



MASTER

GAGE & TOOL CO. 112 Maplewood Street, Danville, VA 24540 (434) 836-4243



CERTIFICATE OF CALIBRATION

Certificate #: LAB78909

Calibration Performed By:

MG&T LAB/MASTER GAGE & TOOL CO

112 MAPLEWOOD STREET
DANVILLE, VA 24540

For:

ORIGIN TECHNOLOGIES CORP
9238 MADISON BLVD
BLGD 1, SUITE 845
MADISON, AL 35758

Equipment Information

Serial Number: LE-030-116

Gage I.D. LE-030-116

Description: LE-030 CERTIFICATION

Gage Type: CUSTOM

Calibration Location: MGT LAB

Size:

Performed By: S.PEARCE

Unit of Measure: INCH

Drawing Number: LE-030 CERTIFICATION

PO Number: 16014

Temp./RH: 68 F / 60 %

Cal. Interval: 5 YEARS

Cal Date: 31-Jan-2019

Cal. Due Date: 31-Jan-2024

As Found Condition: Report of Value

As Left Condition: Report of Value

Uncertainty

+/- 48 MICROINCH

Calibration Notes

VISUAL CONDITION: GOOD
PER CUSTOMER
MEASURE THICKNESS BETWEEN LASER ETCHED LINES AND NEAR TOP EDGE PER ATTACHED DRAWING
REPORT OF VALUE (NO TOLERANCES APPLIED)

Test Points

Seq.	Description	Standard	Tolerance +	Tolerance -	As Found	As Found Dev.	As Left	As Left Dev.	Unit of Meas.
1	THICKNESS	0.0000	0.0000	0.0000	0.03179	0.03179	R 0.03179	0.03179	INCH

Standards Used To Calibrate Equipment

Company	I.D.	Last Cal.	Cal. Due Date
MG&T LAB	MGT-562	11/14/2018	11/14/2019
MG&T LAB	MGT-681	7/6/2018	7/6/2019

Procedures Used In This Event:

Procedure Company	Procedure Name	Revision Level
Master Gage and Tool Company	WI# IT1008	H

KEY:
F = OBSERVED VALUES DO NOT MEET SPECIFICATIONS
L = OBSERVED VALUES DO NOT MEET SPECIFICATIONS/LIMITS GAGE USE
R = REPORT OF VALUE
A = ADJUSTED

UNCERTAINTY EXPRESSED AT $K = 2$ WHICH APPROXIMATES A 95% CONFIDENCE LEVEL, AND IS EXPRESSED IN MICROINCH UNLESS OTHERWISE NOTED. UNCERTAINTY FORMULA: $L = \text{LENGTH}$, $R = \text{RESOLUTION}$, $D = \text{DIAMETER}$.

CALIBRATION RESULTS STATED HEREIN RELATE ONLY TO THE UNIT UNDER TEST. THIS GAGE HAS BEEN CALIBRATED OR VERIFIED WITH STANDARDS THAT ARE CERTIFIED ACCURATE AND TRACEABLE TO NIST. THESE MEASUREMENTS CONFORM TO SPECIFICATIONS EITHER PROVIDED BY THE CUSTOMER, MFG. OR OUTLINED IN ISO, ANSI, ASME, OR OTHER RELATIVE STANDARDS. ALL SERVICES ARE IN COMPLIANCE WITH ISO/IEC 17025:2005, ANSI/NCSL Z540-1-1994, MIL-STD-45662A AND ISO 10012-1. HARDNESS TESTERS ARE A "INDIRECT VERIFICATION" PER ASTM E18, E384, E110, AND E10. A CMM IS A "VERIFICATION ONLY" AS NO ADJUSTMENTS CAN BE MADE EXCEPT BY THE OEM.

CALIBRATION INTERVAL SHOWN IS PER CUSTOMER'S SPECIFICATIONS.

WHEN THE CALIBRATION IS PERFORMED AT CUSTOMER'S SITE, ENVIRONMENTAL CONDITIONS ARE CONTROLLED BY THE CUSTOMER AND NOTED ON THE CERTIFICATE, OR CALIBRATED AT OUR FACILITY AT 68 DEG. WITH A RELATIVE HUMIDITY REFERENCE NAVAIR 17-35FR-06 3.2.1.

ANY NUMBER OF FACTORS MAY CAUSE CALIBRATION ITEM TO DRIFT OUT OF CALIBRATION BEFORE THE RECOMMENDED INTERVAL HAS EXPIRED. THESE GAGES ARE DIRECT CONTACT INSTRUMENTS AND SOME WEAR WILL OCCUR AFTER USAGE. THE PURCHASER OR USER SHOULD PERIODICALLY RE-CALIBRATE THESE GAGES OR RETURN TO MASTER GAGE & TOOL CO (MGT). FOR CALIBRATION. MGT CANNOT AND DOES NOT WARRANT OR GUARANTEE THAT THESE GAGES WILL MAINTAIN THIS LEVEL OF TOLERANCE AFTER SHIPMENT OR USAGE. ANY MISUSE OR ABUSE, OR ALTERATION TO THESE GAGES, VOIDS ALL CERTIFICATION AND WARRANTIES. MGT IS HELD HARMLESS BY PURCHASER, USER, OR CUSTOMER AND ACCEPTS NO RESPONSIBILITY FOR THE USE OF THIS GAGE. THIS CERTIFICATE OR REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.
SENIOR LAB TECHNICIAN: CAROL C. ARMSTRONG

