

# FOOD PACKAGING TEST AND MEASUREMENT SOLUTIONS

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## WHO ARE WE

# 50 YEARS OF EXPERIENCE

**For over 50 years, Industrial Physics has delivered trusted test and measurement solutions for packaging and material testing in the food industry.**

Our durable, cutting-edge equipment supports food manufacturers of all sizes in refining their processes and enhancing product quality. From specialized packaging formats to unique line conditions, our tools handle it all - including oxygen level testing to assess product shelf life.

As sustainability becomes more critical, we're here to help you strike the right balance between effective product protection and reduced waste.

Industrial Physics brings together the expertise of the world's top test and measurement brands - giving you access to a unique and unmatched product portfolio when you choose us as your testing partner.

Wherever your food business is based, and whatever its scale, we're committed to protecting your reputation.

### OUR BRANDS:

CMCKUHNKE



SYSTECH

TME | Ray'Ran

TMI BÜCHEL

+ spec METRIX

## INDUSTRY KNOWLEDGE

**Industrial Physics is a world leader in test and measurement solutions to the food and beverage industries. Our highly accurate instruments will analyze most aspects of your packaging to protect the integrity of your brand and products.**

Our industry-leading testing equipment checks the integrity of your food package and packaging materials at different points throughout the research and development, production and quality control stages. Our innovative, cost-effective devices give precise results in:

- Burst testing
- Food can inspection
- Double seam inspection
- Coating inspection
- Headspace
- Leak detection and seal integrity
- Permeation
- Printability
- Tear testing



# DOUBLE SEAM INSPECTION & NON-DESTRUCTIVE SEAM INSPECTION

**Problems with seams on a canning line can be costly and time-consuming.**

Seam inspection is critical for protecting yourself against leaking cans and ensuring the quality of your metal packaging.

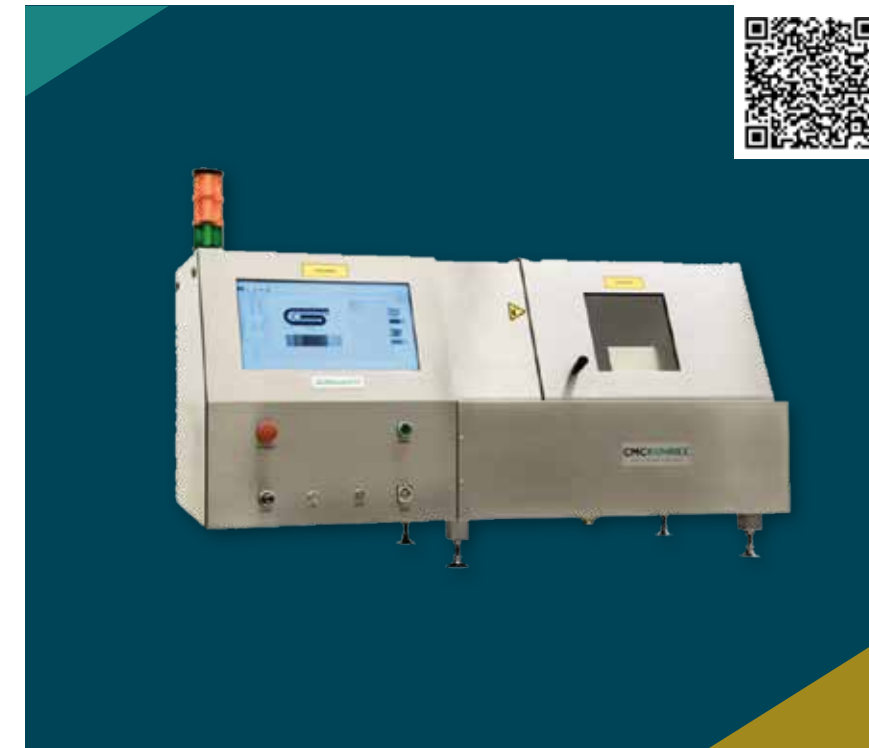
With a high-quality double seam inspection instrument, you can save time, hassle, cost, and protect yourself against unwanted product recalls.

At Industrial Physics, we're masters of double seam inspection – in fact, twenty years ago a brand in our family became recognized as a world leader in this market by inventing automatic, double seam inspection.

Our solutions are varied. Whether you're looking for destructive, non-destructive, or inline equipment, we can provide a solution to meet your needs. Everything from seam thickness, height, gap through to countersink depth, overlap and more – we're here to help.



## NON-DESTRUCTIVE SEAM INSPECTION



Zero-waste solution



Comprehensive 360° measurement



Fast and safe



Proven and patented technology

### CMC-KUHNKE QbyV SEAMscan XTS III

This third generation of our popular SEAMscan XTS double seam inspection equipment is a stand-alone measurement system. The accurate gauge performs fast cross-sectional measurements and 360° tightness scans that reduce your labor costs.

It's a powerful double seam inspection tool that will accurately measure the double seam of any round can (seam height, body hook, cover hook, overlap, seam gap, and % body hook butting).

In addition, our unique radial measurement provides accurate, single-point measurement allowing users to assess wrinkle detection and monitor tightness.

#### Safe, fast and precise double-seam inspection

When you use the SEAMscan XTS III double seam inspection tool you'll be protected by excellent X-Ray-shielding (TÜV Rheinland tested and certified to < 0.1 mSv per year).

This latest model features improved handling and increased versatility and precision, enabled by new generation image processing.

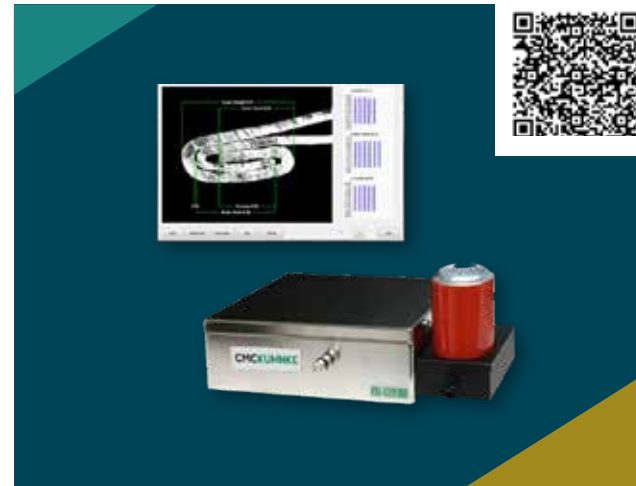
#### Technical features:

- Non-destructive testing
- Faster and safer than conventional cross-sectional methods
- Proven and patented operator independent technology
- Easy to use calibration / verification mode
- Compact design with integrated PC



## CMC-KUHNKE QbyV SEAMscan SPC

The SEAMscan SPC is an affordable, high-resolution tool for double seam inspection and measurement with SPC Reporting. Discover fast, accurate and comprehensive double seam evaluation for cans. With the SEAMscan SPC, your double seam inspection includes the measurement of seam thickness, seam height, countersink depth, seam gap, body hook, cover hook and overlap.



**Fast and efficient to save you time**



**Capture, measure & save seam images in less than 1 second!**



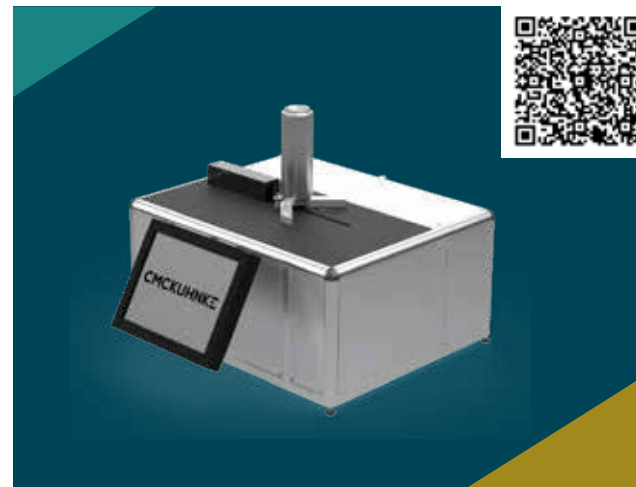
**Highly accurate**

### Technical features:

- Automatic transfer of data
- Easy to use with tailored inspections
- In-depth analysis for advanced statistical process control (SPC)
- Customizable packages
- Versatile test and inspection machine, capable of measuring a wide range of seam characteristics

## CMC-KUHNKE Z310 Combination Seam Gauge

The semi-automatic CMC-KUHNKE Z310 Combination Seam Gauge provides precise seam thickness and countersink depth measurements for both food and beverage cans, including a 360° scan around the can. This powerful universal gauge delivers automated, multi-measuring capabilities, enhancing efficiency and accuracy in can inspection processes.



**Time saving combination seam gauge**



**360 degree analysis**



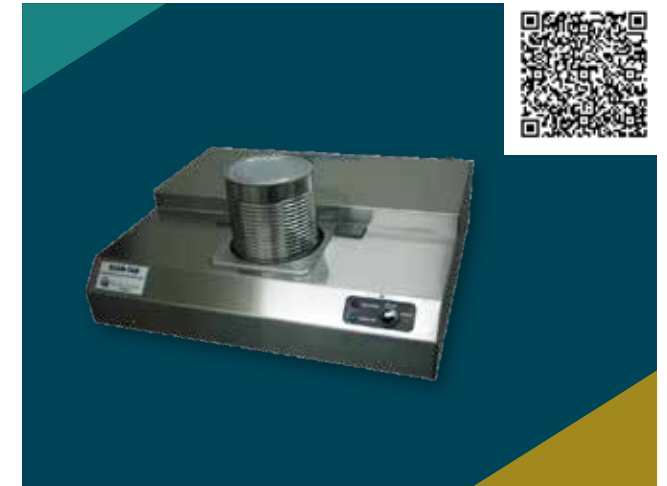
**High precision**

### Technical features:

- Complete 360° seam thickness profile
- Automatic can rotation
- No change parts required
- Multiple simultaneous measurements
- Automatic seam gauge data transfer
- Fully-automatic version available

## CMC-KUHNKE QbyV SEAM 360

The SEAM360 offers non-destructive, rapid seam inspection that's more cost effective than the competition. The SEAM360 measures the seam length and thickness (height) on 100% of a can's total external surface area. Conventional seam inspection technology checks at two or three points, avoiding the areas in between. So, micrometer or seam thickness gauge and destructive tests with a seam scope are limited – you may be missing the most critical information!



**Affordable double seam inspection solution**



**Fast measurements**



**Non-destructive optical technology**

### Technical features:

- The SEAM360 detects seaming problems all around the seam, not just at two or three points
- Detects and locates hard to find errors including compound buildups, variations around the seam, skids, wrinkle and more
- Scan time (one can): approx. 8 seconds
- Seam Inspection measurement cycle time (6 cans): approx. 2 minutes
- Operation toggle has two positions: Top 200-300 cans, Right 303-603 cans

# FOOD CAN INSPECTION

Through our specialist testing brands, we can offer a variety of instruments to help you inspect every part of your food cans. Ultimately, our instruments make sure that your cans are fit for purpose.

From measuring flange widths, the strength of the pull-tab, axial load tests, wall thickness measurements through to coating tests and enamel rating measurements. We have an extensive portfolio to support your can inspection needs.



With decades of experience in metal packaging, we can be a “one-stop shop” for all your test and measurement needs. Just contact us with your application needs, and we’ll see how we can support you.

## FOOD CAN INSPECTION

### Torus Z316 Semi-Automatic Benchtop Finished Food Can Gauge

The Z316 is our highly accurate, semi-automatic benchtop gauge that provides multiple measurements for finished food cans, including Finished Can Height, Flange Width, Countersink Depth, Panel Depth and 1st Bead Height (can end). It saves you time and money with fast measurements and all in one benchtop space.



