LabGeni Scientific

FILTER INTEGRITY TESTER
BUBBLE POINT TESTER

RAYSKY SCIENTIFIC INSTRUMENTS | LABFREEZ GROUP

UKAS MANAGEMENT SYSTEMS 0158

CONTENTS

1.FIT-1.1/FIT-1.2 Filter Integrity Tester

Main Characteristic

- Online testing, does not interfere the downstream aseptic conditions
- It has system self-check function, with an error report function for the system tightness and wrong operation;
- It is microcomputer control of automatic detection, with many kinds of test functions such as bubble point scanning, fast bubble point test and pressure holding method;
- Real-time print of test results;
- It can be used to test the single core filter and multi-core filter.

Performance Parameter

Model	FIT-1.1	FIT-1.2
Power supply	170-240V AC, 50/60Hz; 100W	170-240V AC, 50/60Hz; 85w
Maximum operating pressure	8000mbar	8000 mbar
Minimum inlet pressure	100mbar	100 mbar
Dimension	400(W) x 380(D) x 100(H1) x 235(H2)	240(W) x 380(D1) x 280(D2) x 220(H1)
Measuring Range	500-6900mbar	500-6900mbar
Measuring Accuracy	Net Volume Test: ± 4%; Bubble Point: ± 50mbar ; Diffusion Current: ± 4% ;	Sensitivity: ± 1.0 mbar ; Bubble Point: ± 75 mbar
Operating condition	Ambient Temperature: +5℃ ~ +35℃; Relative Humidity: 10-80%	Ambient Temperature : +5 ℃ ~ +35℃; Relative Humidity: 10-80%
Test time consuming	Net Volume Test : 5 min±2min; Diffusion Current Test: 10 min±2min; Simple bubble point test : 15	Bubble point test : 15 min±2min ; bubble point scanning : 20min±2min; Diffusion Current: 10min±2min

	min±2min; Enhanced Bubble Point Test: 20 min±2min ;	
Printing function	printing, Output test parameters and test results	printing, Output test parameters and test results
History recording function	500 group Test result (Including test curves)	Store 20 groups of test results
Display	size: 5.7" TFT; homochromy	size: 73*39mm; homochromy
serial connection	serial port : RS232	
Language	English	English

2.FIT-3.0/FIT-4.0 Filter Integrity Tester

FIT Serials Integrity Tester are designed for testing integrity of filters and filter systems . The test meet to verify the sterilizing filter in the FDA, the State Pharmacopoeia and GMP specification requirements. The FIT-4.0 Integrity Tester is compact, handy to use, and fully automated integrity test instrument, which performs bubble point, diffusion flow, enhanced bubble point, and water-based test for hydrophobic filters. The first domestic launch of integrity test for water-based test for hydrophobic filters to meet different customer needs.

Main features

- The scientific electronic signature and classification to distinguish the responsibility easily, and to prevent false operation.
- Display of test data and curves in real time, monitoring the whole process of testing.
- Provides automatic printing set function, the user can operate more simple and convenient.
- Water Based test (WH) for Hydrophobic Filter: using purified water as test liquid instead of IPA and Ethanol, thus it can avoid trace quantity of ethanol or IPA contamination when testing filters.
- The instrument can store 500 history record and curve.
- Advanced "water intrusion method" has solved the disadvantage that the hydrophobic filter

can only be tested immersed in organic solvent .

- Advanced automatic control system, no need of manual adjusting pressure, to ensure the accuracy and precision.
- Real-time displaying test data and curve, monitoring the whole testing process.
- Dual-core operation, with PC software.
- Covers all of the functions of foreign similar instruments.
- More perfect user extension management, users can change the password according to need.
- Add the automatic protection function for tested filters, to avoid doing harm to the filter because of overvoltage testing.
- Provide automatic printing setting, and make the operation more easy and convenient.
- 5.7 " backlight digital LCD, display clearly.
- Testing the Diffusion flux of the disc membrane is of important significance for judging the characteristics of the membrane.

