

# Yeast Technology

Successful and efficient yeast management on a small scale



# The safe start for your yeast management

Vigorous and strongly fermenting yeast in a physiologically flawless state is an essential requirement for high and consistent beer quality. It also contributes to biological safety. Correct yeast management in the laboratory before seeding the propagation system is the foundation for later vitality, fermentation strength and microbiological purity of the pitching yeast.

Yeast rejuvenation by single-cell culture is based on a single yeast cell that is multiplied step by step until a sufficient amount for seeding the propagation system is available.

## Technical data

Every **CARLSBERG FLASK** is equipped with:

- A sterile air connection
- Safety valve
- Pressure gauge
- Pressure reducer
- Sampler for yeast and wort

Optional equipment:

- A small gas panel for the sterile air supply
- Cooling/heating jackets
- Wheels for the larger versions

High-quality production of beer requires professional yeast management, even on a small scale. The **MICRO PROP** system by Esau & Hueber provides small breweries with an in-house supply of strongly fermenting, high-vitality yeast. The removable quantity can be adapted to the production requirements by adjusting the propagation time, temperature, aeration volume/aeration intervals for the start cells and the residual cells in the propagator.



*MICRO PROP with gas panel and control cabinet*

The end-phase in the laboratory requires a suitable propagation container that complies with several requirements. Esau & Hueber offers its **CARLSBERG FLASKS** as a solution for all plant sizes. They have sufficient volume - as they are available up to a useable volume of 100 liters - but still suitable for transport. A **CARLSBERG FLASK** can be flushed with sterile air for aeration and sterile transfer to the propagation system is also possible. The flask can be optionally equipped with a cooling jacket to maintain the optimal propagation temperature.



*Example of a CARLSBERG FLASK*

Intense aeration ensures optimum yeast growth. The construction strictly follows the specifications for hygienic design and ensures biological safety, so that the brewery always has a reliable supply of fresh propagation yeast. The system is suitable for both small breweries as well as for larger breweries to handle the transfer from yeast propagation in a laboratory to industrial-scale propagation.

## Technical data

Every **MICRO PROP** is equipped with:

- Gas panel
- Small control cabinet for aeration intervals and cooling
- Safety valve
- Pressure gauge
- Pressure reducer
- Sampler for yeast and wort

Optional equipment:

- Professional control system with touch screen panel
- Cooling/heating jackets
- Condensate traps for steam sterilization

## Your advantages

- Microbiological safety by aeration and flushing with sterile air
- Construction according to the criteria for hygienic design ensures easier cleaning and further reduction of microbiological risks
- Good oxygen uptake and optimal yeast growth resulting from intense aeration
- High selection pressure on alien organisms through rapid start of fermentation
- Fast degradation of diacetyl
- High fermentation performance and associated high beer quality - also on a small scale
- Cost-efficient system for yeast management on a laboratory scale
- Different sizes of vessels and degrees of automation offer a solution for every type of budget



Automated propagation solutions  
CONTI PROP and FLEXI PROP

Design	Sizes
CARLSBERG FLASK	5 l to 50 l
MICRO PROP	50 l to 150 l
CRAFT PROP	200 l to 1,500 l

The system **CRAFT PROP** has been specially tailored to the needs of small-scale craft and medium-sized breweries. Just as with the proven **MICRO PROP** the production requirements like temperature and amount of aeration volume/aeration intervals can be specifically influenced by its own control. By customizing the propagation time as well as the initial and residual cell count in the propagator, self-supply of yeast can be adjusted precisely to the operational requirements. The design of the **CRAFT PROP**

– strictly in accordance with hygienic design criteria- ensures intensive aeration and thus the best yeast growth without causing oxidative damage by over-aeration and/or over-foaming of the propagator. The **CRAFT PROP** is especially suitable for medium-sized and craft breweries, as it offers the best solution to take yeast management into your own hands - at a manageable level of investment and personnel expenses.



CRAFT PROP

## Technical data

Every **CRAFT PROP** is equipped with:

- Gas panel
- Small control cabinet for aeration intervals and cooling
- Safety valve
- Pressure gauge
- Pressure reducer
- Sampler for yeast and wort
- Air flow meter
- Cooling/heating jackets

Optional equipment:

- Professional control system with touch screen panel
- Fixed piping between panel and tank
- Condensate traps for steam sterilization



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