RDM

TEST
eQUIPMENT

heat
bend burst
friction
sample
crease
resistance
melt tear
laboratory
absorption
permeation
fibre material
package
production
properties
bubble leak

preparation
disintergration
physical flex
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haze hot tack
medical tensile
testing
adhesion
roughness
abrasion bond
puncture
lab clarity
heat sealers
equipment

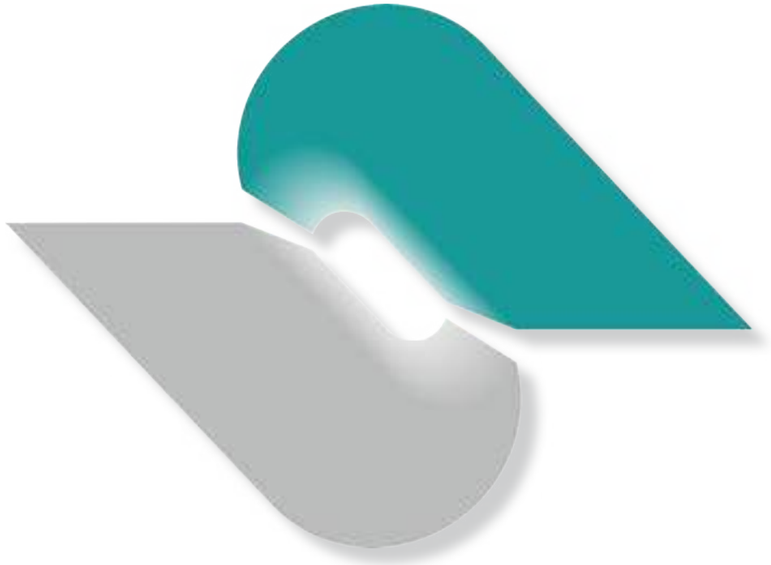
Whenever you need **testing equipment** for your packaging lab, you'll find it at RDM. When material and process changes have to be made, you need reliable and **accurate test data** to get back on track with confidence. Whatever customisation or automation you need, we can design, prototype and produce **innovative solutions**. Combining British manufacturing traditions and respected global brands makes RDM your unique and **trusted supplier**.

You know the performance needed from your products, processes and materials. We know how to **measure and control** them. Learning from others gives the confidence to move forward. Our **experienced team** are continuously learning and sharing. We are ASTM members and maintain access to all key **international specifications**. We'll work with you and with our demo equipment to figure out what you need.

From the moment new equipment arrives, **we've got you covered**. Installation, calibration, breakdown support and user training are always available. Our **locally based service team** are primed and ready to assist, at your site, remotely, or from our **testing lab** with your materials. We're Safe Contractor approved, traceable to National Standards, ISO9001 approved and combined **100+ years experience**.

our clients

stryker
Nestlé
Kellogg's
Unilever
University of Cambridge
Huel
GSK
Intersnack
University of Oxford
Boston Scientific
PepsiCo
ThermoFisher Scientific
Heinz
convatec
Campden BRI
Huhtamaki
Smithers
Medtronic
Nelipak healthcare packaging
Bobst
amcor
reckitt



our brands

AMETEK | mocon
TMI
Messmer Büchel
RAY-RAN
oxipack leak detection
ADAM
TABER INDUSTRIES
emco
TOBIAS ASSOCIATES, INC.
Korutest

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.

seal strength, tensile & tear

FINAT 1, 2, 3, 9	FINAT 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 90º Angle.
ISO 8510-2	Adhesives - Peel test for a flexible bonded to rigid test specimen assembly - Part 2: 180º peel.
BS EN 1939	Self adhesive tapes determination of peel adhesion properties.
BS EN 1895	Adhesives for paper and board, packaging and disposable sanitary products. 180º 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.

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heat sealability testing

Heat Seal parameters are easily measured; Heat Sealability = Temperature + Pressure + Time. Yet maintaining optimum heat sealing conditions in production and recognising the true cause of poor sealing remains a challenge. Measurement of heat sealing parameters is done by creating 'controlled seals' on a calibrated Laboratory Heat Sealer according to ASTM F2029, then peeling the seal apart with a Seal Strength Tester at a controlled rate to measure either Ultimate Seal Strength (after cooling, method ASTM F88) or Hot Tack Strength (peel tested within 150ms of the seal being formed, method ASTM F1921). By varying the sealing temperature, pressure and dwell time, optimum sealing conditions can be found.

