

Certificate No.: FT0007-068-071911

METTLER TOLEDO

Mettler Toledo
Service Business Unit Laboratory
1900 Polaris Parkway
Columbus, OH 43240
1-800-METTLER

Standard Calibration Certificate

Customer

<i>Company:</i>	Allied Food Processing		
<i>Address:</i>	3433 West High Street		
	Building 3		
<i>City:</i>	Anytown	<i>State/Province:</i>	CA
<i>Zip/Postal:</i>	43322		
<i>Contact:</i>	Bruce Moore	<i>Work Order No.:</i>	786348738

Device

<i>Manufacturer:</i>	Mettler Toledo	<i>Terminal Type:</i>	N/A
<i>Model:</i>	IND4...BB35	<i>Serial No. Terminal:</i>	N/A
<i>Serial No.:</i>	7827663216	<i>Printer Serial No.:</i>	77887787HGS
<i>Max Capacity:</i>	35 kg	<i>Location:</i>	Spice Room
<i>Readability:</i>	0.002 kg	<i>Asset No.:</i>	6778HU89
<i>Scale Class:</i>	III	<i>Verification Value:</i>	0.002 kg
<i>Tolerance Type:</i>	In-Service		

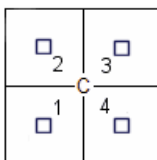
Procedure Statement: The device referenced in this document has been metrologically tested in accordance with METTLER TOLEDO Work Instruction. All translations into other languages are based on the referenced work instruction, which is in English.
This certificate refers to : As Found and As Left

Conform Statement: This device was tested in accordance with MT SOP # VP0080A and is certified to **CONFORM** with MT Procedures.

<i>Test Date:</i>	19-Jul-2011	<i>Next Cal. Due Date:</i>	31-Jul-2012
<i>Service Technician:</i>	Craig Stickel	<i>Signature:</i>	ELECTRONIC SIGNATURE

Measuring Results

Eccentricity



Test Weight

12 kg

Position	AS FOUND		AS LEFT	
	Displayed Value	Deviation	Displayed Value	Deviation
Center	12.000 kg	N/A	12.000 kg	N/A
Left Front	12.000 kg	0.000 kg	12.000 kg	0.000 kg
Left Rear	12.000 kg	0.000 kg	12.000 kg	0.000 kg
Right Rear	12.000 kg	0.000 kg	12.000 kg	0.000 kg
Right Front	12.000 kg	0.000 kg	12.000 kg	0.000 kg
Maximum Deviation:	0.000 kg		0.000 kg	
Allowable Deviation:	0.006 kg		0.006 kg	
Within Tolerances:	YES		YES	

Linearity

	<i>As Found</i>				
	<i>Nominal Value</i>	<i>Reading</i>	<i>Error</i>	<i>Allowable Error</i>	<i>Within Tolerances</i>
1	0 kg	0.000 kg	0.000 kg	0.002 kg	YES
2	0.1 kg	0.100 kg	0.000 kg	0.002 kg	YES
3	3.5 kg	3.500 kg	0.000 kg	0.004 kg	YES
4	10 kg	10.000 kg	0.000 kg	0.006 kg	YES
5	15 kg	15.000 kg	0.000 kg	0.006 kg	YES
6	25 kg	24.998 kg	-0.002 kg	0.006 kg	YES
7	35 kg	35.000 kg	0.000 kg	0.006 kg	YES

	<i>As Left</i>				
	<i>Nominal Value</i>	<i>Reading</i>	<i>Error</i>	<i>Allowable Error</i>	<i>Within Tolerances</i>
1	0 kg	0.000 kg	0.000 kg	0.002 kg	YES
2	0.1 kg	0.100 kg	0.000 kg	0.002 kg	YES
3	3.5 kg	3.500 kg	0.000 kg	0.004 kg	YES
4	10 kg	10.000 kg	0.000 kg	0.006 kg	YES
5	15 kg	15.000 kg	0.000 kg	0.006 kg	YES
6	25 kg	25.000 kg	0.000 kg	0.006 kg	YES
7	35 kg	35.000 kg	0.000 kg	0.006 kg	YES

Repeatability

Test Weight: 20 kg

	<i>Without Test Weight</i>	<i>With Test Weight</i>	<i>Actual Value</i>
1	0.000 kg	20.000 kg	20.000 kg
2	0.000 kg	20.000 kg	20.000 kg
3	0.000 kg	20.000 kg	20.000 kg
4	0.000 kg	20.000 kg	20.000 kg
5	0.000 kg	19.998 kg	19.998 kg
6	0.000 kg	20.000 kg	20.000 kg
<i>Deviation:</i>			0.002 kg
<i>Allowable Error:</i>			0.006 kg
<i>Within Tolerances:</i>			YES

Uncertainty

<i>Loads Applied</i>	x_i	0 kg	0.1 kg	3.5 kg	10 kg
<i>Combined Uncertainty</i>	$u(E_i)$	± 0.0021 kg	± 0.0021 kg	± 0.0021 kg	± 0.0021 kg
<i>Expanded Uncertainty</i>	U	± 0.0042 kg	± 0.0042 kg	± 0.0042 kg	± 0.0042 kg
<i>Loads Applied</i>	x_i	15 kg	25 kg	35 kg	N/A
<i>Combined Uncertainty</i>	$u(E_i)$	± 0.0021 kg	± 0.0022 kg	± 0.0023 kg	N/A
<i>Expanded Uncertainty</i>	U	± 0.0042 kg	± 0.0044 kg	± 0.0046 kg	N/A

Note that measurement uncertainty was not included in the comparison to the MPE. If your procedures require inclusion of measurement uncertainty, the current uncertainty requires increasing the MPE by an expansion factor of 105%.

