

**Multiple Dimension Measuring Device Work Group  
May 6<sup>th</sup>, 2026**

Ohio Department of Agriculture  
Administration Building  
8995 East Main Street  
Reynoldsburg, Ohio 43068  
8:30 a.m. - 5:00 p.m.

**Meeting Agenda**

**Schedule**

- i.* **Welcome and Introductions** *(Chris Senneff)*
- ii.* **Sector secretary assignment** *(J. Gibson/ C. Senneff)*
- iii.* **Report – 2025 NCWM Interim Meeting** *(J. Gibson)*
- iv.* **Report – Recent NTEP MDMD Type Evaluation Activity** *(T.Buck / J. Gibson)*
- v.* **Report – Recent Measurement Canada Type Evaluation Activity** *(J. Foster)*
  
- 1.* **Review changes to Handbook 44, MDMD code since the last meeting** *(J. Gibson)*
- 2.* **Measurement Canada update/ Changes to MC MDMD Code** *(J. Foster)*
- 3.* **Review changes to the 2025 edition of Pub 14, MDMD Checklist** *(J. Gibson)*
- 4.* **Old Items for Workgroup Discussion**
  - 4.1* **Forklift mast tilt/angle test for dynamic or static palletized freight.** *(All)*
  - 4.2* **Publication 14 the use of multiple boxes to “build up to a larger box size.”** *(All)*
- 5.* **MDM -25.1 Update and Discussion** *(All)*
- 6.* **MDM-26.1 Update and discussion** *(All)*
- 7.* **New Items for Workgroup Discussion** *(All)*
- 8.* **Review of Current Workgroup Members list and update** *(All)*
- 9.* **Review meeting activities and conclusions** *(J. Gibson)*
  
- 10.* **Define next steps (if needed)** *(C. Senneff)*
- 11.* **Next meeting** *(C. Senneff)*

## Welcome and Introduction

- i. Welcome and Introductions (C. Senneff)*
- ii. Sector secretary assignment (J. Gibson / C. Senneff)*
- iii. Report – 2025 Interim Meeting (J. Gibson)*
- iv. Report – Recent NTEP MDMD Type Evaluation Activity (T. Buck - Ohio Lab, and Jeff Gibson - NTEP)*
- v. Report – Recent Measurement Canada Type Evaluation Activity (J. Foster)*

## Continual Items

### 1. Review changes to Handbook 44, MDMD code since the last meeting

No changes were made to the MDMD Code in the 2025 edition of handbook 44.

Discussion: No discussion needed since there were no changes.

#### No changes to HB 44

### 2. MC Update / Review changes to Measurement Canada MDMD Code, and Terms and Conditions Documents

Discussion, as needed, regarding any changes to the Canadian MDMD Code since the Work Group's May 2019 meeting.

Discussion:

### 3. Review changes to the 2025 edition of Publication 14, MDMD Checklist

Changes were made to the MDMD Checklist in the 2025 edition of Pub 14. The changes were not technical in nature. They were adding already-in-use test methods for Static and Dynamic palletized freight that came from the In-Motion Forklift-based Pallet Dimensioning-Work Group.

Discussion: The publication will be reworked to make it easier to understand and follow just like the AWS checklist upon the passage or failure of MDM 25.1

#### 4. Old Items for Workgroup Discussion

4.1 Forklift mast tilt/angle test for dynamic or static palletized freight.

Should there be a documented test procedure for mast tilt/angle on dynamic or static palletized freight? Currently, there is no test procedure. Interested to hear the group's thoughts on if this test is or is not needed.

Discussion: A subgroup was formed to develop a test method for publication 14 and to see if a form 15 needs introduced for HB 44. The sub group was Klye Messer Rice Lake, Scott Davidson Mettler-Toledo, Justin Norman Quantronix, Barry Stone ODA. NTEP will ask Mearuemant Canada for there test method to use as a guide for the group.

