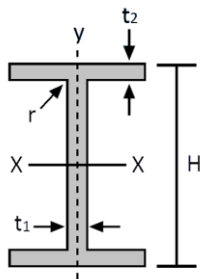


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Material Specification: EN 10025 S275JR
EN 10025 S355JR/JO/J2G3
BS 4360 Gr 43A/50B
JIS G3101 SS400

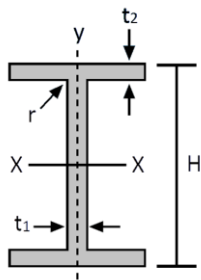


(Imperial units)

Depth x Width	Unit Weight	Standard Sectional Dimension (in)					Unit Weight	Standard Sectional Dimension (mm)					Sectional Area	Second Moment Of Area		Radius Of Gyration		Modulus Of Section		Plastic Modulus		Warping Constant	Torsional Constant
		H	B	t1	t2	r		H	B	t1	t2	r	A	Ix	Iy	ix	iy	Sx	Sy	Zx	Zy	Cw	J
in	Lbs/ft	in	in	in	in	in	Kg/m	mm	mm	mm	mm	mm	cm²	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶, x10³	cm⁴
W12 x 4	14	11.91	3.97	0.20	0.22	0.30	21.1	302.5	100.8	5.1	5.7	7.6	26.8	3,680	97.7	11.7	1.91	243	19.4	286	31.1	21	3.12
	16	11.99	3.99	0.22	0.26	0.30	23.8	304.5	101.3	5.6	6.7	7.6	30.4	4,260	117	11.8	1.96	280	23.0	328	36.9	26	4.44
	19	12.16	4.00	0.24	0.35	0.30	28.3	308.9	101.7	6.0	8.9	7.6	36.1	5,410	157	12.2	2.08	350	30.8	406	48.9	35	7.66
	22	12.31	4.03	0.26	0.43	0.30	32.8	312.7	102.4	6.6	10.8	7.6	41.8	6,500	194	12.5	2.15	416	37.9	481	60.0	44	12.3
W12 x 6½	26	12.22	6.49	0.23	0.38	0.30	38.7	310.4	164.8	5.8	9.7	7.6	49.4	8,520	724	13.1	3.83	549	87.9	611	134	164	12.6
	30	12.34	6.52	0.26	0.44	0.30	44.6	313.4	165.6	6.6	11.2	7.6	56.8	9,930	849	13.2	3.87	634	103	707	157	194	19.2
	35	12.50	6.56	0.30	0.52	0.30	52.3	317.5	166.6	7.6	13.2	7.6	66.6	11,900	1020	13.4	3.91	750	122	837	188	236	30.9
W12 x 8	40	11.94	8.00	0.30	0.52	0.60	59.7	303.3	203.3	7.5	13.1	15.2	76.0	12,900	1840	13.0	4.92	851	181	944	276	386	39.4
	45	12.06	8.04	0.33	0.57	0.60	66.9	306.3	204.3	8.5	14.6	15.2	85.2	14,600	2080	13.1	4.94	953	204	1060	311	441	54.3
	50	12.19	8.08	0.37	0.64	0.60	74.5	309.6	205.2	9.4	16.3	15.2	94.9	16,400	2350	13.1	4.98	1060	229	1190	351	505	74.3
W12 x 10	53	12.06	10.00	0.35	0.57	0.60	78.9	306.3	253.9	8.8	14.6	15.2	100.5	17,700	3990	13.3	6.30	1160	314	1280	478	847	65.7
	58	12.19	10.01	0.36	0.64	0.60	86.4	309.6	254.3	9.1	16.3	15.2	110.1	19,800	4470	13.4	6.37	1280	352	1420	534	961	87.2
