

Excellent performance figures from new stainless steel plant in China

- **Chinese joint venture grants final acceptance certificate (FAC) for two argon-oxygen decarburization (AOD) converters, two desiliconization (DeSi) converters, two continuous slab casters, and process optimization systems**
- **Achieves charge-to-tap times shorter than guaranteed figures**

Recently, a joint venture of Chinese steel producers Taiyuan Iron and Steel Group Co. (TISCO) and Shandong Xinhai Industry granted the final acceptance certificate (FAC) to Primetals Technologies for an extensive combination of meltshop and casting equipment at a stainless steel plant in Linyi, Shandong province, China.

Excellent results

All equipment has been implemented successfully, with performance figures exceeding the customer's expectations. For example, charge-to-tap times of less than 89 minutes, including the intermediate deslagging process, are achieved on a regular basis, which is particularly remarkable as the mass build-up of materials in the AOD converter is high.

The process optimization systems are also showing great results. The contractual performance value for the hitting rate, i.e., 85 percent for a temperature range from -10 to +15 degrees Celsius, was already reached during startup. These systems are now exhibiting hitting rates of almost 100 percent for the given temperature and carbon windows. In addition, plant availability was already above 99 percent during the performance test phase.

Leading supplier

The key equipment for this large project supplied by Primetals Technologies comprises four converters in total, two continuous slab casters, the AOD Controller, which is a process control system, and the process optimization system AOD Optimizer. Primetals Technologies has engineered, supplied, and implemented two AOD converters and two converters that can be used for either AOD or DeSi processes – the latter process desiliconizes the melt before it is sent to the AOD converters. The converter scope also encompasses Vaicon Quick vessel-suspension systems that ensure the fastest-possible vessel exchange.

Primetals Technologies is a leading provider of AOD equipment, which was one of the main factors contributing to the customer's choice of supplier. The portfolio also includes special processes, like intermediate deslagging, and process optimization systems tailored to the AOD process. An additional important factor for the customer was Primetals Technologies' extensive reference base, which includes several major stainless steelmaking projects in China.

Since 1988, Primetals Technologies has supplied eight new slab casters to TISCO, and the Chinese steel producer has tasked Primetals Technologies with 24 casting projects in total to date. The two stainless slab casters at the site in Linyi have an annual capacity of 0.9 and 1.2 million tons and a maximum width of 1,600 and 2,100, respectively. The bow radius is at 9 meters.

A joint venture

TISCO is a holding subsidiary of China Baowu Iron and Steel Group and was founded in 1934. TISCO is focusing on the development of special steels, for example ultra-wide, ultra-thick and ultra-thin strip tubes and high-quality silicon steel for electric vehicles.

Based in Linyi, China, Shandong Xinhai Industry processes, manufactures, and distributes metal products. The company produces plating alloys, high nickel alloys, manganese alloys, and other products.

Key facts: Meltshop and casting equipment supplied by Primetals Technologies

- Two AOD converters and two AOD/DeSi converters
- Converter suspensions
- Trunnion rings
- Pedestals and main bearings
- Tilting drives
- Top lance equipment and process valve stations
- Converter exchange car
- Process control system "AOD Controller"
- Process optimization system "AOD Optimizer"
- Two continuous slab casters



Primetals Technologies has received the FAC for a combination of stainless steelmaking equipment implemented at a plant operated by Chinese steel producers TISCO and Shandong Xinhai Industry.



Primetals Technologies has supplied two continuous slab casters to the site in Linyi, China.

This **press release** and a **press picture** are available at www.primetals.com/press/

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