
Calibrated Cylinder
Instructions and Specifications



MANUAL NUMBER 21-11-1133F

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1.0 Introduction

In accordance with DOT regulations, hydrostatic cylinder test systems must be checked daily to ensure the accuracy of cylinder test results. The calibrated cylinder is a special cylinder used for daily verification of the system calibration. It is always accompanied by its own certification sheet. The test system compares the indexed pressure point from the certification sheet, to the known expansion for that point, thus verifying both pressure and expansion at the same time.

2.0 Safety

Always wear appropriate personal protection equipment when handling calibration cylinders. Perform periodic visual inspections to the calibrated cylinder to ensure there is no corrosion or damage to the cylinder.

****WARNING****

**Corroded cylinders can fail under pressure causing equipment damage, severe bodily injury, or even death. Do not pressurize a failed visual inspection cylinder!
Take extra care to know the test pressure of the cylinder! Do not over pressurize it!**

3.0 Preparation

Fill the calibrated cylinder with clean, filtered water and allow it to stand until the temperature of the water and cylinder stabilize. Add water as needed to completely fill the cylinder. Keep a copy of the cylinder calibration certificate handy for reference during daily calibration verification.

4.0 General Use

In accordance with 49 CFR 180, the calibrated cylinder is used on a daily basis to ensure the test system is operating properly within its 1% calibration tolerance. The expansion value on screen must be between the 1% upper and lower limit calculated from the nominal value shown on the calibration certificate for that pressure point.

5.0 Care and Maintenance

The calibrated cylinder should be kept full of water at all times. If the cylinder is emptied, it should be dried immediately to prevent corrosion.

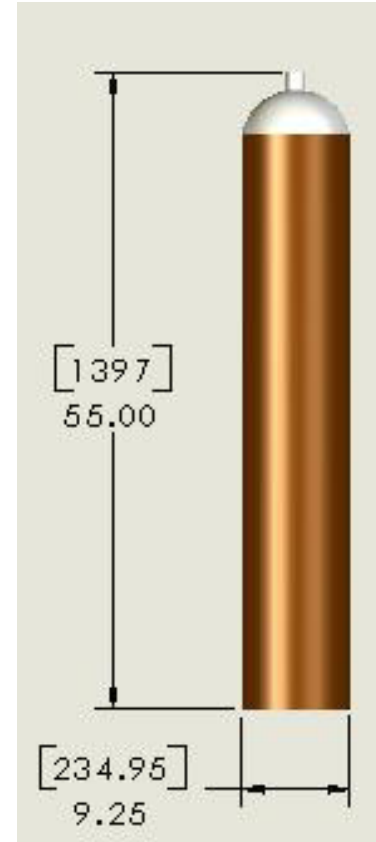
The cylinder should be kept away from freezing temperatures. The cylinder does not require requalification. It can be recalibrated if an 'out of calibration' condition is suspected. Please contact Galiso for information regarding recalibration of the cylinder.

6.0 Specifications

1.0 Model LCC-LP; P/N 01-51-2342C

Manufacturer: Taylor Wharton
 Spec: DOT 3AA2400
 Material: Steel
 Max test press: 4000PSI; 275.79 bar
 Nom. Exp. @ Test Press: 225 cc
 Dry Weight: 139Lbs; 63.04kg
 Internal Volume: 2640 cu. In.; 43.26L
 Neck Thread: ¾ - 14NGT
 Adapter: ¾" F port, 01-32-2635D
 ½" F port, 01-32-2607D

