

CGA

Compressed Gas Association

The Standard For Safety Since 1913

CGA G-6.8-2016
TRANSFILLING AND
SAFE HANDLING OF
SMALL CARBON DIOXIDE
CYLINDERS

THIRD EDITION

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Work Item 11-006
Carbon Dioxide Committee

NOTE—Technical changes from the previous edition are underlined

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Contents	Page
1 Introduction.....	1
2 Scope and purpose	1
3 Definitions.....	1
4 Physiology of carbon dioxide.....	3
4.1 General.....	3
4.2 Physiological effects of carbon dioxide.....	3
4.3 Physical effects of overexposure to carbon dioxide	2
4.4 Regulatory standard	3
4.5 Safety precautions.....	4
4.6 Rescue and first aid.....	4
5 Special hazards	4
5.1 General.....	4
5.2 Personal protective equipment	4
5.3 Dry ice blocking or plugging	4
5.4 Low temperature effect on materials	5
5.5 Trapped liquid.....	5
5.6 Personnel overexposure.....	5
6 Cylinder regulations.....	5
6.1 Fill by weight.....	5
6.2 Fabrication.....	5
6.3 Typical supply cylinders.....	6
7 Cylinder inspection	7
7.1 General.....	7
7.2 Prefill inspection	7
7.3 Internal corrosion and contamination	11
7.4 Disposing of condemned or unserviceable cylinders	11
8 Cylinder filling information	11
8.1 General.....	11
8.2 Filling limits for cylinders.....	12
9 Pressure cycling cylinder filling method	13
9.1 Prefill inspection	13
9.2 Purge the receiving cylinder.....	13
9.3 Determine the receiving cylinder tare weight.....	13
9.4 Connect transfer hose.....	14
9.5 Determine the full weight.....	14
9.6 Supply cylinder	14
9.7 Receiving cylinder	15
9.8 Transfer hose	15
9.9 Fill manifold	15
9.10 Receiving cylinder valve assemblies	15
9.11 Scale.....	15
9.12 Cylinder filling procedure.....	16
9.13 Small cylinders with manual shutoff valves	17
9.14 Final weight check.....	17
10 Cylinder storage, handling, and shipping	17
10.1 Storage.....	17
10.2 Handling	17
10.3 Shipping.....	17
10.4 Shipping papers.....	19
11 References	20

Tables

Table 1—Typical dimensions and capacities of carbon dioxide cylinders 6
Table 2—Carbon dioxide cylinder filling checklist 12
Table 3—Temperature-pressure relationship of carbon dioxide at various filling densities 13

Figures

Figure 1—Typical small carbon dioxide cylinder and valve 9
Figure 2—Typical small cylinder with filling hose and manifold 10
Figure 3—Typical cylinder inverting rack for a 50 lb gas cylinder 14
Figure 4—Typical small cylinder valve assemblies 15
Figure 5—Typical small cylinder filling scale assembly 16
Figure 6—Nonflammable gas labels 18
Figure 7—Sample precautionary label 19

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1 Introduction

This publication is one of a series compiled by the Compressed Gas Association, Inc. to satisfy the demand for information on the production, handling, storage, transportation, and use of compressed and liquefied gases, cryogenic liquids, and related products.

2 Scope and purpose

This publication covers the filling of small carbon dioxide cylinders having a maximum capacity of 110 in³ (1.80 L) of water. Its primary purpose is to provide information to personnel engaged in transfilling, handling, and transporting small carbon dioxide cylinders that have been transfilled from another uninsulated cylinder.

WARNING: All persons handling pressurized carbon dioxide shall follow appropriate Occupational Safety and Health Administration (OSHA), U.S. Department of Transportation (DOT), and local regulations and shall be properly trained. Failure to follow proper procedures in handling compressed gases can cause serious injury or death.

3 Definitions

For the purpose of this publication, the following definitions apply.

3.1 Publication terminology

3.1.1 Shall

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 Should

Indicates that a procedure is recommended.

3.1.3 Can

Indicates a possibility or ability.

3.1.4 May

Indicates that the procedure is optional.

3.2 Technical definitions

3.2.1 Authorized retester

Facility registered with and approved by DOT and/or Transport Canada (TC) for the requalification of cylinders or containers.

3.2.2 Bar

Metric unit of pressure, 1 bar = 100 kPa.^{1,2}

NOTE—1 bar is equal to approximately 14.5 psi. To convert psi to bar, multiply by 0.06895.

3.2.3 Blow down valve

Valve used to depressurize lines or systems.

3.2.4 Capacity

Maximum weight of carbon dioxide a cylinder holds when filled to the proper level.

¹ kPa shall indicate gauge pressure unless otherwise noted as (kPa, abs) for absolute pressure or (kPa, differential) for differential pressure. All kPa values are rounded off per CGA P-11, *Metric Practice Guide for the Compressed Gas Industry* [1].

² References are shown by bracketed numbers and are listed in order of appearance in the reference section.