

HSS34-HSS24

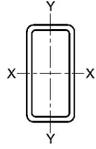
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS34×10×1	1.000	277.07	81.4	7.00	31.0	10200	599	11.2	799	1410	282	4.16	326	29½	5½	4280	590	7.05	
	×7⁄8	0.875	244.88	72.0	8.43	35.9	9130	537	11.3	712	1280	256	4.22	292	30⅞	6⅞	3850	526	7.08
	×¾	0.750	212.00	62.3	10.3	42.3	8030	472	11.4	621	1140	228	4.27	256	30⅞	6⅞	3390	460	7.12
	×5⁄8	0.625	178.41	52.4	13.0	51.4	6850	403	11.4	527	981	196	4.33	218	31⅞	7⅞	2900	390	7.15
HSS30×10×1	1.000	249.85	73.4	7.00	27.0	7300	487	9.97	644	1250	250	4.12	290	25½	5½	3660	518	6.38	
	×7⁄8	0.875	221.06	65.0	8.43	31.3	6570	438	10.1	575	1130	226	4.18	260	26⅞	6⅞	3290	463	6.42
	×¾	0.750	191.58	56.3	10.3	37.0	5780	386	10.1	502	1010	202	4.23	228	26⅞	6⅞	2900	404	6.45
	×5⁄8	0.625	161.40	47.4	13.0	45.0	4950	330	10.2	427	871	174	4.29	195	27⅞	7⅞	2480	343	6.49
	×½	0.500	130.52	38.4	17.0	57.0	4070	271	10.3	348	723	145	4.34	160	27¾	7¾	2040	280	6.52
HSS24×20×¾	0.750	212.00	62.3	23.7	29.0	5280	440	9.20	521	3990	399	8.00	461	20⅞	16⅞	7200	670	7.12	
	×5⁄8	0.625	178.41	52.4	29.0	35.4	4500	375	9.26	442	3400	340	8.06	391	21⅞	17⅞	6090	565	7.15
	×½	0.500	144.13	42.4	37.0	45.0	3680	307	9.33	360	2790	279	8.12	318	21¾	17¾	4950	458	7.19
	×3⁄8	0.375	109.15	32.1	50.3	61.0	2830	236	9.39	274	2140	214	8.17	243	22⅞	18⅞	3770	348	7.23
	×9⁄16	0.313	91.39	26.9	60.9	73.7	2390	199	9.42	231	1810	181	8.20	204	22⅞	18⅞	3170	292	7.24
HSS24×18×¾	0.750	201.79	59.3	21.0	29.0	4870	406	9.06	487	3130	348	7.26	400	20⅞	14⅞	6070	600	6.79	
	×5⁄8	0.625	169.91	49.9	25.8	35.4	4160	347	9.13	413	2680	298	7.32	339	21⅞	15⅞	5140	507	6.82
	×½	0.500	137.32	40.4	33.0	45.0	3410	284	9.19	336	2200	244	7.38	277	21¾	15¾	4180	411	6.86
	×3⁄8	0.375	104.04	30.6	45.0	61.0	2620	218	9.25	257	1690	188	7.43	211	22⅞	16⅞	3190	312	6.89
	×9⁄16	0.313	87.14	25.6	54.5	73.7	2210	184	9.28	216	1430	159	7.46	178	22⅞	16⅞	2680	262	6.91
HSS24×16×¾	0.750	191.58	56.3	18.3	29.0	4460	372	8.91	452	2390	299	6.51	342	20⅞	12⅞	4990	530	6.45	
	×5⁄8	0.625	161.40	47.4	22.6	35.4	3820	318	8.97	384	2050	256	6.57	291	21⅞	13⅞	4240	448	6.49
	×½	0.500	130.52	38.4	29.0	45.0	3130	261	9.04	313	1680	210	6.62	237	21¾	13¾	3450	364	6.52
	×3⁄8	0.375	98.94	29.1	39.7	61.0	2410	201	9.10	239	1300	163	6.68	181	22⅞	14⅞	2630	277	6.56
	×9⁄16	0.313	82.88	24.4	48.1	73.7	2040	170	9.13	201	1100	138	6.71	153	22⅞	14⅞	2220	232	6.58
HSS24×14×¾	0.750	181.37	53.3	15.7	29.0	4060	338	8.73	417	1760	251	5.74	287	20⅞	10⅞	3980	460	6.12	
	×5⁄8	0.625	152.89	44.9	19.4	35.4	3480	290	8.80	354	1510	216	5.80	245	21⅞	11⅞	3380	390	6.15
	×½	0.500	123.71	36.4	25.0	45.0	2860	238	8.86	289	1250	179	5.86	200	21¾	11¾	2760	317	6.19
	×3⁄8	0.375	93.83	27.6	34.3	61.0	2200	183	8.93	221	964	138	5.91	153	22⅞	12⅞	2110	241	6.23
	×5⁄16	0.313	78.63	23.1	41.7	73.7	1860	155	8.96	186	816	117	5.94	129	22⅞	12⅞	1780	203	6.24
×¼	0.250	63.25	18.6	53.0	93.0	1500	125	9.00	150	662	94.6	5.97	104	22⅞	12⅞	1430	163	6.26	

Note: Confirm ASTM A1085/A1085M material availability before specifying.



HSS24-HSS22

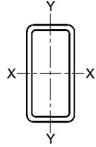
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>	
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>	
HSS24×12×1	1.000	222.63	65.4	9.00	21.0	4590	383	8.38	488	1540	257	4.85	299	19½	7½	3850	502	5.71
×7/8	0.875	197.24	58.0	10.7	24.4	4140	345	8.45	436	1390	232	4.90	268	20⅞	8⅞	3460	448	5.75
×¾	0.750	171.16	50.3	13.0	29.0	3650	304	8.52	382	1240	207	4.96	235	20⅝	8⅝	3030	391	5.79
×5/8	0.625	144.39	42.4	16.2	35.4	3130	261	8.59	325	1070	178	5.01	201	21¾	9¾	2590	331	5.82
×½	0.500	116.91	34.4	21.0	45.0	2580	215	8.67	266	883	147	5.07	164	21¾	9¾	2120	270	5.86
×3/8	0.375	88.73	26.1	29.0	61.0	1990	166	8.74	203	685	114	5.12	126	22⅝	10⅝	1620	206	5.89
×5/16	0.313	74.38	21.9	35.3	73.7	1680	140	8.77	171	581	96.8	5.15	107	22⅝	10⅝	1370	173	5.91
×¼	0.250	59.85	17.6	45.0	93.0	1360	114	8.81	138	472	78.7	5.18	86.1	22⅞	10⅞	1110	139	5.93
HSS24×8×½	0.500	103.30	30.4	13.0	45.0	2030	169	8.17	219	357	89.3	3.43	99.7	21¾	5¾	1020	176	5.19
×3/8	0.375	78.52	23.1	18.3	61.0	1570	131	8.25	168	280	70.0	3.48	77.1	22⅝	6⅝	789	135	5.23
×5/16	0.313	65.87	19.4	22.6	73.7	1330	111	8.29	142	239	59.8	3.51	65.3	22⅝	6⅝	669	114	5.24
×¼	0.250	53.05	15.6	29.0	93.0	1080	90.2	8.33	115	195	48.8	3.54	52.9	22⅞	6⅞	543	92.0	5.26
HSS22×20×¾	0.750	201.79	59.3	23.7	26.3	4290	390	8.51	461	3710	371	7.91	432	18⅝	16⅝	6320	612	6.79
×5/8	0.625	169.91	49.9	29.0	32.2	3670	333	8.57	391	3170	317	7.97	366	19¾	17¾	5350	517	6.82
×½	0.500	137.32	40.4	37.0	41.0	3010	273	8.63	318	2600	260	8.03	298	19¾	17¾	4350	419	6.86
×3/8	0.375	104.04	30.6	50.3	55.7	2310	210	8.69	243	2000	200	8.09	228	20⅝	18⅝	3310	318	6.89
×5/16	0.313	87.14	25.6	60.9	67.3	1950	177	8.72	204	1690	169	8.11	192	20⅝	18⅝	2780	267	6.91
HSS22×18×¾	0.750	191.58	56.3	21.0	26.3	3960	360	8.38	429	2900	322	7.18	374	18⅝	14⅝	5340	548	6.45
×5/8	0.625	161.40	47.4	25.8	32.2	3380	307	8.44	364	2490	277	7.24	318	19¾	15¾	4530	463	6.49
×½	0.500	130.52	38.4	33.0	41.0	2780	252	8.51	297	2040	227	7.30	259	19¾	15¾	3680	376	6.52
×3/8	0.375	98.94	29.1	45.0	55.7	2130	194	8.57	227	1570	174	7.36	198	20⅝	16⅝	2810	286	6.56
×5/16	0.313	82.88	24.4	54.5	67.3	1800	164	8.60	191	1330	148	7.39	167	20⅝	16⅝	2360	240	6.58
HSS22×16×¾	0.750	181.37	53.3	18.3	26.3	3620	329	8.24	397	2210	276	6.44	319	18⅝	12⅝	4400	484	6.12
×5/8	0.625	152.89	44.9	22.6	32.2	3100	282	8.30	337	1900	238	6.50	271	19¾	13¾	3740	410	6.15
×½	0.500	123.71	36.4	29.0	41.0	2540	231	8.37	275	1560	195	6.56	222	19¾	13¾	3050	333	6.19
×3/8	0.375	93.83	27.6	39.7	55.7	1960	178	8.43	210	1210	151	6.61	170	20⅝	14⅝	2330	253	6.23
×5/16	0.313	78.63	23.1	48.1	67.3	1660	151	8.46	177	1020	128	6.64	143	20⅝	14⅝	1960	213	6.24
×¼	0.250	63.25	18.6	61.0	85.0	1340	122	8.49	143	827	103	6.67	115	20⅞	14⅞	1580	171	6.26

Note: Confirm ASTM A1085/A1085M material availability before specifying.



