



# **Design, material, and manufacturing requirements for prefabricated septic tanks and sewage holding tanks**



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# Preface

This is the eighth edition of CSA B66, *Design, material, and manufacturing requirements for prefabricated septic tanks and sewage holding tanks*. It supersedes the previous editions, published in 2010 and 2005 under the same title, and published in 2000, 1990, 1985, 1979, and 1975 under the title *Prefabricated Septic Tanks and Sewage Holding Tanks*.

Major changes in this edition include

- a) new requirements for the assessment of sewage tanks, other than septic tanks and holding tanks, with regard to structural sufficiency and watertightness;
- b) clarification of inlet tee requirements;
- c) clarification of volume–depth labelling requirements;
- d) revision to chamber divider test parameters; and
- e) clarification of gasket, sealant, and joint fabrication requirements.

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

This Standard was prepared by the Subcommittee on Septic Tanks, under the jurisdiction of the Technical Committee on Decentralized Wastewater Systems and 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](mailto: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.*

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- 5) *This Standard is subject to review within 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](mailto: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.*

# B66-16

## ***Design, material, and manufacturing requirements for prefabricated septic tanks and sewage holding tanks***

### **1 Scope**

#### **1.1**

This Standard specifies minimum design and material requirements as well as manufacturing practices and markings for prefabricated septic tanks, sewage holding tanks, and effluent chambers made of steel, concrete, fibreglass-reinforced plastic (FRP), polyvinylchloride (PVC), polypropylene (PP), polyethylene (PE), or other thermoplastics that are designed to handle sewage or sewage effluent.

#### **1.2**

This Standard can be used to assess tanks, other than septic tanks and holding tanks, for structural sufficiency and watertightness.

**Note:** *Other tanks used in sewage systems include, but are not limited to, the following:*

- a) *tanks used for wastewater treatment plants;*
- b) *tanks used as trash tanks;*
- c) *pre-aeration tanks;*
- d) *sewage flow-equalization tanks; and*
- e) *tanks used for pit privies.*

#### **1.3**

This Standard does not purport to address all of the safety concerns associated with its use. It is the responsibility of the user of this Standard to establish appropriate safety and health practices and to determine the applicability of any regulatory limitations before use.

#### **1.4**

This Standard does not apply to sewage holding tanks used in recreational vehicles, which are covered in CAN/CSA-B45.6.

#### **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.

## 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

A23.1-14/A23.2-14

*Concrete materials and methods of concrete construction/Test methods and standard practices for concrete*

CAN/CSA-A3000-13

*Cementitious materials compendium*

CAN/CSA-A3001-13

*Cementitious materials for use in concrete*

CAN/CSA-B45 Series-02 (R2013)

*Plumbing fixtures*

CAN/CSA-B45.6-02 (R2013)

*Nonrecirculating toilets and waste-holding tanks for use in recreational vehicles*

CAN/CSA-B1800-15

*Thermoplastic nonpressure piping compendium*

CAN/CSA-B182.4-15

*Profile polyvinylchloride (PVC) sewer pipe and fittings*

CAN/CSA-B182.6-15

*Profile polyethylene (PE) sewer pipe and fittings for leak-proof sewer applications*

G30.18-09 (R2014)

*Carbon steel bars for concrete reinforcement*

W186-M1990 (R2012)

*Welding of reinforcing bars in reinforced concrete construction*

### ACI (American Concrete Institute)

544.3R-08

*Guide for Specifying, Proportioning, and Production of Fiber-Reinforced Concrete*

### ASTM International

A1064/A1064M-16b

*Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete*