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## HBIS Wuyang and Primetals Technologies Start Up World's Most Powerful Continuous Caster

- **First slab produced on ultra-thick caster with 5,000 kilonewtons per roll**
- **Caster delivers slabs up to 460 millimeters thick – setting new global benchmarks**
- **Marks a major step toward high-efficiency, high-end steel production**

Wuyang Iron and Steel and Primetals Technologies have recently achieved a milestone with the production of the first slab on Wuyang's new single-strand continuous caster at the plant in Wugang, Henan province, China. This caster, the most powerful of its kind worldwide, is engineered to produce ultra-thick slabs up to 460 millimeters thick – enabling Wuyang to meet the growing demand for advanced steel products in high-end industries like offshore wind power, nuclear power steel, pressure vessels, and engineering machinery.

### Driving Efficiency and Innovation

By partially replacing traditional ingot casting with this advanced slab caster, Wuyang Iron and Steel will significantly cut operational costs, even when producing challenging steel grades.

The teams of Wuyang Iron and Steel and Primetals Technologies worked together under a tight schedule to deliver this important milestone on time. The companies will continue their close collaboration to develop new steel grades on the ultra-thick caster in the coming years. This partnership aims to further expand Wuyang's portfolio of high-end steel products and support the evolving needs of the energy, infrastructure, and heavy machinery sectors.

### Outstanding Reduction Force

Primetals Technologies' Single Roll DynaGap (SRD) segments make it possible to dynamically adjust each roll gap as production parameters change – such as steel grade, cooling rate, and casting speed. These SRD segments deliver an impressive 5,000 kilonewtons of force per roll – the equivalent of 15 fully loaded trucks. This strong force helps create advanced internal microstructures in the slabs while maintaining consistently high mechanical properties.

The caster also features a new, innovative method from Primetals Technologies for setting up the ideal caster-roll geometry right from the design stage. This approach cuts unsteady bulging by 50 percent, allowing for faster casting speeds and greater productivity.

Primetals Technologies' Smart Segment, a continuous bending and straightening concept, works together with a dry-casting machine design that uses Eco-Star rolls to greatly improve slab surface quality. The Eco-Star rolls have an advanced internal cooling system, designed to handle the high temperatures needed to reduce surface defects during dry casting.

### **HBIS Wuyang – Leading China's Production of Wide and Thick Plates**

Wuyang Iron and Steel, a subsidiary of HBIS Group, is a leader in the production of wide and thick steel plates in China. It also houses a key research centre within the steel plate industry. Wuyang Iron and Steel operates two technologically advanced double-stand production lines for wide and thick steel plates.

