

The background of the image consists of two large, overlapping curved shapes. The top shape is a dark blue-grey color, and the bottom shape is a vibrant green color. They overlap in the center, creating a layered effect.

**rycobel**

Test equipment for  
quality control

# rycobel

Since 1950, Rycobel has been offering solutions to problems that occur in many industrial sectors. Rycobel is made up of 3 departments:

- » Laboratory test equipment for quality control
- » Optimisation of production processes
- » Own ISO17025-accredited service department

## **Mission: bringing competitive advantage**

Rycobel brings competitive advantage by supplying and maintaining equipment to measure and improve product characteristics.

Loyal to its mission, Rycobel strives to close partnerships that offers customers an absolute added value. The goal of Rycobel is to think together with the customer about the business or technical need and propose the adequate solution to bring competitive advantage.

## **ISO certification**

Since its foundation, Rycobel has stood for quality. This quality has been awarded the ISO 9001 and ISO 17025 quality label.

In addition to a professional service with sustainable added value, Rycobel also offers after-sales service. Being ISO certified means: quality in advice and service with fast and accurate interventions.

## **Values: the heart of our company**

- » Integrity
- » Experience
- » Engagement
- » Teamwork
- » Helpful

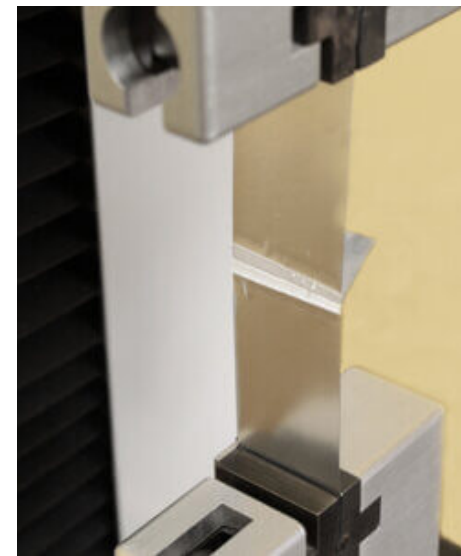
# Package testing

Packaging has a major impact on food quality and product safety. This presents great challenges for product design. The multitude of materials and shapes for packaging require flexible test equipment. Rycobel has a wide range of test equipment for measuring product properties of different types of packaging materials.

## Testing flexible packaging

### TEST EQUIPMENT

- » Vapometer
- » Burst resistance tester
- » Airproof tester
- » Heat sealer
- » Permeability tester
- » Tensile tester
- » Thickness tester
- » ...



### Tensile strength

Maximum tensile force is the force at which a material is pulled out to the point where the material breaks. To determine this force, a tensile test is the most commonly used test method.

### Permeability

Every material has a certain permeability. Our test equipment measures the water vapour, gas, air and oxygen permeability for various materials.

### Thickness

Measuring the thickness of materials is very important. The thickness not only determines the cost price of a product but also affects the characteristics such as strength, permeability, etc.

### Leaks

Leak detection is crucial for food and pharmaceutical packaging industry to preserve the integrity of the products within the package. Any kind of physical breach such as a leak, spoils the quality of the product making it unfit for consumption. By using high-quality leak detection instruments, it is possible to detect leaks in a timely manner and ensure that the quality of products is not compromised.

### Seal strength

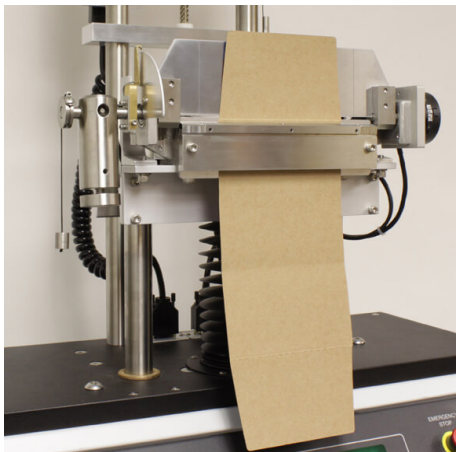
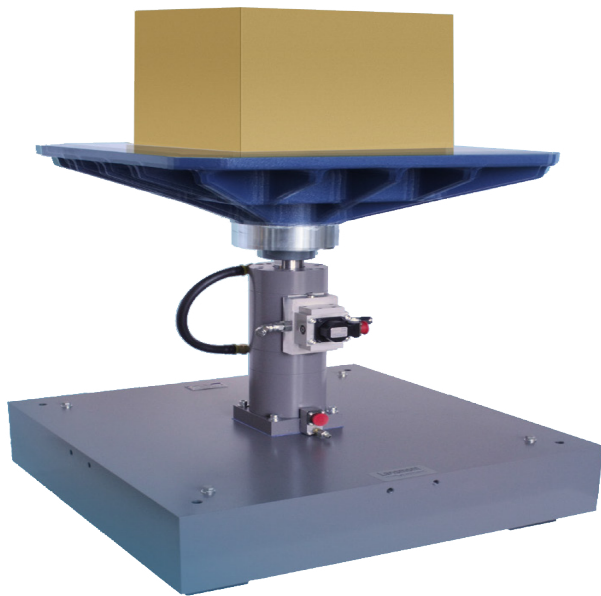
Determine the strength of a seal and check what load the weld can withstand.



