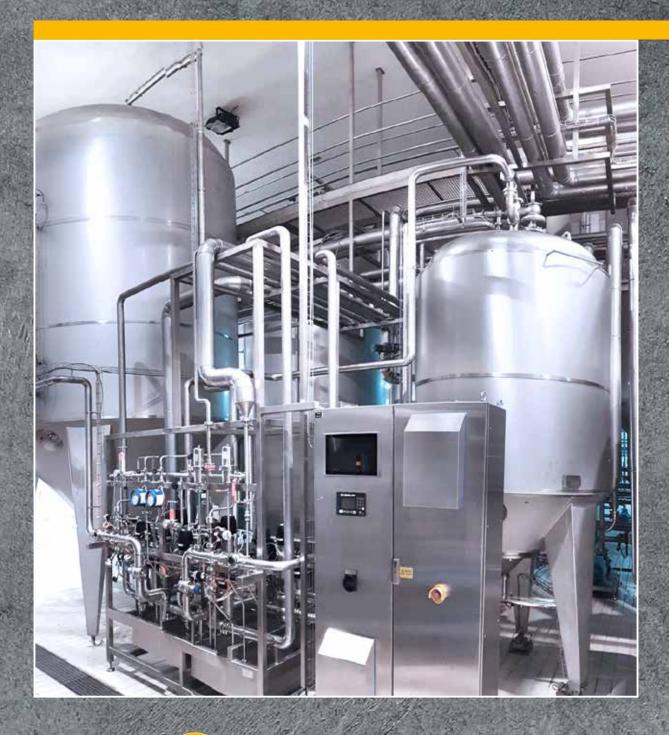
# YEAST TECHNOLOGY

Perfect yeast propagation for outstanding beers



ESAU&HUEBER

# The professional yeast propagation for any size of operation

Vigorous and strongly fermenting yeast in a physiologically flawless state is an essential requirement for high and consistent beer quality. It also contributes to increasing biological safety.

The ESAU & HUEBER systems for the different applications within an extensive yeast management offer the best conditions for a later excellent vitality, fermentation strength and microbiological purity of the pitching yeast.

It is crucial to understand the different needs of the yeast in the respective growth stages.

ESAU & HUEBER's decades of experience in the yeast sector have resulted in a portfolio of systems for every size of operation and every production step in the brewery, from standardised products to customised systems for all requirements and needs - always adapted to the highest hygienic standards.

## **Product portfolio**

- CARLSBERG FLASK
- MICRO PROP
- CRAFT PROP
- VARIO PROP
- CONTI PROP
- YEAST BUDDY
- FLEXI PROP



#### CARLSBERG FLASK

The CARLSBERG flask from ESAU & HUEBER is available in the sizes 25 and 50 liters.

The Carlsberg flask is equipped with all necessary fittings for filling, venting, sampling and draining.

A heating or cooling jacket is fitted as standard. This allows the wort in the vessel to be sterilised or the yeast to be tempered.

All fittings used are from renowned manufacturers and can be completely dismantled for cleaning and sterilisation. The hygienic design ensures an optimal and safe propagation success



#### **MICRO PROP**

The MICRO PROP consists of one or two CARLSBERG FLASKs and a panel for sterile air supply as well as a control unit. The vessel sizes can be selected between 50 and 100 liters.

This equipment ensures optimal aeration and temperature control of the propagation yeast, adapted to cell growth. The hygienic is seen here too as the basis for a safe yeast propagation.

In addition to the application in microbreweries, the system is also suitable for larger operations, for example, to transition from yeast propagation in the laboratory to the brewery propagation.

#### **CRAFT PROP**

The CRAFT PROP is characterised by a simple and variable design and is therefore a high-quality entry into yeast propagation in sizes from 2-20 hl.

Due to the optimised tank design and the variable control are achieved the highest quality propagation results. As in the MICRO PROP, the parameters temperature and aeration quantity / aeration interval can also be adjusted in the control system in the respective propagation phases. The CRAFT PROP is characterised by its simple but hygienic design and can be installed and commissioned independently by the customer.

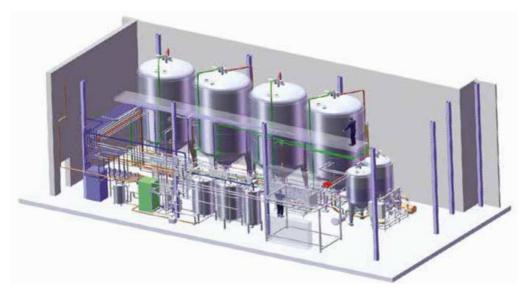


# The professional yeast propagation for every cellar size

#### **VARIO PROP**

The VARIO PROP is based on the CRAFT PROP technology and is available in the same sizes.

