Troxler Model 3450 Calibration Report (Page 1 of 5)

Gauge model - 3450 A Gauge serial number - 000042

Reference Density standard counts: System 1 = 07031 System 2 = 01647
Reference Moisture standard count: 1125

Calibration Date: 03-15-2010 Print Date: 03-16-2010 Bay = 060

*** Density calibration count data ***

Depth (in)	Magnes 1778	Mag/Al 2216	Alumin 2699
BS	03262	02331	01737
02	06229	04038	02670
04	32262	24768	18240
06	22867	16060	10787
08	14648	09424	05793
10	08842	05345	03218
12	05317	03199	02095

*** Density performance parameters ***

Pos	A	B*1000	C	'Y'	Slope	Prec
BS	2.597	1.30316	-0.11266	2216	2.2	8.40
02	6.499	1.35481	-0.11626	2216	5.1	4.81
04	11.467	0.56154	0.55848	2216	18.2	3.23
06	11.984	0.84059	0.10206	2216	16.2	2.96
08	11.625	1.09885	-0.00117	2216	12.3	3.04
10	11.194	1.41737	-0.09066	2216	8.1	3.53
12	10.994	1.78665	-0.13614	2216	4.8	4.60

*** Moisture calibration count data ***

Mag 0	Mag/Poly 590	S R
0036	0675	0663

*** Moisture performance parameters ***

E	F*1000	Rat	Prec	S R	Exerr
0.03200	0.96271	3.12	5.72	-11.1	13.9

***** Density Standard Decay Sheet *****

Gauge model - 3450 A
Serial- 000042

Calib Date: 03-15-2010
Print Date: 03-16-2010

Ref. std. cnt., System 1 = 7031 System 2 = 1647

Range of projected density standard counts at future dates, System 1

Date	Lower Limit of Projected density Standard Count	Upper Limit of Projected density Standard Count
04-01-2010	6953	7094
05-01-2010	6940	7080
06-01-2010	6927	7067
07-01-2010	6914	7053
08-01-2010	6900	7040
09-01-2010	6887	7026
10-01-2010	6874	7013
11-01-2010	6860	6999
12-01-2010	6847	6986
01-01-2011	6834	6972
02-01-2011	6821	6959
03-01-2011	6809	6946
04-01-2011	6796	6933

Range of projected density standard counts at future dates, System 2

Date	Lower Limit of Projected density Standard Count	Upper Limit of Projected density Standard Count
04-01-2010	1629	1662
05-01-2010	1626	1659
06-01-2010	1623	1655
07-01-2010	1620	1652
08-01-2010	1616	1649
09-01-2010	1613	1646
10-01-2010	1610	1643
11-01-2010	1607	1639
12-01-2010	1604	1636
01-01-2011	1601	1633
02-01-2011	1598	1630
03-01-2011	1595	1627
04-01-2011	1592	1624

Gauge model - 3450 A Gauge serial number - 000042

Reference standard counts: System 1 - 07031 System 2 - 01647

Calibration Date: 03-15-2010 Print Date: 03-16-2010 Bay = 060

*** Thin layer calibration count data ***

	Mag 1778	Mg/Al 2216	Alum 2699	Std. count	BG
System 1	17219	15141	12861	07031	000
System 2	03262	02331	01737	01647	000

*** Gauge Parameters ***

	A	B*1000	C	Prec
System 1:	-0.30275	-0.636631	-3.37536	7.63
System 2:	7.40669	0.71031	0.14621	9.50

** K Factor Parameters **

System 1	Average
P1	1.34047
Q1	0.07730
R1	0.00351

System 2	Average
P2	1.09001
Q2	0.04050
R2	0.00274

Thickness (mm)	DT Precision
25.4	17.0
38.1	11.4
50.8	9.4
63.5	8.3
76.2	7.7
88.9	7.1
101.6	6.6

Gauge model - 3450 A Gauge serial number - 000042

Reference standard counts: System 1 - 07031 System 2 - 01647

Moisture - 1125

Calibration Date: 03-15-2010 Print Date: 03-16-2010 Bay = 060

*** Factory Calibration Re-Entry Constants ***

The factory calibration constants can be re-entered into the gauge if the need arises. This capability is accessed through the Extended Functions menu. When re-entering the calibration constants, enter the values exactly as shown below:

E = 0.032000
F = 0.962712

Depth	A	B	C
BS	2.5974	1.303160	-0.112661
02	6.4992	1.354814	-0.116263
04	11.4672	0.561541	0.558477
06	11.9836	0.840592	0.102058
08	11.6246	1.098848	-0.001171
10	11.1940	1.417373	-0.090662
12	10.9943	1.786651	-0.136142

