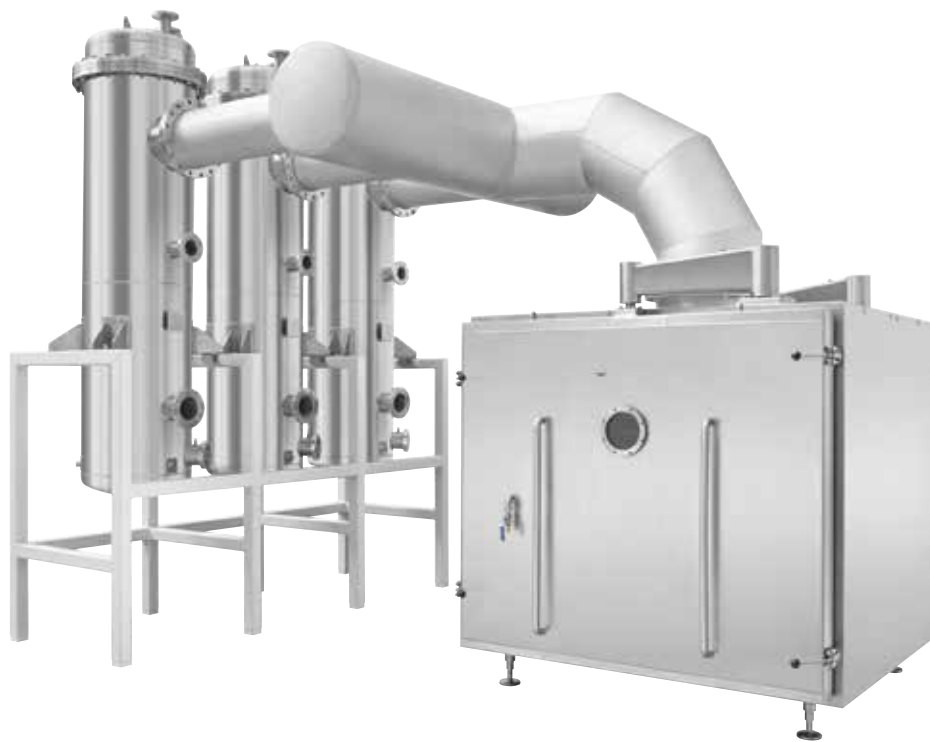
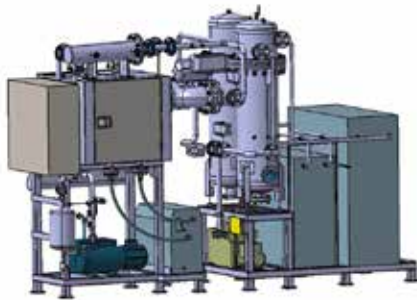


# Bucher Zeodration



**Zeolite reactors for the gentle vacuum drying or freeze drying / lyophilisation of products by means of water adsorption**

- Maximum quality of dried products
- Best aroma retention
- Flexibility of production
- Selective process
- Batch or continuous process



**Application** Bucher Zeodration systems are designed for drying a wide range of products such as herbal and plant extracts, fruits, vegetables, herbs, bacteria and for the food and cosmetic industry. Bucher Zeodration technology offers a drying solution for liquid or solid products down to a residual moisture content of less than 0.5%. This process is successfully used for temperature sensitive products and to achieve maximum product quality.

**Design and functionality** The Bucher Zeodration system uses Zeolite reactors to trap the water or solvent. Zeolite is crystallised clay with a pore diameter of 4 Angstroms (water molecule are 3 Angstroms). Its properties, combined with polarity factors lead to a selective moisture trap which under operating pressure conditions retains water only. Because of a very low partial pressure at the water adsorption a maximum reduction of lost volatile molecules through the vacuum system is achieved, thus maintaining most of the flavours in the product. While using Bucher Zeodration with vacuum driers the same product quality can be achieved than with freeze drying systems. Due to an integrated and cyclic regeneration of the Zeolite the full adsorption capacity is maintained. The application of zeolite reactors offers interesting features as it permits a drying operation in the pressure range of 0.5–30 m bar.

Zeodration can be combined with a Bucher vacuum cabinet dryer for batch production or a Bucher vacuum belt dryer for continuous production.

**Technical data**

Adsorption capacity	from 1 to 1000 kg/h water
Batch drier sizes	from 0.2–88 m <sup>2</sup> heating surface
Band drier sizes	from 0.6–325 m <sup>2</sup>
El. installed power	from 15 to 80 kW
Heating energy for regeneration	up to 900 kW

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**Products and Services**

Process technology for fruit and vegetable processing to juices, concentrates and puree production, for beer 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, 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