W12 x 12	65	12.12	12.00	0.39	0.61	0.60	96.8	307.8	304.8	9.9	15.4	15.2	123.3	22,200	7270	13.4	7.68	1440	477	1590	724	1550	91.7
	72	12.25	12.04	0.43	0.67	0.60	107	311.2	305.8	10.9	17.0	15.2	136.2	24,800	8110	13.5	7.72	1590	530	1770	805	1750	122
	79	12.38	12.08	0.47	0.74	0.60	118	314.5	306.8	11.9	18.7	15.2	149.7	27,600	9010	13.6	7.76	1760	587	1950	892	1970	161
	87	12.53	12.13	0.52	0.81	0.60	130	318.3	308.0	13.1	20.6	15.2	165.2	30,800	10000	13.7	7.78	1940	649	2170	991	2220	215
	96	12.71	12.16	0.55	0.90	0.60	143	322.8	308.9	14.0	22.9	15.2	182.2	34,700	11300	13.8	7.88	2150	732	2420	1110	2530	289
	106	12.89	12.22	0.61	0.99	0.60	158	327.4	310.4	15.5	25.1	15.2	200.8	38,800	12500	13.9	7.89	2370	805	2680	1230	2860	381
	120	13.12	12.32	0.71	1.11	0.60	179	333.2	312.9	18.0	28.1	15.2	227.7	44,600	14400	14.0	7.95	2680	920	3050	1400	3340	544
	136	13.41	12.40	0.79	1.25	0.60	203	340.6	315.0	20.1	31.8	15.2	258	51,900	16600	14.2	8.02	3050	1050	3510	1610	3950	784
	152	13.71	12.48	0.87	1.40	0.60	227	348.2	317.0	22.1	35.6	15.2	288.9	59,700	18900	14.4	8.09	3430	1190	3980	1830	4620	1090
	161	13.88	12.54	0.91	1.48	0.60	240	352.5	318.4	23.0	37.7	15.2	305.8	64,200	20300	14.5	8.15	3640	1280	4250	1950	5020	1290
	170	14.03	12.57	0.96	1.56	0.60	253	356.4	319.3	24.4	39.6	15.2	322.5	68,500	21500	14.6	8.16	3840	1350	4500	2060	5390	1500
	190	14.38	12.67	1.06	1.74	0.60	283	365.3	321.8	26.9	44.1	15.2	360.4	78,800	24500	14.8	8.24	4310	1520	5100	2340	6320	2060
	210	14.71	12.79	1.18	1.90	0.60	313	373.6	324.9	30.0	48.3	15.2	398.9	89,300	27700	15.0	8.33	4780	1710	5710	2620	7300	2740
	230	15.05	12.89	1.28	2.07	0.60	343	382.3	327.5	32.6	52.6	15.2	436.8	100,600	30900	15.2	8.41	5260	1890	6330	2900	8370	3550
	252	15.41	13.00	1.39	2.25	0.60	375	391.4	330.3	35.4	57.2	15.2	477.9	113,200	34500	15.4	8.50	5780	2090	7020	3210	9590	4580
	279	15.85	13.14	1.53	2.47	0.60	415	402.6	333.8	38.9	62.7	15.2	528.4	129,500	39000	15.7	8.59	6430	2340	7890	3600	11230	6070
	305	16.32	13.24	1.63	2.70	0.60	454	414.5	336.2	41.3	68.7	15.2	578.4	147,600	43700	16.0	8.69	7120	2600	8810	4010	13010	7880

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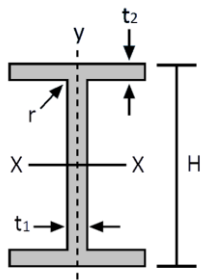


(Imperial units)

Depth x Width	Unit Weight	Standard Sectional Dimension (in)					Unit Weight	Standard Sectional Dimension (mm)					Sectional Area	Second Moment Of Area		Radius Of Gyration		Modulus Of Section		Plastic Modulus		Warping Constant	Torsional Constant
		H	B	t1	t2	r		H	B	t1	t2	r	A	Ix	Iy	ix	iy	Sx	Sy	Zx	Zy	Cw	J
in	Lbs/ft	in	in	in	in	in	Kg/m	mm	mm	mm	mm	mm	cm²	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶ , x10³	cm⁴
W14 x 5	22	13.74	5.00	0.23	0.33	0.40	32.8	349.0	127.0	5.8	8.5	10.2	41.74	8,270	291	14.1	2.64	474	45.8	542	71.8	84.1	8.71
	26	13.91	5.02	0.26	0.42	0.40	39.1	353.3	127.6	6.5	10.7	10.2	49.77	10,200	372	14.3	2.73	577	58.2	661	91.1	109	15.1
W14 x 6¾	30	13.84	6.73	0.27	0.39	0.40	45.0	351.5	170.9	6.9	9.8	10.2	57.29	12,100	817	14.5	3.78	689	95.6	777	148	238	16.3
	34	13.98	6.74	0.28	0.46	0.40	50.7	355.1	171.3	7.2	11.6	10.2	64.53	14,200	973	14.8	3.88	800	114	896	175	287	23.9
	38	14.10	6.77	0.31	0.52	0.40	56.7	358.1	172.0	7.9	13.1	10.2	72.18	16,100	1110	14.9	3.92	899	129	1010	200	331	33.6
W14 x 8	43	13.66	8.00	0.30	0.53	0.60	64.0	347.0	203.1	7.7	13.5	15.2	81.46	17,800	1890	14.8	4.82	1030	186	1140	285	524	43.4
	48	13.79	8.03	0.34	0.59	0.60	71.5	350.3	204.0	8.6	15.1	15.2	91.12	20,200	2140	14.9	4.85	1150	210	1280	322	600	59.9
	53	13.92	8.06	0.37	0.66	0.60	79.1	353.6	204.7	9.4	16.8	15.2	100.8	22,600	2410	15.0	4.89	1280	236	1430	361	681	80.8
W14 x 10	61	13.89	10.00	0.37	0.65	0.60	90.8	352.8	253.9	9.5	16.4	15.2	115.7	26,700	4480	15.2	6.22	1510	353	1680	538	1270	91.4
	68	14.04	10.04	0.41	0.72	0.60	101	356.6	254.9	10.5	18.3	15.2	128.9	30,100	5060	15.3	6.27	1690	397	1880	605	1450	125
	74	14.17	10.07	0.45	0.78	0.60	110	359.9	255.8	11.4	19.9	15.2	140.3	33,100	5560	15.4	6.30	1840	435	2050	663	1600	161
	82	14.31	10.13	0.51	0.85	0.60	122	363.5	257.3	13.0	21.7	15.2	155.3	36,700	6170	15.4	6.30	2020	480	2270	734	1800	212
W14 x 14½	90	14.02	14.52	0.44	0.71	0.60	134	356.1	368.8	11.2	18.0	15.2	170.6	41,500	15100	15.6	9.41	2330	819	2560	1240	4300	169
	99	14.16	14.57	0.48	0.78	0.60	148	359.7	370.0	12.3	19.8	15.2	187.9	46,200	16700	15.7	9.43	2570	903	2840	1370	4830	224
	109	14.32	14.61	0.52	0.86	0.60	162	363.7	371.0	13.3	21.8	15.2	206.3	51,500	18600	15.8	9.50	2830	1000	3140	1520	5420	296
	120	14.48	14.67	0.59	0.94	0.60	179	367.8	372.6	15.0	23.9	15.2	228.1	57,300	20600	15.8	9.50	3120	1110	3480	1680	6090	394
	132	14.66	14.72	0.65	1.03	0.60	197	372.4	374.0	16.4	26.2	15.2	250.4	63,800	22900	16.0	9.56	3430	1220	3840	1860	6840	518
W14 x 16	145	14.78	15.50	0.68	1.09	0.60	216	375.4	393.7	17.3	27.7	15.2	275.5	71,300	28200	16.1	10.12	3800	1430	4270	2170	8510	638
	159	14.98	15.57	0.74	1.19	0.60	237	380.5	395.4	18.9	30.2	15.2	301.3	79,100	31100	16.2	10.16	4160	1570	4700	2390	9550	827
	176	15.22	15.65	0.83	1.31	0.60	262	386.6	397.5	21.1	33.3	15.2	334.2	89,100	34900	16.3	10.22	4610	1760	5250	2670	10900	1120
	193	15.48	15.71	0.89	1.44	0.60	288	393.2	399.0	22.6	36.6	15.2	366.4	99,800	38800	16.5	10.29	5080	1940	5820	2960	12300	1470
	211	15.72	15.80	0.98	1.56	0.60	314	399.3	401.3	24.9	39.6	15.2	399.5	111,000	42700	16.7	10.34	5560	2130	6390	3240	13800	1870
	233	16.04	15.89	1.07	1.72	0.60	347	407.4	403.6	27.2	43.7	15.2	441.8	125,000	47900	16.8	10.41	6140	2370	7140	3620	15800	2510
	257	16.38	16.00	1.17	1.89	0.60	383	416.1	406.3	29.8	48.0	15.2	487.4	142,000	53700	17.1	10.50	6830	2640	7970	4040	18200	3330
	283	16.74	16.11	1.29	2.07	0.60	422	425.2	409.2	32.8	52.6	15.2	537.4	160,000	60200	17.3	10.58	7530	2940	8890	4490	20800	4400
	311	17.12	16.23	1.41	2.26	0.60	463	434.8	412.2	35.8	57.4	15.2	589.7	180,000	67100	17.5	10.67	8280	3260	9880	4980	23900	5740
	342	17.54	16.36	1.54	2.47	0.60	509	445.5	415.5	39.1	62.7	15.2	648.2	204,000	75100	17.7	10.76	9160	3610	11010	5540	27500	7510
	370	17.92	16.48	1.65	2.66	0.60	551	455.2	418.5	42.0	67.6	15.2	702.2	227,000	82800	18.0	10.86	9970	3960	12070	6070	31000	9430

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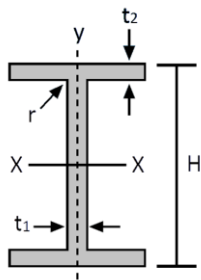


(Imperial units)

