Baosteel Special Metals Co., Ltd.

Baosteel Special Metals’ Positioning and Development
Catalog:

一、Company Introduction and Historical Development

二、Brief Introduction of Stainless Steel and Nickel-based Alloy Products

三、Positioning and Development of Company
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三、Positioning and Development of Company
1. Brief Introduction of Company

Baosteel Special Metals Co., Ltd. is a wholly owned subsidiary of Baosteel Group which is formerly known as Shanghai No.5 steel Company. It was founded in 1958 and is also one of the earliest manufacturing bases of special steel in China.
2、Production Capacity

It processes four professional manufacturing lines involving special metallurgy, special steel long products, special steel tube and alloy strip and plate and its annual capacity is one and a half millions.

It produces eight series of flat steel products, long products, seamless tubes and forging products in high temperature alloy, anti-corrosion alloy, precision alloy, titanium and titanium alloy, stainless steel and special structural alloy steel, die & tool steel and bearing steel, which are widely used in aerospace and aviation, energy and chemical industry, transportation areas etc.
3、Historical Development

- Founded Shanghai No.5 Iron and Steel Plant (1958)
- Merged into Baosteel Group (1998)
- Set up Baosteel Special Steel Business Unit by Baoshan Iron & Steel Co., Ltd. (2008)
- Acquired by Baosteel Group and Set up Baosteel Special Metals Co., Ltd. (2012)
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1、Brief Introduction of Stainless Steel and Nickel-based Alloy Products

Stainless steel and nickel-based alloy products are wire, bar, plate & strip and tube. Stainless steel includes 300 series, 400 series stainless steel, duplex steel, superaustenitic and so on. Nickel-based alloy includes high temperature alloy, anti-corrosion alloy and precision alloy. Supplying as hot rolled plate, cold rolled plate, cold rolled coil, hot rolled bar & wire, bright bar & wire and colled tube.
2. Production Technology Process of Stainless Steel and Nickel-based Alloy Products

Technological Process of Rod and Wire Line

Melted by EAF, VIM or ESR, processed by hot rolling, forging or cold drawing, outputting wire rod, bar in coil and round bar.
2. Production Technology Process of Stainless Steel and Nickel-based Alloy Products

Technological Process of Plate and Strip Line

Melted by EAF, VIM or ESR, processed by steel mill, hot rolling or cold rolling, outputting hot rolled coil, cold rolled coil, plate and sheet.
2. Production Technology Process of Stainless Steel and Nickel-based Alloy Products

- Technological Process of Tube Line
  Melted by EAF, VIM or ESR, processed by hot extrusion or hot piercing and cold rolling, outputting seamless tube.
### Production Capacity of Stainless Steel and Nickel-based alloy

The annual capacity of Stainless Steel and Nickel-based Alloy is 520,000 tons. Among which, annual capacity of long product production line is 200,000 tons; annual capacity of bar product production line is 140,000 tons; annual capacity of plate & strip product production line is 170,000 tons; annual capacity of tube product production line is 7,000 tons.

<table>
<thead>
<tr>
<th>Type</th>
<th>Annual Capacity</th>
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<tbody>
<tr>
<td>Wire</td>
<td>200,000 tons</td>
</tr>
<tr>
<td>Hot Rolled Bar</td>
<td>100,000 tons</td>
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<tr>
<td>Forged Bar</td>
<td>30,000 tons</td>
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<tr>
<td>Bright Steel Bar</td>
<td>10,000 tons</td>
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<tr>
<td>Hot Rolled Plate &amp; Strip</td>
<td>100,000 tons</td>
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<tr>
<td>Cold Rolled Plate &amp; Strip</td>
<td>70,000 tons</td>
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<tr>
<td>Tube</td>
<td>7,000 tons</td>
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</tbody>
</table>
4. Stainless Steel Product Supply Ability and Performance

Supply Ability Overview

Stainless steel includes stainless steel and heat-resistance steel, giving priority to duplex steel, superaustenitic steel, turbine-blade stainless steel and free cutting special stainless steel. Supply plate, tube, bar, wire, coil and forged product according to Chinese standard, international standard or agreed standard. Products cover general size, overlength, over-width, super-thick products, possessing certificates like PED, GE and DNV, GL, ABS and so on.
4. Stainless Steel Product Supply Ability and Performance

