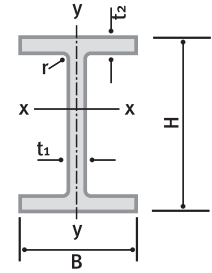


# 1. Wide Flange Beams H형강



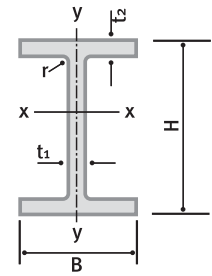
## Dimensions and Sectional Properties 치수 및 단면성능

### (1) Metric Series

KS D 3503, 3515/3502

공칭치수 Nominal Size(mm)	표준 단면 치수 Standard Sectional Dimension(mm)				단면적 Sectional Area (cm <sup>2</sup> )	단위무게 Unit Weight (kg/m)	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>6</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
	H x B	t <sub>1</sub>	t <sub>2</sub>	r			I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>t</sub>	H/A <sub>f</sub>	Z <sub>x</sub>	Z <sub>y</sub>		
100 x 100	100 x 100	6	8	10	21.9	17.2	383	134	4.18	2.47	76.5	26.7	2.73	1,250	87.6	41.2	2,830	5.17
125 x 125	125 x 125	6.5	9	10	30.31	23.8	847	293	5.29	3.11	136	47	3.43	1,110	154	71.9	9,870	8.43
150 x 75	150 x 75	5	7	8	17.85	14.0	666	49.5	6.11	1.66	88.8	13.2	1.96	2,860	102	20.8	2,530	2.81
150 x 100	148 x 100	6	9	11	26.84	21.1	1,020	151	6.17	2.37	138	30.1	2.65	1,650	157	46.7	7,270	7.37
150 x 150	150 x 150	7	10	11	40.14	31.5	1,640	563	6.39	3.75	219	75.1	4.12	1,000	246	115	27,600	13.5
200 x 100	198 x 99	4.5	7	11	23.18	18.2	1,580	114	8.26	2.21	160	23	2.57	2,500	180	35.7	10,400	3.86
	200 x 100	5.5	8	11	27.16	21.3	1,840	134	8.24	2.22	184	26.8	2.6	2,500	209	41.9	12,300	5.77
200 x 150	194 x 150	6	9	13	39.01	30.6	2,690	507	8.3	3.61	277	67.6	4.03	1,440	309	104	43,400	10.9
200 x 200	200 x 200	8	12	13	63.53	49.9	4,720	1,600	8.62	5.02	472	160	5.5	0.835	525	244	142,000	29.8
	200 x 204	12	12	13	71.53	56.2	4,980	1,700	8.35	4.88	498	167	5.53	0.817	565	257	150,000	39.6
	208 x 202	10	16	13	83.69	65.7	6,530	2,200	8.83	5.13	628	218	5.61	0.643	710	332	203,000	66.7
250 x 125	248 x 124	5	8	12	32.68	25.7	3,540	255	10.4	2.79	285	41.1	3.23	2,500	319	63.6	36,700	6.74
	250 x 125	6	9	12	37.66	29.6	4,050	294	10.4	2.79	324	47	3.26	2,220	366	73.1	42,700	9.68
250 x 175	244 x 175	7	11	16	56.24	44.1	6,120	984	10.4	4.18	502	113	4.68	1,270	558	173	134,000	23.2
250 x 250	244 x 252	11	11	16	82.06	64.4	8,790	2,940	10.3	5.98	720	233	6.76	0.880	805	358	399,000	39.5
	248 x 249	8	13	16	84.7	66.5	9,930	3,350	10.8	6.29	801	269	6.84	0.766	883	408	462,000	46.7
	250 x 250	9	14	16	92.18	72.4	10,800	3,650	10.8	6.29	867	292	6.87	0.715	960	444	508,000	58.7
	250 x 255	14	14	16	104.7	82.2	11,500	3,880	10.5	6.09	919	304	6.9	0.700	1,040	468	540,000	79.0
300 x 150	298 x 149	5.5	8	13	40.8	32.0	6,320	442	12.4	3.29	424	59.3	3.84	2,500	475	91.8	92,900	8.65
	300 x 150	6.5	9	13	46.78	36.7	7,210	508	12.4	3.29	481	67.7	3.87	2,220	542	105	107,000	12.4
300 x 200	294 x 200	8	12	18	72.38	56.8	11,300	1,600	12.5	4.71	771	160	5.32	1,220	859	247	319,000	35.8
	298 x 201	9	14	18	83.36	65.4	13,300	1,900	12.6	4.77	893	189	5.38	1,060	1,000	291	383,000	53.4
300 x 300	294 x 302	12	12	18	107.7	84.5	16,900	5,520	12.5	7.16	1,150	365	8.09	0.812	1,280	560	1,097,000	61.4
	298 x 299	9	14	18	110.8	87.0	18,800	6,240	13	7.5	1,270	417	8.19	0.712	1,30	634	1,258,000	71.3
	300 x 300	10	15	18	119.8	94.0	20,400	6,750	13.1	7.51	1,360	450	8.23	0.666	1,500	684	1,372,000	88.1
	300 x 305	15	15	18	134.8	106.0	21,500	7,100	12.6	7.26	1,440	466	8.23	0.656	1,610	716	1,443,000	116
	304 x 301	11	17	18	134.8	106.0	23,400	7,730	13.2	7.57	1,540	514	8.29	0.593	1,710	781	1,592,000	125
