



[rdmtest.com](http://rdmtest.com)



**RDM  
TEST  
EQUIPMENT**

**MATERIALS TESTING  
EQUIPMENT FOR THE  
PLASTICS AND  
PAPER INDUSTRIES**

# ABOUT US

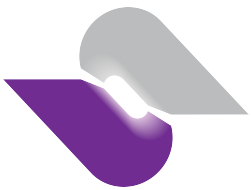
## Our brands

### RDM TEST



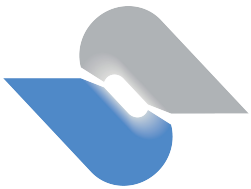
Provides equipment solutions for the physical testing of flexible materials and packages. These include plastic film, paper, pulp, biomaterials, non-wovens, sheets, rolls, pouches, packs, trays, and pots.

### RDM MEDeSEAL



Manufactures heat sealers for medical packaging. Typically used in sterile applications where the manual loading of packs is performed, with pack formats such as pouches, trays, and blisters.

### RDM LAB



The UK's largest test house for permeation barrier testing. It is complemented with a wide range of physical testing equipment for flexible materials and packages.

### RDM LEARN



Specialises in the planning and delivery of high-level material and package testing education. Venues include universities, institutes, and on-site with our customers.

# ABOUT US

## Our vision

We are committed to providing customers with outstanding products and services that surpass expectations and delivering long-term value to their organisations.

We achieve this through the continuous improvement of our solutions and production processes, and a dedication to attentive service throughout our customer's journey.

## Our history

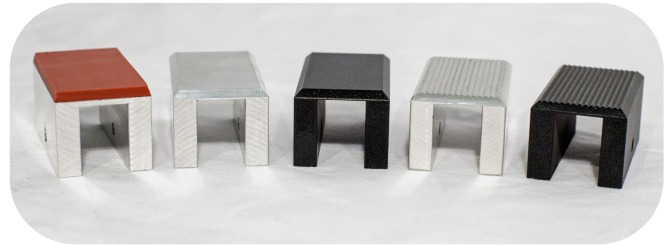
We manufacture British-designed precision testing equipment that meets the diverse needs of industrial companies worldwide.

Established in 1985, we initially focused on measuring heat seal characteristics. We soon expanded our offerings to include over 100 testing instruments and production machines.



# HEAT SEAL TESTING

Heat seal testing provides measurement of seal strength and seal integrity, critical for making good quality heat seals in flexible materials/packages. Setting optimum temperature, pressure, and running/dwell time improves package quality and reduces waste.



Slide-on heat sealing jaws

Protective packaging, such as Modified Atmosphere Packaging or Medical Device Packaging, requires perfect seal tightness (seal integrity). Defective heat seals are the most likely reason for failures (leaky packs) due to unsealed areas, channel leaks, material folds, or weakness and inability to remain closed when subjected to handling.

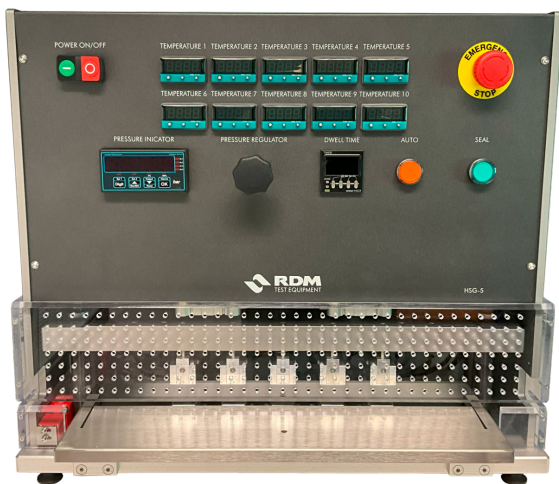
Since 1985, RDM Test Equipment has offered British-built equipment, with cost-effective and high-quality options to suit most budgets.



# HEAT SEAL TESTING

## HS-2

Precision heat seal tester for accurate and repeatable determination of heat seal threshold of flexible films. The HS-2 is established as the industry standard for this purpose. Creates 5-25x50mm seals. For ASTM F2029.



## HSG-3 & 5

Precision gradient heat seal tester for accurate and rapid determination of heat sealability of flexible films. Fitted with either 3 or 5 sets of sealing bars with individual temperature controls to create a temperature gradient across the film. For ASTM F2029.

## HT-2PC

The HT-2PC combines heat sealing and peel testing in one instrument. It can be used as an automatic Heat Seal tester for ASTM F2029 and F88, or as a Hot Tack tester for ASTM F1921.



