



SECTIONS - BEAMS & COLUMNS

Metric Size

JIS STANDARD
G3101 - SS400

Section Size	Unit Weight M	Section Depth D	Flange Width B	Thickness		Corner Radius r	Section Area A	Moment of Inertia		Radius of Gyration		Modulus of Section	
				t (web)	T (flange)			I _x	I _y	i _x	i _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
100 x 50	9.3	100	50	5	7	8	11.85	187	14.8	3.98	1.12	37.5	5.91
125 x 60	13.2	125	60	6	8	9	16.84	413	29.2	4.95	1.32	66.1	9.73
150 x 75	14	150	75	5	7	8	17.85	666	49.5	6.11	1.66	88.8	13.20
150 x 100	21.1	148	100	6	9	11	26.84	1,020	151	6.17	2.37	138	30.1
175 x 90	18.1	175	90	5	8	9	23.04	1,210	97.5	7.26	2.06	139	21.7
175 x 125	23.3	169	125	5.5	8	12	29.65	1,530	261	7.18	2.97	181	41.8
200 x 100	18.2	198	99	4.5	7	11	23.18	1,580	114	8.26	2.21	160	23.0
200 x 150	21.3	200	100	5.5	8	11	27.16	1,840	134	8.24	2.22	184	26.8
200 x 150	30.6	194	150	6	9	13	39.01	2,690	507	8.30	3.61	277	67.6
250 x 125	25.7	248	124	5	8	12	32.68	3,540	255	10.4	2.79	285	41.1
250 x 125	29.69	250	125	6	9	12	37.66	4,050	294	10.4	2.79	324	47.0
250 x 175	44.1	244	175	7	11	16	56.24	6,120	984.0	10.4	4.18	502	113
300 x 150	32	298	149	5.5	8	13	40.80	6,320	442	12.4	3.29	424	59.3
300 x 150	36.7	300	150	6.5	9	13	46.78	7,210	508	12.4	3.29	481	67.7
300 x 200	56.8	294	200	8	12	18	72.38	11,300	1,600	12.5	4.71	771	160
300 x 200	65.4	298	201	9	14	18	83.36	13,300	1,900	12.6	4.77	893	189
350 x 175	41.4	346	174	6	9	14	52.68	11,100	798	14.5	3.88	641	91
350 x 175	49.6	350	175	7	11	14	63.14	13,600	984	14.7	3.95	775	112
350 x 250	69.2	336	249	8	12	20	88.15	18,500	3,090	14.5	5.92	1,100	248
350 x 250	79.7	340	250	9	14	20	101.5	21,700	3,650	14.6	6.00	1,280	292
400 x 200	56.6	396	199	7	11	16	72.16	20,000	1,450	16.7	4.48	1,010	145
400 x 200	66	400	200	8	13	16	84.12	23,700	1,740	16.8	4.54	1,190	174
400 x 300	94.3	386	299	9	14	22	120.1	33,700	6,240	16.7	7.21	1,740	418
400 x 300	107	390	300	10	16	22	136.0	38,700	7,210	16.9	7.28	1,980	481
450 x 200	66.2	446	199	8	12	18	84.30	28,700	1,580	18.5	4.33	1,290	159
450 x 200	76	450	200	9	14	18	96.76	33,500	1,870	18.6	4.40	1,490	187
450 x 300	106	434	299	10	15	24	135.0	46,800	6,690	18.6	7.04	2,160	448
450 x 300	124	440	300	11	18	24	157.4	56,100	8,110	18.9	7.18	2,550	541
500 x 200	79.5	496	199	9	14	20	101.3	41,900	1,840	20.3	4.27	1,690	185
500 x 200	89.6	500	200	10	16	20	114.2	47,800	2,140	20.5	4.33	1,910	214
500 x 200	103	506	201	11	19	20	131.3	56,500	2,580	20.7	4.43	2,230	257
500 x 300	114	482	300	11	15	26	145.5	60,400	6,760	20.4	6.82	2,500	451
500 x 300	128	488	300	11	18	26	163.5	71,000	8,110	20.8	7.04	2,910	541
600 x 200	94.6	596	199	10	15	22	120.5	68,700	1,980	23.9	4.05	2,310	199
600 x 200	106	600	200	11	17	22	134.4	77,600	2,280	24.0	4.12	2,590	228
600 x 200	120	606	201	12	20	22	152.5	90,400	2,270	24.3	4.22	2,980	271
600 x 200	134	612	202	13	23	22	107.7	103,000	3,180	24.6	4.31	3,380	314
600 x 300	137	582	300	12	17	28	174.5	103,000	7,670	24.3	6.63	3,530	511
600 x 300	151	588	300	12	20	28	192.5	118,000	9,020	24.8	6.85	4,020	601
600 x 300	175	594	302	14	23	28	222.4	137,000	10,600	28.6	6.90	4,620	701
700 x 300	166	692	300	13	20	28	211.5	172,000	9,020	28.6	6.53	4,980	602
700 x 300	185	700	300	13	24	28	235.5	201,000	10,800	29.3	6.78	5,760	722
700 x 300	215	708	302	14	28	28	273.6	237,000	12,900	29.4	6.86	6,700	853
800 x 300	191	792	300	14	22	28	243.4	254,000	9,930	32.3	6.39	6,410	662
800 x 300	210	800	300	14	26	28	267.4	292,000	11,700	33.0	6.62	7,290	782
800 x 300	241	808	302	16	30	28	307.6	339,000	13,800	33.2	6.70	8,400	915
900 x 300	213	890	299	15	23	28	270.9	345,000	10,300	35.7	6.16	7,760	688
900 x 300	243	900	300	16	28	28	309.8	411,000	12,600	36.4	6.39	9,140	843
900 x 300	286	912	302	18	34	28	364.0	498,000	15,700	37.0	6.46	10,900	1,040

