

Ion Exchanger



**Ion Exchange systems
for treatment of fruit
juices and syrups**

- Production of acid reduced or deionised fruit juices and fruit sugar syrups according to customer's specifications
- Minimal processing cost
- Fully automatic, PLC control and PC based operator interface



Application

Bucher Unipektin Ion Exchange Systems with weak anion exchange resins are used to adjust the sugar/acid ratio of fruit juices (fruit acid reduction). If cation and anion exchange resins are applied it is possible to completely deionise juices and by-products for recovering the fruit sugars. By adding a polishing step with adsorption resins, colourless fruit sugar solutions can be produced.

Design and functionality

Clarified juice is passed through selected combinations of ion exchange resins. Charged components are retained on the respective resin by ionic forces, releasing an equally charged ion (e. g. H⁺, OH⁻) into the product. When the deionising ca-

capacity of the resins is exhausted, the juice is displaced from the columns and the resins are independently regenerated with acids, bases or salts, preparing them for the next juice process cycle.

Optional adsorptive polymer vessels can be added for improved colour and organic molecules reduction.

Technical data

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

Multiple trains (parallel vessels) for continuous operation.

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

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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