# HEAT SEAL TESTING

## HL-5

The HL-5 Low Pressure, Gradient Heat Seal Tester is used for sensitive applications, such as confectionery and tobacco packs. Testing pressures from 0.1N/cm<sup>2</sup> to 2.76N/cm<sup>2</sup>. For ASTM F2029.



## SST-3XS

The SST-3XS Seal Strength, Tensile, & Compression Tester's touchscreen enables precision when determining the strength of packaging materials like plastics, paper, and board. For ASTM F88.

## SST 1000

The SST 1000 Universal Testing Machine is best suited for high-volume, low-force testing applications, like packaging materials or paper. The system is available in standard and long-travel versions, ideal for testing high elongation materials. For ASTM D882, E4, and D638.



# HOT TACK TESTING

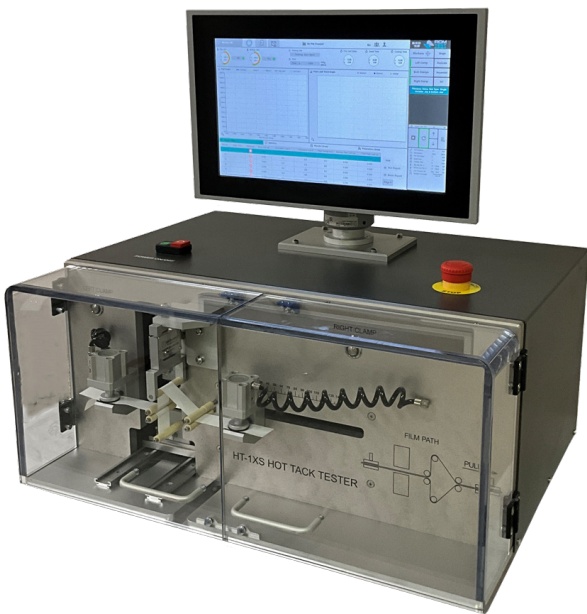
## HT-2PC

The HT-2PC combines heat sealing and peel testing in one instrument. It can be used as an automatic Heat Seal tester for ASTM F2029 and F88, or as a Hot Tack tester for ASTM F1921.



## HT-1PC

The HT-1PC Hot Tack Seal Strength Tester comes with manual sample loading and industrial PC for easy and repeatable measurement of hot tack seal strength. For ASTM F1921.

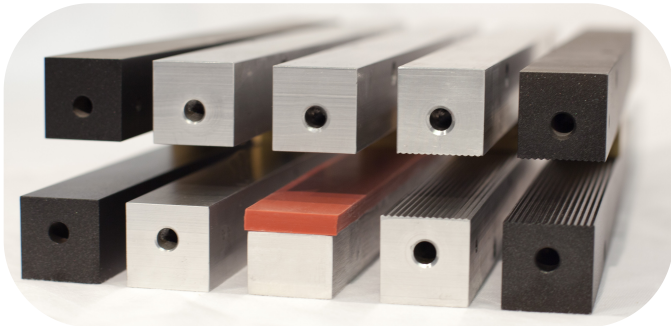


## HT-1XS

The HT-1XS Hot Tack Seal Strength Tester comes with manual sample loading for easy and repeatable measurement of hot tack seal strength. For ASTM F1921.



