Innovative filtration

Let’s be clear!
Innovative filtration technology

Bucher is the market leader in the development, manufacture and installation of technically sophisticated individual machines and turn-key lines for fruit and vegetable juice, beer and wine production. Our passion for fruit and vegetable juice, beer and wine coupled with years of experience has made us a manufacturer of premium quality machinery. The Bucher filtration portfolio consists of innovative membrane filtration systems for the treatment of juices, micro-filtration systems for beer, wines and liquid foods. Several hundred plants in operation worldwide represent the excellent performance of our membrane filters. Moreover we provide premium quality conventional filtration systems. Our broad filtration product range allows us to offer the appropriate filter systems and filter system combinations for the individual needs of our customer.

Bucher process filtration

Bucher Unipektin is specialist for filtration equipment for fruit and vegetable juices, beer and other liquid food.

Bucher Vaslin is the well known market leader for wine membrane filtration and enhancement plants.
Beer Filtration and Stabilization

The Competence Center for Filtration of Bucher Unipektin continues the success of the well-known Filtrox filtration systems and makes way for new developments in beer filtration. Beer filtration with ceramic membranes in a crossflow filter for example represents the latest option which Bucher Unipektin provides.

Longtime process and engineering experience, as well as high quality equipment, make sure that the requirements of a modern state-of-the-art brewery can be fulfilled. The following filtration systems are used in breweries of all kinds and sizes in order to achieve best results for their beer clarity and product quality:

SYNOX® 2.0 PF and SECUJET® 2.0 – Precoat candle filters
The SYNOX® 2.0 offers excellent value for all kind of precoat filtration within a hygienic environment. The SECUJET® 2.0 was developed with the focus on the rising amount of small Craft Breweries worldwide and their increasing demand for filtered beer.

SYNOX® 2.0 PS – Candle filter
The SYNOX® 2.0 PS is an especially developed version of our market leading kieselguhr candle filters, and uses the same robust and reliable, patented STABOX® candles. Recognising the serious shortcomings of “traditional” horizontal pressure leaf PVPP filters, the SYNOX® PS is based on two decades of positive experience with candle filters.

CERINOX® BF – Ceramic Crossflow Microfiltration for Beer
Based on the great competence in beer filtration and the long experience with CERINOX® BR cross-flow systems for beer recovery from tank bottoms, Bucher Filtrox presents the CERINOX® BF. A truly reliable solution for the crossflow membrane filtration of beer.

CERINOX® BR – Ceramic Crossflow Microfiltration for Beer Recovery
CERINOX® is a compact cross-flow filtration plant equipped with ceramic tubular membranes. The plant consists of two main parts, the filter unit and the CIP station. Both parts can be arranged separately or on a common skid. Different automation levels are available, from manually controlled units up to fully automated plants.
Cross-flow filtration and reverse osmosis

“Flavy” cross-flow filtration is achieved in a single operation. The filtered wine is perfectly brilliant, limpid and stable. The quality of the wine remains unaffected. Bucher Vaslin exclusive solutions offer a wide range of applications: wine filtration, juice lees filtration and filtration of tank bottoms.

The reverse osmosis is a physical membrane process which can extract under pressure part of the water contained in the grape must. Efficient both for red and white grape must, the reverse osmosis improves the must organoleptic quality: structure, aromas and colours.

Cross-flow filters Flavy FX 2 to FX 10
Designed to filter any type of wines, the range of FX ICS filters is the best solution to meet the requirements of small and larger wineries.

Cross-flow filters FX 100 to FX 300
The range of Flavy FX 100 to FX 300 cross-flow filters is the solution best suited to the needs of co-operatives and wine bottling plants. These large capacity filters combine good performance and reliability with environmental responsibility.

Cross-flow filters Flavy FX Tandem
The Flavy FX Tandem filter is based on the association of two dedicated machines working simultaneously and in different ways: filtration of rough wines for one machine and concentration of retentates from the first filter for the other.

Cross-flow filters Flavy FX - D3 & D10
This original idea consists in the use of one cross-flow filter within the Bucher Vaslin Flavy range for the filtration of wine, on the one hand, and lees during the vintage period, on the other hand. The filter is then equipped with additional accessories including an automatic rotary-drum pre-filter in order to eliminate large particles and organic membranes that allow the filtration of heavy-loaded products.

Cross-flow filters for tank bottoms Flavy Leestar
Flavy Leestar is adapted to wineries, large wineries and wine traders generating approximately 3% of “tank bottoms”. Flavy Leestar assets brings along true improvement in terms of quality, respect of the environment, safety and return on investment.
Fruit and vegetable juices filtration

Bucher has pioneered the use of crossflow membrane technology for the filtration of fruit and vegetable juices. With the profound understanding of the requirements of fruit processing we have developed reliable and cost efficient systems that are today’s benchmark in juice filtration worldwide.

All juice filtration systems use wide bare tubular membranes in order to achieve maximum filtrate yields despite the commonly high solids loads in the feed juices. Membranes with different pore sizes can be installed in order to achieve the optimum performance and filtrate quality for each application.

UltraStar XL
The UltraStar XL 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 UltraStar XL is mainly used for the filtration of juices (from apples, pears, berries, stone fruits, citrus fruits, and pineapples), fruit wines and fermenter broths.

ContiStar
The ContiStar feed-and-bleed ultrafiltration system has been developed for the clarification and extraction of fruit juices and wines, plant extracts and fermenter broths. The ContiStar is especially well suited for the filtration of coloured juices (colour preservation) and NFC juices (aroma protection).

MiniStar
The MiniStar has been designed for small and medium sized producers of fruit juices, fruit wines and extracts from plant material. Due to its large diameter tubular membranes it is predestined for the clarification of aqueous suspensions with medium to high suspended solids content. Different membrane cut offs and materials enable an adaptation to various applications.

LabStar
The LabStar multi-purpose laboratory unit for filtration and extraction of solutions, suspensions and emulsions. The cross-flow filtration unit LabStar is suitable for process evaluation under extreme process conditions with different types of tubular modules.
Other food and beverage filtration

The filtration of high value liquids, such as cider, sugar syrup or liquid gelatine requires both superb process know-how and high-quality equipment. As the world leading supplier for microfiltration systems for beverage filtration, Bucher Unipektin designs, engineers and realizes filter system solutions, which guarantee high-quality end products.

Filtration of apple cider and other fermented fruit juices
In the course of cider production, the alcoholic fermentation of all sugars has to be completed and the cider is “racked” (“secondary” fermentation) at least once prior to filtration. Yeast sediments (tank bottoms) and in some cases fining material sediments like from gelatine or bentonite need to be filtered separately from the supernatant liquor.

Filtration of sugar syrup
Sugar syrup used for soft drinks is mainly made from cane sugar and its quality is mostly depending on its origin and refining process. For the removal of impurities or additives like activated carbon for the de-colorisation of the sugar, a kieselguhr filtration is the most economic and flexible solution.

Filtration of liquid gelatine
Gelatine solutions are pure protein solutions. They are very complex liquids and need special attention for filtration. Depending on the raw material used (hides, skins or bones) the quality differs widely. During the process there are usually a number of filtrations required, ranging from coarse to fine and finally to sterile filtration.

SYNOX® PF and SECUJET®
Candle Filters are used for the filtration of cider, hot liquid sugar syrup or gelatine. An extremely long service life of filters and filter candles paired with their reliability, efficiency and flexibility give these filter types a competitive edge against other filtration systems.

FILTER-O-MAT® (FOM)
Horizontal pressure leaf filters have been well established for decades for the clarification of liquid sugar or gelatine. The unique design ensures an extremely long service life and excellent filtration results even in tough operational conditions at high temperatures and high chemical concentrations.

CERINOX® MF
Ceramic Crossflow Microfiltration (CMF) for the filtration of liquid sugar. With such a system, a continuous filtration flow can be achieved, either with a semi- or fully automated control system.
Bucher Specials comprises machinery and equipment for winemaking (Bucher Vaslin), technologies and systems for processing fruit juice, beer and instant products (Bucher Unipektin), a Swiss distributorship for tractors and specialised agricultural machinery (Bucher Landtechnik) as well as control systems for automation technology (Jetter).

Bucher Municipal is a world-leading supplier of municipal vehicles for cleaning and clearing operations on public and private roads and other traffic areas.

Bucher Hydraulics is a leading international manufacturer of advanced hydraulic systems.

Bucher Emhart Glass is the world’s leading supplier of advanced technologies for manufacturing and inspecting glass containers.

Kuhn Group is the world’s leading supplier of specialised agricultural machinery.