

High Pressure Cylinder

Air Packaging Specifications And Contents

The contents listed below are based on nominal cylinder volumes rounded. All cylinders in compressed gas service must be stamped DOT 3A, 3AL, DOT 3AA, ISO 9809-1, or SP13488 followed by the stamped service pressure and fitted with a valve and safety combination as shown below:

Package Specifications						Contents			
Size/ Style	Materials Of Construction	Minimum Service Pressure	CGA Valve Outlet	Safety Relief Device	Cylinder Dimensions O.D. x Length (Inches)	PSIG @ 70°F	SCF	Liters	Product Weight (Pounds)
Medical D	Steel & Aluminum	2015	950	CG-4	4.5 x 17	2015	14.4	408	1 lb 1 oz (1.08)
Medical E	Steel & Aluminum	2015	950	CG-4	4.25 x 26	2015	23.5	665	1 lb 12 oz (1.75)
80	Steel & Aluminum	2015	346	CG-1	7.75 x 23.5	2015	81	2305	6 lb 1 oz (6.08)
DEY 110	Steel	2015	346	CG-1	7.0 x 43	2015	107	3030	7 lb 15 oz (7.99)
200**	Steel	2015	346	CG-1	8.50 x 51	2015	190	5376	14 lb 2 oz (14.2)
200**	Steel	2015	346	CG-1	8.50 x 51	2216*	209	5912	15 lb 9 oz (15.6)
225**	Steel	2015	346	CG-1	9.25 x 51	2015	213	6032	15 lb 14 oz (15.9)
225**	Steel	2015	346	CG-1	9.25 x 51	2216*	233	6598	17 lb 6 oz (17.4)
250**	Steel	2265	346	CG-1	9.25 x 51	2265	238	6739	17 lb 12 oz (17.8)
250**	Steel	2265	346	CG-1	9.25 x 51	2490*	259	7334	19 lb 5 oz (19.3)
300**	Steel	2400	346	CG-1	9.25 x 59	2400	285	8070	21 lb 4 oz (21.3)
300**	Steel	2400	346	CG-1	9.25 x 59	2640*	311	8807	23 lb 3 oz (23.2)

Additional cylinder styles may be filled if the member company determines the internal volume of the cylinder and applies the DOT volume conversion.

* Represents the allowable 10% overfill over stamped pressure with DOT (+) symbol.

** Nominal cubic feet at service pressure. Letter designation will vary by supplier.

High Pressure Cylinder

Carbon Dioxide Packaging Specifications And Contents

The contents listed on the label should not be greater than the values below for each cylinder. Each company will decide for its market, the actual contents to be filled into each cylinder (up to the contents listed below.) All cylinders in compressed gas service must be stamped DOT 3A/3AA, 3AL, or ISO-9809-1 for UN pressure receptacles followed by the stamped service pressure and fitted with a valve and safety combination as shown below:

Carbon Dioxide Cylinder Capacities									
Package Specifications						Contents			
Style	Materials of Construction	Minimum Service Pressure	CGA Valve Outlet	Safety Relief Device	Cylinder Dimensions (OD x Height)	PSIG at 70 degrees F	Maximum Carbon Dioxide Capacity (cf at 70 deg F and 1 ATM)	Maximum Carbon Dioxide Capacity (liters at 70 deg F and 1 ATM)	Max CO2 lbs allowed by DOT
20 cf	Steel/Aluminum	1800	940/320	CG-1	5.263 x 13.750	830	47.2	1338	5.40 lbs (5 lbs 6 oz)
40 cf	Steel/Aluminum	1800	320	CG-1	7.000 x 17.400	830	105	2980	12.0 lbs (12 lbs 0 oz)
55 cf	Steel/Aluminum	1800	320	CG-1	7.000 x 22.625	830	144	4074	16.5 lbs (16 lbs 7 oz)
80 cf	Steel/Aluminum	1800	320	CG-1	7.000 x 32.375	830	217	6142	24.8 lbs (24 lbs 12 oz)
110 cf	Steel/Aluminum	1800	320	CG-1	7.000 x 43.000	830	292	8271	33.4 lbs (33 lbs 6 oz)
125 cf	Steel/Aluminum	1800	320	CG-1	7.000 x 43.000	830	292	8271	33.4 lbs (33 lbs 6 oz)
150 cf (S)	Steel/Aluminum	1800	320	CG-1	7.375 x 46.563	830	356	10095	40.8 lbs (40 lbs 12 oz)
220 cf (H, G)	Steel	1800	320	CG-1	9.00 x 51.00	830	567	16055	64.9 lbs (64 lbs 13 oz)
250 cf	Steel	1800	320	CG-1	9.00 x 51.00	830	567	16055	64.9 lbs (64 lbs 13 oz)
300 cf	Steel	2300	320	CG-1	9.25 x 55.00	830	642	18183	73.5 lbs (73 lbs 7 oz)
Medical B	Steel/Aluminum	1800	940	CG-1	3.312 x 13.250	830	18.9	535	2.16 lbs (2 lbs 2 oz)
Medical D	Steel/Aluminum	1800	940	CG-1	4.150 x 16.750	830	37.8	1070	4.32 lbs (4 lbs 5 oz)
Medical E	Steel/Aluminum	1800	940	CG-1	4.150 x 25.750	830	61.6	1745	7.05 lbs (7 lbs 0 oz)
110 cf (M)	Steel/Aluminum	1800	320	CG-1	7.000 x 43.000	830	292	8271	33.4 lbs (33 lbs 6 oz)
220 cf (H, G)	Steel	1800	320	CG-1	9.00 x 51.00	830	567	16055	64.9 lbs (64 lbs 13 oz)
2.5 lbs	Steel/Aluminum	1800	940/320	CG-1	3.562 x 14.688	830	25.1	712	2.87 lbs (2 lbs 13 oz)
5 lbs	Steel/Aluminum	1800	940/320	CG-1	5.263 x 13.750	830	47.2	1338	5.40 lbs (5 lbs 6 oz)
10 lbs	Steel/Aluminum	1800	940/320	CG-1	7.000 x 17.400	830	105	2980	12.0 lbs (12 lbs 0 oz)
15 lbs	Steel/Aluminum	1800	320	CG-1	7.000 x 22.625	830	144	4074	16.5 lbs (16 lbs 7 oz)
20 lbs (F)	Steel/Aluminum	1800	320	CG-1	7.000 x 23.500	830	183	5169	20.9 lbs (20 lbs 14 oz)
50 lbs	Steel	1800	320	CG-1	9.000 x 45.500	830	500	14169	57.2 lbs (57 lbs 3 oz)
75 lbs	Steel	2300	320	CG-1	9.250 x 56.000	830	657	18609	75.2 lbs (75 lbs 2 oz)

The cylinder styles listed above are known by other names. Capacities listed above are the maximum permitted by DOT regulations (See 49 CFR 173 for filling densities.) Additional cylinder styles may be filled if the member company determines the internal volume of the cylinder and applies the DOT volume conversion.

High Pressure Cylinder

Helium Packaging Specifications And Contents

The contents listed below are based on nominal cylinder volumes rounded to no greater variance than 1%. All cylinders in compressed gas service must be stamped DOT 3A/3AA, 3AL, or ISO-9809-1 for UN pressure receptacles followed by the stamped service pressure and fitted with a valve and safety combination as shown below:

Package Specifications						Contents			
Size/ Style	Materials Of Construction	Service Pressure	CGA Valve Outlet	Safety Relief Device	Cylinder Dimensions O.D. x Length (Inches)	PSIG @ 70°F	SCF	Liters	Product Weight (grams)
M-4 (A)	Aluminum	2216	930	CG-4	3.2 x 9	2216	3.5	99.5	16.5
M-6 (B)	Aluminum	2216	930	CG-4	3.2 x 11.8	2216	5.1	144.4	23.9
Medical D	Steel & Aluminum	2015	930	CG-4	4.5 x 17	2015	13.3	377	62.5
Medical E	Steel & Aluminum	2015	930	CG-4	4.25 x 26	2015	22.0	623	103.5
40	<u>Steel</u>	<u>2015</u>	<u>580</u>	<u>CG-1</u>	<u>6 x 24</u>	<u>2015</u>	<u>33.8</u>	<u>957</u>	<u>156</u>
80	Steel & Aluminum	2015	580	CG-1	7.75 x 23.5	2015	75.7	2143	355
DEY 110	Steel	2015	580	CG-1	7.0 x 43	2015	102	2899	479
200**	Steel	2015	580	CG-1	9.00 x 51	2015	201	5689	943
200**	Steel	2015	580	CG-1	9.00 x 51	2216*	219	6201	1028
250**	Steel	2265	580	CG-1	9.25 x 51	2265	224	6338	1051
300 AL	Aluminum	2216	580	CG-1	10 x 58	2216	241	6824	1135
300**	Steel	2400	580	CG-1	9.25 x 59	2400	264	7481	1240
300**	Steel	2400	580	CG-1	9.25 x 59	2640*	287	8144	1350

Additional cylinder styles may be filled if the member company determines the internal volume of the cylinder and applies the DOT volume conversion.

* Represents the allowable 10% overfill over stamped pressure with DOT (+) symbol.

** Nominal cubic feet at service pressure. Letter designation will vary by supplier.

High Pressure Cylinder

Nitrogen Packaging Specifications and Net Contents

The volumes of contents listed below are based on nominal cylinder volumes.

Package Specifications						Contents			
Size/ Style	Materials Of Construction	Minimum Service Pressure	CGA Valve Outlet	Safety Relief Device	Cylinder Dimensions O.D. x Length (Inches)	PSIG @ 70°F	SCF	Liters	Product Weight (Pounds)
Medical D	Steel & Aluminum	2015	960	CG-4	4.5 x 17	2015	13.7	388	1 lb 0 oz (0.99 lb)
Medical E	Steel & Aluminum	2015	960	CG-4	4.25 x 26	2015	22.7	643	1 lb 10 oz (1.64)
40	Steel	2015	580	CG-1	6.0 x 24	2015	33.8	957	2 lb 7 oz (2.45)
80	Steel & Aluminum	2015	580	CG-1	7.75 x 23.5	2015	79.1	2240	5 lb 12 oz (5.73)
DEY 110/M	Steel	2015	580	CG-1	7.0 x 43	2015	107	3030	7 lb 12 oz (7.75)
DEY 110/M	Steel	2015	580	CG-1	7.0 x 43	2216*	117	3298	8 lb 7 oz (8.44)
DEY 110/M	Steel	2015	580	CG-1	7.0 x 43	2265	119	3364	8 lb 10 oz (8.61)
S	Steel	2015	580	CG-1	7.4 x 46	2216*	141	3981	10 lb 3 oz (10.18)
200	Steel	2015	580	CG-1	9.00 x 51	2015	207	5863	15 lb 0 oz (14.98)
200	Steel	2015	580	CG-1	9.00 x 51	2216*	228	6453	16 lb 8 oz (16.48)
250	Steel	2265	580	CG-1	9.25 x 51	2265	230	6501	16 lb 9 oz (16.62)
250	Steel	2265	580	CG-1	9.25 x 51	2490*	250	7075	18 lb 1 oz (18.08)
300	Steel	2400	580	CG-1	9.25 x 55	2400	275	7801	19 lb 15 oz (19.94)
300	Steel	2400	580	CG-1	9.25 x 55	2640*	300	8501	21 lb 12 oz (21.73)

* Represents the allowable 10% overfill over stamped pressure with DOT (+) symbol, rounded.

Note: Nominal contents listed at indicated pressure. Size designations may vary by supplier. Contents may be rounded.