# LAB & PRODUCTION HEAT SEALERS

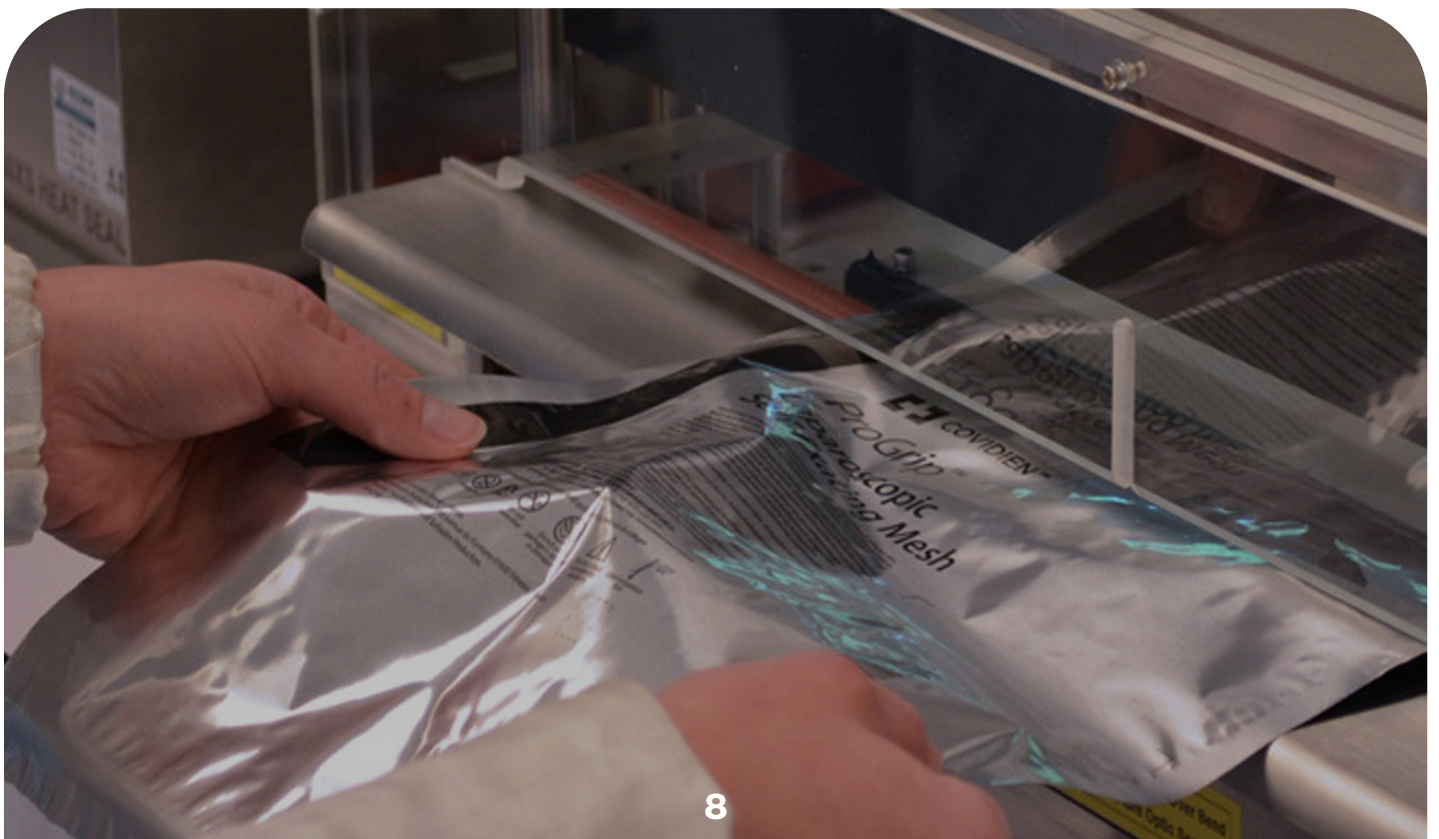


Bar sealing jaws

RDM heat sealers help you to achieve a better sealing quality. With a range of basic sealers, touchscreen-controlled semi-automated production sealers, and custom-made designs, we provide our experience and expertise to help you optimise your heat sealing.

Suitable for all sizes of flexible pouches, lidded trays and pots, with options for vacuum and/or gas flush, RDM heat sealers provide the flexibility and control to suit a variety of needs in the lab, pilot plant, or small volume manual production.

All models are available with single or dual heated sealing jaws, optionally with permanent Teflon coating for added durability.



# LAB & PRODUCTION HEAT SEALERS

## HSE-3

For the production of high-quality heat seals and/or precise measurement of heat sealability of suitable films. Produces seals up to 5-25x300mm. For ASTM F2029.



## HSE-3 VERTICAL

A vertical heat sealer with adjustable loading positions, engineered for flexibility and precision. Compliant with ISO 11607 standards, essential for validating packaging systems used for terminally sterilised medical devices.

## HSB-1

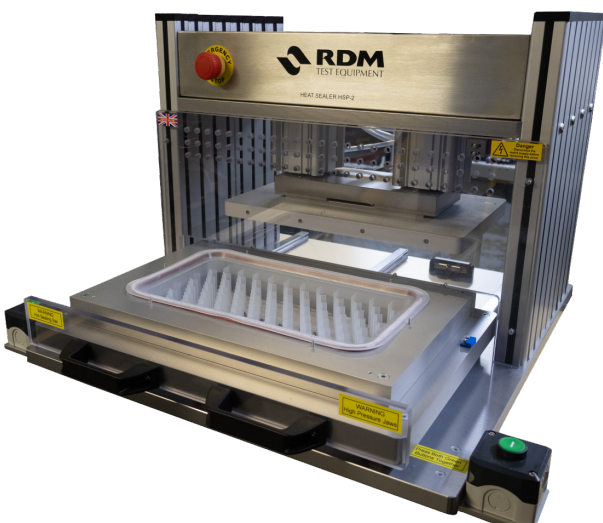
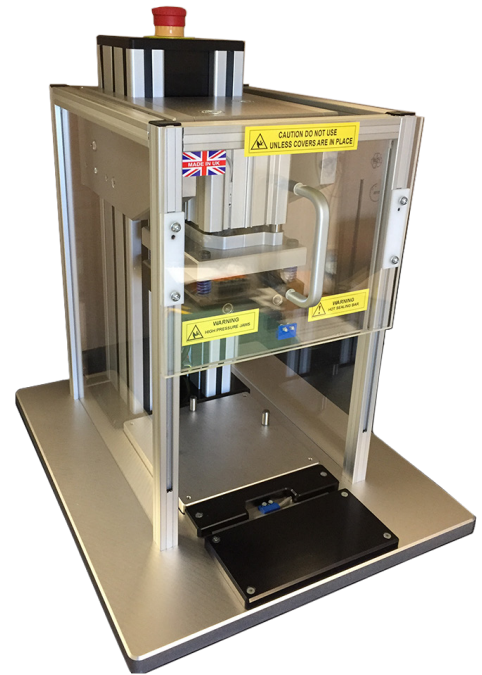
For the production of high-quality heat seals and/or precise measurement of heat sealability of suitable films. Produces seals up to 25x300mm. For ASTM F2029.



# LAB & PRODUCTION HEAT SEALERS

## HSP-1 TRAY SEALER

For lab scale, prototype, and production of repeatable high-quality heat seals in pot and tray lidding film applications. Up to 150x150mm. Available with touchscreen controller or panel-mounted controls.



## HSP-2 TRAY SEALER

For lab scale, prototype, and production of repeatable high-quality heat seals in pot and tray lidding film applications. Up to 200x300mm. Available with touchscreen controller or panel-mounted controls.

# FRICTION TESTING

The Coefficient of Friction (COF) is crucial in determining how materials interact during sliding, both with themselves and with different surfaces.

In the packaging industry, COF testing is essential to ensure materials have the right properties for seamless operation on automatic production lines and stability during transportation.

Friction properties can vary based on material composition, additives like slip agents, temperature, humidity, and ageing. By testing these factors, you can optimise your packaging design for efficient production, handling, storage, and stacking.

The result? Superior quality and significant cost savings.



# FRICTION TESTING

## CF-800XS

A Precision Friction Tester determines static and kinetic friction of packaging materials. Built-in intelligent controller and touchscreen user interface. Stores multiple recipes of test parameters, aligning with several international test standards. Optional PC software records test data, graphical display, report printing, and automatic data storage. For ASTM D1894, ISO 8295, BS 2782, TAPPI T549.



## CF-400

A Precision Friction Tester determines static and kinetic friction properties of plastic films, foils, laminates, papers, and boards. Built-in controller and touchscreen user interface allows parameter settings to meet multiple international test standards. Data output via USB to CSV files. For ASTM D1894, ISO 8295, BS 2782, TAPPI T549.

## CF-200i

The CF-200i Inclined Plane Coefficient of Friction Tester determines the static friction properties of plastic films, foils, laminates, papers, and boards. Performs to recognised international test standards. For ASTM D4918, D202, G219, TAPPI T815, T548, T503.



# PACKAGE INTEGRITY TESTING

Heat-sealed packs are susceptible to leaks through pinholes, channel leaks, or unsealed areas caused by product contamination – especially for powdery or flaky products.

Where seal integrity is vital to maintain product shelf life or sterility, quality control leak and burst testing provide instant feedback and traceability. Systematic production issues can be quickly discovered and resolved with confidence. Tests are commonly destructive and conducted off-line. Non-destructive and in-line methods are sometimes possible, depending on the pack format.

