

New European Autocatalyst Plant at Royston

LATEST FACILITY INTRODUCES NOVEL CATALYST PRODUCTION TECHNOLOGY

In March 2001 the latest Johnson Matthey autocatalyst manufacturing plant was opened at Royston in the U.K. The facility uses advanced production technology to manufacture the latest generations of emission control catalysts for European customers. The catalysts, for gasoline- and diesel-fuelled vehicles, comprise salts of platinum, palladium and rhodium on metal and ceramic substrates. This plant gives Johnson Matthey the ability to manufac-

A fully integrated computer-controlled system controls the manufacturing process and runs the specially-developed materials handling system. The latter controls the preparation of all materials used in production. This enables the tightest specifications to be met to ensure optimum performance from the finished catalyst. The facility has been designed to use every gram of raw material input into the process, produces no waste and is thus very environmentally friendly.

The new European autocatalyst plant at Royston in the U.K. The plant uses novel robotics to control the production of car and diesel catalysts



The new plant was completed in under 11 months and the expertise acquired is being utilised as the technology is disseminated around the world. A major expansion of the production line is already planned. The new technology has been installed in Johnson Matthey facilities in Belgium, the U.S.A. and South Africa and there are plans for further expansions and major

ture the most advanced autocatalysts to match the increasingly tighter specifications required for present and future generations of clean cars. The plant is located close to the European Autocatalyst Technology Centre, so new technology can be rapidly transferred from development to full-scale production.

The plant, with an initial capacity of 3.5 million autocatalysts per year, has been designed for flexible manufacturing. It can cope with the increasing complexity of catalyst technology and is designed in discrete, but fully integrated, production lines to allow extra capacity to be added quickly. Robots are exclusively used to handle parts during the manufacturing process. This speeds up operations and the robotics allow for quite sophisticated manipulation of the substrates as they pass through the catalyst manufacturing process.



The oven recovers waste heat for efficient energy use. Advanced materials handling techniques and pollution suppression devices maximise yields and eliminate wastage

investments at the other Johnson Matthey manufacturing sites. These new production methods embody a major change in autocatalyst manufacturing techniques aimed at keeping Johnson Matthey at the forefront of this important environmental technology.

GAVIN YOUNG

Gavin Young is Projects Director for Johnson Matthey CSD, responsible for the construction of the European Autocatalyst plant and for expenditure in the European region. His background is in precious metals, including refining and autocatalyst manufacture.