

## PT-LT

### Leak Test Apparatus

The PT-LT is used to test for the integrity of packed strips, blisters and small sachets containing tablets, granulates, liquids and so on. The instrument is used to test the quality of the packaging process and to check that the seals enclosing the product are perfectly intact. The PT-LT leak tester is designed to find the smallest holes and imperfections in blister packs and other semi-rigid product packaging. It is designed in compliance to the USP monograph <1146>.



#### Test Procedure

The leak test apparatus is widely applied in the pharmaceutical industry for checking strips, blisters and bottles containing tablets, capsules, syrups and so on. It also find application in the food industry where it can be effectively used to check the air-tightness of sweet packets, ready-to-eat pre-packed foods, confectionery packaging, packs of noodles, sauces to name but a few. Samples are placed into the desiccator's housing and the lid is placed in position. The pump starts to produce a vacuum inside the desiccators and the vacuum is held for a pre-set time.

The first issue is that the tested package should keep its shape during this test; otherwise the sealing is not correct. Secondly, as the package is immersed in a colored dye solution (normally Methylene Blue), the venting of the desiccators will allow any holes to be penetrated by the dye and the contents of the flexible packaging will also be stained with the same coloring material. Similarly small bottles can also be tested. A sheet of paper will absorb any leaking fluid



### Operating Principle

The operation of the PT-LT leak tester could not be any easier. Once on and the sample placed in position, use the <SET>-key and select your "User ID". Once this has been entered, press the <SET>-key once again and you can enter the "Sample ID". This is an alphanumeric entry which can be up to 8 characters long. Using the <SET>-key once again allows you to enter the "Number of Samples". Now enter the "Batch Number" (again with up to 8 characters) and then the "Vac Set"-level which goes up to a maximum of 699mmHg.

Finally, use the <SET>-key to enter the "Hold Time" (up to a maximum of 99 minutes). Now press the <ENTER>-key to accept the entered data. Pressing the <RUN>key will now start the programmed sequence. The vacuum pump then generates a vacuum in the desiccator, holds it and then releases it using the time periods entered previously in the program.

### Example Print-Out

<b>LEAK TEST APPARATUS</b>	
SERIAL NO. 0711120	MODEL NO. PT-LT
<b>TEST REPORT</b>	
DATE	: 08-04-2008
TIME	: 11:42
USER ID	: 944888
SAMPLE ID	: TEST
NO. OF SAMPLES	: 01
BATCH NO.	: 20711120
SET VACUUM	: 600mmHg
SET TIME	: 05 MINS
TRIP VACUUM	: 498mmHg
REMARKS	: ACCEPTED
	: REJECTED

## Advantages

- » Ensure the quality of your packaging process
- » Easy operation by programmed sequence
- » Fully automated microprocessor controlled equipment
- » Stainless steel housing to fit well into a production area
- » IQ/OQ documents included free of charge

## Features

- » Test the integrity of strips, blisters and bottles
- » Large LCD shows vacuum and electronic countdown timer
- » Enter all test parameters such as date, time, user ID and sample ID
- » No. of samples and batch number can be set via the keypad
- » Set vacuum and trip vacuum can be set via the keypad
- » Built-in rugged, oil-free vacuum pump
- » Automatic slow vacuum release from the desiccators
- » Printer port for parallel dot-matrix printers
- » Automated print-out of test report

## Standard Scope of Supply

The PT-LT comes ready to use with the following standard scope of supply:

- » PT-LT instrument with built-in vacuum pump
- » Comprehensive documentation folder including:
  - » User manual
  - » QC/DQ testing certificate
  - » IQ documentation
  - » OQ documentation
  - » Conformity Declaration
  - » CE/EMC Declaration
  - » Instrument logbook

## Options

Pharma Test offers a broad range of accessories and options including:

- » Full range of certified validation tools available
- » Desiccators with the following dimensions:

Inner Diameter	Useable Inner Height	Volume	Part No.
380mm	283mm	18.5l	26-02040
250mm	225mm	9.20l	26-02020
200mm	175mm	4.35l	26-02030
150mm	135mm	2.15l	26-02010

## Technical Specifications

Parameter	Specification
<b>Final Vacuum Level</b>	> 110mmHg (absolute pressure)
	Compared to the atmospheric pressure (760mmHg) the PT-LT can reduce this pressure up to 650mmHg which results in an absolute pressure of approx. 110mmH
<b>Vacuum Dropping</b>	<ul style="list-style-type: none"> <li>» After receiving a constant vacuum level of less than 400mmHg (absolute pressure approx. 360mmHg - 110 mmHg) <ul style="list-style-type: none"> <li>➔ Vacuum dropping of <math>\pm 10</math>mmHg within 30 seconds *</li> </ul> </li>   <li>» After receiving a constant vacuum level of more than 400mmHg (absolute pressure approx. 760mmHg - 360 mmHg): <ul style="list-style-type: none"> <li>➔ Vacuum dropping of <math>\pm 5</math>mmHg within 30 seconds *</li> </ul> </li> </ul> <p>* Based on experiences with desiccator size 150mm</p>
<b>Display</b>	Large LCD, approx. 100 x 25 mm
<b>Data Entry</b>	Function key
<b>Timer</b>	Can be set from 1 to 99 minutes
<b>Desiccator Sizes</b>	380mm, 250mm, 200mm or 150mm Ø (optional)
<b>Printer</b>	Parallel port for dot-matrix printers
<b>Power</b>	Nominal 220 – 240V
<b>Instrument dimensions</b>	Approx. 360 x 250 x 240 mm (Length x Width x Height)
<b>Net weight</b>	Approx. 14.5 kg
<b>Certification</b>	All components certified to USP / EP requirements
<b>CE / EMC Certification</b>	All CE / EMC Certification provided
<b>Validation</b>	All IQ & OQ documents included

We reserve the right to make technical changes without any prior notice.