

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

宝钢与桥梁

Baosteel and Bridge



序 Preface

现代桥梁, 可谓科技与艺术的完美结合。

上世纪30年代, 茅以升先生主持设计监造的钱塘江公铁两用桥, 翻开了中国现代钢桥的新篇章。从天堑长江上架起的第一座武汉长江大桥, 到南京大胜关长江大桥; 从“洋钢材”到国产高性能桥梁钢; 短短几十年间, 大桥的跨径也从百米一越到千米。滔滔江水见证着桥梁的变幻, 诉说着钢与桥的情意。

不知是桥推动了钢的发展, 还是钢推动了桥的发展, 大概兼而有之吧。

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。

宝钢有着深深的桥梁情结。从上海的徐浦大桥到武汉的天兴洲长江大桥, 从浙江的西堠门大桥到江苏的苏通大桥, 宝钢誓为中国桥梁架起钢铁脊梁。

如今, 宝钢与桥梁相濡以沫, 相映生辉, 共同演绎和谐的美丽, 共同实现“高强”的梦想。

Modern bridge can be regarded as perfect integration examples of technology and art.

In the 30's of last century, China's modern steel bridge history has been turned into a new page by the Qiantang River Rail-cum-road Bridge, which designed and supervised construction by Mr. Mao Yisheng. From the first Wuhan Yangtze Grand Bridge to Nanjing Dashengguan Yangtze Bridge, China bridge has achieved great changes from using foreign steel to domestic made high performance steel in a few decades and the bridge span has been extended from hundreds meters to thousand meters. The surging river has been witnessing of the change of bridge and narrating the deep affections between steel and bridge.

It's hard to tell whether it's the bridge pushes forward steel development or it's the steel stimulates bridge development. Both steel and bridge have been developed at the same time by reacting to each other.

Baosteel was founded 30 years ago by the demand of development needs. Overcoming difficulties by its extraordinary courage and perseverance and pursuing the value of “honesty” and carrying the mission of “providing value-added products and services”, Baosteel has been growing rapidly with exceeding advantages and has made itself top ranking in the world's iron and steel industry.

Baosteel has a complicated complex in bridge. From Shanghai Xupu Bridge to Wuhan Tianxingzhou Yangtze River Bridge, from Zhejiang Xihoumen Bridge to Jiangsu Sutong Bridge, Baosteel swears to be the backbone of China's modern bridge.

Today, Baosteel and bridge depend on each other, echo to each other and hand in hand demonstrating the harmonious beauty and realizing the dream of “high-strength”.





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公司简介 Corporation Profile



宝钢是中国最具竞争力的钢铁联合企业，是2010年上海世博会的全球合作伙伴和钢材总供应商。2009年，宝钢营业总收入1,953亿元，利润总额149亿元，资产总额4,020亿元，净资产2,430亿元；宝钢从业人员总数为106,914人；2010年宝钢连续第七年进入《财富》杂志评选的世界500强企业，列第276位，并被评为2009年度“全球最受尊敬企业”，成为中国内地唯一获得此称号的企业。2009年宝钢产钢3,887万吨，位列全球钢铁企业第三位。

2005年，宝钢建立重大工程材料供应服务体系。旨在通过参与国家重大工程建设，打造最具竞争力的重大工程营销体系。为参与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。自重大工程材料供应服务体系成立至今，宝钢通过这个窗口，向国家战略石油储备基地、苏通大桥、国家体育场（鸟巢）等一百多项国家重大建设工程提供优质钢材四百多万吨，有力地保证了国家重大工程的建设周期。

宝钢重大工程材料供应服务体系将秉承“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上再创佳绩！





Baosteel Group Corporation (hereinafter as Baosteel) is the most competitive steel enterprise in China at present. Baosteel is the world-wide partner and master steel supplier of Shanghai World Expo in 2010. In 2009, Baosteel registered a sales revenue of RMB 195.3 billion yuan, a total profit of RMB 14.9 billion yuan, a total assets of RMB 402 billion yuan and a net assets of RMB 243 billion yuan; the total employees of Baosteel are 106,914 people; Baosteel has been enrolled in Global 500 for 7 years consecutively and ranked 276th this year and in 2009 Baosteel has been cited as “The World’s Most Respectful Corporation”, became the only mainland corporation awarded this title. The annual production of 2009 is 38.87 million tons, which ranks No. 3 in the world wide iron & steel corporations.

The major project material supply system has been established by Baosteel in 2005 is aiming to build up the most competitive project marketing system by participating in the construction of national major projects. The system is featured with a highly effective, comprehensive and value-added service window and platform, a project-supporting trade service platform with work division principle of regions and professions and an instant reaction green service channel. Ever since the start of the supply system setting, Baosteel has been providing more than 4 million tons of high quality steel through the system to more than 100 major projects including National Strategic Oil Reserve Base, Sutong Bridge, National Stadium (The “Bird Nest”) etc. The system has enhanced the guarantee of major projects constructions success.

Baosteel’s major projects material supply system adopts the principle of “Integrity and Customer Oriented” and standing on competitive products strategy has been continuously providing “firs-class products, first-class service” to domestic and overseas major projects and aims to achieve more in the future.

A 应用篇 Applications



宝钢桥梁用钢实绩展示 Representative Examples Demonstration of Baosteel's Steel for Bridge

Yangshan Deepwater Port Project	洋山深水港工程
East China Sea Bridge	东海大桥
Shanghai Chongming Cross-river Tunnel Yangtze River Bridge Project	上海崇明越江通道长江大桥工程
Xupu Bridge	徐浦大桥
Lupu Bridge	卢浦大桥
Minpu Bridge	闵浦大桥
Zhoushan Island-Land Project — Xihoumen Bridge	舟山连岛工程——西堠门大桥
Zhoushan Island-Land Project — Jintang Bridge	舟山连岛工程——金塘大桥
Sutong Yangtze River Highway Bridge	苏通长江公路大桥
Taizhou Yangtze River Bridge	泰州长江大桥
The 4th Nanjing Yangtze River Bridge	南京长江第四大桥
Wuhan Tianxingzhou Yangtze River Bridge	武汉天兴洲长江大桥
Sidu River Bridge	四渡河大桥
Baling River Bridge	坝陵河大桥
Beipan River Bridge	北盘江大桥
Guangzhou Pearl River Huangpu Bridge	广州珠江黄埔大桥





宝钢的桥梁用钢研发不断满足当代桥梁“大跨、轻质、高强”和“高速、耐久性、及重载荷”的发展目标和用钢需求。在以斜拉桥、悬索桥、钢拱桥等为主流的特大桥及港口工程供料中均有建树，产品广泛应用于桥梁的基础、钢箱梁、钢锚箱、钢塔及缆索等结构部位。

特别是宝钢5米宽厚板轧机投产以来，宝钢为桥梁建设输送了大量超宽钢板；另外，宝钢以西堠门大桥及苏通大桥为契机，开发的高强度盘条及镀锌钢丝，均在国内独占鳌头。

Baosteel has been continuously developing steel to meet the requirements for modern bridge such as “large span, light weight, high strength” and “high-speed, long duration and heavy load”. Baosteel’s significant achievements have been recognized in the construction of cable-stayed bridge, suspension bridge, steel arch bridge and have been widely used for bridge base, steel box girder, steel anchor box, steel tower and cables etc.

After the launch of 5-m heavy plate mill, Baosteel has provided noticeably large amount of super-width steel plate for bridge construction. In addition, the high strength wire rod and galvanized steel wire Baosteel has developed for Xihoumen Bridge and Sutong Bridge, which became exclusive products in China market.





洋山深水港工程 Yangshan Deepwater Port Project

项目概况

洋山深水港位于杭州湾口、长江口外，水深15米。自2002年开工建设，总体规划至2020年，分四期建成。届时，可形成陆域面积20多平方公里，深水岸线20多公里，布置50多个大型深水泊位，使上海形成港、江、河、海立体联动，成为世界第一集装箱大港。

Project Overview

Yangshan Deepwater Port Project is located at the mouth of Hangzhou bay and Yangtze estuary, 15-meter deep. The project started in 2002 and estimated to be completed in 2020, which including four project phases. By the completion of construction, the port will cover more than 20 square kilometers on land and 20 kilometers deepwater stretch of coast with 50 large deep water berths. The port shall link Shanghai with port, river and sea in multi-dimensions, thus shall become the largest container port in the world.





宝钢供料

在港口一、二、三期建设工程中, 宝钢开发了耐海水腐蚀钢 Q345C-NHY3, 填补了该钢种国内批量供货空白, 累计供货达38万余吨, 并研发了耐海水腐蚀钢配套埋弧焊丝。目前, 该产品又成为新启动的西港区工程建设的首选用料, 并已供货5.3万吨。

Baosteel Supply

During Phase I, Phase II and Phase III projects, Baosteel has developed seawater corrosion resistant steel Q345C-NHY3, which has filled up the gap of domestic steel supply of the area. Baosteel has accumulatively supplied 380,000 tons of Q345C-NHY3 and the supporting seawater corrosion resistant submerged arc welding wire has been developed. Currently, the product has been selected as the primary material of newly started Western Harbor Project. 53,000 tons of products have been delivered already.



序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
I	耐海水腐蚀钢 Seawater Corrosion Resistant Steel	Q345CNHY3	18~22x1500xC	435100	热轧厂 Hot-rolling Mill Plant
合计 Total				435100	

A 应用篇 Applications



东海大桥 East China Sea Bridge

项目概况

东海大桥，我国第一座真正意义上的跨海大桥。大桥总长约为32.5公里，是上海国际航运中心洋山深水港一期工程的重要配套工程。工程自2002年开工建设，2005年建成通车。东海大桥的设计基准期为100年，它的建成是我国桥梁建设史上一座新的里程碑。

Project Overview

East China Sea Bridge is the first cross-ocean bridge in China according to strict definition. The whole length of the bridge is 32.5 kilometers. It's a most important supporting project to Shanghai International Shipping Center, Yangshang Deepwater Port Project Phase I. The project started in 2002 and completed for operation in 2005. With 100-year design reference period, the successful construction of the bridge is regarded as a new milestone in China's bridge history.





宝钢供料

在东海大桥建设过程中, 宝钢累计供应钢材60多万吨, 约占东海大桥用钢量的60%。东海大桥护栏采用的是宝钢专利产品低碳贝氏体/铁素体复相热轧薄板制造的钢管, 使用该钢种制成的钢管比普通镀锌钢管减少钢材用量20~25%, 为工程建设节约大量资金。

Baosteel Supply

During the construction of East China Sea Bridge, Baosteel has accumulatively supplied more than 600,000 tons of steel, almost 60% of the total steel usage of the bridge. East China Sea Bridge has adopted Baosteel's patent product of low carbon bainite/ferrite dual phase hot-rolled steel tube for guardrail. This has not only saved 20-25% steel usage in total but also saved a lot of expense in construction.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	螺纹钢 Deformed Steel Bars	HRB335/400	Ø12~40	220000	一钢公司 Shanghai No.1 Iron & Steel Company 宝通钢铁 Shanghai Baotong Iron & Steel Co., Ltd.
2	钢绞线 Steel Strand	H82B	Ø15.24	35000	二钢公司 (申佳公司) Shanghai No.2 Iron & Steel Company (Shenja Company)
3	钢筋接头 (只) Steel Bar Joint (Piece)	Q345C	Ø14~32	690000	产业公司 (建筑研究院) Industry Company (Architecture Research Institute)
4	钢板 Steel Plate	Q345B/C/qD	6~80x1500~3000x6000~12500	180000	厚板厂 Heavy Plate Mill Plant
5	钢卷 Steel Coil	Q345B/C/qD	5.5~21.6x1500~1800xC	176000	厚板厂 Heavy Plate Mill Plant
6	护栏用钢 Steel for Guardrail	MDB400	6~8x1050xC	4600	梅钢公司 Shanghai Meishan Iron & Steel Co., Ltd.
合计 Total				615600	

注: 累计供材料数量不包含钢筋接头的供货量

Note: The accumulated material supply amount has excluded steel bar joint supply.