A1 = -0.30275
B1 = -.0101976
C1 = -3.37536

A2 = 7.40669
B2 = .0113778
C2 = 0.14621

P1 = 1.340470
Q1 = 1.963530
R1 = 0.003512

P2 = 1.090012
Q2 = 1.028667
R2 = 0.002742

Gauge model - 3450 A Gauge serial number - 000042

Reference standard counts: System 1 - 07031 System 2 - 01647

Moisture - 1125

Calibration Date: 03-15-2010 Print Date: 03-16-2010 Bay = 060

The true gravimetric densities of the metallic blocks used in this calibration are listed on Page 1 of this document. To account for the influence of the chemical composition of these blocks on instrument response (as prescribed in ASTM D2922, Section A1), these gravimetric densities are multiplied by chemical correction factors prior to the calculation of the density calibration parameters likewise shown on Page 1 of this document. These correction factors are 0.988 for magnesium, 0.974 for magnesium/aluminum, and 0.964 for aluminum.

To account for the influence of the chemical composition of these blocks on instrument response (as prescribed in ASTM D2922, Section A1), these gravimetric densities are multiplied by chemical correction factors prior to the calculation of the thin layer calibration parameters shown on Page 3 of this report. These correction factors are 0.988 for magnesium, 0.989 for magnesium/aluminum, and 0.949 for aluminum.

Statement of Traceability:

"The above referenced equipment has been calibrated by the manufacturer to established and documented procedures. Density values for the standards used in the calibration of this equipment were established using instruments whose measurements are traceable to the National Institute of Standards and Technology. Test procedures and supporting documentation are available upon request."

This instrument was found to be mechanically sound and electronically stable both prior to and after its calibration.
All data listed in the preceding four pages of this report are applicable to this instrument only. This instrument was calibrated by pm on 03-16-2010 using the 3-Block Re-calibration.
This calibration was performed at:

Troxler Electronic Laboratories
2000 East Randol Mill Road
Suite 611
Arlington, TX 76011

Special considerations and limitations of use for this device and its calibration are described in the Manual of Operation and Instruction provided with this instrument.

Troxler Electronic Laboratories, Inc.
3008 Cornwallis Rd. • PO Box 12057 • Research Triangle Park, NC 27709
Phone: +1.919.549.8661 • Fax: +1.919.549.0761 • www.troxlerlabs.com

Gauge Safety Inspection Report

MODEL: 3450 SERIAL #: 42 RO #: 12429

LOCATION: TX

(●) 1 - Auto (Orbital) weld
( ) 2 - Manual Weld

DATE: 3/10/2010

REASON FOR RETURN:
- (●) 1 - Repair
- ( ) 2 - Disposal
- ( ) 3 - Assign To Production

OVERALL CONDITION OF GAUGE:
- ( ) 1 - Good
- (●) 2 - Normal
- ( ) 3 - Poor (comments)
- ( ) 4 - Abused (comments)

HANDLE CONDITION:
- (●) 1 - Normal
- ( ) 2 - Abused (comments)

AS FOUND CONDITION:
- (●) 0 - Fully Closed
- ( ) 1 - <= 25% Open
- ( ) 2 - 26-50% Open
- ( ) 3 - 51-75% Open
- ( ) 4 -75-100% Open
- ( ) 5 -Fully Open

REASON NOT FULLY CLOSED:
- ( ) 1 - Excessive Dirt
- ( ) 2 - Weak Spring
- ( ) 3 - Both
- (●) 4 - Other (Comments)

SLIDING BLOCK:
- (●) Uncracked
- ( ) Cracked
- ( ) Not applicable

(Only models 3450 or 3451)

SOURCE ROD WEAR:
- ( ) 0 - None
- (●) 1 - Slight
- ( ) 2 - Some.
- ( ) 3 - Medium
- ( ) 4 - Significant.
- ( ) 5 - Extreme (comments)

CAUSE OF SOURCE ROD WEAR:
- ( ) 0 - None
- ( ) 1 - Sliding Block
- ( ) 2 - Bearing/Wiper
- (●) 3 - Both
- ( ) 4 - Other (comments)

AmBe PLUG:
- (●) Tight
- ( ) Loose
- ( ) Not applicable

I. CONCAVITY:
- ( ) 0 - None
- (●) 1 - Slight
- ( ) 2 - Some.
- ( ) 3 - Medium
- ( ) 4 - Significant
- ( ) 5 - Extreme (comments)

II. POROSITY/PITTING:
- ( ) 0 - None
- (●) 1 - Slight
- ( ) 2 - Some
- ( ) 3 - Medium
- ( ) 4 - Significant.
- ( ) 5 - Extreme (comments)

III. CRACKS:
- (●) 0 - None
- ( ) 1 - 1 to 20%
- ( ) 2 - 21 - 40%
- ( ) 3 - 41 to 60%
- ( ) 4 - 61 to 80%
- ( ) 5 - 81 to 100%

COMMENTS: