



# SOUTHWEST RESEARCH INSTITUTE®

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Certificate #

0972-01

## Certificate of Calibration

**Submitted By:** DIV20

**Address:** T1

**Contact:** RON GREEN

**Manufacturer Model:** SARTORIUS 3808-MP8

**Description:** BALANCE

**Serial No:** 39030006

**Asset No:** 001444

**Procedure:** BALANCES & SCALES, DEC/04

**Work Order:** 303064983

**Date Issued:** Jul 12, 2005

**Calibration Date:** Jul 12, 2005

**\*Calibration Due:** Jan 12, 2006

**Calibration Location:** B57

**Environment:** Temp. 67.0°F Hum. 79 %RH

**\*\*Data Type:** FOUND-LEFT

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 1999, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

\*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. \*\*Found/Left = adjustment and/or repair was not required, As Left = adjusted and/or repaired was required. The client has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance. See Remarks or attached Measurement Report with the same Work Order number for data.

Reported uncertainty calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM) and represents an expanded uncertainty with a coverage factor of k=2 to approximate a 95% confidence level.

**Remarks:** None

### Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
007290	T4830007	VAISALA	HM34F	HUMIDITY/ TEMPERATURE METER	Apr 11, 06
011230	21QW	RICE LAKE	25KG	WEIGHT, CLASS 1	Sep 14, 06
011231	21QX	RICE LAKE	10KG	WEIGHT, CLASS 1	Sep 14, 06
011232	21QY	RICE LAKE	5KG	WEIGHT, CLASS 1	Sep 14, 06
011233	21QZ	RICE LAKE	2KG	WEIGHT, CLASS 1	Sep 14, 06
011234	21R0	RICE LAKE	2KG	WEIGHT, CLASS 1	Sep 14, 06
011235	21R1	RICE LAKE	1KG	WEIGHT, CLASS 1	Sep 14, 06
005566	B0113L004	MERIAN	A0030P	PRESSURE GAUGE, ABSOLUTE	Oct 13, 05

Approved by: Walt Hill

Manager

m:\a2la1.rpt Rev date March 6, 2005

Measurements by: Scott Kester

Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303064983	Manufacturer:	Sartorius	Technician:	SRK
Asset Number:	001444	Model:	3808-MP8		
Serial Number:	39030006	Type:	Balance	Cal Date:	12-Jul-05
Remarks:	Manufacturer does not provide corner load specifications. Corner load readings are without pass or fail indications.				
Ambient Conditions	67 ° F		79 % RH		14.30 PSIA

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Corner Load	grams	grams	grams	grams	grams	Result
Reference	15000.0	15000.8				
Front	15000.8	15000.9	0.1		0.12	
Rear	15000.8	15000.3	-0.5		0.12	
Left	15000.8	15000.5	-0.3		0.12	
Right	15000.8	15001.1	0.3		0.12	
Repeatability						
1	15000.0	15000.7				
2	15000.0	15000.6				
3	15000.0	15000.6				
4	15000.0	15000.6				
5	15000.0	15000.6				
6	15000.0	15000.6				
7	15000.0	15000.6				
8	15000.0	15000.7				
9	15000.0	15000.7				
10	15000.0	15000.8				
Std Deviation		0.07		0.20		Pass
Linearity	0.0	0.0	0.0	0.4	0.12	Pass
	3000.0	3000.0	0.0	0.4	0.12	Pass
	6000.0	6000.0	0.0	0.4	0.12	Pass
	9000.0	9000.0	0.0	0.4	0.12	Pass
	12000.0	11999.8	-0.2	0.4	0.12	Pass
	15000.0	14999.9	-0.1	0.4	0.12	Pass
	18000.0	17999.7	-0.3	0.4	0.12	Pass
	21000.0	20999.8	-0.2	0.4	0.12	Pass
	24000.0	23999.7	-0.3	0.4	0.12	Pass
	27000.0	26999.7	-0.3	0.4	0.12	Pass
	30000.0	29999.6	-0.4	0.4	0.12	Pass

End of Report