IPE, IPN, HEA, HEB, UPN Profiles

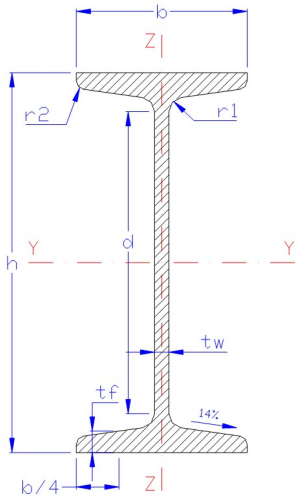
www.gneesteel.com， info@gneesteel.com

IPE	MECHANICAL PROPERTIES AND DIMENSIONS OF THE SERIE														
	IPE	Dimensions						Area	Weight	Properties of the section					
										Referred to the y-y axix			Referred to the z-z axix		
		h	b	tw	tf	r	d	A	G	Iy	Wy	iy	Iz	Wz	iz
		mm	mm	mm	mm	mm	mm	cm2	Kg/m1	cm4	cm3	cm1	cm4	cm3	cm1
	IPE 80	80	46	3.8	5.2	5	59.6	7.64	6	80.14	20.03	3.24	8.49	3.69	1.05

	IPE 100	100	55	4.1	5.7	7	74.6	10.32	8.1	171	34.2	4.07	15.9	5.79	1.24
	IPE 120	120	64	4.4	6.3	7	93.4	13.2	10.4	318	53	4.9	27.7	8.65	1.45
	IPE 140	140	73	4.7	6.9	7	112.2	16.4	12.9	541	77.3	5.74	44.9	12.3	1.65
	IPE 160	160	82	5	7.4	9	127.2	20.1	15.8	869	109	6.58	68.3	16.7	1.84
	IPE 180	180	91	5.3	8	9	146	23.9	18.8	1,320	146	7.42	101	22.2	2.05
	IPE 200	200	100	5.6	8.5	12	159	28.5	22.4	1,940	194	8.26	142	28.5	2.24
	IPE 220	220	110	5.9	9.2	12	177.6	33.4	26.2	2,770	252	9.11	205	37.3	2.48
	IPE 240	240	120	6.2	9.8	15	190.4	39.1	30.7	3,890	324	9.97	284	47.3	2.69
	IPE 270	270	135	6.6	10.2	15	219.6	45.9	36.1	5,790	429	11.2	420	62.2	3.02
	IPE 300	300	150	7.1	10.7	15	248.6	53.8	42.2	8,360	557	12.5	604	80.5	3.35
	IPE 330	330	160	7.5	11.5	18	271	62.6	49.1	11,770	713	13.7	788	98.5	3.55
	IPE 360	360	170	8	12.7	18	298.6	72.7	57.1	16,270	904	15	1,040	123	3.79
	IPE	400	180	8.6	13.5	21	331	84.5	66.3	23,130	1,160	16.5	1,320	146	3.95

	400														
	IPE 450	450	190	9.4	14.6	21	378.8	98.8	77.6	33,740	1,500	18.5	1,680	176	4.12
	IPE 500	500	200	10.2	16	21	426	116	90.7	48,200	1,930	20.4	2,140	214	4.31
	IPE 550	550	210	11.1	17.2	24	467.6	134	106	67,120	2,440	22.3	2,670	254	4.45
	IPE 600	600	220	12	19	24	514	156	122	92,080	3,070	24.3	3,390	308	4.66

IPN	MECHANICAL PROPERTIES AND DIMENSIONS OF THE SERIE														
	IPN	Dimensions						Area	Weight	Properties of the section					

