# i-Thermotek 2500 Hot Tack Tester



- Online Data Management System 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 hot tack and heat seal performance of the plastic films, composite films and other packaging materials
- Conforms to many national and 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 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**

- With Digital P.I.D temperature control system, the preset temperature can be reached in a short time without fluctuations
- Four force testing ranges and six testing speeds are available to meet the requirements of distinct customers
- Hot tack testing function is available in this instrument
- Automatic zero, error alert, overload protection and stoke protection guarantee the safety operation
- Instrument can be started manually or by pedal switch which is convenient for customers operation
- Professional software supports assessing test results, recording and analyzing energy consumption

## 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, 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 F1921, ASTM F2029, QB/T 2358-1998, YBB 00122003

## **Applications**

This instrument is designed to measure the following materials:



Basic Applications	Hot Tack Performance	Plastic films, sheets and composite films e.g. milk bags
	Heat Seal Performance	Plastic films, sheets and composite films
<b>Extended Applications</b>	Adhesive Tapes	Test the adhesive property of adhesive tapes

# **Technical Specifications**

Test Specs	Capacity Range	0 ~ 200 N
		(30 N, 50 N, or 100 N is optional)
	Test Accuracy	1% FS
	Resolution	0.01 N
	Sealing Temperature	Room temperature ~ 250 °C
	Accuracy	±0.2 °C
	Sealing Pressure	$0.05~\text{MPa} \sim 0.7~\text{MPa}$
	Dwell Time (Heat Seal)	≥0.1 s
	Dwell Time (Hot Tack)	≥0.1 s
	Load Speed	1500 (mm/min)
	Sealing Jaw	Single heating or double heating
		(Customization available)
	Specimen Width	15 mm, 25 mm or 25.4 mm
		(Optional and Customized)
	Stroke	200 mm
	Gas Supply Pressure	0. 5 MPa~ 0.7 MPa
		(outside of supply scope)
	Port Size	Ф4 mm PU Tubing
	Voltage Monitoring Range	AC $0 \sim 250$ V, with $\pm 0.5\%$ accuracy
	Current Monitoring Range	$0 \sim 15 \text{ A}$ , with $\pm 0.5\%$ accuracy
Environment	Energy Analysis Accuracy	±0.5%
<b>Monitoring Specs</b>	Environmental Temperature	10.00 55.00 14.10.1.00
(Optional)	Monitoring Range	-10 °C $\sim$ 55 °C, with $\pm 0.1$ °C accuracy
	Environmental Humidity	0~100% RH, with ±2% RH accuracy
	Monitoring Range	
Other Specs	Instrument Dimension	1010 mm (L) x 365 mm (W) x 275 mm (H)
	Power Supply	AC 110 V 60 Hz
	Net Weight	50 kg
- Configurations	Standard	Mainframe (including Wireless Data Interface)
		Professional Software, LCD Monitor, Keyboard, Mouse
		Grips for Hot Tack Test, Calibration Frame, Pedal Switch
		Environment Monitoring Sensors (including voltage
	Optional	current, temperature, and humidity sensors ), Testing
		Plate, Welding Cloth, Customized Grips, Sample Cutter
		Customized Sample Positioning Plate, Printer
		(compatible with PCL3)



# Online Data Management System for Packaging Testing

Wireless Data Transfer Module, High Gain Antenna

Note: 1. The gas supply port of the instrument is Φ4 mm PU Tubing

2. Customers will need to provide gas supply

## **Please Note:**

- Pictures used are for illustration purposes only and may differ from the actual product received.
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