

Continuous granulation and drying – modular concepts for R&D and production

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Granulation is a ubiquitous unit operation in the industrial solid processing for food, fine chemicals and pharmaceuticals. Especially within the pharmaceutical industry there is a growing demand for continuous processes, to catch up with yields and equipment efficiency that are today's standard in other industries.

Using an inherent continuous technology, like twin screw extrusion, for performing the granulation helps to unite the requirements for higher yields and 24/7 production. This presentation is to introduce the concept of twin screw granulation and its process parameters in comparison to some batch technologies.

At the end of a wet granulation is a drying step required to achieve residual moistures that allow further processing of the powders. Combining dedicated equipment like a laboratory scale extruder and an adaptable continuous drying system with smart software, helps to model a process that is tailored to the specific product necessities and can still be adapted for future needs