A

应用篇 Applications



上海崇明越江通道 长江大桥工程

Shanghai Chongming Cross-river Tunnel
Yangtze River Bridge Project

项目概况

上海崇明越江通道是交通部确定的国家重点公路建设规划上海到西安的重要组成部分。项目全长25.5公里，采用“南隧北桥”的建设方案。其中以隧道方式穿越南港水域，长约8.9公里；以桥梁方式跨越北港水域，长约10.3公里；长兴岛和崇明岛接线道路共长约6.3公里。大桥主跨约730米，列中国第三，世界第五。工程自2004年开工建设，2009年10月已建成通车。





Project Overview

Shanghai Chongming Cross-river Tunnel is a most important component of Ministry of Communications' national road construction plan of Shanghai to Xi'an. The project is 25.5 kilometers in full length. The project adopts the design of 'south-tunnel, north-bridge', among which the 8.9- kilometer-tunnel crosses the Southport water area and the 10.3-kilometer-bridge covers the Northport water area. The connection road between Changxing Island and Chongming Island is approximately 6.3 kilometers long. The main span of the bridge covers 730 meters, which is No.3 largest span in China and No. 5 in the world.

宝钢供料

宝钢充分发挥集团内各产线的调配优势, 不断在桥梁建设供料中开拓进取。

Baosteel Supply

By fully using the group resource advantage of internal products allocation, Basteel has made continuous achievements in the supply for bridge construction.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	Q345B/C/qD Q345C	10~85x1200~3905x10000~16040	56300	厚板厂 Heavy Plate Mill Plant
2	钢卷 Steel Coil	Q345B/C/qD	6~8x1560~1800xC	17000	热轧厂 Hot-rolling Mill Plant
3	钢绞线 Steel Strand	H82B	Ø15.24	12000	二钢公司 (申佳公司) Shanghai No.2 Iron & Steel Company (Shenjia Company)
4	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL	Ø13 (盘条) (Wire rod)、 Ø7.0 1670MPa (镀锌钢丝) (Galvanized steel wire)	4700 (盘条) (Wire rod)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				90000	



A 应用篇 Applications



徐浦大桥 Xupu Bridge

项目概况

徐浦大桥是继南浦大桥、杨浦大桥之后，上海市区第三座跨越黄浦江的特大型桥梁，位于徐汇区龙华乡和浦东新区三林镇附近，大桥全长6017米，主桥长1074米，主跨590米，总宽35.95米，主塔高217米，是上海虹桥机场和浦东国际机场之间最便捷的通道。工程自1994年开工建设，1997年建成通车。

Project Overview

Xupu Bridge, located near Longhua county, Xuhui district and Sanlin county, is the third large scale bridge on Huangpu river after Nanpu Bridge and Yangpu Bridge. The bridge is 6017 meters in full length, with a 1074-meter main bridge, 590-meter main span, 35.95-meter width and 217-meter high main tower. It's the most convenient channel between Shanghai Hongqiao Airport and Pudong International Airport. The project started in 1994 and completed for operation in 1997.





宝钢供料

在建设徐浦大桥之前, 上海黄浦江上建设的南浦、杨浦两座大桥, 均采用进口桥梁钢板。徐浦大桥桥面板首次采用宝钢生产的STE355钢板。宝钢加速推动我国桥梁用钢国产化、代替进口的进程。

Baosteel Supply

Before the construction of Xupu bridge, the other two bridges over Shanghai Huangpu river, Nanpu and Yangpu bridges all used imported steel plate. Xupu bridge for the first time used Baosteel's STE 355 steel plate for bridge deck. Baosteel has accelerated the localization of steel for bridge and replacement of imported products.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
I	钢板 Steel Plate	STE355	10~80x2000~2800 50公斤级 50 kilogram level	10400	厚板厂 Heavy Plate Mill Plant
合计 Total				10400	



卢浦大桥 Lupu Bridge

项目概况

上海卢浦大桥是黄浦江上的第五座大桥，全长8.7公里，主跨550米，宽41米，为全钢结构的中空双拱桥，在已建成的同类桥梁中居首。工程自2000年开工建设，2003年建成通车。

Project Overview

Shanghai Lupu Bridge is the fifth bridge on Huangpu River. The bridge is 8.7 kilometers in full length, with 550-meter main span, 41-meter width. It is the largest in the same kind of full steel-structured hollow double-arch bridge in China. The project started in 2000 and completed for operation in 2003.





宝钢供料

卢浦大桥主桥为全钢结构，用量约为3.5万吨。大桥近70%的钢材由宝钢供料，其中7600吨Q345C钢板用于制造钢管柱，2.3万吨S355N钢板用于制造桥面板。

Baosteel Supply

By adopting a full steel-structure, the whole steel usage of the bridge is 35,000 tons. Among the 70% steel provided by Baosteel, 7,600 tons of Q345C steel plate has been used for steel pipe column, 23,000 tons of S355N has been used for bridge deck.



序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	S355N Q345C	8~65x1500~3000x6000~12000	30600	厚板厂 Heavy Plate Mill Plant
2	钢卷 Steel Coil	SM500C	6x1500xC	600	热轧厂 Hot-rolling Mill Plant
3	螺纹钢 Deformed Steel Bars	HRB355	Ø10~40	3000	一钢公司 Shanghai No.1 Iron & Steel Company
4	钢筋接头 Steel Bar Joint	45#	Ø16~40	20000 (套) (set)	产业公司(建筑研究院) Industry Company (Architecture Research Institute)
合计 Total				73200	

注：累计供材料数量不包含钢筋接头的供货量

Note: The accumulated material supply amount has excluded steel bar joint supply.

A 应用篇 Applications



闵浦大桥 Minpu Bridge

项目概况

闵浦大桥工程是规划中上海A15公路（浦东国际机场至塔汇）的跨越黄浦江部分。大桥全长4000米，主桥长1212米，主跨708米，一跨过江。大桥上层按高速公路标准设计，设计车速为每小时120公里，下层为一般公路，设计时速为每小时60公里。闵浦大桥首次采用一般公路与高速公路在同一座大桥并线建设的方案，是黄浦江上首座双层斜拉桥，也是世界上跨径最大的双层公路斜拉桥。工程自2005年开工建设，2009年12月已建成通车。

Project Overview

Minpu Bridge Project is part of the Cross Huangpu River Plan of Shanghai A15 Highway (Pudong International Airport to Tahui). The bridge is 4,000 meters in full length, with a 1212-meter main bridge and a cross river main span of 708-meter. The upper deck of the bridge is designed under national highway standards with a designed speed of 120 km/h. The lower deck is designed as ordinary road, designed speed 60 km/h. Minpu bridge is the first bridge which adopts the design and construction of both highway and ordinary road. It's the first double-decked cable-stayed bridge on Huangpu River and also has the world's largest span in double-decked cable-stayed highway bridges. The project started in 2005 and completed for operation in December 2009.





宝钢供料

上海的黄浦江可谓宝钢桥梁用钢起步的摇篮，她仿佛是一座桥梁展览馆，记录着宝钢桥梁用钢的发展史。

Baosteel Supply

Shanghai Huangpu River Bridge can be regarded as the cradle of Baosteel's steel for bridge. It's like an exhibition hall which records the history of Baosteel steel development for bridge.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	Q345qD Q370qE Q235B Q345C	10~135x1150~3530x5400~23260	33800	厚板厂 Heavy Plate Mill Plant
2	钢卷 Steel Coil	Q345qD	8x1530xC	3200	热轧厂 Hot-rolling Mill Plant
3	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL	Ø13 (盘条) (Wire rod)、 Ø7.0 1770Mpa (镀锌钢丝) (Galvanized steel wire)	4800 (盘条) (Wire rod)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				41800	

A 应用篇 Applications



舟山大陆连岛工程——西堠门大桥 Zhoushan Island-Land Project —Xihoumen Bridge

项目概况

舟山大陆连岛工程是连接舟山本岛与大陆的通道，把舟山从孤悬海中的岛屿，变成与大陆相通的半岛，成为大陆伸向海洋的港口城市。

舟山大陆连岛工程东起舟山岑港，西至宁波镇海，其中一期工程（包括岑港跨海大桥、响礁门跨海大桥和桃天门跨海大桥）已建成；二期工程包括西堠门、金塘大桥，2009年12月已建成通车。

西堠门大桥是舟山连岛工程中的第四座桥梁，设计通航等级为3万吨级，主桥采用450+1650+450米的悬索桥方案，1650米的主跨度将使西堠门大桥成为“中国第一、世界第二”跨度的悬索桥。

Project Overview

Zhoushan Island-Land Project is the connection of Zhoushan island and mainland. It turns the isolated Zhoushan island into a mainland-connected peninsula and a port city by ocean.

Zhoushan Island-Land Project starts from the east edge of Zhoushan Cen Port and ends at Zhenhai, Ningbo. The Phase I project, including Cen Port Cross-Ocean Bridge, Xiangjiaomen Cross-Ocean Bridge and Taoyaomen Cross-Ocean Bridge, has been completed. The Phase II project, including Xihoumen, Jintang Bridge, has been completed for operation in December 2009.

Xihoumen Bridge is the fourth bridge in Zhoushan Island-Land Project. The bridge has a designed navigation capacity of 30,000 tons, 450+1650+450-meter suspension main bridge and 1650-meter main span. It's the No.1 largest span in China's suspension bridges and No.2 in the world.





宝钢供料

在舟山市政府和宝钢集团领导的共同推动下，2004年宝钢开始舟山连岛工程的供料准备工作。在西堠门大桥供料中，宝钢供料品种几乎覆盖了所有大桥用钢。特别是宝钢用自主研发的B82MnQL盘条拉丝镀锌后联合编索单位共同投标，打破了国内大桥建设中将盘条、钢丝、缆索分开投标的旧模式，并打破进口产品垄断，首次实现大桥缆索用盘条国产化。

Baosteel Supply

With the efforts by Zhoushan municipal government and Baosteel's senior management, the material supply for Zhoushan Island-Land project started in 2004. In the supply of Xihoumen Bridge, Baosteel's products almost covered the bridge's whole steel usage. The joint bid method has broken the old model of separate biddings for wire rod, steel wire and cable. Baosteel developed B82MnQL galvanized wire rod and cooperate with other cable suppliers participated in the bid. It's the end of the foreign product dominance era, and realized the localization of wire rod steel for bridge cable for the first time.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	盘条及镀锌 钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL (盘条) (Wire rod) 镀锌钢丝 Galvanized steel wire 钢丝绳 Wire rope	Ø13 (盘条) (Wire rod) Ø5.1 1770Mpa (镀锌钢丝) (Galvanized steel wire) Ø60 (钢丝绳) (Wire rope)	6200 (镀锌钢丝) (Galvanized steel wire)	钢管条钢事业部 (盘条) 二钢 (申佳) 公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel (Shenjia) Company (Galvanized steel wire)
2	钢板 Steel Plate	Q345C	6~50x1710~3730x7440~19650	28500	厚板厂 Heavy Plate Mill Plant
3	钢卷 Steel Coil	Q345C	4~20x1435~1536xC	6300	热轧厂 Hot-rolling Mill Plant
4	螺纹钢 Deformed Steel Bars	HRB335/400	Ø12~40	22800	宝通钢铁 Shanghai Baotong Iron & Steel Co., Ltd.
5	钢绞线 Steel strand	H82B	Ø15.24	9400	二钢 (申佳) 公司 Shanghai No.2 Iron & Steel (Shenjia) Company
合计 Total				73200	





舟山大陆连岛工程——金塘大桥 Zhoushan Island-Land Project—Jintang Bridge

项目概况

金塘大桥是舟山连岛工程中的第五座桥梁，起自金塘岛，接至宁波的镇海，全长19.1公里，主航道桥采用620米的双塔斜拉桥方案，整个项目自2003年开工建设，2009年11月已建成通车。

Project Overview

Jintang Bridge is the fifth bridge of Zhoushan Island-Land project. It's 19.1 kilometers in full length, starts from Jintang island and ends at Zhenhai, Ningbo. It's main navigation bridge adopted the design of 620-meter double tower cable-stayed bridge. The project started in 2003 and completed for operation in November 2009.





宝钢供料

继西堠门大桥后, 宝钢在钱塘大桥供料中继续保持“一流品质, 一流服务”的品牌形象。

Baosteel Supply

Consecutive to the Xihoumen Bridge, Baosteel has continuously supplied Jintang Bridge with the “first-class product, first-class service” brand image.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	Q235B Q345D	8~30×1900~2800×6000~14050	27955	厚板厂 Heavy Plate Mill Plant
2	钢卷 Steel Coil	Q345C/D	8~25×1380~1435×C	113547	热轧厂 Hot-rolling Mill Plant
3	钢绞线 Steel Strand	H82B	Ø15.24	12000	二钢公司 Shanghai No.2 Iron & Steel Company
合计 Total				153502	

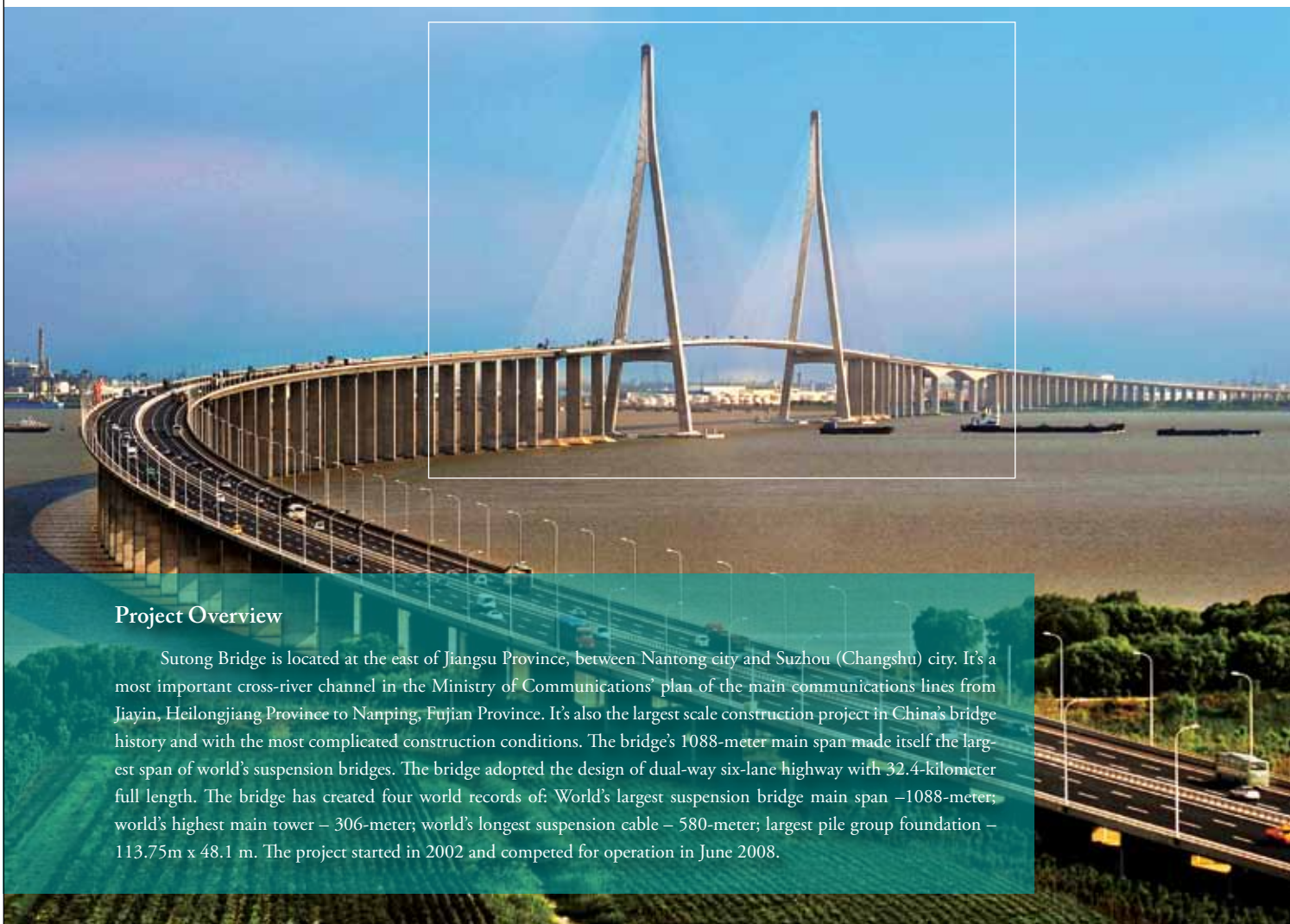
A 应用篇 Applications



苏通长江公路大桥 Sutong Yangtze River Highway Bridge

项目概况

苏通大桥位于江苏省东部的南通市和苏州（常熟）市之间，是交通部规划的黑龙江嘉荫至福建南平国家重点干线公路跨越长江的重要通道，也是我国建桥史上工程规模最大、综合建设条件最复杂的特大型桥梁工程，以主跨1088米的跨度成为世界上跨度最大的斜拉桥。大桥全线采用双向六车道高速公路标准设计，线路全长32.4公里，主桥为双塔双索面钢箱梁斜拉桥。该桥创下四个世界第一：斜拉桥主孔跨度1088米，列世界第一；主塔高度306米，列世界第一；斜拉索的长度580米，列世界第一；群桩基础平面尺寸113.75米×48.1米，列世界第一。工程自2002年开工建设，2008年6月已建成通车。



Project Overview

Sutong Bridge is located at the east of Jiangsu Province, between Nantong city and Suzhou (Changshu) city. It's a most important cross-river channel in the Ministry of Communications' plan of the main communications lines from Jiayin, Heilongjiang Province to Nanping, Fujian Province. It's also the largest scale construction project in China's bridge history and with the most complicated construction conditions. The bridge's 1088-meter main span made itself the largest span of world's suspension bridges. The bridge adopted the design of dual-way six-lane highway with 32.4-kilometer full length. The bridge has created four world records of: World's largest suspension bridge main span – 1088-meter; world's highest main tower – 306-meter; world's longest suspension cable – 580-meter; largest pile group foundation – 113.75m x 48.1 m. The project started in 2002 and competed for operation in June 2008.



宝钢供料

苏通大桥最长索为577米，最大重量为59吨，比多伦多大桥斜拉索长100多米，为世界最长斜拉索。苏通大桥斜拉索用钢是目前国内强度级别、性能要求最高的钢种，要求盘条具有高强度、高塑性、高韧性，拉丝镀锌后的 $\phi 7.0\text{mm}$ 1770Mpa钢丝要同时具备高扭转和低松弛指标，宝钢为此研发了B87MnQL盘条，并再一次发挥宝钢整体技术优势，由钢管条钢事业部提供盘条、二钢进行拉丝镀锌，组成联合体参与项目投标，并获得全部斜拉索用盘条和镀锌钢丝的供货权。宝钢镀锌钢丝盘条的冶炼轧制工艺日臻完善，开创了斜拉索用钢国产化先河。

Baosteel Supply

Sutong Bridge's longest cable is 577-meter length and maximum weight of 59 tons, which is more than 100 meters longer than Tatara Bridge's cable. It's the longest suspension bridge cable in the world. Sutong Bridge's suspension cable has used steel with the highest strength grade and the best performance properties in China. It requires the wire rod meets the demands of high strength, high plasticity, high toughness and 7.0mm 1,770 Mpa steel wire with both high torque and low relaxation index after galvanization. Baosteel has developed B87MnQL wire rod specially for the usage and has demonstrate it's technology advantages as a group. The bid was successfully won the full supply of wire rod and galvanized steel wire for suspension cable with the cooperation of wire rod provided by Tube Pipe & Bar Business Unit, galvanized steel wire from Shanghai No.2 Iron & Steel Company. With Baosteel's continuing efforts in perfections of smelting and rolling technologies of wire rod for galvanized steel wire, the domestic supply for suspension bridge has been realized for the first time.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	螺纹钢 Deformed Steel Bars	HRB335/400	$\phi 12\sim 40$	31000	一钢公司 Shanghai No.1 Iron & Steel Company
2	钢绞线 Steel Strand	H82B	$\phi 15.24$	1800	二钢公司 Shanghai No.2 Iron & Steel Company
3	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B87MnQL 盘条 镀锌钢丝 Wire rod Galvanized steel wire	$\phi 13$ (盘条) (Wire rod)、 $\phi 7.0$ 1770Mpa (镀锌钢丝) (Galvanized steel wire)	7000 (镀锌钢丝) (Galvanized steel wire)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				39800	

A 应用篇 Applications



泰州长江大桥 Taizhou Yangtze River Bridge

项目概况

泰州长江大桥全长62余公里, 是江苏省“五纵九横五联”高速公路网和国家《长江三角洲地区现代化公路水路交通规划纲要》中重要的过江通道工程。主桥为特大跨径三塔两跨悬索桥, 其跨径属世界第一。“三塔两跨二锚”为其特有结构。其中, 主塔采用世界上高度第一的纵向“人”字型、横向“门”字形框架型钢塔, 采用世界上入土最深的水中沉井基础。工程自2007年年底开工建设, 预计2012年建成通车。

Project Overview

Taizhou Yangtze River Bridge, more than 62-kilometer full length, is a most important cross river channel according to Jiangsu Province's "Five-Vertical, Nine-Horizontal, Five-United" expressway network plan and *National's Outline for Planning of Modern Highway and Water Communication of Yangtze River Delta*. The main bridge is a super large span suspension bridge, which is the longest span in the world with three towers and two spans, "Tri-tower, Double-span, Double-anchor" is the exclusive structure of the bridge, among which the main tower is the highest in the world, using a vertical structure shape of '人' and horizontal structure shape of '门' and with the deepest sunk well foundation in the world. The project started in the end of 2007 and estimated to be completed for operation in 2012.



宝钢供料

宝钢中标泰州长江大桥桥面钢箱梁钢板及镀锌钢丝供货合同。其中,中厚板产品约2.7万吨,热轧产品约8900吨,盘条及镀锌钢丝1.93万吨。目前,累计供料5万余吨,尚在供料中。

Baosteel Supply

Baosteel won the bid of the supply of steel box girder plate and galvanized steel wire for Taizhou Yangtze river bridge, among which medium heavy plate products about 27,000 tons, hot-rolled products 8,900 tons, wire rod and galvanized steel wire 19,300 tons. Currently, accumulated delivery is over 50,000 tons, others are under supplying.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	Q345D Q370qD	10~70x1930~2570x9000~16430	27212	厚板厂 Heavy Plate Mill Plant
2	钢卷 Steel Coil	Q345D	4~10x1440~1820xC	8904	热轧厂 Hot-rolling Mill Plant
3	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL	Ø11 (盘条) (Wire rod)、 Ø5.2 1670Mpa (镀锌钢丝) (Galvanized steel wire)	14370 (盘条) (Wire rod)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				50486	





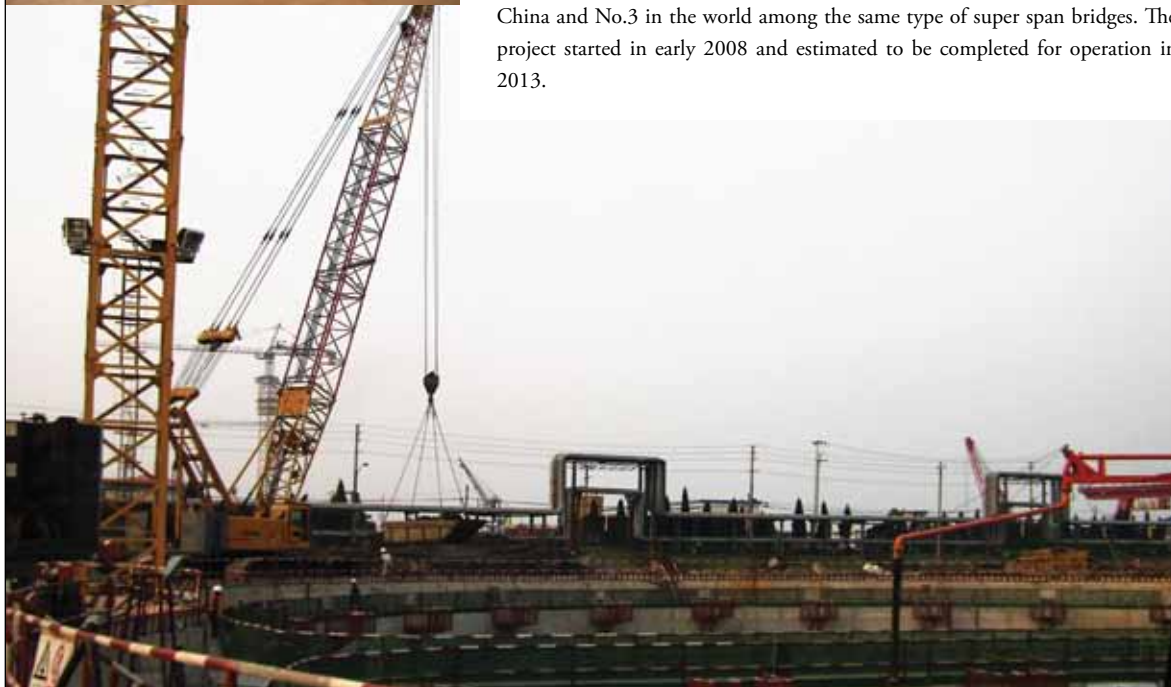
南京长江第四大桥 The 4th Nanjing Yangtze River Bridge

项目概况

南京长江第四大桥是国内首座三跨吊悬索桥，是国务院批准的南京城市总体规划中“五桥一隧”过江通道之一，江苏省重大基础设施建设项目，是上海至成都国道主干线的重要组成部分。大桥全长29公里，其中跨江大桥长约5.45公里，主跨采用1418米三跨吊悬索桥方案，外观类似美国著名的旧金山金门大桥，跨径在世界同类大跨径桥梁中居国内第一、世界第三。工程自2008年年初开工建设，预计2013年建成通车。

Project Overview

The Fourth Nanjing Yangtze River Bridge is the first tri-span suspension bridge in China. As one of the cross-river channels in the “Five-Bridge-One-Tunnel” plan approved by the State Departments, it’s the major infrastructure project of Jiangsu Province and essential part of the trunk lines of national highways from Shanghai to Chengdu. The full length of the bridge is 29-kilometer, includes a 5.45-kilometer cross-river bridge, 1,418-meter main span with tri-span suspension design. With a similar look of the famous Golden Gate Bridge at San Francisco, USA, the Fourth Nanjing Yangtze River’s span ranks No.1 in China and No.3 in the world among the same type of super span bridges. The project started in early 2008 and estimated to be completed for operation in 2013.



宝钢供料

宝钢中标南京长江第四大桥桥面钢箱梁钢板及镀锌钢丝供货合同。其中, 中厚板产品约2.87万吨, 热轧产品约8600吨, 盘条及镀锌钢丝1.7万吨。目前, 累计供料1.7万余吨, 尚在供料中。

Baosteel Supply

Baosteel won the bid of the supply of steel box girder plate and galvanized steel wire for the fourth Nanjing Yangtze river bridge, among which medium heavy plates about 28,700 tons, hot-rolled products 8,600 tons, wire rod and galvanized steel wire 17,000 tons. Currently, accumulated delivery is 17,000 tons, still under supplying.



序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	Q345D	10~48x1530~3630x6000~16650	11393	厚板厂 Heavy Plate Mill Plant
2	钢卷 Steel Coil	Q345D	4~8x1480~1525xC	1034	宁钢 Ning Steel
3	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL	Ø13 (盘条) (Wire rod)、 Ø5.35 1770Mpa (镀锌钢丝) (Galvanized steel wire)	5300 (盘条) (Wire rod)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				17727	

A 应用篇 Applications



武汉天兴洲长江大桥 Wuhan Tianxingzhou Yangtze River Bridge

项目概况

武汉天兴洲长江大桥是武汉第二座公铁两用长江大桥，它是我国第一座能满足高速铁路运营的斜拉桥。大桥选定中铁大桥勘测设计院的“双塔三索面斜拉桥”方案。正桥全长4657米。公路桥为双向6车道，设计时速80公里/小时；铁路为四线布置，列车时速可达250公里；主跨504米，主塔高189米。天兴洲大桥创下了四个世界公铁两用斜拉桥之最：“跨度最大、载荷最大、首座拥有四条并行轨道、列车运行时速最高”。该桥因其独特的设计和特有的施工难度，被桥梁界誉为跨江桥的里程碑。工程自2004年开工建设，2009年已建成通车。

Project Overview

Wuhan Tianxingzhou Yangtze River Bridge is the second rail-cum-road bridge cross Yangtze River in Wuhan. It's the first cable-stayed bridge with express railway. The bridge adopted the design of "Double-tower, tri-cable plane cable-stayed", which provided by China Railway Major Bridge Reconnaissance and Design Institute. The bridge is 4657-meter in full length, main span 504-meter and main tower 189-meter. The highway bridge is a dual-way six-lane highway, designed speed 80 km/h, while the four-lane railway is designed to be 250 km/h. The Tianxingzhou Bridge has created four new world's record in rail-cum-road suspension bridges: Largest span, largest heavy load, the first bridge of four-lane railway, the highest railway design speed. The bridge is regarded as a milestone of cross-river bridges due to its unique design and complex construction. The project started in 2004 and completed for operation in 2009.





宝钢供料

宝钢5米宽厚板轧机投产以来，在极短的时间内研发成功14MnNbq钢板，以板面宽及良好的强韧性和焊接性，受到用户的青睐。

此外，武汉天兴洲长江大桥斜拉索用镀锌钢丝全部采用宝钢的B82MnQL盘条生产而成，这是国内公铁两用桥首度采用国产斜拉索用钢。宝钢累计供应盘条约4000吨，成品镀锌钢丝约2000吨。

Baosteel Supply

Right after the launch of 5-m heavy plate mill, Baosteel has successfully developed 14MnNbq plate in a short time. It's widely recognized by customers for its width and extraordinary toughness and excellent welding performance. In addition, Wuhan Tianxingzhou Yangtze River Bridge's suspension cable adopted Baosteel's galvanized steel wire made by B82MnQL wire rod. Baosteel has supplied accumulatively 4,000 tons of wire rod and about 2,000 tons of finished galvanized steel wire.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
1	钢板 Steel Plate	14MnNbq	14~56x1800~4480x3030~19930	15000	厚板厂 Heavy Plate Mill Plant
2	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL	Ø13 (盘条) (Wire rod)、 Ø7.0 1670Mpa (镀锌钢丝) (Galvanized steel wire)	4000 (盘条) (Wire rod)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				19000	

A

应用篇 Applications



四渡河大桥 Sidu River Bridge

项目概况

四渡河大桥位于湖北长阳与巴东交界处，采用主跨900米单跨钢桁梁悬索桥方案，位列隧道锚钢桁架同类桥梁世界第一，引桥为预制T梁简支后钢构结构，大桥全长1059米，单根主缆最大拉力设计达22000吨。由于四渡河大桥位于构造溶蚀峰丛峡谷地貌单元，深切峡谷高差达500米，地质条件复杂，施工难度大。工程自2004年开工建设，2009年11月已建成通车。



Project Overview

Sidu River Bridge stands at the boarder of Changyang and Badong in Hubei Province. The bridge is a single 900-meter span suspension bridge with steel girder. It ranks No.1 in the world's similar tunnel anchor steel truss bridges. The prefabricated T beam of the approach bridge has adopted the supported-to-continuous steel structure. The bridge's full length is 1059-meter and with maximum designed pulling force of 22,000 tons of a single main cable. Due to the location of the bridge is in erosion mountain peak canyon, the height difference can be 500-meter deep in the canyon. The complicated geographical condition increases the difficult level of construction. The project started in 2004 and completed for operation in November 2009.

宝钢供料

即使在峡谷地貌的气候条件下, 宝钢的B82MnQL盘条及镀锌钢丝也经得起考验。

Baosteel Supply

Even under the weather condition of canyon geomorphology, B82MnQL wire rod and galvanized steel wire developed by Baosteel has been approved with excellent performance.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
I	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL 盘条 镀锌钢丝 钢丝绳 Wire rod Galvanized steel wire Wire rope	Ø11 (盘条) (Wire rod)、 Ø5.1 1670Mpa (镀锌钢丝) (Galvanized steel wire) Ø5.2 (钢丝绳) (Wire rope)	6900 (镀锌钢丝 钢丝绳) (Galvanized steel wire, Wire rope)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				6900	

A

应用篇 Applications



坝陵河大桥 Baling River Bridge

项目概况

坝陵河大桥位于贵州省黄果树风景区，是沪瑞国道主干线在黔境内控制性工程。坝陵河峡谷两岸地势陡峭，河谷深达600多米。坝陵河大桥采用双塔单跨钢桁架悬索桥方案，跨径组成为248+1088+228米，为国内最大跨径的钢桁架悬索桥。索塔为两道横梁门式混凝土塔；东锚碇采用框架式重力锚，西锚碇采用国内最大规模的隧道锚。主梁采用钢桁架加劲梁，梁高10米，吊索间距10.8米；主缆矢跨比为1/10.5。大桥中最高桥墩为290米，桥面高度为300多米，堪称“世界第一高桥”。工程自2004年开工建设，2009年11月已建成通车。

Project Overview

Baling River Bridge is located in the tourism area of Huangguoshu, Guizhou province. It's the main project of national trunk line between Shanghai and Ruili in Guizhou province. The valley of Baling River is very sharp with valley depth over 600 meters. Baling River bridge used the design of double tower single span steel truss girder suspension bridge. The spans are 248+1088+288 meters, ranked the largest steel truss framed suspension bridge in China. The cable tower is double-beam portal framed concrete tower, the east anchor is framed gravity anchor, the west anchor is the largest tunnel anchor in China. The main beam is a stiffening steel truss girder, with a height of 10 meters and a cable distance 10.8 meters. The main cable rise-span ratio is 1/10.5. The bridge's highest pier is 290-meter-high and bridge deck is more than 300-meter-high. It's the highest bridge in the world. The project started in 2004 and completed for operation in November 2009.





宝钢供料

即使在峡谷地貌的气候条件下, 宝钢的B82MnQL盘条及镀锌钢丝也经得起考验。

Baosteel Supply

Even under the weather condition of canyon geomorphology, B82MnQL wire rod and galvanized steel wire developed by Baosteel has been approved with excellent performance.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
I	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL 盘条 镀锌钢丝 钢丝绳 Wire rod Galvanized steel wire Wire rope	Ø11 (盘条) (Wire rod)、 Ø5.1 1670Mpa (镀锌钢丝) (Galvanized steel wire)	12800 (镀锌钢丝) (Galvanized steel wire)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				12800	





北盘江大桥 Beipan River Bridge

项目概况

北盘江大桥位于贵州省晴隆县光照镇以东七公里处，是我国上海至瑞丽高速公路贵州镇宁至云南胜景关段横跨北盘江大峡谷的一座特大桥。主跨桥梁结构为钢桁架加劲梁悬索桥，桥面距北盘江水面高321米，主跨长636米，桥面宽26.5米。工程自2004年开工建设，2008年11月已建成通车。

Project Overview

Beipan River Bridge is located in an area 7-kilometer east to Guangzhao town, Qinglong county of Guizhou Province. It's super large cross-Beipan River Canyon bridge on the expressway from Zhenning of Guizhou Province to Jingshengguan of Yunan Province section, which is part of the expressway from Shanghai to Ruili. The bridge has adopted the design of stiffening steel truss girder suspension bridge with a 321-height above the water level, 636-meter main span and 26.5-meter width. The project started in 2004 and completed for operation in November 2008.





宝钢供料

即使在峡谷地貌的气候条件下, 宝钢的B82MnQL盘条及镀锌钢丝也经得起考验。

Baosteel Supply

Even under the weather condition of canyon geomorphology, B82MnQL wire rod and galvanized steel wire developed by Baosteel has been approved with excellent performance.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
I	盘条及镀锌钢丝 Wire Rod and Galvanized Steel Wire	B82MnQL 盘条 镀锌钢丝 Wire rod Galvanized steel wire	Ø11 (盘条) (Wire rod)、 Ø5.1 1770Mpa (镀锌钢丝) (Galvanized steel wire)	3000 (镀锌钢丝) (Galvanized steel wire)	钢管条钢事业部 (盘条) 二钢公司 (镀锌钢丝) Tube Pipe & Bar Business Unit (Wire rod) Shanghai No.2 Iron & Steel Company (Galvanized steel wire)
合计 Total				3000	

A 应用篇 Applications



广州珠江黄埔大桥 Guangzhou Pearl River Huangpu Bridge

项目概况

广州珠江黄埔大桥及引线工程是交通部规划的“五纵七横”国道主干线中同三、京珠三角洲经济区环形公路的东环段。珠江黄埔大桥由南北汉桥组成，北汉桥采用383米独塔双索面钢箱梁斜拉桥，居目前世界同类桥型第一。南汉桥采用主跨1108米单跨悬索桥，居广东省同类桥型第一。工程自2004年开工建设，2008年12月已建成通车。

Project Overview

The project of Guangzhou Pearl River Huangpu Bridge and its approach bridge is the east ring section of the national ring trunk line of Tongshan, Jingzhu Economic Delta, which is the “Five-vertical, Seven-horizontal” trunk line planned by the Ministry of Communications. The Pearl River Huangpu Bridge is consisted by north and south branch bridges, among with the north branch has adopted the design of 383-meter single-tower double-cable plane steel box girder cable-stayed bridge, which made the bridge the largest of world’s similar type of bridges. The south branch is a single-span suspension bridge with a 1108-meter main span, which is the largest in Guangdong’s similar type of bridges. The project started in 2004 and completed for operation in December 2008.





宝钢供料

宝钢钢板以板面宽及良好的强韧性和焊接性, 受到用户的青睐。

Baosteel Supply

With its width size and excellent toughness and welding performance, Baosteel's steel plate is widely recognized by customers.

序号 No.	品种 Type	材质 Material	规格 (mm) Specification (mm)	数量 (吨) Quantity (ton)	生产单元 Production Unit
I	钢板 Steel Plate	Q345C	16~20x3630x9050~16050	660	厚板厂 Heavy Plate Mill Plant
合计 Total				660	

B

生产管理篇 Production Management

宝钢产线聚焦
Baosteel Production Line Focus

40

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

50



宝钢产线涵盖板材、管材、线材、棒材、型材等产品系列。随着宝钢厚板、三热轧、五冷轧、钢管等项目相继投产，生产的产品能更好地满足桥梁工程的需求。





Baosteel has production lines covered series of products from plate, tube, wire rod to profiled steel etc. With the consecutive launch of heavy plate mill, No.3 hot strip rolling mill, No.5 cold strip rolling mill, and steel tube mill, Baosteel has become more competitive in future supply for bridge construction projects.

B1 宝钢产线聚焦

Baosteel Production Line Focus

>> 厚板单元

总产能: 约340万吨/年

成品最大规格:

厚度: 400mm;

宽度: 4800mm;

长度: 25m

产线: 5米宽厚板、4.2米厚板产线

生产单元: 厚板厂





>> Heavy Plate Unit

Total Capability: about 3.4 million tons/year

Maximum Size of Finished Product:

Thickness: 400mm;
Width: 4800mm;
Length: 25m

Production Line: 5 meter heavy plate, 4.2 meter heavy plate production line

Production Unit: Heavy Plate Mill Plant

B1 宝钢产线聚焦

Baosteel Production Line Focus

>> 热轧单元

总产能: 约1900万吨/年

成品最大规格:

厚度: 25.4mm;

宽度: 1900mm;

长度: 12m (钢板)

产线: 2050mm、1550mm、1880mm、1780mm、1422mm

生产单元:

热轧厂

不锈钢事业部

上海梅山钢铁股份有限公司





>> Hot-rolling Unit

Total Capability: Approx. 19 million tons/year

Maximum Size of Finished Product:

Thickness: 25.4mm;

Width: 1900mm;

Length: 12m (plate)

Product Line: 2050mm, 1550mm, 1880mm, 1780mm, 1422mm

Production Unit:

Hot-rolling Mill Plant

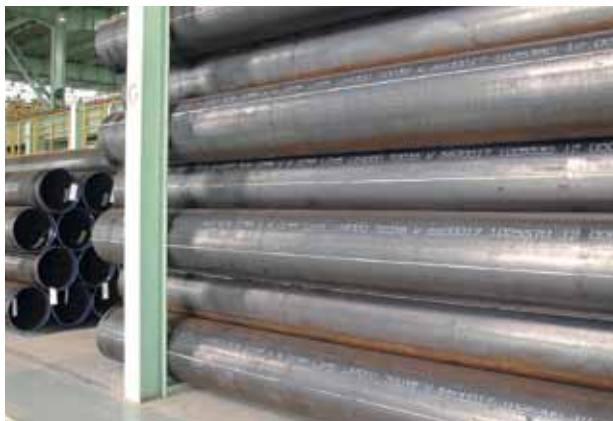
Stainless Steel Business Unit

Shanghai Meishan Iron & Steel Co., Ltd.

B1

宝钢产线聚焦

Baosteel Production Line Focus





>> 钢管单元

总产能: 约200万吨/年

成品最大规格:

外径: 1422mm;
厚度: 40mm;
长度: 21m

产线:

热轧无缝管 2*180mm、
高频直缝焊管 610mm、
埋弧直缝焊管 1422mm、
冷拔无缝、冷轧无缝管
325

生产单元:

钢管条钢事业部
特钢事业部
烟台鲁宝钢管有限责任公司



>> Steel Pipe & Tube Unit

Total Capability: 2 million tons/year

Maximum Size of Finished Product:

OD: 1422mm;
Thickness: 40mm;
Length: 21m

Production Line:

Hot-rolled seamless tube 2*180mm;
HFW pipe 610mm;
LSAW pipe 1422mm;
Cold-drawing seamless pipe, cold-rolling seamless pipe;
325

Production Unit:

Tube Pipe & Bar Business Unit
Special Steel Business Unit
Yantai Lubao Steel Tube Co., Ltd.

B1 宝钢产线聚焦 Baosteel Production Line Focus





>> 不锈钢单元

热轧不锈钢

产能: 150万吨/年

成品规格:

厚度: 2-10mm

宽度: 750-1600mm

生产单元: 不锈钢事业部

冷轧不锈钢

产能: 60万吨/年

成品规格:

厚度: 0.20-5.0mm

宽度: 40-320mm

生产单元: 不锈钢事业部



>> Stainless Steel Unit

Hot-rolled Stainless Steel

Capability: 1.5 million tons/year

Specification of Finished Product:

Thickness: 2-10mm

Width: 750-1600mm

Production Unit: Stainless Steel Business Unit

Cold-rolled Stainless Steel

Capability: 0.6 million tons/year

Specification of Finished Products:

Thickness: 0.20-5.0mm

Width: 40-320mm

Production Unit: Stainless Steel Business Unit

B1 宝钢产线聚焦

Baosteel Production Line Focus

>> 特钢单元

年产能:

棒线材: 40万吨

银亮钢: 5万吨

锻材: 7万吨

管材: 5000吨

钢板: 28万吨(钢板和钢卷)

品种规格:

棒材: $\phi 15-160\text{mm}$ (热轧)、 $\phi 90-1800\text{mm}$ (锻造)

锻件: 厚度 $\geq 60\text{mm}$ 、宽度 $300-1400\text{mm}$ 、长度 $1-5\text{m}$

钢管: 外径 $\phi 10-108\text{mm}$ 、壁厚 $0.5-12\text{mm}$ 、长度 $\leq 10\text{m}$

钢丝: $\phi 2-7\text{mm}$

钢带: 厚度 $0.05-3.5\text{mm}$ 、宽度 $\leq 230\text{mm}$

钢卷: $2.5-7\text{mm} \times 600-1300\text{mm}$ (热卷)

$2.5-6\text{mm} \times 600-1300\text{mm}$ (热轧酸洗白卷)

钢板: $4-80\text{mm} \times 600-2500\text{mm} \times 2000-8000\text{mm}$

生产单元: 特殊钢事业部





>> Special Steel Unit

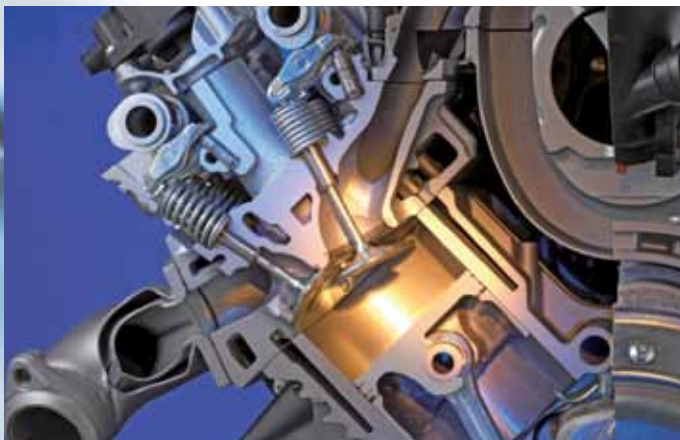
Annual Capability:

Rod & wire: 400,000 tons
 Silver steel: 50,000 tons
 Forging: 70,000 tons
 Tube: 5000 tons
 Plate: 280,000 tons (plate & coil)

Product Specification:

Rod: $\varnothing 15\text{--}160\text{mm}$ (hot-rolled), $\varnothing 90\text{--}1800\text{mm}$ (forging)
 Forging: Thickness $\geq 60\text{mm}$, Width $300\text{--}1400\text{mm}$, Length $1\text{--}5\text{m}$
 Tube: Outside Diameter $\varnothing 10\text{--}108\text{mm}$, Wall thickness $0.5\text{--}12\text{mm}$, Length $\leq 10\text{m}$
 Wire: $\varnothing 2\text{--}7\text{mm}$
 Strip: Thickness $0.05\text{--}3.5\text{mm}$, Width $\leq 230\text{mm}$
 Coil: $2.5\text{--}7\text{mm} \times 600\text{--}1300\text{mm}$ (Hot-rolled coil)
 $2.5\text{--}6\text{mm} \times 600\text{--}1300\text{mm}$ (Pickled hot-rolled white coil)
 Plate: $4\text{--}80\text{mm} \times 600\text{--}2500\text{mm} \times 2000\text{--}8000\text{mm}$

Production Unit: Special Steel Business Unit



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 multi-function 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 	<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 	<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
<ul style="list-style-type: none"> • 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"> • Implement various of product certification • Establish ISO9001 Quality System • Organize production with standards+α • Change quality improvement from close to open. 	<ul style="list-style-type: none"> • 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

钢水纯净度高：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≤10ppm，P含量≤80ppm，全氧含量≤20ppm，[H]≤1.5ppm的世界一流水平。

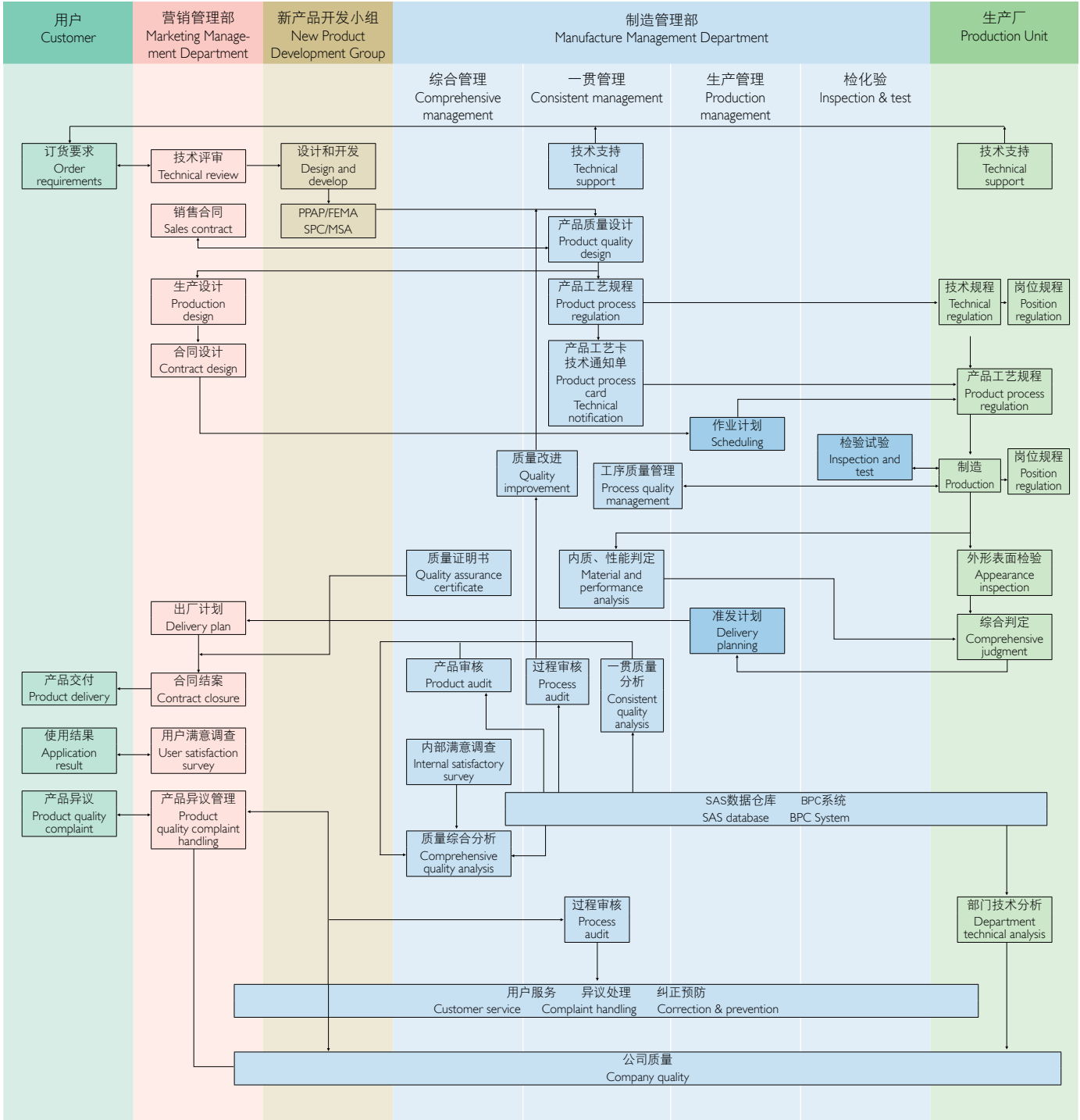
铸坯水平高：连铸坯内质优良，中心偏析可以稳定控制在M20级以下，低倍内裂、三角区裂纹、角裂、夹杂及黑点等缺陷可以控制在≤10级，铸坯冶金质量好，且板坯尺寸控制精度高。