#### **Key facts: Wuyang Iron and Steel's 1-strand slab caster**

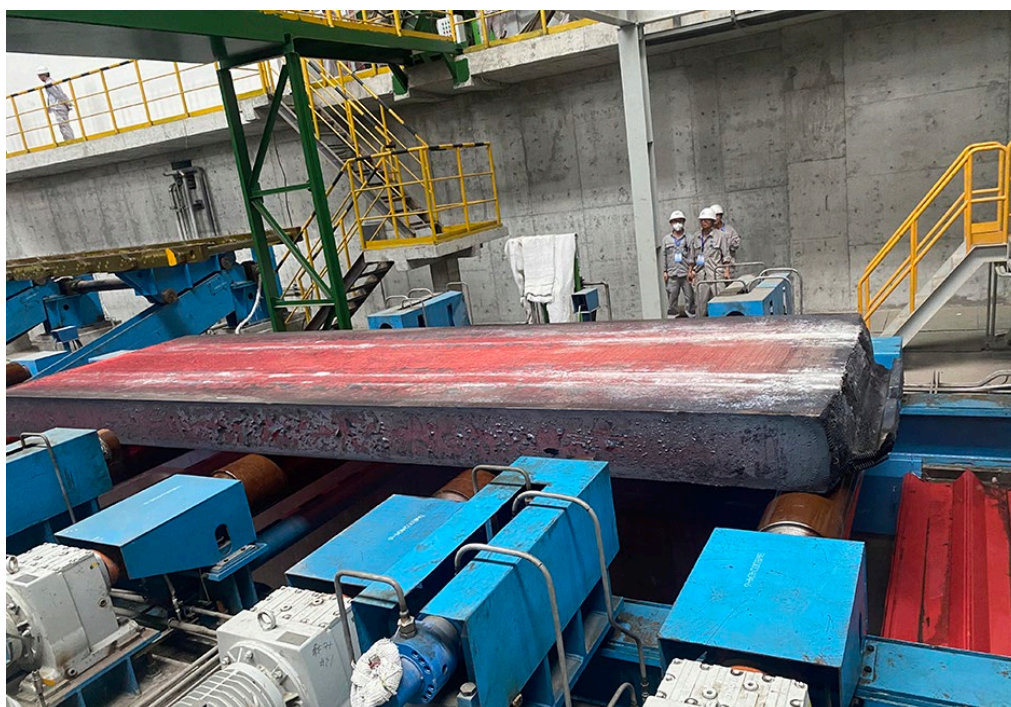
**Capacity:** 1 million tons per year

**Radius:** 12 meters

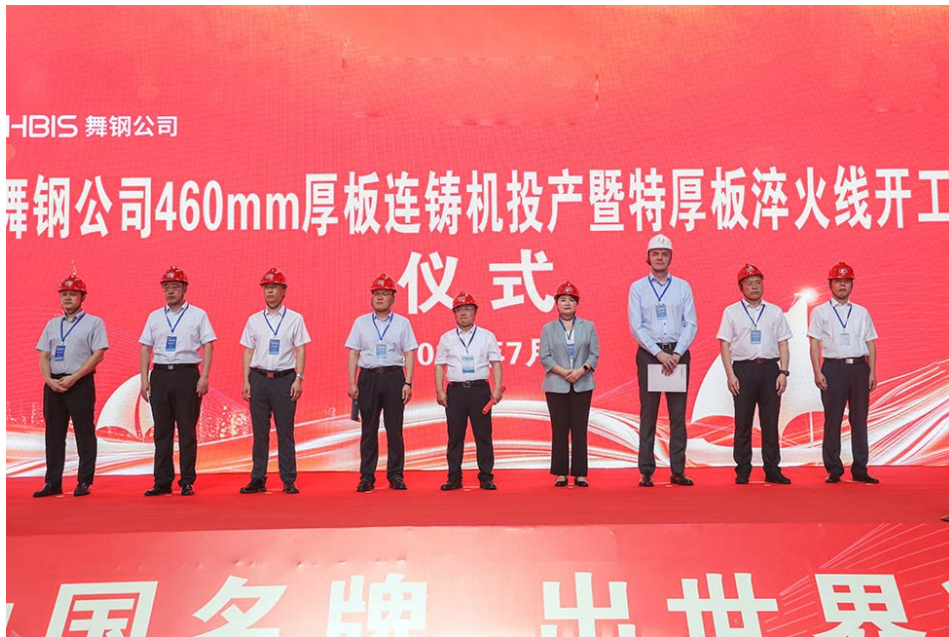
**Metallurgical length:** 41.65 meters

**Dimension of slabs:** 370 to 460 x 1,600 to 2,500 millimeters

**Steel grades:** Low-carbon, micro-alloyed, low-alloyed, austenitic and martensitic stainless, peritectic, high-strength low-alloyed (HSLA)



Primetals Technologies' new continuous caster at Wuyang Iron and Steel is engineered to produce ultra-thick slabs up to 460 millimeters thick.



Wuyang Iron and Steel and Primetals Technologies have recently achieved a milestone with the production of the first slab on Wuyang's new 1-strand continuous caster.

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