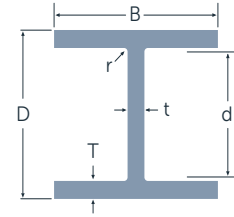
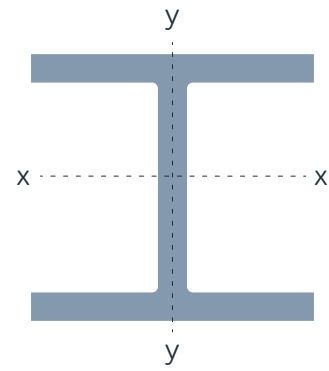


British Steel, the only UK manufacturer of structural sections, is BES 6001 certified, guaranteeing commitment to responsibly sourced materials. Our structural sections are CE marked and tested to the highest standards, providing quality and assurance for the UK construction market.



#### Universal Columns (UC) 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	Web	Axis	Axis	Axis	Axis
				Cf/tf	Cw/tw			x-x cm <sup>4</sup>	y-y cm <sup>4</sup>	x-x cm	y-y cm		
356x406x634	633.9	474.6	424.0	47.6	77.0	15.2	290.2	2.25	6.10	274,845	98,125	18.4	11.0
356x406x551	551.0	455.6	418.5	42.1	67.5	15.2	290.2	2.56	6.89	226,938	82,671	18.0	10.9
356x406x467	467.0	436.6	412.2	35.8	58.0	15.2	290.2	2.98	8.11	183,003	67,834	17.5	10.7
356x406x393	393.0	419.0	407.0	30.6	49.2	15.2	290.2	3.52	9.48	146,618	55,367	17.1	10.5
356x406x340	339.9	406.4	403.0	26.6	42.9	15.2	290.2	4.03	10.9	122,543	46,853	16.8	10.4
356x406x287	287.1	393.6	399.0	22.6	36.5	15.2	290.2	4.74	12.8	99,875	38,677	16.5	10.3
356x406x235	235.1	381.0	394.8	18.4	30.2	15.2	290.2	5.73	15.8	79,085	30,993	16.3	10.2
356x368x202	201.9	374.6	374.7	16.5	27.0	15.2	290.2	6.07	17.6	66,261	23,688	16.1	9.60
356x368x177	177.0	368.2	372.6	14.4	23.8	15.2	290.2	6.89	20.2	57,118	20,529	15.9	9.54
356x368x153	152.9	362.0	370.5	12.3	20.7	15.2	290.2	7.92	23.6	48,589	17,553	15.8	9.49
356x368x129	129.0	355.6	368.6	10.4	17.5	15.2	290.2	9.40	27.9	40,246	14,611	15.6	9.43
305x305x283	282.9	365.3	322.2	26.8	44.1	15.2	246.7	3.00	9.21	78,872	24,635	14.8	8.27
305x305x240	240.0	352.5	318.4	23.0	37.7	15.2	246.7	3.51	10.7	64,203	20,315	14.5	8.15
305x305x198	198.1	339.9	314.5	19.1	31.4	15.2	246.7	4.22	12.9	50,904	16,299	14.2	8.04
305x305x158	158.1	327.1	311.2	15.8	25.0	15.2	246.7	5.30	15.6	38,747	12,569	13.9	7.90
305x305x137	136.9	320.5	309.2	13.8	21.7	15.2	246.7	6.11	17.9	32,814	10,700	13.7	7.83
305x305x118	117.9	314.5	307.4	12.0	18.7	15.2	246.7	7.09	20.6	27,672	9,059	13.6	7.77
305x305x97	96.9	307.9	305.3	9.9	15.4	15.2	246.7	8.60	24.9	22,249	7,308	13.4	7.69
254x254x167	167.1	289.1	265.2	19.2	31.7	12.7	200.3	3.48	10.4	29,998	9,870	11.9	6.81
254x254x132	132.0	276.3	261.3	15.3	25.3	12.7	200.3	4.36	13.1	22,529	7,531	11.6	6.69
254x254x107	107.1	266.7	258.8	12.8	20.5	12.7	200.3	5.38	15.6	17,510	5,928	11.3	6.59
254x254x89	88.9	260.3	256.3	10.3	17.3	12.7	200.3	6.38	19.4	14,268	4,857	11.2	6.55
254x254x73	73.1	254.1	254.6	8.6	14.2	12.7	200.3	7.77	23.3	11,407	3,908	11.1	6.48
203x203x127	127.5	241.4	213.9	18.1	30.1	10.2	160.8	2.91	8.88	15,437	4,920	9.75	5.50
203x203x113	113.5	235.0	212.1	16.3	26.9	10.2	160.8	3.26	9.87	13,301	4,285	9.59	5.45
203x203x100	99.6	228.6	210.3	14.5	23.7	10.2	160.8	3.70	11.1	11,298	3,679	9.44	5.39
203x203x86	86.1	222.2	209.1	12.7	20.5	10.2	160.8	4.29	12.7	9,449	3,127	9.28	5.34
203x203x71	71.0	215.8	206.4	10.0	17.3	10.2	160.8	5.09	16.1	7,618	2,537	9.18	5.30
203x203x60	60.0	209.6	205.8	9.4	14.2	10.2	160.8	6.20	17.1	6,125	2,065	8.96	5.20
203x203x52	52.0	206.2	204.3	7.9	12.5	10.2	160.8	7.04	20.4	5,259	1,778	8.91	5.18
203x203x46	46.1	203.2	203.6	7.2	11.0	10.2	160.8	8.00	22.3	4,568	1,548	8.82	5.13
152x152x51	51.2	170.2	157.4	11.0	15.7	7.6	123.6	4.18	11.2	3,227	1,022	7.04	3.96
152x152x44	44.0	166.0	155.9	9.5	13.6	7.6	123.6	4.82	13.0	2,703	860	6.94	3.92
152x152x37	37.0	161.8	154.4	8.0	11.5	7.6	123.6	5.70	15.5	2,210	706	6.85	3.87
152x152x30	30.0	157.6	152.9	6.5	9.4	7.6	123.6	6.98	19.0	1,748	560	6.76	3.83
152x152x23	23.0	152.4	152.2	5.8	6.8	7.6	123.6	9.65	21.3	1,250	400	6.54	3.70



