THREE STAND TANDEM
HOT ALUMINUM MILL
CHALCO RUIMIN CO, CHINA
NEW TANDEM FINISHING MILL

The new mill has been supplied to Chalco Ruimin Co Ltd, Fujian Province, China

Primetals Technologies were awarded this contract on the basis of technological competence and the significant number of successful project references for aluminum hot mills.

The tandem hot aluminum mill was supplied to Chalco Ruimin Co Ltd, located in Fuzhou City, Fujian province in south east China and was started up on 1st April 2011. The Primetals Technologies mill has been designed to meet Chalco’s need to expand capacity to over 370,000 metric tones per annum at widths in excess of 2.2 metres, servicing the high quality strip and sheet markets, including printing, packaging and electronics.

MAIN BENEFITS
- Flexible, cost-efficient rolling of a wide range of products
- Most advanced and innovative automation
- Tightest strip thickness and profile tolerances
- High surface quality
- Reliable, consistent performance
- Realising tight tolerances right from the strip head
- Maximum operating efficiency
- Integrated occupational safety concepts

SOLUTIONS
The new 3-stand tandem hot finishing mill is an integral part of an aluminum 1+3 hot line, the key process component of the major plant expansion planned by Ruimin.

In addition to the mechanical equipment, Primetals Technologies supplied all automation technology; the drive systems and the sensors. The automation system comprises basic automation, including the technological controllers, as well as operation and visualization equipment. Primetals Technologies also supplied the model based process automation for the complete hot line to ensure the highest standards in product quality. All mechanical and electrical components used are part of our integrated solution for aluminum hot mills. Beside the above, commissioning and customer training is also part of the contract.
**PRODUCT DATA**

<table>
<thead>
<tr>
<th>Product</th>
<th>Hot rolled aluminum and aluminum alloys 1XXX, 3XXX, 5XXX and 8XXX series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. entry thickness</td>
<td>40 mm</td>
</tr>
<tr>
<td>Min. exit thickness</td>
<td>2.5 mm</td>
</tr>
<tr>
<td>Min./Max. strip width</td>
<td>1,050 - 2,250 mm</td>
</tr>
<tr>
<td>Min./Max. strip width (trimmed)</td>
<td>950 - 2,150 mm</td>
</tr>
<tr>
<td>Max. coil weight</td>
<td>23 tons</td>
</tr>
<tr>
<td>Coil max. outside diameter</td>
<td>2,600 mm</td>
</tr>
<tr>
<td>Coil max. inside diameter</td>
<td>610 mm</td>
</tr>
<tr>
<td>Specific coil density</td>
<td>13.1 kg/mm</td>
</tr>
</tbody>
</table>

**ROLLING MILL DATA**

<table>
<thead>
<tr>
<th>Mill size</th>
<th>Ø750/1,500 mm x 2,500 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. exit strip</td>
<td>460 mpm</td>
</tr>
<tr>
<td>Stand power (each stand)</td>
<td>5,000 kW</td>
</tr>
<tr>
<td>Max. rolling load per stand</td>
<td>4,000 tons</td>
</tr>
</tbody>
</table>

**SCOPE OF DELIVERY**

**Three 4-high stands including**
- Hydraulic automatic gauge control
- Positive and negative bending
- Work roll chock mounted brushes
- ISV Sprays

**Mill exit equipment including**
- Edge trimmer with separate chopper
- Coiling equipment

**Automation system including**
- Basic automation system incl. technological control
- Sensors and measuring devices
- Process automation system
- Analytical online process models
- Profile, thickness and temperature control
- Flexible production scheduling
- Data logging and reporting system
- Comprehensive diagnostics

**Drive systems**
- Utilizing Sinamics SM150 and S120 converters
Primetals Technologies Limited
A joint venture of Siemens, Mitsubishi Heavy Industries and Partners

Sheffield Business Park,
Europa Link, Sheffield,
S9 1XU
United Kingdom

primetals.com
Brochure No.: T07-0-N255-L4-R-V1-EN
Printed in Austria
© 2015 Primetals Technologies Ltd. All rights reserved.

The information (including, e.g., figures and numbers) provided in this document contains merely general descriptions or characteristics of performance based on estimates and assumptions which have not been verified. It is no representation, does not constitute and/or evidence a contract or an offer to enter into a contract to any extent and is not binding upon the parties. Any obligation to provide and/or demonstrate respective characteristics shall only exist if expressly agreed in the terms of the contract. These estimates and assumptions have to be analyzed on a case-to-case basis and might change as a result of further product development.

Primetals Technologies excludes any liability whatsoever under or in connection with any provided information, estimates and assumptions. The provided information, estimates and assumptions shall be without prejudice to any possible future offer and/or contract.

Any use of information provided by Primetals Technologies to the recipient shall be subject to applicable confidentiality obligations and for the own convenience of and of the sole risk of the recipient.