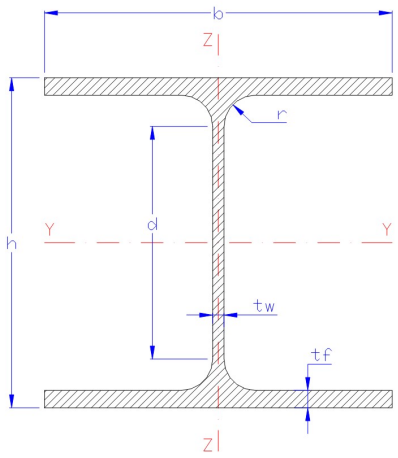


										Referred to the y-y axix			Referred to the z-z axix		
		h	b	tw = r1	tf	r2	d	A	G	Iy	Wy	iy	Iz	Wz	iz
		mm	mm	mm	mm	mm	mm	cm2	Kg/m1	cm4	cm3	cm1	cm4	cm3	cm1
	IPN 80	80	45	3.9	5.9	2.3	59	7.58	5.95	77.8	19.5	3.2	6.29	3	0.91
	IPN 100	100	50	4.5	6.8	2.7	75	10.6	8.32	171	34.2	4.01	12.2	4.88	1.07
	IPN 120	120	58	5.1	7.7	3.1	92	14.2	11.1	328	54.7	4.81	21.5	7.41	1.23
	IPN 140	140	66	5.7	8.6	3.4	109	18.3	14.4	573	81.9	5.61	35.2	10.7	1.4

	IPN 160	160	74	6.3	9.5	3.8	125	22.8	17.9	935	117	6.4	54.7	14.8	1.55
	IPN 180	180	82	6.9	10.4	4.1	142	27.9	21.9	1,450	161	7.2	81.3	19.8	1.71
	IPN 200	200	90	7.5	11.3	4.5	159	33.5	26.3	2,140	214	8	117	26	1.87
	IPN 220	220	98	8.1	12.2	4.9	175	39.6	31.1	3,060	278	8.8	162	33.1	2.02
	IPN 240	240	106	8.7	13.1	5.2	192	46.1	36.2	4,250	354	9.59	221	41.7	2.2
	IPN 260	260	113	9.4	14.1	5.6	208	53.4	41.9	5,740	442	10.4	288	51	2.32
	IPN 280	280	119	10.1	15.2	6.1	225	61.1	48	7,590	542	11.1	364	61.2	2.45
	IPN 300	300	125	10.8	16.2	6.5	241	69.1	54.2	9,800	653	11.9	451	72.2	2.56
	IPN 320	320	131	11.5	17.3	6.9	257	77.8	61.1	12,510	782	12.7	555	84.7	2.67
	IPN 340	340	137	12.2	18.3	7.3	274	86.8	68.1	15,700	923	13.5	674	98.4	2.8
	IPN 360	360	143	13	19.5	7.8	290	97.1	76.2	19,610	1,090	14.2	818	114	2.9
	IPN 380	380	149	13.7	20.5	8.2	306	107	84	24,010	1,260	15	975	131	3.02
	IPN	400	155	14.6	21.6	8.6	323	118	92.6	29,210	1,460	15.7	1,160	148	3.13

	400														
	IPN 450	450	170	16.2	24.3	9.7	363	147	115	45,850	2,040	17.7	1,730	203	3.43
	IPN 500	500	185	18	27	10.8	404	180	141	68,740	2,750	19.6	2,480	268	3.71
	IPN 550	550	200	19	30	11.9	444	213	167	99,180	3,610	21.6	3,490	349	4.02
	IPN 600	600	215	21.6	32.4	13	485	254	199	139,000	4,630	23.4	4,670	434	4.3

HEA	MECHANICAL PROPERTIES AND DIMENSIONS OF THE SERIE														
	HEA	Dimensions						Area	Weight	Properties of the section					
										Referred to the y-y axix			Referred to the z-z axix		

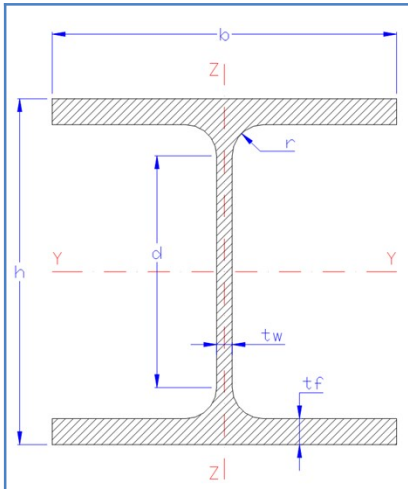


		h	b	tw	tf	r	d	A	G	Iy	Wy	iy	Iz	Wz	iz
		mm	mm	mm	mm	mm	mm	cm2	Kg/m1	cm4	cm3	cm1	cm4	cm3	cm1
	HEA 100	96	100	5	8	12	56	21.2	16.7	349	72.8	4.06	134	26.8	2.51
	HEA 120	114	120	5	8	12	74	25.3	19.9	606	106	4.89	231	38.5	3.02
	HEA 140	133	140	5.5	8.5	12	92	31.4	24.7	1,030	155	5.73	389	55.6	3.52
	HEA 160	152	160	6	9	15	104	38.8	30.4	1,670	220	6.57	616	76.9	3.98
	HEA 180	171	180	6	9.5	15	122	45.3	35.5	2,510	294	7.45	925	103	4.52
	HEA 200	190	200	6.5	10	18	134	53.8	42.3	3,690	389	8.28	1,340	134	4.98

