



Advance® sections from British Steel offer sustainable, efficient and cost-reducing solutions for your construction needs.

Manufactured in the UK to carefully controlled standards, our Advance® structural sections range provides greater design flexibility due to the inclusion of often difficult-to-find intermediary dimensions.

Our new Advance® range has been extended by 71 additional beams and columns and is available in both standard grades and in our new premium S460M and weathering steel grades.

Initially developed to reflect structural design practice for CE-marked structural sections compliant with EU regulations, our new Advance® range is also UKCA-marked in compliance with UK regulations on construction products.

Benefits of using Advance® sections

The wide range of sizes and gauges available gives designers and engineers the flexibility to achieve the most effective structural solutions for their clients.

Optimising steel structures by precisely matching often difficult-to-find dimensions has the potential to provide sustainable, efficient and cost-reducing solutions through savings in structure weight, fabrication effort and logistical costs.

Using our high-strength S460M grade (available across most sizes) doubles these benefits, allowing further optimisation (e.g. to wider spans and reduced structure weight).

British manufacture – unrivalled offering

Our Advance® sections, like our standard sections, are produced by our UK mills and are rolled on a frequent basis.

We're responsive and adaptable to customers' needs and take pride in giving great customer service and offering quality products made to precise requirements.

Quality assurance

As the only UK manufacturer of structural sections, our steel products are CE and UKCA-marked and tested to the highest standards, providing quality and reassurance for the construction market.

We're ISO 9001: 2015 accredited and all material is tested to the highest standards in our independently approved ISO 17025 test houses, assuring full traceability.

Our Advance® structural sections are produced according to EN 10025. Rigorous impact tests are carried out at prescribed temperatures in accordance with this, ensuring full compliance with the Construction Products Regulation.

We're Environmental and Sustainability Standard BES 6001 certified, guaranteeing commitment to responsibly sourced materials.

We're also committed to achieving net-zero status by 2050 as outlined in our Low-Carbon Roadmap.

Exceptional technical support

Our team of experienced metallurgists provides dedicated technical support to customers, including detailed metallurgical analysis to solve specific processing challenges, and the development of new and more advanced grades of steel for increasingly demanding applications.

Advance® product range

We manufacture the hot-rolled structural sections in the tables below as part of the Advance® product range.

Advance® universal beams

Designation serial size	kg/m
254 x 102 x 28*	28.3
305 x 102 x 33*	32.8
305 x 102 x 28*	28.2
305 x 127 x 48*	48.1
305 x 127 x 42*	41.9
406 x 140 x 53	53.3
406 x 178 x 85	85.3
410 x 260 x 149	149.62
410 x 260 x 132	132.52
410 x 260 x 114	114.9
410 x 260 x 100	99.99
457 x 152 x 82*	82.1
457 x 152 x 74*	74.2
457 x 191 x 161	161.4
457 x 191 x 133	133.3
457 x 191 x 106	105.8
457 x 280 x 315*	315.0
457 x 280 x 286*	286.0
457 x 280 x 260*	260.0
457 x 280 x 235*	235.0
457 x 280 x 213*	213.0

Designation serial size	kg/m
457 x 280 x 193*	193.0
457 x 280 x 177*	177.0
457 x 280 x 158*	158.0
457 x 280 x 144*	144.0
457 x 280 x 128*	128.0
457 x 280 x 113*	113.0
533 x 165 x 85	84.8
533 x 165 x 74	74.7
533 x 165 x 66	65.7
533 x 210 x 138	138.3
533 x 312 x 272	273.2
533 x 312 x 248*	248.0
533 x 312 x 219	218.7
533 x 312 x 196*	196.0
533 x 312 x 182	181.5
533 x 312 x 165*	165.0
533 x 312 x 150	150.6
610 x 178 x 100	100.3
610 x 178 x 92	92.2
610 x 178 x 82	81.8
610 x 324 x 372*	372.0
610 x 324 x 341*	341.0

Designation serial size	kg/m
610 x 324 x 307*	307.0
610 x 324 x 285*	285.0
610 x 324 x 262*	262.0
610 x 324 x 241*	241.0
610 x 324 x 217*	217.0
610 x 324 x 195*	195.0
610 x 324 x 174*	174.0
610 x 324 x 155*	155.0
686 x 254 x 192*	192.6
686 x 254 x 170*	170.2
686 x 254 x 152*	152.4
762 x 267 x 197*	196.8
762 x 267 x 185*	185.0
762 x 267 x 161*	161.0
838 x 292 x 252*	250.7
838 x 292 x 210*	210.0
914 x 305 x 381*	381.5
914 x 305 x 345*	345.0
914 x 305 x 313*	313.0
914 x 305 x 271*	271.0
914 x 305 x 239*	238.3

Advance® universal columns

Designation serial size	kg/m
152 x 152 x 51	51.2
152 x 152 x 44	44.0
203 x 203 x 127	127.5
203 x 203 x 113	113.5
203 x 203 x 100	99.6
254 x 254 x 149*	149.0
254 x 254 x 115*	115.0
254 x 254 x 101*	101.0
254 x 254 x 81*	81.0
305 x 305 x 253*	253.0
305 x 305 x 226*	226.0

Designation serial size	kg/m
305 x 305 x 202*	202.0
305 x 305 x 179*	179.0
305 x 305 x 143*	143.0
305 x 305 x 129*	129.0
305 x 305 x 107*	107.0
356 x 368 x 196*	196.0
356 x 368 x 179*	179.0
356 x 368 x 162*	162.0
356 x 368 x 147*	147.0
356 x 368 x 134*	134.0
356 x 406 x 592*	592.0

Designation serial size	kg/m
356 x 406 x 509*	509.0
356 x 406 x 463*	463.0
356 x 406 x 421*	421.0
356 x 406 x 382*	382.0
356 x 406 x 347*	347.0
356 x 406 x 314*	314.0
356 x 406 x 262*	262.0
356 x 406 x 237*	237.0
356 x 406 x 216*	216.0

*New sizes added to our Advance® range

A minimum order quantity of 20MT per section size (including kg/m) applies for Advance® universal beams and columns.

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