Material Object Quality Under Baosteel Consistent Quality Management System

High purity of liquid steel: Baosteel's liquid steel is stable in chemical components and low fluctuation by using advanced steelmaking equipments and techniques, together with desulphurization, converter dephosphorization and boiler equipments RH-MFB, LF, RH-OB, KIP/CAS. Its purity can reach world's leading class: S≤10ppm, P≤80ppm, total oxygen content≤20ppm, [H]≤1.5ppm.

Advanced technique in casting blank: The inner quality of continuous casting blank is excellent, center segregation can be stably controlled below M20. Low implosion, triangular space crack, corner crack, inclusion and black spot etc. imperfections can be controlled ≤10. Fine metallurgy quality of casting blank and precise dimension control of blank.

宝钢一贯制质量管理业务流程图
 Business Process of Baosteel's Consistent Quality Management

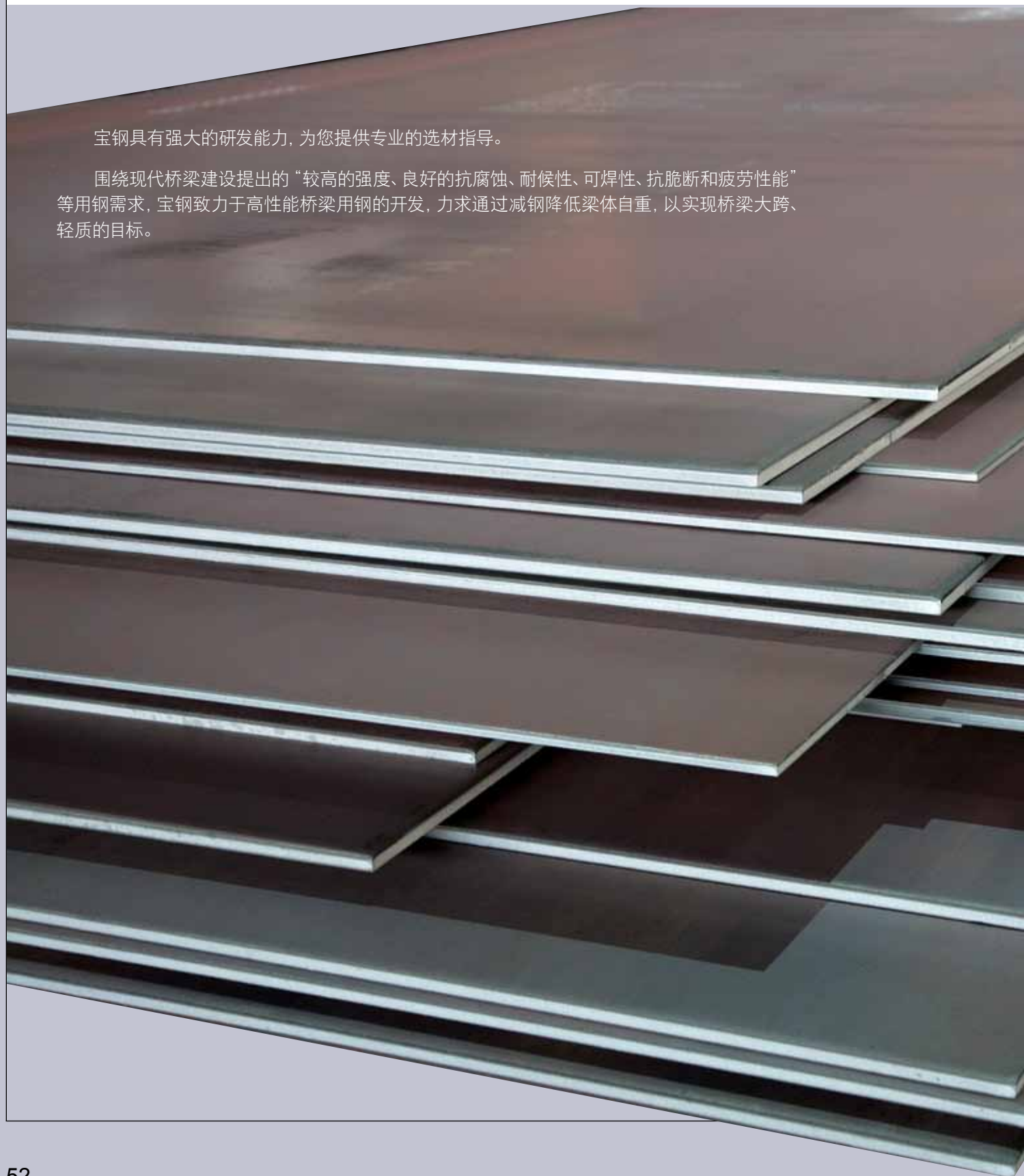


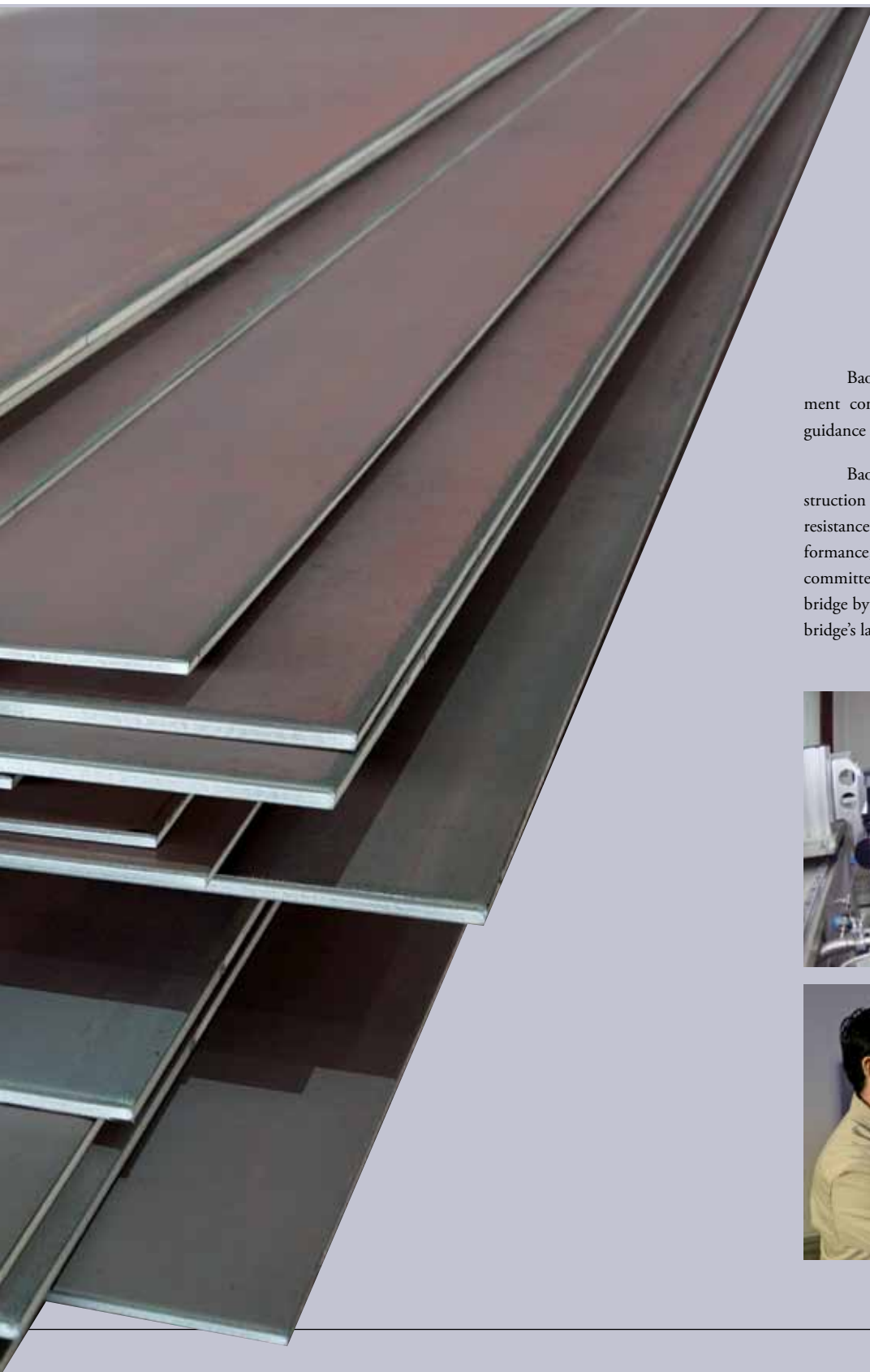


研发篇 Research & Development

宝钢具有强大的研发能力, 为您提供专业的选材指导。

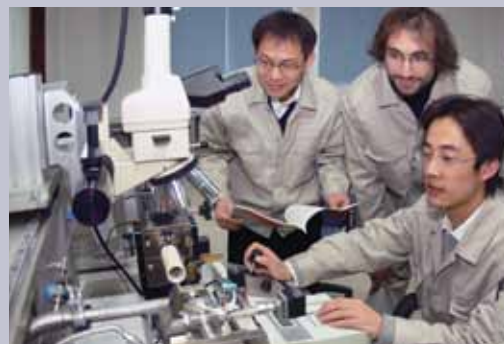
围绕现代桥梁建设提出的“较高的强度、良好的抗腐蚀、耐候性、可焊性、抗脆断和疲劳性能”等用钢需求, 宝钢致力于高性能桥梁用钢的开发, 力求通过减钢降低梁体自重, 以实现桥梁大跨、轻质的目标。





Baosteel has comprehensive research and development competitive strength which provides professional guidance for customers in material selection.

Baosteel has been focusing on modern bridge construction requirements of “high-strength, high-corrosion resistance, high-weather resistance, excellent welding performance, brittleness resistance and fatigue resistance” and committed itself to developing high-performance steel for bridge by reducing the weight of steel beam thus to realize bridge’s large span and lightweight.



C 研发篇 Research & Development



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

Has a scientific research team of hundreds of chief experts and doctors.

