



**CGA G-6.3—2021
CARBON DIOXIDE
CYLINDER FILLING AND
HANDLING PROCEDURES**

FIFTH EDITION

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NOTE—Technical changes from the previous edition are underlined.

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Contents	Page
1 Introduction.....	1
2 Scope and purpose	1
2.1 Scope	1
2.2 Purpose	1
3 Definitions.....	1
4 Physiological effects and hazards of carbon dioxide.....	3
4.1 Physiological effects	3
4.2 Hazards	3
5 Cylinder regulations.....	3
5.1 Cylinder pressure	3
5.2 Materials of construction.....	3
5.3 Regulatory authorization.....	3
5.4 Cylinder markings.....	4
5.5 Cylinder requalification	4
6 Cylinder valves	5
6.1 Standard fill valve	5
6.2 Fire extinguishing cylinder valves.....	5
6.3 Residual pressure valve	6
7 Cylinder inspection and requalification	6
7.1 General.....	6
7.2 External inspection	7
7.3 Hammer test (steel cylinders only).....	9
7.4 Internal inspection	9
7.5 Cylinder requalification	10
7.6 Disposing of condemned or unserviceable cylinders	10
8 Typical cylinder filling system	10
8.1 General.....	10
8.2 System components	11
8.3 Installation	11
8.4 Filling limits for cylinders.....	11
8.5 Operation.....	13
9 Cylinder filling procedure.....	15
9.1 Filling procedure.....	15
9.2 Typical steps performed when filling carbon dioxide cylinders.....	18
10 Cylinder storage, handling, shipping, and use	19
10.1 Storage.....	19
10.2 Handling	19
10.3 Shipping.....	19
10.4 Use	19
11 Labeling and placarding regulations.....	20
11.1 Labels.....	20
11.2 Placards.....	20
12 Shipping papers	20
13 References	21

Tables

Table 1—Typical dimensions and capacities of carbon dioxide cylinders	4
Table 2—Maximum allowable filling densities.....	12

Figures

Figure 1—Carbon dioxide cylinder valve and typical pressure relief devices	5
Figure 2—Quick opening cylinder valve for fire suppression system in closed position with locking device engaged	6
Figure 3—Quick opening cylinder valve for fire suppression system with locking device disengaged and valve open	6
Figure 4—Corrosion at the bottom of a condemned carbon dioxide cylinder	9
Figure 5—Sidewall corrosion of a condemned carbon dioxide cylinder.....	10
Figure 6—Example of pressure in a DOT-3AL1800 carbon dioxide cylinder filled to indicated densities at selected temperatures.....	12
Figure 7—Typical carbon dioxide cylinder filling system schematic	13
Figure 8—Cylinder inverting.....	17
Figure 9—Nonflammable gas placards.....	20

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 carbon dioxide in gaseous liquid and solid states. There are other CGA publications that provide similar information on other products.

2 Scope and purpose

2.1 Scope

The scope of this publication includes the inspection, filling, handling, labeling, and shipping of uninsulated carbon dioxide cylinders, and the preparation of shipping papers.

In addition to the cylinder filling procedures in this publication, filling carbon dioxide cylinders for medical, food, or beverage use requires the use of product that meets appropriate CGA quality verification levels (QVL) as listed in CGA G-6.2, Commodity Specification for Carbon Dioxide, and requires additional procedures per regulatory requirements [1].¹

CGA G-6, Carbon Dioxide, contains information critical to safe storage and handling of carbon dioxide [2]. To ensure personnel safety and proper system design, reference to CGA G-6 is highly recommended [2]. Without obtaining CGA G-6, the reader will not be provided with significant information related to the physical properties and common hazards associated with storage, production, transportation, and handling of carbon dioxide [2]. This publication does address the hazards specifically associated with insulated liquid carbon dioxide systems at consumer sites.

This publication does not cover stationary, in place, high pressure cylinder filling systems and processes where individual cylinder fill capacity is not measured by weight. These systems shall have an engineered safety risk-analysis before installation and use.

2.2 Purpose

The primary purpose of this publication is to provide information to personnel engaged in handling, filling, and transporting carbon dioxide cylinders.

3 Definitions

For the purposes of this publication, the 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 May

Indicates that the procedure is optional.

3.1.4 Will

Is used only to indicate the future, not a degree of requirement.

3.1.5 Can

Indicates a possibility or ability.

¹ References are shown by bracketed numbers and are listed in order of appearance in the reference section.