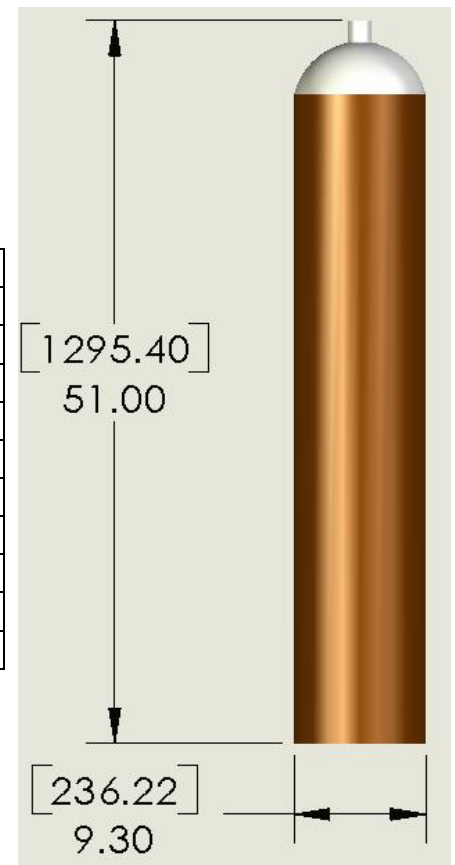
Calibration Points	
PSI	Bar
400	27.58
450	31.03
500	34.47
600	41.37
700	48.26
800	55.16
900	62.05
1000	68.95
1200	82.74
1400	96.53
1600	110.32
1800	124.11
2000	137.90
2500	172.37
3000	206.84
4000	275.79



2.0 Model LCC-HP; P/N 01-51-2378

Manufacturer: Norris
 Spec: DOT 3AA6000
 Material: Steel
 Max test press: 10000PSI; 689.48 bar
 Nom. Exp. @ Test Press: 193 cc
 Dry Weight: 267 Lbs; 121.11 kg
 Internal Volume: 2285 cu. In.; 37.44 L
 Neck Thread: ¾ - 14NGT
 Adapter: ¾" F port, 01-32-2635D
 ½" F port, 01-32-2607D

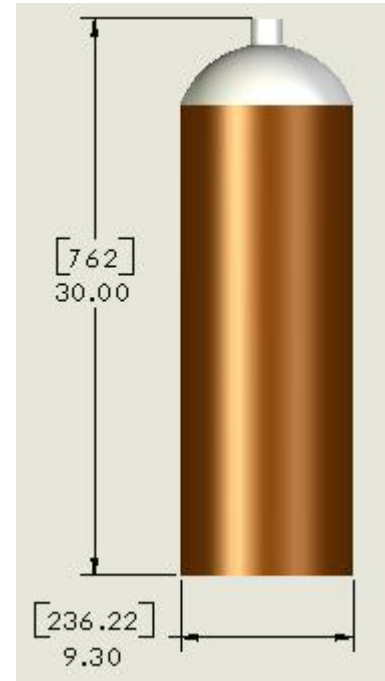
Calibration Points	
PSI	Bar
3000	206.84
4000	275.79
5000	344.74
6000	413.69
7000	482.63
8000	551.58
9000	620.53
10,000	689.48



3.0 Model SCC-HP; P/N 01-51-2352

Manufacturer: Taylor Wharton
 Spec: DOT E 9909
 Material: Steel
 Max test press: 9000PSI; 620.53 bar
 Nom. Exp. @ Test Press: 160 cc
 Dry Weight: 120Lbs; 54.43kg
 Internal Volume: 1460 cu. In.; 23.92 L
 Neck Thread: 3/4 - 14NGT
 Adapter: 3/4" F port, 01-32-2635D
 1/2" F port, 01-32-2607D

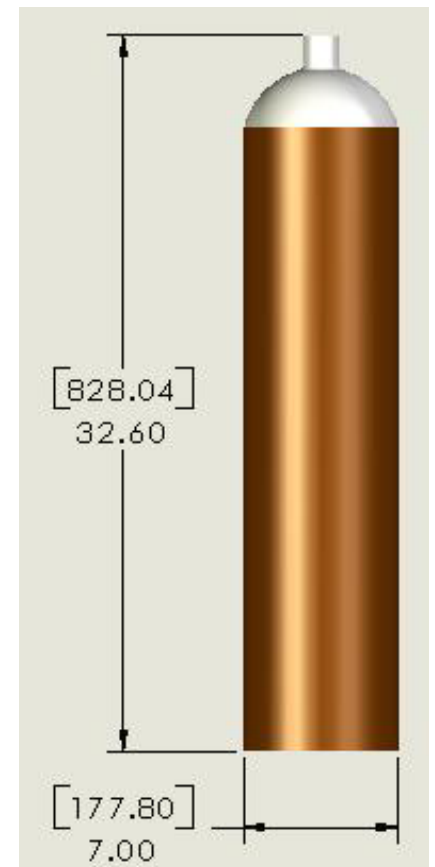
Calibration Points	
PSI	Bar
3000	206.84
4000	275.79
5000	344.74
6000	413.69
7000	482.63
8000	551.58
9000	620.53