Product packagers who regularly test heat seal parameters of incoming film as part of a well managed quality system, will transfer the measured parameters to the heat sealing process in production to optimise the sealing conditions. Variations in sealing parameters will be found from film supplier to supplier, roll to roll, and even within a roll. The introduction of new materials with functional and barrier layers has narrowed the tolerances for optimum sealing. Even small variations in sealing parameters can impact the quality of resulting seals, with typical poor quality shown as weak seals, channel leaks, edge leaks, back seal / end seal junction leaks, hardened brittle areas caused by overheating and unsealed areas caused by under-heating.

HS-2

Heat Sealability

ASTM F2029

HSG-3/5

Gradient Heat Sealability

ASTM F2029

HT-1XS

Hot Tack Strength

ASTM F1921

HT-2PC + HT-2 Cutter

Hot Tack Strength

ASTM F1912F2029, F88

HSM-4

Heat Sealability

ASTM F2029

HL-1/5

Low Pressure Heat Sealing

ASTM F2029

SST-3XS

Seal Strength

ASTM F88

SST 1000

Seal Strength

ASTM F88, D882, D638

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heat sealers

equipment

laboratory, pilot plant and production heat sealers

RDM Heat Sealers help you to achieve better sealing quality.

With a range of basic sealers,

touch-screen controlled semi-automated production sealers and custom made designs, we provide our experience and expertise to helpoptimise your heat sealing.

Suitable for all sizes of flexible pouches, lidded trays and pots, optionally with gas flush and / or vacuum, RDM Heat Sealers provide the flexibility and control to suit a wide range 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.

HSB-1

Long Bar Heat Sealing and Heat Sealability

HSE-3

Long Bar Heat Sealing and Heat Sealability

HS 400/650/800

Very Long Bar Heat Sealing and Heat Sealability

HSP-1 + HSP-2

Custom Tray Sealing

TS-1

Custom Tray Sealing

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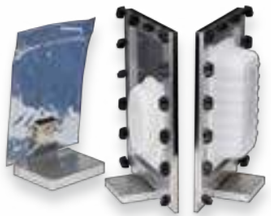
WVTR: ASTM F1249, E398, D6701,
ISO 15106-2 & -3, TAPPI T557.
0.00005 to 100,000 gm / m² / day.

Film Testing Cartridge.

All testing accessories available to order

OTR: ASTM D3985, F1927, F1307,
F2622, ISO 15105-2, DIN 53380.
0.0005 to 144,000 cc / m² / day.

CO²TR: ASTM F2476, DIN53380-4.
1 to 1,550,000 cc / m² / day.



Package and Tray Application

WVTR: ASTM F1249, E398, D6701,
ISO 15106-2 & -3, TAPPI T557.
0.00005 to 100,000 gm / m² / day.

OTR: ASTM D3985, F1927, F1307,
F2622, ISO 15105-2, DIN 53380.
0.0005 to 144,000 cc / m² / day.

CO²TR: ASTM F2476, DIN53380-4.
1 to 1,550,000 cc / m² / day.

Ametek Mocon are recognised as the global leader of quality permeation testing systems,
fully supported in the UK and Ireland by RDM Test Equipment.

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package testing

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

Where seal integrity is vital to maintain product shelf life or sterility, quality control leak and burst testing provides 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 provide systems for leak & burst tests with positive pressure decay, flow measurement, vacuum decay, and water bath bubble methods.

ASTM F2054, F2095, F2096, F1140, DIN55508-1, ISO11607

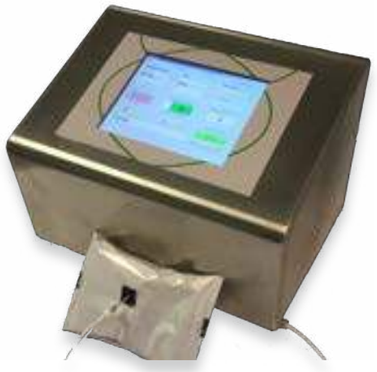
BLT

Bubble Leak

ASTM F2096

Check-A-Pack 600

Gas Analysis, Leak
and Burst



Check-A-Pack 200

Gas Analysis, Leak
and Burst

Lippke 5000

Leak, Creep and Burst

ASTM F1140, F2054,
F2095, F2096, ISO 11607

Lippke VC1400

Leak, Creep and Burst

ASTM D3078

Lippke MultiCheck 2

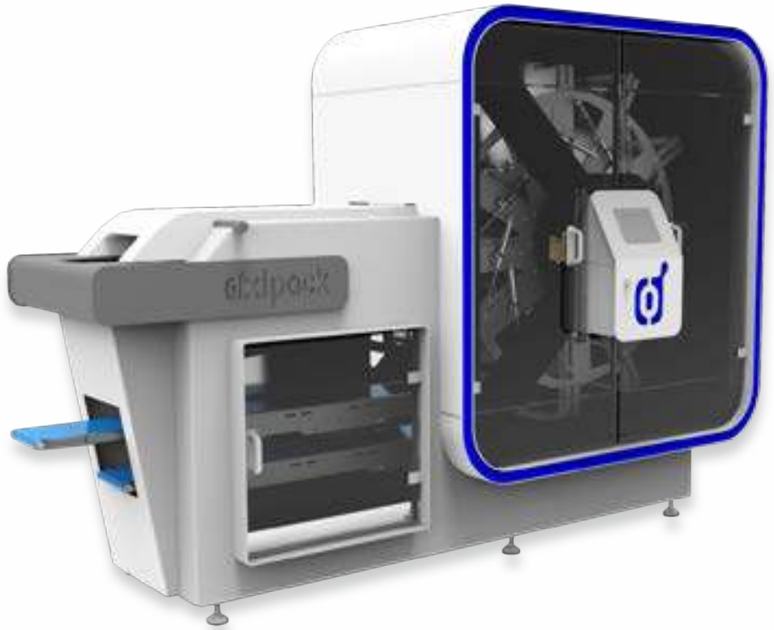
Gas, Leak, Creep and Burst

ASTM F1140, F2054,
F2095, F2096, ISO 11607

Oxipack CLT

Non-destructive Leak test

ASTM F2338



Oxipack Rotary

In Line Non-destructive Leak test

ASTM F2338

Oxipack XXL

Non-destructive Leak test

ASTM F2338

Oxipack 105L

Non-destructive Leak test

ASTM F2338

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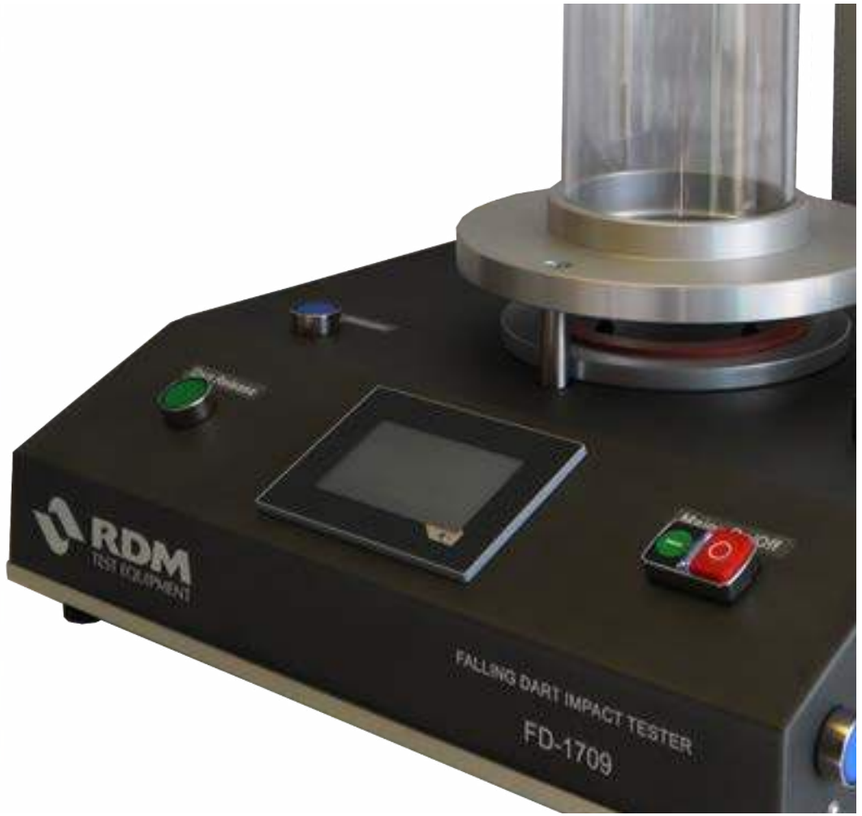


physical testing: fiber, paper, carton, corrugated and board

Materials possess a wide range of quantitative properties, such as physical strength or thickness. These may be a constant or a function of another property e.g.. Temperature. In most applications, specific properties will be critical to the performance of the material for the intended purpose. Measurement and control of these properties is therefore crucial.