Multiple measurement features



Reliable and accurate



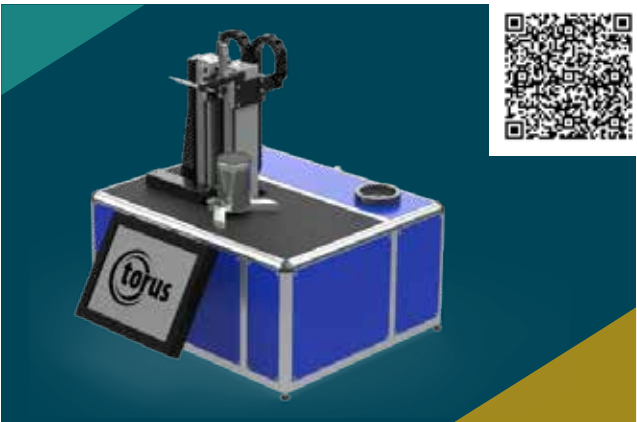
Robust design

#### Technical features:

- Multiple tests and measurements in one instrument
- Accuracy of +/- 0.010 mm per parameter
- Sturdy and durable design
- Quick measurement cycle time
- Automatic data transfer option

### Torus Z304 Semi-Automatic Benchtop Bead, Height and Flange Gauge

The Z304 is our highly accurate, semi-automatic combination gauge that provides reliable bead, height and flange measurements for food cans. This gauge is ideal for removing operator bias and providing objective measurements of three essential parameters – all in one solution.



Versatile instrument



Extremely precise

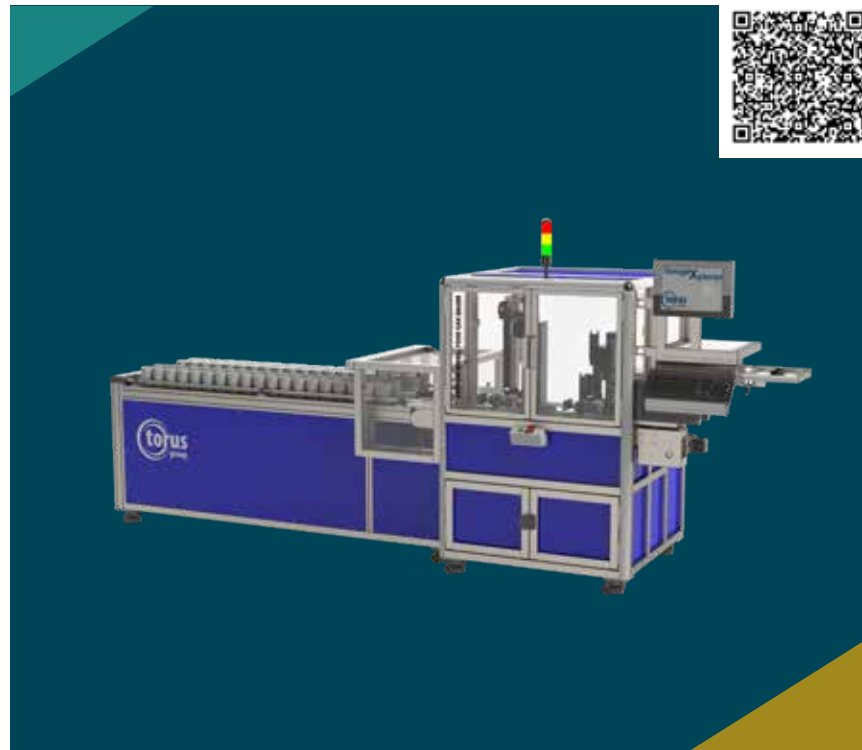


Reliable and repeatable

#### Technical features:

- Measures bead depth, finished can height (beaded or unbeaded) and flange width
- Accuracy of +/- 0.010 mm per parameter
- No change parts required
- Automatic can rotation and measurement
- Easy to use calibration/verification mode





Increase confidence  
in your production  
processes



Versatile  
measurement  
capabilities



Save operator time,  
resource and space



Highly accurate  
and reliable

## Torus Z303 Automatic Universal Food Can Inspection Gauge

Brought to you by Torus, our specialist testing brand, the Torus Z303 Automatic Universal (Trimmed and Finished) Food Can Inspection Gauge defines the standard for dimensional inspection of food cans.

### Measurement features of trimmed cans:

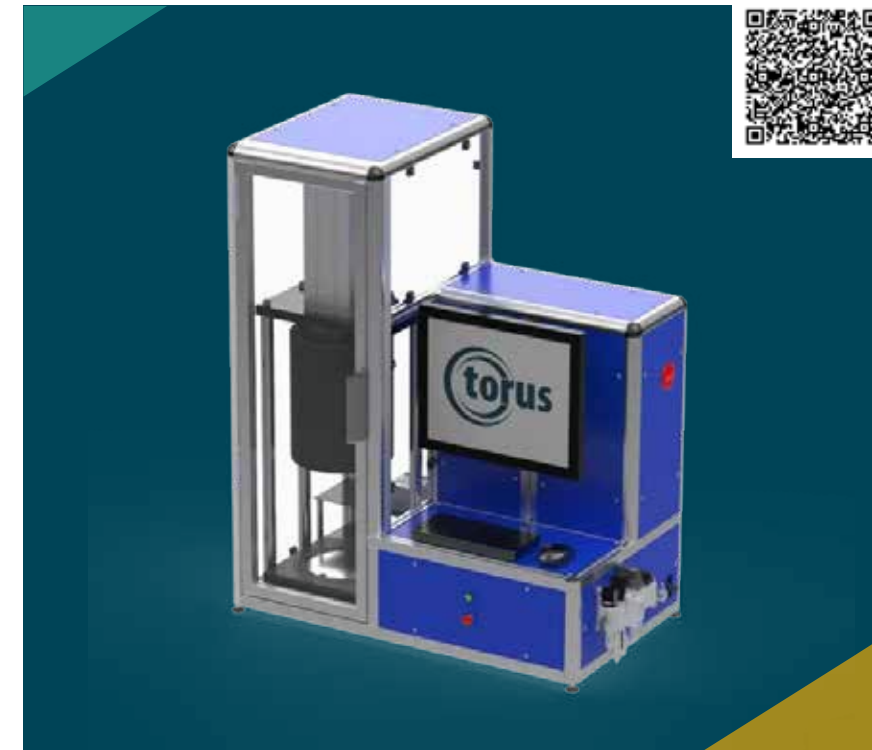
- Mid Wall Thickness | 1-16 positions | Accuracy:  $\pm 0.001$  mm
- Top Wall Thickness | 1-16 positions | Accuracy:  $\pm 0.001$  mm
- Trimmed Can Height | 1-16 positions | Accuracy:  $\pm 0.010$  mm
- Panel Depth | 1-16 positions | Accuracy:  $\pm 0.010$  mm
- Countersink | 1-16 positions | Accuracy:  $\pm 0.025$  mm

