

Hydrothermal cooking plant

Products requiring temperatures of more than 100 °C can be treated with the hydrothermal plant. A maximum temperature of approximately 150 °C can be reached in the plant by the introduction of steam. The product is treated directly with steam. The

cooker works continuously and is fed with product via timer-controlled locks. The greatest possible cooking time is about 25 - 30 minutes.

This plant can also be used for soaking products with water at a

maximum temperature of 90 °C. For ensuring uniform water absorption of the product, the water is continually circulated in the steeping bin during the soaking phase.



Hydrothermal cooking plant in the KAHL pilot plant at Reinbek

Advantages of the new plant:

- High temperatures can be reached.
- Uniform treatment due to reduced product depth.
- Gentle treatment – no mechanical pressure on the product as in case of the extruder or expander.
- No product losses during starting and stopping of the plant.
- Minor cleaning effort
- Continuously working autoclave

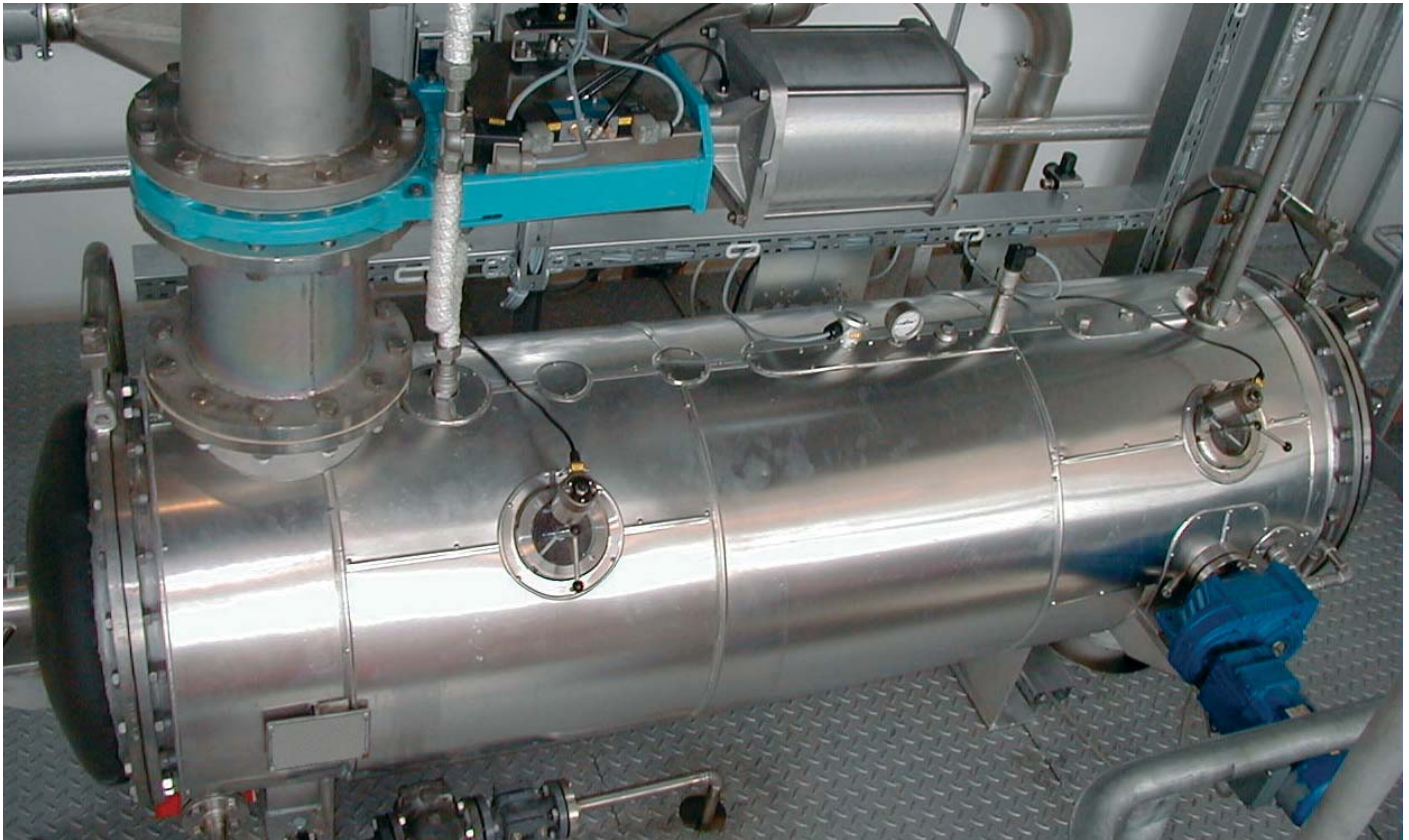
Hydrothermal treatment



- Biological
- Sterile
- Hygienic
- Decontaminated

Secure
manufacturing
and treatment
of products.

Hydrothermal cooking plant



The pilot plant can be used for:

- Soaking and cooking of products
- Hygienic treatment up to a temperature of 150 °C
- Sterilization
- Drying
- Inactivation of bitter substances in beans, peas, rape, and soya
- Treatment of spices
- Production of bulgur and other cereals, such as rye, barley, millet, spelt, unripe spelt grain, buckwheat, maize, oat flakes

Advantages of the plant operated under pressure in comparison with plants without pressure build-up:

- Higher temperatures can be reached and as a result higher starch modification
- Better hygienic treatment
- More uniform treatment of the products due to reduced product depth
- Lower product losses due to immediate product treatment at the start of the plant
- Minor cleaning effort
- Lower construction height
- Vacuum operation of the plant is also possible.
- Tests can be carried out in the pilot plant of KAHL.

The hydrothermal cooking plant permits a hygienic treatment of up to 150 °C



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