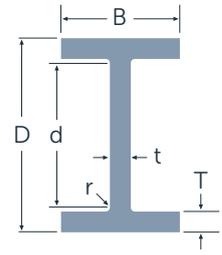


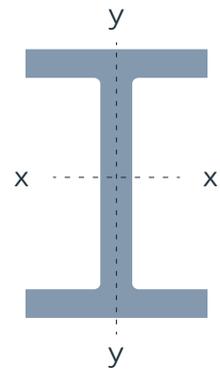
British Steel, the only UK manufacturer of structural sections, is BES 6001 certified, guaranteeing commitment to responsibly sourced materials. Our structural sections are CE and UKCA marked and tested to the highest standards, providing quality and assurance for the UK construction market.



Universal beams (UB) sizes

Designation Serial size	Mass per metre kg/m	Depth of section D mm	Width of section B mm	Thickness		Root radius r mm	Depth between fillets d mm	Ratios for local buckling		Second moment of area I		Radius of gyration i	
				of web t mm	of flange T mm			Flange B/2T	Web d/t	Axis x-x cm ⁴	Axis y-y cm ⁴	Axis x-x cm	Axis y-y cm
127 x 76 x 13	13.0	127.0	76.0	4.0	7.6	7.6	96.6	5.00	24.2	473	56	5.35	1.84
152 x 89 x 16	16.0	152.4	88.7	4.5	7.7	7.6	121.8	5.76	27.1	834	90	6.41	2.10
178 x 102 x 19	19.0	177.8	101.2	4.8	7.9	7.6	146.8	6.41	30.6	1356	137	7.48	2.37
203 x 102 x 23	23.1	203.2	101.8	5.4	9.3	7.6	169.4	5.47	31.4	2105	164	8.46	2.36
203 x 133 x 25	25.1	203.2	133.2	5.7	7.8	7.6	172.4	8.54	30.2	2340	308	8.56	3.10
203 x 133 x 30	30.0	206.8	133.9	6.4	9.6	7.6	172.4	6.97	26.9	2896	385	8.71	3.17
254 x 102 x 22	22.0	254.0	101.6	5.7	6.8	7.6	225.2	7.47	39.5	2841	119	10.10	2.06
254 x 102 x 25	25.2	257.2	101.9	6.0	8.4	7.6	225.2	6.07	37.5	3415	149	10.30	2.15
254 x 102 x 28	28.3	260.4	102.2	6.3	10.0	7.6	225.2	5.11	35.7	4005	179	10.50	2.22
254 x 146 x 31	31.1	251.4	146.1	6.0	8.6	7.6	219.0	8.49	36.5	4413	448	10.50	3.36
254 x 146 x 37	37.0	256.0	146.4	6.3	10.9	7.6	219.0	6.72	34.8	5537	571	10.80	3.48
254 x 146 x 43	43.0	259.6	147.3	7.2	12.7	7.6	219.0	5.80	30.4	6544	677	10.90	3.52
305 x 102 x 25	24.8	305.1	101.6	5.8	7.0	7.6	275.9	7.26	47.6	4455	123	11.90	1.97
305 x 102 x 28	28.2	308.7	101.8	6.0	8.8	7.6	275.9	5.78	46.0	5366	155	12.20	2.08
305 x 102 x 33	32.8	312.7	102.4	6.6	10.8	7.6	275.9	4.74	41.8	6501	194	12.50	2.15
305 x 127 x 37	37.0	304.4	123.4	7.1	10.7	8.9	265.2	5.77	37.4	7171	336	12.30	2.67
305 x 127 x 42	41.9	307.2	124.3	8.0	12.1	8.9	265.2	5.14	33.2	8196	389	12.40	2.70
305 x 127 x 48	48.1	311.0	125.3	9.0	14.0	8.9	265.2	4.48	29.5	9575	461	12.50	2.74
305 x 165 x 40	40.3	303.4	165.0	6.0	10.2	8.9	265.2	8.09	44.2	8503	764	12.90	3.86
305 x 165 x 46	46.1	306.6	165.7	6.7	11.8	8.9	265.2	7.02	39.6	9899	896	13.00	3.90
305 x 165 x 54	54.0	310.4	166.9	7.9	13.7	8.9	265.2	6.09	33.6	11696	1063	13.00	3.93
356 x 171 x 45	45.0	351.4	171.1	7.0	9.7	12.7	306.6	8.82	43.8	12195	811	14.50	3.75
356 x 171 x 51	51.0	355.0	171.5	7.4	11.5	12.7	306.6	7.46	41.4	14265	969	14.80	3.85
356 x 171 x 57	57.0	358.0	172.2	8.1	13.0	12.7	306.6	6.62	37.9	16168	1109	14.90	3.90
356 x 171 x 67	67.1	363.4	173.2	9.1	15.7	12.7	306.6	5.52	33.7	19592	1362	15.10	3.98
406 x 140 x 39	39.0	398.0	141.8	6.4	8.6	12.7	355.4	8.24	55.5	12679	410	15.90	2.86
406 x 140 x 46	46.0	403.2	142.2	6.8	11.2	12.7	355.4	6.35	52.3	15856	538	16.40	3.02
406 x 140 x 53	53.3	406.6	143.3	7.9	12.9	12.7	355.4	5.55	45.0	18454	635	16.40	3.05
406 x 178 x 54	54.1	402.6	177.7	7.7	10.9	12.7	355.4	8.15	46.2	18893	1022	16.50	3.84
406 x 178 x 60	60.1	406.4	177.9	7.9	12.8	12.7	355.4	6.95	45.0	21767	1203	16.80	3.95
406 x 178 x 67	67.1	409.4	178.8	8.8	14.3	12.7	355.4	6.25	40.4	24502	1365	16.90	3.98
406 x 178 x 74	74.2	412.8	179.5	9.5	16.0	12.7	355.4	5.61	37.4	27481	1546	17.00	4.03
406 x 178 x 85	85.3	417.2	181.9	10.9	18.2	12.7	355.4	5.00	32.6	31874	1831	17.10	4.10
410 x 260 x 100		415	260	10.0	16.9	12.7	355.8	7.69	35.6	39944	4955	17.7	6.24
410 x 260 x 114		420	261	11.6	19.3	12.7	356.0	6.76	30.7	46323	5725	17.8	6.25
410 x 260 x 132		425	263	16.3	22.2	12.7	355.2	5.92	21.8	55388	6746	17.5	6.12
410 x 260 x 149		431	265	14.9	25.0	12.7	355.6	5.30	23.9	62026	7766	18.0	6.38
457 x 152 x 52	52.3	449.8	152.4	7.6	10.9	12.7	402.6	6.99	53.0	21586	645	17.90	3.10
457 x 152 x 60	59.8	454.6	152.9	8.1	13.3	12.7	402.6	5.75	49.7	25717	795	18.30	3.22
457 x 152 x 67	67.2	458.0	153.8	9.0	15.0	12.7	402.6	5.13	44.7	29144	913	18.40	3.26
457 x 152 x 74	74.2	462.0	154.4	9.6	17.0	12.7	402.6	4.54	41.9	32891	1047	18.60	3.32
457 x 152 x 82	82.1	465.8	155.3	10.5	18.9	12.7	402.6	4.11	38.3	36806	1185	18.70	3.36



