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Steel fittings

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Preface

This is the seventh edition of CSA Z245.11, *Steel fittings*. It supersedes the previous editions published in 2009, 2005, 2001, 1996, 1991, and 1985.

This Standard covers the requirements for steel fittings intended to be used for transporting fluids as specified in CSA Z662.

Changes to this edition include the following:

- a) new definition of Grade (Clause 3);
- b) revised quality program requirements (Clause 4.5);
- c) revised requirements for sour service (Clause 13);
- d) clarification that the notch toughness test is not required on fittings below NPS 4 (Table 8); and
- e) correction to the dimensions of reducers for large end sizes NPS 3 (Table 13).

This Standard was prepared by the Subcommittee on Materials, under the jurisdiction of the Technical Committee on Petroleum and Natural Gas Industry Pipeline Systems and Materials and the Strategic Steering Committee on Petroleum and Natural Gas Industry Systems, and has been formally approved by the Technical Committee.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
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 - d) *rationale for the change.*

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Z245.11-13

Steel fittings

1 Scope

1.1 General

This Standard covers wrought steel butt welding fittings, including extruded headers and factory-produced bends, primarily intended for use in oil or gas pipeline systems.

1.2 Size, grade, and category

1.2.1 Size

This Standard covers fittings in sizes from NPS 1/2 to NPS 60. (See Table A.1.)

1.2.2 Grade

For other than sour service, this Standard covers fittings from Grade 207 to Grade 690. For sour service, this Standard covers fittings from Grade 207 to Grade 483.

Note: The standard grades are Grades 207, 241, 290, 317, 359, 386, 414, 448, 483, 550, 620, and 690 (see Table 1); however, intermediate grades are also permitted.

1.2.3 Category

This Standard covers fittings in the following categories:

- a) Category I: fittings without requirements for proven notch-toughness properties; and
- b) Category II: fittings with requirements for proven notch-toughness properties.

1.3 Assemblies

This Standard does not cover assemblies.

Note: An assembly means a grouping of fittings or flanges, or both, joined by one or more circumferential welds.

1.4 Terminology

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.