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B602-16

Mechanical couplings for drain, waste, and vent pipe and sewer pipe



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Preface

This is the sixth edition of CSA B602, *Mechanical couplings for drain, waste, and vent pipe and sewer pipe*. It supersedes the previous editions published in 2010, 2005, 1999, 1990, and 1988 (Preliminary Standard).

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Technical Committee on Mechanical Couplings for DWV and Sewer Pipe, under the jurisdiction of the Strategic Steering Committee on Construction and Civil Infrastructure, 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.*
- 3) *This Standard 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 Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include “Request for interpretation” in the subject line:*
 - 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) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.

- 5) *This Standard is subject to review five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include “Proposal for change” in the subject line:*
 - a) *Standard designation (number);*
 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

B602-16

Mechanical couplings for drain, waste, and vent pipe and sewer pipe

1 Scope

1.1

This Standard covers mechanical couplings that are used to axially join pipes and fittings in non-pressure drain, waste, and vent (DWV) piping systems and sewer piping systems located inside or outside buildings and above ground or underground.

Notes:

- 1) *Caution should be exercised when installing mechanical couplings and elastomeric end caps at low temperatures. The coupling or elastomeric end cap manufacturer should be consulted.*
- 2) *Caution should also be exercised when installing mechanical couplings and elastomeric end caps at the base of stacks, at cleanouts, or at offsets in a piping system (see Annex A).*

1.2

This Standard specifies requirements for mechanical couplings of the following types:

- a) Type 1: couplings that are used to join pipes of the same or different materials or sizes and that incorporate a centre stop and an external shield.
- b) Type 2: couplings that are used to join pipes of the same or different materials or sizes, but for which a centre stop and/or shear ring are allowed but not required.
- c) Type 3: couplings used to join hubless cast iron pipe and fittings. Such couplings are composed of a stainless steel shield, a clamp assembly, and an elastomeric sealing component that complies with ASTM C564.
- d) Type 4: elastomeric bellows expansion joint couplings used to join pipe of the same or different materials or sizes incorporating pipe stops.

Note: *Pipe and pipe-fitting materials that may be joined include*

- a) *asbestos cement (CAN/CSA-B127.1);*
- b) *cast iron (CAN/CSA-B70);*
- c) *concrete (CSA A257 Series and ASTM C14);*
- d) *copper (ASTM B306);*
- e) *acrylonitrile-butadiene-styrene (ABS) (CSA B181.1, CSA B182.1, ASTM D2661, and ASTM F628);*
- f) *polyvinylchloride (PVC) (CSA B181.2, CSA B182.1, CSA B182.2, ASTM D2665, and ASTM F891);*
- g) *galvanized steel (ASTM A53/A53M); and*
- h) *vitrified clay (ASTM C700).*

1.3

This Standard does not cover the joining of pipes and fittings with bell and spigot ends that use an elastomeric gasket seal.

1.4

Users should note the existence of other standards developed for different types of couplings or coupling materials, e.g., ASTM C1173, ASTM C1277, ASTM C1440, ASTM C1460, ASTM C1461, ASTM C1540, and ASTM D5926.

1.5

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.

1.6

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

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 Group

A257 Series-14

Standards for concrete pipe and manhole sections

CAN/CSA-B70-12

Cast iron soil pipe, fittings, and means of joining

CAN/CSA-B127.1-99 (R2014)

Asbestos cement drain, waste, and vent pipe and pipe fittings

B1800-15

Thermoplastic nonpressure piping compendium

B181.1-15

Acrylonitrile-butadiene-styrene (ABS) drain, waste, and vent pipe and pipe fittings

B181.2-15

Polyvinylchloride (PVC) and chlorinated polyvinylchloride (CPVC) drain, waste, and vent pipe and pipe fittings

B182.1-15

Plastic drain and sewer pipe and pipe fittings

B182.2-15

PSM type polyvinylchloride (PVC) sewer pipe and fittings