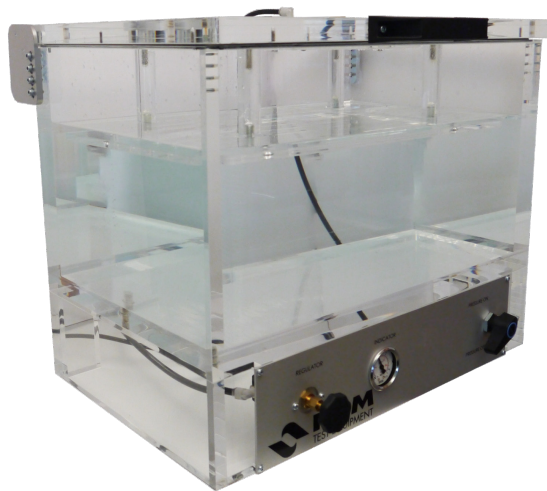
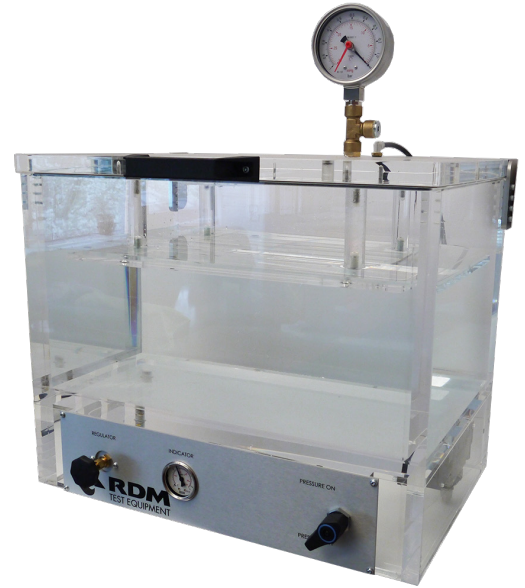
RDM provides systems for leak and burst tests with positive pressure decay, flow measurement, vacuum decay, and water bath bubble methods.



# PACKAGE INTEGRITY TESTING

## BUBBLE LEAK - VACUUM

The Bubble Leak Tester BLT-V uses compressed air through a venturi valve, producing vacuum pressure from -100 to -850 mbar. Convenient, easy to use, and quick to test single or multiple packs. For ASTM D3078.



## BUBBLE LEAK - PRESSURE

The Bubble Leak Tester BLT-P uses positive pressure via a needle/tube inserted into a pack. Convenient, easy to use, and quick to test single or multiple packs. For ASTM F2096.

