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Tata Steel IJmuiden orders new continuous slab caster from Primetals Technologies

- **Technology packages ensure high interior and surface quality**
- **Production capacity is 2.7 million metric tons of slabs per annum**
- **Slabs further processed to make steel products for the automotive industry**
- **The IJmuiden plant will be the most modern of its kind**

Tata Steel IJmuiden BV, a Dutch steel producer, has awarded Primetals Technologies an order to supply a new continuous slab caster. The plant will be constructed on a "process turnkey" basis. It is designed to produce around 2.7 million metric tons of slabs per annum and will cast high-quality grades for end applications in the automotive industry, for example. A number of technology packages will ensure that the slabs have high interior and surface quality making the caster the currently most modern plant of its kind. The plant is scheduled for commissioning in March 2019.

Tata Steel IJmuiden BV is part of Tata Steel Europe and, with an output of seven million metric tons of steel per annum, is Tata Steel's largest production site in Europe. IJmuiden produces steels for a large number of applications, but mainly for the automotive, construction and packaging industries. The steel products are also used in batteries, tubes, industrial vehicles and domestic appliances. Primetals Technologies will handle the basic and detailed engineering of the new continuous slab caster and will manufacture core components. The scope of supply and services also includes the complete basic and process automation, the water treatment plant and the erection.

The caster has a machine radius of 9.5 meters and a metallurgical length of around 32.7 meters. It has the possibility to cast slabs with thicknesses between 180 and 305 millimeters in widths ranging from 900 to 2,150 millimeters. The machine processes a wide range of carbon steels, peritectic grades, structural steel and HSLA (high strength low alloy) . The machine is equipped with a straight Smart Mold with electromagnetic stirrers and a number of technology packages. These include LevCon mold level control, a Mold Expert breakout detection system with fiber-optical based temperature measurement,

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and DynaWidth for setting the width of the slabs during the casting operation. DynaFlex is used as the mold oscillator.

High-temperature-casting (DynaTac)-compatible EcoStar Spiral rollers are used in the segments of the strand-guiding system. The Dynacs 3D process model is used for the secondary cooling system. It dynamically calculates a three-dimensional temperature profile along the whole length of the strand. This enables the setpoints of the secondary cooling and thus the final strand solidification to be determined precisely as functions of the casting speed, slab format and steel grade. DynaGap Soft Reduction 3D improves the interior quality of slabs used to produce high-quality heavy plate. The roller taper is dynamically adjusted during the final solidification in line with the setpoints calculated by Dynacs 3D. The 3D Sprays system has movable nozzles in the segments to ensure uniform, optimal cooling of the slabs over their entire width.



Slabs produced on a continuous casting machine from Primetals Technologies

This press release and a press photo are available at

www.primetals.com/press/

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