

## PRESS RELEASE

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# Ningbo Iron & Steel grants FAC to SMS group for modernization of its hot strip mill cooling section

Final Acceptance Certificate only 14 months after  
receipt of order



Cooling section at the exit of Ningbo Iron & Steel's hot strip mill modernized by SMS group. View of the reinforced laminar cooling and cross spray systems.

On 26 September 2019, only 14 months from the placement of the order, steel customer Ningbo Iron & Steel Co., Ltd., China, issued to SMS group the FAC (Final Acceptance Certificate) for the successful execution of the laminar cooling modernization in its HSM.

The ¾-continuously operating HSM is located in the Zhejiang province roughly 200 km south from Shanghai at the bay of the East China Sea. The rolling mill consists of three walking beam furnaces for slab reheating, a two-stand roughing mill, a seven-stand finishing train, the run-out table with the laminar cooling system as well as three down coilers. The mill capacity is 4 million tons per year in the strip thickness range between 1.2 and 19 millimeters and strip widths between 900 and 1,630 millimeters. The rolled steel material are grades for household and building industry applications as well as grades for the automotive industry.

The main targets of the cooling train modernization were on the one hand improved cooling performance with tighter tolerances for the coiling temperature and on the other hand the extension of the product mix by dual phase steel grades DP 600 and DP 800 for automotive purposes, pipe grades X60 and higher as well as non-grain oriented electrical steel.

The modernization package for the roughly 90 meters cooling train comprised the complete mechanical cooling equipment including six super-reinforced cooling banks at the entry of the cooling section and six reinforced cooling banks in front of the trimming zone. To avoid strip unflatness problems created in the cooling section, SMS group installed the advanced header technology ensuring uniform flow over the complete width. Furthermore, a new cross spraying system with new headers has been installed operating with a pressure of 20 bar to allow highest cooling efficiency.

Besides the mechanical and media equipment, in the area of Electrics & Automation SMS group supplied ? for the existing Level 1 and Level 2 systems ? the proven X-Pact® system with sophisticated models for set-up calculation of strip cooling and cooling patterns as well as extended cooling strategies.

„With the new cooling train including the new automation system Ningbo Iron & Steel possesses effective and valuable tools for the production of high-strength steel grades for the automotive industry and

pipe grades. Due to the new mechanical equipment, the new process models and the new basic automation, the cooling performance increased significantly. From mill stop to re-start it took only 15 days. We thank SMS group for the excellent cooperation. This is one example for the excellent international cooperation between P.R. China and Germany”, comments Han Jianguo, Ningbo, the project.

*SMS group is a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. It has some 14,000 employees who generate worldwide sales of more than EUR 2.8 billion. The sole owner of the holding company SMS GmbH is the Familie Weiss Foundation.*