

Tornado

The Tornado is Mecmesin's most advanced manually-operated digital torque tester.

Externally, the Tornado features the same compact, rugged and portable design of the Orbis, and the same intuitive user interface and versatile fixturing. The Tornado's intelligent electronics, however, enable a broad variety of advanced additional functions, to offer enhanced practicality and versatility.

Test tamper-evident closures, capture both 'slip torque' and subsequent 'bridge torque' with ease.

Versatile mounting table, adjustable to accommodate a variety of forms. Integrated drip tray captures any sample spillage for ease of cleaning.

Moulded carry handle, for easy portability.

On-board memory, store up to 500 results internally.

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



Advanced Features

Tamper-Evident Closure Testing

The Tornado allows you to characterise the two critical torque peaks associated with tamper-evident closures, **slip torque**- effort required to initiate movement of the cap, and **bridge torque**- the smaller secondary peak associated with the effort required to break the plastic bridges between the cap and the security ring.

Four Capacity Models

The capacity of your digital torque tester should reflect the torque range of your application. If it is too low, the torque transducer risks being overloaded, whereas if it is too high, the transducer may not be sufficiently sensitive to accurately detect small peak loads. The Tornado offers four capacity models, a 1.5N.m option for delicate assessments, and 3N.m, 6N.m and 10N.m capacity models for increasingly robust applications.

Pass/Fail Alerting

Tolerance bands for acceptable torque measurements may be pre-defined, and pass/fail parameters established. Five independent settings can then be stored. LED indicators or an audible alarm (or both) then clearly identify samples that do not conform to your exact requirements.

On-board Memory

The Tornado can store up to 500 readings in its internal memory, allowing you to perform many tests in quick succession, and then view or export the results at a later time convenient to you.

Clear, intuitive controls, dual-purpose membrane keypad allows quick access to common functions & navigation of the advanced options menu. Features lockable units & 'max display' mode.

LED and audible alarms, establish pass/fail parameters for torque results, and set alarm notification for instant failure identification. Store 5 separate settings, with easy selection by operators.

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

Rugged, Lightweight & Water Resistant Design (Rated to IP 54), ideal for use on the factory floor. Non-painted polypropylene case suitable for use within pharmaceutical laboratories.

Tornado Technical Specifications

	Tornado 1.5	Tornado 3	Tornado 6	Tornado 10
Measurement range	0 - 1.5N.m	0 - 3N.m	0 - 6N.m	0 - 10N.m
	0 - 15kgf.cm	0 - 30kgf.cm	0 - 60kgf.cm	0 - 100kgf.cm
	0 - 13lbf.in	0 - 26lbf.in	0 - 50lbf.in	0 - 90lbf.in
Display resolution	0.0005N.m	0.001N.m	0.002N.m	0.002N.m
	0.005kgf.cm	0.01kgf.cm	0.02kgf.cm	0.02kgf.cm
	0.002lbf.in	0.005lbf.in	0.01lbf.in	0.02lbf.in
Container diameter	10 - 78mm	10 - 78mm	10 - 190mm	10 - 190mm
Load units	mN.m, N.cm, N.m, gf.cm, kgf.cm, kgf.m, ozf.in, lbf.in, lbf.ft			
Sampling rate	5000Hz averaged to 80Hz or 2000Hz peak capture (user selectable)			
Load accuracy	±0.5% of full scale			
Overload	typically 150% of full scale			
Weight	2.65kg	2.65kg	3kg	3kg
Dimensions (mm)	303(w) x 278(d) x 127(h)			
Part No.	876-103	876-104	876-102	876-101

 Clockwise & counter-clockwise

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