



### CALIBRATION CERTIFICATE

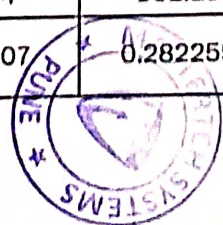
Certificate No.	: 2122/0131/05 -05	Page No.	: 1 of 2
Date of Calibration	: 31-Jan-2022	Calibration Due Date	: 30-Jan-2023
<b>1.Customer Name &amp; Address :</b> Synergen Diagnostics Unit No.105,Sai Chambers, Wakadewadi,Shivajinagar,Pune-411003.		SRF No.	: 2122/0131/05
		Date of Received	: 31-Jan-2022
		Cal. Cert. Issue Date	: 2-Feb-2022
		Condition of UUC	: OK
		Location of calibration	: In Lab
		Calibration Procedure No.	: MTS/VM/WI-01

<b>2.Environmental Conditions:</b>	Temperature:	21.1 °C	Relative Humidity:	53 % RH
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<b>3. Description of UUC</b>			
Name	: Micropipette	Range	: 100 to 1000 µL
Make	: ERBA	L.C.	: 5 µL
I.D No.	: SD/PL/NH468614-03	Model/Sr.No.	: -/NH468614-03
Type	: Analog	Location	: BIOCHEMISTRY

<b>4. Reference Standards used for calibration:</b>			
Name	: Digital Weighing Balance	4- Wire RTD Sensor With Indicator	
Make	: Saffron	Tempsens	
I.D No./Sr. No.	: MTS/WB-04 / M21090500	MTS/TIS-01/867,0042	
Certificate No.	: NI/MTS/011021/001	NI/2106/026/005	
Calibration Validity	: 30-Sep-2022	13-06-2022	
Certified By	: Nishitronics	Nishitronics	
Range/Uncertainty	: As Per Certificate	-30 to 300 Deg C./(+/-) 0.09 Deg C.	

<b>5. Calibration Results</b>						
S. No.	Cal Point		Cal Point		Cal Point	
	100 µl		500 µl		1000 µl	
	Mass (mg)	Volume (µl)	Mass (mg)	Volume (µl)	Mass (mg)	Volume (µl)
1	100.12148	100.42184	500.02153	501.52159	1002.68457	1005.69262
2	100.07231	100.37253	499.86475	501.36434	1002.65413	1005.66209
3	100.14254	100.44297	499.37386	500.87198	1001.44486	1004.44919
4	100.02145	100.32151	499.53514	501.03375	1001.31258	1004.31652
5	100.52531	100.82689	499.22115	500.71881	1001.04569	1004.04883
6	100.44750	100.74884	499.56847	501.06718	1001.14593	1004.14937
7	100.48575	100.78721	499.32650	500.82448	1002.24580	1005.25254
8	100.08715	100.38741	499.88745	501.38711	1004.59630	1007.61009
9	100.15894	100.45942	499.94730	501.44714	1003.20500	1006.21462
10	100.22363	100.52430	499.65821	501.15718	1003.31512	1006.32507
Mean	100.22861	100.52929	499.64044	501.13936	1002.36500	1005.37209
Standard Devi.	0.186542870	0.187102498	0.281411607	0.282255842	1.153155743	1.156615210



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**MASTERTECH**  
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S. No.	Cal Point	Accuracy Limit %	Accuracy %
1	100	3.0 %	0.53 %
2	500	0.8 %	0.23 %
3	1000	0.6 %	0.54 %

S. No.	Cal Point	% CV Limit	% CV
1	100	0.6 %	0.186 %
2	500	0.3 %	0.056 %
3	1000	0.2 %	0.115 %

Z Factor 1.0029 µl/mg Temperature 21.1 Deg C Humidity 53 % RH

Barometric Pressure 944.4 hPa Water Temperature 20.2 Deg C

**NOTES:**


- 1.The value measured of uuc & standard are mean of 10 reading.
- 2.The reported uncertainty is the expanded uncertainty in measurement obtained by multiplying the standard uncertainty by coverage factor K=2, which corresponds to a coverage probability of approximately 95.45% for normal distribution
- 3.This certificate refers only to the particular UUC submitted for calibration. UUC stands for Unit Under Calibration.
- 4.The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
5. This certificate shall not be reproduced, except in full unless written permission for the publication of an approved abstract has been obtained from "Mastertech Systems" Pune.
- 6.The Instruments used for calibration are traceable to National/International standards and their calibrations are valid.