# Cardboard testing



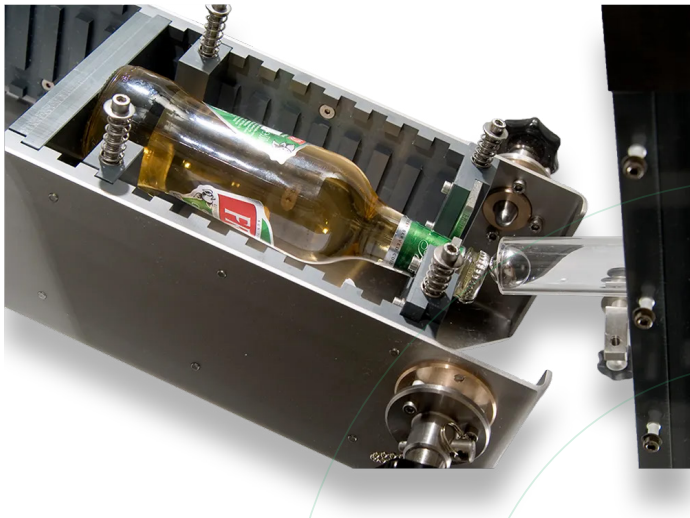
- Transport simulation**  
Simulating which influences products and packaging have to endure during transport and storage.
- Compression**  
Testing and determining the compression resistance of packaging
- Folding-opening strength**  
Measuring the force required to open/shape boxes and assessing the quality of crease lines.



# Bottles and cans testing



- Drop tests**  
Simulating the fall of a bottle or can.
- Ball Impact Tester**  
Testing the impact of a steel ball on a defined location of a bottle.
- Torque testers**  
Measure the torque force required to open a bottle.
- Pressure tests**  
Examination of leaks and cracks in a bottle or can due to pressure increase.
- Pressure measurement**  
Measuring the pressure.





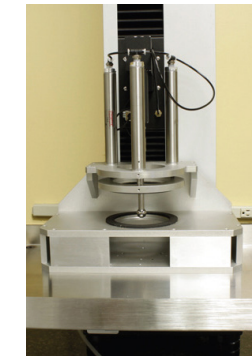
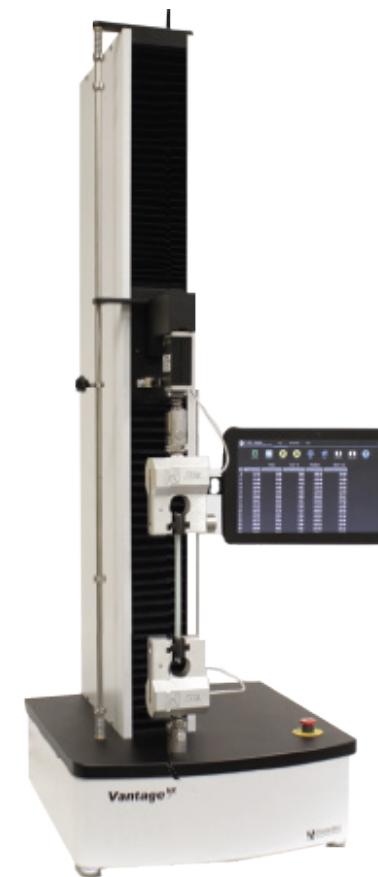
# Traditional tests

Rycobel has a full range of equipment to test mechanical, optical and physical properties of materials. Our equipment complies with international standards including ASTM and ISO.