4.2 Document in publication 14 the use of multiple boxes to “build up to a larger box size.”

For example, 3 boxes that are 4 ft x 4 ft can be used to achieve a 12 ft length or width or height. This is a common practice used currently by NTEP does the group think it needs to be documented?  
See attachment A

Discussion: NTEP (Jeff) will put together a language proposal for the group to review to be added to publication 14 to document that using boxes to build up for large dimensions are acceptable

#### 5. MDM-25.1 V Multiple Sections Regarding Adding Volumetric Measuring Devices to Section 5.58.

The Subgroup Chair will report on the changes to the Form 15 from the proposal submitted by the MDMD workgroup and clarify the proposal still has the recommendation of the MDMD Workgroup

#### **MDM-25.1 V Multiple Sections Regarding Adding Volumetric Measuring Devices to Section 5.58.**

**Source:**

Multiple Dimension Measuring Devices Work Group

**Purpose:**

Rename and amend Section 5.58. Multiple Dimension Measuring Devices to incorporate devices that measure volume directly rather than measuring three dimensions to calculate a volume. These devices measure, either statically or in-motion, the volume of a commodity, such as sand, gravel, rock, and dirt, etc., which is transported in a truck or other conveyance. The proposal will amend the application paragraphs and add or amend the specifications, test notes, tolerances and user requirements in this section to ensure these devices are designed to operate correctly and to facilitate their proper operation and evaluation.

**Item under Consideration:**

Amend the Handbook 44, Section 5.58. Multiple Dimension Measuring Devices Code as follows:

### **Section 5.58. Multiple Dimension and Volumetric Measuring Devices**

## A. Application

~~A.1. General. – This code applies to: dimension and volume measuring devices used for determining the dimensions and/or volume of objects for the purpose of calculating freight, storage, or postal charges based on the dimensions and/or volume occupied by the object. A multiple dimension measuring device:~~

- (a) ~~Multiple Dimension Measuring Devices used for determining the dimensions and/or dimensional volume of objects which are generally hexahedron-shaped but may be irregularly-shaped for the purpose of calculating freight, storage, or postal charges based on the dimensions and/or volume occupied by the object.~~ ~~is generally used to measure hexahedron-shaped objects; and~~

(Added 2008) (Amended 20XX)

- (b) ~~Volumetric Measuring Devices that make multiple measurements to determine the volume of a bulk commodity~~ ~~may be used to measure irregularly-shaped objects.~~

(Added 2008) (Amended 20XX)

(Amended 2008 and 20XX)

~~A.2. Other Devices Designed to Make Multiple Measurements Automatically to Determine a Volume – Insofar as they are clearly applicable, the provisions of this code apply also to devices designed to make multiple measurements automatically to determine a volume for other applications as defined by Section 1.10. General Code Paragraph G A.1. Commercial and Law Enforcement Equipment.~~

**A.23. Additional Code Requirements.** – In addition to the requirements of this code, Multiple Dimension and Volumetric Measuring Devices shall meet the requirements of Section 1.10. General Code.

(Amended 20XX)

**A.34. Exceptions.** – This code does not apply to:

- (a) devices designed to indicate automatically (with or without value-computing capabilities) the length of fabric passed through the measuring elements (also see Section 5.50. for Fabric-Measuring Devices);
- (b) devices designed to indicate automatically the length of cordage, rope, wire, cable, or similar flexible material passed through the measuring elements (also see Section 5.51. for Wire- and Cordage-Measuring Devices); or
- (c) any linear measure, measure of length, or devices used to measure individual dimensions for the purpose of assessing a charge per unit of measurement of the individual dimension (also see Section 5.52. for Linear Measures).

~~A.5. Type Evaluation. – The National Type Evaluation Program (NTEP) will accept for type evaluation only those devices that comply with all requirements of this code.~~

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**S.1.4. Dimensions Indication, Multiple Dimension Measuring Device.** – If ~~in~~during normal operation the device indicates or records only volume, a testing mode shall be provided to indicate dimensions for all objects measured.

(Amended 20XX)

**S.1.5. Value of Dimension/Volume Measuring Division Units.** – The value of a ~~device~~device measuring division “d” expressed in a unit of dimension or volume shall be ~~presented in a decimal format. The value of “d” for each measurement axis shall be in the same unit of measure and~~ expressed as:

- (a) 1, 2, or 5;
- (b) a decimal multiple or submultiple of 1, 2, or 5; or
- (c) a decimal binary submultiple of a specific U.S. customary unit of measure.

Examples: device divisions may be 0.01, 0.02, 0.05; 0.1, 0.2, or 0.5; 1, 2, or 5; 10, 20, 50, or 100; 0.5, 0.25, 0.125, 0.0625, etc.  
**(Amended 20XX)**

**S.1.5.1. Value of Measuring Division Units, Multiple Dimension Measuring Device.**

**(a) The value of “d” for each measurement axis shall be in the same unit of measure.**  
**(Amended 20XX)**

**S.1.5.1(b)** For Indirect Sales.—~~I~~**n** addition to the values specified in S.1.5. Value of **Dimension/Volume Measuring Division Units**, the value of the division may be 0.3 inch and 0.4 inch.  
**(Amended 20XX)**

~~**S.1.5.2.(c) — Devices Capable of Measuring Irregularly Shaped Objects.**~~ For devices capable of measuring irregularly shaped objects, the value of the **measuring** division size (d) shall be the same for the length axis (x) and the width axis (y) and may be different for the height axis (z), provided that electronic rotation of the object to determine the smallest hexahedron is calculated in only a two-dimension horizontal plane, retaining the stable side plane as the bottom of the hexahedron.

(Added 2008) **(Amended 20XX)**

**S.1.6. Customer Indications and Recorded Representations.**

**S.1.6.1. Multiple Dimension Measuring Devices** – Multiple dimension measuring devices or systems must provide information as specified in Table S.1.6.1. Required Information to be Provided by Multiple Dimension Measuring Systems. As a minimum, all devices or systems must be able to meet either column I or column II in Table S.1.6.1. Required Information to be Provided by Multiple Dimension Measuring Systems.

(Amended 2004 **and 20XX**)

<b>Table S.1.6.1. Required Information to be Provided by Multiple Dimension Measuring Systems</b>				
<b>Information</b>	<b>Column I<sup>1</sup></b>	<b>Column II<sup>1</sup></b>		<b>Column III</b>
	<b>Provided by device</b>	<b>Provided by invoice or other means</b>		<b>Provided by invoice or other means as specified in contractual agreement</b>
		<b>Customer present</b>	<b>Customer not present</b>	
1. Device identification <sup>2</sup>	D or P	P	P	P or A
2. Error message (when applicable)	D or P	P	N/A	N/A
3. Hexahedron dimensions <sup>3</sup>	D or P	P	P	P or A
4. Hexahedron volume (if used) <sup>3</sup>	D or P	P	P	P or A
5. Actual weight (if used) <sup>3</sup>	D or P	P	P	P or A
6. Dimensional Offset (if used) <sup>3</sup>	D or P	N/A	N/A	N/A
7. Hexahedron measurement statement <sup>4</sup>	D or P or M	P	P	P or G

**Table S.1.6.1.  
Required Information to be Provided by Multiple Dimension Measuring Systems**

**A** = AVAILABLE UPON REQUEST BY CUSTOMER<sup>5</sup>  
**D** = DISPLAYED  
**G** = PUBLISHED GUIDELINES OR CONTRACTS  
**M** = MARKED  
**N/A** = NOT APPLICABLE  
**P** = PRINTED or RECORDED IN A MEMORY DEVICE and AVAILABLE UPON REQUEST BY CUSTOMER<sup>5</sup>

**Notes:**

- <sup>1</sup> As a minimum all devices or systems must be able to meet either column I or column II.  
<sup>2</sup> This is only required in systems where more than one device or measuring element is being used.  
<sup>3</sup> Some devices or systems may not utilize all of these values; however, as a minimum either hexahedron dimensions or hexahedron volume must be displayed or printed.  
<sup>4</sup> This is an explanation that the dimensions and/or volume shown are those of the smallest hexahedron in which the object that was measured may be enclosed rather than those of the object itself.  
<sup>5</sup> The information “available upon request by customer” shall be retained by the party having issued the invoice for at least 30 calendar days after the date of invoicing.

