



敬业集团
JINGYE GROUP



BRITISH
STEEL



异型钢产品手册
Special Profiles
Product Range

BUILDING STRONGER FUTURES

2020

李赶坡

敬业集团董事长

第十一届全国人大代表
河北省冶金行业协会副会长
河北省冶金政研会副会长
河北省企业家协会常务理事
清华大学高级工商管理硕士



LI GANPO

Chairman of the Board of Jingye Group

Deputy to the Eleventh National People's Congress
Vice-chairman of Hebei Metallurgy Association
Vice-chairman of Hebei Metallurgy Society of Ideological and Political Work
Standing Director of Hebei Entrepreneur Association
Master of EMBA in Tsinghua University



欢迎来到英国钢铁公司

英国钢铁公司是欧洲领先的钢铁制造商之一，每年生产约**450万吨**优质钢材。公司提供高品质的钢轨、型钢、异型钢、线材及各种钢材半成品，广泛应用于全球高端工业领域。

2020年3月，英国钢铁公司被中国知名跨行业集团公司 - 敬业集团收购，从此开启了公司的新篇章。

英国钢铁已经有150多年的光荣历史，我们坚信在接下来的岁月里能够继续创造辉煌。

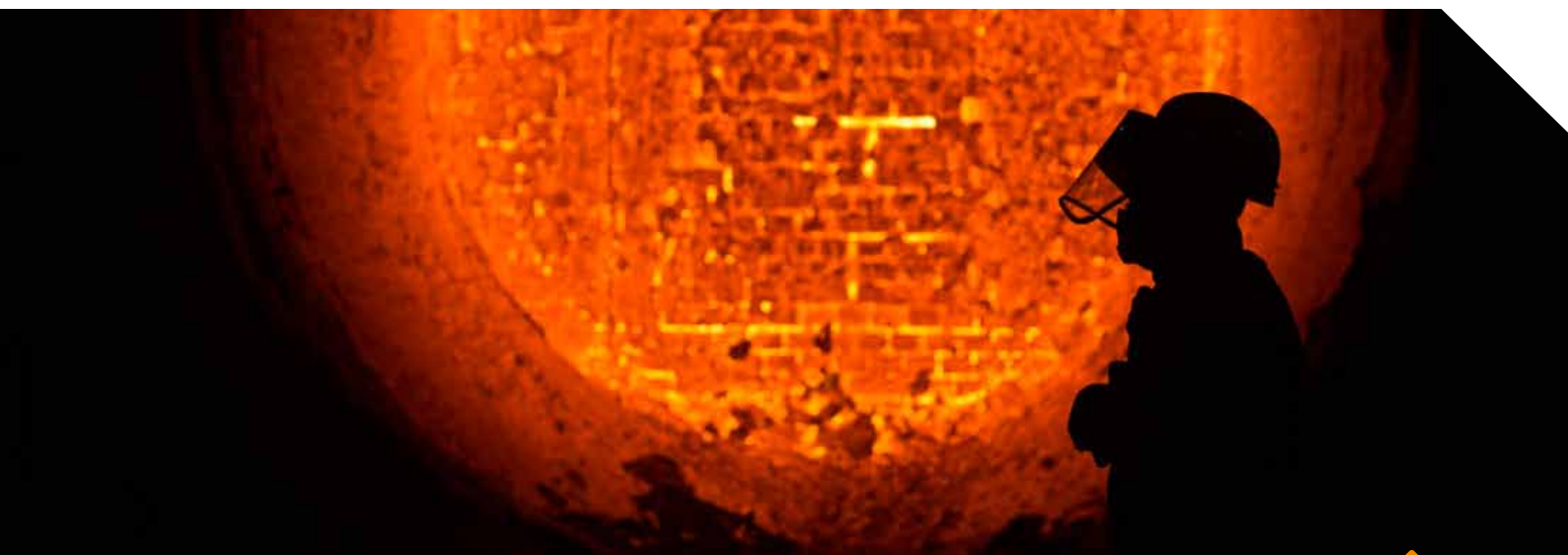


WELCOME TO BRITISH STEEL

British Steel is one of Europe's leading steel manufacturers, producing around 4.5 million tonnes of quality steel products every year. We supply high-quality rail, sections, special profiles, wire rod and a variety of semi-finished products for some of the most demanding applications around the world.

In March 2020, we were bought by distinguished Chinese multi-industrial company Jingye Group, 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.



敬业集团简介

敬业集团是以钢铁为主业，兼营钢材深加工、国际贸易、粉末冶金3D打印、旅游、酒店的跨行业集团公司，现有员工27000名。

2019年集团销售收入1274亿元，上缴税金45.3亿元，在全国500强企业名列217位，中国制造业排名95位。2014年9月28日，重组内蒙古乌兰浩特钢铁有限责任公司；2020年3月9日正式收购英国钢铁公司，成为跨国企业集团。“敬业”商标是中国驰名商标，敬业品牌价值312.95亿元。

敬业集团是全球大型螺纹钢生产基地、国家高强钢筋生产示范企业、国家高新技术企业。成功开发了船板、桥梁板、高层建筑用钢、高强抗震螺纹钢、圆钢等系列高附加值品种钢，产品畅销国内，并出口到80多个国家和地区，应用于北京大兴国际机场、南水北调、石家庄地铁系统、雄安市民服务中心、文莱跨海大桥、巴基斯坦核电站等国内外重点工程建设中。被中国中铁、中国电建、中国路桥、中国建筑等多家央企列为优秀供应商。

敬业集团将认真贯彻党的十九大精神及习近平新时代中国特色社会主义思想，在各级党委、政府指引下，持续推进转型升级，坚持绿色发展高质量发展，按企业“四化”部署，打造中国建筑精品钢铁基地、循环经济示范园、钢材深加工基地与高新技术产业基地，做大钢材深加工、国际贸易、高科技、康养旅游四大板块，利用收购英钢契机，统筹国内外资源做全球钢材和金属制品供应服务商、全球小矿种及各种能源贸易商，朝着国内效益最好、国际一流的企业集团目标大步迈进！

Jingye Group profile

Jingye Group is a multi-industry group mainly engaged in steel business, complemented by steel deep processing, international trade, powder metallurgy and 3D printing, tourism and hospitality businesses. It's currently staffed with 27,000 employees.

In 2019, the Group's sales revenue reached 127.4 billion yuan, and taxes paid amounted to 4.53 billion yuan. It ranks 217th among the top 500 companies in China and 95th in the manufacturing industry in China. On September 28, 2014, the Group reorganized Inner Mongolia Ulanhot Steel Co., Ltd.; On March 9, 2020, the Group became a multinational enterprise group with the acquisition of British Steel Limited. The "Jingye" trademark is a well known trademark in China, JINGYE brand value 31.295 billion yuan.

Jingye Group is a large global steel rebar production base, a national high-strength steel bar production demonstration enterprise, and a national high-tech enterprise. The Group has successfully developed a series of high value-added steels such as ship plates, bridge plates, high-rise building steels, high-strength seismic rebars and round steels. The products are sold well in China and exported to more than 80 countries and regions. They are applied to the construction of Beijing Daxing International Airport, South-to-North Water Diversion Project, Shijiazhuang Subway System, Xiong'an Citizen Service Center, Brunei Cross-sea Bridge, Pakistan Nuclear Power Plant and other key projects at home and abroad. The Group has been listed as an excellent supplier by many central enterprises, including China Railway, China Power Construction, China Road and Bridge and China Construction.

To conscientiously implement the spirit of the 19th National Congress of the Communist Party of China and Xi Jinping's thought of socialism with Chinese characteristics in the new era, the Group will continuously advance transformation and upgrading as guided by the Party committees and governments at all levels, and insist on green development and high-quality development. According to the corporate strategy of Intelligence, Customer Centralization Internationalization, and Asset Light Model, the Group will build a high-quality steel base in China, a demonstration park of circular economy, a steel deep processing base and a high-tech industry base. The Group will continually expand the four sectors of steel deep processing, international trade, high technology and recreational tourism, and integrate domestic and international resources via the acquisition of British Steel Limited. Giving full play to its role as a global supplier of steel and metal products, a global trader of small minerals and various energy sources, the Group will march toward the goal of the most economically-efficient enterprise in China and an international first-class enterprise!

市场应用

公司按照国际标准制造各种产品，广泛应用于各种行业和领域，为日新月异的世界作出了巨大贡献。

公司生产的钢材帮助建造了一些世界上最具标志性，且举世瞩目的项目，包括：

- 伦敦碎片大厦
- 伦敦横贯铁路
- 吉隆坡双子塔
- 伊斯坦布尔卡米利卡特
- 纽约洋基体育场
- 海洋和谐号游轮

THE MARKETS WE SERVE

Our wide range of products, manufactured to internationally recognised standards, are used in many markets and demanding applications, helping share the modern world we see around us every day.

Our steel has helped build some of the world's most iconic and awe-inspiring projects, including:

- The Shard, London
- Crossrail, London
- Petronas Towers, Kuala Lumpur
- Camlica Tower, Istanbul
- Yankees Stadium, New York
- Harmony of the Seas cruise ship

汽车领域
Automotive



建筑行业
Construction



能源和电力
Energy & Power



施工与土方工程设备
Construction & Earthmoving Equipment



国防与安全
Defence & Security



铁路
Rail Infrastructure



消费品
Consumer Goods



目录

CONTENTS

关于异型钢

1 球扁钢	7
2 Condumax® 阴极钢棒	8
3 起重机导轨	16
4 切边耐磨部件	20
5 叉车型钢	24
6 矿井帽	30
7 履带板型钢	34
8 工业纯铁 (MBI)	40
9 联系方式	46
	48

ABOUT SPECIAL PROFILES

1 Bulb flats	7
2 Condumax® cathode bars	8
3 Crane rail	16
4 Cutting edge	20
5 Forklift profiles	24
6 Tophat	30
7 Trackshoe profiles	34
8 Melting Base Iron (MBI)	40
9 Contacts	46
	48



关于异型钢

异型钢工厂位于英格兰东北部的斯金宁格罗夫 (Skinningrove)，从那里可以向世界各地供货。

公司为独特的应用提供专门的钢铁解决方案；广泛的异型钢系列可用于造船、施工和土方设备、采矿物料输送等行业的零部件。

无论是造船、土方设备制造或矿井设计，公司的技术和轧辊设计团队都会与客户精诚合作，为客户的应用创造最佳的型材截面轮廓设计。

公司可以轧制最大260千克/米的型材- 从具有非标尺寸的简单截面轮廓到高度复杂和不对称的截面轮廓。公司既提供针对个人客户需求的“定制”型材，也向所有客户提供“开放”的轧制型材。通过与的客户建立长期合作关系，能够帮助客户开发和修改所需的产品系列。

公司还提供其他加工业务，包括精确定尺的冷锯、喷丸处理、喷漆以及一系列制造和加工业务，以满足客户的需求。

ABOUT SPECIAL PROFILES

Our Special Profiles mill is located in Skinningrove in the north east of England; from here we are able to deliver all around the world.

We provide unique steel solutions for unique applications; our extensive range of special profiles is used to make components for a wide range of industries from shipbuilding to construction and earthmoving equipment; material handling to mining.

Whether its building a ship, manufacturing earthmoving equipment or designing a mine shaft, our technical and roll design teams are on hand to work with you to create the optimum profile shape for your application.

We can roll profiles up to 260kg/metre – from simple profiles with non-standard dimensions, to highly complex and asymmetrical shapes. We supply both ‘reserved’ profiles designed for individual customer needs and ‘open’ roll profiles which are available to all customers. Through establishing long-term relationships with our customers we are able to help them develop and modify the profile ranges they require.

We also offer additional processing including cold sawing to exact length, shot blasting, painting and a range of fabrication and machining operations to meet our customers’ requirements.



1 球扁钢

— BULB FLATS



1 球扁钢 BULB FLATS

用于钢板加固的轻量化防腐解决方案

球扁钢是用于钢板加固的最具成本效益、最有效、最耐腐蚀的解决方案。它们提供了出色的强度重量比，与扁钢条或角钢相比，以更低的重量即可提供相同的抗弯强度。

公司提供各种类型和牌号的球扁钢。我们还提供多种精整加工服务，可满足客户的需求，包括：

- 抛丸和底涂处理 - 改善产品加工性和耐腐蚀性
- 焊接边缘准备，以减少自动焊接所需的准备工作
- 一系列增强的尺寸公差，为重量设计及设计改进提供可能

所有产品灵活的和常规的轧制表意味着可以帮助客户更密切地遵守项目进度。

产品符合ISO 9001和ISO 14001标准。还获得了世界领先的分类协会的认证，包括：ABS、BV、CCS、DNV、GL、LRS、RINA和MRRS。

钢材类型和牌号

造船用钢

Shipbuilding steels

强度 Strength	牌号 Grade	
	A, B	●
标称 Normal	D	●
	E	●
	A32	●
	D32	●
高强度 High strength	A36	●
	D36	●
	E36	●

各种牌号在方坯库有库存，可随时响应生产 ●
Grades that are held in bloom stock, readily available to roll in the next available capacity

公司可按订单生产以下牌号钢材 ●
The following grades are within our capability and steel is made to order

可根据客户要求供应其他牌号。
Other grades may also be available upon request.

Light weight corrosion resistant solution for plate stiffening

Bulb flats are the most cost-effective, efficient and corrosion-resistant solution for plate stiffening. They provide an excellent strength to weight ratio delivering buckling resistance at a lower weight than flat bars or angles.

We supply bulb flats in a wide range of steel types and grades. We also offer a choice of finishing services to meet our customers' needs. These include:

- Shot blasting and priming – to provide improved fabrication performance and protection
- Weld edge preparation to reduce preparation required for automated welding
- A range of enhanced dimensional tolerances giving further weight and engineering enhancements to your designs

Our flexible and regular rolling programme of all our products means we can help our customers achieve closer project schedule adherence.

We are ISO 9001 and ISO 14001 compliant. We also have approval of the world's leading classification societies including: ABS, BV, CCS, DNV, GL, LRS, RINA and MRRS.

Steel types and grades

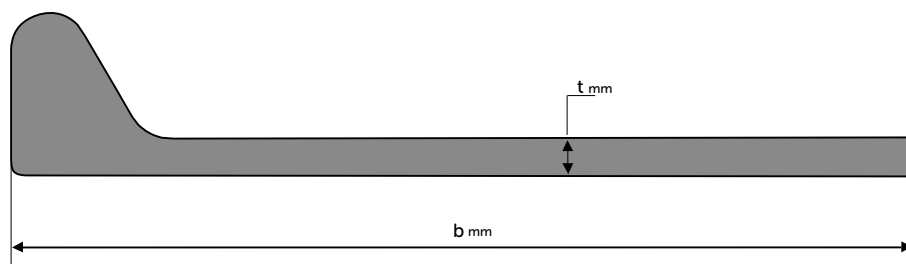
结构用钢

Structural steels

欧标 Euronorm	牌号 Grade	
ASTM	A572 Gr50	
	S235JR+AR	●
	S235J0+AR	●
	S235J2+AR	●
	S275JR+AR	●
EN10025-2	S275J0+AR	●
	S275J2+AR	●
	S355JR+AR	●
	S355J0+AR	●
	S355J2+AR	●
EN10025-4	S355M	●
EN10225	G11	●
	G12	●

1 球扁钢 BULB FLATS

规格 Dimensions



宽度 Width, b (mm)	160-430
厚度 Thickness, t (mm)	7-20
长度 Length (m)	6-16.5*

- * 定尺长度最长可达18m，可根据客户要求长度进行切割。
- * short cuts and longer lengths up to 18m available on request

尺寸公差 Dimensional tolerances

宽度 Width

宽度 Width b, (mm)	EN10067 标准公差 EN10067 Standard	专用公差 1 Special 1	专用公差 2 Special 2
$\geq 160 \leq 180$	$\pm 2.0\text{mm}$	$\pm 2.0\text{mm}$	$\pm 1.5 \text{ mm}$
$\geq 180 \leq 300$	$\pm 3.0\text{mm}$	$\pm 2.2\text{mm}$	$\pm 1.7 \text{ mm}$
$\geq 300 \leq 430$	$\pm 4.00\text{mm}$	$\pm 3.0\text{mm}$	$\pm 2.0 \text{ mm}$

专用公差可通过100%线下焊接边缘打磨工艺实现。这样可确保边缘平整，从而实现卓越的焊接效果。

Our special width tolerances are achieved through an offline 100% weld edge grinding process. This ensures clean flat edges for superior welding.

