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Preface

This is the second edition in the form of a compendium of the B137 Series of CSA Standards, *Thermoplastic Pressure Piping Compendium*. It supersedes the previous edition of the compendium, published in 1999. It consists of the following Standards:

- the sixth edition of CSA Standard B137.0, *Definitions, General Requirements, and Methods of Testing for Thermoplastic Pressure Piping*, which supersedes editions published in 1999, 1993, 1986, 1981, and 1973;
- the sixth edition of CSA Standard B137.1, *Polyethylene Pipe, Tubing, and Fittings for Cold-Water Pressure Services*, which supersedes editions published in 1999, 1995, 1989, 1983, and 1970;
- the fourth edition of CSA Standard B137.2, PVC Injection-Moulded Gasketed Fittings for Pressure Applications, which supersedes editions published in 1999, 1993, and 1989;
- the eighth edition of CSA Standard B137.3, *Rigid Polyvinyl Chloride (PVC) Pipe for Pressure Applications*, which supersedes editions published in 1999, 1993, 1990, 1986, 1981, 1972, and 1970;
- the sixth edition of CSA Standard B137.4, *Polyethylene Piping Systems for Gas Services*, which supersedes editions published in 1999, 1992, 1986, 1977, and 1971;
- the third edition of CSA Standard B137.4.1, *Electrofusion-Type Polyethylene Fittings for Gas Services*, which supersedes editions published in 1999 and 1989;
- the fifth edition of CSA Standard B137.5, Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications, which supersedes editions published in 1999, 1997, 1996, and 1989;
- the fifth edition of CSA Standard B137.6, CPVC Pipe, Tubing, and Fittings for Hot- and Cold-Water Distribution Systems, which supersedes editions published in 1999, 1996, 1983, and 1971;
- the fifth edition of CSA Standard B137.8, *Polybutylene (PB) Piping for Pressure Applications*, which supersedes editions published in 1999, 1992, 1986, and 1977;
- the fourth edition of CSA Standard B137.9, *Polyethylene/Aluminum/Polyethylene Composite Pressure-Pipe Systems*, which supersedes editions published in 1999, 1997, and 1991;
- the fourth edition of CSA Standard B137.10, Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure-Pipe Systems, which supersedes editions published in 1999, 1997, and 1991;
- the third edition of CSA Standard B137.11, *Polypropylene (PP-R) Pipe and Fittings for Pressure Applications*, which supersedes editions published in 1999 and 1993; and
- the third edition of CSA Standard B137.12, *Polyamide Piping Systems for Gas Services*, which supersedes editions published in 1999 and 1996.
- CSA Standard B137.0 provides requirements and test methods that are common to some, or all, of the Standards in the B137 compendium. Wherever possible, individual Standards simply refer to the relevant Clauses in CSA Standard B137.0. The major changes in this edition of the compendium are as follows:
- (a) B137.0: Out-of-roundness is now expressed in Clause 6.8.5 as the difference between the maximum measured diameter and the minimum measured diameter.
- (b) B137.1: A figure has been added to Table B3. Requirements for mechanical type fittings using threads formed on the outside diameter of the pipe are now included.
- (c) B137.2: A revision to Clause 4.5.3 clarifies the method of testing for fittings with a body and branch that have different exposure times. Table 4 has been revised.
- (d) B137.3: A revision to Clause 5.4 clarifies the method of testing for fittings with a body and branch that have different exposure times. Table 17 has been revised. In Clause 6.1, the compression time in the flattening test for pipe has been corrected to 2-5 minutes. The heat reversion test for fittings has been deleted. Tables 1, 2, and 7 have been revised. There are minor corrections to Table 6 for 48 NPS. (e) B137.4: Tables 1, 5, and 6 have been revised for out-of-roundness. There are corrections to the figures in Tables 5 and 6.
- (f) B137.5: Provisions for stepless one-ear clamps are included and Table 2 has been revised for out-of-roundness. Tables 2, 3, 4, and 8 have been revised to include 1/8 tubing size. The figure in Table 5 has been revised.

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- (g) B137.6: Tables 1, 2, 4, and 5 have been revised for out-of-roundness. The 1/2, 3/4, and 1 NPS values for the C socket length have been corrected.
- (h) B137.8: Tables 3, 4, and C2 have been revised for out-of-roundness.
- (i) B137.9: A requirement has been added for cold water fittings.
- (j) B137.11: Table 3 has been revised for out-of-roundness.
- (k) B137.12: Tables 1, 4, and 5 have been revised for out-of-roundness.

In these 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; 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. Legends to equations and figures are considered requirements.

These Standards were prepared and reviewed by the Technical Committee on Plastic Pressure Pipe under the jurisdiction of the Strategic Steering Committee on Plumbing Materials and Products and have been formally approved by the Technical Committee. These Standards will be submitted to the Standards Council of Canada for approval as National Standards of Canada.

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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, 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3.

 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. For subscription details, write to CSA Sales Promotion, Info Update, at the address given above.

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Foreword

The Canadian Standards Association (CSA) develops standards under the name Canadian Standards Association, and provides certification and testing under the name CSA International. CSA International provides certification services for manufacturers who, under license from CSA, wish to use the appropriate registered CSA Marks on certain products of their manufacture to indicate conformity with CSA Standards.

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If this Standard is to be used in obtaining CSA Certification please remember, when making application for certification, to request all current Amendments, Bulletins, Notices, and Technical Information Letters that may be applicable and for which there may be a nominal charge. For such information or for further information concerning CSA Certification, please address your inquiry to Applications and Customer Service, CSA International, 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3.

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CSA Standard

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