(Amended 2004, ~~and 2021~~, and 20XX)

**S.1.6.2. Volumetric Measuring Devices. – Devices that determine the volume of a bulk commodity shall:**

- (a) **indicate or record an error message as specified in S.1.8.2. Indications Below Minimum and Above Maximum, Volumetric Measuring Device.**  
(b) **indicate and record the net volume of the commodity**

**(Added 20XX)**

**S.1.6.3. Recorded Representations, Volumetric Measuring Devices. – When interfaced with the elements that are necessary for a point-of-sale system, the recorded representation provided shall contain:**

- (a) **the net volume of the commodity**  
(b) **the identity of the commodity**  
(c) **the unit price of the commodity**  
(d) **the total price of the commodity**

**(Added 20XX)**

**S.1.7. Minimum Measurement.**

**S.1.7.1. Multiple Dimension Measuring Devices.** – Except for entries of dimensional offset, the minimum measurement by a device is 12 d. The manufacturer may specify a longer minimum measurement. For multi-interval devices, this applies only to the first measuring range (or segment) of each measurement axis (length, width, and height).

**(Amended 20XX)**

**S.1.7.2. Volumetric Measuring Devices. – The minimum measurement by a device is 12 d. The manufacturer may specify a larger minimum measurement. For multi-interval devices, this applies only to the first measuring range (or segment).**

**(Added 20XX)**

(Amended 2017, ~~and 2021~~, and 20XX)

**S.1.8. Indications Below Minimum and Above Maximum.**

**S.1.8.1. Multiple Dimension Measuring Device.** – When objects are smaller than the minimum dimensions identified in paragraph S.1.7.1. **Multiple Dimension Measuring Devices** or larger than any of the **marked** maximum dimensions plus 9 d, and/or maximum volume marked on the device plus 9 d, or when a combination of dimensions, including dimensional offset, for the object being measured exceeds the measurement capability of the device, the indicating or recording element shall either:

- (a) not indicate or record any usable values; or
- (b) identify the indicated or recorded representation with an error indication.

(Amended 2004, 2017, ~~and~~ 2021, and 20XX)

**S.1.8.2. Volumetric Measuring Device.** – **When the commodity being measured is smaller than the minimum measurement identified in paragraph S.1.7.2 Volumetric Measuring Devices or larger than the marked maximum volume plus 9 d, or when the commodity being measured exceeds the measurement capability of the device, the indicating or recording element shall either:**

- (a) not indicate or record any usable values; or**
- (b) identify the indicated or recorded representation with an error indication.**

**(Added 20XX)**

...  
**S.4.1. Multiple Dimension and Volumetric Measuring Devices, Main Elements, and Components of Measuring Devices.** – Multiple dimension **and volumetric** measuring devices, main elements of multiple dimension **and volumetric** measuring devices when not contained in a single enclosure for the entire dimension/volume measuring device, and other components shall be marked as specified in Table S.4.1.a. Marking Requirements for Multiple Dimension **and Volumetric** Measuring Systems and explained in the accompanying notes, Table S.4.1.b. Multiple Dimension **and Volumetric** Measuring Systems Notes for Table S.4.1.a.

<b>Table S.4.1.a. Marking Requirements for Multiple Dimension <u>and Volumetric</u> Measuring Systems</b>				
<b>To Be Marked With ↓</b>	<b>Multiple Dimension <u>and Volumetric</u> Measuring Equipment</b>			
	<b>Multiple Dimension <u>or Volumetric</u> Measuring Device and Indicating Element in Same Housing</b>	<b>Indicating Element not Permanently Attached to Multiple Dimension <u>or Volumetric</u> Measuring Element</b>	<b>Multiple Dimension <u>or Volumetric</u> Measuring Element Not Permanently Attached to the Indicating Element</b>	<b>Other Equipment (1)</b>
Manufacturer's ID	x	x	x	x
Model Designation	x	x	x	x
Serial Number and Prefix	x	x	x	x (2)
Certificate of Conformance Number (8)	x	x	x	x (8)
Minimum and Maximum Dimensions <u>or Volume for Each Axis for Each Range in Each Axis</u> (3)(9)	x	x	x	
Value of Measuring Division, d <u>(for each axis and range)</u> (9)	x	x	x	
Temperature Limits (4)(9)	x	x	x	
Minimum and Maximum <del>s</del> Speed (5)(9)	x	x	x	
Special Application (6)(9)	x	x	x	
Limitation of Use (7)(9)	x	x	x	

