

# Mecmesin

testing to perfection



Force & Torque  
Test Solutions for the

# beverage industry

Mecmesin quality control test systems enable beverage companies to:

**Maintain consistency of manufacture and products**

Ensure the highest standards of precise, consistent product quality e.g. minimal leakage, evaporation or deterioration

Ensure package integrity, safety and security during storage, distribution and display on the shelf.

Ensure package closures are tight enough to create an effective seal while still being easy-to-open and re-seal by the customer.

**Control resources and costs**

Achieve superior efficiency, maximise production, reduce waste and rework, improve yield.

**Comply with relevant standards**

Achieve regulatory compliance with standards e.g. DIN 55440-1.99

Comply with environmental standards on the use of primary source material for PET containers.

## Quality Testing Solutions for the Beverage Industry

Mecmesin force and torque test systems are used by a range of beverage companies including:

Breweries

Wineries

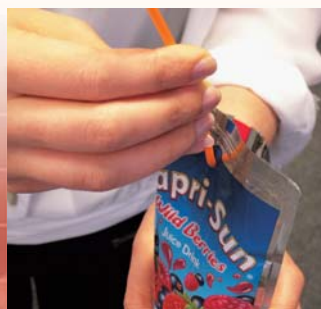
Spirits distilleries

Dairies

Manufacturers of soft drinks & bottled water

Manufacturers of sports drinks

# maintaining consistency of manufacture & products



"The success of the introduction of screw cap closures in the wine industry can be attributed to the successful application of the closure itself. In order to determine a good application you require reliable, accurate and consistent testing equipment. The Mecmesin closure torque testers have fulfilled all the criteria and have given us great confidence in our application of the screw cap closures."

*Mr Dean Zeunert - R&D Technical Manager of Orlando Wyndham group, producers of Jacob's Creek wine in the Barossa Valley.*

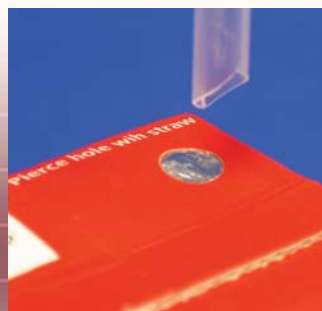
## A Complete Product Range

Mecmesin offers a variety of affordable measurement systems for quality control and production line testing in the beverage industry, including MultiTest force testing systems, which range from simple systems combined with a force gauge to complete motorised computer-controlled twin-column test frames, plus a comprehensive range of torque testing systems.

## Quality Control Applications for the Beverage Industry

These force and torque testing systems are used to perform a wide variety of quality control tests to measure for example,

- Application and release torque of screw closures
- Top-load strength of aluminium bevcans and PET bottles
- Peel strength of induction-sealed foils and labels
- Slip torque and bridge torque of tamper-evident closures
- Tensile load associated with extracting 'corks' from wine bottles
- Pull-off force of Crown closures
- Characteristic forces of 'sports drinks' push-pull closures
- Tensile force required to open a 'ring-pull' can
- Puncture force of flexible pouches
- Actuation force of 'bag-in-box' dispensers
- Resistance of foil on drinks containers to piercing by a straw



integrity, safety &  
security, efficiency &  
compliance &  
consistency

## Orbis

A manually-operated closure torque tester offering an affordable solution for closure torque measurement applications. It has been designed for ease-of-use and portability, thanks to its moulded carry-handle and compact lightweight housing. It is ideally suited for use in beverage production and quality control areas. The Orbis TE, while retaining all the properties of the Orbis, offers you an additional facility specifically for testing tamper-evident closures.

## Application & Release Torque of Screw Closures

Within the beverage industry the opening torque of bottles and other containers with screw closures is the key quality check to ensure:

- Integrity of the product during storage, distribution and display
- Minimal leakage or evaporation
- Easy to open and reseal the product by the consumer

Mecmesin offers a comprehensive range of torque testing systems for use in testing screw closures, tamper-evident foil inserts in caps, PET and plastic caps and aluminium caps with skirts.

ease of use  
portability  
lightweight



"The Mecmesin Orbis has helped us immensely with the introduction of screw cap closures. We love this unit because it is robust and easy to read on the large LCD display. This unit has been an integral part in testing screw cap closures; it has several times traveled with me to all corners of Australia. We chose the Mecmesin Orbis because of its reliability and robustness. It is great value for money especially compared to the old analogue units."

