



# Tornado

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

The Tornado is an extremely versatile instrument for measuring low-level torques up to 10 N.m. It provides practical operation, combined with advanced features for testing clockwise and counter-clockwise torques easily and accurately.



testing to perfection

## **Advanced Features**

### 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 1.5 N.m option for delicate assessments, and 3 N.m, 6 N.m and 10 N.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. A LED indicator, an audible alarm or both are available to clearly identify samples that do not conform to your exact requirements.



#### **Tamper-Evident Closure Testing**

The Tornado allows you to characterize 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.

#### **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.

## **Specifications**

	Tornado 1.5	Tornado 3	Tornado 6	Tornado 10
Measurement range	0 - 1.5 N.m	0 - 3 N.m	0 - 6 N.m	0 - 10 N.m
-DC-	0 - 15 kgf.cm	0 - 30 kgf.cm	0 - 60 kgf.cm	0 - 100 kgf.cm
	0 - 13 lbf.in	0 - 26 lbf.in	0 - 50 lbf.in	0 - 90 lbf.in
Display resolution	0.0005 N.m	0.001 N.m	0.002 N.m	0.002 N.m
	0.005 kgf.cm	0.01 kgf.cm	0.02 kgf.cm	0.02 kgf.cm
	0.002 lbf.in	0.005 lbf.in	0.01 lbf.in	0.02 lbf.in
Container diameter	0.4" - 3.1" (10 - 78 mm)	0.4" - 3.1" (10 - 78 mm)	0.4" - 7.5" (10 - 190 mm)	0.4" - 7.5" (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 or 2000 Hz peak capture (user selectable)			
Load accuracy	±0.5% of full scale			
Overload	Typically 150% of full scale			
Weight	5.8 lb (2.65 kg)	5.8 lb (2.65 kg)	6.6 lb (3 kg)	6.6 lb (3 kg)
Dimensions	11.9" (w) x 10.9" (d) x 5.0" (h) [303 mm (w) x 278 mm (d) x 127 mm (h)]			
Part No.	876-103	876-104	876-102	876-101
Clockwise & counter-clockwise	Mecmesin reserves the right to alter equipment specifications without prior notice			

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