(Amended 2016 ~~and 20XX~~)

<b>Table S.4.1.b. Multiple Dimension <u>and Volumetric</u> Measuring Systems Notes for Table S.4.1.a.</b>	
1.	Necessary to the dimension and/or volume measuring system, but having no effect on the measuring value, e.g., auxiliary remote display, keyboard, etc.
2.	Modules without “intelligence” on a modular system (e.g., printer, keyboard module, etc.) are not required to have serial numbers.
3.	<p><b><u>For multiple dimension measuring systems, t</u></b>The minimum and maximum dimensions <b><u>for each axis and for each range in each axis (using upper or lower case type)</u></b> shall be marked. For example:</p> <p style="margin-left: 40px;">Length:      min _____ max _____</p> <p style="margin-left: 40px;">Width:        min _____ max _____</p> <p style="margin-left: 40px;">Height:       min _____ max _____</p> <p><b><u>For volumetric measuring devices the minimum and maximum volume shall be marked. For example:</u></b></p>

**Table S.4.1.b.**

**Multiple Dimension and Volumetric Measuring Systems Notes for Table S.4.1.a.**

**Volume: min \_\_\_\_\_ max \_\_\_\_\_**

4. Required if the range is other than – 10 °C to 40 °C (14 °F to 104 °F).
5. Multiple dimension measuring devicesystems, which require that the object or device be moved relative to one another, shall be marked with the minimum and maximum speeds at which the device is capable of making measurements that are within the applicable tolerances.

**Volumetric Measuring Systems shall be marked with the minimum and maximum speeds at which the device is capable of making measurements that are within the applicable tolerances.**

6. A device designed for a special application rather than general use shall be conspicuously marked with suitable words visible to the operator and the customer restricting its use to that application.
7. Materials, shapes, structures, combination of object dimensions, speed, spacing, minimum protrusion size, or object orientations that are inappropriate for the device or those that are appropriate.
8. Required only if a Certificate of Conformance has been issued for the equipment.
9. This marking information may be readily accessible via the display. Instructions for displaying the information shall be described in the NTEP CC **if not marked on the components of the system.**

(Amended 2004, 2008, ~~and~~ 2016, ~~and~~ 20XX)

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**N.1. Test Procedures.**

**N.1.1. General.** –~~The~~

**N.1.1.1. Multiple Dimension Measuring Device** – A device that measures the dimensions and/or dimensional volume of an object shall be tested using test standards and objects of known and stable dimensions.

**(Added 20XX)**

**N.1.1.2. Volumetric Measuring Devices** – A device that measures the volume of a bulk commodity shall be tested using a transfer standard. The means of conveyance of the transfer standard, e.g., vehicles, rail cars, etc., shall be representative of the conveyance used during the normal operation of the device.

**(Added 20XX)**

**(Amended 20XX)**

**N.1.2. Position Test.** – Measurements ~~are~~**shall be** made using different positions of the test object **or conveyance** ~~and~~ consistent with the manufacturer’s specified use for the device.

**(Amended 20XX)**

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**N.1.4. Test Object or Transfer Standard Size.** – Test objects **or transfer standards** may vary in size from the smallest **volume or** dimension to the largest **volume or** dimension marked on the device, and for field verification examinations, shall be an integer multiple of “d.”

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**N.1.4.3. Transfer Standards.** – **The volume of the transfer standard must be known to an expanded uncertainty (coverage factor  $k = 2$ ) of not more than one-third of the applicable device tolerance. The volume shall also be checked to the same uncertainty when used at the extreme values of the influence factors.**

**The volume of the transfer standard shall be verified using a reference standard that is traceable to NIST (or equivalent national laboratory) and meets the tolerances expressed in NIST Handbook 44 Fundamental Considerations, paragraph 3.2 (i.e., one-third of the smallest tolerance applied to the device).**

**(Added 20XX)**

(Amended 2008 ~~and~~ 2012, and 20XX)

**N.1.5. Digital Zero Stability.** – A zero indication change test shall be conducted on all devices which ~~show~~**display** a digital zero. After the removal of any test object **or conveyance**, the **device shall return to a** zero indication ~~shall not change~~. (Also see G-UR.4.2. Abnormal Performance.)