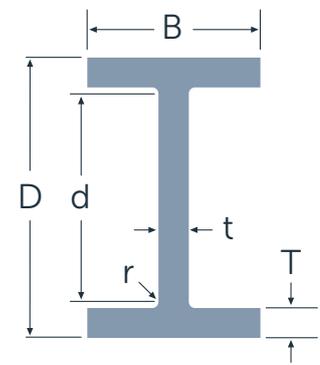


Universal beams (UB) sizes

Elastic modulus		Plastic modulus		Buckling parameter	Torsional index	Warping constant	Torsional constant	Area of section	Designation
Axis	Axis	Axis	Axis						
x-x	y-y	x-x	y-y	u	x	H	J	cm ²	Serial size
cm ³	cm ³	cm ³	cm ³			dm ⁶	cm ⁴		
75	15	84	23	0.895	16.3	0.0020	2.85	16.5	127 x 76 x 13
109	20	123	31	0.890	19.6	0.0047	3.56	20.3	152 x 89 x 16
153	27	171	42	0.888	22.6	0.0099	4.41	24.3	178 x 102 x 19
207	32	234	50	0.888	22.5	0.0154	7.02	29.4	203 x 102 x 23
230	46	258	71	0.877	25.6	0.0294	5.96	32.0	203 x 133 x 25
280	57	314	88	0.881	21.5	0.0374	10.30	38.2	203 x 133 x 30
224	23	259	37	0.856	36.4	0.0182	4.15	28.0	254 x 102 x 22
266	29	306	46	0.866	31.5	0.0230	6.42	32.0	254 x 102 x 25
308	35	353	55	0.874	27.5	0.0280	9.57	36.1	254 x 102 x 28
351	61	393	94	0.880	29.6	0.0660	8.55	39.7	254 x 146 x 31
433	78	483	119	0.890	24.3	0.0857	15.30	47.2	254 x 146 x 37
504	92	566	141	0.891	21.2	0.1030	23.90	54.8	254 x 146 x 43
292	24	342	39	0.846	43.4	0.0273	4.77	31.6	305 x 102 x 25
348	31	403	48	0.859	37.4	0.0349	7.40	35.9	305 x 102 x 28
416	38	481	60	0.866	31.6	0.0442	12.20	41.8	305 x 102 x 33
471	54	539	85	0.872	29.7	0.0725	14.80	47.2	305 x 127 x 37
534	63	614	98	0.872	26.5	0.0846	21.10	53.4	305 x 127 x 42
616	74	711	116	0.873	23.3	0.1020	31.80	61.2	305 x 127 x 48
560	93	623	142	0.889	31.0	0.1640	14.70	51.3	305 x 165 x 40
646	108	720	166	0.891	27.1	0.1950	22.20	58.7	305 x 165 x 46
754	127	846	196	0.889	23.6	0.2340	34.80	68.8	305 x 165 x 54
694	95	783	147	0.875	35.8	0.2370	16.90	57.8	356 x 171 x 45
804	113	904	174	0.882	31.4	0.2860	25.10	65.4	356 x 171 x 51
903	129	1018	199	0.883	28.3	0.3300	34.90	73.0	356 x 171 x 57
1078	157	1219	243	0.887	24.0	0.4120	57.70	86.0	356 x 171 x 67
637	58	733	91	0.859	45.9	0.1550	11.60	50.1	406 x 140 x 39
787	76	897	118	0.872	38.0	0.2070	20.20	59.1	406 x 140 x 46
908	89	1040	139	0.871	33.4	0.2460	30.40	68.4	406 x 140 x 53
939	115	1064	179	0.872	37.4	0.3920	24.30	69.4	406 x 178 x 54
1071	135	1209	209	0.880	33.1	0.4660	34.80	77.0	406 x 178 x 60
1197	153	1355	237	0.880	30.0	0.5330	47.90	86.0	406 x 178 x 67
1331	172	1510	267	0.882	27.2	0.6080	64.90	95.0	406 x 178 x 74
1528	201	1742	313	0.882	24.1	0.7290	95.70	109.0	406 x 178 x 85
1925	381	2139	582	0.888	25.2	1.96	102	127	410 x 260 x 100
2206	439	2466	671	0.887	22.3	2.30	152	146	410 x 260 x 114
2607	513	2968	794	0.875	19.0	2.74	260	180	410 x 260 x 132
2878	586	3257	900	0.887	17.5	3.20	327	191	410 x 260 x 149
960	85	1106	134	0.860	42.8	0.3110	22.60	67.1	457 x 152 x 52
1131	104	1298	163	0.869	36.8	0.3870	35.40	76.7	457 x 152 x 60
1273	119	1463	187	0.869	33.0	0.4480	49.60	86.0	457 x 152 x 67
1424	136	1637	213	0.873	29.7	0.5180	68.20	95.0	457 x 152 x 74
1580	153	1822	241	0.874	27.0	0.5920	92.00	105.0	457 x 152 x 82