厚度 Thickness

不同宽度范围内厚度t的公差

Thickness **t** tolerances for different widths ranges.

宽度 Width b, (mm)	EN10067 标准公差 EN10067 Standard	专用公差 1 Special 1
$\geq 160 \leq 180$	-0.3 / + 1.0mm	-0.2 / + 0.6mm
$> 180 \leq 300$	-0.4 / + 1.0mm	-0.3 / + 0.6mm
$> 300 \leq 430$	-0.4 / + 1.2mm	-0.3 / + 0.6mm

长度 Length

可以通过专门协议来实现更严格的公差

Closer tolerances may be achieved by special agreement.

长度 Length, L	EN10067 标准公差 EN10067 Standard
全部 All	-0 / + 100 mm

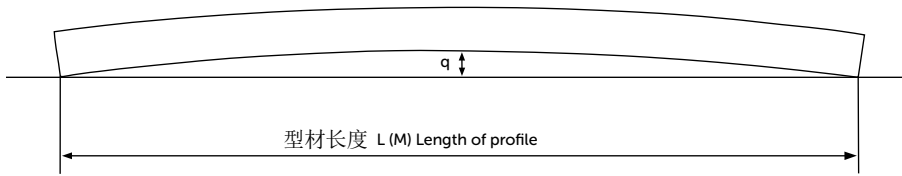
可提供6m~16.5m之间的单个长度，作为标准长度。超出此范围（1.5m~18m）长度可按要求提供，但数量有限。

Individual lengths between 6m and 16.5m are available as a standard stackable length. Lengths outside this range (1.5m to 18m) may be available on request on a limited tonnage basis.

1 球扁钢 BULB FLATS

平整度 - 下弯和侧弯 Straightness – bow and camber

在钢材的整个长度上测量 As measured over the length of the bar.



长度 Length	EN10067 标准公差 EN10067 Standard	专用公差 1 Special 1	专用公差 2 Special 2
$L \leq 18m$	$q \leq 0.0035 \times L$	$q \leq 0.0025 \times L$	$q \leq 0.00125 \times L$

扭曲 Twist

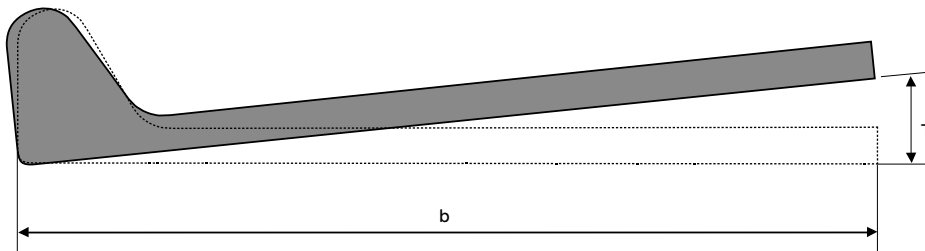
允许的扭曲度如下:

The permissible degree of twist is given as the following:

长度 Length	标准公差 Standard	专用公差 1 Special 1
全部 All	0.5°/m	0.35°/m

扭曲很难直接进行测量；可以很容易地转换为测量扭转T（mm），并采用以下计算。

Twist can be difficult to measure and is easiest to measure converted into Torsion by measuring the Torsion T in mm and applying the following calculations:



扭转: $T \text{ (mm)} = \text{宽度 (mm)} \times \sin \text{ 扭转角度} \times \text{长度 (M)}$

Torsion, $T \text{ (mm)} = \text{width (mm)} \times \sin \text{ tol degree, } \times \text{length (M)}$

扭转: $T = b \times \sin 0.35^\circ \times L$ - 专用公差 1

Torsion: $T = b \times \sin 0.35^\circ \times L$ - Special steel 1

扭转: $T = b \times \sin 0.5^\circ \times L$ - 标准公差

Torsion: $T = b \times \sin 0.5^\circ \times L$ - Standard steel

长度 Length, L	6m		10m		12m		15m		18m	
许可扭曲度 Permitted twist	0.35°	0.5°	0.35°	0.5°	0.35°	0.5°	0.35°	0.5°	0.35°	0.5°
宽度 Width, b (mm)	扭转 Torsion, T (mm)									
160	5.86	8.38	9.77	13.96	11.73	16.75	14.66	20.94	17.59	25.13
180	6.60	9.42	11.00	15.71	13.19	18.85	16.49	23.56	19.79	28.27
200	7.33	10.47	12.22	17.45	14.66	20.94	18.33	26.18	21.99	31.42
220	8.06	11.52	13.44	19.20	16.13	23.04	20.16	28.80	24.19	34.56
240	8.80	12.57	14.66	20.94	17.59	25.13	21.99	31.42	26.39	37.70
260	9.53	13.61	15.88	22.69	19.06	27.23	23.82	34.03	28.59	40.84
280	10.26	14.66	17.10	24.43	20.52	29.32	25.66	36.65	30.79	43.98
300	11.00	15.71	18.33	26.18	21.99	31.42	27.49	39.27	32.99	47.12
320	11.73	16.75	19.55	27.92	23.46	33.51	29.32	41.89	35.19	50.26
340	12.46	17.80	20.77	29.67	24.92	35.60	31.15	44.51	37.38	53.41
370	13.56	19.37	22.60	32.29	27.12	38.75	33.90	48.43	40.68	58.12
400	14.66	20.94	24.43	34.91	29.32	41.89	36.65	52.36	43.98	62.83
430	15.76	22.51	26.27	37.52	31.52	45.03	39.40	56.29	47.28	67.54

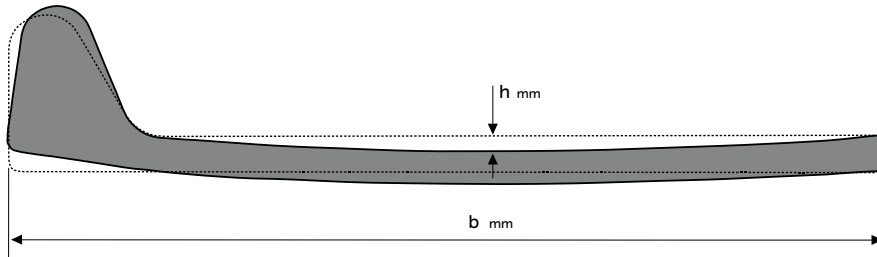
1 球扁钢 BULB FLATS

平整度 Flatness

球扁钢的宽度为**b**，平整度公差**h**为0.3%，按如下所示进行测量。

The plate flatness tolerance **h** is 0.3% of the bulb flat width **b** and is measured as shown below.

板的平整度公差 **Plate flatness tolerance: $h \leq 0.003 \times b$**



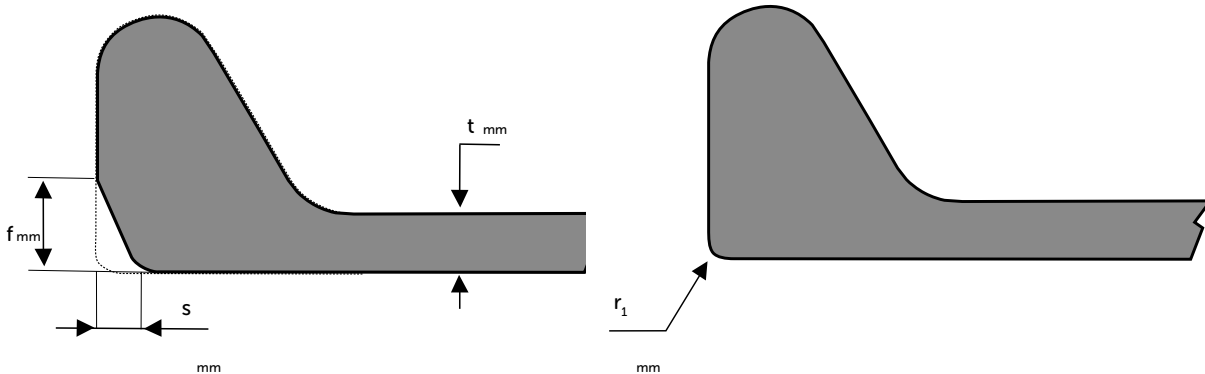
球扁钢的根部平整度公差为**n**，如下所示，最大值为2mm。

The bulb flatness tolerance of the heel is **n** measured as shown below with a 2mm maximum.

球扁钢根部的平整度公差 **Bulb flatness tolerance: $n \leq 2.0$ mm**



形状 Shape



球端脚部公差 **Bulb head corner tolerances s**

球端脚部厚度 Thickness	公差 Tolerance
$t \leq 9$ mm	$s \leq 2.0$ mm
$9 < t \leq 13$ mm	$s \leq 3.0$ mm
$t > 13$ mm	$s \leq 4.0$ mm

球端脚部公差 **Bulb head corner tolerances f**

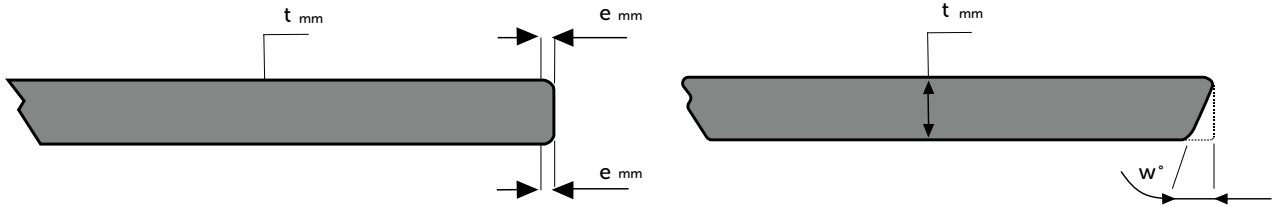
球端脚部厚度 Thickness	公差 Tolerance
$t > 7$ mm	$f \leq 0.75 S$

球端脚部公差半径 r_1 **Bulb head corner tolerances radius r_1**

不同厚度的球端脚部公差半径 r_1
Radius of curvature of corners r_1 for thickness

球端脚部厚度 Thickness	$r_1 \leq$
$5 < t \leq 9$	2.0 mm
$9 \leq t < 13$	3.0 mm
$13 \leq t \leq 20$	4.0 mm

1 球扁钢 BULB FLATS



尺寸 **e** 的测量如上图所示。

The dimension **e** is measured as illustrated above.

翼面边缘公差 **e**

Web edge tolerances **e**

球端脚部厚度 Thickness	EN10067 - 标准 EN10067 - Standard
$t \leq 9$ mm	$e \leq 2.0$ mm
$9 < t \leq 13$ mm	$e \leq 3.0$ mm
$t > 13$ mm	$e \leq 4.0$ mm

通过打磨翼面边缘可按要求提供更严格的公差。

Tighter tolerances may be available on request through grinding of the web edge.

尺寸 **w** 的测量如上图所示。

The dimension **w** is measured as illustrated above.

翼面边缘角度公差 **w**

Web edge tolerances angle **w**

球端脚部厚度 Thickness	公差 Tolerance
$t \leq 9$ mm	$w \leq 4^\circ$
$9 < t \leq 13$ mm	$w \leq 4^\circ$
$t > 13$ mm	$w \leq 4^\circ$

通过线下打磨翼面边缘可按要求提供更严格的公差 **e** 和角度公差 **w**。

Tighter tolerance on web edge tolerance **e** and angle **w** may be available on request through offline grinding of the web edge.

表面状况 Surface condition

造船型材的表面要求和维修条件符合EN10163-3:2004的C类子类3的要求。下表给出了最大允许的缺陷深度和最小指定厚度以外的打磨余量：

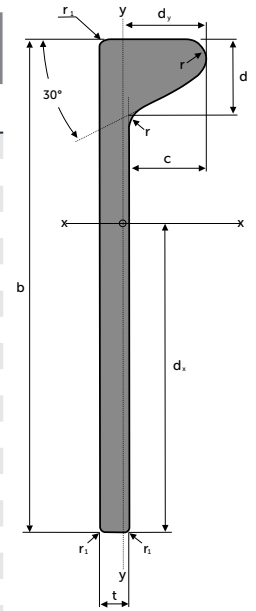
The surface requirements and repair conditions for shipbuilding profiles are in accordance with EN10163-3:2004, subclass 3, class C. Maximum permissible depth of discontinuities and grinding allowance below minimum specified thickness are given in the table below:

产品标称厚度, t Nominal thickness of the Product, t	允许的最大缺陷深度 (mm) Maximum permissible depth of discontinuities (mm)
$3 \leq t < 6$	20% of t
$6 \leq t < 20$	1.2
$20 \leq t < 40$	1.7

