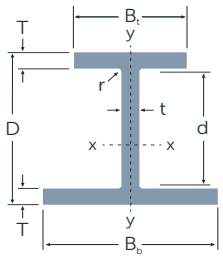
Sections

Asymmetric Beams (ASB)

Eurocode

Dimensions and properties

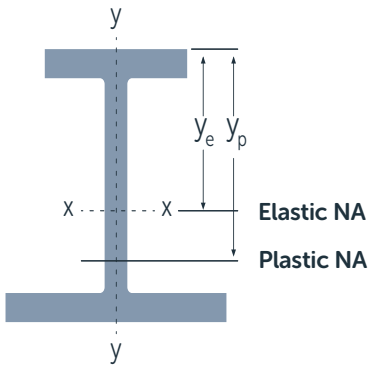
British Steel, the only UK manufacturer of structural sections, is BES 6001 certified, guaranteeing commitment to responsibly sourced materials. Our structural sections are CE marked and tested to the highest standards, providing quality and assurance for the UK construction market.



Asymmetric Beams (ASB) sizes

Designation	Mass per metre	Depth of section	Width of top flange	Width of bottom flange	Thickness		Root radius	Depth between fillets	Ratrios for local buckling			Elastic neutral axis position	Second moment of Area	
					of web	of flange			Top flange	Bottom flange	Web		Axis	Axis
Serial size		D	Bt	Bb	t	T	r	d	Cf/tf	Cw/tw	x-x	ye	x-x	y-y
	kg/m	mm	mm	mm	mm	mm	mm	mm			cm^4	cm	cm^4	cm^4
300 ASB 249*	249.2	*342*	203	313	40	40	27	208	1.36	2.74	5.20	19.2	52,920	13,194
300 ASB 196	195.5	342	183	293	20	40	27	208	1.36	2.74	10.4	19.8	45,871	10,463
300 ASB 185*	184.6	320	195	305	32	29	27	208	1.88	3.78	6.50	18.0	35,657	8,752
300 ASB 155	155.4	326	179	289	16	32	27	208	1.70	3.42	13.0	18.9	34,514	7,989
300 ASB 153*	152.8	310	190	300	27	24	27	208	2.27	4.56	7.70	17.4	28,398	6,840
280 ASB 136*	136.4	288	190	300	25	22	24	196	2.66	5.16	7.84	16.3	22,216	6,256
280 ASB 124	123.9	296	178	288	13	26	24	196	2.25	4.37	15.1	17.2	23,453	6,410
280 ASB 105	104.7	288	176	286	11	22	24	196	2.66	5.16	17.8	16.8	19,249	5,298
280 ASB 100*	100.3	276	184	294	19	16	24	196	3.66	7.09	10.3	15.6	15,506	4,245
280 ASB 74	73.6	272	175	285	10	14	24	196	4.18	8.11	19.6	15.7	12,191	3,334

The elastic and plastic neutral axis position is measured from the upper surface of the beam.
* These sections have been specifically developed with thicker webs for improved performance in fire.



Asymmetric Beams (ASB) sizes

Elastic modulus					Plastic neutral axis	Plastic modulus		Buckling parameter u	Torsional index x	Warping constant Iw	Torsional constant IT	Area of section	Designation
Axis x-x	Axis x-x	Axis	Axis	Axis		Axis	Axis						
top	bottom	y-y	x-x	y-y	y_p	x-x	y-y						Serial size
cm^3	cm^3	cm^3	cm	cm	cm	cm^3	cm^3			kNm	kN	cm^2	
2,757	3,528	843	12.9	6.45	22.6	3,761	1,512	0.825	6.80	2.00	2,004	317	300 ASB 249*
2,321	3,185	714	13.6	6.48	28.1	3,055	1,229	0.845	7.86	1.50	1,177	249	300 ASB 196
1,984	2,547	574	12.3	6.10	21.0	2,658	1,030	0.822	8.56	1.20	871	235	300 ASB 185*
1,825	2,519	553	13.2	6.35	27.3	2,361	949	0.843	9.40	1.07	620	198	300 ASB 155
1,628	2,088	456	12.1	5.93	20.4	2,160	816	0.822	9.97	0.895	513	195	300 ASB 153*
1,367	1,777	417	11.3	6.00	19.2	1,806	740	0.814	10.2	0.710	379	174	280 ASB 136*
1,360	1,891	445	12.2	6.37	25.8	1,730	761	0.832	10.5	0.721	332	158	280 ASB 124
1,145	1,604	370	12.0	6.30	25.4	1,441	632	0.831	12.1	0.574	207	133	280 ASB 105
995	1,292	289	11.0	5.76	18.4	1,295	510	0.815	13.1	0.451	160	128	280 ASB 100*
776	1,060	234	11.4	5.96	21.3	979	402	0.830	16.6	0.338	72.2	93.7	280 ASB 74

The elastic and plastic neutral axis position is measured from the upper surface of the beam.
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