Specifications

Model	FIT-4.0	FIT-3.0
power	170-240VAC,50/60Hz, 110W	170-240VAC,50/60Hz, 110W
Maximum working pressure	8000mbar	8000mbar
Minimum working pressure	100mbar	100mbar
Dimensions (L*D*H)mm	240X380X285	400X380X235
Test pressure	500-6900 mbar	500-6900 mbar
Test accuracy	Upstream volume test: ± 4%; bubble point: ± 50 mbar; diffusion flow: ± 4%; water immersion: ± 0.1 ml/min	Upstream volume test: ± 4%; bubble point: ± 50 mbar; diffusion flow: ± 4%;
Working condition	Temperature: 5℃±35℃; Moisture: 10~80%	Temperature: 5℃±35℃; Moisture: 10~80%
Test time	Upstream volume test : 5min±2min; Quick D test: 10min±2min Base BP test: 15min±2min Enhanced test: 20min±2min water immersion: +5min±2min	Upstream volume test : 5min±2min; Quick D test: 10min±2min Base BP test: 15min±2min Enhanced test: 20min±2min
Checklist print	Input parameters & output data and result	Input parameters & output data and result
History record	500 test records + graphic curves	500 test records + graphic curves
LCD	5.7" ; TFT, monocular	5.7" ; TFT, monocular
Series I/O type	RS232	RS232
Language of menu	English	English

3.FIT-6.0 Filter Integrity Tester

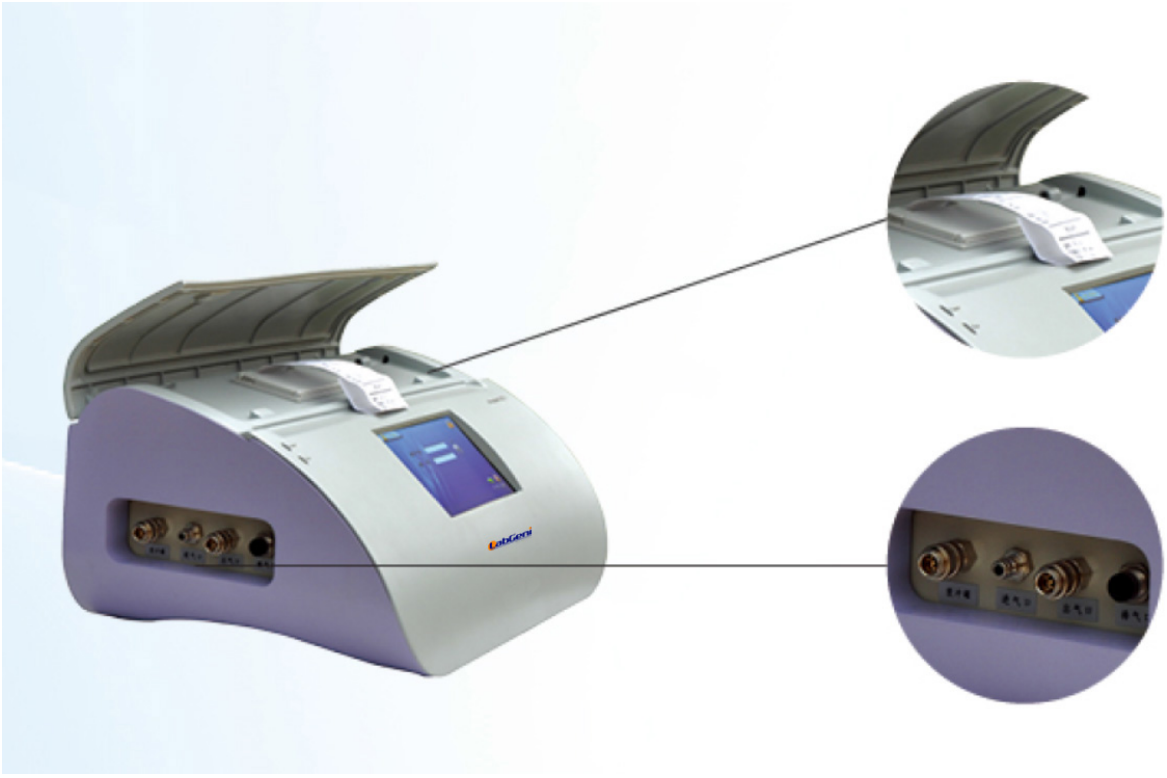
FIT Serials Integrity Tester are designed for testing integrity of filters and filter systems . The test meet to verify the sterilizing filter in the FDA, the State Pharmacopoeia and GMP specification requirements. The FIT-6.0 Integrity Tester is compact，handy to use, and fully automated integrity test instrument, which performs bubble point, diffusion, enhanced bubble point, and water-based test for hydrophobic filters on a wide range of filters. The first domestic launch of integrity test for ultrafiltration membrane, to meet different customer needs.

