

## Order Received for One of the World's Largest CTL Reactors, Located in South Africa

Hitachi Zosen Mechanical Co., Ltd. (HMC, Nagasu-machi, Tamana-gun, Kumamoto Prefecture, President: Hisao Matsuwake) is a 100%-owned subsidiary of Hitachi Zosen Corporation, and designs and manufactures processing equipment. With the cooperation of Marubeni Corp. (Chiyoda-ku, Tokyo, President: Nobuo Katsumata), HMC was able to receive an order for one of the world's largest CTL (coal to liquid) plant reactors from SASOL of South Africa.

The reactor will be 8 m in diameter, 38 m high, will weigh 867 tons, and will be installed with a steam drum 3.3 m in diameter, 11.2 m high, and weighing 80 tons. The reactor will be used as part of an expansion project for SASOL's Secunda plant, which manufactures 150,000 barrels of synthetic fuel per day. (Secunda is located 180 km east-southeast of Johannesburg.) The coils inside this CTL reactor will also be manufactured by IMEX CO., LTD. (Innoshima Habu-cho, Onomichi City, Hiroshima Prefecture, President: Seiichiro Tsurisaki), a member of the Hitz Group, and the final assembly will be done by HMC.

Since 1998, HMC has delivered seven of the world's largest CTL (coal to liquid) plant reactors to this SASOL plant, and the new reactor is an addition to the same plant. HMC is one of the world's leading reactor manufacturers, and has provided many pieces of high quality, high performance equipment that are assisting in the development of new clean energy sources which are friendly to the environment. HMC was able to receive this order as a result of the quality of its reactors and its solid record for product delivery, as well as the high regard given to the company's capacity for project management as demonstrated in its previous implementation of one of the world's largest on-site reactor construction projects.

SASOL provides approximately 35% of the liquid fuels in South Africa, and is a global leader in CTL and GTL technologies. This new expansion project will help the company handle both domestic and international market growth as it expands its synthetic fuel production capacity by 20% over the next nine years. The company plans to achieve this

expansion by increasing its supply of natural gas by 10%, and realizing the remaining 10% through the increased production of transportation fuels made from coal.

In order to meet the rapidly increasing demand for plant equipment that is resulting from the increasing global demand for energy, HMC recently completed the construction of a new plant within the Ariake Machinery Works (Nagasaki, Tamana-gun, Kumamoto Prefecture). The new plant, which has a 700 ton crane, is now in operation, and HMC plans to increase its production capacity by 30%.

Also, in response to the trend for creating larger and heavier reactors, HMC is utilizing its Sakai Works (Sakai City, Osaka Prefecture) as a final assembly plant, giving the company an equipment manufacturing capacity that exceeds 2,000 tons. With this increased capacity, HMC will work to meet diversifying demand and the needs of its customers.

#### Project Overview

1. Orderer: SASOL (South Africa)
2. Site: In SASOL's Secunda plant (located 180 km east-southeast of Johannesburg)
3. Products: 1 CTL plant reactor (diameter: 8 m, height: 38 m, weight: 867 tons) and 1 steam drum (diameter: 3.3 m, height: 11.2 m, weight: 80 tons)
4. Delivery Date: May 2009