

**World-class film and
flexible packaging
inspection solutions**

ip

ip INDUSTRIAL
PHYSICS

Protecting
Product Integrity

Who are we

We've been designing and building instruments to test films and flexible packaging for several decades.

If you work with films, our inspection devices will ensure the quality and consistency of any roll you produce or use. Checking everything from the film's shrink and elongation characteristics to its tear strength and falling dart impact resistance.

If your business is seeking a more sustainable approach to packaging, we can help you put the latest types of recycled materials to the test. We've been doing this for decades and it's fair to say our instruments have revolutionized the recycled packaging industry.

We protect the integrity of some of the biggest brands on the planet, as well as hundreds of emerging brands and everything in between. But how do we do this? By providing first class test and inspection instruments and analyzers.

Thanks to our global network of technical and support experts, our advanced technology and more than 100 years' experience in the industry, we're able to provide trusted and personalized solutions to businesses all over the world.

At Industrial Physics we've combined the strength of 12+ of the world's leading inspection brands. When you choose us as your test and inspection partner, you'll get access to an unrivaled product portfolio that you won't find anywhere else.

No matter the size or location of your business, we're here to help you improve your quality, reduce costs.

Our brands

Across our portfolio of specialist testing brands, we've been protecting the integrity of businesses all over the world, for more than a century.

OUR PACKAGING INSPECTION BRANDS:



About Industrial Physics

010101
010101
010101 **Innovative Technology**

Testing & Inspection in...



20,000+
Customers

15 Industries
40 Applications
22 Materials



Over
300
People



Customers in
75
Countries

12+
Brands



Global Service & Distribution Network





At Industrial Physics we make highly accurate, cost-effective testing equipment to check the integrity of your films and flexible packaging.

Some of the instruments we make deal with:

- Burst, creep, and leak testing
- Density testing
- Environmental stress crack testing
- Friction and thickness testing
- Headspace
- Impact testing
- Melt flow
- Oxygen analyzer
- Permeation
- Printability testing
- Seal inspection
- Seal integrity
- Tear & penetration testing

Meet our product range

Seal Integrity

There's no point in choosing strong and durable packaging materials to protect your products... if the seals aren't up to scratch. Poorly sealed packaging can lead to spoilage and contamination – compromising product sterility and making your products unfit for purpose.

Don't let poorly sealed packages seal your company's fate! The IP range of leak detection and seal integrity instruments give you fast and reliable results for every essential test. From the latest in air leak testing, to the best in pressure decay analysis.

TME BT Integra-Pack

A high-resolution tester for flawless seal integrity testing of porous and non-porous packaging.

The intelligent Integra-pack is so easy to use, with several automatic modes that help characterize your packaging.

It's ideal for burst (ASTM F1140 and F2054), and pressure decay testing of your flexible packaging.



Headspace testing

Our advanced headspace analyzers are equipped with integral sampling systems.

They feature unique, miniature zirconia and infrared sensors and microprocessor controls. This long-life technology gives you the most accurate and repeatable performance possible.

Systech Gaspace 6000

Oxygen and carbon dioxide headspace measurement for modified, atmosphere packaged (MAP) products.

A powerful internal microprocessor manages calibration, auto-ranging flow control, test duration and many other functions. Giving you consistently accurate, faultless results.



Systech Gaspace Advance Micro

An O₂ and CO₂ tester which features the most advanced technology in headspace gas analysis. Comes with automatic calibration, diagnostics and control.

This makes sure the instrument always performs at the highest degree of accuracy...essential for HACCP compliance.



Permeation

Our innovative permeation instruments are relied upon by packaging and quality control labs, food processors, packagers and the biggest brands.

OxySense – Aquasense 7101

A water vapor transmission rate analyzer to check barrier films, PET bottles, containers, canisters, flexible pouches and bags.



OxySense 8101

An intuitive oxygen transmission rate instrument to check barrier films, PET bottles, containers, canisters, flexible pouches and bags.



Melt flow testing

First-class melt flow indexers for accurate melt flow rate (MFR) readings of extrusion, injection and molding grade resins.

Ray-Ran MFR300 Microprocessor Melt Flow System

A perfect partner for your QA, QC and R&D requirements – the MFR300 verifies and validates sample materials...fast! It's highly accurate and easy to use with sophisticated touch screen electronics and the latest in on-board microprocessor technology.

With insightful Windows based Techni-Test™ software included as standard and multi datapoint capture – for accurate flow curve analysis.



Film shrinkage and penetration testing

Our innovative film shrinkage and penetration devices help film manufacturers and users to understand the impact and puncture strength of their plastic bags and packaged goods.