High Pressure Cylinder

Nitrous Oxide Packaging Specifications and Contents

The contents listed on the label should not be greater than the values below for each cylinder. Each company will decide for its market, the actual contents to be filled into each cylinder (up to the contents listed below.) All cylinders in compressed gas service must be stamped DOT 3A/AA, 3AL, or ISO 9809-1 UN pressure receptacles followed by the stamped service/working pressure and fitted with a valve and safety combination as shown below:

Nitrous Oxide Cylinder Capacities										
Package Specifications							Contents			
Style	Materials of Construction	Minimum Service Pressure	CGA Valve Outlet	Safety Relief Device	Internal Capacity (cubic inches)	Cylinder Dimensions (OD x Height)	PSIG at 70 degrees F	Maximum Nitrous Oxide Capacity (cf at 70 deg F and 1 ATM)	Maximum Nitrous Oxide Capacity (liters at 70 deg F and 1 ATM)	Max N2O lbs allowed by DOT
20 cf	Steel/Aluminum	1800	910/326	CG-1	220	5.263 x 13.750	745	47.2	1337	5.40 lbs (5 lbs 6 oz)
40 cf	Steel/Aluminum	1800	326	CG-1	490	7.000 x 17.400	745	105	2978	12.0 lbs (12 lbs 0 oz)
55 cf	Steel/Aluminum	1800	326	CG-1	670	7.000 x 22.625	745	144	4073	16.5 lbs (16 lbs 7 oz)
80 cf	Steel/Aluminum	1800	326	CG-1	1010	7.000 x 32.375	745	217	6139	24.8 lbs (24 lbs 12 oz)
110 cf	Steel/Aluminum	1800	326	CG-1	1360	7.000 x 43.000	745	292	8267	33.4 lbs (33 lbs 6 oz)
125 cf	Steel/Aluminum	1800	326	CG-1	1360	7.000 x 43.000	745	292	8267	33.4 lbs (33 lbs 6 oz)
150 cf (S)	Steel/Aluminum	1800	326	CG-1	1660	7.375 x 46.563	745	356	10090	40.8 lbs (40 lbs 12 oz)
220 cf (H, G)	Steel	1800	326	CG-1	2640	9.00 x 51.00	745	567	16047	64.9 lbs (64 lbs 13 oz)
250 cf	Steel	1800	326	CG-1	2640	9.00 x 51.00	745	567	16047	64.9 lbs (64 lbs 13 oz)
300 cf	Steel	2300	326	CG-1	2990	9.25 x 55.00	745	642	18175	73.5 lbs (73 lbs 7 oz)
M4	Aluminum	1800	910	CG-1	41.5	3.1875 x 8.5	745	8.9	252	1.02 lbs (1 lbs 0 oz)
Medical B (M6)	Steel/Aluminum	1800	910	CG-1	62	3.2 x 11.8	745	13.3	377	1.52 lbs (1 lbs 8 oz)
M7	Aluminum	1800	910	CG-1	88.6	4.3125 x 9	745	19.0	539	2.18 lbs (2 lbs 2 oz)
Medical C (M9)	Steel/Aluminum	1800	910	CG-1	103	4.4 x 10.6	745	22.1	626	2.53 lbs (2 lbs 8 oz)
Medical D (M15)	Steel/Aluminum	1800	910	CG-1	172	4.150 x 16.750	745	36.9	1045	4.23 lbs (4 lbs 3 oz)
Medical E (M24)	Steel/Aluminum	1800	910	CG-1	283	4.150 x 25.750	745	60.7	1720	6.95 lbs (6 lbs 15 oz)
110 cf (M)	Steel/Aluminum	1800	326	CG-1	1360	7.000 x 43.000	745	292	8267	33.4 lbs (33 lbs 6 oz)
220 cf (H, G)	Steel	1800	326	CG-1	2640	9.00 x 51.00	745	567	16047	64.9 lbs (64 lbs 13 oz)
2.5 lbs	Steel/Aluminum	1800	910/326	CG-1	117	3.562 x 14.688	745	25.1	711	2.87 lbs (2 lbs 13 oz)
5 lbs	Steel/Aluminum	1800	910/326	CG-1	220	5.263 x 13.750	745	47.2	1337	5.40 lbs (5 lbs 6 oz)
10 lbs	Steel/Aluminum	1800	910/326	CG-1	490	7.000 x 17.400	745	105	2978	12.0 lbs (12 lbs 0 oz)
15 lbs	Steel/Aluminum	1800	326	CG-1	670	7.000 x 22.625	745	144	4073	16.5 lbs (16 lbs 7 oz)
20 lbs (F)	Steel/Aluminum	1800	326	CG-1	850	7.000 x 23.500	745	182	5167	20.9 lbs (20 lbs 14 oz)
50 lbs	Steel	1800	326	CG-1	2330	9.000 x 45.500	745	500	14163	57.2 lbs (57 lbs 3 oz)
75 lbs	Steel	2300	326	CG-1	3060	9.250 x 56.000	745	657	18600	75.2 lbs (75 lbs 2 oz)