4.0 Model SCC-MP; P/N 01-51-2340

Manufacturer: Coyne
 Spec: DOT 3AA2015
 Material: Steel
 Max test press: 3360PSI; 231.66 bar
 Nom. Exp. @ Test Press: 67 cc
 Dry Weight: 41 Lbs; 18.60 kg
 Internal Volume: 995 cu. In.; 16.30 L
 Neck Thread: 3/4 - 14NGT
 Adapter: 3/4" F port, 01-32-2635D
 1/2" F port, 01-32-2607D

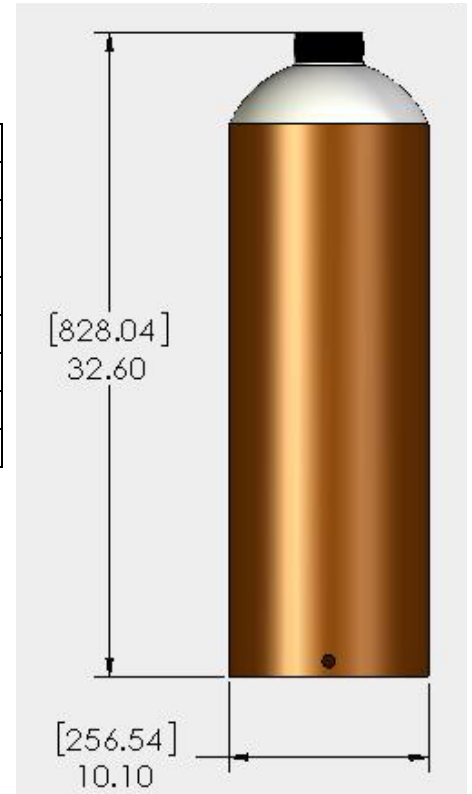
Calibration Points	
PSI	Bar
1000	68.95
1200	82.74
1400	96.53
1600	110.32
1800	124.11
2000	137.90
2500	172.37
3000	206.84



5.0 Model SCC-LP; P/N 01-51-3800

Manufacturer: Coyne
 Spec: None
 Material: Steel
 Max test press: 750 PSI; 51.71 bar
 Nom. Exp. @ 400 PSI: 33.2 cc
 Dry Weight: 51.1 Lbs; 23.36 kg
 Internal Volume: 2200 cu. In.; 36.05 L
 Neck Thread: 3/4 - 14NGT
 Adapter: 3/4" F port, 01-32-2635D
 1/2" F port, 01-32-2607D

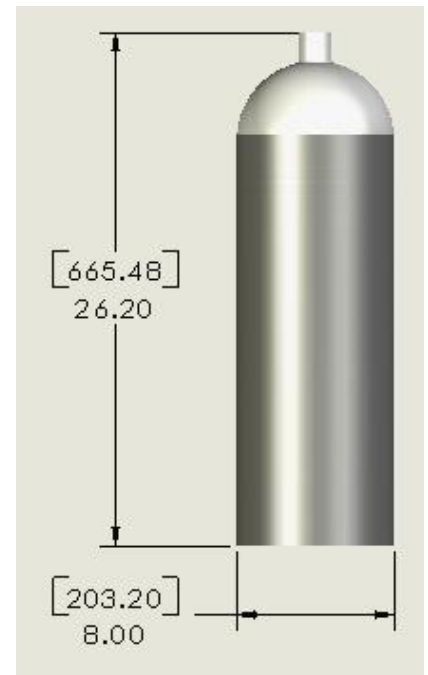
Calibration Points	
PSI	Bar
400	27.58
450	31.03
500	34.50
600	41.37
700	48.26
750	51.71