Testing equipment is used to simulate conditions and measure the materials 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 e.g. material direction, therefore many internationally recognised testing standards have been developed to help achieve standardisation, commonly ASTM, ISO, finat, bs, din, jis and tappi.

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

LCT

Carton Crease Stiffness

FD 1709

Falling Dart Impact

ASTM D1709, ISO 7765

SST-3XS

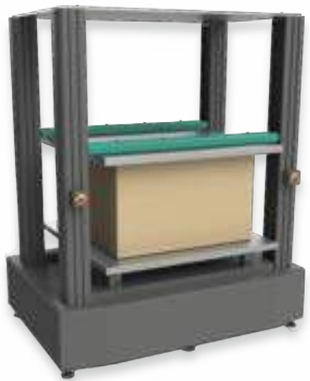
Seal Strength

ASTM F88

SST-1000

Tensile, Crush and Seal Strength

DIN 51221 ASTM E4
ASTM D882, ASTM D638



BCT

Box Compression

DIN 51221, ASTM E4

10-20 Digital Ink Rub

Ink Rub/Transfer

ASTM D5264, F1571, F2497, TAPPI T830

13-56 Burst Tester

Burst Testing

ISO 2758, 2759, 1328-2:1999, 2960, ASTM D3786, D774, TAPPI T403, T807, T810

17-36 SCT

Short Span Compression

ISO 9895, SCAN P46, TAPPI T826

17-56 Crush Tester

Crush Testing

ISO 12192, 7263, 3037, 13821, 3035 TAPPI T822, T809, T843, T821, T811, T823, T838, T839, T825, T829

33-29 Schopper Riegler

Pulp Beating and Freeness

BS 6035/1, ISO 5267/1, SCAN C19

58-05 Automatic Bekk

Smoothness Testing

ASTM F2029

58-06 Parker Print Surf

Surface Roughness

ASTM D 3786, ASTM D 774, BS 4768, ISO 1328-2:1999, ISO 2758, ISO 2759, ISO 2960

58-27 Bendtsen

Surface Roughness

ISO 5636/8791/2, BS 4420, DIN 53108/53120, SCAN P21

61-04 Cobb Sizing Tester

Water Absorption

TAPPI T 441

71-01 Chip Class

Chip Classification

TAPPI UM 21

72-15 PFI Beater

Pulp Performance

73-18 Pulp Disintegrator

Pulp Disintegration

TAPPI T-205, ISO 5263

73-19 Hot Disintegrator

Hot Pulp Disintegration

TAPPI 262

73-50 Sheet Press

Sheet pressing

ISO 5269, TAPPI T 205

75-08 Vertical Fluter

Vertical Fluter

ISO 7263, TAPPI T 809,
TAPPI T 824

79-15 Crease & Board Stiffness

Crease & Board Stiffness Testing

BS ISO 2493-1

79-56 Bending Resistance

Bending Resistance

ISO 2493 TAPPI T556

80-26 Internal Bond Tester

Internal Bond

TAPPI T 569

83-76 Elmendorf

Tear Resistance

ASTM D1922, ISO 1974
TAPPI T414

84-56 Horizontal Tensile Tester

Horizontal Tensile

ISO 1924, TAPPI T 494

TQC PGX+

Contact Angle

TAPPI T458, ASTM
D724 D5946

Taber 1700 / 1750

Abrasion Tester

Chalmers DST

Torsional Stiffness of
Corrugated Board

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creep
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haze hot tack
medical tensile

testing

adhesion
roughness
abrasion bond
puncture

physical testing: flexibles, polymers, bio polymers, sheet materials, adhesives coatings

Materials possess a wide range of quantitative properties, such as physical strength or thickness. These may be a constant or a function of another property e.g. temperature. In most applications, specific properties will be critical to the performance of the material for the intended purpose. Measurement and control of these properties is therefore crucial.

