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Z245.11-13

Steel fittings



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Technical Committee on Petroleum and Natural Gas Industry Pipeline Systems and Materials

J. Pavigianiti	National Energy Board, Calgary, Alberta <i>Representing Government and/or Regulatory Authority</i>	<i>Chair</i>
K.G. Goerz	Shell Canada Energy, Calgary, Alberta <i>Representing Producer Interest</i>	<i>Vice-Chair</i>
H. Kraft	Alliance Pipeline Ltd, Calgary, Alberta <i>Representing User Transmission</i>	<i>Vice-Chair</i>
B. Wilson	Acuren Group, Calgary, Alberta <i>Representing General Interest</i>	<i>Vice-Chair</i>
J. Abes	Det Norske Veritas Canada Ltd, Calgary, Alberta <i>Representing General Interest</i>	
A.J. Afaganis	Alliance Pipeline Ltd, Calgary, Alberta	<i>Associate</i>
O. Alonso	Technical Standards & Safety Authority (TSSA), Toronto, Ontario <i>Representing Government and/or Regulatory Authority</i>	
M. Binet	Gaz Métro Inc., Montréal, Quebec <i>Representing User Distribution</i>	
T. Bourque	Tenaris Prudential, Calgary, Alberta <i>Representing Supplier/Fabricator/Contractor</i>	

R. Brousseau	Régie du Bâtiment du Québec, Montréal, Quebec <i>Representing Government and/or Regulatory Authority</i>	
R.R. Bryant	Bryant Technical Services, Chatham, Ontario	<i>Associate</i>
R. Caesar	Ministry of Energy and Mines and Natural Gas, Victoria, British Columbia <i>Representing Government and/or Regulatory Authority</i>	
D. Carnes	Canadian Natural Resources Limited, Calgary, Alberta <i>Representing Producer Interest</i>	
P. Colwell	Union Gas Limited, Chatham, Ontario <i>Representing User Distribution</i>	
R.I. Coote	Coote Engineering Limited, Calgary, Alberta	<i>Associate</i>
J.W. Dusseault	Cenovus Energy Inc., Calgary, Alberta <i>Representing Producer Interest</i>	
M.C. Enwright	Husky Energy Inc, Calgary, Alberta <i>Representing Producer Interest</i>	
G. Forgeron	Imperial Oil Resources, Calgary, Alberta <i>Representing Producer Interest</i>	<i>Associate</i>
J.A. Fournell	QAi Quality Assurance Inc, Edmonton, Alberta <i>Representing General Interest</i>	
L.H. Gales	Transportation Safety Board of Canada, Gatineau, Quebec	<i>Associate</i>
G.A. Harms	Three Streams Engineering Ltd, Calgary, Alberta <i>Representing General Interest</i>	

J. Harvey	Encana Corporation, Calgary, Alberta <i>Representing Producer Interest</i>	
S.D. Ironside	Enbridge Pipelines Inc, Edmonton, Alberta <i>Representing User Transmission</i>	
G.R. Johnson	FortisBC Energy Inc (FEI), Surrey, British Columbia <i>Representing User Distribution</i>	
S. Kenny	Memorial University of Newfoundland, St. John's, Newfoundland and Labrador	<i>Associate</i>
K.T. Lau	ABSA, Edmonton, Alberta <i>Representing Government and/or Regulatory Authority</i>	
T.H. Lawrence	TMK IPSCO, Houston, Texas, USA <i>Representing Supplier/Fabricator/Contractor</i>	
T. Linder	Canadian Energy Pipeline Association (CEPA), Calgary, Alberta	<i>Associate</i>
J.D. Mackenzie	Kiefner and Associates, Inc (Applus RTD), Bellingham, West Virginia, USA <i>Representing General Interest</i>	
T.W. McQuinn	New Brunswick Energy and Utilities Board, Saint John, New Brunswick <i>Representing Government and/or Regulatory Authority</i>	
G. Mills	Spectra Energy Gas Transmission, Calgary, Alberta <i>Representing User Transmission</i>	
D.B. Milmine	DM Professional Services Ltd., Calgary, Alberta <i>Representing General Interest</i>	
B.W. Nesbitt	National Energy Board, Calgary, Alberta	<i>Associate</i>