1 球扁钢 BULB FLATS

尺寸和特性 Dimensions and properties

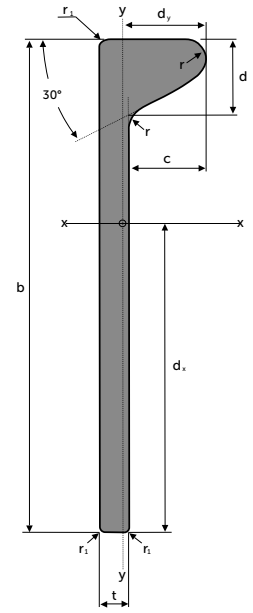
截面尺寸 Section description	尺寸 (mm)					每米质量 Mass per metre G Kg/m	截面积 Area of section A cm ²	每米表面积 Surface area per metre U m ² /m	至重心的距离 Distance to centre of gravity	
	b	t	c	d	r				dx	dy
160x7	160	7.0	22.0	22.2	6.0	11.46	14.58	0.365	96.7	6.5
160x8	160	8.0	22.0	22.2	6.0	12.72	16.18	0.367	95.1	6.8
160x9	160	9.0	22.0	22.2	6.0	13.97	17.78	0.370	93.7	7.1
160x10	160	10.0	22.0	22.2	6.0	15.30	19.34	0.371	92.6	7.5
160x11	160	11.0	22.0	22.2	6.0	16.49	20.94	0.373	91.7	7.9
160x11.5	160	11.5	22.0	22.2	6.0	17.30	21.74	0.374	91.3	8.1
180x8	180	8.0	25.0	25.5	7.0	14.80	18.83	0.412	109.0	7.4
180x9	180	9.0	25.0	25.5	7.0	16.22	20.63	0.414	107.4	7.7
180x10	180	10.0	25.0	25.5	7.0	17.63	22.40	0.416	106.0	8.1
180x11	180	11.0	25.0	25.5	7.0	19.04	24.20	0.418	104.8	8.4
180x11.5	180	11.5	25.0	25.5	7.0	19.70	25.10	0.419	104.3	8.6
200x8.5	200	8.5	28.0	28.8	8.0	17.80	22.63	0.458	122.2	8.2
200x9	200	9.0	28.0	28.8	8.0	18.57	23.63	0.459	121.3	8.4
200x10	200	10.0	28.0	28.8	8.0	20.14	25.60	0.460	119.7	8.7
200x11	200	11.0	28.0	28.8	8.0	21.71	27.60	0.463	118.3	9.0
200x11.5	200	11.5	28.0	28.8	8.0	22.50	28.60	0.464	117.6	9.2
200x12	200	12.0	28.0	28.8	8.0	23.28	29.60	0.465	117.0	9.4
220x9	220	9.0	31.0	32.1	9.0	21.00	26.78	0.504	135.5	9.1
220x10	220	10.0	31.0	32.1	9.0	22.77	28.94	0.505	133.7	9.3
220x11	220	11.0	31.0	32.1	9.0	24.50	31.14	0.507	132.0	9.7
220x11.5	220	11.5	31.0	32.1	9.0	25.30	32.24	0.509	131.2	9.8
220x12	220	12.0	31.0	32.1	9.0	26.22	33.34	0.510	130.5	10.0
230x11	230	11.0	32.5	33.75	9.5	25.06	32.97	0.530	138.9	10.0
240x9.5	240	9.5	34.0	35.4	10.0	24.40	31.23	0.549	148.9	9.9
240x10	240	10.0	34.0	35.4	10.0	25.50	32.43	0.550	147.9	10.0
240x10.5	240	10.5	34.0	35.4	10.0	26.40	33.63	0.551	146.9	10.2
240x11	240	11.0	34.0	35.4	10.0	27.39	34.83	0.552	145.9	10.3
240x11.5	240	11.5	34.0	35.4	10.0	28.30	36.03	0.554	145.1	10.5
240x12	240	12.0	34.0	35.4	10.0	29.27	37.23	0.555	144.3	10.6
260x10	260	10.0	37.0	38.7	11.0	28.35	36.05	0.595	162.3	10.7
260x11	260	11.0	37.0	38.7	11.0	30.39	38.65	0.597	160.1	11.0
260x12	260	12.0	37.0	38.7	11.0	32.43	41.25	0.600	158.2	11.3
260x13	260	13.0	37.0	38.7	11.0	34.40	43.85	0.602	156.5	11.6
280x10.5	280	10.5	40.0	42.0	12.0	32.40	41.22	0.641	175.7	11.6
280x11	280	11.0	40.0	42.0	12.0	33.50	42.62	0.642	174.5	11.7
280x12	280	12.0	40.0	42.0	12.0	35.70	45.42	0.645	172.4	11.9
280x13	280	13.0	40.0	42.0	12.0	37.90	48.22	0.647	170.5	12.2
300x11	300	11.0	43.0	45.3	13.0	36.70	46.73	0.687	189.1	12.4
300x12	300	12.0	43.0	45.3	13.0	39.09	49.73	0.690	186.7	12.7
300x13	300	13.0	43.0	45.3	13.0	41.44	52.73	0.692	184.6	12.9
320x11.5	320	11.5	46.0	48.6	14.0	41.20	52.59	0.733	202.5	13.3
320x12	320	12.0	46.0	48.6	14.0	42.60	54.19	0.735	201.3	13.4
320x12.5	320	12.5	46.0	48.6	14.0	43.80	55.79	0.736	200.1	13.5
320x13	320	13.0	46.0	48.6	14.0	45.09	57.39	0.737	199.0	13.6
320x13.5	320	13.5	46.0	48.6	14.0	46.30	58.94	0.737	198.0	13.7
320x14	320	14.0	46.0	48.6	14.0	47.60	60.54	0.738	197.0	13.9
340x12	340	12.0	49.0	52.0	15.0	46.20	58.78	0.780	216.0	14.1
340x12.5	340	12.5	49.0	52.0	15.0	47.50	60.48	0.781	214.7	14.2
340x13	340	13.0	49.0	52.0	15.0	48.86	62.18	0.782	213.5	14.3
340x14	340	14.0	49.0	52.0	15.0	51.50	65.54	0.784	211.3	14.6
340x15	340	15.0	49.0	52.0	15.0	54.20	68.94	0.786	209.2	14.8
370x12.5	370	12.5	53.5	56.9	16.5	53.10	67.79	0.848	236.9	15.4
370x13	370	13.0	53.5	56.9	16.5	54.70	69.64	0.850	235.5	15.5
370x14	370	14.0	53.5	56.9	16.5	57.60	73.30	0.851	233.0	15.7
370x15	370	15.0	53.5	56.9	16.5	60.50	77.00	0.854	230.7	15.9
370x16	370	16.0	53.5	56.9	16.5	63.50	80.70	0.857	228.6	16.1
400x13	400	13.0	58.0	61.9	18.0	60.80	77.43	0.918	257.9	16.6
400x14	400	14.0	58.0	61.9	18.0	63.96	81.38	0.919	255.1	16.8
400x15	400	15.0	58.0	61.9	18.0	67.10	85.38	0.922	252.5	17.0
400x16	400	16.0	58.0	61.9	18.0	70.20	89.38	0.925	250.2	17.2
430x14	430	14.0	62.5	66.8	19.5	70.60	89.78	0.987	277.5	18.0
430x15	430	15.0	62.5	66.8	19.5	73.90	94.08	0.990	274.6	18.1
430x17	430	17.0	62.5	66.8	19.5	80.70	102.68	0.995	269.6	18.5
430x18	430	18.0	62.5	66.8	19.5	83.90	106.98	0.998	267.4	18.8
430x19	430	19.0	62.5	66.8	19.5	87.40	111.28	1.001	265.4	19.0
430x20	430	20.0	62.5	66.8	19.5	90.80	115.58	1.004	263.5	19.3



1 球扁钢 BULB FLATS

尺寸和性能 (续表) Dimensions and properties (continued)

截面尺寸 Section description	二次惯性矩 Second moment of inertia		弹性模量 Elastic modulus		回转半径 Radius of gyration		翘曲常数 Warping constant Zy cm ⁶ /10 ³	扭转常数 Torsional constant J cm ⁴
	lx cm ⁴	ly cm ⁴	Zx cm ³	Zy cm ³	rx cm	ry cm		
160x7	371.10	5.85	38.4	9.0	5.05	0.63	1.11	3.65
160x8	409.27	6.54	43.0	9.7	5.03	0.64	1.15	4.57
160x9	446.70	7.31	47.7	10.3	5.01	0.64	1.19	5.73
160x10	481.31	8.15	52.0	10.9	4.99	0.65	1.22	7.12
160x11	517.81	9.09	56.5	11.5	4.97	0.66	1.26	8.86
160x11.5	535.93	9.60	58.7	11.9	4.96	0.66	1.29	9.85
180x8	606.55	9.89	55.6	13.3	5.67	0.72	2.41	6.24
180x9	661.09	10.92	61.6	14.1	5.66	0.73	2.47	7.57
180x10	711.72	12.03	67.1	14.9	5.64	0.73	2.52	9.15
180x11	764.60	13.25	72.9	15.7	5.62	0.74	2.60	11.13
180x11.5	790.81	13.90	75.8	16.1	5.61	0.74	2.64	12.26
200x8.5	901.07	15.06	73.7	18.3	6.31	0.82	4.71	9.20
200x9	939.14	15.75	77.4	18.8	6.30	0.82	4.76	10.00
200x10	1010.47	17.18	84.4	19.8	6.28	0.82	4.83	11.78
200x11	1084.33	18.75	91.7	20.8	6.27	0.82	4.95	14.01
200x11.5	1120.89	19.57	95.3	21.3	6.26	0.83	5.02	15.28
200x12	1157.23	20.43	98.9	21.8	6.25	0.83	5.09	16.65
220x9	1290.48	22.01	95.2	24.3	6.94	0.91	8.61	13.17
220x10	1387.89	23.86	103.8	25.5	6.92	0.91	8.72	15.16
220x11	1488.07	25.83	112.7	26.8	6.91	0.91	8.90	17.65
220x11.5	1537.57	26.87	117.2	27.4	6.91	0.91	8.99	19.06
220x12	1586.73	27.94	121.6	28.0	6.90	0.92	9.10	20.60
230x11	1724.98	30.05	124.2	30.1	7.23	0.95	11.69	19.81
240x9.5	1787.40	31.12	120.0	31.4	7.57	1.00	14.83	18.25
240x10	1854.67	32.30	125.4	32.2	7.56	1.00	14.94	19.46
240x10.5	1921.25	33.52	130.8	33.0	7.56	1.00	15.06	20.78
240x11	1987.20	34.78	136.2	33.8	7.55	1.00	15.19	22.22
240x11.5	2052.60	36.06	141.5	34.5	7.55	1.00	15.33	23.79
240x12	2117.50	37.39	146.8	35.2	7.54	1.00	15.48	25.49
260x10	2421.72	42.80	149.2	39.9	8.20	1.09	24.54	24.85
260x11	2593.45	45.86	162.0	41.8	8.19	1.09	24.87	27.91
260x12	2762.00	49.07	174.6	43.6	8.18	1.09	25.25	31.50
260x13	2927.94	52.45	187.0	45.3	8.17	1.09	25.69	35.69
280x10.5	3210.10	57.50	182.7	49.7	8.82	1.18	39.05	33.16
280x11	3318.79	59.39	190.2	50.8	8.82	1.18	39.27	34.90
280x12	3532.99	63.29	205.0	53.0	8.82	1.18	39.77	38.84
280x13	3743.56	67.37	219.6	55.1	8.81	1.18	40.34	43.42
300x11	4175.43	75.68	220.8	60.9	9.45	1.27	60.10	43.42
300x12	4443.49	80.39	238.0	63.5	9.45	1.27	60.72	47.73
300x13	4706.64	85.27	254.9	66.1	9.45	1.27	61.45	52.71
320x11.5	5342.16	97.86	263.8	73.7	10.08	1.36	89.86	55.95
320x12	5506.76	100.69	273.6	75.3	10.08	1.36	90.25	58.38
320x12.5	5669.75	103.58	283.4	76.8	10.08	1.36	90.68	60.99
320x13	5831.26	106.51	293.1	78.3	10.08	1.36	91.15	63.79
320x13.5	5977.59	109.44	301.9	79.7	10.07	1.36	91.35	66.51
320x14	6136.58	112.48	311.5	81.1	10.07	1.36	91.89	69.71
340x12	6736.30	124.57	311.9	88.2	10.70	1.46	131.02	71.06
340x12.5	6934.97	127.98	323.1	89.9	10.71	1.45	131.53	73.88
340x13	7131.73	131.44	334.1	91.7	10.71	1.45	132.09	76.91
340x14	7504.42	138.47	355.2	95.0	10.70	1.45	132.97	83.29
340x15	7886.99	145.80	377.0	98.3	10.70	1.45	134.41	90.88
370x12.5	9184.55	172.23	387.8	112.1	11.64	1.59	221.07	97.62
370x13	9444.05	176.62	401.0	114.2	11.64	1.59	221.76	101.01
370x14	9936.79	185.49	426.5	118.5	11.64	1.59	222.83	108.11
370x15	10440.07	194.68	452.5	122.6	11.64	1.59	224.72	116.55
370x16	10935.90	204.14	478.4	126.6	11.64	1.59	226.88	126.04
400x13	12234.74	232.34	474.5	139.7	12.57	1.73	357.80	131.25
400x14	12872.91	243.41	504.7	145.0	12.58	1.73	358.96	139.13
400x15	13521.89	254.79	535.5	150.1	12.58	1.73	361.32	148.48
400x16	14160.53	266.45	566.1	154.9	12.59	1.73	364.08	158.97
430x14	16366.61	313.68	589.9	174.7	13.50	1.87	559.02	177.41
430x15	17189.22	327.65	626.0	180.8	13.52	1.87	561.76	187.72
430x17	18794.22	356.44	697.1	192.5	13.53	1.86	569.01	212.09
430x18	19579.84	371.35	732.2	197.9	13.53	1.86	573.41	226.30
430x19	20355.95	386.65	767.0	203.4	13.52	1.86	578.26	241.98
430x20	21123.62	402.40	801.6	208.6	13.52	1.87	583.53	259.20



2 CONDUMAX[®]

— 阴极钢棒

CONDUMAX[®]

CATHODE BARS



2 CONDUMAX® 阴极钢棒 CONDUMAX® CATHODE BARS

帮助客户提高能源利用率

公司与主要的铝冶炼厂合作，提供用于铝生产的优质阴极接地棒。

Condumax阴极钢棒的化学成分含碳量为0.01%，明显低于市场销售的阴极钢棒的碳含量0.04-0.06%。

公司优质炼钢方法确保严格控制化学成分，使棒材之间的碳元素和其他微量元素保持一致，从而实现预期性能。

具有以下独特的化学优点：

- 电阻率比低碳钢阴极棒低40%；
- 在生产试验中测的电阻率，比竞争对手的超低电阻阴极棒低10%；
- 更长的使用寿命和更低的能耗；
- 在电解槽内的使用寿命期间，每个罐的二氧化碳排放量减少60吨。

认证仅符合EN 10204类型3.1的分析。

Condumax 产品

下表列出了英国钢铁公司Condumax产品的化学成分和力学性能。

化学成分 Chemical composition

最高含量 Maximum	C (%)	Si (%)	Mn (%)	S (%)	P (%)	Cr (%)	Mo (%)	Nb (%)	V (%)	Ni (%)	B (%)	Al (%)
Condumax	0.01	0.01	0.20	0.015	0.02	0.05	0.02	0.01	0.015	0.07	0.0008	0.02

Helping our customers improve their energy performance

We work with primary aluminium smelters to offer high quality cathode collector bars for use in aluminium production.

Condumax cathode bars have a unique chemical composition of 0.01% carbon, significantly lower than the 0.04-0.06% carbon content present in other commercially available cathode collector bars.

Our quality steelmaking practices ensure tight control of chemistry giving consistency of carbon and other trace elements between bars for predictable performance

Our unique chemistry offers significant benefits:

- Up to 40% lower resistivity than mild steel cathode bars
- 10% lower measured electrical resistivity in production trial vs. competitors' ultra-low resistivity cathode bars
- Longer service life and lower energy use in service
- 60 tonne reduction of CO₂ emissions per pot over the lifetime of the pot

Certification is in accordance with EN 10204 Type 3.1 analysis only.

Condumax steel grade

The tables below indicate the chemical analysis units and mechanical properties for British Steel's Condumax grade.

