.01	0.838	3.50	1.82
		0.180	4.6	9.070	13.500	2.667	10.7	1.85	2.01	0.833	3.58	1.85
		0.1875	4.8	9.410	14.003	2.769	11.1	1.90	2.00	0.829	3.70	1.90
		0.236	6.0	11.614	17.284	3.47	13.1	2.21	1.96	0.818	4.36	2.21
		0.250	6.4	12.230	18.200	3.589	13.8	2.31	1.96	0.802	4.60	2.31
6 x 3	152.4x76.2	0.125	3.2	7.320	10.893	2.130	10.06	3.44	2.17	1.27	3.35	2.30
		0.156	4.0	9.020	13.423	2.652	12.2	4.15	2.15	1.25	4.07	2.76
		0.177	4.5	10.150	15.105	2.98	13.6	4.60	2.13	1.24	4.53	3.07
		0.180	4.6	10.300	15.330	3.027	13.8	4.67	2.13	1.24	4.60	3.12
		0.1875	4.8	10.700	15.923	3.144	14.3	4.83	2.13	1.24	4.76	3.22
		0.236	6.0	13.222	19.676	3.87	17.0	5.72	2.10	1.22	5.67	3.81
		0.250	6.4	13.700	20.685	4.089	17.9	6.00	2.09	1.21	5.98	4.00
		0.3125	8.0	16.933	25.200	4.983	21.1	6.98	2.06	1.18	7.03	4.65
		0.375	9.5	19.823	29.500	5.825	23.8	7.78	2.02	1.16	7.92	5.19

Rectangular



Imperial units

Section size		Wall thickness t		Unit weight M		Section area A	Moment of inertia		Radius of gyration		Modulus of section	
in	mm	in	mm	lb/ft	kg/m	in ²	I _x in ⁴	I _y in ⁴	r _{ix} in	r _{iy} in	Z _x in ³	Z _y in ³
6 x 4	152.4x101.6	0.156	4.0	10.10	15.03	2.961	14.86	7.96	2.24	1.64	4.96	3.98
		0.177	4.5	11.356	16.90		16.5	8.87	2.23	1.63	5.50	4.44
		0.180	4.6	11.50	17.114	3.387	16.8	9.01	2.23	1.63	5.62	4.51
		0.1875	4.8	12.00	17.858	3.519	17.4	9.32	2.23	1.63	5.81	4.66
		0.236	6.0	14.83	22.07	4.34	21.0	11.1	2.20	1.60	7.00	5.55
		0.250	6.4	15.60	23.215	4.589	22.1	11.7	2.19	1.60	7.36	5.87
		0.3125	8.0	19.10	28.424	5.608	26.2	13.8	2.16	1.57	8.72	6.92
		0.375	9.5	22.40	33.335	6.575	29.7	15.6	2.13	1.54	9.9	7.82
		0.500	12.7	28.424	42.30	8.356	35.3	18.4	2.06	1.48	11.8	9.21
8 x 4	203.2x101.6	0.156	4.0	12.20	18.155	3.583	30.0	10.27	2.90	1.70	7.50	5.13
		0.177	4.5	13.768	20.49	3.98	32.0	10.9	2.89	1.69	8.12	5.55
		0.180	4.6	14.00	20.834	4.107	34.1	11.6	2.88	1.68	8.52	5.82
		0.1875	4.8	14.515	21.60	4.269	35.3	12.0	2.88	1.68	8.83	6.02
		0.236	6.0	18.045	26.854	5.21	40.8	13.9	2.84	1.66	10.4	7.02
		0.250	6.4	19.017	28.30	5.589	45.1	15.3	2.84	1.65	11.3	7.63
		0.3125	8.0	23.317	34.70	6.858	53.9	18.1	2.80	1.62	13.5	9.05
		0.375	9.5	27.50	40.924	8.075	61.9	20.6	2.77	1.60	15.5	10.3
		0.500	12.7	35.211	52.40	10.36	75.1	24.6	2.69	1.54	18.8	12.3
8 x 6	203.2x152.4	0.180	4.6	16.40	24.406	4.827	45.1	29.0	3.06	2.45	11.3	9.68
		0.1875	4.8	17.10	25.448	5.019	46.8	30.1	3.05	2.45	11.7	10.0
		0.250	6.4	22.40	33.335	6.589	60.1	38.6	3.02	2.42	15.0	12.9
		0.3125	8.0	27.60	41.073	8.108	72.4	46.4	2.99	2.39	18.1	15.5
		0.375	9.5	32.60	48.514	9.575	83.7	53.5	2.96	2.36	20.9	17.8
		0.500	12.7	42.00	62.503	12.36	103	65.7	2.89	2.31	25.8	21.9
10 x 6	254 x 152.4	0.180	4.6	18.90	28.126	5.547	76.9	35.1	3.72	2.52	15.4	11.7
		0.1875	4.8	19.621	29.20	5.769	79.8	36.5	3.72	2.51	16.0	12.2
		0.250	6.4	25.804	38.40	7.589	103	46.9	3.69	2.49	20.6	15.6
		0.3125	8.0	31.80	47.324	9.358	125	56.5	3.65	2.46	25.0	18.8
		0.375	9.5	37.70	56.104	11.08	145	65.4	3.62	2.43	29.0	21.8
		0.500	12.7	48.80	72.622	14.36	181	80.8	3.55	2.37	36.2	26.9
12 X 8	304.8X203.2	0.250	6.4	32.60	48.514	9.589	196	105	4.52	3.31	32.6	26.3
		0.3125	8.0	40.30	60.00	11.86	239	128	4.49	3.28	39.8	32.0
		0.375	9.5	47.90	71.283	14.08	279	149	4.45	3.26	46.5	37.3
		0.500	12.7	62.426	92.90	18.36	353	188	4.39	3.20	58.9	46.9
14 x 6	355.6x152.4	0.250	6.4	32.60	48.514	9.589	237	63.4	4.97	2.57	33.8	21.1
		0.3125	8.0	40.30	60.00	11.86	288	76.7	4.93	2.54	41.2	25.6
		0.375	9.5	47.90	71.283	14.08	337	89.1	4.89	2.52	48.1	29.7
		0.500	12.7	62.426	92.90	18.36	426	111	4.82	2.46	60.8	37.1
16 x 8	406.4x203.2	0.250	6.4	39.40	58.634	11.59	393	135	5.82	3.42	49.1	33.8
		0.3125	8.0	48.80	72.622	14.36	481	165	5.79	3.39	60.1	41.2
		0.375	9.5	58.058	86.40	17.08	565	193	5.75	3.36	70.6	48.2
		0.500	12.7	76.00	113.10	22.36	722	244	5.68	3.30	90.2	61.0

