

SOUTHWEST RESEARCH INSTITUTE®

6220 Culebra Road, P.O. Drawer 28510
Institute Quality Systems
Institute Calibration Laboratory
Phone: 210-522-5215 Fax 210-522-4834



Certificate of Calibration

Submitted By: DIV20 Work Order: 303064984

Address: T1 Date Issued: Jul 12, 2005 Contact: RON GREEN Calibration Date: Jul 12, 2005

Manufacturer Model: METTLER PM480 *Calibration Due: Jan 12, 2006

Description: BALANCE Calibration Location: B51

Serial No: N45601 Environment: Temp. 70.0°F Hum. 57 %RH

Asset No: 002478 **Data Type: FOUND-LEFT

Procedure: BALANCES & SCALES, DEC/04

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	HUMIDTY/ TEMPERATURE METER	Apr 11, 06
010442	A007	RICE LAKE	10MG-100G	WEIGHT SET, CLASS 1	Apr 26, 06
011236	21R2	RICE LAKE	200G	WEIGHT, CLASS 1	Sep 14, 06
011237	21R3	RICE LAKE	200G	WEIGHT, CLASS 1	Sep 14, 06
005566	B0113L004	MERIAN	A0030P	PRESSURE GAUGE, ABSOLUTE	Oct 13, 05

Approved by: Walt Hill

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

Measurements by: Scott Kester

Metrology Technician

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Southwest Research Institute Calibration Laboratory Measurement Report

Work Order:	303064984	Manufacturer:	Mettler		Technician:	SRK
Asset Number:	002478	Model:	PM480			
Serial Number:	N45601	Туре:	Balance		Cal Date:	12-Jul-05
Remarks:	Manufacturer d	oes not provide	corner load specifications.	Corr	er load reading	s are without
pass or fail indications.						
Ambient Conditions 70		° F	57 % RH		14.29	PSIA

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left		
Corner Load	grams	grams	grams	grams	grams	Result		
Reference	200.00	199.99						
Front	199.99	199.99	0.00		0.0075			
Rear	199.99	199.99	0.00		0.0075			
Left	199.99	199.99	0.00		0.0075			
Right	199.99	199.99	0.00		0.0075			
Repeatability								
1	200.00	199.99						
2	200.00	199.99						
3	200.00	199.99						
4	200.00	199.99						
5	200.00	199.99						
6	200.00	199.99						
7	200.00	199.99						
8	200.00	199.99						
9	200.00	199.99						
10	200.00	199.99						
Std Deviation		0.000		0.006		Pass		
Linearity	0.00	0.00	0.00	0.01	0.0075	Pass		
	40.00	40.00	0.00	0.01	0.0075	Pass		
	80.00	80.00	0.00	0.01	0.0075	Pass		
	120.00	120.00	0.00	0.01	0.0075	Pass		
	160.00	160.00	0.00	0.01	0.0075	Pass		
	200.00	200.00	0.00	0.01	0.0075	Pass		
	240.00	240.00	0.00	0.01	0.0075	Pass		
	280.00	280.00	0.00	0.01	0.0075	Pass		
	320.00	320.00	0.00	0.01	0.0075	Pass		
	360.00	360.00	0.00	0.01	0.0075	Pass		
	400.00	400.00	0.00	0.01	0.0075	Pass		
End of Report								