	310 x 305	15	20	18	165.3	130.0	28,150	9,460	13.2	7.6	1,810	620	8.39	0.508	2,080	949	1,991,000	215
	310 x 310	20	20	18	180.8	142.0	29,390	9,940	12.8	7.5	1,890	642	8.44	0.500	2,200	992	2,093,000	271

공칭치수 Nominal Size(mm)	표준 단면 치수 Standard Sectional Dimension(mm)				단면적 Sectional Area (cm <sup>2</sup> )	단위무게 Unit Weight (kg/m)	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>6</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
	H x B	t <sub>1</sub>	t <sub>2</sub>	r			A	W	I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>x</sub>	H/A <sub>f</sub>		
350 x 175	346 x 174	6	9	14	52.68	41.4	11,100	792	14.5	3.88	641	91	4.51	2.210	716	140	225,000	13.6
	350 x 175	7	11	14	63.14	49.6	13,600	984	14.7	3.95	775	112	4.58	1.820	868	174	283,000	23.0
	354 x 176	8	13	14	73.68	57.8	16,100	1,180	14.8	4.01	909	134	4.65	1.550	1,020	208	344,000	36.1
340 x 250	336 x 249	8	12	20	88.15	69.2	18,500	3,090	14.5	5.92	1,100	248	6.63	1.130	1,220	380	811,000	44.6
	340 x 250	9	14	20	101.5	79.7	21,700	3,650	14.6	6.00	1,280	292	6.71	0.972	1,410	447	970,000	66.3
350 x 350	338 x 351	13	13	20	135.3	106	28,200	9,380	14.4	8.33	1,670	534	9.42	0.740	1,850	872	2,477,000	90.3
	344 x 348	10	16	20	146	115	33,300	11,200	15.1	8.78	1,940	646	9.56	0.618	2,120	980	3,024,000	121
	344 x 354	16	16	20	166.6	131	35,300	11,800	14.6	8.43	2,050	669	9.54	0.608	2,250	1,020	3,186,000	164
	350 x 350	12	19	20	173.9	137	40,300	13,600	15.2	8.84	2,300	776	9.65	0.526	2,550	1,180	3,721,000	199
	350 x 357	19	19	20	191.4	156	42,800	14,400	14.7	8.53	2,450	809	9.68	0.515	2,760	1,240	3,953,000	270
400 x 200	396 x 199	7	11	16	72.16	56.6	20,000	1,450	16.7	4.48	1,010	145	5.19	1.810	1,130	224	536,000	27.1
	400 x 200	8	13	16	84.12	66	23,700	1,740	16.8	4.54	1,190	174	5.26	1.540	1,330	268	650,000	42.2
	404 x 201	9	15	16	96.16	75.5	27,500	2,030	16.9	4.6	1,360	202	5.32	1.340	1,530	312	769,000	62.3
400 x 300	386 x 299	9	14	22	120.1	94.3	33,700	6,240	16.7	7.81	1,740	418	8.02	0.923	1,920	637	2,160,000	79.9
	390 x 300	10	16	22	136	107	38,700	7,210	16.9	7.28	1,980	481	8.09	0.813	2,190	733	2,521,000	114
400 x 400	388 x 402	15	15	22	178.5	140	49,000	16,300	16.6	9.54	2,520	809	10.8	0.643	2,800	1,240	5,655,000	156
	394 x 398	11	18	22	186.8	147	56,100	18,900	17.3	10.1	2,850	951	10.9	0.552	3,120	1,440	6,688,000	194
	394 x 405	18	18	22	214.4	168	59,700	20,000	16.7	9.65	3,030	985	11	0.536	3,390	1,510	7,053,000	264
	400 x 400	13	21	22	218.7	172	66,600	22,400	17.5	10.1	3,330	1,120	11.1	0.473	3,670	1,700	8,048,000	303
	400 x 408	21	21	22	250.7	197	70,900	23,800	16.8	9.75	3,540	1,170	11.1	0.465	3,990	1,790	8,550,000	415
	406 x 403	16	24	22	254.9	200	78,000	26,200	17.5	10.1	3,840	1,300	11.2	0.417	4,280	1,980	9,558,000	462
	414 x 405	18	28	22	295.4	232	92,800	31,000	17.7	10.2	4,480	1,530	11.4	0.360	5,030	2,330	11,557,000	714
	428 x 407	20	35	22	360.7	283	119,000	39,400	18.2	10.4	5,570	1,930	11.8	0.290	6,310	2,940	15,198,000	1317
	*458 x 417	30	50	22	528.6	415	187,000	60,500	18.8	10.7	8,170	2,900	11.8	0.219	9,540	4,440	25,188,000	3885
	*498 x 432	45	70	22	770.1	605	298,000	94,000	19.7	11.1	13,000	4,370	12.3	0.165	14,400	6,720	43,214,000	11063
450 x 200	446 x 199	8	12	18	84.3	66.2	28,700	1,580	18.5	4.33	1,290	159	5.11	1.870	1,450	247	744,000	38.3
	450 x 200	9	14	18	96.76	76	33,500	1,870	18.6	4.4	1,490	187	5.18	1.610	1,680	291	889,000	56.9
450 x 300	434 x 299	10	15	24	135	106	46,800	6,690	18.6	7.04	2,160	448	7.94	0.967	2,380	686	2,937,000	104
	440 x 300	11	18	24	157.4	124	56,100	8,110	18.9	7.18	2,550	541	8.05	0.815	2,820	828	3,611,000	163



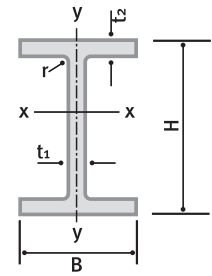
공칭치수 Nominal Size(mm)	표준 단면 치수 Standard Sectional Dimension(mm)				단면적 Sectional Area (cm <sup>2</sup> )	단위무게 Unit Weight (kg/m)	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>6</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
	H x B	t <sub>1</sub>	t <sub>2</sub>	r			A	W	I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>t</sub>	H/A <sub>f</sub>		
500 x 200	496 x 199	9	14	20	101.3	79.5	41,900	1,840	20.3	4.27	1,690	185	5.08	1.780	1,910	2990	1,072,000	60.8
	500 x 200	10	16	20	114.2	89.6	47,800	2,140	20.5	4.33	1,910	214	5.14	1.560	2,180	335	1,254,000	85.9
	506 x 201	11	19	20	131.3	103	56,500	2,580	20.7	4.43	2,230	254	5.23	1.330	2,540	401	1,530,000	132
500 x 300	482 x 300	11	15	26	145.5	114	60,400	6,760	20.4	6.82	2,500	451	7.83	1.070	2,790	695	3,688,000	118
	488 x 300	11	18	26	163.5	128	71,000	8,110	20.8	7.04	2,910	541	7.97	0.903	3,230	830	4,481,000	172
600 x 200	596 x 199	10	15	22	120.5	94.6	68,700	1,980	23.9	4.05	2,310	199	4.95	2.000	2,650	315	1,671,000	82.4
	600 x 200	11	17	22	134.4	106	77,600	2,280	24	4.12	2,590	228	5.01	1.770	2,980	361	1,936,000	113
	606 x 201	12	20	22	152.5	120	90,400	2,720	24.3	4.22	2,980	271	5.11	1.510	3,430	429	2,336,000	167
	612 x 202	13	23	22	170.7	134	103,000	3,180	24.6	4.31	3,380	314	5.19	1.320	3,890	498	2,755,000	237
600 x 300	582 x 300	12	17	28	174.5	137	103,000	7,670	24.3	6.63	3,530	511	7.74	1.140	3,960	793	6,121,000	173
	588 x 300	12	20	28	192.5	151	118,000	9,020	24.8	6.85	4,020	601	7.87	0.980	4,490	928	7,275,000	241
	594 x 302	14	23	28	222.4	175	137,000	10,600	24.9	6.9	4,620	701	7.96	0.856	5,200	1,080	8,628,000	356
700 x 300	692 x 300	13	20	28	211.5	166	172,000	9,020	28.6	6.53	4,980	602	7.71	1.150	5,630	936	10,189,000	260
	700 x 300	13	24	28	235.5	185	201,000	10,800	29.3	6.78	5,760	722	7.86	0.973	6,460	1,120	12,367,000	383
	708 x 302	15	28	28	273.6	215	237,000	12,900	29.4	6.86	6,700	853	7.97	0.837	7,560	1,320	14,897,000	588
800 x 300	792 x 300	14	22	28	243.4	191	254,000	9,930	32.3	6.39	6,410	662	7.65	1.200	7,290	1,040	14,720,000	341
	800 x 300	14	26	28	267.4	210	292,000	11,700	33	6.62	7,290	782	7.8	1.030	8,240	1,220	17,569,000	486
	808 x 302	16	30	28	307.6	241	339,000	13,800	33.2	6.7	8,400	915	7.89	0.892	9,530	1,430	20,902,000	726
900 x 300	*890 x 299	15	23	18	266.8	210	339,000	10,300	35.6	6.2	7,610	687	7.51	1.290	8,910	1,080	19,308,000	361
	*900 x 300	16	28	18	305.8	240	404,000	12,600	36.4	6.43	8,990	842	7.68	1.070	10,500	1,320	24,015,000	580
	*912 x 302	18	34	18	360.1	283	491,000	15,700	36.9	6.56	10,800	1,040	7.84	0.888	12,500	1,630	30,169,000	979
	*918 x 303	19	37	18	387.4	304	535,000	17,200	37.2	6.67	11,700	1,140	7.8	0.819	13,400	1,780	33,391,000	1234

Note : \*는 별도주문판매(These sizes indicated by an asterisk\*)are not included in regular rolling schedules.), SHN 490은 제외.

## (2) Inch Series

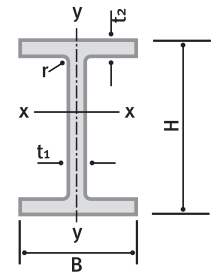
공칭치수 Nominal Size (inch)	단위무게 Unit Weight (lbs/ft)(kg/m)		표준 단면 치수 Standard Sectional Dimension(mm)				단면적 Sectional Area (cm <sup>2</sup> )	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>6</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
			H x B	t <sub>1</sub>	t <sub>2</sub>	r		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>t</sub>	H/A <sub>f</sub>	Z <sub>x</sub>	Z <sub>y</sub>		
<b>W4</b> 4 x 4	13	19.35	105.7 x 103.1	7.11	8.76	6.4	24.71	470	161	4.37	2.54	89.5	31.1	2.79	1.17	102.9	47.9	3,760	6.29
<b>W5</b> 5 x 5	16	23.81	127.3 x 127.0	6.10	9.14	7.6	30.39	891	313	5.41	3.20	140	49.2	3.48	1.09	157.2	74.9	10,903	7.99
	19	28.28	130.8 x 127.8	6.86	10.92	7.6	35.87	1,090	380	5.51	3.25	167	59.5	3.51	0.94	190.1	90.6	13,668	13.2
<b>W6</b> 6 x 4	9	13.4	149.9 x 100.1	4.32	5.46	6.4	17.29	683	91.6	6.27	2.30	91.1	18.2	2.62	2.74	102.1	28.2	4,780	1.69
	12	17.86	153.2 x 101.6	5.84	7.11	6.4	22.90	920	124	6.32	2.33	120	24.6	2.67	2.12	136.0	38.0	6,633	3.76
	16	23.81	159.5 x 102.4	6.60	10.29	6.4	30.58	1,340	184	6.60	2.46	167	36.1	2.74	1.52	191.7	55.6	10,258	9.28
<b>W6</b> 6 x 6	15	22.32	152.1 x 152.1	5.81	6.60	6.4	28.58	1,210	388	6.50	3.68	159	51.0	4.09	1.52	177.0	77.8	20,543	4.37
	20	29.76	157.5 x 152.9	6.60	9.27	6.4	37.87	1,720	554	6.76	3.81	220	72.3	4.17	1.11	244.2	110.1	30,345	10.2
	25	37.20	162.1 x 154.4	8.13	11.56	6.4	47.35	2,220	712	6.86	3.86	274	91.9	4.22	0.91	309.7	140.3	40,280	19.6
<b>W8</b> 8 x 4	10	14.9	200.4 x 100.1	4.32	5.21	7.6	19.10	1,280	87	8.18	2.14	128	17.4	2.51	3.85	145.4	27.2	8,298	1.77
	13	19.35	202.9 x 101.6	5.84	6.48	7.6	24.77	1,650	114	8.15	2.14	162	22.5	2.57	3.08	186.8	35.2	10,956	3.63
	15	22.32	206.0 x 102.6	6.22	8.00	7.6	28.65	2,000	142	8.36	2.23	193	27.9	2.62	2.52	222.9	43.8	13,910	5.70
<b>W8</b> 8 x 5 1/4	18	26.79	206.8 x 133.4	5.84	8.38	7.6	33.94	2,580	332	8.71	3.12	249	49.8	3.53	1.85	278.6	76.4	32,761	7.16
	21	31.25	210.3 x 133.9	6.35	10.16	7.6	39.74	3,130	407	8.86	3.20	298	60.8	3.58	1.55	334.3	93.2	40,817	11.7
<b>W8</b> 8 x 6 1/2	24	35.72	201.4 x 165.0	6.22	10.16	10.2	45.68	3,450	762	8.69	4.09	342	92.3	4.47	1.20	380.2	140.4	69,551	14.4
	28	41.67	204.7 x 166.0	7.24	11.81	10.2	53.23	4,080	903	8.76	4.11	398	109.0	4.50	1.04	445.7	165.5	84,052	22.4
<b>W8</b> 8 x 8	31	46.13	203.2 x 203.1	7.24	11.05	10.2	59.90	4,580	1,540	8.81	5.13	451	152	5.54	0.91	498.2	231.1	142,593	22.3
	35	52.09	206.2 x 203.7	7.87	12.57	10.2	66.45	5,290	1,770	8.92	5.16	511	174	5.59	0.81	568.6	263.8	166,224	32.0
	40	59.53	209.6 x 205.0	9.14	14.22	10.2	75.48	6,080	2,040	8.97	5.18	582	200	5.61	0.72	652.2	303.2	194,957	46.6
	48	71.43	215.9 x 206.0	10.16	17.40	10.2	90.97	7,660	2,530	9.17	5.28	710	246	5.66	0.60	803.0	375.3	249,738	81.6
	58	86.31	222.2 x 208.8	12.95	20.57	10.2	110.3	9,490	3,130	9.27	5.33	852	300	5.74	0.52	979.9	457.2	316,872	139
	67	99.7	228.6 x 210.3	14.48	23.75	10.2	127.10	11,300	3,690	9.45	5.38	990	351	5.79	0.46	1150.4	535.9	386,692	210
<b>W10</b> 10 x 4	12	17.9	250.7 x 210.3	4.83	5.33	7.6	22.84	2,240	90.7	9.91	1.99	179	18	2.44	4.69	206.5	28.5	13,668	2.28
	15	22.32	253.7 x 101.6	5.84	6.86	7.6	28.45	2,870	120	10.0	2.06	226	23.8	2.51	3.64	262.2	37.7	18,341	4.33
	17	25.30	256.8 x 101.9	6.10	8.38	7.6	32.19	3,410	148	10.3	2.15	265	29.2	2.57	3.00	306.4	45.9	22,852	6.49
	19	28.28	260.1 x 102.1	6.35	10.03	7.6	36.26	4,010	179	10.5	2.22	308	35.1	2.62	2.54	354.0	54.9	27,928	9.70
<b>W10</b> 10 x 5 1/4	22	32.74	258.3 x 146.0	6.10	9.14	7.6	41.87	4,910	475	10.8	3.38	380	65.1	3.84	1.93	426.1	100.0	73,579	9.95
	26	38.69	262.4 x 146.6	6.60	11.18	7.6	49.10	5,990	587	11.0	3.45	457	80.1	3.91	1.60	512.9	122.9	92,645	16.7
	30	44.64	265.9 x 147.6	7.62	12.95	7.6	57.03	7,080	695	11.1	3.48	531	94.2	3.94	1.39	599.8	144.9	111,174	25.9
<b>W10</b> 10 x 8	33	49.11	247.1 x 202.2	7.37	11.05	12.7	62.64	7,080	1,520	10.6	4.93	574	151	5.44	1.11	635.8	229.4	212,412	24.3
	39	58.04	252.0 x 202.8	8.00	13.46	12.7	74.19	8,700	1,870	10.8	5.03	690	185	5.49	0.92	766.9	281.9	266,388	40.6
	45	66.97	256.5 x 203.7	8.89	15.75	12.7	85.81	10,300	2,220	11.0	5.11	805	218	5.54	0.80	899.6	332.7	322,243	62.9

Note : Metric 단위는 단순환산이므로 참고사항으로만 사용하기 바람.



