



### Super-Safe Sampler

- Allows to take smallest aseptic samples without laminar flow
- Air backflushing
- No dead volume
- Needle-free
- Reusable



### Gas Analyser

- CO<sub>2</sub> or O<sub>2</sub> analysis integrated in your bioreactor
- Calculation of parameters such as, e.g., the rate of Carbon evolution rate (CER), the oxygen uptake rate rate (OUR) and therefore the respiration quotient (RQ) with eve®

Bioreactor accessories



### Cell Growth Quantifier (CGQ)

- Online measurement of biomass in shake flasks
- Non-invasive OD measurements ensure an undisturbed bioprocess run
- Time-saving production of precise, microbial growth curves as well as real-time analysis of important growth parameters
- Resource-optimised process development through screening under optimal culture conditions in up to 16 shake flasks simultaneously

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### Liquid Injection System (LIS)

- Automated liquid feeding with programmable control unit
- Easy handling of single use cartridge, drive and software
- Suitable for a variety of substances such as sugar solutions, alcohols and suspensions
- Predefined or fully configurable feeding profiles

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### Online sensors for cell density and biomass

**ASD12-N** and **ASD25-N** absorption sensors from **Optek**

- Recording of the total cell density in the near-infrared range (NIR) at 840 to 910 nm
- Independent of color changes of the culture medium
- Space-saving: compact transmitter is built directly into the control device of the bioreactor

Alternatively, **InPro 8100** sensors from **Mettler** for the **determination of the overall cell density** and the **ABER Futura System** for the determination of the live cell density can be used.



### Retaining clamps

- Stainless steel retaining clamps can be screwed onto universal trays
- For Erlenmeyer and Fernbach flasks
- Special mounting hardware upon request



### Test tube holders

- Perforated inserts made of foam rubber ensure a reliable hold and prevent rattling noises
- Test tubes can be incubated in a vertical position or at an adjustable angle
- Compatible with universal as well as on Sticky Stuff trays



### CGQ BioR

- Non-invasive online biomass monitoring
- Sensor is attached to the vessel wall
- Real-time analysis without external sampling



### Sticky Stuff adhesive matting

- Compatible with all vessels with a smooth bottom
- Reliable fixation even with high agitation speeds and temperatures
- Long lifespan
- Easy cleaning and regeneration with water



### Trays

- Corrosion-resistant, anodized aluminum
- Can be configured with a variety of flask clamps, adjustable tube racks or adhesive mats
- Autoclavable
- Specialty trays for 96-well plates

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