

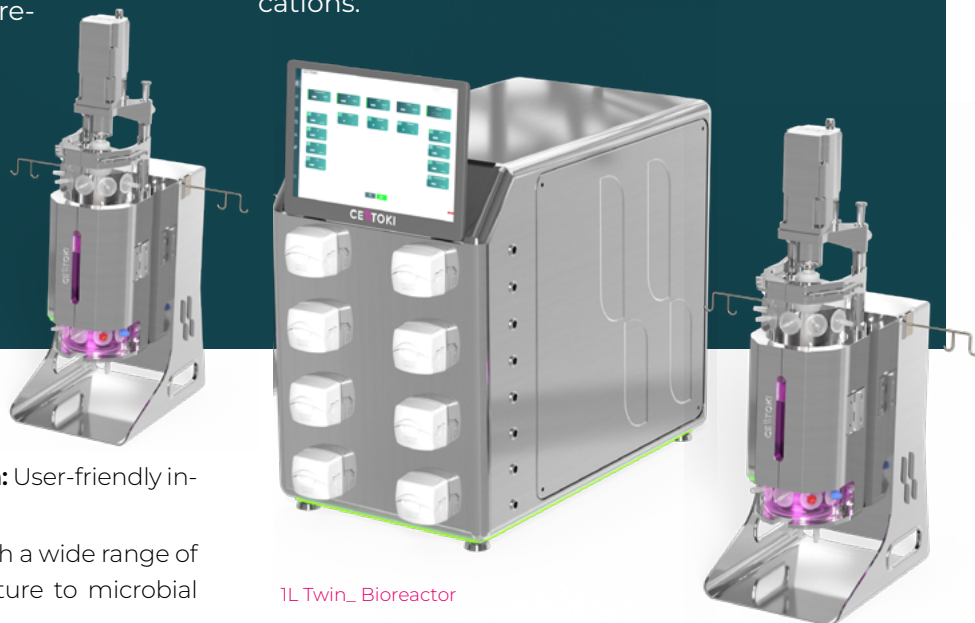
SINGLE-USE BIOREACTORS

CELLTOKI

Our single-use bioreactor system, available in volumes from 1L to 50L, is designed for advanced biotechnological applications.

The system integrates a stainless-steel support structure, instrumentation, a software and a flexible single-use bag, offering a ready-to-use, scalable solutions.

Compatible with interchangeable bag configurations for **either Cell Culture (Mammalian) or microbial fermentation**, the system offers maximum flexibility, efficiency, and reliability across a wide range of biomanufacturing applications.



1L Twin_ Bioreactor

KEY BENEFITS

- **Integrated and intuitive control system:** User-friendly interface for simplified operation.
- **Versatile configuration:** Compatible with a wide range of applications, from mammalian cell culture to microbial fermentation.
- **Advanced connectivity:** Facilitates seamless integration with laboratory automation and data systems.
- **Single-use components:** Minimize cross-contamination risk and reduce cleaning and validation needs.

APPLICATIONS IN BIOTECHNOLOGY

- Mammalian cell culture for recombinant protein production.
- Fermentation of bacteria and yeasts for enzyme, metabolite, and vaccine production
- Process development, optimization, and scale-up studies
- Academic and pharmaceutical R&D and GMP production.

AVAILABLE VERSIONS

DESIGN

- **Universal control tower:** For each volume, a single control tower is used for both cell culture and microbial fermentation versions.
- **Bag support system:** Compatible with both cell culture and microbial single-use bags.
- **Thermal system:** Smaller models use a Peltier cell to provide precise heating and cooling without the need for external fluids, while larger systems rely on heating jackets or conductive jackets for thermal control.
- **User interface:** Intuitive touchscreen that allows real-time control of temperature, pH, DO, and agitation, with alarms and trend views.
- **Connectivity:** Includes standard communication ports for integration with data and automation systems.

FEATURE	CELL CULTURE VERSION (MAMMALIAN)	MICROBIAL FERMENTATION
Agitation System	Pitch blade impeller	Rushton-type agitator
Internal Baffles	No	Yes (enhanced mass transfer)
Typical Application	Animal cell cultivation	Bacterial / yeast fermentation

CELLTOKI BIOPROCESSING SL

B° Zikuñaga, 57-F, Pol. Ind. Ibarluze 20120 Hernani, (Gipuzkoa) SPAIN
Tel.: +34 943 431 801 / info@celltoki.com / www.celltoki.com

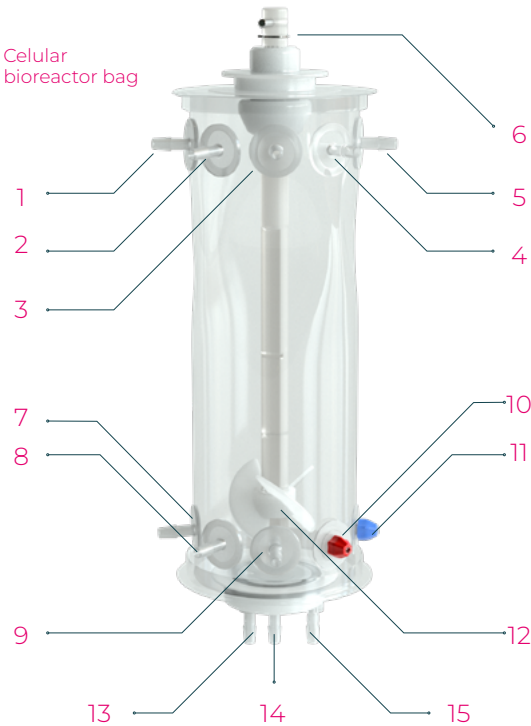
REV. _08/2025

TECHNICAL SHEET

SPECIFICATION	DESCRIPTION
Volume	1L, 5L, 10 L, 20L, 50L
Hardware material	AISI 304 stainless steel
Cooling System	Jacket for temperature control from 5°C to 50°C.
pH Measurement	Single use pH sensor. pH adjustment using peristaltic pumps
DO Measurement	Single use DO sensor
Integrated Control System	Touch panel with access control and SCADA integration; optional GMP-compliant features (GAMP5, 21 CFR Part 11, Annex 11)
Single-use bag material	Infuflex 9101 and HDPE
Available tubing materials	Silicone, TPE

FLEXIBLE BIOREACTOR BAG

1. Base Addition Port
 2. Acid Addition Port
 3. Inoculum and Media Addition Port
 4. Gas Outlet (filter not shown)
 5. Antifoam Addition Port
 6. Agitation System Coupling
 7. Sampling Port
 8. Perfusion Port
 9. Temperature Sensor
 10. pH Sensor
 11. Dissolved Oxygen (DO) Sensor
 12. Impeller
 13. Gas Inlet (filter not shown)
 14. Harvest Port
 15. Perfusion Port



STERILITY, TRACEABILITY & REGULATORY COMPLIANCE

- **Manufactured in ISO Class 7 cleanroom** under controlled conditions to minimize contamination.
- **Sterility - Gamma irradiation** (25–50 kGy) validated according to ISO 11137. Double packaging ensures sterility.
- All contact materials meet **US and EU pharmacopeia** and **ISO standards**.
- **Full traceability**, 100% integrity and leak testing, and visual inspection.
- **Flexible validation packages** tailored to regulatory and technical needs across all project phases.