공칭치수 Nominal Size (inch)	단위무게 Unit Weight (lbs/ft)(kg/m)		표준 단면 치수 Standard Sectional Dimension(mm)				단면적 Sectional Area (cm <sup>2</sup> )	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>6</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
			H x B	t <sub>1</sub>	t <sub>2</sub>	r		A	I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>t</sub>	H/A <sub>f</sub>	Z <sub>x</sub>		
W10 10 x 10	49	72.92	253.5 x 254.0	8.64	14.22	12.7	92.9	11,300	3,890	11.0	6.45	895	306	6.96	0.70	989.8	463.8	555,869	57.9
	54	80.36	256.3 x 254.8	9.40	15.62	12.7	101.9	12,600	4,290	11.1	6.50	983	338	0.70	0.65	1091.4	512.9	620,318	75.8
	60	89.29	259.6 x 256.0	10.67	17.27	12.7	113.5	14,200	4,830	11.2	6.53	1,090	377	7.04	0.59	1222.4	573.5	708,935	103
	68	101.2	264.2 x 257.3	11.94	19.56	12.7	129.0	16,400	5,580	11.3	6.58	1,240	433	7.09	0.52	1397.8	657.1	835,147	148
	77	114.6	269.2 x 258.8	13.46	22.10	12.7	145.8	18,900	6,410	11.4	6.60	1,410	493	7.11	0.47	1599.4	752.2	977,471	213
	88	131.0	275.3 x 260.7	15.37	25.15	12.7	167.1	22,200	7,450	11.5	6.68	1,610	570	7.19	0.42	1851.7	870.2	1,165,446	313
	100	148.8	281.9 x 262.6	17.27	28.45	12.7	189.70	25,900	8,620	11.70	6.73	1,840	655	7.24	0.38	2130.3	999.6	1,382,960	454
W12 12 x 4	14	20.83	302.5 x 100.8	5.08	5.72	7.6	26.84	3,690	98.2	11.7	1.91	244	19.5	2.41	5.24	285.1	31.1	21,644	2.93
	16	23.81	304.5 x 101.3	5.59	6.73	7.6	30.39	4,290	117	11.9	1.96	280	23.1	2.44	4.45	329.4	37.0	26,021	4.29
	19	28.28	308.9 x 101.7	5.97	8.89	7.6	35.94	5,410	157	12.2	2.09	349	30.8	2.54	3.41	404.8	48.8	35,178	7.49
	22	32.74	312.7 x 102.4	6.60	10.80	7.6	41.81	6,490	194	12.5	2.15	416	37.9	2.59	2.83	480.1	60.0	44,308	12.2
W12 12 x 6 1/2	26	38.69	310.4 x 164.8	5.84	9.65	7.6	49.35	8,400	720	13.1	3.84	547	87.5	4.37	1.95	609.6	133.9	162,733	12.5
	30	44.64	313.4 x 165.6	6.60	11.18	7.6	56.71	9,910	840	13.2	3.86	633	102	4.40	1.69	706.3	156.7	193,077	19.0
	35	52.09	317.5 x 166.6	7.62	13.21	7.6	66.46	11,900	1,020	13.3	3.91	747	122	4.42	1.44	839.0	188.5	236,043	30.8
W12 12 x 8	40	59.53	303.3 x 203.3	7.49	13.08	15.2	76.13	12,900	1,840	13.0	4.90	850	180	5.44	1.14	942.3	275.3	386,692	37.7
	45	66.97	306.3 x 204.3	8.51	14.60	15.2	85.16	14,600	2,080	13.1	4.93	952	203	5.46	1.03	1060.2	311.4	443,084	52.4
	50	74.41	309.6 x 205.2	9.40	16.26	15.2	94.84	16,400	2,340	13.2	4.98	1,060	228	5.51	0.93	1186.4	350.7	504,847	71.2
W12 12 x 10	53	78.87	306.3 x 253.9	8.76	14.60	15.2	100.6	17,700	3,990	13.3	6.30	1,160	315	6.88	0.83	1276.6	476.9	848,573	65.8
	58	86.31	309.6 x 254.3	9.14	16.26	15.2	109.7	19,800	4,450	13.4	6.38	1,280	351	6.91	0.75	1415.8	532.6	958,673	87.4
W12 12 x 12	65	96.73	307.8 x 304.8	9.91	15.37	15.2	123.2	22,200	7,240	13.4	7.67	1,440	477	8.33	0.66	1586.3	722.7	1,549,452	90.7
	72	107.1	311.2 x 305.8	10.92	17.02	15.2	136.1	24,800	8,120	13.5	7.72	1,600	531	8.36	0.60	1769.8	806.2	1,756,225	122
	79	117.6	314.5 x 306.8	11.94	18.67	15.2	149.7	27,600	8,990	13.6	7.75	1,450	587	8.41	0.55	1950.1	889.8	1,965,683	160
	87	129.5	318.3 x 308.0	13.08	20.51	15.2	165.2	30,800	10,000	13.7	7.80	1,930	651	8.43	0.50	2163.1	989.8	2,223,477	212
	96	142.9	322.8 x 308.9	13.97	22.86	15.2	181.9	34,700	11,200	13.8	7.85	2,150	728	8.48	0.46	2408.9	1106.1	2,526,923	285