### Measurement features of finished cans:

- Flanged Can Height | Accuracy:  $\pm 0.010$  mm
- Finished Can Height | Accuracy:  $\pm 0.010$  mm
- Flange Width | Accuracy:  $\pm 0.010$  mm
- Bead Depth | Accuracy:  $\pm 0.010$  mm
- Roll Bead Diameter | Accuracy:  $\pm 0.010$  mm
- Roll Bead Position | Accuracy:  $\pm 0.025$  mm
- Bead Symmetry | Accuracy:  $\pm 0.025$  mm
- Panel Resist | Accuracy:  $\pm 0.5$  PSI

### Technical features:

- Trimmed Can Range:  $\varnothing 211$  –  $\varnothing 307$  body diameters, heights of 87 – 210 mm
- Finished Can Range:  $\varnothing 202$  –  $\varnothing 307$  body diameters, heights of 87 – 210 mm
- Components: Aluminum / Steel cans
- Modular gauge – configure with our Torus inspection gauges!



Reliable pressure  
testing and panel  
resistance testing



Quick measurement  
cycles



Durable and  
protective design



Automated process  
eliminates operator  
error

## Torus Z306 Semi-Automatic Benchtop Panel Resistance Gauge

Brought to you by Torus, our measurement, automation, metrology, and manufacturing equipment brand, the Z306 is our highly accurate, semi-automatic benchtop gauge that provides reliable pressure and panel implosion measurements for two-piece or three piece food cans.

### Measurement features of the Z306 Panel Resistance Gauge:

The Z306 Semi-Automatic Benchtop Panel Resistance and Implosion Gauge has been designed with reliability and efficiency in mind. It provides reliable and accurate pressure and resistant measurements of finished or empty seamed cans.

Each measurement is carried out fast, so you can get your results quickly and confidently.

### Observe your pressure testing safely

The Z306 is built with safety and durability, as the gauge is enclosed in a protective and robust case. The viewing windows of our hydrostatic testing device allow you to witness every aspect of the implosion process – but safely. Our reliable pressure tester has several safety features: the test will not run until the door is secured; and the door won't open when the chamber is pressurized.

### Technical features:

- Component materials: Aluminum, steel
- Component Stages: Unseamed or seamed cans (finished)
- Component Finished Height Range: 87 – 250 mm
- Component Outer Body Diameter: 53 – 153 mm
- Internal Neck Diameter: 50 – 153 mm
- Panel Test Pressure:  $\leq 3$  bar

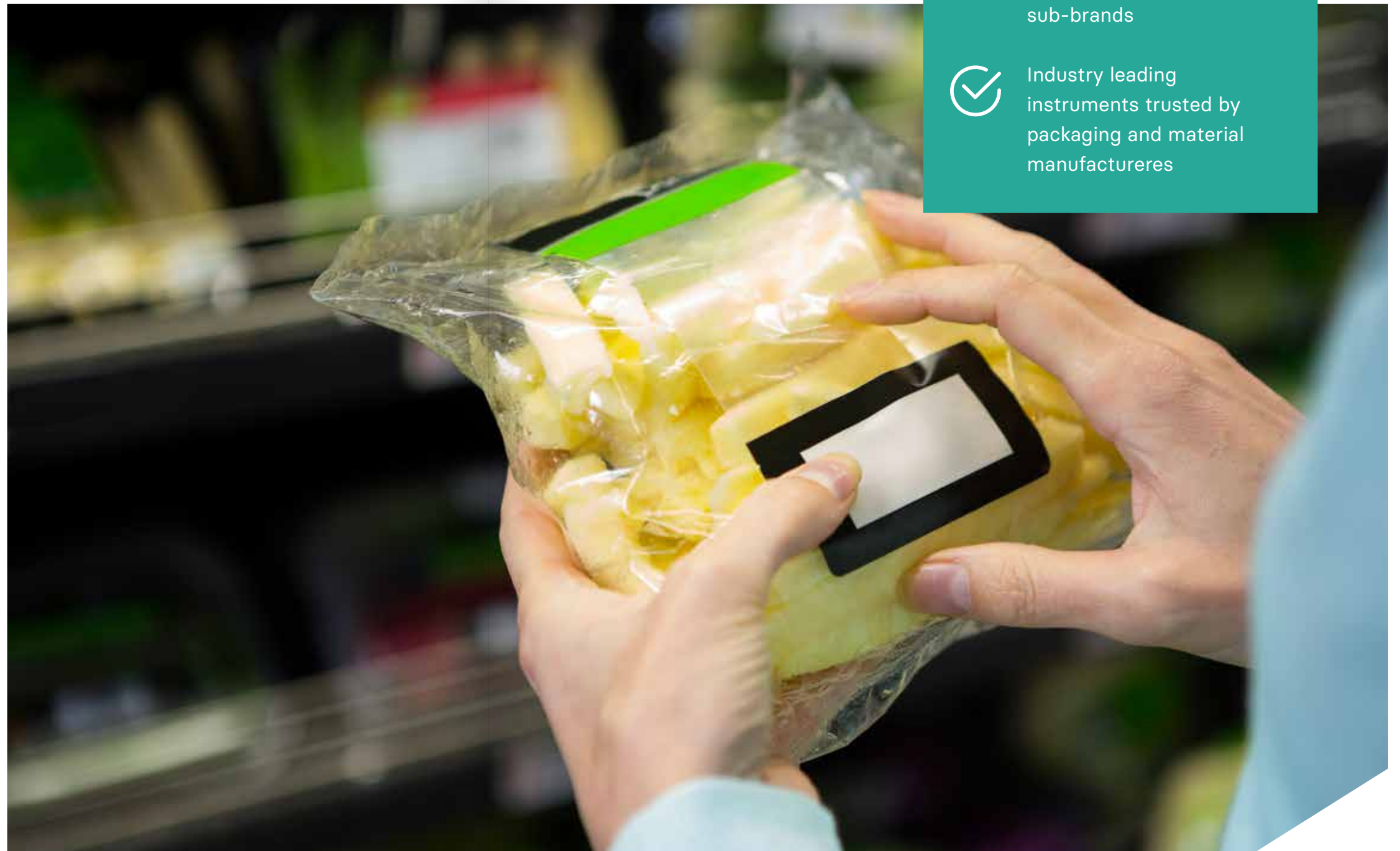
# LEAK DETECTION AND SEAL INTEGRITY

**It goes without saying that making sure your product is protected from potential leaks and that your seal is secured is of paramount importance when it comes to testing your flexible package.**

Thankfully, we have a range of leak testers and seal integrity solutions that can be used to test across a range of packages.