R. Paccagnan	ATCO Pipelines, Edmonton, Alberta <i>Representing User Transmission</i>	
G.F. Palermo	Palermo Plastics Pipe (P3) Consulting, Friendsville, Tennessee, USA <i>Representing Supplier/Fabricator/Contractor</i>	
R.B. Partington	Federation of Alberta Gas Co-ops Ltd, Sherwood Park, Alberta <i>Representing User Distribution</i>	
W.F. Partington	Ledcor Pipeline Limited, Edmonton, Alberta <i>Representing Supplier/Fabricator/Contractor</i>	
T.J. Pesta	Alberta Energy Regulator, Calgary, Alberta <i>Representing Government and/or Regulatory Authority</i>	
D. Petursson	Manitoba Hydro, Winnipeg, Manitoba <i>Representing User Distribution</i>	
A.B. Rothwell	Brian Rothwell Consulting Inc, Calgary, Alberta	<i>Associate</i>
J.D. Sandison	CMC Consultants Inc, Winnipeg, Manitoba <i>Representing General Interest</i>	
P. Singh	Bredero Shaw LLC, Houston, Texas, USA <i>Representing Supplier/Fabricator/Contractor</i>	
C. Skocdopole	Aluminum Pipe Systems, Eckville, Alberta <i>Representing Supplier/Fabricator/Contractor</i>	
D.J. Tchir	ATCO Gas, Edmonton, Alberta <i>Representing User Distribution</i>	

N. Thalassinos	Enbridge Gas Distribution, Toronto, Ontario <i>Representing User Distribution</i>	
H. Wallace	Alberta Energy Regulator, Calgary, Alberta	<i>Associate</i>
L. Wojtanowski	Sun-Canadian Pipe Line Company Limited, Waterdown, Ontario <i>Representing User Transmission</i>	<i>Associate</i>
J. Zhou	TransCanada PipeLines Limited, Calgary, Alberta <i>Representing User Transmission</i>	
K. Carlson	CSA Group, Mississauga, Ontario	<i>Project Manager</i>

In addition to the members of the Technical Committee, the following people made valuable contributions to the development of this Standard:

T. Slimmon	Ezefflow Inc., Calgary, Alberta
-------------------	------------------------------------

Subcommittee on Materials

A.J. Afaganis	Alliance Pipeline Ltd, Calgary, Alberta	<i>Chair</i>
J.I. Andersson	Husky Energy Inc, Calgary, Alberta	
H.G. Bentley	WFF Fittings & Flanges (Canada) Ltd., Calgary, Alberta	
T. Bourque	Tenaris Prudential, Calgary, Alberta	
D.M. Duan	TransCanada PipeLines Limited, Calgary, Alberta	
J.A. Fournell	QAi Quality Assurance Inc, Edmonton, Alberta	
D. Horsley	BP-Exploration and Production Technology, Calgary, Alberta	
J. Klementis	Alliance Pipeline Ltd, Calgary, Alberta	
R.B. Kruger	Tenaris Global Services (Canada) Inc, Calgary, Alberta	
T.H. Lawrence	TMK IPSCO, Houston, Texas, USA	
S.C. Lee	Alberta Energy Regulator, Calgary, Alberta	
M.Q. Li	Cameron Canada Corporation, Edmonton, Alberta	
R. Mackenzie	Enbridge Pipelines Inc, Edmonton, Alberta	
G. Melnychuk	Stream-Flo Industries Ltd., Edmonton, Alberta	

D.B. Milmine	DM Professional Services Ltd., Calgary, Alberta	
K. Ocean	Enbridge Gas Distribution, Toronto, Ontario	
D.P. Ochitwa	National Energy Board, Calgary, Alberta	
H. Ramay	Worley Parsons, Calgary, Alberta	
R. Schmidt	Canadoil, Russellville, Arkansas, USA	
V. Sizov	Cenovus Energy Inc., Calgary, Alberta	
G. Van Boven	Spectra Energy Transmission, Vancouver, British Columbia	
I.A. Ward	Shell Global Solutions Canada, Calgary, Alberta	
M. Whitehouse	Union Gas Limited, Chatham, Ontario	
K. Widenmaier	TransCanada PipeLines Limited, Calgary, Alberta	
B. Wray	Galperti Canada, Edmonton, Alberta	
S. Xu	Canmet MATERIALS, Hamilton, Ontario	
P. Fernandez Marchi	CSA Group, Mississauga, Ontario	<i>Project Manager</i>

In addition to the members of the Subcommittee, the following people made valuable contributions to the development of this Standard:

S. Ironside	Enbridge Pipelines Inc., Edmonton, Alberta
--------------------	---

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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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.