# Labthink®

- Online Data Management for Packaging Testing The ultimate cloud computing technology for test data processing and management
- Designed with embedded computer control system and intelligent operating software
- Can be used to test various medical packaging materials and other film materials
- Conforms to ASTM, ISO, JIS and other international standards



# Online data management system for packaging testing

Comes with two versions to meet distinct needs of our clients:

## The Cloud Version

- Consist of 6 functional modules: Test Management, Target Management, Instrument Management, File Management, Settings, and Online Support
- Cloud services: storage, calculation, and analysis of mass test data
- Automatically upload original test data to the cloud server to guarantee data security.
- Intelligent statistical analysis of test results
- Easily accessible through the internet on PCs, laptops, mobile phones, and other devices anywhere and anytime, to check and review the real time test results and historical test reports, as well as analytical graphs and statistical information

## The Intranet Version

- Featured with storage space for vast data, correlation analysis, trend analysis, and statistical analysis of test data, as well as report printing and data export functions
- Easily accessible via computers through Intranets
- "One Click Upgrade" to the powerful "Cloud Version"



### Functionality

- Test precision is better than 0.5% of full scale which effectively ensures the accuracy of test results
- 16 independent test modes are available, including compression force, tensile strength, and peel strength of medical appliances and foams
- Professional pressure sensor monitors internal pressure changes during the test
- The system supports bidirectional test mode of stretching and compression, and test speeds can be freely adjusted based on user requirements
- Intelligent design of over-travel protection, overload protection, and automatic position reset for safe test operation
- Test parameters and test results could be displayed in different units. Data comparison analysis is available for users to review

#### Design

- Embedded computer control system provides safer and more reliable data management as well as test operation
- The instrument can be easily operated with a mouse, a keyboard, and a monitor, without requiring a PC.
- The instrument is equipped with four USB ports and dual Internet ports for convenient data transmission.
- Sophisticated energy consumption and test environment monitoring and analysis functions for better test accuracy and reliability. (Relevant sensors are needed. For more information, please refer to the configuration in Technical Specifications.)

#### Software

- Interface: Windows-based operating interface
- Statistics: easy calculation for historical results, instrument usage, energy consumption, and large statistical information
- **Data Comparison:** by presetting target value and range, the system automatically generates data comparison after each test and intelligently judges whether the specimen passes or fails the test
- Test Report: can provide detailed test reports in various customized patterns
- Energy Consumption and Test Status Monitoring (Additional Sensors Required): the system monitors and displays real-time voltage, current, and energy consumption of instrument as well as ambient temperature and relative humidity during the test, which serves to evaluate test data reliability
- User Management: multi-level account management for better data management and protection
- **Operation Log:** system automatically records all the operations by the user, which is easy to review

#### **Test Standards**

This instrument conforms to the following standards:

ASTM E4, ASTM D882, ASTM D1938, ASTM D3330, ASTM F88, ASTM F904, ISO 37, JIS P8113, GB 8808, GB/T 1040.1-2006, GB/T 1040.2-2006, GB/T 1040.3-2006, GB/T 1040.4-2006, GB/T 1040.5-2008, GB/T

Labthink Instruments Co., Ltd. 144 Wuyingshan Road, Jinan, P.R.China (250031) Phone: +86-531-85068566 FAX: +86-531-85062108 Labthink International, Inc. 200 River's Edge Drive, Medford, MA, 02155, U.S.A. Phone: +1-617-830-2190 FAX: +1-781-219-3638 WWW.labthink.com



4850-2002, GB/T 12914-2008, GB/T 17200, GB/T 16578.1-2008, GB/T 7122, GB/T 2790, GB/T 2791, GB/T 2792, GB 14232.1-2004, GB 15811-2001, GB/T 1962.1-2001, GB 2637-1995, GB 15810-2001, QB/T 2358, QB/T 1130, YY 0631-2007, YBB 00042002, YBB 00112004

# Applications

This instrument can be used to measure the following test items:

