



中国2010年上海世博会全球合作伙伴
Global Partner of Expo 2010 Shanghai China

宝钢与建筑

Baosteel and Architecture



序 Preface

一座完美的建筑，一道亮丽的景观。

昔日，秦砖汉瓦，诉说中华五千年的辉煌；今日，钢筋铁骨，展示中国日新月异的形象。伟大的建筑，凝聚着人类的智慧和汗水，见证着历史的变迁和科技的进步。

三十年前，宝钢应运而生。历经磨砺，以超人的胆识和毅力，秉承“诚信”的价值观，以“向社会提供超值的产品和服务”为使命，一路超越，迅速成长，势不可挡地走在世界钢铁工业的前列。

从北京奥运会“鸟巢”到上海世博会“中国馆”、从CCTV新台址到上海环球金融中心，宝钢以不断创新的精神、不懈的追求和努力，成就着一部又一部的建筑杰作。

随着科技的不断进步，现代建筑赋予钢铁更深的内涵和更高的要求。宝钢誓与建筑用钢技术发展同步，共同演绎和谐的现代生活，实现“建筑有宝钢更精彩”的梦想。

This is a block of perfect architecture, a vivid sight that catches eyes.

Yesterday, glazed bricks and tiles built the ancient Chinese architectural styles that tell you the sparkling glory of Chinese five-thousand-year history, while today, new structures made of steels and concretes reveal the brand new image and horizon of China around you. Here, great architectures witness changes of the past and leaps in technology from the talents and efforts of our mankind.

30 years ago, Baosteel was established as the times required. For years of laborious efforts made, Baosteel, with the value of good faith and the mission to offer the public with super-valued products and services, has been greatly yet rapidly developed from growing to overtaking, and up to now, to being able to take the lead on the arena of global steel industry. Baosteel has been creating its excellent works for top-end projects with the infinite innovative creativity and continuous efforts and devotions, from the Birds' Nest of Beijing Olympics to China Pavilion of EXPO 2010 Shanghai, and from CCTV new site to Shanghai World Financial Centre.

With the continuous progression of high technology, architectures nowadays have enriched steels with further meanings and higher expectations. Baosteel will keep up with the pace of evolution of steel technology for construction purpose to demonstrate a harmonious modern life and realize the dream of Baosteel people, "Better Buildings with Baosteel".

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高层及超高层建筑
High-rise &
Super High-rise Building

大型公共建筑
Large Scale
Public Architectures

海外项目
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极地、高原建筑
Architectures for Polar
Regions and High Plateau

住宅建筑
Residential Architectures

宝钢产线聚焦
Baosteel Production Line Focus

宝钢一贯制质量管理与6 σ 精益运营
Baosteel Consistent Quality Management and
6 σ Lean Operation

研发能力与研发模式
R&D Capacity and Model

研发成果
R&D Achievements

公司简介 Company Profile



宝山钢铁股份有限公司（简称“宝钢股份”）是中国最大、最现代化的钢铁联合企业。宝钢股份以其诚信、人才、创新、管理、技术诸方面综合优势，奠定了在国际钢铁市场上世界级钢铁联合企业的地位。《世界钢铁业指南》评定宝钢股份在世界钢铁行业的综合竞争力为前三名，认为也是未来最具发展潜力的钢铁企业。

公司专业生产高技术含量、高附加值的钢铁产品。在汽车用钢，造船用钢，油、气开采和输送用钢，家电用钢，电工器材用钢，锅炉和压力容器用钢，食品、饮料等包装用钢，金属制品用钢，不锈钢，特种材料用钢以及高等级建筑用钢等领域，宝钢股份在成为中国市场主要钢材供应商的同时，产品出口日本、韩国、欧美四十多个国家和地区。

公司全部装备技术建立在当代钢铁冶炼、冷热加工、液压传感、电子控制、计算机和信息通讯等先进技术的基础上，具有大型化、连续化、自动化的特点。通过引进并对其不断进行技术改造，保持着世界最先进的技术水平。

公司采用国际先进的质量管理，主要产品均获得国际权威机构认可。通过BSI英国标准协会ISO9001认证和复审，获美国API会标、日本JIS认可证书，通过了通用、福特、克莱斯勒等世界三大著名汽车厂的QS 9000贯标认证，得到中国、法国、美国、英国、德国、挪威、意大利等七国船级社认可。

公司具有雄厚的研发实力，从事新技术、新产品、新工艺、新装备的开发研制，为公司积聚了不竭的发展动力。

公司重视环境保护，追求可持续发展，在中国冶金行业第一家通过ISO14001环境贯标认证，堪称世界上最美丽的钢铁企业。



Baoshan Iron & Steel Co., Ltd. (hereinafter referred to as Baosteel) is the largest and most advanced integrated steel company in China. By means of leveraging comprehensive advantages such as good faith, talents, innovation, management, and technology, Baosteel is also recognized as a world leading steel company by the global steel market. According to World Steel Dynamics, the company ranks No. 3 in the world in terms of comprehensive competency; it is also believed to have the greatest development potential.

Baosteel manufactures high-tech and high-value-added steel products for the purposes of automobiles, ships, petroleum and gas exploitation and transportation, home appliances, electrician equipments, boilers and pressure vessels, foodstuff and drink package, metallic products, stainless steel, special materials and high-class construction projects. Baosteel has been exporting its products to more than 40 countries including Japan, Korea, European and American countries, as well as being the key supplier of steel products in China market.

Baosteel are established with the latest technologies on steel smelting, cold-hot processing, hydraulic pressure sensor, electronic con-

trolling, and computer and information communications, and featured with all its large-scale, continuous and automatic facilities and units. Baosteel remains to stay on the competitive edge of the world latest technologies through the continuous introduction and improvement.

Baosteel has adopted the advanced international quality management, with which its main products has received the recognitions and endorsements by international authoritative organizations, such as BSI ISO 9001 certification and verification, API Logo, JIS certification, QS 9000 by world-renowned automobile manufacturers including General Motors, Ford and Chrysler, and classification societies of 7 countries including China, France, US, UK, Germany, Norway, Italy. Baosteel has strong R&D team for the development of new technologies, new products, new techniques and new facilities, which fuels the engines of the Company to bring its great potentials into play. Baosteel also agrees with the importance of environment protection and sustainable development, and has received the first ISO14001 Environmental Management Standard Certification in China metallurgy industry, for which, Baosteel is also entitled to the most beautiful steel company in the world.

公司简介 Company Profile

宝钢服务建筑业的理念及做法

Baosteel's Concepts and Methods to Serve Construction Industry

理念:

致力于成为全球钢铁建造解决专家

向广大建筑师和用户提供了一站式服务, 即最佳建造解决方案;

提供更丰富的钢材选择: 宝钢宽厚板、热轧板、彩涂板、热镀锌及不锈钢, 运用钢铁产品可回收、可重复利用以及美观、容易造型等特点, 携手设计师和用户完成一个又一个建筑奇迹。



Concepts:

To be dedicated to be the expert and specialist to provide steel construction solutions in the world.

To provide one-stop services to architects and clients, i.e. the best construction solutions.

To provide more choices of steel products such as heavy plate, hot-rolled plate, color coated sheet, hot-dip galvanized steel and stainless steel. As steel is recyclable and reusable as well as graceful and re-shapeable, Baosteel has been working together with architects and clients for construction miracles, one after another.





做法：
先期介入
使用指导

提供设计选材技术支撑

提供从钢材生产、钢结构深化设计、加工制作全过程的服务

Methodology:

- To be involved on the preliminary stage of construction to provide technical supports in design and material selection matters
- To guide and instruct in the whole process from steel manufacturing, steel structural design to steel re-producing

A 应用篇 Applications

A1 高层及超高层建筑 High-rise & Super High-rise Architectures

上海环球金融中心
Shanghai World Financial Center

中央电视台新台址建设工程
China Central Television (CCTV) New Site



A2 大型公共建筑 Large Scale Public Architectures

国家体育场（“鸟巢”）
National Stadium（“Bird-nest”）

国家大剧院
National Center for the Performing Arts

上海世博中国馆
China Pavilion, EXPO 2010 Shanghai

上海世博主题馆
Shanghai Expo Theme Pavilions

上海世博文化中心
Shanghai Expo Culture Center

首都国际机场3号航站楼
Terminal 3 of the Capital International Airport

上海浦东国际机场T2航站楼
Terminal 2 of Shanghai Pudong International Airport

上海国际赛车场
Shanghai International Circuit



A3 海外项目 Oversea Projects

札幌体育场
Sapporo Stadium

温哥华冬奥会会展中心
Vancouver Convention Center



A4 极地、高原建筑 Architectures for Polar Regions and High Plateau

南极长城站
Antarctic Great Wall Station

南极昆仑站
Antarctic Kunlun Station

新疆阿拉山口哨所
Xinjiang Allah Mountain Pass Sentry



A5 住宅建筑 Residential Architectures

宝钢Living Steel项目
Baosteel Living Steel Project

应用篇 Applications

A1

高层及超高层建筑

High-rise & Super High-rise Architectures

- ❖ 上海环球金融中心
Shanghai World Financial Centre
- ❖ 中央电视台新台址建设工程
China Central Television (CCTV) New Site





A1

高层及超高层建筑 High-rise & Super High-rise Architectures



上海环球金融中心 Shanghai World Financial Centre

项目概况

上海环球金融中心位于浦东新区陆家嘴金融贸易中心区，由日本森大厦株式会社的全额子公司森海外株式会社及日本有关银行、保险公司、商社等36家企业与日本海外经济协力基金OECD联合投资。楼高492米，共101层，为“世界净高第一高楼”。建筑占地面积14,400平方米，总建筑面积381,600平方米。大厦主体结构用钢量约6.5万吨，塔楼顶部“倒梯形”结构新颖、复杂，汇聚了世界最尖端的钢结构技术，是继金茂大厦和东方明珠后上海又一标志性建筑。2007年9月项目实现结构封顶。





General Information

Shanghai World Financial Centre is located at the central part of Lujiazui Financial and Trade CBD area, Pudong New Area, Shanghai, which is a joint venture project among Forest Overseas Co., Ltd, the fully owned subsidiary of MORI Building and 36 enterprises such as Japanese-related banks, insurance companies and business firms, together with Japan OECF. The tower is 492 metres high and totals 101 levels, and becomes the first highest tower in the world by its net height. The land occupation area is 14,400m² while the gross floor area is 381,600m². The main tower body structure utilized 65,000 tons steels. The “reverse trapezium” tower top, creative yet complicated, was built with the top-notch steel structure technologies, which is taken as another landmark of Shanghai, after Jinmao Tower and Oriental Pearl TV Tower. The main structure construction was completed in September 2007.

品 种 Type	厚板 Heavy Plate
材 质 Material	ASTM A572 Gr50 (Z25/Z35), SN490B/C, Q345B
数 量 (吨) Quantity (ton)	32,908
供货技术亮点 Technology Highlights	SN490系列钢板是宝钢开发的具有良好抗震性能并通过JIS认证的新产品，第一次批量生产用于国内超高层建筑，且全部使用宝钢产品。 SN490 Series steel board is a new product developed by Baosteel, featured with good anti-earthquake performance and certified by JIS. It is first time to conduct mass production for domestic super high-rise architecture, all produced by Baosteel.

A1

高层及超高层建筑 High-rise & Super High-rise Architectures



中央电视台新台址建设工程 China Central Television (CCTV) New Site

项目概况

CCTV新台址建设工程位于北京中央商务区内,是北京中央商务区标志性项目,占地总面积19.7公顷,由中央电视台(CCTV)主楼、服务楼、电视文化中心(TVCC)及室外工程组成。其中:主楼高234米,地上52层、地下3层,设10层裙楼,建筑面积47万平方米。主楼的两座塔楼双向内倾斜6度,在163米以上由“L”形悬臂结构连为一体,建筑外表面的玻璃幕墙(10万平方米,共27400余块)由强烈的不规则几何图案组成。该工程造型独特、结构新颖、高新技术含量大,在国内外均属“高、难、精、尖”的特大型项目。该项目设计新颖,个性鲜明,既代表新北京的形象,又可以用建筑的语言表达电视媒体的重要性和文化性。该项目的建设,不仅能树立CCTV的标志性形象,也将翻开中国建筑界新的一页。

宝钢金属(冠达尔)公司成功中标中国中央电视台新台址A标段钢结构工程,工程总量为12.4万吨。

2007年12月项目主楼大悬臂成功合拢。2007年被美国《时代周刊》评为世界十大建筑奇迹。

目前中国最大的单体项目;
单体用钢量最大、用钢等级最高的项目。





The current largest steel usage and highest steel grade used for monomer construction in China.

General Information

CCTV new site, the landmark located at Beijing CBD area, occupies a gross land area of 19.7 ha and comprises CCTV Main Tower, Service Tower, TVCC Tower and outdoor projects, of which, the Main tower, 234 high with 52 storeys plus 3-level basement and 10-storey podium, has the gross floor area of 470,000m². The 2 towers of main tower incline inwards for 6 degrees, connected by L-shape cantilever design structure at above 163m, and its outside walls are made with glass in very irregular geometrical shapes (100,000m², over 27,400 pieces). The building featured with unique yet creative design, new yet high technologies, is considered as a super large project in China and overseas that requires high technologies, top-notch and refined techniques with certain complexities. This creative project presents brilliance of the image of new Beijing as well as the importance and cultural factors of TV media with architectural language. It not only builds up the symbolic image of CCTV, but also opens up a brand new page of China construction industry.

Baosteel Metal successfully bid the steel structure project of China Central Television New Site Phase A. The whole project utilized 124,000 tons steels.

In December 2007, the cantilevers were successfully connected with the main tower, which was also awarded as one of the Ten World Construction Wonders by US *Times* Magazine. This is the largest single building project in China with the most utilization of the highest class of steels in such a project.

品 种 Type	厚板 Heavy Plate
材 质 Material	Q345C/D (Z15-35), Q345GJC/D (Z15-35), Q390D (Z15-25), Q420D (Z15-25), Q460E (Z25-35), A572Gr50 (Z15-35)
数 量 (吨) Quantity (ton)	45,951
供货技术亮点 Technology Highlights	宝钢开发的Q460E-Z35厚钢板是目前国内迄今为止最高等级的建筑结构用钢, 且实现批量稳定供货。 Q460E-Z35 thick steel board, developed by Baosteel, is the highest-class steel for construction structure purpose, so far in China, which has been steadily supplied in bulk.

A2

大型公共建筑 Large Scale Public Architectures

- ❖ 国家体育场 (“鸟巢”)
National Stadium (“Bird-nest”)
- ❖ 国家大剧院
National Center for the Performing Arts
- ❖ 上海世博中国馆
China Pavilion, EXPO 2010 Shanghai
- ❖ 上海世博主题馆
Shanghai Expo Theme Pavilions
- ❖ 上海世博文化中心
Shanghai Expo Culture Center
- ❖ 首都国际机场3号航站楼
Terminal 3 of the Capital International Airport
- ❖ 上海浦东国际机场T2航站楼
Terminal 2 of Shanghai Pudong International Airport
- ❖ 上海国际赛车场
Shanghai International Circuit





A2 大型公共建筑

Large Scale Public Architectures



国家体育场（“鸟巢”） National Stadium (“Bird-nest”)

项目概况

国家体育场，俗称“鸟巢”，是第29届北京奥林匹克运动会的主会场，位于北京奥林匹克公园内。2008年奥运会期间，承担开幕式、闭幕式、田径比赛、男子足球决赛等赛事活动，能容纳观众10万人，其中临时坐席2万个。奥运会后，可容纳观众8万人，可承担特殊重大体育比赛、各类常规赛事以及非竞赛项目，并将成为北京市提供市民广泛参与体育活动和享受体育娱乐的大型专业场所，成为全国具有标志性的体育娱乐建筑。

国家体育场（“鸟巢”）的设计方案，是经全球设计招标产生的，由瑞士赫尔佐格和德梅隆设计事务所、奥雅纳工程顾问公司及中国建筑设计研究院设计联合体共同设计。该设计方案主体由一系列辐射式门式钢桁架围绕碗状坐席区旋转而成，空间结构科学简洁，建筑和结构完整统一，设计新颖，结构独特，为国内外特有建筑。该项目耗用4.5万吨结构钢材，最长的一条钢梁达300多米，平均钢梁长度将在50至180米之间，巨型体育场的形象完美纯真，外观犹如树枝织成的鸟巢，“鸟巢”因此得名。

项目于2003年12月24日开工，2007年建成并投入试运行。

工程特点及意义

“鸟巢”方案展现了一个新颖、独特、庞大的异型钢结构建筑物，外观即结构，犹如树枝织成的鸟巢，其灰色矿质般的钢网以透明的膜材料覆盖，其中包含着一个土红色的碗状看台。

该项目结构用钢板中，Q345GJD (Z15~35)规格的钢板总量近9000吨，需求量较大。宝钢成功参与该规格范围钢板的供货，充分显示了宝钢的整体技术实力，进一步巩固宝钢在国内钢铁制造业的领导地位。



General Information

The National Stadium, nicknamed “Bird-nest” is the main venue of 29th Beijing Olympic Games. It locates in Beijing Olympic Park. During the 2008 Olympic Games, various sport events were held in the Stadium such as the opening and closing ceremonies, track and fields events, men’s soccer final, etc. The Stadium has the audience capacity of 100,000 with 20,000 temporary seats. After the Olympic Games it still holds a capacity of 80,000 people, spatial enough for special and significant sport events, various conventional sport or non-sport events, and will become a gigantic and professional venue for citizens to attend and enjoy sports and entertaining activities, and has become a national landmark of sports and entertainment.

The design scheme of the National Stadium (“Bird-nest”) was confirmed after global design tender, and it was jointly designed by Swiss Herzog & de Meuron, ARUP and the design China Architecture Design & Research Group. The main body of the design is composed of a bowl seating area surrounded by a series of radiation doors steel truss. The novel and simplified space design, complete architecture and unique structure make the stadium special and unique both in China and in the world. The project consumed 45,000 tons of structural steel with an average steel beam length of 50-180m including the longest of over 300m. The pure and perfect architectural image of the huge stadium is as if a bird nest woven by tree branches, and thus has been called “Bird-nest”

The project was launched on 24 December 2003, and was completed and put into trial operation in 2007.



Project Features and Achievements

The “Bird-nest” plan shows a novel, unique and huge architecture of specially-shaped steel structure. Its appearance is the structure itself which looks like a bird nest woven with tree branches. The mineral-gray steel net is covered by transparent membrane material with a laterite bowl seating area surrounded in the centre. The structural steel plates for the project are nearly 9000 tons, representing a great demand of Q345GJD (Z15-35). Baosteel fully demonstrated her comprehensive technological strength and further reinforced her leading position as a domestic steel manufacturer by her successful involvement in the supply of such types of steel plates to the National Stadium.



品 种 Type	厚板 Heavy Plate
材 质 Material	Q345C/D, Q345GJC/D (Z15-35)
数 量(吨) Quantity (ton)	10,341
供货技术亮点 Technology Highlights	宝钢仅用了3个月时间，从技术上论证了该项目结构用钢全部国产化的可能性；5米厚板生产线投产仅4个月实现Q345GJC/D (Z15-35)钢板的批量稳定供货。 It took Baosteel only 3 months to technically verify the feasibility of the localization of structural steel supply for the project; 4 months after the operation of 5m heavy steel plate production line realized the stable bulk supply of Q345GJC/D(Z15-35) steel plates

A2 大型公共建筑

Large Scale Public Architectures



国家大剧院

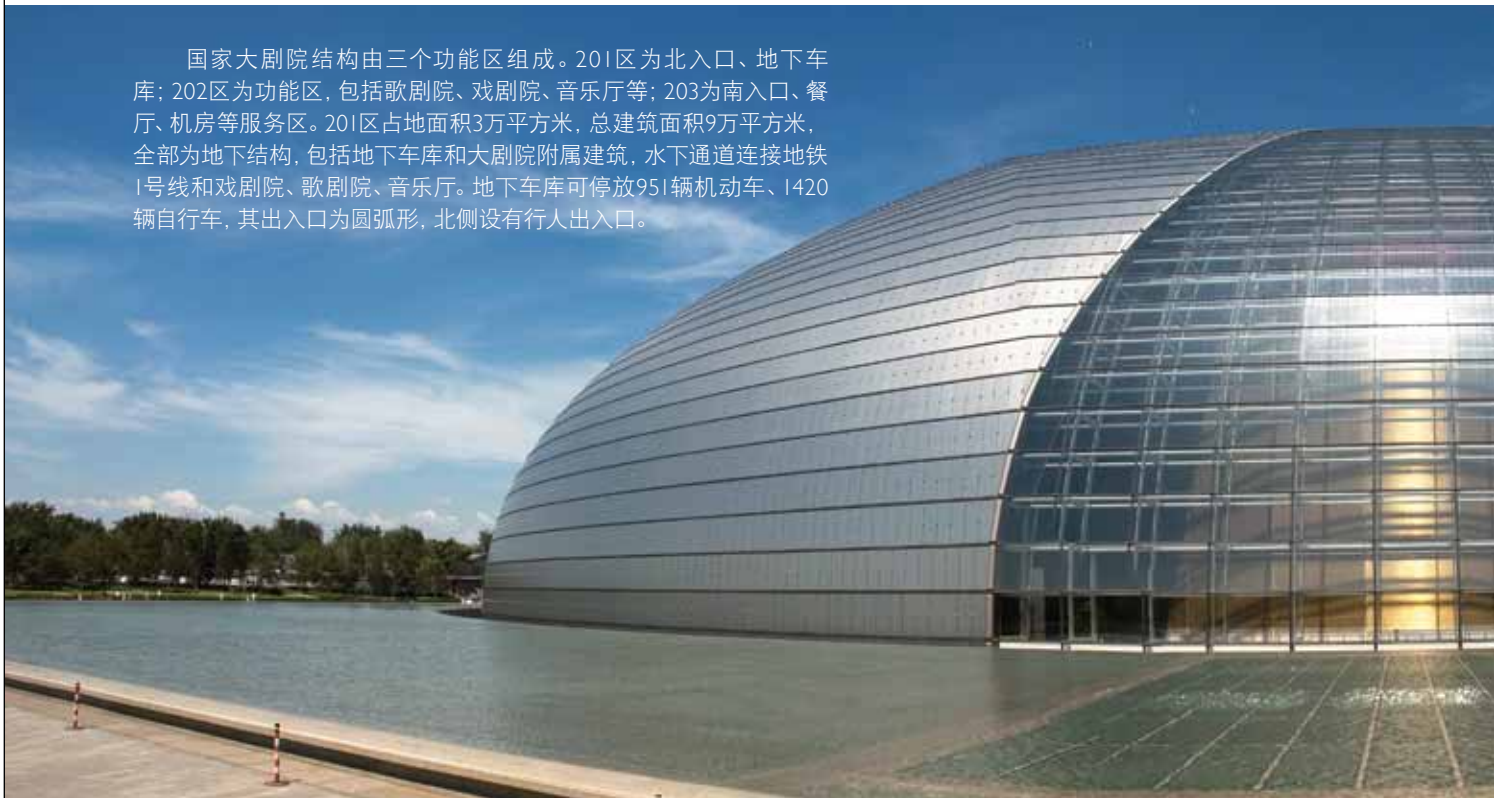
National Center for the Performing Arts

项目概况

国家大剧院位于北京人民大会堂西侧，工程于2001年12月13日开工，2007年9月建成，并于9月25日拉开试演序幕。

国家大剧院占地11.893万平方米，总建筑面积149520平方米，主体建筑由外部围护结构和内部歌剧院、戏剧场、音乐厅和公共大厅及配套用房组成，共有5473个座位，其中：歌剧院席位2416个，戏剧院席位1040个，音乐厅席位2017个。外部围护钢结构壳体呈半椭圆形，其平面投影东西长212.20米，南北宽143.64米，建筑物高46.285米，基础埋深的最深部分达到32.5米。椭圆形屋面主要采用钛金属板饰面，中部为渐开式玻璃幕墙。椭圆壳体外环绕人工湖，湖面面积达35500平方米，各种通道和入口都设在水面下。

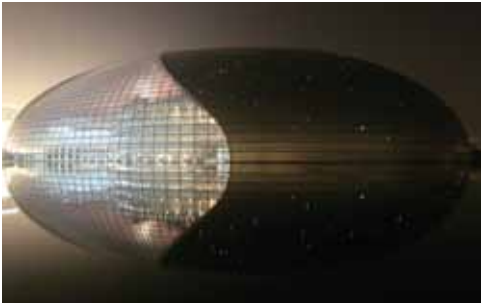
国家大剧院结构由三个功能区组成。201区为北入口、地下车库；202区为功能区，包括歌剧院、戏剧院、音乐厅等；203为南入口、餐厅、机房等服务区。201区占地面积3万平方米，总建筑面积9万平方米，全部为地下结构，包括地下车库和大剧院附属建筑，水下通道连接地铁1号线和戏剧院、歌剧院、音乐厅。地下车库可停放951辆机动车、1420辆自行车，其出入口为圆弧形，北侧设有行人出入口。



General Information

The National Center for the Performing Arts (NCPA) lies to the west of the Great Hall of the People in Beijing. Construction begins on Dec. 13th, 2001, and the project was completed in Sep., 2007. Rehearsal began on Sep. 25th, 2007.

Covering a land area of 118,930m², with a total architectural area of 149,520m², the architecture includes an external envelop structure and internal complex of opera house, theatres, music halls, public halls and ancillary buildings. Her 5473 seats include 2416 for the opera house, 1040 for the theatre and 2017 for the music hall. The semi-ellipsoid external envelop structure shell has a planar projection of 212.20m from east to west and 143.64m from north to south. The architecture is 46.285m in heights and the deepest part of the base depth reaches 32.5m. The semi-ellipsoid roof is covered with titanium plate and involute glass curtain wall in the centre. An 35500m² artificial lake surrounds the shell of the ellipsoid structure, with various passageways and entrance arranged below water level.



The NCPA includes such three functional zones of Z201 as the north entrance and underground garage, Z202 as the functional zone including the opera house, theatre, music hall, etc., and Z203 as a service zone with restaurants and machine rooms. The total 90,000m² architectural area is all underground structure, including underground garage and ancillary buildings with an underwater channel connecting the subway Line 1 with the opera house, the theatre and the music hall. The underground garage has a capacity of 951 automobiles and 1420 bicycles with orbicular circular-shaped entrances and exits, and those for pedestrians at the north side.



品 种 Type	热镀锌钢板 Hot-dip Galvanized Steel Sheet
材 质 Material	St01Z
数 量(吨) Quantity (ton)	800

A2 大型公共建筑

Large Scale Public Architectures



上海世博中国馆

China Pavilion, EXPO 2010 Shanghai

项目概况

中国馆建筑外观以“东方之冠”的构思主题，表达中国文化的精神与气质，是上海世博会核心建筑之一。中国馆处于世博会园区主入口的突出位置，中国馆占地面积6.25公顷，由中国国家馆、中国地区馆和港澳台馆三部分组成，国家馆和地区馆总建筑面积约14万平方米。钢结构总用钢量约2.5万吨。中国馆居中升起，层叠出挑，是一个有着传统斗拱造型的大建筑，地上建筑面积约7万多平方米，高63米。宝钢金属（冠达尔）公司承担中国馆国家馆和地区馆全部钢结构的制造任务。





General Information

The appearance of China Pavilion is themed with the concept of “Oriental Crown”, which tells the soul and characters of Chinese culture and is also the main architecture of EXPO 2010 Shanghai. China Pavilion, located at the predominant place of the main entrance to the EXPO Site, occupies a land area of 6.25 ha, comprising China National Pavilion, China Provinces Joint Pavilion and Hong Kong, Macau and Taiwan Pavilions, of which, China National Pavilion and China Provinces Joint Pavilion has a gross floor area of 140,000m². The steel structure utilized about 25,000 tons steels in total. China National Pavilion is lifted at the central part and built with many layers, featured with traditional arch-shape architecture, which is 63m high and has a gross floor area of over 70,000m². And all the steel structures of China National Pavilion and China Provinces Joint Pavilion are produced by Baosteel Metal.