Dimensions and properties to BS EN 10365:2017

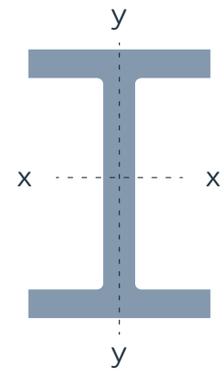




Universal beams (UB) sizes

Designation Serial size	Mass per metre kg/m	Depth of section D mm	Width of section B mm	Thickness		Root radius r mm	Depth between fillets d mm	Ratios for local buckling		Second moment of area I		Radius of gyration i	
				of web t mm	of flange T mm			Flange B/2T	Web d/t	Axis	Axis	Axis	Axis
				cm ⁴	cm ⁴			cm	cm				
457 x 191 x 67	67.1	453.4	189.9	8.5	12.7	12.7	402.6	7.48	47.4	29597	1452	18.60	4.11
457 x 191 x 74	74.3	457.0	190.4	9.0	14.5	12.7	402.6	6.57	44.7	33536	1672	18.80	4.19
457 x 191 x 82	82.0	460.0	191.3	9.9	16.0	12.7	402.6	5.98	40.7	37268	1871	18.80	4.22
457 x 191 x 89	89.3	463.4	191.9	10.5	17.7	12.7	402.6	5.42	38.3	41232	2090	19.00	4.28
457 x 191 x 98	98.3	467.2	192.8	11.4	19.6	12.7	402.6	4.92	35.3	45944	2348	19.1	4.32
457 x 191 x 106	105.8	469.2	194.0	12.6	20.6	12.7	402.6	4.71	32.0	49090	2515	19.1	4.31
457 x 191 x 133	133.3	480.6	196.7	15.3	26.3	12.7	402.6	3.74	26.3	64058	3350	19.4	4.43
457 x 191 x 161	161.4	492.0	199.4	18.0	32.0	12.7	402.6	3.12	22.4	79996	4251	19.7	4.54
457 x 280 x 113	113.0	463.0	280.0	10.8	17.3	20.0	388.4	8.09	36.0	56724	6338	19.7	6.58
457 x 280 x 128	128.0	467.0	282.0	12.2	19.6	20.0	387.8	7.19	31.8	64820	7337	19.8	6.64
457 x 280 x 144	144.0	472.0	283.0	13.6	22.1	20.0	387.8	6.40	28.5	73727	8362	19.9	6.69
457 x 280 x 158	158.0	476.0	284.0	15.0	23.9	20.0	388.2	5.94	25.9	80756	9142	19.9	6.70
457 x 280 x 177	177.0	482.0	286.0	16.6	26.9	20.0	388.2	5.32	23.4	92134	10511	20.1	6.78
457 x 280 x 193	193.0	489.0	283.0	17.0	30.5	20.0	388.0	4.64	22.8	103476	11545	20.4	6.81
457 x 280 x 213	213.0	495.0	285.0	18.5	33.5	20.0	388.0	4.25	21.0	115446	12954	20.5	6.88
457 x 280 x 235	235.0	501.0	287.0	20.6	36.6	20.0	387.8	3.92	18.8	128452	14459	20.6	6.92
457 x 280 x 260	260.0	509.0	289.0	22.6	40.4	20.0	388.2	3.58	17.2	144803	16303	20.8	6.99
457 x 280 x 286	286.0	517.0	291.0	24.4	44.4	20.0	388.2	3.28	15.9	162187	18297	21.0	7.07
457 x 280 x 315	315.0	525.0	293.0	26.9	48.5	20.0	388.0	3.02	14.4	180967	20414	21.2	7.12
533 x 165 x 66	65.7	524.7	165.1	8.9	11.4	12.7	476.5	7.24	53.5	35028	859	20.5	3.20
533 x 165 x 74	74.7	529.1	165.9	9.7	13.6	12.7	476.5	6.10	49.1	41058	1040	20.8	3.30
533 x 165 x 85	84.8	534.9	166.5	10.3	16.5	12.7	476.5	5.05	46.3	48631	1275	21.2	3.44
533 x 210 x 82	82.2	528.3	208.8	9.6	13.2	12.7	476.5	7.91	49.6	47539	2007	21.3	4.38
533 x 210 x 92	92.1	533.1	209.3	10.1	15.6	12.7	476.5	6.71	47.2	55227	2389	21.7	4.51
533 x 210 x 101	101.0	536.7	210.0	10.8	17.4	12.7	476.5	6.03	44.1	61519	2692	21.9	4.57
533 x 210 x 109	109.0	539.5	210.8	11.6	18.8	12.7	476.5	5.61	41.1	66822	2943	21.9	4.60
533 x 210 x 122	122.0	544.5	211.9	12.7	21.3	12.7	476.5	4.97	37.5	76043	3388	22.1	4.67
533 x 210 x 138	138.3	549.1	213.9	14.7	23.6	12.7	476.5	4.53	32.4	86088	3864	22.1	4.68
533 x 312 x 150	150.6	542.5	312.0	12.7	20.3	12.7	476.5	7.68	37.5	100633	10285	22.9	7.32
533 x 312 x 165	165.0	546.0	313.0	14.0	22.2	12.7	476.2	7.05	34.0	110955	11359	23.0	7.34
533 x 312 x 182	181.5	550.7	314.5	15.2	24.4	12.7	476.5	6.44	31.3	123222	12667	23.1	7.40
533 x 312 x 196	196.0	554.0	316.0	16.5	26.3	12.7	476.0	6.01	28.8	133993	13852	23.1	7.44
533 x 312 x 219	218.7	560.3	317.4	18.3	29.2	12.7	476.5	5.43	26.0	150976	15589	23.3	7.48
533 x 312 x 248	248.0	571.0	315.0	19.0	34.5	12.7	476.6	4.57	25.1	177499	18003	23.8	7.57
533 x 312 x 272	273.2	577.1	320.2	21.1	37.6	12.7	476.5	4.26	22.6	198578	20615	23.9	7.70
610 x 178 x 82	81.8	598.6	177.9	10.0	12.8	20.0	533.0	6.95	53.3	57487	1209	23.3	3.37
610 x 178 x 92	92.2	603.0	178.8	10.9	15.0	20.0	533.0	5.96	48.9	66195	1439	23.5	3.47
610 x 178 x 100	100.3	607.4	179.2	11.3	17.2	20.0	533.0	5.21	47.2	74145	1661	23.9	3.58
610 x 229 x 101	101.2	602.6	227.6	10.5	14.8	20.0	533.0	7.69	50.8	77398	2917	24.3	4.72
610 x 229 x 113	113.0	607.6	228.2	11.1	17.3	20.0	533.0	6.60	48.0	88936	3437	24.7	4.85
610 x 229 x 125	125.1	612.2	229.0	11.9	19.6	20.0	533.0	5.84	44.8	100228	3935	24.9	4.94
610 x 229 x 140	139.9	617.2	230.2	13.1	22.1	20.0	533.0	5.21	40.7	113395	4509	25.1	5.00
610 x 305 x 149	149.2	612.4	304.8	11.8	19.7	20.0	533.0	7.74	45.2	126738	9309	25.8	6.98
610 x 305 x 179	179.0	620.2	307.1	14.1	23.6	20.0	533.0	6.51	37.8	153886	11410	25.9	7.06
610 x 305 x 238	238.1	635.8	311.4	18.4	31.4	20.0	533.0	4.96	29.0	210333	15839	26.3	7.21
610 x 324 x 155	155.0	611.0	324.0	12.7	19.0	20.0	533.0	8.53	42.0	130552	10785	25.6	7.36



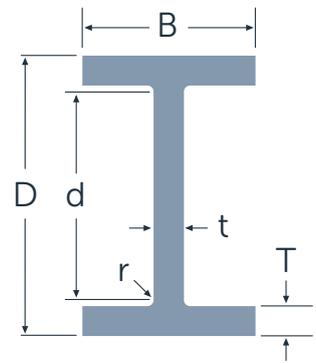


Universal beams (UB) sizes

Elastic modulus		Plastic modulus		Buckling parameter	Torsional index	Warping constant	Torsional constant	Area of section	Designation
Axis	Axis	Axis	Axis						
x-x	y-y	x-x	y-y	u	x	H	J	cm ²	Serial size
cm ³	cm ³	cm ³	cm ³			dm ⁶	cm ⁴		
1306	153	1481	238	0.873	37.2	0.7050	38.70	86.0	457 x 191 x 67
1468	176	1663	272	0.878	33.4	0.8180	53.60	95.1	457 x 191 x 74
1620	196	1842	304	0.878	30.5	0.9220	71.40	105.0	457 x 191 x 82
1780	218	2024	339	0.880	27.9	1.0400	93.30	114.0	457 x 191 x 89
1967	244	2243	379	0.881	25.5	1.180	124.0	126.0	457 x 191 x 98
2093	259	2399	406	0.878	24.2	1.270	149.0	135.0	457 x 191 x 106
2666	341	3080	535	0.880	19.4	1.730	298.0	170.0	457 x 191 x 133
3252	426	3789	672	0.882	16.3	2.250	524.0	206.0	457 x 191 x 161
2450	453	2727	694	0.887	26.5	3.15	132	147	457 x 280 x 113
2776	520	3103	799	0.887	23.7	3.67	189	166	457 x 280 x 128
3124	591	3508	908	0.887	21.3	4.23	266	187	457 x 280 x 144
3393	644	3829	992	0.885	19.9	4.67	337	203	457 x 280 x 158
3823	735	4335	1134	0.886	17.9	5.44	473	228	457 x 280 x 177
4232	816	4808	1256	0.891	16.2	6.07	641	249	457 x 280 x 193
4664	909	5326	1402	0.892	14.9	6.90	843	274	457 x 280 x 213
5128	1008	5893	1557	0.890	13.7	7.80	1106	302	457 x 280 x 235
5690	1128	6579	1747	0.890	12.6	8.95	1479	334	457 x 280 x 260
6274	1258	7297	1949	0.891	11.6	10.2	1942	366	457 x 280 x 286
6894	1393	8076	2165	0.890	10.7	11.6	2537	403	457 x 280 x 315
1335	104	1561	166	0.847	47.0	0.566	32.0	83.7	533 x 165 x 66
1552	125	1808	200	0.853	41.1	0.691	47.9	95.2	533 x 165 x 74
1818	153	2107	243	0.862	35.5	0.857	73.8	108.0	533 x 165 x 85
1800	192	2059	300	0.864	41.6	1.330	51.5	105.0	533 x 210 x 82
2072	228	2360	355	0.872	36.5	1.600	75.7	117.0	533 x 210 x 92
2292	256	2612	399	0.874	33.2	1.810	101.0	129.0	533 x 210 x 101
2477	279	2829	436	0.875	30.9	1.990	126.0	139.0	533 x 210 x 109
2793	320	3196	500	0.877	27.6	2.320	178.0	155.0	533 x 210 x 122
3136	361	3613	568	0.873	25.0	2.670	250.0	176.0	533 x 210 x 138
3710	659	4142	1009	0.885	27.8	7.010	216.0	192.0	533 x 312 x 150
4064	726	4555	1113	0.885	25.6	7.79	283	211	533 x 312 x 165
4475	806	5030	1237	0.885	23.4	8.770	373.0	231.0	533 x 312 x 182
4837	877	5457	1349	0.884	21.8	9.64	470	250	533 x 312 x 196
5389	982	6109	1514	0.884	19.8	11.000	642.0	279.0	533 x 312 x 219
6217	1143	7062	1759	0.891	17.2	13.0	977	314	533 x 312 x 248
6882	1288	7859	1985	0.890	15.9	15.000	1288.0	348.0	533 x 312 x 272
1921	136	2252	220	0.846	45.3	1.040	57.0	106.0	610 x 178 x 82
2196	161	2569	260	0.850	40.4	1.240	81.0	120.0	610 x 178 x 92
2441	185	2844	298	0.857	36.8	1.450	107.0	130.0	610 x 178 x 100
2569	256	2939	402	0.865	40.9	2.520	86.7	131.0	610 x 229 x 101
2927	301	3339	471	0.872	36.4	2.990	123.0	146.0	610 x 229 x 113
3274	344	3734	537	0.875	32.9	3.450	168.0	161.0	610 x 229 x 125
3674	392	4200	614	0.876	29.6	3.990	233.0	180.0	610 x 229 x 140
4139	611	4625	938	0.887	32.2	8.180	208.0	191.0	610 x 305 x 149
4962	743	5578	1145	0.886	27.3	10.200	351.0	229.0	610 x 305 x 179
6616	1017	7517	1575	0.886	21.1	14.500	803.0	304.0	610 x 305 x 238
4273	666	4784	1024	0.881	32.7	9.45	210	199	610 x 324 x 155

Dimensions and properties to BS EN 10365:2017

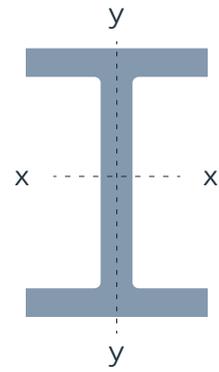




Universal beams (UB) sizes

Designation Serial size	Mass per metre kg/m	Depth of section D mm	Width of section B mm	Thickness		Root radius r mm	Depth between fillets d mm	Ratios for local buckling		Second moment of area I		Radius of gyration i	
				of web t mm	of flange T mm			Flange B/2T	Web d/t	Axis x-x cm ⁴	Axis y-y cm ⁴	Axis x-x cm	Axis y-y cm
610 x 324 x 174	174.0	616.0	325.0	14.0	21.6	20.0	532.8	7.52	38.1	148722	12376	25.8	7.43
610 x 324 x 195	195.0	622.0	327.0	15.4	24.4	20.0	533.2	6.70	34.6	169453	14242	26.0	7.53
610 x 324 x 217	217.0	628.0	328.0	16.5	27.7	20.0	532.6	5.92	32.3	192362	16319	26.2	7.64
610 x 324 x 241	241.0	635.0	329.0	17.9	31.0	20.0	533.0	5.31	29.8	216996	18433	26.5	7.71
610 x 324 x 262	262.0	641.0	327.0	19.0	34.0	20.0	533.0	4.81	28.1	237554	19854	26.6	7.70
610 x 324 x 285	285.0	647.0	329.0	20.6	37.1	20.0	532.8	4.43	25.9	262288	22069	26.8	7.77
610 x 324 x 307	307.0	653.0	330.0	22.1	39.9	20.0	533.2	4.14	24.1	285235	23958	26.9	7.80
610 x 324 x 341	341.0	661.0	333.0	24.4	43.9	20.0	533.2	3.79	21.9	319846	27097	27.1	7.89
610 x 324 x 372	372.0	669.0	335.0	26.4	48.0	20.0	533.0	3.49	20.2	354794	30175	27.3	7.96
686 x 254 x 125	125.2	677.9	253.0	11.7	16.2	20.0	605.5	7.81	51.8	119448	4385	27.2	5.22
686 x 254 x 140	140.1	683.5	253.7	12.4	19.0	20.0	605.5	6.68	48.8	137723	5186	27.7	5.37
686 x 254 x 152	152.4	687.5	254.5	13.2	21.0	20.0	605.5	6.06	45.9	151811	5786	27.9	5.44
686 x 254 x 170	170.2	692.9	255.8	14.5	23.7	20.0	605.5	5.40	41.8	171782	6633	28.1	5.51
686 x 254 x 192	192.6	702.0	254.0	15.5	27.9	20.0	606.2	4.55	39.1	199444	7646	28.5	5.58
762 x 267 x 134	133.9	750.0	264.4	12.0	15.5	20.0	679.0	8.53	56.6	152061	4790	29.8	5.28
762 x 267 x 147	146.9	754.0	265.2	12.8	17.5	20.0	679.0	7.58	53.0	169871	5457	30.0	5.38
762 x 267 x 161	161.0	758.0	266.0	13.8	19.3	20.0	679.4	6.89	49.2	187252	6075	30.2	5.44
762 x 267 x 173	173.0	762.2	266.7	14.3	21.6	20.0	679.0	6.17	47.5	206651	6852	30.5	5.56
762 x 267 x 185	185.0	766.0	267.0	14.9	23.6	20.0	678.8	5.66	45.6	224146	7512	30.8	5.64
762 x 267 x 197	196.8	769.8	268.0	15.6	25.4	20.0	679.0	5.28	43.5	241326	8177	31.0	5.70
838 x 292 x 176	175.9	834.9	291.7	14.0	18.8	20.0	757.3	7.76	54.1	247120	7800	33.2	5.89
838 x 292 x 194	193.8	840.7	292.4	14.7	21.7	20.0	757.3	6.74	51.5	280274	9068	33.6	6.05
838 x 292 x 210	210.0	846.0	293.0	15.4	24.4	20.0	757.2	6.00	49.2	311719	10259	34.0	6.17
838 x 292 x 226	226.5	850.9	293.8	16.1	26.8	20.0	757.3	5.48	47.0	340802	11361	34.3	6.27
838 x 292 x 252	250.7	859.0	292.1	17.0	31.0	20.0	757.0	4.71	44.5	387599	12916	34.8	6.35
914 x 305 x 201	200.9	903.0	303.3	15.1	20.2	19.1	824.4	7.51	54.6	325254	9423	35.7	6.07
914 x 305 x 224	224.2	910.4	304.1	15.9	23.9	19.1	824.4	6.36	51.8	376414	11236	36.3	6.27
914 x 305 x 239	238.3	915.0	305.0	16.5	25.9	19.1	825.0	5.89	50.0	406472	12285	36.6	6.36
914 x 305 x 253	253.4	918.4	305.5	17.3	27.9	19.1	824.4	5.47	47.7	436305	13301	36.8	6.42
914 x 305 x 271	271.0	923.0	307.0	18.4	30.0	19.1	824.8	5.12	44.8	471633	14518	36.9	6.48
914 x 305 x 289	289.1	926.6	307.7	19.5	32.0	19.1	824.4	4.81	42.3	504187	15597	37.0	6.51
914 x 305 x 313	313.0	932.0	309.0	21.1	34.5	19.1	824.8	4.48	39.1	548297	17039	37.1	6.54
914 x 305 x 345	345.1	943	308	22.1	39.9	19.1	825	3.86	37.3	625645	19515	37.7	6.66
914 x 305 x 381	381.5	950.7	310.3	24.4	43.9	20.0	822.9	3.53	33.7	697408	21975	37.9	6.72
914 x 419 x 343	343.3	911.8	418.5	19.4	32.0	24.1	799.6	6.54	41.2	625780	39156	37.8	9.46
914 x 419 x 388	388.0	921.0	420.5	21.4	36.6	24.1	799.6	5.74	37.4	719635	45438	38.2	9.59
1016 x 305 x 222	222.0	970.3	300.0	16.0	21.1	30.0	868.1	7.11	54.3	407961	9546	38.0	5.81
1016 x 305 x 249	248.7	980.1	300.0	16.5	26.0	30.0	868.1	5.77	52.6	481192	11754	39.0	6.09
1016 x 305 x 272	272.3	990.1	300.0	16.5	31.0	30.0	868.1	4.84	52.6	553974	14004	40.0	6.35



