BAOSTEEL SPECIAL STEEL BRANCH, CHINA
1-STRAND VERTICAL SLAB CASTER
On July 26, 2006 the Chinese steel producer Baosteel signed a contract with Siemens VAI Metals Technologies (now Primetals Technologies), for the relocation of Shanghai No. 3 works to Baosteel Special Steel Branch. Start-up of the caster was on January 20, 2009.

SOLUTION

The project includes latest technological equipment and packages to enable high-quality slabs, such as

- Butterfly ladle turret with independently liftable arms and ladle weighing
- Semi-gantry type tundish car with trough type tundish and SEN stopper rod system
- Smart Mold with Mold Expert system, LevCon mold level control and soft clamping
- DynaFlex hydraulic oscillator with on-line stroke, frequency and wave pattern adjustment
- Strand guide consisting of: 1 vertical rack and 4 Smart Segments with DynaGap Soft Reduction, PDR rollers and DynaJet nozzles
- Rigid type dummy bar with bottom feeding system
- Dynacs dynamic secondary cooling model incl. center/margin mode
- Runout area equipped with torch cutting
- CC Control and CC Optimization, Quality Expert slab quality control system, breakout prediction, HydrauliCon, LubriCon, DriveCon, and Yield Expert

MAIN BENEFITS

- Increase of production and flexibility
- Optimum performance and availability
- Assurance of optimized solutions for unique and specialized requirements
- Maximum system and plant availability at low maintenance costs

NEW SINGLE-STRAND VERTICAL SLAB CASTER

for the production of highest alloyed stainless and carbon steel grades
**SCOPE OF SUPPLY**
- Basic and detail engineering for main caster components
- Mold
- EMS
- Assembly parts of main caster components
- Electrics and automation
- Advisory service for co-manufacturing
- Advisory service for erection, start-up and commissioning
- Training of personnel

**PLANT DATA**

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Melting unit</td>
<td>4 EAF</td>
</tr>
<tr>
<td>Secondary metallurgy</td>
<td>AOD, VOD, VD, LF</td>
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<tr>
<td>Heat size</td>
<td>36 t</td>
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<tr>
<td>Caster capacity</td>
<td>267,000 tpy</td>
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<tr>
<td>Metallurgical length</td>
<td>13.6 m</td>
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<tr>
<td>Slab thicknesses</td>
<td>120, 200 mm</td>
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<tr>
<td>Slab width range</td>
<td>600 – 1,300 mm</td>
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<tr>
<td>Cut length</td>
<td>6 – 10 m</td>
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<tr>
<td>Max. casting speed</td>
<td>1.5 m/min</td>
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<tr>
<td>Steel grades</td>
<td>medium to high carbon grades, alloy and high alloy grades, stainless 300 and 400 series and Si grades</td>
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