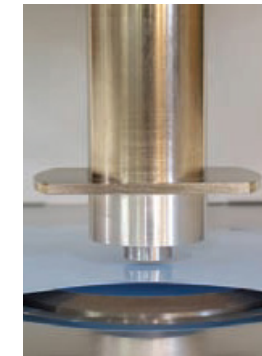
## Test equipment for traditional tests

### TEST EQUIPMENT

- » Sample cutters
- » Tensile tester
- » Friction Peel
- » Handle-O-Meter
- » Heat-sealer
- » Dart drop tester
- » Abrasion tester
- » Balances
- » Absorption
- » Surface tension tester
- » Thickness tester
- » Contact angle analyser
- » Colourimeters
- » Glossmeter
- » Permeability
- » Ink
- » Adhesion
- » ....



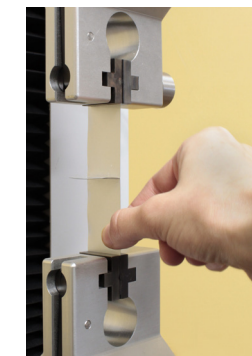
BURST



THICKNESS



COMPRESSION



TENSILE



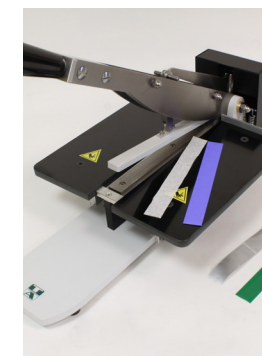
FOLDING RESISTANCE



HANDLE



FRICTION / COF



SAMPLE CUTTER



TEARING TESTER



ADHESION



CONTACT ANGLE



GLOSS

# Beverage testing

Beverage content and packaging are inextricably linked. Packaging fulfils numerous functions and must meet a variety of conditions. We provide the necessary testing equipment to test beverage contents for impeccable quality.

## Test equipment for beverages

### TEST EQUIPMENT

- » Carbonisation tester for tanks and vessels
- » Pressure and temperature loggers
- » Pressure calibrator
- » Foam stability tester
- » Carbonisation system
- » Pasteurisation control
- » Vessel monitoring
- » Hazemeter
- » Alcohol content
- » Sampler
- » ...



### Pasteurisation

Following the pasteurisation process of pasteurised drinks is essential. If the pasteurization is insufficient then you end up with a product that's unacceptable from a microbiological perspective. If the pasteurization process goes too far then the taste can be affected.

### Foam stability

The optical determination of foam height over a defined period of time.

### Pressure measurement

Measuring the correct pressure.

### CO<sub>2</sub> determination

Measuring the carbon dioxide content in beverages.

### Clarity / Turbidity

Measuring the turbidity or clarity of beverages and liquids.

### Carbonisation

Carbonisation is the process of dissolving carbon dioxide in a liquid. An exact number of g/l of CO<sub>2</sub> is added in the process



# Vibration, shock and drop tests

## Test equipment for transport simulation

### TEST EQUIPMENT

- » Compression tester
- » Impact tester
- » Impact tester
- » Vibration table
- » Transport recorder
- » ...



### Vibration

Shocks and vibrations can damage the product and packaging during transport. Low frequencies in particular (<50 Hz) can cause parts of the product to vibrate in resonance and break down. Often, the damage is not immediately visible on the outside of the product. A vibration table can be used to simulate vibrations and test the product and packaging.

### Shocks

Shock tests accurately measure the fragility of products and evaluate how they respond to specific shock inputs. Both small products and large pallets can be tested.

### Drop tests

Dropping packages during transport can cause major damage to the product. Performing a drop test checks the protective effect of the package.

### Compression

During storage and transport, products, packaging and materials are subjected to stacking forces. To efficiently and cost-effectively use the available transport and storage space, products are stacked as high as possible. The pressure created in this process is high. Therefore, performing a compression test is an essential part of packaging design.

### Transport loggers

Transport recorders are transported together with the products to record vibration and shock pulses. By entering date and time in advance, one can perfectly locate where the product has suffered any shock and/or damage.