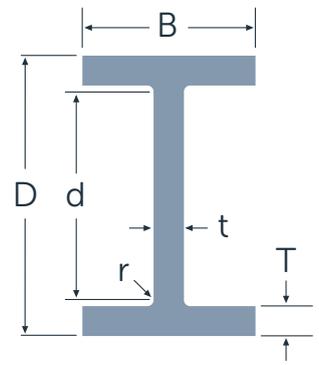


Universal beams (UB) sizes

Elastic modulus		Plastic modulus		Buckling parameter	Torsional index	Warping constant	Torsional constant	Area of section	Designation
Axis	Axis	Axis	Axis						
x-x	y-y	x-x	y-y	u	x	H	J	cm ²	Serial size
cm ³	cm ³	cm ³	cm ³			dm ⁶	cm ⁴		
4829	762	5418	1172	0.883	29.2	10.9	298	224	610 x 324 x 174
5449	871	6130	1342	0.884	26.2	12.7	418	251	610 x 324 x 195
6126	995	6904	1533	0.887	23.5	14.7	586	280	610 x 324 x 217
6835	1121	7727	1728	0.889	21.3	16.8	802	310	610 x 324 x 241
7412	1214	8405	1874	0.890	19.6	18.3	1028	335	610 x 324 x 262
8108	1342	9231	2073	0.890	18.1	20.5	1329	366	610 x 324 x 285
8736	1452	9985	2248	0.890	17.0	22.5	1646	393	610 x 324 x 307
9678	1627	11123	2525	0.890	15.6	25.8	2196	436	610 x 324 x 341
10607	1802	12250	2799	0.890	14.4	29.1	2850	476	610 x 324 x 372
3524	347	4040	544	0.863	42.6	4.800	124.0	161.0	686 x 254 x 125
4030	409	4604	640	0.869	37.7	5.720	179.0	180.0	686 x 254 x 140
4416	455	5047	712	0.872	34.7	6.430	231.0	196.0	686 x 254 x 152
4958	519	5677	813	0.873	31.2	7.430	322.0	218.0	686 x 254 x 170
5682	602	6505	943	0.878	27.3	8.69	480	245	686 x 254 x 192
4055	362	4683	571	0.855	48.7	6.460	125.0	172.0	762 x 267 x 134
4506	412	5195	648	0.859	44.4	7.400	166.0	188.0	762 x 267 x 147
4941	457	5700	721	0.860	40.8	8.29	215	205	762 x 267 x 161
5422	514	6237	809	0.865	37.5	9.400	277.0	221.0	762 x 267 x 173
5852	563	6725	885	0.868	34.9	10.4	343	237	762 x 267 x 185
6270	610	7206	960	0.869	32.8	11.300	417.0	252.0	762 x 267 x 197
5920	535	6836	843	0.857	46.0	13.000	227.0	225.0	838 x 292 x 176
6668	620	7668	974	0.863	41.3	15.200	312.0	248.0	838 x 292 x 194
7369	700	8456	1098	0.867	37.6	17.3	413	269	838 x 292 x 210
8010	773	9183	1212	0.870	34.7	19.300	522.0	289.0	838 x 292 x 226
9024	884	10333	1384	0.876	30.7	22.1	746	320	838 x 292 x 252
7204	621	8352	982	0.854	46.8	18.400	291.0	256.0	914 x 305 x 201
8269	739	9535	1163	0.861	41.3	22.100	422.0	286.0	914 x 305 x 224
8885	806	10231	1267	0.864	38.6	24.3	515	304	914 x 305 x 239
9501	871	10942	1370	0.866	36.2	26.400	626.0	323.0	914 x 305 x 253
10220	946	11785	1491	0.866	33.9	28.9	770	346	914 x 305 x 271
10883	1014	12570	1601	0.867	31.9	31.200	926.0	368.0	914 x 305 x 289
11766	1103	13631	1747	0.866	29.8	34.3	1162	398	914 x 305 x 313
13269	1267	15349	2002	0.872	26.4	39.8	1649	440	914 x 305 x 345
14671	1416	17042	2247	0.872	24.1	45.2	2208	486	914 x 305 x 381
13726	1871	15478	2889	0.883	30.1	75.8	1193	437	914 x 419 x 343
15627	2161	17666	3340	0.885	26.7	88.9	1734	494	914 x 419 x 388
8409	636	9808	1019	0.850	45.7	21.5	390	283	1016 x 305 x 222
9819	784	11350	1244	0.861	39.8	26.8	582	317	1016 x 305 x 249
11190	934	12827	1469	0.873	35.0	32.2	835	347	1016 x 305 x 272

