



# Certification of Calibration

## Kansas City Calibration Lab., Inc.

8391 Melrose Drive  
Lenexa, Kansas 66214

SPAN - VAC GAUGE



UNIT UNDER TEST: Span Instrument LFS-310-30 0-30 inHg 1% FS Gauge  
SERIAL NUMBER: 60824  
ASSET NUMBER: 60824  
PROCEDURE NAME: 0 to 30 inHg Vacuum 1.0% FS:Cert Mensor CPC6000  
PROCEDURE REV.: 200170712  
CALIBRATED BY: Bart Schwartz

P.O. NUMBER:  
CUSTOMER: Underground Safety Equipment  
3801 N Arlington Avenue  
Kansas City, MO 64161

Cal Seals Intact: Yes

TEST RESULT: PASS  
PERFORMED ON: 9/1/2017  
DATA TYPE: FOUND-LEFT  
TEMPERATURE: 23.2°C  
HUMIDITY: 37 %  
BAROMETRIC: 30.1 inHg

### Recertification Date

September 01, 2018

Certification Number: 00063138

Previous Certification Date:

July 06, 2016

K.C. Calibration Lab., Inc. certifies that the above listed instrument meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the National Institute of Standards and Technology (NIST), or to NIST accepted intrinsic standards of measurement, or derived by the ratio type of self-calibration techniques. This calibration complies with MIL-STD-45662A and ANSI/NCSL Z540-1-1994.

This report may not be reproduced, except in full, unless permission for the publication of an approved abstract is obtained in writing from the calibration organization issuing this report.

Note: Any Test Uncertainty Ratio (TUR) that is less than four to one will appear under the "TUR" heading on the data record. If the TUR meets or exceeds four to one, the field is left blank.

### REMARKS:

### Standards Used

Asset #	Description	Cal Date	Due Date
4100009X	Mensor CPC6000 Low & Medium Pressure Calibrator	6/20/2017	6/20/2018

### Test Results

Test Description	True Value	Test Result	Lower Limit	Upper Limit	Units	TUR
Vertical Accuracy: $\pm 1.0\%$ FS INHG @ 60F						
Reference Documents: Mfr. Manuals						
0.00 inHg	0.00	0.000	-0.300	0.300	inHg	Pass
-5.00 inHg	-5.00	-5.000	-5.300	-4.700	inHg	Pass
-10.00 inHg	-10.00	-10.000	-10.300	-9.700	inHg	Pass
-15.00 inHg	-15.00	-15.000	-15.300	-14.700	inHg	Pass
-20.00 inHg	-20.00	-20.000	-20.300	-19.700	inHg	Pass
-25.00 inHg	-25.00	-25.000	-25.300	-24.700	inHg	Pass

Report of Certification for

SERIAL NUMBER: 60824

ASSET NUMBER: 60824

Printed On: Friday, September 1, 2017

**Test Results** indicate the following: Found-Left: Unit was left as found. As-Left: Unit was left after adjustments.



\*\*\*\*\*END OF CERTIFICATE\*\*\*\*\*

Signed:

  
Bart A. Schwartz , Engineer in Charge

Report of Certification for

SERIAL NUMBER: 60824

ASSET NUMBER: 60824

Printed On: Friday, September 1, 2017

Page 2 of 2

Test Results indicate the following: Found-Left: Unit was left as found. As-Left: Unit was left after adjustments.

VAC gauge



# Certification of Calibration

## Kansas City Calibration Lab., Inc.

8391 Melrose Drive  
Lenexa, Kansas 66214



UNIT UNDER TEST: Span Instrument LFS-310-30 0-30 inHg 1% FS Gauge	TEST RESULT: PASS
SERIAL NUMBER: 60714	PERFORMED ON: 11/22/2017
ASSET NUMBER: 60714	DATA TYPE: FOUND-LEFT
PROCEDURE NAME: 0 to 30 inHg Vacuum 1.0% FS:Cert Mensor CPC6000	TEMPERATURE: 24.6°C
PROCEDURE REV.: 200170712	HUMIDITY: 31 %
CALIBRATED BY: Dan Koontz	BAROMETRIC: 30.4 inHg
P.O. NUMBER:	<b>Recertification Date</b>
CUSTOMER: Underground Safety Equipment	<b>November 22, 2018</b>
3801 N Arlington Avenue	Certification Number: 00063484
Kansas City, MO 64161	Previous Certification Date:
Cal Seals Intact: Yes	<b>June 07, 2016</b>

K.C. Calibration Lab., Inc. certifies that the above listed instrument meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the National Institute of Standards and Technology (NIST), or to NIST accepted intrinsic standards of measurement, or derived by the ratio type of self-calibration techniques. This calibration complies with MIL-STD-45662A and ANSI/NCSL Z540-1-1994.

