

# Bucher DryBand



**Belt dryer for continuous vacuum or freeze drying / lyophilisation of malt, drink or soup ingredients, predried or frozen fruit, vegetable or meat pieces**

- Continuous and gentle product drying
- Minimal oxidation
- Low energy consumption
- Minimal flavour losses
- Product specific feeding and discharging systems
- Fully automated operation & cleaning



**Application** The belt dryer Bucher DryBand is designed for the continuous drying of liquid and free flowing powders and other heat sensitive products under vacuum. The Bucher DryBand has also successfully been used for freeze drying/lyophilisation, applications i.e. coffee and meat pieces.

**Design and functionality** The Bucher DryBand is especially suitable for products passing a glutinous and/or highly viscous phase during the drying process and for products sensitive to mechanical stress.

Liquid products are uniformly distributed on the belts with swivel feeders. Free flowing powders, granules and products of larger sizes are conveyed into a hopper on top of vacuum belt dryer. By interval the product is fed into an intermediate chamber under vacuum from where the product will be loaded onto the top belt by a special rotary dosing system. Liquid or pasty products will be conveyed through the dryer with in parallel operating belts. Solid products are transported back and forward through the dryer from the top to the bottom belt in order to extend the residence time.

The heating plates underneath the belts are installed in independent heated zones to permit constant or variable drying rates. This allows gentle continuous drying for maximum product quality. The last zone can be designed as a cooling zone if required.

At the end of the belt the dried product is cut to the desired size by a guillotine type breaker bar and a crushing device. The product is collected in an intermediate hopper from where it is discharged out of the vacuum into the atmospheric environment with alternating pressures. The removed vapours are recovered in a condenser. The vacuum is maintained usually by liquid ring pumps and single or multistage steam jets.

#### Technical data

Feeding rate	from 2 to 4'000 kg/h
Heating & cooling surface	from 0.2 to 325 m <sup>2</sup>
Heating range	from 20 to 180 °C
El. installed power	from 2 to 40 kW
Vacuum range	from 1 to 50 m bar

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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