Dimensions and properties to BS EN 10365:2017

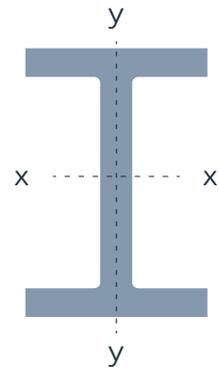




Universal beams (UB) sizes

Designation Serial size	Mass per metre kg/m	Depth of section D mm	Width of section B mm	Thickness		Root radius r mm	Depth between fillets d mm	Ratios for local buckling		Second moment of area I		Radius of gyration i	
				of web t mm	of flange T mm			Flange B/2T	Web d/t	Axis x-x cm ⁴	Axis y-y cm ⁴	Axis x-x cm	Axis y-y cm
1016 x 305 x 314	314.3	999.9	300.0	19.1	35.9	30.0	868.1	4.18	45.5	644063	16232	40.1	6.37
1016 x 305 x 350	349.4	1008.0	302.0	21.1	40.0	30.0	868.0	3.78	41.1	722965	18460	40.30	6.44
1016 x 305 x 393	392.7	1015.9	303.0	24.4	43.9	30.0	868.1	3.45	35.6	807503	20496	40.2	6.40
1016 x 305 x 415	415.0	1020.0	304.0	26.0	46.0	30.0	868.0	3.30	33.4	853121	21707	40.2	6.41
1016 x 305 x 437	437.0	1026.1	305.4	26.9	49.0	30.0	868.1	3.12	32.3	910322	23447	40.4	6.49
1016 x 305 x 487	486.7	1036.3	308.5	30.0	54.1	30.0	868.1	2.85	28.9	1021884	26721	40.6	6.57
1016 x 305 x 494	493.9	1036.0	309.0	31.0	54.0	30.0	868.0	2.86	28.0	1027960	26824	40.4	6.53
1016 x 305 x 584	583.8	1056.0	314.0	36.0	64.0	30.0	868.0	2.45	24.1	1246072	33433	40.9	6.70





Universal beams (UB) sizes

Elastic modulus		Plastic modulus		Buckling parameter	Torsional index	Warping constant	Torsional constant	Area of section	Designation
Axis	Axis	Axis	Axis						
x-x	y-y	x-x	y-y	u	x	H	J	cm ²	Serial size
cm ³	cm ³	cm ³	cm ³			dm ⁶	cm ⁴		
12883	1082	14850	1712	0.872	30.7	37.7	1264	400	1016 x 305 x 314
14345	1223	16591	1940	0.872	27.9	43.2	1718	445	1016 x 305 x 350
15897	1353	18538	2167	0.868	25.5	48.4	2330	500	1016 x 305 x 393
16728	1428	19573	2296	0.866	24.4	51.5	2704	529	1016 x 305 x 415
17743	1535	20769	2467	0.868	23.1	56.0	3185	557	1016 x 305 x 437
19722	1732	23208	2799	0.867	21.1	64.4	4299	620	1016 x 305 x 487
19845	1736	23414	2817	0.865	21.0	64.7	4396	629	1016 x 305 x 494
23600	2130	28040	3474	0.866	18.1	82.3	7154	744	1016 x 305 x 584

Dimensions and properties to BS EN 10365:2017

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