*Andrew Wright – Operations & Logistics Manager - CSA Australia, supplier of all kinds of wine closures*

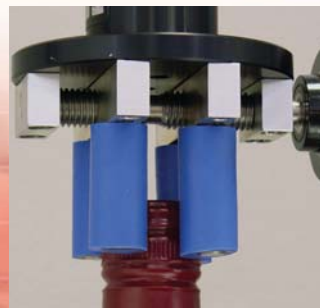
## Vortex

The Vortex range of motorised torque testing systems includes specialised systems for measuring torques of screw closures. They are capable of accurately and consistently testing application and release torque up to 10N.m (90lbf.in) capacity. The Vortex range enables a constant and repeatable test speed to be set - thus eliminating the variability associated with manually-operated testers. The Vortex-*i* is driven by Emperor, flexible, powerful and user-friendly Windows-based software, it is suitable for laboratory or production use.



"The Mecmesin Vortex gives us peace of mind that our process is in control on screw cap application. Our production line does half hourly checks for measuring the seal torque and the bridge break torque. The Mecmesin Vortex is a great instrument for us."

*Mr Ian Scrivener,  
Technical Manager Packaging of  
Hardy's Wine Company*



constant  
repeatable  
& accurate  
measurement

## Top-Load Testing

Manufacturers require beverage containers that meet environmental standards limiting the use of materials, but at the same time do not suffer top-load crush failures, both on the capping line or during stocking at different stages of the supply chain.

Top-load test systems based on a MultiTest test frame, force gauge and vented compression plate are a cost-effective and easy-to-use way to measure crushing load and to meet top-load test standards such as:

- DIN 55440-1.99
- ASTM D2659-89
- ISBT Plastic Bottle Test Methods

Typical top-load testing system:

- MultiTest 1-x
- Vented compression plate
- 1000N loadcell



cost-effective  
meeting  
standards



Whichever Mecmesin system is chosen you can feel confident in the fact that thousands of Mecmesin test systems and instruments are in use around the world for beverage containers and innumerable other applications. Over 30 years of proven success!

In addition our customers are supported by comprehensive technical information, service, calibration and support facilities from our headquarters in the UK and our worldwide network of more than 40 distributors and agents.

## Peel Testing

When designing beverage containers, a balance must be found between achieving a strong effective seal that prevents beverage contamination, but at the same time is easy to peel back. A peel testing system from Mecmesin, based on a MultiTest test frame and specialised grips can provide fast, repeatable and accurate data to evaluate the quality and strength of container seals and adhesive bonds. Mecmesin peel testing systems also meet the requirements of the following standards:

- BS EN 1895:2001
- ISO 11339:2003
- ISO 11607
- ASTM D1876-01

Typical peel testing system:

- MultiTest 1-i
- Intelligent loadcell 25N
- Specialised grips

" We have always found Mecmesin's equipment to be first class in its field. I would have no hesitation in recommending them to my colleagues within the industry".

*Jon Gilroy, Quality Manager, Esterform Packaging, Leeds.*



constant  
repeatable  
& accurate  
measurement

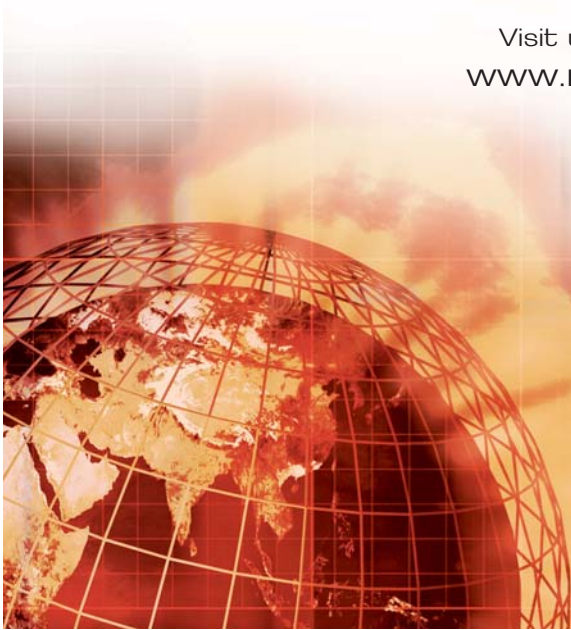
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## Over 30 Years Experience in Force & Torque Technology

Formed in 1977 Mecmesin Ltd is today widely regarded as a leader in force and torque technology for quality control testing in design and production. The Mecmesin brand stands for excellent levels of performance and reliability, guaranteeing high quality results. Quality control managers designers and engineers working on production lines and in research laboratories worldwide rely upon Mecmesin force & torque measurement systems for a range of quality control testing applications, which is almost limitless.

Visit us on the web at  
[www.mecmesin.com](http://www.mecmesin.com)



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