Depth x Width	Unit Weight	Standard Sectional Dimension (in)					Unit Weight	Standard Sectional Dimension (mm)					Sectional Area	Second Moment Of Area		Radius Of Gyration		Modulus Of Section		Plastic Modulus		Warping Constant	Torsional Constant
		H	B	t1	t2	r		H	B	t1	t2	r	A	Ix	Iy	ix	iy	Sx	Sy	Zx	Zy	Cw	J
in	Lbs/ft	in	in	in	in	in	Kg/m	mm	mm	mm	mm	mm	cm²	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶ , x10³	cm⁴
W16 x 5½	26	15.69	5.50	0.25	0.35	0.40	39.1	398.5	139.7	6.4	8.8	10.2	49.86	12,600	401	15.9	2.84	632	57.4	728	90.3	152	11.3
	31	15.88	5.52	0.28	0.44	0.40	46.3	403.4	140.3	7.0	11.2	10.2	58.99	15,600	516.9	16.3	2.96	773	73.7	887	115	198	19
W16 x 7	36	15.86	6.98	0.30	0.43	0.40	53.5	402.8	177.4	7.5	10.9	10.2	68.14	18,600	1020	16.5	3.87	924	115	1050	177	389	22.9
	40	16.01	7.00	0.30	0.50	0.40	59.5	406.7	177.7	7.7	12.8	10.2	75.73	21,500	1200	16.8	3.98	1060	135	1190	208	464	32.9
	45	16.13	7.04	0.35	0.57	0.40	67.4	409.7	178.7	8.8	14.4	10.2	85.88	24,500	1370	16.9	3.99	1200	153	1350	238	535	47.1
	50	16.26	7.07	0.38	0.63	0.40	74.8	413.0	179.6	9.7	16.0	10.2	95.32	27,400	1550	17.0	4.03	1330	173	1510	268	609	64.1
	57	16.43	7.12	0.43	0.72	0.40	84.9	417.3	180.8	10.9	18.2	10.2	108.2	31,600	1800	17.1	4.08	1510	199	1730	310	714	93.2
W16 x 10¼	67	16.33	10.24	0.39	0.67	0.40	100	414.8	260.0	10.0	16.9	10.2	126.9	39,700	4950	17.7	6.25	1910	381	2130	581	1960	100
	77	16.52	10.30	0.46	0.76	0.40	115	419.6	261.5	11.6	19.3	10.2	146	46,100	5760	17.8	6.28	2200	441	2460	673	2300	150
	89	16.75	10.37	0.52	0.87	0.40	132	425.4	263.3	13.3	22.2	10.2	168.5	54,000	6760	17.9	6.33	2540	514	2860	787	2740	228
	100	16.97	10.43	0.59	0.98	0.40	149	431.0	264.8	14.9	25.0	10.2	190.1	61,800	7750	18.0	6.38	2870	585	3250	899	3190	324
W18 x 6	35	17.70	6.00	0.30	0.43	0.40	52.1	449.6	152.4	7.6	10.8	10.2	66.34	21,200	639	17.9	3.10	943	83.9	1090	132	307	21.4
	40	17.90	6.02	0.31	0.52	0.40	59.5	454.7	152.8	8.0	13.3	10.2	75.79	25,400	793	18.3	3.23	1120	104	1280	163	385	33.7
	46	18.06	6.06	0.36	0.61	0.40	68.5	458.7	153.9	9.1	15.4	10.2	87.23	29,600	939	18.4	3.28	1290	122	1490	192	460	51.2
W18 x 7½	41	17.70	7.45	0.32	0.43	0.40	60	449.6	189.2	8.1	10.8	10.2	76.6	25,400	1220	18.2	3.99	1130	129	1290	201	587	26
	45	17.86	7.48	0.33	0.50	0.40	67	453.6	189.9	8.5	12.7	10.2	85.5	29,400	1450	18.5	4.12	1300	153	1470	237	704	38
	50	17.99	7.50	0.35	0.57	0.40	74.3	456.9	190.4	9.0	14.5	10.2	94.62	33,300	1670	18.8	4.20	1460	175	1650	272	816	52.1
	55	18.11	7.53	0.39	0.63	0.40	82.0	460.0	191.3	9.9	16.0	10.2	104.5	37,100	1870	18.8	4.23	1610	196	1830	304	920	69.7
	60	18.24	7.56	0.41	0.70	0.40	89.3	463.3	191.9	10.5	17.7	10.2	113.8	41,000	2090	19.0	4.29	1770	218	2010	338	1030	91.3
	65	18.35	7.59	0.45	0.75	0.40	96.8	466.1	192.8	11.4	19.1	10.2	123.3	44,700	2290	19.0	4.31	1920	238	2190	370	1140	115
	66	18.39	7.59	0.45	0.77	0.40	98	467.2	192.8	11.4	19.6	10.2	125.3	45,700	2350	19.1	4.33	1960	244	2230	379	1170	122
	71	18.47	7.63	0.50	0.81	0.40	106	469.1	193.9	12.6	20.6	10.2	134.7	48,800	2510	19.0	4.32	2080	259	2390	405	1260	