## Universal Columns (UC) sizes

Elastic modulus		Plastic modulus		Buckling parameter	Torsional index	Warping constant	Torsional constant	Area of section	Indicative values for S355 steel		Designation
Axis	Axis	Axis	Axis						Mc.y.Rd	Nb.z.Rd*	
x-x	y-y	x-x	y-y	u	x	H	J	cm <sup>2</sup>	kNm	kN	Serial size
cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>			dm <sup>6</sup>	cm <sup>4</sup>				
11,582	4,629	14,235	7,108	0.843	5.46	38.8	13,720	808	4,630	23,600	356x406x634
9,962	3,951	12,076	6,058	0.841	6.05	31.1	9,240	702	3,920	20,400	356x406x551
8,383	3,291	10,003	5,034	0.839	6.86	24.3	5,809	595	3,350	17,700	356x406x467
6,998	2,721	8,223	4,154	0.837	7.86	18.9	3,545	501	2,750	14,800	356x406x393
6,031	2,325	6,999	3,544	0.836	8.85	15.5	2,343	433	2,340	12,800	356x406x340
5,075	1,939	5,813	2,949	0.835	10.2	12.3	1,441	366	2,010	11,100	356x406x287
4,151	1,570	4,687	2,383	0.834	12.1	9.54	812	299	1,620	9,020	356x406x235
3,538	1,264	3,972	1,919	0.844	13.4	7.16	558	257	1,370	7,620	356x368x202
3,103	1,102	3,455	1,671	0.844	15.0	6.09	381	226	1,190	6,690	356x368x177
2,684	948	2,965	1,435	0.844	17.0	5.11	251	195	1,020	5,760	356x368x153
2,264	793	2,479	1,199	0.844	19.9	4.18	153	164	781	4,840	356x368x129
4,318	1,529	5,105	2,342	0.855	7.65	6.35	2,034	360	1,710	9,910	305x305x283
3,643	1,276	4,247	1,950	0.854	8.74	5.03	1,271	306	1,470	8,570	305x305x240
2,995	1,037	3,440	1,581	0.854	10.2	3.88	734	252	1,190	7,020	305x305x198
2,369	808	2,681	1,230	0.851	12.5	2.87	378	201	925	5,560	305x305x158
2,048	692	2,297	1,052	0.851	14.2	2.39	249	174	792	4,800	305x305x137
1,760	589	1,958	895	0.850	16.2	1.98	161	150	675	4,120	305x305x118
1,445	479	1,592	726	0.850	19.3	1.56	91.2	123	513	3,440	305x305x97
2,075	744	2,424	1,137	0.851	8.49	1.63	626	213	836	5,490	254x254x167
1,631	576	1,869	878	0.850	10.3	1.19	319	168	645	4,290	254x254x132
1,313	458	1,485	697	0.848	12.4	0.898	172	136	512	3,440	254x254x107
1,096	379	1,224	575	0.850	14.5	0.717	102	113	422	2,850	254x254x89
898	307	992	465	0.849	17.3	0.562	57.6	93.1	352	2,380	254x254x73
1,279	460	1,517	704	0.854	7.38	0.549	427	162	523	3,630	203x203x127
1,132	404	1,329	618	0.853	8.11	0.464	305	145	459	3,220	203x203x113
988	350	1,148	534	0.852	9.02	0.386	210	127	396	2,800	203x203x100
850	299	977	456	0.850	10.2	0.318	137	110	337	2,400	203x203x86
706	246	799	374	0.853	11.9	0.250	80.2	90.4	276	1,960	203x203x71
584	201	656	305	0.846	14.1	0.197	47.2	76.4	233	1,660	203x203x60
510	174	567	264	0.848	15.8	0.167	31.8	66.3	201	1,430	203x203x52
450	152	497	231	0.847	17.7	0.143	22.2	58.7	177	1,260	203x203x46
379	130	438	199	0.848	10.1	0.0610	48.8	65.2	155	1,050	152x152x51
326	110	372	169	0.848	11.5	0.0499	31.7	56.1	132	894	152x152x44
273	91	309	140	0.848	13.3	0.0399	19.2	47.1	110	738	152x152x37
222	73	248	112	0.849	16.0	0.0308	10.5	38.3	87.9	592	152x152x30
164	53	182	80	0.840	20.7	0.0212	4.63	29.2	58.2	431	152x152x23

Dimensions and properties to BS4-1

\* Values in italics indicate the section is Class 4 in pure compression and allowance has been made in calculating the resistance.

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