FILTER INTEGRITY TEST SYSTEM

Pressure Decay Method

MODEL : KFIT-200

STAINLESS STEEL HOUSING

PRODUCT OVERVIEW

Used to verify the integrity of membrane filters before and after use. It helps detect leaks, pinholes, or defects that may compromise filtration performance.

APPLICATIONS

- Pharmaceutical production
- Biotechnology processes
- Water and microbiology laboratories
- Sterile filtration validation
- Filter validation before and after filtration

OPERATING REQUIREMENTS

- AC power supply: 170-260 V, 50/60 Hz
- Clean, oil-free compressed air or nitrogen
- Maximum working pressure: less than 80 psi

MAIN COMPONENTS AND LAYOUT

1	4.5-inch TFT Touch Screen
2	Pressure Air Inlet
3	Pressure Hose
4	BPT Outlet Point
5	Pressure Controller / Manual
6	RS-232 Port

Verified catalogue note: Specifications and functions shown in this catalogue are taken from the supplied operation manual. Brand and model designation are KLABS / KFIT-200 as requested.

KLABS Plot No. 1673, Dep Complex, Hallomajra, Chandigarh, 160002, Email : info@klabsindia.in website : https://www.klabsindia.in/

SYSTEM WORKFLOW & DETAILED FEATURES

Filter Integrity Test System

MODEL: KFIT-200

1. WORKFLOW OVERVIEW

1	2	3	4	5	6
Power ON and Login	**Select Membrane Filter**	**Enter Operator / Filter Data**	**Start Test**	**Bubble Point Detection / Evaluation**	**View or Print Report**
Switch on the unit and log in with valid credentials.	Choose the correct membrane program.	Enter the required identification and test data.	Press START TEST to begin the test cycle.	The system detects the bubble point and evaluates the result.	Review the saved result or print the test report.

2. USER ACCESS LEVELS

Operator
- Perform bubble point and integrity tests
- Select membrane type
- Start and stop tests
- View and print reports

Supervisor
- All Operator functions
- Edit membrane master data
- Manage reports and configure test parameters
- Perform routine maintenance functions

Manager
- All Supervisor functions
- Create and manage user accounts
- Change passwords and configure instrument settings
- Backup/restore data and access audit records

Director
- Full administrative access
- Configure system parameters and calibration settings
- Factory configuration, if enabled
- User management and security settings

3. FILTER SELECTION AND OPERATOR DATA

✓ Selecting a membrane filter automatically loads=its preset parameters.

EXAMPLE MEMBRANE ROGRAMS SHOWN IN THE MANUAL

- NYLON 47 mm - 0.20 um=
- PTFE 47 mm - 0.45 um=
- PES 90 mm - 0.80 um

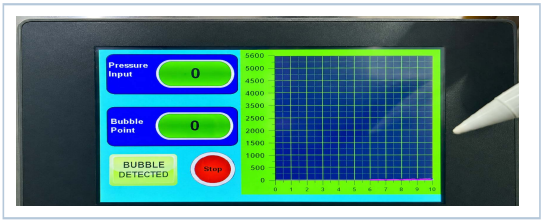
OPERATOR DATA FIELDS

- Part No.
- Serial No.
- Operator Name
- Filter Line Size
- Filter Part No.

ADDITIONAL OPERATION DATA

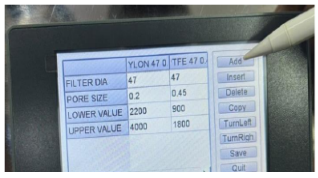
- No. of Filters
- Filter Serial No.
- Housing Size / Type
- Test Gas
- Wetted Liquid

4. BUBBLE POINT TEST AND RESULT



- Real-time pressure input display
- Bubble point display
- Pressure versus time graph
- Bubble Detected indication
- Stop test at any time
- PASS/FAIL result evaluation
- Result stored in system memory

5. RECIPE EDIT AND SYSTEM SETTING



Recipe functions: Add, Insert, Delete, Copy, Turn Left, Turn Right, Save and Quit.

Important: The recipe pressures visible in the manual are examples. Actual limits must follow the membrane manufacturer's specifications or the validated site procedure.