Testing equipment is used to simulate conditions and measure the materials 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.

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

GF 392

Gelbo Flex Durability

ASTM F392

PUNCTURE JIG

Puncture Resistance

ASTM F1306

FD 1709

Falling Dart Impact

ASTM D1709, ISO 7765

SST-3XS

Seal Strength

ASTM F88

SST-1000

Tensile

DIN 51221 ASTM E4
ASTM D882, ASTM D638

TQC PGX+

Contact Angle

TAPPI T458, ASTM
D724 D5946

10-20 Digital Ink Rub

Ink Rub / Transfer

ASTM D5264, F1571,
F2497, TAPPI T830

13-56 Burst tester

Burst Testing

ISO 2758, 2759, 1328-2:1999,
2960, ASTM D3786, D774,
TAPPI T403, T807, T810

17-77 Top Load Compression

Compression

ASTM D1238, ISO 1133,
BS 2782

46-02 Melt Flow System

Melt Flow Index

ASTM D1238, ISO 1133,
BS 2782

80-20 Internal Bond Tester

Internal Bond

TAPPI T 569

80-91 Lab Master

Release / Adhesion Strength

ASTM D 3330,FINAT
FTM 1, 2, 3, and 4

83-76 Elmendorf

Tear Resistance

ASTM D1922, ISO 1974
TAPPI T414

84-56 Horizontal Tensile Tester

Horizontal Tensile

ISO 1924, TAPPI T 494

Taber 1700 / 1750

Abrasion Tester

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clarity heat
sealers

equipment

material properties and lab equipment

Flat sheet materials require a range of surface and optical tests. Measuring their performance or interaction with other materials, such as the friction of a thin film over a metal former, or the haze through a transparent film used in point of sale packaging,