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

研发方向

- 耐大气腐蚀桥梁结构用钢
- 耐大气腐蚀桥梁结构用钢与涂层材料的匹配
- 60公斤级桥梁用钢 (Q460q)及其焊接技术
- 以TMCP技术生产桥梁结构用钢的研究
- 高性能桥梁用钢的焊接材料开发
- 桥梁缆索用钢研发

R&D Direction

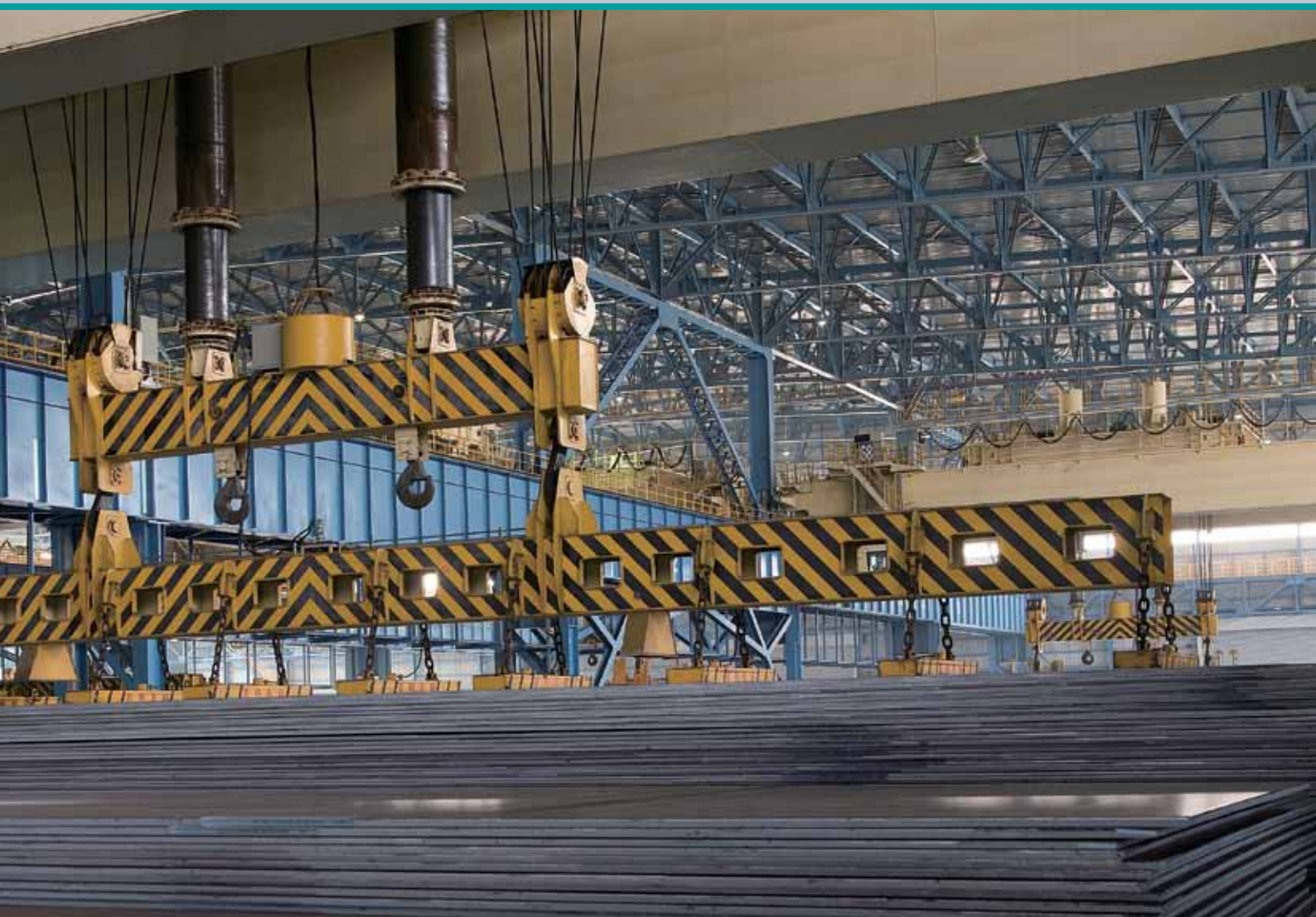
- Atmosphere resistant steel for bridge structure
- The matching of atmosphere resistant steel for bridge structure with supporting coating material
- 60 kilogram level steel for bridge (Q460q) and supporting welding technique
- Study of bridge structure steel with TMCP technique
- Development of matching welding materials for high performance steel for bridge
- R&D of bridge cable steel



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服务体系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。

As being involved in many national major construction projects, Baosteel has developed a comprehensive competitive marketing system for major projects. The major project material supply system, established in 2002, aiming to provide a highly effective, comprehensive and value-added service window and platform, a project-supporting trade service platform under division principle of regions and professions and an instant reacted green service channel.

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，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 on 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.

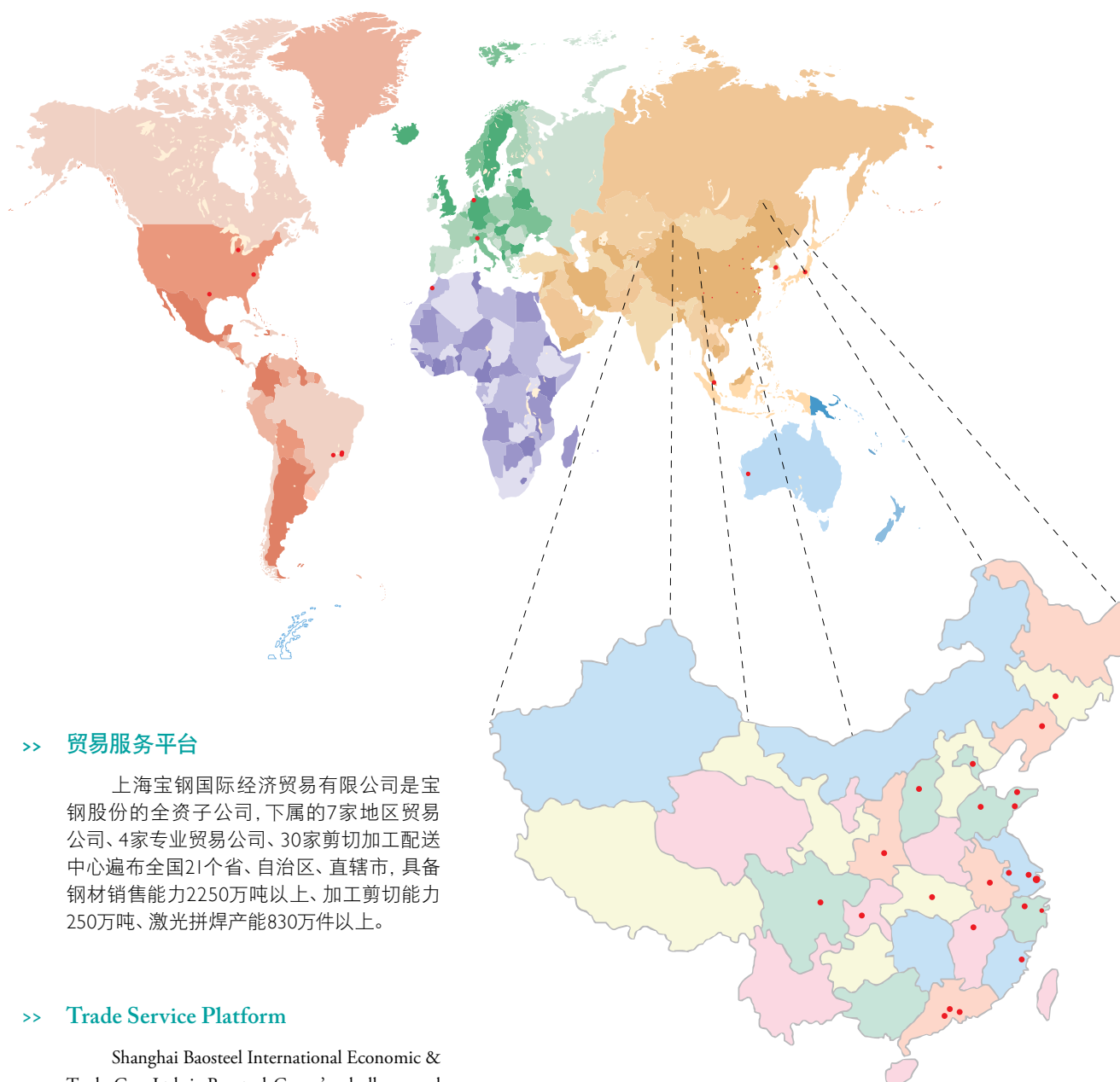
The major material supply system, which bases on the Group's integration advantages, enlarges and extends steel processing industry and develops the most competitive "Steel Industry Chain" for Baosteel. It provides total solution to construction projects from steel material supplying, steel structure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





>> 贸易服务平台

上海宝钢国际经济贸易有限公司是宝钢股份的全资子公司, 下属的7家地区贸易公司、4家专业贸易公司、30家剪切加工配送中心遍布全国21个省、自治区、直辖市, 具备钢材销售能力2250万吨以上、加工剪切能力250万吨、激光拼焊产能830万件以上。

>> Trade Service Platform

Shanghai Baosteel International Economic & Trade Co., Ltd. is Baosteel Group's wholly owned subsidiary. It has 7 regional trade companies, 4 professional trade companies, 30 cutting process and distribution center over 21 provinces, autonomous regions and cities in China. It has a sales capacity over 22.5 million tons, cutting and processing 2.5 million tons, laser welding more than 8.3 million pieces.

销售网络
Sales Network



案例精选—— 宝钢，桥梁用钢专家

西堠门大桥是舟山连岛工程中的第四座桥梁，设计通航等级为30000吨级，主桥采用450+1650+450米的悬索桥方案，1650米的主跨度将使西堠门大桥成为“中国第一、世界第二”跨度的悬索桥。项目总投资（含金塘大桥）约50亿元，用钢总量达36万吨。

2004年4月，西堠门大桥主缆索股和吊索制造招标，宝钢（钢管条钢事业部、二钢公司、二钢申佳）联合浦江缆索股份公司组成联合体：钢管条钢事业部提供盘条，二钢及二钢申佳进行拉丝、镀锌，浦缆公司负责编缆，构建一条“桥梁缆索产业链”。经过激烈角逐，宝钢获得两根主缆中一根主缆和全部吊索的制造权。这根主缆的获得不仅打破了日本在这一领域的垄断地位而且还打破了国内大桥建设中将盘条、钢丝、缆索分开投标的模式，这一新型投标模式入选第十批中国企业新纪录。

西堠门大桥1770Mpa主缆索股的成功研制给中国桥梁缆索用钢带来了曙光。大桥缆索用钢是具有世界领先水平的优质碳素钢材，以前主要依赖进口。为了改变这种现状，2001年，宝钢集团内宝钢股份公司与二钢（申佳）公司签署了联合开发符合JIS G3502标准的琴钢丝用盘条的协议，历经两年研发，解决了冶炼、轧制等多方面的问题，开发出了SWRS82B盘条，并成功应用于广西柳州红光大桥，用量虽仅800余吨，但却结束了国内大桥用钢丝不能使用国产盘条生产的历史。

宝钢中标西堠门大桥主缆索股并不是一蹴而就的。投标前，联合体经过反复试制，2004年3月宝钢股份生产的B82MnQL盘条和二钢（申佳）公司的镀锌钢丝通过了上海市经委组织的“新产品新技术”专家鉴定。正是这种严谨苛求的精神，翻开了中国桥梁缆索用钢的新篇章。随后，宝钢研发的更高级别的B87MnQL盘条，制成的 $\phi 7.0$ 1770Mpa镀锌钢丝中标苏通大桥全部斜拉索用镀锌钢丝，这是目前国内大桥缆索用钢强度级别最高的钢种，且要求钢丝同时具有高强度、低松弛、带扭转。这一产品打破了国内传统钢丝低松弛、无扭转的指标体系。2007年4月，苏通大桥指挥部向宝钢发来了贺信，祝贺宝钢圆满完成7000吨成品镀锌钢丝的生产任务。

宝钢桥梁缆索用钢生产技术日臻完善，也促动了宝钢桥梁结构用钢大研发。5米宽厚板轧机投产后，宝钢相继研发的14MnNbq钢板、Q420qE钢板均具备批量生产的供货能力。

如今，西堠门大桥已建成通车，整座大桥除了一根主缆索外，其余所有钢材，包括悬索大桥用的悬索、桥梁板、建设桥塔、铺设车道用的螺纹钢，全部是由宝钢供料。

宝钢已完全具备整座桥梁的供货能力。



Case Selection — Baosteel, the Expert of Steel for Bridge



Xihoumen Bridge is the fourth bridge in Zhoushan Island-Land Project, with 30,000 tons designed navigation capacity. The bridge has adopted a design of 450+1650+450-meter suspension bridge. Its 1650-meter main span made itself became No.1 in China and No.2 in the world of all suspension bridges. The total investment of the project (includes Jintang Bridge) is RMB 5,000 million yuan and total steel usage of 360,000 tons.