品 种 Type	厚板 Heavy Plate	高频焊接H型钢 High frequency welding H-shaped steel	方矩形管 Rectangular tube
材 质 Materials	Q235B, Q345B (Z15~25), Q345GJB/C (Z15~25)	Q235B	Q235B
数 量(吨) Quantity (ton)	20,043	1,367	1,495

A2 大型公共建筑 Large Scale Public Architectures



上海世博主题馆 Shanghai Expo Theme Pavilions

项目概况

主题馆位于世博园区B片区世博轴西侧，紧邻轨道交通8号线浦东周家渡站，占地面积约11.5公顷，总建筑面积约12.9万平方米，其中地上8万平方米，地下4.9万平方米，建筑高度约27.7米。该项目于2007年11月10日开工，2008年12月28日结构封顶，计划于2009年9月30日竣工。

作为上海世博会的永久性场馆之一，主题馆在世博会期间将承担演绎、展示主题的重任，着重反映当今世界快速城市化和城市人口加速增长的背景下，地球、城市、人三个有机系统之间的关联和互动，揭示创造更美好的城市，更美好的生活的关键所在。世博会后，主题馆将转为标准展览场馆，可举办各类专业展会，与周边世博中心、中国馆、星级酒店、世博轴和文化中心共同打造以展览、会议、活动和住宿为主的现代服务业集聚区。



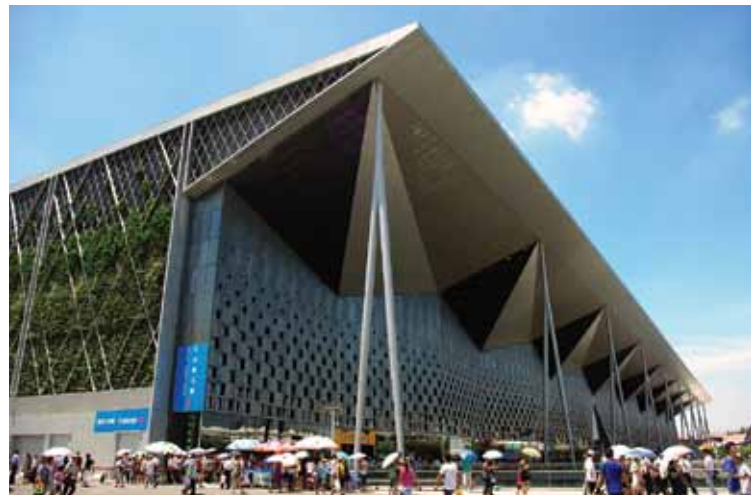


General Information

The Theme Pavilion, located at the Zone B on the west side of EXPO Axis, just next to Zhoujiadu Station of Metro Line 8, occupies a land area of 11.5 ha, and has a gross height of 27.7m and gross floor area of 129,000m², of which, upper levels takes up 80,000m², and basement levels 49,000m². The project commenced on 10 November 2007, structure construction completed on 28 December 2008 and the planned date of completion is 30 September 2009.

As one of the permanent pavilions of the EXPO 2010 Shanghai, the Theme Pavilion served as the one to show and demonstrate those themed exhibition programs, and to reflect the systematic relations and interactions among the earth, cities and human beings under the fast pace of urbanization and acceleration of population, for a better city and better life. After the EXPO 2010, the Themed Pavilion will be converted as a standard exhibition venue for all kinds of exhibition events, to establish a new modern service hub for the purposes of exhibitions, conventions, events and accommodations, together with the EXPO Center, China Pavilion, Performance Centre, EXPO Axis and many luxurious hotels nearby.

品 种 Type	宽厚板 Heavy plate	钢管 Tube	方矩形管 Rectangular tube	高频焊接H型钢、 热轧H型钢 High frequency welding H-shaped steel, Hot-rolled H-shaped steel
材 质 Materials	Q235B, Q345B(Z15-25)	Q345B/C	Q235B	Q235B
数 量(吨) Quantity (ton)	10,429	4,672	1,772	683



A2 大型公共建筑

Large Scale Public Architectures



上海世博文化中心

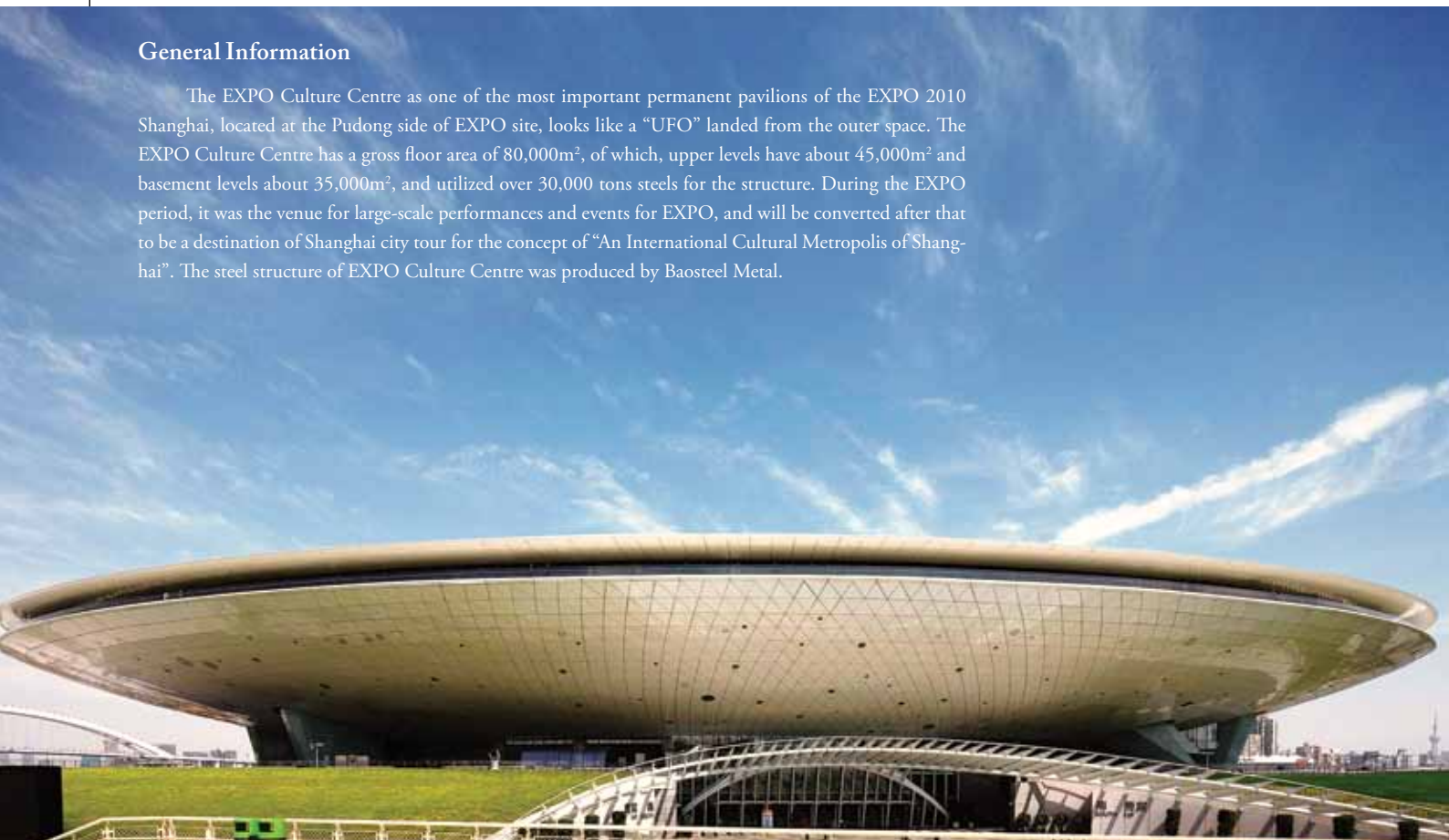
Shanghai Expo Culture Center

项目概况

世博文化中心作为上海世博会最重要的永久性场馆之一，位于上海世博园区浦东一侧，外观造型宛如从天而降的太空“飞碟”。文化中心总建筑面积8万平方米，地上约4.5万平方米，地下约3.5万平方米，钢结构总用量达3万余吨。在世博会期间，将承担各类大型演出和活动，满足世博会大型文艺演出需求。同时，还充分考虑了世博会之后的后续利用和可持续发展需要，与上海“国际文化大都市”定位相适应，成为上海都市旅游的新亮点。宝钢金属（冠达尔）公司承担全部钢结构制造任务。

General Information

The EXPO Culture Centre as one of the most important permanent pavilions of the EXPO 2010 Shanghai, located at the Pudong side of EXPO site, looks like a “UFO” landed from the outer space. The EXPO Culture Centre has a gross floor area of 80,000m², of which, upper levels have about 45,000m² and basement levels about 35,000m², and utilized over 30,000 tons steels for the structure. During the EXPO period, it was the venue for large-scale performances and events for EXPO, and will be converted after that to be a destination of Shanghai city tour for the concept of “An International Cultural Metropolis of Shanghai”. The steel structure of EXPO Culture Centre was produced by Baosteel Metal.





品 种 Type	厚板 Heavy plate	钢管 Tube
材 质 Materials	Q345B (Z15-25), Q345GJB (Z15-35)	Q235B
数 量 (吨) Quantity (ton)	29,964	324



A2 大型公共建筑

Large Scale Public Architectures



首都国际机场3号航站楼

Terminal 3 of the Capital International Airport

项目概况

2004年3月26日, 规模宏大的首都机场三期扩建工程拉开帷幕, 2007年11月23日主楼建成完工。

3号航站楼是目前国际上最大的民用航空港、国内面积最大的单体建筑, 总建筑面积98.6万平方米。3号主楼建筑面积为58万余平方米, 仅单层面积就达18万平方米, 拥有地面五层和地下两层, 由T3C主楼、T3D、T3E国际候机廊和楼前交通系统组成。T3C主楼一层为行李处理大厅、远机位候机大厅、国内国际VIP; 二层是旅客到达大厅、行李提取大厅、捷运站台; 三层为国内旅客出港大厅; 四层为办票、餐饮大厅; 五层为餐饮部分。

三号航站楼共设有C、D、E三个功能区, C区用于国内国际乘机手续办理、国内出发及国内国际行李提取, D区暂用于奥运及残疾人奥运会期间包机保障, E区用于国际出发和到达。T3C(国内区)和T3E(国际区)呈“人”字形对称, 在南北方向上遥相呼应, 中间由红色钢结构的T3D航站楼相连接。建筑面积42.8万平方米, 南北长2900米, 宽790米, 建筑高度45米。



General Information

The grand expansion program of the Capital International Airport Phase III officially commenced on 26 March 2004, and completed on 23 November 2007.

Terminal 3 is the largest civil airport in the world and the largest monomer architecture in China, with the gross floor area of 986,000m², of which, the main building has over 580,000m² where every single level reached 180,000m². Terminal 3 consists of 5 upper-level and 3 basement-level storeys, and comprises T3C main building, T3D and T3E international flight waiting area and airport transport hub area. The ground floor of T3C main building serves as the luggage dispatching hall, Remote bays waiting hall and domestic and international VIP hall. The 2nd floor serves as the arrival hall for reception, luggage collection and public transport purposes. The 3rd floor serves as the departure hall, the 4th floor for ticketing and partial catering purposes and the 5th floor wholly for catering purpose.

Terminal 3 also has Zone C, D and E as functional areas. Zone C serves for domestic and international check-in, domestic departure, and domestic and international luggage collection. Zone D tentatively serves for charter flights during Beijing Olympics and Paralympic Games. Zone E serves for International departure and arrival purposes. T3C (Domestic) and T3E (International) is built in a symmetrical “人” shape, located at south and north parts respectively and connected by T3D in between, a red steel structure. The gross floor area is 428,000m² with the N-S length 2,900m, width 790m and height 45m.



品 种 Type	厚板 Heavy plate	彩涂 Color-coated
材 质 Materials	Q345GJC	TDC51D
数 量 (吨) Quantity (ton)	630	2,789

A2 大型公共建筑

Large Scale Public Architectures



上海浦东国际机场T2航站楼

Terminal 2 of Shanghai Pudong International Airport

项目概况

浦东国际机场二期工程主要包括建造一座年货运吞吐量为500万吨的货运站、年旅客吞吐量达4000万人次的机场航站楼和两条新的飞机跑道以及一些配套设施等。机场二期跑道于2004年底建成，2005年3月17日正式投入运营。二期航站楼于2007年投入使用，在2010年之前，三期跑道建成。二期航站楼由长414米、宽138米的主楼和长1404米、宽42-65米的前列式指廊两大部分组成，并由7万平方米的连廊相连接。指廊有42座近机位登机桥，25个可转换机位，站坪78万平方米，交通中心17万平方米，以及旅客捷运系统、地铁车站、道路系统和公用配套设施。





General Information

Pudong International Airport Phase II consists of a cargo station for annual throughput of 5 million tons, an airport terminal for annual throughput up to 40 million person-time, 2 new runways and some auxiliary facilities. The Phase II runways were completed at the year end of 2004, and officially operated on 17 March 2010. The Phase II terminal building was officially operated in 2007. And the runway of Phase III was completed by 2010. The main building of Phase II terminal is 414m long, 138m wide and the frontal pier is 1404 meters long and 42-65m wide, which is connected by the junction with an area of over 70,000m². The frontal pier comprises 42 boarding bridges, 25 flight parking slots, 780,000m² parking bay, and 170,000m² airport transportation center, as well as public transport system, metro station, road system and public auxiliary facilities.

品 种 Type	厚板 Heavy plate	彩涂 Color-coated
材 质 Materials	Q345B, Q345GJB (Z15~25)	TS280GD+Z, TS250GD+AZ
数 量(吨) Quantity (ton)	30,645	3,290
供货技术亮点 Delivery Technique Highlights	该项目屋面系统选用宝钢开发的三涂层彩涂钢板, 目前国内仅有宝钢生产供货。 The project used the triple color-coated steel plate, which can only be supplied by Baosteel in domestic market.	

A2 大型公共建筑

Large Scale Public Architectures



上海国际赛车场

Shanghai International Circuit

项目概况

上海F1国际赛车场位于上海嘉定区，2002年10月动工，2004年6月竣工，同年9月26日举办F1中国站首个大奖赛。

赛车场占地面积5.3平方公里，其中一期工程2.5平方公里，主要有5.4公里的赛道和主看台、副看台、比赛工作楼、行政管理楼和车队生活区等主要建筑。赛车场看台设计规模约20万人，其中主副看台5万个座位，其余为坡道临时看台。赛车场主体建筑及其他主要建筑约15万平方米，包括主副看台、赛场指挥中心、新闻中心、车队生活区、维修站等。主看台长400米，宽40.6米，结构为4层钢筋混凝土框架，由2500余块各种规格的看台板搭建而成。看台呈阶梯形由南向北递高，顶标高40.42米，看台区域离地高度是从2.74米至27米，屋顶为悬挑钢结构，悬挑幅度达40米。

整个建筑采用了现代造型与中国传统文化融为一体的设计理念。建成后的上海F1国际赛车场为上海增添勃勃生机。





General Information

Shanghai International Circuit is located in Jiading District. The construction commenced in October 2002, completed in June 2004, and the first F1 racing at China Station was kicked off on 26 September of the year.

