CGA
Compressed Gas Association
The Standard For Safety Since 1913

3RD EDITION

CGA E-12 — 2023

STANDARD FOR SAFETY DEVICES USED IN GAS WELDING, CUTTING, AND ALLIED PROCESSES

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Work Item 22-021
Industrial Gases Apparatus Committee

NOTE—Technical changes from the previous edition are underlined.

NOTE—Appendix A (Informative) is for information only.

THIRD EDITION: 2023
SECOND EDITION: 2019
FIRST EDITION: 2011

Contents **Page**

Figures

Appendix

1 Scope

This publication provides specifications, definitions, and performance tests for hose line safety devices for systems and equipment using fuel gases and oxygen or compressed air for welding, cutting, and allied processes.

This publication gives users an overview of the available types of safety devices and their function.

For connections, this publication does not cover nor preclude incorporating modified connections with soft tips, O-rings, filters, restrictors, or other features for special applications.

This publication does not apply to pressure relief devices (PRDs) incorporated in regulators. Pressure relief valves in regulators shall be in accordance with CGA E-4, *Standard for Gas Pressure Regulators* [1].[1]

2 Definitions

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

2.1 Publication terminology

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

2.1.2 Should
Indicates that a procedure is recommended.

2.1.3 May
Indicates that the procedure is optional.

2.1.4 Will
Used only to indicate the future, not a degree of requirement.

2.1.5 Can
Indicates a possibility or ability.

2.2 Technical definitions

2.2.1 Flashback
Rapid, sustained, or momentary retrogression of a flame upstream in compressed gas systems.

2.2.2 Flashback arrestor
Device designed to protect equipment upstream of the device from a flame front, see Figure 1.

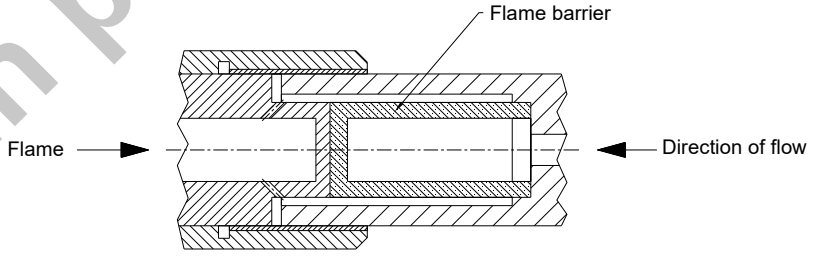

Figure 1—Typical flashback arrestor

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