Our diverse leak testers allow you to pick the tool that's right for you – whether that's pressure / vacuum decay, mass flow, occlusion, crack tester, or chamber leak testing. Giving you the tool to minimize the risk of any cost product recalls associated with leaks.

In addition, we can also offer a range of equipment to help you determine the ideal sealing conditions of your packaging films. Read on to check out our hot tack and seal tester too.



## OUR PRODUCTS



Wide range of versatile seal integrity solutions



Wealth of knowledge from our market-leading sub-brands



Industry leading instruments trusted by packaging and material manufacturers



Unlock versatility  
with compact  
design



Highly  
accurate



Advanced seal  
integrity tester



Complies with  
ASTM and ISO  
standards

### TME BT Integra Pack: Smart Package Tester

The TME BT Integra Pack: Smart Package Tester is a compact, high-resolution (0.001 psig) bench-top instrument designed for reliable and repeatable package testing, including burst, creep, and leak tests. With its user-friendly interface and electronic pressure and flow controls, it ensures precise test conditions, making it ideal for labs and testing spaces. This versatile device is suited for testing packaging across multiple sectors, including pharmaceutical, providing users with accurate seal strength and integrity testing.

The BT Integra Pack features both automatic and manual modes, allowing for easy operation and customized test parameters. Its small footprint and ease of use make it perfect for quick, convenient, and accurate package leak testing and burst detection. Equipped with a touchscreen color display, it provides clear navigation and seamless data handling, enabling compliance with ASTM and ISO standards.

The BT Integra Pack ensures reliable testing for a variety of package types, from rigid to flexible and porous to non-porous. With automatic high-flow output, it can handle large porous packages with ease, making it an excellent solution for specialized applications. Perfect for quality control, it transmits data directly to your quality department, ensuring package integrity and product safety across industries.

#### Technical features:

- Results right out of the box, no lengthy setup
- Senses package size during prefill
- Transmits data for quality control
- Multiple levels of control for optimal test results – ramp rate, porous vs. non-porous packages, max/min acceptance limits, pressure drop sensitivity
- Electronic pressure and flow controls
- Automatic or manual burst test modes



Touch-screen  
control



Reliable and  
consistent



Automatic  
sample loading



Complies with  
international  
standards

### TMI Büchel Heat Sealer and Hot Tack Base 75-50

The Hot Tack Tester and Seal Tester is the most precise heat sealer in the packaging industry. Developed by TMI Büchel, a leader in physical properties testing, this device is also a heat-seal tester and hot-tack tester!

When determining ideal sealing conditions for packaging films, the SL-10 heat sealer provides critical data and unmatched precision. Designed to evaluate sealing conditions for packaging films, it features a touch-screen interface that allows easy adjustments to pressure, temperature, and dwell time. The dual load cells ensure consistent sealing pressure, while the computer-controlled system guarantees temperature accuracy within  $\pm 1.1^{\circ}\text{C}$  ( $\pm 2^{\circ}\text{F}$ ).

This device stores hot tack test results, enabling easy access and report generation through Ethernet or USB connections. Its automatic sample loading tray minimizes human error, enhancing safety and accuracy. Complying with ASTM F1921 and ASTM F2029 standards, this instrument is an essential tool for achieving optimal heat seals in various applications.

#### Technical features:

- Computer controlled pressure, temperature
- Measures actual dwell time on sealing sample
- Quick-change seal jaw inserts
- for any seal pattern
- Independent upper and lower sealing temperatures
- Safety guards and switches for safe operation
- Conforms to ASTM F1921 for hot tack seal testing and ASTM F2029 for making heat seals



# IMPACT, TEAR AND COEFFICIENT OF FRICTION TESTING

**Our impact and tear testing devices allow you eradicate the risk of your package tearing and ensure the impact of materials that make up your finished flexible package.**

Whether you're looking for an analog or digital impact testing device, we can help. With solutions that comply to a range of ASTM and ISO standards, you can select from a diverse portfolio of products.

From pendulum impact, to falling dart, to falling weight impact testers, our machines support several different methods and approaches to impact testing.

Our tear testing tools allow you to discover exactly how much force is required to tear your sample materials apart.

In addition, we also have COF solutions for a wide range of applications. Whether you're testing a new coating or paperboard, we have the testing instrument to help you get to grips with their properties. Our equipment is reliable, efficient, and will allow you to meet industry standards.



## IMPACT, TEAR AND COEFFICIENT OF FRICTION TESTING



Meets multiple industry standards



Microprocessor-controlled precision



Designed for intuitive operation



Adjustable drop height

### Ray-Ran FD-A2 Advanced Floor Mounted Falling Dart Tester

Brought to you by Ray-Ran, our plastics and polymers testing specialist brand, our falling dart tester measures the energy that causes thin flexible materials to fail. In fact, it's never been easier to perform a falling dart test on materials including plastic film, paper and composite sheets.