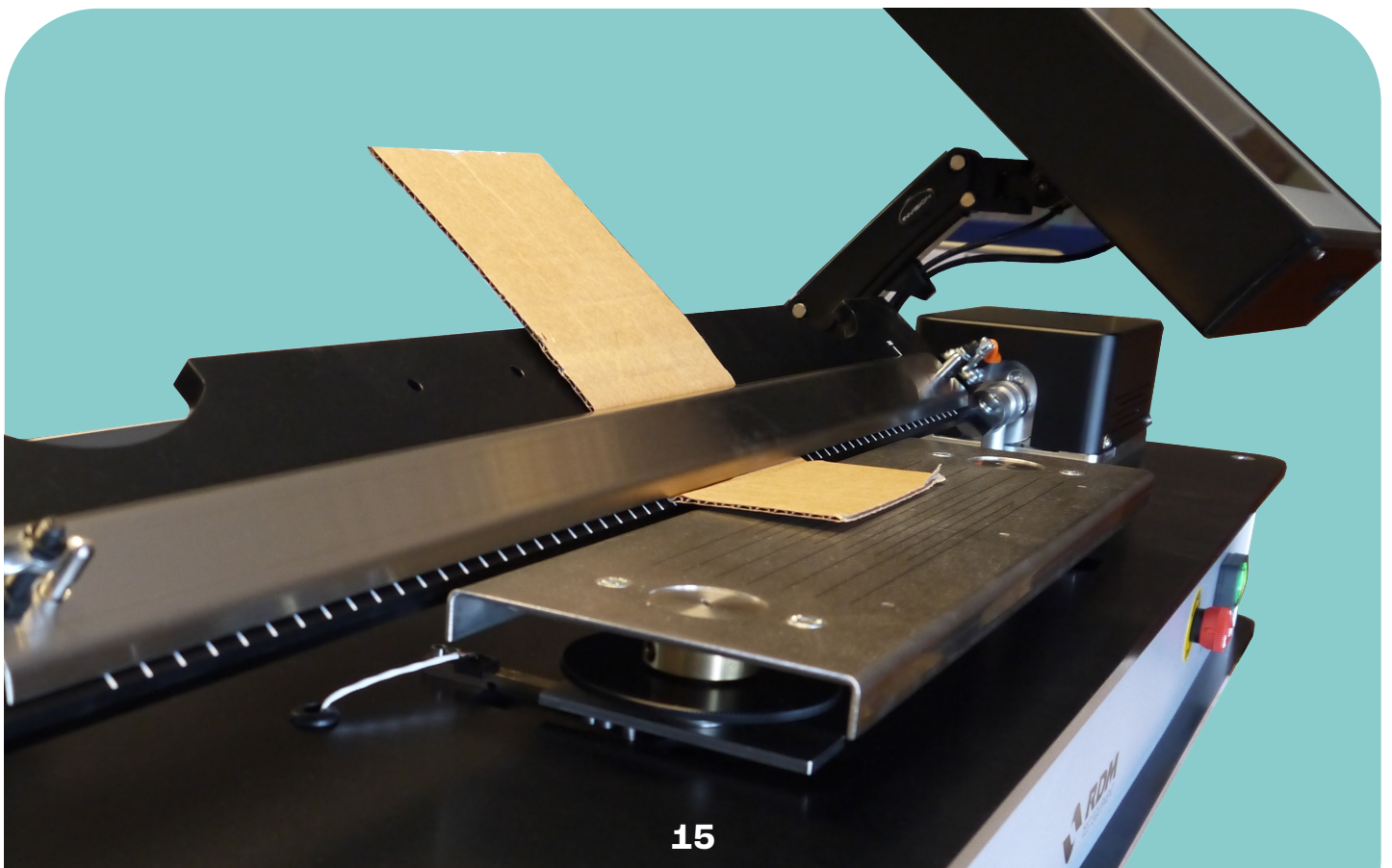
# PHYSICAL TESTING

Materials possess various quantitative properties, such as physical strength or thickness. These may be a constant or a function of another property (like temperature).

In most applications, specific properties will be critical to the material's performance for its intended purpose. Testing equipment can simulate the necessary conditions and measure the material's response. Properties may be used to compare the benefits of one material or supplier versus another, thereby aiding in material selection and ongoing quality control.

Properties can vary according to the way in which they are measured, like material direction, so many internationally recognised testing standards have been developed to help achieve standardisation. These include ASTM, ISO, FINAT, BS, DIN, JIS, and TAPPI.

RDM can help you to select the most appropriate tests to define your materials and control your processes.



# PHYSICAL TESTING

## FALLING DART IMPACT

The FD-1709 Falling Dart Impact Tester determines the impact resistance of plastic film using a free-falling dart. It performs to recognised international test standards. For ASTM D1709 and ISO 7765.



## SEAL STRENGTH, TENSILE, & COMPRESSION

The SST-3XS Seal Strength, Tensile, & Compression Tester has a touchscreen for precision when determining the strength of packaging materials like plastics, paper, and board. For ASTM F88.

## UNIVERSAL TESTING MACHINES

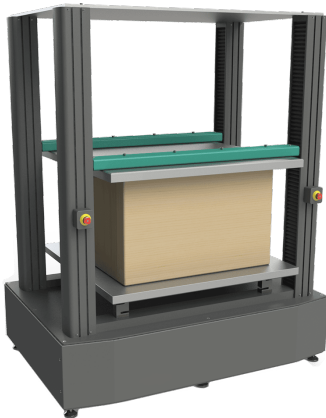
The SST 1000 Universal Testing Machine is best suited for high-volume, low-force testing applications, like packaging materials or paper. The system is available in standard and long-travel versions, ideal for testing high elongation materials. For ASTM D882, E4, and D638.



# PHYSICAL TESTING

## CARTON CREASE TESTER

The Laboratory Carton Tester combines 3 tests: crease strength, box forming force, and spring-back. There is also an optional friction testing for the ultimate carton analysis and quality assurance.

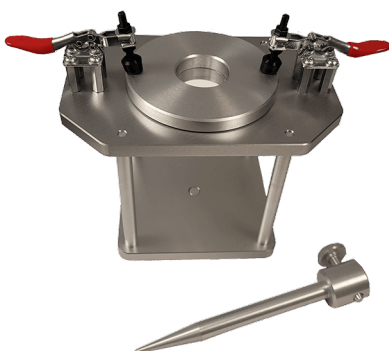


## BOX CRUSH TESTER

A floor-standing Box Compression Tester for corrugated board boxes, cartons, containers, drums, and other packaging materials.

## FLEX DURABILITY

The GF-392 Gelbo Flex Tester is a microprocessor-controlled system. It has a user-controllable preset method designed to measure flexible barrier materials for flex durability to ASTM F392.



