

LeSiever® LFT-1020

Integrity Tester for Filters and cassettes

The LFT-1020 Integrity Tester now meets user's requirements for ultra-large Diffusion integrity testing of ultrafiltration cassettes. Equipped with an independently developed software system by LePure Biotech, the product achieves independent control of core technologies and optimization of operating processes.

Currently, the domestic biopharmaceutical industry widely adopts TFF (Tangential Flow Filtration) cassettes for key processes such as product concentration, diafiltration, separation and purification. For ultrafiltration cassettes with small upstream volume and high Diffusion, reliable detection is difficult with conventional automated integrity testers.

To meet user's needs for data integrity, the LFT-1020 Filter Integrity Tester can automatically perform integrity testing, data storage and test report printing. It provides reliable and compliant testing assurance for Filters, ultrafiltration cassettes and other related filtration products.



Typical Applications

- Enhanced cassette integrity testing
- Enhanced Bubble Point, automatic Bubble Point Diffusion Pressure Hold and Water Intrusion Testing
- Liquid and gas Filters
- Ultrafiltration cassettes
- Hollow Fibers
- Cartridge, capsule and other types of Filters
- Virus Removal Filters
- Pressure Hold Testing



Product Advantages

- **Data Reliability:**
Exclusive algorithm with dynamic compensation and correction ensures accurate and reliable test data.
- **Efficient Testing and Pressure Stability:**
Effectively shortens the testing process with stable test pressure, maintaining data consistency and result repeatability.
- **Full Compliance with Regulatory and Data Integrity Requirements**

High Efficiency

- Reduced testing time: The optimized testing circuits and precise algorithm software reduce testing time by 20-30%, while the new simplified testing function can cut testing time by up to 60%.
- Data reading capability: The test data files have multiple retrieval functions, enabling precise online searches.
- Data output capability: User Login and Test Program files are managed through a database. With a variety of expansion interfaces, data can be printed and exported as PDF files. The networking function allows remote print reports.
- Software Update: Supports on-site customer Update, eliminating the need for transportation back to the factory, reducing downtime.

Compliance

- Four-level permission management system with seven types of auto-recorded files, including audit trails and operation logs, exportable as encrypted files for full GMP compliance.
- Secondary electronic signature (handwritten) complies with 21 CFR Part 11 requirements for Elec-Tronic data integrity.
- CE certified, product complies with EU regulations.

Standard Accessories

Name	Power Cord	Operation Manual	Calibration Report	Tubing “Inlet”	Tubing “Outlet”	Printer paper	Product Certificate	Touch Pen
Quantity	1/piece	1/book	1/copy	1/piece	1/piece	2/rolls	1/copy	1/piece

Optional accessories and services

Name	Specifications	Quantity
Stainless steel filter housing for filter cartridge testing	304L/316L	1/set
Stainless steel flat filter housing for membrane testing	304L/316L	1/set
Calibration service	/	1/time
On-site 3Q Validation	/	1/time
Buffer Tank	25L/50L/100L/150L	1/unit
External Reference Tank	/	1/unit

