



BASF introduces Portable Fluid Catalytic Cracking (FCC) Catalyst Addition System for Refinery Catalysts in Europe

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- Allows refiners to capture economic advantages from catalyst trials, while minimizing the potential risks of changing to a new catalyst.
- The system is easy to use, requires only a small plot space, and does not require any special preparation.
- FCC and RFCC (Residue FCC) Catalyst and Co-Catalyst trials can now be performed as easily as Additive trials.

BASF has introduced a new patented Portable Fluid Catalytic Cracking (FCC) Catalyst Addition System for Refinery Catalysts. This new system allows refineries to conduct catalyst and Co-Catalyst trials, while minimizing the potential risks of changing to a new catalyst. The system is easy to use, requires only a small plot space, and does not require any special preparations to deliver reliable and precise additions. The truck with the portable loader arrives at the refiner, is put in position, raised upright, connected to the refiner unit, and is loaded with catalyst. All additions are controlled from the local control panel and no civil work of any kind is required.

"Normally, it is a big effort for refineries to do catalyst trials. Changing to a catalyst is a big opportunity, but can also be a risk. Our new system will allow our customers to capture economic advantages from catalyst trials, while minimizing the potential risks of changing to a new catalyst," said Udo Huenger, responsible for BASF's Refinery

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Catalysts business in Europe.

"The BASF portable FCC Catalyst Addition System allows refiners to increase product yield and operational flexibility using new catalyst technologies. A new catalyst can be trialed and performance validated in the customers' FCC unit, while maintaining storage of the existing catalyst in the fresh catalyst hopper. Additionally, it can also be used to enable inspection, repair, or replacement of fixed FCC Addition Systems," added Stefano Riva, responsible for BASF's Refining Catalyst Technical Service delivery in Europe. Currently, the portable FCC Catalyst Addition System is offered exclusively in Region Europe.

The new offer is an additional service to the complete range of innovative FCC Catalysts, Co-Catalysts and Additives BASF offers to meet refiners' environmental and performance requirements. BASF has developed the portable FCC Catalyst System in cooperation with Nol-Tec Europe, a leading company in designing and producing of pneumatic conveying systems for bulk material handling.

About BASF's Catalysts division

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success. Further information on BASF's Catalysts division is available on the Internet at www.catalysts.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 112,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas.

Page 3 P306/16e

BASF generated sales of more than €70 billion in 2015. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (AN). Further information at www.basf.com.

About Nol-Tec Europe

Nol-Tec operates in a global market, successfully working in Europe, the Middle East, Southeast Asia, North and South America. The company is characterized by continuous advanced research for bulk handling material and process equipment. Through advanced technology development, Nol-Tec has created equipment and patents, among which there are: pneumatic conveying systems, pneumatic mixing, bulk handling and atomization. Nol-Tec has installed several systems in the following industrial fields: food, animal feed, chemical, pharmaceutical, plastic, environment, glass, power and energy, foundry and steel, refinery and building products. At Nol-Tec, innovation and development are driven by customer needs: our engineers design according to the requests of each industry, following customized and specific protocols aimed at maximum customer satisfaction. There are no limits when working together with Nol-Tec. For more information http://www.nol-teceurope.com.