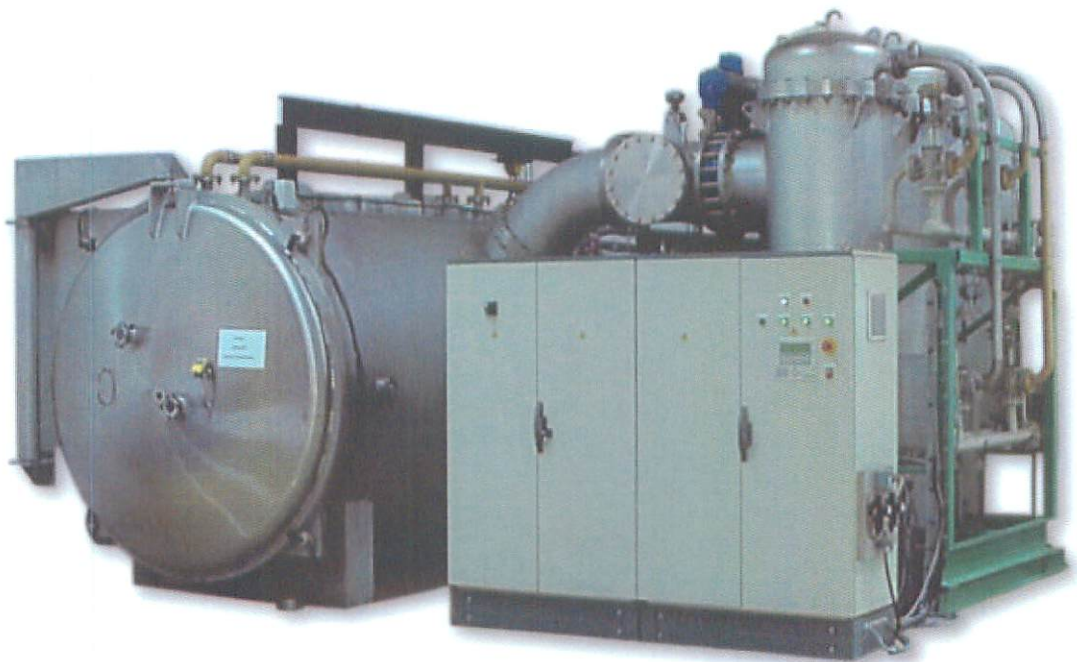
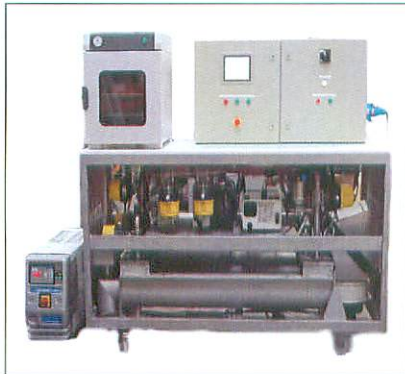


 **Bucher Zeodration**



**Zeolite reactors for the gentle vacuum drying or vacuum freeze drying of products by mean 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, cosmetic and pharmaceutical 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 0.5–10 mbar (range limit to freeze drying).

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 120 kg/h water
Batch drier sizes	from 0.2–90 m <sup>2</sup> heating surface
El. installed power	from 15 to 80 kW

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**Products and Services**

Proven technology for vacuum drying and freeze drying of malt, juice concentrates, pre-dried and frozen fruit, vegetable and meat pieces.

<b>Products</b>	Bucher DryCab:	Vacuum drying cabinets
	Bucher DryBand:	Vacuum belt dryers
	Bucher Zeodration:	Zeolite water adsorbers
	Bucher DeBac:	Debacterisation units

**Others** Vacuum and condensing systems  
 Evaporators and cleaning-in-place stations  
 Process control systems

**Services** Process development and engineering  
 Installation and start-up  
 Service and maintenance