Primetals Technologies to revamp continuous bloom caster at NISCO

- Continuous bloom caster to receive an additional strand
- An additional format with a rectangular cross section of 320x420 millimeters can be cast

Chinese steel producer Nanjing Iron & Steel United Co., Ltd (NISCO) awarded Primetals Technologies the order to revamp its bloom caster No. 8 at the Steel Plant No. 3 in Nanjing. The caster, supplied by Primetals Technologies, was originally designed as a five-strand machine and was set up and operated as a three-strand caster since 2008. The current revamp will encompass the installation of a fourth strand, enabling the production of an additional bloom format with a rectangular cross section of 320 x 420 millimeters. The revamped caster is scheduled to come on stream in June 2018.

NISCO, established in 1958, owns a total production capacity of 10 million metric tons of steel per year, including the production capacity of its key product plate-in-coil, covering more than 3 million metric tons per year, with integration of iron ore mining and dressing, iron making, steel making, steel rolling and steel further processing. The company operates a total of four continuous casting machines supplied by Primetals Technologies.

Bloom caster No. 8 is located in NISCO’s Steel Plant No. 3, an electric steelmaking facility with a production capacity of 1.5 million metric tons per year. The caster itself may produce 0.6 million metric tons per year with three strands. It features a machine radius of 12 meters and a metallurgical length of 37.1 meters, and up to now casts blooms with a rectangular cross section of 320 x 480 millimeters. Maximum casting speed is 0.6 meters per minute. The caster processes steel grades from low to high carbon steels as well as special alloyed steels.

For the original machine started up in 2008, Primetals Technologies had procured the basic engineering of the entire casting equipment as well as the detail engineering of key components. Supplies included curved plate type molds with LevCon mold level control and external mold stirrer, DynaFlex hydraulic...
oscillators with on-line stroke, frequency and wave pattern adjustment, the strand guides consisting of exchangeable segments 1–3, 7 withdrawal stands with DynaGap SoftReduction for bloom casters, chain type dummy bars with bottom feeding system, the DynaSpeed secondary cooling model, and the runout area equipped with torch cutting, marking, deburring and walking beam collecting table. The level 1 and level 2 automation systems were also part of the project as was the VAI-Q Bloom quality control system.

Casting bow of a bloom caster from Primetals Technologies

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

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Primetals Technologies, Limited headquartered in London, United Kingdom is a worldwide leading engineering, plant-building and lifecycle services partner for the metals industry. The company offers a complete technology, product and service portfolio that includes integrated electrics, automation and environmental solutions. This covers every step of the iron and steel production chain, extending from the raw materials to the finished product – in addition to the latest rolling solutions for the nonferrous metals sector. Primetals Technologies is a joint venture of Mitsubishi Heavy Industries (MHI) and Siemens. Mitsubishi-Hitachi Metals Machinery (MHMM) - an MHI consolidated group company with equity participation by Hitachi, Ltd. and the IHI Corporation - holds a 51% stake and Siemens a 49% stake in the joint venture. The company employs around 7,000 employees worldwide. Further information is available on the Internet at www.primetals.com.