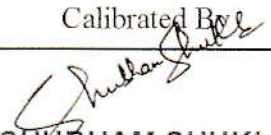





CALIBRATION CERTIFICATE		MSA/24/CV/5015	
Date of Calibration	17-04-2024	Page 1	No. of Pages 2
1 Calibrated for Customer Receipt No. & Date : Date of Issue : 18-04-2024		: SSB Engineers Pvt. Ltd. Plot No.-133, MIA, Alwar. Rajasthan-- 301030.	
2 Description and Identification of Equipment		: Contracer (CV-3100) Range : 100 x 50 mm L.C. (For X-Axis) : 0.05 μ m L.C. (For Z-Axis) : 0.02 μ m Code No. : 218-432E Sl. No. : 400030901 Id No. : -- Make : Mitutoyo	
3 Calibration Performed at		: Standard Room	
4 Environmental Condition		: Temperature: (20 \pm 4) $^{\circ}$ C Relative Humidity : (50 \pm 10)%	
5 (i) Equipment / Master Used		: i) Optical Flat NPL India Vide Certificate No.23090743/D1.02/C-096 ii) X-Axis Inspection Master MSACL Vide Certificate No.ULR-CC252223000003861F iii) Gauge Block Set JCSS Japan Vide Certificate No.2112776	
(ii) Associated Uncertainty		: i) \pm 30nm ii) \pm (0.2+0.9L) μ m L is in meter iii) \pm 0.03 μ m	
Traceability of Standard (s)		The standard used for calibration is traceable to national standards, through unbroken chain of calibration laboratory NPL or NABL accredited lab.	
6		: calibration laboratory NPL or NABL accredited lab.	
7 Basis / Principle / Method of Calibration		: As per MSA-QCP-015	
8 Results of Calibration		: As per enclosed Sheet (s)	
9 Statement of Conformity / Decision Rule		: Meet The Requirements Uncertainty of Measurements = \pm 0.11 μm (for Straightness of Drive Unit) Uncertainty of Measurements = \pm 2.2 μm (for X-Axis) Uncertainty of Measurements = \pm 0.14 μm (for Z-Axis) The reported uncertainty is at coverage factor k=2.52, 2 & 2 for Straightness of Drive Unit, X-Axis & Z-Axis which corresponds to a coverage probability of approximately 95% for a normal distribution.	
<div style="border: 1px solid black; padding: 5px; text-align: center;"> Calibrated By  SHUBHAM SHUKLA Calibration Engineer </div>		<div style="border: 1px solid black; padding: 5px; text-align: center;"> Checked By  SHAIENDRA SINGH QcTM </div>	
<div style="border: 1px solid black; padding: 5px; text-align: center;"> Issued By  SHAIENDRA SINGH QcTM </div>		<div style="border: 1px solid black; padding: 5px; text-align: center;"> Issued By  SHAIENDRA SINGH QcTM </div>	

Results presented in this report relate to the item specified. This report shall not be reproduced except in full without written approval of M/s. Mitutoyo South Asia Pvt. Ltd.
 Report reported are valid at the time of and under the stated condition of measurements.
 Calibrated at site

CALIBRATION CERTIFICATE		MSA/24/CV/5015	
Date of Calibration	17-04-2024	Page 2	No. of Pages 2

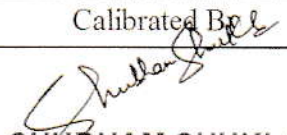

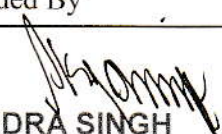
CALIBRATION RESULTS OF CONTRACER

Straightness of Drive Unit	
At 100mm	0.0007

X-Axis Measuring Accuracy	
Nominal Value of X-Axis Inspection Standard (mm)	Observed Value of UUC (mm)
25.0045	25.0052
50.0061	50.0068
75.0054	75.0059
100.0094	100.0096

Z-Axis Measuring Accuracy	
Nominal Value of Gauge Block (mm)	Observed Value of UUC (mm)
25.00	24.9988
20.00	19.9981
10.00	10.0004
-10.00	-9.9998
-20.00	-20.0006
-25.00	-24.9989

--End of Certificate--

Calibrated By	Checked By	Issued By
 SHUBHAM SHUKLA Calibration Engineer	 SHAIENDRA SINGH QcTM	 SHAIENDRA SINGH QcTM