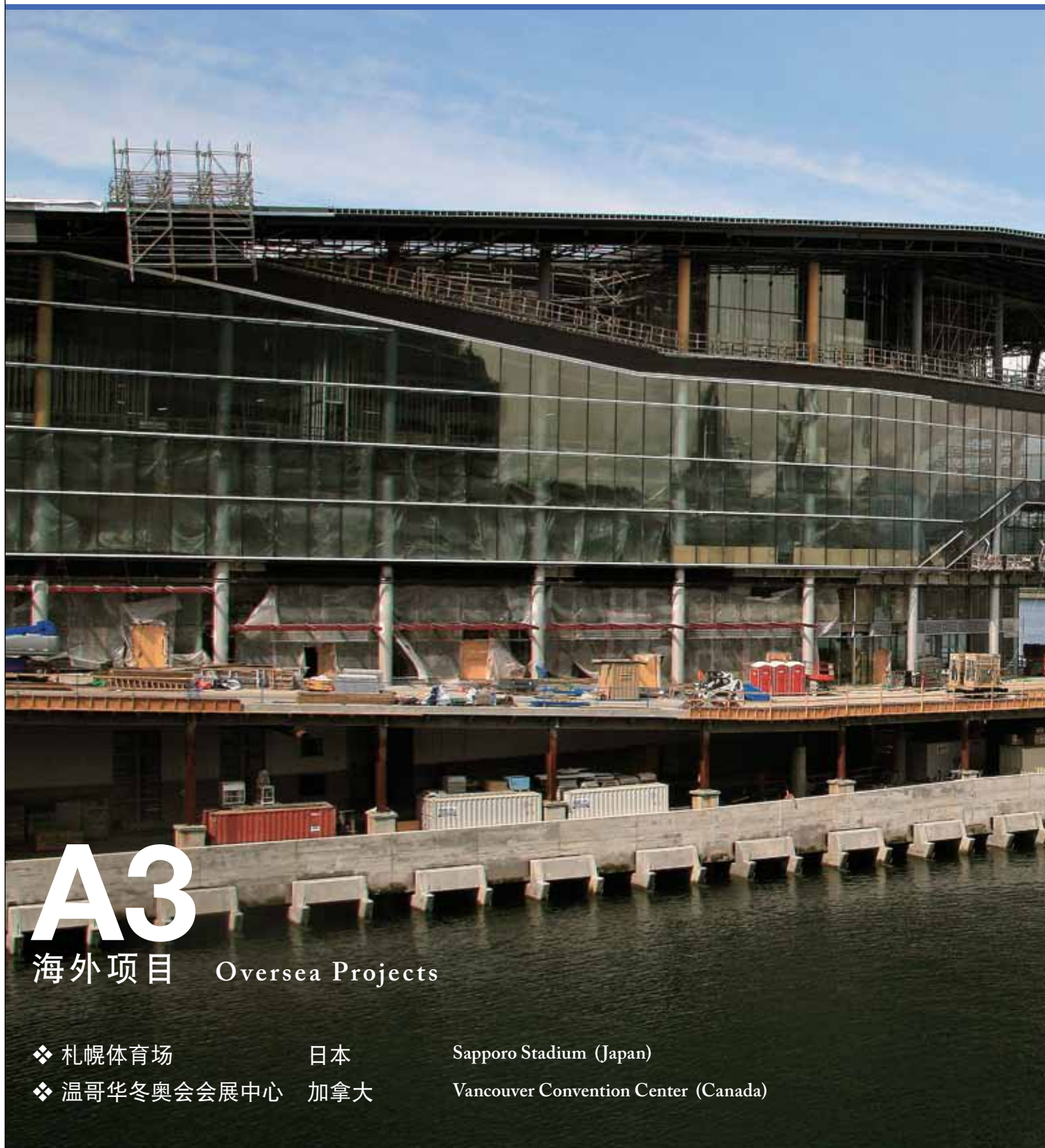
The racing course occupies a gross land area of 5.3 sq. km, of which, Phase I occupies 2.5 sq. km, and comprises 5.4-km racing circuit, main stand, sub stand, racing operation tower, administration tower and racing crew life area. The racing course stand can seat about 200,000 audiences, of which the main and sub stands are built with 50,000 seats, and the rest are temporary stand. The racing course main architecture and other main buildings have about 150,000m² including main and sub stands, racing course command center, press center, racing crew life area, maintenance stations, etc. The main stand is 400m long and 40.6m wide, which is built with 4-level steel and concrete frame structure and more than 2,500 pieces of different kinds of stand boards. The stand is on a trapezium-shape slope from south up to north with the height to the ground increased from 2.74m to 27m, and the the top roof is 40.42m high, which is a cantilevered steel structure for 40m.

This architecture adopted the concept of mixture of modern style and China traditional cultures. Shanghai International Circuit has brought very much urban dynamic energy since its completion.



品 种 Type	厚板 Heavy plate
材 质 Materials	Q345B/C (Z15)
数 量 (吨) Quantity (ton)	12,000

应用篇 Applications



A3

海外项目 Oversea Projects

❖ 札幌体育场

日本

Sapporo Stadium (Japan)

❖ 温哥华冬奥会会展中心

加拿大

Vancouver Convention Center (Canada)



A3 海外项目 Overseas Projects



札幌体育场 Sapporo Stadium

项目概况

札幌穹顶体育场（さっぽろドム）位于日本北海道札幌市，是一个棒球与足球两用的有盖体育场。

札幌穹顶体育场在2001年3月落成启用，可容纳42,122名观众，建筑面积53,800平方米。上盖直径为245米，看台倾斜度为30度。体育场在2002年韩日世界杯期间举行过多场赛事。

札幌穹顶体育场最大特色是它为棒球及足球设置两组不同的竞赛场地。棒球赛使用人造草地，而足球赛则在比赛使用时才移进室内的天然草地。

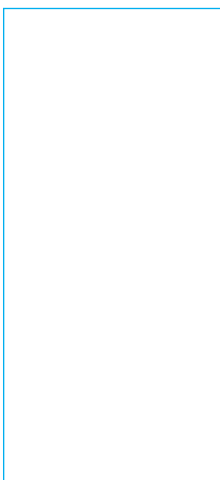
General Information

Sapporo Stadium, located in Hokkaido Sapporo of Japan, is a roofed stadium for baseball and football purposes. Sapporo Stadium was completed and started operation in March 2001, with a seating capacity of 42,122 audiences and gross floor area of 53,800m². The diameter of the Roof is 245m and the gradient of watching stand is 30 degree. This stadium was used for many match events during the Korea-Japan World Cup in 2002. Sapporo Stadium is featured with 2 different pitches for baseball and football settings. For baseball, artificial grass pitch will be used while the indoor natural grass pitch will be used for football matches only.





品 种 Type	厚板 Heavy plate
材 质 Materials	Q235B (Z25)
数 量 (吨) Quantity (ton)	3,500



A3 海外项目 Overseas Projects



温哥华会展中心 Vancouver Convention Center

项目概况

温哥华会展中心是一座世界级会议及展览中心，地处风景优美的温哥华市中心，临海而建。

温哥华会展中心正沿滨水码头进行扩建。至2009年3月，会展中心的场馆面积将扩展至现有的三倍。

新扩建的设施将占地46,450平方米（50万平方英尺），拥有最先进的会议场所。

2010年，温哥华会展中心将成为2010年温哥华冬奥会及残奥会的国际媒体中心。国际媒体中心将设在扩建后的会展中心内。届时，约7,000名注册媒体和技术人员将通过电视和广播现场报道2010年冬奥会的盛况。

温哥华会展中心的新场馆扩建计划符合领先能源与环境设计建筑评级体系（LEED）的金牌标准，并成为环境设计与可持续发展建筑的先驱。





General Information

Vancouver Convention Center is a world-class convention and exhibition center, located at the central part of Vancouver town near the sea. Vancouver Convention Center was expanded along the quayside and had increased the convention area for 3 times by March 2009, up to 46,450m² (50,000 sq feet), fully equipped with the latest advanced convention facilities.

In 2010, Vancouver Convention Center served as the international press center for Vancouver Winter Olympics and Paralympics Games 2010 at the newly expanded convention center section. About 7,000 registered media and technician personnel conducted live TV and radio broadcasting programs here. Vancouver Convention Center was expanded in compliance with the LEED Gold Certificate Standards and takes the lead amidst those environmental designs and sustainable architectures.



品 种 Type	厚板 Heavy plate
材 质 Materials	44W
数 量(吨) Quantity (ton)	939

A4 极地、高原建筑

Architectures for Polar Regions and High Plateau

南极长城站 Antarctic Great Wall Station



项目概况

长城站项目是宝钢轻房公司以资源和实绩优势成功中标的一项意义重大的工程。长城站改建后建筑面积约为1980平方米,包括科研办公栋、综合活动中心、锅炉房、废物处理栋、污水处理栋、室外工程等单体建筑。宝钢轻房公司依托

宝钢集团的整体优势,克服钢材品种特殊、质量要求高等难题,项目建设所需的小批量耐火耐候钢如期顺利交付,同时,精心设计、认真组织生产,确保工程质量和进度。

Project Overview

Antarctic Great Wall Station is an important and significant project of Baosteel Qingfang Company, bid successfully with its premium resources and capacities. After the renovation, the gross floor area increased to about 1,980m², including R&D office unit, entertainment center, boiler room, garbage processing unit, sewage processing

unit, outdoor projects, etc. The said company took the advantage of Baosteel and overcame many extreme difficulties arising from steel types and quality requirements, and was enabled to deliver on time the small quantity of high quality yet gracefully designed fire-resistant and climate-resistant steels.

材 质 Materials	B490RNQ
数 量 (吨) Quantity (ton)	100余吨 over 100 tons

南极昆仑站 Antarctic Kunlun Station



项目概况

昆仑站位于南极“冰盖之巅”——冰穹A地区,是中国第一个南极内陆考察站。昆仑站站区设

计总建筑面积为558.5平方米,主体建筑面积近236平方米,采用模块化或集装箱式建筑组建而成,主体结构全部采用宝钢耐低温的不锈钢,外包复合加芯的保温板。

Project Overview

The Kunlun station, located at Dome Argus (Dome A), the pole's highest icecap, is the first Antarctic research station on the continent's inland. The

designed gross floor area the Station occupies 558.5m², of which, the main part is 236m² and built in modular container style with Baosteel's low-temperature-resistant stainless steels as main structure and composite sandwich thermal insulation board on the outside walls.



新疆阿拉山口哨所 Xinjiang Allah Mountain Pass Sentry

A5 住宅建筑

Residential Architectures

宝钢Living Steel项目

Baosteel's Living Steel Project

2005年国际钢铁协会 (IISI) 发起了旨在通过技术和设计创新推广绿色环保钢结构住宅的Living Steel项目, 宝钢作为中国唯一代表参加了Living Steel项目, 并在公司范围内成立了由生产、研发、销售、战略规划等部门成员组成的专项组。

宝钢Living Steel项目的目标是通过集成创新, 掌握国内领先和有市场竞争力的钢结构住宅成套技术, 为用户提供解决住宅问题的最佳方案, 推动我国住宅产业化发展。



In 2005, International Iron & Steel Institute (IISI) initiated the Living Steel program to promote green steel structure residences through technology and design innovations. Baosteel participated in this Program for and on behalf of China, and set up a special team that consists of staffs from production, R&D, sales and strategy planning departments.

Baosteel Living Steel Program is to provide clients with the best solutions for residential issues and to boost residence industrialization in China, through the integrated innovation and the domestic leading and competitive techniques for steel structure residences.



武汉黄金口钢结构小区
Wuhan Huang Jin Kou Steel Structured Community

武汉黄金口岸钢结构住宅小区由宝钢与赛博思以技术合作的方式共同建造, 小区内一栋总面积10,000平方米的11层建筑被Living Steel选定作为中国地区可持续性住宅的示范建筑。该项目主要用于经济适用房, 为广大低收入家庭提供生活保障。

Wuhan Huang Jin Kou Steel Structured Community is a collaborative project between Baosteel and SBS Beijing on the techniques basis. An 11-storey building with the gross floor area of 10,000m² was selected as the model sustainable residence building in China region, which is used as economic housing property for those low-income families.



四川都江堰钢结构住宅小区——幸福家园·逸苑
Sichuan Dujiangyan Steel Structure Residence Area – Happy Homeland·Yiyuan

宝钢总承包建设, 是四川省灾后恢复重建首批安居房重点项目, 同时也被国际钢铁协会Living Steel指定为钢结构住宅示范工程。占地面积83亩, 总建筑面积11.5万平方米。

Baosteel as the main contractor in this project. It is the first batch of the key housing program for Sichuan earthquake rebuilding and restoration with the gross land area of 83 mu and gross floor area of 115,000m², which is also appointed as the model steel structure residence project by Living Steel under International Iron & Steel Institute.

B

生产管理篇 Production Management

❖ 宝钢产线聚焦

Focusing on Baosteel's Production Line

❖ 宝钢一贯制质量管理与6 σ 精益运营

Baosteel Consistent Quality Management and 6 σ Lean Operation

宝钢产线纵横交错，涵盖板材、管材、线材、棒材、型材等产品系列丰富的产品，勾画出一幅完美的产业链。随着宝钢5米宽厚板、三热轧产线、新浦钢项目的相继投产以及对八钢的并购，宝钢产品越来越广泛地满足建筑用钢的需求。





Baosteel's criss-crossed production lines includes a variety of products such as plates, pipes, rods, and sectional materials, forming a complete industrial chain. Baosteel's product is more and more extensively meeting the needs of architectural steel with her production line of 5m heavy plate, three hot-rolling, and Xinpū Steel Project which have been successive put into operation.

B1 宝钢产线聚焦

Focusing on Baosteel's Production Line

>> 厚板单元

总产能: 约340万吨

成品规格:

厚度: 5-150mm
宽度: 900-4800mm
长度: Max 25000mm

交货状态:

- 普通轧制态AR
- 控轧控冷态TMCP
- 正火态N
- 调制态QT

执行标准:

GB/T 700、GB/T 1591、GB/T 19879-2005
JIS G3101、JIS G3106、JIS G3136
EN10025-2、EN10025-3
ASTM A36、A572、A709
协议

>> Heavy Plate Unit

Total capacity: appr. 3.4 million tons

Product specification:

Thickness: 5-150mm
Width: 900-4800mm
Length: Max 25000mm

Delivery Status:

- AR: Delivery under hot rolled status.
- TMCP: Thermo Mechanical Control Process
- N: Normalizing
- QT: Quenching + Tempering

Implementation Standards:

GB/T 700, GB/T 1591, GB/T 19879-2005
JIS G3101, JIS G3106, JIS G3136
EN10025-2, EN10025-3
ASTM A36, A572, A709
Negotiation





生产单元 Production Unit

机组特点、产能 Features and Capacity of the Unit

宝山钢铁股份有限公司
Baoshan Iron & Steel Co., Ltd.