Thickness Tolerance : ± 10%



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Metric Size

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G3101 - SS400

Section Size	Unit Weight M	Section Depth D	Flange Width B	Thickness		Corner Radius r	Section Area A	Moment of Inertia		Radius of Gyration		Modulus of Section	
				t (web)	T (flange)			I _x	I _y	i _x	i _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
100 x 50	9.3	100	50	5	7	8	11.85	187	14.8	3.98	1.12	37.5	5.91
125 x 60	13.2	125	60	6	8	9	16.84	413	29.2	4.95	1.32	66.1	9.73
150 x 75	14	150	75	5	7	8	17.85	666	49.5	6.11	1.66	88.8	13.20
150 x 100	21.1	148	100	6	9	11	26.84	1,020	151	6.17	2.37	138	30.1
175 x 90	18.1	175	90	5	8	9	23.04	1,210	97.5	7.26	2.06	139	21.7
175 x 125	23.3	169	125	5.5	8	12	29.65	1,530	261	7.18	2.97	181	41.8
200 x 100	18.2	198	99	4.5	7	11	23.18	1,580	114	8.26	2.21	160	23.0
200 x 150	21.3	200	100	5.5	8	11	27.16	1,840	134	8.24	2.22	184	26.8
200 x 150	30.6	194	150	6	9	13	39.01	2,690	507	8.30	3.61	277	67.6
250 x 125	25.7	248	124	5	8	12	32.68	3,540	255	10.4	2.79	285	41.1
250 x 125	29.69	250	125	6	9	12	37.66	4,050	294	10.4	2.79	324	47.0
250 x 175	44.1	244	175	7	11	16	56.24	6,120	984.0	10.4	4.18	502	113
300 x 150	32	298	149	5.5	8	13	40.80	6,320	442	12.4	3.29	424	59.3
300 x 150	36.7	300	150	6.5	9	13	46.78	7,210	508	12.4	3.29	481	67.7
300 x 200	56.8	294	200	8	12	18	72.38	11,300	1,600	12.5	4.71	771	160
300 x 200	65.4	298	201	9	14	18	83.36	13,300	1,900	12.6	4.77	893	189
350 x 175	41.4	346	174	6	9	14	52.68	11,100	798	14.5	3.88	641	91
350 x 175	49.6	350	175	7	11	14	63.14	13,600	984	14.7	3.95	775	112
350 x 250	69.2	336	249	8	12	20	88.15	18,500	3,090	14.5	5.92	1,100	248
350 x 250	79.7	340	250	9	14	20	101.5	21,700	3,650	14.6	6.00	1,280	292
400 x 200	56.6	396	199	7	11	16	72.16	20,000	1,450	16.7	4.48	1,010	145
400 x 200	66	400	200	8	13	16	84.12	23,700	1,740	16.8	4.54	1,190	174
400 x 300	94.3	386	299	9	14	22	120.1	33,700	6,240	16.7	7.21	1,740	418
400 x 300	107	390	300	10	16	22	136.0	38,700	7,210	16.9	7.28	1,980	481
450 x 200	66.2	446	199	8	12	18	84.30	28,700	1,580	18.5	4.33	1,290	159
450 x 200	76	450	200	9	14	18	96.76	33,500	1,870	18.6	4.40	1,490	187
450 x 300	106	434	299	10	15	24	135.0	46,800	6,690	18.6	7.04	2,160	448
450 x 300	124	440	300	11	18	24	157.4	56,100	8,110	18.9	7.18	2,550	541
500 x 200	79.5	496	199	9	14	20	101.3	41,900	1,840	20.3	4.27	1,690	185
500 x 200	89.6	500	200	10	16	20	114.2	47,800	2,140	20.5	4.33	1,910	214
500 x 200	103	506	201	11	19	20	131.3	56,500	2,580	20.7	4.43	2,230	257
500 x 300	114	482	300	11	15	26	145.5	60,400	6,760	20.4	6.82	2,500	451
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600 x 200	120	606	201	12	20	22	152.5	90,400	2,270	24.3	4.22	2,980	271
600 x 200	134	612	202	13	23	22	107.7	103,000	3,180	24.6	4.31	3,380	314
600 x 300	137	582	300	12	17	28	174.5	103,000	7,670	24.3	6.63	3,530	511
600 x 300	151	588	300	12	20	28	192.5	118,000	9,020	24.8	6.85	4,020	601
600 x 300	175	594	302	14	23	28	222.4	137,000	10,600	28.6	6.90	4,620	701
700 x 300	166	692	300	13	20	28	211.5	172,000	9,020	28.6	6.53	4,980	602
700 x 300	185	700	300	13	24	28	235.5	201,000	10,800	29.3	6.78	5,760	722
700 x 300	215	708	302	14	28	28	273.6	237,000	12,900	29.4	6.86	6,700	853
800 x 300	191	792	300	14	22	28	243.4	254,000	9,930	32.3	6.39	6,410	662
800 x 300	210	800	300	14	26	28	267.4	292,000	11,700	33.0	6.62	7,290	782
800 x 300	241	808	302	16	30	28	307.6	339,000	13,800	33.2	6.70	8,400	915
900 x 300	213	890	299	15	23	28	270.9	345,000	10,300	35.7	6.16	7,760	688
900 x 300	243	900	300	16	28	28	309.8	411,000	12,600	36.4	6.39	9,140	843
900 x 300	286	912	302	18	34	28	364.0	498,000	15,700	37.0	6.46	10,900	1,040

Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Metric Size

JIS STANDARD
G3101 - SS400

Section Size	Unit Weight M	Section Depth D	Flange Width B	Thickness		Corner Radius r	Section Area A	Moment of Inertia		Radius of Gyration		Modulus of Section	
				t (web)	T (flange)			I _x	I _y	i _x	i _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
100 x 100	17.2	100	100	6	8	10	21.90	333	134	4.18	2.47	76.5	26.7
125 x 125	23.8	125	125	6.5	9	10	30.31	847	293	5.29	3.11	136	47.0
150 x 150	31.5	150	150	7	10	11	40.14	1,640	563	6.39	3.75	219	75.1
175 x 175	40.2	175	175	7.5	11	12	51.21	2,880	984	7.50	4.38	330	112
200 x 200	49.9	200	200	8	12	13	63.53	4,720	1,600	8.62	5.02	472	160
	56.2	200	204	12	12	13	71.53	4,980	1,700	8.35	4.88	498	167
	65.7	208	202	10	16	13	83.69	6,530	2,200	8.83	5.13	628	218
250 x 250	64.4	244	252	11	11	16	82.06	8,780	2,940	10.3	5.98	720	233
	66.5	248	249	8	13	16	84.70	9,930	3,350	10.8	6.29	801	269
	72.4	250	250	9	14	16	92.18	10,800	3,650	10.8	6.29	867	292
	82.2	250	255	14	14	16	104.70	11,500	3,880	10.5	6.09	919	304
300 x 300	84.5	294	302	12	12	18	107.7	16,900	5,520	12.5	7.16	1,150	365
	87	298	299	9	14	18	110.8	18,800	6,240	13.0	7.51	1,270	417
	94	300	300	10	15	18	119.8	20,400	6,750	13.1	7.51	1,360	450
	106	300	305	15	15	18	134.8	21,500	7,100	13.6	7.26	1,440	466
	106	304	301	11	17	18	134.8	23,400	7,730	13.2	7.57	1,540	514
350 x 350	106	338	351	13	13	20	135.3	28,200	9,380	14.4	8.33	1,670	534
	115	344	348	10	16	20	146.0	33,300	11,200	15.1	8.78	1,940	646
	131	344	354	16	16	20	166.6	35,300	11,800	14.6	8.43	2,050	669
	137	350	350	12	19	20	173.9	40,300	13,600	15.2	8.84	2,300	776
	156	350	357	19	19	20	198.4	42,800	14,400	14.7	8.53	2,450	809
	159	356	352	14	22	20	202.0	47,600	16,000	15.3	8.9	2,670	909
400 x 400	140	388	402	15	15	22	178.5	49,000	16,300	16.6	9.54	2,250	809
	147	394	398	11	18	22	186.8	56,100	18,900	17.3	10.10	2,850	951
	168	394	405	18	18	22	214.4	49,700	20,000	16.7	9.65	3,030	985
	172	400	400	13	21	22	218.7	66,600	22,400	17.5	10.10	3,330	1,120
	197	400	408	21	21	22	250.7	70,900	23,800	16.8	9.75	3,540	1,170
	200	406	403	16	24	22	254.9	78,000	26,200	17.5	10.10	3,840	1,300
	232	414	405	18	28	22	295.5	92,800	31,000	17.7	10.20	4,480	1,530
	283	428	407	20	35	22	360.7	119,000	39,400	18.2	10.40	5,570	1,930
	415	458	417	30	50	22	528.6	187,000	60,500	18.8	10.70	8,170	2,900
605	498	432	45	70	22	770.1	298,000	94,400	19.7	11.10	12,000	4,370	

Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Metric Size

BS STANDARDS
BS 4 part 1:1993

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm x mm x kg/m	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
127 x 76 x 13	13	127	76.2	4.2	7.6	6.4	16.8	477	56	5.33	1.83	75	15
152 x 89 x 16	16	152.4	88.9	4.6	7.7	6.4	20.5	838	90	6.4	2.1	110	20
152 x 102 x 13	13.39	149.9	100.1	4.32	5.46	6.4	17.29	683	91.6	6.27	2.3	91.1	18.2
x 17	17.86	153.2	101.6	5.84	7.11	6.4	22.9	920	124	6.32	2.33	120	24.6
x 23	23.81	159.5	102.4	6.6	10.2	6.4	30.58	1340	184	6.6	2.45	167	36.1
178 x 102 x 19	19	177.8	101.6	4.7	7.9	7.6	24.2	1357	138	7.49	2.39	153	27
203 x 102 x 14	14.88	200.4	100.1	4.32	5.21	7.6	19.1	1280	87	8.18	2.14	128	17.4
x 19	19.35	202.9	101.6	5.84	6.48	7.6	24.77	1650	114	8.15	2.14	162	22.4
x 22	22.32	206	102	6.22	8	7.6	28.65	2000	142	8.36	2.22	193	27.9
x 23	23.1	203.2	101.8	5.4	9.3	7.6	29.4	2,105	164	8.46	2.36	207	32
203 x 133 x 25	25.1	203.2	133.2	5.7	7.8	7.6	32.0	2,340	308	8.56	3.10	230	46
x 30	30.0	206.8	133.9	6.4	9.6	7.6	38.2	2,896	385	8.71	3.17	280	58
254 x 102 x 25	25.2	257.2	101.9	6.0	8.4	7.6	32.0	3,415	149	10.30	2.15	266	29
x 28	28.3	260.4	102.2	6.3	10.0	7.6	36.1	4,005	179	10.50	2.22	308	35
254 x 146 x 31	31.1	251.4	146.1	6.0	8.6	7.6	39.7	4,413	448	10.50	3.36	351	61
x 37	37.0	256	146.4	6.3	10.9	7.6	47.2	5,537	571	10.80	3.48	433	78
x 43	43.0	259.6	147.3	7.2	12.7	7.6	54.8	6,544	677	10.90	3.52	504	92
305 x 102 x 25	25.0	304.8	101.6	5.8	6.8	7.6	31.4	4,387	120	11.82	1.96	288	24
x 28	28.0	308.9	101.9	6.1	8.9	7.6	36.3	5,421	157	12.22	2.08	351	31
x 33	33.0	312.7	102.4	6.6	10.8	7.6	41.8	6,487	193	12.46	2.15	415	38
305 x 165 x 40	40.3	303.4	165.0	6.1	10.2	8.9	51.3	8,503	764	12.90	3.86	560	93
x 46	46.1	306.6	165.7	6.7	11.8	8.9	58.7	9,899	896	13.00	3.90	646	108
x 54	54.0	310.4	166.9	7.7	13.7	8.9	68.8	11,700	1,063	13.00	3.93	754	127
356 x 127 x 33	33.1	349	125.4	6.0	8.5	10.2	42.1	8,249	280	14.00	2.58	473	45
x 39	39.1	353.4	126.0	6.6	10.7	10.2	49.8	10,170	358	14.30	2.68	576	57
356 x 171 x 45	45.0	351.4	171.1	7.0	9.7	10.2	57.3	12,070	811	14.50	3.76	687	95
x 51	51.0	355	171.5	7.4	11.5	10.2	64.9	14,140	968	14.80	3.86	796	113
x 57	57.0	358	172.2	8.1	13.0	10.2	72.6	16,040	1,108	14.90	3.91	896	129
x 67	67.1	363.4	173.2	9.1	15.7	10.2	85.5	19,460	1,362	15.10	3.99	1,071	157
406 x 140 x 39	39.0	398	141.8	6.4	8.6	10.2	49.7	12,510	410	15.90	2.87	629	58
x 46	46.0	403.2	142.2	6.8	11.2	10.2	58.6	15,690	538	16.40	3.03	778	76
406 x 178 x 54	54.1	402.6	177.7	7.7	10.9	10.2	69.0	18,720	1,021	16.50	3.85	930	115
x 60	60.1	406.4	177.9	7.9	12.8	10.2	76.5	21,600	1,203	16.80	3.97	1,063	135
x 67	67.1	409.4	178.8	8.8	14.3	10.2	85.5	24,330	1,365	16.90	3.99	1,189	153
x 74	74.2	412.8	179.5	9.5	16.0	10.2	94.5	27,310	1,545	17.00	4.04	1,323	172
457 x 152 x 52	52.3	449.8	152.4	7.6	10.9	10.2	66.6	21,370	645	17.90	3.11	950	85
x 60	59.8	454.6	152.9	8.1	13.3	10.2	76.2	25,500	795	18.30	3.23	1,122	104
x 67	67.2	458.0	153.8	9.0	15.0	10.2	85.6	28,930	913	18.40	3.27	1,263	119
x 74	74.2	462.0	154.4	9.6	17.0	10.2	94.5	32,670	1,047	18.60	3.33	1,414	136
x 82	82.1	465.8	155.3	10.5	18.9	10.2	105.0	36,950	1,185	18.70	3.37	1,571	153

Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Metric Size

BS STANDARDS
BS 4 part 1:1993

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm x mm x kg/m	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
457 x 191 x 67	67.1	453.4	189.9	8.5	12.7	10.2	85.5	29,380	1,452	18.50	4.12	1,296	153
x 74	74.3	457.0	190.4	9.0	14.5	10.2	94.6	33,320	1,671	18.80	4.20	1,458	176
x 82	82.0	460.0	191.3	9.9	16.0	10.2	104.0	37,050	1,871	18.80	4.23	1,611	196
x 89	89.3	463.4	191.9	10.5	17.7	10.2	114.0	41,020	2,089	19.00	4.29	1,770	218
x 98	98.3	467.2	192.8	11.4	19.6	10.2	125.0	45,730	2,347	19.10	4.33	1,957	243
533 x 210 x 82	82.2	528.3	208.8	9.6	13.2	12.7	105.0	47,540	2,007	21.30	4.38	1,800	192
x 92	92.1	533.1	209.3	10.1	15.6	12.7	117.0	55,230	2,389	21.70	4.51	2,072	228
x 101	101.0	536.7	210.0	10.8	17.4	12.7	129.0	61,520	2,692	21.90	4.57	2,292	256
x 109	109.0	539.5	210.8	11.6	18.8	12.7	139.0	66,820	2,943	21.90	4.60	2,477	279
x 122	122.0	544.5	211.9	12.7	21.3	12.7	155.0	76,040	3,388	22.10	4.67	2,793	320
610 x 229 x 101	101.2	602.6	227.6	10.5	14.8	12.7	129.0	75,780	2,915	24.20	4.75	2,515	256
x 113	113.0	607.6	228.2	11.1	17.3	12.7	144.0	87,320	3,434	24.60	4.88	2,874	301
x 125	125.1	612.2	229.0	11.9	19.6	12.7	159.0	98,610	3,932	24.90	4.97	3,221	343
x 140	139.9	617.2	230.2	13.1	22.1	12.7	178.0	111,800	4,505	25.00	5.03	3,622	391
610 x 305 x 149	149.1	612.4	304.8	11.8	19.7	16.5	190.1	125,900	9,308	25.70	7.00	4,111	611
x 179	179.0	620.2	307.1	14.1	23.6	16.5	227.9	153,000	11,410	25.90	7.07	4,935	743
x 238	238.1	635.8	311.4	18.4	31.4	16.5	303.8	207,571	15,838	26.10	7.22	6,559	1,017
686 x 254 x 125	125.2	677.9	253.0	11.7	16.2	15.2	159.0	118,000	4,383	27.20	5.24	3,481	346
x 140	140.1	683.5	253.7	12.4	19.0	15.2	178.0	136,300	5,183	27.60	5.39	3,987	409
x 152	152.4	687.5	254.4	13.2	21.0	15.2	194.0	150,400	5,784	27.80	5.46	4,374	455
x 170	170.2	692.9	255.8	14.5	23.7	15.2	217.0	170,300	6,630	28.00	5.53	4,916	518
762 x 267 x 134	133.9	750.0	264.4	12.0	15.5	16.5	171.0	150,700	4,788	29.70	5.30	4,018	362
x 147	146.9	754.0	265.2	12.8	17.5	16.5	187.0	168,500	5,455	30.00	5.40	4,470	411
x 173	173.0	762.2	266.7	14.3	21.6	16.5	220.0	205,300	6,850	30.50	5.58	5,387	514
x 197	196.8	769.8	268.0	15.6	25.4	16.5	252.0	240,000	8,175	30.90	5.71	6,234	610
838 x 292 x 176	175.9	834.9	291.7	14.0	18.8	17.8	224.0	246,000	7,799	33.10	5.90	5,893	353
x 194	193.8	840.7	292.4	14.7	21.7	17.8	247.0	279,000	9,066	33.60	6.06	6,641	620
x 226	226.5	850.9	293.8	16.1	26.8	17.8	289.0	339,700	11,360	34.30	6.27	7,985	773

