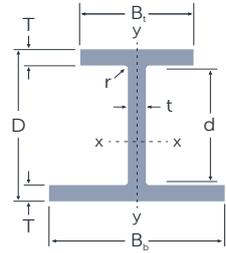


British Steel, the only UK manufacturer of structural sections, is BES 6001 certified, guaranteeing commitment to responsibly sourced materials. Our structural sections are CE and UKCA marked and tested to the highest standards, providing quality and assurance for the UK construction market.

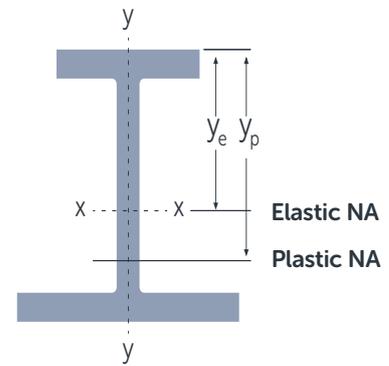


Asymmetric beams (ASB) sizes

| Designation | Mass per metre | Depth of section | Width of top flange | Width of bottom flange | Thickness | | Root radius | Depth between fillets | Ratios for local buckling | | | Elastic neutral axis position | Second moment of area | |
|--------------|----------------|------------------|---------------------|------------------------|-----------|-----------|-------------|-----------------------|---------------------------|---------------|-------|-------------------------------|-----------------------|-------|
| | | | | | of web | of flange | | | Top flange | Bottom flange | Web | | Axis | Axis |
| | | | | | t | T | | | Bt/2T | Bb/2T | d/t | | ye | x-x |
| Serial size | kg/m | D | Bt | Bb | mm | mm | mm | mm | | | cm | cm ⁴ | cm ⁴ | |
| 280 ASB 74 | 73.6 | 272 | 175 | 285 | 10 | 14 | 27 | 190 | 6.25 | 10.18 | 19.00 | 15.7 | 12366 | 3337 |
| 280 ASB 100* | 100.3 | 276 | 184 | 294 | 19 | 16 | 27 | 190 | 5.75 | 9.19 | 10.00 | 15.6 | 15679 | 4250 |
| 280 ASB 105 | 104.7 | 288 | 176 | 286 | 11 | 22 | 27 | 190 | 4.00 | 6.50 | 17.27 | 16.8 | 19426 | 5301 |
| 280 ASB 124 | 123.9 | 296 | 178 | 288 | 13 | 26 | 27 | 190 | 3.42 | 5.54 | 14.62 | 17.2 | 23630 | 6414 |
| 280 ASB 136* | 136.4 | 288 | 190 | 300 | 25 | 22 | 27 | 190 | 4.32 | 6.82 | 7.60 | 16.2 | 22390 | 6262 |
| 300 ASB 153* | 152.8 | 310 | 190 | 300 | 27 | 24 | 27 | 208 | 3.96 | 6.25 | 7.70 | 17.4 | 28398 | 6840 |
| 300 ASB 155 | 155.4 | 326 | 179 | 289 | 16 | 32 | 27 | 208 | 2.80 | 4.52 | 13.00 | 18.9 | 34514 | 7989 |
| 300 ASB 185* | 184.6 | 320 | 195 | 305 | 32 | 29 | 27 | 208 | 3.36 | 5.26 | 6.50 | 18.0 | 35657 | 8752 |
| 300 ASB 196 | 195.5 | 342 | 183 | 293 | 20 | 40 | 27 | 208 | 2.29 | 3.66 | 10.40 | 19.8 | 45871 | 10463 |
| 300 ASB 249* | 249.2 | 342 | 203 | 313 | 40 | 40 | 27 | 208 | 2.54 | 3.91 | 5.20 | 19.2 | 52920 | 13194 |

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 | | | Radius of gyration | | Plastic neutral axis position | Plastic modulus | | Buckling parameter | Torsional index | Warping constant | Torsional constant | Area of section | Designation |
|-----------------|-----------------|-----------------|--------------------|----------|-------------------------------|-----------------|-----------------|--------------------|-----------------|------------------|--------------------|-----------------|--------------|
| Axis x-x | Axis x-x | Axis y-y | Axis x-x | Axis y-y | | Axis x-x | Axis y-y | | | | | | |
| Top | Bottom | Top | Bottom | Top | Bottom | Top | Bottom | u | x | H | J | Serial size | |
| cm ³ | cm ³ | cm ³ | cm | cm | cm | cm ³ | cm ³ | | | dm ⁶ | cm ⁴ | cm ² | |
| 788 | 1075 | 234 | 11.4 | 5.93 | 21.3 | 994 | 404 | 0.832 | 15.90 | 0.338 | 80.1 | 95.1 | 280 ASB 74 |
| 1007 | 1307 | 289 | 11.0 | 5.74 | 18.4 | 1310 | 512 | 0.816 | 12.80 | 0.451 | 170.0 | 129.0 | 280 ASB 100* |
| 1157 | 1619 | 371 | 12.0 | 6.27 | 25.2 | 1456 | 634 | 0.832 | 11.80 | 0.574 | 219.0 | 135.0 | 280 ASB 105 |
| 1372 | 1906 | 445 | 12.2 | 6.35 | 25.6 | 1745 | 762 | 0.833 | 10.40 | 0.721 | 347.0 | 159.0 | 280 ASB 124 |
| 1379 | 1777 | 417 | 11.3 | 5.98 | 19.2 | 1821 | 742 | 0.815 | 10.00 | 0.710 | 396.0 | 175.0 | 280 ASB 136* |
| 1628 | 2088 | 456 | 12.1 | 5.93 | 20.4 | 2160 | 816 | 0.822 | 9.97 | 0.895 | 513.0 | 195.0 | 300 ASB 153* |
| 1825 | 2519 | 553 | 13.2 | 6.35 | 27.3 | 2361 | 949 | 0.843 | 9.40 | 1.070 | 620.0 | 198.0 | 300 ASB 155 |
| 1984 | 2547 | 574 | 12.3 | 6.10 | 21.0 | 2658 | 1030 | 0.822 | 8.56 | 1.200 | 871.0 | 235.0 | 300 ASB 185* |
| 2321 | 3185 | 714 | 13.6 | 6.48 | 28.1 | 3055 | 1229 | 0.845 | 7.86 | 1.500 | 1177.0 | 249.0 | 300 ASB 196 |
| 2757 | 3528 | 843 | 12.9 | 6.45 | 22.6 | 3761 | 1512 | 0.825 | 6.80 | 2.000 | 2004.0 | 317.0 | 300 ASB 249* |

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

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