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# Application Note

## Stainzer Milch / Austria

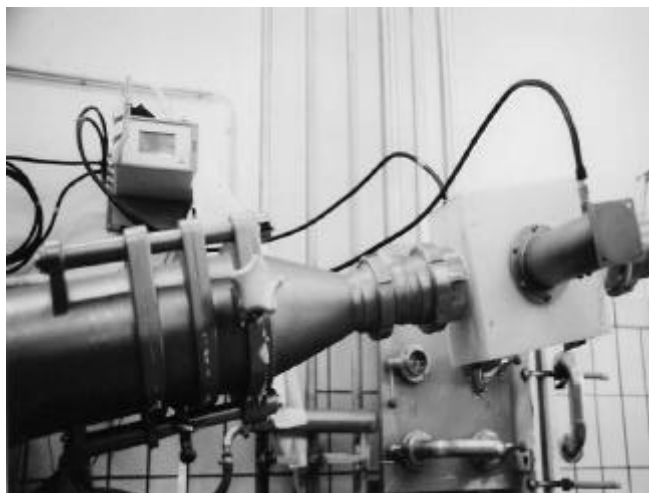
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### Online Microwave Moisture Determination of Butter with the PMD 2450 of Indutech

*The dairy "Stainzer Milch" is located in western Styria, which is often called the West-Styrian Toscana. The company was founded in 1928 by milk farmers and is still today 100 % in their possession. The production range covers fresh, sour and butter milk, different milk beverages, various kinds of yogurt and also the production of butter. Butter production amounts to approx. 600 to 700 t per year. Special value is set on the quality of the products. For example "Stainzer Milch" has earned several honors of the "Deutsche Landwirtschaftsgesellschaft" (German agriculture association) for the quality of their butter.*

A substantial quality criterion of the butter is its moisture, which is to lie between 15,7 and 16,3 %. Before installing the microwave meter PMD 2450 the moisture content of spot checks only was determined by measuring the decrease in weight during the controlled heating of the butter sample in the laboratory.



Because of strongly varying moisture of the butter it was not ensured by the spot checks, that the total production lies within the optimal moisture range. With the applied microwave transmission method the entire material flow is sampled. Therefore not only the surface moisture, but also the moisture inside the butter is continuously measured.

The measuring cell with the microwave antennas is installed in the pipe shortly after the outlet of the butter machine. The evaluation unit is installed nearby the measuring cell. An external LED display with large figures permits the staff to observe the moisture of the produced butter continuously and to control the moisture content immediately in case of deviations from the optimal range. Of course, it is also possible to control the moisture of the butter in a closed loop.

The obtained accuracies are about 0.2 % moisture content. With the throughput of the "Stainzer Milch", as example, the investment will be amortized within 18 months.

The responsible plant manager of the "Stainzer Milch", Mr. Rudolf Weichhardt, can be contacted via telephone no.: +43 3463 2391 17. The homepage address is <http://www.stainzer.at>.