**(Amended 20XX)**

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**~~T.1. Principles Design.~~** – **~~The tolerance for a multiple dimension measuring device is a performance requirement independent of the design principle used.~~**

**T.1.1. Design.** – **The tolerance for a multiple dimension measuring device or volumetric measuring device is a performance requirement independent of the design principle used.**

**(Added 20XX)**

**T.1.2. Device Division.** – **The tolerance for a multiple dimension measuring device or volumetric measuring device is related to the value of the measuring division (d) and is expressed in terms of d.**

**(Added 20XX)**

**(Amended 20XX)**

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**T.3. Tolerance Values.** – **~~The maintenance and acceptance tolerance values shall be  $\pm 1$  division.~~**

**T.3.1. For Volumetric Measuring Devices.**

(a) **Maintenance Tolerance Values.** – **The maintenance tolerance values shall be as specified in Table T.3.1. Maintenance Tolerances.**

(b) **Acceptance Tolerance Values.** – **The acceptance tolerance values shall be one-half of the maintenance tolerance values with a minimum tolerance of 1 d.**

**(Added 20XX)**

<u>Table T.3.1.</u>			
<u>Maintenance Tolerances</u>			
<u>(All values in this table are in measuring divisions)</u>			
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
<u>0 – 200<sup>1</sup></u>	<u>201 – 400</u>	<u>401- 800</u>	<u>801 +</u>
<u><sup>1</sup>See S.1.7. Minimum Measurement (12 d).</u>			

**(Added 20XX)**

**T.3.2. For Multiple Dimension Measuring Devices. – The maintenance and acceptance tolerance values shall be ± 1 division.**

**(Added 20XX)**

(Amended 2004 **and 20XX**)

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**UR.3.1. Minimum and Maximum Measuring Ranges.** – A device shall not be used to measure objects ~~smaller than or a commodity in an amount less than~~ the minimum or ~~larger more~~ than the maximum volume or dimensions marked on the device.

**(Amended 20XX)**

**UR.4.1. Zero or Ready Condition.** – The zero-setting adjustment of a multiple dimension measuring device or volumetric measuring device shall be maintained so that, with no object or conveyance ~~in or~~ on or within the range of the measuring element, the device shall indicate or record a zero or ready condition.

**(Amended 20XX)**

And Appendix D, Definitions amend the definition of “d,” dimension division value as follows:

**measuring division, value of “d,” ~~dimension division value.~~** – The smallest increment that the device displays for any axis and length of object in that axis or for the total volume. [5.58]

**(Amended 20XX)**

**dimensional volume. - Volume of the smallest rectangular box which fully encloses the object, and is the product of the indicated values of length axis (x), width axis (y) and height axis (z) (dv = x × y × z).** [5.58]

**(Added 20XX)**

**Previous Status:**

2025: Informational

**Original Justification:**

These devices are already in the marketplace and two manufacturers have a Provisional NTEP Certificate of Conformance. The changes to NIST Handbook 44 will permit the certificates to be accepted in all states. The MDMD Work Group voted to support this proposal with no opposing votes.

Some may believe that the tolerance are rather large. Currently in the marketplace methods being used include front end loaders with the bucket being an approximation of X cubic yard. Scales are also being used with a conversion from weight to cubic yards. The conversion from weight to cubic yards using a conversion number for the commodity being weighed. Weighing fails to take into account the moisture content of the commodity or the accuracy of the conversion number for the actual commodity being weighed. The MDMD direct volume devices accurately measure the actual volume of the commodity being sold.