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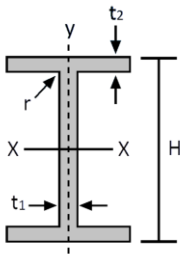


(Imperial units)

Depth x Width	Unit Weight	Standard Sectional Dimension (in)					Unit Weight	Standard Sectional Dimension (mm)					Sectional Area	Second Moment Of Area		Radius Of Gyration		Modulus Of Section		Plastic Modulus		Warping Constant	Torsional Constant
		H	B	t1	t2	r		H	B	t1	t2	r	A	Ix	Iy	ix	iy	Sx	Sy	Zx	Zy	Cw	J
in	Lbs/ft	in	in	in	in	in	Kg/m	mm	mm	mm	mm	mm	cm²	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶, x10³	cm⁴
W18 x 11	76	18.21	11.04	0.43	0.68	0.40	113	462.5	280.3	10.8	17.3	10.2	144.1	55,500	6350	19.6	6.64	2400	453	2670	693	3150	119
	86	18.39	11.09	0.48	0.77	0.40	128	467.1	281.7	12.2	19.6	10.2	163.5	63,700	7310	19.7	6.69	2730	519	3050	794	3660	173
	97	18.59	11.15	0.54	0.87	0.40	145	472.2	283.1	13.6	22.1	10.2	184.2	72,700	8370	19.9	6.74	3080	591	3460	906	4230	246
	106	18.73	11.20	0.59	0.94	0.40	158	475.5	284.5	15.0	23.9	10.2	201.1	79,700	9190	19.9	6.76	3350	646	3780	992	4680	315
	119	18.97	11.26	0.65	1.06	0.40	177	481.8	286.1	16.6	26.9	10.2	225.9	91,000	10500	20.1	6.82	3780	734	4280	1130	5430	445
	130	19.25	11.16	0.67	1.20	0.40	194	489.0	283.5	17.0	30.5	10.2	246.6	103,000	11600	20.4	6.86	4210	818	4760	1260	6090	609
	143	19.49	11.22	0.73	1.32	0.40	213	495.0	285.0	18.5	33.5	10.2	271.0	114,000	12900	20.5	6.90	4610	905	5270	1400	6880	804
	158	19.72	11.30	0.81	1.44	0.40	235	500.9	287.0	20.6	36.6	10.2	299.1	127,000	14500	20.6	6.96	5070	1010	5840	1550	7770	1060
	175	20.04	11.37	0.89	1.59	0.40	260	509.0	288.9	22.6	40.4	10.2	331.1	144,000	16300	20.9	7.02	5660	1130	6520	1740	8910	1420
	192	20.35	11.46	0.96	1.75	0.40	286	516.9	291.0	24.4	44.4	10.2	363.8	161,000	18300	21.0	7.09	6230	1260	7240	1940	10180	1880
	211	20.67	11.56	1.06	1.91	0.40	315	525.0	293.5	26.9	48.5	10.2	400.7	180,000	20500	21.2	7.15	6860	1400	8030	2170	11600	2470
	234	21.06	11.65	1.16	2.11	0.40	349	534.9	295.9	29.5	53.6	10.2	444.3	204,000	23200	21.4	7.23	7630	1570	9000	2440	13400	3320
	258	21.46	11.77	1.28	2.30	0.40	384	545.1	299.0	32.5	58.4	10.2	489.3	229,000	26100	21.6	7.30	8400	1750	10000	2730	15410	4340
	283	21.85	11.89	1.40	2.50	0.40	421	555.0	302.0	35.6	63.5	10.2	536.8	257,000	29300	21.9	7.39	9260	1940	11100	3030	17600	5620
	311	22.32	12.00	1.52	2.74	0.40	463	566.9	304.9	38.6	69.6	10.2	590.4	290,000	33100	22.2	7.49	10200	2170	12300	3400	20330	7390
W21 x 6½	44	20.66	6.50	0.35	0.45	0.50	65.7	524.8	165.1	8.9	11.4	12.7	83.71	35,000	859	20.4	3.20	1330	104	1560	166	563	33.1
	50	20.83	6.53	0.38	0.54	0.50	74.7	529.1	165.9	9.7	13.6	12.7	95.19	41,100	1040	20.8	3.31	1550	125	1810	200	688	48.9
	57	21.06	6.56	0.41	0.65	0.50	84.8	534.9	166.5	10.3	16.5	12.7	108.0	48,600	1270	21.2	3.43	1820	153	2110	243	853	74.4
W21 x 8¾	48	20.60	8.14	0.35	0.43	0.50	71.5	523.2	206.8	8.9	10.9	12.7	91.09	39,800	1610	20.9	4.20	1520	156	1750	244	1050	34.6
	55	20.80	8.22	0.38	0.52	0.50	82.2	528.3	208.8	9.6	13.2	12.7	104.7	47,500	2010	21.3	4.38	1800	193	2060	300	1330	52.5
	62	20.99	8.24	0.40	0.61	0.50	92.6	533.1	209.3	10.2	15.6	12.7	117.9	55,300	2390	21.7	4.50	2070	228	2370	356	1600	77
	68	21.13	8.27	0.43	0.69	0.50	101	536.7	210.1	10.9	17.4	12.7	129.2	61,600	2700	21.8	4.57	2300	257	2620	400	1810	102
	73	21.24	8.30	0.46	0.74	0.50	109	539.5	210.7	11.6	18.8	12.7	138.8	66,800	2940	21.9	4.60	2480	279	2830	435	1990	127
	83	21.43	8.35	0.52	0.83	0.50	123	544.3	212.2	13.1	21.2	12.7	157.1	76,200	3390	22.0	4.65	2800	320	3210	500	2310	182
	93	21.62	8.42	0.58	0.93	0.50	138	549.1	213.9	14.7	23.6	12.7	176.1	86,100	3860	22.1	4.68	3140	361	3610	568	2660	253

