Functionality

Professional

- With the digital P.I.D. temperature control system, the preset temperature can be reached in a short period without fluctuations.
- Wide range of temperature, pressure and dwell time can meet various testing requirements.
- The test can be started manually or by pedal switch, which is convenient to operate. The anti-scald design can guarantee the safety of the operator.
- Three groups of tests with two distinct specimens can be performed each time, which improves the testing efficiency.
- The temperatures of the upper and lower sealing jaws can be controlled independently, which can meet the requirements for different test conditions.
- Hot tack test can be performed, which can meet the special requirements of the users.
- The test results can be evaluated with support of professional software.

High-end

- Embedded computer controlled 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

Intelligent

- Windows-based operating interface, which is easy to learn and operate for the beginner.
- Test data can be stored in various formats, which is convenient for data transfer.
- Historical data can be searched, analyzed and printed conveniently.

Test Principle

Heat Seal Test: The compressed air is introduced into the gas cylinder with certain pressure. The embedded system can control the switching of the solenoid valve. The direction of the pressure applied will be changed so that the sealing jaws can move upward and downward. The packaging materials can be sealed at certain sealing pressure and sealing temperature within the dwell time.

Hot Tack Test: Clamp the two ends of the specimen in left sample grips and right sample grips (with load cell) respectively. Then pull the specimen to the hot tack test area. After the hot tack test, the driving mechanism will pull the left and right sample grips in opposite directions and the load cell can detect the electric signal and then the hot tack strength, peel strength and tensile strength can be analyzed or calculated.

Heat Seal Strength: Clamp one end of the specimen in right sample grips and the other end in the clamping seat. The driving mechanism will pull the right sample grips so that it will move in the opposite direction of the clamping seat. The load cell can detect the electric signal and then the heat seal strength can be calculated.

Test Standards

This instrument conforms to multiple standards i.e. ASTM F1921, ASTM F2029[Note1], ASTM F88[Note2], QB/T2358 (ZBY 28004) and YBB 00122003.

Note 1: The three upper sealing jaws are heated sealing jaws as required by ASTM F2029. If necessary, the lower sealing jaw can be replaced with heated sealing jaw.

Note 2: Technique A: Unsupported Method.

Applications

This instrument is designed to measure the following materials:

Heat Seal Test	Heat seal tests of various plastic films, plastic composite films, paper plastic composite films, co-extrusion films, aluminized films, aluminum foils and aluminum plastic composite films
Hot Tack Test	Hot tack tests of plastic films, sheeting and composite films such as PE, PP, PET or those composite films for instant noodle, washing powder and other food or drugs, etc.
Heat Seal Strength	Heat seal strength tests of various plastic films, plastic composite films, paper plastic composite films, co-extrusion films, aluminized films, aluminum foils and aluminum plastic composite films after heat seal test

Technical Specifications

Heat Seal Test	**Sealing Temperature**	Room Temperature～250℃
	Sealing Pressure	0.05MPa～0.7MPa
	Dwell Time	≤99.9s
	Resolution	±0.1℃
	Accuracy	±2℃
	Temperature Gradient	≤20℃
	Sealing Area	55mm×10mm
	Number of Sealing Jaws	3+1[Note3]
Hot Tack Test	**Sealing Temperature**	Room Temperature～250℃
	Resolution	±0.1℃
	Accuracy	±1℃

	Dwell Time (Heat Seal)	≤99.9s
	Dwell Time (Hot Tack)	≤20s
	Sealing Pressure	0.05～0.7MPa
	Number of Sealing Jaws	1＋1[Note4]
	Capacity Range	0～50N (Optional)
	Test Accuracy	1% FS
	Resolution	0.1N
	Specimen Width	15 mm or 25 mm or 25.4 mm
Heat Seal Strength	**Capacity Range**	0～50N (Optional)
	Test Accuracy	1% FS
	Resolution	0.1N
	Specimen Width	15 mm or 25 mm or 25.4 mm
	Speed	200mm/min,250mm/min,300mm/min (Customization is available)
	Stroke	78.5 mm
Others	**Gas Supply**	Air（Outside of supply scope）
	Gas Supply Pressure	0.05～0.7MPa
	Port Size	Φ6 mm PU Tubing
	Dimension	500 mm (L) × 580 mm (W) × 575 mm (H)
	Power Supply	220VAC 50Hz / 120VAC 60Hz [Note5]
	Net Weight	50 kg
Configuration	**Standard Configuration**	Instrument (Including wireless data interface）, Embedded Software, Standard LCD Monitor, Keyboard, Mouse, Calibration Frame, Pedal Switch, Sample Cutter and Valve tubing Set, Printer
	Optional	Strip Sample Cutter, Unheated Sealing Jaw, Air Compressor and Desiccant

Note 3: There are three upper sealing jaws and one lower sealing jaw for heat seal test. The temperature of all the sealing jaws can be controlled independently. The upper sealing jaws are heated sealing jaws while the lower sealing jaw is unheated sealing jaw. Heated sealing jaw can be selected as lower sealing jaw.

Note 4: There are one stationary sealing jaw and one moveable sealing jaw for hot tack test, both of which are heated sealing jaws. The temperature of the sealing jaws can be controlled independently. Unheated sealing jaw can be selected as stationary sealing jaw.

Note 5: Two types of power supply can be selected.

Please Note:

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

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