

## Photosynthetic fermenter system



# Labfors-Lux

Based on the concept of Labfors into a new dimension with Labfors-Lux

- Labfors-II specification
- Based on the successful concept of the Labfors benchtop fermenter
- Special "low-profile" water jacket
- 16 fluorescent lamps "Gro-Lux" or "Daylight", 8 W
- Process control with Iris software
- The possibility to culture photosynthetic organisms in quantities of circa 2 litres
- Adjustable light intensity, variable to match growth (340 lumen/lamp)
- Choice of fluorescent tubes to match your needs
- External process control options
- A wide range of Labfors-II options and accessories

## Controller

u-DDC is an extremely efficient microprocessor-based control for parallel operation of multiple fermenters, each having individual control. Set-up data is stored on a memory card. The following parameters have their actual values simultaneously displayed on a special overview screen:

- Parameters available are: stirrer speed, temperature, pH, pO<sub>2</sub>, antifoam/level, gas flow rate (mass flow) or gas mix
- External sensors eg biomass can be added using an analogue signal converter and external control of eg analogue pumps
- Links to Iris software for logging, display, graphing and archiving of data and control

## Specifications

Dimensions (W/D/H)	375×415×930 mm
Sterilisation	In an autoclave
Temperature	up to 70°C, thermocirculator
Speed	50–1500 or 30–300 rpm
Vessel size (total volume)	3.6 litres
Vessel construction	316L stainless/glass (double-jacketed)
Port fittings	2× 19 mm 6× 12/PG 13.5 2× 10 mm 4× ID 2 mm/OD 4 mm pipes
Vessel seal	Mechanical
Gassing options	Rotameter: mass flow, gas mix supplement

## Base unit

- Compact with a small footprint
- 4 peristaltic pumps, self-adjusting for tension on the tubing
- Thermocirculator
- Amplifier module with cables permanently attached for added reliability
- Integral rotameter
- Master or satellite configuration
- Speed control with full tacho feedback

## Autoclavable vessel

- Vessel size: 3.6 litres total, 2.3 litres working volume
- Low-profile double water jacket for maximising use of lights
- Mechanical seal
- The top plate is held in place by screw fittings for easy assembly
- The Pt100 probe sits in a pocket for easier handling and use of external sensors eg in an autoclave
- Fixed, 4-mm-diameter pipes are used for reagent addition allowing maximum room on the top plate
- Use of the PG 13.5 thread for better standardisation with peripherals



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