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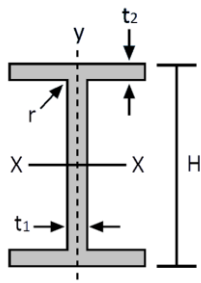


(Imperial units)

Depth x Width	Unit Weight	Standard Sectional Dimension (in)					Unit Weight	Standard Sectional Dimension (mm)					Sectional Area	Second Moment Of Area		Radius Of Gyration		Modulus Of Section		Plastic Modulus		Warping Constant	Torsional Constant
		H	B	t1	t2	r		H	B	t1	t2	r	A	Ix	Iy	ix	iy	Sx	Sy	Zx	Zy	Cw	J
in	Lbs/ft	in	in	in	in	in	Kg/m	mm	mm	mm	mm	mm	cm²	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶ , x10³	cm⁴
W21 x 12¼	101	21.36	12.29	0.50	0.80	0.50	151	542.5	312.2	12.7	20.3	12.7	191.9	101,000	10300	22.9	7.33	3720	660	4140	1010	7020	218
	111	21.51	12.34	0.55	0.87	0.50	165	546.4	313.4	14.0	22.2	12.7	210.8	111,000	11400	22.9	7.35	4060	728	4560	1120	7820	286
	122	21.68	12.39	0.60	0.96	0.50	181	550.7	314.7	15.2	24.4	12.7	231.2	123,000	12700	23.1	7.41	4470	807	5030	1240	8780	377
	132	21.83	12.44	0.65	1.04	0.50	197	554.5	316.0	16.5	26.3	12.7	250.4	134,000	13900	23.1	7.45	4830	880	5460	1350	9650	474
	147	22.06	12.51	0.72	1.15	0.50	219	560.3	317.8	18.3	29.2	12.7	278.8	151,000	15600	23.3	7.48	5390	982	6120	1520	11000	648
	166	22.48	12.42	0.75	1.36	0.50	247	571.0	315.5	19.1	34.5	12.7	315	178,000	18100	23.8	7.58	6230	1150	7080	1760	13000	988
	182	22.72	12.50	0.83	1.48	0.50	272	577.1	317.5	21.1	37.6	12.7	346	197,000	20100	23.9	7.62	6830	1270	7800	1950	14600	1290
	201	23.03	12.57	0.91	1.63	0.50	300	585.0	319.4	23.1	41.0	12.7	381.9	221,000	22500	24.1	7.68	7560	1410	8680	2180	16600	1720
	223	23.35	12.67	1.00	1.79	0.50	331	593.1	321.9	25.4	45.5	12.7	421.8	248,000	25400	24.2	7.76	8360	1580	9660	2440	19000	2290
	248	23.74	12.78	1.11	1.99	0.50	370	603.0	324.5	28.3	50.5	12.7	471.2	281,000	28900	24.4	7.83	9320	1780	10900	2760	21900	3140
	275	24.13	12.89	1.22	2.19	0.50	409	612.9	327.4	31.0	55.6	12.7	521	317,000	32600	24.7	7.91	10300	1990	12100	3100	25300	4190
	300	24.53	12.99	1.32	2.38	0.50	447	623.1	329.9	33.5	60.5	12.7	568.8	353,000	36400	24.9	8.00	11300	2210	13400	3440	28600	5390
W24 x 7	55	23.57	7.00	0.39	0.50	0.50	81.8	598.7	177.9	10.0	12.8	12.7	104.2	55,900	1210	23.2	3.41	1870	136	2190	218	1030	50.3
	62	23.74	7.04	0.43	0.59	0.50	92.2	603.0	178.8	10.9	15.0	12.7	117.5	64,600	1440	23.4	3.50	2140	161	2510	258	1240	72.4
W24 x 9	68	23.73	8.96	0.41	0.59	0.50	102	602.7	227.7	10.5	14.9	12.7	129.4	76,200	2940	24.3	4.77	2530	258	2900	403	2530	79.2