| <b>Basic Applications</b> |   | Extended Applications                    |  |
|---------------------------|---|--|--|
|                           |   | (Additional Accessories Required)        |  |
| Tensile Test              | Puncture Test of  | Seal Performance                         | Pullout Force Test                       |
|                           | Rubber Closures   | Test of Hemostix                         | of Rubber Closures                       |
| Test of Tensile           |   | Opening Force Test of                    | I leavin ding Fores Test of              |
| Strength and              | Break Test of Ampoule Bottles   | Jelly Cups and Yogurt                    | A dhaaiya Tanaa                          |
| Elongation Rate           |   | Cups                                     | Adnesive Tapes                           |
| Test of Tensile           | Sliding Resistance Test of  | Tear Test Using                          | Peel Test of Protective Films            |
| Strength at Break         | Hypodermic Syringe  | Trouser Method                           |  |
| Tear Resistance Test      | Seal Performance Test of  | Peel Test of                             | Opening Resistance Test of               |
|                           | Hypodermic Syringe  | Release Paper                            | Combined Covers                          |
| Heatseal                  | Puncture Test of  | 90 Degree Peel Test of                   | Puncture Test of                         |
| Strength Test             | Hypodermic Needle   | Adhesive Tapes                           | Plastic Films                            |
| 90 Degree Peel Test       | Fastness Performance Test of<br>Hypodermic Needle and                   | Tensile Stress Test of<br>Ropes at Break | 90 Degree Peel Test of<br>Magnetic Cards |
| 180 Degree Peel Test      | Fastness Performance Test of<br>Hypodermic Needle Cap and<br>Needle Hub | Pullout Test of Cosmetic<br>Brush Hair   | Pullout Test of Toothbrush<br>Hair       |
|                           | Compression Test of Plastic   | 23 Degree Pullout Test of                | Opening Force Test of Oral               |
|                           | Blood Bags  | Bottle Caps                              | Liquid Caps                              |
|                           |   | Tear Resistance Test of                  | Peel Test Using Floating                 |
|                           |   | Adhesive Binding Books                   | Rollers                                  |
|                           |   | Compression and                          |  |
|                           |   | Deformation Test of                      |  |
|                           |   | Foams                                    |  |

#### **Technical Specifications**

| Test Specs | Load Cell Capacity | 250 N (Standard)<br>50 N, 100 N, 500 N (Optional) |  |
|------------|--------------------|---|--|
|            | Stroke             | 500 mm  |  |
|            | Test Accuracy      | Better than 0.5% FS                               |  |
|            | Test Speed         | Forward 10 50 100 150 200 300 mm/min (Standard)   |  |

Labthink Instruments Co., Ltd. 144 Wuyingshan Road, Jinan, P.R.China (250031) Phone: +86-531-85068566 FAX: +86-531-85062108 Labthink International, Inc. 200 River's Edge Drive, Medford, MA, 02155, U.S.A. Phone: +1-617-830-2190 FAX: +1-781-219-3638 WWW.labthink.com



| _                       | Backward 10 50 100 150 200 300 mm/min (Standard) |  |  |
|-------------------------|--|--|--|
|                         | Specimen Width                                   | 30 mm (Standard Grip)                                      |  |
|                         |  | 50 mm (Optional Grip)                                      |  |
|                         | Voltage Monitoring Range                         | AC 0 ~250 V, with $\pm 0.5\%$ accuracy                     |  |
|                         | Current Monitoring Range                         | $0 \sim 15$ A, with ±0.5% accuracy                         |  |
| Environment             | Energy Analysis Accuracy                         | ±0.5%  |  |
| <b>Monitoring Specs</b> | Environmental Temperature                        | 10°C 55°C with 10.1°C common                               |  |
| (Optional)              | Monitoring Range                                 | -10 C $\sim$ 55 C, with ±0.1 C accuracy                    |  |
| -                       | Environmental Humidity                           | 0 ~100% RH, with $\pm$ 2% RH accuracy                      |  |
|                         | Monitoring Range                                 |  |  |
|                         | Instrument Dimension                             | 365 mm (L) x 585 mm (W) x 960 mm (H)                       |  |
| Other Specs             | Power Supply                                     | AC 110 V 60 Hz   |  |
|                         | Net Weight                                       | 68 kg  |  |
|                         | Standard   | Mainframe (including Wireless Data Interface),             |  |
|                         |  | Professional Software, LCD Monitor, Keyboard, Mouse,       |  |
|                         |  | Universal Grips  |  |
|                         | Optional   | Environment Monitoring Sensors (including voltage,         |  |
| Configurations          |  | current, temperature, and humidity sensors), Load Cell,    |  |
|                         |  | Standard Roller, Testing Plate, Sample Cutter,             |  |
|                         |  | Floating-roller Grips, Customized Grips, Printer           |  |
|                         |  | (compatible with PCL3), and other Test Accessories, e.g.   |  |
|                         |  | Puncture Test of Rubber Closures in Antibiotic Bottles and |  |
|                         |  | Hypodermic Needles, Break Test of Ampoule Bottles, Seal    |  |
|                         |  | Test of Plastic Packages under External Pressure,          |  |
|                         |  | Connection Force Test between Hypodermic Needle and        |  |
|                         |  | Needle Hub, Pullout Test between Hypodermic Needle and     |  |
| -                       |  | Needle Cap, Sliding Resistance Test of Pistons, Seal Test  |  |
|                         |  | of Plastic Packages, and Low Speed Unwrapping Device.      |  |
|                         | Online Data Management                           | Wireless Data Transfer Module, High Gain Antenna           |  |
|                         | System for Packaging Testing                     |  |  |

#### Please Note:

- Pictures used are for illustration purposes only and may differ from the actual product received.
- Labthink International is always dedicated to the innovation and improvement of product performance and function. Therefore, technical specifications are subject to change without further notice. Please visit our website at <u>www.labthink.com</u> for the latest updates. Labthink International reserves the rights of final interpretation and revision.