

ARCHITECT FOR CELLS
EXPERT IN 3D MANUFACTURING OF HIGH-QUALITY CELLS

3D FloTrix™

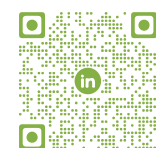
vivaSPIN Cell Culture System



Automation, Precision, Reliability



Contact Us on WhatsApp



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CytoNiche Biotech Pte. Ltd.

3D FloTrix™ vivaSPIN Cell Culture System

3D FloTrix™ vivaSPIN Cell Culture System is a closed, automated, and scalable stirred-tank bioreactor independently developed by CytoNiche for high-quality large-scale 3D cell culture.

Powered by our core innovations—3D FloTrix™ cell manufacturing technology and 3D TableTrix™ & RecomTrix™ microcarriers—CytoNiche has refined vessel design, piping systems, and control programs through in-depth analysis of fluid dynamics and process parameters, delivering optimized performance for large-scale cell manufacturing.



Glass Vessel

Controller



Superior containment
No mixing dead zones



User-friendly interface
Easy operation



Scalable design
Upgradeable system



Online monitoring
Remote operation



Precise execution
Accurate control



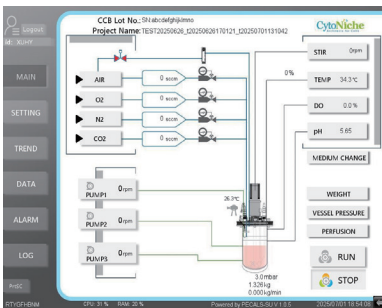
GMP-compliant data
integrity and traceability

Precise Execution, Control and Logging System



Precise Execution

- Automated media exchange
- Programmable multi-mode agitation
- Automatic recovery after power failure



Precise Control

- PID-controlled pH, DO, and temperature
- Real-time parameter deviation alarms



Precise Logging

- Audit trail compliant
- All parameters, operations and alarms logged in real-time
- Up to 1 year data storage

