

# Adsorber



Adsorption systems for clear and cloudy fruit juices

- Ideal for hazestabilisation, decolourisation and
- debittering to meet customer's product specifications
- Enhanced product quality without the use of additives
- Minimal processing cost
- Fully automatic, PLC control and PC based operation
- systems





# **Application**

Bucher Unipektin Adsorbers are used for the processing of clear fruit juices, mainly apple and pear, in order to prevent post haze formation as well as for partial colour reduction. Using specific resins it is possible to reduce patulin and HMF levels significantly.

Another main application for adsorbers is the refinement of citrus juices (debittering of orange juice by reducing the Limonin below taste threshold, reducing of Hesperidin to prevent haze formation in clear lemon juice and astringency reduction of peel extracts for flavour enhancement). Further specific applications are the extraction of anthocyanins as natural colourants, from juice or pomace from aronia, elderberry, grape, black carrot or the extraction of phenolic components (bioactives).

# **Design and Functionality**

Pulp reduced juice is pumped through an adsorbent polymer resin in a fixed bed. Selected components of the juice are adsorbed onto the surface of the resin by physical interactions on the molecular level. When the polymer is exhausted the juice is displaced from the column. The resin is regenerated and prepared for the next juice cycle.

### Technical data

Plant sizes range from 500 to 50'000 litres/hr or more, depending on application.

Multiple trains for continuous operation.

Stainless steel construction throughout, custombuilt to local regulations. Specialized technical support available from our R&D and engineering teams.

# Bucher Unipektin AG

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#### Helpdesk

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# **Technical support**

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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