HT-1XS
Hot Tack Tester

Heat seal applications are constantly evolving to meet the challenge of higher specification materials and faster production methods. Food manufacturers, film converters, film producers and resin manufacturers are constantly striving to shorten cycle rates on packaging lines and recognise that optimising the heat sealing process is one way of accomplishing this and ensuring a higher degree of seal integrity. The number of heat seal applications is extensive, polypropylene and cello films, co-extruded films, thermoformed cups and trays, laminates and blisters, together with non-woven are only a few of the materials that are bonded by heat and as the number grows and new materials emerge in response to environmental demands, so does the need for more accurate, reproducible methods of measuring heat sealing capabilities and performance.

Determination of hot tack performance requires a test method that provides repeatable results, free from operator interference. Other types of hot tack determination methods such as the falling weight or the spring test methods are difficult to regulate and are at best suited for rough pass/fail evaluations, neither method promises quantitative data. The results are either peel or no peel and are inappropriate for the strict demands of true quality control, and research and development.

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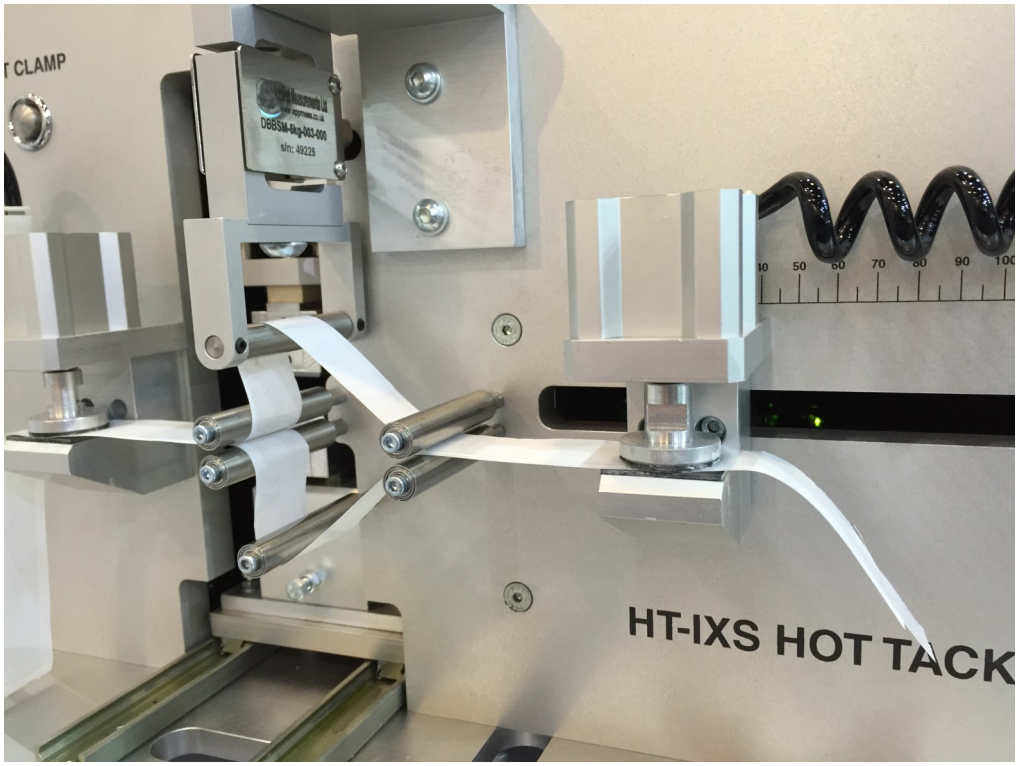
ASSURED QUALITY
TESTING SOLUTIONS

HT-1XS Hot Tack Tester

The HT-1XS Hot Tack Tester provides an accurate, repeatable and consistent method of testing the sealing properties (to ASTM F2029)of a wide range of heat sealable materials. Precise control of sealing parameters (temperature, pressure and dwell time) are via the touch screen display. Precisely as the sealing jaws open, the HT-1XS automatically draws the sample through the rollers which performs a peel test of the heat sealed sample. The force required to separate the seal is measured by a sensitive and accurate load cell. Preparation of the sample is quick and easy with a small pneumatic grip at each end of the mechanism. Both clamps are designed to prevent slippage or premature release of the sample material. The results can be presented in either grams, Newtons or lbs on the touch screen, and specifically designed p.c. software enables the data to be captured and graphically displayed. Results follow the requirements of the ASTM F 1921 test method producing load vs time and load vs temperature curves, which are stored in a database with traceability parameters. Data can be printed in table and/or graphical format, or exported to Excel for customized tables, SPC and other graphical reports.

Cold peel testing can be performed on the same instrument, thereby making it possible to study Hot Tack and Cold Peel performance (ultimate seal strength) of seals and to obtain information about package performance both under production conditions and development.



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Specifications

Touch Screen Panel: LCD, 256 colour QVGA, 320 x 240 pixels, 14.48 cm diagonal viewing. Touch screen, analogue resistive (gonze) with serial controller. Processor geode SC2200. 266 MHz MMX compatible. 64 Mb Dram main memory.

Heat Sealing Process: Temperature range – ambient to 250 deg. C +/- 1 deg C reading to 1 deg C, RTD input (deg F can be selected via the screen). Pressure range – 0 to 100 psi +/- 5 psi (other units can be selected via screen). Dwell Time range – 0 to 99.999 sec +/- 0.1 sec. Meeting ASTM 2029. Heat sealing head pneumatically operated to extend for heat sealing cycle and then return to rest position. Ensures heat is not influencing seal whilst waiting for pull cycle or when cold peel test option selected.

Sealing Jaws: Heated upper and lower ground flat aluminium jaws 25 x 50mm, supplied as standard. Jaws have an interchangeable feature which enables crimp jaws or custom-ised jaws to be fitted. Alignment of jaws made through spring mounted lower bolster. Teflon coating of jaws is an option.

Hot Tack Measuring: Load cell 'Z' bend strain gauge range - 2000g or 5000g (20N or 50N) +/- 0.25%. Pull speed range – 1mm/sec to 1000mm/sec. Manual or automatic return of cross arm to start position. Maximum cross arm travel – 100mm. Travel indication shown on main display panel in mm. Delay on pull range – 0 to 99min 99sec.

Film clamps: Left and right pneumatic clamps synchronised with pulling operation.

Cold Peel: Allows seal to completely cool and cure before pulling operation takes place producing cold seal strength measurement. Cooling Range – 0 to 99hrs 99mins 99sec.

Safety Guard: Micro-switch controlled guard in position feature.

Environment: 5-50C ambient operating temperature, RH 75% max (non-condensing)

Power: 110V AC or 230V AC 50/60 Hz 1000W

Accessories supplied: 1000g calibration weight. 25mm x 350mm sample seal template

Options available: Crimp jaws 25 x 50mm, 120 deg x 1.8mm pitch. Teflon coating to sealing jaws. Silicone rubber covered lower jaw.

Default screen showing results and settings

Setup screen, password protected

Boot up screen showing model and version

ISO 9001 QUALITY MANAGEMENT

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