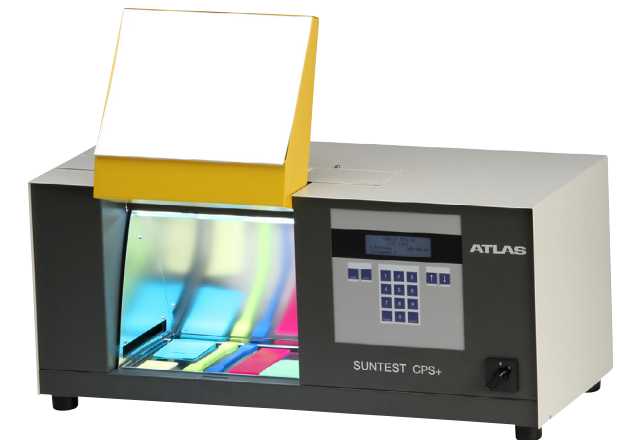


# Ageing and weathering tests

## Environmental testing equipment

### TEST EQUIPMENT

- » Weather-O-Meter
- » Xenotesters
- » Suntesters
- » UV and metal halide light sources
- » Climatic cabinets
- » Ovens
- » Fire testers
- » ...



### Sunlight simulation

The principle of artificially accelerated weathering involves exposing products to the sun under certain conditions for a period or cycle and evaluating the critical properties of the product before and after exposure. While these tests can be performed unaccelerated, where the product or material ages in 'real' time, accelerated tests that simulate reality are often performed using test booths that accelerate a cycle or make conditions more severe. Ageing tests are performed with various devices according to ASTM, ISO and DIN standards.

### Natural weathering

Numerous products are tested on exhibition fields. The climatic conditions of different regions play an important role in these. Such test rigs allow products to be tested in actual conditions of use.

### Climate simulation

In many cases, materials can be affected when exposed to sun, moisture and heat. It is therefore important that products are designed to withstand these stressful conditions. With climate cabinets, objects are subjected to various simulated climatic conditions such as desert climate, tropical climate, etc...



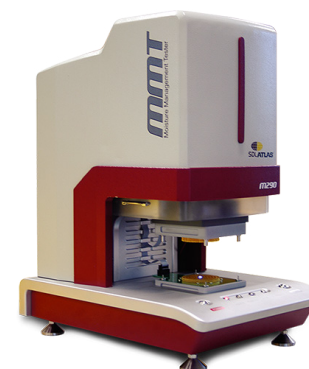
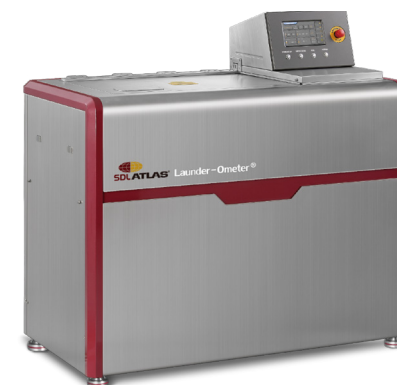
# Textile testing

Rycobel offers testing equipment for textiles, non-wovens, carpets, fibres and yarns for both in-line and off-line quality control. Some examples include wear, pilling, colour fastness to washing, rubbing, exposure to daylight, tear resistance, seam strength, ...

## Textile testing equipment

### TEST EQUIPMENT

- » Comfort testing
- » Air permeability
- » Burst tester
- » Martindale abrasion
- » Rotawash washability
- » Greyscales
- » Shrinkage tester
- » Spray test
- » Colour Assessment Light Booths
- » ...



### Colour fastness

Determine the resistance to fading and transfer of colors during wear and washing.

### Wear resistance

The Martindale test measures the wear resistance or 'pilling' resistance of textile materials.

### Color fastness to washing

Determination of colour fastness to washing at different temperatures.

### Pilling

A universal test which can be used to simulate the effect of pilling of a fabric in normal use.

### Flammability testing

Evaluate textiles, furniture and other materials for fire resistance, flammability and flame spread

### Comfort testing

Evaluate the perceived sensations associated with the feel and wear of clothing and fabrics

# Paper & Pulp

Rycobel's own product line RYCOLAB offers innovative test equipment for measuring product properties of paper, board, fabric and sample preparation. The RYCOLAB test equipment is mainly used to measure burst, tensile strength, smoothness, roughness, ... and various other product characteristics of paper, paperboard and tissue.

## Test equipment for paper and pulp

### RYCOLAB

#### Test equipment for paper, tissue and board - dry lab

- » Burst resistance
- » Tensile strength vertical/horizontal
- » Bekk smoothness meter
- » Bendtsen roughness/porosity
- » Cobb water absorption
- » Internal Bond
- » Ink Rub testing
- » Concora fluter
- » Sample cutters
- » Spectrophotometer
- » Folding resistance
- » ...