In April 2004, Xihoumen Bridge project started bidding for the production of main cable strand and hanger. Baosteel (Tube Pipe & Bar Business Unit, Shanghai No.2 Iron & Steel Company, Shenjia Company) cooperated with Shanghai Jujiang Cable Co., Ltd. ,formed a joint bidding consortium: Tube Pipe & Bar Business Unit provides wire rod, Shanghai No.2 Iron & Steel Company and Shenjia Company are responsible for wire drawing and galvanizing, Shanghai Pujiang Cable Co., Ltd. is responsible for cable braiding thus formed an “industry chain of bridge cable”. After competition, Baosteel won the production right of one of the two main cables and all of the hangers. This success has not only broken the dominance of Japan products in the area, but also has broken through the old model of separate bidding for wire rod, steel wire and cable. This new bidding model has been recorded in the tenth batch of New Records of Chinese Enterprises.

The successful development of the 1770Mpa main cable strand brought twilight to China's steel for bridge cable. In the past, bridge cable most relied on imported products of world's leading level of carbon steel. To change the situation, in 2001 the two units under Baosteel Group, Baosteel Co., Ltd. and No.2 Iron & Steel (Shenjia) company, have signed a joint development contract of wire rod for music wire under JIS G3502 standards. By two years' efforts, overcome the difficulties of smelting and rolling, wire rod SWRS82B has been successfully developed and has been used in the project of Hongguang Bridge, Liuzhou, Guangxi Province. Though the total usage is only about

800 tons, it is regarded as the ending of the era that China's bridges using no domestic produced wire rods.

The success of the cable used in Xihoumen Bridge bidding was not made in one night. It has been thoroughly tested before the bidding. In March 2004, Baosteel's B82MnQL wire rod and galvanized steel wire produced by Shanghai No.2 Iron & Steel (Shenjia) Company have passed the expert evaluation of “New-product, New-technology” held by Shanghai Municipal Economic Commission. Baosteel's spirit of strictness and demanding has turned China's bridge history to a whole new page. By then Baosteel has developed higher grade wire rod B87MnQL and produced Ø7.0 1770Mpa galvanized steel wire, which won the bidding of Sutong Bridge suspension cable supply. It is the highest strength grade steel, while also with properties of high-toughness, low-relaxation and band torsion, for domestic bridge cables. This product breaks the traditional domestic index system of low-relaxation, non-torsion steel wires. In April 2007, Sutong Bridge commander center has sent congratulations to Baosteel for the success of producing 7,000 tons of finished galvanized steel wires.

With the continuous improving of Baosteel's production techniques in steel for bridge cable, the development of steel for bridge structure has also been stimulated. Consecutive to the launch of 5-meter heavy plate mill, Baosteel has developed 14MnNbq steel plate, Q420qE steel plate and with mass production capacity.

Today, Xihoumen Bridge has been completed and opened for traffic, except one main cable, all the steel materials used for the bridge, includes suspension cable, bridge girder, bridge tower and deformed steel, were supplied by Baosteel.

Baosteel has full competitive capacity for whole bridge construction supply.

成果

宝钢重大工程材料供应服务体系秉承了“高端、同步、协同”的营销理念，在推动宝钢高端产品研发应用、与下游行业同步发展、发挥集团内各单元协同供料效应中发挥着积极的作用。

“重合同 守信誉”优秀供应商

东海大桥（含洋山深水港）全长32.5公里，是我国第一座真正意义上的外海跨海大桥。该桥60%的钢材为宝钢所供，宝钢以“一流的产品，一流的服务”受到用户表彰。2003年，宝钢被深水港工程东海大桥指挥部评为“重合同 守信誉”优秀供应商。

入选第十批中国企业新记录

宝钢自主开发的可用于桥梁悬索或斜拉索的高强度等级盘条，成功中标西堠门大桥悬索，打破了国内大桥建设中将盘条、钢丝、缆索分开投标的模式，探索出宝钢产业链一体化供料服务新模式。2005年，这一模式入选中国企业新记录（第十批）。

B87MnQL盘条创国产化先河

宝钢自主研发的B87MnQL盘条及成品镀锌钢丝 $\phi 7.0$ 1770Mpa成功应用于苏通大桥，打破国内传统镀锌钢丝低松弛、无扭转的指标体系，将低松弛与高扭转指标有机统一，这也是目前国内桥梁中使用的强度级别最高的镀锌钢丝。2007年4月，宝钢收到苏通大桥指挥部的贺信，对宝钢圆满完成供料任务表示祝贺。

被授予上海长江隧桥建设荣誉证书

2009年12月，上海长江隧桥工程建设指挥部将001号荣誉证书及奖牌授予宝钢股份，感谢宝钢股份为这项国家重点建设项目作出的突出贡献。

上海长江隧桥建设项目全长超过25公里，采用南隧北桥建设方案。自2004年项目开工至2009年建成通车，宝钢股份累计向上海长江隧桥建设提供钢材数量超过8.4万吨，品种包括钢板、热轧材和钢绞线。

为保证工程建设节点，宝钢股份采用了“整体配供”的增值服务模式，发挥产业链优势，为工程所需钢材提供一揽子服务。宝钢股份还成立了专门的管理团队，推进精细化管理，实现无界面互动。团队中的营销与科研人员多次深入工程建设现场，与建设方一起探讨使用经济高效、合适工程建设的优质钢材等问题，确保了工程建设进度按计划正常进行。



Achievements

According to the marketing concept of “high-end, synchronization, cooperation”, Baosteel’s major project material supply system has made positive contributions to R&D and application of high-end products, synchronized development with downstream industries and integration of all group units material supply cooperation.

“Contract-abiding and Trustworthy” Excellent Supplier

East China Sea Bridge (includes Yangshan Deepwater Port), 32.5-kilometer in full length, is the first cross-ocean bridge in China under strict definition. Baosteel has provided 60% of the bridge steel usage and has won good reputation by its “First-class product, First-class service”.

Selected as the Tenth Batch of New Records of Chinese Enterprises

Baosteel’s self-developed high strength wire rod for bridge girder and suspension cable has successfully won the bidding of Xihoumen Bridge suspension cable. The joint bidding model has broken the old model of separate bidding of wire rod, steel wire and cable and formed an industrial line of material supply model. This model has been selected and recorded in the tenth batch of New Records of Chinese Enterprises in 2005.

B87MnQL Wire Rod, the Pioneer of Localization

B87MnQL wire rod and Ø7.0 1770 Mpa galvanized steel wire developed by Baosteel has been used successfully in Sutong bridge construction. This product breaks the domestic wire index system of low relaxation but without torsion. Instead, it combines properties of low relaxation with high torsion. It’s currently the highest grade of strength galvanized steel wire for bridge in China. In April 2007, Sutong bridge commander center has sent congratulation letter to Baosteel for congratulating the success of material supply completion.

Honor Certification of Shanghai Yangtze River Tunnel Bridge

In December 2009, Shanghai Yangtze River Tunnel Bridge construction commander center has awarded No. 001 Certification of Honor and Medal of Honor to Baosteel to recognize its extraordinary contribution to this key project of China.

Shanghai Yangtze River Tunnel Bridge Project is over 25-kilometer in full length uses a south-tunnel-north-bridge design. The project started in 2004 and completed for operation in 2009. The accumulative total amount of steel provided by Baosteel is over 84,000 tons, including steel plate, hot-rolled coil and steel stranded wire.

To ensure smooth construction of this project, Baosteel has adopted “integrated distribution” value-added service model, providing service package to the project with its industry chain supremacy. Baosteel has organized expert management team to implement lean operation and interaction without interface. The marketing elites and scientific researchers of the team have deeply involved in many projects to discuss with the owner of proper steel with high economic effectiveness and high quality etc., to guarantee the project success.

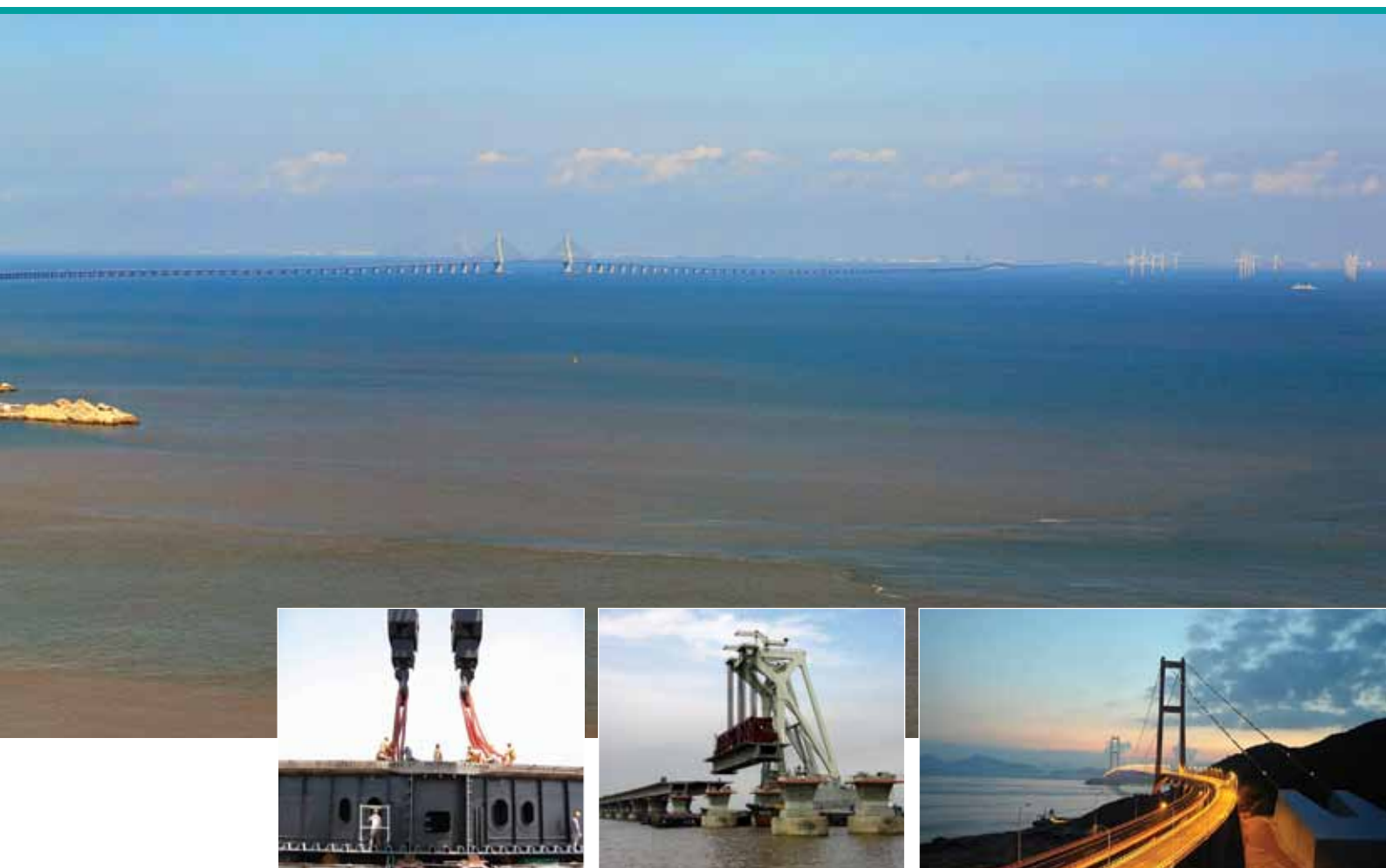
结束语 The End



这本画册仅仅是宝钢与中国桥梁共同成长历程的一个缩影。在这里，我们感受着光荣，更多地感受着桥梁界对宝钢的信任和期望。宝钢和桥梁传承历史，风雨同舟，必将谱写更加辉煌的新篇章！

衷心感谢致力于推动桥梁用钢国产化的人们！

衷心感谢为宝钢桥梁用钢提供施展舞台的人们！



This brochure is only a miniature of Baosteel's growth path with China's bridge development.

Here, let us enjoy the honor to take the trust and expectation given by bridge industry. Baosteel and bridge, carrying the heritage of history, has helped each other through all difficulties, will achieve greater master piece in future.

Sincere appreciations for the people who committed to realizing the localization of steel for bridge!

Sincere appreciations for the people who provided the stage for Baosteel's products for bridge!

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