2 CONDUMAX阴极钢棒 CONDUMAX CATHODE BARS

尺寸与特性 Dimensions and properties

尺寸范围和生产公差

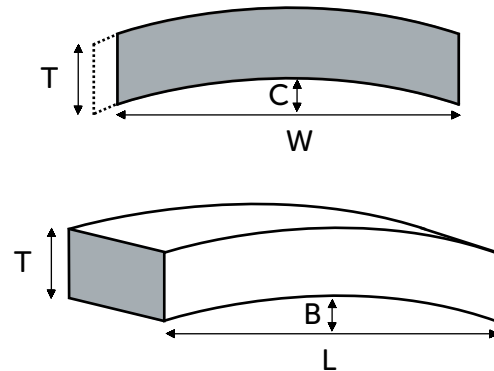
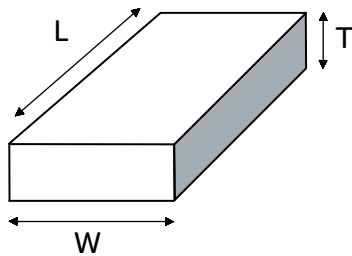
Size range and production tolerances

标准产品尺寸在以下范围内:

Our standard product sizes are in the following range:

宽度(W) Width (W)	122 to 279mm
厚度 (T) Thickness (T)	90 to 160mm
长度 (L) Length (L)	1.5 to 10m

弯曲度 (B) 最大 Bow (B)	2mm/m max
侧弯度 (C) 最大 Camber (C)	2mm/m max
扭曲最大 Twist	1mm/m max



生产公差

Production tolerances

表面 : Surface:	EN10163-3: 2004 C类3子类 EN10163-3: 2004, Class C, Subclass 3
数量公差 : Quantity tolerance:	棒材数量±10% ±10% based on the quantity of bars
长度公差: Length tolerance:	-0 / +10 mm
宽度公差: Width tolerance:	+3 / -2 mm
厚度公差: Thickness tolerance:	+3 / -2 mm

菱变 Rhomboidity



变形角度 θ = 最大1.5°

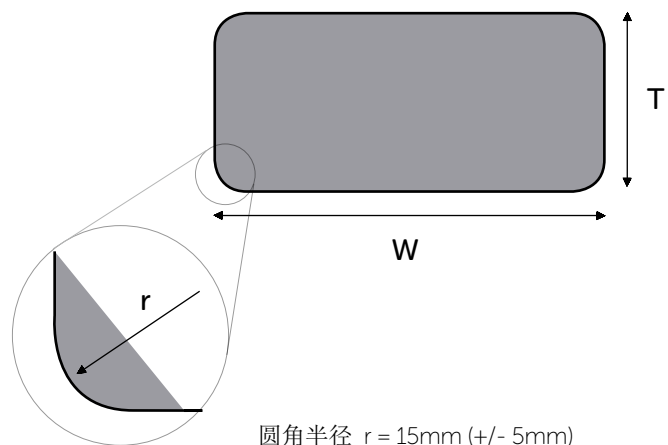
Squareness angle θ = 1.5° maximum

变形量 $R = T \times \tan \theta$

Rhomboidity $R = T \times \tan \theta$

T (mm)	最大 R (mm) Maximum R (mm)
<100	3
100 <150	4
150 <200	5
200 <250	6
250 <300	7

圆角半径 Corner radius



圆角半径 $r = 15\text{mm} (+/- 5\text{mm})$

Corner radius $r = 15\text{mm} (+/- 5\text{mm})$

可按要求提供其它公差

Alternative tolerances available upon request

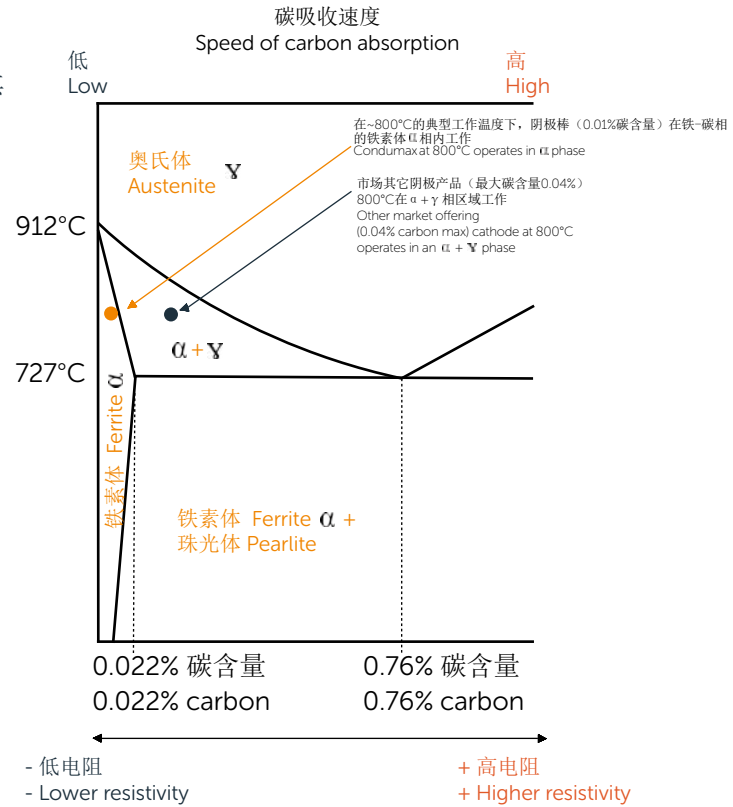
2 CONDUMAX 阴极钢棒 CONDUMAX CATHODE BARS

冶金技术 Metallurgy

- 英国钢铁公司以世界领先的转炉炼钢设备，超精细控制碳及其它微量元素
- British Steel's world-leading Basic Oxygen Steelmaking facilities are capable of controlling carbon and other trace elements to unrivalled levels
- 在~800°C的典型工作温度下，Condumax（0.01%碳含量阴极）在铁-碳相的铁素体相内工作
- Condumax (0.01% carbon cathode) operates in the ferrite α phase of the iron-carbon phase at typical operating temperatures ~800°C
- 标准0.04-0.06%低碳阴极可在铁素体/奥氏体2相区域内工作
- Standard 0.04-0.06% low carbon cathodes operate in the ferrite / austenite 2 phase region
- 铁素体更耐石墨引起的碳扩散
- Ferrite is more resistant to carbon diffusion from the graphite
- 奥氏体晶格内很容易保持比铁素体高2%的碳含量
- Austenite can readily hold up to 2% more carbon in the lattice than ferrite

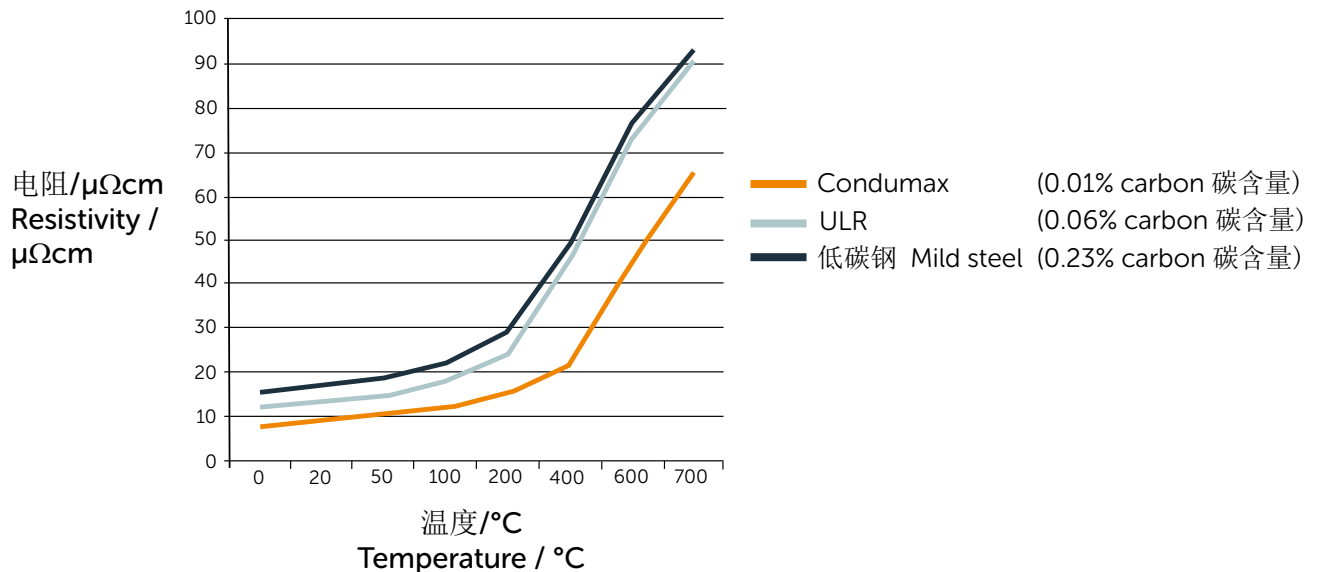
Condumax产品可在较高的温度下更长时间保持最佳的铁素体相，减少碳的吸收并确保较低的电阻率，从而延长了产品的使用寿命。

Our Condumax will remain at the optimum ferrite phase for longer at higher temperatures, reducing carbon intake and ensuring lower resistivity for longer life.



不同碳含量的电阻率

Electrical resistivity for different carbon levels



3 起重机导轨 CRANE RAIL



3 起重机导轨 CRANE RAIL

适用于高架龙门起重机和落地式起重机

起重机导轨具有各种强度和尺寸；公司与领先的起重机导轨安装商合作，拥有为全球范围内许多重大项目提供导轨的丰富业绩。

公司的特色在于业务模式，选择我们的导轨产品将为客户带来以下利益：

- 公司建立了强大的合作关系- 为客户提供有关其业务和产品收益的指南和解决方案
- 公司具有丰富的炼钢专业知识，能够提供提高承重能力的导轨，并通过改善磨损性能，延长导轨使用寿命
- 凭借各种规格导轨的常规轧制程序以及专用的起重机导轨生产装备，可为世界各地的客户提供及时的交货

除了全系列的欧洲起重机导轨之外，还可以按照EN 10204标准3.1生产美国规格及其它专用导轨，并按标准提供检验证书。

For use in overhead gantry and floor-mounted crane applications

Our crane rails are available in diverse strengths and sizes; we have a strong track record of supplying major projects worldwide, working alongside leading crane rail installers.

What makes us different is our approach to business. The key benefits of choosing our crane rail products are:

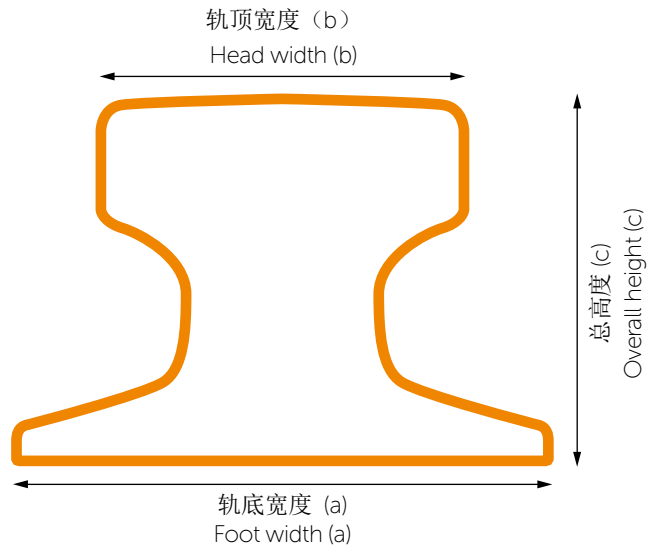
- We build collaborative relationships - offering guidance and solutions to our customers to the benefit of their business and products
- Our steel making expertise provides the capability to offer products that can increase the crane rail's load-bearing capability and extend its life span through improved wear performance
- With a regular rolling programme of each rail size coupled with our dedicated crane rail stockholding facilities, we offer customers all over the world just-in-time delivery

As well as a full range of European crane rails, we can also produce American and special crane rails with inspection certificates issued in full accordance with EN 10204 type 3.1.



3 起重机导轨 CRANE RAIL

起重机导轨截面 Crane rail cross section



产品系列 Product range

以下起重机导轨，可以按订单从库存供货，或按订单生产。

The following crane rail profiles are available and can be supplied from stock or rolled to order.

截面 Section	标准 Standard	每米质量 Mass per metre (kg/m)	截面积 Area of cross section (cm ²)	轨底宽度 Foot width (a) mm	轨顶宽度 Head width (b) mm	总高度 Overall height (c) mm
A65	DIN 536-1	43.1	54.9	175	65	75
A75	DIN 536-1	56.2	71.6	200	75	85
A100	DIN 536-1	74.3	94.7	200	100	95
A120	DIN 536-1	100.33	127.4	220	120	105
A150	DIN 536-1	150.3	191.4	220	150	150
CR87*	英国钢铁公司规格 British Steel spec	86.8	110.5	152.4	101.6	152.4
CR89	英国钢铁公司规格 British Steel spec	89.8	114.4	178	102	114
CR125	英国钢铁公司规格 British Steel spec	125.15	159.6	140	140	152

*也称为 MRS87a
Also referred to as MRS87a

公司还能够生产包括CR104、CR105、CR135、CR171、CR175的美制系列导轨以及专用导轨MRS73、MRS86、MRS125、MRS192、MRS221、AS86、CR73、CR100、CRS140、JKL55、SP100、SP120。请联系我们来讨论你的要求。

We also have scope to produce the American range rails including CR104, CR105, CR135, CR171 and CR175 and special rails MRS73, MRS86, MRS125, MRS192, MRS221, AS86, CR73, CR100, CRS140, JKL55, SP100 & SP120. Please contact us to discuss your requirements.

