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Tyasa orders reversing cold rolling mill from **Primetals Technologies**

- Annual production capacity of 200,000 metric tons of low-carbon and high-strength steels
- Flexible production of diverse range of end products, particularly suitable for small batches
- Tight flatness and thickness tolerances, good surface quality
- Compact design

Talleres y Aceros S.A. de C.V.(Tyasa), a Mexican steel producer, has awarded Primetals Technologies an order to supply a new reversing cold rolling mill for its production plant in Ixtaczoguitlan. The cold rolling mill is another element in Tyasa's strategy of extending its portfolio to include flat products. The mill will roll 200,000 metric tons of high-strength and low-carbon steels a year. It is designed to handle a wide range of end products, and is particularly suitable for small batches. The process equipment and technology packages not only maintain tight flatness and thickness tolerances but also ensure a good quality surface. The compact design minimizes the proportion of out-of-gauge strip. The project is due for completion by early 2018.

The reversing cold rolling mill is designed as a single, four-high stand. Primetals Technologies will supply the complete process equipment, electrics and automation from a single source, and will also be responsible for supervising the installation and start-up of the plant. The cold rolling mill is designed for an annual production of 200,000 metric tons of low-carbon and high-strength steel grades. It has a maximum roll separating force of 1,800 metric tons, and rolls strips with an entry thickness ranging from 0.7 to 2.0 mm down to exit thicknesses of between 0.3 and 1.0 mm. The strip width ranges from 900 to 1,650 mm. The maximum coil weight is 32 metric tons.

The scope of supply from Primetals Technologies includes the rolling force cylinders – with integrated high resolution position transducers, low friction seal and guiding rod assembly - which form the key element in achieving precise thickness control. The cylinders and other core components are manufactured in the company's own workshops, and thoroughly tested before delivery. The production of

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extremely flats strips is ensured by advanced work roll bending, multizone cooling of the work rolls and continuous flatness measurements, combined with special technology packages, such as automatic flatness control. For strip blow-off, a special air-nozzle arrangement is used. The design ensures efficient blow-off at all rolling speeds thus contributing to a high surface quality of the rolled strip. The surface quality is further improved by using a Coil Eccentricity Compensator (CECO) model. CECO stabilizes the strip tension and ensures a consistent strip thickness by compensating for any eccentricities in the coil which may have been caused by the clamped head ends of the strips.



Reversing cold mill (RCM) from Primetals Technologies. A comparable mill be installed in the Ixtaczoquitlan production plant of the Mexican Steel producer Talleres y Aceros S.A. de C.V.(Tyasa)

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.