



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

THIRD EDITION

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Carbon Dioxide Committee

NOTE—Technical changes from the previous edition are underlined.

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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.