HSS22-HSS20

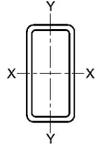
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS22×14× $\frac{3}{4}$	0.750	171.16	50.3	15.7	26.3	3280	298	8.07	365	1630	233	5.69	267	18 $\frac{5}{8}$	10 $\frac{5}{8}$	3520	421	5.79	
	$\times\frac{5}{8}$	0.625	144.39	42.4	19.4	32.2	2810	256	8.14	311	1400	200	5.74	228	19 $\frac{3}{8}$	11 $\frac{3}{8}$	2990	356	5.82
	$\times\frac{1}{2}$	0.500	116.91	34.4	25.0	41.0	2310	210	8.21	254	1160	166	5.80	186	19 $\frac{3}{4}$	11 $\frac{3}{4}$	2440	290	5.86
	$\times\frac{3}{8}$	0.375	88.73	26.1	34.3	55.7	1780	162	8.27	194	894	128	5.86	143	20 $\frac{5}{8}$	12 $\frac{5}{8}$	1870	221	5.89
	$\times\frac{9}{16}$	0.313	74.38	21.9	41.7	67.3	1510	137	8.30	164	758	108	5.88	120	20 $\frac{5}{8}$	12 $\frac{5}{8}$	1580	186	5.91
	$\times\frac{1}{4}$	0.250	59.85	17.6	53.0	85.0	1220	111	8.34	132	615	87.9	5.91	97.3	20 $\frac{7}{8}$	12 $\frac{7}{8}$	1270	149	5.93
HSS22×10× $\frac{5}{8}$	0.625	127.37	37.4	13.0	32.2	2240	204	7.74	257	651	130	4.17	148	19 $\frac{3}{8}$	7 $\frac{3}{8}$	1660	250	5.15	
	$\times\frac{1}{2}$	0.500	103.30	30.4	17.0	41.0	1850	168	7.81	211	542	108	4.23	122	19 $\frac{3}{4}$	7 $\frac{3}{4}$	1370	204	5.19
	$\times\frac{3}{8}$	0.375	78.52	23.1	23.7	55.7	1430	130	7.88	162	423	84.6	4.28	93.7	20 $\frac{5}{8}$	8 $\frac{5}{8}$	1050	156	5.23
	$\times\frac{9}{16}$	0.313	65.87	19.4	28.9	67.3	1220	110	7.92	137	360	72.0	4.31	79.2	20 $\frac{5}{8}$	8 $\frac{5}{8}$	890	131	5.24
	$\times\frac{1}{4}$	0.250	53.05	15.6	37.0	85.0	986	89.6	7.95	110	293	58.6	4.34	64.1	20 $\frac{7}{8}$	8 $\frac{7}{8}$	720	106	5.26
	HSS20×16× $\frac{3}{4}$	0.750	171.16	50.3	18.3	23.7	2880	288	7.56	345	2040	255	6.36	296	16 $\frac{5}{8}$	12 $\frac{5}{8}$	3830	439	5.79
$\times\frac{5}{8}$		0.625	144.39	42.4	22.6	29.0	2470	247	7.62	294	1750	219	6.42	252	17 $\frac{3}{8}$	13 $\frac{3}{8}$	3250	371	5.82
$\times\frac{1}{2}$		0.500	116.91	34.4	29.0	37.0	2030	203	7.69	240	1440	180	6.48	206	17 $\frac{3}{4}$	13 $\frac{3}{4}$	2650	302	5.86
$\times\frac{3}{8}$		0.375	88.73	26.1	39.7	50.3	1570	157	7.75	184	1110	139	6.54	158	18 $\frac{5}{8}$	14 $\frac{5}{8}$	2020	230	5.89
$\times\frac{9}{16}$		0.313	74.38	21.9	48.1	60.9	1330	133	7.78	155	944	118	6.57	133	18 $\frac{5}{8}$	14 $\frac{5}{8}$	1710	193	5.91
$\times\frac{1}{4}$		0.250	59.85	17.6	61.0	77.0	1070	107	7.81	125	765	95.6	6.60	108	18 $\frac{7}{8}$	14 $\frac{7}{8}$	1370	155	5.93
HSS20×12×1	1.000	195.40	57.4	9.00	17.0	2890	289	7.10	365	1290	215	4.75	255	15 $\frac{1}{2}$	7 $\frac{1}{2}$	2990	414	5.05	
	$\times\frac{7}{8}$	0.875	173.43	51.0	10.7	19.9	2620	262	7.17	327	1180	197	4.80	229	16 $\frac{1}{8}$	8 $\frac{1}{8}$	2680	370	5.08
	$\times\frac{3}{4}$	0.750	150.75	44.3	13.0	23.7	2320	232	7.24	287	1050	175	4.86	202	16 $\frac{5}{8}$	8 $\frac{5}{8}$	2360	323	5.12
	$\times\frac{5}{8}$	0.625	127.37	37.4	16.2	29.0	2000	200	7.30	245	904	151	4.92	172	17 $\frac{3}{8}$	9 $\frac{3}{8}$	2010	275	5.15
	$\times\frac{1}{2}$	0.500	103.30	30.4	21.0	37.0	1650	165	7.37	201	750	125	4.97	141	17 $\frac{3}{4}$	9 $\frac{3}{4}$	1650	224	5.19
	$\times\frac{3}{8}$	0.375	78.52	23.1	29.0	50.3	1280	128	7.44	154	583	97.2	5.03	109	18 $\frac{5}{8}$	10 $\frac{5}{8}$	1270	171	5.23
$\times\frac{9}{16}$	0.313	65.87	19.4	35.3	60.9	1080	108	7.47	130	495	82.5	5.06	91.9	18 $\frac{5}{8}$	10 $\frac{5}{8}$	1070	144	5.24	

Note: Confirm ASTM A1085/A1085M material availability before specifying.



HSS20-HSS18

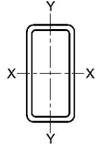
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>	
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>	
HSS20×8×1	1.000	168.18	49.4	5.00	17.0	2170	217	6.63	289	493	123	3.16	148	15½	3½	1390	262	4.38
×7/8	0.875	149.61	44.0	6.14	19.9	1980	198	6.71	260	454	114	3.21	134	16½	4½	1270	236	4.42
×¾	0.750	130.33	38.3	7.67	23.7	1760	176	6.78	230	409	102	3.27	119	16⅝	4⅝	1130	208	4.45
×5/8	0.625	110.36	32.4	9.80	29.0	1530	153	6.86	197	358	89.5	3.32	103	17¾	5¾	973	178	4.49
×½	0.500	89.68	26.4	13.0	37.0	1270	127	6.94	162	300	75.0	3.38	84.7	17¾	5¾	806	146	4.52
×3/8	0.375	68.31	20.1	18.3	50.3	988	98.8	7.02	125	236	59.0	3.43	65.6	18⅝	6⅝	625	112	4.56
×5/16	0.313	57.36	16.9	22.6	60.9	840	84.0	7.05	106	202	50.5	3.46	55.6	18⅝	6⅝	530	94.6	4.58
HSS20×6×5/8	0.625	101.85	29.9	6.60	29.0	1290	129	6.57	173	184	61.3	2.48	71.3	17¾	3¾	558	129	4.15
×½	0.500	82.88	24.4	9.00	37.0	1080	108	6.66	142	157	52.3	2.54	59.4	17¾	3¾	468	107	4.19
×3/8	0.375	63.21	18.6	13.0	50.3	843	84.3	6.74	110	125	41.7	2.59	46.3	18⅝	4⅝	367	82.6	4.23
×5/16	0.313	53.11	15.6	16.2	60.9	718	71.8	6.78	93.2	107	35.7	2.62	39.4	18⅝	4⅝	313	70.0	4.24
×¼	0.250	42.84	12.6	21.0	77.0	586	58.6	6.82	75.6	88.2	29.4	2.65	32.1	18⅝	4⅝	256	56.7	4.26
HSS20×4×½	0.500	76.07	22.4	5.00	37.0	889	88.9	6.31	123	61.6	30.8	1.66	36.0	17¾	–	205	67.8	3.86
×3/8	0.375	58.10	17.1	7.67	50.3	699	69.9	6.40	95.3	50.3	25.2	1.72	28.5	18⅝	2⅝	165	53.2	3.89
×5/16	0.313	48.86	14.4	9.78	60.9	597	59.7	6.44	80.9	43.7	21.9	1.74	24.4	18⅝	2⅝	143	45.3	3.91
×¼	0.250	39.43	11.6	13.0	77.0	488	48.8	6.49	65.7	36.4	18.2	1.77	20.0	18⅝	2⅝	118	37.0	3.93
HSS18×10×5/8	0.625	110.36	32.4	13.0	25.8	1350	150	6.46	187	541	108	4.08	124	15¾	7¾	1270	203	4.49
×½	0.500	89.68	26.4	17.0	33.0	1120	125	6.53	154	452	90.4	4.14	103	15¾	7¾	1040	166	4.52
×3/8	0.375	68.31	20.1	23.7	45.0	874	97.2	6.60	119	354	70.8	4.20	79.2	16⅝	8⅝	804	127	4.56
×5/16	0.313	57.36	16.9	28.9	54.5	743	82.6	6.63	100	301	60.2	4.22	67.1	16⅝	8⅝	680	107	4.58
×¼	0.250	46.24	13.6	37.0	69.0	604	67.1	6.67	81.2	246	49.2	4.25	54.4	16⅝	8⅝	550	86.5	4.60
HSS18×8×5/8	0.625	101.85	29.9	9.80	25.8	1170	129	6.24	166	324	81.0	3.29	93.3	15¾	5¾	847	159	4.15
×½	0.500	82.88	24.4	13.0	33.0	971	108	6.31	137	272	68.0	3.34	77.2	15¾	5¾	702	131	4.19
×3/8	0.375	63.21	18.6	18.3	45.0	758	84.2	6.39	105	215	53.8	3.40	59.9	16⅝	6⅝	545	101	4.23
×5/16	0.313	53.11	15.6	22.6	54.5	645	71.7	6.42	89.3	184	46.0	3.43	50.8	16⅝	6⅝	462	85.0	4.24
×¼	0.250	42.84	12.6	29.0	69.0	525	58.4	6.46	72.3	150	37.5	3.45	41.3	16⅝	6⅝	375	68.7	4.26