Minimum Weight Certificate**Expanded Measurement Uncertainty**

$$U = U_0 + C \times I$$

$$U_{r1} = 0.0042 \text{ kg} + 0.000011 \times \text{Load}$$

Value "I" represents the display at various net loads

Example calculated expanded measurement uncertainty values at different net weight displays:

<i>Net Weight Display</i>	<i>Expanded Measurement Uncertainty</i>	
0.035 kg	0.004 kg	12.00114 %
0.35 kg	0.004 kg	1.20114 %
3.5 kg	0.004 kg	0.12114 %
17.5 kg	0.004 kg	0.02514 %
35 kg	0.005 kg	0.01314 %

Explanation of minimum weight table:

The minimum weight values in this table indicate where the instrument expanded measurement uncertainty (k=2, ~95% confidence) multiplied by a safety factor is equal to or lower than the required weighing accuracy. Find the minimum weight value where the required Weighing Accuracy (0.1, 0.2, 0.5, 1, 2, 5%) intersects the desired Safety Factor (1, 2, 3, 5).

Table of minimum net weight display values (minimum weights) for different weighing accuracies and various safety factors

<i>Weighing Accuracy</i>	<i>Safety Factors</i>			
	<i>1x (no safety factor)</i>	<i>2x (safety factor of 2)</i>	<i>3x (safety factor of 3)</i>	<i>5x (safety factor of 5)</i>
0.1 %	4.249 kg	8.596 kg	13.047 kg	22.273 kg
0.2 %	2.112 kg	4.249 kg	6.410 kg	10.809 kg
0.5 %	0.842 kg	1.688 kg	2.537 kg	4.249 kg
1 %	0.420 kg	0.842 kg	1.264 kg	2.112 kg
2 %	0.210 kg	0.420 kg	0.631 kg	1.053 kg
5 %	0.084 kg	0.168 kg	0.252 kg	0.420 kg

Notes on minimum weight values in above table:

1. If "N/A" is shown above, no appropriate value could be calculated.
2. For multirange and multi-interval devices, the display values in the above table apply to the smallest weighing range.
3. METTLER TOLEDO is not responsible for the proper selection of a Weighing Accuracy or Safety Factor.
4. The user is responsible for ensuring that device settings are not modified from the settings at the time the tests for producing this certificate were conducted.
5. The user is responsible for ensuring that the environment does not change from that found at the time the tests for producing this certificate were conducted.

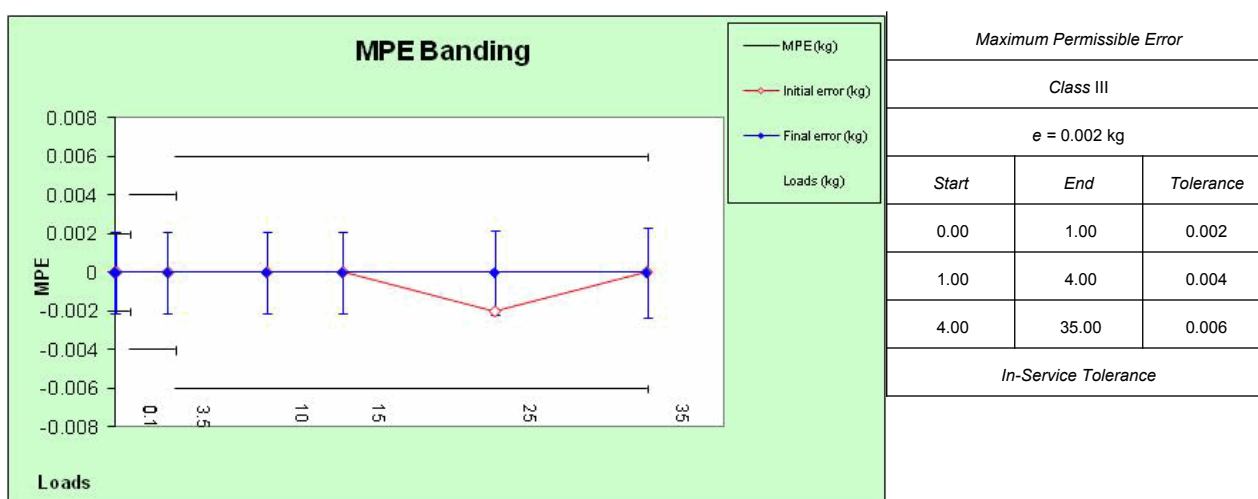
Reference Weights

Traceability All weights used for metrological testing are traceable to national or international standards. The weights were calibrated and certified by an accredited calibration laboratory.

Weight Set 1

Weight Set No.:	<u>M1 Weight Set</u>	Certificate Number:	<u>667739928378</u>
Class:	<u>M1</u>	Date of Issue:	<u>1-Feb-2011</u>
Calibration Due Date:	<u>1-Feb-2012</u>		

MPE Banding



Remarks

None.