Note : The hot - rolled sections listed in this table are rolled at specific intervals.

Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Imperial Size

BS STANDARDS
BS 4 part 1:1993

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section		
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y	
mm x mm x kg/m	lb/ft	in	in	in	in	in	in ²	in ⁴	in ⁴	in	in	in ³	in ³	
127 x 76 x 13	9	5	3	0.165	0.299	0.3	2.6	11.5	1.3	2.1	0.72	4.6	0.9	
152 x 89 x 16	11	6	3.5	0.181	0.303	0.25	3.18	20.1	2.2	2.52	0.83	6.7	1.2	
152 x 102 x 13	9	5.9	3.94	0.17	0.215	0.25	2.68	16.4	2.2	2.47	0.905	5.56	1.11	
	x 17	12	6.03	4	0.23	0.28	0.25	3.55	22.1	2.99	2.49	0.918	7.31	1.5
	x 23	16	6.28	4.03	0.26	0.405	0.25	4.74	32.1	4.43	2.6	0.966	10.2	2.2
178 x 102 x 19	13	7	4	0.185	0.311	0.3	3.75	32.6	3.3	2.95	0.94	9.3	1.6	
203 x 102 x 14	10	7.89	3.94	0.17	0.205	0.3	2.96	30.8	2.09	3.22	0.841	7.81	1.06	
	x 19	13	7.99	4	0.23	0.255	0.3	3.84	39.6	2.73	3.21	0.843	9.91	1.37
	x 20	15	8.11	4.015	0.245	0.315	0.3	4.44	48	3.41	3.29	0.876	11.8	1.7
	x 23	15	8.00	4.008	0.21	0.37	0.3	4.56	51	3.9	3.33	0.93	12.63	1.96
203 x 133 x 25	17	8.00	5.244	0.22	0.31	0.3	4.96	56	7.4	3.37	1.22	14.04	2.82	
	x 30	20	8.14	5.272	0.25	0.38	0.3	5.92	70	9.2	3.43	1.25	17.09	3.51
254 x 102 x 25	17	10.13	4.012	0.24	0.33	0.3	4.96	82	3.6	4.06	0.85	16.23	1.78	
	x 28	19	10.25	4.024	0.25	0.39	0.3	5.60	96	4.3	4.13	0.87	18.80	2.13
254 x 146 x 31	21	9.90	5.752	0.24	0.34	0.3	6.15	106	10.8	4.13	1.32	21.42	3.74	
	x 37	25	10.08	5.764	0.25	0.43	0.3	7.32	133	13.7	4.25	1.37	26.42	4.76
	x 43	29	10.22	5.799	0.28	0.50	0.3	8.49	157	16.3	4.29	1.39	30.76	5.61
305 x 102 x 25	17	11.99	3.993	0.23	0.27	0.3	4.87	105	2.9	4.65	0.77	17.57	1.46	
	x 28	19	12.14	4.005	0.24	0.35	0.3	5.63	130	3.8	4.81	0.82	21.42	1.89
	x 33	22	12.29	4.024	0.26	0.42	0.3	6.46	156	4.6	4.91	0.85	25.32	2.32
305 x 165 x 40	27	11.94	6.496	0.24	0.40	0.4	7.95	204	18.4	5.08	1.52	34.17	5.65	
	x 46	31	12.07	6.524	0.26	0.46	0.4	9.10	238	21.5	5.12	1.54	39.42	6.59
	x 54	36	12.22	6.571	0.31	0.54	0.4	10.66	281	25.5	5.12	1.55	46.01	7.75
356 x 127 x 33	22	13.74	4.937	0.24	0.33	0.4	6.53	198	6.7	5.51	1.02	28.86	2.73	
	x 39	26	13.91	4.961	0.26	0.42	0.4	7.72	244	8.6	5.63	1.06	35.15	3.47
356 x 171 x 45	30	13.83	6.736	0.28	0.38	0.4	8.88	290	19.5	5.71	1.48	41.92	5.79	
	x 51	34	13.98	6.752	0.29	0.45	0.4	10.06	340	23.3	5.83	1.52	48.57	6.90
	x 57	38	14.09	6.780	0.31	0.51	0.4	11.25	385	26.6	5.87	1.54	54.68	7.87
	x 67	45	14.31	6.819	0.36	0.62	0.4	13.25	468	32.7	5.94	1.57	65.36	9.58

Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Imperial Size

BS STANDARDS
BS 4 part 1:1993

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm x mm x kg/m	lb/ft	in	in	in	in	in	in ²	in ⁴	in ⁴	in	in	in ³	in ³
406 x 140 x 39	26	15.67	5.583	0.25	0.34	0.4	7.7	301	9.9	6.26	1.13	38.38	3.53
x 46	31	15.87	5.598	0.27	0.44	0.4	9.08	377	21.9	6.46	1.19	47.48	4.62
406 x 178 x 54	36	15.85	6.996	0.30	0.43	0.4	10.70	450	24.5	6.50	1.52	56.75	7.02
x 60	40	16.00	7.004	0.31	0.50	0.4	11.86	519	28.9	6.61	1.56	64.87	8.24
x 67	45	16.12	7.039	0.31	0.56	0.4	13.25	585	32.8	6.65	1.57	72.56	9.34
x 74	50	16.25	7.067	0.37	0.63	0.4	14.65	656	37.1	6.69	1.59	80.73	10.50
457 x 152 x 52	35	17.71	6.000	0.30	0.43	0.4	10.32	513	15.5	7.05	1.22	57.97	5.16
x 60	40	17.90	6.020	0.32	0.52	0.4	11.81	613	19.1	7.20	1.27	68.47	6.35
x 67	45	18.03	6.055	0.35	0.59	0.4	13.27	695	21.9	7.24	1.29	77.07	7.26
x 74	50	18.19	6.079	0.38	0.67	0.4	14.65	785	25.2	7.32	1.31	86.29	8.30
x 82	55	18.34	6.114	0.41	0.74	0.4	16.28	879	28.5	7.36	1.33	95.87	9.34
457 x 191 x 67	45	17.85	7.476	0.33	0.50	0.4	13.25	706	34.9	7.28	1.62	79.09	9.34
x 74	50	17.99	7.496	0.35	0.57	0.4	14.66	801	40.1	7.40	1.65	88.97	10.74
x 82	55	18.11	7.531	0.39	0.63	0.4	16.12	890	45.0	7.40	1.67	98.31	11.96
x 89	60	18.24	7.555	0.41	0.70	0.4	17.67	986	50.2	7.48	1.69	108.01	13.30
x 98	66	18.39	7.591	0.45	0.77	0.4	19.38	1,099	56.4	7.52	1.70	119.42	14.83
533 x 210 x 82	55	20.80	8.220	0.38	0.52	0.5	16.28	1,142	48.2	8.39	1.72	109.84	11.72
x 92	62	20.99	8.240	0.40	0.61	0.5	18.14	1,327	57.4	8.54	1.78	126.44	13.91
x 101	68	21.13	8.268	0.43	0.69	0.5	20.00	1,478	64.7	8.62	1.80	139.87	15.62
x 109	73	21.24	8.299	0.46	0.74	0.5	21.55	1,605	70.7	8.62	1.81	151.16	17.03
x 122	82	21.44	8.343	0.50	0.84	0.5	24.03	1,827	81.4	8.70	1.84	170.44	19.53
610 x 229 x 101	68	23.72	8.961	0.41	0.58	0.5	20.00	1,821	70.0	9.53	1.87	153.47	15.62
x 113	76	23.92	8.984	0.44	0.68	0.5	22.32	2,098	82.5	9.69	1.92	175.38	18.37
x 125	84	24.10	9.016	0.47	0.77	0.5	24.65	2,369	94.5	9.80	1.96	196.56	20.93
x 140	94	24.30	9.063	0.52	0.87	0.5	27.59	2,686	108.2	9.84	1.98	221.03	23.86
610 x 305 x 149	100	24.11	12.000	0.46	0.78	0.7	29.47	3,025	223.6	10.12	2.76	250.87	37.29
x 179	120	24.42	12.091	0.56	0.93	0.7	35.32	3,676	274.1	10.20	2.78	301.15	45.34
x 238	160	25.03	12.260	0.72	1.24	0.7	47.00	4,986	380.5	10.28	2.84	400.20	62.00
686 x 254 x 125	84	26.69	9.961	0.46	0.64	0.6	24.65	2,835	105.3	10.71	2.06	212.42	21.11
x 140	94	26.91	9.988	0.49	0.75	0.6	27.59	3,275	124.5	10.87	2.12	243.30	24.96
x 152	102	27.07	10.020	0.52	0.83	0.6	30.07	3,613	139.0	10.94	2.15	266.92	27.77
x 170	114	27.28	10.071	0.57	0.93	0.6	33.64	4,091	159.3	11.02	2.18	299.99	31.61
762 x 267 x 134	90	29.53	10.409	0.47	0.61	0.6	26.51	3,621	115.0	11.69	2.09	245.19	22.09
x 147	99	29.69	10.441	0.50	0.69	0.6	28.99	4,048	131.1	11.81	2.13	272.78	25.08
x 173	116	30.01	10.500	0.56	0.85	0.6	34.10	4,932	164.6	12.01	2.20	328.73	31.37
x 197	132	30.31	10.551	0.61	1.00	0.6	38.91	5,766	196.4	12.17	2.25	380.42	37.22
838 x 292 x 176	118	32.87	11.484	0.55	0.74	0.7	34.72	5,910	187.4	13.03	2.32	359.61	21.54
x 194	130	33.10	11.512	0.58	0.85	0.7	38.29	6,703	217.8	13.23	2.39	405.26	37.83
x 226	152	33.50	11.567	0.63	1.06	0.7	44.80	8,161	272.9	13.50	2.47	487.27	47.17

Note : The hot - rolled sections listed in this table are rolled at specific intervals.
Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Metric Size

