



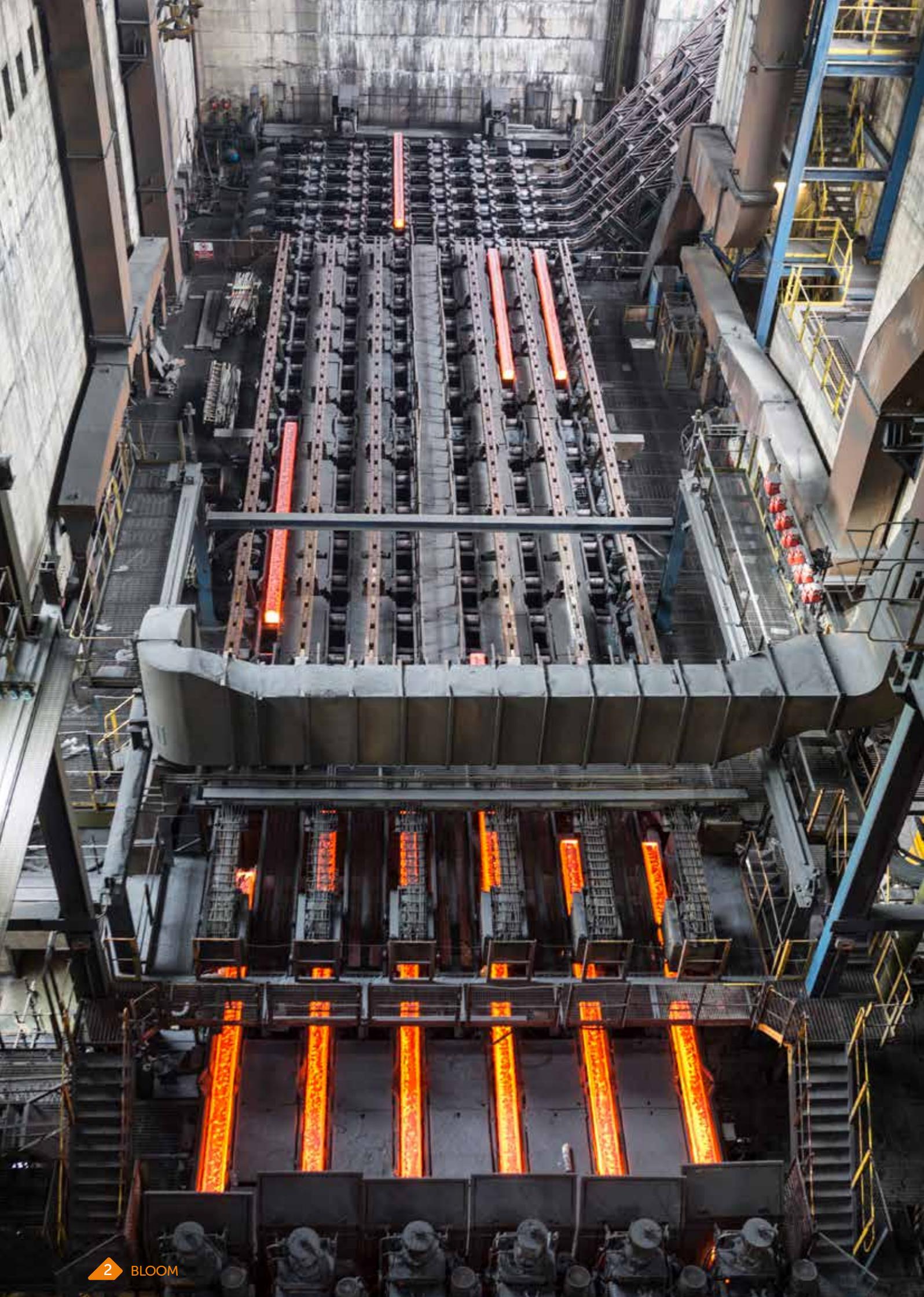
**BRITISH
STEEL**



Bloom

Direct cast bloom for
structural steel products

BUILDING STRONGER FUTURES



Introducing British Steel

British Steel is one of Europe's leading steel manufacturers, producing around 3 million tonnes of quality steel products every year. In addition to supplying a wide range of premium finished products around the world, we also produce a variety of semi-finished products to suit your specific rolling requirements.

We were bought by leading Chinese multi-industrial company Jingye Group in March 2020, beginning a new chapter in British steelmaking.

Our steelworks have existed for around 150 years and we're excited about what we can collectively achieve to build a successful future for many years to come.



Direct cast bloom for structural steel products

Our steel blooms have a rectangular cross-section and are suitable for structural, rail and wire rod applications.

