

### **Solutions for Craft Brewing**



### **Our Playground**



# Over 4,600 References in 130 Countries

### Innovative Craft Brewing Technologies

Bucher Denwel develops and produces a wide range of specialized equipment and provide engineering solutions dedicated to help brewers to optimize their processes.

We build safe and reliable Cold Blocks for your brewery. Our scope includes technological design, supply of the equipment and process automation, installation and commissioning. We offer complete new turnkey projects or upgrades and extensions of existing plants.

Combining experience and innovation we supply brewing equipment such as Filtration systems, Yeast plants, Water Deaeration, Blending, Carbonation, Dosing and Hard Seltzer systems, Dealcoholisation, CIP, Cold sterilisation, Flash Pasteurization and Beer tanks.

We have a global presence. Our sales and service network are always available for you to provide consultancy, technical support and after sales service.

Bucher Denwel is member of Bucher Unipektin, Swiss leading supplier of process technology for the beverage and food industry.

### Inline aeration/oxygenation

#### Manual / Automatic unit

Air / Oxygen is injected into wort through Inline Bucher Denwel Injector, which splits the gas into micro bubbles. Most efficient and instant saturation is achieved with minimal pressure drop and no gas loss. Fully hygienic CIP design. No static mixer and no part removal required prior sanitation.

- Micro bubble size
- Instant saturation
- O<sub>2</sub> analyzer controlled

### **Inline Nitrogenation**

#### High Concetration unit

The Inline High Concentration Nitrogenation unit provides efficient beverage Nitrogenation using hydrophobic hollow fiber membranes with final Nitrogen concentration up to 80 ppm. Configuration of membrane contactors depends on capacity and required Nitrogen concentration.

- Creamy head, avalanche effect
- Long-lasting foam stability
- Efficient and precise Nitrogen control





### Carbonation

### Mobile manual unit

CO<sub>2</sub> is injected into beverage through Inline Bucher Denwel Injector, which splits the gas into micro bubbles. The most efficient and instant saturation is achieved with minimal pressure drop and no gas loss. Fully hygienic CIP design. No static mixer and no part removal required prior sanitation.

- Micro bubble size
- Instant saturation
- Efficient, hygienic design

### Carbonation

#### Semi / Automatic unit

The Inline Semi-automatic Carbonation unit is designed for continuous carbonation of beverages, where a precise CO<sub>2</sub> ratio injection maintains carbonation at desired concentration. A booster pump and a back pressure valve provide optimal process conditions. Fully hygienic CIP design.

- Micro bubble size
- Instant saturation
- Ratio or analyser controlled





#### Compact precoat candle filter

The M-Synox BF is the advanced version of candle filter with hanging candles from a top plate. It was developed with the focus on the rising amount of small Craft breweries worldwide and their increasing demand for filtered beer. But also, for any other beverage to be filtered with filter aid like diatomaceous earth this filter will be a reliable solution.

- Compact design
- Easy handling
- High flexibility

### M-Polynox MC

Crossflow beer filtration

The filters are equipped with a polymeric, hydrophilic membrane with asymmetrical structure specially adapted to beer. This greatly contributes to maintaining a steady filtration flow rate. The membranes can be exposed to alkaline, acidic and oxidising cleaning agents for reliable recovery of filtration performance.

- Bright, yeast free filtered beer
- High flexibility for a wide range of beer types
- Easy to operate





### Stefinox

#### For cold sterile filtration of beer

Cold sterile filtration before the filler is an alternative to flash pasteurization. Stefinox allows a flexible and easy-tointegrate and safe solution for a reliable product shelf life. It uses standard cartridges and an integrity test of these membrane cartridges can be performed before each run.

- Standardised units for easy installation and operation
- Prefiltration sterile filtration media filtration
- Maximum safety and cartridge lifetime

### Hard Seltzer

#### Continuous unit

Microbiologically clean potable water is provided by a Filter set, oxygen is removed by Water Deaeration system after. Without the need of water storage, concentrate is precisely blended and liquid additives dosed from a container or from a mix preparation tank. Unique carbonation and/or nitrogenation process provides zero-loss of gas, flavor and time.

- Continuous and precise production of mixed drinks
- "Just in Time" production
- Immediate switch over to another product





### Water Deaeration

### Cold / Hot / Vacuum Unit

The deaeration column is filled with high efficient structured packing. Its large internal surface ensures a maximal contact area between gas and liquid. Water is homogeneously distributed on the top and  $CO_2$  or  $N_2$  is injected at the bottom of the column. While the water flows downwards through the packing, the  $CO_2$  or  $N_2$  rises in counter current removing the oxygen.

- Final oxygen below 5 ppb
- Very low CO<sub>2</sub> or N<sub>2</sub> consumption
- Efficient and hygienic design

### Dosing

#### Compact unit

The Compact Dosing unit provides continuous dosing of one or more additives into beverage, water or cleaning solution. A precise dosing rate is controlled by process analytics or volume / mass flow measurement. Additives are dosed from homogenizing vessels.

- Full capacity range
- Vessels with stirrer
- Precise and reliable dosing





### **Flash Pasteurization**

#### Automatic unit

The Flash Pasteurization Automatic unit is designed for safe, precise and reliable heating of beverages. While reducing pathogenic microorganisms, uniform and gentle treatment is applied to maintain the original taste and appearance of beverage.

- Gentle and precise heat treatment
- Consistent Pasteurization
- Heat recovery up to 96%

### CIP

#### Manual / Compact Unit

The CIP Plant provides multiple lines for cleaning of pipes, tanks and process technology. Custom vessels setup (insulation, volume, size). Simultaneous concentrates dosing. Automatic CIP sequencing with defined temperature, flow or pressure.

- Flexible design
- Automatic CIP sequencing
- Product safety and cleaning performance





## Your success is our mission

Bucher Unipektin is your partner and supplier for single units as well as complete lines for the solid-liquid separation, filtration, juice treatment and concentrate production. These beverage technologies are mainly used for the production of fruit juices and purées as well as in brewing beer. But also, for vegetable and citrus juices, flavors and plant extract recovery within the pharmaceutical industry we offer solutions. Further we design and construct industrial vacuum and freeze dryers (lyophilisation). These are, among other fields, used for the production of instant soups and beverages.

Another business area is environmental technology, where we achieve successful results in sewage sludge and industrial sludge dewatering as well as in the solid-liquid separation of drinking water treatment plants.

First class products and services form the base of our market leading position. We operate with high motivation and flexibility with our customers, based on defined needs as well as new market trends' innovative solutions and products are developed. Thereby ecological aspects are respected.



#### Part of Bucher Unipektin

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