	HEA 220	210	220	7	11	18	152	64.3	50.5	5,410	515	9.17	1,950	178	5.51
	HEA 240	230	240	7.5	12	21	164	76.8	60.3	7,760	675	10.8	2,770	231	6
	HEA 260	250	260	7.5	12.5	24	177	86.8	68.2	10,450	836	11	3,670	282	6.5
	HEA 280	270	280	8	13	24	196	97.3	76.4	13,670	1,010	11.9	4,760	340	7
	HEA 300	290	300	8.5	14	27	208	113	88.3	18,260	1,260	12.7	6,310	421	7.47
	HEA 320	310	300	9	15.5	27	225	124	97.6	22,930	1,480	13.6	6,990	466	7.51
	HEA 340	330	300	9.5	16.5	27	243	133	105	27,690	1,680	14.4	7,740	496	7.46
	HEA 360	350	300	10	17.5	27	261	143	112	33,090	1,890	15.2	7,890	526	7.43
	HEA 400	390	300	11	19	27	298	159	125	45,070	2,310	16.8	8,560	571	7.34
	HEA 450	440	300	11.5	21	27	344	178	140	63,720	2,900	18.9	9,470	631	7.29
	HEA 500	490	300	12	23	27	390	198	155	86,970	3,550	21	10,370	691	7.24
	HEA 550	540	300	12.5	24	27	438	211.8	166	111,932	4,150	23	10,819	721	7,.15
	HEA	590	300	13	25	27	486	226.6	178	141,208	4,790	25	11,271	751	7.05

	600														
	HEA 650	640	300	13.5	26	27	534	241.6	190	175,178	5,470	26.9	11,724	782	6.97
	HEA 700	690	300	14.5	27	27	582	260.5	204	215,301	6,240	28.8	12,179	812	6.84
	HEA 800	790	300	15	28	30	674	285.8	224	303,442	7,680	32.6	12,639	843	6.65
	HEA 900	890	300	16	30	30	770	320.5	252	422,075	9,480	36.3	13,547	903	6.5
	HEA 1000	990	300	16.5	31	30	868	346.8	272	553,846	11,190	40	14,004	934	6.35

HEB	MECHANICAL PROPERTIES AND DIMENSIONS OF THE SERIE														
	HEB	Dimensions						Area	Weight	Propiedades de la Sección					
										Referido al eje y-y			Referido al eje z-z		

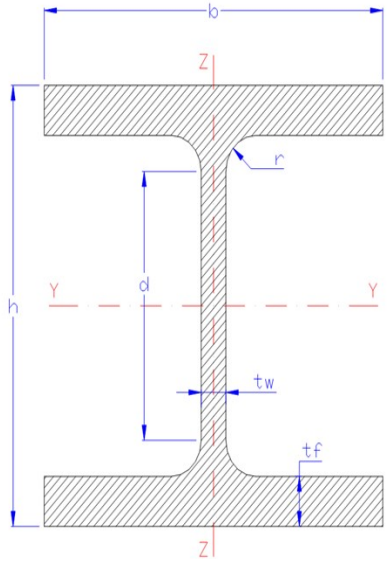


		h	b	tw	tf	r	d	A	G	Iy	Wy	iy	Iz	Wz	iz
		mm	mm	mm	mm	mm	mm	cm2	Kg/m1	cm4	cm3	cm1	cm4	cm3	cm1
	HEB 100	100	100	6	10	12	56	26	20.4	450	89.9	4.16	167	33.5	2.53
	HEB 120	120	120	6.5	11	12	74	34	26.7	864	144	5.04	318	52.9	3.06
	HEB 140	140	140	7	12	12	92	43	33.7	1,510	216	5.93	550	78.5	3.58
	HEB 160	160	160	8	13	15	104	54.3	42.6	2,490	311	6.78	889	111	4.05
	HEB 180	180	180	8.5	14	15	122	65.3	51.2	3,830	426	7.66	1,360	151	4.57
	HEB 200	200	200	9	15	18	134	78.1	61.3	5,700	570	8.54	2,000	200	5.07