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS18-HSS16

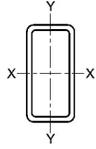
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS18×6× $\frac{3}{4}$	0.750	109.91	32.3	5.00	21.0	1120	124	5.88	167	187	62.3	2.41	74.3	14 $\frac{5}{8}$	2 $\frac{5}{8}$	558	134	3.79	
	$\times\frac{5}{8}$	0.625	93.34	27.4	6.60	25.8	977	109	5.97	144	166	55.3	2.46	64.6	15 $\frac{3}{16}$	3 $\frac{3}{16}$	489	116	3.82
	$\times\frac{1}{2}$	0.500	76.07	22.4	9.00	33.0	818	90.9	6.05	119	142	47.3	2.52	53.9	15 $\frac{3}{4}$	3 $\frac{3}{4}$	410	95.8	3.86
	$\times\frac{3}{8}$	0.375	58.10	17.1	13.0	45.0	641	71.3	6.13	92.2	113	37.7	2.57	42.1	16 $\frac{5}{16}$	4 $\frac{5}{16}$	322	74.2	3.89
	$\times\frac{9}{16}$	0.313	48.86	14.4	16.2	54.5	547	60.8	6.17	78.2	97.1	32.4	2.60	35.8	16 $\frac{5}{8}$	4 $\frac{5}{8}$	275	62.8	3.91
	$\times\frac{1}{4}$	0.250	39.43	11.6	21.0	69.0	447	49.6	6.21	63.5	80.0	26.7	2.63	29.2	16 $\frac{7}{8}$	4 $\frac{7}{8}$	224	51.0	3.93
HSS16×12×1	1.000	168.18	49.4	9.00	13.0	1650	207	5.78	258	1050	175	4.61	211	11 $\frac{1}{2}$	7 $\frac{1}{2}$	2150	326	4.38	
	$\times\frac{7}{8}$	0.875	149.61	44.0	10.7	1500	188	5.85	232	959	160	4.67	190	12 $\frac{1}{16}$	8 $\frac{1}{16}$	1940	292	4.42	
	$\times\frac{3}{4}$	0.750	130.33	38.3	13.0	1340	167	5.91	205	856	143	4.73	168	12 $\frac{5}{8}$	8 $\frac{5}{8}$	1710	256	4.45	
	$\times\frac{5}{8}$	0.625	110.36	32.4	16.2	22.6	1160	145	5.98	175	742	124	4.78	144	13 $\frac{3}{16}$	9 $\frac{3}{16}$	1460	218	4.49
	$\times\frac{1}{2}$	0.500	89.68	26.4	21.0	29.0	962	120	6.04	144	618	103	4.84	118	13 $\frac{3}{4}$	9 $\frac{3}{4}$	1200	178	4.52
	$\times\frac{3}{8}$	0.375	68.31	20.1	29.0	39.7	748	93.5	6.11	111	482	80.3	4.90	91.3	14 $\frac{5}{16}$	10 $\frac{5}{16}$	922	136	4.56
HSS16×10× $\frac{5}{8}$	$\times\frac{5}{8}$	0.625	101.85	29.9	13.0	22.6	1010	126	5.81	156	486	97.2	4.03	113	13 $\frac{3}{16}$	7 $\frac{3}{16}$	1070	179	4.15
	$\times\frac{1}{2}$	0.500	82.88	24.4	17.0	29.0	842	105	5.88	129	407	81.4	4.09	93.1	13 $\frac{3}{4}$	7 $\frac{3}{4}$	884	147	4.19
	$\times\frac{3}{8}$	0.375	63.21	18.6	23.7	39.7	657	82.1	5.95	99.3	319	63.8	4.14	72.0	14 $\frac{5}{16}$	8 $\frac{5}{16}$	682	113	4.23
	$\times\frac{9}{16}$	0.313	53.11	15.6	28.9	48.1	559	69.9	5.98	84.1	272	54.4	4.17	61.0	14 $\frac{5}{8}$	8 $\frac{5}{8}$	577	95.0	4.24
	$\times\frac{1}{4}$	0.250	42.84	12.6	37.0	61.0	455	56.9	6.01	68.1	222	44.4	4.20	49.5	14 $\frac{7}{8}$	8 $\frac{7}{8}$	468	76.7	4.26
	HSS16×8× $\frac{7}{8}$	0.875	125.79	37.0	6.14	15.3	1100	138	5.46	179	364	91.0	3.14	109	12 $\frac{1}{16}$	4 $\frac{1}{16}$	936	186	3.75
$\times\frac{3}{4}$		0.750	109.91	32.3	7.67	18.3	990	124	5.54	159	330	82.5	3.19	97.3	12 $\frac{5}{8}$	4 $\frac{5}{8}$	835	164	3.79
$\times\frac{5}{8}$		0.625	93.34	27.4	9.80	22.6	863	108	5.61	137	290	72.5	3.25	84.1	13 $\frac{3}{16}$	5 $\frac{3}{16}$	723	141	3.82
$\times\frac{1}{2}$		0.500	76.07	22.4	13.0	29.0	722	90.2	5.68	113	244	61.0	3.30	69.7	13 $\frac{3}{4}$	5 $\frac{3}{4}$	599	116	3.86
$\times\frac{3}{8}$		0.375	58.10	17.1	18.3	39.7	565	70.6	5.75	87.6	193	48.3	3.36	54.2	14 $\frac{3}{16}$	6 $\frac{3}{16}$	465	89.2	3.89
$\times\frac{9}{16}$		0.313	48.86	14.4	22.6	48.1	482	60.2	5.79	74.3	165	41.3	3.39	46.0	14 $\frac{5}{8}$	6 $\frac{5}{8}$	395	75.4	3.91
$\times\frac{1}{4}$	0.250	39.43	11.6	29.0	61.0	393	49.1	5.82	60.3	135	33.8	3.42	37.4	14 $\frac{7}{8}$	6 $\frac{7}{8}$	321	61.0	3.93	

Note: Confirm ASTM A1085/A1085M material availability before specifying.



