Primetals Technologies to revamp merchant bar mill of Simec in Mexico

- New continuous roughing train will increase productivity, improve temperature control and ease maintenance
- New handling area will improve bar straightness, cutting and automatic stack formation
- Overall mill efficiency will be raised

Primetals Technologies has received an order from Mexican steel producer Grupo Simec S.A.B. de C.V. (Simec) to revamp the company’s merchant bar mill in Mexicali in the Mexican State of Baja California. The bar mill will be equipped with a new continuous roughing train in order to increase productivity, improve temperature control and ease maintenance. Furthermore, a new handling area will be set up. This will improve bar straightness, make cutting more precise and facilitate automatic formation of section stacks. These measures will raise overall mill efficiency. Hot commissioning is planned for the fourth quarter of 2019.

Simec is a private mini-mill steel producer that makes an array of non-flat structural steel products such as structural profiles, bars and specialty steels, primarily for the construction, automobile and manufacturing sectors. The group is the leading SBQ producer in North America, and the leading structural steel producer in Mexico. Simec has a total installed capacity of 5.2 million metric tons per year, distributed in 19 steel producing and processing plants located in Mexico, the USA, Canada and Brazil.

The merchant bar mill at the Mexicali production size has a yearly capacity of 300,000 tons, with a maximum rolling rate of 60 tons per hour. It processes carbon steel billets with a square cross section of 160 millimeters and a length of 12 meters as well as secondary sizes with cross sections of 136 and 115 millimeters, respectively. Finished products of the merchant bar mill include rebar with diameters ranging from 9.5 millimeters (⅜") to 38.1 millimeters (1⅜"), rounds with diameters between 12.7 millimeters (½") to 38.1 millimeters (1⅜"), squares, equal and unequal angles, channels and flats. The new roughing train
will prepare intermediate unfinished rounds with diameters of 85 and 63 millimeters, which will serve as feeds to the existing intermediate train.

Primetals Technologies is responsible for engineering of the new roughing train and the new handling area and will supply the required process equipment as well as electrics and automation. The mechanical supply includes core equipment for the 60 ton-per-hour pusher-type reheating furnace as well as the furnace charging and discharging areas. The new 6-stand roughing train, equipped with fifth generation Red Ring stands, in HVHVHV arrangement, will replace the existing 3-Hi stand. Following the exit of the cooling bed, a multi-strand double-supported straightener will be installed, operating with five top driven rolls and four bottom idle rolls. A transversing car will be used for the quick replacement of the roll cassette. The scope of supply also includes the layer forming area for cold cutting, a cold static shear, the layer forming area for stacking, a combined mechanic/magnetic stack forming system for the formation of section stacks, as well as machines for binding, weighing, labeling, discharging.

Primetals Technologies is also supplying the lubrication and hydraulic systems, electrics, the basic (level 1) automation, mechatronic packages, HMI hardware and software, control desks, motors and drives. The existing DC drives will receive a hardware upgrade. For counting bars, a non-optical bar counter will be used. In addition, Primetals Technologies will assist the customer with engineering, erection and commissioning work, and provide training services.
Stacking station for sections from Primetals Technologies

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

Contact for journalists:
Dr. Rainer Schulze: rainer.schulze@primetals.com
Tel: +49 9131 9886-417

Follow us on Twitter: twitter.com/primetals

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.