

DISPLACEMENT MEASURING SYSTEMS AND DEVICES USED IN MATERIAL TESTING MACHINES IN ACCORDANCE WITH ASTM-E2309/E2309M-20.

CUSTOMER

COMPANY: Labsurface
ADDRESS: 2250 Rue Louis-Bleriot
CITY/PROVINCE: Mascouche, Quebec J7K 3C1

CALIBRATION INFORMATION

PURCHASE ORDER NUMBER: NG-553773-1
CERTIFICATE NUMBER: Labsurface_TMU-190485_VTS230128-Displacement_E2309_030825
CERTIFICATE ISSUED: March 8, 2025
CALIBRATION DATE: March 7, 2025
REQUESTED DUE DATE: March 7, 2026
SYSTEM LOCATION: R&D Lab
MANUFACTURER: Nextgen
MODEL: EML504C
SERIAL NUMBER: TMU-190485/VTS230128
ASSET NUMBER: Displacement
INDICATOR RESOLUTION: 0.001 in
TEMPERATURE / RELATIVE HUMIDITY: 21.26°C/30.23%
CALIBRATION TECHNICIAN: Saverio Amerato

CALIBRATION IS VALID FOR THE SCALE(S), ITEMS AND RESULTS SHOWN AND HAS BEEN FOUND TO BE WITHIN TOLERANCE UNLESS OTHERWISE NOTED.

STANDARDS USED

FILE	SERIAL #	MFG	CAL DATE	DUE DATE	CERT BY	CERT #	CAPACITY	UNC
TH 003	S2450843/S2310657	Vaisala	02/02/24	02/02/26	Transcat	33-Q3F0N-20-1	Deg/%RH	0.5/0.14 Deg/%RH
DIM 006	0008872	Mitutoyo	10/03/24	10/03/25	Affri Inc.	AffriUS_0008872-DIM006_ASMEB89_031024	12 in	0.0014 in

TRACEABILITY, UNCERTAINTY AND DECISION RULE STATEMENTS

The expanded uncertainties shown above use a confidence level of 95% and a coverage factor of $k = 2$. Expanded uncertainties are valid from 18°C to 28°C. ALL REFERENCE STANDARDS USED FOR VERIFICATION ARE TRACEABLE TO NIST OR ACCREDIA. Services comply with PO requirements. Affri uses a binary decision rule of pass or fail where tolerance limit equals acceptance limits without considering uncertainty. Uncertainty and measured results are provided for the user to consider their own risk.

COMMENTS

Preventative maintenance was performed.

AFFRI Inc
Saverio Amerato
CALIBRATED BY

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 MODEL: EML504C
 SERIAL NUMBER: TMU-190485/VTS230128

AS FOUND:

REF STD USED	REF. STD. READING (in)	DUT READING RUN #1 (in)	DIRECTION:		COMPRESSION	
			DUT ERROR RUN #1 (in)	DUT ERROR RUN #1 (%RD)	ASTM CLASS	
	0.000	0.000	0.000			
DIM 006	0.500	0.500	0.000	0.00%	A	
	1.000	1.002	0.002	0.20%	B	
	2.000	1.998	-0.002	-0.10%	B	
	3.000	3.002	0.002	0.07%	B	
	4.000	4.002	0.002	0.05%	B	
	5.000	5.002	0.002	0.04%	B	

Resolution (in)	ASTM CLASS
0.001	A

Overall ASTM Class
B

AS LEFT:

REF STD USED	REF. STD. READING (in)	DUT READING RUN #1 (in)	DUT READING RUN #2 (in)	DUT ERROR RUN #1 (in)	DUT ERROR RUN #2 (in)	DUT ERROR RUN #1 (%RD)	DUT ERROR RUN #2 (%RD)	DUT REPEAT. (in)	DUT REPEAT. (%RD)	DIRECTION:		COMPRESSION	
										STD. UNCER. DUE TO REPEAT. (%RD)	STD. UNCER. DUE TO CAL LAB (%RD)	MEASURE. UNCER. (K=2) (%RD)	ASTM CLASS
	0.000	0.000	0.000	0.000	0.000								
DIM 006	0.500	0.500	0.500	0.000	0.000	0.00%	0.00%	0	0.00%	0.17%	0.17%	0.50%	A
	1.000	1.002	1.001	0.002	0.001	0.20%	0.10%	0.001	0.10%	0.08%	0.09%	0.25%	B
	2.000	1.998	2.000	-0.002	0.000	-0.10%	0.00%	0.002	0.10%	0.04%	0.04%	0.13%	B
	3.000	3.002	3.001	0.002	0.001	0.07%	0.03%	0.001	0.03%	0.03%	0.03%	0.09%	B
	4.000	4.002	4.001	0.002	0.001	0.05%	0.03%	0.001	0.02%	0.02%	0.02%	0.06%	B
	5.000	5.002	5.001	0.002	0.001	0.04%	0.02%	0.001	0.02%	0.02%	0.02%	0.05%	B

