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CGA E-9—2021
STANDARD FOR FLEXIBLE STAINLESS STEEL BRAIDED HOSES USED IN COMPRESSED GAS SERVICE

SIXTH EDITION

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Work Item 21-053
Industrial Gases Apparatus Committee

NOTE—Technical changes from the previous edition are underlined.

SIXTH EDITION: 2021
FIFTH EDITION: 2017
FOURTH EDITION: 2010
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1 Introduction

Flexible stainless steel braided hoses are used in the filling and discharging of compressed gas cylinders and bundles and as components of other compressed gas distribution systems.

2 Scope

This publication provides a minimum standard for flexible stainless steel braided hoses with the following inner cores:

- ethylene tetrafluoroethylene (ETFE);
- polytetrafluoroethylene (PTFE); and
- corrugated metal.

These hoses have a nominal inside diameter (ID) of 0.25 in (6.4 mm) or less and shall have a maximum allowable working pressure (MAWP) of at least 3000 psi (20 680 kPa) at 70 °F (21.1 °C).[1,2] These flexible hoses are sometimes referred to as pigtails.

This standard does not cover requirements for other polymeric or elastomeric inner core hoses.

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 Inner core
Flexible material which is the inside portion of the hose in direct contact with the media.

NOTE – The inner core is sometimes referred to as a liner or inner tube.

[1] kPa shall indicate gauge pressure unless otherwise noted as (kPa, abs) for absolute pressure and (kPa, differential) for differential pressure. Also, 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 order of appearance in the reference section.