

The Research Center Pharmaceutical Engineering GmbH (RCPE) is a global leader in pharmaceutical engineering sciences. We help our partners create and manufacture advanced medicines for patients worldwide through optimizing products and processes.

PAID DIPLOMA / MASTER'S THESIS

INFLUENCE OF THE MATERIAL MOISTURE ON A CONTINUOUS PHARMACEUTICAL MANUFACTURING PROCESS

Ref. No. DA178

To dedicated students of Chemical Engineering, Pharmaceutical Engineering, Pharmacy or related studies.

Objective

In the pharmaceutical industry, a common method for a continuous downstream process of an active pharmaceutical ingredient (API) involves blending the API, either as a powder or liquid, with excipients, followed by hot melt extrusion (HME) of the mixture. The resulting extrudates are then pelletized, mixed with additional excipients, and finally compressed into tablets.

This diploma/master's thesis will investigate the impact of moisture on the pelletability and tableability, the material is exposed during this manufacturing process. Therefore, the raw material, the extrudates, and the pellets will be exposed to various levels of moisture and characterized afterwards regarding their quality for pelletability and tableability.

Within the framework of this diploma / master's thesis we offer the following

- Extensive participation in a top-level and industrially relevant research project in an international environment
- Supervised training in the task
- Assistance of experienced staff with the implementation of innovative ideas
- Access to highly modern infrastructure on campus of Graz University of Technology
- Assistance with the publication of results

Financing

- Compensation on the basis of a service contract

If you are interested in writing your thesis at the interface between university research and industry/ business and to contribute to the optimization of product and process development in the pharmaceutical industry, please apply directly via our website.

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