宝钢5米宽厚板轧机工程分两期建设，一期建设一架精轧机，于2005年3月建成投产，年生产规模为140万吨；二期增建一架粗轧机，投产后年生产规模将扩大到180万吨。

宝钢5米宽厚板厂广泛采用当今厚板领域最新技术及装备，包括高精度轧制技术、TMCP技术、强力矫直自动化控制技术、自动化剪切技术、在线自动化探伤技术、无氧化热处理技术、自动标记等，以满足用户对高等级宽厚钢板的高尺寸精度、高性能的要求。

宝钢5米宽厚板厂现有三条连续式热处理线，设备由德国LOI公司设计制造。热处理线可组织生产调质、正火、正火加回火、回火工艺的钢板，年生产能力37万吨。

Baosteel's 5m wide and heavy plate rolling machine project has two phases. The first phase is of the construction of one set of finishing mill. The project was completed and put into operation in March, 2005, and its annual capacity is 1.4 million tons; the second phase is of an additional roughing mill, which will expand the capacity to 1.8 million tons after it is put into operation.

Baosteel's 5m wide and heavy plate plant applies the most advanced technology and equipment in the current heavy-plate area, such as high-precision rolling technology, TMCP technology, straightening force automation and control technology, automated cutting technology, on-line automated detection technology, non-oxidation heat treatment technology, auto-tagging technology, etc., thus meeting customers' requirement of high dimensional accuracy and high performance upon high-grade wide and heavy steel plates.

Baosteel's 5m wide and heavy plate plant currently has three continuous heat treatment lines with their equipment designed and manufactured by German LOI company. The heat treatment line is capable of steel-plate production of various techniques of quenching and tempering, normalizing, normalizing plus tempering, and tempering. The line has an annual capacity of 370,000 tons.

宝钢坚决淘汰落后产能，原浦钢中厚板产线已于2006年9月关闭。新建的4.2米厚板轧机工程位于宝山罗泾地区（现中厚板分公司），于2008年3月份建成投产。生产规模为：设计年产铁水150万吨、钢坯200万吨、钢材160万吨。

Baosteel is determined to eliminate backward production facilities. The former Pugang medium and heavy plate production line has been closed in September, 2006; the newly built 4.2m heavy plate rolling machine project which locates in Luojing Region of Baoshan (currently the medium and heavy plate branch), has been completed and put into operation in March, 2008. The production scale is a designed annual capacity of 1.5 million tons of molten iron, 2 million tons of steel billet, and 1.6 million tons of steel products.

B1 宝钢产线聚焦

Focusing on Baosteel's Production Line

>> 热轧单元

总产能: 约1900万吨

成品规格:

宽度: 600–1900mm

厚度: 1.5–25.4mm

长度: 卷(C)或板(2000–12000mm)

>> Hot-rolling Unit

Total capacity: appr. 19 million tons

Product Specification:

Width: 600–1900mm

Thickness: 1.5–25.4mm

Length: Coil (C) or plate (2000–12000mm)





生产单元 Production Unit	机组特点、产能 Features and Capacity of the Unit
宝山钢铁股份有限公司 Baoshan Iron & Steel Co., Ltd.	<p>宝钢股份热轧现有3条产线：2050mm、1550mm、1880mm。</p> <p>Baosteel hot rolling plant currently has three production lines of 2050mm, 1550mm, and 1880mm.</p>
<p>宝钢股份上海梅山钢铁股份有限公司 Baosteel Shanghai Meishan Iron & Steel Co., Ltd.</p>	<p>梅钢是一个集采矿、选矿、烧结、焦化、炼铁、炼钢、轧钢为一体且辅助配套齐全的现代化钢铁联合企业，具备300万吨钢的综合生产能力，热轧为1442mm全连续轧机。</p> <p>Meishan Iron and Steel is a modern iron and steel conglomerate of various functions such as mining, separation, sintering, coking, iron-smelting, steel-making, steel-rolling, etc. and complete ancillary facilities as well. The enterprise has a comprehensive steel production capacity of 3 million tons with 1442mm completely continuous rolling mill applied for hot rolling.</p>
<p>宝钢股份不锈钢分公司 Baosteel Stainless Steel Branch</p>	<p>不锈钢分公司1780mm热连轧机组，以生产不锈钢和碳钢热轧板卷为主。设计年产量：280万吨，其中：年产不锈钢热轧板卷69.8万吨，年产碳钢热轧板卷212.4万吨。</p> <p>The 1780mm Hot continuous rolling mill of the Stainless Steel Branch is mainly engaged in the production of stainless steel and carbon steel hot rolled coil. Its designed annual capacity is 2.8 million tons, including 698,000 tons of stainless steel hot-rolled coils and 2.124 million tons of carbon steel hot-rolled coils.</p>

B1 宝钢产线聚焦

Focusing on Baosteel's Production Line

>> 彩涂单元

总产能: 54万吨

成品规格:

宽度: 700-1550mm

厚度: 0.35-1.8mm

>> Color-cating Unit

Total capacity: 540,000 tons

Product Specification:

Width: 700-1550mm

Thickness: 0.35-1.8mm





生产单元
Production Unit

机组特点、产能
Features and Capacity of the Unit

宝山钢铁股份有限公司
Baoshan Iron & Steel Co., Ltd.

彩色涂层钢板是以热镀锌板、热镀铝锌板、电镀锌板、冷轧板等为基板，经表面预处理（化学脱脂及化学转化处理）之后，在表面涂敷一层或几层有机涂料，随后经过烘烤固化而成的产品。

宝山钢铁股份有限公司目前有3条彩色涂层钢板机组，其装备水平处于国内领先地位，机组采用二涂二烘工艺。一号彩涂机组设计年生产能力22万吨，二号彩涂机组设计年生产能力17万吨，三号彩涂机组设计年生产能力15万吨。

宝钢彩涂板基板采用优质热镀锌板、热镀铝锌板、电镀锌板和冷轧板，涂料采用国内、外著名涂料生产商生产的聚酯、硅改性聚酯、高耐久性聚酯(HDP)、聚偏氟乙烯(PVDF)，配以宝钢先进的管理和技术以及在彩涂板生产方面的经验，因此可以生产出质量优良外观优美的各类彩涂板，另外还可以生产压花板和印花板。宝钢彩涂板因具有优良的成型性能、耐久性能和丰富多彩的颜色而被广泛的应用于建筑、家电、家具等行业。

Color-coated steel plate are products with the substrate of hot-dip galvanized sheet, electro-galvanized sheet, cold-rolled sheet which are subjected to surface preparation (chemical degreasing and chemical conversion) before one or several layers of organic paint is coated on the surface, and the product is baked and solidified.

Baoshan Iron and Steel Co., Ltd. currently has three color-coated steel plate units. Double coating and double baking techniques are applied in the domestically advanced facilities of the enterprise. The designed annual capacity of the three color-coated steel plate units is 220,000 tons, 170,000 tons and 150,000 tons respectively.

The substrates of Baosteel's color-coated steel plate are high-quality hot-dip galvanized sheet, hot-dip aluzinc, electro-galvanized sheet, and cold-rolled sheet. Coating material are polyester, silicon modified polyester, high-durability polyester (hdp), polyvinylidene fluoride (pvdf) produced by famous domestic and foreign manufacturers. Baosteel's advanced management and technology and her experience in terms of the production of color-coated plates also contribute to the excellent quality and elegant appearance of various types of color-coated steel plate products, and some other products such as embossing plates and printing plates. Featuring excellent formability, durability and variety of colors, Baosteel's color-coated plates are extensively applied in various industries such as construction, household apparatus, furniture, etc.

B1 宝钢产线聚焦

Focusing on Baosteel's Production Line

>> 热镀锌单元

总产能: 240万吨

成品规格:

宽度: 800-1800mm

厚度: 0.3-3.0mm

>> Hot-dip Galvanizing Unit

Total capacity: 2.4 million tons

Product Specification:

Width: 800-1800mm

Thickness: 0.3-3.0mm



生产单元
Production Unit

宝山钢铁股份有限公司
Baoshan Iron & Steel Co., Ltd.

机组特点、产能
Features and Capacity of the Unit

宝钢现有七条热镀锌生产线: 2030CGL (35万吨/年)、1550CGL (35万吨/年)、热镀锌线 (20万吨/年)、1800 1# (45万吨/年) 及2#CGL (35万吨/年), 2008年两条生产能力各为35万吨/年的新线相继投产。目前, 宝钢已拥有240万吨/年的热镀锌生产能力。

热镀锌产品的厚度为0.3-3.0mm, 宽度为800-1800mm; 镀层种类包括纯锌镀层和合金化镀层, 并且可以等厚和差厚镀的形式供货; 常规产品表面结构: 光整锌花、小锌花、零锌花和锌铁合金; 表面处理方式: 涂油、铬酸钝化、铬酸钝化加涂油、环保钝化、环保钝化加涂油、环保耐指纹。

宝钢引进国外先进的高速镀锌生产线, 其装备水平处于国内领先地位。

新建机组采用能生产各类高质量的汽车用CQ-SEDDQ级、高强钢产品的生产工艺, 高强钢最高强度等级达780Mpa。

宝钢基于“绿色制造、制造绿色”的理念, 实现了钢板生产和最终产品的环保化, 可根据用户需求提供符合RoHS指令的环保型热镀锌产品。

宝钢热镀锌产品广泛应用于汽车、家电、建筑、机械制造等行业。

宝钢热镀锌基板原料由宝钢股份冷轧生产线提供, 从而保证了原料的化学成分的稳定、钢质的纯净以及优良的尺寸精度。

宝钢热镀锌产线具有良好的在线镀层厚度控制设备及各关键工序的质量控制手段, 保证产品具有良好的镀层控制精度、出色的涂附性能、焊接性能。

Currently Baosteel has 7 hot-dip galvanizing production lines: 350,000 tons of 2030CGL, 350,000 tons of 1550CGL, 200,000 tons of hot-dip galvanizing line, 450,000 tons of 1800 1#, and 350,000 tons of 2#CGL. Two new lines each of which has an annual capacity of 350,000 tons were put into operation in 2008. Currently, Baosteel has an annual hot-dip galvanizing capacity of 2.4 million tons.

The hot-dip galvanizing products are 0.3-3.0mm in thickness and 800-1800mm in width. The types of coating include pure zinc coating and alloy coating, and the products can be supplied in both forms of equal-thickness coating and different-thickness coating.

Surface structure of conventional products: finishing spangle, small spangle, zero spangle and zinc-iron alloy;

Surface treatment: oil coating, chromate passivation, chromate passivation plus oil coating, environment-friendly passivation, environment-friendly passivation plus oil coating, environment-friendly fingerprint resistance.

By introducing advanced high-speed galvanizing production line from abroad, Baosteel has taken the leading position in terms of facility and equipment in China.

The newly established unit applies the technique for the production of various quality CQ-SEDDQ grade high-strength steel. The strength of the maximum grade steel produced by Baosteel is 780Mpa.

Baosteel adheres to the philosophy of “Green Production and Producing Green” by realizing the environmental protection during her production of steel plates and final products; Baosteel can also provide environment-friendly hot-dip galvanizing products in compliance with RoHS directive according to the requirement of users.

Baosteel's hot-dip galvanizing products are extensively applied in various industries such as automobile, household apparatus, construction, machinery manufacturing, etc.

The substrate material of Baosteel's hot-dip galvanizing products is provided by Baosteel's cold and hot rolling production line, thus guaranteeing the chemical composition stability, steel purity, and precise dimension of the material.

Baosteel's hot-dip galvanizing products boast their online coating thickness controlling equipment and good quality control measures of various key procedures, guaranteeing good accuracy of the coating thickness, excellent coating and welding performance of the products.

B1 宝钢产线聚焦

Focusing on Baosteel's Production Line



宝钢的钢管产业包括中小口径热轧无缝管、特种合金无缝轧管、冷轧和冷拔无缝钢管、中大口径高频电阻焊管、大口径直缝埋弧焊管等产品，集科研、产品开发、加工检验、产品销售于一体，实行从炼铁、炼钢（转炉、电炉）、热轧钢卷、厚板、条钢、到制管的一贯制质量管理，具有特大型钢铁联合企业综合生产的规模化优势，是目前中国最现代化的高品质钢管生产基地之一。

Baosteel's steel pipe products include medium- and small-diameter hot-rolled seamless pipe, rolled special alloy seamless pipe, cold-rolled and cold drawn seamless steel tubes, medium- and large-diameter high-frequency resistance welding pipe, large-diameter LSAW pipe, etc. Baosteel integrates her R&D, processing, testing, and product sales and conducts a consistent quality management on iron-making, steel-making (converter, electric furnace), hot-rolled steel coil, thick plates, bar steel, pipe-making, etc. and thus establishing the scale advantages of comprehensive production as a large iron and steel conglomerate.

>> 无缝钢管单元

产品为热轧无缝钢管。

产品钢质纯净，成分均匀稳定，表面质量好，几何尺寸精度高，综合力学性能及工艺性能优良，品种有：

- 油套管
- 汽车用热轧无缝钢管
- 钻杆
- 气瓶用无缝钢管
- 锅炉管
- 流体输送用管
- 管线管
- 管道、容器、设备结构用管
- 液压支柱用管
- 隔热油管
- 射孔枪管
- 地质勘探用管
- 石油裂化管
- 船用管

总产能：110万吨

成品规格：

外径：Φ21.3—Φ325mm

壁厚：2.5—30mm

>> Seamless Tube Unit

Product: hot-rolled seamless steel pipe.

The products are of uniform and stable composition of pure steel, good surface quality, highly accurate geometric dimension, excellent mechanical property and technical performance. The products include such following types of products:

- Oil pipe casing
- Hot-rolled seamless steel pipe for autos
- Drill rod
- Seamless steel pipe for gas tank
- Boiler pipe
- Fluid transport pipe
- Pipeline tube
- Pipeline, container, device structure tube
- Hydraulic prop pipe
- Insulated tubing
- Perforating gun barrel
- Geological drilling tube
- Oil cracking tube
- Marine tube

Total Capacity: 1.1 million tons

Products Specification:

OD: Ø21.3—Ø325mm

Wall thickness: 2.5—30mm



>> HFW单元

宝钢高频直缝焊管生产线2005年10月建成投产。该生产线是一条集先进成型技术、大功率焊接、功能齐全的无损探伤技术、焊缝双重热处理和全管体热处理设备、全过程的计算机料流跟踪系统于一体的中口径直缝焊管生产设备，是世界上装备最先进的焊管生产线之一，主体设备由德国SMS MEER、挪威EFD等世界上先进的直缝焊管设备制造商提供，年产30万吨，其中：管线管18万吨，套管9万吨，结构管3万吨。

总产能：约30万吨

成品规格：

外径：Φ219-Φ610mm

壁厚：4-20mm

>> UOE钢管单元

宝钢UOE大口径直缝埋弧焊管机组投产于2007年，采用世界先进、成熟的UOE大口径直缝埋弧焊管生产工艺，主体设备由德国SMS MEER等世界上最先进的直缝焊管设备制造商提供，是目前世界上装备最为先进、成型能力最大的UOE焊管生产线之一。

产品的尺寸和外形控制精度高，表面光洁，外形美观。钢质纯净，碳、磷、硫及夹杂物的含量低。管体和焊缝冲击韧性高，残余应力小，内外分布均匀，焊接性能优良，能保证产品质量及现场对口组装焊接的质量。

总产能：约50万吨

成品规格：

外径：Φ508-Φ1422mm (20"-56")

壁厚：6-31.8mm

长度：6000-18000mm

>> HFW Unit

Baosteel's production line of high-frequency longitudinal welded pipes was completed and put into operation in October 2005. The production line is the equipment for the production of medium diameter longitudinal welded pipes with the integration of advanced molding technology, large-power welding, full-purpose non-destructive testing technology, double heat treatment of welding seams, equipment for the heat treatment of full pipe body, complete process of computer material tracking system. It is one of the world's most advanced welding pipe production lines. The main equipments are provided by various world-renowned longitudinal welded pipe manufacturers such as German SMS MEER, Norwegian EFD, etc. The production line has an annual capacity of 300,000 tons, including 180,000 tons of pipeline tubes, 90,000 tons of casing pipes, and 30,000 tons of structural pipes.

Total Capacity: appr. 300,000 tons

Products Specification:

OD: Ø219-Ø610mm

Wall thickness: 4-20mm

>> UOE Steel Pipe Unit

Baosteel's UOE large-diameter longitudinal submerged arc welding pipe unit was put into operation in 2007. The unit applies world advanced and mature techniques for the production of UOE large-diameter longitudinal submerged arc welding pipe. The main equipment is provided by various world-renowned longitudinal welded pipe manufacturers such as German SMS MEER, Norwegian EFD, etc. It is one of the world's most advanced lines with the greatest molding ability for the production of UOE welding pipes.

The product size and shape has high precision requirements. It is smooth surface and graceful appearance. The steel has pure quality with less carbon, phosphorus, Sulfur and other ingredient. It has good performance for welding with high tenacity to ensure the product quality and onsite welding quality.

Total Capacity: appr. 500,000 tons

Products Specification:

OD: Ø508-Ø1422mm (20"-56")

Wall thickness: 6-31.8mm

Length: 6000-18000mm

B1 宝钢产线聚焦

Focusing on Baosteel's Production Line

>> 与钢铁相关产业

宝钢金属有限公司是宝钢集团的全资子公司，目前已基本形成了以金属包装、钢结构、工业气体为核心业务的产业格局，加工的产品主要有钢制易拉罐、金属彩色涂层、重型钢结构、轻型钢结构、高频焊接H型钢、冷弯型钢等，公司正致力于发展核心产品，使其成为宝钢产品延伸设计、加工的精品产业基地，打造“宝钢钢构”的品牌形象。

>> Steel-related Industries

Baosteel Metal is the wholly-funded subsidiary of Baosteel Group. The core businesses are metal packaging, steel structure and industrial gases. The main products offered include steel cans, metallic color coat, heavy steel structure, light steel structure, ratio-frequency welding H model steel, cold roll-forming steel, etc. The Company is dedicated to developing its core products to build up “Baosteel Steel Structure” brand image and also make itself a refined production base complementary to Baosteel's product design and processing.



上海冠达尔钢结构有限公司

宝钢金属下属冠达尔公司具有国家建设部颁发的钢结构工程承包一级资质证书，钢结构工程设计甲级资质是国内钢结构行业中首批通过质量管理体系(ISO9000)认证和环境职业健康安全体系认证的企业，持有加拿大焊接局(CSA)认证证书、美国钢结构协会(AISC)认证证书，是美国焊接协会(AWS)的会员单位。

公司成功地完成了国内外包括上海杨浦大桥、卢浦大桥、徐浦大桥、上海环球金融中心大厦、中央电视台新台址主楼、美国洛杉矶升降桥、英国温布利大球场、日本相马电厂、新加坡会展中心等一大批著名重大建设工程钢结构的生产安装，产品遍及世界五大洲，并形成了高层建筑、桥梁、塔桅、核电、火电、空间结构、重型厂房及设备八大产品系列。

Shanghai Grand Tower Steel Structure Co., Ltd.

Shanghai Grand Tower Steel Structure Co., Ltd. is a certified holder of Grade I Qualification Certificate for contracting steel structure projects issued by the Ministry of Construction, and Class I qualification for steel structure project designing, which is among the first batch of enterprises accredited through the ISO9000 quality management system and environment/profession health and safety system. Shanghai Grand Tower Steel Structure Co., Ltd is also the CSA certificate holder, AISC certificate holder and AWS member.

Shanghai Grand Tower Steel Structure Co., Ltd. has successfully completed a series of important and renowned projects, including Shanghai Yangpu Bridge, Lupu Bridge, Xupu Bridge, Shanghai World Financial Center, CCTV New Site Main Tower, Los Angeles Lifting Bridge in US, Wembley State Stadium in UK, Soma Power Station in Japan, Singapore MEGA Exhibition and Convention Center, etc. The footprints of Grand Tower have walked across the five continents of the world with its 8 major product series, including high-rise building, bridge, tower mast, nuclear power, thermal power, space structure, heavy plant premises.

上海宝钢建筑工程设计研究院

宝钢金属下属上海建筑工程研究院冷弯型钢厂曾为上海中环线工程“三环十连”骨架路网、舟山连岛工程——西堠门大桥工程提供U型加强肋的制作。产品规格齐全，具有超大、超厚的特点：

- 方矩型管最大规格500 × 500 × 19mm
- 方矩型管最大厚度达19mm，相对厚度可达边厚比7。
产品系列规格齐全：
方管：20*20*1.5 – 500*500*19
矩型管：25*12.5*1.5 – 600*400*19
结构圆管：Ø33.5*2 – Ø355*16
- 冷弯大截面厚壁槽钢、C型钢、帽型钢、钢板桩、U型加强肋等各类开口型材。桥梁用U型加强肋主要尺寸（最大开口600mm、最大高度350mm）。

上海大通钢结构有限公司

宝钢金属下属上海大通钢结构有限公司是国内最早引进、专业生产高频焊接薄壁H型钢的合资公司。

- 可生产的主要材质：
GB700-88碳素结构钢Q235
GB/T1591-94低合金高强度结构钢
Q/BQB B400RNQ/B490RNQ耐火耐候钢
- 可根据用户要求，生产各种材质、规格、定尺外的产品，及根据客户要求生产部分T型钢，并可涂装交货，订做钢构件。
- 规格：100×50×2.3×3.2 – 400×200×4.5×9

Shanghai Baosteel Construction Design & Research Institute

Shanghai Baosteel Construction Design & Research Institute Cold Roll-forming Steel Factory under Baosteel Metal has ever provided U-shape strengthening rib production services for the road network “3 rings 10 connections” of Shanghai Middle-ring Road Project and Xihoumen Bridge of Zhoushan Islands Connection Project. Full series of products are provided, featured with super-large and super-thick natures.

- Rectangular Steel Tube Max. Specification: 500 x 500 x 19mm
- Rectangular Steel Tube Max. Thickness: 19mm, Relative Thickness: Edge Thickness: 7
Full series of products provided:
Square Steel Tube: 20*20*1.5 – 500*500*19
Rectangular Steel Tube: 25*12.5*1.5 – 600*400*19
Structural Round Steel Tube: Ø33.5*2 – Ø355*16
- Large thick-walled cold-formed steel channels, C-shape steel, cap-shape steel, steel stake, U-shape strengthening rib. The Size of U-shape strengthening rib for bridge use: Max hatch 600 mm, Max Height 350mm

Shanghai Datong Steel Structures Co., Ltd.

Baosteel Joint venture Shanghai Datong Steel Structures Co., Ltd., is the earliest professional company for ratio-frequency welding H model steel.

- Main Products:
GB700-88 Carbon Steel Q235
GB/T1591-94 Low-alloy Steel
Q/BQB B400RNQ/B490RNQ Fire-resistant Steel
- The company can produce customized products according to the requirements of the clients in Material Types, Specifications and Sizes, with specified coats or parts.
- Specifications: 100×50×2.3×3.2 – 400×200×4.5×9

B2 宝钢一贯制质量管理与6σ精益运营

Baosteel Consistent Quality Management and 6σ Lean Operation



宝钢自1983年开始建立一贯制质量管理体系，不断吸收世界先进的质量管理理念和方法，提升大生产现场对制造工艺的执行力，提高制造工艺过程的执行精度，保证产品制造过程的全程受控；

宝钢把解决“缺陷”和“波动”问题的“6σ管理”和解决“浪费”和“速度”问题的“精益运营管理”有机结合，追求卓越，形成了宝钢特色的以6σ精益运营为基本框架、多层面有机协同的持续改进体系。

In 1983, Baosteel has started to establish a consistent quality management system which aims to enhance the implementation quality of production process and improve the precision during processing and guarantee the inspection of whole production processes by adopting world's leading quality management concepts and methods.

Baosteel has developed a continuous improvement system with Baosteel characteristics which adopted 6σ lean operation as the framework and multifunction support thus integrated 6σ management of “imperfection” and “fluctuation” together with lean operation of “waste” and “speed”.

>> 质量管理建设发展阶段

Period of Quality Management Building and Developing

1983	1992	2001
基础建设 Infrastructure	国际接轨 Integrate with the world	深化发展 Deepening development
<ul style="list-style-type: none"> • 实施一贯质量管理方式 • 建立质量组织机构网络 • 建立健全规程体系 • 明确职能分配和业务流程 • Implement consistent quality management method • Establish quality organization network • Establish and improve regulation system • Clear function distributions and business process 	<ul style="list-style-type: none"> • 开展各类产品认证 • 建立ISO9001质量体系 • 按标准+α组织生产 • 质量改进由封闭型向开放型转变 • Implement various of product certification • Establish ISP9001 Quality System • Organize production with standards+α • Change quality improvement from close to open. 	<ul style="list-style-type: none"> • 按ISO/TS16949标准深化质量管理 • 建立一体化综合管理体系 • 实施6σ精益运营 • Deepen quality management according ISO/TS16949 standards • Establish integrated comprehensive management system • Implement Lean 6σ Operation



宝钢一贯制质量管理体系下的实物质量

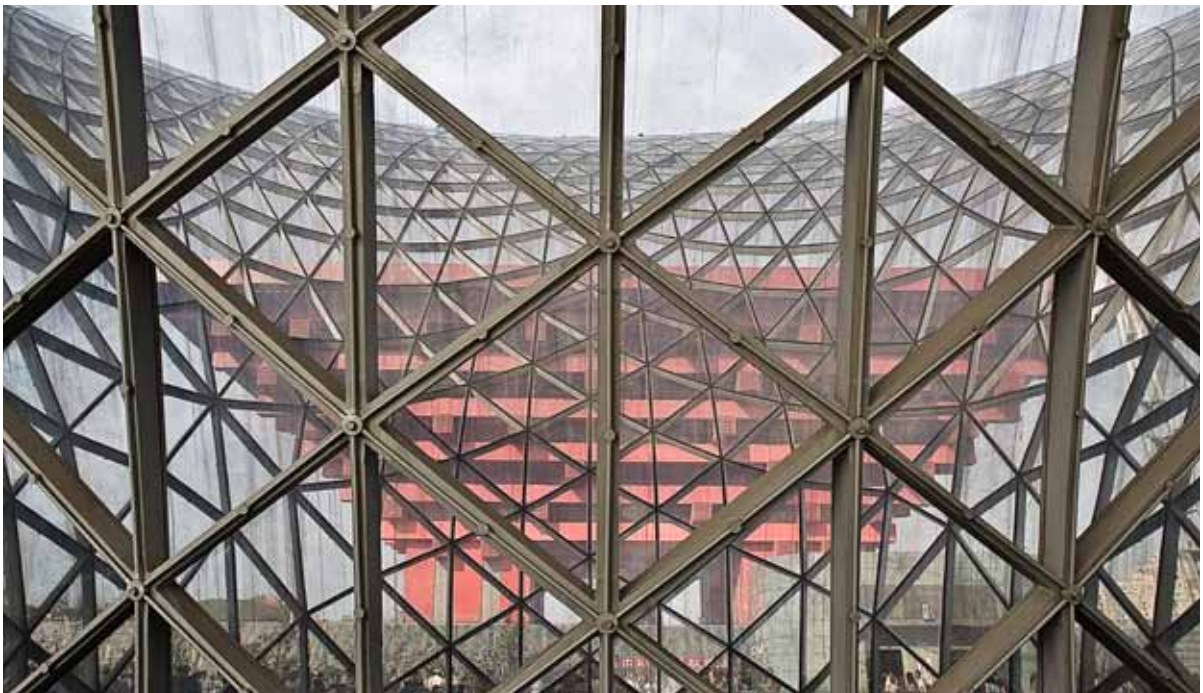
钢水纯净高: 宝钢运用先进的炼钢设备和技术, 并通过铁水脱硫、转炉脱磷和炉外精炼设备RH-MFB、LF、RH-OB、KIP/CAS, 钢水的化学成分控制稳定, 波动小, 使钢水纯净度能够达到: S含量 $\leq 10\text{ppm}$, P含量 $\leq 80\text{ppm}$, 全氧含量 $\leq 20\text{ppm}$, [H] $\leq 1.5\text{ppm}$ 的世界一流水平。

铸坯水平高: 连铸坯内质优良, 中心偏析可以稳定控制在M20级以下, 低倍内裂、三角区裂纹、角裂、夹杂及黑点等缺陷可以控制在 ≤ 10 级, 铸坯冶金质量好, 且板坯尺寸控制精度高。

The Actual Product Quality under Baosteel's Consistent Quality Management System

High Purity of Molten Steel: With advanced the techniques and facilities such as RH-MFB, LF, RH-OB, KIP/CAS, the chemical ingredients of molten steel can be steadily controlled with low fluctuation. Purity can attain the world leading quality, e.g. S $\leq 10\text{ppm}$, P $\leq 80\text{ppm}$, O $\leq 20\text{ppm}$, [H] $\leq 1.5\text{ppm}$.