6.0 Model SCC-MP-A; P/N 01-51-2343

Manufacturer: Luxfer
 Spec: DOT 3AL
 Material: Aluminum
 Max test press: 5000 PSI; 344.74 bar
 Nom. Exp. @ 3000 PSI: 42.8 cc
 Nom. Exp. @ 5000 PSI: 79.1 cc
 Dry Weight: 31.7 Lbs; 14.38 kg
 Internal Volume: 678 cu. In.; 11.11 L
 Neck Thread: 0.75 - 14 NPSM - 2B
 Adapter: 3/4" FPT 01-32-2540E,
 40-87-6214 w/o-ring
 1/2" FPT 01-32-2642F,
 40-87-6214 w/o-ring

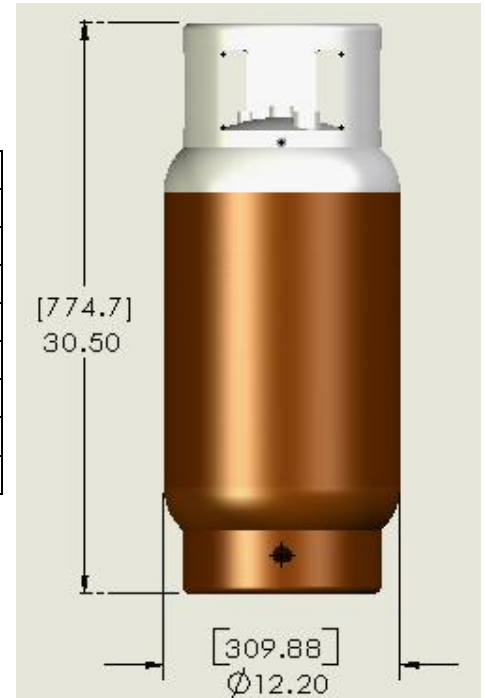
Calibration Points	
PSI	Bar
3000	206.84
4000	275.79
5000	344.74



7.0 Model LCC-100; P/N 01-51-3804

Manufacturer: Manchester Tank
 Spec: DOT 4BA/4BW
 Material: Steel
 Max test press: 800 PSI; 55.16 bar
 Nom. Exp. @ 400 PSI: 51 cc
 Nom. Exp. @ 800 PSI: 102 cc
 Dry Weight: 45 Lbs; 20.4 kg
 Internal Volume: 2587 cu. In.; 42.39 L
 Neck Thread: ¾ - 14NGT
 Adapter: ¾" F port, 01-32-2635D
 ½" F port, 01-32-2607D

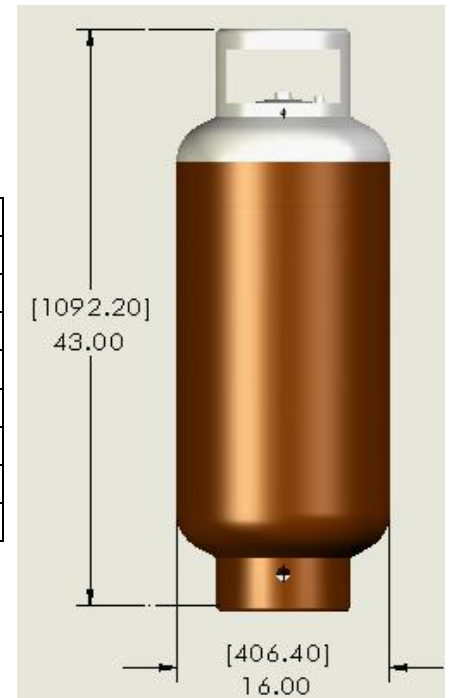
Calibration Points	
PSI	Bar
400	27.58
450	31.03
500	34.47
600	41.37
700	48.26
750	51.71



