



## EUROPEAN WIDE FLANGE BEAMS: Dimensions and Properties

Designation	Weight per Metre G	Depth of Section h	Weight of Section b	Thickness of Web t <sub>w</sub>	Thickness of Flange t <sub>f</sub>	Radius of the Root Fillet r	Area of Section A	Inner Depth between Flanges h <sub>i</sub>	Depth of Straight Portion of Web d	Moment of Inertia		Radius of Gyration		Elastic Sectional Modulus		Plastic Section Modulus		Warping Constant I <sub>w</sub>	Torsional Constant I <sub>t</sub>
										I <sub>y</sub>	I <sub>z</sub>	i <sub>y</sub>	i <sub>z</sub>	W <sub>y</sub>	W <sub>z</sub>	W <sub>ply</sub>	W <sub>plz</sub>		
	kg/m	mm	mm	mm	mm	mm	cm <sup>2</sup>	mm	mm	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	dm <sup>6</sup>	cm <sup>4</sup>
HE 100 AA	12.2	91	100	4.2	5.5	12	15.6	80	56	237	92.1	3.89	2.43	52.0	18.4	58.4	28.4	0.002	2.33
HE 100 A	16.7	96	100	5.0	8.0	12	21.2	80	56	349	134	4.06	2.51	72.8	26.8	83.0	41.1	0.003	5.28
HE 100 B	20.4	100	100	6.0	10.0	12	26.0	80	56	450	167	4.16	2.53	89.9	33.5	104	51.4	0.003	9.33
HE 120 AA	14.6	109	120	4.2	5.5	12	18.6	98	74	413	159	4.72	2.93	75.8	26.5	84.1	40.6	0.004	2.59
HE 120 A	19.9	114	120	5.0	8.0	12	25.3	98	74	606	231	4.89	3.02	106	38.5	119	58.9	0.006	6.04
HE 120 B	26.7	120	120	6.5	11.0	12	34.0	98	74	864	318	5.04	3.06	144	52.9	165	81.0	0.009	13.9
HE 140 AA	18.1	128	140	4.3	6.0	12	23.0	116	92	719	275	5.59	3.45	112	39.3	124	59.9	0.010	3.43
HE 140 A	24.7	133	140	5.5	8.5	12	31.4	116	92	1033	389	5.73	3.52	155	55.6	173	84.8	0.015	8.10
HE 140 B	33.7	140	140	7.0	12.0	12	43.0	116	92	1509	550	5.93	3.58	216	78.5	245	120	0.023	20.2
HE 160 AA	23.8	148	160	4.5	7.0	15	30.4	134	104	1283	479	6.50	3.97	173	59.8	190	91.4	0.024	6.43
HE 160 A	30.4	152	160	6.0	9.0	15	38.8	134	104	1673	616	6.57	3.98	220	76.9	245	118	0.031	12.1
HE 160 B	42.6	160	160	8.0	13.0	15	54.3	134	104	2492	889	6.78	4.05	312	111	345	170	0.048	31.3
HE 160 M	76.2	180	166	14.0	23.0	15	97.1	134	104	5098	1759	7.25	4.26	566	212	675	325	0.108	161
HE 180 AA	28.7	167	180	5.0	7.5	15	36.5	152	122	1967	730	7.34	4.47	236	81.1	258	124	0.046	8.31
HE 180 A	35.5	171	180	6.0	9.5	15	45.3	152	122	2510	925	7.45	4.52	294	103	325	156	0.060	14.9
HE 180 B	51.2	180	180	8.5	14.0	15	65.3	152	122	3831	1363	7.66	4.57	426	151	481	231	0.094	42.2
HE 180 M	88.9	200	186	14.5	24.0	15	113	152	122	7483	2580	8.13	4.77	748	277	883	425	0.200	201
HE 200 AA	34.6	186	200	5.5	8.0	18	44.1	170	134	2944	1068	8.17	4.92	317	107	347	163	0.085	12.5
HE 200 A	42.3	190	200	6.5	10.0	18	53.8	170	134	3692	1336	8.28	4.98	389	134	429	204	0.108	21.0
HE 200 B	61.3	200	200	9.0	15.0	18	78.1	170	134	5696	2003	8.54	5.07	570	200	643	306	0.171	59.7
HE 200 M	103	220	206	15.0	25.0	18	131	170	134	10640	3651	9.00	5.27	967	354	1135	543	0.347	258
HE 220 AA	40.4	205	220	6.0	8.5	18	51.5	188	152	4170	1510	9.00	5.42	407	137	445	209	0.146	15.5
HE 220 A	50.5	210	220	7.0	11.0	18	64.3	188	152	5410	1955	9.17	5.51	515	178	568	271	0.194	28.6
HE 220 B	71.5	220	220	9.5	16.0	18	91.0	188	152	8091	2843	9.43	5.59	736	258	827	394	0.296	77.0
HE 220 M	117	240	226	15.5	26.0	18	149	188	152	14600	5012	9.89	5.79	1217	444	1419	679	0.574	313
HE 240 AA	47.4	224	240	6.5	9.0	21	60.4	206	164	5835	2077	9.83	5.87	521	173	571	264	0.240	22.1
HE 240 A	60.3	230	240	7.5	12.0	21	76.8	206	164	7763	2769	10.1	6.00	675	231	745	352	0.329	42.1
HE 240 B	83.2	240	240	10.0	17.0	21	106	206	164	11260	3923	10.3	6.08	938	327	1053	498	0.488	104
HE 240 M	157	270	248	18.0	32.0	21	200	206	164	24290	8158	11.0	6.39	1799	657	2117	1006	1.15	626
HE 260 AA	54.1	244	260	6.5	9.5	24	69.0	225	177	7981	2788	10.8	6.36	654	214	714	328	0.383	30.1
HE 260 A	68.2	250	260	7.5	12.5	24	86.8	225	177	10450	3668	11.0	6.50	836	282	920	430	0.517	54.2
HE 260 B	93.0	260	260	10.0	17.5	24	118	225	177	14920	5135	11.2	6.58	1148	395	1283	602	0.755	127
HE 260 M	172	290	268	18.0	32.5	24	220	225	177	31310	10450	11.9	6.90	2159	780	2524	1192	1.73	720