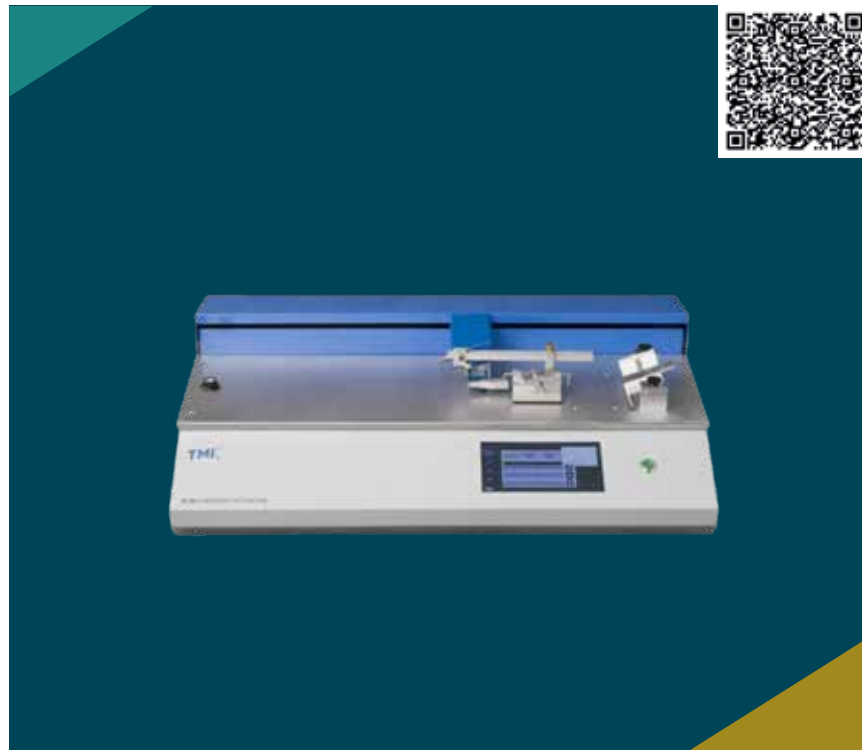
Manual testing typically requires at least sixty drops per sample to gain reliable results! But our microprocessor fitted drop dart device uses the latest in photocell technology to eliminate this wasted time and effort.

#### Simple, multi-purpose drop dart testing

Also known as the drop dart impact test, this is a straightforward and efficient way to test the impact strength or toughness of films. A dart tester like the FDA2 does this by dropping a free-falling drop dart before recording the resulting effect on a film, which is clamped in place. It has simple operation and is highly accurate. This falling dart tester is ideal for product development and quality control within production, R&D labs, and teaching institutions.

#### Technical features:

- Adjustable drop height
- User-friendly LCD interface
- Easy to read liquid crystal display
- Advanced dart tester microprocessor control
- Touch membrane alpha / numeric keypad
- Self-calibration dart tester procedure



Versatile testing capabilities



Designed for intuitive operation



Advanced reporting



Meets multiple industry standards

## TMI Büchel Coefficient Friction/Peel Tester 32-76e

The 32-76e coefficient of friction and peel tester is ideal for assessing static and dynamic properties across paper, corrugated materials, flexible films, rigid plastics, and engineered surfaces.

This advanced machine features digital force signaling and high-speed data acquisition software, ensuring unparalleled precision and repeatability in testing. Its color touchscreen display and intuitive software interface simplify operation and allow for seamless test method storage.

### Comes with seal strength and peel strength software

Our coefficient of friction tester comes with a comprehensive peel strength and heat seal application. Use it to enter a variety of peel strength parameters designed to support most international peel test and heat seal international standards. Choose from the selectable units, and both pre-peel and peel distance settings, for flexible test method set-up and storage.

Our GraphMasterPro™ software is a Windows™ based software data collection program capable of providing test curve analysis, result data, data storage, exporting and printed reports.

#### Technical features:

- 7" full-color digital touchscreen display
- High speed data collection and analysis for precise measurement of static COF with 500 readings during the first second
- Selection of test type-COF/ Friction, T-Peel and 180° peel
- Automatically reports static and kinetic friction results after measurement
- Settable distance and time for static, kinetic and peel strength
- Test storage including individual results up to 100 readings, average and standard deviation

## TMI Büchel Coefficient of Friction Tester Model 32-25

Developed by TMI Büchel, our Slide Angle Coefficient of Friction (COF) Tester is ideal for testing paper, plastic film, and packaging materials. It measures the static COF using the inclined plane method and conforms to ASTM, TAPPI, and ISO standards, determining the angle at which materials begin to slip.



Low-cost static COF



Auto-stop photo sensor



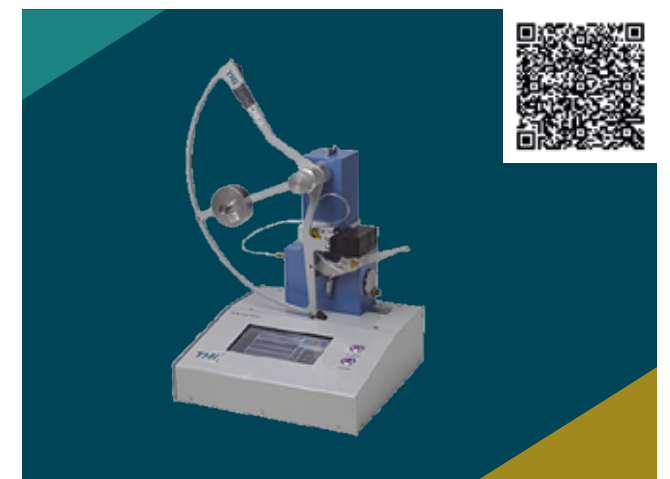
Simple to operate

#### Technical features:

- 7" full-color digital touchscreen display
- High-speed data collection and analysis for precise measurement of static COF with 500 readings during the first second
- Selection of test types: COF/Friction, T-Peel, and 180° peel

## TMI Büchel Elmendorf Tear Tester

The Elmendorf Tear Tester measures the force needed to continue tearing sheet materials like paper, plastic film, and textiles. It features an optical encoder and a large touchscreen display with intuitive, easy-to-use software provides a revolutionary new approach to testing and data review. An optional Spencer Impact attachment is available to have on the Elmendorf Tear Tester and meets ASTM D3420.



