Yeast technology
For Beer with Character
Yeast technology
Fresh yeast for Beer with Character

The raw material yeast plays a crucial role in breweries. A wide range of flavors can be produced in beer using different yeast cultures, resulting in almost unlimited varieties. BrauKon supplies compact process systems for the storage or propagation of yeast in a variety of designs such as units for manual micro-breweries up to fully automated units for larger breweries.

Overview yeast technology

BrauKon VitaProp
The compact solution for yeast propagation, yeast assimilation as well as yeast pitching and wort sampling.

BrauKon VitaProp Pro
Efficient and defined processes of the fully automated yeast system offer consistent and vital yeasts with extremely fast cell growth rates.

BrauKon VitaSius
The hygienically designed yeast deaeration system guarantees a hygienically safe vitalization of the harvest yeast for a fresh beer flavor.
BrauKon VitaProp
Compact yeast system

The BrauKon VitaProp is the compact solution for yeast propagation, yeast assimilation as well as yeast pitching and wort sampling. Mounted on one frame, VitaProp has two yeast propagation tanks with central panel and is integrated in the wort way.

Maximum product safety and easy handling

When combined with a pump, the panel provides maximum product safety. The pump is used to assist the dosing of the yeast or wort. When dosing, the exact measurement is controlled with load cells. An integrated aeration unit allows the yeast to be aerated during the transfer process. Semi-automatic control is achieved using the controls in the brewhouse and via manual valves. This semi-automatic control system can determine the temperature, the quantity of hops which is dosed and the quantity of wort sampled. Both yeast propagation tanks and the pipes are cleaned using the CIP system.

Benefits

- Very high viability via preservation of yeast cells
- Exact dosage quantity of yeast and wort
- High product safety via panel solution and screw pump
- Compact frame construction
- User-friendly via panel solution
- All pipes, tanks etc. capable of inline CIP/SIP
- Integrated in the wort way
BrauKon VitaProp Pro
Fully automated yeast system for ideal growth

The fully automatic yeast system VitaProp Pro provides a complete, fully automated process for pure yeast culture, simultaneous yeast propagation, assimilation, dosing and wort removal. Furthermore, simultaneous propagation from several yeast strains is made possible thanks to each propagation tank having its own peripheral equipment. The use of mass flow meters ensures an exact dosage quantity of wort for yeast propagation and of yeast into the wort flow. When doing so, the dosing rate and the flow velocity are calculated, resulting in the most uniform distribution of yeast possible throughout the entire wort cooling period.

Optimal conditions for the propagation of yeasts

Simple, user-friendly control
During propagation, circulation and aeration cycles can be controlled using two separate input screens. The circulation rate is controlled by the pump velocity and by the opening angle of the control valve and guarantees an optimal distribution of yeast throughout the wort. Thanks to the preservation of yeast cells, high viability (> 98 %) with extremely rapid cell reproduction rates occurs.

Maximum product safety
The yeast tank is intermittently cleaned by the CIP system, just like a fermentation tank. In this process, spraying devices and the circulation pipe are used to fill the yeast tank with cleaning medium. All pipes can be reliably flushed with individually adjustable flow rates thanks to a screw spindle pump which simultaneously serves as the CIP return pump. In addition, all pipes including the product-conducting and CIP pipes can be sterilized due to the use of the combined air-steam pipe. Through the consistent use of leak-safe double-seat valves including dead-space cleaning, cross-contamination is reliably avoided.
Simultaneous processes in the yeast tanks

Inline yeast dosage in the wort flow
Because the VitaProp Pro is integrated in the wort flow, yeast can be dosed directly into the cold wort flow from every tank. The dosing rate is calculated based on the desired dosage quantity and dosing time. This results in the most uniform distribution of yeast possible throughout the entire wort cooling period. The wort is aerated in the downstream wort aeration unit.

Propagation and aeration
The circulation and aeration cycles can be controlled using two separate input screens. The rate of circulation is controlled by the pump velocity. Aeration and circulation times can be individually adjusted depending on the selected strain of yeast. This results in optimal propagation conditions for every yeast.

Cleaning
Every yeast tank is cleaned using the CIP system. Spraying devices and the circulation pipe are used to fill the yeast tank with cleaning medium. All of the tank’s product-conducting pipes are reliably flushed with the cleaning medium, thus guaranteeing reliable product safety.
Cell growth and viability

In the schematic illustration of the propagation of yeast using the VitaProp Pro the cell growth in the shortest time is clearly visible. Thanks to the fully automatic and freely programmable temperature, the circulation and aeration cycles of the VitaProp Pro, optimal propagation conditions are created for every yeast.

Benefits

- Efficient and defined processes deliver consistent and vital yeasts
- Complete fully automated process
- Cell reproduction rates > 55 mio/24h and > 300 mio in total/72h
- Very high viability via preservation of yeast cells and optimal aeration
- Simultaneous propagation from several yeast strains possible due to each tank having its own peripheral equipment
- Exact inline wort removal and yeast dosage by means of differential measurement from 2 mass flow meters
- Modularly expandable
- All pipes, attachment parts, tanks etc. are inline CIP/SIP compatible
BrauKon VitaSius
**BrauKon VitaSius**

*The hygienically designed inline yeast degassing system*

Due to the high contents of alcohol and carbon dioxide that exist in the fermentation process, the yeast crop loses a great deal of vitality. These unfavorable conditions for yeast cells are often maintained in the yeast storage tank and thus lead to a very slow recovery and weak initial fermentation when adding further doses.

Brewers have always known that high yeast vitality has a positive effect on the development of flavor and fermentation time of beer. Until now, this has been mostly realized through what is called “yeast washing” with the use of a yeast sieve. This labor-intensive process often poses a high risk of infection for the beer.

**Hygienically safe vitalization of the yeast crop**

BrauKon VitaSius releases the carbon dioxide from yeast in a hygienically safe and gentle manner during harvesting. Degassing takes place inline and is fully integrated in the pipe cleaning process. Through the large sight glass, the degassing process and the yeast crop are directly visible. BrauKon VitaSius is completely integrated in the CIP system of the yeast crop pipe and therefore requires no further manual cleaning.

**Benefits**

- Consistent high vitality of yeast
- Increased fermentation onset speeds and shorter fermentation time
- Microbiological safety via hygienic design
- Increase in the percentage of living cells after storage
- Fresh, pleasant, consistent beer flavor
- Degassing of carbon dioxide, which is poisonous for yeast cells
- Simple, fully automatic inline cleaning
- Reduction of pitching quantity possible
We are BrauKon

Beer with Character is our passion

Specializing in mid-sized breweries, we deliver brewery systems of the highest quality worldwide. Our team of more than 25 master brewers and engineers build and design top-quality brewery systems that are highly flexible, economically efficient and profitable without compromising on beer quality. We guarantee the value and reliability of our systems thanks to high-quality workmanship of first class components. What drives us most, however, is our pride when your passion and our brewery systems come together and create something that is one of a kind – Beer with Character.

Outstanding beer quality

For Beer with Character – this is the motto we work by in everything we do. Thus our systems fulfill the highest technical and design standards. Our individual, ready-to-use brewery systems guarantee brewers worldwide outstanding beer quality and optimal operational procedures.

BrauKon products are innovative

Economically efficient, energy saving and innovative. At BrauKon we are more than one step ahead and pride ourselves on revolutionizing the brewery industry over and over again.

Individual solutions for your beer

BrauKon is dedicated to fulfilling your needs and committed to your beer. We create custom breweries tailored to meet your individual requirements.

Take advantage of our experience and technology for your Beer with Character.