



Certificate of Calibration

Report number C00430

Manufacturer	Model	Pressure Range	Serial Number	Calibration Date	Expiration Date
Chicago Stainless Equipment, Inc.	3C-E-15U-GF-BT-CD	160 PSI	13071558	7/18/2013	7/18/2014

All instrument calibrations are verified for accuracy before they are shipped. The recommended calibration interval for this instrument is 12 months from the date of verification. Your particular quality assurance requirements may supersede this recommendation.

Test Results: In Tolerance


Definitions:	Temperature	Measured temperature of test during data collection.
	Reference Reading	True value according to our reference standards.
	Indicated Reading	Displayed reading from test unit.
	Condition	Pass or Fail.
	Difference	Indicated reading minus reference reading.
	Relative Difference	(Difference / reference reading) x 100
	Allowable Tolerance	± according to manufacturer's specifications.
	Water column	Referenced at 20° C and 1 atmosphere.
	Test Accuracy Ratio	At least 4:1 unless otherwise stated.

Laboratory ambient conditions throughout this calibration were: Temperature: 73 to 80° F

This certification was made by direct comparison to master gauges which are periodically referred to one or more of the primary standards traceable to National Institute of Standards & Technology or other national physical measures recognized by NIST. The accuracy has been certified at every major subdivision on the dial face. Reference Standards used in this calibration are traceable to the National Institute of Standards and Technology of the United States, through the following report numbers:

Manufacturer	Model	Serial Number	Report Number	Due Date	Reference Uncertainty
Crystal Engineering	300PSIXP2I	867521	CSE010:11,358	6-Jun-14	0-20% of FS: +/- 0.02% FS, 20%-100% of FS: +/- 0.1% reading; Vacuum: +/- 0.25% of 14.5PSI/100kPa/1BAR

This certificate shall not be reproduced except in full, without written approval.



 Laboratory Representative



 Quality Representative

Test Results

Report number C00430
 Serial No. 13071558



Test Results

160 PSI

Reference Reading	Gauge Reading	Condition	Difference	Difference (% of FS)	Allowable Tolerance
0.00	0	Pass	0.00		1.20
20.17	20	Pass	-0.17	-0.11%	1.20
40.22	40	Pass	-0.22	-0.14%	1.20
60.33	60	Pass	-0.33	-0.21%	1.20
80.24	80	Pass	-0.24	-0.15%	1.20
100.22	100	Pass	-0.22	-0.14%	1.20
120.14	120	Pass	-0.14	-0.09%	1.20
140.16	140	Pass	-0.16	-0.10%	1.20
160.07	160	Pass	-0.07	-0.04%	1.20
140.33	140	Pass	-0.33	-0.21%	1.20
119.94	120	Pass	0.06	0.04%	1.20
99.82	100	Pass	0.18	0.11%	1.20
79.98	80	Pass	0.02	0.01%	1.20
60.04	60	Pass	-0.04	-0.03%	1.20
40.22	40	Pass	-0.22	-0.14%	1.20
20.11	20	Pass	-0.11	-0.07%	1.20
0.00	0	Pass	0.00		1.20

AL Head correction:

0.00 PSI