

London, May 11, 2023

## Chinese steel producer starts up combined billet and beam-blank caster supplied by Primetals Technologies

- **New 6-strand caster ensures increased production volume**
- **Start-up two weeks ahead of schedule despite issues with global supply chains and Covid-19 restrictions**

Chinese steel producer Maanshan Iron and Steel, also known as Masteel, recently started up a 6-strand combined billet and beam-blank caster supplied by Primetals Technologies at its steel plant in Maanshan, Anhui province, China. The order was placed in December 2021 and encompasses engineering, supply of key equipment, Level 1 and 2 automation systems, and advisory services for implementation and startup.

### Ahead of schedule

The project included a complete casting machine and lasted just 13 and a half months from the kick-off meeting until the first cast. The project team faced some challenges related to global supply chain issues and Covid-19 restrictions. However, as all involved parties focused on close collaboration and effective communication, the team managed to start up the new equipment two weeks ahead of schedule.

The caster has an annual capacity of 1.1 million tons and casts structural steel, low alloyed grades for bridges, weather resistant grades, and steel for the mining industry. It is designed for high productivity – up to 330 tons per hour. Thanks to the new billet and beam-blank caster, Masteel will be able to increase its annual production.

### Precise spray cooling

A dual-type oscillator assures state-of-the-art oscillation accuracy, which guarantees optimal lubrication of the mold and best possible surface quality. Primetals Technologies' secondary cooling solution prevents any over-cooling of the flange tips and the development of surface cracks. The 6-strand caster also features Primetals Technologies' patented continuous straightening concept for reducing the tension caused by the straightening process.

### Optimized production

The Level 2 automation system CC Optimizer handles the production planning and records data on heat, strand conditions, and products during the whole casting process. The process optimization solution also

encompasses several expert systems. A cut length optimization system, Yield Expert adjusts the strand to maximize the number of items scheduled for production. Production events and quality-related information are examples of data being collected and evaluated by Quality Expert. The process optimization solution is rounded off by Speed Expert, a system that calculates the optimal casting speed. The process optimization experts of Primetals Technologies were able to execute the complete startup of the Level 2 automation system remotely.

One of the largest iron and steel producers in China, Masteel mainly manufactures steel plates, section steel, wire rods, and train wheels.



Maanshan Iron and Steel's billet-beam bank caster from Primetals Technologies was recently started up, two weeks ahead of schedule.



The new billet and beam-blank caster has an annual capacity of 1.1 million tons.

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