Bright, touchscreen display



Stores 200 readings



Versatile data options

#### Technical features:

- 7" full-colour digital touchscreen display
- Universal pendulum with interchangeable weights
- Pneumatic clamps and pendulum release
- Automatic calibration of pendulum
- Selectable units: grams-force, millinewtons, lbs-force, percentage of pendulum capacity
- Onboard statistics: average, min, max, standard deviation

# PERMEATION

**Need to understand the barrier capability of your packages, films, or bottles? Look no further than our range of permeation testing machines and services. Turn to Industrial Physics for a clear picture of the way in which oxygen and water vapor permeates through your packaging and products and you'll find it's easy to improve your R&D process and your in-house testing.**

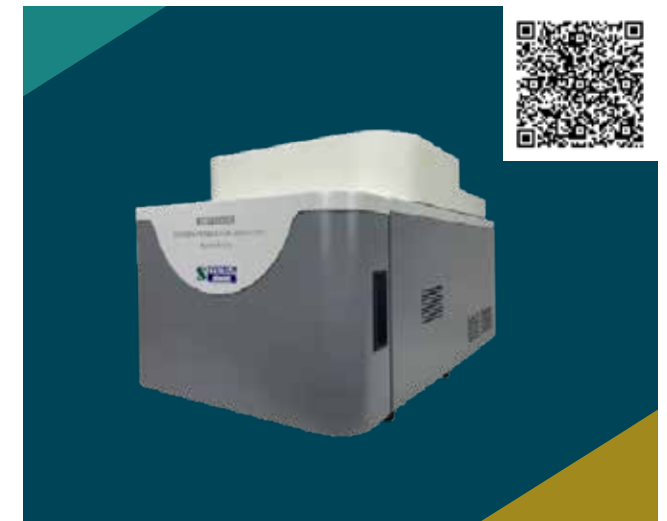
Whether it is water permeation testing or oxygen transmission, we have a wide-range of versatile test and measurement solutions, perfect for labs and manufacturers looking to evaluate the permeability of their materials, new materials and finished packages.



## PERMEATION

### Systech 8101e OxySense® Oxygen Transmission Rate Analyzer

The 8101e is an advanced and easy-to-use oxygen permeation analyzer. It boosts productivity while reducing costs. Perfect for precise oxygen transmission rate testing across various materials, including barrier films, PET bottles, containers, bags, and pouches. With the Profile Manager, you can pre-set up to 10 test conditions with distinct temperature and humidity settings, all executed automatically.



**Versatile test capabilities**



**Advanced and accurate measurements**



**Meets multiple industry standards**

#### Technical features:

- High sensitivity, wide range eMetric™ coulometric sensor
- Automatic relative humidity and temperature controls
- Meets multiple international standards, including ASTM D3985, ASTM F1307 and more
- Advanced test capabilities, with our Profile Manager

### Systech AquaSense 7101 Water Vapor Permeation

The AquaSense 7101 Water Vapor Transmission Rate Tester offers a wide measurement range, including temperature precision, humidity and flow control. It's the ideal choice for measuring the moisture vapor transmission rate of liquids through both current and newly formulated packaging film materials - perfect for speedy, quality control testing. With the Profile Manager, you can pre-set up to 10 test conditions with distinct temperature and humidity settings, all executed automatically.



#### Technical features:

- High sensitivity, wide range eMetric™ coulometric sensor
- Low replacement costs
- Compliant with international testing standards, including ASTM F1249 and ASTM F3299
- Advanced test capabilities, with our Profile Manager



# ADDITIONAL TEST & MEASUREMENT SOLUTIONS

With unrivalled knowledge across a wealth of specialisms, we're able to provide testing tools to companies across a broad range of applications. Perhaps you need to conduct printability or ink testing on your finished package, or maybe you're looking for a sample preparation unit.

When it comes to ensuring quality, there's no room for error – checking every aspect of your finished package is vital. Take a look through some of the additional tests we have on offer...



## ADDITIONAL TEST & MEASUREMENT SOLUTIONS



Real-time, non-contact measurements



Ultra precise



Broad range of use



Flexible and scalable

### SpecMetrix® ACS System

Brought to you by SpecMetrix, the ACS Systems are our most advanced and precise coating thickness and film weight measurement systems, specifically for metal food packaging containers. They have broad application capabilities for coated metal can manufacturers and the coating suppliers that support them. In particular, the ACS line is ideal for measuring the interior and exterior coatings of cans.

The ACS Systems are configured to meet your specific can plant needs. From flexible single can models or plant-floor ready systems for multiple containers, we offer a semi-automated non-contact solution that delivers highly precise film weight data that supports your intended process control, QA or claims review uses.

- **Single can:** The ACS-1 System can measure the coatings of single cans, using either a 90° or flexible angle probe, and is well suited for container QA, R&D and coating supplier use.
- **Multiple cans:** The ACS-10 System provides plant teams with the flexibility to measure 1 to 10 containers in batches in the lab or can be tested on production floor environments.

#### Technical features:

- Measurement range is from 0.3 to 250 microns for coatings
- Accuracy: +/-1% of coating thickness (nominal)
- System Speed: 1-2 minute per container based upon plant selected measurement parameters
- Measurement Speed: Up to 50 per second
- Container Size Range: Up to 3.5 in (8.5 cm) diameter and up to 9.5 in (24 cm) height
- Modular system designs can be configured for use with multiple automation, scanning, inspection and process control options

## TMI Büchel Ink Rub Tester

The Hand Operated Cutting Press (RR-HCP) provides precise sample cutting for materials like plastic, rubber, and fabric. Made from high-grade D3 tool steel, it ensures sharp, repeatable cuts for accurate results. The diamond-tipped, heat-treated cutters offer enhanced wear resistance and reduced machining stresses. Its compact design generates up to 6kN of cutting force.



**Versatile test options**



**Clear LCD display**



**Meets multiple industry standards**

### Technical features:

- Five speeds: 42, 21, 85, 100, and 106 cycles per minute to reduce testing time for high rub samples
- Continuous cycle mode and selectable "test complete" alarm
- User-programmable variable cycle speeds and preset options
- Microprocessor control for precise performance
- Digitally controlled heated sled via touch-panel
- Various weights options for additional testing needs

## PGX+ Pocket Goniometer

The Pocket Goniometer PGX+ offers precise measurement of contact angles (both dynamic and static) of liquid droplets on a wide range of materials. Taking some 80 pictures per second, it makes surface tension and surface free energy (SFE) inspection quick and easy. Your test data is instantly transferred to your computer, connected to our custom-designed software. Pictures and results are stored and analyzed while the direct feedback helps you to make quick adjustments to improve the results.