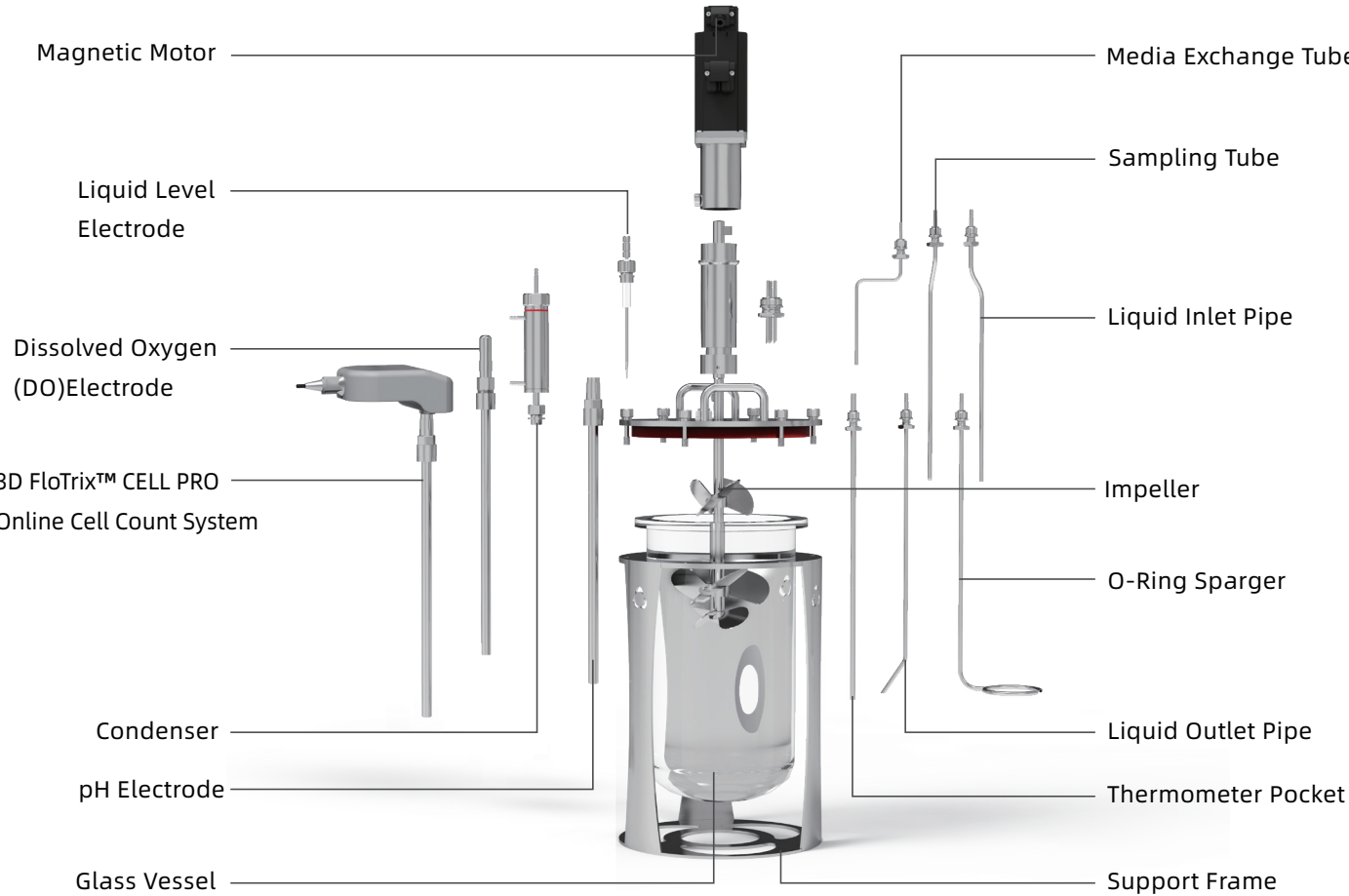


More Functions

- Remote configuration and media exchange
- Compatible with 3D FloTrix™ CELL PRO Online Cell Count System

vivaSPIN Glass Vessel

- Multi-layer sealing design for all pipe connections ensures vessel integrity.
- Headplate and pipelines forged from premium 316L stainless steel.



Heating blanket with secure fixation and uniform heating

Technical Specification

Controller				
Controller Dimension(L×W×H)	636×356×703mm (including footpads)			
Controller Weight	28kg			
Control System	Powered by PECALS control system			
Interface	12-inch color touchscreen, 1024×600 resolution			
Peristaltic Pump	Speed range: ≤300rpm			
Stirring Motor	0.4kW/1.27N.m/0~400RPM, accuracy: ±1rpm			
MFC	Air, O ₂ , N ₂ : 5-250mL/min; CO ₂ : 10-500mL/min			
Heating Blanket	300W			
Temperature Sensor	Pt100, control accuracy ±0.2℃			
Dissolved Oxygen (DO)	Range: 0~200%, accuracy ±5%; special impedance VP interface for interference shielding			
pH	Measuring range: 0~12, accuracy ±0.02; special impedance VP interface for interference shielding			
Input Power	220V/50Hz,1500W			
Gas	Air, O ₂ , CO ₂ , N ₂ ; purity ≥99%, dry, oil-free, dust-free			
Glass Vessel				
Material	Glass Vessel: single-wall borosilicate glass; Stainless steel: 316L			
Vessel Volume	3.2L	7.5L	13L	18.5L
Working Volume	2L	5L	10L	15L
Vessel Size(mm)	205x420mm	245x555mm	290x575mm	310x645mm

