

Mecmesin

testing to perfection

Digital Torque Testers

Manually Controlled Torque Systems



Digital Torque Testers

Mecmesin's range of manually-operated digital torque testers provide a simple and cost effective method of measuring low-level torque.

There are a wide variety of objects that require the application of a torque to operate, from simple packaging and toys, to high-tech automotive and aerospace controls or medical devices.

Whatever its level of complexity, torque measurement is a common crucial ingredient in the delivery of a well designed and reliably manufactured product.



A Complete Product Range

Mecmesin's comprehensive range caters for almost any low-level torque application. Our three manually-operated digital closure testers - the Tornado, Orbis and CRC Tester offer a simple, flexible solution to torque assessment. For more technically demanding applications, requiring greater accuracy and repeatability, we also offer a range of sophisticated motor-driven torque systems.



design
quality
conformance

Why Test Torque?

Perfect Usability

Torque testing enables designers to perfect the 'fitness-for-purpose' of their products.

Example

Car steering wheel stalk controls must be easy to twist, but provide sufficient resistance to give a positive 'click' on engagement.

The child-resistant closures on medicine bottles must be sufficiently difficult to compress and twist to stop infants from removing the lid, whilst remaining sufficiently easy to open for frail and elderly users.

Conform to Standards

Torque testing can make up a vital component of a manufacturer's quality management system, enabling conformance with relevant national and international standards, as well as in-house specifications.



Guarantee Production Quality

Torque testing at the point of production guarantees superior quality manufacturing.

Example

In a beverage filling plant, in-line checks ensure that capping heads on bottling machinery apply sufficient torque to achieve an hermetic seal in the lid, but not too much as to damage the closure.

Examples

ASTM D2063-91 (Screw closures)

ASTM D3198-97 (Lug Closures)

ASTM D3810-97 (CRC closures)

ASTM D3968-97 (CRC closures)

ASTM D3469-97 (CRC closures)

ASTM D3472-97 (CRC - reverse ratchet torque)



The Mecmesin Orbis delivers a simple, affordable solution to low-level torque measurement.


Appropriate for use on any small rotary component, this rugged, lightweight and highly portable tester is ideally suited to both laboratories and production environments. The versatile mounting table sits atop an integrated digital torque sensor, and grips the base of your sample, presenting it for application of torque by hand. The digital tester features high sampling-rate electronics to allow accurate peak torque capture, providing a far greater level of accuracy compared to mechanical spring-type testers.

Key Features

- Clockwise & Counter-clockwise Digital Torque Capture
- Compact, Portable & Affordable
- Clear, Intuitive Controls
- 6 N.m (50 lbf.in) Capacity
- Mains or Battery Powered
- Data Output

A clear, backlit LCD screen displays maximum torques applied in both clockwise and counter-clockwise directions, up to 6 N.m. Alternatively, a running torque display may be easily invoked using the system's clear, intuitive controls. Once captured, results may be easily exported to a PC, printer or data-logging device, via a single button press, using the tester's integrated RS232 output.

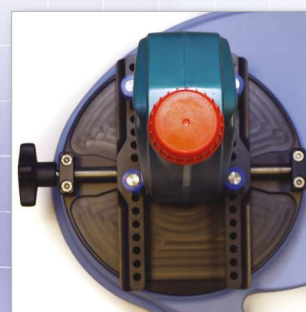
Orbis Technical Specifications

Measurement range	0 - 6 N.m
	0 - 60 kgf.cm
	0 - 50 lbf.in
Display resolution	0.002 N.m
	0.02 kgf.cm
	0.01 lbf.in
Container diameter	10 - 190 mm
Load units	mN.m, N.cm, N.m, gf.cm, kgf.cm, kgf.m, ozf.in, lbf.in, lbf.ft
Sampling rate	5000 Hz averaged to 80 Hz peak capture
Load accuracy	±0.5% of full scale
Overload	typically 150% of full scale
Weight	3 kg
Dimensions (mm)	303 (w) x 278 (d) x 127 (h)
Part No.	876-107

 Clockwise & counter-clockwise



Gripping pegs are easily adjusted to match sample dimensions.



Awkwardly shaped containers are easily accommodated - simply reposition pegs to align the closure over the centre of the mounting table.





Versatile mounting table, adjustable to accommodate a variety of forms. Integrated drip tray to capture spillages.

Clear digital display of clockwise & counter-clockwise maximum torque results, or 'running' torque display.

Mains input with water resistant cover. Power Orbis directly from mains or internal rechargeable battery.

Easy export of results to a PC, printer or datalogging device via integrated RS232 output socket.

Rugged, Water-resistant Case (rated to IP 54); ideal for use on the factory floor. Non-painted polypropylene case suitable for use within pharmaceutical laboratories.

Highly Portable; moulded carry handle & compact, lightweight design.

Clear, intuitive controls; 5 dedicated function keys for ease of operation. Lockable units and 'max display' modes.

simple
affordable
accurate

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Mecmesin - a world leader in affordable force and torque testing solutions

Since 1977, Mecmesin has assisted thousands of companies achieve enhanced quality control in design and production.

The Mecmesin brand represents excellence in accuracy, build, service, and value. In production centres and research labs worldwide, designers, engineers, operators, and quality managers endorse Mecmesin force and torque testing systems for their high performance across countless applications.

www.mecmesin.com



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The Mecmesin global distribution network guarantees your testing solution is rapidly delivered and efficiently serviced, wherever you are.



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