

## CALIBRATION CERTIFICATE

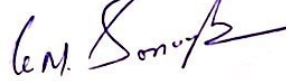
<b>Format No.:</b> F-48/15		<b>Issue/Rev.:</b> 01/01	
<b>Certificate No.</b> : MCS/22000001097	<b>Date of Calibration</b> : 21/07/2022	<b>ULR No.</b> : CC313322000001097F	<b>Recommended Due Date</b> : 20/07/2023
<b>Discipline</b> : Mechanical	<b>Certificate Issue Date</b> : 22/07/2022	<b>Group</b> : Volume	
<b>Name &amp; Address of Customer :</b> M/s. Shilp Pathology Laboratory Near, SF/9-10, Shree Ratna Complex, Krishna Nagar, Akhbar Nagar Cir, Nava Vadaj, Ahmedabad, Gujarat 380013		<b>Condition On Receipt</b> : Satisfactory <b>Receipt No.</b> : MCS/161-02 <b>Receipt Date</b> : 21/07/2022 <b>Location of Calibration</b> : Lab	
<b>Details Of Unit Under Calibration:</b>			
<b>Nomenclature</b> : Micropipette	<b>Serial No.</b> : HW00090	<b>Make/Model</b> : Labserv	<b>ID No.</b> : --
<b>Range</b> : 20 to 200 µl		<b>L.C.</b> : 1 µl	
<b>Details of standard Used :</b>			
<b>Nomenclature</b> : Digital Weighing Balance	<b>Certificate No.</b> : MCS/21000002073	<b>Id.No.</b> : MCS/DWB/01	<b>Valid Up to</b> : 07/11/2022
The Standards used for Calibration is traceable to national /International Standard.			
<b>Work Instruction No</b> : MCS/CP/15	<b>Standard Used</b> : IS/ISO 4787 / ISO 8655-2 & 6	<b>Method Used</b> : By Gravimetric method.	: ISO/TR 20461
<b>Environment Details</b>		<b>Relative Humidity</b> : 51 % RH	
<b>Temperature</b> : 25.8 °C			
<b>Atmospheric Pressure</b> : 1005.7 hpa			

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Page 1 of 2



## CALIBRATION CERTIFICATE

Certificate No. : MCS/22000001097  
ULR No. : CC313322000001097F

### Calibration Result

All Reading are in  $\mu$


Nominal Value	Avg.Observed Value @ 27°C	$\pm$ MPE (Systematic)	Systematic error	$\pm$ MPE (Random)	Random Error	( $\pm$ ) Expanded Uncertainty
20	20.15	0.20	0.15	0.08	0.02	1.4
100	100.47	0.50	0.47	0.20	0.06	1.4
200	200.71	0.80	0.71	0.30	0.08	1.5

Remarks: All Observed Reading are Within Accuracy Limit as per ISO 8655-2

#### UUC : Unit Under Calibration


- \*All Readings are Average of ten Readings.
- \*MPE :Maximum permissible errors

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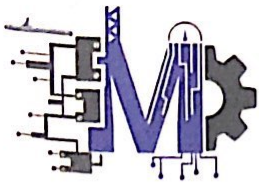
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- Note – (1) The uncertainty of measurement is expressed at a confidence level 95.45% with coverage factor  $k=2$ .
- (2) The Value has been rounded -off as per IS 2: 1960 wherever applicable.
- (3) The certificate pertains only to the items calibrated.
- (4) This certificate should not be reproduced except in full without a written permission of the laboratory.
- (5) The reported results are valid at the time of performance of calibration under specified conditions only
- (6) Calibration is performed without doing any adjustment/Repairing in its original Condition.
- (7) Coefficient of cubical thermal expansion for Piston Pipette = 0.000045 /°C.

–End Of Certificate–


Page 2 of 2



**CALIBRATION CERTIFICATE**

Format No.: F-48/15		Issue/Rev.: 01/01	
Certificate No. : MCS/22000001096	Date of Calibration : 21/07/2022	ULR No. : CC313322000001096F	Recommended Due Date : 20/07/2023
Discipline : Mechanical	Certificate Issue Date : 22/07/2022	Group : Volume	
Name & Address of Customer : M/s. Shilp Pathology Laboratory Near, SF/9-10, Shree Ratna Complex, Krishna Nagar, Akhbar Nagar Cir, Nava Vadaj, Ahmedabad, Gujarat 380013	Condition On Receipt : Satisfactory	Receipt No. : MCS/161-01	Receipt Date : 21/07/2022
	Location of Calibration : Lab		
Details Of Unit Under Calibration:			
Nomenclature : Micropipette	Serial No. : 397072	Make/Model : --	ID No. : --
Range : 100 to 1000 µl		L.C. : 5 µl	
Details of standard Used :			
Nomenclature : Digital Weighing Balance	Certificate No. : MCS/21000002073	Id.No. : MCS/DWB/01	Valid Up to : 07/11/2022
The Standards used for Calibration is traceable to national /International Standard.			
Work Instruction No : MCS/CP/15	Standard Used : IS/ISO 4787 / ISO 8655-2 & 6	Method Used : By Gravimetric method.	: ISO/TR 20461
Environment Details		Relative Humidity : 51 % RH	
Temperature : 25.8 °C			
Atmospheric Pressure : 1006.2 hpa			

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## CALIBRATION CERTIFICATE

Certificate No. : MCS/22000001096  
ULR No. : CC313322000001096F

### Calibration Result

All Reading are in  $\mu$ l

Nominal Value	Avg.Observed Value @ 27°C	$\pm$ MPE (Systematic)	Systematic error	$\pm$ MPE (Random)	Random Error	( $\pm$ ) Expanded Uncertainty
100	100.75	0.80	0.75	0.30	0.03	1.5
500	501.52	4.00	1.52	1.50	0.04	1.5
1000	1004.88	8.00	4.88	3.00	0.07	5.5

Remarks: All Observed Reading are Within Accuracy Limit as per ISO 8655-2

UUC : Unit Under Calibration

\*All Readings are Average of ten Readings.

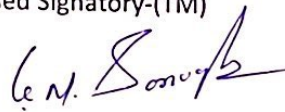
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Page 2 of 2