To arrive at the proposed tolerance for these devices the current MDMD tolerance was used as a starting point. The current MDMD maintenance and acceptance tolerance is 1d for the entire measurement range of each of the 3 axes. Looking at the many NTEP Certificates for devices making 3 measurements to determine a volume the tolerance at the largest dimension in terms of percent was consistently 0.2% for each axis. This means the effective tolerance for the measurement of volume is plus or minus 0.6%. The maintenance tolerance proposed for devices directly measuring volume is slightly tighter at 0.5% at the break points in the proposed tolerance table with acceptance tolerance being one half of maintenance tolerance and a minimum tolerance of 1d.

The submitter recommends that this be a Retroactive Voting item in 2025.

**Discussion:**

**MDM-26.1 V S.1.5.2. Devices Capable of Measuring Irregularly Shaped Objects**

The Subgroup Chair will report on the changes to the Form 15 from the proposal submitted by the MDMD workgroup and clarify the proposal still has the recommendation of the MDMD Workgroup

**Source:**

Multiple Dimension Measuring Device Workgroup

**Purpose:**

Amend Handbook 44 to permit Multi-Interval Multi-Dimensional Measuring Devices (MDMD) to measure irregularly shaped objects. This update reflects advancements in technology and aligns with international standards, such as OIML R129, which already accommodates Multi-Interval MDMD for measuring objects with irregular shapes. By incorporating these changes, the regulations will support the adoption of innovative measurement technologies while maintaining consistency with global practices.

**Item under Consideration:**

Amend NIST Handbook 44 Multiple Dimension Measuring Devices Code as follows:

**S.1.5.2. Devices Capable of Measuring Irregularly-Shaped Objects.** – For devices capable of measuring irregularly shaped objects, the value of the division size (d) shall be the same for the length axis (x) and the width axis (y) and may be different for the height axis (z), provided that electronic rotation of the object to determine the smallest hexahedron is calculated in only a two-dimension horizontal plane, retaining the stable side plane as the bottom of the hexahedron. *For multi-interval devices, if the measuring interval for each axis is determined automatically according to the actual dimension being measured, then the division size (d) for each dimension (length, width, height) shall not differ by the orientation of the measured item in the x-y plane.*

*(Nonretroactive as of January 1, 20XX)*

**Previous Status:**

New Proposal

**Original Justification:**

When the MDMD requirements were initially established, there were no Multi-Interval MDMD devices available on the market. However, with advancements in technology, more multi-interval devices are now being developed, necessitating updates to the regulations to ensure they remain relevant and effective. These updates will also support alignment with existing international standards, such as OIML R129, which currently permits Multi-Interval MDMD devices to measure irregularly shaped objects.

The submitter requested voting status.

**7. New Items for Workgroup Discussion**

No new agenda items submitted

**Discussion:**

## 8. Review of current work group members

Chris Senneff (Chair)	Avery Weigh-Tronix
Loren Minnich	NIST, Office of Weights and Measures
Tom Buck	Ohio
Jeff Gibson	NTEP
Joshua Foster	Measurement Canada
Sprague Ackley	Digimarc
Jeff Cooper	National Motor Freight Traffic Association
Scott Davidson	Mettler-Toledo, LLC
Brandi Harder	Rice Lake Weighing Systems, Inc.
Scott Henry	Zebra Technologies
Robert Kennington	Cubiscan
Kyle Messerly	Rice Lake Weighing Systems, Inc.
Don Newell	Newell Enterprises
Sameer Parmar	SICK, Inc.
Phil Peterson	SICK, Inc.
Tony Romeo	Datalogic
Richard Suiter	Richard Suiter Consulting
Scott Davidson	Mettler-Toledo, LLC
Matthew Walz	Walz Scale
Scott Wigginton	United Parcel Service
Matt Walz	Walz Scale
Adrian Ruthie	LoadScan

**Discussion:**

## 9. Review meeting activities

**Discussion:**

## 10. Define next steps.

**Discussion:**

## 11. Next meeting

The workgroup is encouraged to recommend a date and location for the next workgroup meeting. Does the workgroup want to consider moving back to October as in the past? The recommendation will be presented to the NTEP Committee for review and approval. The workgroup should maintain, at a minimum, a yearly meeting schedule.

**Discussion:**

**Meeting Adjourned at**

