

Phone: +49 211 881-4449
Fax: +49 211 881-774449
Mobile: +49 151 40226502
E-mail: thilo.sagermann@sms-group.com
Thilo Sagermann

PRESS RELEASE

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Modernization with energy-efficient environmental technology of

SMS group

Successful commissioning of SMS group's fumes treatment system at Uddeholm AB, Sweden

SMS group (www.sms-group.com) has successfully commissioned the second modernization phase of the fumes treatment system of the electric arc furnace, and final acceptance (FAC) has already been granted.

In phase 1, SMS group had installed a new, more efficient filter system and replaced the canopy hood of the electric arc furnace with an SMS frustum hood. In this connection, the secondary gas line was also renewed, and an axial cyclone was installed as spark separator upstream of the new jet pulse filter. In phase 2, the primary gas line for direct exhausting of the hot fumes from the 60-ton electric arc furnace was renewed.

The scope of supply of phase 2 consisted of a water-cooled fumes section, a gas cooler with bypass, and a radial-flow fan for pressure boosting. The hot fumes forming during the melting process are used to dry and preheat the scrap and adhering ice is removed this way. The installation of a cooler with bypass maintains the entry temperature at the scrap pre-dryer at maximum 300 °C, which prevents the formation of contaminants during scrap drying. The

water-cooled components were optimized with regard to pressure losses and already prepared for the future use of an energy recovery system.

The modernization of the fumes treatment system yields quite a number of advantages. The new technology achieves a rise in fumes volume by 66 percent without increasing the energy consumption in comparison with the old system. The SMS frustum hood allows clearly more effective capturing and exhausting of the fumes during furnace charging and tapping. The dust content at the stack outlet is 50 percent below the requested value. The drying of the scrap guarantees safe operation of the furnace, and in the future it will be possible to recover energy by way of the extraction of hot water.

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The modernized primary gas cooling system by SMS group at the electric arc furnace of Uddeholm.

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 about EUR 3 billion. The sole owner of the holding company SMS GmbH is the Familie Weiss Foundation.