The internal piping of the system and the equipment with a pump enable automatic operation with manual intervention for propagation, for yeast addition and for restarting with wort. The integrated recirculation line also allows harvested yeast to be stored, homogenised, revitalised and pitching.



## Your advantages

- Maximum biological safety, as this is a closed system that uses no accessories
- Homogeneous yeast suspension independent of aeration due to an external recirculation and ventilation device
- Smoother, more reproducible fermentation processes due to good physiological condition of the yeast
- · High selection pressure on alien organisms
- · Fast degradation of diacetyl
- High fermentation rate, high beer quality, high foam stability, better filter service life, etc. due to an excellent fermentation process
- Improved foam and pH value also for older yeast due to revitalization
- Different sizes of vessels and degrees of automation offer a solution for every type of budget



Also upstream propagation solutions such as CARLSBERG FLASK are available

Yeast line and nozzle	Propagation vessels
DN 40	10 hl to 20 hl
DN 50	30 hl to 70 hl
DN 65	80 hl to 280 hl
DN 80	300 hl to 800 hl

#### **CONTI PROP**

The CONTI PROP is the premium ESAU & HUEBER yeast propagation with external circulation and aeration of the yeast via the patented TURBO AIR technology. The system has no internal installations in the tank, such as hard cleanable agitator technology. This allows cold cleaning and the use of cold wort without re-sterilisation. In addition to energy savings, this leads to high wort qualities as a nutrient medium and lays the foundation for high yeast viability.

The CONTI PROP system is available in a semi-automatic coupling panel technology and in a fully automatic double-seat valve technology. The number and size of the pre- and main propagators can be freely adapted to the customer's needs.

Due to the optimal oxygen supply and gentle mixing, viability values of  $\geq 98$  % can be guaranteed. Controls can be supplied as stand-alone or as full integration to the customer's existing process automation. CONTI PROP technology, in conjunction with the associated automation and hygienic design, contributes to minimising resources such as air, cooling and CIP media. All this reduces the use of energy and materials in production. Depending on the configuration, the system can also be used as a FLEXI PROP for cropped yeast in order to store, vitalise and pitching it.





# Harvest yeast management for every cellar size



#### YEAST BUDDY

The YEAST BUDDY system from ESAU & HUEBER is available in 300- and 500-Liter sizes and is an entry to the yeast management topic.

The system provides a hygienic and hermetically sealed option to optimally store cropped yeast in the periods between yeast harvest and yeast addition and to prepare it for renewed dosing into the wort line.

The system has a modular design and can be adapted to the customer's circumstances or financial framework conditions as required. Retrofitting and expansion are possible at any time. The 300-litre version is also freely movable with rollers

#### **FERMEX**

FERMEX is a highly professional harvesting yeast system in coupling panel or double-seat valve technology with pump circulation method and external heat exchanger.

Professional and microbiologically safe yeast management includes a cropped yeast adapted to the fermentation and storage process, a hygienically perfect intermediate storage with optimal temperature conditions and optimal preparation of the yeast for pitching in order to achieve rapid fermentation with vital yeast cells in the fermentation tank with a reduced storage phase. This not only leads to improved quality of the cropped yeast and beers, but also serves to reduce energy consumption through shorter fermentation tank occupancy and filter service life.

The system is cold cleanable due to its hygienic design and therefore saves energy.



### **WINBREW YEAST CONTROL**

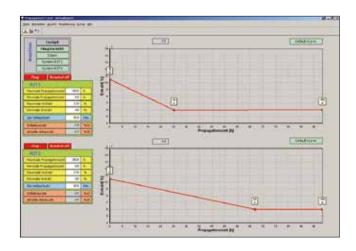
The WINBREW YEAST CONTROL is a fuzzy logic software which is installed on the normal process automation of the CONTI PROP system.

Through the additional quality measurements built into the yeast propagation and this software the performance of the yeast propagation will be more reliable and repeatable independed from other parameters such as changing wort quality over time.

A defined cell count and extract at the end of the propagation time specified by the operator is achieved and thus the propagation process can be controlled

In future, you will have the required quantity of propagated yeast in optimum quality available at the desired time - Guaranteed repeatability, plannability and quality of your processes.

Just-in-Time.







**Esau & Hueber GmbH** Kapellenweg 10 86529 Schrobenhausen Fax: +49 8252 8985-85 info@esau-hueber.de

www.esau-hueber.de





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