

## PRESS RELEASE

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# As consortium leader, SMS group supplies turnkey production plant for the manufacture of railroad wheels to RINL



Wheel rolling machine of the type DRAW 1250 forms railroad wheels with 13 CNC-controlled axes to a diameter of up to 1,200 millimeters fully automatically.

Indian steel producer Rashtriya Ispat Nigam Limited (RINL) has placed an order with SMS group to supply a plant for the manufacture of railroad wheels. From the fall of 2018, RINL will start production in the new factory in the Northern Indian province of Uttar

Pradesh. SMS group has been awarded the contract as consortium leader and will supply the plant on a turnkey basis. It is to produce 100,000 wheels fully automatically with diameters from 720 to 1,200 millimeters. The capacity of the facility can be increased to 200,000 wheels per year. Main customers are Indian railroad repair shops.

The supplier consortium consists of SMS group and Niles-Simmons-Hegenscheidt, Chemnitz (NSH), Germany. SMS group provides the buildings including equipment, infrastructure, water management and transformer station. Furthermore, SMS supplies the wheel rolling line with billet saw plant, billet storage and billet heating machine. Wheels, QT system and mechanical contour machining units are provided by NSH.

It is the world's first turnkey installation producing fully contour-machined railroad wheels. The bars up to nine meters long produced in the continuous casting process are first shortened by two billet saws to the length designated for the respective wheels. Behind the sawing machine the billets are taken over by an automatic gantry crane and put into temporary billet storage. An infeed conveyor transports the billets to the rotary hearth furnace which homogeneously heats up to 22 tons of billets per hour before forging. The furnace may be operated with either propane or natural gas. After heating, another conveyor transports the hot billets to the forging line. In a second step, the billet is formed in a press with a pressing force of 9,000 tons to a wheel blank and is then rolled out in an automated process on the wheel rolling machine (type DRAW 1250) to its full diameter. In the process, 13 CNC-controlled axes act simultaneously on a vertically rotating wheel. The rolling process is followed by piercing of the pin bore and final shaping of the web area, the so-called dishing. This process takes place in two stages in the piercing and dishing press with a pressing force of 5,000 tons. After measuring the wheel the contours are machined. In a final step, a testing system makes sure that the quality standards of RDSO (Research Design and Standards Organization of the Ministry of Railways, Government

of India) are met.

This greenfield project is to contribute to advancing India's further expansion of the transport infrastructure and to increasing the independence from imported railroad wheels. "The line produces so many wheels that Indian Railways could be supplied for many decades," Martin J. Kunz, Vice President of Forging Technology Division is sure. "We are delighted about the trust that has been placed in our proven technology tested in many wheel rolling lines."

*The SMS group is a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. Its 14,000 employees generate sales of over EUR 3.3 bn.*