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REMARKS:

Standards Used			
Asset #	Description	Cal Date	Due Date
610183M	Mensor CPC6000 Medium Pressure Calibrator	7/7/2017	7/7/2018

### Test Results

Test Description	True Value	Test Result	Lower Limit	Upper Limit	Units	TUR
Vertical Accuracy: ±1.0% FS INHG @ 60F						
Reference Documents: Mfr. Manuals						
0.00 inHg	0.00	0.000	-0.300	0.300	inHg	Pass
-5.00 inHg	-5.00	-5.000	-5.300	-4.700	inHg	Pass
-10.00 inHg	-10.00	-10.000	-10.300	-9.700	inHg	Pass
-15.00 inHg	-15.00	-15.000	-15.300	-14.700	inHg	Pass
-20.00 inHg	-20.00	-20.000	-20.300	-19.700	inHg	Pass
-25.00 inHg	-25.00	-25.000	-25.300	-24.700	inHg	Pass

Report of Certification for

SERIAL NUMBER: 60714

ASSET NUMBER: 60714

Printed On:

Wednesday, November 22, 2017

Page 1 of 2

**Test Results** indicate the following: **Found-Left:** Unit was left as found. **As-Left:** Unit was left after adjustments.



\*\*\*\*\*END OF CERTIFICATE\*\*\*\*\*

Signed:

A handwritten signature in black ink, appearing to read "Bart A. Schwartz".

Bart A. Schwartz , Engineer in Charge

Report of Certification for

SERIAL NUMBER: 60714

ASSET NUMBER: 60714

Printed On: Wednesday, November 22, 2017

Page 2 of 2

**Test Results** indicate the following: **Found-Left:** Unit was left as found. **As-Left:** Unit was left after adjustments.





*M/H  
vacuum  
tester*

*Gray Vacuum Hose*

# Certification of Calibration

## Kansas City Calibration Lab., Inc.

8391 Melrose Drive  
Lenexa, Kansas 66214



UNIT UNDER TEST: Span Instrument LFS-310-30 0-30 inHg 1% FS Gauge  
SERIAL NUMBER: 60740  
ASSET NUMBER: 60740  
PROCEDURE NAME: 0 to 30 inHg Vacuum 1.0% FS: Cert Mensor CPC6000  
PROCEDURE REV.: 200170712  
CALIBRATED BY: Bart Schwartz

TEST RESULT: PASS  
PERFORMED ON: 7/12/2017  
DATA TYPE: AS-LEFT  
TEMPERATURE: 24.1°C  
HUMIDITY: 43 %  
BAROMETRIC: 29.9 inHg

**Recertification Date**  
**July 12, 2018**

Certification Number: 00062864

Previous Certification Date:

**June 13, 2016**

P.O. NUMBER:  
CUSTOMER: Underground Safety Equipment  
3801 N Arlington Avenue  
Kansas City, MO 64161

Cal Seals Intact: Yes

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REMARKS:

### Standards Used

Asset #	Description	Cal Date	Due Date
4100009X	Mensor CPC6000 Low & Medium Pressure Calibrator	6/20/2017	6/20/2018

### Test Results

Test Description	True Value	Test Result	Lower Limit	Upper Limit	Units	TUR
Vertical Accuracy: $\pm 1.0\%$ FS INHG @ 60F						
Reference Documents: Mfr. Manuals						
-5.00 inHg	-5.00	-5.000	-5.300	-4.700	inHg	Pass
-10.00 inHg	-10.00	-10.000	-10.300	-9.700	inHg	Pass
-15.00 inHg	-15.00	-15.000	-15.300	-14.700	inHg	Pass
-20.00 inHg	-20.00	-19.800	-20.300	-19.700	inHg	Pass
-25.00 inHg	-25.00	-24.900	-25.300	-24.700	inHg	Pass

Report of Certification for

SERIAL NUMBER: 60740

ASSET NUMBER: 60740

Printed On: Wednesday, July 12, 2017

Test Results indicate the following: Found-Left: Unit was left as found. As-Left: Unit was left after adjustments.

\*\*\*\*\*END OF CERTIFICATE\*\*\*\*\*



Signed:

A handwritten signature in black ink, appearing to read "Bart A. Schwartz".

Bart A. Schwartz , Engineer in Charge

Report of Certification for

SERIAL NUMBER: 60740

ASSET NUMBER: 60740

Printed On: Wednesday, July 12, 2017

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Test Results indicate the following: Found-Left: Unit was left as found. As-Left: Unit was left after adjustments.