## ASTM A1085/A1085M Rectangular HSS

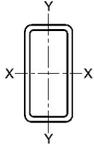
### Dimensions and Properties



HSS16–HSS14

Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS16×6× <sup>5</sup> / <sub>8</sub>	0.625	84.84	24.9	6.60	22.6	715	89.4	5.36	118	148	49.3	2.44	57.9	13 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	420	102	3.49	
	× <sup>1</sup> / <sub>2</sub>	0.500	69.27	20.4	9.00	29.0	602	75.2	5.44	97.7	126	42.0	2.49	48.4	13 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	353	84.8	3.52
	× <sup>3</sup> / <sub>8</sub>	0.375	53.00	15.6	13.0	39.7	474	59.2	5.51	75.9	101	33.7	2.55	37.9	14 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	277	65.7	3.56
	× <sup>5</sup> / <sub>16</sub>	0.313	44.60	13.1	16.2	48.1	405	50.6	5.55	64.4	87.0	29.0	2.57	32.3	14 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	237	55.7	3.58
	× <sup>1</sup> / <sub>4</sub>	0.250	36.03	10.6	21.0	61.0	331	41.4	5.59	52.4	71.7	23.9	2.60	26.3	14 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	193	45.2	3.60
	× <sup>3</sup> / <sub>16</sub>	0.188	27.29	8.04	28.9	82.1	255	31.8	5.63	40.1	55.6	18.5	2.63	20.2	15 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	148	34.5	3.61
HSS16×4× <sup>5</sup> / <sub>8</sub>	0.625	76.33	22.4	3.40	22.6	568	70.9	5.03	98.5	56.4	28.2	1.59	34.2	13 <sup>3</sup> / <sub>16</sub>	–	182	63.9	3.15	
	× <sup>1</sup> / <sub>2</sub>	0.500	62.46	18.4	5.00	29.0	481	60.2	5.12	82.2	49.3	2.47	29.0	13 <sup>3</sup> / <sub>4</sub>	–	157	53.8	3.19	
	× <sup>3</sup> / <sub>8</sub>	0.375	47.90	14.1	7.67	39.7	382	47.8	5.21	64.2	40.4	2.02	23.0	14 <sup>5</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	127	42.3	3.23	
	× <sup>5</sup> / <sub>16</sub>	0.313	40.35	11.9	9.78	48.1	328	41.0	5.25	54.6	35.2	17.6	1.72	19.8	14 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	110	36.1	3.24
	× <sup>1</sup> / <sub>4</sub>	0.250	32.63	9.59	13.0	61.0	269	33.6	5.30	44.5	29.3	14.7	1.75	16.2	14 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	90.6	29.5	3.26
	× <sup>3</sup> / <sub>16</sub>	0.188	24.73	7.29	18.3	82.1	208	26.0	5.34	34.1	23.0	11.5	1.78	12.5	15 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	70.3	22.6	3.28
HSS14×12× <sup>5</sup> / <sub>8</sub>	0.625	101.85	29.9	16.2	19.4	840	120	5.30	144	661	110	4.70	130	11 <sup>3</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>16</sub>	1200	189	4.15	
	× <sup>1</sup> / <sub>2</sub>	0.500	82.88	24.4	21.0	25.0	699	99.9	5.36	119	552	92.0	4.76	107	11 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>4</sub>	983	155	4.19
	× <sup>3</sup> / <sub>8</sub>	0.375	63.21	18.6	29.0	34.3	546	78.0	5.42	91.7	431	71.8	4.82	82.6	12 <sup>5</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>16</sub>	757	119	4.23
	× <sup>5</sup> / <sub>16</sub>	0.313	53.11	15.6	35.3	41.7	465	66.4	5.45	77.6	367	61.2	4.85	70.0	12 <sup>5</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	640	100	4.24
	× <sup>1</sup> / <sub>4</sub>	0.250	42.84	12.6	45.0	53.0	378	54.1	5.48	62.9	299	49.8	4.88	56.7	12 <sup>7</sup> / <sub>8</sub>	10 <sup>7</sup> / <sub>8</sub>	518	80.7	4.26
	HSS14×10× <sup>7</sup> / <sub>8</sub>	0.875	125.79	37.0	8.43	13.0	931	133	5.02	167	548	110	3.85	132	10 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	1160	207	3.75
× <sup>3</sup> / <sub>4</sub>		0.750	109.91	32.3	10.3	15.7	835	119	5.09	148	493	98.6	3.91	117	10 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	1030	182	3.79
× <sup>5</sup> / <sub>8</sub>		0.625	93.34	27.4	13.0	19.4	728	104	5.15	127	431	86.2	3.96	101	11 <sup>3</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	885	156	3.82
× <sup>1</sup> / <sub>2</sub>		0.500	76.07	22.4	17.0	25.0	608	86.9	5.22	105	361	72.2	4.02	83.6	11 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	730	128	3.86
× <sup>3</sup> / <sub>8</sub>		0.375	58.10	17.1	23.7	34.3	476	68.0	5.28	81.5	284	56.8	4.08	64.8	12 <sup>5</sup> / <sub>16</sub>	8 <sup>5</sup> / <sub>16</sub>	564	98.2	3.89
× <sup>5</sup> / <sub>16</sub>		0.313	48.86	14.4	28.9	41.7	406	58.0	5.31	69.1	242	48.4	4.11	55.0	12 <sup>5</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	478	82.9	3.91
× <sup>1</sup> / <sub>4</sub>	0.250	39.43	11.6	37.0	53.0	331	47.3	5.35	56.0	198	39.6	4.14	44.6	12 <sup>7</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub>	387	67.0	3.93	
HSS14×8× <sup>5</sup> / <sub>8</sub>	0.625	84.84	24.9	9.80	19.4	616	88.0	4.97	111	256	64.0	3.20	74.9	11 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	601	122	3.49	
	× <sup>1</sup> / <sub>2</sub>	0.500	69.27	20.4	13.0	25.0	517	73.9	5.04	91.8	216	54.0	3.26	62.2	11 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	499	101	3.52
	× <sup>3</sup> / <sub>8</sub>	0.375	53.00	15.6	18.3	34.3	407	58.1	5.11	71.3	171	42.8	3.31	48.5	12 <sup>5</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	388	77.7	3.56
	× <sup>5</sup> / <sub>16</sub>	0.313	44.60	13.1	22.6	41.7	347	49.6	5.14	60.5	147	36.8	3.34	41.2	12 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	329	65.7	3.58
	× <sup>1</sup> / <sub>4</sub>	0.250	36.03	10.6	29.0	53.0	284	40.5	5.18	49.2	120	30.0	3.37	33.5	12 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	267	53.2	3.60
	× <sup>3</sup> / <sub>16</sub>	0.188	27.29	8.04	39.6	71.5	218	31.2	5.21	37.6	92.8	23.2	3.40	25.7	13 <sup>3</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	204	40.5	3.61

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS14-HSS12

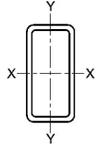
# ASTM A1085/A1085M Rectangular HSS

## Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS14×6× <sup>5</sup> / <sub>8</sub>	0.625	76.33	22.4	6.60	19.4	504	72.0	4.74	94.0	130	43.3	2.41	51.2	11 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	352	88.9	3.15	
	× <sup>1</sup> / <sub>2</sub>	0.500	62.46	18.4	9.00	426	60.8	4.82	78.3	111	37.0	2.46	42.9	11 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	296	73.8	3.19	
	× <sup>3</sup> / <sub>8</sub>	0.375	47.90	14.1	13.0	34.3	337	48.1	4.89	61.1	89.1	29.7	2.52	33.6	12 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	233	57.3	3.23
	× <sup>5</sup> / <sub>16</sub>	0.313	40.35	11.9	16.2	41.7	289	41.2	4.93	51.9	76.9	25.6	2.54	28.7	12 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	199	48.6	3.24
	× <sup>1</sup> / <sub>4</sub>	0.250	32.63	9.59	21.0	53.0	237	33.8	4.97	42.3	63.4	21.1	2.57	23.4	12 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	162	39.5	3.26
	× <sup>3</sup> / <sub>16</sub>	0.188	24.73	7.29	28.9	71.5	182	26.1	5.00	32.4	49.2	16.4	2.60	18.0	13 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	125	30.2	3.28
HSS14×4× <sup>5</sup> / <sub>8</sub>	0.625	67.82	19.9	3.40	19.4	392	56.0	4.44	77.3	49.2	24.6	1.57	30.0	11 <sup>3</sup> / <sub>16</sub>	–	154	55.5	2.82	
	× <sup>1</sup> / <sub>2</sub>	0.500	55.66	16.4	5.00	25.0	335	47.8	4.52	64.8	43.1	2.16	25.5	11 <sup>3</sup> / <sub>4</sub>	–	134	46.8	2.86	
	× <sup>3</sup> / <sub>8</sub>	0.375	42.79	12.6	7.67	34.3	267	38.2	4.61	50.8	35.4	1.77	20.3	12 <sup>5</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	108	36.8	2.89	
	× <sup>5</sup> / <sub>16</sub>	0.313	36.10	10.6	9.78	41.7	230	32.8	4.65	43.4	30.9	1.55	17.4	12 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	93.2	31.5	2.91	
	× <sup>1</sup> / <sub>4</sub>	0.250	29.23	8.59	13.0	53.0	189	27.0	4.69	35.4	25.8	1.29	14.3	12 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	77.0	25.7	2.93	
	× <sup>3</sup> / <sub>16</sub>	0.188	22.18	6.54	18.3	71.5	147	20.9	4.74	27.2	20.3	1.02	11.1	13 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	59.8	19.8	2.95	
HSS12×10× <sup>5</sup> / <sub>8</sub>	0.625	84.84	24.9	13.0	16.2	499	83.2	4.48	101	376	75.2	3.88	89.3	9 <sup>3</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	703	132	3.49	
	× <sup>1</sup> / <sub>2</sub>	0.500	69.27	20.4	17.0	21.0	419	69.9	4.54	83.9	316	63.2	3.94	74.1	9 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	581	109	3.52
	× <sup>3</sup> / <sub>8</sub>	0.375	53.00	15.6	23.7	29.0	330	55.0	4.60	65.2	249	49.8	4.00	57.6	10 <sup>5</sup> / <sub>16</sub>	8 <sup>5</sup> / <sub>16</sub>	450	83.7	3.56
	× <sup>5</sup> / <sub>16</sub>	0.313	44.60	13.1	28.9	35.3	282	46.9	4.63	55.3	213	42.6	4.03	48.9	10 <sup>5</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	381	70.8	3.58
	× <sup>1</sup> / <sub>4</sub>	0.250	36.03	10.6	37.0	45.0	230	38.4	4.66	44.9	174	34.8	4.06	39.7	10 <sup>7</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub>	309	57.2	3.60
	× <sup>3</sup> / <sub>16</sub>	0.188	27.29	8.04	50.2	60.8	177	29.5	4.69	34.4	134	26.8	4.09	30.4	11 <sup>3</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>16</sub>	236	43.6	3.61
HSS12×8× <sup>5</sup> / <sub>8</sub>	0.625	76.33	22.4	9.80	16.2	419	69.8	4.32	87.1	221	55.3	3.14	65.6	9 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	481	104	3.15	
	× <sup>1</sup> / <sub>2</sub>	0.500	62.46	18.4	13.0	21.0	353	58.9	4.39	72.4	188	47.0	3.20	54.7	9 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	401	85.8	3.19
	× <sup>3</sup> / <sub>8</sub>	0.375	47.90	14.1	18.3	29.0	279	46.5	4.45	56.5	149	37.3	3.26	42.7	10 <sup>5</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	312	66.3	3.23
	× <sup>5</sup> / <sub>16</sub>	0.313	40.35	11.9	22.6	35.3	239	39.8	4.49	48.0	128	32.0	3.28	36.4	10 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	265	56.1	3.24
	× <sup>1</sup> / <sub>4</sub>	0.250	32.63	9.59	29.0	45.0	196	32.6	4.52	39.1	105	26.3	3.31	29.6	10 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	216	45.5	3.26
	× <sup>3</sup> / <sub>16</sub>	0.188	24.73	7.29	39.6	60.8	151	25.2	4.55	29.9	81.3	20.3	3.34	22.7	11 <sup>3</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	165	34.7	3.28
HSS12×6× <sup>5</sup> / <sub>8</sub>	0.625	67.82	19.9	6.60	16.2	338	56.3	4.12	72.9	112	37.3	2.37	44.5	9 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	286	75.5	2.82	
	× <sup>1</sup> / <sub>2</sub>	0.500	55.66	16.4	9.00	21.0	287	47.8	4.19	60.9	96.0	32.0	2.42	37.4	9 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	241	62.8	2.86
	× <sup>3</sup> / <sub>8</sub>	0.375	42.79	12.6	13.0	29.0	228	38.1	4.26	47.7	77.3	25.8	2.48	29.4	10 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	190	48.8	2.89
	× <sup>5</sup> / <sub>16</sub>	0.313	36.10	10.6	16.2	35.3	196	32.7	4.30	40.7	66.7	22.2	2.51	25.1	10 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	162	41.5	2.91
	× <sup>1</sup> / <sub>4</sub>	0.250	29.23	8.59	21.0	45.0	161	26.9	4.33	33.2	55.2	18.4	2.53	20.6	10 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	132	33.7	2.93
	× <sup>3</sup> / <sub>16</sub>	0.188	22.18	6.54	28.9	60.8	125	20.8	4.37	25.5	42.9	14.3	2.56	15.8	11 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	102	25.8	2.95

