

Certificate No.: tw0454-243-101819
瑞士商梅特勒-托利多(股)公司台灣分公司
台北市內湖區 11494
舊宗路二段171巷17號2樓
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METTLER TOLEDO

Standard Calibration Certificate

Customer

Company: 瑞士商梅特勒-托利多股份有限公司台灣分公司
Address: 內湖區舊宗路二段171巷17號2樓
City: 台北市
Zip/Postal: 114
Contact: N/A *Work Order No.:* _____

Device

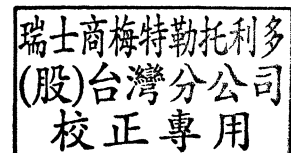
<i>Manufacturer:</i>	Mettler Toledo	<i>Terminal Type:</i>	SAT
<i>Model:</i>	XS 105DR	<i>Serial No. Terminal:</i>	B323405248
<i>Serial No.:</i>	B323405248	<i>Printer Serial No.:</i>	N/A
<i>Max Capacity:</i>	41 g / 120 g	<i>Location:</i>	N/A
<i>Readability:</i>	0.00001 g / 0.0001 g	<i>Asset No.:</i>	N/A
<i>Scale Class:</i>	II	<i>Verification Value:</i>	0.00002 g / 0.0001 g
<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

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

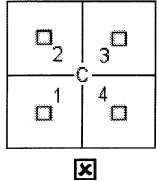
Test Date: 18-十月-2019 *Next Cal. Due Date:* 17-十月-2020
Service Technician: Jack Wu *Signature:* ELECTRONIC SIGNATURE

Jack Wu. 2019.10.18.



Measuring Results

Eccentricity

	<i>Test Weight</i>	20 g	
		<i>AS FOUND</i>	
<i>Position</i>	<i>Displayed Value</i>	<i>Deviation</i>	
<i>Center</i>	19.99999 g	N/A	
<i>Left Front</i>	19.99998 g	0.00001 g	
<i>Left Rear</i>	19.99997 g	0.00002 g	
<i>Right Rear</i>	20.00001 g	0.00002 g	
<i>Right Front</i>	20.00002 g	0.00003 g	
<i>Deviation:</i>	0.00003 g		
<i>Allowable Deviation:</i>	0.00006 g		
<i>Within Tolerances:</i>	YES		

Linearity

	<i>As Found</i>				
	<i>CMV</i>	<i>Reading</i>	<i>Error</i>	<i>Allowable Error</i>	<i>Within Tolerances</i>
1	0.00000 g	0.00000 g	0.00000 g	0.00002 g	YES
2	0.01000 g	0.01001 g	0.00001 g	0.00002 g	YES
3	10.00001 g	9.99997 g	-0.00004 g	0.00006 g	YES
4	20.00001 g	19.99998 g	-0.00003 g	0.00006 g	YES
5	50.0000 g	50.0000 g	0.0000 g	0.0003 g	YES
6	99.9999 g	99.9997 g	-0.0002 g	0.0003 g	YES
7	119.9999 g	119.9997 g	-0.0002 g	0.0003 g	YES

Repeatability

Test Weight: 20 g

	Without Test Weight	With Test Weight	Actual Value
1	0.00000 g	19.99997 g	19.99997 g
2	0.00000 g	19.99998 g	19.99998 g
3	0.00000 g	19.99996 g	19.99996 g
4	0.00000 g	19.99998 g	19.99998 g
5	0.00000 g	19.99997 g	19.99997 g
6	0.00000 g	19.99996 g	19.99996 g
Deviation:			0.00002 g
Allowable Error:			0.00006 g
Within Tolerances:			YES

Repeatability

Test Weight: 50 g

	Without Test Weight	With Test Weight	Actual Value
1	0.00000 g	50.0000 g	50.0000 g
2	0.00000 g	50.0000 g	50.0000 g
3	0.00000 g	50.0000 g	50.0000 g
4	0.00000 g	50.0000 g	50.0000 g
5	0.00000 g	49.9999 g	49.9999 g
6	0.00000 g	50.0000 g	50.0000 g
Deviation:			0.0001 g
Allowable Error:			0.0003 g
Within Tolerances:			YES

Uncertainty

Loads Applied	x_i	0 g	0.01 g	10 g	20 g
Combined Uncertainty	$u(E_i)$	± 0.000009 g	± 0.000009 g	± 0.000016 g	± 0.000022 g

Loads Applied	x_i	50 g	100 g	120 g	N/A
Combined Uncertainty	$u(E_i)$	± 0.00007 g	± 0.00010 g	± 0.00012 g	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 107%.