CF-800XS

Coefficient Of Friction

ASTM D1894, ISO 8295,
BS 2782, TAPPI T549

CF-400

Coefficient Of Friction

ASTM D1894, ISO 8295,
BS 2782, TAPPI T549

CF-200i

Incline Plane Friction

ASTM D4918, D202, G219,
TAPPI T815, T548, T503

TH-1003M

Haze, Transmittance

ASTM D1003, D1044,
E308, ISO 13468, 14782

HTC-1003

Haze, Transmittance, Clarity

ASTM D1003, D1044,
ISO13468, 14782

BYK Micro Gloss

Gloss, Opacity, Shade

DIN 67530 ISO 2813, 7668
2178, 2360, 2808 ASTM
D523 B499, D1400

TBX 1000-2000

Optical Density

ISO 5 part 2,3

49-56 Digital Micrometer

Gauge, Grammage, Caliper

ASTM D374, D1777, D5729, D6988,
ISO 534, 3034, 4593:1993, 5084,
9073-2, 12625-3

PaperSchmidt

Roll Hardness Tester

Equotip 550 Leeb U

Roll Hardness Tester

PGW-M

Precision Balances

NE9 Series

Drying Ovens

DML3034

Digital Thickness Gauge

DML3032

Digital Thickness Gauge

DML3701P6

Bench Thickness Gauge

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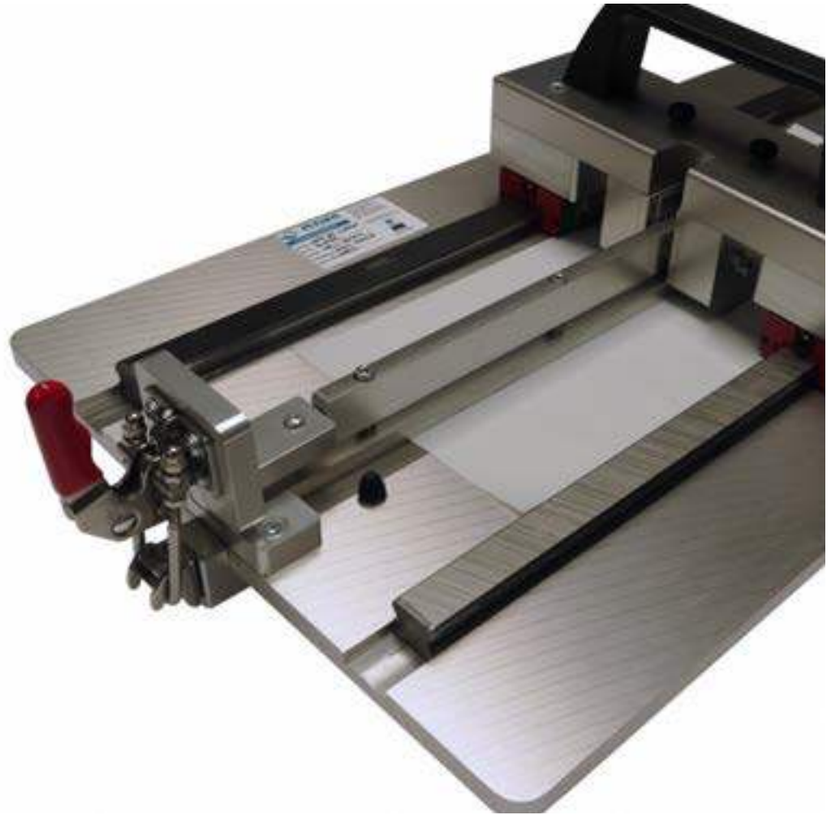
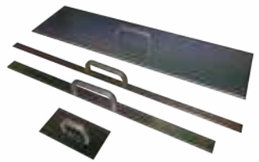
lab clarity
heat sealers

equipment



sample preparation equipment

A range of equipment designed to help save time in the sample preparation stage. Producing accurately sized samples to use with testing machines.



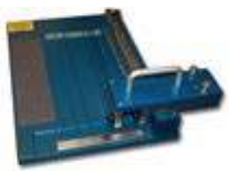
Sample cutting templates

GSC-1
Guided Strip Cutter

TMI 22-34
Twin Blade Cutter

FSC-2
Freehand Strip Cutter

HT-2PC Strip Cutter



TMI 22-76
Corrugated Sample Cutter

22-48-01 ECT
Pneumatic Cutter

TMI 22-22
Sample Punch

TMI 22-42
Circular Sample Cutter

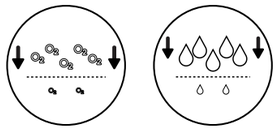
TMI 22-25
Circular Sample Cutters

packaging testing lab

Our Packaging Testing Lab is equipped with many of the products needed for flexible film testing, including brands such as RDM, MOCON, TMI, Messmer Buchel and Adam. Sub-contracting your testing provides flexibility, and a cost effective solution for your specific project or for on-going quality control.

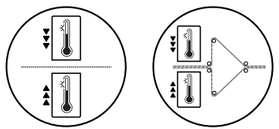
permeation

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



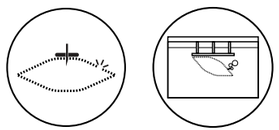
heat sealability studies

Laboratory heat sealing, Seal strength testing and Hot tack testing of flexible heat sealable materials.



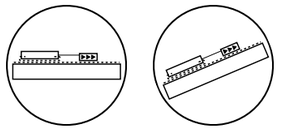
package integrity

Leek, creep and burst testing of finished packaging such as food and medical item pouches.



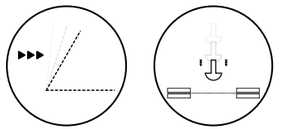
friction testing

Measuring slip of flat materials such as packaging films.



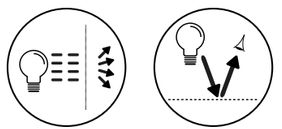
physical testing

Tensile, Crush, Bending, Tear, Impact and Penetration of all flexible materials and packages.



surface and optical testing

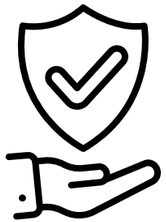
Friction, Haze, Opacity, Gloss and Transmittance of flat materials.



