



# SOUTHWEST RESEARCH INSTITUTE®

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Institute Calibration Laboratory  
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Calibration Laboratory  
Certificate #0972-01

## Certificate of Calibration

**Cost Center / Customer:** DIV20 / DON BANNON

**Mail Stop:** B51

**Manufacturer/Model:** OHAUS / AV3102

**Description:** BALANCE

**Serial Number:** 8028091195

**Asset Number:** 012867

**Procedure:** BALANCES & SCALES - 1 DEC 06

**Work Order:** 303094032

**Date Issued:** 26-Apr-2010

**Date Calibrated:** 26-Apr-2010

**\* Date Due :** 26-Oct-2010

**\*\* Results:** FOUND-LEFT

**Temperature:** 73.0 °F

**Humidity:** 38 %RH

**Barometer:** 14.38 psia

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, 2005, 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. \*\*Data type found in this certificate or attached measurement report must be interpreted as: Found-left - adjustment and/or repair was not performed, As-found - data is before unit is adjusted and/or repaired, As-left - data is after adjusted and/or repaired was performed. The customer has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance.

Measurement uncertainty calculated in accordance with the method described in the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM), for a confidence level of approximately 95 percent using a coverage factor of  $k=2$ .

**Remarks:** None

### Standards Used

<u>Asset #</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Description</u>	<u>Cal Date</u>	<u>Due Date</u>
001712	RICE LAKE	100 G	WEIGHT, CLASS 1	4-Aug-2009	4-Aug-2010
001713	RICE LAKE	200 G	WEIGHT, CLASS 1	4-Aug-2009	4-Aug-2010
001714	RICE LAKE	200 G	WEIGHT, CLASS S	4-Aug-2009	4-Aug-2010
001715	RICE LAKE	500 G	WEIGHT, CLASS S	4-Aug-2009	4-Aug-2010
001716	RICE LAKE	1 KG	WEIGHT, CLASS 1	5-Jun-2009	5-Jun-2010
001717	RICE LAKE	2 KG	WEIGHT, CLASS 1	5-Jun-2009	5-Jun-2010

Walt Hill

Laboratory Manager

Carlos Mendoza

Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303094032	Mfr:	Ohaus	Technician:	com
Asset No:	012867	Model:	AV3102	Type Data:	Found-left
Serial No:	8028091195	Type:	Balance	Cal Date:	26-Apr-10
Remarks:					

Function/Range	Applied	TI Reading	Difference	± Limit	Result	% Limit
Corner Load	grams	grams	grams	grams		
Reference	2000					
Front		2000.00	0.00	0.04	Pass	0%
Rear		2000.02	0.02		Pass	50%
Left		2000.02	0.02		Pass	50%
Right		2000.00	0.00		Pass	0%
Repeatability	grams	grams				
1	2000	2000.01				
2		2000.02				
3		2000.02				
4		2000.01				
5		2000.02				
6		2000.02				
7		2000.01				
8		2000.02				
9		2000.02				
10		2000.03				
Std Deviation		0.006		0.020	Pass	32%

Function/Range	Applied	TI Reading	Difference	± Limit	± Uncertainty	Result	% Limit
Direct Weighing	grams	grams	grams	grams	grams		
	0	0.00	0.00	0.04	0.014	Pass	0%
	300	299.99	-0.01			Pass	25%
	600	599.99	-0.01			Pass	25%
	900	899.99	-0.01			Pass	25%
	1200	1199.99	-0.01			Pass	25%
	1500	1499.99	-0.01			Pass	25%
	1800	1799.99	-0.01			Pass	25%
	2100	2099.99	-0.01			Pass	25%
	2400	2399.99	-0.01			Pass	25%
	2700	2699.99	-0.01			Pass	25%
	3000	2999.99	-0.01			Pass	25%

END OF REPORT