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Standards for concrete pipe and manhole sections

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***Standards for concrete pipe
and manhole sections***



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Preface

This is the sixth edition of CSA A257 Series, *Standards for concrete pipe and manhole sections*. It supersedes the previous editions published in 2009, 2003, 1992, 1982, and 1974.

This is a performance Standard. As with the previous editions, the Standards contained in this edition include requirements for

- (a) the determination of physical properties;
- (b) non-reinforced circular concrete pipe;
- (c) steel-reinforced circular concrete pipe; and
- (d) joints for concrete pipe.

The major change in this new edition is the clarification that this is a performance Standard.

CSA acknowledges that the development of these Standards was made possible, in part, by the financial support of the Canadian concrete pipe and manhole producers.

These Standards were prepared by the Technical Committee on Concrete Pipe, under the jurisdiction of the Strategic Steering Committee on Construction and Civil Infrastructure, and have 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.*
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 - (b) *provide an explanation of circumstances surrounding the actual field condition; and*
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- (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.*

A257.0-14

***Methods for determining physical properties
of circular precast concrete pipe, manhole
sections, catch basins, and fittings***



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A257.0-14

Methods for determining physical properties of circular precast concrete pipe, manhole sections, catch basins, and fittings

1 Scope

1.1

This performance Standard applies to circular precast concrete pipe, manhole (maintenance hole) sections, and accessories intended for

- (a) use as sewer pipe for the conveyance of sewage, industrial wastes, and storm water; and
- (b) the construction of culverts.

1.2

This Standard describes the following procedures for testing circular precast concrete pipe, manhole sections, and joints:

- (a) three-edge-bearing test (see [Clause 4](#));
- (b) concrete compression tests (see [Clause 5](#));
- (c) absorption test (see [Clause 6](#));
- (d) hydrostatic test (see [Clause 7](#));
- (e) flat slab top test (see [Clause 8](#)); and
- (f) manhole step tests (see [Clause 9](#)).

1.3

This Standard does not apply to cast-in-place elements or to non-circular precast concrete pipe, manhole, or catch basin sections.

1.4

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.

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.