They test for dimensional stability, ensuring product integrity through the packaging and transport stages. Plus they'll tell you how your packages will fare during storage, on the shelf and once they arrive with the end user.

Ray-Ran Linear Thermal Film Shrinkage Tester

This cost-effective inspection device uses a reliable liquid immersion method to determine the thermal shrinkage of your plastic films and sheeting.

Designed to ASTM D2732 standards and so easy to use, it features a temperature bath, tooling accessories and electronic digital temperature control.



Ray-Ran Falling Dart Impact Tester

The total energy that causes thin plastic films, paper and composite sheets to fail has never been easier to establish. Our range of falling dart testers are simple to operate and highly accurate – making them ideal for product development and quality control.

Our powerful microprocessor technology has taken falling dart testing to new heights! And we make three ASTM D4272 / ASTM D1709 / ISO7765 compliant models for all applications and budgets. Don't let your standards freefall... choose Industrial Physics!



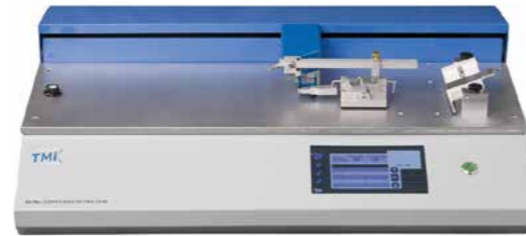
Friction and ink rub test units

At Industrial Physics we've developed a smooth reputation for making great coefficient of friction (COF) and ink rub instruments. You'll find our innovative, reliable machines at production lines and laboratories all over the world.

TMI Coefficient Friction/Peel Tester 32-76

This clever device uses advanced digital force signaling and high-speed data acquisition software for unmatched precision and repeatability. It's perfect for coefficient of friction and peel testing for any combination of packaging materials, to most quality standards.

The powerful Windows based 'Techni-Test™' software enables user-defined test data that's automatically downloadable for report information. So you get instant, accurate analysis of all aspects of the friction test curve.



TMI Ink Rub Tester

Need to measure scuffing or ink rub resistance? Then check out this highly accurate ASTM D5264 compliant device.

The TMI Ink Rub is ideal for several tests including: dry rub, wet rub, wet bleed or transfer, wet smear and functional rub/wet rub. Use the optional heated weights to evaluate hot abrasion resistance of printed materials like fabrics, plastics and laminations.



Thickness testers

IP brands TMI and Messmer Büchel are world leaders in precision contact micrometer technology.

Our digital micrometers will handle most sheet-like substrates. They bring together unmatched accuracy with robust mechanical design and a modern, contemporary look.

Messmer Büchel Digital Micrometer

The popular 49-56 micrometer gives precise thickness measurements. Whether you are working with paper, plastic and plastic films or tissue paper, nonwovens, textiles and other sheet-like substrates.

It's the tool for the job when your packaging sheet materials must hit international standards, including ISO, ASTM, EDANA and more.



TMI Micrometer

The TMI 49-86 micrometer is another great thickness testing option for thin samples and products made from paper, film, or non-wovens. Its precision digital linear encoder measuring system has an ultra-clear, easy-to-read digital display.

It has a measurement range of 0-0.050 in. (0-1.27 mm). Or talk to us about specialty models – available for corrugated, composites and rubber sheet materials up to up to 12.7mm thick.



Tear testing and film impact testing

Need a clear vision of how well your films and plastic packaging will fare, during manufacture, storage and transportation? An IP tear or impact tester simulates the real world challenges that your flexible package will face.

So you can choose the right combination of materials and design features to keep your products safe – from factory floor to customer door.

TMI Elmendorf Tear Tester

A digital tear tester with an optical encoder. It finds out how much force is needed to tear sheet materials including paper, plastic films and textiles. It can be customized with a simple attachment to test puncture resistance too.



TMI Spencer Impact Resistance Tester

You can perform both Elmendorf tear, and Spencer impact, testing on this one accurate device. Work out the puncture and impact resistance of papers, non-wovens and plastic films and laminates to international standards.



Density testing

Density is one of the most important physical properties of a material. Closely tied to material microstructure, it will help you to understand processing and end-use performance properties for materials like polyethylene.

TMI Automated Densimeters

The 21-10 Automated Densimeter DSG-1 is an easy to use, high-precision digital instrument. It features premium micro-balance technology, integrated into an automated platform. The sample immersion, temperature control and automated analysis functionality produces accurate and precise density values in any lab environment.



Ray-Ran Auto Density Measurement System

A highly optimized, highly accurate system for measuring the density of an object using the gradient method. Built for productivity, the great features include digitally controlled temperature, a linear-encoder and optics-based sample location.

There's even an optional digital, programmable column filling / mixing station available. So, determining the density of an object really does become effortless.



