Shougang Jingtang orders hot-dip galvanizing line for high-strength steel grades from SMS group

Expanded product portfolio and increase of annual capacity by 360,000 tons

The project team at the contract signing ceremony for the new galvanizing line.

Shougang Jingtang United Iron & Steel Co., Ltd., China, has contracted SMS group to supply a continuous hot-dip galvanizing line for high-strength steel grades. This is the sixth strip processing line SMS group is going to install in this works on Caofeidian Island, a man-made island offshore the
Chinese province of Hebei. As from 2019, the line will produce 360,000 tons of hot-dip galvanized steel strip, including high-strength grades with tensile strengths of up to 1,350 MPa.

One of the reasons for Shougang Jingtang to decide in favor of SMS group as supplier of the new line is SMS group’s vast experience in the field of high-strength steel strip. The material shall be used in the automotive industry to produce structural parts and car body shells.

In addition to designing all mechanical equipment and manufacturing high-quality core components, the supply package of SMS group will comprise the supervision of parts made in local workshops and of erection and commissioning. SMS group will also supply all electrical and automation systems. The strip guiding system including BREIMO strip width measurement equipment will be provided by EMG Automation.

The hot-dip galvanizing line will be designed to process strips up to 1,580 millimeters wide and between 0.6 and 3.0 millimeters thick. Strip speed during the galvanizing process will be maximum 160 meters per minute, while in the entry and exit sections it may reach up to 220 meters per minute. In addition to soft steel grades, the product range will include high-strength grades such as HSLA, DP and Q&P for car body shells.

To satisfy particularly high demands on surface quality, a FOEN® air knife system will be installed to precisely and homogeneously set the thickness of the zinc layer. The air knife system will be equipped with a contact-free edge mask, automatic gap width adjustment and HD cameras for continuous quality monitoring.

As Shougang Jingtang wants to use the line also for the purpose of developing new materials, the exit section will be designed to permit steel strips with a tensile strength of up to 1,500 MPa to be processed. This demand has to be considered in particular in the
design of the skin-pass stand, tension leveler and side trimming unit. A special tension leveler will be installed which comes with high tensions and, additionally, with an extended correction roll unit.

The major components of the line will be two payoff reels, a welder, cleaning section, furnace, skin-pass stand, tension leveler, vertical roll coater, side trimmer with scrap chopper, inspection station, oiling machine, flying shear and two recoilers.

The new line from SMS group will increase Shougang Jingtang’s production capacity of hot-dip galvanized steel strip by 360,000 tons per year and expand the product range by high-strength grades.

_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 13,500 employees who generate worldwide sales of more than EUR 3 billion. The sole owner of the holding company SMS GmbH is the Familie Weiss Foundation._