## PUNCTURE & BURST

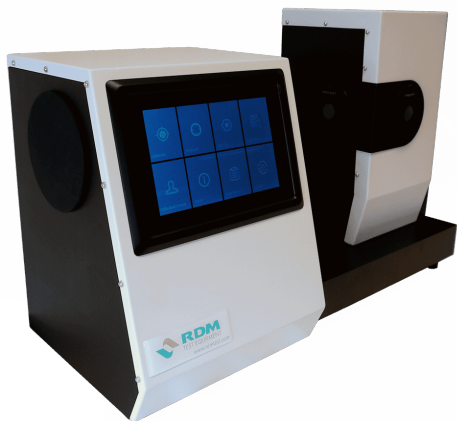
A Puncture/Burst Test Jig is used with our Universal Testing Machine. It determines the performance of thin film when packaging items are likely to pierce it.

# MATERIAL PROPERTIES

Flat sheet materials require surface and optical tests to measure their performance or interaction with other materials, like the haze through a transparent film used in point-of-sale packaging.

## HAZE, TRANSMITTANCE, & CLARITY

The HTC-1003 measures haze, transmittance, and transmission colour, providing professional clarity measurement function. Suitable for high-definition films, display glass, and other fields. Conforms to ASTM D1003, D1044, ISO 13468, ISO 14782.



## HAZE & TRANSMITTANCE

The HT-1003 Haze Meter is designed for plastic sheets, films, glasses, LCD panels, touchscreens, and other transparent and semi-transparent materials for haze and transmittance measurement.

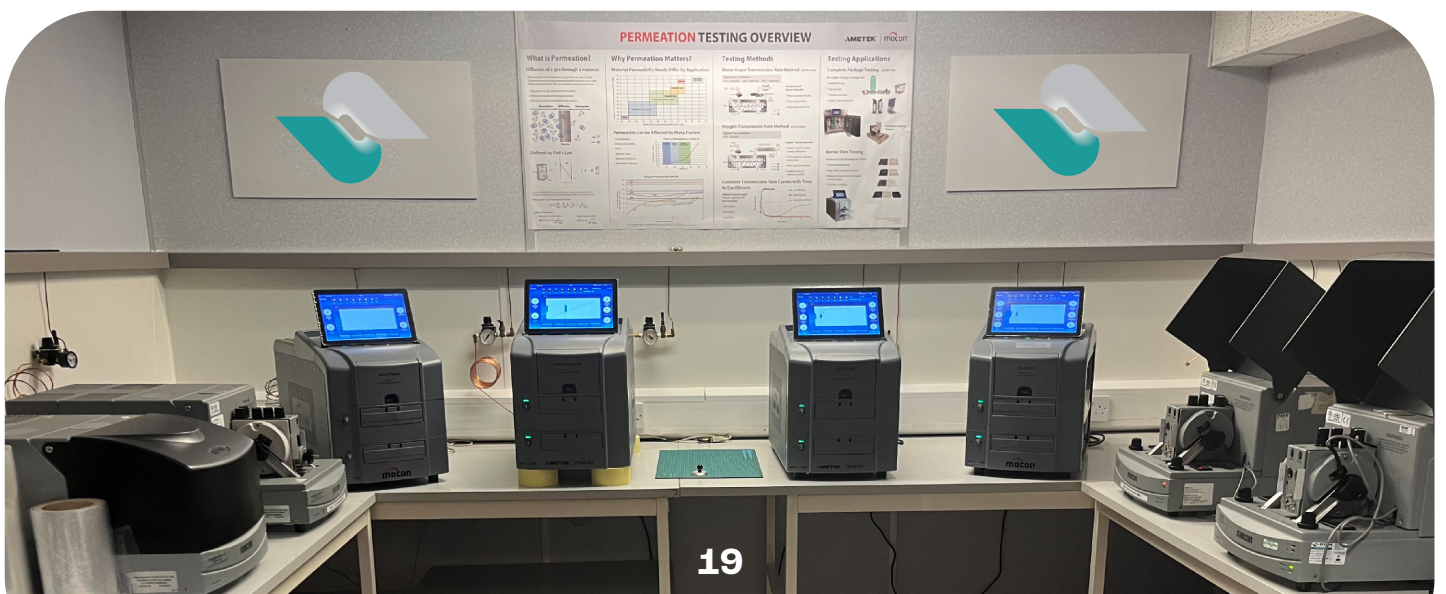
## HAZE & TRANSMITTANCE

The HT-1003-M Haze Meter does not need to warm up during a test, saving time. Conforms to ISO, ASTM, JIS, and DIN international standards.