**In-depth data capture**



**Compact design**



**Highly accurate**

### Technical features:

- Real-time data capture at 80 frames/second
- Measures static and dynamic contact angles
- Calculates surface free energy and tension
- No sample prep required for testing
- Multiple test fluids possible

## Systech OxySense 325i

The OxySense 325i is a highly accurate and versatile oxygen measurement machine that's suitable for a wide range of applications whether you need to test gas, oil or water.

The OxySense 325i is also a low-cost solution with a small footprint. It's a reliable choice for labs and companies who want to bring their oxygen testing in-house.



**High accuracy**



**Easy-to-use interface**



**Ideal for shelf-life studies**

### Technical features:

- Gas, oil and liquid oxygen measurement
- Simple one click oxygen measurements
- PC or laptop OxySense interface
- Real time graphical display
- No annual maintenance or factory calibration requirements
- Integrated report writer with graph and log capability
- Integrated temperature and pressure compensation

## TMI Büchel Burst Tester 13-56

Using the TMI Büchel Burst Tester 13-56 you can measure the strength and resilience of sheet materials by inspecting for real life failures such as punctures and rupture. With improved electronics and a state-of-the-art user interface, our Burst Tester 13-56 is so easy to use. Your sample is pneumatically clamped, and the rubber membrane is pushed upwards by digitally controlled hydraulics from our burst testing equipment.



**State-of-the-art technology**



**Excellent user interface**



**Versatile device**

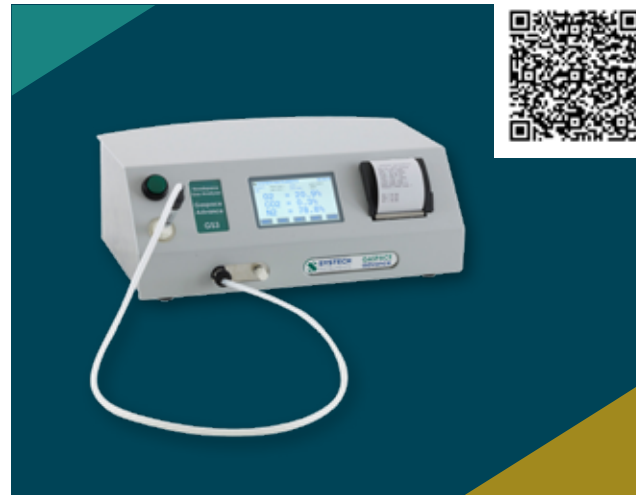
### Technical features:

- Large and easy-to-understand icon driven menu screens make it easy to configure to the latest testing standards
- Max measuring pressure: 2,000kPa (290psi), 5000kPa (725psi), 7000kPa (1015psi)
- Three models available for different pressure range requirements
- Inherently safe measurement stage – integral, interlocked safety shield around the sample stage (two-handed test activation)
- Pneumatic sample clamping pressure is measured and displayed via a transducer – a unique clamping profile is used to eliminate slipping on difficult samples like textile and plastic film



## Systech Gaspac Advance Headspace Analyzers

The Gaspac Advance oxygen (O<sub>2</sub>) and carbon dioxide (CO<sub>2</sub>) headspace gas analyzer is ideal for the food and pharmaceuticals industry. Features include automatic calibration, diagnostics and control providing repeatable, accurate results and exceptional performance, which is essential for HACCP compliance. Its large buttons and clear display ensures testing is simple, errors are eliminated and no special operator training is required, maximizing production efficiency.



**Extremely fast readings**



**Ideal for multiple packaging types**



**Auto-calibration**

### Technical features:

- Easy to use touch screen
- 5 different test methods
- Microprocessor controlled touchscreen
- Auto calibrate and auto diagnose
- Can piercing station option

## Ray-Ran Unrestrained Linear Thermal Shrinkage Apparatus

Designed and manufactured by Ray-Ran the Unrestrained Linear Thermal Film Shrinkage Apparatus, or more commonly referred to as the liquid immersion method, is used to determine the thermal shrinkage of plastic film & sheeting. Manufactured to a high standard, the apparatus is supplied with electronic digital temperature control, temperature bath and all tooling accessories.



**Simple to operate**



**Reliable measurements**



**Meets international test standards**

### Technical features:

- Accurate determination of unrestrained film shrinkage
- Conforms to ASTM D2732
- Stainless steel liquid bath
- Integrated stirrer motor
- PID electronic temperature control
- Sample cutting template 100mm x 100mm

**Wherever you are in the world, our experts are on hand to support your needs – whatever they may be. From installation to calibration, repair, and preventative maintenance, we've got you covered.**

We understand that being fast, efficient, and truly reliable is critical when it comes to servicing the instruments that keep your business running. And that's why we've established a global network of dedicated service specialists – allowing local experts across the world to support the needs of your facility.

### INSTALLATION

Our installation team are here to ensure a smooth set-up and effective configuration of your instruments. And our trained technicians will ensure your operators are clued up on how to use the machine straight away.

The familiarization process can take place on-site or remotely – whatever you prefer! We can also arrange group training.

### CERTIFICATES OF ACCREDITATION

As your global test and measurement partner, we hold many certificates of accreditation. You can visit our website or speak directly to our team to find out more information about this.

### EXTENDED WARRANTY

We have a host of services and extended warranty options available.

You can decide to select this when you purchase a new piece of equipment, or you can purchase this for equipment that is already in use – the choice is yours!

### CALIBRATION, REPAIR & PREVENTATIVE MAINTENANCE

Whether it's a one-off repair, scheduled calibration, or preventative maintenance, our dedicated team is here to assist you.

You can rest assured that all instruments are calibrated using accurate testing equipment that meets accepted industry standards. Our preventative maintenance options allow you to minimize unplanned downtime and optimize the lifetime of your instrument. And of course, if you need a repair, you can reach out to us for emergency support.



GET IN TOUCH

Find out more about how we  
can support your unique needs,  
get in touch today, email:  
**[info@industrialphysics.com](mailto:info@industrialphysics.com)**