- Recipe Edit
- User Management
- Operation Log
- Set Date & Time
- Total Report Printed
- Logout

6. REPORTING AND TRACEABILITY

- Current test reports can be viewed or printed.
- Historical records can be printed.
- The operation log records user and system activity.
- System date and time appear on reports.

```
FILTER INTEGRITY TEST REPORT
--------------------------------
Report No.          : _____
Model               : KFIT-200
Part No.            : _____
Serial No.          : _____
Operator            : _____
Production Area     : _____
Filter Line         : _____
Result              : PASS / FAIL
Test Completed On   : _____
Signature           : _____
```


KLABS Plot No. 1673, Dep Complex, Hallomajra, Chandigarh, 160002, Email : info@klabsindia.in website : https://www.klabsindia.in/

INSTALLATION, TEST PREPARATION & REPORTING

Filter Integrity Test System

MODEL : KFIT-200

1. INSTALLATION AND CONNECTION

- Inspect the instrument against the packing list.
- Ensure the instrument was not damaged during transportation.
- Place the instrument in the correct position.
- Check the fuse and connect the commercial power cable.
- Connect the gas source and filter according to the installation diagram.
- Electrify the system.

2. TEST PREPARATION

- Place the instrument on a stable, clean operating platform.
- Prepare dry and clean gas or nitrogen as the gas source.
- Prepare a clean wetting/infiltrating solution.
- Hydrophilic filters can use pure water.
- Hydrophobic filters can use an alcohol wetting solution or the water immersion method.

3. MEMBRANE EXAMPLES

FREQUENTLY USED HYDROPHILIC FILTERS

- Nylon membrane
- Mixed cellulose membrane
- Polyether sulfone membrane

FREQUENTLY USED HYDROPHOBIC FILTERS

- PVDF membrane
- PTFE membrane

4. SAFETY AND PRECAUTIONS

- Ensure reliable grounding of the power supply.
- Use a power cable with conductor cross-section greater than 2.5 mm2.
- Do not soak the instrument in water or other liquids.
- Ensure the membrane is fully wetted before testing.
- Verify all tubing and fittings are leak-free.
- Use clean, dry, oil-free compressed air or nitrogen.
- Do not disconnect tubing while the system is pressurized.
- Release filter pressure completely before removing the filter.
- When flammable wetting liquid is used, maintain ventilation and prohibit open flame.

5. BUBBLE POINT TEST SUMMARY

- Install the membrane filter correctly in the holder.
- Wet the membrane completely.
- Select the correct membrane recipe.
- Press **START TEST**.
- The instrument gradually increases air pressure.
- The first continuous stream of bubbles is detected as the bubble point.
- The result is compared with the stored acceptance criteria and PASS/FAIL is generated.

6. DATA PRINTING AND REPORTING

• Current test results can be printed automatically or manually from the result interface. • Historical records can also be printed.

Reports include operational and test details.

•

• Allow the printer time to complete the printing process after pressing Print.

```
SEMI-AUTOMATIC BUBBLE POINT TESTER
FLOW / BUBBLE POINT TEST REPORT
--------------------------------
Report No.          : _____
Model               : KFIT-200
Part No.            : _____
Serial No.          : _____
Operator            : _____
Production Area     : _____
Filter Line         : _____
Product Name        : _____
Product Batch No.   : _____
Filter Part No.     : _____
No. of Filters      : _____
Filter Serial No.   : _____
Filter Housing      : _____
Test Gas            : _____
Minimum BP          : _____
Max Pressure        : _____
Set Pressure        : _____
Pressure Units      : mbar / psi
Result              : PASS / FAIL
Outside Limit       : Yes / No
Measured            : _____
Test Completed On   : _____
Comments            : _____
Signature           : _____
```

Construction listed in manual
Wetted parts: SS 316
Tubing: PU / PTFE
Seals and O-rings: Silicone / Viton
Enclosure: Stainless-steel housing

Operating environment
Temperature: 5-40 C
Humidity: <= 80% RH, non-condensing
Keep the storage and testing area clean and avoid high-temperature or condensation conditions.

Validation note
The lower bubble point and upper pressure values shown in the operation manual are examples. Actual acceptance limits must be established from the membrane manufacturer's specifications or the user's validated operating procedure.

KLABS Plot No. 1673, Dep Complex, Hallomajra, Chandigarh, 160002, Email : info@klabsindia.in website : https://www.klabsindia.in/