Our steel is produced through the basic oxygen steelmaking (BOS) process, and is then refined in a ladle arc furnace and vacuum degasser facilities.

These processes control the steel temperatures and chemistries extremely tightly, ensuring our wide range of steel grades meet the most demanding customer requirements.

Our blooms are continuously cast through a 6-strand bloom caster – sequence casting is used and the steel is fully shrouded both between the ladle and the tundish and from the tundish to the mould. Hood cooling may also be used to remove hydrogen, depending on the hydrogen content and specification required.

Quality assurance

Our long and successful history in steelmaking means you can be assured of receiving top quality blooms for your production lines.

British Steel is accredited to both ISO 9001:2015 for our quality management system and ISO 14001:2015 for our environmental management system. Our steelmaking and casting processes also hold ABS, BV, CCS, DNV, LRS and RINA shipbuilding accreditations.

In addition to verifying the chemical composition and segregation of our steel, we have well-equipped laboratories onsite where other tests can be conducted as required.

Technical support from our specialists

Our team of experienced metallurgists provides dedicated technical support to our customers to ensure our products meet your exacting requirements.

Bloom identification

Our blooms are each identified with a 5-digit cast number, strand number (identifying the relevant strand 1-6) and sequential bloom number on the leading flame end* with a bronze metal spray, ensuring full traceability. If the marking machine fails, the blooms will be marked by hand using paint.

*e.g. 64260 302 (cast 64260, strand 3, bloom 02)



Surface quality

Blooms are supplied in the 'as-cast' condition with normal levels of scale. Limited visual inspection is carried out on the cooling banks. Surface corrosion may occur during storage and shipping – this is superficial and will not adversely affect the product.

The external surface will be free from longitudinal and transverse cracks, slivers, corrugation, gas cavities and slag inclusions. Maximum surface defect depth 5mm. Grinding of surface defects is permitted.

Blooms are flame-cut to the required length – the position of each cut being measured by a calibrated cutting wheel.

Section, length and surface checks are performed on a daily basis on each strand from a cast selected at random from the previous day's manufacture. Visual inspection covers all 4 faces of each strand and only identifies defects of a continuous nature such as longitudinal gouge.

Internal quality

Blooms will be free from excessive segregation, pipe, internal laminations, slag inclusions and blowholes.

Dimensions

Width (mm)	Thickness (mm)		
	231	254	309
283			
330			
360			
486			

Dimensions	Measurement (mm)
Length min	4,000
Length max	9,600

Notes:
Individual bloom weights are calculated from the declared dimensions.

Tolerances

Size

Tolerance	Measurement (all section sizes)
Thickness	+ / - 8mm
Width	+ / - 8mm
Length*	+ / - 120mm

Notes:
*Shorts allowance up to 5% of blooms down to customers' minimum length.

Shape

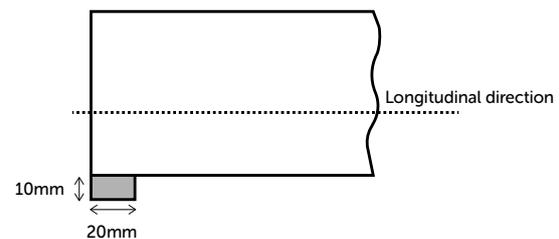
Tolerance	Measurement (all section sizes)
Bloom straightness	0.5% of length
Rhomboidity	10mm of nominal length diagonal
Twist	1° max per metre with max 4° per length
Concavity / convexity	+ / - 1.5% of thickness and width max
Cut straightness	3% of length of cut

Notes:
These features are not measured on a regular basis but standard caster output is within the above tolerances. Incidents which lead to a deterioration in quality of caster output would prompt investigation into suitability of cast product for intended orders.

Bloom ends

Blooms will be supplied 'as-cut' with flame cut ends.

Cutting fin	mm
Width	≤ 20mm
Thickness	≤ 10mm



Quantity

Nominal order in 280 metric tonne multiples. Overall order quantity + / - 10%.

Documentation

Inspection certificates will be supplied for products being rolled in accordance with EN 10204, with the following elements being routinely analysed at cast level:

Element	No. of reported digits after decimal point
C, Si, Mn	2
P, S, Al(t), V, Ti, Nb, Sn, Mo, Co, Ca, Cu, Ni, Cr, N ₂	3
B	4

Bespoke blooms for your rolling needs

Our blooms can be tailored to best meet the attributes of your products and help you meet the appropriate national and international standards.. Please contact us to discuss your requirements.

Application	Standard
Structural steel	Suitable for rolling to EN 10025 e.g. S235, S275, S355
Structural steel	Suitable for rolling to ASTM e.g. A36, A992, A572 gr 50





**BRITISH
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