Calibrated By

  
Ms. Prachita Nighojkar  
Calibration Engineer



Approved By

  
Mr. Amol Deshmukh  
Quality Manager



CC-2294



**Nishitronics  
Instrumentation**

► Service Engineers  
► Calibration Services in Industrial Process Control  
*We work for Customers Satisfaction*

CALIBRATION CERTIFICATE				
<b>CUSTOMER :- Mastertech Systems</b>	<b>Page No. :- 1 of 2</b>			
Anjali Niketan, Flat No 3,	<b>ULR No. :- ULR-CC22942100004660F</b>			
2nd Floor, Viveknagar,	<b>Discipline :- Mechanical Calibration</b>			
Akurdi, Pune - 411035	<b>Certificate No :- NI/MTS/011021/001</b>			
	<b>Date of issue :- 09/10/2021</b>			
	<b>Date of receipt :- 01/10/2021</b>			
<b>Amb. Temp :- 23 ± 5 °C</b>	<b>Date of calibration :- 01/10/2021</b>			
<b>Rh. :- 50 ± 10 % RH</b>	<b>Cal. Req No :- NI/MTS/011021/001</b>			
<b>Location of calibration :- SITE</b>	<b>Next Due Date :- 30/09/2022</b>			
<b>Characteristic and :- OK</b>	<b>Parameter :- MASS</b>			
<b>Condition of items</b>	<b>Calibration method no :- NI / CP / M / 02</b>			
Details of Items				
<b>Name :- Digital Weighing Balance</b>	<b>Range :- upto 60g, upto 220 g</b>			
<b>Make :- SAFFRON</b>	<b>Least Count :- 0.00001 g / 0.0001 g</b>			
<b>Model :- SES 265</b>	<b>Type :- Digital</b>			
<b>ID. NO. :- MTS / WB - 04</b>	<b>Accuracy :- Not Specified</b>			
<b>Sr. No. :- M21090500</b>	<b>Location :- -</b>			
Details of Equipment used for Calibration				
<b>Description :- Set of Weight From 1 mg To 200 g</b>				
<b>Sr No / ID. No. :- NI/WE1/01</b>				
<b>Calibrated By :- LCGC Trucal and Services LLP</b>				
<b>Certificate No :- TC/4806/2019</b>				
<b>Validity :- 07/01/2022</b>				
OBSERVATION				
Cal. Point	Mass of Ref. Weight g	UUC Reading g	Correction (Ref mass -UCC Rdg) In g	Expanded Uncertainty In ± g
1 mg	0.0010003	0.00100	0.000000	0.000022
50 mg	0.0500017	0.04998	0.000022	0.000022
100 mg	0.1000005	0.10005	-0.000049	0.000022
1 g	1.0000035	1.00000	0.000004	0.000022
10 g.	10.000013	9.99999	0.000023	0.000022
20 g	19.999997	20.00005	-0.000053	0.000022
50 g	49.99999	49.99996	0.000030	0.000022
100 g	99.99999	99.9999	0.000090	0.000131
220 g	219.99995	220.0001	-0.000153	0.000131
<b>UUC :- Unit Under Calibration</b>				
<b>Repeatability Check ( For Max ) :</b>				
Cal. Point	Mass of Ref. Weight g	Observation Sr No	UUC Reading g	Standard Deviation in g
220 g	219.99995	1	220.0001	0.000099
		2	220.0001	
		3	219.9999	
		4	220.0001	
		5	219.9999	
		6	220.0000	
		7	220.0001	
		8	219.9999	
		9	220.0001	
		10	219.9999	



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**Repeatability Check ( For 1/2 Max ) :**

Cal. Point	Mass of Ref. Weight g	Observation Sr. No.	UUC Reading g	Standard Deviation In g
110 g	110.000003	1	109.9998	0.000048
		2	109.9998	
		3	109.9998	
		4	109.9997	
		5	109.9998	
		6	109.9997	
		7	109.9997	
		8	109.9998	
		9	109.9998	
		10	109.9998	

**Ecentric or Off-Centre Loading ( 1/2 Max or 1/3 Max ) :**

Cal. Point	Mass of Ref. Weight g	Position of Load	UUC Reading g	Ecentric Loading g
100 g	99.99999	Front Right/Front	99.9999	0.000100
		Front Left/Back	99.9999	
		Center	99.9999	
		Back Right /Right	99.9998	
		Back Left/Left	99.9999	

Limit Of Performance(F):- 0.000483 g

Hysterisis max 0.0001 g

The reported measurement uncertainty is estimated at a level of confidence of approximately 95 % with a coverage factor k = 2.

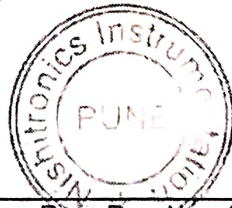
**Remarks :-**

- 1) Result are related only to the item calibrated .
- 2) This certificate refers only to the particular items submitted for calibration .
- 3) This certificate shall not be reproduced except in full without our prior permission in writing.
- 4) The calibration results reported in this particular certificate are valid at the time of an under stated condition of measurement.
- 5) Standard used for calibration were traceable to National / International standard.
- 6) Readings given above are as on received condition of an instrument.
- 7) The above results are used for scientific and R&D purpose only and should not used for trade and commercial use.
- 8) Standard referred :- OIML R-76
- 9) Density of Standard Weights:-  $7950 \pm 50 \text{ kg/m}^3$
- 10) Ecentricity is difference between reading when the test is weight moved to verious positions on pan

Calibrated by

*V.D. Mulik*

( V.D. Mulik )  
( Technical Assistant )



Authorized Signatory

*(V.B. Hingmire)* / ( S.B. Hingmire )  
( Technical Manager )

Form No. : NI/F/7.8/M/04

Form Rev. No. : 0

Effective Form Date:20/11/2019

Issue No : 03

Issue Date :20/11/2019