#### Test equipment for pulp testing - wet lab

- » Valley laboratory beater
- » Disintegrator
- » Rapid-Köthen sheet former
- » Rapid dryer
- » Sheet press
- » Pulpers
- » Disk refiner
- » ...



# Balances

Rycobel offers solutions for weighing systems. From precision laboratory scales to axle weighing of vans and trucks.

## Balances for laboratory and industry

Scales for different applications: industry, laboratory, trade, food, packaging, medical, transport and material handling. Analytical and precision scales, floor and hanging scales, weighing systems with PC or network communication. Calibration weights.

### Laboratory & Industry balances

Rycobel and Metil Industrie offer you a wide range of scales and weighing systems for both laboratory and industrial applications. These include analysis and precision scales, platform scales, crane scales... but also pallet scales, floor scales, scales with counting function, etc. Contact us for the right scale or weighing system for your application.



### Weighing of vehicles and large objects

When you need to weigh vehicles (trucks, trailers, cars, tractors), aircraft or heavy and large loads, the ideal solution is to use ultra rugged and manageable weighing platforms on the ground. One can thus create a weighing station in a short time, which displays and prints tyre weight, axle weight or total weight. There is a choice of options and possibilities for electronics and links to informatics. These mobile weighing platforms exist either with cable connection or radio transmission.

**metil** industrie  
part of rycobel

With the integration of Metil Industrie's activities, Rycobel can give you an even wider range of equipment for quality measurement and control. Metil knows its specialisation in scales for all possible applications, calibration weights, weighing hooks,... but also offers you a large range of dynamometers, force and torque transducers, universal test benches, hardness testers,...

WANT TO KNOW MORE? [WWW.METIL.BE](http://WWW.METIL.BE)

## Our other divisions

### Equipment to improve production processes

- » Static electricity
- » Energy-efficient drying and blow-off with airknife systems
- » Surface treatment
- » Industrial air humidification
- » Non-contact dust cleaning
- » Compressed air applications
- » TBOS: blowing off vehicles and trucks

<https://www.rycobel.com/optimization>

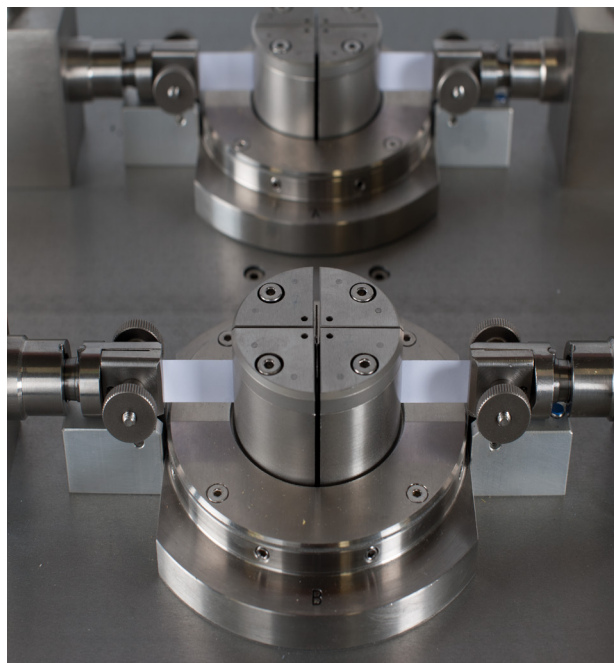
### We help you with the best possible service

- » Installation
- » Calibration
- » Qualification: IQ, OQ and PQ
- » Analysis of your production process: static electricity and compressed air consumption
- » Repair and service
- » Application training and courses

For all your technical questions, contact our technical helpline:

**+32 (0)56 78 21 79**

<https://www.rycobel.com/service>



## CALIBRATIONS? TO THE HIGHEST STANDARDS

Anyone who works in accordance with ISO standards must have their (measuring) equipment regularly calibrated. For example, the validity of measurements can be traced back to officially recognized standards. If you put safety and accuracy first, you gain an economic and therefore competitive advantage.

RYCOBEL provides you with razor-sharp reports and audits. Our service department works with an adequate and highly trained team that advises you correctly. They are responsible for the calibration and maintenance of standardized equipment. This also applies to devices that were not purchased from us.