	106	157.7	327.4 x 310.4	15.49	25.15	15.2	201.3	38,800	12,500	13.9	7.90	2,380	808	8.53	0.42	2687.5	1230.7	2,873,334	380
	120	178.6	333.2 x 312.9	18.03	28.07	15.2	227.7	44,500	14,400	14.0	7.95	2,670	918	8.59	0.38	3048.0	1399.5	3,356,698	537
W14 14 x 5	22	32.74	349.0 x 127.0	5.84	8.51	10.2	41.87	8,280	291	14.1	2.64	475	45.9	3.18	3.23	544.1	71.9	84,320	8.66
	26	38.69	353.3 x 127.6	6.48	10.67	10.2	49.61	10,200	371	14.4	2.74	578	58.0	3.25	2.59	658.8	90.8	108,757	14.9
W14 14 x 6 3/4	30	44.64	351.5 x 170.9	6.86	9.78	10.2	57.10	12,100	816	14.6	3.78	688	95.4	4.42	2.10	775.1	147.3	238,191	15.8
	34	50.60	355.1 x 171.3	7.24	11.56	10.2	64.52	14,200	970	14.8	3.89	796	113	4.47	1.80	894.7	173.7	287,333	23.7
	38	56.55	358.1 x 172.0	7.87	13.08	10.2	72.26	16,000	1,110	14.9	3.94	895	129	4.50	1.59	1007.8	198.3	330,299	33.2
W14 14 x 8	43	63.99	347.0 x 203.1	7.75	13.46	15.2	81.29	17,800	1,880	14.8	4.80	1,030	185	5.38	1.27	1140.5	283.5	523,645	43.7
	48	71.43	350.3 x 204.0	8.64	15.11	15.2	90.97	20,200	2,140	14.9	4.85	1,150	210	5.41	1.14	1284.7	321.2	601,520	60.4
	53	78.9	353.5 x 204.7	9.40	16.76	15.2	100.60	22,500	2,400	15.00	4.88	1,270	234	5.50	1.03	1427.3	360.5	682,081	80.7

공칭치수 Nominal Size (inch)	단위무게 Unit Weight (lbs/ft)(kg/m)		표준 단면 치수 Standard Sectional Dimension(mm)					단면적 Sectional Area (cm <sup>2</sup> )	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>6</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
			H x B	t <sub>1</sub>	t <sub>2</sub>	r	A		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>t</sub>	H/A <sub>f</sub>	Z <sub>x</sub>	Z <sub>y</sub>		
<b>W14</b> 14 x 10	61	90.78	352.8 x 253.9	9.52	16.38	15.2	115.5	26,600	4,450	15.2	6.22	1,510	352	6.86	0.85	1671.5	537.5	1,259,433	91.2	
	68	101.2	356.6 x 254.9	10.54	18.29	15.2	129.0	30,100	5,040	15.3	6.25	1,690	397	6.88	0.76	1884.5	604.7	1,442,038	125	
	74	110.1	359.9 x 255.8	11.43	19.94	15.2	140.6	33,100	5,580	15.3	6.30	1,840	436	6.91	0.70	2064.8	665.3	1,611,215	161	
	82	122.0	363.5 x 257.3	12.95	21.72	15.2	155.5	36,700	6,160	15.4	6.30	2,020	480	6.96	0.65	2277.8	734.1	1,799,190	211	
<b>W14</b> 14x14 ½	90	133.9	356.1 x 368.8	11.18	18.03	15.2	171.0	41,600	15,100	15.6	9.40	2,340	818	10.13	0.54	2572.8	1238.9	4,296,574	169	
	99	147.3	359.7 x 370.0	12.32	19.81	15.2	187.7	46,200	16,700	15.7	9.42	2,570	905	10.16	0.49	2835.0	1370.0	4,833,646	224	
	109	162.2	363.7 x 371.0	13.34	21.84	15.2	206.5	51,600	18,600	15.8	9.47	2,830	1,000	10.21	0.45	3146.3	1519.1	5,424,425	296	
	120	178.6	367.8 x 372.6	14.99	23.88	15.2	227.7	57,400	20,600	15.8	9.50	3,110	1,110	10.26	0.41	3474.1	1671.5	6,095,764	390	
	132	196.4	372.4 x 374.0	16.38	26.16	15.2	250.3	63,700	22,800	16.0	9.55	3,420	1,220	10.29	0.38	3834.6	1851.7	6,847,665	512	
<b>W16</b> 16 x 5 ½	26	38.96	398.5 x 137.7	6.35	8.76	15.2	49.55	12,500	399	15.9	2.84	629	57.2	3.45	3.26	724.3	89.8	151,723	10.9	
	31	49.13	403.4 x 140.3	6.98	11.18	15.2	58.84	15,600	516	16.3	2.97	773	73.6	3.53	2.57	884.9	115.2	198,448	19.2	
<b>W16</b> 16 x 7	36	53.57	402.8 x 177.4	7.49	10.92	10.2	68.39	18,600	1,020	16.5	3.86	926	115	4.55	2.08	1048.8	177.0	392,062	22.7	
	40	59.53	406.7 x 177.7	7.75	12.83	10.2	76.13	21,600	1,200	16.8	3.99	1,060	135	4.62	1.78	1194.6	208.1	467,252	33.0	
