

Evaporator for dairy applications



Evaporator systems
for various appli-
cations in the dairy
industry

- Multiple effect concentrators
- Milk evaporators with MVR or TVR
- Little temperature stress of the products
- Long batch-time with milk products
- Design upon customer's request



Design and working principle

Concentrators, also known as evaporators, are used in the industry for more than 50 years. Aside of multi-stage, steam heated evaporators Bucher Unipektin is supplying plants with thermal or mechanical vapour recompression as well.

SPS-based controls allow the simple and user-friendly supervision of Bucher plants. Always with the option to protocol any production parameter.

Milk- und Whey products

Thanks our broad experience in designing evaporators Bucher is your ideal partner for solutions for the concentration of:

- Whole- and skimmed milk
- Whey
- Condensed milk
- Lactose

Falling film evaporators with thermal vapour recompression (TVR)

Multiple stage falling film evaporators with thermal vapour recompression are highly energy efficient. By

injection of steam the vapours in the thermo-compressor are condensed. Thanks to this, one to two evaporation stages can be compensated in comparison to classical evaporators. The specific steam consumption becomes reduced by up to 50 %.

Falling film evaporators with mechanical vapour recompression (MVR)

Evaporators with mechanical vapour recompression are operated with a high-pressure ventilator. Thereby the recompressed steam is used for the heating of the product. A MVR-evaporator can be operated on relatively low evaporation temperatures. Thanks to the low thermal strain, concentrated products of superior quality can be produced. The evaporation costs with MVR-evaporators are considerably lower compared to other designs.

For the evaporator evaluation it's imperative to consider the costs for steam, electricity and cooling water. Our specialists are eager in advising you the most economical solution for your task.

Technical data

Type	Falling film evaporator
Evaporation capacity	up to 50t/h per unit
Vapour recompression	mechanical or thermal

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Products and Services

Process technology for fruit and vegetable processing to juices, concentrates and puree production, for brewing solutions, for filtration, for milk powder production, for the vacuum drying of liquid and solid products, for freeze drying of coffee, tea, fruits, vegetable, etc. Technology for municipal and industrial sludge dewatering and drinking water filtration

Products

Fruit reception lines, mills, mash heaters, hydraulic presses, membrane filtration equipment, cold block equipment, adsorber, ion exchanger, evaporators and aroma plants, pasteurizers, CIP systems, vacuum and freeze drying cabinets and belt dryer, zeolite adsorber, complete processing lines

Services

Process development and project engineering; assembly and commissioning; technical support; original spare parts; inspection; service contracts; retrofits; training; service and maintenance; NetService