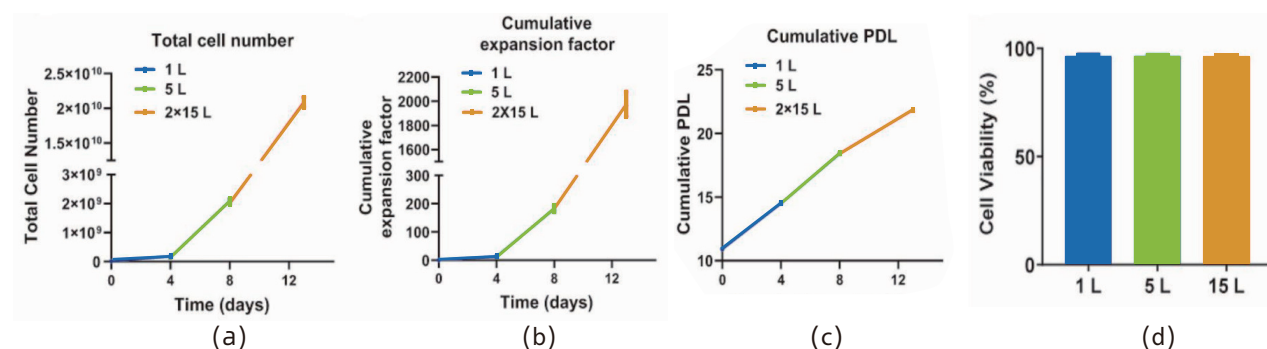
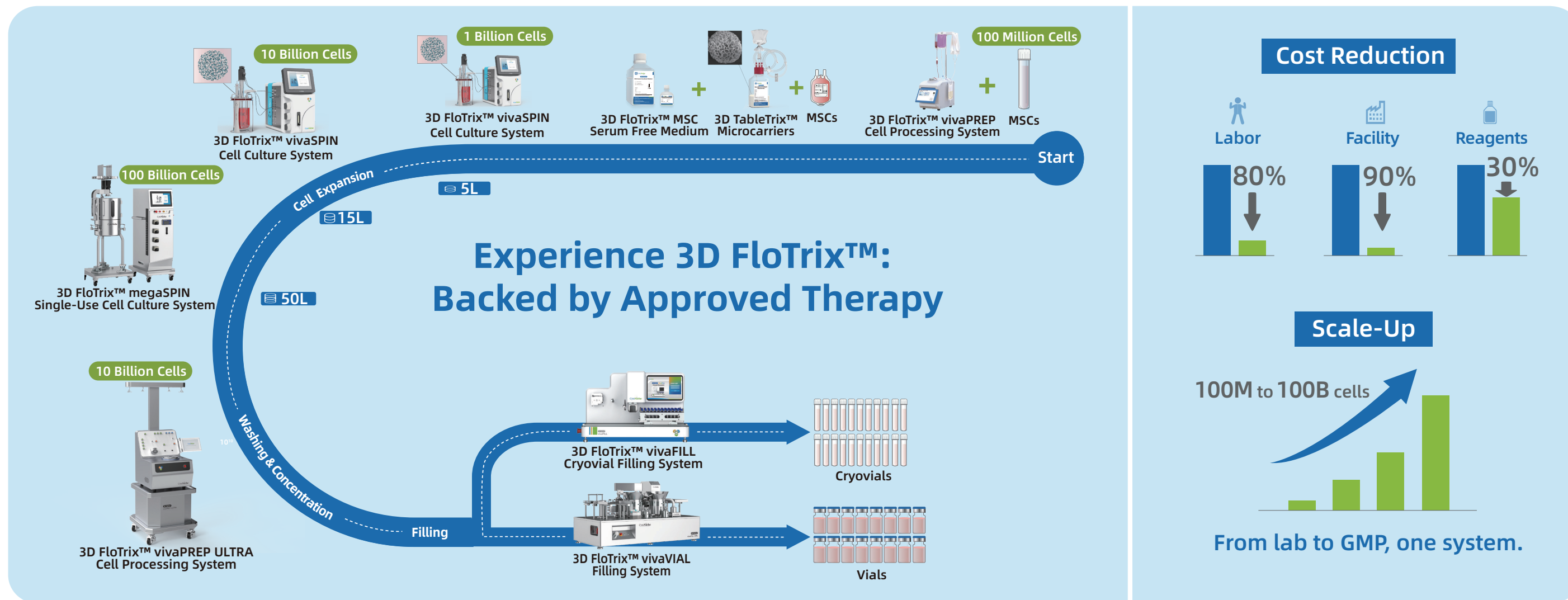
Ordering Information

Model	Product Name	Specification
FTVS02	3D FloTrix™ vivaSPIN Cell Culture System 2L	1 controller, 1 vessel, 1 PECALS control system
FTVS05	3D FloTrix™ vivaSPIN Cell Culture System 5L	1 controller, 1 vessel, 1 PECALS control system
FTVS10	3D FloTrix™ vivaSPIN Cell Culture System 10L	1 controller, 1 vessel, 1 PECALS control system
FTVS15	3D FloTrix™ vivaSPIN Cell Culture System 15L	1 controller, 1 vessel, 1 PECALS control system
R005-05-10	3D FloTrix™ vivaSPIN Culture Processing 5L Full Kit	2 sets/box, Silicone tubings with luer connectors
R005-10-10	3D FloTrix™ vivaSPIN Culture Processing 10/15L Full Kit	2 sets/box, Silicone tubings with luer connectors
R020-05-10	3D FloTrix™ vivaSPIN Culture Fully Closed Processing Kit 5L	2 sets/box, Silicone & C-Flex
R020-10-10	3D FloTrix™ vivaSPIN Culture Fully Closed Processing Kit 10/15L	2 sets/box, Silicone & C-Flex
VSTT-05-01	3D FloTrix™ CELL PRO Online Cell Count System (for 5L)	1 set/box
VSTT-10-01	3D FloTrix™ CELL PRO Online Cell Count System (for 10/15L)	1 set/box

3D FloTrix™ — Producing Billions of Stem Cells Effortlessly

As a leading expert in high-quality 3D cell manufacturing, CytoNiche has developed a well-established and advanced billions cell manufacturing process based on its proprietary 3D dissolvable microcarriers and fully automated and closed systems.

Producing Billions of Stem Cells Effortlessly: Efficiency Meets Affordability



Total cell number (a), Cumulative expansion factors(b), Cumulative PDL(c), Cell viability(d)

Leveraging CytoNiche's validated process parameters, the vivaSPIN Cell Culture System offers exceptional stability and scalability in mesenchymal stem cell (MSC) yields, Experiencing cutting-edge efficiency and reliability for your stem cell cultivation needs.

CytoNiche: Pioneering Safer, Smarter Biomanufacturing

- **Billions-Cell Scale Platform**
Minimizes contamination risks with closed, Automated Upgrade in Hours, Not Months.
- **Flexible Production**
Enables large-scale, intelligent manufacturing of cell therapies, exosomes, viruses, and biologics.
- **CGT Trailblazer**
Redefining 3D tech for cell/gene therapy innovation.