CSA B242:05
(reaffirmed 2021)

Groove- and shoulder-type mechanical pipe couplings

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Contents

Preface

This is the third edition of CSA B242, *Groove- and shoulder-type mechanical pipe couplings*. It supersedes the previous editions published in 1980 and 1971. It is written in SI (metric) units.

Changes from the previous edition of this Standard include the following:

(a) Coverage has been extended to include mechanical groove-type couplings up to size NPS-42.
(b) New illustrations and an entirely new set of definitions have been added.
(c) Requirements for hot-dipped zinc (galvanized) coatings, electrodeposited zinc (plated) coatings, gaskets for drinking water applications, and stainless steel bolts and nuts have been added.
(d) A new clause (Clause 4.5) to address alternative designs and materials has been added.
(e) The pipe end preparation clause (Clause 5) has been updated to incorporate current data and has been expanded to include roll grooved copper tube and formed and roll grooved metallic tube.
(f) The previous edition's requirements for cast iron pressure pipe have been deleted because such pipe is no longer in common use.
(g) The requirements for quality of work and finish have been expanded.
(h) The tests clause (Clause 8) now includes a requirement for a vacuum test.
(i) Quality system requirements for coupling manufacturers have been added.
(j) An entirely new set of Annexes has been added. Some are written in normative (mandatory) language to facilitate adoption by users of the Standard or regulatory authorities. Annex B specifies coupling information to be supplied by the manufacturer on request. Annex D explains why galvanic corrosion is not a concern when ferrous couplings are used with copper tube. Annex E provides guidance on the information to be included in a manufacturer's self-declaration of conformity.

This Standard was prepared by the Technical Committee on Groove- and Shoulder-Type Mechanical Pipe Couplings, under the jurisdiction of the Strategic Steering Committee on Plumbing Products and Materials, and has been formally approved by the Technical Committee. It will be submitted to the Standards Council of Canada for approval as a National Standard of Canada.

September 2005

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.*

(3) *This publication was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this publication.*

(4) *CSA Standards are subject to periodic review, and suggestions for their improvement will be referred to the appropriate committee.*

(5) *All enquiries regarding this Standard, including requests for interpretation, should be addressed to Canadian Standards Association, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6.*

Requests for interpretation should

(a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
(b) provide an explanation of circumstances surrounding the actual field condition; and
(c) be phrased where possible to permit a specific "yes" or "no" answer.

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are published in CSA's periodical* Info Update*, which is available on the CSA Web site at www.csa.ca.*

B242-05
Groove- and shoulder-type mechanical pipe couplings

1 Scope

1.1
This Standard covers groove-type mechanical pipe couplings for liquid and gas pressure pipes up to and including NPS-42 and shoulder-type mechanical pipe couplings for liquid and gas pressure pipes up to and including NPS-60.

1.2
This Standard includes minimum requirements for materials, chemical properties, physical properties, pipe groove and shoulder dimensions, finishes, and pipe coupling markings.

1.3
In CSA Standards, "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; "may" is used to express an option or that which is permissible within the limits of the standard; and "can" is used to express possibility or capability. 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.

2 Reference publications
This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

CSA (Canadian Standards Association)
CAN/CSA-B137.3-02 (part of CAN/CSA-B137 Series-02, *Thermoplastic pressure piping compendium*)
Rigid polyvinyl chloride (PVC) pipe for pressure applications

CAN/CSA-ISO 9001-00
Quality management systems — Requirements

CAN3-Z299.1-85 (R2002)
Quality assurance program — Category 1

ANSI (American National Standards Institute)/AWWA (American Water Works Association)
ANSI/AWWA C151/A21.51-02
ANSI Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water

API (American Petroleum Institute)
Spec 5L (2004)
Specification for Line Pipe