# CONTRACT TESTING

RDM LAB is the UK's largest test house for permeation barrier testing, with another test house in the USA. We are equipped with many of the instruments needed to cover packaging and material testing. Brands include RDM, AMETEK MOCON, DANSENSOR, and TMI, meaning we can provide flexibility and a cost-effective solution for individual projects or ongoing quality control.



# CONTRACT TESTING

## PERMEATION

Oxygen, water vapour, or carbon dioxide MOCON permeation testing for films and packages.

## HEAT SEALABILITY

Laboratory heat sealing, seal strength testing, and hot tack testing of flexible heat sealable materials.

## PACKAGE INTEGRITY

Leak, creep, and burst testing of packages such as food, pharma, medical, and electronics.

## FRICTION TESTING

Measuring coefficients of friction (COF) of flat materials, such as packaging films.

## PHYSICAL TESTING

Tensile, crush, bending, tear, impact, and penetration of all flexible materials and packaging.

## SURFACE AND OPTICAL TESTING

Friction, haze, opacity, gloss, and transmittance of flat materials.

# CONTRACT TESTING

## International Testing Standards

### Heat Sealability

ASTM F2029 Standard practices for making heat seals for determination of heat sealability of flexible webs as measured by seal strength.

### Medical Pack Heat Sealing

ISO 11607-2 Packaging for terminally sterilised medical devices, part 2: validation requirements for forming, sealing, and assembling processes.

### Friction Testing

ASTM D1894 Standard test method for static and kinetic coefficients of friction of plastic film and sheeting.

ISO 8295 Plastics - film and sheeting - determination of the coefficients of friction.

ISO 15359 Paper and board - determination of the static and kinetic coefficients of friction - horizontal plane method.

TAPPI T549 Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method.

ASTM D2534 Standard test method for coefficients of kinetic friction for wax coating.

### Hot Tack

ASTM F1921/  
F1921M Standard test methods for heat seal strength (hot tack) of the thermoplastic polymers and blends comprising the sealing surfaces of flexible webs.

DIN 55571 Hot tack, part 1: position measuring devices.  
Hot tack, part 2: peel strength measuring devices.

### Haze

ASTM D1003 Standard test method for haze and luminous transmittance of transparent plastic.

# CONTRACT TESTING

## International Testing Standards

### Seal Strength, Tensile, & Tear

FINAT 1, 2, 3, 9	Test methods for self-adhesive laminates and labels.
ASTM D3330/ D3330M	Standard test method for peel adhesion of pressure-sensitive tape.
ASTM F88/ F88M	Standard method for seal strength of flexible barrier material.
ASTM D6252/ D6252M	Standard test method for peel adhesion of pressure-sensitive label stocks at a 90° angle.
ISO 8510-2	Adhesives - peel test for flexible bonded to rigid test specimen assembly - part 2: 180° angle.
BS EN 1939	Self-adhesive tapes determination of peel adhesion properties.
BS EN 1895	Adhesives for paper and board, packaging, and disposable sanitary products. 180° peel test for a flexible-to-flexible assembly.
BS EN 868-5	Packaging for terminally sterilised medical devices, sealable pouches, and reels of porous and plastic film construction requirements and test methods.
ISO 6383-1	Plastics - film and sheeting - determination of tear resistance, part 1: trouser tear method.
ASTM D1938-14	Standard test method for tear-propagation resistance (trouser tear) of plastic film and thin sheeting by the single-tear method.
ASTM D1004-13	Standard test method for tear resistance (graves tear) of plastic film and sheeting.
ISO 12625	Tissue paper and tissue products.

### Gelbo

ASTM F392	Standard practice for conditioning flexible barrier materials for flex durability.
-----------	--

# AFTERCARE AND SUPPORT

With a wealth of knowledge and application expertise, our service team is here to assist you with any of your servicing needs.



Full machine calibration traceable to national standards



Installation and commissioning on-site



Ongoing annual service and maintenance



IQ/OQ execution on-site



Factory acceptance testing



On-site and off-site operator training

## Contact

### UK & INTERNATIONAL

RDM Test Equipment Ltd  
39 Gold Nurseries Business Park  
Jenkins Drive  
Elsenham  
Hertfordshire  
CM22 6JX  
UK

+44 (0)1279 817171

[sales@rdmtest.com](mailto:sales@rdmtest.com)

### THE AMERICAS

RDM Test Equipment LLC  
441 Old Hwy 8 NW  
Suite 203  
New Brighton  
Minneapolis  
MN55112  
USA

+1 651 766 2565



[rdmtest.com](http://rdmtest.com)



[medeseal.com](http://medeseal.com)