3 起重机导轨 CRANE RAIL

按牌号与规格的产能 **Grade capability by size**

	DIN 536-1		BS	
	690	880	90V	1100V
A65				
A75				
A100				
A120				
A150				
起重机导轨 87 Crane rail 87				
起重机导轨 89 Crane rail 89				
起重机导轨 125 Crane rail 125				

取样分析 **Ladle analysis**

牌号 Grade	标准 Standard		C	Si	Mn	P	S	V	Cr
690	DIN 536-1	Min	0.40	-	0.80	-	-	-	-
		Max	0.60	0.35	1.20	0.045	0.045	-	-
880	DIN 536-1	Min	0.60	-	0.80	-	-	-	-
		Max	0.80	0.50	1.30	0.045	0.045	-	-
90V	英国钢铁公司规格 British Steel spec	Min	0.50	-	0.80	-	-	0.06	-
		Max	0.70	0.50	1.40	0.030	0.030	0.20	-
110CrV	英国钢铁公司规格 British Steel spec	Min	0.65	0.15	0.90	-	-	0.05	0.20
		Max	0.85	0.30	1.30	0.030	0.030	0.15	0.80

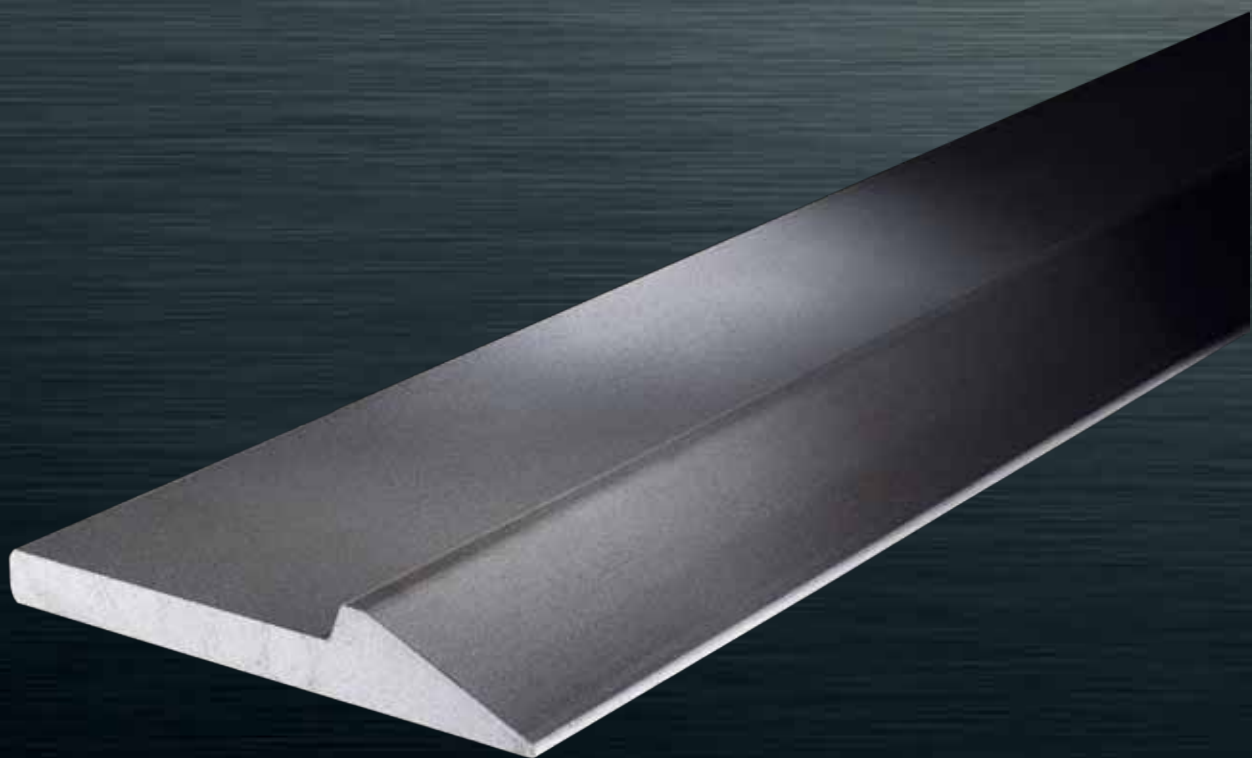
力学测试 **Mechanical testing**

根据EN 10002-1标准，确定拉伸性能。最低强度要求如下：

Tensile properties are determined in accordance with EN 10002-1. The minimum strength requirements are as follows:

牌号 Grade	最小屈服强度 Minimum yield (MPa)	最小UTS Minimum UTS (MPa)	硬度 Hardness (HBN)
690	355	690	204
880	440	880	260
90V	540	880	260
110CrV	600	1100	320

4 切边耐磨部件 — CUTTING EDGE



4 切边耐磨部件 CUTTING EDGE

用于耐磨部件

公司生产优质切边系列型材，为挖掘机铲斗应用提供更好的耐磨性并延长其使用寿命

我们为客户提供广泛的开放式辊型，也可按照客户的特殊要求设计专门的辊型和工具，轧辊将为客户保存，以满足客户后续需求。我们提供许多轮廓规格和设计，包括单斜面口。

广泛的标准规格是根据可靠的轧制表生产的，这意味着可以定期提供各种规格产品。

标准硼钢系列：

- 热处理后，具有高强度和高韧性
- 可用于“焊接”应用

标准高碳钢系列：

- 与硼钢系列相比，具有较低的抗拉强度和韧性
- 特别适合平地机应用

For wear part applications

We produce a range of high-quality cutting edge profiles providing additional wear resistance and extended life for excavator bucket applications.

Customers can choose from an extensive range of 'open roll' profiles, or specify unique designs, where rolls and tooling will be reserved for individual customer use. We can produce many profile sizes and designs, including single bevels.

Our broad range of standard dimensions is produced on a dependable rolling schedule meaning all sizes are regularly available.

Our standard boron steel range:

- Offers high strength and toughness after heat treatment
- Can be used for 'weld in' applications

Our standard high carbon range:

- Offers lower tensile strength and toughness compared with the boron range
- Particularly suitable for motor grader applications



4 切边耐磨部件 CUTTING EDGE

产品系列

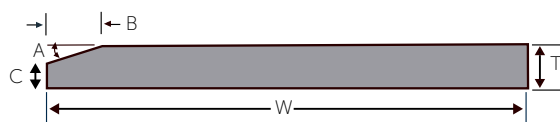
可提供适用于铲斗边缘/铲刀的各种单斜面和双斜面板材以及铲尖和平地杆。

Product range

We offer a wide variety of single and double bevel flats as well as arrowhead and grader bar profiles suitable for a broad range of bucket edge/blade applications.

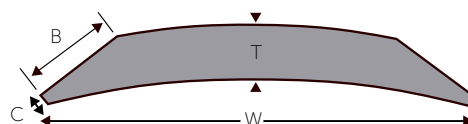
单斜面板材 Single bevel flats

型材 Profile	宽度 Width mm (W)	标距 Gauge mm (T)	重量 Weight Kg/m	斜面角度 Bevel angle (A)	斜面宽度 Bevel width mm (B)	尖端高度 Tip height mm (C)
SB244-25	244	25	44.46	22.6	45.60	6
SB244-30	244	30	54.07	22.6	45.60	11
SB244-32	244	32	57.91	22.6	45.60	13
SB281	281	32	65.00	22.6	57.60	8
SB299	299	40	85.25	22.6	72.00	10
SB304	304	44.45	97.40	22.6	69.10	15.7



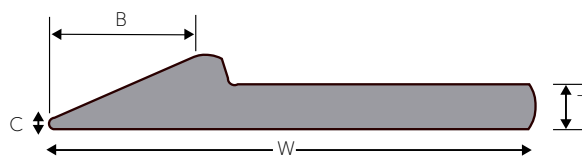
双斜面曲板材 (碳钢和硼钢) Grader bars (carbon and boron steel)

型材 Profile	宽度 Width mm (W)	标距 Gauge mm (T)	重量 Weight Kg/m	斜面宽度 Bevel width mm (B)	尖端高度 Tip height mm (C)
GB152-12	152.4	12.7	13.26	33.3	2.5
GB152-13	152.4	13.3	13.98	33.3	3.1
GB152-15	152.4	15.9	17.09	33.3	5.6
GB152-19	152.4	19.1	20.91	33.3	8.8
GB203-15	203.2	15.88	23.17	33.3	2.39
GB203-16	203.2	16.5	24.14	33.3	3.01
GB203-19	203.2	19.05	28.13	33.3	5.56
GB203-25	203.2	25.4	38.05	33.3	11.91



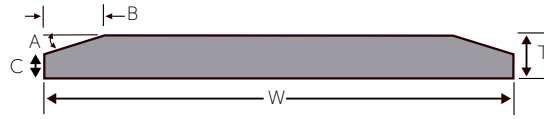
箭头型钢 Arrowheads

型材 Profile	宽度 Width mm (W)	标距 Gauge mm (T)	重量 Weight Kg/m	斜面角度 Bevel angle (A)	斜面宽度 Bevel width mm (B)	尖端高度 Tip height mm (C)
AH203-19	203.2	19.1	31.40	24.3	60.3	4.6
AH203-22	203.2	22.2	36.50	24.3	60.3	7.7
AH203-25	203.2	25.4	41.62	24.3	60.3	10.9
AH203-28	203.2	28.6	46.73	24.3	60.3	14
AH203-31	203.2	31.8	51.84	24.3	60.3	17.2
AH255-28	255	28.5	65.65	25	98.7	11.2
AH255-40	255	40	88.66	25	98.7	22.7



4 切边耐磨部件 CUTTING EDGE

双斜面板材 Double bevel flats



型材 Profile	宽度 Width mm (W)	标距 Gauge mm (T)	重量 Weight Kg/m	斜面角度 Bevel angle (A)	斜面宽度 Bevel width mm (B)	尖端高度 Tip height mm (C)	型材 Profile	宽度 Width mm (W)	标距 Gauge mm (T)	重量 Weight Kg/m	斜面角度 Bevel angle (A)	斜面宽度 Bevel width mm (B)	尖端高度 Tip height mm (C)
DB203-16	203.2	16	23.79	25	23.60	5	DB330-35	330	35	86.93	22.5	32.60	21.5
DB203-19	203.2	19	28.53	25	23.60	8	DB330-38	330	38	94.65	22.5	32.60	24.5
DB203-22	203.2	22	33.28	25	23.60	11	DB330-40	330	40	99.80	22.5	32.60	26.5
DB203-25	203.2	25	38.02	25	23.60	14	DB330-41	330	41	102.38	22.5	32.60	27.5
DB203-28	203.2	28.5	43.55	25	23.60	17.5	DB330-45	330	45	112.68	22.5	32.60	31.5
DB254-19	254	19	35.37	25	27.90	6	DB330-50	330	50	125.55	22.5	32.60	36.5
DB254-25	254	25	47.25	25	27.90	12	DB330-60	330	60	151.30	22.5	32.60	46.5
DB254-29	254	29	55.16	25	27.90	16	DB359-30	359	30	74.94	22.5	55.50	7
DB254-32	254	32	61.10	25	27.90	19	DB359-32	359	32	80.56	22.5	55.50	9
DB254-35	254	35	67.04	25	27.90	22	DB359-35	359	35	88.99	22.5	55.50	12
DB254-38	254	38	72.97	25	27.90	25	DB359-40	359	40	103.04	22.5	55.50	17
DB254-41	254	41	78.91	25	27.90	28	DB359-45	359	45	117.10	22.5	55.50	22
DB254-45	254	45	86.83	25	27.90	32	DB359-50	359	50	131.20	22.5	55.50	27
DB279-25	279	25	48.08	22.5	45.90	6	DB406-20	406	20	58.71	22.5	39.80	3.5
DB279-35	279	35	70.02	22.5	45.90	16	DB406-22	406	22	65.05	22.5	39.80	5.5
DB305-22	305	22	48.63	22.5	37.40	6.5	DB406-25	406	25	74.56	22.5	39.80	8.5
DB305-25	305	25	55.76	22.5	37.40	9.5	DB406-28	406	28.5	85.66	22.5	39.80	12
DB305-28	305	28.5	64.09	22.5	37.40	13	DB406-30	406	30	90.40	22.5	39.80	13.5
DB305-30	305	30	67.66	22.5	37.40	14.5	DB406-32	406	32	96.75	22.5	39.80	15.5
DB305-32	305	32	72.42	22.5	37.40	16.5	DB406-35	406	35	106.26	22.5	39.80	18.5
DB305-35	305	35	79.56	22.5	37.40	19.5	DB406-38	406	38	115.77	22.5	39.80	21.5
DB305-38	305	38	86.69	22.5	37.40	22.5	DB406-40	406	40	122.12	22.5	39.80	23.5
DB305-41	305	41	93.83	22.5	37.40	25.5	DB406-41	406	41	125.29	22.5	39.80	24.5
DB305-44	305	44.5	102.15	22.5	37.40	29	DB406-44	406	44.45	136.38	22.5	39.80	27.95
DB330-19	330	19	45.73	22.5	32.60	5.5	DB406-45	406	45	137.97	22.5	39.80	28.5
DB330-22	330	22	53.45	22.5	32.60	8.5	DB406-50	406	50	153.82	22.5	39.80	33.5
DB330-25	330	25	61.18	22.5	32.60	11.5	DB406-60	406	60	185.52	22.5	39.80	43.5
DB330-28	330	28.5	70.19	22.5	32.60	15	DB480-35	480	35	125.76	22.5	42.70	17.3
DB330-30	330	30	74.06	22.5	32.60	16.5	DB480-40	480	40	144.62	22.5	42.70	22.3
DB330-32	330	32	79.02	22.5	32.60	18.5	DB480-45	480	45	163.48	22.5	42.70	27.3

注：
如需其它标距和斜面角度产品，请与我们联系。对于相同的斜角宽度的产品，公司可以生产各种系列厚度规格。

Notes:

Please talk to us about the possibility of supplying alternative gauges and bevel angles to those shown. We can produce a range of thicknesses for the same bevel width.

4 切边耐磨部件 CUTTING EDGE

硼钢

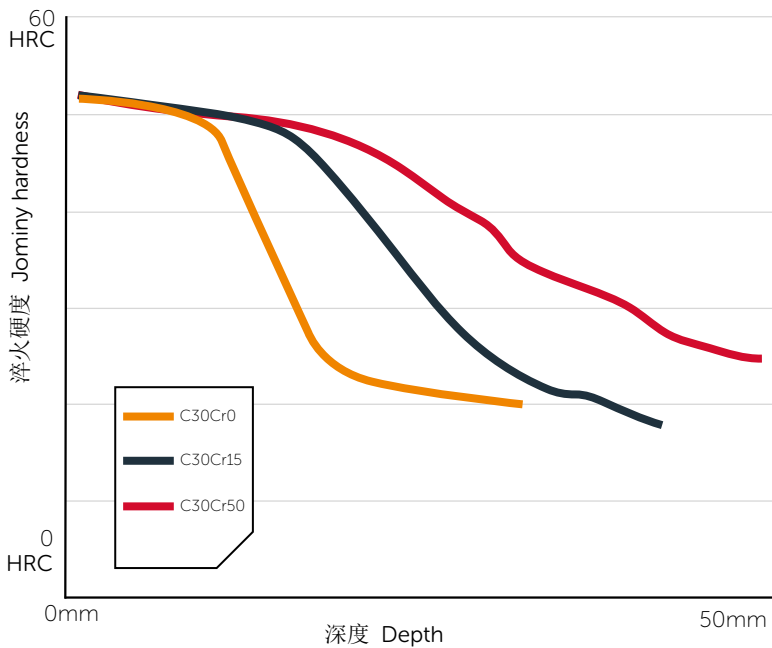
提供三种标称碳含量为0.3%的硼处理钢。可以增加合金含量，满足客户将型材截面厚度和热处理淬火强度与淬透性相匹配的要求。这样可确保成品刀片获得合适的芯部硬度。

Boron steel

We offer 3 boron-treated steels with a nominal carbon content of 0.3%. Increasing levels of alloy content are available to allow customers to match section thickness and heat-treatment quench severity with hardenability. This ensures a suitable core hardness is achieved in the finished blade.

	钢材规格 Steel specification	碳含量Carbon (%)	铬含量 Chrome (%)
标准碳钢 Standard	C30Cr0	0.30	-
Standard	C30Cr15	0.30	0.15
carbon	C30Cr50	0.30	0.50

淬透性曲线- 硼钢 (标准碳含量)
Hardenability curves - Boron steel (standard carbon content)



箭头型钢

建议采用以下牌号。它们适用于“焊接”铲斗边缘以及螺栓连接的组件（按焊接要求）。

Steel for arrowhead flats

We recommend use of the following steel grades. They are suitable for 'weld in' bucket edges as well as bolt-on applications (appropriate weld procedure required).