The cylinder styles listed above are known by other names. Capacities listed above are the maximum permitted by DOT regulations (*See 49 CFR 173.304 for filling densities.*) Additional cylinder styles may be filled if the member company determines the internal volume of the cylinder and applies the DOT volume conversion. Verify the actual internal volume of the cylinder before filling. Internal volumes (and filling weights) for the same cylinders style may vary among manufacturers.

High-Pressure Cylinder Oxygen Filling Specifications and Net Contents

Size or Style	Materials Of Construction	Cylinder Dimension OD x Length (Inches)	PSIG @ 70°F	SCF	Liters
M-15 "D"	Steel & Aluminum	4.5 x 17	2015	15.3	420
M-24 "E"	Steel & Aluminum	4.25 x 26	2015	24.9	690
40	Steel	4.25 x 26	2015	40.5	1147
Q	Steel Only	7 x 35	2015	76.4	2165
110/M/DEY	Steel & Aluminum	7 x 43	2015	114	3160
110/M/DEY	Steel Only	7 x 43	2216*	125	3470
C	Steel Only	7 x 43	2265	138	3831
S	Steel Only	7.49 x 46	2015	138.4	3841
S	Steel Only	7.49 x 46	2216*	152.4	4229
200	Steel Only	8 1/2 x 51	1800	190	5270
225	Steel Only	9.25 x 51	2015	226	6270
225	Steel Only	9.25 x 51	2216*	249	6900
250	Steel Only	9.25 x 51	2265	254	<u>7211</u>
250	Steel Only	9.25 x 51	2490*	280	<u>7926</u>
300	Steel Only	9.25 x 55	2216	280	<u>7926</u>
300	Steel Only	9.25 x 55	2400	307	8510
300	Steel Only	9.25 x 55	2640*	337	9340
300	Steel Only	9.25 x 55	2950	377	10450
300	Steel Only	9.25 x 55	3245*	416	11532
MO425	Steel Only	11 x 64	2300	512	14200
M-2	Aluminum	2.5 x 5.7	2015/2216	1.36/1.5	38.6/42
M-4 "A"	Aluminum	3.2 x 9	2015/2216	3.7/4.0	104.8/113.3
M-6 "B"	Aluminum	3.2 x 11.8	2015/2216	5.3/5.8	150.1/164.5
ML6	Aluminum	4.38 x 7.6	2015	6.1	170
M-7 <i>Luxfer</i>	Aluminum	4.4 x 9.2	2015	7.4	209.5
ML7 <i>Catalina</i>	Aluminum	4.38 x 9.1	2015	7.0	198.0
M-9 "C"	Aluminum	4.4 x 11	2015	8.8	248.4
"Jumbo D"	Aluminum	5.3 x 17.1	2015/2216	20.8/22.8	589/646
M-22	Aluminum	5.25 x 16.3	2015/2216	20.2/22.3	572/631
M-60	Aluminum	23.5 x 7	2015/2216	55.6/60.9	1723.6
N122	Aluminum	8 x 36.3	2015	110.8	3137.5

* Represents the allowable 10% overfill over stamped pressure with DOT (+) symbol, rounded.

Note: Nominal contents listed at indicated pressure. Size designations may vary by supplier. Contents may be rounded. The volumes of contents listed are based on nominal DOT-3 cylinder internal volumes.