

Hot Tack Tester

Model: H0005

a measurable difference...

IDM[®]
instruments

The Hot Tack Tester is an advanced system for monitoring the seal performance of flexible and semi rigid plastic bags or tubes.

The design and development of the packaging system has come under close scrutiny with a great deal of emphasis placed on the integrity of the final product. Although factors such as type of package, materials of construction, size and desired outcome all add to the equation of flexible package integrity, the seal strength is an important element.

The Hot Tack Tester has been developed to determine the capability of a heat-seal joint to hang together when it is stressed, at a specified time interval, while still hot from the sealing operation, but before it reaches ambient temperature. The overall design of a package can contribute or detract from the materials ability to provide hot tack during the sealing process.

Hot tack knowledge is a considerable concern as package seals must be able to withstand forces and stresses applied during the form filling process. By assessing the quality of seals key parameters, (sealing pressure, dwell time and

temperature) optimum sealing conditions can be determined and therefore reflected on the production line.

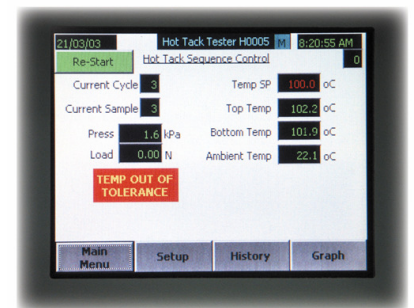
This new Hot Tack technology will aid in the research and development of flexible films used in the packaging industry.

A must have in any modern day quality laboratory.



Benefits:

- Provides the user a means of determining key sealing parameters.
- The simple process is quick and easy.
- Useful for quality control.
- Precise, repeatable test circuits.
- Able to test and inspect incoming material.
- Data can be viewed in a graph or numerically.
- Related to product development and quality control through the whole manufacturing chain of flexible packages.
- Optimisation of the packaging process.
- Optional ability to record data for future comparisons via RS232.
- Optional ability to print results for hard copy storage.
- Complies to ASTM F1921



Touch Screen Operation

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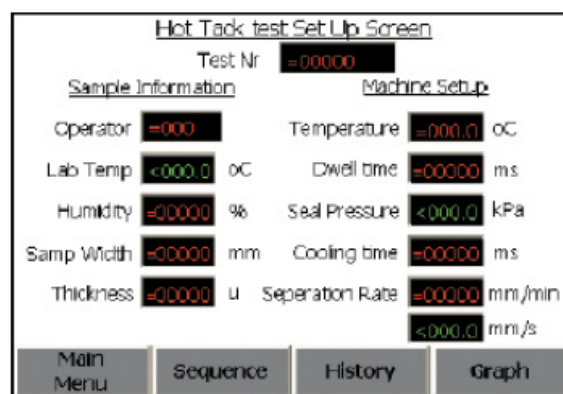


Operation:

The Hot Tack test Setup page is used to allow the Operator to enter the required parameters of a test. These include:

- Test Nr • Thickness • Operator • Temperature • Lab Temp • Dwell time • Humidity
- Seal pressure • Sample Width • Cooling time • Separation rate

Once the test parameters have been selected by the operator, the sample strip can be loaded into the sample clamps before pressing Start at which stage the Hot Tack Tester automatically places the sample between the heated sealing jaws, closing the jaws for the preselected time in milliseconds, removing the sealed sample strip and, with no delay, begins the peeling process.

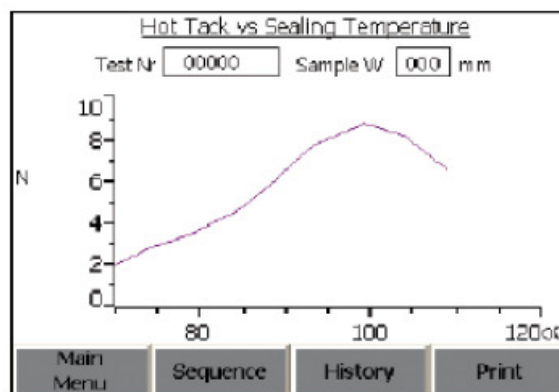


Set Up Screen

The Hot Tack Test prompt page will appear after a Sample test has been completed. The Operator must then enter the Failure Mode. The standard points out that a number of different failure modes could occur in the course of the failure of the strip, the Hot Tack Tester allows an operator to enter one of seven Failure modes. If the operator is not satisfied, then the Repeat Cycle button can be touched, the test will not record any results and the Cycle and Sample number will remain the same.

Specification:

- Sealing Temperature: Ambient – 200 °C – 0.2 °C; Readability - 0.1
- Sealing Pressure: Min: 115.0 kPa, Max: 530.0 kPa
- Sealing Dwell Time: Min: 100ms, Max: 32000ms –1ms
- Peel Load Cell: 50 lb
- Peel Speed: Min: 4mm/s, Max: 800mm/s
- Sealing Jaws: 100 x 5 mm flat Teflon Coated
- Electrical: 3 Phase, 415 VAC @ 50 HZ
- Air: 80 psi, recommended Min, 60 psi.
- Sample Size: 15 or 25mm in width. Recommended length: 250mm



Hot Tack Curve

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Features:

- Colour Touch Screen
- Cycle History page to view progress of testing
- Printable Hot Tack Graph: Applied Force v Sealing Temperature
- Safety guard and switches for safe operation
- Automatic idle after 10 mins non-use
- Automatic recording of ambient laboratory temperature
- Laboratory humidity is recordable
- Adjustable test parameters via touch screen
- Manual / Automatic operation
- Password accessible Calibration Menu
- Adjustable Start / Finish points
- PID Temperature Controlled Sealing Jaws
- Microsoft® Window CE operating system
- Time/Date internal memory

Standards:

- ASTM F1921
- ASTM F2029

Options:

- RS232 output
- InkJet Printer
- Crimped Sealing Jaws — Made to order

Connections:

- **Air Supply:** 80 psi
- **Electrical:** 415 VAC @ 50 HZ Three Phase or
220 VAC @ 60 HZ
(please specify when ordering)

Dimensions:

- **H:** 1,400mm
- **W:** 1,000mm
- **D:** 400mm
- **Weight:** 100kg



Sealing Jaws