- **Key Product Performance**
  - Duplex steel plate and tube are widely used in petrochemical engineering devices, seawater and waste water treatment equipment, oil and gas transmission line, paper making machinery fields.
  - Support Chinese electric power structural transformation by supplying 304/HR3C, ultra supercritical high pressure boiler pipe.
  - Large format forged stainless steel tube blank is widely used in hydrocracking devices in petrochemical industry.
  - Special stainless steel used in civil aviation area gets certificates given by well-known IAE.
5、Nickel-based Alloy Product Supply Ability and Performance

Supply Ability Overview

Giving priority to develop high temperature alloy、anti-corrosion alloy、precision alloy。Baosteel Special Metals can supply plate、tube、bar、wire、coil and forged product according to Chinese standard、international standard or agreed standard. Products cover general sizes、overlength、over-width、super-thick products, possessing PED、API and DNV、GL、ABS certificates relatively with major classification societies.
5. Nickel-based Alloy Product Supply Ability and Performance

- Key Product Performance
  - Total supply of Nickel-based alloy pipe reached 7000 tons
  - The global fourth supplier of nuclear power 690 tube
  - Globally unique supplier for nuclear power evaporator tube in nuclear island, mounting plate and chamber barrier
  - Overall package supply of UNS N06625 products for the Chinese fourth generation nuclear power ITGR project
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三、Positioning and Development of Company
The Chinese Economy is now under structural transformation. It is also in the stage that heavy chemical industry plays a dominant role while it is also a transition period of post-industrial age. 7% GDP around growth will be a new normal.

With the implementation of Chinese new environmental protection act, going green and environmental protection relevant industry will have a new round of development, such as nuclear power, wind power, solar power and other clear energy industry, environmental protection industry and civil aviation industry.
2、Positioning

Based in Shanghai China, striving to producing high quality special steel and establishing special alloy research and production base, being a partner with some advanced equipment manufacturers in research-matched key products and an outstanding supplier of special steel, Baosteel Speical Metals hope to finally become a socially responsible, leading technology, high product quality company.
3、Development Plan

- Complete strategic input of hot rolled and cold rolled plate, tube production line.
- Until 2018, annual output will be 1,300,000 tons, annual income will be 18 billions RMB.
- Expand long product to flat steel product and tube product.
- Develop steel product to materials.
- Complete strategic input of hot rolled and cold rolled plate, tube production line.
4、Product Positioning

- Expand Long Product Production
- Strengthen Special Metallurgy Production
- Develop Plate & Tube Production

Focusing on producing high value-added and differentiated products; Satisfying complementary supply of critical material used in emerging industry and supply new products and technology in most-advanced manufacturing industry; Enjoying the leading position of special material production.
5、Product Development

Expand Long Product Production

Giving priority to develop auto parts steel、bearing steel、structural alloy steels in mechanical engineering area、stainless steel bar &wire product in oil refining area、stainless steel wire rod and brigh steel bar & wire product. Keep the leading position in Chinese domestic key market.
5、Product Development

Strengthen Special Metallurgy Production

Giving priority to develop high temperature alloy, titanium and titanium alloy, special stainless steel and special structure steel product; Expanding variety kind of anti-corrosion alloy forging & rolling product and nickel-based alloy cold working bar and wire product. Setting up the most influential market position in Chinese advanced auxiliary equipment field and gradually expanding the international market in aerospace and aviation area.
5. Product Development

**Develop Plate & Tube Production**

Giving priority to develop anti-corrosion alloy, special stainless steel plate & tube and precision alloy plate & coil product; Expanding special structure steel product and researching to develop metal and alloy composite plate product; Set up superiority role of key product in Chinese energy and chemical industry.
6、Products

Focusing on high temperature alloy, anti-corrosion alloy, precision alloy, titanium and titanium alloy, special stainless steel and special structure steel products.
7、Goal of Product Development in Specialized Market

Focusing on energy and power fields and cultivating series products related ability
—Annual capacity of Nickel-based alloy series products will reach 10,000 ton in 2018.

Giving priority to develop high temperature alloy long products, anti-corrosion alloy plate & tube and precision alloy plate & strip products; Becoming the largest company which provides complete range of products and has the largest market share in Chinese energy and power specialized fields and initially forming some international influence.
—Annual capacity of Special stainless steel series products will reach 100,000 ton in 2018.

Giving priority to develop duplex steel products, superaustenitic plate, tube and forged bar products; Becoming the company which has the strongest related capability to provide complete range of products and has the largest market share in Chinese nuclear and environmental protection specialized fields.
Closing:

Realm Decides Pattern
Quality Accomplishes Brand
Service Creates Value
Innovation Guides future