型材 Section	钢材规格 Steel specification	碳含量 Carbon (%)	铬含量 Chrome (%)
AH203	C25Cr40	0.25	0.40
AH255	C20Cr50	0.20	0.50

4 切边耐磨部件 CUTTING EDGE

降低含碳量的硼钢

可提供更低标称碳含量（0.20%~0.25%）的系列硼处理钢。对刀片进行热处理可提高其韧性，而不会显著降低其硬度。标准含碳量和低含碳量硼钢的最佳应用取决于截面厚度和热处理方式，特别是淬火强度。

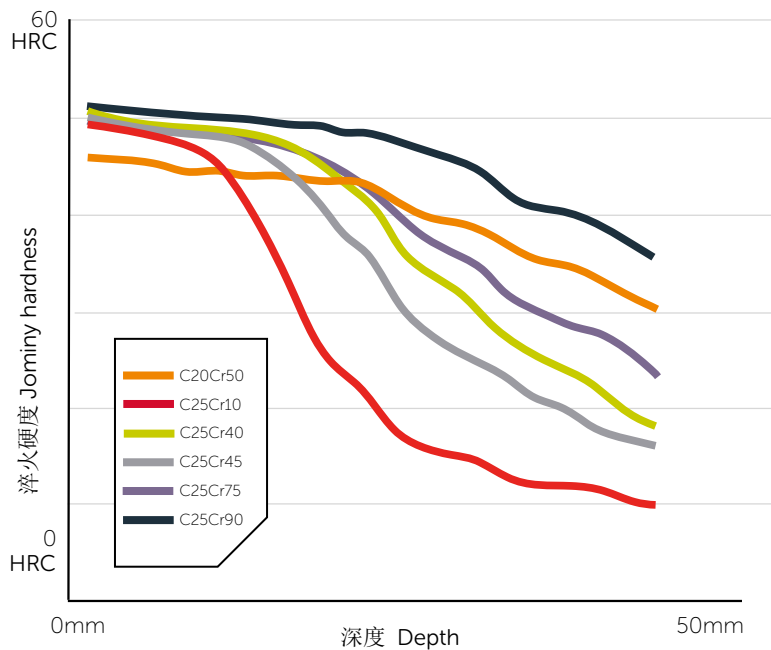
Boron steels with reduced carbon

A range of boron-treated steels is available with a lower nominal carbon content of between 0.20% and 0.25%. Heat-treatment of the blade improves toughness levels without significant loss of hardness. The optimum application of our standard and lower carbon range of boron steels depends both on the section thickness and on heat-treatment, particularly with respect to the quench severity.

	钢材规格 Steel specification	碳含量 Carbon (%)	铬含量 Chrome (%)
低碳钢 Low carbon	C20Cr50	0.20	0.50
	C25Cr10	0.25	0.10
	C25Cr40	0.25	0.40
	C25Cr45	0.25	0.45
	C25Cr75	0.25	0.75
	C25Cr90	0.25	0.90

淬透性曲线- 硼钢（碳含量降低）

Hardenability curves - Boron steel (reduced carbon content)



5 叉车型钢
— FORKLIFT
PROFILES



5 叉车型钢 FORKLIFT PROFILES

物料搬运设备的叉车桅杆型材和叉车臂钢板

公司在叉车零部件生产领域已经拥有40多年的经验，是世界领先的供应商。

拥有全系列产品，从小型仓库叉车到大型集装箱搬运车，包括：

- 叉车桅杆型钢- 包括U型、I型、J型和偏移J型
- 车架（悬架）型材
- 用于制造叉臂钢板
- 产品系列包括可为所有客户提供“开放的”轧辊孔型，用于生产桅杆和车架型材；独特的“定制”孔型设计，为客户提供专用轧辊和工具。

公司始终致力于提供卓越的表面质量；一项200万英镑的投资计划确保英国钢铁公司能够持续提供满足当今市场不断增长的需求产品。

Mast sections and fork arm flats for material handling equipment

We are a world-leading supplier with over 40 years' experience in producing forklift truck components.

Our extensive range of products is used in everything from the smallest warehouse truck to the largest container handler and includes:

- Mast profiles – including U, I, J and offset J profiles
- Carriage (hanger) bar profiles
- Flats for manufacturing fork arms
- Our range includes 'open' roll profiles available to all customers and for mast and carriage bar profiles; unique 'bespoke' profile designs where rolls and tooling are reserved for exclusive customer use

We're focused on achieving exceptional surface quality; a £2m investment programme has enabled British Steel to continue delivering products that satisfy the ever-increasing demands of today's marketplace.



5 叉车型钢 FORKLIFT PROFILES

叉车桅杆型钢

公司认识到桅杆组件对于叉车性能至关重要，与客户紧密合作，我们为每种叉车开发最佳的桅杆形状和钢材性能。

世界一流的产品能力

制造各种类型的槽钢、工字钢、“J”和“更多类似J”型钢以及用于桅杆组件的车架型钢。

在工艺上持续投资并不断改进，确保了出色的形状、尺寸公差和表面质量。

低碳、高强度、低合金钢系列非常适合制造桅杆。

下面的开放式孔型尺寸表，说明我们可以生产全系列产品（具体取决于现有模具）。

Forklift mast profiles

We recognise the mast assembly as crucial to overall truck performance and work closely with our customers to develop the optimum mast shape and steel properties for every truck application.

World beating product capability

We manufacture a wide range of channel, beam, 'J' and 'offset J' and carriage bar sections for mast assembly.

Ongoing investment and continuous improvement in our processes are ensuring excellent shape, dimensional tolerances and surface quality.

Our range of low-carbon, high-strength, low-alloy steels is ideal for mast manufacture.

The open roll profile sizes below are illustrative of the wide range that we can produce (subject to tooling availability).

槽钢

Channels

尺寸 Size (mm)	米重 Kg/m
121 x 41	20.9
135 x 53	28.6
157 x 61	35.9
166 x 65	19.8
175 x 66	42.9
201 x 71	52.3
252 x 90	78.5
145 x 48*	27.1



工字钢

Beams

尺寸 Size (mm)	米重 Kg/m
98 x 65	19.4
114 x 66	25.3
130 x 81	34.1
140 x 76	33.1
149 x 67	26.7
152 x 83	40.5
175 x 90	51.4
216 x 89	59.1
229 x 127	87.2
101 x 60*	17.8
140 x 70*	30.9
175 x 76*	42.0



特殊槽钢

Special channels

尺寸 Size (mm)	米重 Kg/m
145 x 54 x 48	26.7
163 x 61 x 48	29.0
185 x 67 x 54	39.2
226 x 73 x 54	50.6



J & Offset J

尺寸 Size (mm)	米重 Kg/m
103 x 63 x 38	17.3
121 x 68 x 41	25.2
135 x 90 x 53	34.9
157 x 105 x 61	43.9



请与我们联系以讨论您的具体要求。

Please contact us to discuss your specific requirements

5 叉车型钢 FORKLIFT PROFILES

叉臂钢板

标准牌号

提供两种标准钢板规格。它们具有不同的末端淬火淬透性，以确保在淬火和回火后可以实现整个厚度范围内的力学性能。可按要求提供其他钢板规格。

叉臂钢板系列尺寸

Fork arm flats dimensional capability

厚度 Thickness (mm)	宽度 Width (mm)									
	100	120	122	123	150	180	200	230	250	
35	●	●	●	●						
40	●	●	●	●	●					
45	●	●	●	●	●	●	●			
50	●	●	●	●	●	●	●			
55	●	●	●	●	●	●	●			
60	●	●	●	●	●	●	●			
65					●	●	●			
70					●	●	●			
75					●	●	●	●	●	
80						●	●	●	●	
85						●	●	●	●	
90						●	●	●	●	
95							●	●	●	
100							●	●	●	
105								●	●	
110								●	●	
115								●	●	
120								●	●	
125								●	●	
130								●	●	
135								●	●	
140								●	●	
145								●	●	
150								●	●	

图注 Key

- 通常供应C33Mo5牌号
Typically supplied in C33Mo5
- 通常供应C30Mo17牌号
Typically supplied in C30Mo17

标准化学成分 Standard chemistries

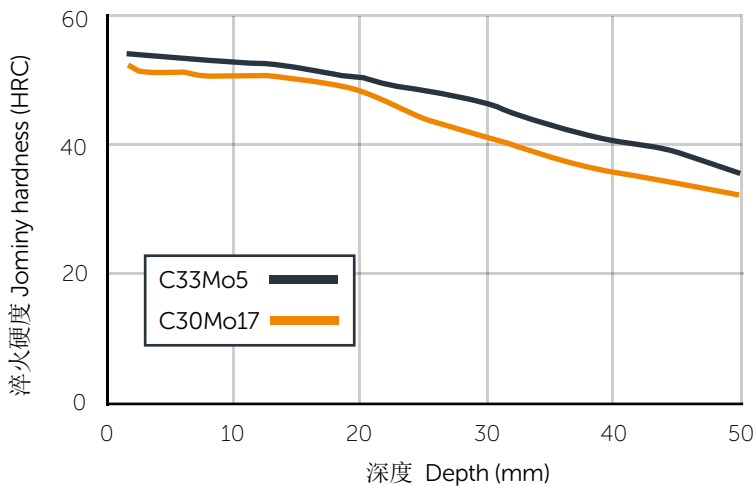
	C	Cr	Mn	Mo	B
C33Mo5	0.33	0.5	1.5	0.05	0.002
C30Mo17	0.30	0.5	1.2	0.17	0.002

淬火和回火后的典型力学性能

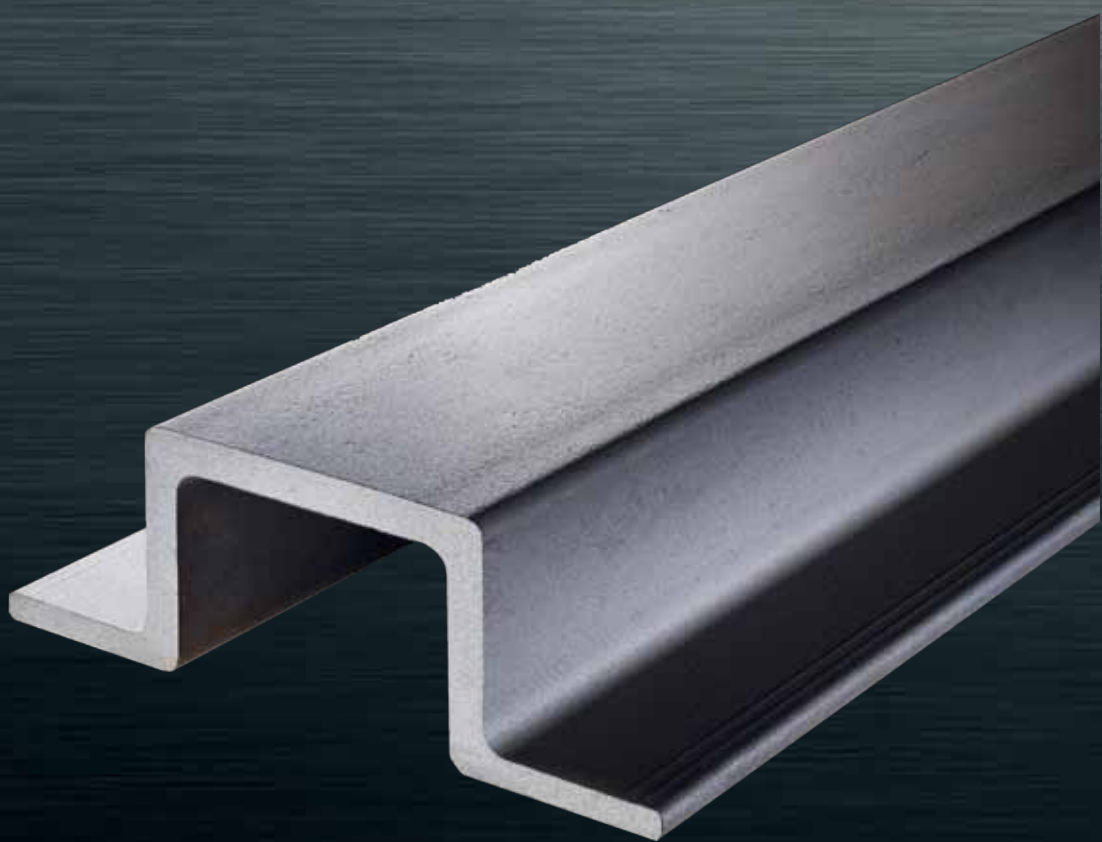
Typical mechanical properties post quench and temper

钢板规格 Steel Specification	屈服强度 Yield strength	拉伸强度 Tensile strength	20°C下 Charpy冲击 强度 Charpy at 20°C	-20°C下 Charpy冲击 强度 Charpy at -20°C
C33Mo5	890	970	>47	>27
C30Mo17	950	1050	>47	>27

淬透性曲线
Hardenability curves



6 矿井帽 TOPHAT



6 矿井帽 TOPHAT

采矿应用的井道导槽

顶帽式井道导槽可为垂直矿井提供高质量、高成本效益的提升系统。它们旨在在现代化深矿作业中提供最大的生产率和使用寿命。

公司已经与采矿设备制造商合作多年，并且了解必须精心设计和制造相关设备，以满足严格的要求。

独特的开放式顶帽井道导槽具有许多优点，包括：

- 更快的安装和更换
- 预安装搭板连接
- 经济有效的安装
- 易于检查和发现缺陷
- 比其他解决方案的使用寿命长3倍
- 尺寸控制和直线度好，意味着井道导槽摆动更少，提升更平稳
- 其硬度确保更快的提升速度，并且更耐撞击

Shaft guides for mining applications

Our tophat shaft guides offer a high-quality, cost-effective hoisting system for use in vertical mineshafts. They're designed to give maximum productivity and service life in modern deep mine operations.

We have been working with the manufacturers of mining equipment for many years and understand equipment must be carefully designed and built to meet exacting demands.