Brief Description

1. Automatic filter infiltration procedures to ensure filter fully infiltration, and it will launch the flow test, will not affect the downstream aseptic, to meet the requirements of on-site testing.
2. Advanced data processing technology: the instrument acquisition of the changing apparent diffusion flow and data flow in real-time for analysis diffusion, viscous flow model, which can accurately identify the filter bubble point value so that the membrane filter bubble point test results have a good relevance with real bacterial interception test.
3. The instrument get the actual diffusion flow value by measuring the filter upstream volume, and can test water-based test for hydrophobic filters on-site so that solving the problem of residual organic solution invasion.
4. With large capacity data storage, the instrument can plug an external SD card storage test results and curve, and can be connected to the PC to achieve unlimited storage.
5. Instrument uses advanced algorithms make the instrument more stable and more accurate which is one percent.
6. The gas inlet unit of the instrument adopts full automatic digital control, and the whole test process does not need adjust the gas inlet valve manually.
7. we designed specially for the large capacity filter, which ensures that the accuracy will not change when the large capacity filter testing.
8. The core part of the instrument are imported abroad, and we considered the safety of the operation details when we designed it, and all aspects safety of the operations process

handled under the premise of ensuring the basic electrical safety and mechanical safety.

9. With English letter and digital entry, the instrument is convenient for customers to directly enter the different batch number, compliance with the new guidelines of GMP.
10. Compatibility: built-in parameters being of good compatibility with Millipore, Sartorius and Pall.



Main features

- The newest hardware circuit , advanced digital sensor ensure the test accuracy .
- The industrial –grade dual core make the instrument fast and reliable.
- The tester adopts a simple and convenient "reservation scheme", truly realized A “key to complete the program”.
- Detailed test data and complete test curve to provide users with an objective analysis report as any format you want such as Word、Excel or PDF of the A4 paper.
- The scientific electronic signature and classification to distinguish the responsibility easily, and to prevent false operation.
- Rich data interface, except the standard digital and analog interface(RS232/USB), also customized according to the client needs of a variety of industrial bus and analog control end.
- Independent R & D team could provide the design of a specific program.
- Strong professional and experienced C&S team could offer considerate、 sinere service and technical support.

Utility Range

- Disc Membrane:Φ25mm-Φ300mm;
- Standard Cartridge:2.5″- 40″
- Capsule & Mini Cartridge
- Air filter test :2.5″- 40″

- Ultrafiltration membrane

Specifications

power	170-240VAC,50/60Hz, 120W
Maximum working pressure	10000mbar(150psi)
Minimum working pressure	100mbar(1.5psi)
Dimensions	280mm(length)X450mm(Depth1)X190mm(Height)
Test pressure	100-8000 mbar
Test function	Manual bubble point test, basic bubble point test, enhanced bubble point test, pressure holding test, diffusion flow test, water immersion test
Test accuracy	D:±4% ; BP: ±50mbar V of WH: ±4% Upstream volume: ±4%
Working condition	Temperature: 5℃-+40℃;Moisture:10±80%
Test time	Upstream volume test : 5min±2min; Diffusion flow test: 10min±2min Base BP test: 12min±2min Enhanced test: 16min±2min WH: 30min±2min
Checklist print	Input parameters & output data and result, auto/manual printing
History record	No number limit record store, and support for SD card and USB disk to export data
LCD	7" high definition color touch screen
Series I/O type	RS232, USB drive
Language of menu	English