COMMENTS

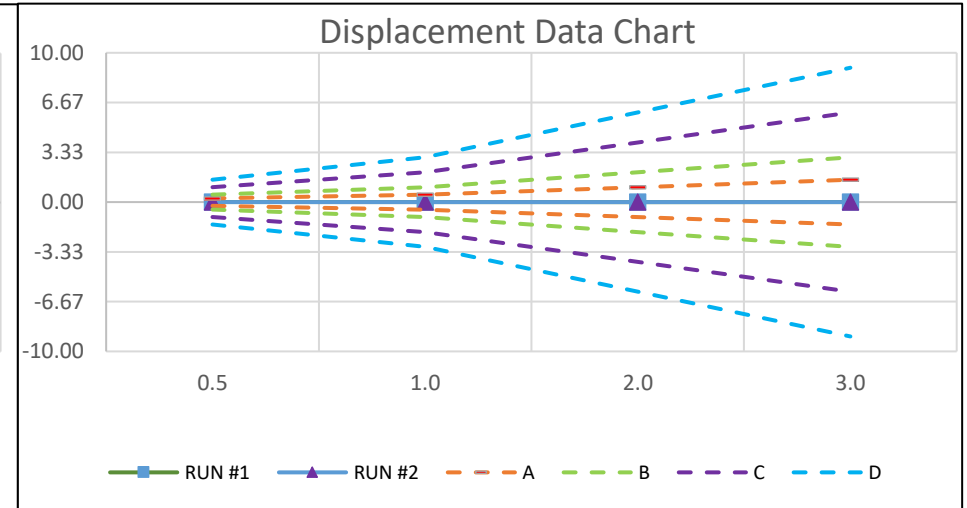
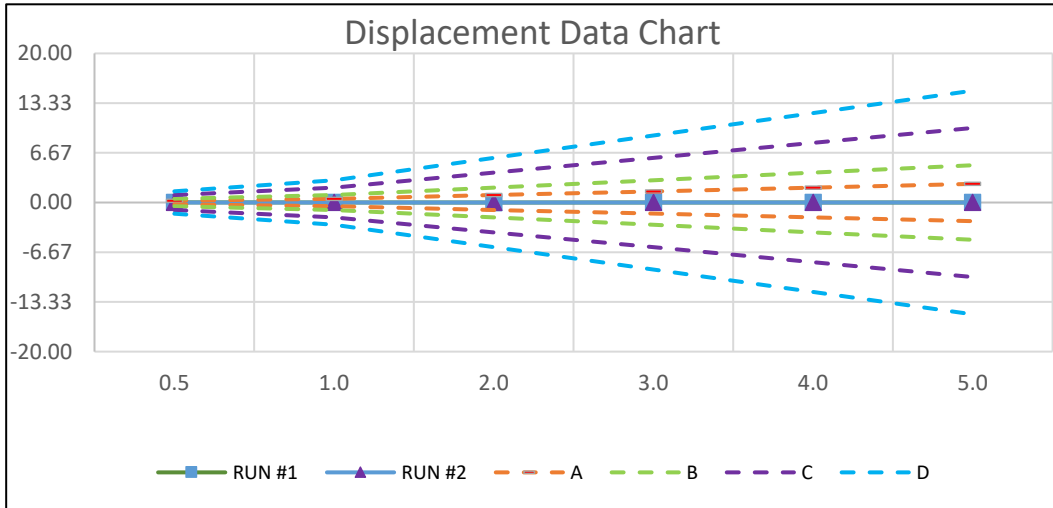
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			DUT ERROR RUN #1 (in)	DUT ERROR RUN #1 (%RD)	
	0.000	0.000	0.000		
DIM 006	0.500	0.500	0.000	0.00%	A
	1.000	0.999	-0.001	-0.10%	B
	2.000	2.000	0.000	0.00%	A
	3.000	3.000	0.000	0.00%	A
	4.000	4.001	0.001	0.03%	B
	5.000	5.001	0.001	0.02%	B

Resolution (in)	ASTM CLASS
0.001	A

Overall ASTM Class
B

AS LEFT:

REF STD USED	REF. STD. READING (in)	DUT READING RUN #1 (in)	DUT READING RUN #2 (in)	DUT ERROR RUN #1 (in)	DUT ERROR RUN #2 (in)	DUT ERROR RUN #1 (%RD)	DUT ERROR RUN #2 (%RD)	DUT REPEAT. (in)	DUT REPEAT. (%RD)	DIRECTION:		MEASURE. UNCER. (K=2) (%RD)	ASTM CLASS
										STD. UNCER. DUE TO REPEAT. (%RD)	STD. UNCER. DUE TO CAL LAB (%RD)		
	0.000	0.000	0.000	0.000	0.000								
DIM 006	0.500	0.500	0.500	0.000	0.000	0.00%	0.00%	0.000	0.00%	0.06%	0.17%	0.40%	A
	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%	0.000	0.00%	0.03%	0.09%	0.20%	A
	2.000	2.000	2.001	0.000	0.001	0.00%	0.05%	0.001	0.05%	0.02%	0.04%	0.10%	A
	3.000	3.001	3.001	0.001	0.001	0.03%	0.03%	0.000	0.00%	0.01%	0.03%	0.07%	A
	4.000	4.001	4.001	0.001	0.001	0.03%	0.03%	0.000	0.00%	0.01%	0.02%	0.05%	B
	5.000	5.001	5.001	0.001	0.001	0.02%	0.02%	0.000	0.00%	0.01%	0.02%	0.04%	B

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