	45	66.97	409.7 x 178.7	8.76	14.35	10.2	85.81	24,400	1,370	16.9	3.99	1,190	153	4.65	1.60	1348.7	237.6	534,386	46.2	
	50	74.41	413.0 x 179.6	9.65	16.00	10.2	94.84	27,400	1,550	17.0	4.04	1,330	172	4.67	1.44	1507.6	267.1	609,576	63.3	
	57	84.83	417.3 x 180.8	10.92	18.16	10.2	108.4	31,600	1,790	17.1	4.06	1,510	198	4.72	1.27	1720.6	309.7	714,305	92.4	
<b>W16</b> 16x10 ¼	67	99.71	414.8 x 260.0	10.03	16.89	10.2	127.1	39,700	4,950	17.7	6.25	1,920	380	6.99	0.94	2130.3	581.7	1,960,312	109	
	77	114.6	419.6 x 261.5	11.56	19.30	10.2	145.8	46,200	5,740	17.8	6.27	2,220	441	7.04	0.83	2458.1	673.5	2,301,352	161	
	89	132.4	425.4 x 263.3	13.33	22.22	10.2	169.0	54,100	6,780	17.9	6.32	2,540	515	7.09	0.73	2867.7	788.2	2,765,919	243	
	100	148.8	431.0 x 264.8	14.86	25.02	10.2	189.7	62,000	7,740	18.0	6.40	2,870	585	7.14	0.65	3244.6	899.6	3,195,577	342	
<b>W18</b> 18 x 6	35	52.09	449.6 x 152.4	7.62	10.80	10.2	66.45	21,200	637	17.9	3.10	944	84	3.78	2.73	1089.7	132.1	306,131	21.1	
	40	59.53	454.7 x 152.8	8.00	13.34	10.2	76.13	25,500	795	18.3	3.23	1,120	104	3.86	2.23	1284.7	163.1	386,692	33.7	
	46	68.46	458.7 x 153.9	9.14	15.37	10.2	87.10	29,600	937	18.4	3.28	1,290	122	3.91	1.94	1486.3	191.7	459,196	50.8	
<b>W18</b> 18 x 7 ½	50	74.41	456.9 x 190.4	9.02	14.48	10.2	94.84	33,300	1,670	18.7	4.19	1,460	175	4.93	1.66	1655.1	272.0	816,349	51.6	
	55	81.85	460.0 x 191.3	9.91	16.00	10.2	104.5	37,000	1,870	18.8	4.24	1,610	195	4.95	1.50	1835.4	303.2	921,078	69.1	
	60	89.29	463.3 x 191.9	10.54	17.65	10.2	113.5	41,000	2,090	19.0	4.29	1,770	218	4.98	1.37	2015.6	337.6	1,036,548	90.3	
	65	96.73	466.1 x 192.8	11.43	19.05	10.2	123.2	44,500	2,280	19.0	4.29	1,920	236	5.00	1.27	2179.5	368.7	1,138,592	114	
	71	105.7	469.1 x 193.9	12.57	20.57	10.2	134.2	48,700	2,510	19.0	4.32	2,080	259	5.03	1.18	2376.1	404.8	1,262,119	145	
<b>W18</b> 18 x 11	76	113.1	462.5 x 280.3	10.80	17.27	10.2	143.9	55,400	6,330	19.6	6.63	2,390	452	7.49	0.96	2671.1	691.5	3,141,870	118	
	86	128.0	467.1 x 281.7	12.19	19.56	10.2	163.2	63,700	7,280	19.7	6.68	2,720	518	7.54	0.85	3048.0	812.3	3,652,088	171	



공칭치수 Nominal Size (inch)	단위무게 Unit Weight (lbs/ft)(kg/m)	표준 단면 치수 Standard Sectional Dimension(mm)					단면적 Sectional Area (cm <sup>2</sup> )	단면 2차 모멘트 Moment of Inertia (cm <sup>4</sup> )		단면 2차 반경 Radius of Gyration (cm)		단면계수 Modulus of Section (cm <sup>3</sup> )		휨단면성능 Flexible Properties (cm)(cm <sup>3</sup> )		소성단면계수 Plastic Modulus (cm <sup>3</sup> )		뒤틀림상수 Warping Constant (cm <sup>4</sup> )	비틀림상수 Torsional Constant (cm <sup>4</sup> )
		H x B	t <sub>1</sub>	t <sub>2</sub>	r	A		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>	r <sub>x</sub>	H/A <sub>f</sub>	Z <sub>x</sub>	Z <sub>y</sub>		
W18 18 x 11	97	144.4	472.2 x 283.1	13.59	22.10	10.2	183.9	72,800	8,370	19.9	6.73	3,080	692	7.59	0.76	3457.7	90.62	4,242,867	244
	106	157.7	475.7 x 284.5	14.99	23.88	10.2	200.6	79,500	9,160	19.9	6.76	3,340	646	7.62	0.70	3769.0	99.14	4,672,524	311
	119	177.1	481.8 x 286.1	16.64	26.92	10.2	226.5	91,200	10,500	20.1	6.83	3,790	736	7.67	0.63	4277.0	1132.4	5,451,278	441
	130	193.5	489.0 x 283.5	17.02	30.48	10.2	246.5	102,400	11,570	20.40	6.86	4,190	817	6.65	0.57	4768.6	1256.9	6,068,911	604
