

Press Release

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EFSOP® off-gas system for Kyoei Steel Group plants

Japan's Kyoei Steel Group introduces Tenova's EFSOP® off-gas system as recognized technology for improving production and lowering cost through energy savings

JOINT RELEASE, September 5, 2016: With excellent energy saving results from two completed EFSOP® project installations at Kanto Steel (Tsuchiura City, Ibaragi) and Kyoei Steel Hirakata Works (Hirakata City, Osaka), the **Kyoei Steel Group**, a leading EAF steelmaker in Japan, has confirmed the value that EFSOP® technology has added to their operations in the areas of real-time off-gas chemistry measurement and dynamic closed loop control of chemical energy.

EFSOP® technology has been provided by Tenova, through its company Tenova Goodfellow Inc., which is the leader in the design and supply of process control technology for the EAF and BOF markets.

In a recent Top Management interview with Japan Metal Daily, Kyoei Steel Group President, **Mitsuhiro Mori** quoted *"We will promote measures to cut costs. Centering around improving the production unit cost, we will aim to make our operations more competitive by cutting cost by 3%. A system to analyze the EAF off-gas and inject energies like O₂ at an optimal timing has been introduced to Hirakata Works and Kanto Steel. The system restrains waste combustion of the EAF and this becomes energy-saving. As data have been accumulated and effects started to be seen, we plan to introduce the system to all plants in the future."*

At both Kanto Tsuchiura and Kyoei Hirakata, the EFSOP® system was successful in achieving economic savings which exceeded the project minimum performance savings that were established at the start of both projects. The EFSOP® system implementations have proven successful both for dynamically controlling the chemical energy package and as a beneficial tool for continuous monitoring and improvement of the overall EAF operations.

The Kyoei Steel Group is now focused on introducing EFSOP® technology across their domestic steel operations to realize their goal of cutting domestic cost by 3%, through improved production and energy savings.

Both EFSOP® sales were a result of joint collaboration by Tenova Goodfellow Inc. (TGI) and Sumitomo Shoji Machinex Corp. (SMX) to bring breakthrough technology to the Japanese Steel Industry.

Quote taken from: Japan Metal Daily (TEKKO SHIMBUN), 11th July 2016

About Kyohei Steel Group

Kyohei Steel Group is a steel minimill producing concrete reinforcing bars (rebar) and other steel products for construction work, having the top share of the Japanese rebar market. It also develops a material recycling business using electric arc furnaces. Kyohei Steel Group employs around 1,800 employees in Japan and Vietnam.

For more information about Kyohei Steel Group, visit www.kyoeisteel.co.jp

About Tenova

Tenova, a Techint Group company, is a worldwide supplier of advanced technologies, products, and services for the metals and mining industries providing innovative, integrated solutions for complete process areas. Tenova Group employs around 3.500 employees in 24 countries on 5 continents.

For more information, visit www.tenova.com

About SMX

Sumitomo Shoji Machinex, a Sumitomo Corporation Group company, is a worldwide trading company since the establishment in 1962. SMX provides business solutions centered on the fields of machinery, electrical devices, and information/communication, contributing to the development of industrial society.

For more information, visit www.smx.co.jp/index_e.php