High Quality of Casting: The casting can be steadily controlled below Level M20 and faults below Level 10. The metallurgy quality is good and the precision of size is high.

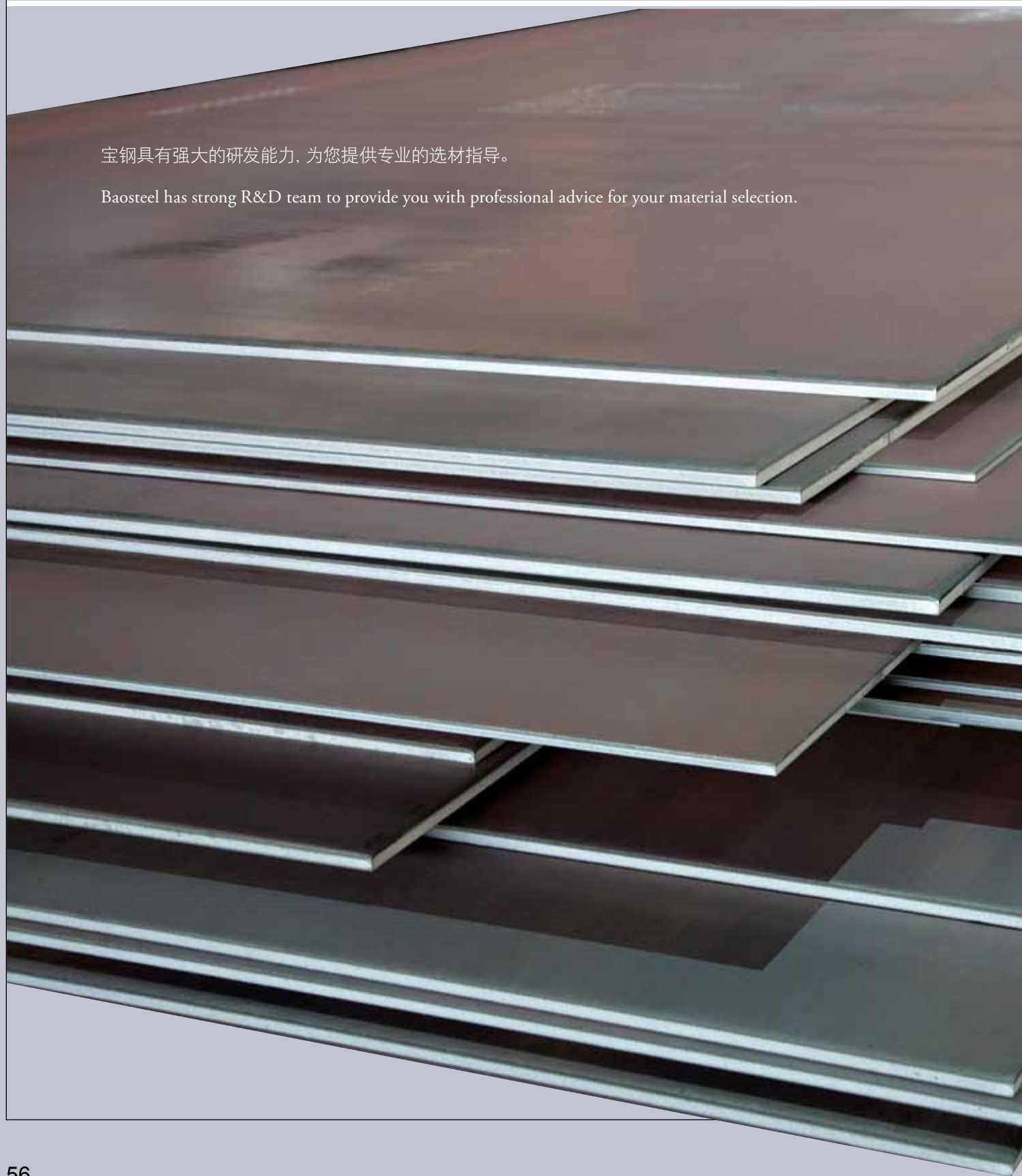


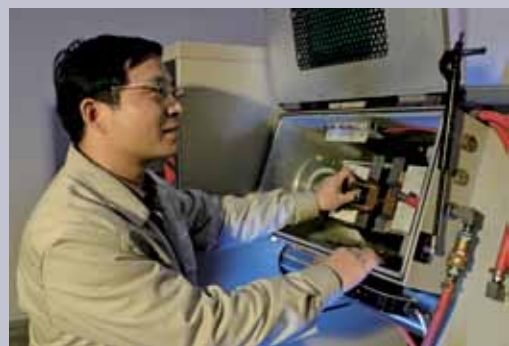
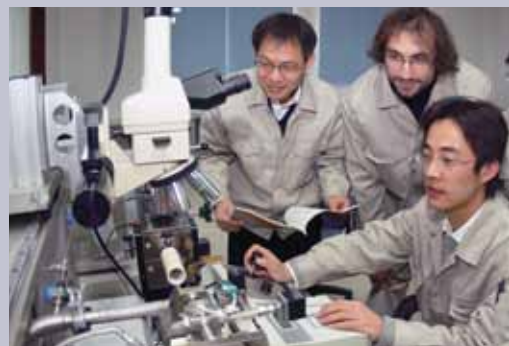
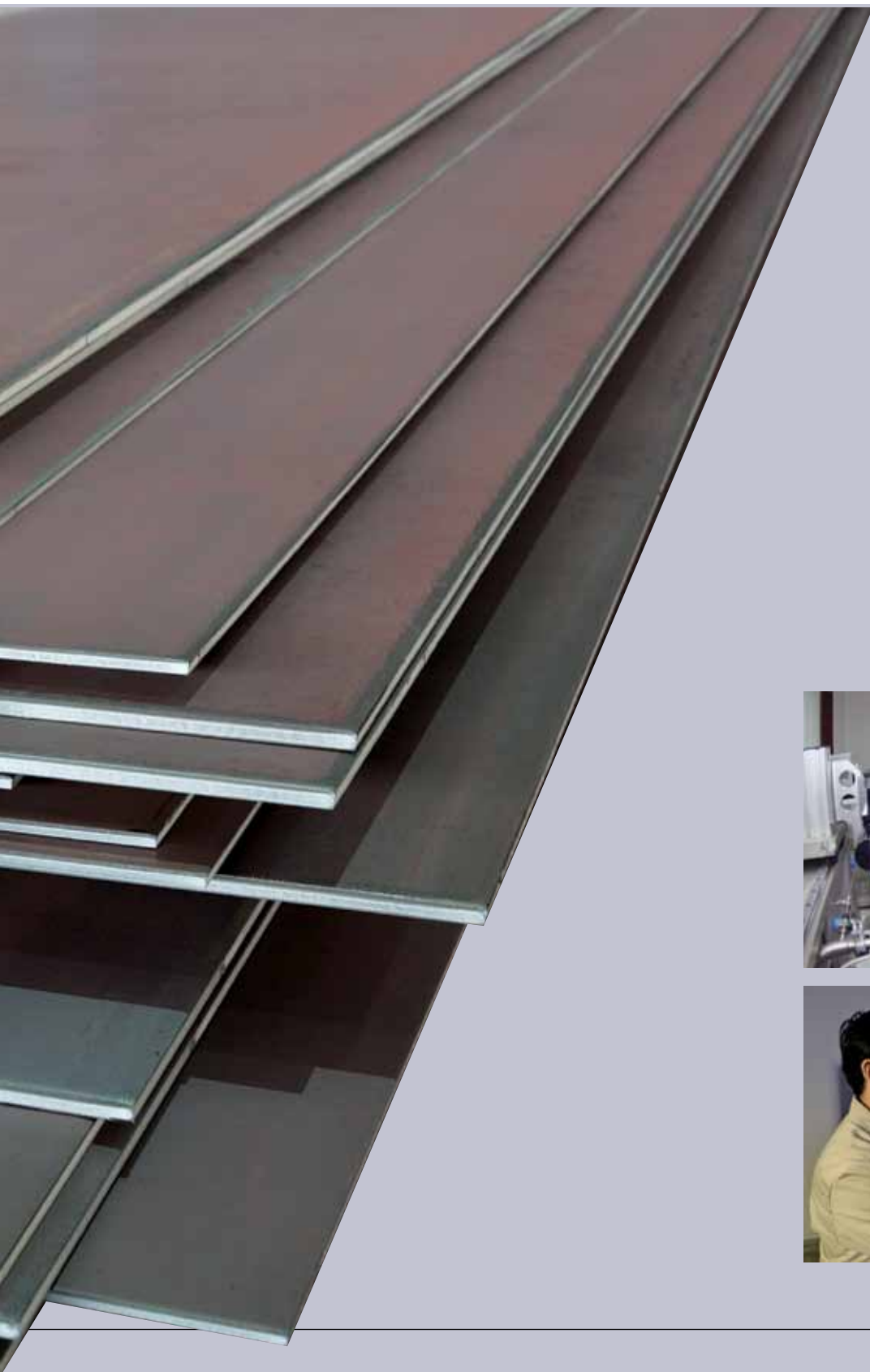


研发篇 Research & Development

宝钢具有强大的研发能力, 为您提供专业的选材指导。

Baosteel has strong R&D team to provide you with professional advice for your material selection.





C1

研发能力与研发模式 R&D Capacity and Model



研发能力

机构: 宝钢的研发机构

公司级研发机构——宝钢研究院(技术中心)

人才: 拥有一支由数百位首席专家、博士领衔的科研队伍。

荣誉: 连续十年荣获全国冶金企业技术中心排名第一位

R&D Capacity

Organization

Baosteel's R&D organization: Research Institute (R&D Center)

Manpower

A scientific team of hundreds of chief experts and PhDs.

Honor

Continuously ranked No.1 in National Metallurgical Enterprise Technology Center for 10 years.



研发模式 R&D Model

工程规划 Project Planning	工程设计 Project Design	工程建设 Project Construction	工程竣工 Project Completion
<ul style="list-style-type: none"> 工程规划跟踪 Project planning tracking 国内外同类工程用钢信息的研究 Abroad and domestic construction steel information study 工程用钢应用环境的辨识 Application environment analysis of construction steel 工程用钢可制造性的辨识 Manufacturability analysis of construction steel 工程用钢机理研究 Mechanism study of construction steel 工程用钢新产品的开发 New products development 	<ul style="list-style-type: none"> 与业主、设计单位的技术交流 Technical communication with customer and design unit 工程用钢技术条件的确认 Technical condition confirmation 工程用钢个性化需求的确认 Customization requirements confirmation 工程用钢新产品的工业试制 New product trial production 工程用钢新产品应用技术的研究 Application technology study of new product 工程用钢新产品的推荐 New product recommendation 	<ul style="list-style-type: none"> 工程用钢新产品的试用 New product trial 工程用钢新产品加工工艺的优化、评定 Optimization and evaluation of processing technology 工程的技术服务与支撑 Technical service and support 	<ul style="list-style-type: none"> 工程用钢技术总结 Techniques summary of construction steel 工程用钢的进一步优化 Further optimization



C2 研发成果

R&D Outcomes

新产品名称 New Products	应用工程 Project Application	意义 Significance
Q460E-Z35 高强度结构钢板 Q460E-Z35 High Strength Steel	CCTV新台址工程 CCTV new site project	目前国内迄今为止单体建筑结构用钢量最大、用钢等级最高的建筑，Q460E-Z35厚钢板作为目前国内建筑用钢的最高等级，宝钢在CCTV新址工程中实现批量供货。 It is the architecture with the most and highest class steel consumption in a monomer architecture so far in China. Q460E-Z35 High Strength Steel is the highest class steels for construction purpose in China, which can be supplied in bulk in CCTV new site project.
SN490系列 高层建筑结构钢板 SN490 Series High-rise Structure Steel Board	上海环球金融中心、 日本平河町大厦、 日本阪急梅田大厦 Shanghai World Financial Centre, MORI Building, Yodobashi Tower	日本高层建筑结构钢板的代表钢种，SN490系列钢板具有较高的技术要求，在上海环球金融中心供货6000余吨，顺利获得JIS认证，成功进入对建筑用钢有着极高要求的日本建筑市场。 It is a typical steel type for high-rise steel structure in Japan, SN490 Series is able to meet the high requirements of construction. For Shanghai World Financial Centre project, over 6,000 tons were consumed and also certified by JIS.
TS250GD+AZ 三涂层彩涂板 TS250GD+AZ 3-layer Coated Steel Board	浦东国际机场T2航站楼 Terminal 2, Shanghai Pudong International Airport	宝钢生产的三涂层彩涂板完全满足设计技术要求，并于2006年3~7月成功供货1200吨，产品质量得到指挥部、设计单位的充分肯定。在浦东机场T2航站楼屋面系统用板的成功开发、应用的基础上，继而在浦东国际机场物流区项目建设中推广使用。 The product has fully met the requirements of designed techniques. During March to July 2006, 1200 tons has been successfully delivered with good testimonials from the command center and contractors. Following the success in the Terminal 2, Shanghai Pudong International Airport Project, it will be promoted to more projects such as Shanghai Pudong International Airport Logistics Area Project.
BLY160、BLY225 低屈服强度钢板 BLY160, BLY225 Low Yield Strength Steel	世博中心、 上海虹桥交通枢纽中心 EXPO Center, Shanghai Hongqiao Transport Hub	世博会作为人类在社会、经济、文化和科技领域取得成就的国际性大型展示舞台，宝钢、同济大学联合开发的屈曲约束支撑构件满足上海世博中心工程设计要求，达到国外同类产品的水平，并在世博中心项目上得到应用推广；首次实现国产化，替代进口同类产品，具有重要的示范性和创新性。 上海虹桥交通枢纽中心项目上实现全部国产化，填补了国内空白。 EXPO 2010 set up a grand stage to show to people the achievements made with our society, economy, culture and technology. The product developed by Baosteel together with Tongji University has met the requirements of EXPO Center project, which has reached the world new height in techniques and has been greatly promoted with EXPO Center project. And it is also the first time to produce this kind of product domestically, which set a good example for others to learn from. For Shanghai Hongqiao Transport Hub, all this kind of products are fully produced domestically.

