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Compressed Gas Association

The Standard For Safety Since 1913

CGA G-6.6—2022

STANDARD FOR CARBON DIOXIDE BULK TRANSFER HOSES

FIFTH EDITION

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Carbon Dioxide Committee

NOTE—Technical changes from the previous edition are underlined.

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FOURTH EDITION: 2015
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1 Introduction

This publication establishes specifications for flexible hose assemblies used as a temporary connection for filling or unloading bulk liquid or gaseous carbon dioxide.

2 Scope

This publication covers flexible hoses with inside diameters of 1 in (25 mm) or larger. Hoses for these applications have a normal operating pressure between 125 psi and 400 psi (860 kPa and 2760 kPa) and a maximum allowable working pressure (MAWP) of at least 450 psi (3100 kPa). These hoses shall be designed to operate in temperature range between –65 °F and 125 °F (–54 °C and 51.7 °C). [1, 2]

This publication is prepared as a standard for manufacturers and users of carbon dioxide hoses and represents the best currently available industry practice. Information on carbon dioxide can be found in CGA G-6, *Carbon Dioxide* [2].

NOTE—This publication does not include hoses used for filling uninsulated cylinders (e.g., DOT 3A), insulated cylinders (e.g., DOT 4L), or small stationary insulated containers (i.e., micro or mini-bulk).

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 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.

3.2 Technical definitions

3.2.1 Hose-whipping
Hazardous, uncontrolled movements/actions of an energized hose.

4 General

Hoses are used to transfer liquid and gaseous carbon dioxide between storage containers, cargo tanks, and tank cars. They are frequently connected and disconnected, pressurized and depressurized, subjected to physical abuse, and a wide range of temperatures.

[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, *Guideline for Metric Practice in the Compressed Gas Industry* [1].

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