



# SOUTHWEST RESEARCH INSTITUTE™

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Institute Calibration Laboratory  
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Certificate #

0972-01

## Certificate of Calibration

**Submitted By:** DIV20

**Address:** B57

**Contact:** JIM PRIKRYL

**Manufacturer Model:** OHAUS TS 400D

**Description:** BALANCE

**Serial No:** 2883

**Asset No:** 002345

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

**Work Order:** 444062466

**Date Issued:** Jan 14, 2005

**Calibration Date:** Jan 14, 2005

**\*\*Calibration Due:** Jul 14, 2005

**Calibration Location:** B57

**Environment:** Temp. 72.0°F Hum. 17 %RH

**\*As Found:** IN TOLERANCE

**\*As Left:** IN TOLERANCE

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 and ANSI/NC SL Z540-1-1994 which are equivalent to relevant requirements of the ISO 9000-1994 series of standards. This certificate may not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. The results of this calibration relate only to the individual instrument described above. This certificate shall not be used to claim product endorsement by the American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government

Uncertainty evaluation includes the item under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor of  $k=2$  to approximate a 95% confidence level. See Remarks or attached Calibration Report with the same Work Order number for calibration data.

\*The client has sole responsibility for determination of in/out of tolerance or compliance/noncompliance. An in/out of tolerance opinion is provided for your convenience based only on the Test Instrument (TI) reading(s) and limits as reported. The reported uncertainty relates only to the results at the time of calibration and does not imply any short or long term stability of the TI.

\*\*Calibration interval is determined by the client and does not assure the instrument will remain within tolerance until this date. Any number of factors may cause the instrument to be out of tolerance before the next calibration date.

**Remarks:** None

### Standards Used

Asset	Manufacturer	Model	Description	Cal Due
001714	RICE LAKE	200G	WEIGHT, CLASS S	Jun 23, 05
001713	RICE LAKE	200G	WEIGHT, CLASS S	Jun 23, 05
001712	RICE LAKE	100G	WEIGHT, CLASS S	Jun 23, 05
001711	RICE LAKE	50G	WEIGHT, CLASS S	Jun 23, 05
001710	RICE LAKE	20G	WEIGHT, CLASS S	Jun 23, 05
001709	RICE LAKE	20G	WEIGHT, CLASS S	Jun 23, 05
001708	RICE LAKE	10G	WEIGHT, CLASS S	Jun 23, 05
005566	MERIAN	A0030P	PRESSURE GAUGE, ABSOLUTE	Apr 14, 05
007290	VAISALA	HM34F	HUMIDITY/ TEMPERATURE METER	Apr 07, 05

Approved by: Walt Hill  
Metrology Group Leader  
m:\a2la1.rpt Rev date 11, May 04

Measurements by: Scott Kester  
Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	444062466	Mfr.	Ohaus	Technician	SRK
Asset No.	002345	Model	TS400D		
Serial No.	2883	Type.	Balance	Cal Date.	14-Jan-05
Remarks:					
Ambient Conditions                      72 deg F                      17 % RH                      14.53 PSIA					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Corner Load	grams	grams	grams	grams	grams	Result
	Ref	200.00				
Front	200.00	200.00	0.00	0.02	0.012	Pass
Rear	200.00	200.00	0.00	0.02	0.012	Pass
Left	200.00	200.00	0.00	0.02	0.012	Pass
Right	200.00	200.00	0.00	0.02	0.012	Pass
Repeatability						
1	200.00	200.00				
2	200.00	200.00				
3	200.00	200.00				
4	200.00	200.00				
5	200.00	200.00				
6	200.00	200.00				
7	200.00	200.00				
8	200.00	200.00				
9	200.00	200.00				
10	200.00	200.00				
Std Deviation		0.000		0.020		Pass
Linearity	0.00	0.00	0.00	0.02	0.012	Pass
	40.00	40.00	0.00	0.02	0.012	Pass
	80.00	80.00	0.00	0.02	0.012	Pass
	120.00	120.00	0.00	0.02	0.012	Pass
	160.00	160.00	0.00	0.02	0.012	Pass
	200.00	200.00	0.00	0.02	0.012	Pass
	240.00	240.00	0.00	0.02	0.012	Pass
	280.00	280.00	0.00	0.02	0.012	Pass
	320.00	320.00	0.00	0.02	0.012	Pass
	360.00	360.00	0.00	0.02	0.012	Pass
	400.00	400.00	0.00	0.02	0.012	Pass

End of Report