CGA

Compressed Gas Association

The Standard For Safety Since 1913

CGA E-17—2014

HOSE LINE QUICK-CONNECT COUPLINGS FOR WELDING, CUTTING, AND ALLIED PROCESSES

SECOND EDITION

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Industrial Gases Apparatus Committee

NOTE—Technical changes from the previous edition are underlined.

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1 Introduction

The Compressed Gas Association (CGA) has long recognized the need to promote safety in the use of gases and equipment for welding, cutting, and allied processes. Hose line quick-connect couplings are commonly used in these processes as an alternative to the traditional threaded hose line connections.

The gases used in these processes can vary in composition and properties (including oxidizers, flammables, inerts, and gas mixtures) which could include toxic or corrosives. This has the potential to create various negative effects on materials, equipment, and the surrounding atmosphere. Thus, it becomes a primary safety requirement that these hose line quick-connections are appropriate for their intended use.

This standard is intended to inform users, buyers, sellers, manufacturers, and others in the safe and proper application and use of lower pressure (up to 200 psi [1380 kPa]) welding equipment quick-connect couplings.[1,2]

2 Scope

This publication applies to quick-connect couplings with integral CGA E-1, *Standard Connections for Regulator Outlets, Torches, and Fitted Hose for Welding and Cutting Equipment* or ISO 3253, *Hose connections for equipment for welding, cutting, and related processes* connections used between regulators, torches and/or other gas welding equipment, sometimes referred to as hose-type quick-connects, for pressures up to 200 psi (1380 kPa) [2, 3]. This publication covers requirements and considerations for design and maintenance of indexed pin-type noninterchangeable welding quick-action couplings. It is the intention of this publication to provide some guidance because of the various designs that exist.

CAUTION: *The vast array of standard pneumatic quick-connectors should never be used for welding, cutting, or allied processes. Only quick-connects specifically designed for the gas service and application should be used.*

This publication does not replace or overrule the connection requirements of CGA E-1 or ISO 3253 [2, 3].

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. Shall 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
Indicate 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.

[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.