

LED Stirred Tank Option

The traditional Labfors 5 Lux stirred tank for photosynthesis applications

Web
Version
low resolution



- ▶ New: LED lighting
- ▶ Extremely adaptable
- ▶ Traditional stirred tank vessel
- ▶ Controllable light intensity
- ▶ Choice of light spectra
- ▶ Multiple applications



www.infors-ht.com

May be subject to technical amendments

INFORS **HT**

Now high tech with LED!

► New: LED lighting

A total of 16 LED strips with air cooling offer a reproducible light source with a long service life. The maximum light intensity of approx. 700 $\mu\text{mol}/\text{m}^2\text{s}$ is entirely sufficient for the majority of applications. The energy efficiency is approx. five times greater than for fluorescent tubes.

► Extremely adaptable

The LED strips are replaceable individually, which in turn also allows the light spectrum to be matched to the application at a later point.

► Traditional stirred tank vessel

The standard cultivation technique on a laboratory scale.

► Controllable light intensity

Continuously variable electronic dimming from 1–100 % facilitates the precise adjustment of light intensity. When used in conjunction with the bioprocess platform software eve®, not only are on/off cycles possible, but even the simulation of a daylight curve.

► Choice of light spectra

Warm white light in the standard design offers an ideal spectrum in the visible range that is similar to sunlight and contains a high proportion of photosynthetically-active light. Alternatively, other light colours such as red, blue, UV-A or infrared can be selected. The dimming of two colours independently of one another, allowing a dynamic change to the spectrum to be achieved, is optional.

► Multiple applications

Designed for the cultivation of algae, plant cells and cyanobacteria, the Labfors 5 Lux is ideal for every photosynthetic process, e.g. investigations into the feasibility of biofuel production using algae. The Labfors 5 Lux control unit is also perfectly suited for other applications, e.g. for bacteria or mammalian cell cultures – depending on the specification.



Key technical data

Total volume: 3.6 L

Working volume:
0.5–2.3 L

Light: approx.
600–700 $\mu\text{mol}/\text{m}^2\text{s}$
(approx. 50 000 lux)

Standard parameters:

- Stirrer speed
- temperature
- light
- pH
- pO_2
- antifoam
- feed

Additional parameters:

Easy integration of many online systems, e.g. extra sensors, balances, external pumps

- 4 Analogue In
- 6 Analogue Out
- 2 Digital Out

Advanced process control features via eve® software, e.g. regulated control of medium feed