

New Autocatalyst Plant for South Korea

JOHNSON MATTHEY MAKES USE OF THE LATEST TECHNOLOGIES

During 2005, the global car market generated revenues to the tune of U.S.\$839.7 billion, and this is expected to increase by 24.5 per cent by 2010. The Asia-Pacific region is a promising market, with a share of more than 26 per cent of global car sales in 2005; this is forecast to increase to 33 per cent by 2010. In terms of car production volumes, Asia-Pacific accounts for 41 per cent of the global market, and South Korea produces 15 per cent of the region's output. With the industry forecasting that global production by South Korean manufacturers will grow by 11 per cent from 2005 to 2010, South Korea's strong automotive position within Asia-Pacific is set to continue for many years to come. Moreover, South Korea experienced economic growth of 4.8 per cent during 2006 and is expected to see 4.2 per cent growth in 2007.

Korea introduced stringent emissions legislation in the 1980s, ahead of the European Union. Initially adopting procedures similar to those in the United States, the legislation has since been adapted with the intention of harmonising with European as well as U.S. standards (1).

Against this optimistic background, in January 2007 the latest of eleven Johnson Matthey autocatalyst manufacturing plants opened at Jangan-Myeon in South Korea. The plant was designed to satisfy increasing market demands, while exploiting the latest technologies with a view to optimising performance and economic efficiency. New vehicle technologies have emerged in order to meet increasing environmental concerns worldwide. The Jangan-Myeon plant ensures that Johnson Matthey's autocatalysts not only meet but exceed customer specifications.

The first stage of the plant consists of the manufacturing building, with an initial capacity of 2 million autocatalysts per year, and designed with sufficient foresight and flexibility for future expansion. Robots are a key contributor to the manufacturing process, accelerating it, making it more efficient and reliable, decreasing human errors, and improving product quality through enhanced accuracy. A computerised control system fully links and integrates all stages

of process operation. Machinery has been procured worldwide as part of manufacturing process optimisation.

The second stage, to begin operating by the end of 2007, is the Applications and Test Centre. Again using the latest technologies and state-of-the-art equipment, this facility will offer customers a reliable and efficient response to their specific catalyst development needs. A full range of research and development activities will include testing, analysis, benchmarking and simulation. One of the principal aims for the Applications and Test Centre is to ensure that washcoats (containing platinum group metals) continue to meet customers' ever more stringent specifications. Engine test cells will enable compliance with the quality programme requirements of the Korean motor industry.

The Jangan-Myeon autocatalyst plant will enable Johnson Matthey to build on our already successful relationships with South Korean automotive companies, providing them with industry-leading emissions control technologies. The new plant further strengthens Johnson Matthey's position in Asia, underlining our commitment to this fast-growing region.

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Reference

- 1 Johnson Matthey Emission Control Technologies, 'Korea's Resurgent Market', *Global Emissions Management*, Spring 2004, 2, (5), pp. 4–5: <http://ect.jmcatalysts.com/pdf/2,5%20Koreas%20resurgent%20market.pdf>

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Serving a growing market, the new Johnson Matthey plant at Jangan-Myeon, South Korea, has an initial capacity to produce 2 million autocatalysts per year