

DTT-02 Auto Cap Torque Tester

Brief Introduction

DTT-02 The auto cap torque tester is a combination of a torque test and an automatic manipulator, which is suitable for the application torque and removal torque of bottles, spout bags and flexible tube package. Different from the ordinary cap torque tester, this is automatic instrument. This automated cap torque tester is an indispensable test equipment in the production process due to its high measurement accuracy and good stability.



Technical Features

- ◆ Equipped with a small range sensors for more accurate testing
- ◆ Dual test modes including application torque test and removal torque test
- ◆ Manual test or automatic test can be selected
- ◆ The peak value can be maintained automatically, which ensures the recording of the accurate test results

- ◆ Newly designed manipulator with automatic, relaxation and rotation functions in one
- ◆ Gripping force, fastening force and rotation speed of the cap can be adjusted freely
- ◆ Intelligent designs of automatic zeroing, overload protection and error alert for safe test operation
- ◆ Movable touch panel design and intuitive operation interface bring great improvement in operation experience
- ◆ Real-time test curve display and group test statistics improve testing efficiency
- ◆ International common unit database with unit customization support
- ◆ Automatic data storage and power failure memory functions
- ◆ Support data playback, export, report printing
- ◆ Micro-printer and USB data ports for data output and transmission
- ◆ With a powerful data storage function, storing up to 50,000 test records
- ◆ Computer software fully complies with the requirements of GMP "computerized system", with user management, rights management, data audit tracking and other functions.

Test Principle

Place the sample on the automated cap torque tester, and fix the bottle and bottle cap on the special fixture. The bottom end of the fixture is fixed on the torque sensor, and the bottle cap is automatically rotated. Drive the bottle body, thereby causing the torque sensor to test the torque value required to rotate the bottle cap clockwise or counterclockwise.

Applications

Basic Application	Bottle Package	Open and lock force test of the bottle caps for bottled packages for food, pharmaceuticals, e.g. beverage or tablet bottles
	Flexible Tube Package	Open and lock force test of flexible tube packages for food, pharmaceuticals and cosmetics, e.g. eye-drop, hand cream and shoe polish
Extended Application	Application & Removal Torque of Screw Nut	Open and lock force test of the screws
	Vacuum Flask and Vacuum Cup	Open and lock force test of the caps of vacuum flasks and vacuum cups

Technical Specifications

Item	DTT-02
Load Cell Capacity	5 N·m (Standard)
	20N·m, 40N·m (Optional)
Accuracy	0.5% FS

Resolution	0.001N·m
Body Clamp Range	Φ5 mm~Φ170 mm
Cap Clamp Range	Φ10 mm~Φ80 mm
Bottle Height	20 mm~400 mm
Maximum Removal/Application Torque	2 Nm (customization available for other specs)
Specimen Clamping and Turning Way	Pneumatic
Gas Supply	Air (Not in supply scope)
Gas Supply Pressure	0.7 Mpa (101.5psi)
Statistical Analysis Allowance	0 ~ 50000
Instrument Dimension	570 mm (L) × 375mm (W) × 1200mm (H)
Power Supply	AC 220V 50Hz /120V 60Hz
Net Weight	38 kg

Standards

ASTM D2063, ASTM D3198, ASTM D3474, GB/T 17876, BB/T 0025, BB/T 0034

Configuration

Standard Configuration	Instrument, Micro-printer, PU Tubing
Optional Parts	Air Compressor

Note: 1.The gas supply port of the instrument is Φ4 mm PU Tubing;
2. Customers will need to prepare for gas supply.

Technical specifications are subject to change without further notice. Please visit our website at www.horizontester.com for latest information.