W21 21 x 6 1/2	44	65.48	524.8 x 165.1	8.89	11.43	12.7	83.87	35,100	862	20.5	3.20	1,340	104	3.99	2.78	1563.3	1671.1	566,611	32.0
	50	74.41	529.1 x 165.9	9.65	13.59	12.7	94.84	41,000	1,040	20.8	3.30	1,550	125	4.06	2.35	1802.6	199.9	687,452	47.5
	57	84.83	534.9 x 166.5	10.29	16.51	12.7	107.7	48,700	1,270	21.2	3.43	1,820	153	4.17	1.94	2113.9	242.5	856,629	73.7
W21 21 x 8 1/4	62	92.27	533.1 x 209.3	10.16	15.62	12.7	118.1	55,400	2,390	21.7	4.50	2,080	228	5.33	1.63	2359.7	355.6	1,603,159	76.2
	68	101.2	536.7 x 210.1	10.92	17.40	12.7	129.0	61,600	2,690	21.8	4.57	2,290	257	5.38	4.47	2621.9	399.8	1,815,302	102
	73	108.6	539.5 x 210.7	11.56	18.80	12.7	138.7	66,600	2,940	21.9	4.60	2,470	279	5.41	1.36	2818.6	435.9	1,992,536	126
	83	123.5	544.3 x 212.2	13.08	21.21	12.7	156.8	76,200	3,390	22.0	4.65	2,800	320	5.46	1.21	3211.9	499.8	2,317,465	181
	93	138.4	549.1 x 213.9	14.17	23.62	12.7	176.1	86,200	3,870	22.1	4.67	3,150	362	5.51	1.09	3621.5	568.6	2,669,247	251
W21 21x12 1/4	101	150.3	542.5 x 312.2	12.70	20.32	12.7	192.3	101,000	10,300	22.9	7.34	3,720	660	8.31	0.85	4146.0	1011.1	7,035,640	217
	111	165.2	546.4 x 313.4	13.97	22.22	12.7	211.0	111,000	11,400	23.0	7.37	4,080	729	8.33	0.78	4572.0	1117.6	7,841,247	284
	122	181.6	550.7 x 314.7	15.24	24.38	12.7	231.6	123,000	12,700	23.1	7.42	4,470	806	8.38	0.72	5030.8	1238.9	8,781,123	374
	132	196.4	554.5 x 316.0	16.51	26.29	12.7	250.3	134,000	13,900	23.2	7.44	4,830	877	8.41	0.67	5456.9	1348.7	9,667,291	470
W24 24 x 7	55	81.85	598.7 x 174.7	10.03	12.83	12.7	104.5	56,200	1,210	23.1	3.40	1,870	136	4.27	2.62	2195.9	217.9	1,039,234	51.6
	62	92.27	554.5 x 316.0	10.92	14.99	12.7	117.4	64,500	1,440	23.4	3.51	2,150	161	4.34	2.25	2507.2	257.3	1,240,636	73.7
W24 24 x 9	68	101.2	602.7 x 227.7	10.54	14.86	12.7	129.7	76,200	2,930	24.3	4.75	2,250	257	5.74	1.78	2900.5	401.5	2,532,293	77.8
	76	113.1	607.6 x 228.3	11.18	17.27	12.7	144.5	87,400	2,430	24.6	4.88	2,280	302	5.82	1.54	3277.4	468.7	2,980,748	112
	84	125.0	612.1 x 229.1	11.94	19.56	12.7	159.4	98,600	3,930	24.9	4.95	3,210	342	5.87	1.37	3670.7	534.2	3,437,259	154
	94	139.9	617.5 x 230.3	13.08	22.22	12.7	178.7	112,000	4,540	25.1	5.03	3,640	393	5.92	1.20	4162.3	614.5	4,028,038	219
W24 24x12 3/4	104	158.8	611.1 x 323.8	12.70	19.05	12.7	197.4	129,000	10,800	25.7	7.39	4,230	667	8.51	0.99	4735.9	1022.6	9,452,463	196
	117	174.1	616.2 x 325.1	13.97	21.59	12.7	221.9	147,000	12,400	25.7	7.47	4,770	762	8.56	0.88	5358.6	1170.0	10,929,410	280
	131	194.9	621.8 x 326.5	15.37	24.38	12.7	248.4	167,000	14,200	25.9	7.54	5,390	869	8.64	0.78	6063.2	1335.5	12,621,186	395
	146	217.3	628.4 x 327.7	16.51	27.69	12.7	277.4	191,000	16,300	26.2	7.65	6,080	991	8.71	0.69	6849.8	1527.3	14,688,912	558
W27 27 x 10	84	125.0	678.4 x 253.0	11.68	16.26	15.2	160.0	119,000	4,410	27.2	5.26	3,490	347	6.32	1.65	3998.4	544.1	4,833,646	117
	94	139.9	683.8 x 253.7	12.45	18.92	15.2	178.7	136,000	5,160	27.7	5.38	3,980	406	6.43	1.43	4555.6	635.8	5,692,960	168
	102	151.8	688.1 x 254.4	13.08	21.08	15.2	193.5	151,000	5,790	27.9	5.46	4,380	456	6.50	1.28	4998.0	711.2	6,444,861	220
	114	169.7	693.2 x 255.8	14.48	23.62	15.2	216.1	170,000	6,620	27.9	5.54	4,900	516	6.55	1.15	5620.8	807.8	7,411,590	305