8.0 Model LCC-250; P/N 01-51-3802

Manufacturer: Manchester Tank
 Spec: DOT 4BA/4BW
 Material: Steel
 Max test press: 850 PSI; 58.61 bar
 Nom. Exp. @ 400 PSI: 131.5 cc
 Nom. Exp. @ 800 PSI: 255.5 cc
 Dry Weight: 105 Lbs; 47.6 kg
 Internal Volume: 6583.5 cu. In.; 107.88 L
 Neck Thread: ¾ - 14NGT
 Adapter: ¾" F port, 01-32-2635D
 ½" F port, 01-32-2607D

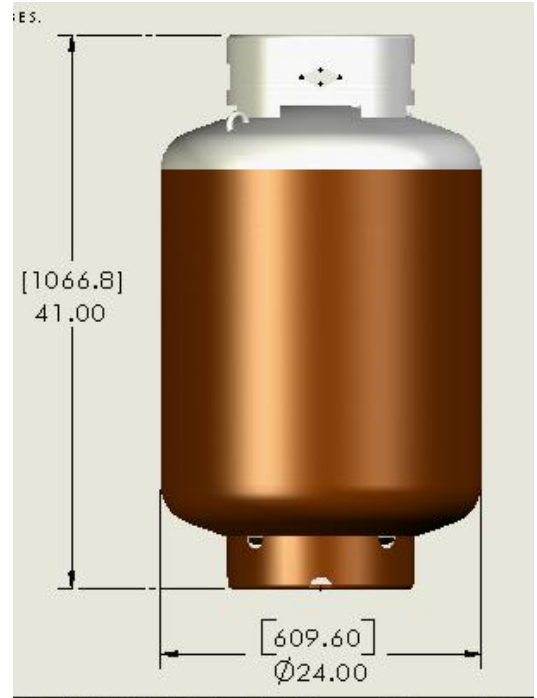
Calibration Points	
PSI	Bar
400	27.58
450	31.03
500	34.47
600	41.37
700	48.26
800	55.16



9.0 Model LCC-500; P/N 01-51-3803

Manufacturer: Manchester Tank
 Spec: DOT 4BA/4BW
 Material: Steel
 Max test press: 800 PSI; 55.15 bar
 Nom. Exp. @ 300 PSI: 300.3 cc
 Nom. Exp. @ 800 PSI: 600.8 cc
 Dry Weight: 202 Lbs; 91.6 kg
 Internal Volume: 57 Gal.; 215.76 L
 Neck Thread: ¾ - 14NGT
 Adapter: ¾" F port, 01-32-2635D
 ½" F port, 01-32-2607D

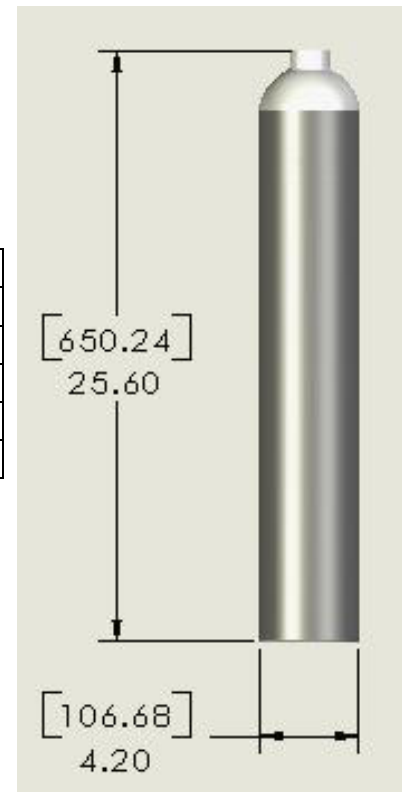
Calibration Points	
PSI	Bar
400	27.58
450	31.03
500	34.47
600	41.37
700	48.26
800	55.16



10.0 Model SCC-210-0680;
Calibrated Cylinder P/N 01-51-3805

Manufacturer: Luxfer
 Spec: DOT 3AL2015
 Material: Aluminum
 Max test press: 3360 PSI; 231.66 bar
 Nom. Exp. @ 2350 PSI: 20.5 cc
 Nom. Exp. @ 3350 PSI: 29.5 cc
 Dry Weight: 8 Lbs; 3.63 kg
 Internal Volume: 283 cu. In.; 4.63 L
 Neck Thread: ¾ - 16 UNF
 Adapter: ¾" FPT 01-32-2798F,
 40-87-6210 with o-ring
 ½" FPT 01-32-2447C,
 40-87-6210 with o-ring