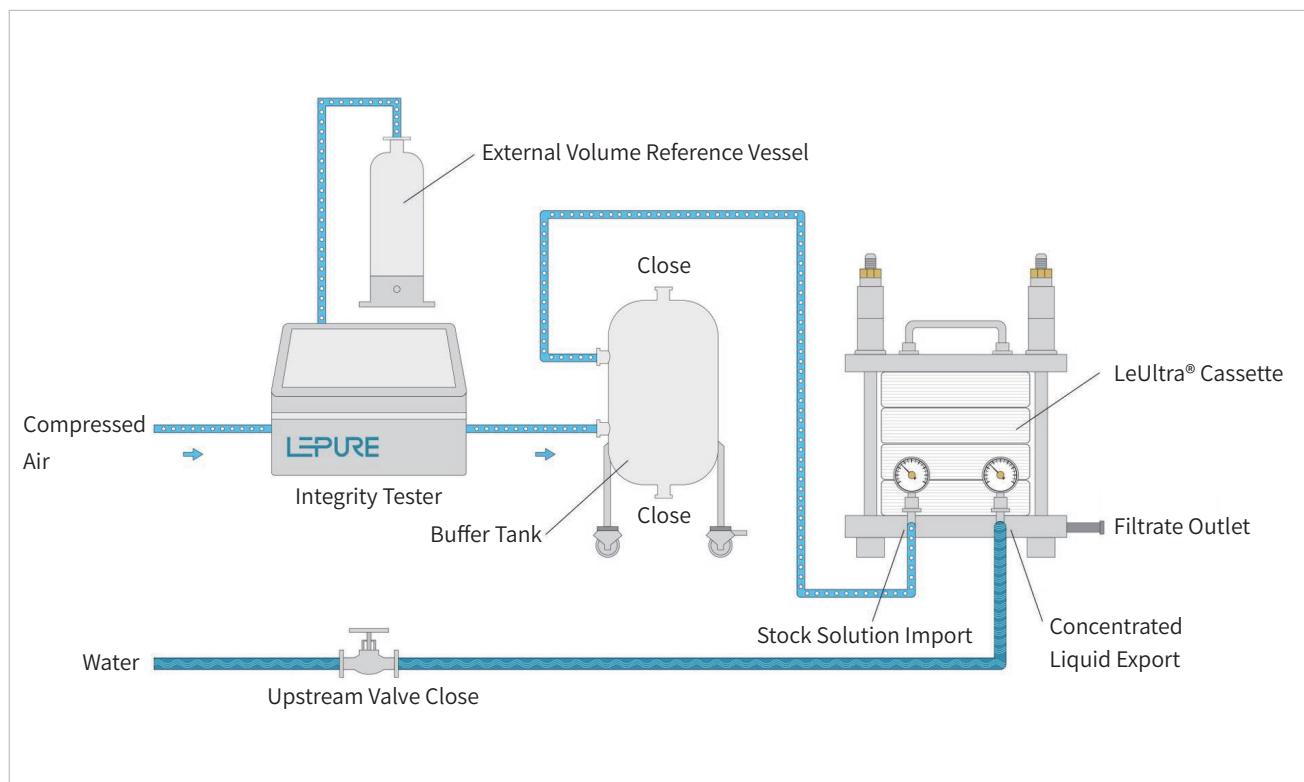
Technical Parameters

Testing Methods	Bubble Point, Diffusion, Water Intrusion, Pressure Hold, Enhanced Test (Diffusion + Bubble Point)
Compliance Functions	Audit Trail, Four-Level Login User Management, Auto Zero Calibration, On-Site Pressure Calibration
Pressure Units	MPa, psi, mbar
System Resolution	0.0001MPa
Testing Range, Accuracy	Bubble Point 0.02 MPa-0.7 MPa, $\pm 0.005\text{MPa}$ (50 mbar) Pressure Hold 0-0.7 MPa, $\pm 1\text{mbar}$ Diffusion 0.0-65000 mL/min, $\pm 3\%$ or $\pm 0.05\text{mL/min}$, whichever is greater Water Intrusion 0-200 mL/min, $\pm 4\%$ or 0.02mL/min, whichever is greater
Ports	RJ45 (Network Port), USB*2,
Touch Display	15.6-inch True Color Touch Screen Display, 1080P
Input Method	Chinese, English, Russian, Korean
Printer	Optional thermal printer or dot-matrix printer; Optional printing of miniature or detailed curves
Storage Function	1TB storage Hard Drive, supports various file storage and backup requirements
Data Output Methods	USB drive, networked
Data Format	Source data, PDF
Gas Source	0.3-0.8MPa, clean and dry Compressed Air or Nitrogen
Power Supply	AC100-240V, 50/60Hz
Power Consumption	<200W
Operating Temperature and Humidity	5°C~40°C, 0 <95% RH, no condensation
Dimensions	377mm*270mm*297mm(L*W*H)
Net Weight	10.5kg

Ordering Information

Product Series	Item Number	Description	Specification
LFT	LFT-1020	15.6-inch screen , high performance, high testing speed	1/unit
Buffer Tank	FB3-HCG200K-Φ38-A241206 304	Diffusion Flow 0-3000 mL/min /25L	1/unit
	FB3-HCG350K-Φ38-A250728 304	Diffusion Flow 3000-6000 mL/min /50L	1/unit
External Reference Tank	FB3-WCBG102-A241210 304	Upstream Volume (mL) >65000/ External Reference Tank	1/unit

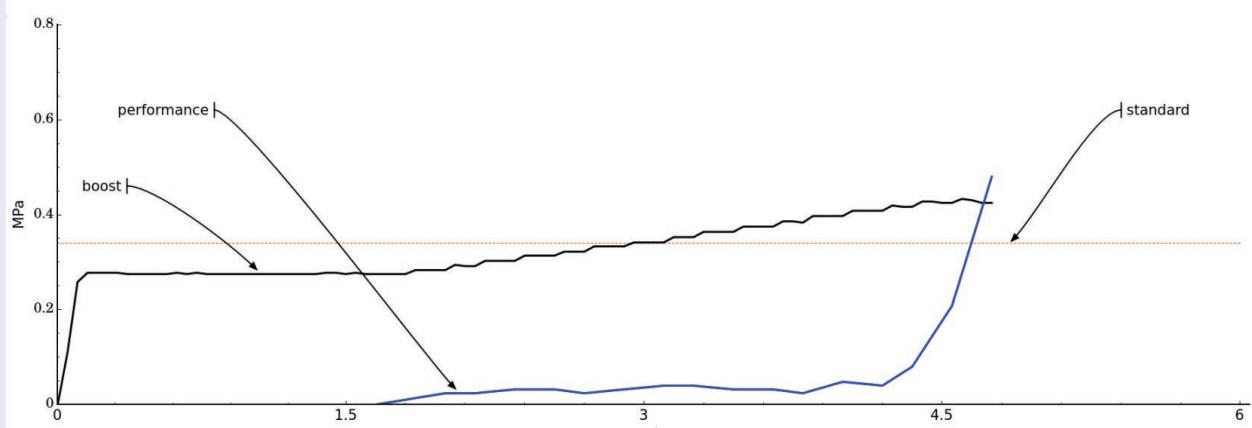
Diagram of Integrity Tester





Test Result/Bubble Point Test

Test process chart



LEPURE

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Document No :CE202511134V1

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