

PRESS RELEASE

Düsseldorf, February 12, 2007

A combination of CONARC® and CSP® plant

Essar Steel orders steelworks and CSP® plant

Essar Steel (Hazira) Ltd., India, a company belonging to the Essar Group, has awarded SMS Demag AG, Germany, a contract for the supply of a steelworks and a CSP® plant for the Hazira location in the federal state of Gujarat.

The steelworks comprises a 200-t CONARC® furnace unit and two dual ladle furnaces. The two-strand CSP® plant is designed for an annual production of 2.5 million t of hot strip.

For each of the plants, the supply scope comprises the engineering, the manufacture of the essential mechanical components, the complete electrical and automation systems and the supervision of erection and commissioning.

The CONARC® process, developed by SMS Demag, is a combination of the classical process routes for oxygen steel and electric steel production. It involves two furnace shells in which the oxygen-blowing lance and the electrodes are utilized alternately.

This makes it possible to process any ratio of the charge materials, i. e. steel scrap, hot metal and direct-reduced iron ore (DRI). This affords a degree of flexibility which allows the steel producer to react dynamically to fluctuations in the market prices of energy and charge materials.

The technological equipment includes two blowing lances as well as oxygen and carbon injectors, the materials management and the dust-collecting facility.

The CONARC[®] for Essar Steel will thus become the fifth reference plant and, with a heat size of 200 t and a transformer capacity of 165 MVA, it will be the largest unit employed for this innovative steel production process.

The CSP[®] plant consists of two casting machines, a roller hearth furnace with a swivel transfer car, a six-stand rolling mill, the laminar strip cooling section and two downcoilers. The caster is being built as a vertical bending plant. The slab thickness can be set in a continuously variable manner between 55 and 80 mm.

The CSP[®] plant is designed for strip widths from 950 to 1,680 mm and strip thicknesses from 1.0 to 25.4 mm. The product range comprises not only carbon steels but also pipe grades, silicon and dual-phase steels. The CSP[®] process offers optimum conditions above all for the economical production of high-quality steel grades.

A later extension stage will include the possibility of integrating a third casting strand. Likewise, an additional seventh mill stand and a third coiler can be incorporated into the finishing mill.

The complete automation is being prepared and made operational with the aid of the proven Plug & Work procedure. Plug & Work simulates the production sequence and enables the automation functions to be tested and optimized under realistic conditions prior to installation in the works.

The commissioning of all of the plant items is scheduled for mid-2009.

(49 lines with max. 55 letters)

SMS GmbH is the holding for a group of companies internationally active in plant construction and mechanical engineering relating to the processing of steel, non-ferrous metals and plastics. The group is divided on the one hand into the Business Areas SMS Demag and SMS Meer under SMS metallurgy and, on the other hand, into the Business Area SMS Plastics Technology. In the year 2005 some 9,250 employees worldwide generated a turnover of about EUR 2.33 bn.