

Infinity Automation Systems Pvt. Ltd.

Container Closure Integrity Tester

LT-5000 CCIT

Electronic + Compliance + Equivalence

















The LT-5000 CCIT is a highly precise leak detection system designed to verify the seal integrity of containers used for injectable drugs & other rigid packaging. It reliably detects even the smallest leaks, ensuring consistent quality & safety st&ards.

As per ASTM, FDA 21CFR Part11, USP 1207, NABL, CE, ISO 9001:2008, EMA ANNEX 11 guidelines



ADVANTAGES

- No sample damage or preparation required; zero operator bias
- Detects defects as small as 0.005 ccm
- Identifies leaks as small as 0.5 μm
- More sensitive & consistent than dye ingress testing
- Provides quantitative & deterministic results
- Fast & reliable for both rigid & flexible packaging; test time is adjustable
- Easy-to-use touch screen interface with a compact design
- Modular system with quick-change components & custom-fit chambers
- Supports remote upload & instant access to reports & logs

APPLICABILITY

Vacuum decay leak testing is a non-destructive method for verifying container closure integrity (CCI) by detecting leaks from large to micronsized in pharma, medical device, & food packaging. Recognized by ASTM F2338-09 & PDA as a st&ard for non-destructive leak detection.

Compatible With:

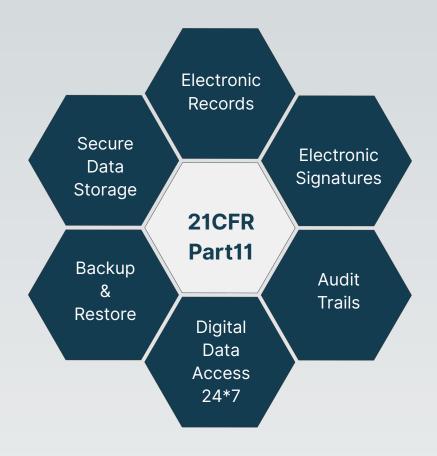
- · Batch testing
- For new product set-up, test & development
- Production lines
- Non-destructive testing
- · Bacteria-free ingress test

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	MICRO LEAK DETECTION	CONTAINER CLOSURE INTEGRITY TESTING
Packaging Format	 Empty & pre-filled syringes Liquid filled & lyophilized vials (glass or plastic) Filled & sealed bottles, FFS bottles BPC (Bulk Pharmaceutical Chemical) containers 	 API (Active Pharmaceutical Ingredient) containers BFS containers Ophthalmic dropper tip bottles containing liquid materials Glass or plastic ampoules containing liquid materials Lidded (nonporous trays or cups) containing liquid materials
Testing Setup	Offline laboratory & production line application	ons
Test Method	Vacuum/Pressure decay method	
Inspection Platform	Dual Transducer Technology	
Display Screen	7"/10" color touch screen - resistive/capaciti	ve
St&ard Procedure	ASTM F2338-09	
Accuracy	Up to 0.5 micron	
Measurement Unit & Limits	Pass/Fail in mBar & Pascal units	
Sample Feeding	Manual/Automatic	
Housing	ABS/SS	
Size	14.96" W × 10.23" D × 10.31" H	
Weight	14kg	
Electrical	100-240 VAC; 50/60 Hz	
Input Air Supply	External/in-built(optional)	

21CFR PART11 COMPLIANT LT-5000 CCIT

- To keep pace with the increasing use of electronic systems & technology in FDAregulated industries, 21CFR Part11 was introduced, ensuring the same level of data integrity, authenticity, & reliability as paperbased systems
- Basically, 21CFR Part11 is a regulation established by the U.S. Food & Drug Administration (FDA) that outlines the requirements for the use of electronic records & electronic signatures in FDAregulated industries, including pharmaceuticals.
- Adhering to these guidelines, the introduction of Information Technology (IT) in compliance was a milestone.
- It establishes requirements for the security, integrity, & availability of electronic records & the validation of electronic systems used for GxP (Good Laboratory Practices, Good Clinical Practices, Good Manufacturing Practices) activities.



Audit Trail:

- Tamperproof & Non-Editable Audit Trail Data Format
- The time stamp of the change of the parameter value & the user making the change
- · The audit trail records the following details-
- User Creation
- User Login/ Logout
- Wrong attempts at login
- User Block / Unblock by Administrator
- Old value & new value of the parameter change
- The time stamp of each event

Electronic signatures:

• Through 3/4 user level validation & authentication

System Data & Data Backup:

HMI offers basic connectivity for data exchange with Central SCADA / MES / ERP by following the means:

- Through OPC UA
- · Through Data file transfer
- Through USB / SD Card Backup

Electronic Data Record & Data Storage:

- Review of the reports on the HMI Screen for Production, Alarms, & Audit Trail.
- Storage limit can be interlocked in terms of the number of batches produced or % of the memory consumed.

User Management Functionalities:

- Password-protected individual Unique user account.
- Password Complexity.
- Minimum 8 Character password length.
- Configurable Number of Wrong Attempts
- User Block/Unblock Facility
- Password Validity
- Multiple User Levels as per the User Rights

Report Generation & Printing:

- Batch data is stored in a secure database format, & the Batch Report can be generated using this data.
- The report printing has been offered in multiple ways
- Online printing of Alarms, Events, & Logged data through Serial Printer

STEP FOR IMPLEMENTATION OF 21CFR PART11



APPLICATIONS







ules Pharma Bags

ACCESSORIES

- Vacuum Pump
- Micro calibrated leak
- Test Cavity
- Master(Solid dummy)
- Sealing & Connectors
- Barcode Printer
- Barcode Scanner
- External Start/Stop Pendant
- · Micro drilling services
- Positive control (1μm, 5μm, 10μm, 20μm)



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