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

<i>Weight Set No.:</i>	SVC-W055	<i>Certificate Number:</i>	T1903180501
<i>Class:</i>	E2	<i>Date of Issue:</i>	22-三月-2019
<i>Calibration Due Date:</i>	21-三月-2020	<i>Description 1 :</i>	1mg-1kg
<i>Description 2 :</i>	TPE	<i>Description 3 :</i>	White box

Weight Set 2

<i>Weight Set No.:</i>	SVC-W055(10g)	<i>Certificate Number:</i>	19C400153
<i>Class:</i>	E2	<i>Date of Issue:</i>	28-三月-2019
<i>Calibration Due Date:</i>	27-三月-2020	<i>Description 1 :</i>	10g
<i>Description 2 :</i>	TPE	<i>Description 3 :</i>	White box

Weight Set 3

<i>Weight Set No.:</i>	SVC-W055(20g)	<i>Certificate Number:</i>	19C400154
<i>Class:</i>	E2	<i>Date of Issue:</i>	28-三月-2019
<i>Calibration Due Date:</i>	27-三月-2020	<i>Description 1 :</i>	20g
<i>Description 2 :</i>	TPE	<i>Description 3 :</i>	White box

Weight Set 4

<i>Weight Set No.:</i>	SVC-W055(20g*)	<i>Certificate Number:</i>	19C400155
<i>Class:</i>	E2	<i>Date of Issue:</i>	28-三月-2019
<i>Calibration Due Date:</i>	27-三月-2020	<i>Description 1 :</i>	20g*
<i>Description 2 :</i>	TPE	<i>Description 3 :</i>	White box

Weight Set 5

<i>Weight Set No.:</i>	SVC-W055(500g)	<i>Certificate Number:</i>	19C400157
<i>Class:</i>	E2	<i>Date of Issue:</i>	28-三月-2019
<i>Calibration Due Date:</i>	27-三月-2020	<i>Description 1 :</i>	500g
<i>Description 2 :</i>	TPE	<i>Description 3 :</i>	White box

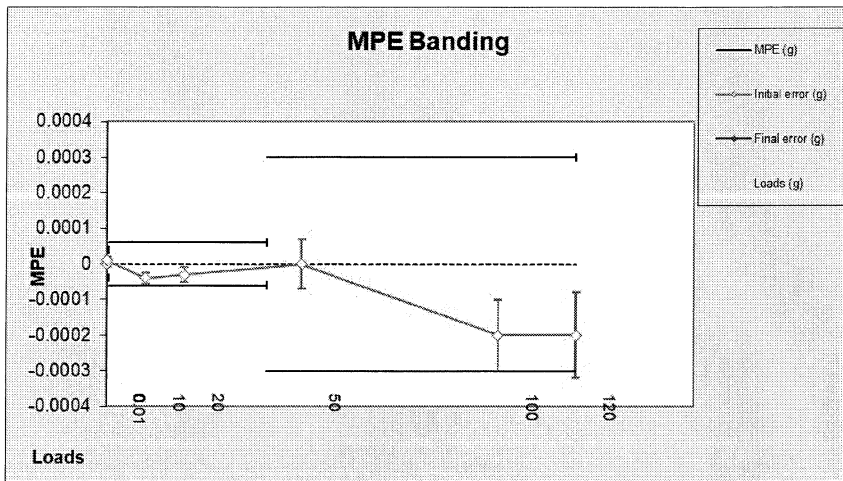
Weight Set 6

<i>Weight Set No.:</i>	SVC-W055(50g)	<i>Certificate Number:</i>	19C400156
<i>Class:</i>	E2	<i>Date of Issue:</i>	28-三月-2019
<i>Calibration Due Date:</i>	27-三月-2020	<i>Description 1 :</i>	50g

Description 2 : TPE

Description 3 : White Box

MPE Banding



<i>Maximum Permissible Error</i>		
<i>Class II</i>		
<i>e = 0.00002 g / 0.0001 g</i>		
<i>Start</i>	<i>End</i>	<i>Tolerance</i>
0.00	0.10	0.00002
0.10	0.40	0.00004
0.40	41.00	0.00006
41.00	120.00	0.0003
<i>In-Service Tolerance</i>		

Remarks

N/A

