



Comparing various drying procedures at the TU Weihenstephan

Vacuum drying is part of the basic education in nutritional sciences. Students at the TU Weihenstephan get to know the process by experiments using the vacuum drying oven.

Basic research at the TU Weihenstephan

It is no exaggeration that the Science Centre **Weihenstephan** of the Technical University Munich (in short, WZW) is referred to as the home of the **nutritional sciences** and the **environmental sciences** in Germany. Surrounded by Bavarian manufacturers of beer and milk rich in tradition, the WZW has long been a premium address for **basic research** as well as applied and practical research, amongst others covering **food process engineering**.

Comparing vacuum drying with spray drying



Experts in **nutritional sciences**:
Science Center of the **TU Weihenstephan**

and freeze drying

Students at the department of **food process engineering** and dairy technology, for example, learn not only in theory about the various **drying procedures** for skimmed milk, full cream milk and whey powder, but they also have to perform these procedures themselves. The tests for **vacuum drying** are performed in the **Memmert vacuum drying oven**. At the end of the process, the **milk powder** is compared, in terms of water content, water activity, solubility, structure, taste, smell, consistence and colour with the samples from **freeze drying** and **spray drying**.

By the way: The first coolable **Memmert vacuum drying oven** was built as a customised model for the WZW. Once the test phase has been completed, a detailed user report can be found at www.atmosafe.net.

An overview of focus topics

- Vacuum drying
- Basic research
- TU Weihenstephan
- Nutritional sciences
- Environmental sciences
- Vacuum drying oven
- Milk powder
- Freeze drying
- Spray drying
- Food process engineering
- Drying procedures

Picture credit: evah@xsc.hu, wetape@xsc.hu

Autor: Memmert GmbH + Co. KG

www.atmosafe.net > [Applications](#) > [Drying under vacuum](#) > [Milk powder](#)

Titanium powder in medical technology

Run times of more than 12 hours a day demand a lot from the **vacuum drying oven** at the GfE Metalle und Materialien production facilities for **titanium powder**.

[more information](#)

Memmert laboratory appliances for drying

[Oven \(drying oven\) U](#)

[Vacuum drying oven VO](#)



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