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS12-HSS10

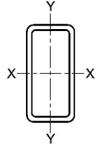
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS12×4× <sup>5</sup> / <sub>16</sub>	0.625	59.32	17.4	3.40	16.2	257	42.8	3.84	58.6	42.0	21.0	1.55	25.8	9 <sup>3</sup> / <sub>16</sub>	–	127	47.0	2.49	
	× <sup>1</sup> / <sub>2</sub>	0.500	48.85	14.4	5.00	21.0	221	36.8	3.92	49.4	37.0	18.5	1.60	22.0	9 <sup>3</sup> / <sub>4</sub>	–	110	39.8	2.52
	× <sup>3</sup> / <sub>8</sub>	0.375	37.69	11.1	7.67	29.0	178	29.6	4.01	39.0	30.5	15.3	1.66	17.6	10 <sup>5</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	89.0	31.4	2.56
	× <sup>5</sup> / <sub>16</sub>	0.313	31.84	9.37	9.78	35.3	153	25.6	4.05	33.4	26.7	13.4	1.69	15.1	10 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	77.0	26.9	2.58
	× <sup>1</sup> / <sub>4</sub>	0.250	25.82	7.59	13.0	45.0	127	21.1	4.09	27.3	22.3	11.2	1.71	12.5	10 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	63.6	22.0	2.60
× <sup>3</sup> / <sub>16</sub>	0.188	19.63	5.78	18.3	60.8	98.4	16.4	4.13	21.0	17.5	8.75	1.74	9.66	11 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	49.4	16.9	2.61	
HSS12×3× <sup>5</sup> / <sub>16</sub>	0.313	29.72	8.75	6.58	35.3	132	22.0	3.89	29.7	13.8	9.20	1.26	10.6	10 <sup>5</sup> / <sub>8</sub>	–	43.7	19.5	2.41	
	× <sup>1</sup> / <sub>4</sub>	0.250	24.12	7.09	9.00	45.0	109	18.2	3.93	24.4	11.7	7.80	1.28	8.80	10 <sup>7</sup> / <sub>8</sub>	–	36.5	16.1	2.43
	× <sup>3</sup> / <sub>16</sub>	0.188	18.35	5.41	13.0	60.8	85.3	14.2	3.97	18.8	9.30	6.20	1.31	6.86	11 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	28.7	12.5	2.45
HSS12×2× <sup>5</sup> / <sub>16</sub>	0.313	27.59	8.12	3.39	35.3	111	18.4	3.69	26.1	5.33	5.33	0.810	6.39	10 <sup>5</sup> / <sub>8</sub>	–	18.4	12.2	2.24	
	× <sup>1</sup> / <sub>4</sub>	0.250	22.42	6.59	5.00	45.0	92.2	15.4	3.74	21.4	4.62	4.62	0.838	5.38	10 <sup>7</sup> / <sub>8</sub>	–	15.9	10.2	2.26
	× <sup>3</sup> / <sub>16</sub>	0.188	17.08	5.03	7.64	60.8	72.2	12.0	3.79	16.6	3.77	3.77	0.865	4.25	11 <sup>3</sup> / <sub>16</sub>	–	12.8	8.02	2.28
HSS10×8× <sup>5</sup> / <sub>16</sub>	0.625	67.82	19.9	9.80	13.0	266	53.2	3.65	65.9	187	46.8	3.07	56.4	7 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	367	85.5	2.82	
	× <sup>1</sup> / <sub>2</sub>	0.500	55.66	16.4	13.0	17.0	226	45.2	3.72	55.1	160	40.0	3.12	47.2	7 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	306	70.8	2.86
	× <sup>3</sup> / <sub>8</sub>	0.375	42.79	12.6	18.3	23.7	180	35.9	3.78	43.1	127	31.8	3.18	37.0	8 <sup>5</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	239	54.8	2.89
	× <sup>5</sup> / <sub>16</sub>	0.313	36.10	10.6	22.6	28.9	154	30.9	3.81	36.8	110	27.5	3.21	31.6	8 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	203	46.5	2.91
	× <sup>1</sup> / <sub>4</sub>	0.250	29.23	8.59	29.0	37.0	127	25.4	3.84	30.0	90.2	22.6	3.24	25.8	8 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	166	37.7	2.93
× <sup>3</sup> / <sub>16</sub>	0.188	22.18	6.54	39.6	50.2	98.1	19.6	3.87	23.0	69.8	17.5	3.27	19.8	9 <sup>3</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	127	28.8	2.95	
HSS10×6× <sup>5</sup> / <sub>16</sub>	0.625	59.32	17.4	6.60	13.0	211	42.2	3.48	54.2	93.6	31.2	2.32	37.7	7 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	221	62.0	2.49	
	× <sup>1</sup> / <sub>2</sub>	0.500	48.85	14.4	9.00	17.0	181	36.2	3.55	45.6	80.9	27.0	2.37	31.9	7 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	187	51.8	2.52
	× <sup>3</sup> / <sub>8</sub>	0.375	37.69	11.1	13.0	23.7	145	29.0	3.62	35.9	65.4	21.8	2.43	25.2	8 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	147	40.4	2.56
	× <sup>5</sup> / <sub>16</sub>	0.313	31.84	9.37	16.2	28.9	125	25.0	3.65	30.7	56.6	18.9	2.46	21.6	8 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	126	34.4	2.58
	× <sup>1</sup> / <sub>4</sub>	0.250	25.82	7.59	21.0	37.0	103	20.6	3.69	25.1	46.9	15.6	2.49	17.7	8 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	103	28.0	2.60
× <sup>3</sup> / <sub>16</sub>	0.188	19.63	5.78	28.9	50.2	80.0	16.0	3.72	19.3	36.5	12.2	2.51	13.6	9 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	79.3	21.4	2.61	
HSS10×5× <sup>3</sup> / <sub>8</sub>	0.375	35.13	10.3	10.3	23.7	128	25.5	3.52	32.3	42.9	17.2	2.04	19.9	8 <sup>5</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	107	33.2	2.39	
	× <sup>5</sup> / <sub>16</sub>	0.313	29.72	8.75	13.0	28.9	110	22.1	3.55	27.7	37.3	14.9	2.07	17.0	8 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	91.6	28.3	2.41
	× <sup>1</sup> / <sub>4</sub>	0.250	24.12	7.09	17.0	37.0	91.2	18.2	3.59	22.7	31.1	12.4	2.09	14.0	8 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	75.2	23.1	2.43