Universal Testing Machines (UTMs)

Industry-leading Universal Testing Machines by our specialist testing brand United Testing Systems provide you with unparalleled control and performance when performing tension (pull testing), compression, bend/flex, and materials testing on a variety of parts, components and test samples. Our UTM's are designed to perform test procedures that will comply with virtually all international and industry test standards related to Films and Flexible packaging.

United Testing Systems – Floor model frames

If you have large parts and components to test, or just stronger materials, our floor frames are the business. They can generate powerful forces from 100kN to 600kN, while our servo-hydraulic frames take things to a whopping 2,000 kN. Your poor samples don't stand a chance!



United Testing Systems – Table model frames

Our convenient table model frames are surprisingly powerful – generating force from 5 kN up to 100 kN. They're ideal for many material types and we can create bespoke instruments to suit the needs of your operation...just ask!



In-line Inspections

It's vital that your labels and codes can be properly understood, on first scan. Incorrect codes mean wasted staff hours at the warehouse or cash register. Then there's the inevitable human error that occurs when manually entering data into a system.

Eagle Vision 360° label inspection

Gives you a complete 360° final check inspection of labeled products. Great for bottles and cans: checks for correctness, position, misprints and damages.



Eagle Vision code readers

Our technology inspects ink-jet, laser and thermal-transfer codes. It tells if your codes are present, complete, readable and correct. These eagle eyed devices can ID mixed-up labels or lithographed packaging by barcode, QR code, OCR label number or artwork.



Eagle Vision empty can inspection

This smart device quickly and accurately detects defects on the flange, bottom and the inner sidewalls of your cans.



Optical/Appearance Property Testing

Technidyne ColorTouch® X ISO

The ColorTouch® X ISO brings together a powerful set of tools to meet the demands of the brightness, color, fluorescence and ERIC 950® markets. In addition to these traditional applications, the expanded wavelength range of the ColorTouch® X ISO provides a higher level of accuracy and capabilities. No other instrument in the market today can match the ColorTouch® X ISO for capabilities, functionality and quality.



Technidyne ColorTouch® PC

With swing-in calibration, primary calibration, ColorTouch® PC software, sample viewing, and optional equipment, the ColorTouch® PC boasts functionality that is far beyond standard color evaluation.

Meets the following industry standards:

ISO Standards 12625-7, 12625-15, 12625-16, 2470-1, 2470-2, 5631-1, 5631-2, 5631-3 TAPPI Optical Methods T519, T525, T527, T534, T560 PAPTAC E.1, E.2, E.5, E.8.



Technidyne ColorTouch® X 45

The ColorTouch® X 45 is elevating the way we measure TAPPI 45/0 Brightness, Color and Fluorescence. Simplified user interface, spectrophotometric measurements and improved UV energy control sets the ColorTouch® X 45 apart for accuracy and performance. This enhanced measurement platform is ready to be the cornerstone of your optical measurement program. No other 45/0 instrument in the market today can bring to your testing program what the ColorTouch® X 45 can.



Technidyne PROFILE/Plus® TAPPI Opacity

The precision of the Opacity Tester Model 425 provides for effective evaluation of the TAPPI opacity of paper. As one choice in the PROFILE/Plus® classic line of instruments, the Opacity Tester guarantees accurate measurement of this key paper property. The instrument operates automatically to ensure precise alignment and controlled loading of the sample and backing.

Meets the following industry standards: TAPPI Test Method T425, ASTM D589.

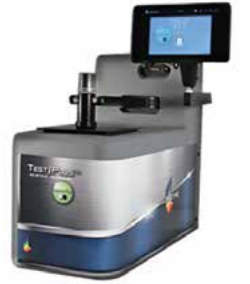


Technidyne TEST/Plus® TAPPI Opacity

The Technidyne TEST/Plus® TAPPI Opacity combines industry standardized measurement technology with an innovative control package that allows the user to tailor build their testing and evaluation capabilities.

Built on the Android software platform, the interface can be customized with the features and capabilities important to you.

- Touch Screen operation – The Tablet is the key. Moving around in the software is as easy as using your smartphone.
- Adaptive User Interface – Apps are the key element to the TEST/Plus® interface. Keep it simple or make it advanced.
- Apps – Averaging and Statistics, Data Export, Printing and Scattering-Absorption are some of the Apps available.



Technidyne TEST/Plus® Gloss

The Technidyne TEST/Plus® Gloss combines industry standardized measurement technology with an innovative control package that allows the user to tailor build their testing and evaluation capabilities.

Part of the Technidyne TEST/Plus® product line, this instrument is designed to meet your Gloss testing needs. Different options available, all of which adhere to multiple international test standards: ISO 18522, ISO 8254-1, PAPTAC E.3, TAPPI T480.