	HEB 220	220	220	9.5	16	18	152	91	71.5	8,090	736	9.43	2,840	258	5.59
	HEB 240	240	240	10	17	21	164	106	83.2	11,260	938	10.3	3,920	327	6.08
	HEB 260	260	260	10	17.5	24	177	118	93	14,920	1,150	11.2	5,130	395	6.58
	HEB 280	280	280	10.5	18	24	196	131	103	19,270	1,380	12.1	6,590	471	7.09
	HEB 300	300	300	11	19	27	208	149	117	25,170	1,680	13	8,560	571	7.58
	HEB 320	320	300	11.5	20.5	27	225	161	127	30,820	1,930	13.8	9,240	616	7.57
	HEB 340	340	300	12	21.5	27	243	171	134	36,660	2,160	14.6	9,690	646	7.53
	HEB 360	360	300	12.5	22.5	27	261	181	142	43,190	2,400	15.5	10,140	676	7.49
	HEB 400	400	300	13.5	24	27	298	198	155	57,680	2,880	17.1	10,820	721	7.4
	HEB 450	450	300	14	26	27	344	218	171	79,890	3,550	19.1	11,720	781	7.33
	HEB 500	500	300	14.5	28	27	390	239	187	107,200	4,290	21.2	12,620	842	7.27
	HEB 550	550	300	15	29	27	438	254.1	199	136,691	4 970	23.2	13,077	872	7.17
	HEB	600	300	15.5	30	27	486	270	212	171,041	5,790	25.2	13,350	902	7.08

	600														
	HEB 650	650	300	16	31	27	534	286.3	225	210,616	6,480	27.1	13,984	932	6.99
	HEB 700	700	300	17	32	27	582	306.4	241	256,888	7,340	29	14,441	963	6.87
	HEB 800	800	300	17.5	33	30	674	334.2	262	359,083	8,980	32.8	14,904	994	6.68
	HEB 900	900	300	18.5	35	30	770	371.3	291	494,065	10,980	36.5	15,816	1,050	6.53
	HEB 1000	1000	300	19	36	30	868	400	314	664,748	12,890	40.1	16,276	1,090	6.38

HEM	MECHANICAL PROPERTIES AND DIMENSIONS OF THE SERIE														
	HEM	Dimensions							Area	Weight	Properties of the section				
											Referred to the y-y axix			Referred to the z-z axix	

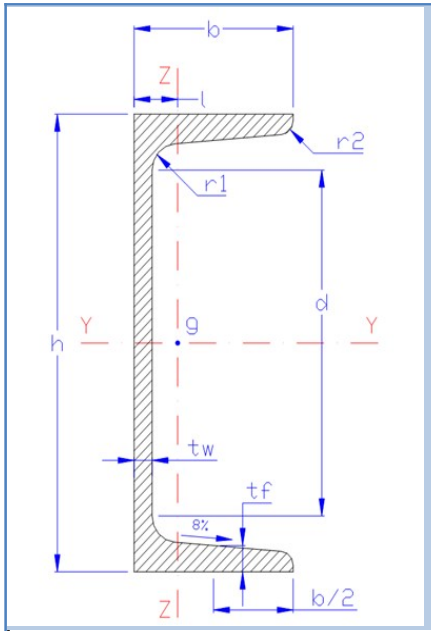


		h	b	tw	tf	r	d	A	G	Iy	Wy	iy	Iz	Wz	iz
		mm	mm	mm	mm	mm	mm	cm2	Kg/m1	cm4	cm3	cm1	cm4	cm3	cm1
	HEM 100	120	106	12	20	12	56	53.2	41.8	1,143	190	4.63	399	75	2.74
	HEM 120	140	126	12.5	21	12	74	66.4	52.1	2,018	288	5.51	703	112	3.25
	HEM 140	160	146	13	22	12	92	80.6	63.2	3,291	411	6.39	1,144	157	3.77
	HEM 160	180	166	14	23	15	104	97.1	76.2	5,098	566	7.25	1,759	212	4.26
	HEM 180	200	186	14.5	24	15	122	113.3	88.9	7,483	748	8.13	2,580	277	4.77