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS10-HSS9

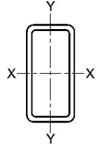
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS10×4× <sup>5</sup> / <sub>8</sub>	0.625	50.81	14.9	3.40	13.0	156	31.2	3.23	42.5	34.8	17.4	1.53	21.6	7 <sup>3</sup> / <sub>16</sub>	–	99.8	38.6	2.15	
	× <sup>1</sup> / <sub>2</sub>	0.500	42.05	12.4	5.00	17.0	136	27.1	3.31	36.1	30.8	15.4	1.58	18.5	7 <sup>3</sup> / <sub>16</sub>	–	86.9	32.8	2.19
	× <sup>3</sup> / <sub>8</sub>	0.375	32.58	9.58	7.67	23.7	110	22.0	3.39	28.7	25.5	12.8	1.63	14.9	8 <sup>5</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	70.4	26.0	2.23
	× <sup>5</sup> / <sub>16</sub>	0.313	27.59	8.12	9.78	28.9	95.6	19.1	3.43	24.6	22.4	11.2	1.66	12.8	8 <sup>5</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	60.9	22.2	2.24
	× <sup>1</sup> / <sub>4</sub>	0.250	22.42	6.59	13.0	37.0	79.3	15.9	3.47	20.2	18.8	9.40	1.69	10.6	8 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	50.4	18.2	2.26
× <sup>3</sup> / <sub>16</sub>	0.188	17.08	5.03	18.3	50.2	61.9	12.4	3.51	15.6	14.8	7.40	1.72	8.22	9 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	39.2	14.0	2.28	
HSS10×3 <sup>1</sup> / <sub>2</sub> × <sup>3</sup> / <sub>8</sub>	0.375	31.31	9.20	6.33	23.7	102	20.3	3.32	26.9	18.7	10.7	1.43	12.5	8 <sup>5</sup> / <sub>16</sub>	–	54.3	22.4	2.14	
	× <sup>5</sup> / <sub>16</sub>	0.313	26.53	7.81	8.18	28.9	88.2	17.6	3.36	23.1	16.5	1.45	10.8	8 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	47.3	19.2	2.16	
	× <sup>1</sup> / <sub>4</sub>	0.250	21.57	6.34	11.0	37.0	73.4	14.7	3.40	19.0	13.9	1.48	8.98	8 <sup>7</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	39.3	15.8	2.18	
	× <sup>3</sup> / <sub>16</sub>	0.188	16.44	4.84	15.6	50.2	57.4	11.5	3.44	14.7	11.0	1.51	6.99	9 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	30.7	12.2	2.20	
HSS10×3× <sup>3</sup> / <sub>8</sub>	0.375	30.03	8.83	5.00	23.7	92.8	18.6	3.24	25.1	13.0	8.67	1.21	10.3	8 <sup>5</sup> / <sub>16</sub>	–	39.8	18.7	2.06	
	× <sup>5</sup> / <sub>16</sub>	0.313	25.46	7.49	6.58	28.9	80.9	16.2	3.29	21.6	11.5	1.24	8.93	8 <sup>5</sup> / <sub>16</sub>	–	34.9	16.2	2.08	
	× <sup>1</sup> / <sub>4</sub>	0.250	20.72	6.09	9.00	37.0	67.4	13.5	3.33	17.8	9.79	1.27	7.42	8 <sup>7</sup> / <sub>16</sub>	–	29.3	13.3	2.10	
	× <sup>3</sup> / <sub>16</sub>	0.188	15.80	4.66	13.0	50.2	52.8	10.6	3.37	13.8	7.82	1.30	5.80	9 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	23.0	10.3	2.11	
HSS10×2× <sup>3</sup> / <sub>8</sub>	0.375	27.48	8.08	2.33	23.7	75.4	15.1	3.06	21.5	4.87	4.87	0.776	6.05	8 <sup>5</sup> / <sub>16</sub>	–	16.5	11.5	1.89	
	× <sup>5</sup> / <sub>16</sub>	0.313	23.34	6.87	3.39	28.9	66.2	13.2	3.10	18.6	4.43	0.803	5.34	8 <sup>5</sup> / <sub>16</sub>	–	14.9	10.1	1.91	
	× <sup>1</sup> / <sub>4</sub>	0.250	19.02	5.59	5.00	37.0	55.6	11.1	3.15	15.4	3.85	0.830	4.50	8 <sup>7</sup> / <sub>16</sub>	–	12.8	8.47	1.93	
	× <sup>3</sup> / <sub>16</sub>	0.188	14.53	4.28	7.64	50.2	43.8	8.76	3.20	11.9	3.15	0.858	3.57	9 <sup>3</sup> / <sub>16</sub>	–	10.4	6.66	1.95	
HSS9×7× <sup>5</sup> / <sub>8</sub>	0.625	59.32	17.4	8.20	11.4	183	40.7	3.24	51.0	123	35.1	2.66	42.8	6 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>16</sub>	248	65.8	2.49	
	× <sup>1</sup> / <sub>2</sub>	0.500	48.85	14.4	11.0	15.0	157	34.8	3.31	42.9	106	30.3	2.72	36.1	6 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>16</sub>	209	54.8	2.52
	× <sup>3</sup> / <sub>8</sub>	0.375	37.69	11.1	15.7	21.0	126	27.9	3.37	33.8	85.2	24.3	2.77	28.4	7 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	164	42.7	2.56
	× <sup>5</sup> / <sub>16</sub>	0.313	31.84	9.37	19.4	25.8	108	24.1	3.40	28.9	73.6	21.0	2.80	24.3	7 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	140	36.2	2.58
	× <sup>1</sup> / <sub>4</sub>	0.250	25.82	7.59	25.0	33.0	89.4	19.9	3.43	23.6	60.8	17.4	2.83	19.9	7 <sup>7</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>16</sub>	114	29.5	2.60
	× <sup>3</sup> / <sub>16</sub>	0.188	19.63	5.78	34.2	44.9	69.4	15.4	3.46	18.2	47.3	13.5	2.86	15.3	8 <sup>3</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>16</sub>	87.9	22.5	2.61
HSS9×5× <sup>5</sup> / <sub>8</sub>	0.625	50.81	14.9	5.00	11.4	139	30.9	3.05	40.5	54.1	21.6	1.90	26.6	6 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	135	44.9	2.15	
	× <sup>1</sup> / <sub>2</sub>	0.500	42.05	12.4	7.00	15.0	121	26.8	3.12	34.4	47.4	1.96	22.7	6 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	115	37.8	2.19	
	× <sup>3</sup> / <sub>8</sub>	0.375	32.58	9.58	10.3	21.0	97.8	21.7	3.20	27.3	38.9	15.6	2.01	18.1	7 <sup>5</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	92.2	29.7	2.23
	× <sup>5</sup> / <sub>16</sub>	0.313	27.59	8.12	13.0	25.8	84.7	18.8	3.23	23.4	33.9	13.6	2.04	15.6	7 <sup>5</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	79.3	25.4	2.24
	× <sup>1</sup> / <sub>4</sub>	0.250	22.42	6.59	17.0	33.0	70.3	15.6	3.27	19.3	28.2	11.3	2.07	12.8	7 <sup>7</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	65.2	20.7	2.26
	× <sup>3</sup> / <sub>16</sub>	0.188	17.08	5.03	23.6	44.9	54.8	12.2	3.30	14.9	22.1	8.84	2.10	9.93	8 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>16</sub>	50.4	15.9	2.28

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS9-HSS8

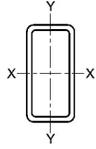
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS9×3×1/2	0.500	35.24	10.4	3.00	15.0	84.5	18.8	2.86	25.9	13.7	9.13	1.15	11.3	6 3/8	–	41.6	20.8	1.86	
	×3/8	0.375	27.48	8.08	5.00	21.0	69.9	15.5	2.94	20.9	11.7	7.80	1.20	9.29	7 5/16	–	34.9	16.8	1.89
	×5/16	0.313	23.34	6.87	6.58	25.8	61.1	13.6	2.98	18.0	10.4	6.93	1.23	8.09	7 5/8	–	30.6	14.5	1.91
	×1/4	0.250	19.02	5.59	9.00	33.0	51.1	11.4	3.02	14.9	8.85	5.90	1.26	6.73	7 7/8	–	25.6	12.0	1.93
	×3/16	0.188	14.53	4.28	13.0	44.9	40.2	8.93	3.06	11.6	7.07	4.71	1.29	5.27	8 3/16	2 3/16	20.2	9.29	1.95
HSS8×6×5/8	0.625	50.81	14.9	6.60	9.80	119	29.8	2.83	38.0	75.5	25.2	2.25	31.0	5 3/16	3 3/16	158	48.6	2.15	
	×1/2	0.500	42.05	12.4	9.00	13.0	103	25.8	2.89	32.2	65.7	21.9	2.31	26.4	5 3/4	3 3/4	135	40.8	2.19
	×3/8	0.375	32.58	9.58	13.0	18.3	83.7	20.9	2.96	25.6	53.5	17.8	2.36	21.0	6 5/16	4 5/16	107	32.0	2.23
	×5/16	0.313	27.59	8.12	16.2	22.6	72.5	18.1	2.99	22.0	46.5	15.5	2.39	18.0	6 5/8	4 5/8	91.4	27.2	2.24
	×1/4	0.250	22.42	6.59	21.0	29.0	60.1	15.0	3.02	18.0	38.6	12.9	2.42	14.8	6 7/8	4 7/8	74.9	22.2	2.26
HSS8×4×5/8	0.625	42.30	12.4	3.40	9.80	85.2	21.3	2.62	28.8	27.6	13.8	1.49	17.3	5 3/16	–	73.2	30.2	1.82	
	×1/2	0.500	35.24	10.4	5.00	13.0	75.2	18.8	2.69	24.7	24.6	12.3	1.54	15.0	5 3/4	–	64.1	25.8	1.86
	×3/8	0.375	27.48	8.08	7.67	18.3	61.9	15.5	2.77	19.9	20.6	10.3	1.60	12.2	6 5/16	2 5/16	52.2	20.5	1.89
	×5/16	0.313	23.34	6.87	9.78	22.6	54.0	13.5	2.80	17.1	18.1	9.05	1.62	10.5	6 5/8	2 5/8	45.2	17.6	1.91
	×1/4	0.250	19.02	5.59	13.0	29.0	45.1	11.3	2.84	14.1	15.3	7.65	1.65	8.72	6 7/8	2 7/8	37.5	14.5	1.93
HSS8×3×1/2	0.500	31.84	9.36	3.00	13.0	61.1	15.3	2.55	21.0	12.1	8.07	1.14	10.1	5 3/4	–	35.7	18.3	1.69	
	×3/8	0.375	24.93	7.33	5.00	18.3	51.0	12.7	2.64	17.0	10.4	6.93	1.19	8.31	6 5/16	–	29.9	14.8	1.73
	×5/16	0.313	21.21	6.24	6.58	22.6	44.8	11.2	2.68	14.7	9.26	6.17	1.22	7.25	6 5/8	–	26.3	12.8	1.74
	×1/4	0.250	17.32	5.09	9.00	29.0	37.6	9.40	2.72	12.2	7.90	5.27	1.25	6.05	6 7/8	–	22.1	10.6	1.76
	×3/16	0.188	13.25	3.90	13.0	39.6	29.7	7.42	2.76	9.51	6.33	4.22	1.27	4.74	7 3/16	2 3/16	17.4	8.23	1.78
HSS8×2×1/2	0.500	28.43	8.36	1.00	13.0	47.0	11.7	2.37	17.2	4.28	4.28	0.716	5.67	5 3/4	–	13.9	10.8	1.52	
	×3/8	0.375	22.37	6.58	2.33	18.3	40.1	10.0	2.47	14.2	3.86	3.86	0.766	4.83	6 5/16	–	12.6	9.09	1.56
	×5/16	0.313	19.08	5.62	3.39	22.6	35.5	8.88	2.51	12.3	3.53	3.53	0.792	4.28	6 5/8	–	11.4	8.00	1.58
	×1/4	0.250	15.62	4.59	5.00	29.0	30.1	7.52	2.56	10.3	3.08	3.08	0.819	3.63	6 7/8	–	9.84	6.72	1.60
	×3/16	0.188	11.97	3.53	7.64	39.6	23.9	5.98	2.60	8.04	2.53	2.53	0.847	2.89	7 3/16	–	7.95	5.30	1.61

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS7-HSS6

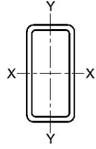
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS7×5×½	0.500	35.24	10.4	7.00	11.0	63.5	18.1	2.48	23.1	37.3	14.9	1.90	18.2	4¾	2¾	79.9	28.8	1.86	
	×¾	0.375	27.48	8.08	10.3	15.7	52.2	14.9	2.54	18.5	30.8	12.3	1.95	5⅝	3⅝	64.2	22.8	1.89	
	×⅝	0.313	23.34	6.87	13.0	19.4	45.5	13.0	2.58	16.0	27.0	10.8	1.98	5⅞	3⅞	55.4	19.5	1.91	
	×¼	0.250	19.02	5.59	17.0	25.0	38.0	10.9	2.61	13.2	22.6	9.04	2.01	10.4	5⅞	3⅞	45.6	16.0	1.93
	×⅜	0.188	14.53	4.28	23.6	34.2	29.8	8.52	2.64	10.2	17.8	7.12	2.04	8.12	6⅞	4⅞	35.3	12.3	1.95
HSS7×4×½	0.500	31.84	9.36	5.00	11.0	52.9	15.1	2.38	19.8	21.6	10.8	1.52	13.3	4¾	–	53.0	22.3	1.69	
	×¾	0.375	24.93	7.33	7.67	15.7	44.0	12.6	2.45	16.0	18.1	9.05	1.57	10.8	5⅝	2⅝	43.3	17.8	1.73
	×⅝	0.313	21.21	6.24	9.78	19.4	38.5	11.0	2.48	13.9	16.0	8.00	1.60	9.37	5⅞	2⅝	37.6	15.3	1.74
	×¼	0.250	17.32	5.09	13.0	25.0	32.3	9.23	2.52	11.5	13.5	6.75	1.63	7.78	5⅞	2⅞	31.2	12.6	1.76
	×⅜	0.188	13.25	3.90	18.3	34.2	25.5	7.28	2.55	8.93	10.7	5.35	1.66	6.07	6⅞	3⅞	24.3	9.74	1.78
HSS7×3×½	0.500	28.43	8.36	3.00	11.0	42.3	12.1	2.25	16.6	10.5	7.00	1.12	8.84	4¾	–	29.8	15.8	1.52	
	×¾	0.375	22.37	6.58	5.00	15.7	35.7	10.2	2.33	13.5	9.10	6.07	1.18	7.32	5⅝	–	25.1	12.8	1.56
	×⅝	0.313	19.08	5.62	6.58	19.4	31.5	9.01	2.37	11.8	8.13	5.42	1.20	6.41	5⅞	–	22.1	11.1	1.58
	×¼	0.250	15.62	4.59	9.00	25.0	26.6	7.61	2.41	9.79	6.95	4.63	1.23	5.36	5⅞	–	18.5	9.22	1.60
	×⅜	0.188	11.97	3.53	13.0	34.2	21.1	6.03	2.45	7.65	5.58	3.72	1.26	4.21	6⅞	2⅞	14.6	7.18	1.61
HSS7×2×¼	0.250	13.91	4.09	5.00	25.0	20.9	5.98	2.26	8.10	2.70	2.70	0.812	3.19	5⅞	–	8.36	5.85	1.43	
	×⅜	0.188	10.70	3.15	7.64	34.2	16.7	4.78	2.30	6.37	2.22	2.22	0.839	2.54	6⅞	–	6.76	4.62	1.45
HSS6×5×½	0.500	31.84	9.36	7.00	9.00	43.0	14.3	2.14	18.1	32.2	12.9	1.85	16.0	3¾	2¾	62.9	24.3	1.69	
	×¾	0.375	24.93	7.33	10.3	13.0	35.7	11.9	2.21	14.7	26.8	10.7	1.91	12.9	4⅝	3⅝	50.9	19.3	1.73
	×⅝	0.313	21.21	6.24	13.0	16.2	31.3	10.4	2.24	12.7	23.5	9.40	1.94	11.2	4⅞	3⅞	44.0	16.6	1.74
	×¼	0.250	17.32	5.09	17.0	21.0	26.2	8.74	2.27	10.5	19.8	7.92	1.97	9.26	4⅞	3⅞	36.3	13.6	1.76
	×⅜	0.188	13.25	3.90	23.6	28.9	20.7	6.89	2.30	8.17	15.6	6.24	2.00	7.21	5⅞	4⅞	28.2	10.5	1.78
HSS6×4×½	0.500	28.43	8.36	5.00	9.00	35.4	11.8	2.06	15.4	18.5	9.25	1.49	11.5	3¾	–	42.1	18.8	1.52	
	×¾	0.375	22.37	6.58	7.67	13.0	29.7	9.91	2.13	12.5	15.7	7.85	1.54	9.44	4⅞	2⅞	34.6	15.1	1.56
	×⅝	0.313	19.08	5.62	9.78	16.2	26.2	8.73	2.16	10.9	13.9	6.95	1.57	8.22	4⅞	2⅞	30.1	13.0	1.58
	×¼	0.250	15.62	4.59	13.0	21.0	22.1	7.36	2.19	9.06	11.7	5.85	1.60	6.84	4⅞	2⅞	25.0	10.7	1.60
	×⅜	0.188	11.97	3.53	18.3	28.9	17.5	5.83	2.23	7.07	9.34	4.67	1.63	5.36	5⅞	3⅞	19.6	8.30	1.61

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS6-HSS4

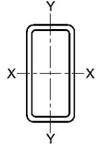
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS6×3×1/2	0.500	25.03	7.36	3.00	9.00	27.8	9.26	1.94	12.6	8.96	5.97	1.10	7.59	3 3/4	–	23.9	13.3	1.36	
	×3/8	0.375	19.82	5.83	5.00	13.0	23.8	7.93	2.02	10.4	7.80	5.20	1.16	6.34	4 5/16	–	20.3	10.9	1.39
	×5/16	0.313	16.96	4.99	6.58	16.2	21.1	7.04	2.06	9.12	6.99	4.66	1.18	5.56	4 5/8	–	17.9	9.45	1.41
	×1/4	0.250	13.91	4.09	9.00	21.0	17.9	5.98	2.09	7.62	6.00	4.00	1.21	4.67	4 7/8	–	15.1	7.85	1.43
	×3/16	0.188	10.70	3.15	13.0	28.9	14.3	4.77	2.13	5.98	4.84	3.23	1.24	3.69	5 3/16	2 3/16	11.9	6.12	1.45
HSS6×2×3/8	0.375	17.27	5.08	2.33	13.0	17.8	5.95	1.87	8.33	2.85	2.85	0.750	3.61	4 5/16	–	8.72	6.65	1.23	
	×5/16	0.313	14.83	4.36	3.39	16.2	16.1	5.35	1.92	7.34	2.62	2.62	0.775	3.23	4 5/8	–	7.94	5.89	1.24
	×1/4	0.250	12.21	3.59	5.00	21.0	13.8	4.60	1.96	6.18	2.31	2.31	0.802	2.75	4 7/8	–	6.88	4.97	1.26
	×3/16	0.188	9.42	2.78	7.64	28.9	11.1	3.71	2.00	4.89	1.91	1.91	0.829	2.20	5 3/16	–	5.58	3.93	1.28
HSS5×4×1/2	0.500	25.03	7.36	5.00	7.00	22.0	8.80	1.73	11.5	15.4	7.70	1.45	9.77	2 3/4	–	31.7	15.3	1.36	
	×3/8	0.375	19.82	5.83	7.67	10.3	18.8	7.50	1.79	9.44	13.2	6.60	1.50	8.08	3 5/16	2 5/16	26.3	12.4	1.39
	×5/16	0.313	16.96	4.99	9.78	13.0	16.6	6.66	1.83	8.25	11.7	5.85	1.53	7.06	3 5/8	2 5/8	22.9	10.7	1.41
	×1/4	0.250	13.91	4.09	13.0	17.0	14.1	5.65	1.86	6.89	9.98	4.99	1.56	5.90	3 7/8	2 7/8	19.1	8.85	1.43
	×3/16	0.188	10.70	3.15	18.3	23.6	11.3	4.50	1.89	5.40	7.98	3.99	1.59	4.64	4 3/16	3 3/16	15.0	6.87	1.45
HSS5×3×1/2	0.500	21.63	6.36	3.00	7.00	16.9	6.77	1.63	9.20	7.37	4.91	1.08	6.34	2 3/4	–	18.2	10.8	1.19	
	×3/8	0.375	17.27	5.08	5.00	10.3	14.7	5.90	1.70	7.71	6.50	4.33	1.13	5.35	3 3/16	–	15.6	8.90	1.23
	×5/16	0.313	14.83	4.36	6.58	13.0	13.2	5.28	1.74	6.78	5.86	3.91	1.16	4.72	3 5/8	–	13.8	7.77	1.24
	×1/4	0.250	12.21	3.59	9.00	17.0	11.3	4.52	1.77	5.70	5.05	3.37	1.19	3.98	3 7/8	–	11.7	6.47	1.26
	×3/16	0.188	9.42	2.78	13.0	23.6	9.08	3.63	1.81	4.50	4.09	2.73	1.21	3.16	4 3/16	2 3/16	9.23	5.06	1.28
HSS5×2 1/2×1/4	0.250	11.36	3.34	7.00	17.0	9.89	3.96	1.72	5.11	3.28	2.62	0.991	3.12	3 7/8	–	8.36	5.28	1.18	
	×3/16	0.188	8.78	2.59	10.3	23.6	7.99	3.20	1.76	4.05	2.69	2.15	1.02	2.49	4 3/16	–	6.68	4.16	1.20
HSS5×2×3/8	0.375	14.72	4.33	2.33	10.3	10.7	4.29	1.57	5.98	2.35	2.35	0.737	3.00	3 5/16	–	6.82	5.43	1.06	
	×5/16	0.313	12.70	3.74	3.39	13.0	9.76	3.90	1.62	5.31	2.17	2.17	0.763	2.70	3 5/8	–	6.24	4.83	1.08
	×1/4	0.250	10.51	3.09	5.00	17.0	8.48	3.39	1.66	4.51	1.93	1.93	0.789	2.32	3 7/8	–	5.43	4.10	1.10
	×3/16	0.188	8.15	2.40	7.64	23.6	6.90	2.76	1.70	3.59	1.60	1.60	0.816	1.86	4 3/16	–	4.41	3.25	1.11
HSS4×3×3/8	0.375	14.72	4.33	5.00	7.67	8.23	4.12	1.38	5.36	5.19	3.46	1.10	4.37	2 5/16	–	11.1	6.93	1.06	
	×5/16	0.313	12.70	3.74	6.58	9.78	7.46	3.73	4.75	4.72	3.15	1.12	3.88	2 5/8	–	9.90	6.08	1.08	
	×1/4	0.250	10.51	3.09	9.00	13.0	6.46	3.23	4.45	4.03	4.11	1.15	3.30	2 7/8	–	8.41	5.10	1.10	
	×3/16	0.188	8.15	2.40	13.0	18.3	5.24	2.62	1.48	3.21	3.35	2.23	1.18	2.63	3 3/16	2 3/16	6.68	4.00	1.11