新产品名称 New Products	应用工程 Project Application	意义 Significance
B400RNQ、B490RNQ 耐火耐候钢 B400RNQ, B490RNQ Fire-resistant and Climate-resistant Steel	上海中福城、 南极长城站 Shanghai Zhongfu City, Antarctic Great Wall Station	耐火耐候钢克服了钢结构建筑防腐和防火两个致命弱点, 既降低了防腐涂装施工成本, 又大大提高了建筑的防火等级, 确保了在600℃时钢材屈服强度下降不大于规定的室温屈服强度的1/3, 是一种具有“绿色环保”、可持续发展的经济类钢材。 The product has overcome the two vital weakness in anit-erosion and fire-resistant, which cuts down the cost of construction and increase the effectiveness of fire-resistant. The Product ensures a good performance under the environment of 600°C, and is considered as the green and sustainable yet economic steel product.
Q420GJCW (BRA520C-Z15) 高强度耐候钢板 Q420GJCW (BRA520C-Z15) High Strength Climate-resis- tant Steel	广州新电视观光塔 New Guangzhou TV and Sightsee- ing Tower	广州新电视观光塔作为目前在建的“世界第一高塔”, 宝钢成功开发的Q420GJCW高强度耐候钢板, 用于顶部天线桅杆实腹段, 在国内外尚属首次使用的新产品, 达到国际先进水平。 This is the highest TV and sightseeing tower in the world. Baosteel successfully developed this product used for parts of the antenna on the top of tower, which is also the first time to use this kind of new product.



广州新电视塔位于新港中艺苑路, 包括发射天线在内, 总高达610米, 建成后将作为世界第一高塔。

中央塔身由46环钢柱组成, 24根直径约2米的钢管围绕着塔身盘旋而上, 形态优美的“纤纤细腰”呈由下至上逐渐变小的形状, 以“广州新气象”为主题的广州新电视塔将成为现代广州的新地标。该工程于2005年开建, 于2009年9月正式完成。

New Guangzhou TV and Sightseeing Tower is the highest tower in the world, 610m high including the antenna, and built with 46 steel rings and 24 steel tubes of 2m in diameter, which is the landmark of new Guangzhou. The project commenced in 2005 and completed in September 2009.

上海中福城二期是继中福城一期开发后进行的一个旧区改造项目, 是浙江路汉口路步行街总体规划的组成部分, 是上海市首幢高层钢结构住宅建筑。

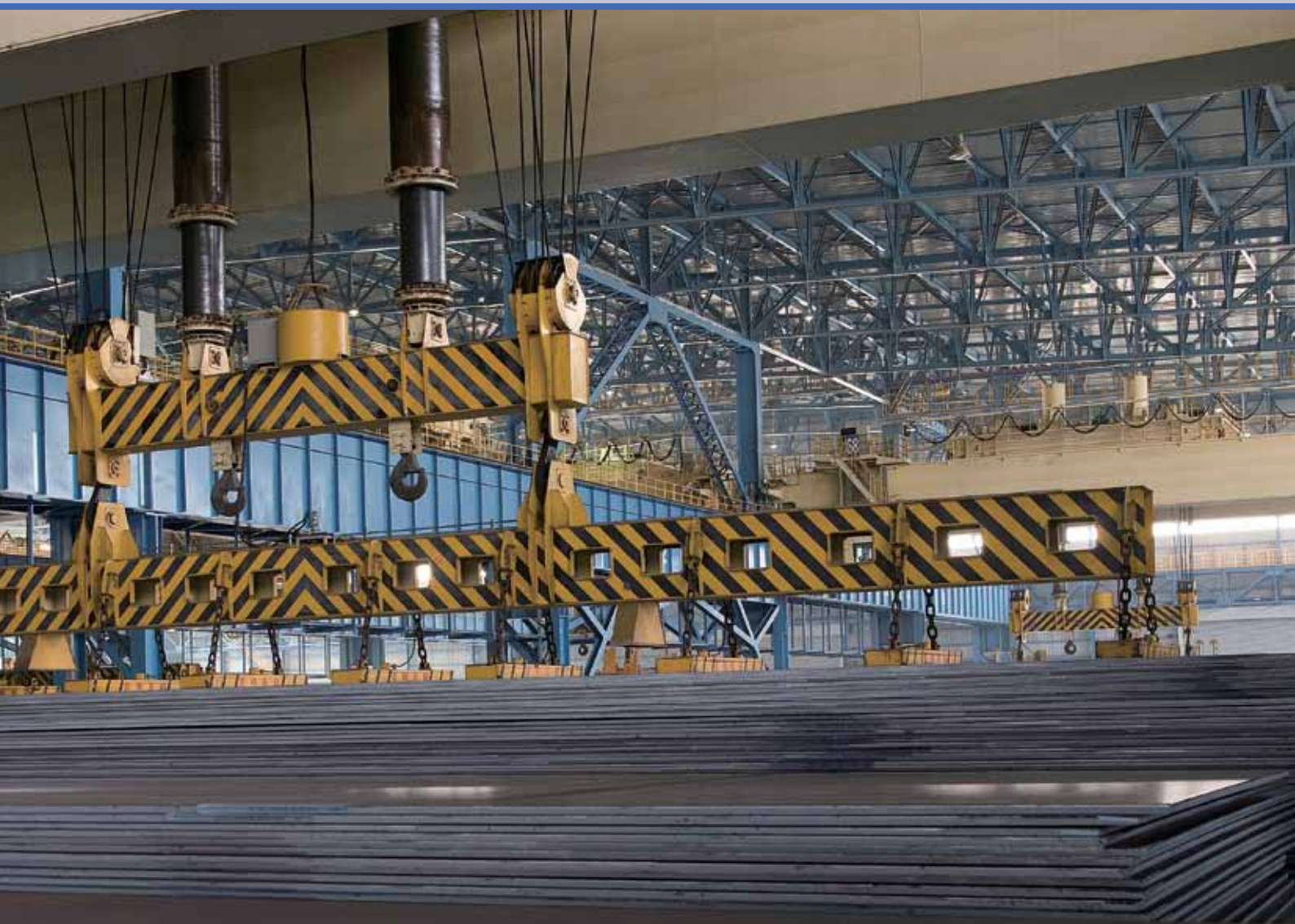
Shanghai Zhongfu City Phase II is a city improvement project following its Phase I, located near to Zhejiang Road Hankou Road Walking Steet, and is also the first high-rise with steel structure.



D 服务篇 Service

- >> 重大工程材料供应服务体系介绍
- >> 贸易服务平台
- >> Introduction on Major Project Material Supply System
- >> Trade Service Platform





宝钢通过参与国家重大工程建设，建立起最具竞争力的重大工程营销体系，2002年成立的宝钢重大工程材料供应中心致力于为国家重大工程建设创建一个高效、全面和超值服务的窗口和平台，并根据地域及专业分工原则为重大工程项目配备贸易服务平台提供快速响应的绿色服务通道。

Baosteel participated in many important nation-level construction project, and has built up competitive marketing system as an efficient, overall and super-value window and platform for those high level of projects, and also provide green channel for quick response to large-scale projects.

D 服务篇 Service

>> 重大工程材料供应服务体系介绍

营销管理部重大工程材料室设立桥梁、建筑、能源三大业务模块，对外负责重大工程的交流、谈判及工程招投标工作，并代表集团公司对外签订总体框架协议；对内发挥集团优势，组织制定工程材料供应价格和资源方案，负责为重大工程用户提供全面优质服务。

重大工程材料供应服务体系依托集团一体化运作优势，做大做强钢铁深加工业，打造宝钢最具竞争力的“钢构产业链”，为项目建设提供从钢材供应、钢结构加工制作，到施工安装管理的一体化解决方案。

重大工程材料供应服务体系依托宝钢人才和技术优势，组建宝钢重大工程材料供应技术专家库，汇聚26位宝钢工程建筑用钢领域专家，负责重大工程项目的前评估、后评价以及研发和技术交流，提前介入工程项目并提供全程技术服务跟踪，为供料的顺利进行提供强大的技术支持。

对于中标的重大工程项目，采用《重大工程项目材料供应计划任务书》（以下简称：《任务书》）管理模式进行项目供料管理。《任务书》内容涉及集团内部自主研发—制造—营销服务等各个环节。责任、任务部署明确，建立了执行、跟踪、监督、协调、处理的全过程控制体系，保证重大工程项目供料顺利完成。

宝钢将秉承“诚信为本、用户至上”的宗旨，立足精品战略，为海内外重大工程项目提供“一流的产品、一流的服务”，在重大工程项目供料服务领域再创佳绩！

>> Introduction of Major project Material Supply System

The Major Project Material Office, under Marketing Management Department of Baosteel, has three major business modules including bridge, architecture and energy. The office is in charge of communication, negotiation and projects bidding details, which including signing external frame contract on behalf of Baosteel Group, while internally helping the group advantages enhance the success of material pricing, resource planning and comprehensive quality service to major projects.

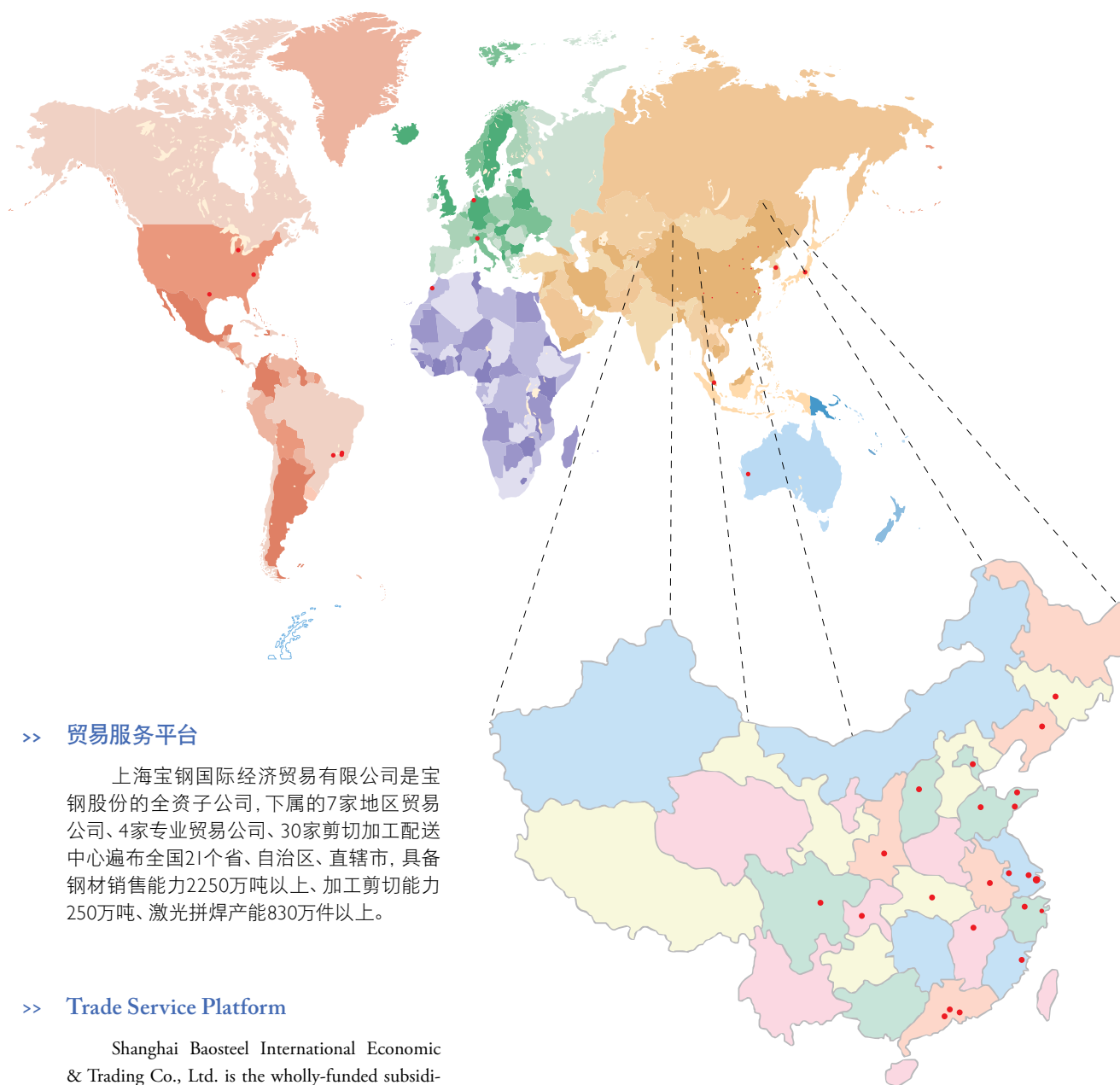
The major material supply system, which bases on the Group's integration advantages, enlarges and extends steel processing industry and develops the most competitive "Steel Industry Chain" for Baosteel. It provides total solution to construction projects from steel material supplying, steel structure processing to implementation management.

Combines the strengths of both talents and technology of Baosteel Group, the major project material supply system has formed an expert team, which consists of 26 experts in construction steel, to deliver the pre and post evaluation of major projects, R&D and technical information exchange to support the whole process service tracking and ensure the sufficient technical support in supplying.

The supply system adopts a "Statement on Major Project Material Supply Planning" (Hereinafter refer as "Statement") to manage the material supply for successful bid projects. The Statement context covers all critical units from internal R&D, production to marketing service. Clear responsibility and task statement set up a full-process control system of implementing, tracking, supervising, coordinating and processing. It ensures the success of material supplying to major projects.

Baosteel carries the mission of "Integrity and customer oriented", stands on competitive products strategy, provides "first-class product, first-class service" to major projects in China and abroad and keeps making extraordinary achievements in major projects material supply.





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>> Trade Service Platform

Shanghai Baosteel International Economic & Trading Co., Ltd. is the wholly-funded subsidiary, with 7 regional trade companies, 4 professional trade companies and 30 processing and logistics companies under its business arm. The business has covered 21 provinces, municipality and autonomous cities, with an annual sales capacity over 22.5 million tons, processing capacity over 2.5 million tons and laser welding over 8.3 million pieces.

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