	76	23.92	8.99	0.44	0.68	0.50	114	607.6	228.3	11.2	17.3	12.7	144.6	87,500	3440	24.6	4.88	2880	301	3290	470	2990	113
	84	24.10	9.02	0.47	0.77	0.50	125	612.1	229.1	11.9	19.6	12.7	159.4	98,600	3940	24.9	4.97	3220	344	3680	536	3450	155
	94	24.31	9.07	0.52	0.87	0.50	140	617.5	230.3	13.1	22.2	12.7	178.7	112,000	4530	25.0	5.03	3630	393	4160	615	4000	220
	103	24.53	9.00	0.55	0.98	0.50	153	623.1	228.6	14.0	24.9	12.7	195.5	125,000	4970	25.3	5.04	4010	435	4590	680	4440	297
W24 x 12¾	104	24.06	12.75	0.50	0.75	0.65	156	611.1	323.9	12.7	19.1	16.5	198.8	130,000	10800	25.6	7.37	4250	667	4770	1030	9480	206
	117	24.26	12.80	0.55	0.85	0.65	175	616.2	325.1	14.0	21.6	16.5	223	148,000	12400	25.8	7.46	4800	763	5390	1170	10900	291
	131	24.48	12.85	0.61	0.96	0.65	196	621.8	326.5	15.4	24.4	16.5	249.9	168,000	14200	25.9	7.54	5400	870	6090	1340	12600	410
	146	24.74	12.90	0.65	1.09	0.65	219	628.4	327.7	16.5	27.7	16.5	278.4	192,000	16300	26.3	7.65	6110	995	6870	1530	14700	575
	162	25.00	12.96	0.70	1.22	0.65	242	635.0	329.1	17.9	31.0	16.5	308.9	216,000	18400	26.4	7.72	6800	1120	7700	1730	16800	790
	176	25.24	12.89	0.75	1.34	0.65	263	641.1	327.4	19.1	34.0	16.5	334.4	237,000	19900	26.6	7.71	7390	1220	8390	1880	18300	1020
	192	25.47	12.95	0.81	1.46	0.65	286	646.9	328.9	20.6	37.1	16.5	364.4	261,000	22000	26.8	7.77	8070	1340	9200	2070	20500	1310
	207	25.71	13.01	0.87	1.57	0.65	308	653.0	330.5	22.1	39.9	16.5	392.8	285,000	24100	26.9	7.83	8730	1460	10000	2250	22600	1630
	229	26.02	13.11	0.96	1.73	0.65	341	660.9	333.0	24.4	43.9	16.5	434.5	319,000	27100	27.1	7.90	9650	1630	11100	2520	25700	2180
	250	26.34	13.19	1.04	1.89	0.65	373	669.0	334.9	26.4	48.0	16.5	475.1	354,000	30100	27.3	7.96	10600	1800	12200	2800	29000	2830
	279	26.73	13.31	1.16	2.09	0.65	416	678.9	337.9	29.5	53.1	16.5	530.2	400,000	34300	27.5	8.04	11800	2030	13700	3160	33400	3870
	306	27.13	13.41	1.26	2.28	0.65	455	689.1	340.5	32.0	57.9	16.5	580.1	446,000	38300	27.7	8.13	12900	2250	15100	3510	37900	5010
	335	27.52	13.52	1.38	2.48	0.65	499	699.0	343.4	35.1	63.0	16.5	636.2	496,000	42700	27.9	8.19	14200	2490	16700	3900	43000	6490
	370	27.99	13.66	1.52	2.72	0.65	552	710.9	347.0	38.6	69.1	16.5	702.9	558,000	48400	28.2	8.30	15700	2790	18600	4380	49500	8610

UNIVERSAL COLUMNS

Material Specification: EN 10025 S275JR
EN 10025 S355JR/JO/J2G3
BS 4360 Gr 43A/50B
JIS G3101 SS400



(Imperial units)