Cutting and Sample testing

Need to cut materials to size? We have a range of cutting instruments and tools to help you test your flexible materials and prepare your samples.

For sample preparation and testing, you can be sure we'll have a solution to assist your test and inspection needs.

Ray-Ran Micro Cutting Machine

Built with absolute simplicity, the Ray-Ran Micro Cutting Machine has been specifically designed to cut thin plastic film and other materials into rectangular strips of varied widths using specifically designed cutting heads. It is ideal for making Tensile and Tear Test strips to various International Test Standards when conventional die cutting is not suitable or recommended.



Ray-Ran Hand Operated Cutting Press

When you've got thin and flexible materials to cut into samples such as tensile bars, this simple hand operated press is just what you need. Whether you work with rubber, plastic, paper, fabric or laminates, our popular cutters are manufactured from high grade D3 tool steel. This gives you long-lasting, cutting-edge sharpness for repeatable test specimens and accurate test results.



Additional Industrial Physics Solutions

OxySense 325i & 5250i

A non-invasive oxygen measurement system. Ideal for lab technicians who want to measure oxygen headspace, dissolved oxygen and film or package permeation rates. It doesn't consume oxygen, making a perfect tool for shelf-life analysis.



TMI Heat Sealers

We make the packaging industry's most precise and consistent heat seal testers. Our temperature control and jaw/pressure delivery systems provide ideal sealing conditions for your seal strength simulation and testing.



TMI Heat Seal and Hot Tack

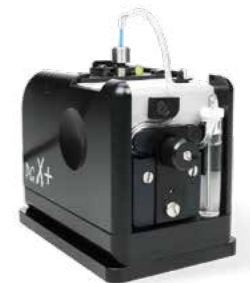
The TMI SL-10 sets the standard in hot-tack testing. Our machines give a testing range and control like no other. With unmatched method development and data analysis and reporting. The SL-10 is popular with major international film and packing companies.



TQC Fibro PGX+ Pocket Goniometer

Perfect for your surface analysis needs within the world of flexible package, this instrument ensures that your chosen material is consistent – allowing you to avoid any performance or supply related issues.

The PGX Goniometer rapidly checks surface properties for contamination, adhesion and the printability of metals, polymers, glass, paper, board and more.



Support & services

TQC Sheen Automatic Film Applicator Standard

The Automatic film applicator provides users with quality research and rheological property information of their film coatings. There are multiple types of automatic film applicators available for either glass/paper/metal substrates or foils. The Automatic film applicator provides a reliable basis to apply coating films to foils in a uniform and reproducible way, in order to eliminate human factors and errors.



C&W Humidity Cabinets

C&W Humidity Cabinets are designed to reproduce test conditions of high humidity at constant or cycling temperatures. These instruments are used within the flexible packaging industry, particularly for testing the stability of inks on foils and similar materials.



The cabinets allow users to replicate and test how well panels and coatings perform/react within moisture-rich and humid environments. The cabinets are reliable, easy to operate and have a robust construction.

Ray-Ran Environmental Stress Cracking Apparatus

Various thermoplastics, ethylene and polymers will react different to various solvents. Our Environmental Stress Cracking Apparatus allows users to test their samples under predetermined bending stress and are then exposed to different solvent environments, such as soaps, wetting agents, detergents and acids to see if they exhibit any mechanical defects by cracking.



Designed in accordance with the ASTM D1693, the apparatus is extremely cost effective and very simple to use.

We believe that supplying you with high quality testing instruments is only part of our job. Being fast, efficient, and truly reliable is critical when it comes to servicing the technology that keeps your business running.

Wherever you are in the world, our experts are on hand to support your needs. From installation, through to calibration, repair, and preventative maintenance, we've got you covered. That's because at Industrial Physics, we're not just suppliers, we are here for you as trusted partners.

Whatever your requirement may be, if you're looking for the highest quality of test and inspection solutions to ensure the quality of your products, the team at Industrial Physics are here to support you.



“During our time with Industrial Physics we only encountered helpful people. The response to our questions is always very quick.

Our purchase orders are quickly confirmed and dealt with. Shipping time is very precise, we always get our package right on time, a few days after the order. The packaging is spot on, our ordered items are packaged very carefully all the time, and we get everything without any damage. In the past couple of years our partnership was smooth and productive. We at Inteszt Kft. hope that in the future everything will be the same and hopefully we will be able to complete many more deals”

Inteszt Kft.

Get in touch

Find out more about how we can support your unique needs and get in touch today.

Email: info@industrialphysics.com

[industrialphysics.com](https://www.industrialphysics.com)

