

Technical Specification

Parameter	Specification
Power	AC 100-240 V, 50/60 Hz, 100 VA
Dimensions (L×W×H)	403 × 483 × 890 mm (including the rod)
Weight	36 kg
Interface	10.1-inch color touch screen
Software system	Linux system
Separation system	Continuous centrifugal chamber
Max. speed/RCF	4500 rpm / 1132 ×g
RCF range	0-1132 ×g
Environment requirement	10 °C ~ 30 °C

Ordering Information

Model	Product Name	Specification
vivaPREP ULTRA	3D FloTrix™ vivaPREP ULTRA Cell Processing System	1 main engine with trolley
PREP-ULTRA-10	3D FloTrix™ vivaPREP ULTRA Disposable Cell Processing Kit	1 set/ctn
R020-PVC-03	3D FloTrix™ Single-Use Storage Bag (5L)	1 set/bag





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Next-Gen Cell Therapy Processing

Fully closed • Automated • Scalable to **15B Cells**



3D FloTrix™
vivaPREP ULTRA Cell Processing System

CytoNiche Biotech Pte. Ltd.

3D FloTrix™ vivaPREP ULTRA Cell Processing System

The 3D FloTrix™ vivaPREP ULTRA (VPU) is an automated, fully-closed system solution designed to streamline large-scale cell therapy manufacturing. Leveraging continuous flow centrifugation and single-use processing kits, it delivers consistent, high-quality cell concentration and washing at scales up to 15 billion cells.

Weighing Module:

Precision control of fluid input/output volumes

Pinch Valves:

Automated flow path switching

Peristaltic Pump:

Adjustable flow rate (0-300 rpm) and direction

Pressure/Bubble Sensors:

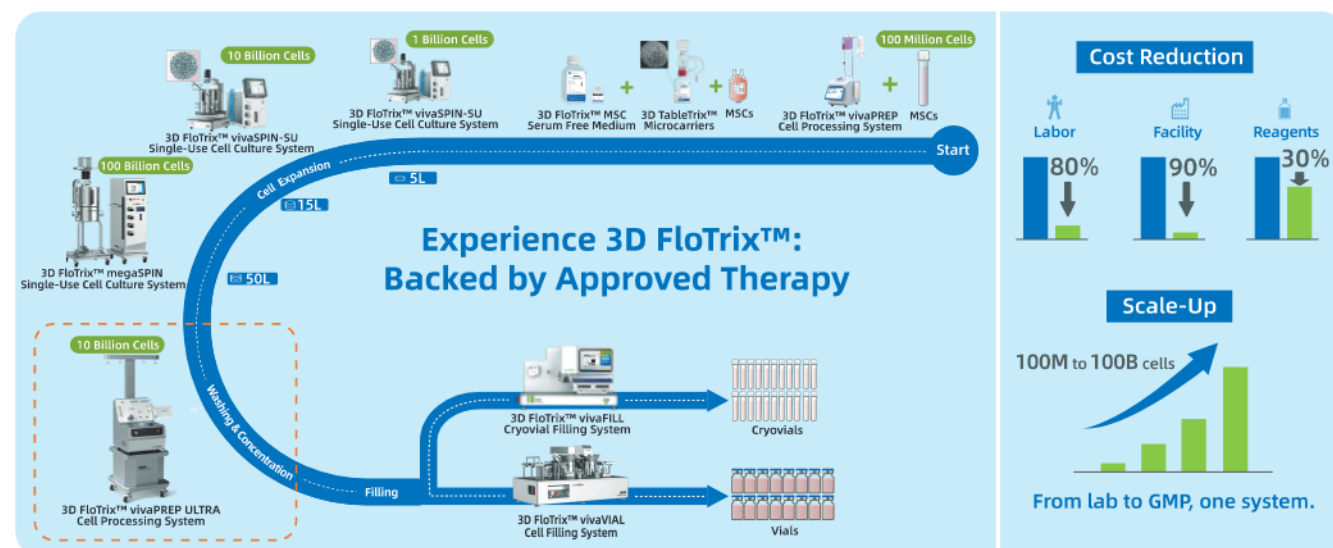
Real-time monitoring of process status and tubing pressure

Centrifugation Module:

Continuous-flow centrifugation processing for high-efficiency separation



Applications



Cell Expansion & Passage

End-to-End Large Scale Cell Processing

Product Features

High Efficiency

15 Billion Cells Processed in 2 Hours

Complete washing, concentration, and dispensing in record time

1 System Replaces 10 Technicians

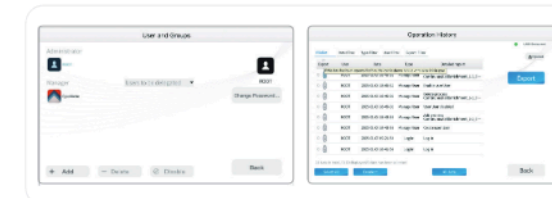
Full automation delivers 10x productivity gains over manual methods



GMP Compliant

Complies with 21 CFR art 11 and GMPA 5 guidelines

Audit-ready, multi-level user management, and fully traceable data



Engineered for Safety

Medical-grade PVC materials

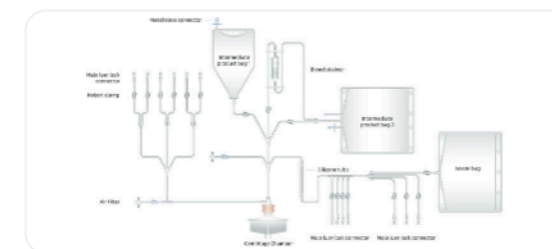
Rigorously certified for safety

Fully closed processing

Eliminates contamination points

Single-use design

Ensures batch-to-batch consistency

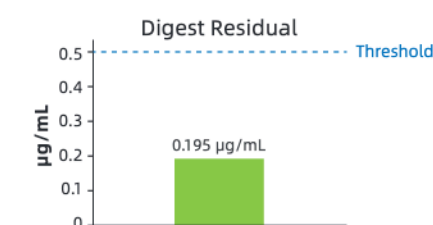
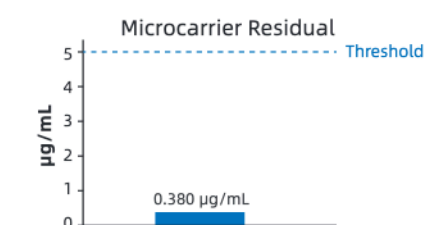


Cells Performance

Washing Capacity

	VPU	Manually
Cell Recovery Rate (%)	> 95.00	> 90.00
Cell Viability (%)	> 95.00	> 95.00
Cell Cluster (%)	< 30.00	< 30.00

Residuals after VPU Washing



Cells Expansion after Washing