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS4-HSS2½

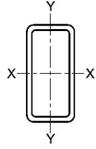
## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area	
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>		
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>		ft <sup>2</sup> /ft
HSS4×2½×¼	0.250	9.66	2.84	7.00	13.0	5.58	2.79	1.40	3.56	2.65	2.12	0.965	2.56	2½	–	6.09	4.16	1.01	
	×¾	0.188	7.51	2.21	10.3	18.3	4.56	2.28	1.44	2.85	2.18	1.74	0.993	2.05	3¾	–	4.89	3.29	1.03
HSS4×2×¾	0.375	12.17	3.58	2.33	7.67	5.76	2.88	1.27	4.00	1.84	1.84	0.718	2.39	2½	–	4.97	4.21	0.893	
	×¾	0.313	10.58	3.11	3.39	9.78	5.33	2.66	1.31	3.60	1.72	1.72	0.744	2.17	2½	–	4.58	3.78	0.910
	×¼	0.250	8.81	2.59	5.00	13.0	4.70	2.35	1.35	3.09	1.54	1.54	0.771	1.88	2½	–	4.01	3.22	0.928
	×¾	0.188	6.87	2.02	7.64	18.3	3.88	1.94	1.38	2.49	1.29	1.29	0.798	1.52	3¾	–	3.27	2.57	0.946
HSS4×1½×¼	0.250	7.96	2.34	3.00	13.0	3.82	1.91	1.28	2.62	0.758	1.01	0.569	1.26	2½	–	2.23	2.28	0.845	
	×¾	0.188	6.23	1.84	4.98	18.3	3.19	1.60	1.32	2.13	0.651	0.868	0.595	1.04	3¾	–	1.87	1.85	0.863
HSS3½×2½×¾	0.375	12.17	3.58	3.67	6.33	4.90	2.80	1.17	3.74	2.84	2.27	0.892	2.94	–	–	6.38	4.78	0.893	
	×¾	0.313	10.58	3.11	4.99	8.18	4.51	2.58	1.20	3.36	2.63	2.10	0.920	2.64	2½	–	5.79	4.24	0.910
	×¼	0.250	8.81	2.59	7.00	11.0	3.97	2.27	1.24	2.88	2.33	1.86	0.948	2.28	2½	–	4.99	3.60	0.928
	×¾	0.188	6.87	2.02	10.3	15.6	3.27	1.87	1.27	2.32	1.93	1.54	0.977	1.83	2¼	–	4.02	2.85	0.946
HSS3½×2×¼	0.250	7.96	2.34	5.00	11.0	3.31	1.89	1.19	2.48	1.35	1.35	0.759	1.66	2½	–	3.31	2.78	0.845	
	×¾	0.188	6.23	1.84	7.64	15.6	2.75	1.57	1.22	2.01	1.13	1.13	0.786	1.35	2¼	–	2.71	2.23	0.863
HSS3½×1½×¼	0.250	7.11	2.09	3.00	11.0	2.65	1.51	1.13	2.07	0.659	0.879	0.562	1.11	2½	–	1.86	1.97	0.762	
	×¾	0.188	5.59	1.65	4.98	15.6	2.24	1.28	1.17	1.70	0.569	0.759	0.588	0.917	2¼	–	1.57	1.61	0.780
HSS3×2½×¾	0.313	9.51	2.80	4.99	6.58	3.02	2.01	1.04	2.62	2.26	1.81	0.898	2.30	–	–	4.53	3.56	0.827	
	×¼	0.250	7.96	2.34	7.00	9.00	2.68	1.79	1.07	2.27	2.01	1.61	0.927	1.99	–	–	3.93	3.03	0.845
	×¾	0.188	6.23	1.84	10.3	13.0	2.23	1.49	1.10	1.84	1.68	1.34	0.956	1.62	2¾	–	3.19	2.42	0.863
HSS3×2×¾	0.313	8.45	2.49	3.39	6.58	2.45	1.64	0.993	2.20	1.27	1.27	0.716	1.64	–	–	2.97	2.72	0.744	
	×¼	0.250	7.11	2.09	5.00	9.00	2.21	1.47	1.03	1.92	1.15	1.15	0.743	1.44	–	–	2.63	2.35	0.762
	×¾	0.188	5.59	1.65	7.64	13.0	1.86	1.24	1.06	1.57	0.980	0.980	0.771	1.18	2¾	–	2.17	1.89	0.780
HSS3×1½×¼	0.250	6.26	1.84	3.00	9.00	1.74	1.16	0.972	1.58	0.560	0.747	0.552	0.949	–	–	1.50	1.66	0.678	
	×¾	0.188	4.96	1.46	4.98	13.0	1.49	0.992	1.01	1.31	0.488	0.651	0.578	0.794	2¾	–	1.27	1.36	0.696
HSS3×1×¾	0.188	4.32	1.27	2.32	13.0	1.12	0.744	0.937	1.04	0.178	0.356	0.375	0.452	2¾	–	0.546	0.833	0.613	
	×¾	0.188	4.32	1.27	2.32	13.0	1.12	0.744	0.937	1.04	0.178	0.356	0.375	0.452	2¾	–	0.546	0.833	0.613
HSS2½×2×¼	0.250	6.26	1.84	5.00	7.00	1.38	1.10	0.865	1.43	0.962	0.962	0.723	1.22	–	–	1.98	1.91	0.678	
	×¾	0.188	4.96	1.46	7.64	10.3	1.17	0.939	0.897	1.18	0.825	0.825	0.752	1.01	–	–	1.64	1.55	0.696

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.



HSS2½–HSS2

## ASTM A1085/A1085M Rectangular HSS

### Dimensions and Properties



Shape	Design Wall Thickness, <i>t</i>	Nominal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	Axis X-X				Axis Y-Y				Workable Flat		Torsion		Surface Area
						<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Depth	Width	<i>J</i>	<i>C</i>	
						in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in. <sup>4</sup>	in. <sup>3</sup>	in.	in. <sup>3</sup>	in.	in.	in. <sup>4</sup>	in. <sup>3</sup>	
HSS2½×1½×¼ ×¾	0.250	5.41	1.59	3.00	7.00	1.06	0.846	0.816	1.15	0.461	0.615	0.538	0.793	–	–	1.14	1.35	0.595
	0.188	4.32	1.27	4.98	10.3	0.923	0.738	0.852	0.965	0.407	0.543	0.565	0.670	–	–	0.977	1.11	0.613
HSS2½×1×¾	0.188	3.68	1.08	2.32	10.3	0.671	0.537	0.787	0.748	0.147	0.294	0.368	0.376	–	–	0.427	0.680	0.530
HSS2×1½×¾	0.188	3.68	1.08	4.98	7.64	0.515	0.515	0.690	0.671	0.325	0.433	0.548	0.547	–	–	0.696	0.868	0.530
HSS2×1×¾	0.188	3.04	0.896	2.32	7.64	0.360	0.360	0.634	0.501	0.115	0.230	0.359	0.300	–	–	0.311	0.528	0.446

Note: Confirm ASTM A1085/A1085M material availability before specifying.  
 – Indicates flat depth or width is too small to establish a workable flat.