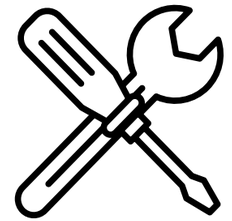
after care and support

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

IQ/OQ execution on-site

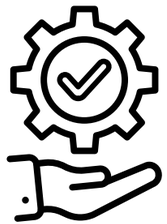


Installation & commissioning on-site



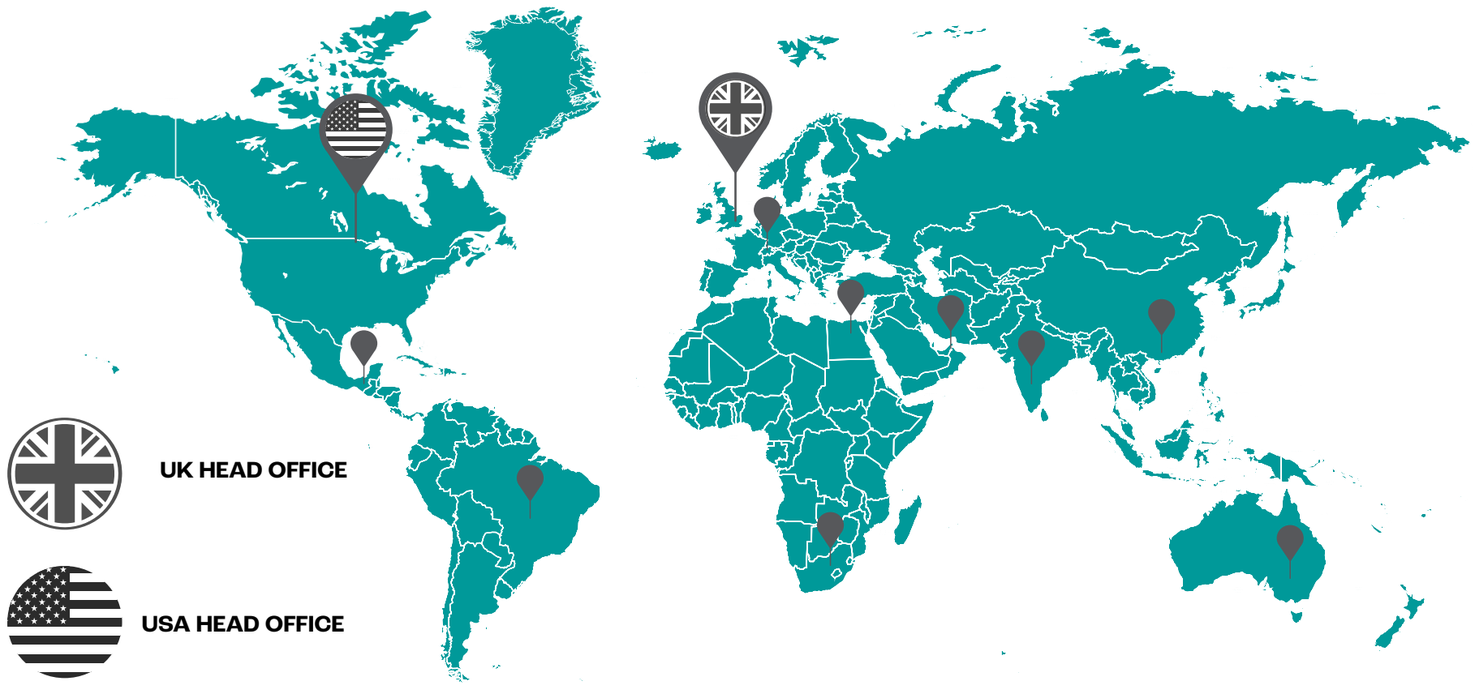
Ongoing annual service and maintenance

Factory acceptance testing



Full machine calibration with calibration certificate traceable to national standards

Operator training



after sales support

Our customers demand the highest levels of support and after sales service, Therefore our objective is to provide a no compromise back up for the life of the instruments we supply.

RDM engineers provide: Installation and commissioning Services, On-site / on-line user training, On-site breakdown repair service and Annual service with calibration.

ON-SITE SERVICE AND CALIBRATION
Our engineer comes to your site to carry out a comprehensive calibration service. This allows for short down times as the equipment will only be out of service during the engineers visit. In this time it will be serviced, calibrated and issued with a traceable UKAS certificate.

IN HOUSE SERVICE AND CALIBRATION
In our facility in Hertfordshire, UK, your equipment will be serviced and calibrated at a fraction of the cost.

Support agents
Belgium, France, Germany, Greece, Italy, Netherlands, Poland, Portugal, Spain, Argentina, Brazil, Canada, Colombia, Mexico, China, India, Indonesia, Malaysia, Pakistan, Singapore, South Korea, Thailand, Vietnam, Dubai + UEA, Israel, Turkey, Egypt, South Africa, Australia, New Zealand.

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