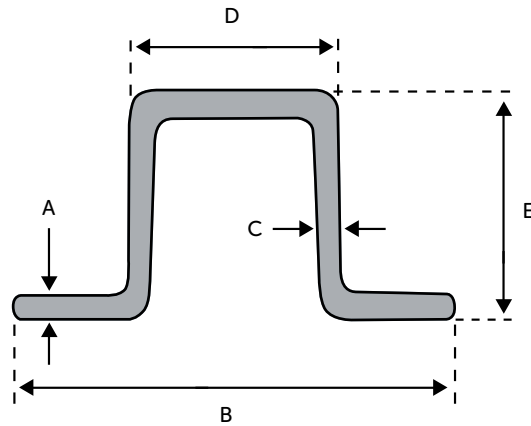
Our unique open section tophat guides offer many benefits including:

- Faster installation and replacement
- Pre-installation of butt strap connections
- Cost-effective installation
- Easier inspection and detection of defects
- 3 x longer life than alternative solutions
- Close-dimensional control and straightness, meaning less swing in the shaft and a smoother lift
- Faster hoisting speeds due to their stiffness and higher resistance to slamming forces



6 矿井帽 TOPHAT

标准尺寸 Standard dimensions



尺寸 Size	重量 Weight	模量 Modulus Ix (cm ⁴)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
232 x 98mm*	45.27kg/m	671	16	232	13.4	152	98
305 x 102mm	55.07kg/m	997	12.7	305	15.9	152	102
320 x 150mm	71.39kg/m	2815	13.5	320	18	150	150
340 x 175mm	85.94kg/m	4392	15	340	20	175	175

*由Robor授权提供，请联系我们以获取更多信息

*Available under licence from Robor, contact us for more information

所有4种规格的尺寸如下：

- 12mm长以上的规格，最大直线度5mm
- 最大扭曲度3mm（典型值<1mm）
- 提供井道导槽，长度为6-17m，剪切公差为+100/-0mm
- 提供冷锯长度，以满足个别要求，剪切公差为+0/-2mm

All 4 sizes are offered with dimensions as follows:

- Straightness 5mm max over 12m length
- Twist 3mm max (typical < 1mm)
- Shaft guides are available in lengths from 6-17m, with a cutting tolerance of +100/-0mm
- Cold sawn lengths are also available to suit individual requirements, with a +0/-2mm cutting tolerance

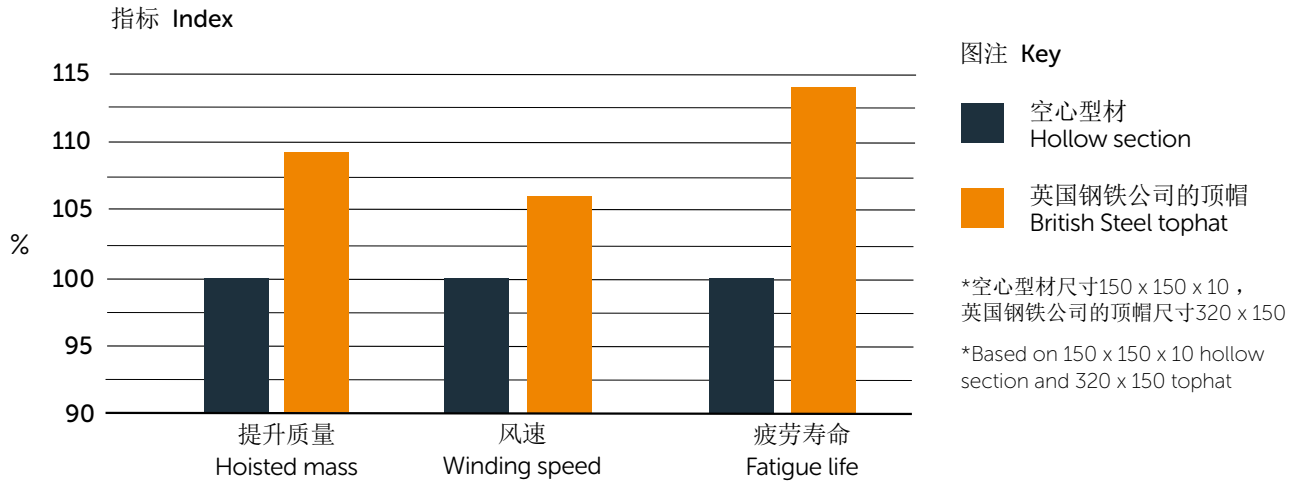
标准牌号：

- EN 10025-2: 2004, S355JR+AR, S355J2+AR
- SANS 50025-2: 2009, S355JR+AR, S355J2+AR
- CSA G40.21-04: 2004, 300W, 350W, 350WT
- AS/NZS 3679.1: Grade 350

Standard steel grades:

- EN 10025-2: 2004, S355JR+AR, S355J2+AR
- SANS 50025-2: 2009, S355JR+AR, S355J2+AR
- CSA G40.21-04: 2004, 300W, 350W, 350WT
- AS/NZS 3679.1: Grade 350

相对性能 Relative performance



- 图中显示了在3个不同因素方面顶帽矿井导槽相对于其他导轨的优越性能
- 该分析仅基于在导向平面上施加在矿井钢结构上的动态力
- 该图假定所有导向段均用于相同罐梁间距（即井底矿仓间距固定）

- The chart shows the superior performance of tophat shaft guides relative to other guide rail sections on 3 different factors
- The analysis is based on the dynamic forces applied to the shaft steelwork in the plane of the guides only
- Graph assumes all guide sections are used with the same buntion spacing (i.e. shaft pocket spacing is already fixed)

6 矿井帽 TOPHAT

技术参数 Technical data

232x98mm (45.27kg/m) – SANS 50025:2 S355JR+AR

		形心 Centroid	质心 Centre of mass
周长 Perimeter	771.917	X:116.165	X:116.165
表面积 Surface area	5773.66	Y:54.6141	Y:54.6141
质量 Mass	45.2805	Z:-1.0599e-019	Z:-1.0599e-019

	惯性矩 Moments of inertia	惯性积 Products of inertia
质心 Centre of mass	X:55768.9	XY:-30.0664
	Y:212574	XZ:1.40654e-020
	Z:4268343	YZ:-5.64846e-018

主力矩 Principal moments	主要方向 Principal directions		
X:55768.9	1.000000	0.000912	0.000000
Y:212574	0.000912	1.000000	-0.000000
Z:268343	-0.000000	0.000000	1.000000

回转半径 Radii of gyration	X	35.0946
	Y	68.5172
	Z	76.892

305x102mm (55.1kg/m) – SANS 50025:2 S355JR+AR

		形心 Centroid	质心 Centre of mass
周长 Perimeter	941.042	X:152.36	X:152.36
表面积 Surface area	7016.53	Y:50.7022	Y:50.7022
质量 Mass	55.0278	Z:-1.62353e-014	Z:-1.62353e-014

	惯性矩 Moments of inertia	惯性积 Products of inertia
质心 Centre of mass	X:78195.5	XY:82.3751
	Y:343178	XZ:9.9699e-014
	Z:421374	YZ:1.43119e-012

主力矩 Principal moments	主要方向 Principal directions		
X:78195.5	1.000000	0.000311	0.000000
Y:343178	-0.000311	1.000000	0.000000
Z:421374	-0.000000	-0.000000	1.000000

回转半径 Radii of gyration	X	37.6964
	Y	78.9712
	Z	87.507

6 矿井帽 TOPHAT

技术参数 Technical data

320x150mm (71.39kg/m) – SANS 50025:2 S355JR+AR

		形心 Centroid	质心 Centre of mass
周长 Perimeter	1140.91	X:159.968	X:159.968
表面积 Surface area	9046.97	Y:74.9227	Y:74.9227
质量 Mass	70.9517	Z:-4.78417e-014	Z:-4.78417e-014

	惯性矩 Moments of inertia	惯性积 Products of inertia
质心 Centre of mass	X:220763	XY:136.929
	Y:448707	XZ:-4.44512e-013
	Z:669470	YZ:4.48865e-011

主力矩 Principal moments	主要方向 Principal directions		
X:220763	1.000000	0.000601	-0.000000
Y:448707	-0.000601	1.000000	0.000000
Z:669470	0.000000	-0.000000	1.000000

回转半径 Radii of gyration	X	Y	Z
	55.7804	79.5243	97.1369

340x175mm (85.94kg/m) – SANS 50025:2 S355JR+AR

		形心 Centroid	质心 Centre of mass
周长 Perimeter	1273.97	X:170.000	X:170.000
表面积 Surface area	1107.68	Y:-89.1562	Y:-89.1562
质量 Mass	85.94	-	-

	惯性矩 Moments of inertia	惯性积 Products of inertia
质心 Centre of mass	X:46099753.6	XY:0.0000
	Y:83962559.1	-
	-	-

主力矩 Principal moments	主要方向 Principal directions		
X:46099753.6	1.000000	0.000000	-
Y:83962559.1	0.000000	1.000000	-
-	-	-	-

回转半径 Radii of gyration	X	Y	Z
	64.4225	86.9423	-

7 履带板型钢 — TRACKSHOE PROFILES



7 履带板型钢 TRACKSHOE PROFILES

增强抗裂性能和延长履带板寿命

我们提供制造土方工程设备部件的全系列特种型钢。我们的“长杆”型系列履带板型钢是全球最全的系列产品。

与土方工程设备行业的客户紧密合作，针对这些苛刻的应用对钢材和设计进行了优化。久经考验的履带板材为重型设备性能提供保证，并以为客户的加工带来优势。

履带板及其相关服务的主要优点包括：

- 延长履带板的使用寿命- 低碳低硫钢即使在恶劣的工作条件下也能提供更高的抗裂性能
- 可靠的质量 - 工厂的持续投资，包括出色的矫直能力，提供可靠质量的产品，可实现快速有效加工
- 改进的加工效率 - 环保履带板具有出色的预热处理力学性能，因此可以放心地优化工艺效率
- 快速响应 - 交货时间短、批量小（130吨起）意味着可以迅速响应客户的需求
- 全球支持 - 在出口履带板方面拥有丰富的经验。完善的物流链以及国际销售支持网络，意味着无论您身在何处，公司都能够顺利交付产品

For enhanced crack-resistance and prolonged shoe life

We supply an extensive range of special profiles for the manufacture of earthmoving equipment components. Our range of 'long bar' profiles for track shoes is the most comprehensive in the world.

We work closely with our customers in the earth moving equipment industry, optimising both steel and design for these demanding applications. Our proven track shoe sections deliver benefits for heavy equipment performance and customer processes.

Major benefits of our track shoe sections and related services include:

- Prolonged shoe life – our low carbon and sulphur steels deliver improved crack resistance – even in harsh operating conditions
- Reliable quality – our ongoing investment in plant – including superior straightening capability – delivers products of reliable quality for fast and efficient processing
- Improved process efficiency – our green track shoe offers excellent pre-heat treatment mechanical properties – so you can be confident of optimising your process efficiency
- Fast response – short lead times and small batch sizes (from as little as 130 tonnes) mean we can respond swiftly to your needs
- Global support – we have vast experience in exporting track shoes. Our well-established logistics chains coupled with our international sales support network, mean you can rely on us to deliver – wherever you are



7 履带板型钢 TRACKSHOE PROFILES

产品系列

根据客户要求，可生产长度为6m~12m的履带板型材，超出此范围的长度可按要求提供；还提供各种不同大小的捆扎，以满足客户的需求。型材宽度范围为173mm~369mm，也可以提供其它尺寸的产品。请与我们联系以讨论您的要求。

单齿履带板

- 为推土机提供出色的地面穿透力
- 适用于一般土壤/岩石地面- 取决于型材的厚度
- 更长的履刺- 改善牵引力

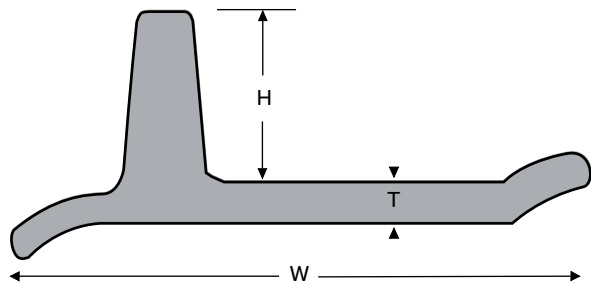
型材 Section	宽度 W (mm)	高度 H (mm)	厚度 T (mm)	米重 Kg/m	链节间距 Link pitch (mm)
SG179	179	62.7	9.10	19.37	165.9
SG180	180	47.0	9.00	18.06	156.0
SG181	181	49.0	9.50	19.31	159.8
SG193	193	52.3	11.20	22.01	159.0
SG197-23	197	57.2	11.50	23.72	170.0
SG197-25	197	57.2	12.70	25.60	170.0
SG199	199	55.0	12.00	25.19	170.5
SG200	200	47.0	11.00	21.49	171.5
SG232	232	65.0	12.00	31.04	203.2
SG237	237	58.7	13.80	32.50	196.2
SG245	245	71.5	14.70	38.76	203.2
SG248-44	248	71.4	15.00	44.67	210.3
SG248-48	248	71.4	16.67	48.47	210.3
SG249-37	249	66.5	13.50	37.29	215.9
SG249-41	249	66.5	16.00	41.84	215.9
SG250	250	65.0	14.30	40.88	216.0
SG263-57	263	77.8	19.10	57.29	228.6
SG263-70	263	93.0	23.00	70.58	228.6
SG268-50	268	80.0	17.00	50.26	228.6
SG268-59	268	80.0	19.00	59.25	228.6
SG276	276	76.5	17.50	48.30	228.6
SG285-62	285	84.0	19.00	62.60	240.0
SG285-64	285	84.0	20.00	64.59	240.0
SG289	289	79.0	19.00	64.31	250.5
SG292	292	76.0	17.00	54.80	250.5
SG299	299	100.0	23.00	83.71	260.4
SG303	303	89.7	20.60	74.93	260.4
SG304	304	88.0	22.00	77.51	260.4
SG322	322	93.0	23.00	83.81	280.0
SG369	369	102.0	25.00	103.00	317.5

Product range

The track shoe profiles we produce are supplied in customer lengths from 6m to 12m – lengths outside of this range may be available on request. We also offer a variety of different bundling configurations to suit your needs. Profile widths range from 173mm to 369mm. Alternative gauges may be available – please contact us to discuss your requirements.

Single grousers

- Superior ground penetration for bulldozers
- General soil/rocky ground - depending on thickness of profile
- Longer spike = improved traction

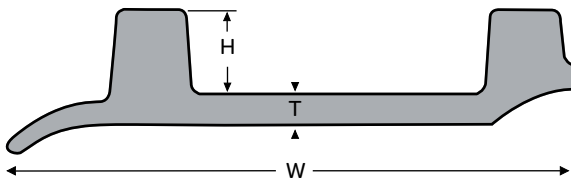


7 履带板型钢 TRACKSHOE PROFILES

双齿履带板

- 为装载机提供好的牵引力，对地面的损坏较小
- 履刺更短- 更好的机动性

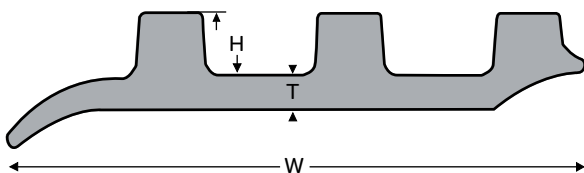
型材 Section	宽度 W (mm)	高度 H (mm)	厚度 T (mm)	米重 Kg/m	链节间距 Link pitch (mm)
DG202-26	202	31.0	11.5	26.17	172.5
DG202-28	202	31.0	13.0	28.39	172.5
DG217	217	35.0	13.0	33.04	190.5
DG250	250	37.0	16.5	48.12	216.0
DG252	252	49.0	15.5	50.17	216.0
DG308-71	308	49.5	21.0	71.90	258.5
DG308-80	308	49.5	25.0	80.17	258.5



三齿履带板

- 为挖掘提供稳定的操作平台/提高机动性
- 坚硬和柔软地面的适用性

型材 Section	宽度 W (mm)	高度 H (mm)	厚度 T (mm)	米重 Kg/m	链节间距 Link pitch (mm)
TG173	173	19.0	7.9	19.02	150.7
TG187	187	21.4	9.5	22.77	159.0
TG199-24	199	25.0	9.5	24.44	170.0
TG199-25	199	25.0	9.5	24.88	170.7
TG203-30	203	25.3	12.7	30.00	168.0
TG203-35	203	25.3	16.0	35.41	168.0
TG218	218	26.0	10.0	28.91	187.9
TG220-25	220	25.5	8.5	25.67	189.0
TG220-27	220	25.5	9.5	27.37	189.0
TG228-37	228	32.0	12.0	37.81	206.1
TG228-41	228	32.0	14.0	41.36	206.1
TG245-50	245	26.5	20.0	50.75	215.9
TG245-56	245	26.5	22.5	56.37	215.9
TG247	247	36.0	11.0	40.09	216.0
TG248	248	36.0	11.0	40.10	216.0
TG266	266	30.0	30.0	70.18	228.6



