



3RD EDITION

CGA E-12 — 2023

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



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Industrial Gases Apparatus Committee

NOTE—Technical changes from the previous edition are underlined.

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

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SECOND EDITION: 2019
FIRST EDITION: 2011

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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.

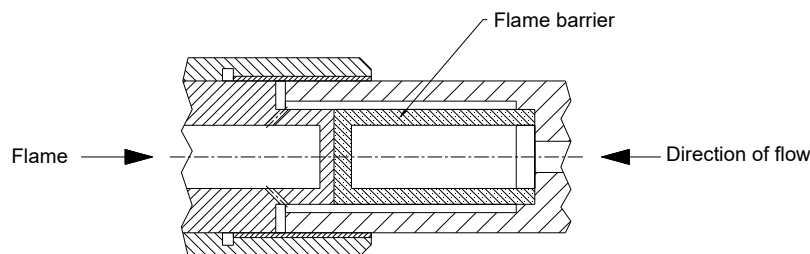


Figure 1—Typical flashback arrestor

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