



## NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Multiple Dimensions Measuring Device  
 Static Dimensioning Only  
 Models: TLD870  
 Maximum: (see below)  
 Minimum: (see below)  
 $d_{min}$ : (see below)

**Submitted By:**

Mettler-Toledo, LLC  
 1150 Dearborn Drive  
 Worthington, OH 43085  
 Tel: 614-438-4387  
 Fax: 614-438-4355  
 Contact: Scott Davidson  
 Email: [scott.davidson@mt.com](mailto:scott.davidson@mt.com)  
 Web site: [www.mt.com](http://www.mt.com)

**Standard Features and Options**

For dimensioning of static palletized freight and irregulars, cylindrical, hexahedron, triangular and toroidal shapes.

System consists of:

- 3 x 800-S Heads (dimensioners).

See photos under example of devices.

**Dimensioning Designation:**

Dimensions	Minimum	Maximum
Length*	12 inches (30 cm)	98 inches (249 cm)
Width*	8 inches (20 cm)	98 inches (249 cm)
Height*	3 inches (8 cm)	102 inches (260 cm)

\*Multi-Interval

- Minimum to 72 x 72 x 72 inches:  $d = 0.25$  inch (1 cm)
- 72 x 72 x 72 inches to Maximum:  $d = 0.5$  inch (2 cm)

**Standard Features:**

- Ethernet
- Tare capability

**Options:**

- Remote Display


**Software Version ID:**

- 1.7.12.1 or Higher

Temperature Range:  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $104^{\circ}\text{F}$ )

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

  
 Brett Gurney  
 Chairman, NCWM, Inc.

  
 James Cassidy  
 Chairman, National Type Evaluation Program Committee  
 Issued: October 29, 2018

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

The National Conference on Weights and Measures (NCWM) does not approve, recommend or endorse any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.



## Mettler-Toledo, LLC

### Multiple Dimension Measuring Device / TLD870


**Application:** The TLD870 is a static dimension measurement instruments that dimensions palletized freight and irregulars, cylindrical, hexahedron, triangular and toroidal shapes.

**Identification:** The required information appears on an adhesive badge attached to the side of the dimensioning device housing.


**Sealing:** The devices are sealed using a category 3 audit trial.

Sealing information is found in the "System Configuration" page of the main menu of the Master Dimensioner. When the system is sealed legal for trade it is not possible to change any calibration or configuration parameters without incrementing an event counter and creating an entry in the event log.

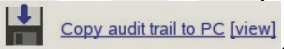
#### To Seal the System:

1. Select the "Seal System" link 
2. Any changes to calibration or configuration parameters will be logged in the audit trail.


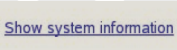
#### To Unseal the System:

1. Select "Unseal System" link 
2. Once system is unsealed changes to calibration and configuration parameters can be changed, any changes will be logged in the audit trail.

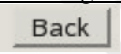
#### To Gain Access to the Audit Trail:

1. You can access to the service interface by connecting your laptop to the system and running a web page browser **or** you can run a web browser from the workstation computer.
2. Select "Copy audit trail to PC view" link 
3. Selecting this link will enable the audit trail to be downloaded to a PC on site as a test file.
4. The file can then be printed to a printer on site.
5. Selecting view will display the audit trail on the screen.

#### To Verify the System Is Sealed:

1. Select the "Show system information" icon  
2. Selecting this link will bring up a screen that shows information for each dimensioner unit in the system.
3. The sealing status of the unit will show Yes/No.

#### To Return to the Dimensioning Screen:

1. Select "Back" link 

**Test Conditions:** This Certificate supersedes Certificate of Conformance Number 17-117P and was issued to upgrade the certificate from "Provisional" to "Full". The original certificate was issued when the "Multiple Dimension Measuring Devices" (MDMD) code in NIST Handbook 44 and NCWM Publication 14 checklist criteria for MDMD devices were under development. The MDMD code in Handbook 44 is no longer a "Tentative Code" and NCWM Publication 14 checklist criteria has been fully developed. NTEP has conducted further evaluation to make sure 2018 Handbook 44 and Publication 14 checklist criteria have been satisfied. Additional information from the certificate holder, data from the manufacturer and testing was done, reviewed and approved as needed. Previous test conditions are listed below for reference.

**Certificate of Conformance Number 17-117P:** A Mettler-Toledo model TLD870 was submitted for evaluation. The emphasis of the evaluation was on device design, marking, operation, and compliance with requirements. Several measurements were performed near maximum, near minimum, and near mid-range for the ranges listed. Tare feature was evaluated several measurements were performed with various sized standards. Several measurements were performed using known shapes and irregular shapes. No temperature test deemed necessary, since the dimensioning module has been previously evaluated reference test results for the model CSN950. The test results were reviewed for the model CSN950 (Certificate of Conformance Number 12-037PA2).

**Mettler-Toledo, LLC**

Multiple Dimension Measuring Device / TLD870

**NOTE:** This Certificate is issued as a provisional NTEP Certificate of Conformance (CC). This evaluation is based on the current draft checklist, procedures and technical policy contained in NCWM Publication 14 for this device type. When work on the NCWM Publication 14 section for this device is completed, the test report and this NTEP CC will be reviewed. If all current requirements have been met by this evaluation, the provisional status will be removed.

**Evaluated By:** M. Kelley (OH) 17-117P; D. Flocken (NTEP) 17-117A1

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2017. NCWM, Publication 14: Weighing Devices, 2017.

**Conclusion:** The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

**Information Reviewed By:** J. Truex (NCWM) 17-117P, 17-117A1

**Example of Device:**

Model: TLD870