

KATALCO_{JM} PERFORMANCE modelling

HYSYS for ammonia

Johnson Matthey Catalysts reactor models for ammonia plants are now available as part of the HYSYS integrated simulation environment.

HYSYS for ammonia integrates the powerful steady state simulation of HYSYS with the superior ammonia reactor modelling capabilities offered by Johnson Matthey Catalysts. This combination creates a powerful new tool for optimizing and operation of ammonia plants.

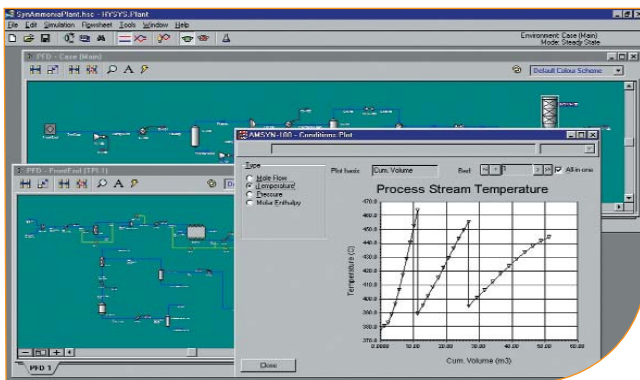
The following reactors are available.

- ammonia converter, for ammonia synthesis reactors. The configurable number of catalyst beds and cooling strategies make it possible to model a broad range of the existing commercial converters with a single unit operation.
- primary reformer, supporting the most common types of reformers, and able to process both natural gas and naphtha feedstocks.
- secondary reformer, for modelling the second stage of feedstock reforming.

- equilibrium reformer, for pre-reformer units or as a simplified model for primary and secondary reforming processes. Only equilibrium data is needed to get the results of the reforming operation.
- shift converter, for modelling high temperature and low temperature shift reactors.
- methanator, for polishing the carbon oxides content in the feed stream to the ammonia converter.

In HYSYS for ammonia, Johnson Matthey Catalysts technology reactor models are seamlessly integrated into the HYSYS environment. This integration brings the following benefits:

- access to rigorous HYSYS thermodynamics
- interactive and user-friendly graphical interface
- automatic model persistence with the simulation case
- integration with other flowsheet until operations
- availability of HYSYS utilities: optimiser, case studies for off-line engineering studies and at-line modelling
- programmatic access through HYSYS ActiveX-compliant programmability interface.



For more information about the Johnson Matthey Catalysts range of KATALCO_{JM} catalysts and associated services please contact your local representative, visit our website www.jm-catalysts.com or e-mail katalcoperformance@matthey.com

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