Double grousers

- Good traction for loaders with less damage to ground surface
- Shorter spikes = greater manoeuvrability

Triple grousers

- Stable operating platform/improved manoeuvrability for excavators
- Hard and soft ground applications

7 履带板型钢 TRACKSHOE PROFILES

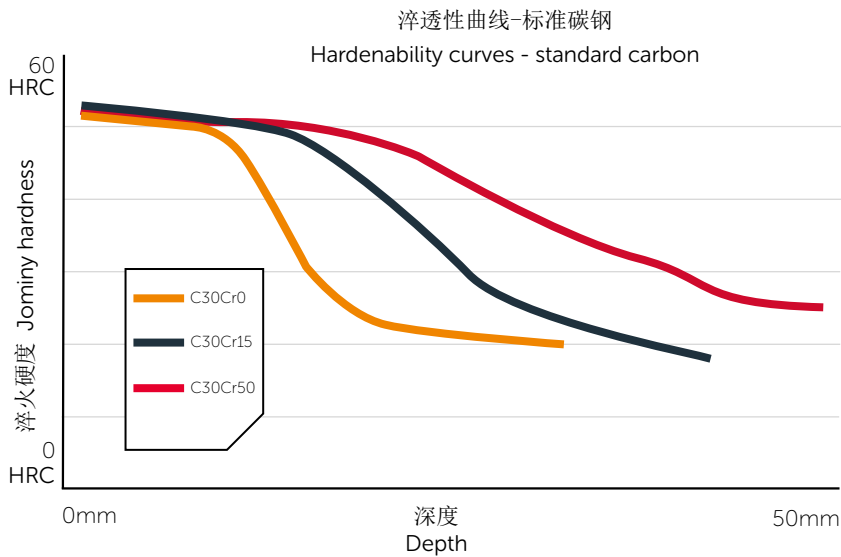
标准钢

提供一系列标称碳含量为0.3%的硼处理钢。可以增加合金含量，满足客户对淬透性、截面尺寸和热处理淬火强度的要求。这样可以确保成品履带板具有最合适的芯部硬度。

Standard steels

We offer a range of boron-treated steels with a nominal carbon content of 0.3%. Increased levels of alloy content are available to allow customers to match hardenability, section size and heat treatment quench severity. This ensures the most suitable core hardness in the finished track shoe.

	钢材规格 Steel specification	含碳量 Carbon (%)	含铬量 Chrome (%)
标准碳钢	C30Cr0	0.30	-
Standard	C30Cr15	0.30	0.15
carbon	C30Cr50	0.30	0.50



7 履带板型钢 TRACKSHOE PROFILES

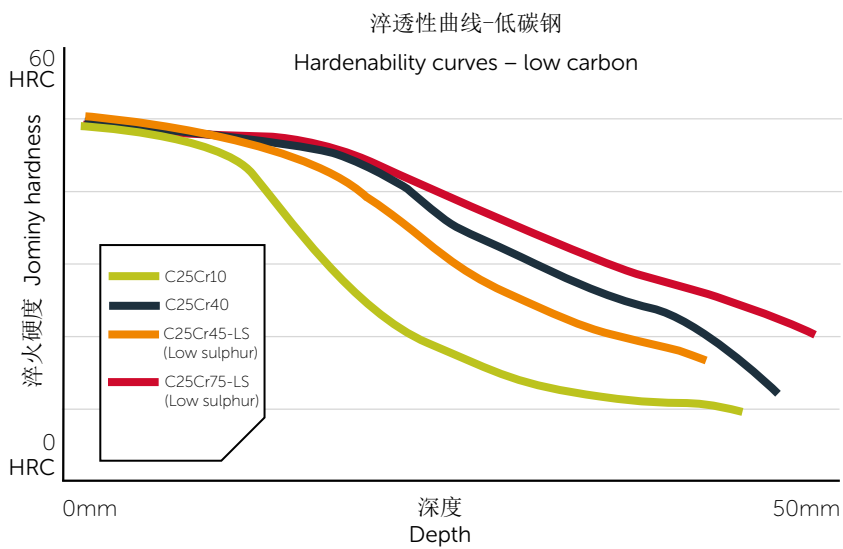
低碳钢

可以提供系列低硫含量和/或低碳含量（0.25%）的硼处理钢，这种材料提高了抗裂性，延长了履带板的使用寿命并提高其使用性能。

Lower carbon steels

A range of boron-treated steels is available with low sulphur and/or a lower carbon content of 0.25%. This improves crack resistance – prolonging shoe life and enhancing field performance.

	钢材规格 Steel specification	含碳量 Carbon (%)	含铬量 Chrome (%)
低碳钢	C25Cr10	0.25	0.10
Low	C25Cr40	0.25	0.40
carbon	C25Cr45-LS	0.25	0.45
	C25Cr75-LS	0.25	0.75



8 工业纯铁 (MBI)
— MELTING BASE
IRON (MBI)



8 工业纯铁（MBI）MELTING BASE IRON (MBI)

满足真空熔融超级合金钢的要求

拥有世界一流的炼钢专业技术，能够生产MBI（熔融工业纯铁）产品，以满足航空航天、汽车以及石油天然气等苛刻行业所需的严格化学要求。

拥有悠久的行业供货历史，了解提供一致的化学成分的重要性。

可一次生产250个MBI铸件，然后将其轧制成长度为6~12m、边长75mm的方坯。出色的尺寸控制和直线度提高了可堆垛能力，而公司的全球网络意味着可以按需要随时向客户提供产品。

For vacuum melted super alloys requirements

Our world-class steelmaking expertise provides the capability to produce MBI (Melting Base Iron) products to meet the exacting chemistry required by demanding sectors such as Aerospace, Automotive and Oil & Gas.

With a long history of supply into the industry, we understand the importance of delivering consistent chemistry.

We produce MBI in 250 casts which are then rolled into 75mm square billets in lengths from 6 to 12m. Excellent dimensional control and straightness gives improved stackability and our global reach means our products reach our customers just when you need them.

产品系列 Product range

	产品 Product	钢材规格 Steel code		C	Si	Mn	P	S	Al
A系列铸锭 A iron	低锰钢 Low manganese	9531	Min						
		5906	Max	0.004	0.006	0.05	0.004	0.004	0.005
B系列铸锭 B iron	高锰钢 High manganese	9533	Min			0.12			
		5907	Max	0.008	0.004	0.18	0.008	0.008	0.008

9 联系方式

CONTACTS

9 联系方式 CONTACTS

如果您想进一步了解产品范围或想得到帮助，请联系。

此处列出的联系方式在本文发布时是正确的。您所在地最近和最新联系方式，请访问

britishsteel.co.uk/locations。

If you want to find out more about our product range and how we can help you, please get in touch.

The contact details listed here are correct at the time of publication. For the latest details of your nearest location, please visit britishsteel.co.uk/locations.

按产品划分 By product

产品领域电子邮件联系方式 Product areas email contacts

异型钢 **Special Profiles**: specialprofiles@britishsteel.co.uk
线材 **Wire Rod**: wirerod@britishsteel.co.uk
线材加工中心 **Wire and processing**: info@fnsteel.eu
型钢 **Sections**: construction@britishsteel.co.uk
钢轨 **Rail**: rail@britishsteel.co.uk
半成品 **Semi-finished products**: semisales@britishsteel.co.uk

英国和爱尔兰地址 By UK and Ireland location

斯肯索普 Scunthorpe

Brigg Road, Scunthorpe, North Lincolnshire, DN16 1BP
T +44 (0) 1724 404040

提赛德服务中心 Teesside Service Centre

Lackenby Works, Redcar, Teesside, TS6 7RP
T +44 (0) 1642 405040
E construction@britishsteel.co.uk

斯金宁格罗夫 Skinningrove

PO Box 1, Skinningrove, Saltburn-by-the-Sea, TS13 4ET
T +44 (0) 1287 640212
E specialprofiles@britishsteel.co.uk

利斯本服务中心 Lisburn Service Centre

Steel House, Moira Road, Lisburn, BT28 2SN
T +44 (0) 2892 448208
E lisburn.sales@britishsteel.co.uk

都柏林 Dublin

Steel House, Bluebell Industrial Estate, Dublin 12
T +353 (0) 1405 0300
E dublin.sales@britishsteel.ie

纽波特 Newport

Excalibur House, No 1 Langstone Business Park,
Newport, NP18 2HJ
T +44 (0) 1633 462653 / +44(0)1633 462636
E construction@britishsteel.co.uk

沃金顿 Workington

TSP Engineering, Derwent Howe Industrial Estate, Curwen
Road, Workington CA14 3YX
T +44 (0) 1900 68000
E tsp@tsp-engineering.co.uk



其他国家地址 By country

中国 China

Nandian Town, Pingshan County, Hebei Province,
P.R. China

T +86-311-82878888 / +86-17733894427

E alen@jingyesteel.com.cn

孟加拉国 Bangladesh

T 0088-01730916601 / 0086-18236978903

E bangladesh@jingyesteel.com.cn

柬埔寨 Cambodia

T 0086-18633456868 / 00855-86680666

E kevin.liu@jingyesteel.com.cn

迪拜 Dubai

T 00971 552073261 / 0086-15233605759

E dubai@jingyesteel.com.cn

埃及 Egypt

T 0086-311-82870505 / 0086-13931890947

E alina@jingyesteel.com.cn

德国 Germany

Hansaallee 228 / Ecke Prinzenallee, 40547 Düsseldorf

T +49 (0)211 740 714-00

E germany.enquiries@britishsteel.co.uk

印度 India

T 0086-311-82870505 / 0086-18631181082

E india@jingyesteel.com.cn

印尼 Indonesia

CBD.Pluit Jakarta

T 0062-0821-10776785 / 0086-13832084742 /
0086-18631162601

E indonesia@jingyesteel.com.cn

意大利 Italy

Via Italia 44, 20900 Monza (MB)

T +39 039 387967

E italy.enquiries@britishsteel.co.uk

韩国 Korea

Seoul Yeong-eung Po-gu National Assembly Boulevard
800 Yeouido Paragon 1204

T 0082-2-7868866 / 0086-18627739412

E korea@jingyesteel.com.cn

老挝 Laos

T 0085-602056209818 / 0086-15131189377

E laos@jingyesteel.com.cn

马来西亚 Malaysia

T 0086-311-82870505 / 0086-15230148083

E ben@jingyesteel.com.cn

其他国家地址 By country

缅甸 Myanmar

No.1204, Tower A, Junction Mawtin, Lanmataw Tsp, Yangon
T 0095-9-5231998 / 0086-15097387966
E myanmar@jingyesteel.com.cn

新西兰 New Zealand

T 0086-311-82870505 / 0086-18236978903
E weidongdong@jingyesteel.com.cn

尼日利亚 Nigeria

T 00251-985201374 / 0086-13931890947
E alina@jingyesteel.com.cn

巴基斯坦 Pakistan

T 0092-3128847666 / 0086-18730217392
E pakistan@jingyesteel.com.cn

菲律宾 Philippines

T 0063-09165938860 / 0086-15032071231
E philippines@jingyesteel.com.cn

波兰 Poland

Ul. Chorzowska 150, budynek B, 40-101 Katowice
T +48 32 7841232
E poland.enquiries@britishsteel.co.uk

俄罗斯 Russia

T 0086-311-82870505 / 0086-15227847619
E russia@jingyesteel.com.cn

新加坡 Singapore

T 0086-311-82870505 / 0086-18627739412
E frank@jingyesteel.com.cn

南美 South America

T 0086-311-82870906 / 0086-13931890947
E southamerica@jingyesteel.com.cn

西班牙 Spain

Paseo de la Castellana 259C, Torre de Cristal, Planta 18,
Oficina 1811. 28046, Madrid
T +34 91 119 0581
E spain.enquiries@britishsteel.co.uk

斯里兰卡 Sri Lanka

T 0086-311-82870505 / 0086-18236978903
E weidongdong@jingyesteel.com.cn

瑞典 Sweden

Box 5044, Spinnerivägen 1, 448 51, Tollerød
E sweden.enquiries@britishsteel.co.uk

其他国家地址 By country

台湾省, 中国 Taiwan, China

Room 829, 5th Floor, No. 285, Section 4, Zhongxiao East Road, Taipei City, 10692

T +886 (0) 266398296

E taiwan.enquiries@britishsteel.co.uk

坦桑尼亚 Tanzania

T 00251-985201374 / 0086-13931890947

E tanzania@jingyesteel.com.cn

泰国 Thailand

90/157, Moo 15, Bangna trad rd, Bangkreaw, Bangplee, Samut Prakarn 10540

T 0066-0957276300 / 0086-15910961153

E thailand@jingyesteel.com.cn

土耳其 Turkey

DLT Celik Ithalat Ihracat ve Pazarlama A.S., Arnavutkoy Mah. Girgin Sok. No:1, 34345 Besiktas, Istanbul

T 0086-311-82870505 / 0086-15227847619

E turkey@jingyesteel.com.cn

美国 USA

1700 East Golf road suite 575, Schaumburg, IL 60173

T +1 708 8190698

E usa.enquiries@britishsteel.co.uk

越南 Vietnam

Park 1, Vinhomes tân cảng, 208 nguyen huu canh p 22, binh thanh, hcm, Vietnam

T 0084-0-936988060 / 0086-15911137013

E vietnam@jingyesteel.com.cn

注 NOTES

注 NOTES

注 NOTES



敬业集团
JINGYE GROUP



**BRITISH
STEEL**

HBJYJT.COM

地址 | 敬业集团总部 (Jingye Group), 河北省平山县南甸镇/邮编:050400
电话 | 0086-311-82878888/9666666

A | Nandian Town, Pingshan County, Hebei Province, P R China 050400
T | 0086-311-82878888/9666666
E | jingye@hbjyit.com

BRITISHSTEEL.CO.UK

地址 | 英国DN16 1BP, 北林肯郡, 斯肯索普区, 布里格路, 邮政信箱1号
电话 | +44 (0)1724 404040

A | PO Box 1, Brigg Road, Scunthorpe, North Lincolnshire, DN16 1BP, UK
T | +44 (0)1724 404040

公司已尽力确保本出版物的内容准确无误。英国钢铁有限公司及其子公司和相关企业（具有2006年《公司法》所规定的企业）对被发现具有误导性的任何错误或信息不承担任何责任或义务。

英国钢铁公司版权所有 2020

英国钢铁有限公司在英国的注册号为12303256, 注册地址为位于Brigg Road, Scunthorpe, DN16 1XA的行政大楼。

Care has been taken to ensure that the contents of this publication are accurate, but British Steel Limited and its subsidiaries and associated undertakings (having the meaning set out in the Companies Act 2006) do not accept responsibility or liability for errors or information that is found to be misleading.

Copyright British Steel 2020

British Steel Limited is registered in England under number 12303256 with registered office at Administration Building, Brigg Road, Scunthorpe, DN16 1XA.

BUILDING STRONGER FUTURES

SPPR:CHN:ENG:062020