	HEM 200	220	206	15	25	18	134	131.1	103	10,642	967	9	3,651	354	5.27
	HEM 220	240	226	15.5	26	18	152	149.4	117	14,605	1,220	9.89	5,012	444	5.79
	HEM 240	270	248	18	32	21	164	199.6	157	24,289	1,800	11	8,153	657	6.39
	HEM 260	290	268	18	32.5	24	177	219.6	172	31,307	2,160	11.9	10,449	780	6.9
	HEM 280	310	288	18.5	33	24	196	240.2	189	39,547	2,500	12.8	13,163	914	7.4
	HEM 300	340	310	21	39	27	208	303.1	238	59,201	3,480	14	19,403	1,250	8
	HEM 320	359	309	21	40	27	225	312	245	68,135	3,800	14.8	19,709	1,280	7.95
	HEM 340	377	309	21	40	27	243	315.8	248	76,372	4,050	15.6	19,711	1,280	7.9
	HEM 360	395	308	21	40	27	261	318.8	250	84,867	4,300	16.3	19,522	1,270	7.83
	HEM 400	432	307	21	40	27	298	325.8	256	104,119	4,820	17.9	19,335	1,260	7.7
	HEM 450	478	307	21	40	27	344	335.4	263	131,484	5,500	19.8	19,339	1,260	7.59
	HEM 500	524	306	21	40	27	390	344.3	270	161,929	6,180	21.7	19,155	1,250	7.46
	HEM	572	306	21	40	27	438	354.4	278	197,984	6,920	23.6	19,158	1,250	7.35

	550														
	HEM 600	620	305	21	40	27	486	363.7	285	237,447	7,660	25.6	18,975	1,240	7.22
	HEM 650	668	305	21	40	27	534	373.7	293	281,667	8,430	27.5	18,979	1,240	7.13
	HEM 700	716	304	21	40	27	582	383	301	329,278	9,200	29.3	18,797	1,240	7.01
	HEM 800	814	303	21	40	30	674	404.3	317	442,598	10,870	33.1	18,627	1,230	6.79
	HEM 900	910	302	21	40	30	770	423.6	333	570,434	12,540	36.7	18,452	1,220	6.6
	HEM 1000	1008	302	21	40	30	868	442.2	349	722,299	14,330	40.3	18,459	1,220	6.45

UPN	MECHANICAL PROPERTIES AND DIMENSIONS OF THE SERIE				
	UPN	Dimensions	Area	Weight	Properties of the section



											Referred to the y-y axix			Referred to the z-z axix		
		h	b	tw	tf=r1	r2	d	l	A	G	Iy	Wy	iy	Iz	Wz	iz
		mm	mm	mm	mm	mm	mm	mm	cm2	Kg/m1	cm4	cm3	cm1	cm4	cm3	cm1
	UPN 80	80	45	6	8	4	46	1.45	11	8.64	106	26.5	3.1	19.4	6.36	1.33
	UPN 100	100	50	6	8.5	4.5	64	1.55	13.5	10.6	206	41.2	3.91	29.3	8.49	1.47
	UPN 120	120	55	7	9	4.5	82	1.6	17	13.4	364	60.7	4.62	43.2	11.1	1.59
	UPN 140	140	60	7	10	5	98	1.75	20.4	16	605	86.4	5.45	62.7	14.8	1.75

	UPN 160	160	65	7.5	10.5	5.5	115	1.84	24	18.8	925	116	6.21	85.3	18.3	1.89
	UPN 180	180	70	8	11	5.5	133	1.92	27	22	1,350	150	6.95	114	22.4	2.02
	UPN 200	200	75	8.5	11.5	6	151	2.01	32.2	25.3	1,910	191	7.7	148	27	2.14
	UPN 220	220	80	9	12.5	6.5	167	2.14	37.4	29.4	2,690	245	8.48	197	33.6	2.3
	UPN 240	240	85	9.5	13	6.5	184	2.23	42.3	33.2	3,600	300	9.22	248	39.6	2.42
	UPN 260	260	90	10	14	7	200	2.36	48.3	37.9	4,820	371	9.99	317	47.7	2.56
	UPN 280	280	95	10	15	7.5	216	2.53	53.3	41.8	6,280	448	10.9	399	57.2	2.74
	UPN 300	300	100	10	16	8	232	2.7	58.8	46.2	8,030	535	11.7	495	67.8	2.9