Depth x Width	Unit Weight	Standard Sectional Dimension (in)					Unit Weight	Standard Sectional Dimension (mm)					Sectional Area	Second Moment Of Area		Radius Of Gyration		Modulus Of Section		Plastic Modulus		Warping Constant	Torsional Constant
		H	B	t1	t2	r		H	B	t1	t2	r	A	Ix	Iy	ix	iy	Sx	Sy	Zx	Zy	Cw	J
in	Lbs/ft	in	in	in	in	in	Kg/m	mm	mm	mm	mm	mm	cm²	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶ , x10³	cm⁴
W27 x 10	84	26.71	9.96	0.46	0.64	0.60	126	678.4	253.0	11.7	16.3	15.2	160	119,000	4410	27.3	5.25	3510	349	4010	546	4820	120
	94	26.92	9.99	0.49	0.74	0.60	140	683.8	253.7	12.4	18.9	15.2	178	136,000	5160	27.6	5.38	3980	407	4550	635	5680	169
	102	27.09	10.02	0.52	0.83	0.60	152	688.1	254.4	13.1	21.1	15.2	194	151,000	5800	27.9	5.47	4390	456	5010	713	6440	222
	114	27.29	10.07	0.57	0.93	0.60	170	693.2	255.8	14.5	23.6	15.2	216.4	170,000	6600	28.0	5.52	4900	516	5620	808	7380	307
	129	27.63	10.01	0.61	1.10	0.60	192	701.8	254.3	15.5	27.9	15.2	244	198,000	7670	28.5	5.61	5640	603	6460	943	8680	464
W30 x 10½	90	29.53	10.40	0.47	0.61	1.10	137	750.1	264.2	11.94	15.49	28	174.4	156,000	4780	29.9	5.24	4160	362	4790	575	6420	154
	99	29.65	10.45	0.52	0.67	1.10	151	753.1	265.4	13.21	17.02	28	192.1	172,000	5330	29.9	5.27	4570	402	5270	639	7180	199
	108	29.83	10.48	0.54	0.76	1.10	164	757.7	266.1	13.84	19.3	28	209	191,000	6090	30.2	5.40	5040	458	5820	727	8260	251
	116	30.01	10.50	0.56	0.85	1.10	177	762.3	266.6	14.35	21.59	28	225	211,000	6850	30.6	5.52	5540	514	6360	813	9350	313
	124	30.17	10.52	0.59	0.93	1.10	188	766.3	267.1	14.86	23.62	28	239.8	228,000	7540	30.8	5.61	5950	565	6840	892	10300	380
	132	30.31	10.54	0.61	1.00	1.10	200	769.9	267.8	15.62	25.4	28	255.1	245,000	8170	31.0	5.66	6360	610	7320	964	11300	456
	148	30.67	10.48	0.65	1.18	1.10	224	779.0	266.2	16.51	29.97	28	285	283,000	9470	31.5	5.76	7270	712	8350	1120	13200	662
W33 x 11½	118	32.86	11.48	0.55	0.74	1.18	180	834.6	291.6	13.97	18.8	30	228.7	253,000	7800	33.3	5.84	6060	535	6990	849	12900	274
	130	33.09	11.51	0.58	0.86	1.18	198	840.5	292.4	14.73	21.72	30	252.2	287,000	9090	33.7	6.00	6830	622	7840	983	15200	362
	141	33.30	11.54	0.61	0.96	1.18	214	845.8	293.0	15.37	24.38	30	273.1	318,000	10300	34.1	6.14	7520	703	8610	1100	17200	462
	152	33.49	11.57	0.64	1.06	1.18	231	850.6	293.8	16.13	26.8	30	293.8	347,000	11400	34.4	6.23	8160	776	9350	1220	19200	578
	169	33.82	11.50	0.67	1.22	1.18	255	859.0	292.1	17.02	30.99	30	324.4	394,000	12900	34.9	6.31	9170	883	10500	1390	22100	805
W36 x 12	135	35.55	11.95	0.60	0.79	1.18	205	903.0	303.5	15.24	20.07	30	261.1	333,000	9400	35.7	6.00	7380	619	8540	986	18200	349
	150	35.85	11.98	0.63	0.94	1.18	228	910.6	304.2	15.88	23.88	30	290	385,000	11300	36.4	6.24	8460	743	9730	1170	22000	480
	160	36.01	12.00	0.65	1.02	1.18	242	914.7	304.8	16.51	25.91	30	308.1	414,000	12300	36.7	6.32	9050	807	10400	1270	24100	577
	170	36.17	12.03	0.68	1.10	1.18	257	918.7	305.6	17.27	27.94	30	327.5	445,000	13300	36.9	6.37	9690	870	11100	1380	26400	694
	182	36.33	12.07	0.73	1.18	1.18	275	922.8	306.7	18.42	29.97	30	350.5	479,000	14500	37.0	6.43	10400	946	12000	1500	28700	844
	194	36.49	12.11	0.76	1.26	1.18	292	926.8	307.7	19.43	32.00	30	372.3	512,000	15600	37.1	6.47	11000	1010	12800	1610	31100	1010
	210	36.69	12.18	0.830	1.36	1.18	317	931.9	309.4	21.08	34.54	30	403.3	557,000	17100	37.2	6.51	12000	1110	13800	1760	34300	1270
	232	37.12	12.12	0.87	1.57	1.18	349	942.8	307.8	22.1	39.88	30	444	633,000	19500	37.8	6.63	13400	1270	15500	2010	39500	1760