Calibration Points	
PSI	Bar
2350	162
2850	196.5
3350	231



11.0 Model SCC-3000-11000;
Calibrated Cylinder P/N 01-51-2385

Manufacturer: MCS
Spec: EEC Directive 97/23
Material: Graphite Epoxy Wound High Tensile Polymer (HTP) Liner, Stainless Steel neck.
Max test press: 11,000PSI; 758.42 bar
Nom. Exp. @ 4000: 52.6 cc
Nom. Exp. @ 6000: 78.4 cc
Nom. Exp. @ 10000: 130.1 cc

Dry Weight: 12.2Lbs; 5.53 kg
Internal Volume: 415 cu. In.; 6.8 L
Neck Thread: M18 – 1.5
Adapter: 3/4" FPT, 01-31-3186 (3/4")

Calibration Points	
PSI	Bar
3000	206.84
4000	275.79
5000	344.74
6000	413.69
7000	482.63
8000	551.58
9000	620.53
10,000	689.48

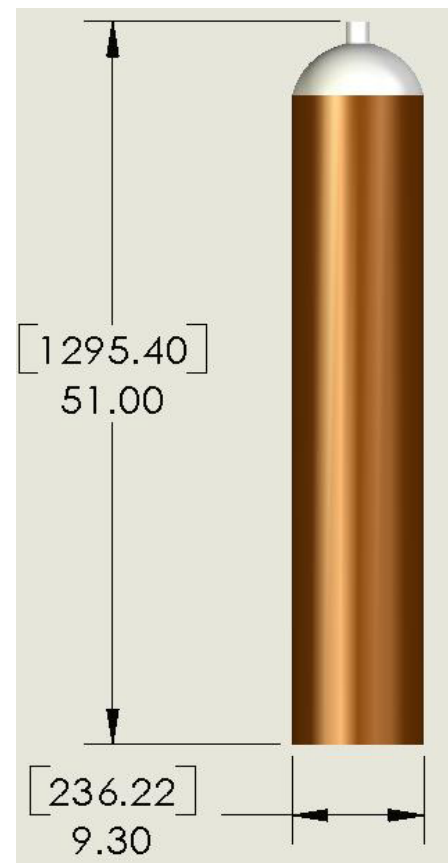
Optional Point	
PSI	Bar
11,000	758.42



12.0 Model LCC-HP; P/N 01-51-2720

Manufacturer: Norris
Spec: DOT 3AA3600
Material: Steel
Max test press: 6000PSI; 413.69 bar
Nom. Exp. @ Test Press: 101 cc
Dry Weight: 171 Lbs; 77.5 kg
Internal Volume: 2285 cu. In.; 37.44 L
Neck Thread: 3/4 - 14NGT
Adapter: 3/4" F port, 01-32-2635D
1/2" F port, 01-32-2607D

Calibration Points	
PSI	Bar
3000	206.84
4000	275.79
5000	344.74
6000	413.69



13.0 Model SCC-MP-A; P/N 01-51-2344

Manufacturer: Luxfer
 Spec: DOT 3AL
 Material: Aluminum
 Max test press: 5000 PSI; 344.74 bar
 Nom. Exp. @ 3000 PSI: 42.8 cc
 Nom. Exp. @ 5000 PSI: 79.1 cc
 Dry Weight: 31.7 Lbs; 14.38 kg
 Internal Volume: 804 cu. In.; 13.17 L
 Neck Thread: 0.75 – 14 NPSM – 2B
 Adapter: 3/4" FPT 01-32-2540E,
 40-87-6214 w/o-ring
 1/2" FPT 01-32-2642F,
 40-87-6214 w/o-ring

Calibration Points	
PSI	Bar
3000	206.84
4000	275.79
5000	344.74
5500	379.21