BS STANDARDS
BS 4 part 1:1993

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm x mm x kg/m	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
152 x 152 x 23	23.0	152.4	152.2	5.8	6.8	7.6	29.2	1,250	400	6.54	3.70	164	53
x 30	30.0	157.6	152.9	6.5	9.4	7.6	38.3	1,748	560	6.76	3.83	222	73
x 37	37.0	161.8	154.4	8.0	11.5	7.6	47.1	2,210	706	6.85	3.87	273	92
203 x 203 x 46	46.1	203.2	203.6	7.2	11.0	10.2	58.8	4,568	1,548	8.82	5.13	450	152
x 52	52.0	206.2	204.3	7.9	12.5	10.2	66.3	5,259	1,778	8.91	5.18	510	174
x 60	60.0	209.6	205.8	9.4	14.2	10.2	76.4	6,125	2,065	8.96	5.20	5843	201
x 71	71.0	215.8	206.4	10.0	17.3	10.2	90.4	7,618	2,537	9.18	5.30	706	246
x 86	86.1	222.2	209.1	12.7	20.5	10.2	110.0	9,449	3,127	9.28	5.34	850	299
254 x 254 x 73	73.1	254.1	254.6	8.6	14.2	12.7	93.1	11,410	3,908	11.10	6.48	898	307
x 89	88.9	260.3	256.3	10.3	17.3	12.7	113.0	14,270	4,857	11.20	6.55	1,096	379
x 107	107.1	266.7	258.8	12.8	20.5	12.7	136.0	17,510	5,928	11.30	6.59	1,313	458
x 132	132.0	276.3	261.3	15.3	25.3	12.7	168.0	22,530	7,531	11.60	6.69	1,631	576
x 167	167.1	289.1	265.2	19.2	31.7	12.7	213.0	30,000	9,870	11.90	6.81	2,075	744
305 x 305 x 97	96.9	307.9	305.3	9.9	15.4	15.2	123.0	22,250	7,308	13.40	7.69	1,445	479
x 118	117.9	314.5	307.4	12.0	18.7	15.2	150.0	27,670	9,059	13.60	7.77	1,760	589
x 137	136.9	320.5	309.2	13.8	21.7	15.2	174.0	32,810	10,700	13.70	7.83	2,048	692
x 158	158.1	327.1	311.2	15.8	25.0	15.2	201.0	38,750	12,570	13.90	7.90	2,369	808
x 198	198.1	339.9	314.5	19.1	31.4	15.2	252.0	50,900	16,300	14.20	8.04	2,995	1,037
x 240	240.0	352.5	318.4	23.0	37.7	15.2	306.0	64,200	20,310	14.50	8.15	3,643	1,276
x 283	282.9	356.3	322.2	26.8	44.1	15.2	360.0	78,870	24,630	14.80	8.27	4,318	1,529
356 x 368 x 129	129.0	355.6	368.6	10.4	17.5	15.2	164.0	40,250	14,610	15.60	9.43	2,264	793
x 153	152.9	362.0	370.5	12.3	20.7	15.2	195.0	48,590	17,550	15.80	9.49	2,684	948
x 177	177.0	368.2	372.6	14.4	23.8	15.2	226.0	57,120	20,530	15.90	9.54	3,103	1,102
x 202	201.9	374.6	374.7	16.5	27.0	15.2	257.0	66,260	23,690	16.10	9.60	3,538	1,264
356 x 406 x 235	235.1	381.0	394.8	18.4	30.2	15.2	299.8	79,110	31,008	16.20	10.20	4,153	1,570

Note : The hot - rolled sections listed in this table are rolled at specific intervals.

Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

Imperial Size

BS STANDARDS
BS 4 part 1:1993

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section		
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y	
mm x mm x kg/m	lb/ft	in	in	in	in	in	in ²	in ⁴	in ⁴	in	in	in ³	in ³	
152 x 152 x 23	16	6.00	5.992	0.228	0.268	0.3	4.53	30	10	2.57	1.46	10	3.2	
	x 30	20	6.20	6.020	0.256	0.370	0.3	5.94	42	13	2.66	1.51	13.5	4.5
	x 37	25	6.37	6.079	0.315	0.453	0.3	7.30	53	17	2.70	1.52	16.7	5.6
203 x 203 x 46	31	8.00	8.016	0.283	0.433	0.4	9.11	110	37	3.47	2.02	27.5	9.3	
	x 52	35	8.12	8.043	0.311	0.492	0.4	10.28	126	43	3.51	2.04	31.1	10.6
	x 60	40	8.25	8.102	0.370	0.559	0.4	11.84	147	50	3.53	2.05	35.6	12.3
	x 71	48	8.50	8.126	0.394	0.681	0.4	14.01	183	61	3.61	2.09	43.1	15.0
	x 86	58	8.75	8.232	0.500	0.807	0.4	17.05	227	75	3.65	2.10	51.9	18.2
254 x 254 x 73	49	10.00	10.024	0.339	0.559	0.5	14.43	274	94	4.37	2.55	54.8	18.7	
	x 89	60	10.25	10.091	0.406	0.681	0.5	17.52	343	117	4.41	2.58	66.9	23.1
	x 107	72	10.50	10.189	0.504	0.807	0.5	21.08	421	142	4.45	2.59	80.1	27.9
	x 132	89	10.88	10.287	0.602	0.996	0.5	26.04	541	181	4.57	2.63	99.5	35.1
	x 167	112	11.38	10.441	0.755	1.250	0.5	33.02	721	237	4.69	2.68	126.6	45.4
305 x 305 x 97	65	12.12	12.020	0.390	0.606	0.6	19.07	535	176	5.28	3.03	88.2	29.2	
	x 118	79	12.38	12.102	0.472	0.736	0.6	23.25	665	218	5.35	3.06	107.4	35.9
	x 137	92	12.62	12.173	0.543	0.854	0.6	26.97	788	257	5.39	3.08	125.0	42.2
	x 158	106	12.88	12.252	0.622	0.984	0.6	31.16	931	302	5.47	3.11	144.6	49.3
	x 198	133	13.38	12.382	0.752	1.236	0.6	39.06	1,223	392	5.59	3.17	182.8	63.3
	x 240	161	13.88	12.535	0.906	1.484	0.6	47.43	1,542	488	5.71	3.21	222.3	77.9
	x 283	190	14.03	12.685	1.055	1.736	0.6	55.80	1,895	592	5.83	3.26	263.5	93.3
356 x 368 x 129	87	14.00	14.512	0.409	0.689	0.6	25.42	967	351	6.14	3.71	138.2	48.4	
	x 153	103	14.25	14.587	0.484	0.815	0.6	30.23	1,167	422	6.22	3.74	163.8	57.9
	x 177	119	14.50	14.669	0.567	0.937	0.6	35.03	1,372	493	6.26	3.76	189.4	67.2
	x 202	136	14.75	14.752	0.650	1.063	0.6	39.84	1,592	569	6.34	3.78	215.9	77.1
356 x 406 x 235	158	14.97	15.516	0.723	1.187	0.6	46.47	1,901	745	6.38	4.02	253.4	95.8	

Note : The hot - rolled sections listed in this table are rolled at specific intervals.
Thickness Tolerance : ± 10%



SECTIONS - BEAMS & COLUMNS

AS/NZ STANDARDS
AS/NZS 3679.1:1996

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm x mm x kg/m	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
150 UB	14.0	150.0	75	5.0	7.0	8.0	17.8	666	50	6.11	1.66	89	13
	18.0	155.0	75	6.0	9.5	8.0	23.0	905	67	6.28	1.71	117	18
200 UB	18.2	198.0	99	4.5	7.0	11.0	23.2	1,580	114	8.26	2.21	160	23
	22.3	201.6	133	5.0	7.0	8.9	28.7	2,100	275	8.55	3.10	208	41
	25.4	203.2	133	5.8	7.8	8.9	32.3	2,360	306	8.54	3.08	232	46
	29.8	207.0	134	6.3	9.6	8.9	38.2	2,910	386	8.73	3.18	281	58
250 UB	25.7	248.0	124	5.0	8.0	12.0	32.7	3,540	255	10.40	2.79	285	41
	31.4	251.6	146	6.1	8.6	8.9	40.1	4,450	447	10.50	3.34	354	61
310 UB	37.3	256.2	146	6.4	10.9	8.9	47.5	5,570	566	10.80	3.45	435	78
	32.0	298.0	149	5.5	8.0	13.0	40.8	6,320	442	12.40	3.29	424	59
	40.4	304.0	165	6.1	10.2	11.4	52.1	8,640	765	12.90	3.83	569	93
360 UB	46.2	307.2	166	6.7	11.8	11.4	59.3	10,000	901	13.00	3.90	654	109
	44.7	352.0	171	6.9	9.7	11.4	57.2	12,100	810	14.60	3.76	689	95
	50.7	355.6	171	7.3	11.5	11.4	64.7	14,200	960	14.80	3.85	798	112
410 UB	56.7	358.6	172	8.0	13.0	11.4	72.4	16,100	1,100	14.90	3.90	899	128
	53.7	402.6	178	7.6	10.9	11.4	68.9	18,800	1,030	16.50	3.86	933	115
460 UB	59.7	406.4	178	7.8	12.8	11.4	76.4	21,600	1,210	16.80	3.97	1,060	135
	67.1	453.8	190	8.5	12.7	11.4	85.8	29,600	1,450	18.60	4.12	1,300	153
530 UB	74.6	457.4	190	9.1	14.5	11.4	95.2	33,500	1,660	18.80	4.18	1,460	175
	82.1	460.4	191	9.9	16.0	11.4	105.0	37,200	1,860	18.80	4.22	1,610	195
610 UB	82.0	528.2	209	9.6	13.2	14.0	105.0	47,700	2,010	21.30	4.38	1,810	193
	92.4	533.0	209	10.2	15.6	14.0	118.0	55,400	2,380	21.70	4.49	2,080	228
610 UB	101.0	602.0	228	10.6	14.8	14.0	130.0	76,100	2,930	24.20	4.75	2,530	257
	113.0	607.0	228	11.2	17.3	14.0	145.0	87,500	3,430	24.60	4.87	2,880	300
	125.0	611.6	229	11.9	19.6	14.0	160.0	98,600	3,930	24.90	4.96	3,230	343

Thickness Tolerance : ± 10%

AS/NZ STANDARDS
AS/NZS 3679.1:1996

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm x mm x kg/m	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
100 UC	14.8	97.0	99	5.0	7.0	10.0	18.9	318	114	4.11	2.45	66	23
150 UC	23.4	152.4	152	6.1	6.8	8.9	29.8	1,260	398	6.51	3.66	166	52
	30	157.6	153	6.6	9.4	8.9	38.6	1,760	562	6.75	3.81	223	73
200 UC	37.2	161.8	154	8.1	11.5	8.9	47.3	2,220	701	6.84	3.85	274	91
	46.2	203.4	203	7.3	11.0	11.4	59.0	4,590	1,530	8.82	5.10	451	151
250 UC	52.2	206.4	204	8.0	12.5	11.4	66.6	5,280	1,770	8.91	5.15	512	174
	59.5	209.8	205	9.3	14.2	11.4	76.2	6,130	2,040	8.97	5.17	584	199
310 UC	72.9	253.8	254	8.6	14.2	14.0	93.2	11,400	3,880	11.10	6.45	897	306
	89.5	260.0	256	10.5	17.3	14.0	114.0	14,300	4,840	11.20	6.52	1,100	378
310 UC	96.8	308.0	305	9.9	15.4	16.5	124.0	22,300	7,290	13.40	7.67	1,450	478
	118.0	314.6	307	11.9	18.7	16.5	150.0	27,700	9,020	13.60	7.75	1,760	588
	137.0	320.6	309	13.8	21.7	16.5	175.0	32,900	10,700	13.70	7.82	2,050	691
	158.0	327.2	311	15.7	25.0	16.5	201.0	38,800	12,500	13.90	7.89	2,370	807

Note : The hot-rolled sections listed in this table are rolled at specific intervals.

Thickness Tolerance : ± 10%