

PARTICLE TECHNOLOGY

CONTINUOUS FLUIDIZED BED PROCESSES

- » DRYING
- » AGGLOMERATION
- » GRANULATION

HEINEN[®]
DRYING



Fluidized bed process

FLUIDIZED BED PROCESS

Fluidized bed processes are effective and, due to the intensive exchange of heat and material, first choice where the thermal treatment of bulk products (drying and cooling), the formation of particles from powders (agglomeration) or liquids (spray granulation) are concerned.

Continuous operation has become accepted in all industries. In the pharmaceutical industry, the continuous process is the ideal way to meet the new PAT demands (Process Analytical Technologies), i.e. understanding and controlling the entire process in the production of pharmaceutical products.

In the food and in the chemical industry, the advantages of the continuous process such as reproducible product quality and fully automatic operation have long been known.



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DRYING



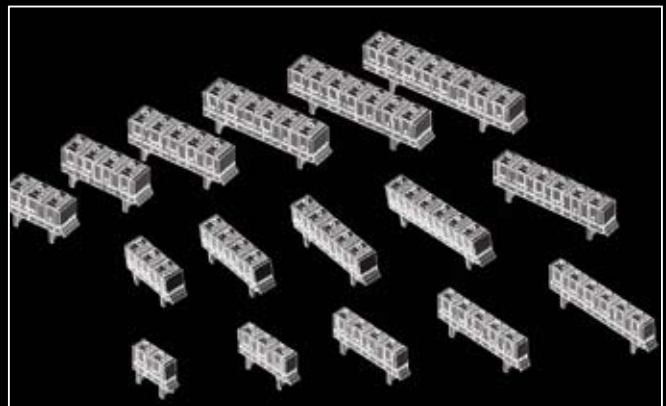
DESIGN

Neuhaus Neotec develop and supply continuous fluidized bed plants in particular for GMP-conforming applications - from the pilot plant (5 - 50 kg/h) to large-scale production plants (up to 3,000 kg/h).

The plants are characterized by an enormous flexibility. By means of individual adaptation of the inlet air conditions which can be adjusted section-wise, the nozzle arrangement (top and bottom spray), the weir adjustment for optimization of the retention time distribution and the integrated filter concept, particles can be formulated exactly according to the customer's demands.

In order to meet the requirements of the EC Directive 94/9 (ATEX 95), the continuous fluidized bed plants can be equipped with certified explosion suppression systems according to the available product data and depending on the risk assessment for dust explosions.

The GMP design allows simple and quick cleaning, especially as WIP systems for automatic cleaning can be integrated.



Neuhaus Neotec develop applications from the pilot plant to industrial large-scale production plants



PROCESS DEVELOPMENT

The department "Particle Technology" of Neuhaus Neotec Maschinen- und Anlagenbau GmbH has developed a new continuous fluidized bed pilot plant for the capacity range of 5 to 50 kg/h, with which an upscale to the factor 100 is possible without difficulties on the basis of a long-standing know-how and due to the flexible plant configuration.

This modular and thus mobile plant is characterized particularly by an exchangeable product bin, which is designed individually for the different processes, such as drying, agglomeration and spray granulation, and which covers different capacity ranges due to variation of the distribution plate.



»ABOUT US

NEUHAUS NEOTEC with their 110 employees have been active in the coffee and cocoa industry for more than 30 years. In 1991 the company was integrated into the Kahl Group. For about 15 years now, roller mills have also been used successfully in the chemical industry. Our offices and our factory are located in Reinbek (Hamburg) and Ganderkesee (Bremen). About 75% of our products and services are exported.

The NEUHAUS NEOTEC plant design stands for high quality, low energy consumption and environmentally friendly technologies.

Apart from the fluidized bed processes NEUHAUS NEOTEC offer roller mills for low-dust grinding with a narrow particle size distribution and maximum yields. Our process engineering specialists will help you define the proper parameters for your specific demands.

Our mobile pilot plants provide the necessary facilities for tests in our pilot plant or directly in your production plant.

