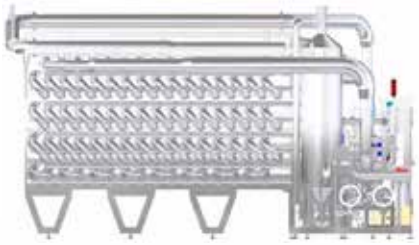
BUCHER
unipektin

UltraStar X25



Cross-flow ultra-filtration unit for the clarification of fruit juices, aqueous plant extracts, and fermentation broths

- Maximum product yield and excellent filtrate quality
- Tubular membranes allow high solids concentrations
- Modular design, high performance on small footprint
- Reliable and fully automated system
- Integrated CIP system and tank management









Application

The UltraStar X25 has been designed for applications in the food industry and biotechnology. Due to its large diameter, tubular membranes, it is predestined for the clarification of aqueous suspensions with medium to high suspended solids content. The plant is mainly used for the filtration of fruit juices, aqueous plant exracts and fermenter broths.

Design and functionality

The UltraStar X25 is a semicontinuous cross-flow filtration plant. The product that needs to be clarified (B) is circulated via a circulation tank (A) through the inside of the ½'' diameter membrane tubes.

A portion of the liquid phase thereby passes through the membrane and leaves the system as clear permeate (C). Fresh product (B) is continuously added into the circulation tank (A). As soon as the maximum concentration of suspended solids has been reached, the retentate can optionally be diafiltered (leached out with water) to maximise the yield. The following cleaning is fully automated with supervision of pH-value and conductivity. The up- and down-stream product tanks can be managed by the integrated control system. Due to the modular design a wide capacity range is covered. Different membrane cut offs enable an adaptation to various applications. Membranes from various leading manufactureres can be chosen.

Technical data

Membrane modules	37 pcs. ½" tubular membranes, 3.6 m long, 5.2 m^2 per module Module housing made of transparent plastic or stainless steel
Membrane types	UF, open UF
Membrane area	83–666 m^2, 2 to 8 parallel module passes, up to 16 modules in series
Temperature range	10–55 °C
pH-range	2.0–10.5
Connected load	56–132 kW
Dimensions	W × L × H = 3'560 to 6'066 × 4'983 × 3'430 mm
Scope of supply	Circulation unit with control cabinet assembled on frame, filter module unit, fully automated PLC control with touch panel.

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Products and Services
Process technology for the processing of fruit and vegetables into juices, concentrates and purees production, for brewing solutions, for filtration, for milk powder production, for vacuum drying of liquid and solid products, freeze drying of coffee, tea, fruit, vegetables, etc. Technology for the dewatering of municipal and industrial biosolids and the filtration of drinking water.

Products
Fruit reception lines, mills and crushers, mash heaters, hydraulic presses, extractors, membrane filtration equipment, brewhouse technology, cold block technology, adsorbers, ion exchangers, evaporators, dealcoholisation and aroma systems, pasteurisers, CIP systems, vacuum and freeze drying cabinets and belt dryers, complete processing lines, tank farms, storage and processing tanks, mixing and dosing stations

Services
Bucher customer portal and digital services, process development and project engineering, assembly and commissioning, technical support, original spare parts, inspection and maintenance, test centers, Bucher Unipektin Academy

Technical changes reserved